



TIGER E3 – TIGER E5

(Rev. 2.5)

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SAFETY WARNINGS / ISTRUZIONI PER LA SICUREZZA

SAFETY WARNINGS

CONSIGNES DE SÉCURITÉ IMPORTANTES

ISTRUZIONI IMPORTANTI PER LA SICUREZZA

WICHTIGE SICHERHEITSHINWEISE

INSTRUCCIONES IMPORTANTES DE SEGURIDAD

(Rel. 1.6)

PREFACE

**For your own safety and to avoid invalidation of the warranty all text marked with these Warning Symbols should be read carefully.
all the texts marked with the Warning Symbols.**



Information in this manual is subject to change without notice and does not represent a commitment on the part of the vendor. The manufacturer shall not be liable for any loss or damage whatsoever arising from the use of information or any error contained in this manual, or through any misoperation or fault in hardware contained in the product.

It is recommended that all maintenance and service on the product should be carried out by the manufacturer or its authorised agents. The manufacturer cannot accept any liability whatsoever for any loss or damage caused by service, maintenance or repair by unauthorised personnel

SAFETY WARNINGS

The installation and servicing instructions in this manual are for use by qualified personnel only.

Read All Instructions. All safety and operating instructions must be read before operating the product. They also must be retained for future reference, as it contains a number of useful hints for determining the best combination of equipment settings for Yr particular application.

Heed All Warnings. All warnings on the product and those listed in the operating instructions must be adhered to.

Heat. This product must be situated away from any heat sources such as radiators or other products (including power amplifiers or transmitters) that produce heat.

Power Sources. This product must be operated from the type of power source indicated on the marking label and in the installation instructions. If you are not sure of the type of power supplied to your facility, consult your local power company. Make sure the AC main voltage corresponds to that indicated in the technical specifications. If a different voltage (ex. 110/115 VAC) is available, open the equipment closure and set the voltage switch on the main supply circuit, located behind the AC socket.

Power Cord Protection. Power supply cords must be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to the cords at AC wall plugs and convenience receptacles, and at the point where the cord plugs into the product.

Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Lightning. For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the AC wall outlet and the audio connections. This will prevent damage to the product due to lightning and power line surges.

Installation. Configuration and installation should only be carried out by a competent installation engineer.

Cabling. Using high-quality wires, well protected. Make sure the cable integrity.



This symbol alerts you to the presence of dangerous voltage inside the closure – voltage which may be sufficient to constitute a risk of shock. Do not perform any servicing other than that contained in the operating instructions. Refer all servicing to qualified personnel.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



Do not change the voltage setting or replace the mains fuse without first turning the unit off and unplugging the mains cord.



Make sure the AC main voltage corresponds to that indicated in the technical specifications.

THIS APPARATUS MUST BE EARTHED!



To avoid the risk of fire use the correct value fuse, as indicated on the label stuck on the right side of the unit.



This apparatus uses a single pole main switch and does therefore not separate the unit completely from the main power. To completely separate from main power (f.i. in the event of danger) unplug the power cord. As the main plug is disconnected from the device, the disconnect device shall remain readily operable.

CONSIGNES DE SÉCURITÉ IMPORTANTES

Lire ces consignes.

Conserver ces consignes.

Observer tous les avertissements.

Suivre toutes les consignes.

Ne pas utiliser cet appareil à proximité de l'eau.

Ne pas obstruer les ouvertures de ventilation. Installer en respectant les consignes du fabricant.

Ne pas installer à proximité d'une source de chaleur telle qu'un radiateur, une bouche de chaleur, un poêle ou d'autres appareils (dont les amplificateurs) produisant de la chaleur.

Ne pas annuler la sécurité de la fiche de terre, la troisième branche est destinée à la sécurité. Si la fiche fournie ne s'adapte pas à la prise électrique, demander à un électricien de remplacer la prise hors normes.

Protéger le cordon d'alimentation afin que personne ne marche dessus et que rien ne le pince, en particulier aux fiches, aux prises de courant et au point de sortie de l'appareil.

Utiliser uniquement les accessoires spécifiés par le fabricant.

Utiliser uniquement avec un chariot, un support ou une table spécifié par le fabricant ou vendu avec l'appareil. Si un chariot est utilisé, déplacer l'ensemble chariot–appareil avec précaution afin de ne pas le renverser, ce qui pourrait entraîner des blessures.

Débrancher l'appareil pendant les orages ou quand il ne sera pas utilisé pendant longtemps.

Confier toute réparation à du personnel qualifié. Des réparations sont nécessaires si l'appareil est endommagé d'une façon quelconque, par exemple: cordon ou prise d'alimentation endommagé, liquide renversé ou objet tombé à l'intérieur de l'appareil, exposition de l'appareil à la pluie ou à l'humidité, appareil qui ne marche pas normalement ou que l'on a fait tomber.

NE PAS exposer cet appareil aux égouttures et aux éclaboussures. Ne pas poser des objets contenant de l'eau, comme des vases, sur l'appareil.



Ce symbole indique la présence d'une tension dangereuse dans l'appareil constituant un risque de choc électrique.



Ce symbole indique que la documentation fournie avec l'appareil contient des instructions d'utilisation et d'entretien importantes.



Avant de modifier le commutateur de changement de tension ou remplacer le fusible il faut débrancher l'appareil de la prise électrique. Pendant son usage, l'appareil doit être branché à la prise de terre.



Utiliser le fusible principal AC avec la valeur qui est indiquée sur l'étiquette collée sur le coffret.



Assurez-vous que la tension principale AC correspond à celle indiquée dans les spécifications techniques.



L'interrupteur d'alimentation interrompt un pôle du réseau d'alimentation excepté le conducteur de terre de protection. En cas de danger, débrancher le cordon d'alimentation. Parce que la prise du réseau de alimentation est utilisée comme dispositif de déconnexion, ce dispositif doit demeurer aisément accessible.

ISTRUZIONI IMPORTANTI PER LA SICUREZZA

Leggere le presenti istruzioni.

Conservare queste istruzioni.

Osservare tutte le avvertenze.

Seguire scrupolosamente tutte le istruzioni.

Non usare questo apparecchio in prossimità di acqua.

Non ostruire alcuna apertura per il raffreddamento. Installare l'apparecchio seguendo le istruzioni.

Non installare l'apparecchio accanto a fonti di calore quali radiatori, aperture per l'afflusso di aria calda, forni o altri apparecchi (amplificatori inclusi) che generino calore.

Non rimuovere il terminale di connessione a terra sul cordone di alimentazione: esso ha lo scopo di tutelare l'incolumità dell'utilizzatore. Se la spina in dotazione non si adatta alla presa di corrente, rivolgersi ad un elettricista per far eseguire le modifiche necessarie.

Evitare di calpestare il cavo di alimentazione o di comprimerlo, specialmente in corrispondenza della spina e del punto di inserzione sull'apparato.

Utilizzare solo dispositivi di collegamento e gli accessori specificati dal produttore.

Utilizzare l'apparecchio solo con un carrello, un sostegno, una staffa o un tavolo di tipo specificato dal produttore o venduto insieme all'apparecchio. Se si utilizza un carrello, fare attenzione negli spostamenti per evitare infortuni causati da ribaltamenti del carrello stesso.

Scollegare l'apparecchio dalla presa di corrente durante i temporali o quando inutilizzato a lungo.

Per qualsiasi intervento, rivolgersi a personale di assistenza qualificato. È necessario intervenire sull'apparecchio ogniqualvolta si verificano danneggiamenti di qualsiasi natura. Ad esempio, la spina o il cavo di alimentazione sono danneggiati, è entrato liquido nell'apparecchio o sono caduti oggetti su di esso, l'apparecchio è stato esposto alla pioggia o all'umidità, non funziona normalmente o è caduto.

Non esporre a sgocciolamenti o spruzzi. Non appoggiare sull'apparecchio oggetti pieni di liquidi, ad esempio vasi da fiori.



Questo simbolo indica la presenza di alta tensione all'interno dell'apparecchio, che comporta rischi di scossa elettrica.



Questo simbolo indica la presenza di istruzioni importanti per l'uso e la manutenzione nella documentazione in dotazione all'apparecchio.



Non sostituire il fusibile o cambiare la tensione di alimentazione senza aver prima scollegato il cordone di alimentazione. **L'APPARATO DEVE ESSERE CONNESSO A TERRA.**



Sostituire il fusibile generale con uno di identico valore, come indicato sulla etichetta applicata sul mobile dell'apparato



Assicurarsi che la tensione di rete corrisponda a quella per la quale è configurato l'apparecchio.



Questo apparato utilizza un interruttore di alimentazione di tipo unipolare e l'isolamento dalla rete elettrica non è pertanto completo. Per ottenere un isolamento totale (ad esempio in caso di pericolo), scollegare il cordone di alimentazione. Inoltre, poichè la spina di alimentazione è utilizzata come dispositivo di sezionamento, essa deve restare facilmente raggiungibile.

WICHTIGE SICHERHEITSHINWEISE

Diese Hinweise LESEN.

Diese Hinweise AUFHEBEN.

Alle Warnhinweise BEACHTEN.

Alle Anweisungen BEFOLGEN.

Dieses Gerät NICHT in der Nähe von Wasser verwenden.

KEINE Lüftungsöffnungen verdecken. Gemäß den Anweisungen des Herstellers einbauen.

Nicht in der Nähe von Wärmequellen, wie Heizkörpern, Raumheizungen, Herden oder anderen Geräten (einschließlich Verstärkern) installieren, die Wärme erzeugen.

Die Schutzfunktion des Schukosteckers NICHT umgehen. Bei Steckern für die USA gibt es polarisierte Stecker, bei denen ein Leiter breiter als der andere ist; US-Stecker mit Erdung verfügen über einen dritten Schutzleiter. Bei diesen Steckerausführungen dient der breitere Leiter bzw. der Schutzleiter Ihrer Sicherheit. Wenn der mitgelieferte Stecker nicht in die Steckdose passt, einen Elektriker mit dem Austauschen der veralteten Steckdose beauftragen.

VERHINDERN, dass das Netzkabel gequetscht oder darauf getreten wird, insbesondere im Bereich der Stecker, Netzsteckdosen und an der Austrittsstelle vom Gerät.

NUR das vom Hersteller angegebene Zubehör und entsprechende Zusatzgeräte verwenden.

NUR in Verbindung mit einem vom Hersteller angegebenen oder mit dem Gerät verkauften Transportwagen, Stand, Stativ, Träger oder Tisch verwenden. Wenn ein Transportwagen verwendet wird, beim Verschieben der Transportwagen-Geräte- Einheit vorsichtig vorgehen, um Verletzungen durch Umkippen.

Das Netzkabel dieses Geräts während Gewittern oder bei längeren Stillstandszeiten aus der Steckdose ABZIEHEN.

Alle Reparatur- und Wartungsarbeiten von qualifiziertem Kundendienstpersonal DURCHFÜHREN LASSEN. Kundendienst ist erforderlich, wenn das Gerät auf irgendeine Weise beschädigt wurde, z.B. wenn das Netzkabel oder der Netzstecker beschädigt wurden, wenn Flüssigkeiten in das Gerät verschüttet wurden oder Fremdkörper hineinfielen, wenn das Gerät Regen oder Feuchtigkeit ausgesetzt war, nicht normal funktioniert oder fallen gelassen wurde.

Dieses Gerät vor Tropf- und Spritzwasser SCHÜTZEN. KEINE mit Wasser gefüllten Gegenstände wie zum Beispiel Vasen auf das Gerät STELLEN.



Dieses Symbol zeigt an, dass gefährliche Spannungswerte, die ein Stromschlagrisiko darstellen, innerhalb dieses Geräts auftreten.



Dieses Symbol zeigt an, dass das diesem Gerät beiliegende Handbuch wichtige Betriebs- und Wartungsanweisungen enthält.



Vor Änderung der Netzspannung oder Sicherungswechsel Netzkabel trennen.
Das Gerät muss für den Betrieb geerdet werden.



Hauptsicherung nur mit einer gleichwertigen austauschen
(s. entsprechende Etikette).



Vor Einschalten Netzspannungseinstellung am Gerät überprüfen bzw. anpassen.



Inpoliger Netzschalter. In Notfälle oder für Wartungsarbeiten Netzkabel trennen. Der Netzstecker fungiert auch als Trennelement muss deshalb zugänglich bleiben.

INSTRUCCIONES IMPORTANTES DE SEGURIDAD

LEA estas instrucciones.

CONSERVE estas instrucciones.

PRESTE ATENCION a todas las advertencias.

SIGA todas las instrucciones.

NO utilice este aparato cerca del agua.

NO obstruya ninguna de las aberturas de ventilación. Instálese según lo indicado en las instrucciones del fabricante.

No instale el aparato cerca de fuentes de calor tales como radiadores, registros de calefacción, estufas u otros aparatos (incluyendo amplificadores) que produzcan calor.

NO anule la función de seguridad del enchufe polarizado o con clavija de puesta a tierra. Un enchufe polarizado tiene dos patas, una más ancha que la otra. Un enchufe con puesta a tierra tiene dos patas y una tercera clavija con puesta a tierra. La pata más ancha o la tercera clavija se proporciona para su seguridad. Si el toma corriente no es del tipo apropiado para el enchufe, consulte a un electricista para que sustituya el toma corriente de estilo anticuado.

PROTEJA el cable eléctrico para evitar que personas lo pisen o estrujen, particularmente en sus enchufes, en los toma corrientes y en el punto en el cual sale del aparato.

UTILICE únicamente los accesorios especificados por el fabricante.

UTILICESE únicamente con un carro, pedestal, escuadra o mesa del tipo especificado por el fabricante o vendido con el aparato. Si se usa un carro, el mismo debe moverse con sumo cuidado para evitar que se vuelque con el aparato.

DESENCHUFE el aparato durante las tormentas eléctricas, o si no va a ser utilizado por un lapso prolongado.

TODA reparación debe ser llevada a cabo por técnicos calificados. El aparato requiere reparación si ha sufrido cualquier tipo de daño, incluyendo los daños al cordón o enchufe eléctrico, si se derrama líquido sobre el aparato o si caen objetos en su interior, si ha sido expuesto a la lluvia o la humedad, si no funciona de modo normal, o si se ha caído.

NO exponga este aparato a chorros o salpicaduras de líquidos. NO coloque objetos llenos con líquido, tales como floreros, sobre el aparato .



Este símbolo indica que la unidad contiene niveles de voltaje peligrosos que representan un riesgo de choques eléctricos.



Este símbolo indica que la literatura que acompaña a esta unidad contiene instrucciones importantes de funcionamiento y mantenimiento.



Antes de cambiar la alimentación de voltaje o de cambiar el fusible, desconecte el cable de alimentación. Para reducir el riesgo de descargas eléctricas, esta unidad debe ser conectada a tierra.



Remplaze el fusible con lo mismo, que corresponde a lo indicado en el panel del equipo.



Antes de encender, controlar que la línea de alimentación de voltaje corresponda a la indicada.



El interruptor de alimentación es unipolar. En el caso de peligro, desconecte el cable de alimentación. Porque la clavija de conexión a red sirve por la desconexión de la unidad, la clavija debe ser ubicada en proximidad de la unidad.

UNPACKING AND INSPECTION

Your equipment was packed carefully at the factory in a container designed to protect the unit during shipment. Nevertheless, we recommend making a careful inspection of the shipping carton and the contents for any signs of physical damage.

Damage & Claims

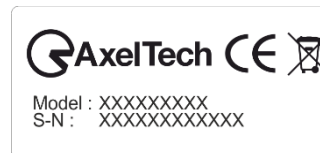
If the damage is evident, do not discard the container or packing material. Contact your carrier immediately to file a claim for damages. Customarily, the carrier requires you, the consignee, to make all damage claims. It will be helpful to retain the shipping documents and the waybill number.

Save all packing materials! If You should ever have to ship the unit (e.g. for servicing), it is best to ship it in the original carton with its packing materials because both the carton and packing material have been carefully designed to protect the unit.

Under normal conditions, no user maintenance or calibration is required. Internal links and preset controls may be set to configure the unit during installation. Any service work required should be carried out by qualified service personnel only. We are able to offer further product support through our worldwide network of approved dealers and service agents.

To help us provide the most efficient service please would you keep a record of the unit serial number and date and place of purchase to be quoted in any communication regarding this product.

The actual equipment Serial Number is indicated on the silver label stuck on the rear panel of the equipment closure.



Tools And Equipment Needed

Only standard technician's tools are required to install this equipment.

FIRST INSTALLATION RECOMMENDATIONS

POWER SUPPLY CABLE

A power supply cable of approx. 2 mt lengths is supplied with the device, which has a moulded IEC plug attached – this is a legal requirement. The type of plug for the power supply depends on the country in which it is delivered.

If for any reason, you need to use this appliance with a different plug, you should use the following wiring guidelines in replacing the existing plug with the new one:

Earth	Green, or green and yellow
Neutral (N)	Blue
Live (L)	Brown

Supply cables should be laid in such a manner that one does not step or walk on them. They should not be squashed by any objects.

THIS EQUIPMENT MUST BE EARTHED.

The chassis is always connected to mains earth to ensure your safety: check your mains wiring and earthing before switching on.

PROTECTION AGAINST LIGHTNING



Should the device be put out of action due to being struck by lightning or excess voltage, disconnect it from the power supply without delay. Do not reconnect until the device has been checked. If in doubt contact the technical support service.

Make sure there is suitable lightning protection to protect the device. Alternatively, you should disconnect all connectors from the device during a storm or when the device is going to be unsupervised or not used for a longer period of time.

These measures will protect against damage by lightning or excess voltage.

VENTILATION

The equipment will operate as a free-standing unit without requiring any special cooling arrangement. However, slots and openings in the product are provided for ventilation. They ensure reliable operation of the product, keeping it from overheating. These openings must not be blocked nor covered during operation.

YOU MUST LEAVE AT A MINIMUM ONE RACK UNIT OF EMPTY SPACE ABOVE THE EQUIPMENT TO ENHANCE VENTILATION AND TO GET A LONGER EQUIPMENT LIFE.

DEVICE INSTALLATION

Best setup location

The device should be installed in a 19" rack. Avoid direct sunlight, close proximity to radiators and air conditioning, dust, water, and chemicals. Choose a rack location that permits a clear view of the indicators on the device and ensures a sufficient heat dissipation of the device.

Power supply

The device is designed for operation with 100 to 240 V AC, 50 Hz to 60 Hz. Check the corresponding device labelling for compatibility to the domestic line voltage and frequency before connecting the IEC power connector to the mains supply!



WARNING

Disconnect mains power plug before you open the housing. Repair of the equipment must only be carried out by authorized and qualified personnel.

Power Supply	Please make sure that the device and the contained fuse(s) (please see p. 20) are compatible with the domestic line voltage and frequency. If the device is compatible, connect the power supply cord fully to the IEC power connector at the rear side of the device and a mains power outlet. The LCD Screen “TIGER E5 only” will then turn on.
Network configuration	For delivery, the device is configured with default settings for the first connection via the IP interface.
Connect to network	Connect a network patch cable to the “10/100-Base-T” connector on the rear side of the device and your existing IP network.
Web interface	The device can be fully operated with an internet browser via the integrated web interface. Use a computer that is connected to the same IP network that the TIGER E3/E5 device is connected to. Start an internet browser, Firefox/Mozilla >V2.0 Google Chrome both with Java Script activated and enter the configured IP address in the address bar of the browser. If the IP address has not been changed in step 2, please enter the default address in the address bar of the browser: 192.168.XXX.XXX .
Ready!	These first steps are only intended for a quick first start and do not cover all device functions. Please read carefully the entire manual to be able to use all functions of the device.
Important note on the Username and password	The equipment comes out from Axel Technology with a standard username: admin and password: admin Each time a NEW user, with administration rights is created, the user admin disappears and it is replaced by the new one just created. If all users are deleted, the standard admin – admin comes out again

DEVICE GENERAL DESCRIPTION

FRONT PANEL

TIGER E3

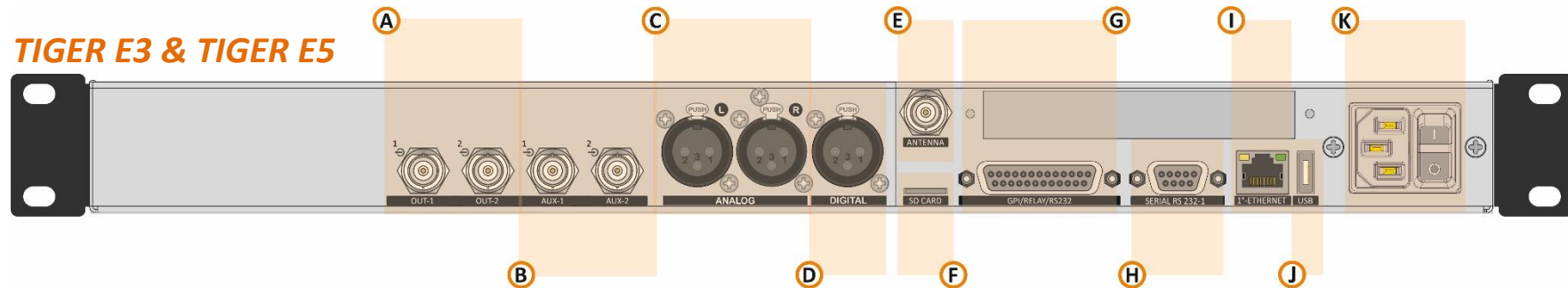


TIGER E5



- Mechanical Steel, 1U - 19 " rack standard.
- USB Port - Type A.
- TFT Color Graphic Display 480x128 (only E5).
- Jog Shuttle (only E5).
- 40 Led Alarms.
- Headphone Jack 6.3mm Female Connector.

REAR PANEL



- A. 2 BNC output connectors: OUT-1 and OUT-2.
- B. 2 BNC input connections: AUX-1 and AUX-2.
- C. 2 Analog mono input.
- D. 1 Digital stereo input.
- E. 1 BNC antenna connection input.
- F. SD Card Slot.
- G. GPIO Port with 6 optocouplers and 4 relays on DB25 PIN Female connector.
- H. 1 serial port RS232 on DB9.
- I. Ethernet port over Rj45 connectors.
- J. USB port - Type A.
- K. Universal Power Supply 90Vac - 240Vac 50/60Hz

1. FIRST DEVICE START

After important setting changes we suggest you always to reboot the device (For example: after a device upgrade, or changes on IP address).

1.1 STARTING YOUR TIGER E3/E5 - QUICK SETUP

Turn **ON** the **TIGER E3/E5** device with the power switch, on the rear panel:

Connect the device to your **LAN** with an ETHERNET CABLE. Your device could be controlled by one of the following methods:

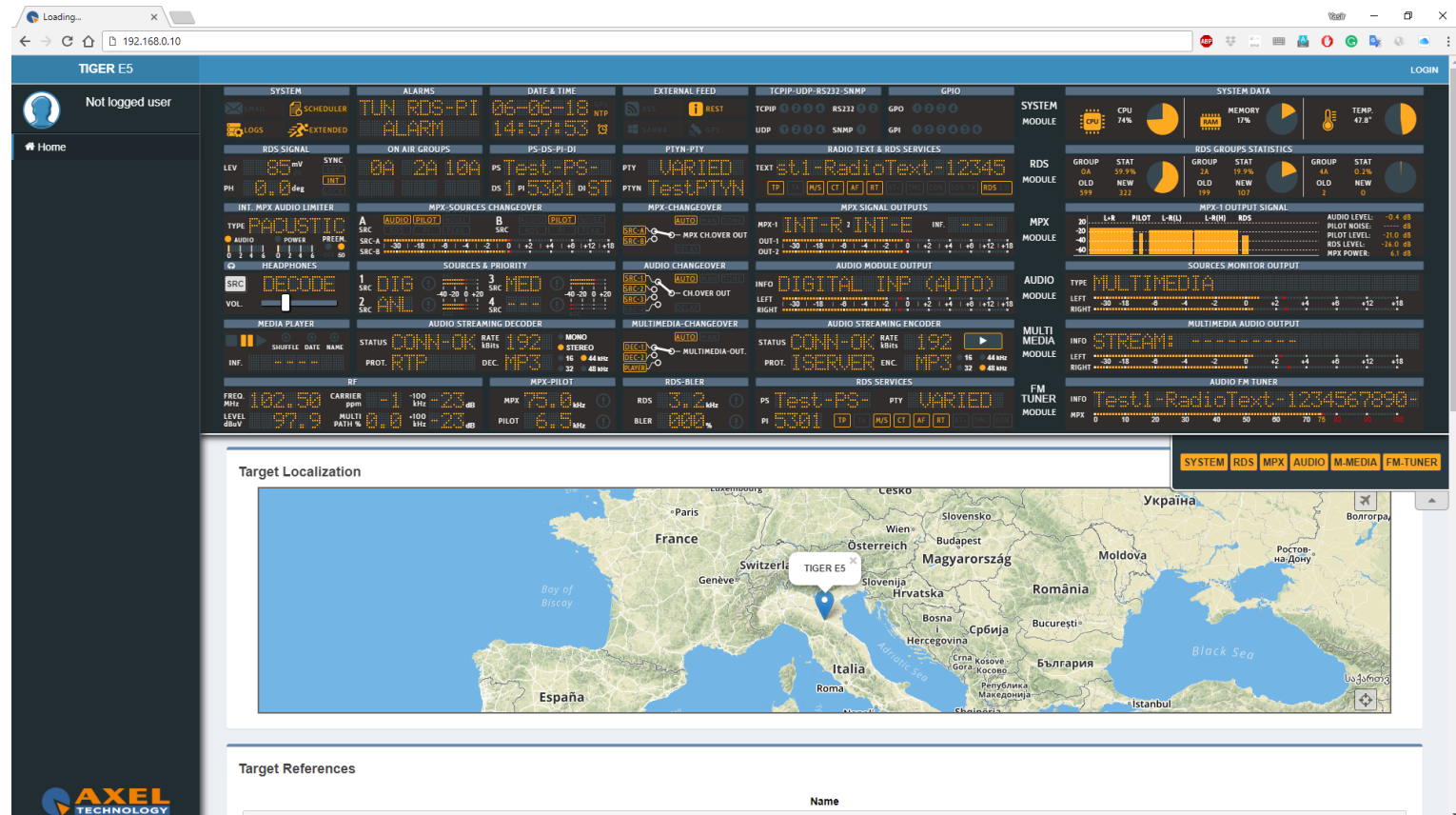
1. The device could be controlled by a web page on your browser. In the address field of your browser, type the default IP address:
192.168.0.10. You will see the Home Page:
2. We provided you with a small WIFI USB KEY. Connect it inside one of the USB ports of the device. **If you have more than a WIFI USB KEY connect once a time:**
 - a. Search for the following WIFI connection with your mobile phone, tablet or WIFI pc: **Config_AP**
 - b. Connect to **Config_Ap**
 - c. The password is **12345678**
 - d. The device could be controlled by a web page on one of your browsers. Open a browser inside your mobile phone, tablet or wifi pc and in the address field type whatever URL you want.

N.B.: do not type any *https* URLs.

DEVICE TEMPORARY IP ASSIGNMENT

Take a standard USB key	
Inside the USB key create a new txt file - The file name must be exactly: NetworkTEMPConfig.txt	
Edit NetworkTEMPConfig.txt and write inside the temporary IP you want to set for your TIGER E3/E5. The syntax has to be: IP/24	Example: 192.168.0.14/24
Insert the USB key in the USB Port of the device front panel	
Open your browser and insert the IP in the URL address. If you plug out the IP you lose the temporary IP. (in this example we have set the 192.168.0.14 IP, but you can decide freely)	

HOME PAGE



In the previous screen, you can read for some parameters of your device. To see all parameters and to change them you have to log in with a special Username and password.

Click **LOGIN** at top-right.

The equipment comes out from Axel Technology with a standard username – the default admin:

Username: **admin** (case sensitive)

password: **admin** (case sensitive)

NB: Each time a NEW user, with administration rights is created, the user **admin** disappears and it is replaced by the new one just created. If all users are deleted, the default admin comes out again, in order to create and enter the device settings.

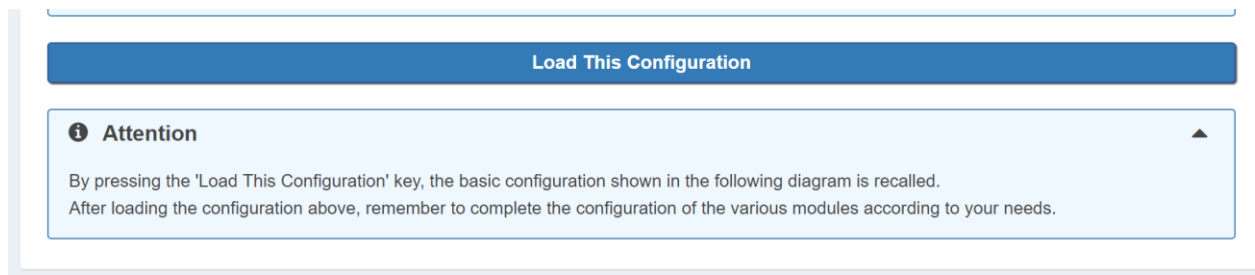
Quick Setup

From this quick setup, you can set the basic **TIGER E3/E5** parameters to make your radio come to life in a few simple steps.

To begin the quick setup procedure, go to [Home > Configuration > Easy Config > Basic Configs](#).

That is 6 different Quick Setup mode to set your **TIGER E3/E5** as your project needed:

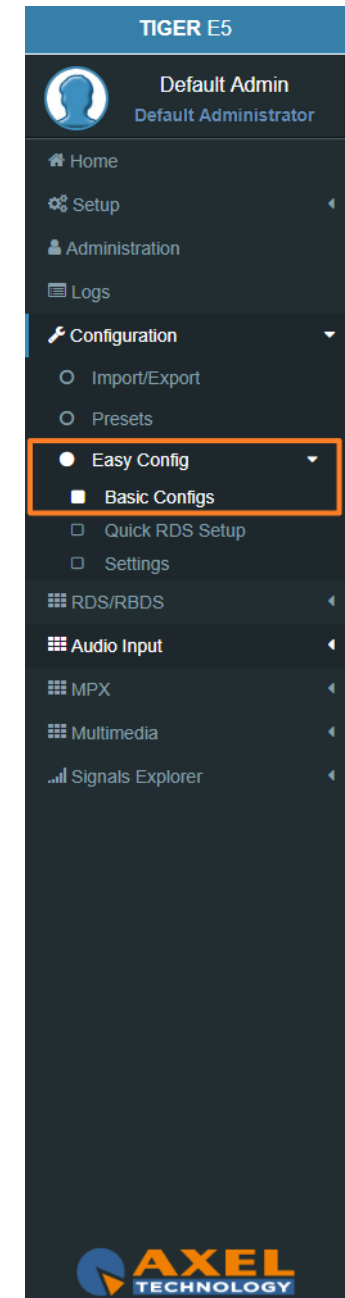
1. Single audio source with MPX & RDS generation.
2. Double audio sources with audio changeover, MPX & RDS generation.
3. RDS generator configuration.
4. MPX rebroadcast with RDS regeneration and UECP filter on incoming RDS.
5. Double audio sources with audio changeover and MPX changeover with MPX backup source.
6. Double audio sources with audio changeover and MPX changeover with MPX main source.



Go down on the same page, read the instructions until the end of the page and choose the mode of setting that you need. You can set all the most important **TIGER E3/E5** Parameters. **In this way, you can be immediately ONAIR with your TIGER.** We suggest you change device Network Ip Address and to create the Users that you need.

Data set

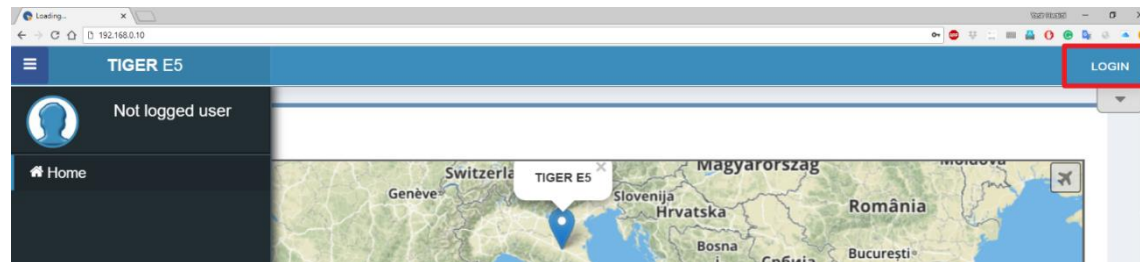
Data set it's the whole RDS setup that you can create. You can find available from **DATASET1** up to **DATASET8**. This gives you more ability to change all parameters needed in one click. [RDS/RBDS > Basic Settings > Rds Settings > Active Dataset Selection](#).



1.2 LOGIN

In the **Home Page**, you can read for some parameters of your device. To see all parameters and to change them you have to login with a special Username and password.

Click **LOGIN** at top-right.



The equipment comes out from Axel Technology with a standard username – the default admin:

Username: **admin** (case sensitive)

password: **admin** (case sensitive)

NB: Each time a NEW user, with administration rights is created, the user **admin** disappears and it is replaced by the new one just created. If all users are deleted, the default admin comes out again, in order to create and enter the device settings.

You will see the Login mask as shown in this picture:

In the first field type for your **Username**, and in the second one type for the **Password**. Then click on **Login**.

If you see the following message you typed a wrong **Username** or a wrong **Password**.

Type them again and retry.

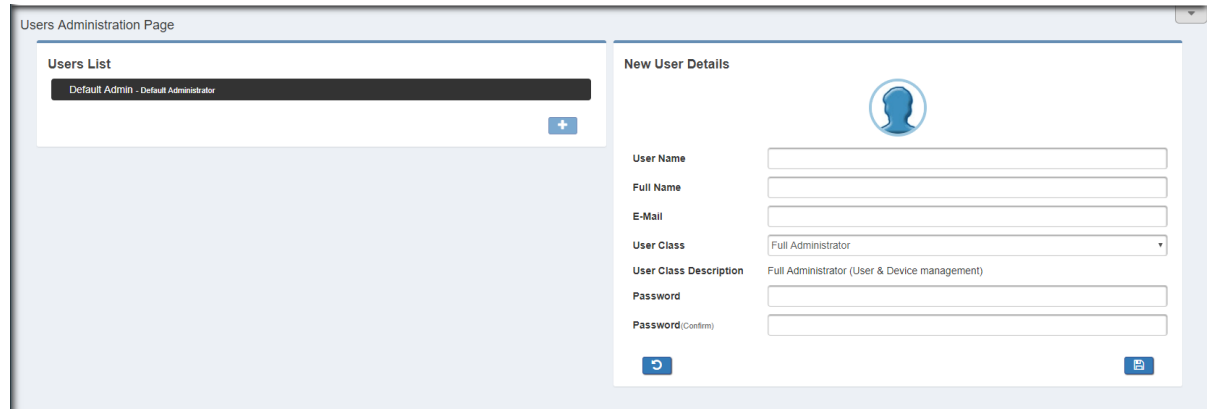
When you logged you will be able to see the **MENU** list at the left side of the web page. As this figure shows, you can see how many persons logged in this device at this moment. Also appear the level of this account like (guest, user, admin, full administrator....).

Note: This information is only available for logged in users.

A login form with a blue header and a white background. It contains two input fields: the first for 'Username' and the second for 'Password'. Below the fields is a 'Login' button. There are small icons for a user and a lock next to the respective fields.A login form similar to the one above, but with a red error message box at the top that says 'Wrong Username/Password'. The input fields and the 'Login' button are still visible below.A dashboard view after successful login. The top bar is blue with 'TIGER E5'. Below it, a user profile section shows a blue circle icon, the name 'Tester', and the role 'Full Administrator'. A green status indicator shows '2 LOGGED USERS'. Below this, a list of logged users is shown: 'Tester (Full Administrator)' and 'x (Full Administrator)'. At the bottom is a 'Home' button with a house icon.

From the **Administration Page**, you can manage all the users and the user classes. You can create or delete users choosing between the available user classes:

Full Administrator
User Administrator
Device Administrator
Technician
Broadcaster
Guest



Full Administrator

The Full Administrator manages all user profiles, accesses all pages (except the calibration).

Default Administrator (Default User): The default administrator is the default user of the device, it is under the Full Administrator category, but it has fixed access credentials (user: admin – pwd: admin). This user is visible only when the system has no other Full Administrators.

User Administrator

User Administrator. It manages the profiles of all users.

Device Administrator

Non-administrator user that accesses all pages (it does not access to administration, calibration and some of the product nameplate data).

Technician

The technician is the one who controls all the hardware parameters of the machine and the control of information pages.

Broadcaster

It has full control only on information management pages and on the audio signal.

Guest/Reader

Guest accesses anywhere without being able to edit any parameter.

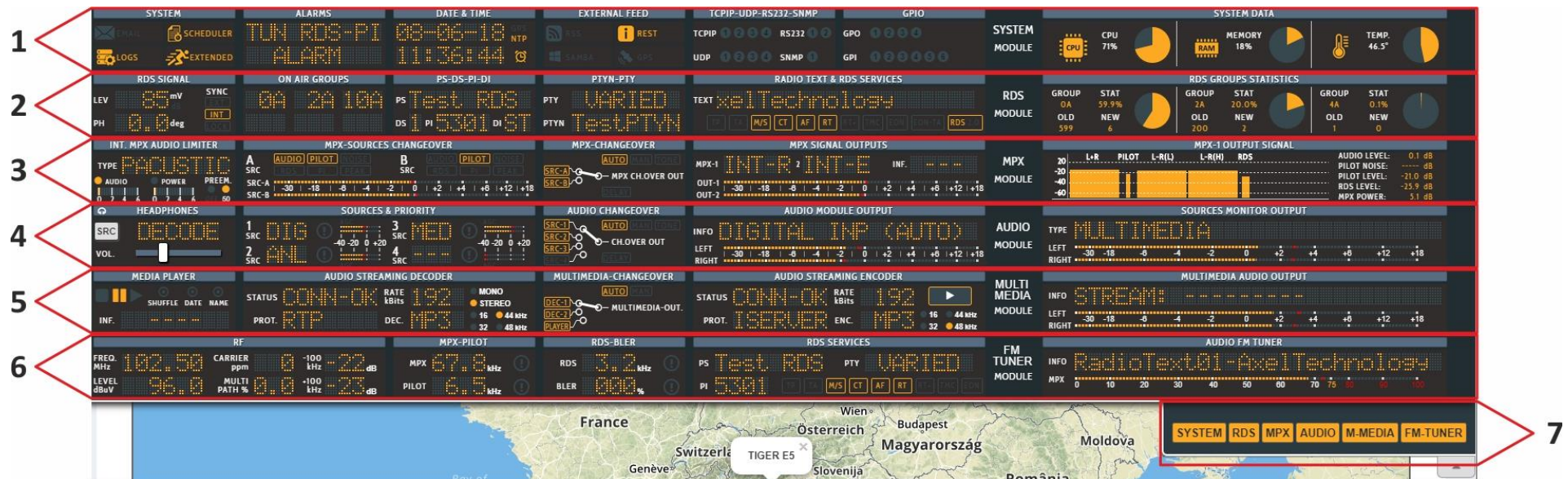
Once you are logged, you will see the home page as shown in the following picture. The left-tree menu could be different for different user classes:



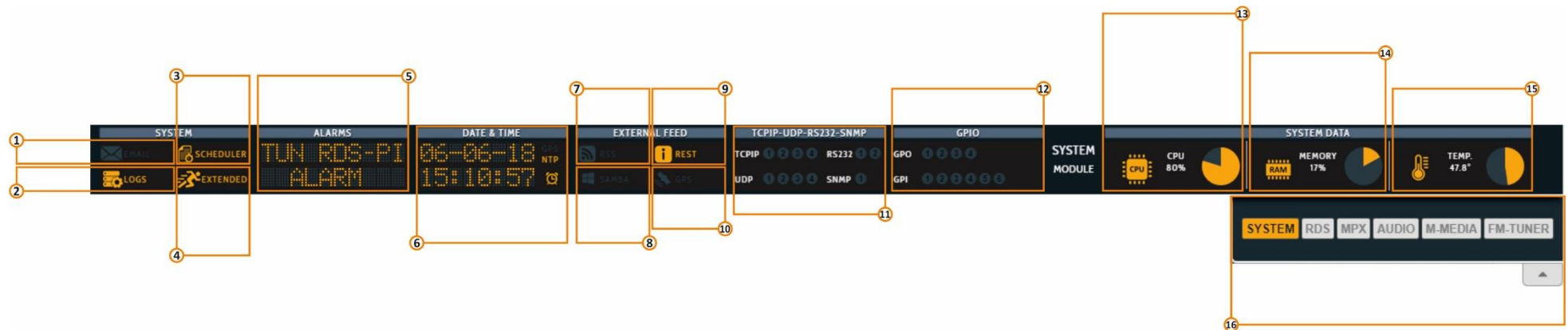
2. SUMMARY MASK

At the top of the page you can see a fast summary mask with all the current parameters and warnings as shown in the following picture:

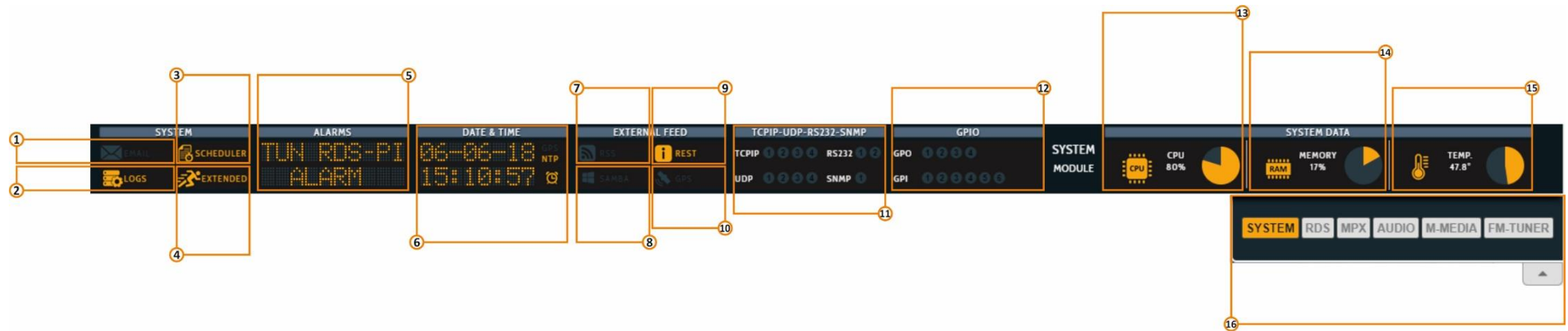
1. **SYSTEM MODULE:** you can read from this part the most important system of data management.
2. **RDS MODULE:** from this part, you can read the most important RDS parameters and status.
3. **MPX MODULE:** from this part, you can read the most important MPX sources settings.
4. **AUDIO MODULE:** from this part, you can read the most important audio sources and output settings.
5. **MULTIMEDIA MODULE:** from this part, you can read the multimedia sources.
6. **FM TUNER MODULE:** from this part, you can read the most important FM tuner parameters.
7. From this slide banner, you can select which sections of the mask you want to view or hide.



2.1 SYSTEM



1. **Email enabled (SMTP):** By active this service the device will send you critical reports by E-Mail scheduled. You can activate it from [SETUP>SMTP](#).
2. **LOG status LED.**
3. **Scheduler status.**
4. **Extended RDS status.**
To enable/disable this Extended RDS go to [RDS/RBDS>Basic Settings > RDS Settings>RDS Global Extended Mode](#).
5. **ALARMS:** The alarms that turn in this field are, **NTP Alarm**, **GPS Alarm**, **SMB Alarm**, **RDS OFF** and **RDS Synch**. To see them, the relative alarms must be unmasked and an error condition must be created.
6. **Here you can view Date and Time.**
Enable/Disable an **NTP** Server. To enable/disable it go to [Setup>NTP>Ntp On](#).
Enable/Disable a **GPS** device. To enable/disable it go to [Setup>GPS>General Settings>GPS On](#).
Enable/Disable the **UTC** (Coordinated Universal Time). To enable/disable it go to [SETUP>GPS>Get UTC from GPS](#).
7. **RSS FEED Status.**



8. SAMBA

9. server Status: By activating this function you are able to get the title and author of the songs from playout software like **DJPRO**. You can activate it from [SETUP>GENERAL SETUP>SMB/SAMBA SHARE SETTINGS](#).

To air title and author of the songs you have to type the **“.xml”** file name in [RDS/RBDS>BASIC SETTINGS>RDS SETTINGS>SMB/SAMBA SHARE SETTINGS](#).

10. REST API Status: To change it go to [SETUP>General Setup>REST Settings](#).

11. GPS: To enable/disable it go to [SETUP>GPS](#).

12. TCP/IP: You can connect the device to a maximum of 4 TCP/IP devices. The related led lights up when UECP packets are received.

SERIALS: You can connect the device to a maximum of 2 Serial devices. The related led lights up when UECP packets are received.

UDP: You can connect the device to a maximum of 4 UDP devices. The related led lights up when UECP packets are received.

SNMP: The lights up when SNMP UECP packets are received.

13. GPO: You can connect the device to a maximum of 4 GPO devices (GPO1, GPO2, GPO3, GPO4). These LEDs indicate the status of the related GPO device. To set GPO settings go in [Setup>GPIO>GPO \(1/2/3/4\)](#) and in [Setup>GPO>GPO Event Notification](#). GPO1, GPO2, GPO3, GPO4.

GPI: you can connect a maximum of 6 GPI devices. These LEDs light up when the related GPI device is turned on.

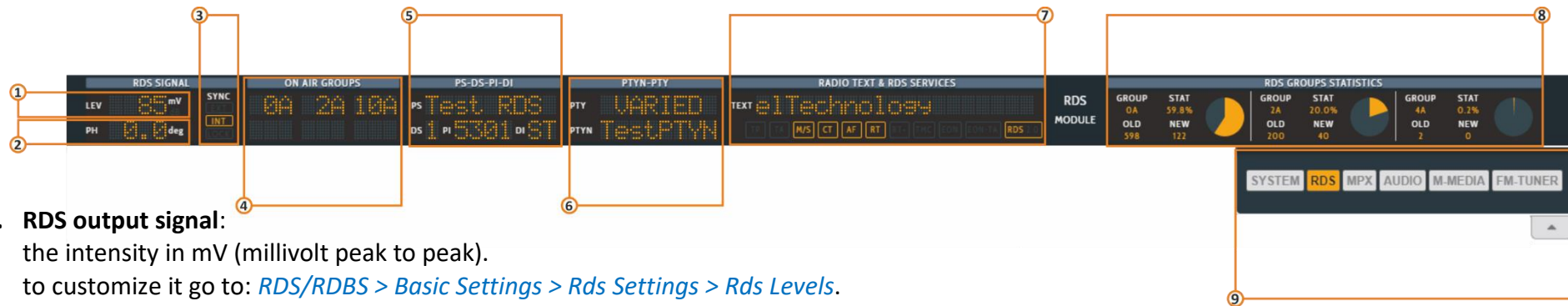
14. Here you can view the statistics connected with the **CPU** usage.

15. Here you can view the statistics connected with the **Memory** usage.

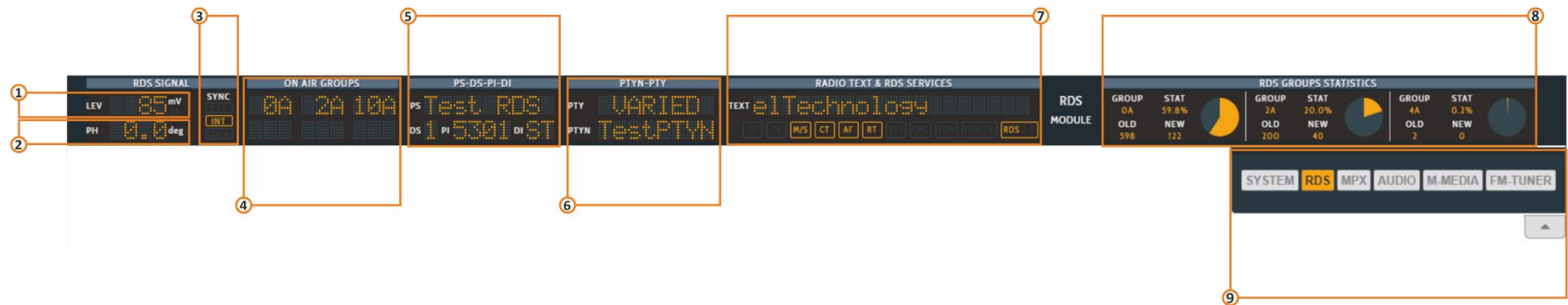
16. Here you can view the statistics connected with the system **temperature**.

17. From this slide **banner**, you can select which sections of the mask you want to view.

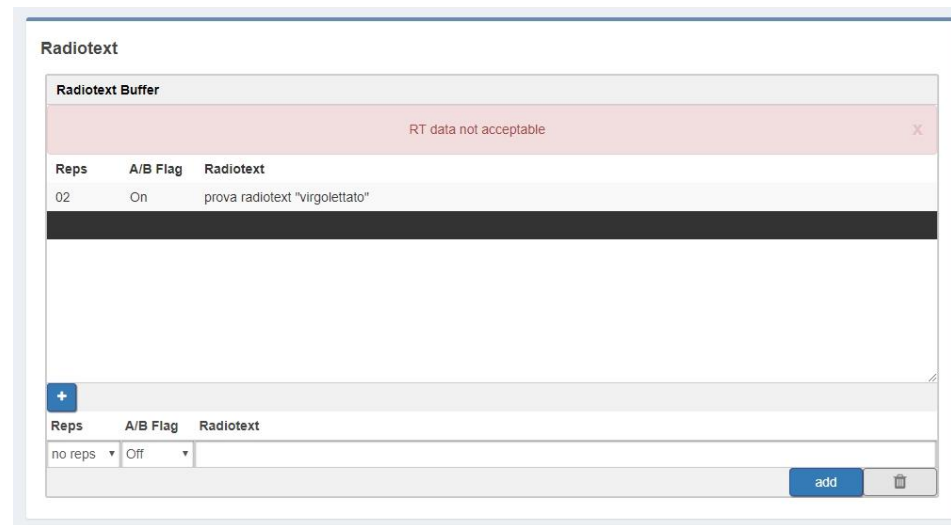
2.2 RDS MODULE



1. **RDS output signal:**
the intensity in mV (millivolt peak to peak).
to customize it go to: [RDS/RBDS > Basic Settings > Rds Settings > Rds Levels](#).
2. **Phase:** The RDS signal must respect a phase criterion (in phase or in quadrature) with the 19 kHz pilot tone. Here you can see the actual phase of your RDS signal. You can find it in [RDS/RBDS > Basic Settings > Rds Settings > Rds Levels > Phase\(Deg\)](#).
3. **SYNC:** Synchronism between RDS signal and pilot frequency.
Int: internal pilot managed by the Tiger.
EXT: external pilot (Sync In, Mpx in).
LOCK: it is to indicate if the external pilot is locked or not.
to customize it go to: [RDS/RBDS > Basic Setting > Rds General Setting > Rds Synchronism](#).
4. **ON AIR GROUPS:** Here you can view RDS groups sequence ONAIR. You can read all the enabled RDS groups.
5. **PS-DS-PI-DI:**
PS: (Program Services Name). to customize it go to: [RDS/RBDS > Standard Mode > Uecp Main PS > Basic Settings](#).
DS: (Data Set) you can select one from 8 Dataset, all of them are configurable. [RDS/RBDS > Basic Settings > Rds Setting > Active Dataset Selection](#).
PI: (Program Identification code) allows the radio to display the name of the radio station. [RDS/RBDS>Standard Mode>Uecp Main PS>Basic Settings](#).
DI: (Decoder Information/Identification). The Decoder Identification identifies different operating modes. This enables controlling of individual decoders. Additionally, it indicates if static or dynamic PTY codes are transmitted. For example:
 - Mono or Stereo
 - Artificial Head, No Artificial Head
 - Compressed, Not Compressed
 - Static PTY Codes, Dynamic PTY Codes
The decoder information is transmitted in the groups 0A, 0B and 15B. [RDS/RBDS > Standard Mode > Uecp Main PS > Basic Settings](#).



- 6. PTY: (Program Type)** This is an identification number to be transmitted with each program item and which is intended to specify the current Program type within 31 possibilities.
PTYN: (Program Type Name) The **PTYN** feature is used to further a more specific **PTY** description that the broadcaster can freely decide (e.g. PTY=4: Sport and PTYN: Football).
 to customize it go to: [RDS/RBDS > Standard Mode > Uecp Main PS > Basic Settings](#).
- 7. RADIO TEXT:** Some receivers do not support the Radiotext service. The text can be up to 64 characters long. if your text more than 64 characters you will get an error message. Watch the next figure. To add a new text, follow these steps: [RDS/RBDS > Standard Mode > Uecp Radiotext > Radiotext](#)



Radiotext

Radiotext Buffer

RT data not acceptable

Reps	A/B Flag	Radiotext
02	On	prova radiotext "virgolettato"

+

Reps	A/B Flag	Radiotext
no reps	Off	

add



RDS SERVICES:

TP: (Traffic Program Identification) to activate it go to: [RDS/RBDS > Standard Mode > Uecp Main PS > Basic Settings](#).

TA: (Traffic Announcement identification) to activate it go to: [RDS/RBDS > Standard Mode > Uecp Main PS > Basic Settings](#).

M/S: (Music / speech switch) to activate it go to: [RDS/RBDS > Standard Mode > Uecp Main PS > Basic Settings](#).

CT: (Clock-Time and Data) to activate it go to:

AF: (Alternative frequencies list) to activate it go to: [RDS/RBDS > Standard Mode > Uecp Main AF > Alternative Frequencies](#).

RT: (Radiotext) to customize it go to: [RDS/RBDS > Standard Mode > Uecp Radiotext > Radiotext](#).

RT+: (Radiotext Plus) to customize it go to:

TMC: (Traffic Information via Traffic Message Channel) to activate it go to: [RDS/RBDS > Standard Mode > Uecp Main PS > Slow Labelling Codes](#).

EON: (Enhanced Other Networks Information) to customize it go to: [RDS/RBDS > Standard Mode > Uecp Eon PS > Eon Basic Settings](#).

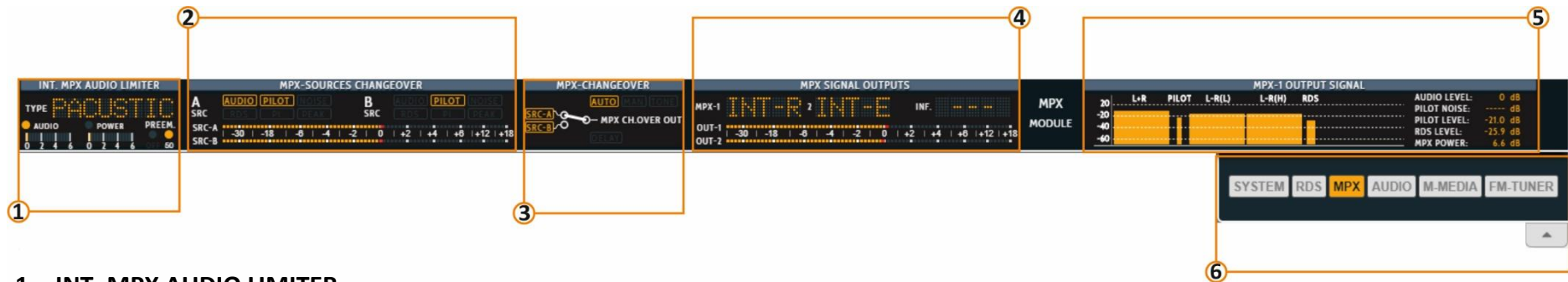
EON-TA: (The Traffic Announcement Identification Flag of the other program can be transmitted via EON) to customize it go to: [RDS/RBDS > Standard Mode > Uecp Eon PS > Eon Basic Settings](#).

RDS 2.0

8. RDS GROUPS STATISTICS: Here you can view a rotation with the statistics of the active groups.

9. From this banner, you can select which sections of the mask you want to view.

2.3 MPX MODULE



1. INT. MPX AUDIO LIMITER.

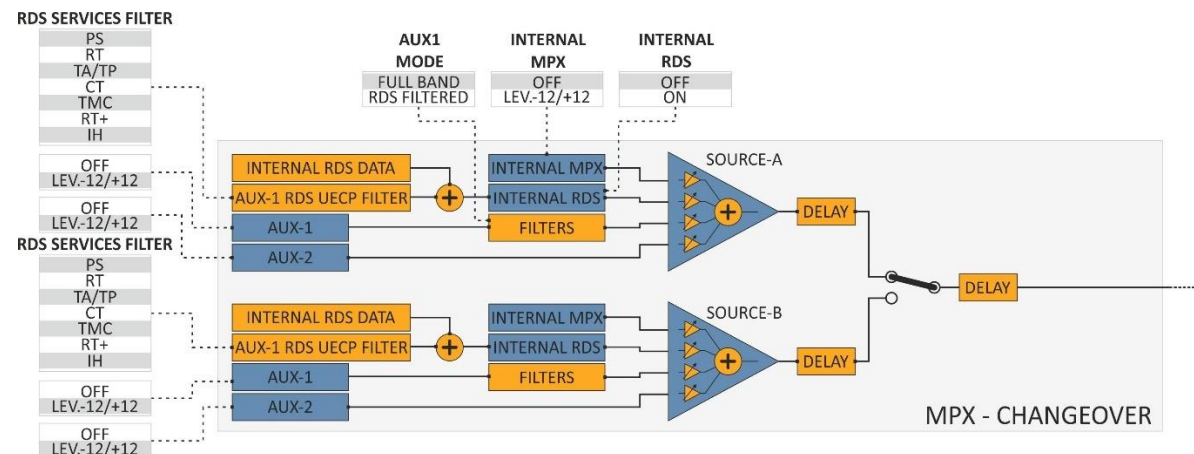
Internal Multiplexing Audio Limiter. As MPX power is a value that is calculated with one minute of integration time, limiting finally is a very complicated task that can control it by **TIGER E3/E5**.

2. MPX-SOURCE CHANGEOVER.

From the image below, you can see how the **MPX CHANGEOVER** can choose between two different sources: **SOURCE-A** and **SOURCE-B**.

Each of the two sources can choose to compose its own signal by combining the following possible choices:

- MPX signal encoded internally.
- RDS signal encoded internally.
- an auxiliary MPX signal (AUX-1) composed of MPX and RDS. By the action of an RDS UECP FILTER, it's possible to replace to this AUX-1 some of its RDS services with some RDS services encoded inside the device.
- an auxiliary signal (AUX-2) composed of MPX and RDS.





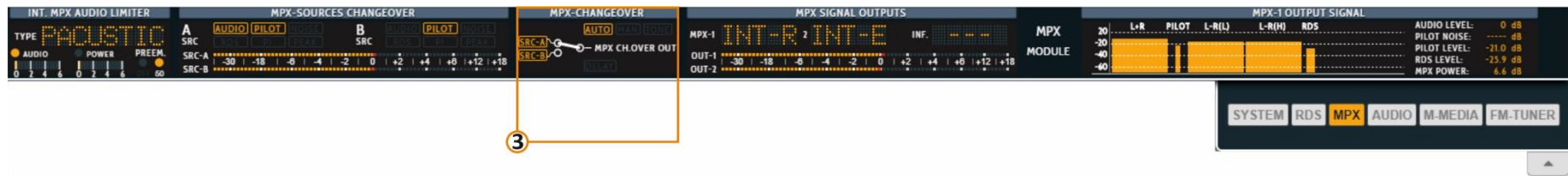
MPX-SOURCES:

In this section, it is possible to see the **SOURCE-A** validation controls. To turn on its Validation Controls go to [MPX > Changeover > Source A > MPX Source A Validation](#). Yellow is valid, red is invalid.

In this section, it is possible to see the SOURCE-B validation controls. To turn on its Validation Controls go to [MPX > Changeover > Source B > MPX Source B Validation](#). Yellow is valid, red is invalid.

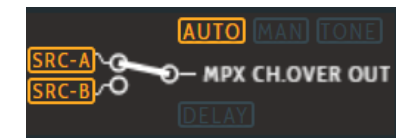
From this Led Meters, you can see the Source A levels and the Source B levels.



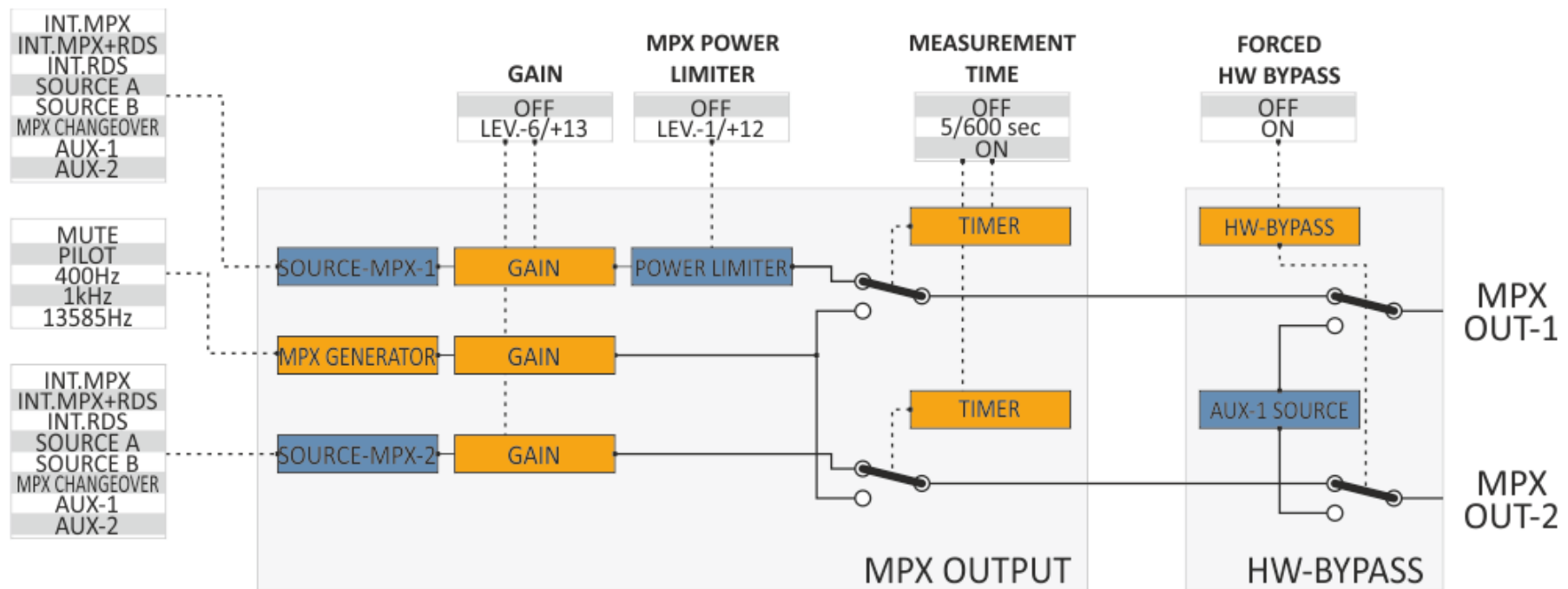


3. MPX-CHANGEOVER:

To set the operating mode of the MPX-Changeover and to set any MPX delay go to [MPX > Changeover > Delay / Mode > Configuration](#). The changeover could be AUTOMATIC or MANUAL.



There are two MPX outputs in the device (MPX OUT-1, MPX OUT-2). In this section, you can view what is routed on the individual outputs.





4. MPX SIGNAL OUTPUT

MPX-1: Here you can read what is routed to MPX OUT-1, to change it go to [MPX > Outputs > MPX Output 1 > Source](#).



MPX-2: Here you can read what is routed to MPX OUT-2, to change it go to [MPX > Outputs > MPX Output 2 > Source](#).



INF.: To change the preemphasis of the coded MPX signal, go to [MPX > Internal MPX Encoder > Preemphasis](#).



OUT-1, OUT-2: From this Led Meters you can see the MPX Output levels. To add or remove a little gain go to [MPX > Outputs / Inputs > MPX Output 1 > Gain](#) and to [MPX > Outputs / Inputs > Mpx Output 2 > Gain](#)

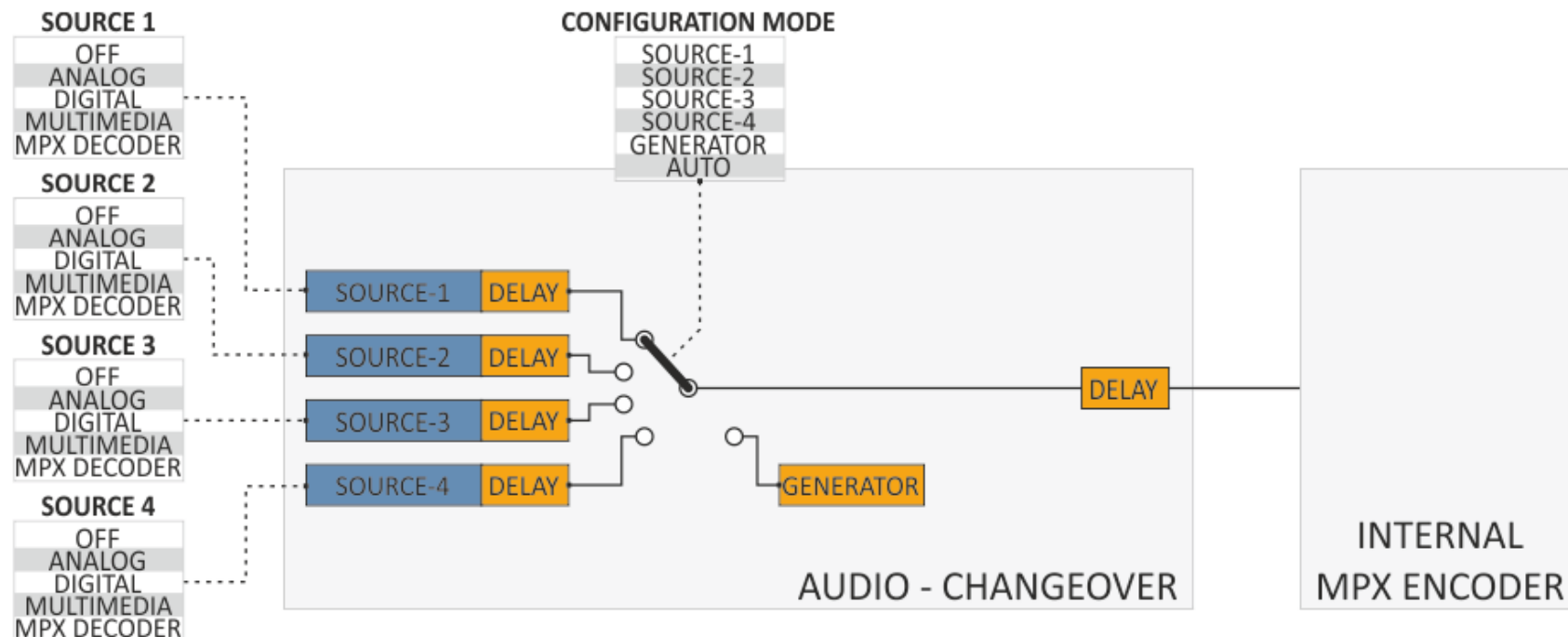




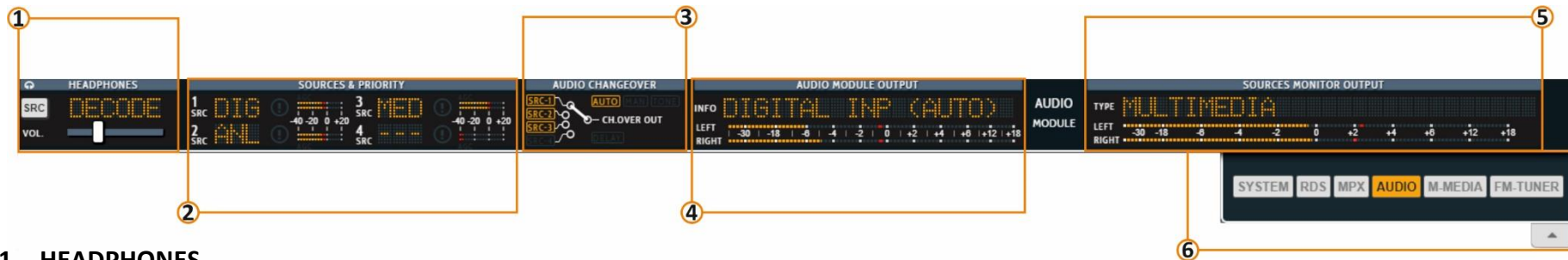
5. MPX-1 OUTPUT SIGNAL

Here you can see levels of the individual parts of the **MPX** Signal that you are routing to the MPX-1 Output. To change the MPX1 source go to [MPX > Outputs > MPX Output 1 > Source](#).

The INTERNAL MPX ENCODER receives the audio from an AUDIO CHANGEOVER. The AUDIO CHANGEOVER can choose between 5 different audio sources: SOURCE-1, SOURCE-2, SOURCE-3, SOURCE-4, Generator. Each of the first 4 sources can receive audio from Analog Input, Digital Input, Multimedia and MPX Decoder.



2.4 AUDIO MODULE



1. HEADPHONES

Here you can set the Headphones level and the Source. To change the Headphone Source, click on the SRC button until you reach the desired source. To change the level, move the horizontal slider. You can select between **ANALOG**, **DIGITAL**, **MULTIMEDIA**, **MPX DECODER**, **CHANGEOVER**.

2. SOURCES & PRIORITY

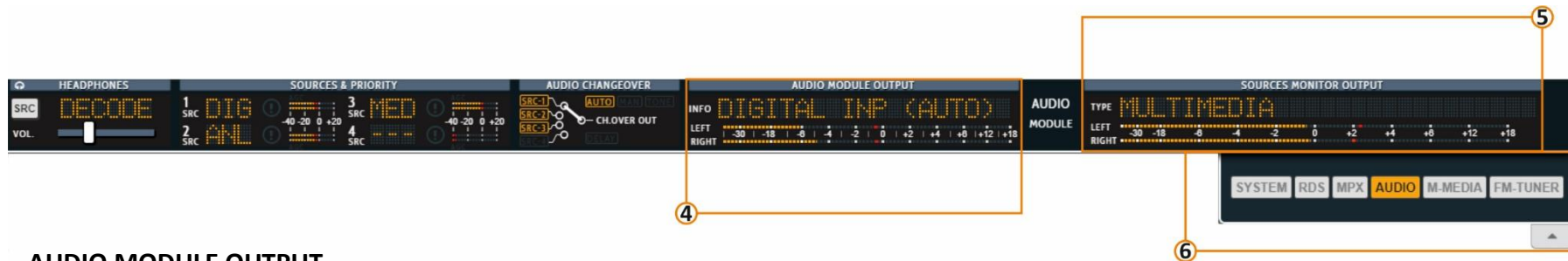
Here you can have an overview of the 4 audio sources and levels of the audio changeover. To change **1SRC** an **2SRC** go to [Audio Input > Changeover > Sources > Source 1](#). and to [Audio Input > Changeover > Sources > Source 2](#).

Here you can have an overview of the 4 audio sources and levels of the audio changeover. To change **3SRC** an **4SRC** go to [Audio Input > Changeover > Sources > Source 3](#). and to [Audio Input > Changeover > Sources > Source 4](#).

3. AUDIO CHANGEOVER

Here you can see which audio source is selected by the Audio-Changeover. You can see if the Audio-Changeover is in Automatic mode, Manual mode or if it is selecting the Tone Generator.

- To select the Audio Changeover Mode, go to [Audio Input > Changeover > Audio Changeover > Configuration > Mode](#). You can choose between **Source1**(manual mode), **Source2**(manual mode), **Source3**(manual mode), **Source4**(manual mode), **Generator**(tone) and **Auto** (automatic mode).
- To **OFF** the **delay** on a specific audio source or to set a delay on the whole Audio-Changeover output go to [Audio Input > Changeover > Audio Changeover > Delay](#).
- To set the milliseconds of the delay go to [Audio Input > Changeover > Audio Changeover > Delay Time](#).



4. AUDIO MODULE OUTPUT

From this section, you can view the selection made by the audio changeover, the audio changeover mode and levels.

- To set the Audio Changeover Mode go to [Audio Input > Changeover > Audio Changeover > Configuration > Mode](#). Here you can choose **AUTO** for an automatic choice between the valid sources, or you can force the choice of selecting the desired source. If you select **Generator**, here you will read **REF-TONE xxxkHz**.
- Can change the generator tone frequency **30Hz - 15KHz** from [Audio Input > Sources > Audio Generator > Audio Generator > Freq.](#)
- To set the **mode** of the tone generator, go to: [Audio Input > Sources > Audio Generator > Audio Generator > Mode](#).
- And to set the **level** of the tone generator, go to: [Audio Input > Sources > Audio Generator > Audio Generator > Level](#).
- To change the audio sources for the **Source1, Source2, Source3, Source4** go to: [Audio Input > Changeover > Audio Changeover > Sources](#).

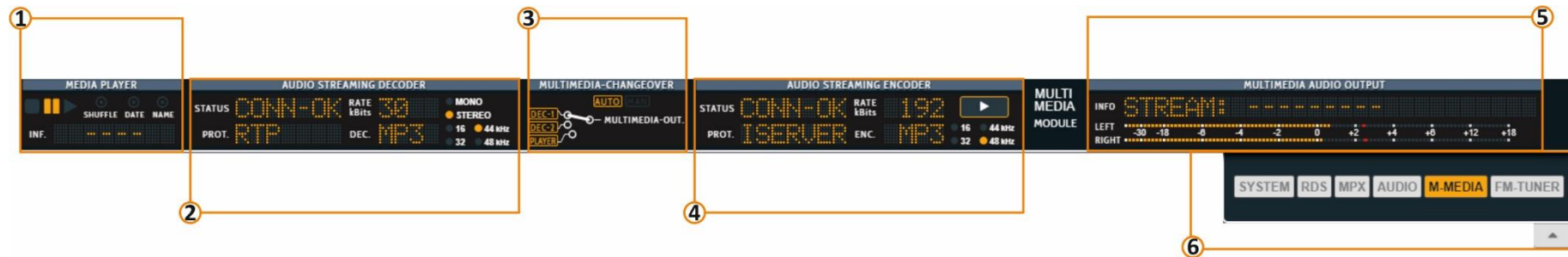
5. SOURCES MONITOR OUTPUT

Here you can view what you have decided to monitor and its levels.

- To select the desired Audio Monitor source go to [Audio Input > Sources > Output Monitor > Output Sources Monitor > Configuration > Audio Monitor Sources](#).
- To set the Audio Monitor level go to [Audio Input > Sources > Output Monitor > Output Sources Monitor > Configuration > Audio Monitor Level](#). In this example, we have selected to monitor the Multimedia Output.

6. From this banner, you can select which sections of the mask you want to view.

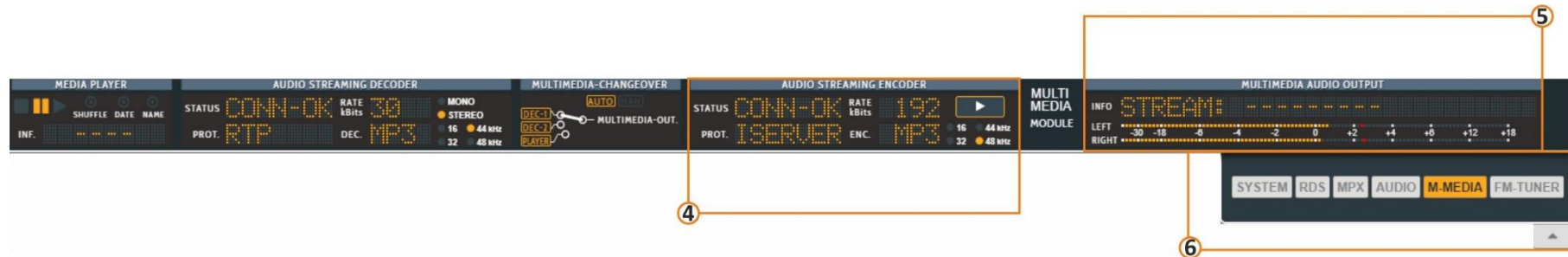
2.5 MULTIMEDIA MODULE



Multimedia Module is an optional plugin.

TIGER E3/E5 it contains a MEDIA PLAYER, two Audio Streaming Decoder and also equipped with Audio Streaming Encoder. All this function gives you the ability to select your source from various destinations. From Multimedia Changeover you can choose between Auto, Decoder1, Decoder2 or Media Player.

- 1. MEDIA PLAYER:** It is to play the multimedia files like (MP3, WAV, mp2, OGG VORBIS, AAC, RAW 16bit) by lunch it into the device through the FTP Client. **TIGER** will automatically create your playlist by NAME, DATA or SHUFFLE. The playlist will start playing when the media player is select by the MULTIMEDIA CHANGEOVER.
INF. It is to show you the audio compression.
The name of the song in play will show up in section 5 of the canvas.
- 2. AUDIO STREAMING DECODER:** TIGER is supported by two audio streaming decoders. When one of the decoders is selected by the MULTIMEDIA CHANGEOVER In this section you can monitor the source status.
STATUS: the status of the decoder is selected by the MULTIMEDIA CHANGEOVER.
PROT.: network control protocol.
DATA kBits:
DEC.: Decoding extensions.
- 3. MULTIMEDIA CHANGEOVER:** Here you can monitoring your multimedia changeover position and mode AUTO/MANUAL. [Multimedia > Changeover > Configuration.](#)



4. **AUDIO STREAMING ENCODER:** to monitoring the audio encoder status. utilizes a buffering system and a secure data stream platform to allow you and the end users to listen to full audio files via network.
STATUS: the status of the Encoder.
PROT.: network control protocol.
DATA kBits:
DEC.: Decoding extensions.
Play button: this button works only with the last 3 IcecastServer options. [Multimedia > Stream Encoder > Configuration > Mode.](#)
5. **MULTIMEDIA AUDIO OUTPUT:** it is to monitor the final audio output of the MULTIMEDIA MODULE.
INFO: show up the source selected and the file name.
LEFT/RIGHT: stereo audio level.
6. From this banner, you can select which sections of the mask you want to view.

2.6 FM TUNER MODULE



TIGER E3/E5: is optional.

Professional FM tuner with worldwide FM band support.

This is an innovation professional FM radio receiver.

It has high sensitivity for receive and a standard communication interface for telemetry.

It is a valuable for radio broadcast transposer and FM radio monitoring.

- 1. RF:** monitoring the parameters and frequency that tuned up.

FREQ. MHz: FM frequency. [FM Tuner > Settings > Tuned Frequency](#).

LEVEL dBuV: Signal receiving level of the channel selected.

CARRIER ppm: Pulse-position modulation.

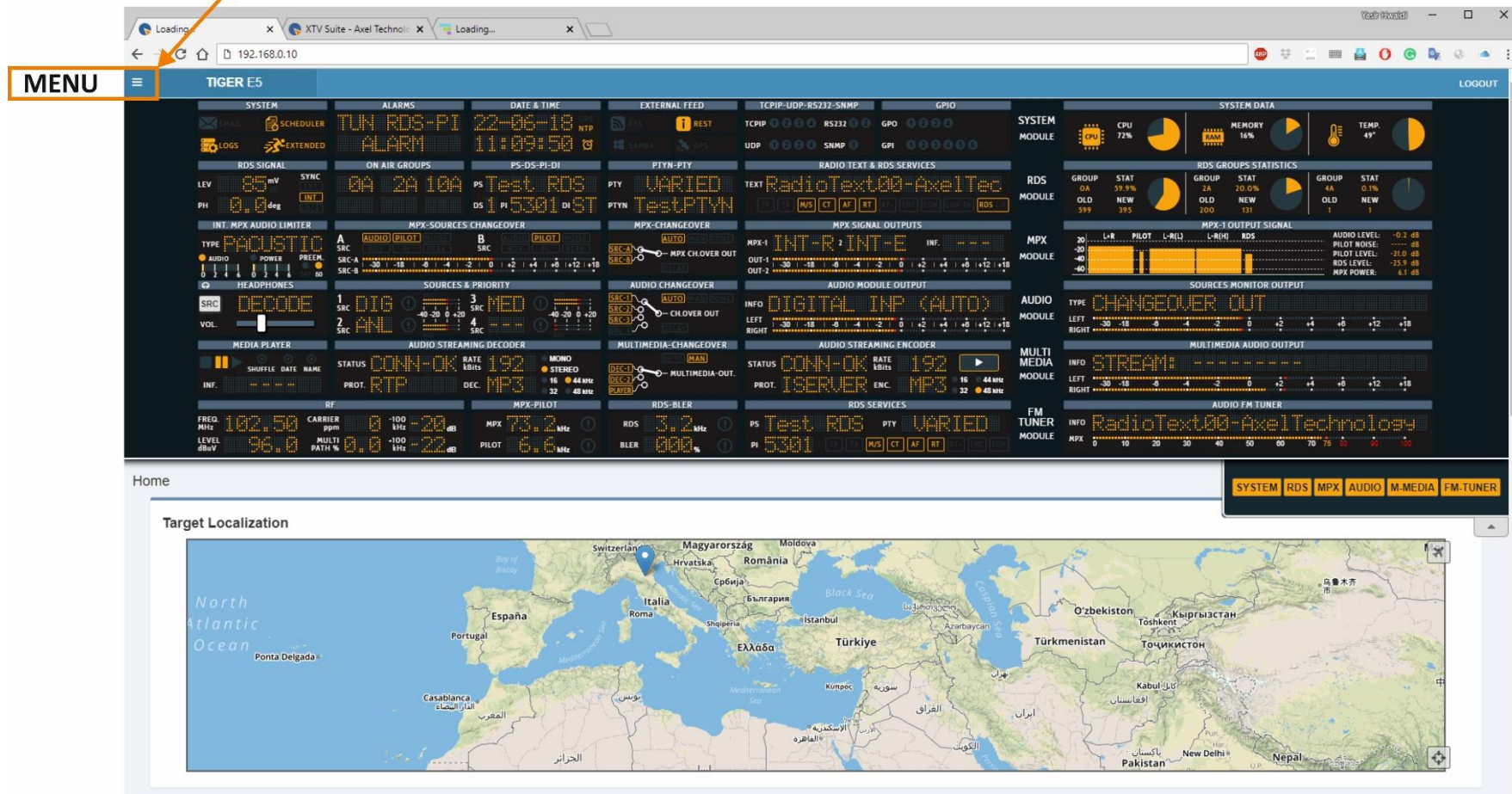
- 2. MPX-PILOT:** monitoring the pilot am MPX level.
- 3. RDS-BLER:** monitoring the RDS level.
- 4. RDS SERVICES:** here you monitoring all the RDS services activated at this FM channel tuned.
- 5. AUDIO FM TUNER:** display the FM channel tuned and MPX signal level.
- 6.** From this banner, you can select which sections of the mask you want to view.

3. MENU

3.1 HOME

If you resize your browser press the top-left button to open the menu:

From here can display the MENU



To show or hide the MODULE's canvas, Open the slide bar button under the SUMMARY MASK as shown in the next figure.

The screenshot displays the TIGER E5 web interface. The top section contains various system modules including SYSTEM, ALARMS, DATE & TIME, EXTERNAL FEED, TCP/IP, GPIO, SYSTEM DATA, RDS, MPX, AUDIO, M-MEDIA, and FM-TUNER. Below these modules is a map titled 'Target Localization' showing a map of Europe with a red dot indicating the target location. An orange box highlights the 'Show/Hide MODULES' button and the 'Slide bar button'.

In this page can find all information about the device like name, location, IP, Firmware version and serial number. The Target Localization module provides detection of a specified target (**TIGER E3/E5** location) it is used in case that you have many RDS service points.

To modification these parameters go to [Home > Setup > General Setup](#).

3.2 SETUP

By clicking on the setup you can see all the available setup subpages as shown in the following picture.

3.2.1 GENERAL SETUP

In [Setup > General Setup](#) you have different general parameters to start with the device setup:

Target References

Target References		
Host Name Prefix TIGERE5	Host Name Custom 	Host Name TIGERE5
Target Name Ref. Rocca di Cave VRG	Target Location Ref. Rocca di Cave Virgin	Target Operator Ref. Virgin Radio
Target Web Label 		

Host Name Prefix: default field with the Product Name. This parameter is unchangeable.

Host Name Custom: customizable parameter. Type here the desired device name. This parameter helps you to recognize the device in your computer network.

Host Name: Host Name Prefix(fixed value) + Host Name Custom.

Target Name Ref.: Type here a desired name for the device.

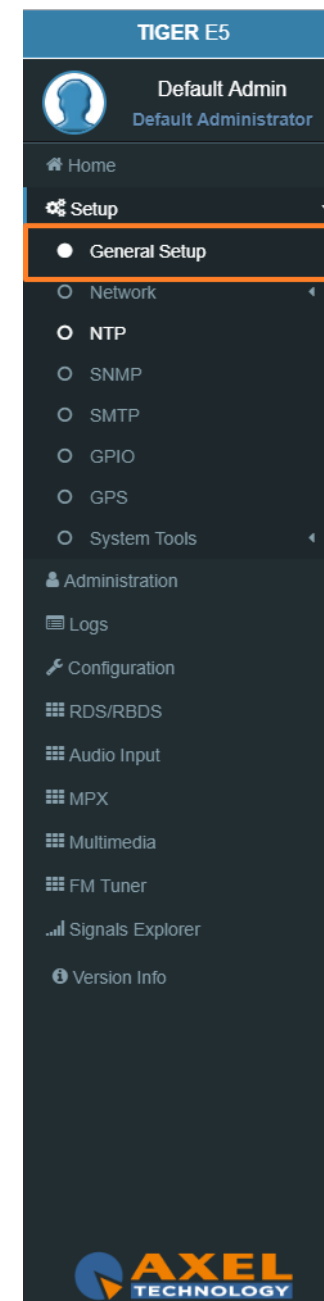
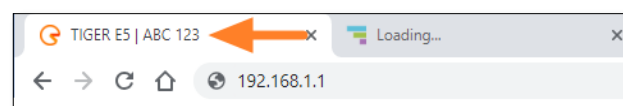
Target Location Ref.: Type here the device location.

Target Operator Ref.: Type here the Operator name.

Target Web Label: allows customizing the tab of the web browser of the machine.

Note: Web editing is visible only after a page refresh.

Audio Input	Rocca di Cave VRG
MPX	
Multimedia	
FM Tuner	
	Target Web Label
	ABC 123



Other Settings

Other Settings

Language

English

Http Bandwidth

High Bandwidth

Local Time Zone

Europe/Rome

Language: Select here the desired device language.

Http Bandwidth: Select here between GPRS, Low, Normal or High bandwidth.

Local Time Zone: Select from the drop-down menu the desired Time Zone.

REST Settings

REST Settings

☒ Active

Port

5000

Active: Check/Uncheck this box if you want to activate/deactivate the REST API for the device.

Port: RDS E3 Coder is active on port 5000.

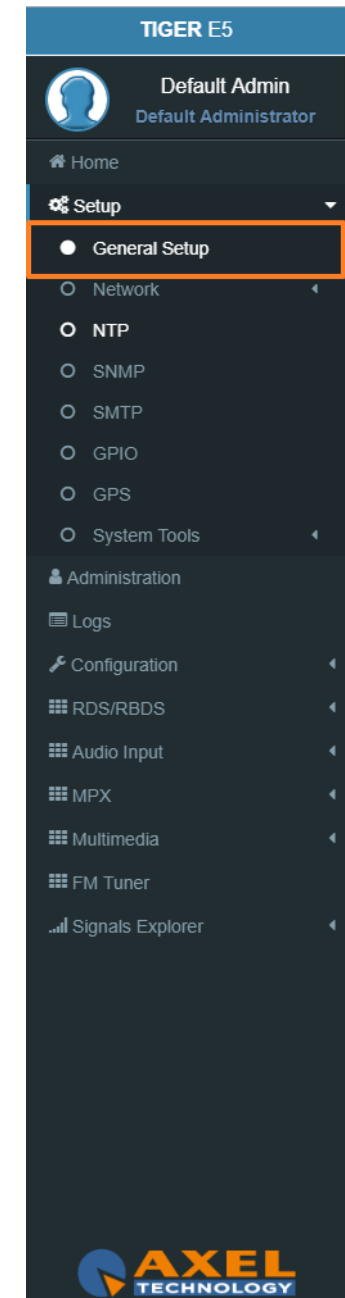
The REST APIs in this device are intended as Extended Mode parameter. To allow the REST APIs to work, we advise you to set also the following parameters in the following ways:

RDS/RBDS > Basic Settings > Rds Settings > Rds General Settings > Rds Global Extended Mode > Enabled

go in **Rds/Rbds > Extended Mode** and in the single service you want to enable set:

Dataset Operative Mode = **Extended Mode**

Extended Source = **Rest Command**



The REST interface allows to manage the following EXTENDED MODE parameters:

- Active Dataset;
- Aired Program Service Name;
- Aired Radiotext;
- Aired Program Type;
- Aired Program Type Name;
- Traffic Announcement;
- Music/Speech;
- All 10 EON-TA;

Below are examples of REST API. In the following lines the syntax:

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=<variable name>

(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=<variable name>&VARVALUE=<value to set>

DATASET

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=DSET_Ext_DYN

(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=DSET_Ext_DYN&VARVALUE=x

where x can be 1 , 2, 3, 4, 5, 6, 7, 8.

Aired Program Service Name

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=PSN_Ext_DYN_Local

(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=PSN_Ext_DYN_Local&VARVALUE=aaaaaaaa

where *aaaaaaaa* is a string of 64 characters max. The string can be composed by symbols and accented letters.

It is also possible to act on the EXTENDED MODE parameters of the Program Service Name:

Extended PSN Buffer Mode

At the moment it is fixed on *Scrolling*. The variable can only be read. The reference variable is **PSN_Buffer_Mode**.

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=<PSN_Buffer_Mode>

Extended PSN Scrolling Speed

The reference variable is **PSN_Scrolling_Speed**. It can take the following values:

"Fastest", "Fast", "Normal", "Slow", "Slowest"

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=<PSN_Scrolling_Speed>

(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=<PSN_Scrolling_Speed>&VARVALUE=<Fastest>

Extended PSN Scrolling Steps

The reference variable is PSN_StepMode. It can assume values from 1 to 8 and represents the number of characters that flow each time.

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=<PSN_Step_Mode>

(*WRITE*)

http:// <PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=<PSN_Step_Mode>&VARVALUE=<x>

where x can be 1, 2, 3, 4, 5, 6, 7, 8.

Extended PSN Auto Return Mode

The reference variable is **PSN_Return_Mode**. This variable can be the following values:

"Disabled", "After 1 Loop", "After 2 Loops", "After 3 Loops", "After 4 Loops", "After 5 Loops"

and it indicates the behaviour of the writing in the buffer. The Disabled value says that the writing will rotate indefinitely. The other values indicate the number of revolutions of the writing before the buffer is cleaned up and the writing deleted.

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=<PSN_Return_Mode>

(*WRITE*)

http:// <PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=<PSN_Return_Mode>&VARVALUE=<After 1 Loop>

Aired Radiotext

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=RT_Ext_DYN_Local

(*WRITE*)

http:// <PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=RT_Ext_DYN_Local&VARVALUE=aaaaaaaa

where *aaaaaaaa* is a string of 255 characters long. The string can be composed by symbols and accented letters.

Aired Program Type

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=PTY_Ext_DYN

(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=PTY_Ext_DYN&VARVALUE=x

where x is a value from 0 to 31 which encodes the PTY according to the standard.

Aired Program Type Name

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=PTYN_Ext_DYN_Local

(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=PTYN_Ext_DYN_Local&VARVALUE=aaaaaaaa

where aaaaaaaaa is a string of 8 characters at the max that can contain symbols and accented letters.

Traffic Announcement

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=TA_Ext_DYN

(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=TA_Ext_DYN&VARVALUE=x

where x can be *Off* or *On*.

Music/Speech

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=MS_Ext_DYN

(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=MS_Ext_DYN&VARVALUE=x

where x can be *Speech* or *Music*.

EON Traffic Announcement

(*READ*)

http://<PC IP or Url>:5000/REST/send/READ?TOKEN=AX&MOD=RDS&VARNAME=EON_TA_n_Ext_DYN

where *n* can be a number from 1 to 10 (ex: EON_TA_7_DYN).

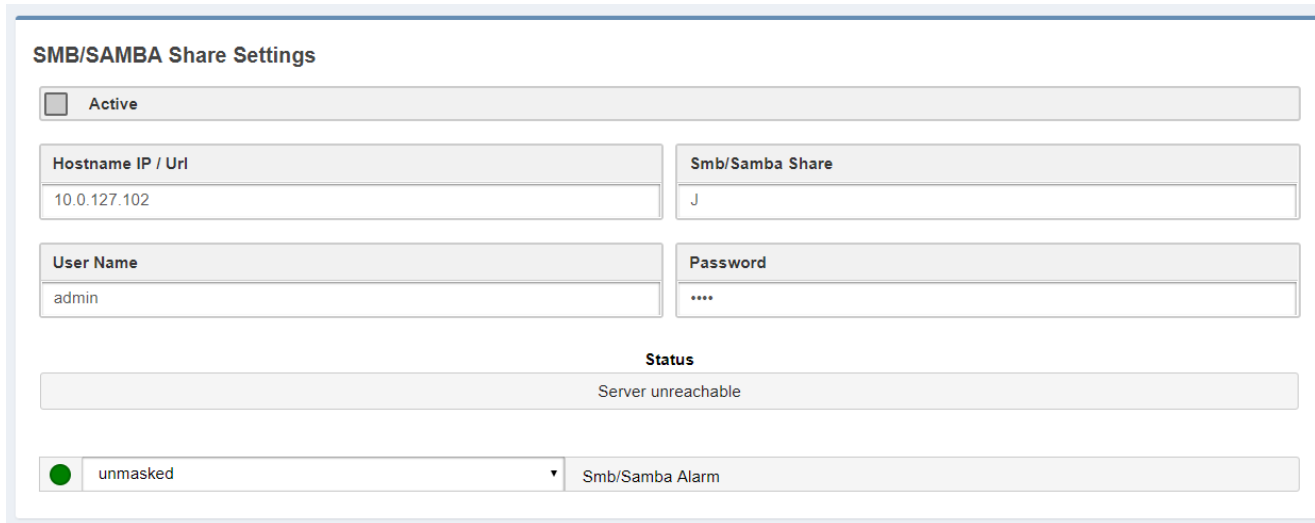
(*WRITE*)

http://<PC IP or Url>:5000/REST/send/WRITE?TOKEN=AX&MOD=RDS&VARNAME=EON_TA_n_Ext_DYN &VARVALUE=x

where x can be *Off* or *On*.

SMB/SAMBA Share Settings

SMB Server Message Block. This section helps you to air **TITLE** and **AUTHOR** of the aired song by the DJPRO playout Dalet and with MB Studio. These 2 parameters will be aired via **RDS** directly from our playout software DJPRO in your **RADIOTEXT**. In the following pictures, you can find all the settings.



The screenshot shows the 'SMB/SAMBA Share Settings' configuration page. It includes a toggle for 'Active', input fields for 'Hostname IP / Url' (10.0.127.102) and 'Smb/Samba Share' (J), input fields for 'User Name' (admin) and 'Password' (masked with dots), a 'Status' section showing 'Server unreachable', and a dropdown menu for 'unmasked' with a label 'Smb/Samba Alarm'.

Active: Check/Uncheck this parameter to activate/deactivate the control on the playout folder.

Hostname IP / URL: Type here the IP/URL of the PC where the Playout software writes the (TXT, XML, INI,...) file with the playlist (for example [//192.168.99.7](http://192.168.99.7)).

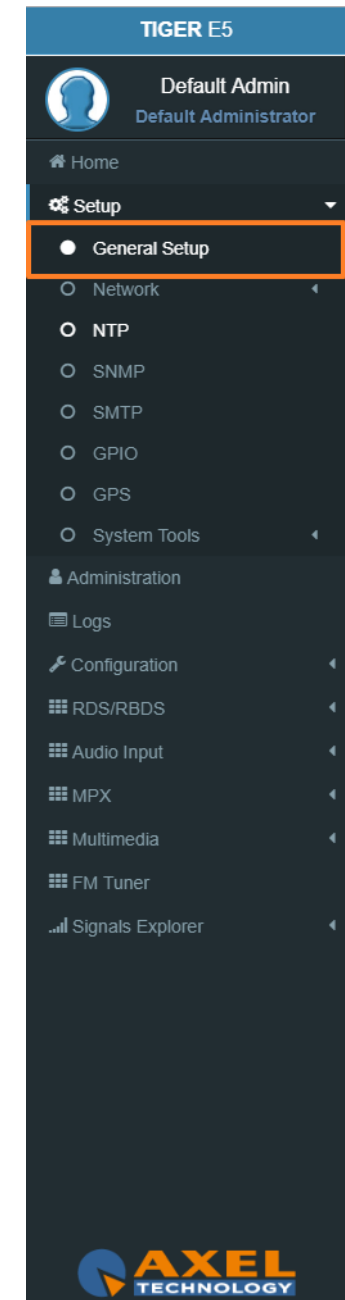
Smb/Samba Share: Type here the shared resource where the XML file is saved (for example: J).

Attention, here it is not possible to write a classic path, but only a shared resource.

User Name: Type here the shared resource Username.

Password: Type here the shared resource Password.

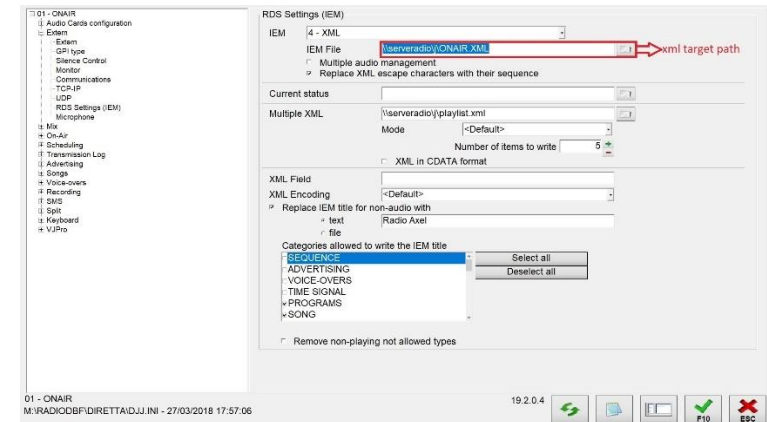
Masked/Unmasked: decide here if you want to mask/unmask the Alarms related to the connectivity with the PC / Shared Resource. If you see SMB/SAMBA Alarms something is wrong with the IP/URL, Smb/Samba Share or USERNAME and PASSWORD.



DJPRO SAMBA share

In the next image, you can see the **DJPRO** setup area where you can set the **.xml** path.

Go to **Main Menu > Setup ON-AIR Manager > ON AIR > Open Setup > Extern > RDS Settings (IEM)**.



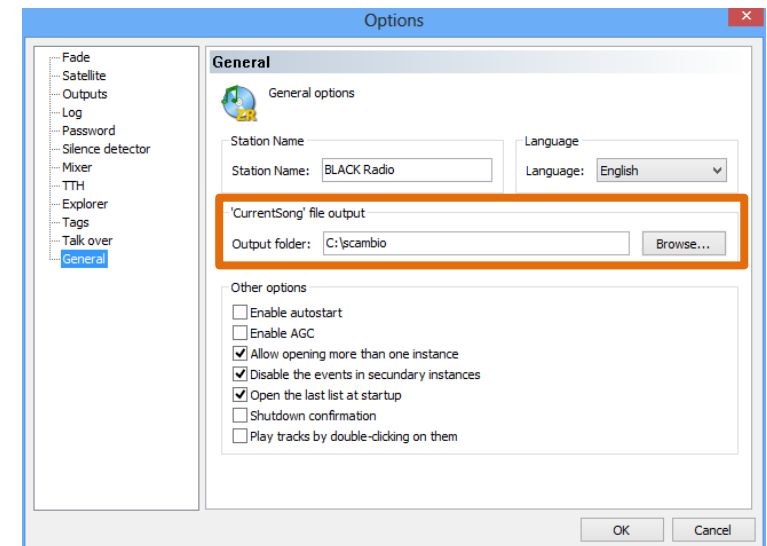
ZARA Studio SAMBA share

This software rigidly generates a **CurrentSong.txt** file containing the file name of the song currently in payout.

Just select the **SAMBA share** folder as '**Output Folder**'.

Note: Since the software allows the insertion of **TTH** Announcements (time signal, temperature and humidity) the device recognizes the various types and formats the **PS** and the **Radiotext** on the air as a consequence:

Info Type	PS / Radiotext
Song	Title
Time	Time Announcement
Temperature	Temperature Announcement
Humidity	Humidity Announcement



During jingles (Intervals and announcements), there is no content variation in the **CurrentSong.txt** file, so they are not traceable.

If the payout is interrupted, there is no change in content in the **CurrentSong.txt** file (it remains the last event on air).

Dinesat SAMBA share

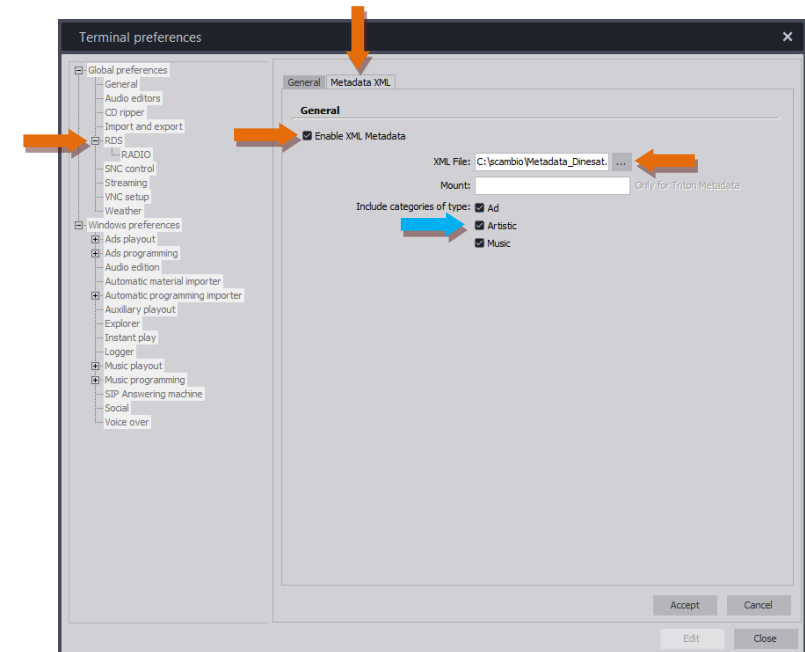
This software allows exporting the data of the current playlist both on text files and on an **XML** metadata file.

Our device is able to process only the **XML** data stream, so it will be set on the software to generate a **.xml** file in the **SAMBA share**:

Simply check the '**Enable XML Data**' and select the file to be inserted as a **SAMBA share** in the desired folder. Obviously, the name of the chosen file will be that of the **SAMBA share** to be indicated in the **RDS settings** of our device.


As highlighted by the blue arrow, it is possible to indicate which categories of playout events end up in the **XML** file (Music, Advertising or Artistic data relating to the song, such as the album of the collection).

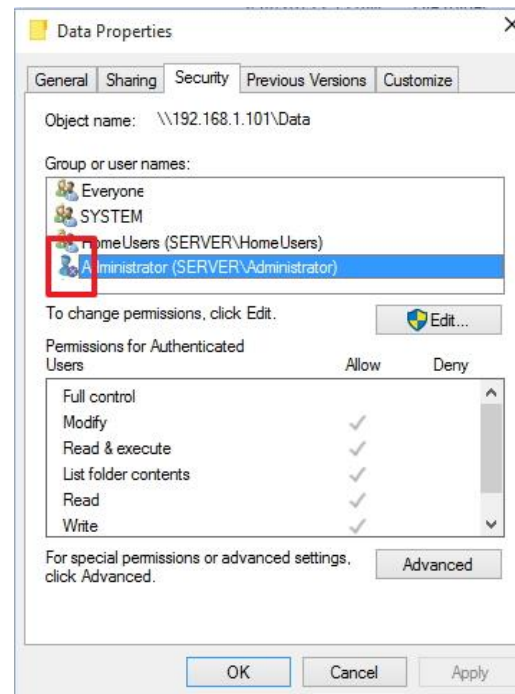
In any case, the content of the **XML** file is read by our device to form the **PS** and the **Radiotext** on the air.



3.2.1.1 TROUBLESHOOTING ACCESSING SMB/SAMBA SHARED FOLDER

If it is no longer possible to access the folder previously set in the SMB / SAMBA SHARE parameter, the cause may be a lack of user access rights (SMB / SAMBA folder side):

1. Go to the PC where the shared folder resides
2. Right click on the folder
3. Click on Properties to verify
4. If there are problems like those highlighted (with the error cross ) in the following image, go on with the steps below



5. in this same pc create a new windows user dedicated:
username: **tiger3**
password: **tiger3**
6. provide this new user with full access to the SMB / SAMBA SHARE folder
7. in the web panel of the Tiger, go to the SETUP menu> GENERAL SETUP> SMB / SAMBA SHARE> User Name = tigere3
8. in the web panel of the Tiger, go to the SETUP menu> GENERAL SETUP> SMB / SAMBA SHARE> Password = tigere3

Target Localization

Target Localization

☒ Manual Target Coordinates

Latitude

44.3221

Longitude

11.1300

Marker Baloon Field

Bologna

Manual Target Coordinates: Check/Uncheck this parameter to activate/deactivate the Manual Target Coordinates insertion.

Latitude: Latitude insertion is activated when **Manual Target Coordinates** is checked. Type here the manual latitude.” please use the numbers and points as shown in figure ”.

Longitude: Longitude insertion is activated when **Manual Target Coordinates** is checked. Type here the manual longitude.” please use the numbers and points as shown in figure ”.

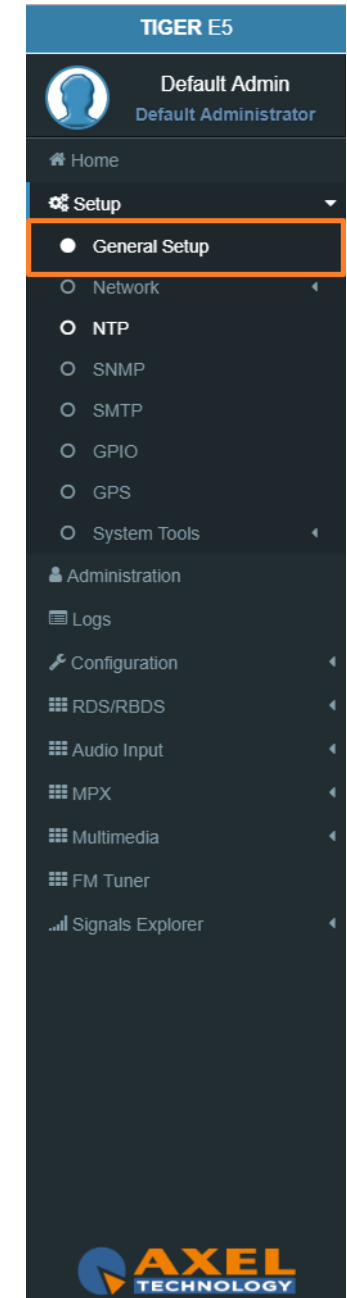
Marker Baloon Field: Insert here what you want to read on the map Marker Baloon at the selected coordinates.

Manual Target Clock Synchronization

Manual Target Clock Synchronization

Synchronize Target with Client Clock

Synchronize Target with Client Clock: synchronizes the clock with the client pc clock.



3.2.2 NETWORK

In [Setup > Network > eth0](#) you have different parameters to set configurations for the device network connection and addressing:

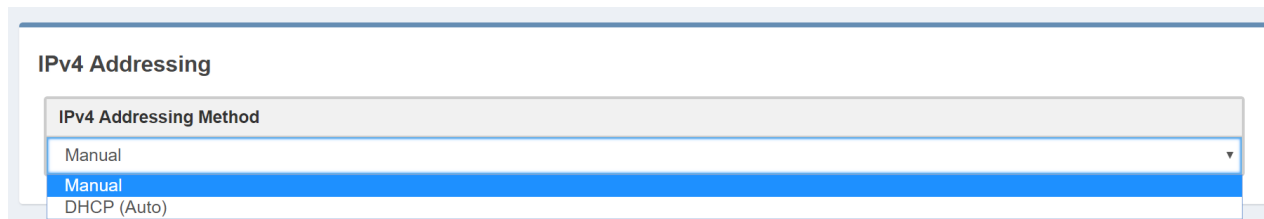
Mac Address



MacAddress: Here you can read the device Mac Address.

In [General Configuration](#) you can read for all the current network settings.

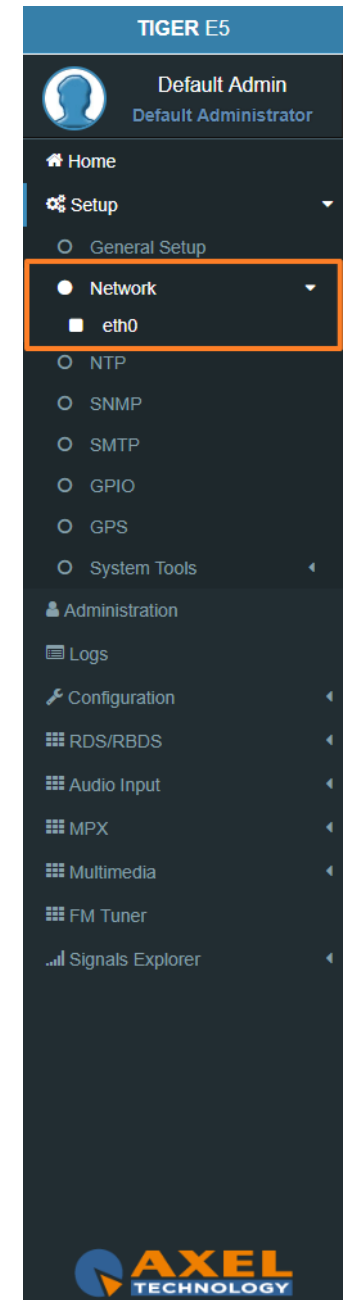
IPv4 Addressing



IPv4 Addressing Method: choose here the Addressing Method. You can choose between Manual or DHCP(auto).

Manual: if you choose Manual you have to insert all IPv4 and DNS IPv4 data.

DHCP(auto): a DHCP (Dynamic Host Configuration Protocol) server dynamically distributes network configuration parameters.



IPv6 Address

IPv6 Addressing

IPv6 Addressing Method

DHCP (Auto)

Manual

DHCP (Auto)

DHCP (Primary only)

IPv6 Addressing Method: choose here the Addressing Method. You can choose between Manual or DHCP(auto).

Manual: if you choose Manual you have to insert all IPv6 and DNS IPv6 data.

DHCP(auto): a DHCP (Dynamic Host Configuration Protocol) server dynamically distributes network configuration parameters.

In the following setting sections you can fill all the desired IP data if you have set Manual Addressing Method:

Primary IPv4

Primary IPv4

Address

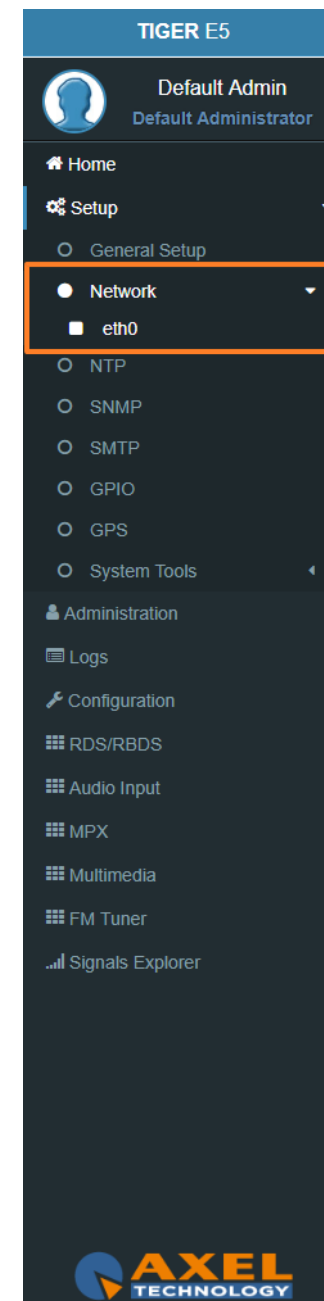
10.0.127.80

Subnet Mask

255.255.0.0

Gateway (Default)

10.0.127.100



DNS IPv4

DNS IPv4

Primary DNS

172.20.0.1

Additional #1 DNS

Additional #2 DNS

Enable(Primary DNS IPv4): If it is needed, click on the checkbox to enable a Primary DNS IPv4.

Primary DNS(IPv4): type here the IP of the desired DNS server.

Enable(Additional #1 DNS IPv4): Check it to enable the first additional DNS IPv4 Server.

Additional #1 DNS(IPv4): type the IP of the DNS server.

Enable(Additional #2 DNS IPv4): Check it to enable the second additional DNS IPv4 Server.

Additional #2 DNS(IPv4): type the IP of the DNS server.

DNS IPv6


DNS IPv6

Primary DNS

Additional #1 DNS

Additional #2 DNS

TIGER E5


Default Admin
 Default Administrator

Home

Setup ▼

- General Setup
- Network ▼
 - eth0
- NTP
- SNMP
- SMTP
- GPIO
- GPS
- System Tools ◀

Administration

Logs

Configuration ◀

RDS/RBDS ◀


Audio Input ◀

MPX ◀

Multimedia ◀

FM Tuner

Signals Explorer ◀



Enable(Primary DNS IPv6): If it is needed, click on the checkbox to enable a Primary DNS IPv6.

Primary DNS(IPv6): type here the IP of the desired DNS server.

Enable(Additional #1 DNS IPv6): Check it to enable the first additional DNS IPv6 Server.

Additional #1 DNS(IPv6): type the IP of the DNS server.

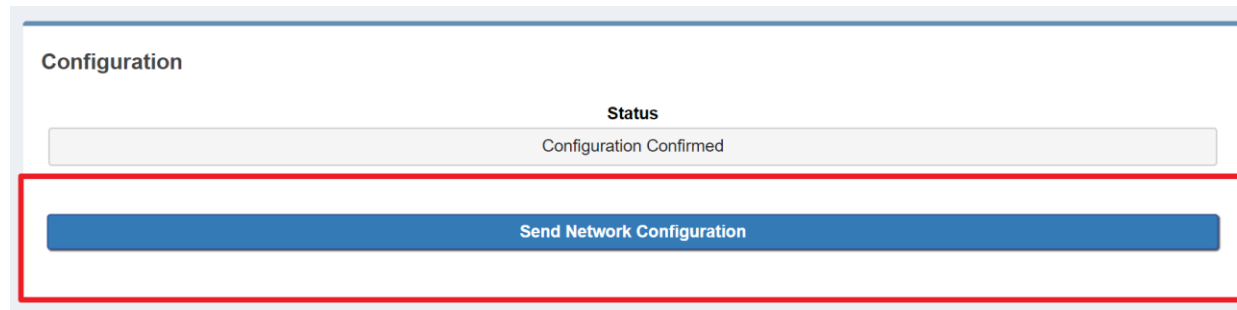
Enable(Additional #2 DNS IPv6): Check it to enable the second additional DNS IPv6 Server.

Additional #2 DNS(IPv6): type the IP of the DNS server.

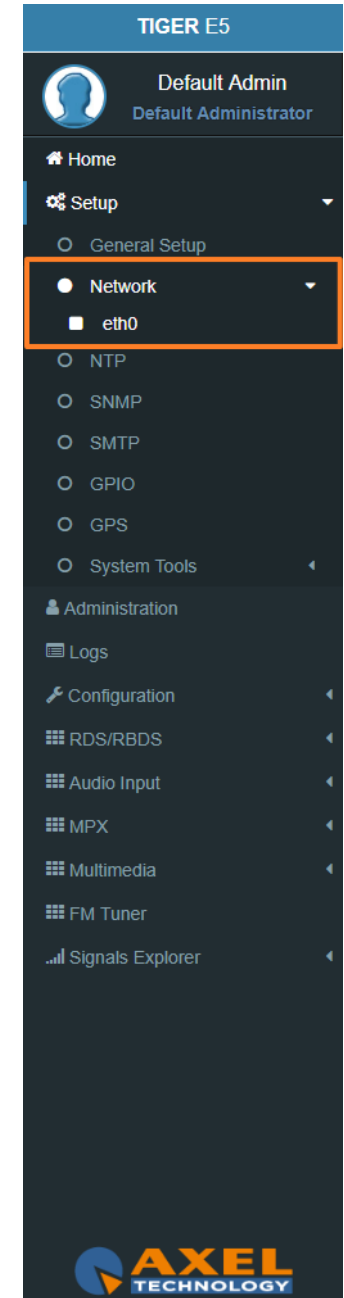
CONFIGURATION

The next two parameters are used to save all previous network settings. The first following button gives a first confirmation of the network parameters, but to make it really effective it is necessary to access the new IP within 5 minutes and it is necessary to press Confirm Network Configuration. This double security is useful in case you have entered wrong addresses or in case there are network problems.

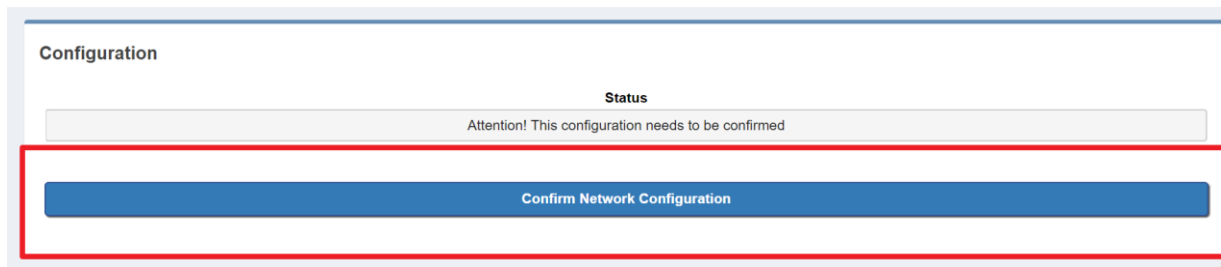
Send Network Configuration: By clicking on this button you send the new network configuration.



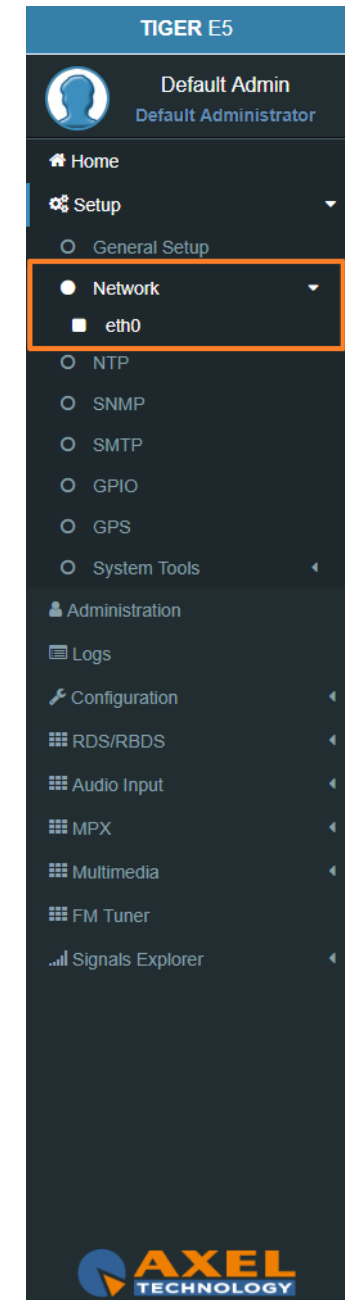
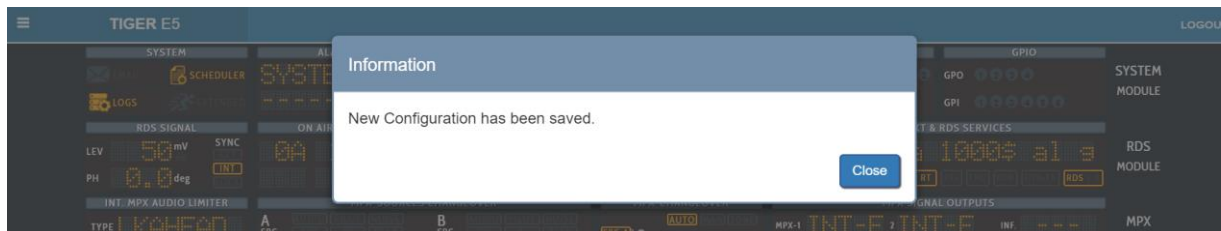
The screenshot shows a web interface for configuration. At the top, there's a 'Configuration' header. Below it, a 'Status' section displays 'Configuration Confirmed'. A blue button labeled 'Send Network Configuration' is prominently displayed and highlighted with a red rectangular border.



To confirm the process you have to connect to the new set IP and press **Confirm Network Configuration** from: [Setup](#) > [Network](#) > [eth0](#)



Confirm Network Configuration: If you do not confirm the new configuration within 5 minutes, the last changes are not implemented. Then you have to reconnect by using the **old IP address** and [Send Network configuration](#) again. After the confirmation of the new IP address you will see the following message:



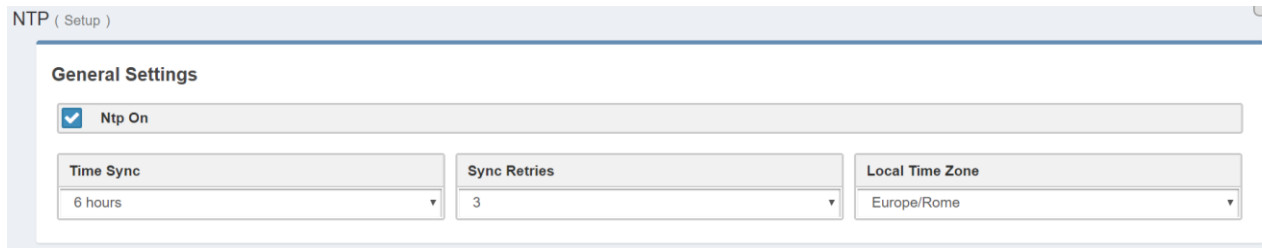
3.2.3 NTP

Network Time Protocol. This section contains all the settings related to NTP features. it is, in fact, possible to connect the device to an NTP server and in this way the device will synchronize its own date and time with the server.

You can set up to three NTP servers. In case there are problems on the first server, the device goes to the second and so on up to the third.

In Setup > NTP you have all the settings related to the Network Time Protocol. Here you can synchronize the device with different desired NTP Servers clock time to start with them the data packet exchange.

GENERAL SETTINGS

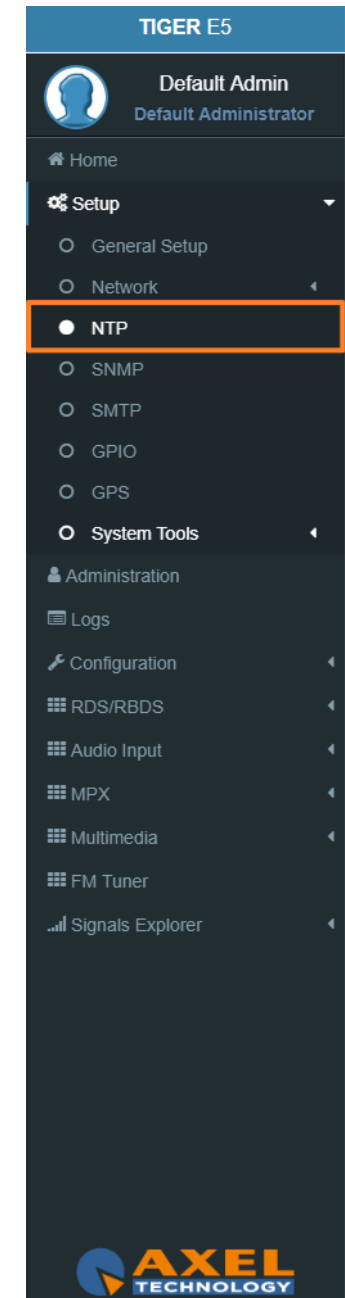


NTP ON: click on the checkbox to enable/disable the Sync with the desired NTP server

TYME SYNCH: decide the sync interval

SYNC RETRIES: decide the sync retries in case of failure

LOCAL TIME ZONE: select the Local Time Zone related to the geographical device position.



PRIMARY NTP SERVER

Primary NTP Server	
IP Address / Url 0.pool.ntp.org	NTP Version Auto

Additional #1 NTP Server	
IP Address / Url 1.pool.ntp.org	NTP Version Auto

Additional #2 NTP Server	
IP Address / Url 2.pool.ntp.org	NTP Version Auto

IP ADDRESS / URL: type the IP/URL of the desired primary NTP server to synchronize the device clock with the server clock.

NTP VERSION(AUTO, V1, V2, V3, V4): select the desired NTP version.

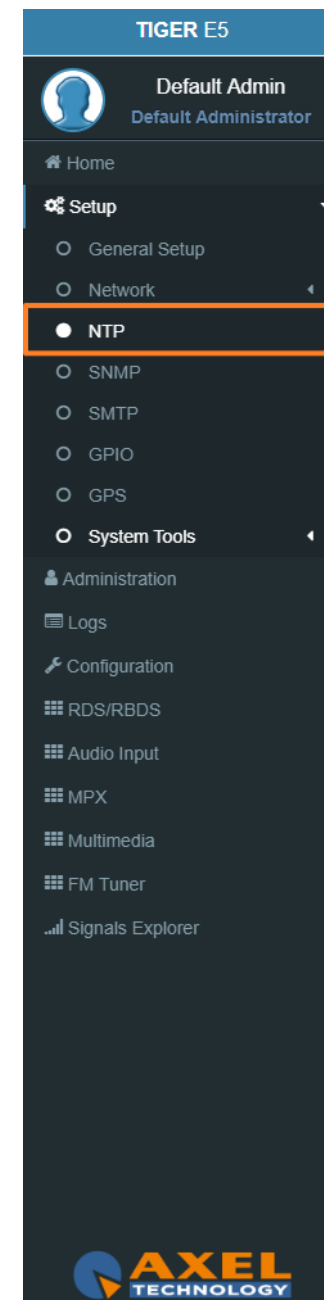
NTP Events

NTP Events	
<input checked="" type="radio"/> masked	NTP Warning
<input checked="" type="radio"/> masked	NTP Alarm

Masked/Unmasked NTP Warning: the warning control records in the logs section a connection problem with one or more DNS Servers. Select Mask to enable the record or Unmask to disable it

Masked/Unmasked NTP Alarm: the Alarm control records in logs section a connection problem with all DNS Servers. Select Mask to enable the record or Unmask to disable for it.

The event section is useful to mask/unmask problems detection with the connection between the device and the NTP Servers.

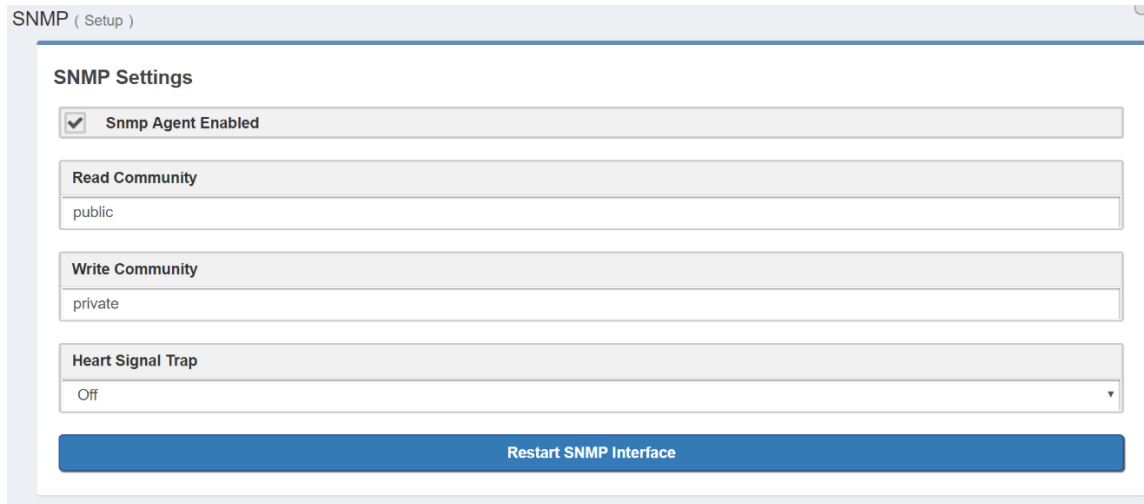


3.2.4 SNMP

The **Simple Network Management Protocol** (SNMP) is used mostly in large networks to monitor network-attached devices for conditions that warrant administrative attention. The RDS encoder supports SNMP.

You can setup all parameters related to the **Simple Network Management Protocol**. Here you can define parameters for different **NMS** (Network Management Server) for the network and trap management.

SNMP Settings



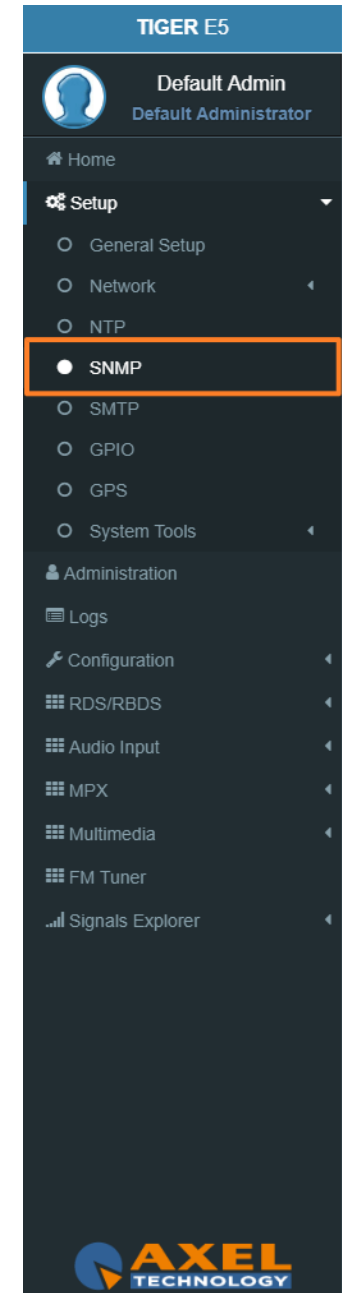
SNMP Agent Enabled: click on this check box to enable or disable the SNMP agent for the warning or alarm traps.

Read Community: it is set on “public” by default. It is the Community String related to the SNMP requests from NMS to the device. If you want to protect your data change it here and in the NMS.

Public/Private: it is set on “private” by default. It is the Community String related to the SNMP device settings from NMS to the device. To have better protection in the Write Community change the Community String here and in the NMS.

Heart Signal Trap: select between ON/OFF if you want to enable/disable the device Heartbeat signal trap.

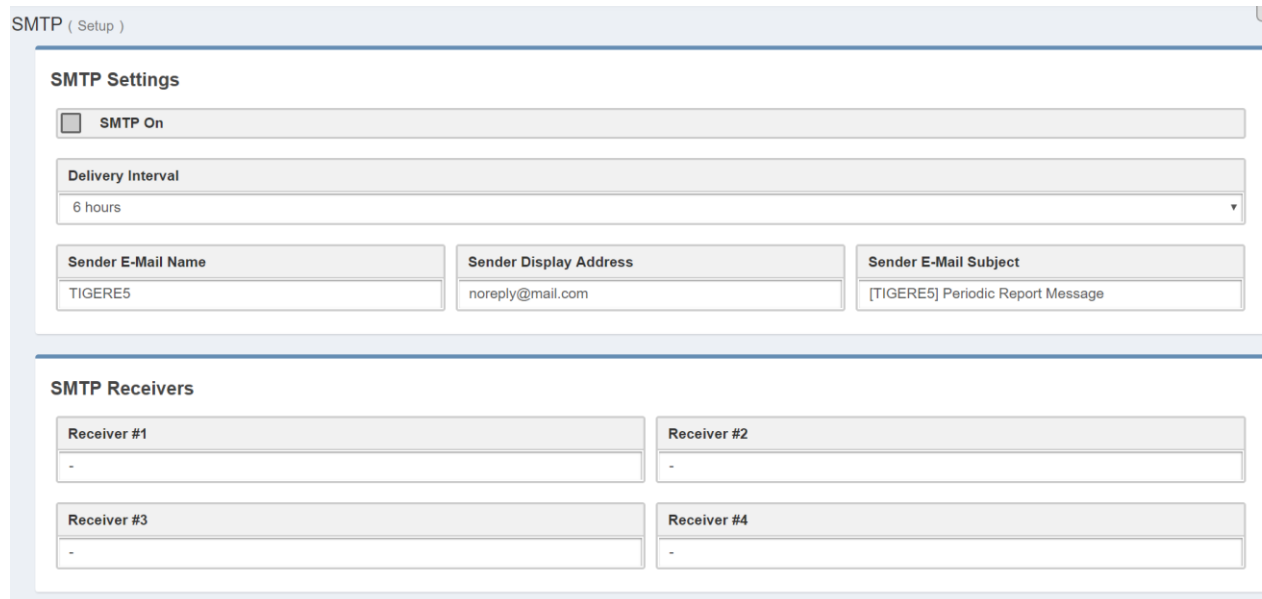
Restart SNMP Interface: This command restarts the SNMP interface.



3.2.5 SMTP

Here can setup all parameters related to the **Simple Mail Transfer Protocol**. you can define parameters for different SMTP servers for the e-mail notification on the device functioning.

SMTP Settings



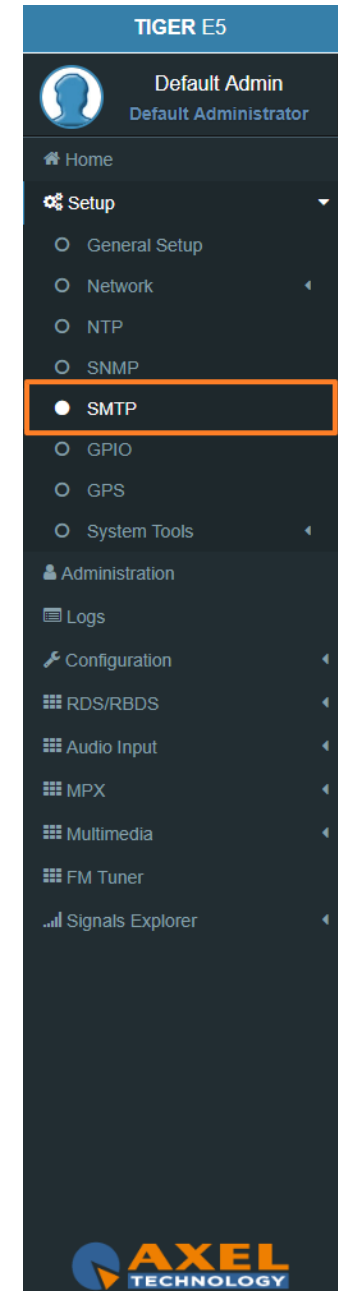
SMTP On: Click on the checkbox to activate/deactivate the SMTP service

Delivery Interval: Select the desired Delay Interval for the Email Notifications. If **SMTP On** is checked you will have Email Notifications every Delivery Interval.

Sender E-Mail Name: Type here a standard Sender E-mail Name

Sender Display Address: Type here the default Sender Display Address. Receivers will read this sender address.

Sender E-Mail Subject: Email Receivers will read this E-Mail Subject.



MAIN SMTP Server Settings

Main SMTP Server Settings

Description

Server IP Address / Url

Port

25

Security

None

Authorization Method

None

Username

Password

Description: type here a short description of the desired main SMTP Server

Server IP Address / Url: the IP Address / Url of your SMTP server domain

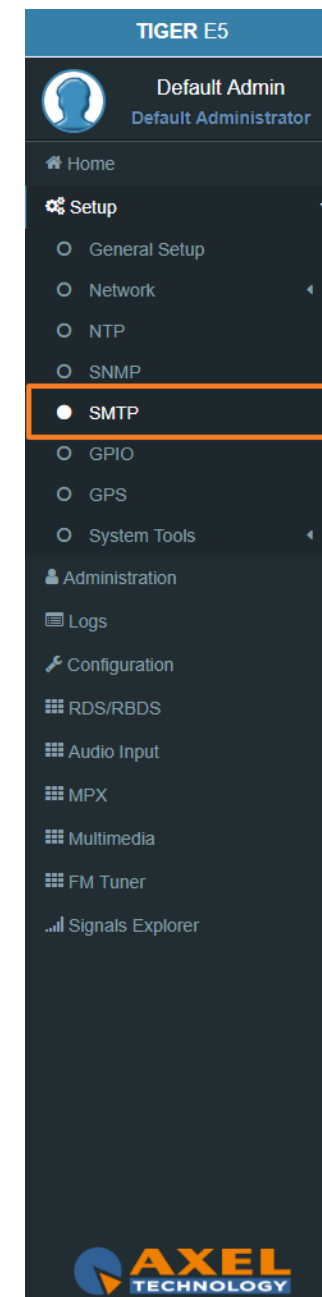
Port: TCP port for the communication

Security protocol: Network Security protocol

Authorization Method: choose the desired method from the list

Username: email username

Password: email password



3.2.6 GPIO

In **Setup > GPIO** you can setup all parameters related to the General Purpose **Input/Output**. Here you can define the behaviour of different **GPI** or **GPO** devices.

GPI Logic

GPIO (Setup)

GPI Logic

GPI 1	Positive Logic
GPI 2	Positive Logic
GPI 3	Positive Logic
GPI 4	Positive Logic
GPI 5	Positive Logic
GPI 6	Positive Logic

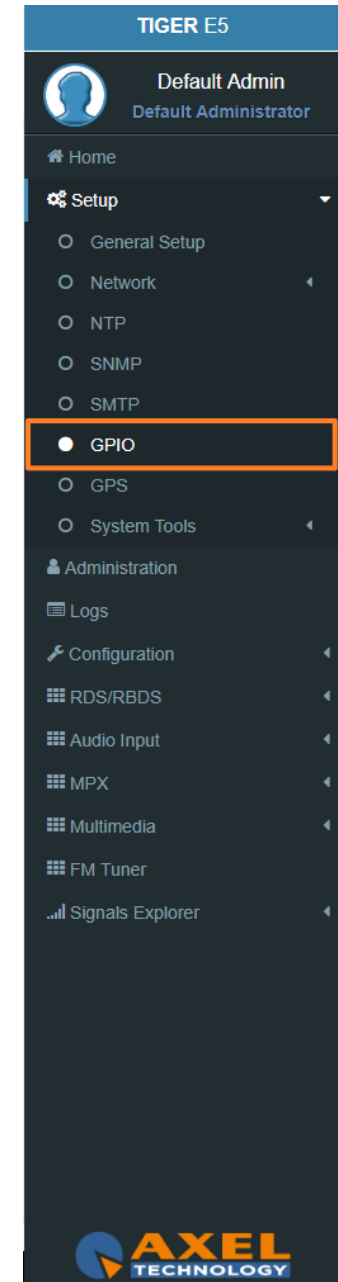
Positive Logic: the event is logged when the GPI circuit is closed.

Negative Logic: the event is logged when the GPI circuit is opened.

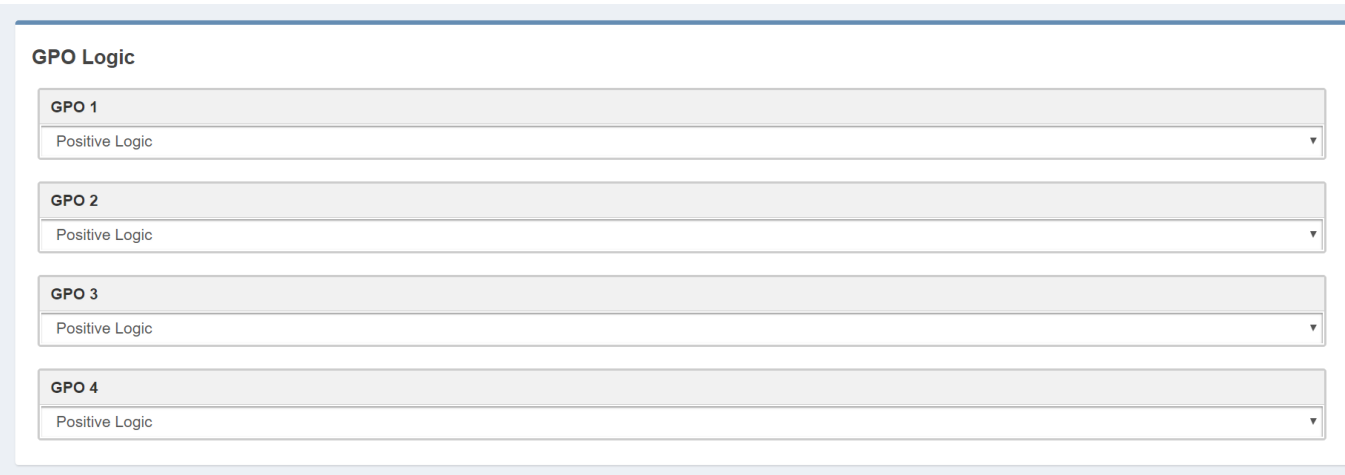
GPI Events: select masked but the GPI in action. Unmasked to not in action it.

GPI Events

unmasked
masked
 masked



GPO LOGIC



GPO Logic

GPO 1
Positive Logic

GPO 2
Positive Logic

GPO 3
Positive Logic

GPO 4
Positive Logic

Positive Logic: the generated event is the closing of the GPO circuit.

Negative Logic: negative logic: the generated event is the opening of the GPO circuit.

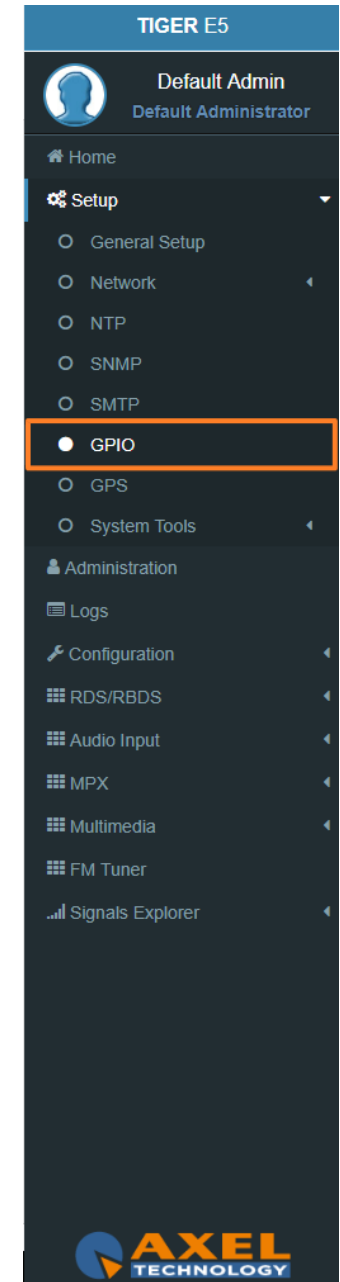
In **GPO Event Notifications** you can decide to root to the GPO device: no Event Source(OFF), to root all Event Sources(ON), to root a selected Event Source (for example, NTP Alarm).

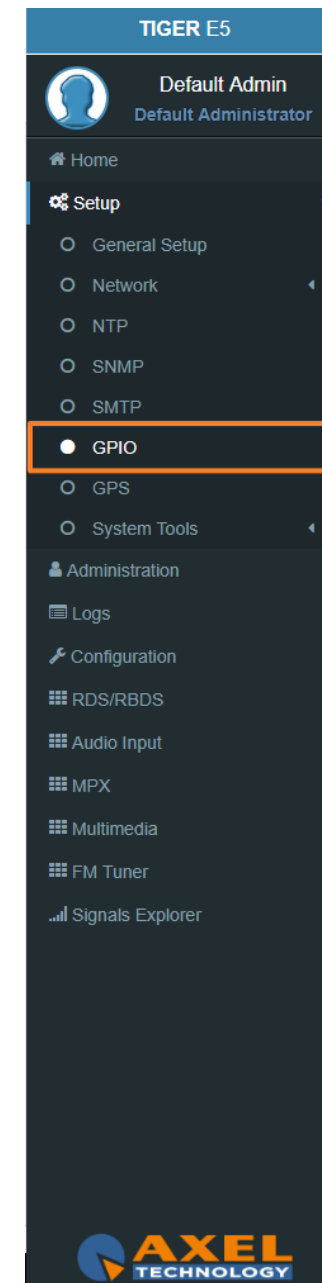
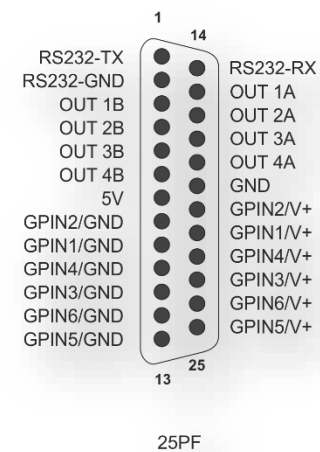
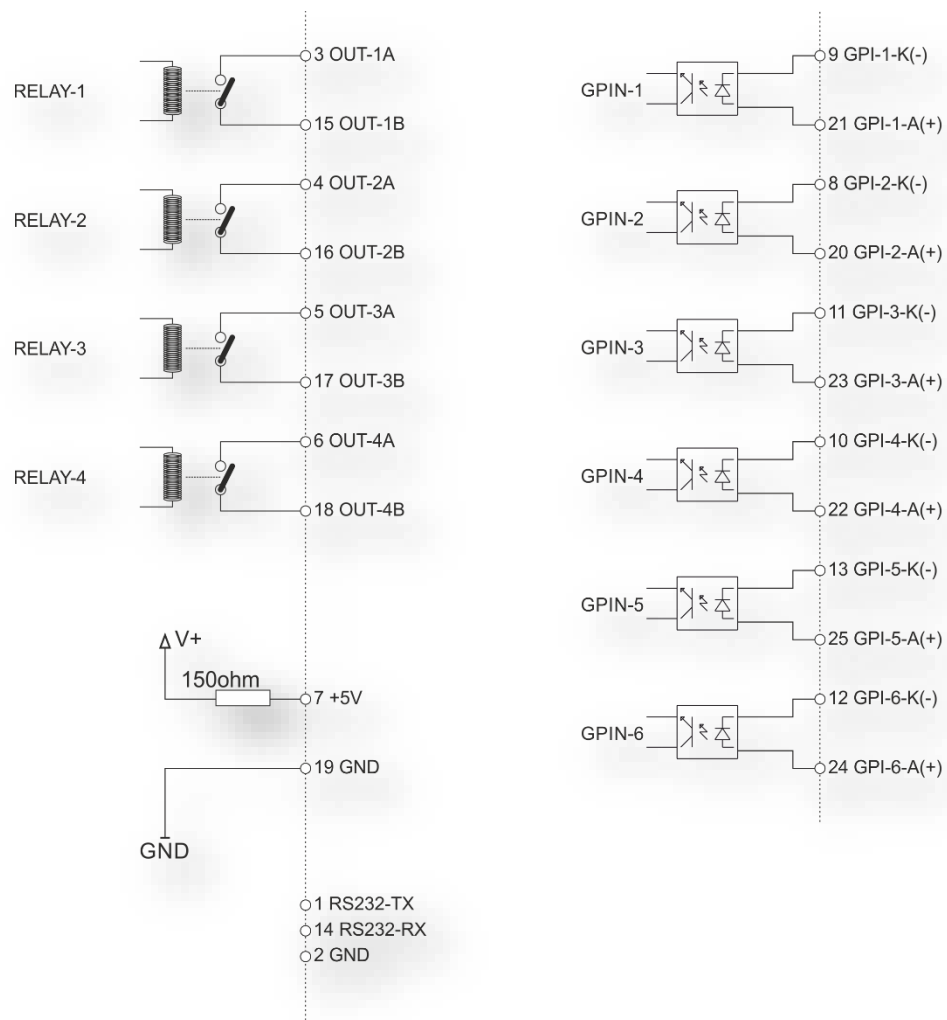
in every GPO menu select the event source that you want to listen, as shown in the following picture:



Off
On
SMTP Warning
SMTP Alarm
NTP Warning
NTP Alarm
GPI1 Event
GPI2 Event
GPI3 Event
GPI4 Event
GPI5 Event
GPI6 Event
GPS Alarm
Pilot Sync Alarm
Audio Inp MPX Decoder Alarm
Audio Aes Carrier Digital Alarm
Audio Inp Media Alarm
Audio Inp Analog Alarm
Audio Changeover Failure Alarm
Audio Inp Digital Alarm
Off

Pilot Sync Alarm: alarm starting when the frequency of the encoded RDS/RBDS signal is out of sync with an available external pilot(analogue MPX frequency / digital frequency by the SYNC/MPX inputs).

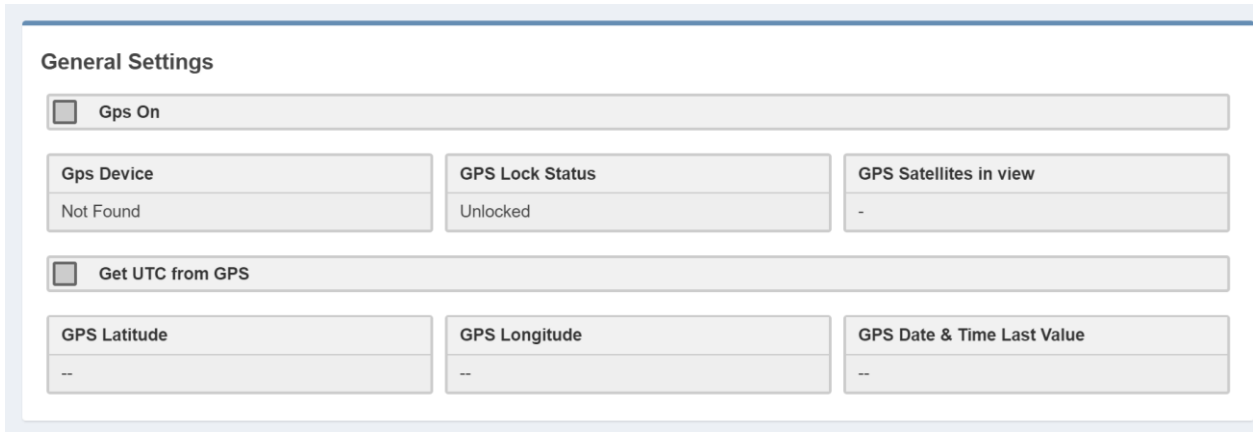




3.2.7 GPS

In [Setup > GPS](#) you can setup all parameters related to the **Global Positioning System**. Here you can define parameters for the desired **GPS** device for the satellite geolocation.

General Settings



Gps On: Enable/Disable the GPS device

Gps Device: Name of the GPS device connected

GPS Lock Status: Lock/Unlock the GPS status

GPS Satellites in view: Satellites Number in view

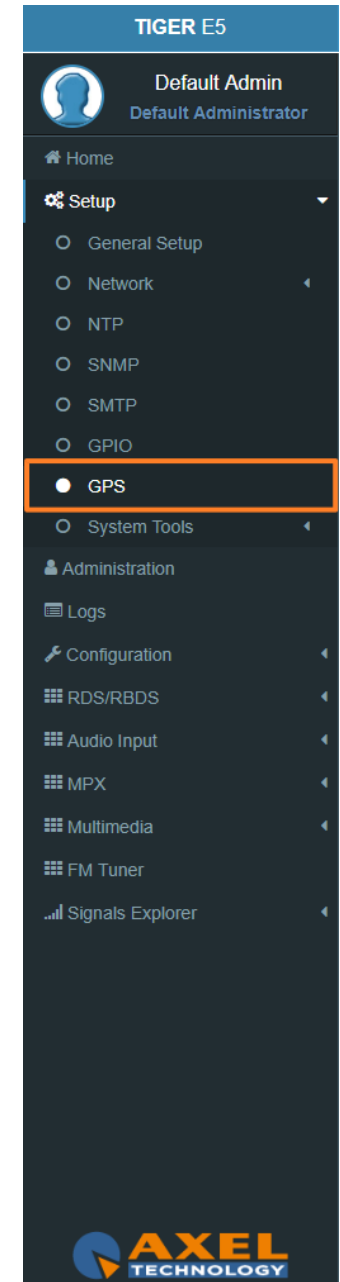
GPS Latitude: Type here the Latitude coordinate. If GPS is turned on this value is automatically inserted

GPS Longitude: Type here the Longitude coordinate. If GPS is turned on this value is automatically inserted

GPS Date & Time Last Value: Type here the Date and Time. If **Get UTC from GPS** is enabled this value is automatically inserted

GPS Events

Masked/Unmasked GPS Alarm: the alarm control logs a connection problem with the GPS device. Select Masked to enable the log or Unmasked to disable it



3.2.8 SYSTEM TOOLS

3.2.8.1 UPDATES

LOAD A NEW FIRMWARE FILE

To load a new firmware file inside the device you have to connect with it through an FTP Client (in this example we use Filezilla). The device must be reachable.

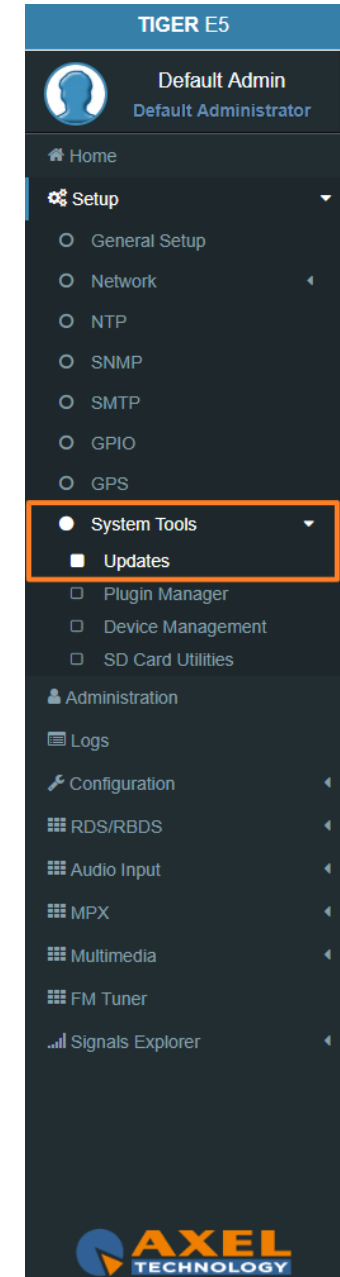
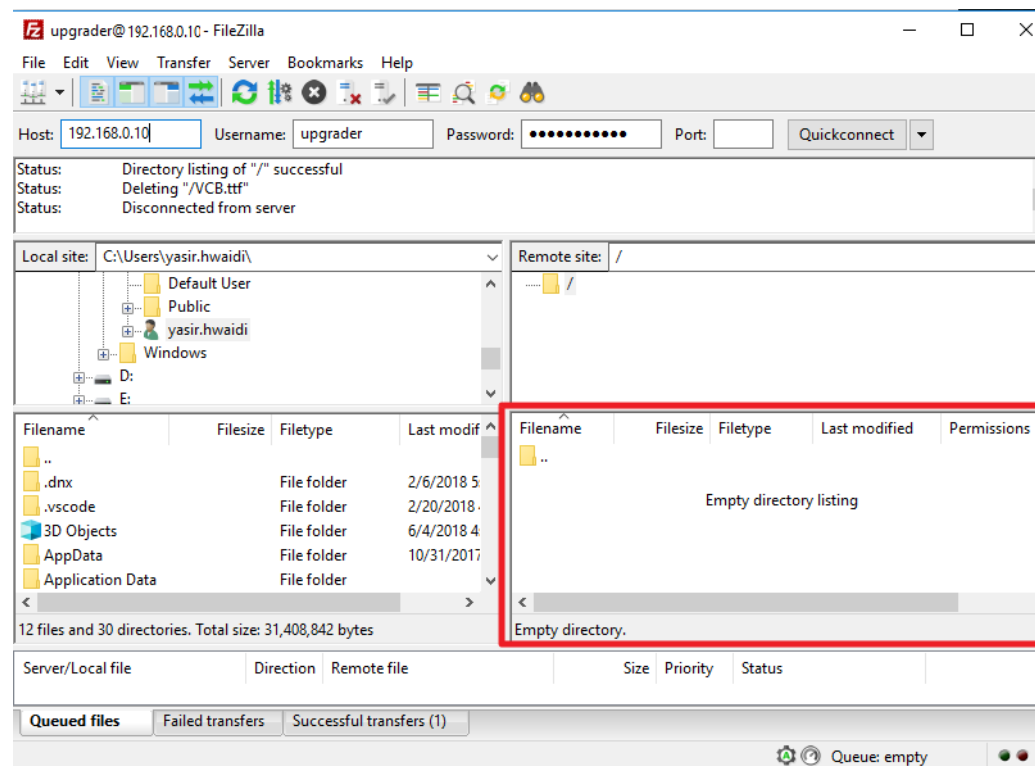
In the following line you can find for the FTP Credentials useful for the connections:

Host: **device IP** XXX.XXX.XXX.XXX User: **upgrader** Password: **ax-upgrader**

The FTP client will connect directly to the right upgrader folder (it will not be possible to navigate in different folders).

Paste the new firmware file in the red area as shown in the picture by drag and drop.

N.B: The update file must be provided by **AXEL TECHNOLOGY**.



FIRMWARE UPDATES

After uploading the update file into the **TIGER** by the FTP Client. Now we have to go to the TIGER web interface to login in and following this steps **SETUP > SYSTEM TOOLS > UPDATES**. By pushing the **Check for Firmware Updates** you will search if there is an FW update file available. If so, you can update the Firmware clicking on '**Update**' in the window that will appear. During this process, you should not shut down or reboot this device. When it is ready it will REBOOT the TIGER automatically. Finally, it will be ready to use.

Updates (Setup > System Tools)

Firmware Updates

Firmware Update

By pushing the button below you will search if there are FW update files available. If so, you can update the Firmware clicking on 'Upgrade' in the window. During this process you should not shutdown or reboot this device.

Check for Firmware Updates

Status

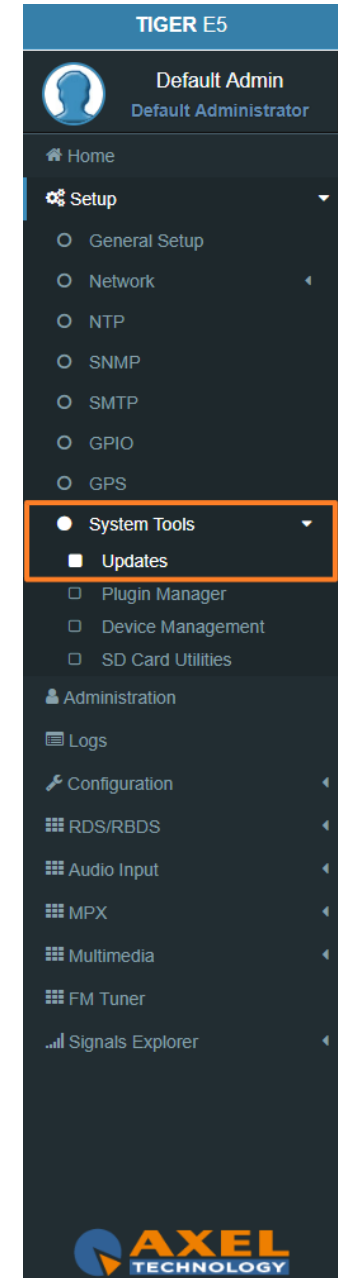
System Upgrades

System Upgrade

By pushing the button below you will search if there are System upgrade files available. Warning: If you upgrade System clicking on 'Upgrade' in the window this device will be rebooted.

Check for System Upgrades

Status



LOAD A NEW SYSTEM UPGRADE FILE

To load a new system upgrade file inside the device you have to connect with it through an **FTP Client** (in this example we use Filezilla). The device must be reachable.

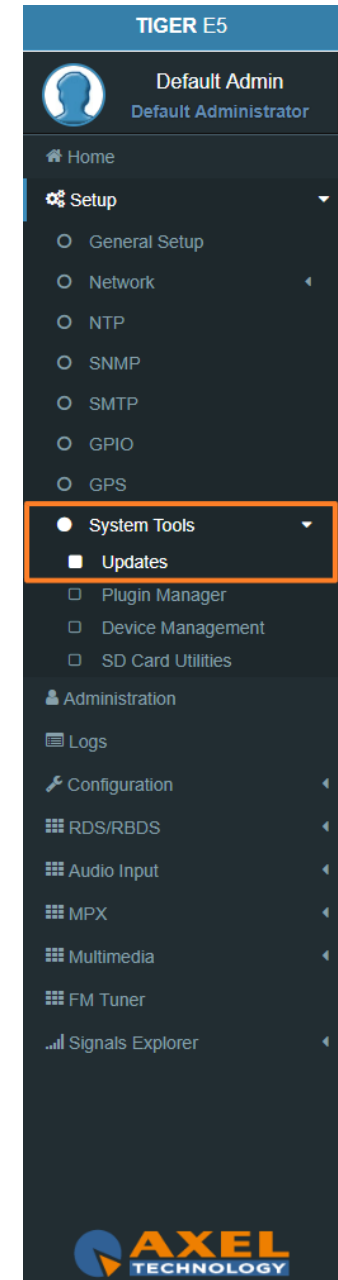
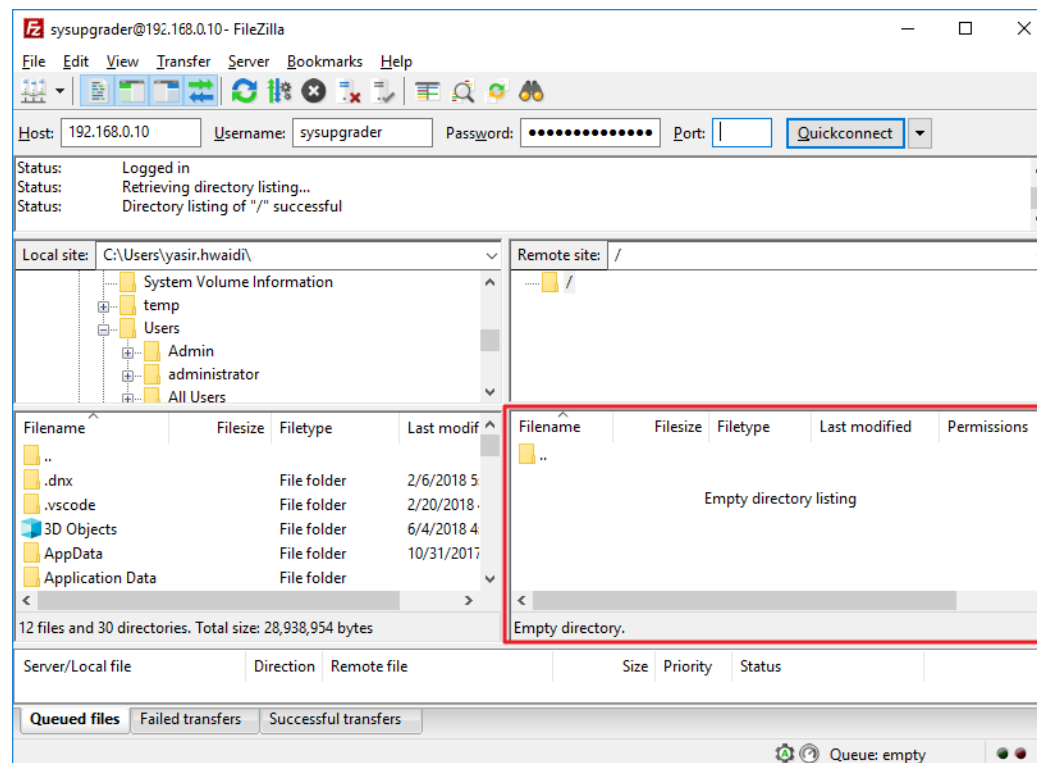
In the following line you can read for the FTP Credentials useful for the connections:

Host: **device IP XXX.XXX.XXX.XXX** User: **sysupgrader** Password: **ax-sysupgrader**

The FTP client will connect directly to the right upgrader folder (it will not be possible to navigate in different folders).

Paste the new firmware file “**SysUpgrade-XXX.tgz**” in the red area as shown in the picture by drag and drop.

N.B: The update file must be provided by **AXEL TECHNOLOGY**.



After uploading the system update file into the **TIGER** by the FTP Client. Now we have to go to the TIGER web interface to login in and following this steps **SETUP > SYSTEM TOOLS > UPDATES**. By pushing the **Check for system Upgrades** you will search if there is an FW update file available. If so, you can update the system by clicking on **'Upgrade'** in the window that will appear. During this process, you should not shut down or reboot this device. When it is ready it will REBOOT the TIGER automatically. Finally, it will be ready to use.

Updates (Setup > System Tools)

Firmware Updates

Firmware Update

By pushing the button below you will search if there are FW update files available. If so, you can update the Firmware clicking on 'Upgrade' in the window.
During this process you should not shutdown or reboot this device.

Check for Firmware Updates

Status

System Upgrades

System Upgrade

By pushing the button below you will search if there are System upgrade files available.
Warning: If you upgrade System clicking on 'Upgrade' in the window this device will be rebooted.

Check for System Upgrades

Status

TIGER E5

Default Admin

Default Administrator

Home

Setup

General Setup

Network

NTP

SNMP

SMTP

GPIO

GPS

System Tools

Updates

Plugin Manager

Device Management

SD Card Utilities

Administration

Logs

Configuration

RDS/RBDS

Audio Input

MPX

Multimedia

FM Tuner

Signals Explorer

AXEL

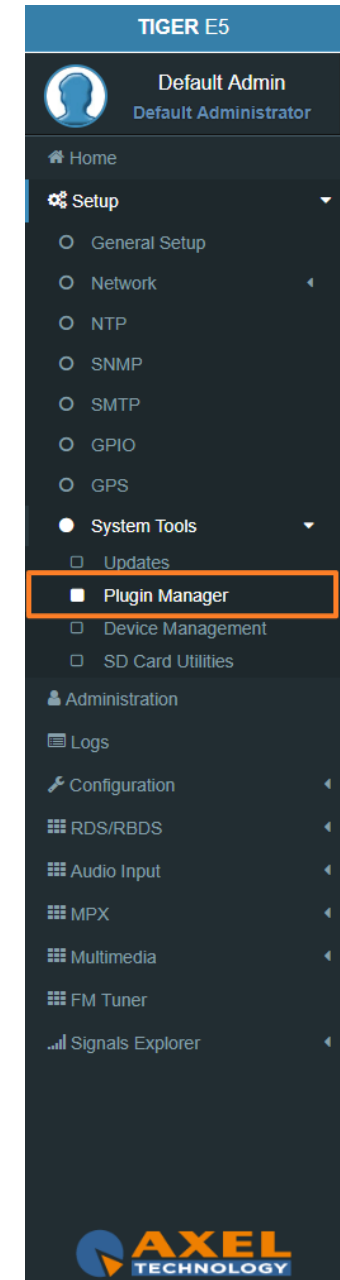
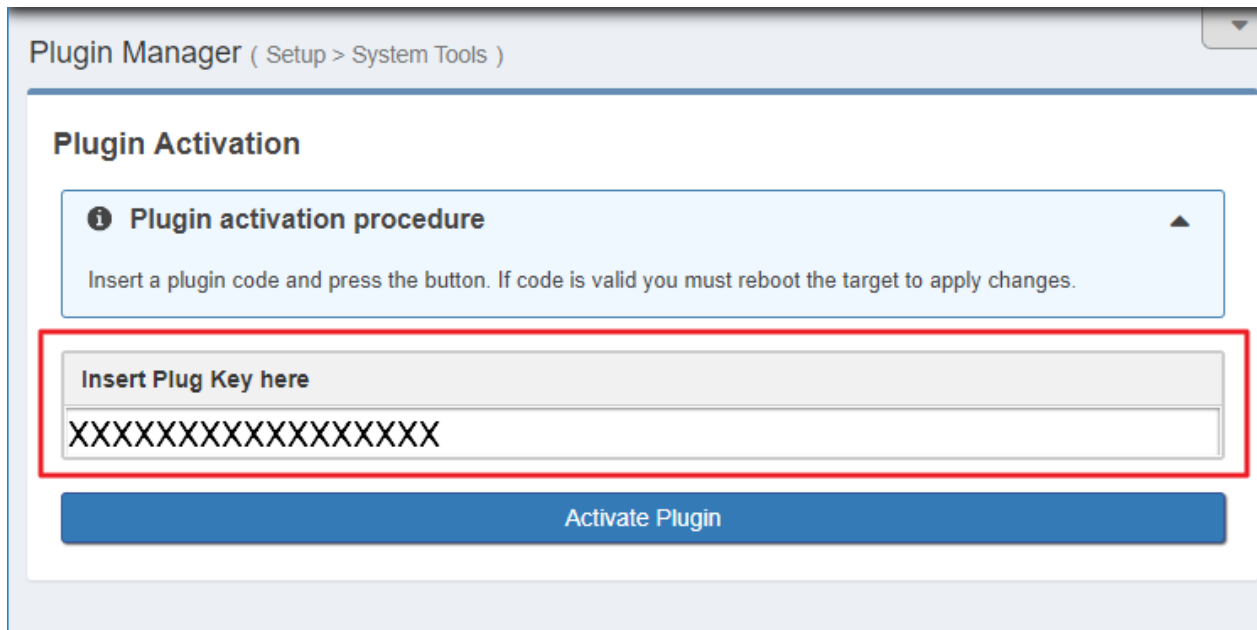
TECHNOLOGY

3.2.8.2 PLUGIN MANAGER

LOAD A NEW Plugin CODE

go to the TIGER web interface to login in and following this steps [SETUP > SYSTEM TOOLS > Plugin Manager](#). Copy your Plugin Code and paste it in the **(Insert Plugin Key here)** as shown in the next figure in the red rectangle. Now you have to click on the **Activate Plugin**. During this process, you should not shut down or reboot this device. When it is ready it will REBOOT the TIGER automatically. Finally, it will be ready to use.

N.B: The Plugin Code must be provided by **AXEL TECHNOLOGY**.



3.2.8.3 DEVICE MANAGEMENT

A. Reboot Device

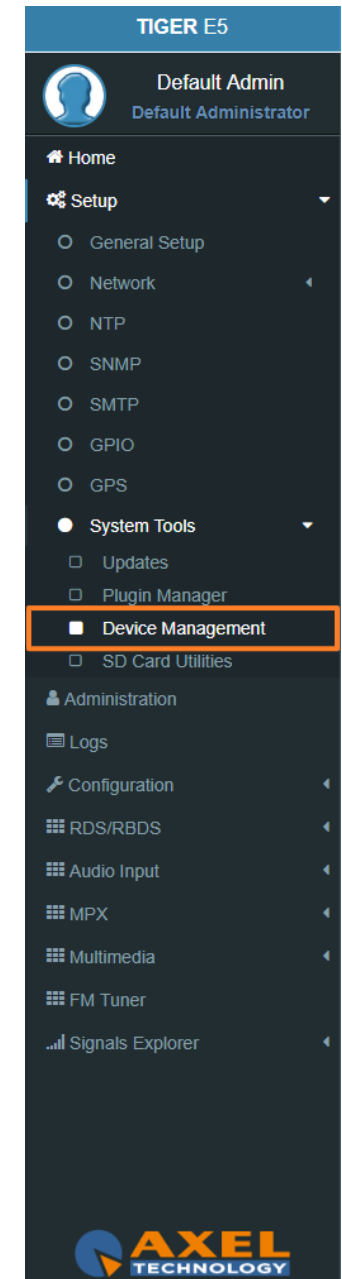
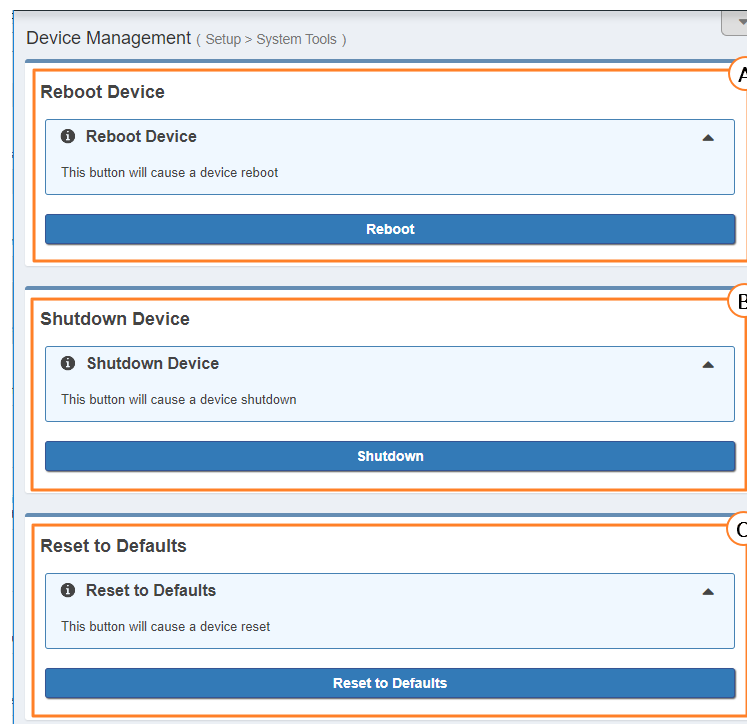
This button will cause a device reboot.

B. Shutdown Device

This button will cause a device shutdown.

C. Reset to Defaults

This button will cause a device reset.



3.2.8.4 SD CARD UTILITIES

SD STATUS

SD Found	SD Structure
No	Missing SD

SD Found: If an external SD is found, this status will be OK, otherwise to use the tools below you need to insert (or change) an SD card in the external back slot.

SD Structure: The external SD card must be formatted and prepared with a particular folder tree. If this status is not OK, you need to format & prepare it using the format button.

FORMAT AND PREPARE

This procedure will format the external SD card and prepares it to receive data.

CLONING TOOLS

Clone to SD	
Status	


<div> Cloning Device </div>	
Clone from SD	
Status	

Clone to SD: This procedure will create a clone data structure on the external SD card.

Clone from SD: This procedure will create a clone data structure from the external SD card.

Important: System will be offline for a few minutes.

TIGER E5



Default Admin
Default Administrator

Home

Setup

General Setup

Network

NTP

SNMP

SMTP

GPIO

GPS

System Tools

Updates

Plugin Manager

Device Management

SD Card Utilities

Administration

Logs

Configuration

RDS/RBDS


Audio Input

MPX

Multimedia

FM Tuner

Signals Explorer



3.3 ADMINISTRATION

In the Administration section, you can read, manage all the users and you can set their access permissions to the device. This section can be managed only by the Admin users.

Users List

Axel Technology - Administrator

Tester 1 - Super User



Selected user

Non selected user

remove button



confirm the selected user removal



add a new User

Users Administration Page

Users List

Yasir - Device Administrator

marco - User Administrator

Guest - Guest

Tom - Technician

Murice - Broadcaster



User Details (user name)

Full Name: User Name

E-Mail: user email

User Class: user class, here you can decide user permissions.



Discard Changes from the selected user



Change the password for the selected user



Save Changes for the selected user

User Details (admin)



Full Name

Default Admin

E-Mail

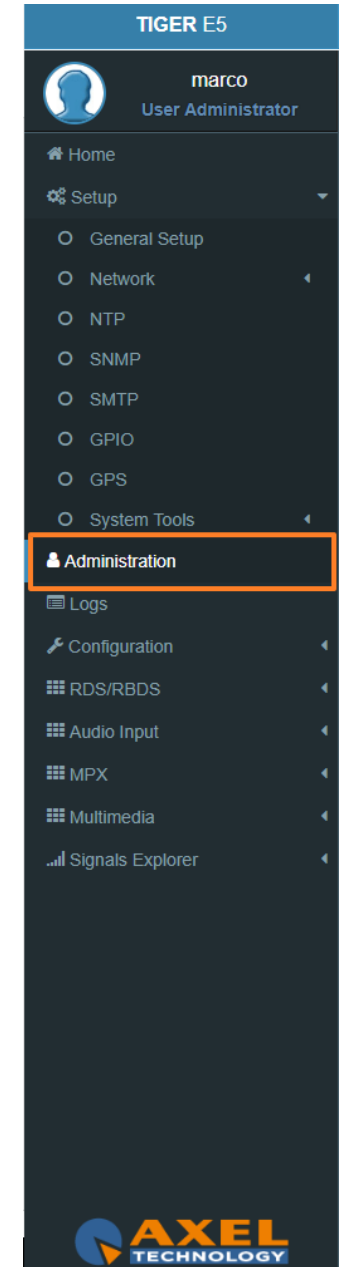
User Class

Default Administrator

User Class

Automatically generated full administrator

Description



3.3.1 USER CLASS – USER RIGHTS TO LOGIN THE SYSTEM

Full Administrator

The Full Administrator manages all user profiles, accesses all pages (except the calibration).

Default Administrator (Default User): The default administrator is the default user of the device, it is under the Full Administrator category, but it has fixed access credentials (user: admin – pwd: admin). This user is visible only when the system has no other Full Administrators.

User Administrator

User Administrator. It manages the profiles of all users.

Device Administrator

Non-administrator user that accesses all pages (it does not access to administration, calibration and some of the product nameplate data).

Technician

The technician is the one who controls all the hardware parameters of the machine and the control of information pages.

Broadcaster

It has full control only on information management pages and on the audio signal.

Guest/Reader

Guest accesses anywhere without being able to edit any parameter.

Below, a summary table with the list of product pages and access rights for each type of use:

Legend

RW: full access (read/write)

R: read-only user


H: hidid page

Page	Full Admin	User Admin	Device Admin	Technician	Broadcaster	Guest
Home	R	R	R	R	R	R
General Setup	RW	R	RW	RW	R	R
Network	RW	R	RW	RW	R	R
NTP	RW	R	RW	RW	R	R
SNMP	RW	R	RW	RW	R	R
SMTP	RW	R	RW	RW	R	R
GPIO	RW	R	RW	RW	R	R
GPS	RW	R	RW	RW	R	R
Updates	RW	R	RW	R	R	R
Device Management	RW	R	RW	R	R	R
SD Card Utilities	RW	R	RW	R	R	R
Administration	RW	RW	H	H	H	H
Logs	RW	RW	RW	RW	RW	R
Logs (Debug)	H	H	H	H	H	H
Configuration	RW	R	RW	RW	RW	R
Quick Rds Setup	RW	R	RW	R	R	R
Serial Ports	RW	R	RW	RW	R	R
Tcp/Ip Ports	RW	R	RW	RW	R	R
UDP/SNMP Ports	RW	R	RW	RW	R	R
Uecp Addressing	RW	R	RW	RW	R	R
Rds Settings	RW	R	RW	RW	R	R
Real Time Clock	RW	R	RW	RW	R	R
Uecp Services	RW	R	RW	R	RW	R
Uecp Main PS	RW	R	RW	R	RW	R
Uecp Main AF	RW	R	RW	R	RW	R
Uecp Radiotext	RW	R	RW	R	RW	R
Uecp Eon PS	RW	R	RW	R	RW	R
Uecp Eon AF	RW	R	RW	R	RW	R
Extended Dataset	RW	R	RW	R	RW	R
Extended PS Name	RW	R	RW	R	RW	R
Extended Radiotext	RW	R	RW	R	RW	R
Extended TA & M/S	RW	R	RW	R	RW	R

Extended Pty&Pty	RW	R	RW	R	RW	R
RDS Blocks Analysis	R	R	R	R	R	R
Audio Input Sources: Analogic	RW	R	RW	RW	RW	R
Audio Input Sources: Digital	RW	R	RW	RW	RW	R
Audio Input Sources: Multimedia	RW	R	RW	RW	RW	R
Audio Input Sources: MPX Decoder	RW	R	RW	RW	RW	R
Audio Input Sources: Audio Generator	RW	R	RW	RW	RW	R
Audio Input Sources: Output Monitor	RW	R	RW	RW	RW	R
Audio Input: Changeover	RW	R	RW	RW	RW	R
Audio Input:Audio Analysis	RW	R	RW	RW	RW	R
Internal MPX Encoder	RW	R	RW	RW	RW	R
MPX Changeover: Delay	RW	R	RW	RW	RW	R
MPX Changeover: Source A	RW	R	RW	RW	RW	R
MPX Changeover: Source B	RW	R	RW	RW	RW	R
MPX Outputs	RW	R	RW	RW	RW	R
MPX Analysis	RW	R	RW	RW	RW	R
Multimedia Stramer: Encoder	RW	R	RW	RW	RW	R
Multimedia Stramer: Decoder	RW	R	RW	RW	RW	R
Multimedia Output	RW	R	RW	RW	RW	R

3.3.2 ADDING A NEW USER

To add a New User read the following steps:

1. Click on  Add a New User button
2. Type in the following fields the new user details:

User Name: New User name

Full Name: New User full name


E-Mail: New User email address

User Class: Select here the new user class

Password: New User Password

Password(Confirm): Password confirmation

New User Details



User Name

Full Name


E-Mail


User Class



Administrator

Password

Password (Confirm)

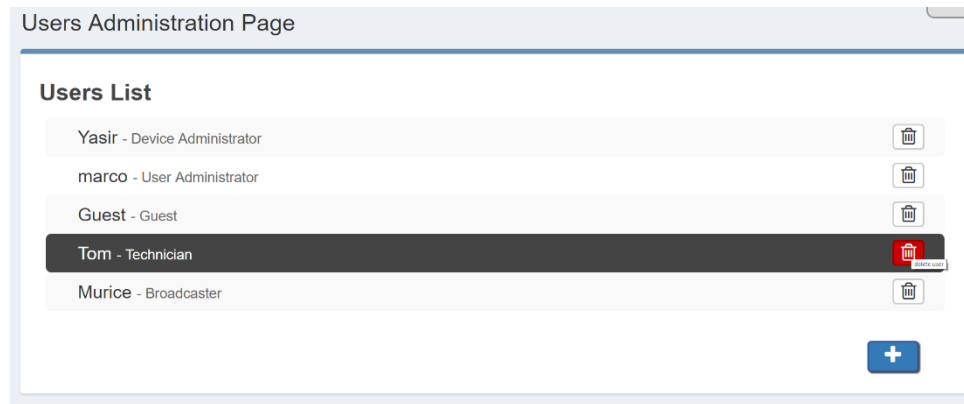







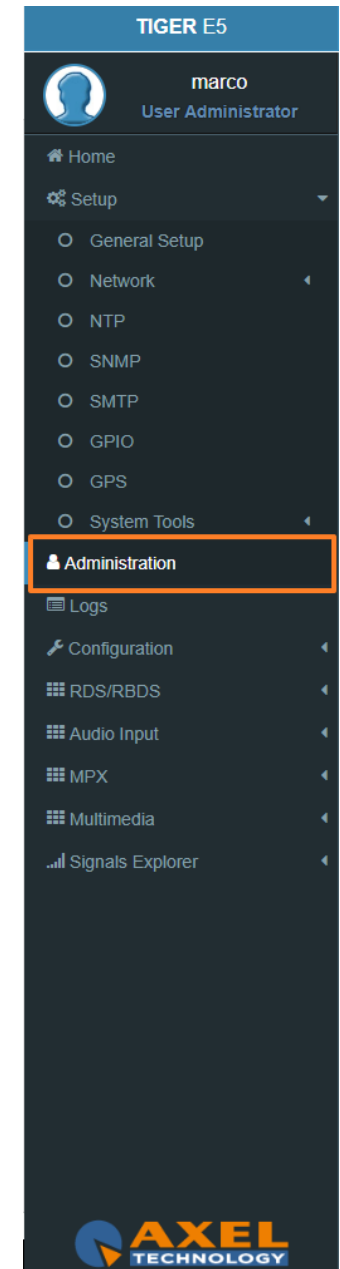
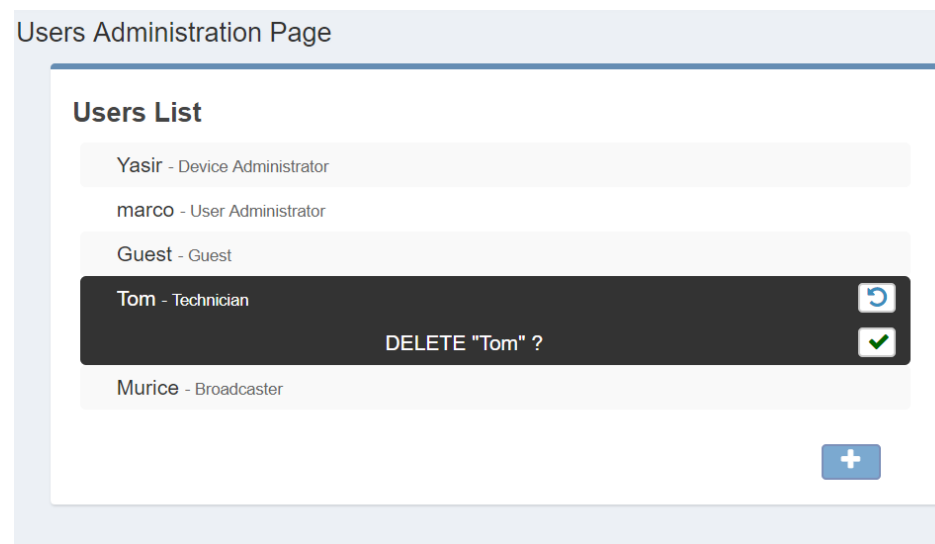
3. click on  to discard last changes or click on  to save for them.

3.3.3 REMOVING AN EXISTING USER.

To remove an Existing User read the following steps:



1. Move the mouse to the desired user.
2. Click on the delete button. 
3. In the following mask Click on  to exit from the user deletion or click on  to confirm his deletion.



3.4 LOGS

In the Logs section, you can read for all the device Log list.

You can see four Logs Section. For every section, you can do Refresh, Load All Logs from the device beginning or you can Clear it. All user classes can click some of these three buttons.

Logs - User Permissions:

Administrator, technician, broadcaster, default administrator - Logs Read&Write, Logs Debug Hide)

Super Technician(Logs Hided, Logs Debug Read&Write)

Guest (Logs Read&Write, Logs Debug Hide)

3.4.1 USERS LOGS

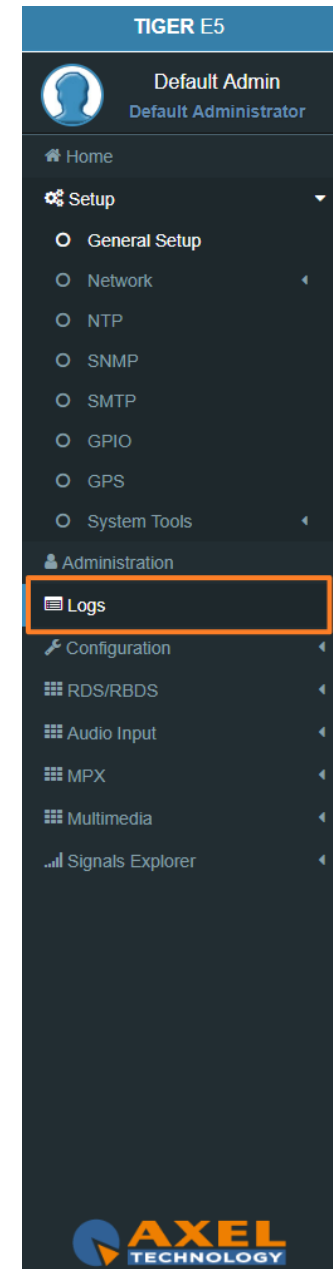
In this section, you can read for the user logs changes or user logins or logouts.

3.4.2 EVENTS LOGS

In this section, you can read for the logs of all detected events if they are **unmasked** in the related section.

3.4.3 NOTIFICATIONS LOGS

In this section, you can read for the logs of sent notifications or alarms.



3.5 CONFIGURATION

3.5.1 IMPORT/EXPORT

Import/Export (Configuration)

Configuration

Import/Export Module Filters

☒ System
 ☒ Rds
 ☒ Audio
 ☒ Mpx
 ☒ Multimedia

Status

[2018-06-28 16:20:53] Configuration imported successfully.

Import: Import an existing .cnf file (json format) with all **TIGER E3/E5** configs.

Export: Export a .cnf file (JSON format) with all **TIGER E3/E5** configs in the desired folders.

Presets (Configuration)


User Presets

Preset Name	System	RDS	Audio	MPX	Multimedia
Pollo			✓		
test	✓				
test2					
test3	✓		✓		

Save new preset

Preset Name	System	RDS	Audio	MPX	Multimedia
	✓	✓	✓	✓	✓

TIGER E5


Default Admin
 Default Administrator

[Home](#)
[Setup](#)
[Administration](#)
[Logs](#)
[Configuration](#)

- Import/Export**
- Presets
- Easy Config

[RDS/RBDS](#)
[Audio Input](#)
[MPX](#)
[Multimedia](#)
[Signals Explorer](#)

AXEL TECHNOLOGY

3.5.2 EASY CONFIG

Basic Configs

From this quick setup, you can set the basic **TIGER E3/E5** parameters to make your radio come to life in a few simple steps.

Single audio source with MPX & RDS generation

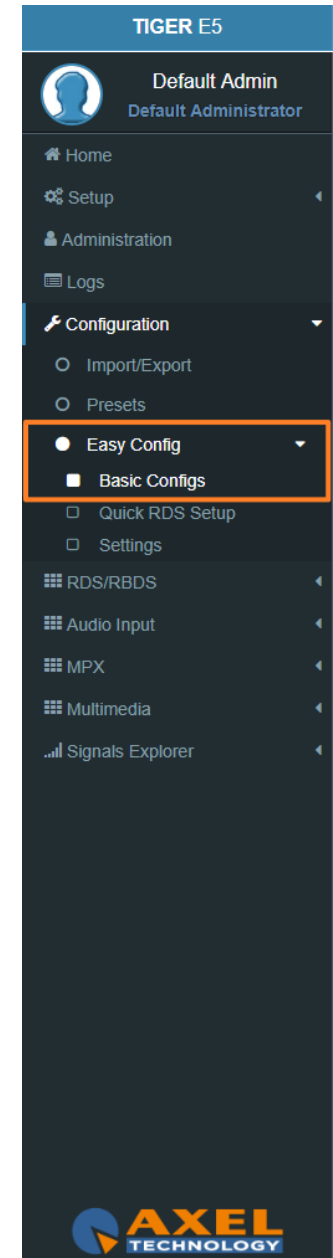
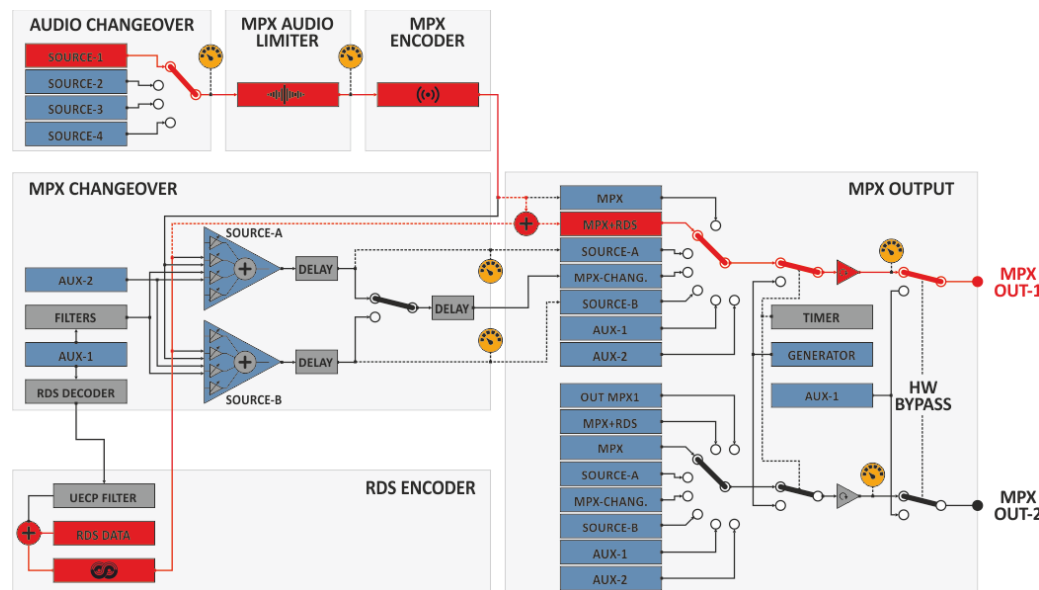
In this case, the Audio Changeover selects only the audio **source-1**. It forwards the selected audio signal to the Internal **MPX Generator** and combines the MPX with the RDS signal encoded by the Internal RDS Encoder.

In **Audio Input > Sources** choose between Analogic, Digital, Multimedia, Mpx Decoder, Audio Generator, Output Monitor and set all the related parameters.

In **Audio Input > Changeover** set the source-1 that your audio changeover can select and send to the Internal MPX Generator.

In **MPX > Internal MPX Encoder** set the parameters related with the MPX Encoder.

In **RDS/RBDS** set all the parameters of the Internal RDS Encoder.



Double audio sources with audio changeover, MPX & RDS generation

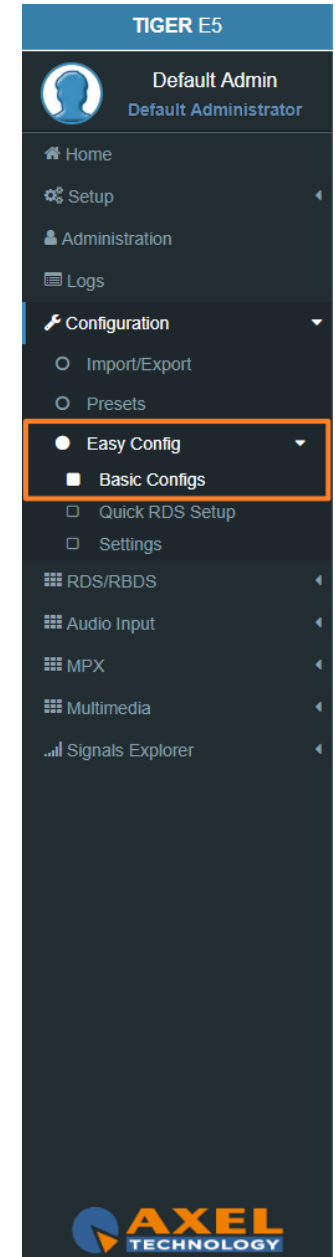
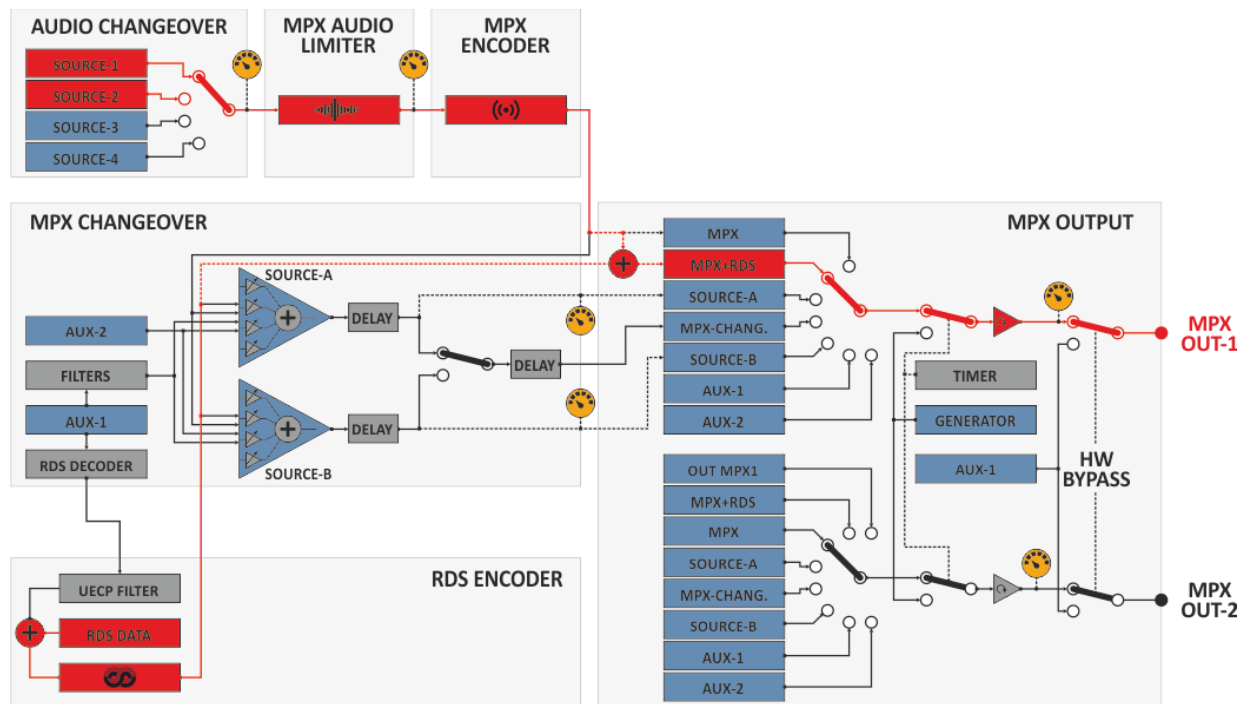
In this case, the Audio Changeover can select between audio **source-1** and **source-2**. It forwards the selected audio signal to the Internal **MPX Generator** and combines the **MPX** with the **RDS** signal encoded by the **Internal RDS Encoder**.

In **Audio Input > Sources** choose between Analogic, Digital, Multimedia, Mpx Decoder, Audio Generator, Output Monitor and set all the related parameters.

In **Audio Input > Changeover** set the source-1 and the source-2 that your audio changeover can select and send to the Internal MPX Generator.

In **MPX > Internal MPX** Encoder set the parameters related with the MPX Encoder.

In **RDS/RBDS** set all the parameters of the Internal RDS Encoder.

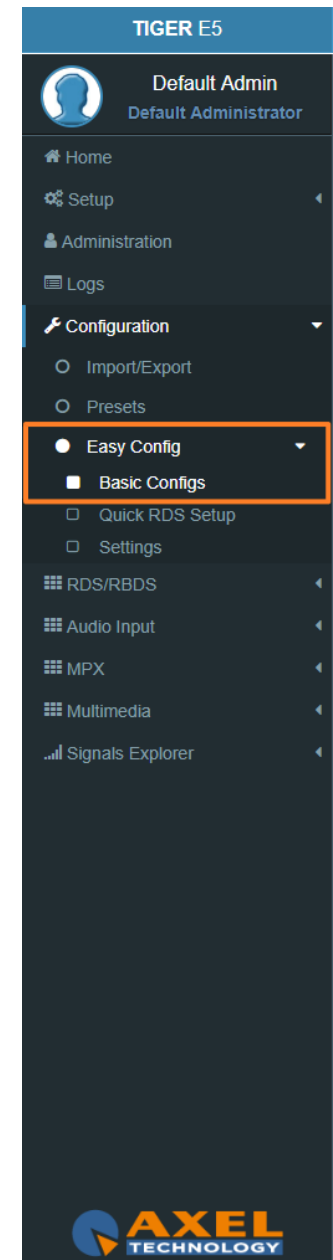
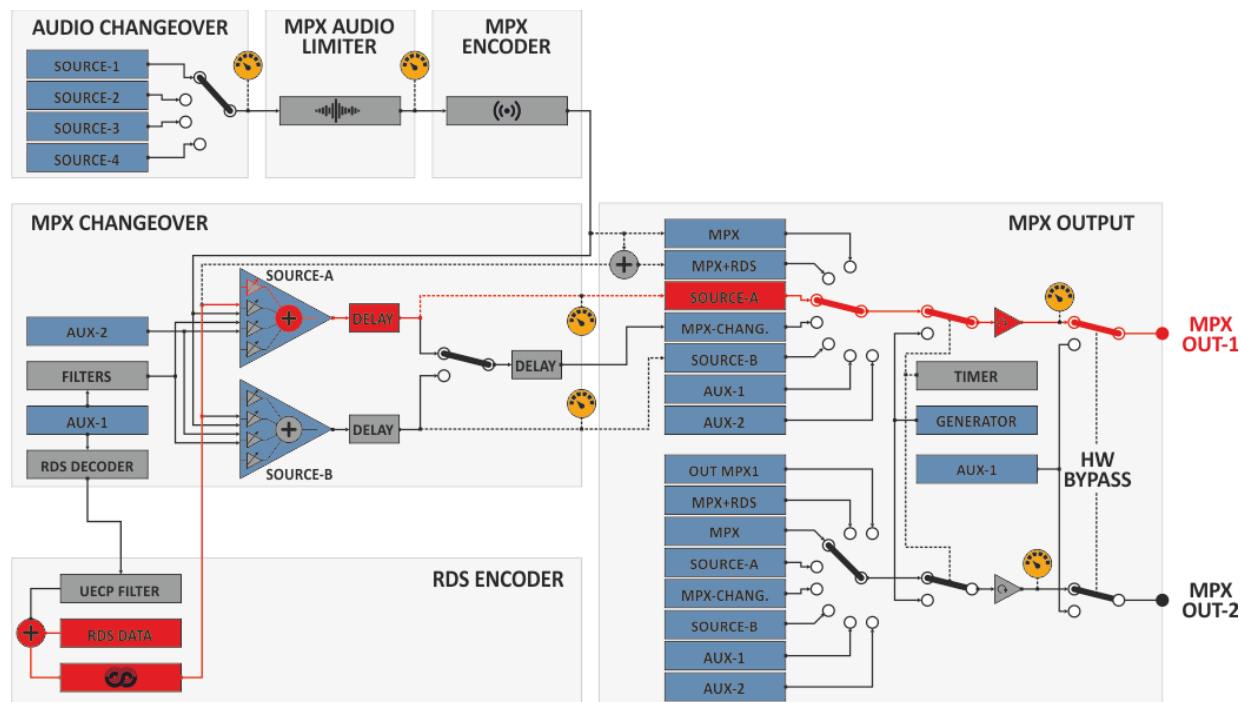


RDS generator configuration

Information In this case the Internal **MPX Generator** supplies the RDS signal encoded by the Internal **RDS Encoder**.

In **MPX > Internal MPX Encoder** set the parameters related with the MPX Encoder.

In **RDS/RBDS** set all the parameters of the Internal RDS Encoder.



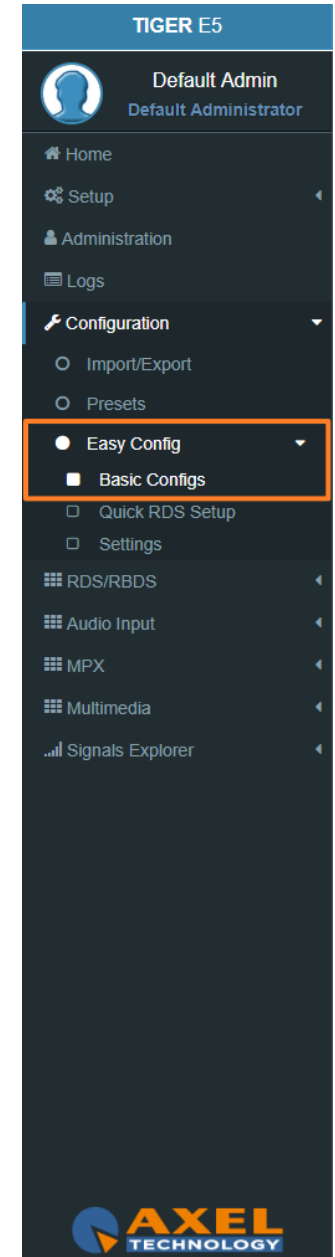
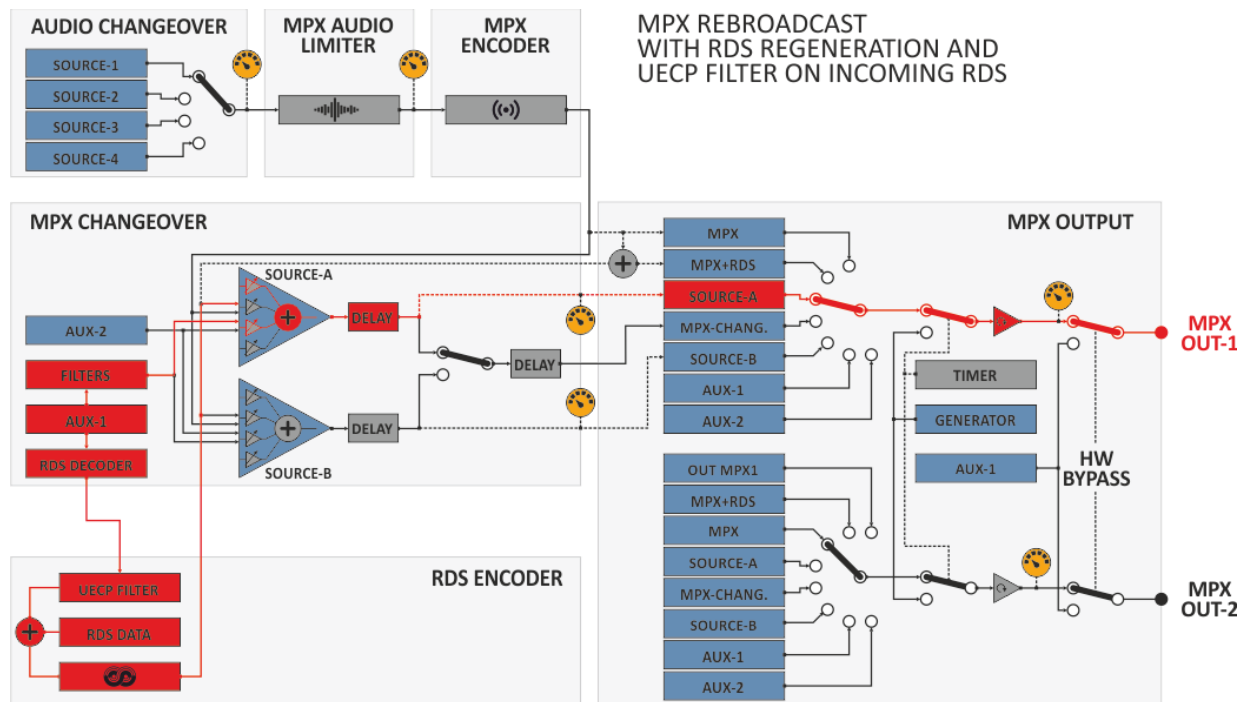
MPX rebroadcast with RDS regeneration and UECP filter on incoming RDS

In this case, **Mpx Changoever** takes the **Aux-1 Mpx** source and uses its Audio. The **RDS** comes from the Internal **RDS Encoder** and from the **Aux-1 Rds Uecp Filter**.

In **MPX > Changoever > Source A** put the Internal **MPX** Mix in Off, and turn on the External **Aux1** Mix and the Internal Rds Mix.

From **MPX > Changoever > Source A > MPX Source A** RDS Rebroadcasting select which services you want to rebroadcast from **Aux-1**.

In **RDS/RBDS** set all the parameters of the Internal RDS Encoder.



Double audio sources with audio changeover and MPX changeover with MPX backup source

In this case, the **MPX Changeover** can select between **Source A** and **Source B**.

Source-A = Internal MPX Generator + Internal RDS Encoder. The Internal MPX Generator could receive from the Audio Changeover (audio Source-1 or Source-2).

Source B = audio from Aux-1 + Internal RDS Data.

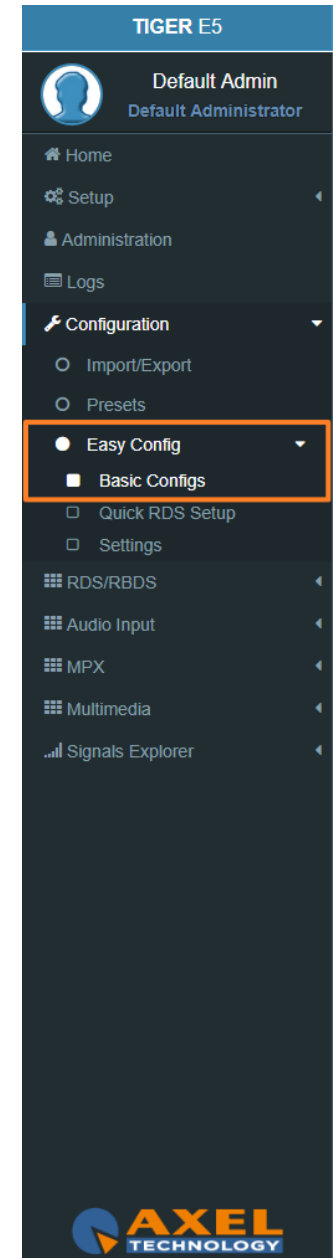
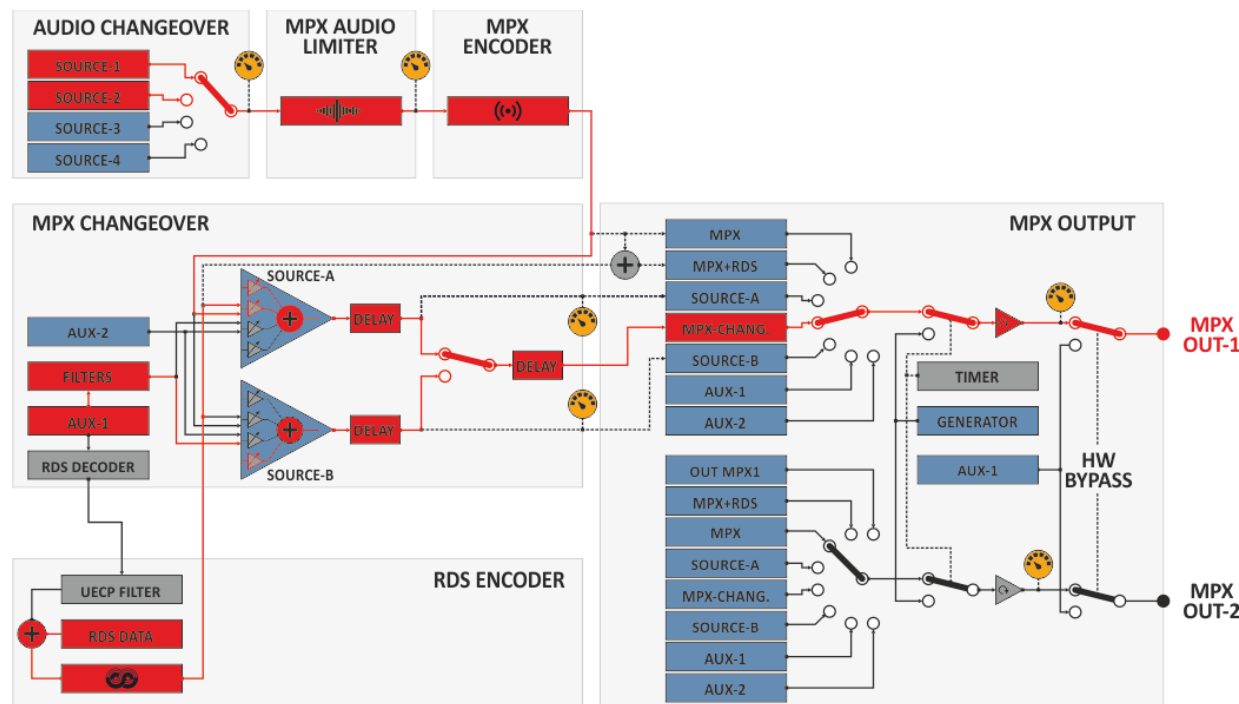
In **Audio Input > Sources** set the parameters related to the sources.

In **Audio Input > Changeover** set only Source1 and Source 2.

In **MPX > Changeover > Source A** turn on the Internal Mpx Mix and the Internal Rds Mix.

In **MPX > Changeover > Source B** turn on the External Aux Mix.

In **MPX > Outputs > Mpx Outputs 1** select Changeover



Double audio sources with audio changeover and MPX changeover with MPX main source

In this case, the Mpx Changeover can select between Source A and Source B.

Source-A =audio from Aux-1 + Aux 1 RDS.

Source B = Internal MPX Generator + Internal RDS Encoder. The Internal MPX Generator could receive from the Audio Changeover audio (Source-1 or Source-2).

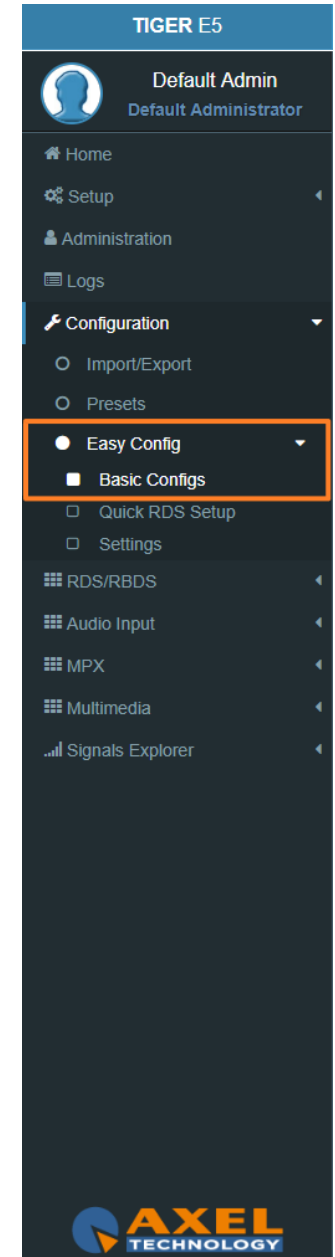
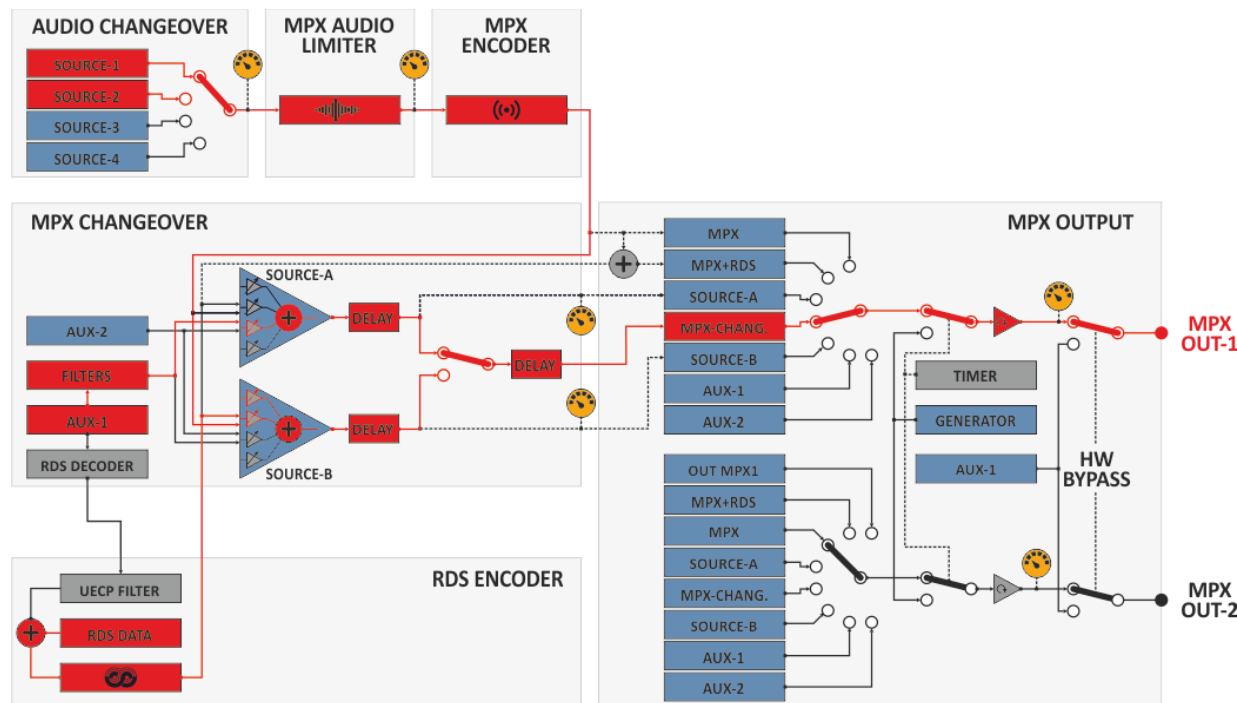
In **Audio Input > Sources** set the parameters related to the sources.

In **Audio Input > Changeover** set only Source1 and Source 2.

In **MPX > Changeover > Source A** turn on the External Aux Mix.

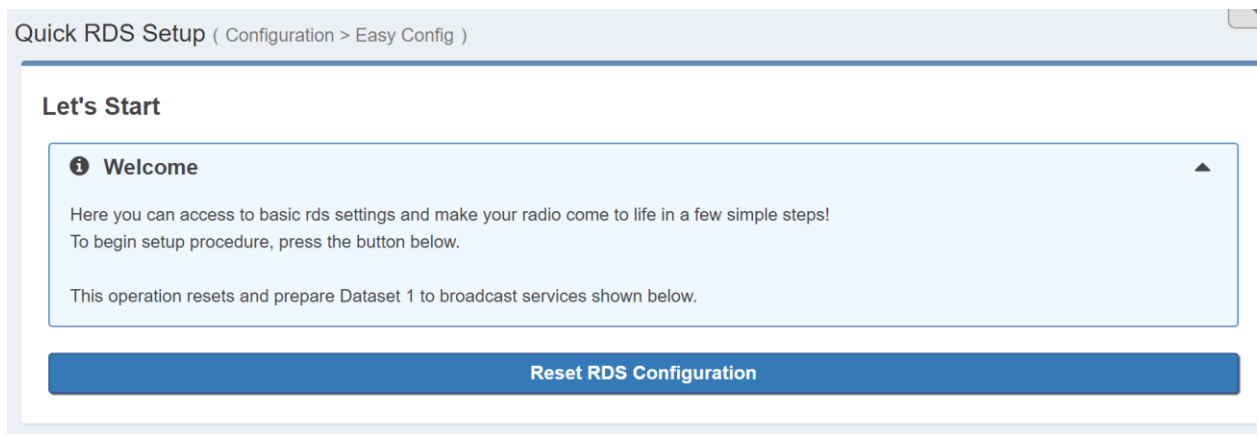
In **MPX > Changeover > Source B** turn on the Internal Mpx Mix and the Internal Rds Mix.

In **MPX > Outputs > Mpx Outputs 1** select Changeover.

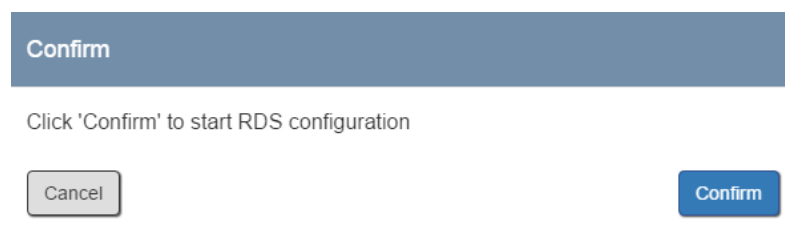


Quick Setup Menu:

From this quick setup, you can set the basic RDS parameters to make your radio come to life in a few simple steps. To begin the quick setup procedure. The pressure of this button resets and prepare “**Dataset 1**” to broadcast services shown below.



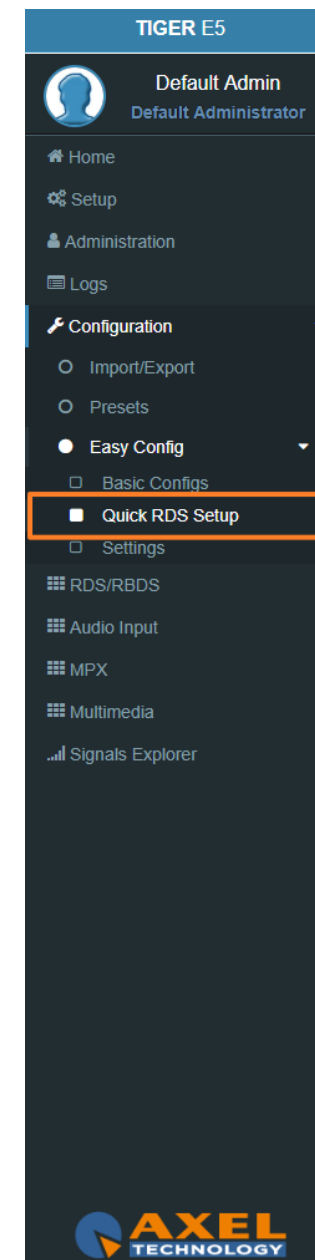
To start the RDS configuration click on **Confirm**



Go down on the same page, read the instructions until the end of the page and fill all the parameters. You can set all the most important RDS Parameters. **In this way, you can be immediately ONAIR with your RDS.** We suggest you change device Network Ip Address and to create the Users that you need.

Data set

Data set it's the whole RDS setup that you can create. You can find available from **DATASET1** up to **DATASET8**. This gives you more ability to change all parameters needed in one click. [RDS/RBDS>Basic Settings>Active Dataset Selection](#).



3.6 RDS/RBDS

In RDS/RBDS section you can set all the parameters from RadioText to AF, from EON to PTY/PTYN. You can also set all Extended RDS/RBDS parameters.

In this section, you can setup all the parameters.

3.6.1 UECP PORTS (UNIVERSAL ENCODER COMMUNICATIONS PROTOCOL)

From this section, you can set communication parameters with available remote devices. These devices must be able to send UECP packets from their serial ports. [Version UECP_7_05_100224 standard](#).

3.6.1.1 SERIAL PORTS

Serial Port setup

To interface properly target's serial ports the right configuration must be set as described below:

Data: 8 bits, Stop bits: 1, Parity: None and Flow control: None.

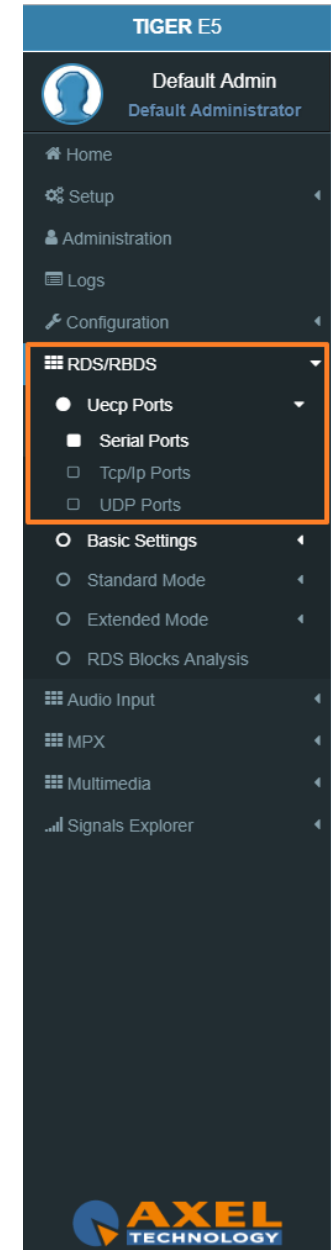
Serial 1&2 Port Configuration

Serial 1 Port Configuration	Serial 2 Port Configuration
Speed 38400 bps	Speed 38400 bps
Communication Mode Bidirectional Requested	Communication Mode Bidirectional Requested
Timeout No Action	Timeout No Action

Speed: No action, 75 bps -115200 bps.

Communication Mode: Unidirectional, Bidirectional Spontaneous, Bidirectional Requested.

Timeout: No action, 1 min - 10 min, Inactive.



3.6.1.2 TCP/IP PORTS

From this section, you can set communication parameters with available remote devices. These devices must be able to send UECF packets through the TCP/IP protocol.

TCP/IP Port addresses

Target's TCP/IP ports are reachable at:

Tcp/Ip Port 1: 10000, Tcp/Ip Port 2: 10001, Tcp/Ip Port 3: 10002, Tcp/Ip Port 4: 10003.

Tcp/Ip 1, 2, 3 & 4 Port Configuration

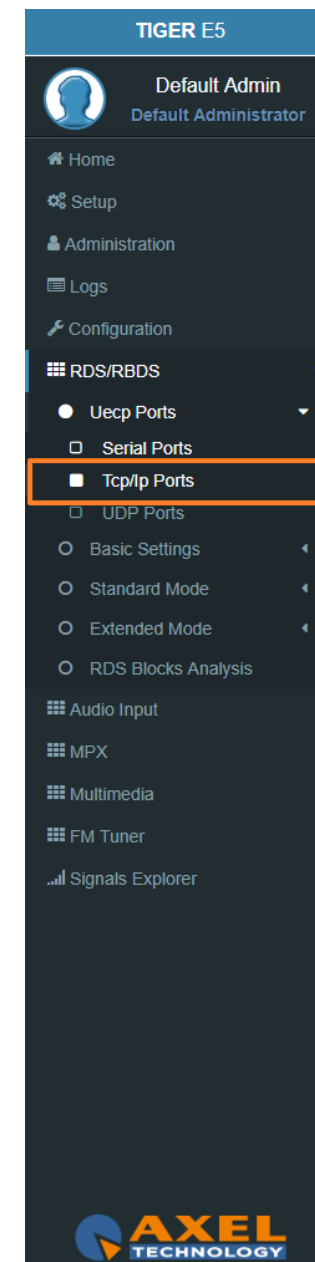
Tcp/Ip 1 Port Configuration	Tcp/Ip 2 Port Configuration
Mode Normal Priority	Mode Normal Priority
Communication Mode Bidirectional Requested	Communication Mode Bidirectional Requested
Timeout No Action	Timeout No Action

Tcp/Ip 3 Port Configuration	Tcp/Ip 4 Port Configuration
Mode Normal Priority	Mode Normal Priority
Communication Mode Bidirectional Requested	Communication Mode Bidirectional Requested
Timeout No Action	Timeout No Action

Mode: No Action, Low Priority, Normal Priority, High Priority.

Communication Mode: Unidirectional, Bidirectional Spontaneous, Bidirectional Requested.

Timeout: No action, 1 min - 254 min, Inactive.



3.6.1.3 UDP & SNMP PORTS

From this section, you can set communication parameters with available UDP remote devices. These devices must be able to send UECF packets through UDP protocol.

UDP Port addresses

Target's UDP ports are reachable at:

Udp Port 1: 11000, Udp Port 2: 11001, Udp Port 3: 11002, Udp Port 4: 11003.

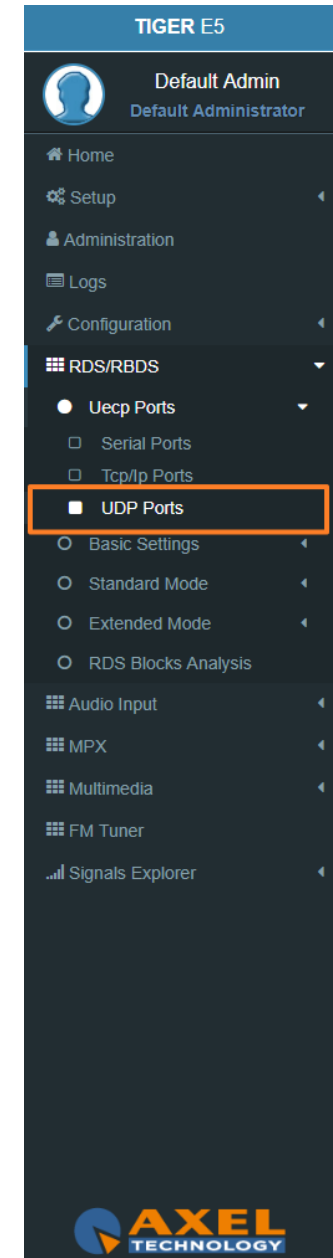
UDP 1, 2, 3 & 4 Port Configuration

UDP 1 Port Configuration	UDP 2 Port Configuration
Mode No Action	Mode Normal Priority
Timeout No Action	Timeout No Action

UDP 3 Port Configuration	UDP 4 Port Configuration
Mode Normal Priority	Mode Normal Priority
Timeout No Action	Timeout No Action

Mode: No Action, Low Priority, Normal Priority, High Priority

Timeout: No action, 1 min - 254 min, Inactive



3.6.2 BASIC SETTINGS

3.6.2.1 UECP ADDRESSING

The recipient encoder, getting UECP data frames from remote devices, must be identifiable by a unique address: **Site (Zone) + Encoder ID**. The remote devices will send UECP data frames to recipients through this addressing data couple. For example, a UECP data frame could be sent to all RDS devices of the desired Site or to the same Encoder ID of all Sites.

This section is used to set the individual device UECP address. In **Individual Address** set RDS site number and encoder number.

Individual Address



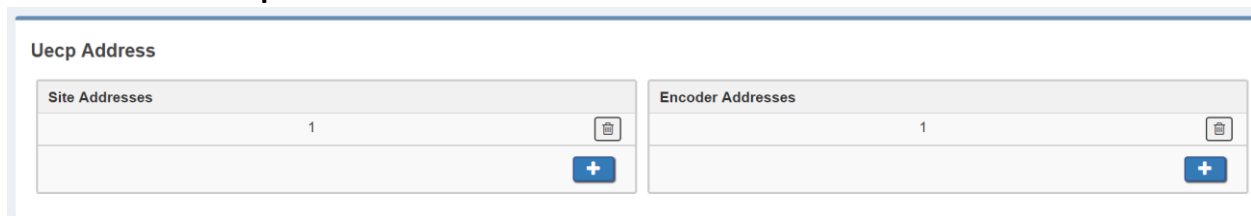
The form titled "Individual Address" contains two input fields. The first field, labeled "Site", has the value "2". The second field, labeled "Encoder", has the value "3".

Site(Zone): assign to your device the desired site number

Encoder: assign to your device a desired encoder ID number

Uecp Address

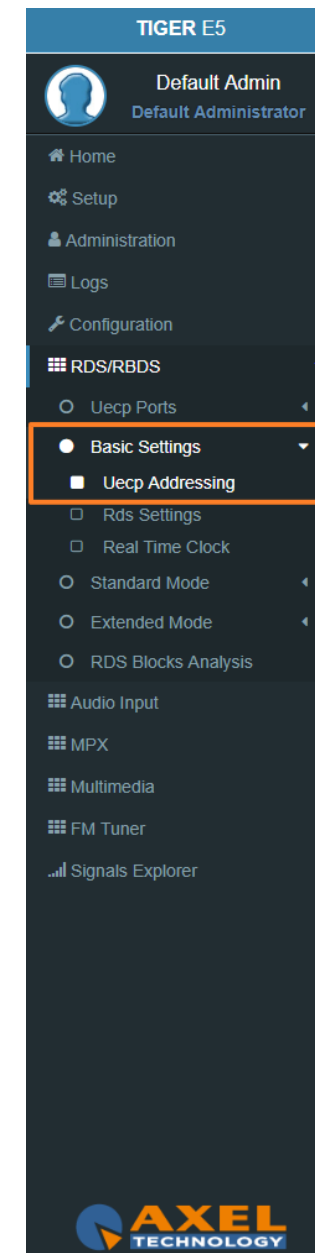
Here you can have all the **Uecp Addresses** list.



The form titled "Uecp Address" contains two tables. The first table, "Site Addresses", has one row with the value "1" and a blue "+" button below it. The second table, "Encoder Addresses", also has one row with the value "1" and a blue "+" button below it.

Site Addresses: the range of possible values is 1 to 1023

Encoder Addresses: the range of possible values is 1 to 63



3.6.2.2 RDS SETTINGS

Rds General Settings

Rds General Settings

☒ Rds On

Rds Global Extended Mode

Enabled

Rds Synchronism

Internal

PS Char Table Select

No Control Chars

Max Exported DataSet Number

1

Rds On: In the device Enable/Disable the RDS encoding.

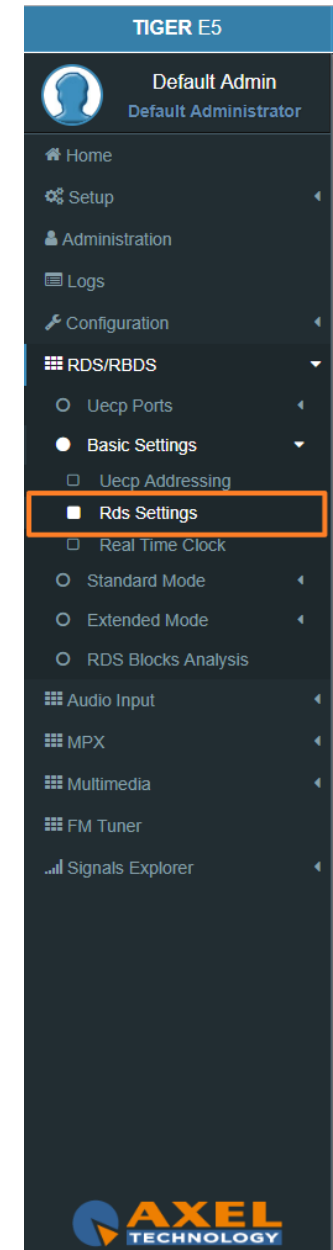
Rds Global Extended Mode: Enable/Disable the Extended Mode.

Rds Synchronism (Pilot Synch): Internal, Auto Sync In (External & Digital), Auto Mpx In(External & Analogue).

PS Char Table Select: we suggest you to leave this parameter in **No Control Chars**.

A receiver, that entirely supports the character coding as defined in the RDS standard, probably does not exist. An assumption, that recent receivers give better results than older types, is valid only partially.

In default of a code table switching character, the display coding taking effect at address 0 should be assumed to be in accordance with code table. Thus when using only the default **Characters Table**, No Control Chars switching is required.



Active Dataset Selection

Active Dataset Selection

On Air Active Dataset

1

On Air Active Dataset: select the Data Set number that you want to air.

Rds Levels

Rds Levels

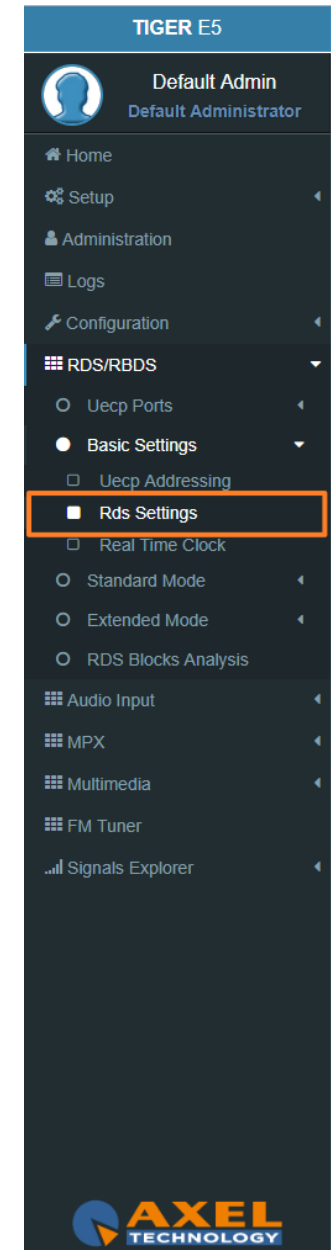
Current Level and Phase Reference Table Index

3

	Level (mVpp)	Phase (Deg)
1	50	0.0
2	80	0.0
3	85	0.0
4	50	0.0
5	50	0.0
6	50	0.0

Current Level and Phase Reference Table Index: in the next field, enter the index number of the table row. The related signal **Level** and signal **Phase** couple will be aired.

Level and Phase Reference Table: available, choosable and editable Levels(mVpp: millivolt peak-to-peak) and related Phases(Deg: Degrees).



The following two parameter groups manage the special transitions of 15B group and 14B group in the standard RDS group sequence at the TA/EON TA - ON/OFF.

TA Control (15B)

TA TRAFFIC ANNOUNCEMENT IDENTIFICATION control force the transition of the 15B group in the standard RDS group sequence in relation with the activation/deactivation of the TA.

TA Control (15B)

Minimum Group Spacing

0

ON Transition 15B Groups

0

OFF Transition 15B Groups

0

Minimum Group Spacing: number of groups of the standard RDS sequence, between two recurrences of the 15B groups will be inserted and transmitted.

ON Transition 15B(fast signal switching) Groups: only when TA is turned-ON, this parameter decides the number of 15B groups transmitted in a single recurrence.

OFF Transition 15B Groups: only when TA is turned-OFF, this parameter decides the number of 15B groups transmitted in a single recurrence.

EON TA Control (14B)

This control force the transition of the 14B group in the standard RDS group sequence in relation to the activation/deactivation of the EON TA.

EON TA Control (14B)

Minimum Group Spacing

0

ON Transition 14B Groups

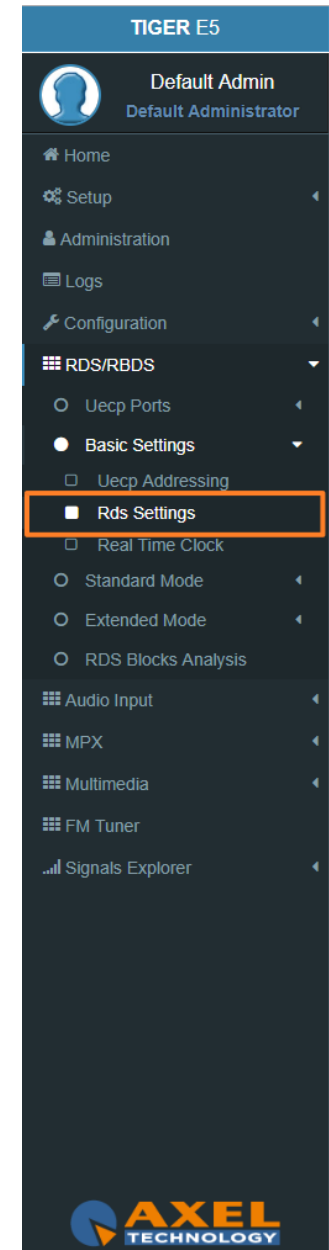
0

OFF Transition 14B Groups

0

Minimum Group Spacing: number of groups of the standard RDS sequence, between two recurrences of the 14B groups will be inserted and transmitted.

ON Transition 14B(fast signal switching) Groups: only when EON TA is turned-ON, this parameter decides the number of 14B groups transmitted in a single recurrence.



OFF Transition 14B Groups: only when EON TA is turned-OFF, this parameter decides the number of 14B groups transmitted in a single Recurrence.

SMB/SAMBA Share Settings

SMB/SAMBA Share Settings

File Name	Format
PLAYLIST.XML	DjPro V.2.0

Status

All Right

File Name: in this field type the file name. The RDS will search in the previously set SMB/SAMBA IP/FOLDER for song and author information.

Format: Choose between DjPro V.1.0, DjPro V.2.0, Dalet Simple, MB Studio.

Status: in this field, you can see if the file is found or not

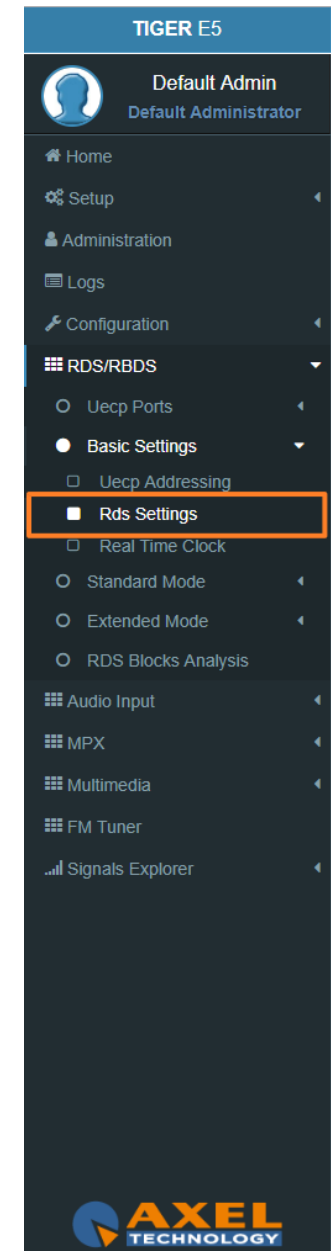
RDS Events

RDS Events

<input checked="" type="checkbox"/>	masked	Rds Off Alarm
<input checked="" type="checkbox"/>	masked	Pilot Sync Alarm
<input checked="" type="checkbox"/>	masked	Smb/Samba Share Rds Alarm

Masked/Unmasked Pilot Sync Alarm: Mask/Unmask the alarm of the synchronization between a Pilot frequency and the encoder.

Masked/Unmasked Smb/Samba Share Rds Alarm: Mask/Unmask the alarm of the connection with the communication folder with your playout.



3.6.2.3 REAL TIME CLOCK

RTC Settings

RTC Settings

☒ CT On/Off

Local Time Offset

+2:00 hrs

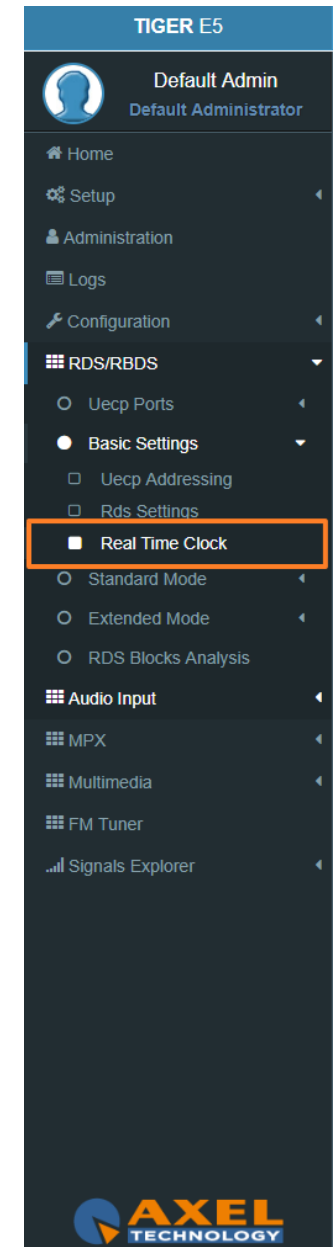
Real Time Clock Correction (ms)

0

CT On/Off: enable/disable the transmission of RDS Time clock.

Local Time Offset: Select here the desired Local Time Offset.

Real Time Clock Correction (ms): to avoid delays related to the signal transmission-reception, insert here a clock correction time(ms).



3.6.3 STANDARD MODE

3.6.3.1 UECP SERVICES

Dataset General Settings

Dataset General Settings

Editing Dataset Index

DSN 1

Editing Dataset Index: Select here the desired Index to start the related Dataset editing.

PSN List

PSN List

PSN List

REFERENCE	Main	Eon1	Eon2	Eon3	Eon4	Eon5	Eon6	Eon7	Eon8	Eon9	Eon10
PS-NUMBER	001	002	003	004	005	006	007	008	009	010	011
ENABLED	-E-	-E-	---	---	---	---	---	---	---	---	---

Reference: in the reference, you can read all the available reference names

PS-Number: PS-Number of the related reference

ENABLED: (-E- : PSN enabled) (--- : PSN disabled)

PSN List Enable

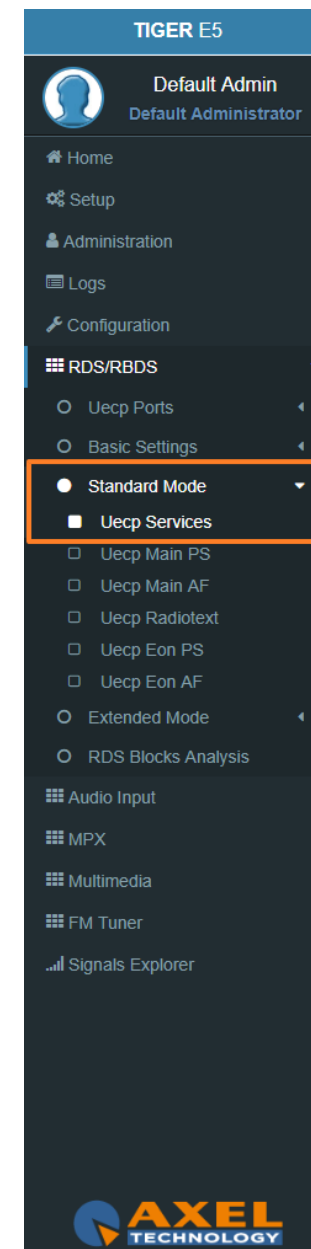
PSN List Enable

EON 1 EON 2 EON 3 EON 4 EON 5 EON 6 EON 7 EON 8 EON 9 EON 10

MAIN PS EON 1 ✕

EON 1 : Enabled EON. If the EON is enabled you can see **EON 1 ✕** in the bottom section. To disable it click on the related ✕ .

EON 2 : Disabled EON. To enable it, click on it.



Group List

In the following mask, you can decide the Group List and the group sequence order.

0A : to add the group at the end of the group sequence.

In the bottom section, you see the list of group sequence.

< 0A > x represents a present group inside the group sequence.

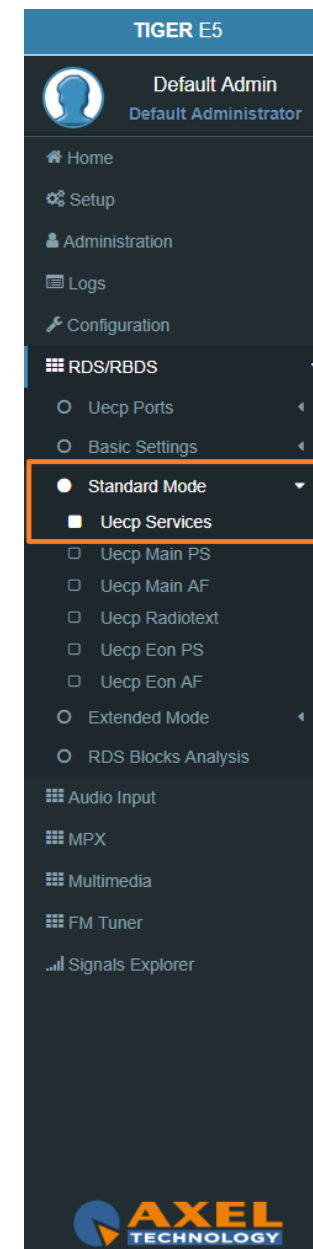
By clicking on **◀** you move it in the previous sequence position.

By clicking on **▶** you move it in the following order position.

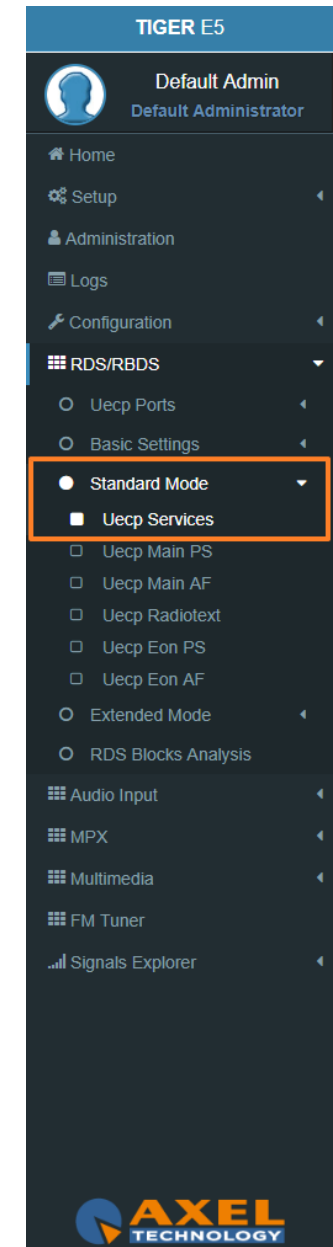
By clicking on **✕** you erase it from the sent RDS/RBDS groups.


ON AIR GROUPS

Services	RDS groups
Programme Identification (PI) code	All
Programme Type (PTY) code	All
Traffic Programme (TP) identification code	All
Programme Service (PS) name	0A, 0B
Alternative frequency (AF) code pairs	0A
Traffic announcement (TA) code	0A, 0B, 14B, 15B
Decoder identification (DI) code	0A, 0B, 15B
Music Speech (MS) code	0A, 0B, 15B
RadioText (RT) message	2A, 2B
Enhanced other networks information	14A



Group Type	Description of Use
0 A	Basic tuning and switching information only
0 B	Basic tuning and switching information only
1A	Program Item Number and slow labelling codes only
1B	Program Item Number
2 A	Radiotext only
2 B	Radiotext only
3 A	Applications Identification for ODA only
3 B	Open Data Applications
4 A	Clock-time and date only
4 B	Open Data Applications
5 A	Transparent Data Channels (32 channels) or ODA
5 B	Transparent Data Channels (32 channels) or ODA
6 A	In House applications or ODA
6 B	In House applications or ODA
7 A	Radio Paging or ODA
7 B	Open Data Applications
8 A	Traffic Message Channel or ODA
8 B	Open Data Applications
9 A	Emergency Warning System or ODA
9 B	Open Data Applications
10 A	Program Type Name
10 B	Open Data Applications
11 A	Open Data Applications
11 B	Open Data Applications
12 A	Open Data Applications
12 B	Open Data Applications
13 A	Enhanced Radio Paging or ODA
13 B	Open Data Applications
14 A	Enhanced Other Networks information only
14 B	Enhanced Other Networks information only
15 A	Undefined
15 B	Fast switching information only



By clicking on  you can open the following top describing table that indicates to the specific work of groups:

Group List

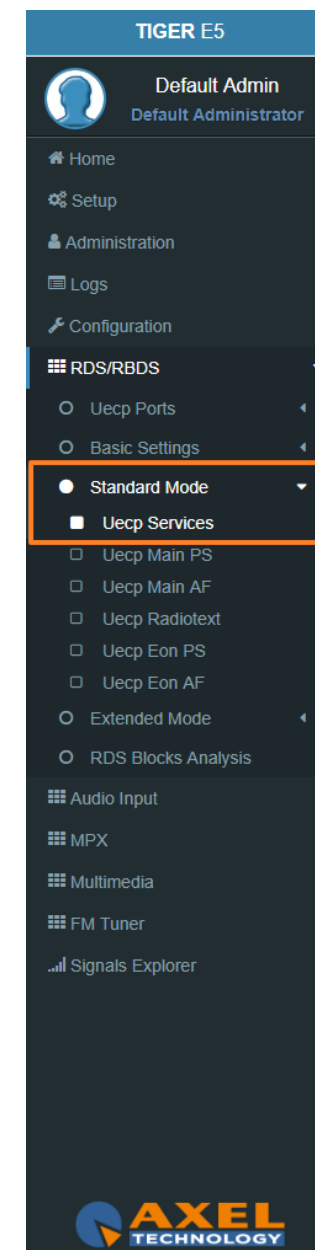
Groups		
0A : Basic Tuning & Switching Info	6A : IH	12A : ODA data
0B : Basic Tuning & Switching Info	6B : IH	12B : ODA data
1A : PIN/SLC	7A : RP	13A : ODA data
1B : PIN	7B : ODA data	13B : ODA data
2A : RT	8A : TMC	14A : EON
2B : RT	8B : ODA data	14B : EON
3A : ODA Registration	9A : EWS	15A : ODA data
3B : ODA data	9B : ODA data	15B : Fast switching info
4A : CT	10A : PTYN	
4B : ODA data	10B : ODA data	
5A : TDC	11A : ODA data	
5B : TDC	11B : ODA data	

0A 0B 1A 1B 2A 2B 3A 3B 4A 4B 5A 5B 6A 6B 7A 7B 8A 8B 9A 9B 10A 10B 11A 11B 12A 12B 13A 13B 14A 14B 15A 15B

◀ 0A ▶ × ◀ 2A ▶ × ◀ 0A ▶ × ◀ 10A ▶ × ◀ 0A ▶ ×

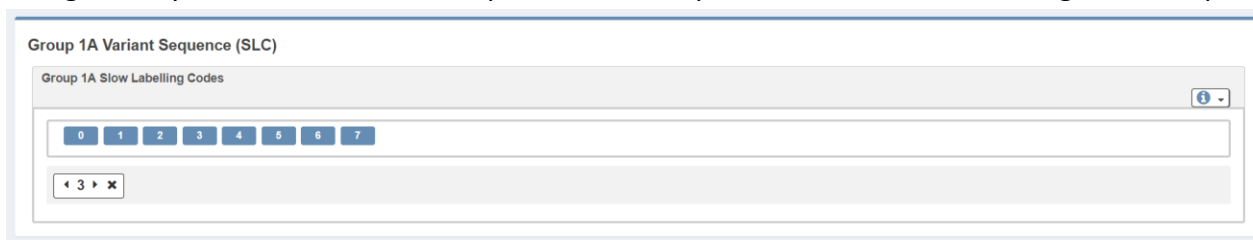
List of other useful abbreviations

AF	Alternative Frequencies list	MS	Music Speech switch
AID	Applications IDentification for ODA	ODA	Open Data Applications
ARI	Autofahrer Rundfunk Information	PI	Programme Identification
CI	Country Identifier	PIN	Programme Item Number
CT	Clock Time and date	PS	Programme Service name
DI	Decoder Identification	PTY	Program TYpe
ECC	Extended Country Code	PTYI	Dynamic Programme TYpe Indicator
EG	Extended Generic indicator	PTYN	Programme TYpe Name
EON	Enhanced Other Networks information	RBDS	Radio Broadcast Data System
EWS	Emergency Warning System	RDS	Radio Data System
IH	In House application	RP	Radio Paging
ILS	International Linkage Set indicator	RT	Radio Text
LA	Linkage Actuator	TA	Traffic Announcement flag
LI	Linkage Identifier	TDC	Transparent Data Channels
LSN	Linkage Set Number	TMC	Traffic Message Channel
TP	Traffic Programme flag		



Group 1A Variant Sequence (SLC – Slow Labelling Codes)

In the following mask, you can decide the Group 1A Variant Sequence and his Slow Labelling Codes sequence order.



3 : to add the SLC at the end of the sequence.

In the bottom section, you see the list of SLC sequence.

◀ 3 ▶ ✕ : represents a present SLC inside the sequence.

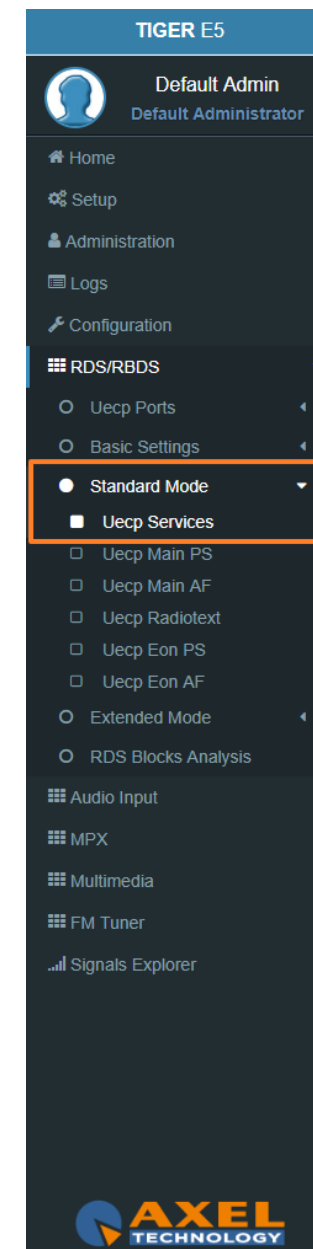
By clicking on ◀ you move it in the previous sequence position.

By clicking on ▶ you move it in the following order position.

By clicking on ✕ you erase it from the transmitted SLCs.

By clicking on ⓘ you can open the following top describing table:

Group 1A Slow Labelling Codes		ⓘ
0 : ECC	4 : n/a	
1 : n/a	5 : n/a	
2 : Paging ID	6 : Broadcast	
3 : Language Codes	7 : EWS Channel Id	



Group 14A Variant Sequence (EON – Enhanced Other Networks information)

In the following mask, you can decide the Group 14A Variant Sequence and his Codes sequence order.

3 : to add the Code at the end of the sequence.

In the bottom section, you see the list of Codes sequence.

◀ 3 ▶ x : represents a present code inside the sequence.

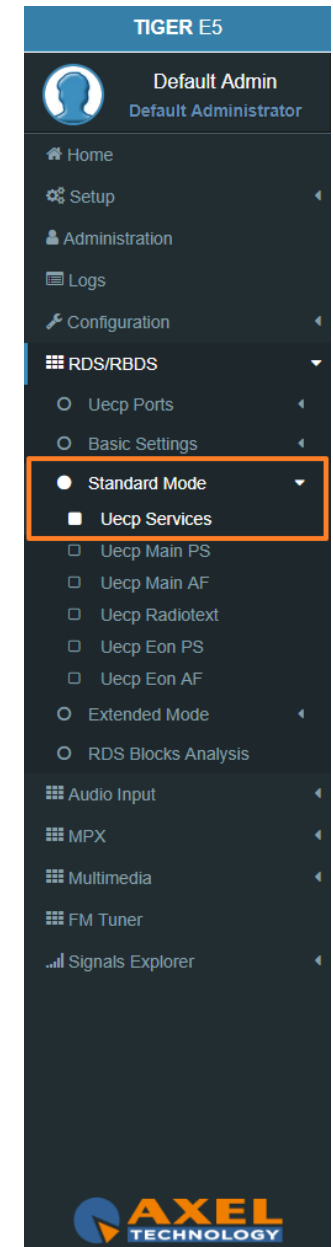
By clicking on ◀ you move it in the previous sequence position.

By clicking on ▶ you move it in the following order position.

By clicking on x you erase it from the transmitted codes list.

By clicking on ⓘ you can open the following top describing table:

Group 14 A ⓘ			
0 : PS-ON	4 : AF-ON (A Method)	8 : AF-ON (Map Freq 4)	12 : Linkage
1 : PS-ON	5 : AF-ON (Map Freq 1)	9 : AF-ON (AM)	13 : TA/PTY-ON
2 : PS-ON	6 : AF-ON (Map Freq 2)	10 : n/a	14 : PIN-ON
3 : PS-ON	7 : AF-ON (Map Freq 3)	11 : n/a	



3.6.3.2 UECP MAIN PS

This section is useful to define all UECP Main PS parameters

Main Network Program Service

Main Network Program Service

Editing Dataset Index

DSN 1

Editing Program Service

Main PS

Editing Dataset Index: decide which Main PS you want to edit, select the related DSN (Dataset Number).

Editing Program Service: You will see this parameter also in UECP Eon PS. Here the parameters are not selectable because this is the MAIN Program.

Basic Settings

Basic Settings

PI

5301

PS

hnology

TP

Off

TA

Off

PTY

Varied

PTYN

TestPTYN

PIN Day

0

PIN Hour

0

PIN Minute

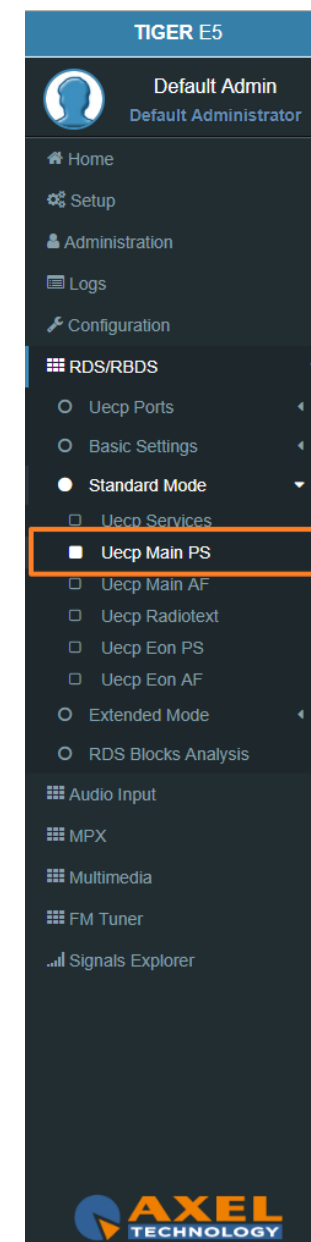
0

Music/Speech

Music

Decoder Information

Stereo



PI(Program Identification): type the PI Code. Lock at

PS(Program Station): type the Program Station Name.

TP(Traffic Program): On/Off

TA(Traffic Announcement): On/Off

PTY: a selectable value between (Pop Music, Rock Music, Culture, Science...).

PTYN: type a desired description for the program.

PIN Day: if you want to schedule a special PTY insert here the month day. From 00 to 31.

PIN Hour: if you want to schedule a special PTY insert here the desired hour (HH). From 00 to 23.

PIN Minute: If you want to schedule a special PTY insert here the desired minute (MM). From 00 to 59.

Music/Speech: select here if you have a Music program or a Speech program.

Decoder Information: select the audio decoder information.

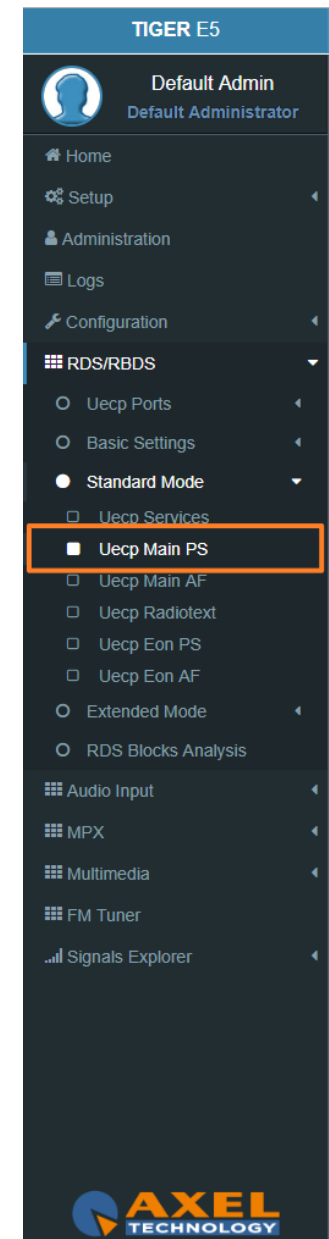
PI (Program identification)

This information consists of a code enabling the receiver to distinguish between countries, areas in which the same program is transmitted, and the identification of the program itself. The code is not intended for direct display and is assigned to each individual radio program, to enable it to be distinguished from all other programs. One important application of this information would be to enable the receiver to search automatically for an alternative frequency in case of bad reception of the program to which the receiver is tuned, the criteria for the change-over to the new frequency would be the presence of a better signal having the same **PI** code.

The **PI** code consists of four characters. The first two characters have special meaning, second two are used to clearly identify different stations.

The changes to the **PI** code assignment are summarized as follows:

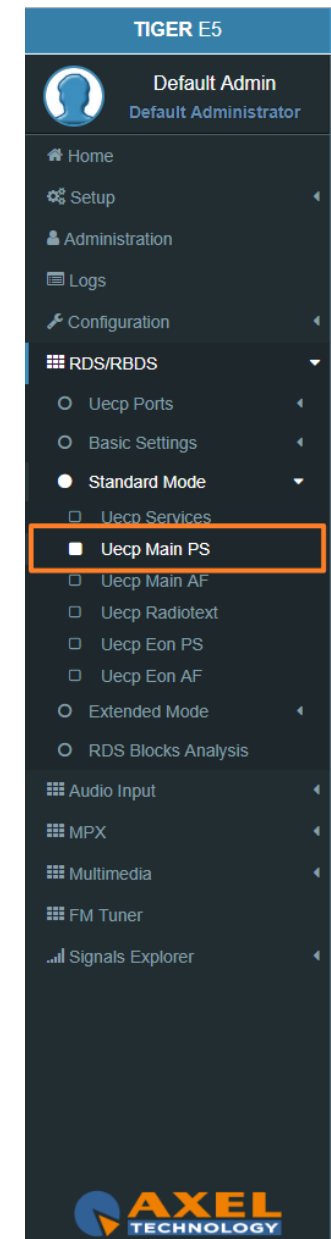
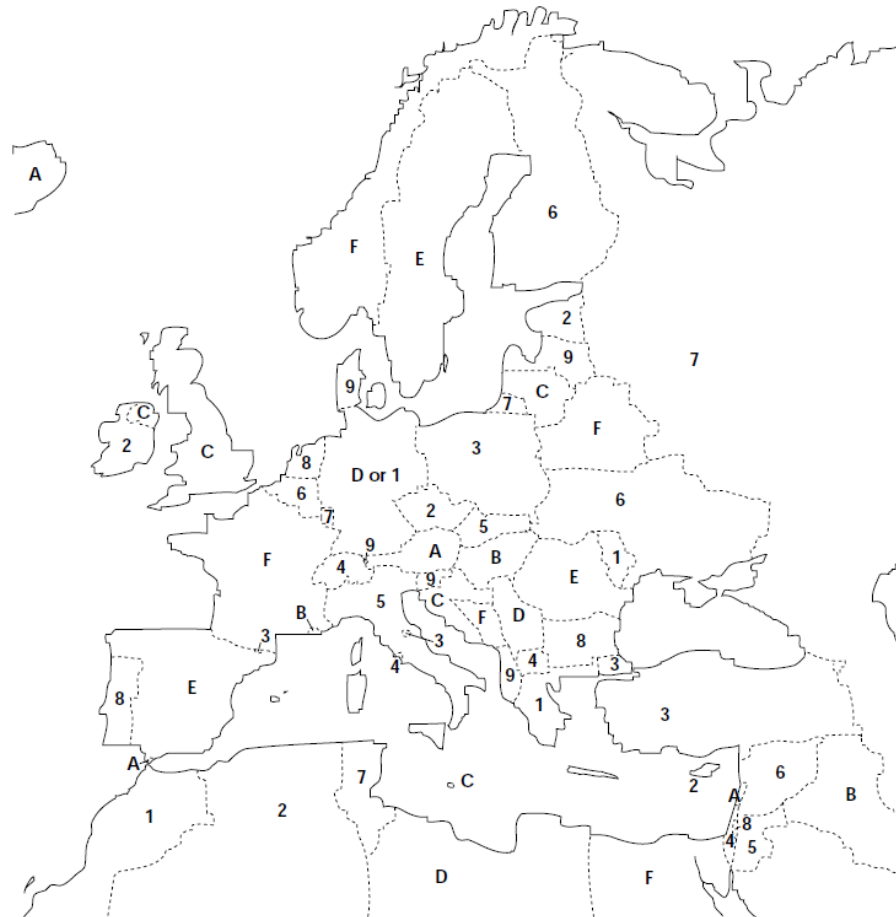
- **PI** assignments below **B000** will remain as is, allowing **AF** switching but no regionalization. Call signs deriving **PI** codes “**x0xx**”, and “**xx00**” are re-mapped into the “**A**” range of **PI**’s.
- 3 Letters call signs – Modifications were made to the 3 letters call **PI** code assignment table.
- **C000** – **CFFF** assigned to Canada. Allows **AF** switching, but no regionalization. **PI** codes **C0xx**, and **Cx00** are excluded from use.
- **F000** – **FFFF** assigned to Mexico. Allows **AF** switching, but no regionalization. **PI** codes **F0xx**, and **Fx00** are excluded from use.



- **B_01 – B_FF, D_01 – D_FF, E_01 – E_FF** assigned for national networks in the US, Canada, and Mexico. Regionalization allowed. **NRSC** to provide assignments for all three countries. It should be noted that operation in this region is the same as it is for all **RDS PI** codes.

The first PI character identifies the country

5000



Country	ISO code	ECC	Country code
Albania	AL	E0	9
Algeria	DZ	E0	2
Algeria	DZ	E0	2
Andorra	AD	E0	3
Angola	AO	D0	6
Ascension Island		D1	A
Austria	AT	E0	A
Azores(Portugal)	PT	E4	8
Belarus	BY	E3	F
Belgium	BE	E0	6
Benin	BJ	D0	E
Bosnia Herzegovina	BA	E4	F
Botswana	BW	D1	B
Bulgaria	BG	E1	8
Burkina Faso	BF	D0	B
Burundi	BI	D1	9
Cabinda		D3	4
Cameroon	CM	D0	1
Canaries (Spain)	ES	E2	E
Canary Island	ES	E0	E
Cape Verde	CV	D1	6
Central African Republic	CF	D0	2
Chad	TD	D2	9
Comoros	KM	D1	C
Congo	CG	D0	C

Country	ISO code	ECC	Country code
Cote d'Ivoire	CI	D2	C
Croatia	HR	E3	C
Cyprus	CY	E1	2
Czech Republic	CZ	E2	2
Democratic Republic of Congo	ZR	D2	B
Denmark	DK	E1	9
Djibouti	DJ	D0	3
Egypt	EG	E0	F
Egypt	EG	E0	F
Equatorial Guinea	GQ	D0	7
Estonia	EE	E4	2
Ethiopia	ET	D1	E
Faroe (Denmark)	DK	E1	9
Finland	FI	E1	6
France	FR	E1	F
Gabon		D0	8
Gambia	GM	D1	8
Germany	DE	E0	D or 1
Ghana	GH	D1	3
Gibraltar(United Kingdom)	GI	E1	A
Greece	GR	E1	1
Guinea-Bissau	GW	D2	A
Hungary	HU	E0	B
Iceland	IS	E2	A
Iraq	IQ	E1	B

<i>Country</i>	<i>ISO code</i>	<i>ECC</i>	<i>Country code</i>
Ireland	IE	E3	2
Israel	IL	E0	4
Italy	IT	E0	5
Jordan	JO	E1	5
Kenya	KE	D2	6
Latvia	LV	E3	9
Lebanon	LB	E3	A
Lesotho	LS	6	D3
Liberia	LR	D1	2
Libya	LY	E1	D
Libya	LY	E1	D
Liechtenstein	LI	E2	9
Lithuania	LT	E2	C
Luxembourg	LU	E1	7
Macedonia	MK	E3	4
Madagascar	MG	D0	4
Madeira (Portugal)	PT	E4	8
Malawi	MW	D0	F
Mali	ML	D0	5
Malta	MT	E0	C
Mauritania	MR	D1	4
Mauritius	MU	D3	A
Moldova	MD	E4	1
Monaco	MC	E2	B

<i>Country</i>	<i>ISO code</i>	<i>ECC</i>	<i>Country code</i>
Morocco	MA	E2	1
Mozambique	MZ	D2	3
Namibia	NA	D1	1
Netherlands	NL	E3	8
Niger	NE	D2	8
Nigeria	NG	D1	F
Norway	NO	E2	F
Palestine	PS	E0	8
Poland	PL	E2	3
Portugal	PT	E4	8
Republic of Guinea	GN	D0	9
Romania	RO	E1	E
Russian Federation	RU	E0	7
Rwanda	RW	D3	5
San Marino	SM	E1	3
Sao Tome & Principe	ST	D1	5
Senegal	SN	D1	7
Seychelles	SC	D3	8
Sierra Leone	SL	D2	1
Slovakia	SK	E2	5
Slovenia	SI	E4	9
Spain	ES	E2	E
Sweden	SE	E3	E
Switzerland	CH	E1	4

ECC	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
E0	DE	DZ	AD	IL	IT	BE	RU	PS	AL	AT	HU	MT	DE		EG
E1	GR	CY	SM	CH	JO	FI	LU	BG	DK	GI	IQ	GB	LY	RO	FR
E2	MA	CZ	PL	VA	SK	SY	TN		LI	IS	MC	LT	YU	ES	NO
E3		IE	TR	MK				NL	LV	LB		HR		SE	BY
E4	MD	EE				UA		PT	SI						BA

The second PI character identifies program type in terms of area coverage:

5000

0 - Local (Local program transmitted via a single transmitter only during the whole transmitting time.)

1 - International (The same program is also transmitted in other countries.)

2 - National (The same program is transmitted throughout the country.)

3 - Supra-regional (The same program is transmitted throughout a large part of the country.)

4 to F - Regional (The program is available only in one location or region over one or more frequencies, and there exists no definition of its frontiers.)

If the entire hexadecimal code is already known, enter it into RDS/RBDS > Quick RDS Setup > PI.

Area coverage code	Local	International	National	Supra-regional	Regional1	Regional2	Regional3
HEX	0	1	2	3	4	5	6

Area coverage code	Regional4	Regional5	Regional6	Regional7	Regional8	Regional9	Regional10	Regional11	Regional12
HEX	7	8	9	A	B	C	D	E	F

The last two characters identify a hexadecimal number between $0_{16} < x < FF_{16}$ ($0_{10} < x < 256_{10}$) assigned by the telecommunications authority

5000

These last two characters are assigned by the National Telecommunications Authority.

PS (Program Service) NAME

Program Service Name is a text consisting of not more than eight alphanumeric characters which are displayed by **RDS** receivers in order to inform the listener what programme service is being broadcast by the station to which the receiver is tuned. An example of a **PS** name is "Radio 21". The Programme Service name is not intended to be used for automatic search tuning.

TP (Traffic Programme identification)

This is a flag to indicate that the tuned programme carries traffic announcements. The **TP** flag must only be set on programmes which dynamically switch on the **TA** identification during traffic announcements. The signal shall be considered during automatic search tuning.

TA (Traffic Announcement identification)

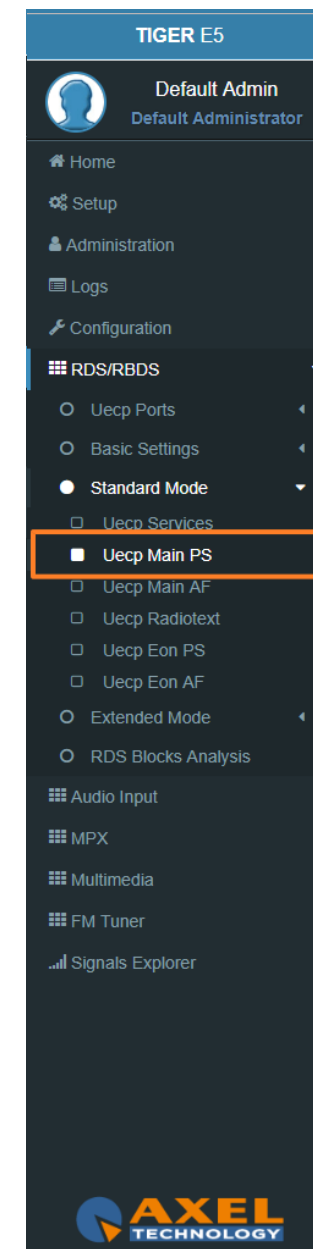
This is an **on/off** switching signal to indicate when a traffic announcement is on air. The signal could be used in receivers to:

- a) Switch automatically from any audio mode to the traffic announcement.
- b) Switch on the traffic announcement automatically when the receiver is in a waiting reception mode and the audio signal is muted.
- c) Switch from a programme to another one carrying a traffic announcement.

After the end of the traffic announcement, the initial operating mode will be restored.

PTY (Program Type)

This is an identification number to be transmitted with each programme item and which is intended to specify the current **Programme Type** within 31 possibilities. This code could be used for search tuning. The code will, moreover, enable suitable receivers and recorders to be pre-set to respond only to programme items of the desired type. The last number, i.e. 31, is reserved for an alarm identification which is intended to switch on the audio signal when a receiver is operated in a waiting reception mode.

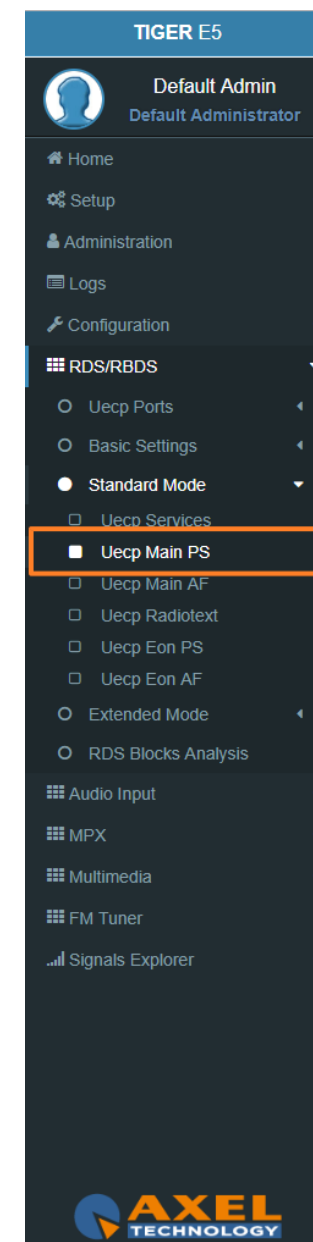


PTYN (Program Type Name)

The **PTYN** feature is used to further describe current **PTY**. **PTYN** permits the display of a more specific **PTY** description (max 8 characters) that the broadcaster can freely decide (e.g. **PTY**:4 = Sport and **PTYN**: Football). The **PTYN** is not intended to change the default eight characters of **PTY** which will be used during search or wait modes, but only to show in detail the programme type once tuned to a programme. If the broadcaster is satisfied with a default **PTY** name, it is not necessary to use additional data capacity for **PTYN**. The Programme Type Name is not intended to be used for automatic **PTY** selection and must not be used for giving sequential information.

NOTE: the **PTY** only can be programmed accordingly to the **UECP** protocol. The **PTYN** is related to the **UECP** Extended (custom) RDS programming mode.

Number	PTY Code	PTY (Programme type)	8-character display	16-character display
0	00000	No programme type or undefined	None	None
1	00001	News	News	News
2	00010	Current Affairs	Affairs	Current Affairs
3	00011	Information	Info	Information
4	00100	Sport	Sport	Sport
5	00101	Education	Educate	Education
6	00110	Drama	Drama	Drama
7	00111	Culture	Culture	Cultures
8	01000	Science	Science	Science
9	01001	Varied	Varied	Varied Speech
10	01010	Pop Music	Pop M	Pop Music
11	01011	Rock Music	Rock M	Rock Music
12	01100	Easy Listening Music	Easy M	Easy Listening
13	01101	Light classical	Light M	Light Classics M
14	01110	Serious classical	Classics	Serious Classics
15	01111	Other Music	Other M	Other Music



Due to differing broadcast styles, the program type code definitions (i.e. Jazz, Rock, etc.) differ between RDS and RBDS:

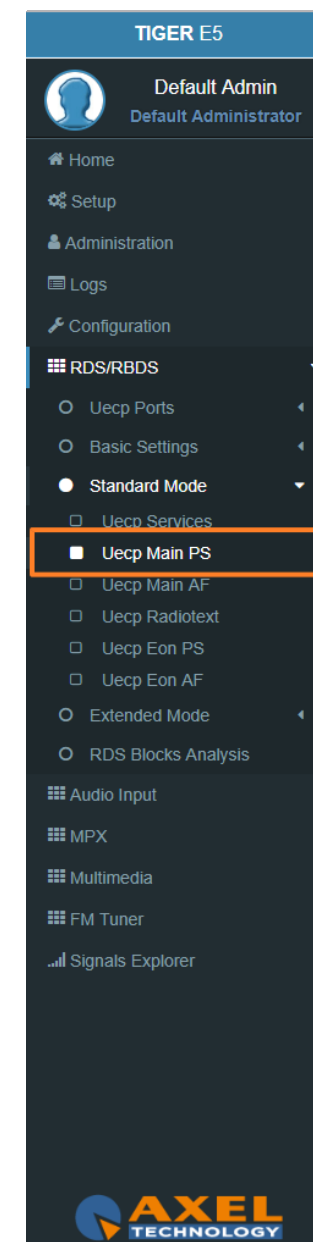
PTY Code	RDS Program Type	RBDS Program Type	PTY Code	RDS Program Type	RBDS Program Type
0	No program type or undefined	No program type or undefined	16	Weather	Rhythm and Blues
1	News	News	17	Finance	Soft Rhythm and Blues
2	Current Affairs	Information	18	Children's programs	Language
3	Information	Sports	19	Social Affairs	Religious Music
4	Sport	Talk	20	Religion	Religious Talk
5	Education	Rock	21	Phone In	Personality
6	Drama	Classic Rock	22	Travel	Public
7	Culture	Adult Hits	23	Leisure	College
8	Science	Soft Rock	24	Jazz Music	Unassigned
9	Varied	Top 40	25	Country Music	Unassigned
10	Pop Music	Country	26	National Music	Unassigned
11	Rock Music	Oldies	27	Oldies Music	Unassigned
12	M.O.R. Music	Soft	28	Folk Music	Unassigned
13	Light Classical	Nostalgia	29	Documentary	Weather
14	Serious Classical	Jazz	30	Alarm Test	Emergency Test
15	Other Music	Classical	31	Alarm	Emergency

PIN (Programme Item Number)

The code should enable receivers and recorders designed to make use of this feature to respond to the particular program item (s) that the user has preselected. Use is made of the scheduled programme time, to which is added the day of the month in order to avoid ambiguity.

Linkage

Linkage information provides the means by which several programme services, each characterised by its own PI code, may be treated by a receiver as a single service during times a common programme is carried. During such times each program service retains its unique identity, i.e. the programme service must keep its designated



PI code and its **AF** (Alternative Frequency) list(s), but may change programme related features such as **PS**, **PTY**, **RT**, **TP** and **TA** to reflect the common programme;

Linkage information is conveyed in the following four data elements:

Linkage			
LA	EG	ILS	LSN
Off	Off	Off	000

LA: linkage actuator

EG: extended generic index

ILS: international linkage standard

LSN: linkage set number

Slow Labelling Codes (SLC)

The **RDS** specification contains some additional slow labelling codes that are used to support various features. These are specified to be carried in the type **1A group**. In this section, you can set **SLC** values.

Slow Labelling Codes			
SLC 0 (ECC)	SLC 1 (TMC)	SLC 2 (Paging)	SLC 3 (Language)
000	000	000	000
SLC 4 (n/a)	SLC 5 (n/a)	SLC 6 (Broad.)	SLC 7 (EWS)
000	000	000	000

SLC 0 (ECC) Extend Country Code: This code is only used when the EPP is used, it defined the selected country.

SLC 1 (TMC) Traffic Message Channel: This channel is used for road information, not used when **ODA** mode is used for **TMC**.

SLC 2 (Paging): This identification is used only with the international multi-operator.

SLC 3 (Language): This code allows to define language used by the broadcaster.

SLC 4 (n/a): not assigned.

SLC 5 (n/a): not assigned.

SLC 6 (Broadcaster use): Data reserved for internal management of broadcaster.

SLC 7 (EWS) Emergency Warning System: his data identify channel used for emergency or alert transmission.

RBDS PI CALCULATOR (only if you are working on US soil)



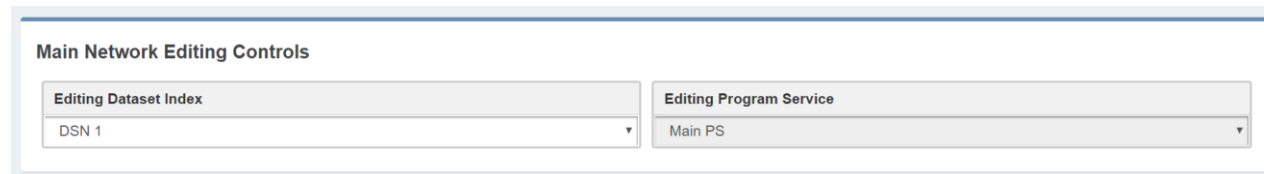
The Rbds PI Calculator interface consists of two input fields and two buttons. The first field is labeled 'CALL Letters' and the second is labeled 'PI Code (Hex)'. Each field has a 'Convert' button next to it. The fields are currently empty.

CALL Letters: write the desired CALL Letters in this field, then click **Convert**. You will read the converted hexadecimal value in **PI Code (Ex)**.

PI Code (Hex): write the desired hexadecimal PI Code in this field. Then click **Convert**. You will read the converted value in **CALL Letters**.

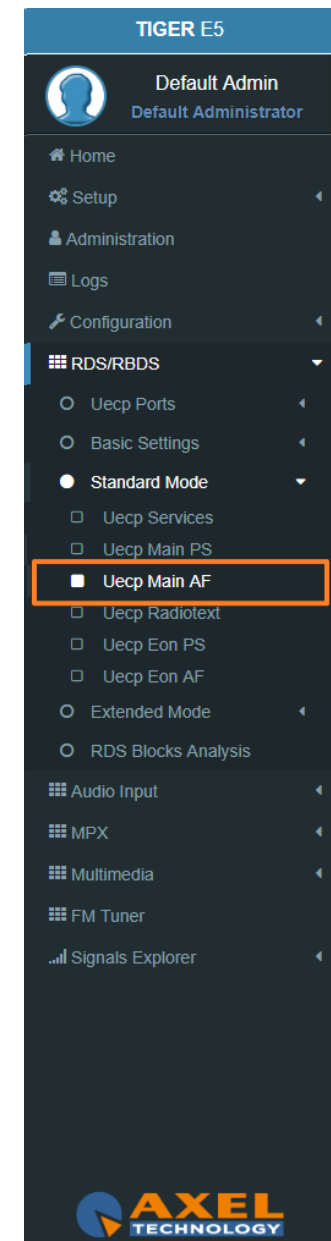
3.6.3.3 UECP MAIN AF

Main Network Editing Controls



The Main Network Editing Controls interface features two dropdown menus. The first is labeled 'Editing Dataset Index' and currently shows 'DSN 1'. The second is labeled 'Editing Program Service' and currently shows 'Main PS'.

Editing Dataset Index: decide which Main AF List (**alternative frequencies**) you want to edit, select the related **DSN (Dataset Number)**.

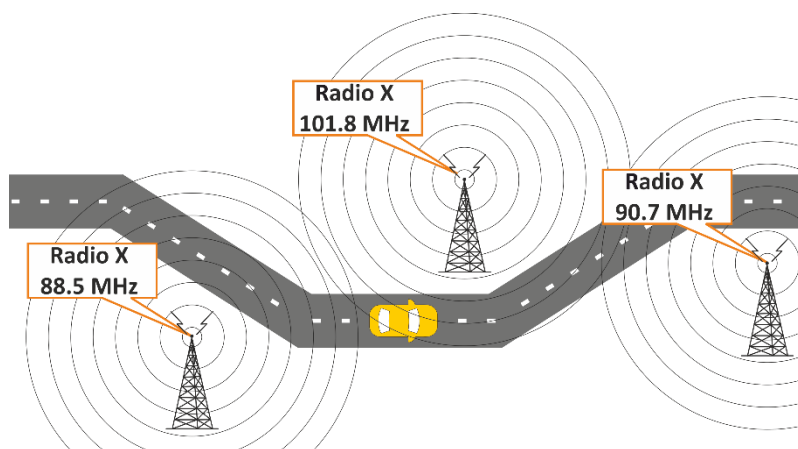


Editing Program Service: You will see this parameter also in **UECP, EON, AF**. Here the parameter is not selectable because this is **AF** of the **MAIN Program Service**.

Alternative Frequencies

If the broadcasting radio station has more than one transmitter in its reaching area then mobile radio listeners can listen to the radio without interruption by the usage of radio receivers auto frequency shifting feature with the support of **RDS** Alternative Frequency feature of the transmitter. This application can be used if the radio receivers enable **AF** support.

Radio X	Transmitter A	88.5 MHz
	Transmitter B	90.7 Mhz
	Transmitter C	101.8 MHz

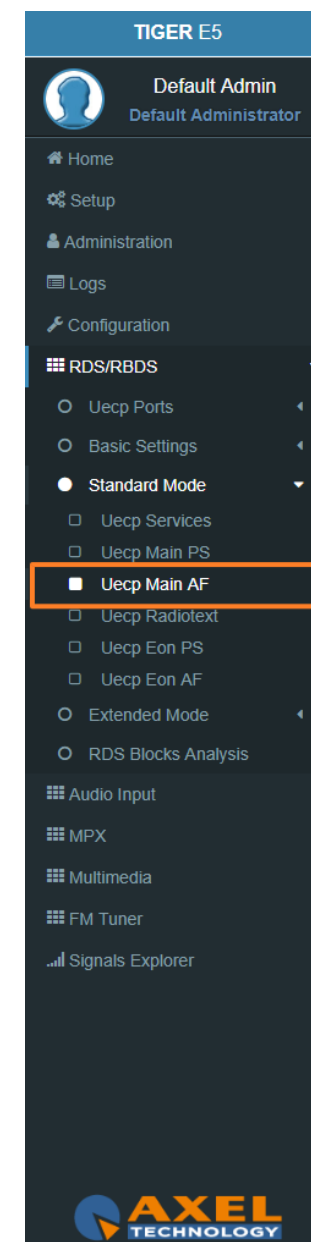


If Radio X Station broadcasts with **RDS AF** feature, and if **AF** feature of the radio receiver of the moving vehicle is enabled then the listener can listen continuously to that radio station without the need to change the frequency. Radio receivers with **RDS** feature automatically choose the strongest signal of the radio station.

AF feature is the ideal system for the vehicles having a long distance to go in order to listen uninterruptedly a radio station.

AF A method transmitted by **OA RDS** group can define 25 frequency transmitters of the same radio station.

AF B method can be applied if the number of frequency transmitters exceeds 25 or regional grouping is needed.




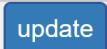

In the following list, you can read **AF (alternative frequencies)** list of desired Tuned frequencies.

AF Lists				
Lists	Tuned			
(5-B)	90.0	90.1	90.2	90.3 90.4
(5-B)	91.2	92.4	92.5	100.3 100.6
(2-B)	88.5	88.6		

You see the list of Tuned frequencies with their own **AF** list. **Black AF** are universal. **Blue AF** are regional. click on

 to add a new row with **AF** list or click on an existing row to edit it. The following mask will be enabled:

Method	Tuned	AF List
A ▼	100.0	101.0, 102.0, 103.0, 104.0, 105.0

Method: decide between **A/B**. The **B** method allows you to specify also the regionality of the **AF**.

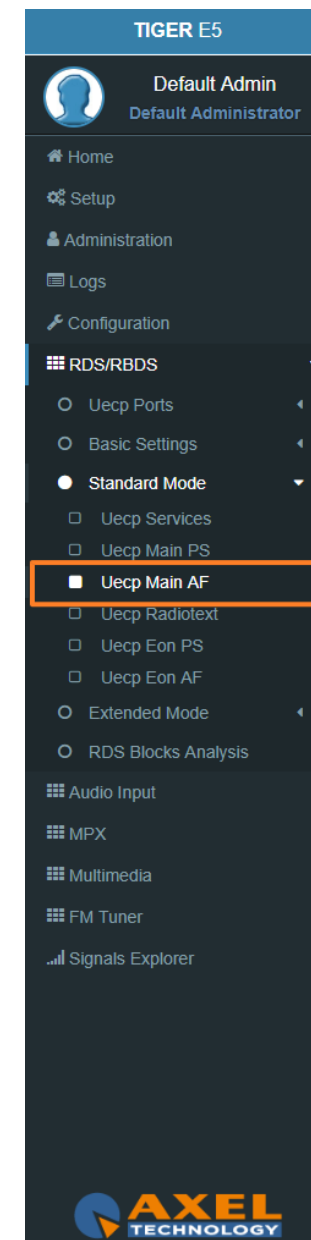
Tuned Freq: here the Main Tuned Freq.

AF List: in this list you see different alternative frequencies separated by a comma (,) and space. If you want to specify that 90.2 frequency is regional. Type **90.2r**.

Add: click on add to confirm parameters and to add them in rows.

Remove: click on a row that you want to delete and click on remove

Update: select a row that you want to edit, change parameters and click **Update** to save changes.



3.6.3.4 UECP RADIOTEXT

Main Network Editing Controls

Main Network Editing Controls

Editing Dataset Index

DSN 1

Editing Program Service

Main PS

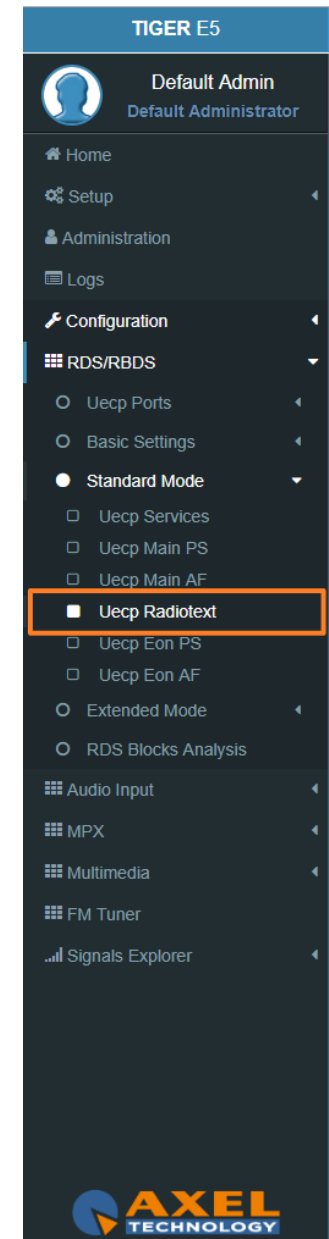
Editing Dataset Index: decide which RadioText you want to edit, select the related **DSN (Dataset Number)**.

Editing Program Service: Here the Program Service is not selectable because this is **AF** of the MAIN Program.

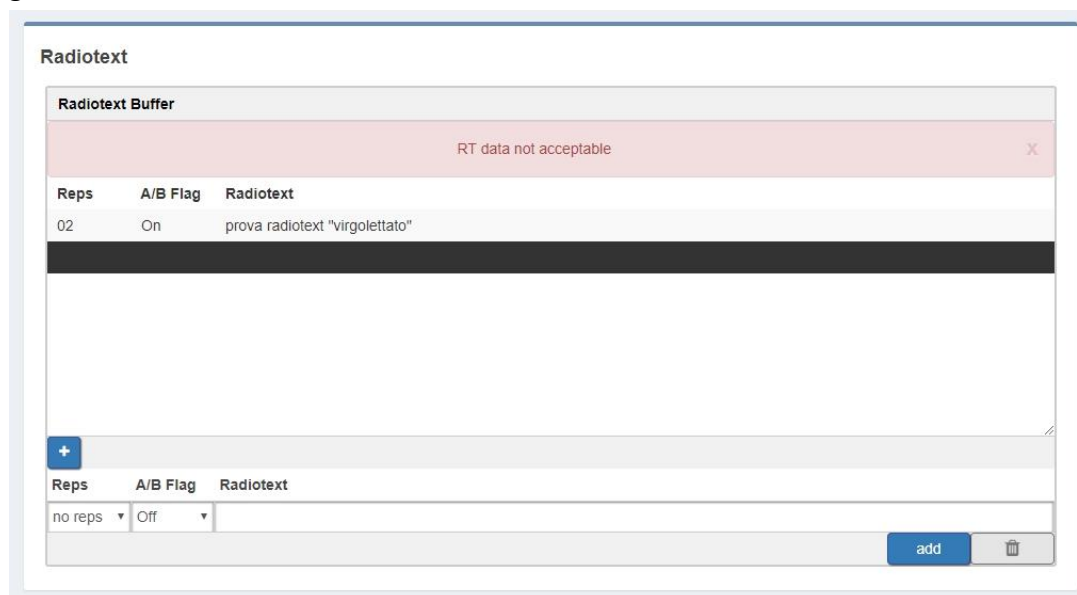
Radiotext

Most **RDS** radios can receive short messages which might include information about the presenter, station or programme you are listening to. The information will usually scroll across the display on a home tuner, but this could be distracting to a driver in a car, so the **RadioTEXT** message in a car **hi-fi** does not scroll.

This refers to text transmissions coded, primarily addressed to consumer home receivers, which would be equipped with suitable display facilities.



The text can be up to **64** characters long. if your text more than **64** characters you will get an error message. Watch the next figure.




Radiotext

Radiotext Buffer

RT data not acceptable

Reps	A/B Flag	Radiotext
02	On	prova radiotext "virgolettato"

add 

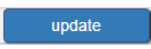
Reps: number of radiotext message repetitions

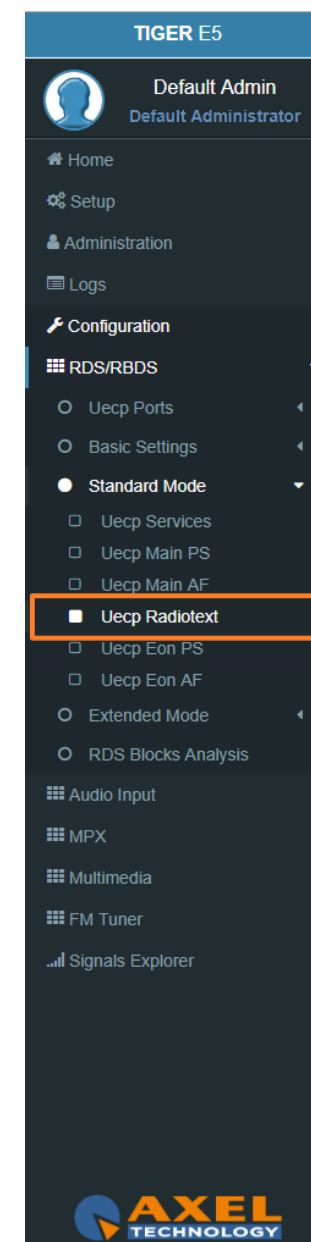
A/B Flag: The **A/B flag** is an important part of the proper **radiotext** transmission. is used to detect if a screen clear is requested. This flag is used to signal the receiver when a new text message is transmitted. When the receiver detects a change in the **A/B flag** state, the **radiotext** receiver buffer will be cleared, preventing the possibility of a mixture of old and new text messages being displayed on the receiver. In conclusion, the **A/B flag** should be enabled when multiple **RT (RadioText)** messages are scheduled, while it can be disabled in the event of a fixed **RT (RadioText)** broadcasting.

RadioText: RadioText message.

Add: after the new message creation clicks on send to start the RadioText transmission.

Remove: Deletes the selected RadioText message

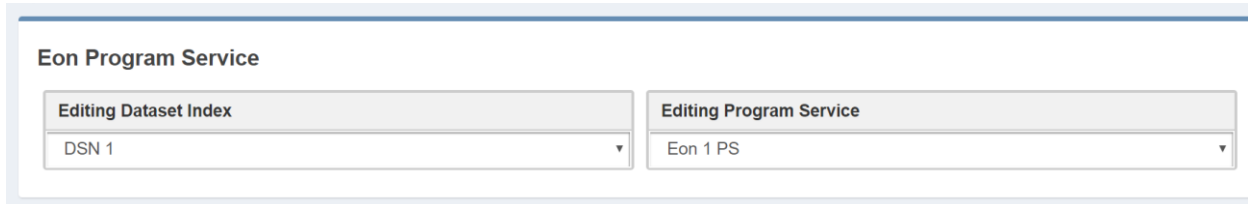
Update: , by selecting an existing RadioText row you can change it. To save new settings click on this button.



3.6.3.1 UECP EON PS

EON PS This feature can be used to update the **PS (Program Service)** information stored in a receiver about program services.

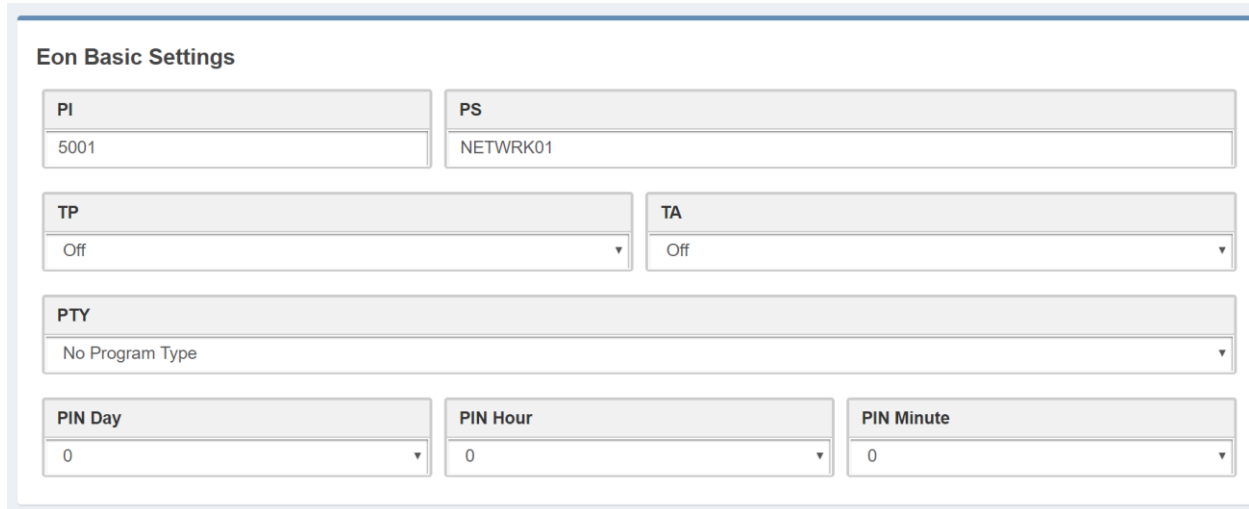
EON Program Service



Editing Dataset Index: decide which **Eon PS(Program Service)** you want to edit, select the related DSN (Dataset Number).

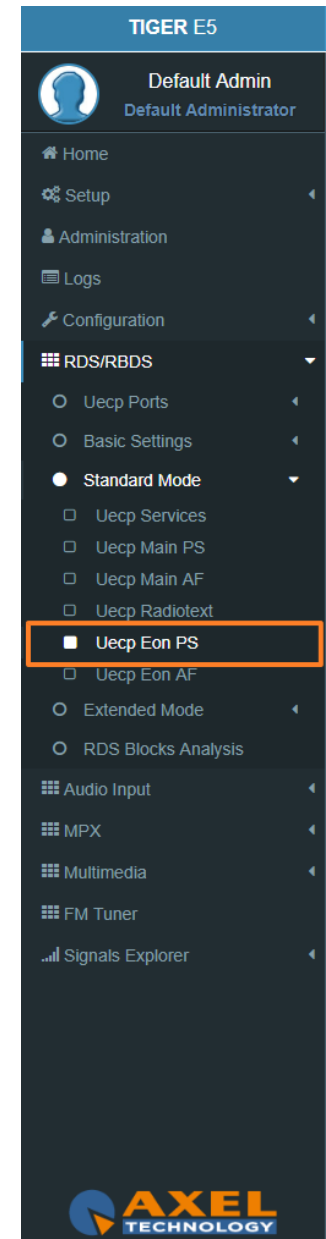
Editing Program Service: You will see this parameter also in **UECP, Eon, AF**. you can select between 10 different **EON Program Services**.

EON Basic Settings



PI(Program Identification): type the PI Code.

PS(Program Station): type the Program Station Name.



TP(Traffic Program): On/Off

TA(Traffic Announcement): On/Off

PTY: a selectable value between (Pop Music, Rock Music, Culture, Science...).

PTYN: type a desired description for the program.

PIN Day: if you want to schedule a special PTY insert here the month day. From 01 to 31.

PIN Hour: If you want to schedule a special PTY insert here the desired hour (HH). Possible. From 00 to 23.

PIN Minute: If you want to schedule a special PTY insert here the desired minute (MM). From 00 to 59.

Music/Speech: select here if you have a Music program or a Speech program.

Decoder Information: select the audio decoder information.

Eon Linkage

Linkage information provides the means by which several programme services, each characterised by its own **PI** code, may be treated by a receiver as a single service during times a common programme is carried. During such times each program service retains its unique identity, i.e. the programme service must keep its designated **PI** code and its **AF (Alternative Frequency)** list(s), but may change programme related features such as **PS, PTY, RT, TP** and **TA** to reflect the common program.

Linkage information is conveyed in the following four data elements:

Eon Linkage

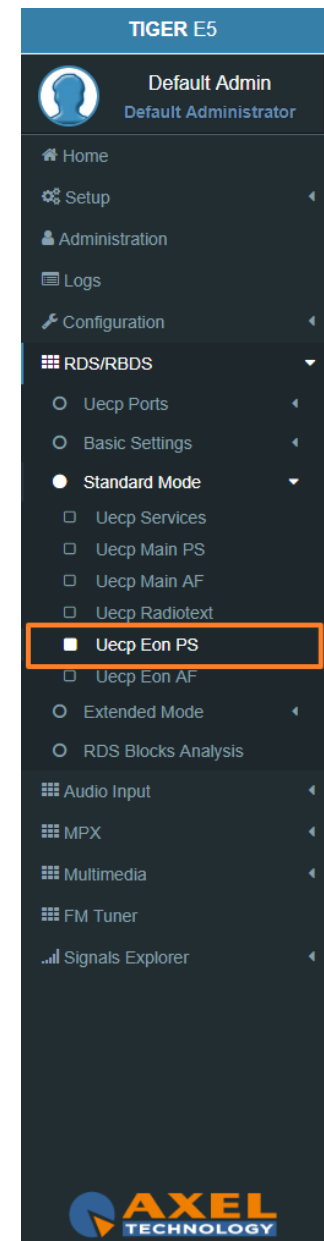
<div style="border: 1px solid #ccc; padding: 2px;">LA</div> <div style="border: 1px solid #ccc; padding: 2px;">Off ▼</div>	<div style="border: 1px solid #ccc; padding: 2px;">EG</div> <div style="border: 1px solid #ccc; padding: 2px;">Off ▼</div>	<div style="border: 1px solid #ccc; padding: 2px;">ILS</div> <div style="border: 1px solid #ccc; padding: 2px;">Off ▼</div>	<div style="border: 1px solid #ccc; padding: 2px;">LSN</div> <div style="border: 1px solid #ccc; padding: 2px;">000</div>
--	--	---	---

LA: linkage actuator.

EG: extended generic index.

ILS: international linkage standard.

LSN: linkage set number.



3.6.3.2 UECP EON AF

EON (Enhanced Other Networks Information) makes it possible to transmit information from other stations. This could be used by a radio station, which doesn't offer street traffic program content. If an alternative radio station with **TP (traffic program)** content is available, the tuner temporary switches automatically to the other station during traffic program announcements.

Eon Editing Controls

Eon Editing Controls

Editing Dataset Index

DSN 1

Editing Program Service

Eon 1 PS

Editing Dataset Index: decide which **EON AF** (alternative frequencies) you want to edit, select the related **DSN** (Dataset Number).

Editing Program Service: You will see this parameter also in **UECP Main AF**, you can select between 10 different **EON** Program Services.

EON Alternative Frequencies

In the following list, you can read EON AF (alternative frequencies) list of desired Tuned frequencies.

Eon Alternative Frequencies

Eon AF Lists

Lists	Tuned
(4-A)	87.9 91.6 93.5 95.9

+

Method Tuned Freq. AF List

A

add

TIGER E5

Default Admin

Default Administrator

Home

Setup

Administration

Logs

Configuration

RDS/RBDS

Uecp Ports

Basic Settings

Standard Mode

Uecp Services

Uecp Main PS

Uecp Main AF

Uecp Radiotext

Uecp Eon PS

Uecp Eon AF

Extended Mode

RDS Blocks Analysis

Audio Input

MPX

Multimedia

FM Tuner

Signals Explorer

AXEL

TECHNOLOGY

+		
Method	Tuned	AF List
A ▼	87.9	91.6, 93.5, 95.9

Method: decide between **A, Freq Map 1, Freq Map 2, Freq Map 3.**

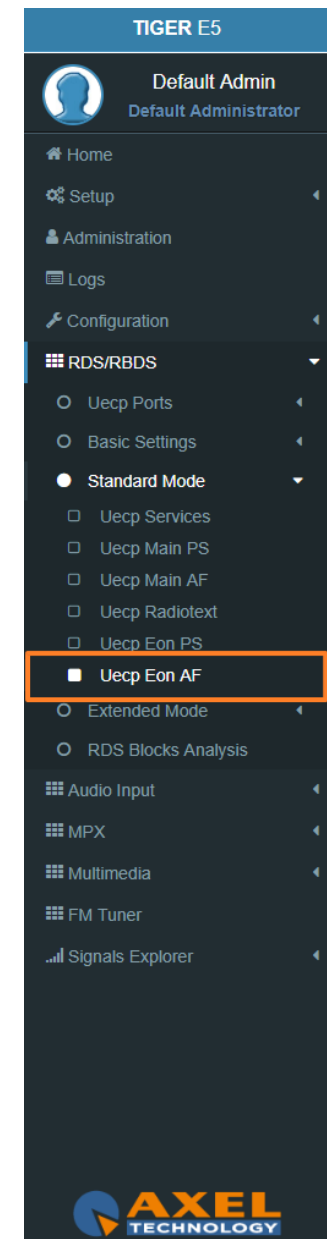
Tuned Freq: here the Main Tuned Freq.

AF List: in this list, you see different alternative frequencies.

Add: click on add to confirm parameters and to add them in rows.

Remove: click on a row that you want to delete and click on remove

Update: select a row that you want to edit, change parameters and click **Update** to save changes.

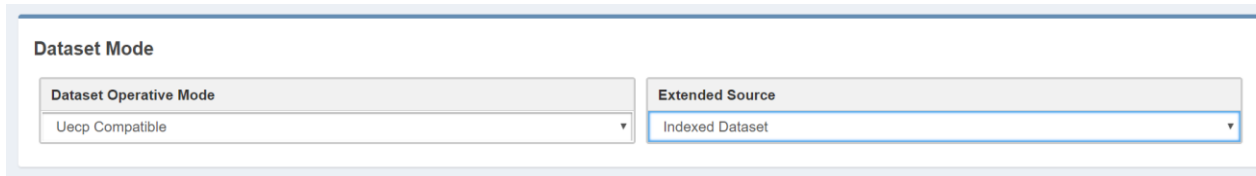


3.6.4 EXTENDED MODE

3.6.4.1 EXTENDED DATASET

Extended Dataset is a special section useful to enable **RDS/RBDS** Features without the using of **UECP** standard.

Dataset Mode



Dataset Operative Mode

UECP Compatible: (the Dataset rules are those defined in **UECP Services** section). In this case, the Extended Source is dis-active.

Extended Mode: (the Dataset rules could be The *Extend Source>Indexed Dataset* or the *Extended Source>Alternative Dataset* or the *Extended Source>REST Command* or the *SMB/SAMBA Share* explained in following lines.

Extended Source:

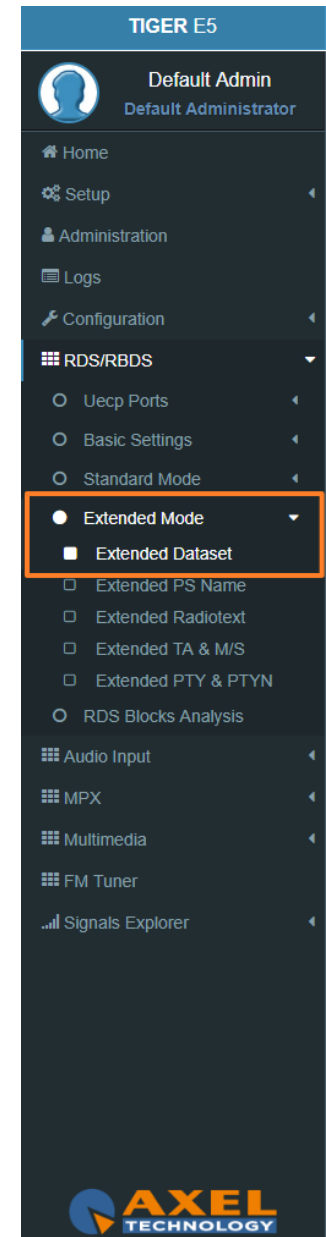
1. **Indexed Dataset:** if Dataset Operative Mode > Extended Mode, the Dataset choice works with a special binary code created by **GPI (4,5,6)** Events.

GPI Positive Logic:

0 = No GPI event 1 = GPI event Red number = Aired Dataset

GPI Negative Logic:

1 = No GPI event 0 = GPI event Red number = Aired Dataset



GPI 6	GPI 5	GPI 4	DATASET
0	0	0	1
0	0	1	2
0	1	0	3
0	1	1	4
1	0	0	5
1	0	1	6
1	1	0	7
1	1	1	8

2. **Alternative Dataset:** if *Dataset Operative Mode > Extended Mode* you can write a Dataset in *Alternative Mode > Alternative Dataset*.
3. **REST Command:** if Dataset Operative Mode > Extended Mode the dataset will be chosen by **REST** command.
4. **SMB/SAMBA Share:** if *Dataset Operative Mode > Extended Mode* the dataset will be chosen by *SMB/SAMBA* server.

Alternative Mode

Alternative Mode

Alternative Dataset

8

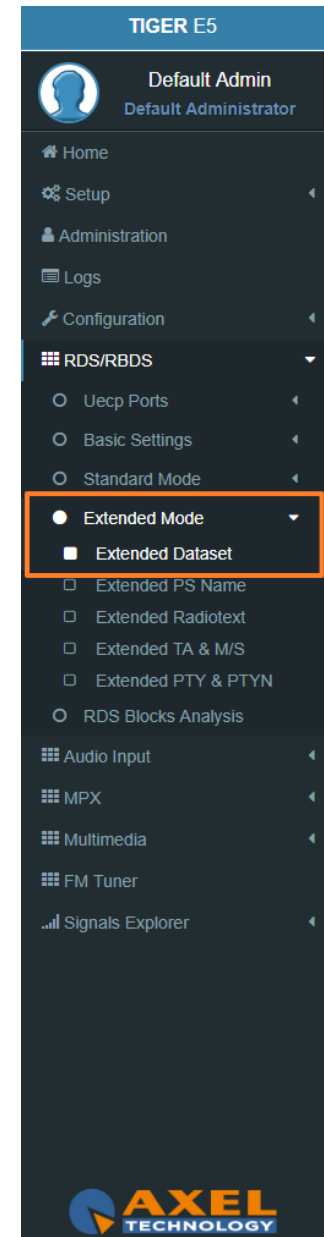
Alternative Dataset On

GPI 1 Event

Alternative Dataset: Select between available Datasets the one that will be aired in the following case: *Dataset Operative Mode > Extended Mode* and *Extended Source > Alternative Dataset*.

Active Dataset On: *Dataset Operative Mode > Extended Mode* and *Extended Source > Alternative Dataset*. If Select the **GPI** that actives.

the **Dataset** in the specified **GPI** Event. The control does not work if the related **GPI Event** is masked.

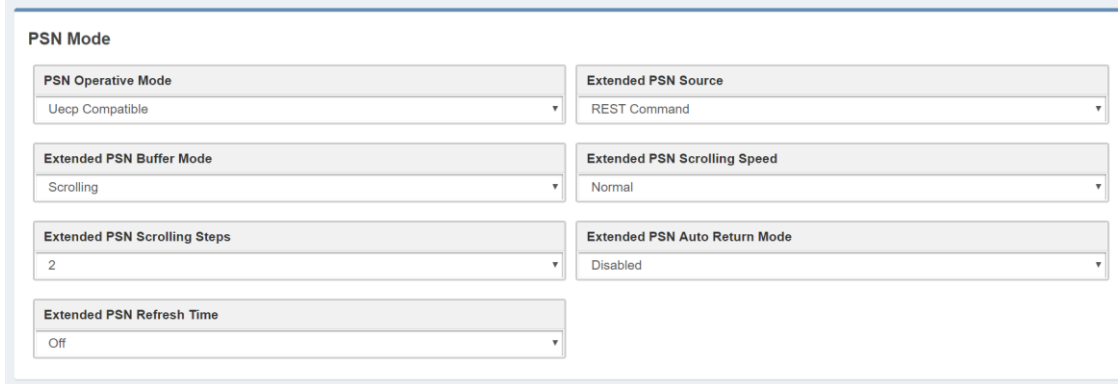


3.6.4.2 EXTENDED PS NAME

PSN Mode

PSN Extended Source: When the Extended PSN Source is on **Aux1 Mpx Changeover Filtered Rebroadcasting Rds Decoder** the Program Service can be driven by **Aux1 MPX signal**.

By selecting the Mpx Changeover Source **A/B** rebroadcasting filters the user can choose this source for the Extended PS.



PSN Operative Mode:

UECP Compatible (the aired PSN is that defined in **UECP Main PS** section).

Extended Mode the aired PSN is the one defined by REST Command or the one defined in the below section Extended PSN Test.

Extended PSN Source: *REST Command, SMB/SAMBA Share, ASCII Parser on UDP Port, ASCII Parser on UDP Port, ASCII Parser on MIB OID, Static Text, Aux1 Mpx Changeover Filtered Rebroadcasting Rds Decoder.*

Extended PSN Buffer Mode: Scrolling

Extended PSN Scrolling Speed: Scrolling speed. Choose between Fastest, Fast, Normal, Slow, Slowest.

Extended PSN Scrolling Steps: Scrolling steps, the number of character scrolling step. From 1 to 8.

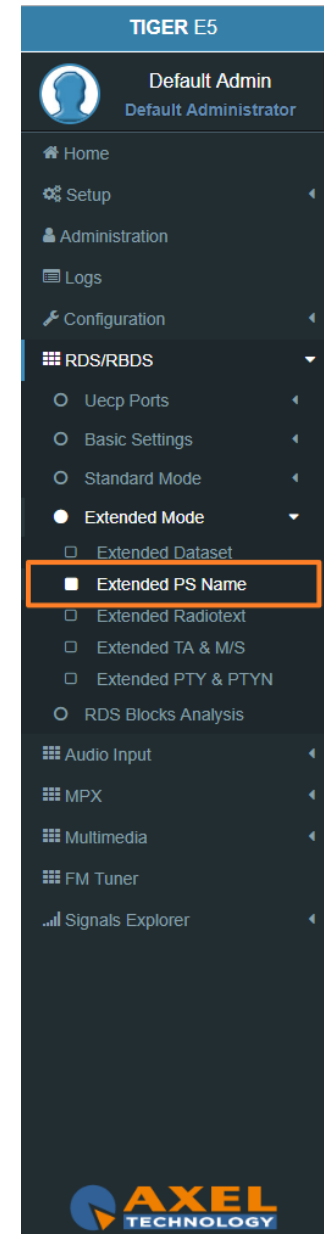
Extended PSN Auto Return Mode:

Disabled (there is the PSN repetition)

After 1 Loop (After 1 loop the PSN repetition stops)

After 2 Loops (After 2 loops the PSN repetition stops)

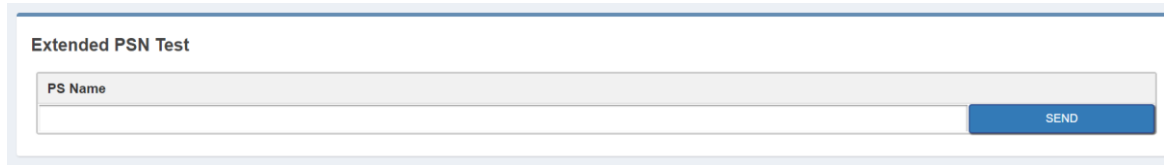
After 3 Loops (After 3 loops the repetition stops)



After 4 Loops (After 4 loops the repetition stops)

After 5 Loops (After 5 loops the repetition stops).

Extended PSN Test



Extended PSN Test

PS Name


SEND

PSN Name: Type here the desired extended PS Name. Then click **SEND** to air it.

Static PSN Text

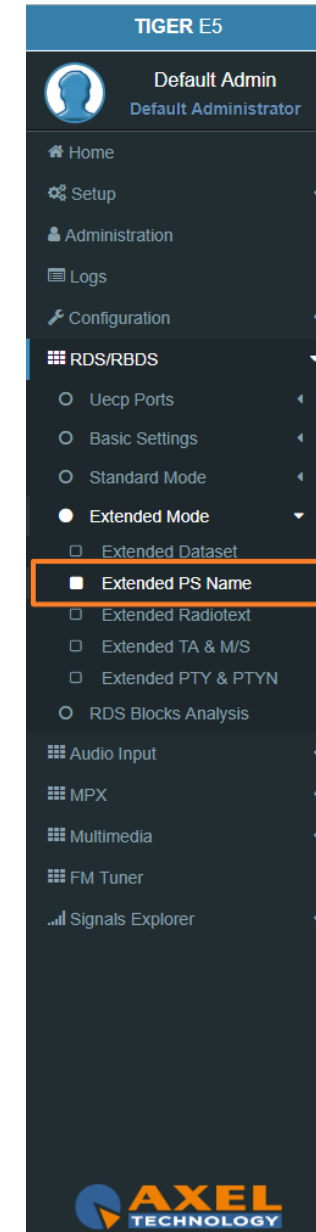
The user can choose Static Text as **Extended PSN Source**.

Any text written here will be broadcasted as extended PS Name without need any external input.



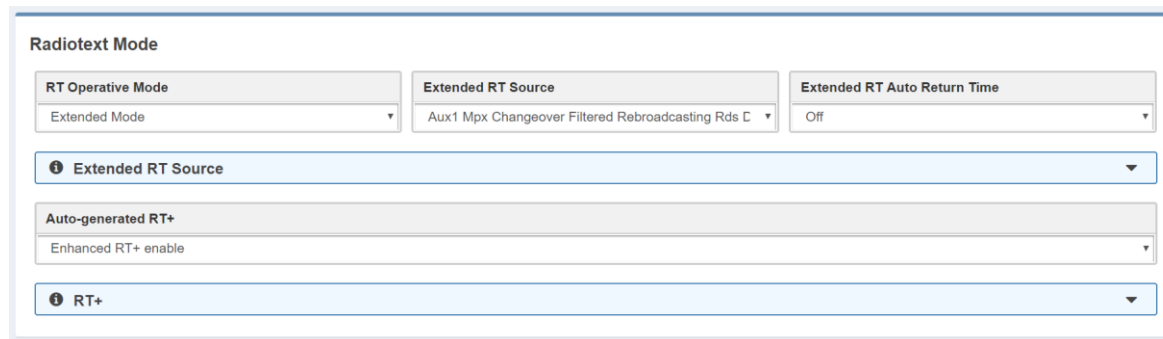
Static PSN Text

Static PSN Text



3.6.4.3 EXTENDED RADIOTEXT

Radiotext Mode



RT Operative Mode:

UECP Compatible (the aired RadioText is that defined in **UECP Radiotext** section).

Extended Mode the aired Radiotext is the one defined by the REST Command or the value will be the one defined in the below section *Extended RT Test*.

RT Extended Source: *REST Command, SMB/SAMBA Share, ASCII Parser on UDP Port, ASCII Parser on UDP Port, ASCII Parser on MIB OID, Static Text, Aux1 Mpx Changeover Filtered Rebroadcasting Rds Decoder.*

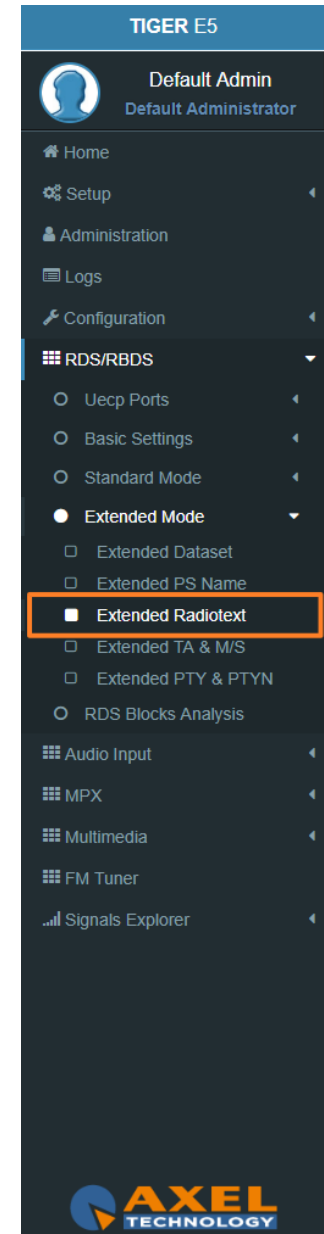
When the **Extended RT Source** is on **Aux1 Mpx Changeover Filtered Rebroadcasting Rds Decoder** the Radiotext can be driven by **Aux1 MPX** signal. By selecting the **Mpx Changeover Source A/B** rebroadcasting filters the user can choose this source for the **Extended RT**.

Auto-generated RT+: RT+ Service will be automatically generated using every tagged data available. Important: this service requires 3A and 12A groups in the group sequence list (in Standard Mode - Uecp Services page).

Extended RT Auto Return Time: off, 10 sec – 190 sec.

If it is not off, it returns to the **UECP** buffer if no new data arrives in the selected time.

Note: Sending the same Radiotext within the pre-set time is not accepted as a valid event to prevent the car from returning.



Extended RT Test

Extended RT Test

Radio Text Edit

SEND

Radio Text Edit: Type here the desired extended Radiotext. Then click **SEND** to air it.

3.6.4.4 EXTENDED TA & M/S

M/S Mode

M/S Mode

M/S Operative Mode

Uecp Compatible

M/S Extended Source

GPI 1 Event

M/S Operative Mode:

UECP Compatible (the aired Music/Speech value is that defined in **UECP Main PS** section).

Extended Mode the aired Music/Speech value is the one defined by GPI, or by REST Command or the value will be the one defined in the below section **Extended M/S & TA Test** section.

M/S Extended Source:

GPI (1,2,3,4,5,6) Event:

GPI EVENT NOT DETECTED = MUSIC

GPI EVENT DETECTED = SPEECH

REST Command: you can decide if Music or Speech by REST command or by the below **Extended M/S & TA Test** section.

SMB/SAMBA Share: you can decide if the Music or Speech by the payout XML File.

Text Announcement Mode

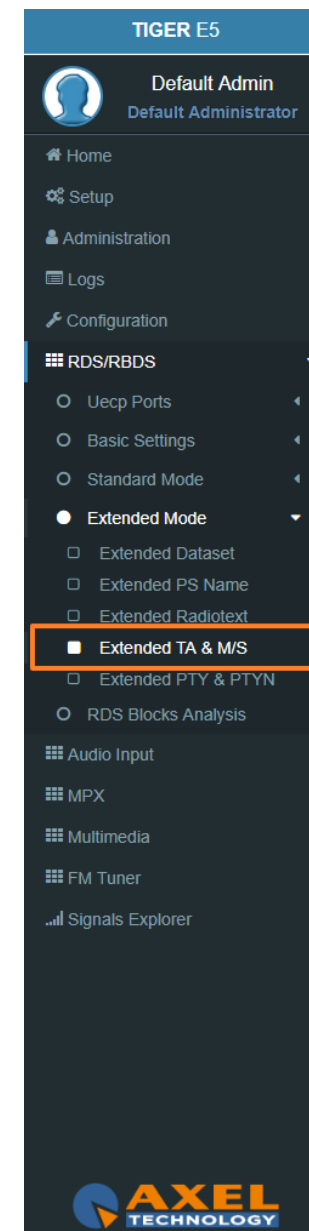
Text Announcement Mode

TA Operative Mode

Uecp Compatible

TA Extended Source

GPI 1 Event



TA Operative Mode:

UECP Compatible (the aired TA on/off value is that defined in **UECP Main PS** section).

Extended Mode (the aired Music/Speech value is the one defined by GPI, or by REST Command or the value will be the one defined in the below section **Extended M/S & TA Test** section).

TA Extended Source:

GPI (1,2,3,4,5,6) Event:

GPI EVENT NOT DETECTED = TA OFF

GPI EVENT DETECTED = TA ON

REST Command: you can decide if TA ON or TA OFF by REST command or by the below **Extended M/S & TA Test** section.

SMB/SAMBA Share: you can decide if TA ON or TA OFF by the playout XML File.

Extended M/S & TA REST Test

Extended M/S & TA REST Test

Music/Speech

Speech

Traffic Announcement

Off

Music/Speech: airs the Music/Speech only If **TA Operative Mode** is in Extended Mode.

Traffic Announcement: airs the Off/On only If **TA Operative Mode** is in Extended Mode.

Eon TA Mode

Eon TA 1 Operative Mode

Extended Mode

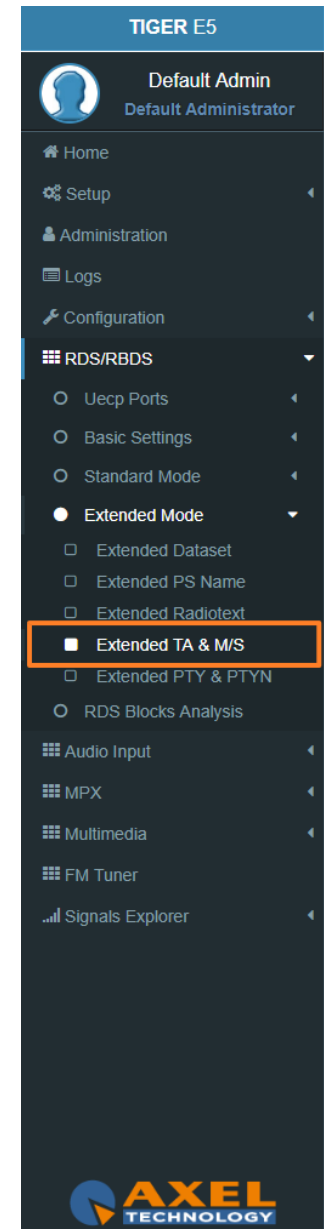
Eon TA 1 Extended Source

GPI 1 Event

For all the lines the logic works as the Text Announcement Mode. The Extended EON TA is editable from **GPI** and **REST Command**. The following example is an example that summarizes all **EON TA**:

EON TA X OPERATIVE MODE:

UECP Compatible (the aired EON TA on/off value is that defined in **UECP EON PS** section).



Extended Mode (the aired EON TA on/off value is the one defined by GPI or by REST Command).

EON TA X EXTENDED SOURCE:

GPI (1,2,3,4,5,6) Event:

GPI EVENT NOT DETECTED = EON TA OFF

GPI EVENT DETECTED = EON TA ON

REST Command: you can decide if TA ON or TA OFF by REST command.

3.6.4.5 EXTENDED PTY e PTYN

PTY Mode

PTY Mode	
<div>PTY Operative Mode</div> <div>Uecp Compatible ▼</div>	<div>PTY Extended Source</div> <div>REST Command ▼</div>

PTY Operative Mode:

UECP Compatible (the aired PTY value is that defined in **UECP MAIN PS** section).

Extended Mode: (the aired PTY value is the one defined by **REST Command**).

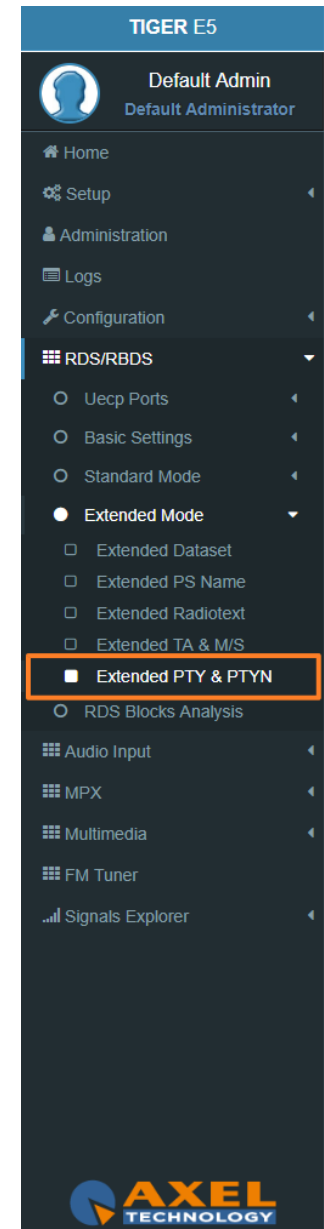
PTY Extended Source: REST Command or SMB/SAMBA.

PTYN Mode

PTYN Mode	
<div>PTYN Operative Mode</div> <div>Uecp Compatible ▼</div>	<div>PTYN Extended Source</div> <div>REST Command ▼</div>

PTYN Operative Mode:

UECP Compatible (the aired PTYN value is that defined in **UECP MAIN PS** section).



Extended Mode (the aired PTY value is the one defined by REST Command or by the following section Extended PTYN Test).

PTYN Extended Source: REST Command or SMB/SAMBA.

Extended PTYN Test

Extended PTYN Test

PTYN Edit

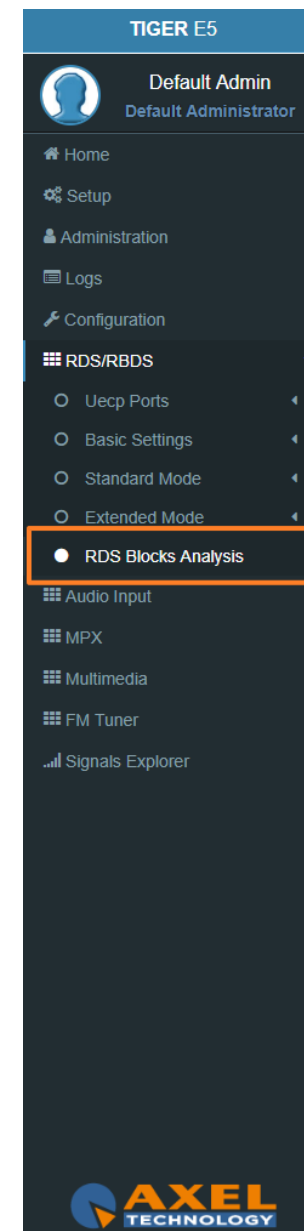
SEND

PTYN Edit: type here the desired Extended **PTYN** value and then click on **Send**.

3.6.5 RDS BLOCKS ANALYSIS

From the following panel you can read for the statistics related to each transmitted group:

RDS GROUPS STATISTIC

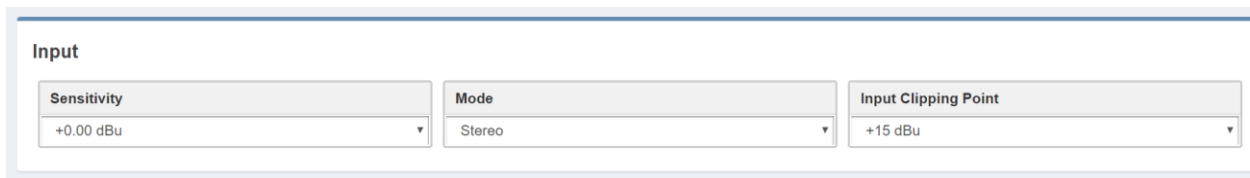


3.7 AUDIO INPUT

3.7.1 SOURCES

In this section, you can define parameters connected with the 4 sources (analogic, digital, multimedia and mp3 decoder). The changeover can choose between one of the following sources.

3.7.1.1 ANALOG INPUT



Input

Sensitivity	Mode	Input Clipping Point
+0.00 dBu	Stereo	+15 dBu

Sensitivity: sensitivity of the input level. (In example: if a signal of -6.00 dBu arrives, this parameter has to be set on -6.00 dBu).

Mode:

Stereo: the sound is reproduced in his both left and right channels.

Mono: the sound is reproduced only in one channel in monophonic way.

Mono-Left: the left channel of the input signal is reproduced in monophonic way.

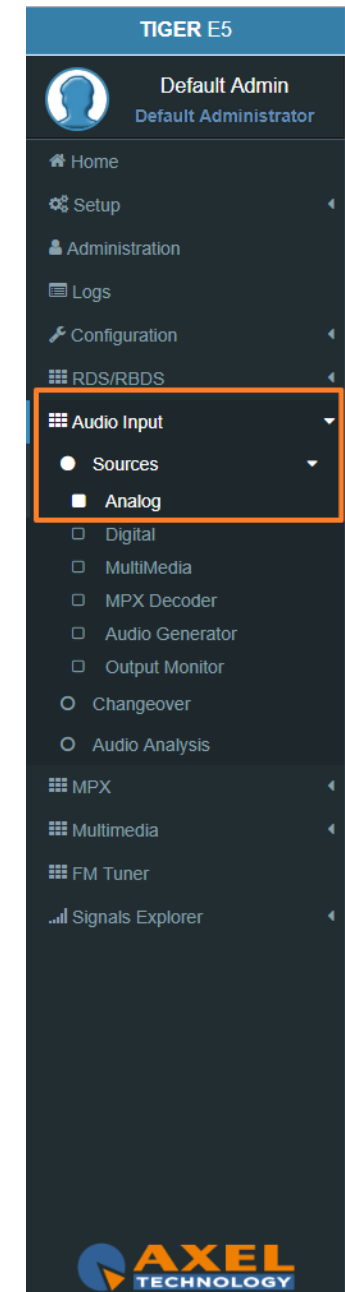
Mono-Right: the right channel of the input signal is reproduced in monophonic way.

Swap Left-Right: the left and right channels are swapped. The left becomes the right, and the right becomes the left. The sound is reproduced in stereophonic way.

Inv Left: the sound is reproduced in stereophonic way, but the phase of the left channel is inverted.

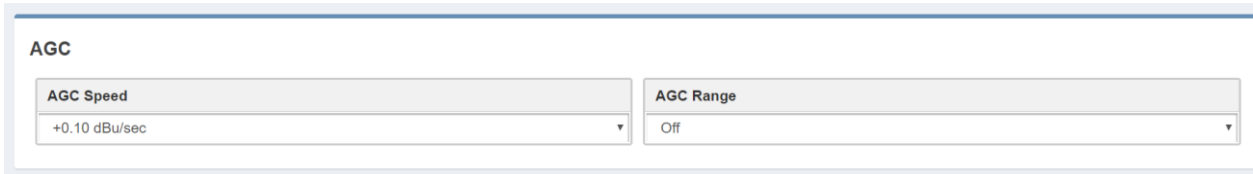
Inv Right: the sound is reproduced in stereophonic way, but the phase of the right channel is inverted.

Input Clipping Point: moves the clipping point level. If Sensitivity ≤ 9 we suggest keeping the Input Clipping Point=+15 dBu. If Sensitivity > 9 we suggest keeping the Input Clipping Point=+24 dBu



AGC

This setting helps balance the audio level. Some of the analogue conventional and trunked radio systems do not include components with **AGC Automatic Gain Control** to help normalize the audio levels of analogue transmissions in the system. This can result in a low-level audio signal if a user on the system is not speaking close enough to their radio microphone.



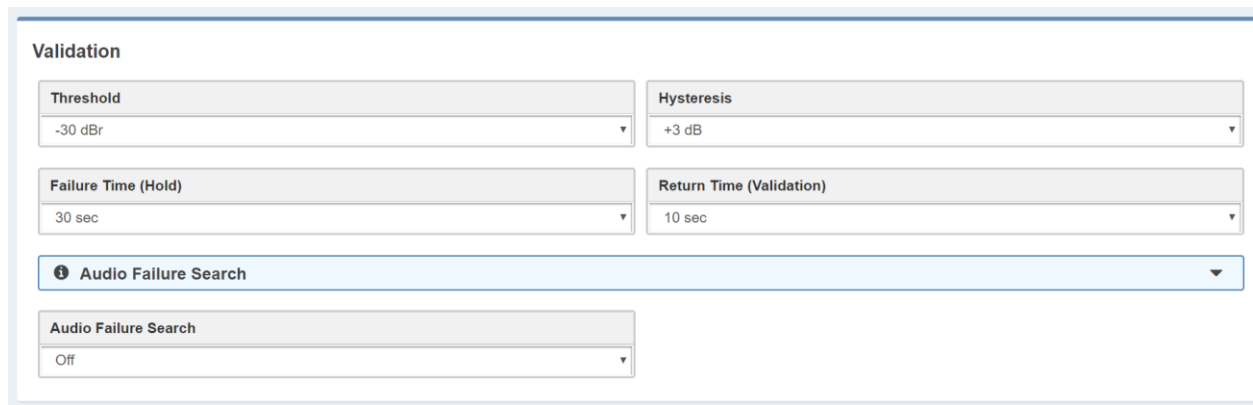
The AGC configuration interface shows two dropdown menus. The first is labeled 'AGC Speed' and has a value of '+0.10 dBu/sec'. The second is labeled 'AGC Range' and has a value of 'Off'.

AGC Speed: gain speed of action.

AGC Range: this parameter rules the maximum gain to apply on the received signal.

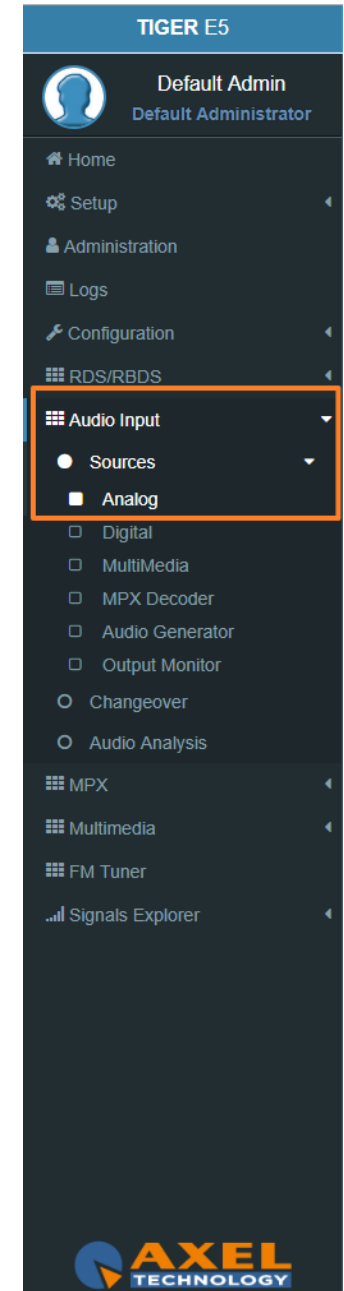
VALIDATION

In this section, it is possible to manage the parameter for the signal validation.
The CHANGEOVER looking at these parameters can consider valid or not the source.



The Validation configuration interface shows several dropdown menus. The first is labeled 'Threshold' and has a value of '-30 dBr'. The second is labeled 'Hysteresis' and has a value of '+3 dB'. The third is labeled 'Failure Time (Hold)' and has a value of '30 sec'. The fourth is labeled 'Return Time (Validation)' and has a value of '10 sec'. Below these is a section labeled 'Audio Failure Search' with a dropdown menu set to 'Off'.

Threshold: the source is considered invalid if the signal is lower than this value for the time typed in *Validation* parameter.



Hysteresis: the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed in *Hold*.

Failure Time (Hold): the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed here.

Return Time (Validation): the source is considered invalid if the signal is lower than *Threshold* for the time typed here.

Audio Failure Search: This function enables statistical research of small audio holes inside the audio signal. Useful to recognize corrupted decoded audio from satellite or digital links.

For a General Purpose, we suggest you choose the **Mode 2**.

For a musical radio, we suggest you the **Mode 1**.

For a talk radio, we suggest you the **Mode 3**.

Off: this function is off.

Mode 1: *silence* blocks window=80ms, *Percentage*=10%, *Time*=30secs (Music).

Mode 2: *silence* blocks window=120ms, *Percentage*=15%, *Time*=30secs (General Purpose).

Mode 3: *silence* blocks window=180ms, *Percentage*=20%, *Time*=30secs (Talk).

Silence blocks window: seconds of the single audio hole.

Percentage: percentage of *Silence blocks window* that the Changeover has to find in a *Time=Time*

Time: time in which the check is done.

Events

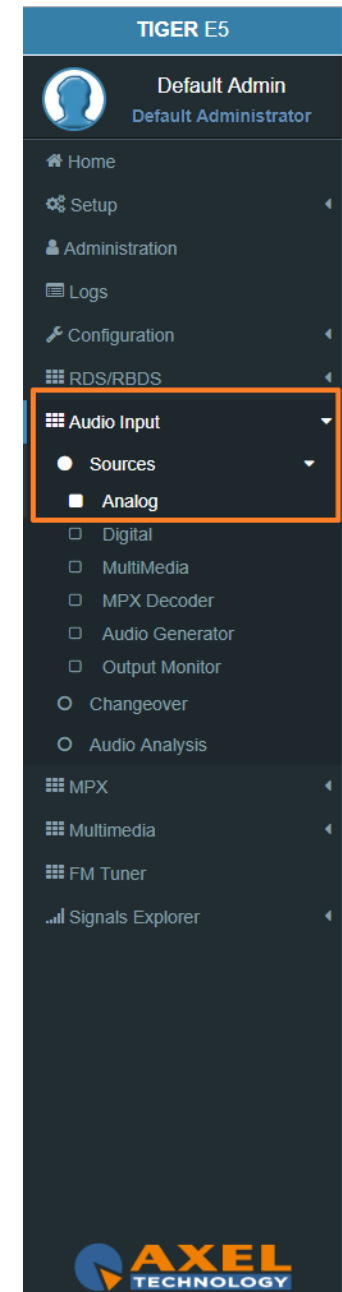
Audio Inp Analog Events



masked

Audio Inp Analog Alarm

Masked/Unmasked: Mask/Unmask the alarm of the Audio Inp Analog Events.



3.7.1.2 DIGITAL

INPUT

Input

Sensitivity

-20.00 dBfs

Mode

Stereo

Sensitivity: sensitivity of the input level. (For example: if a signal of -6.00 dBu arrives, this parameter has to be set on -6.00 dBu).

Mode:

Stereo: the sound is reproduced in his both left and right channels.

Mono: the sound is reproduced only in one channel in monophonic way.

Mono-Left: the left channel of the input signal is reproduced in monophonic way.

Mono-Right: the right channel of the input signal is reproduced in monophonic way.

Swap Left-Right: the left and right channels are swapped. The left becomes the right, and the right becomes the left. The sound is reproduced in stereophonic way.

Inv Left: the sound is reproduced in stereophonic way, but the phase of the left channel is inverted.

Inv Right: the sound is reproduced in stereophonic way, but the phase of the right channel is inverted.

AGC

Automatic Gain Control This setting helps balance and normalize the audio levels of audio transmissions in the system. Digital radio systems typically do not **AGC** control functionality and tend to reproduce a user's voice audio signal more faithfully with regard to audio levels. This can result in a low-level audio signal if a user on the system is not speaking close enough to their radio microphone.

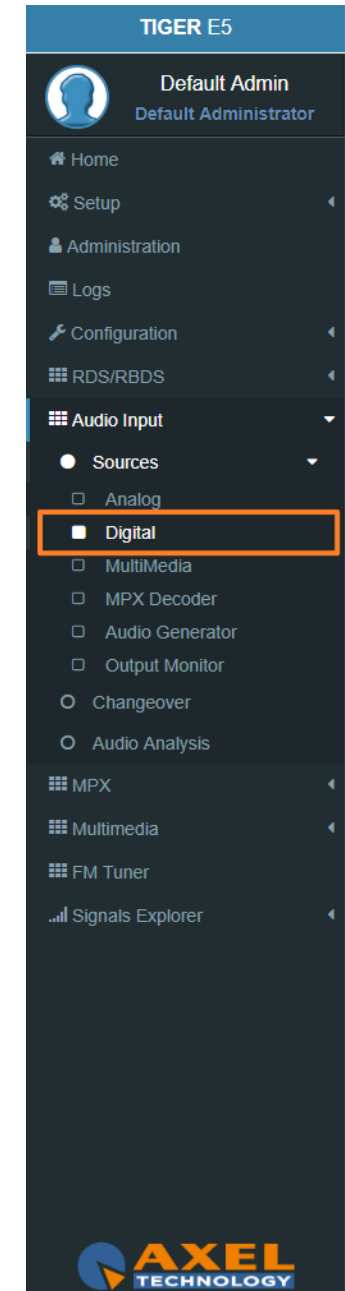
AGC

AGC Speed

+0.10 dBu/sec

AGC Range

Off



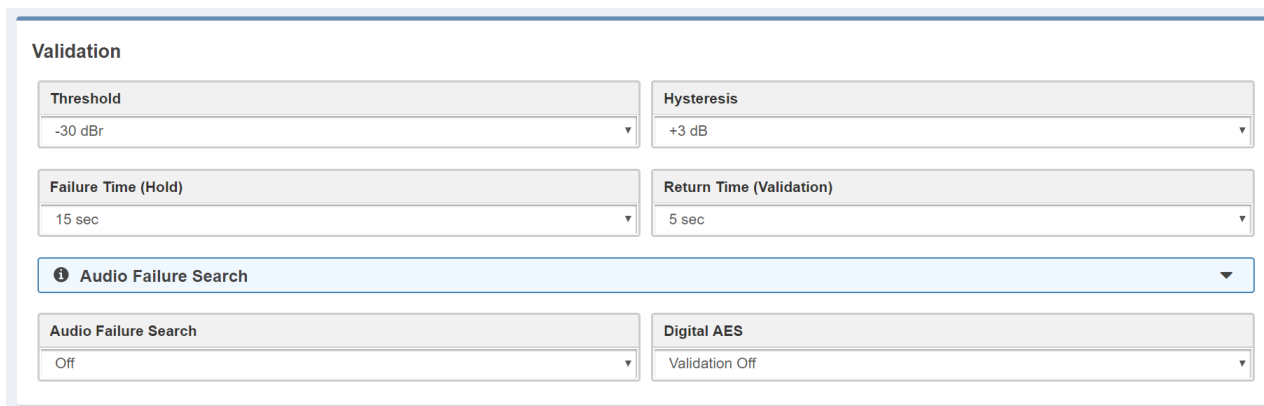
AGC Speed: gain speed of action.

AGC Range: this parameter rules the maximum gain to apply on the received signal.

VALIDATION

In this section, it is possible to manage the parameter for the signal validation.

The **CHANGEOVER** looking at these parameters can consider valid or not the source.



Validation	
Threshold -30 dBr	Hysteresis +3 dB
Failure Time (Hold) 15 sec	Return Time (Validation) 5 sec
Audio Failure Search	
Audio Failure Search Off	Digital AES Validation Off

Threshold: the source is considered invalid if the signal is lower than this value for the time typed in *Validation* parameter.

Hysteresis: the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed in *Hold*.

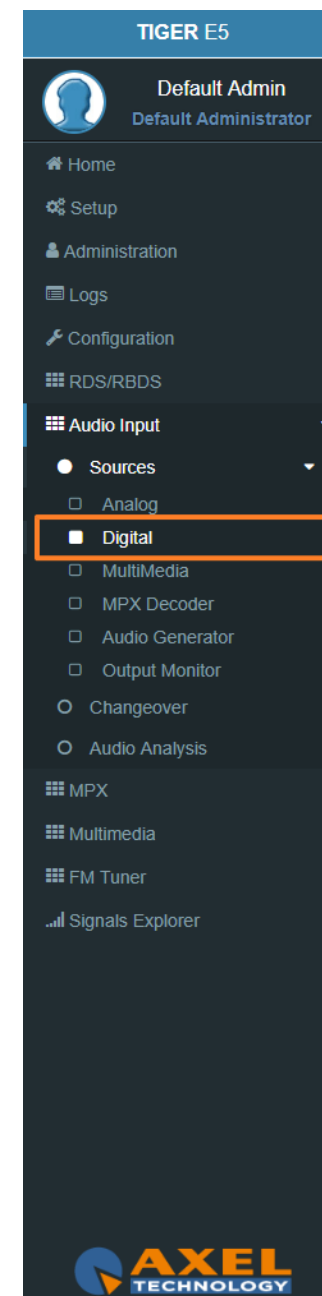
Failure Time (Hold): the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed here.

Return Time (Validation): the source is considered invalid if the signal is lower than *Threshold* for the time typed here.

Audio Failure Search: This function enables statistical research of small audio holes inside the audio signal. Useful to recognize corrupted decoded audio from satellite or digital links.

For a General Purpose, we suggest you choose the **Mode 2**.

For a musical radio, we suggest you the **Mode 1**.



For a talk radio, we suggest you the **Mode 3**.

Off: this function is off.

Mode 1: **silence** blocks window=80ms, **Percentage**=10%, **Time**=30secs (Music).

Mode 2: **silence** blocks window=120ms, **Percentage**=15%, **Time**=30secs (General Purpose).

Mode 3: **silence** blocks window=180ms, **Percentage**=20%, **Time**=30secs (Talk).

Silence blocks window: seconds of the single audio hole.

Percentage: percentage of *Silence blocks window* that the Changeover has to find in a *Time=Time*

Time: time in which the check is done.

Digital AES:

Validation Off: if Validation Off the signal is always considered valid.

Validation On: if Validation On the signal is considered valid only if it is possible to find the AES EBU digital signal clock and frame format.

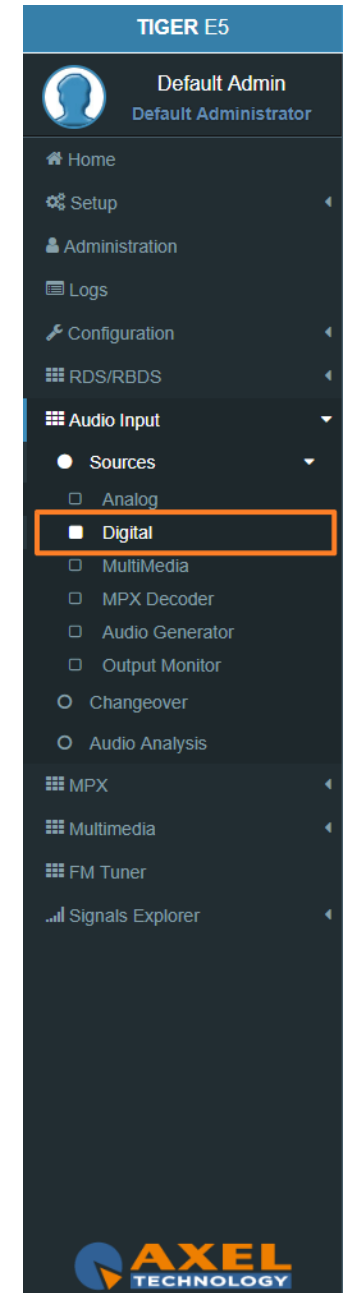
Events

Audio Inp Digital Events

<input checked="" type="radio"/>	masked	▼	Audio Inp Digital Alarm
<input checked="" type="radio"/>	masked	▼	Audio Aes Digital Carrier Alarm

Audio Inp Digital Masked/Unmasked: Mask/Unmask the alarm of the Audio Inp Digital.

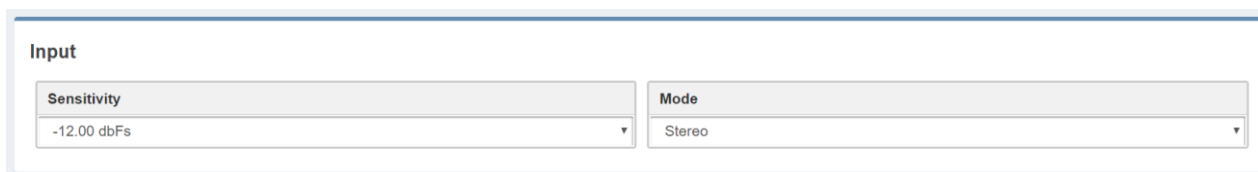
Audio Aes Digital Carrier Masked/Unmasked: Mask/Unmask the alarm of the Audio Aes Digital Carrier.



3.7.1.3 MULTIMEDIA

This source depends on the multimedia module. The source is included two **IP Decoder** (audio streaming) or an **audio Player**. The player source is an **SD card** filled in the **TIGER E3/E5** with audio files.

INPUT



Sensitivity: sensitivity of the input level. (For example: if a signal of -6.00 dBu arrives, this parameter has to be set on -6.00 dBu)

Mode:-

Stereo: the sound is reproduced in his both left and right channels.

Mono: the sound is reproduced only in one channel in monophonic way.

Mono-Left: the left channel of the input signal is reproduced in monophonic way.

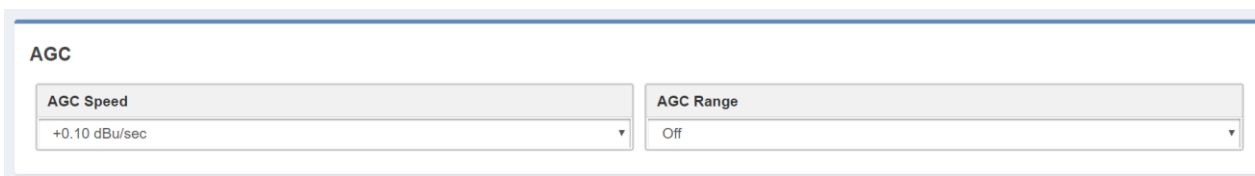
Mono-Right: the right channel of the input signal is reproduced in monophonic way.

Swap Left-Right: the left and right channels are swapped. The left becomes the right, and the right becomes the left. The sound is reproduced in stereophonic way.

Inv Left: the sound is reproduced in stereophonic way, but the phase of the left channel is inverted.

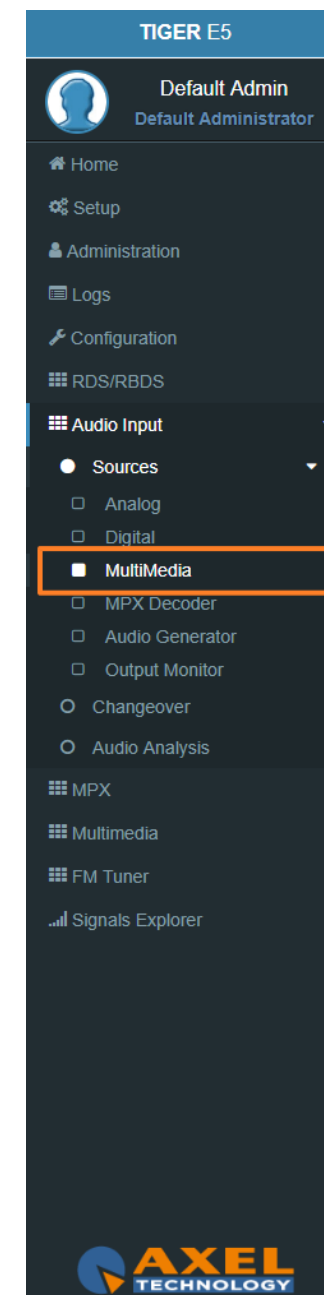
Inv Right: the sound is reproduced in stereophonic way, but the phase of the right channel is inverted.

AGC



AGC Speed: gain speed of action.

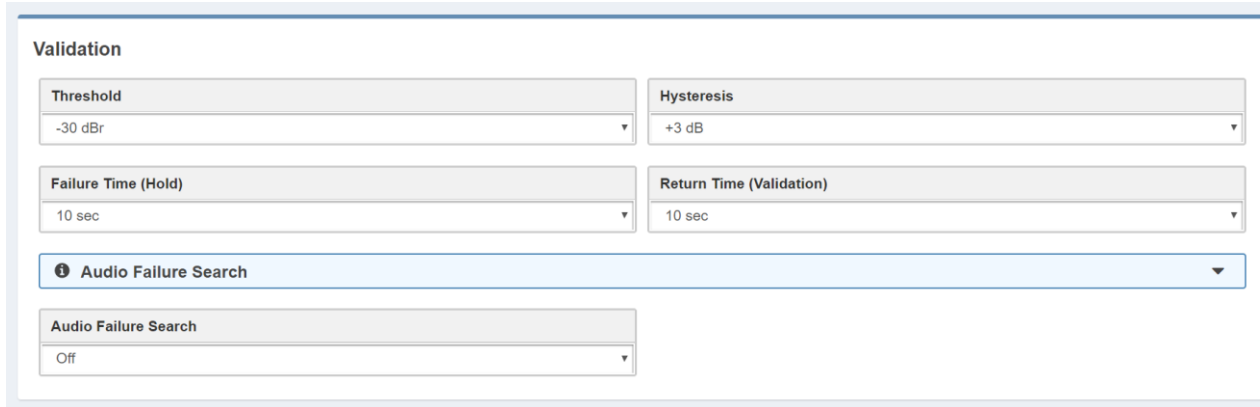
AGC Range: this parameter rules the maximum gain to apply on the received signal.



VALIDATION

In this section, it is possible to manage the parameter for the signal validation.

The **CHANGEOVER** looking at these parameters can consider valid or not the source.



Threshold: the source is considered invalid if the signal is lower than this value for the time typed in *Validation* parameter.

Hysteresis: the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed in *Hold*.

Failure Time (Hold): the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed here.

Return Time (Validation): the source is considered invalid if the signal is lower than *Threshold* for the time typed here.

Audio Failure Search: This function enables statistical research of small audio holes inside the audio signal. Useful to recognize corrupted decoded audio from satellite or digital links.

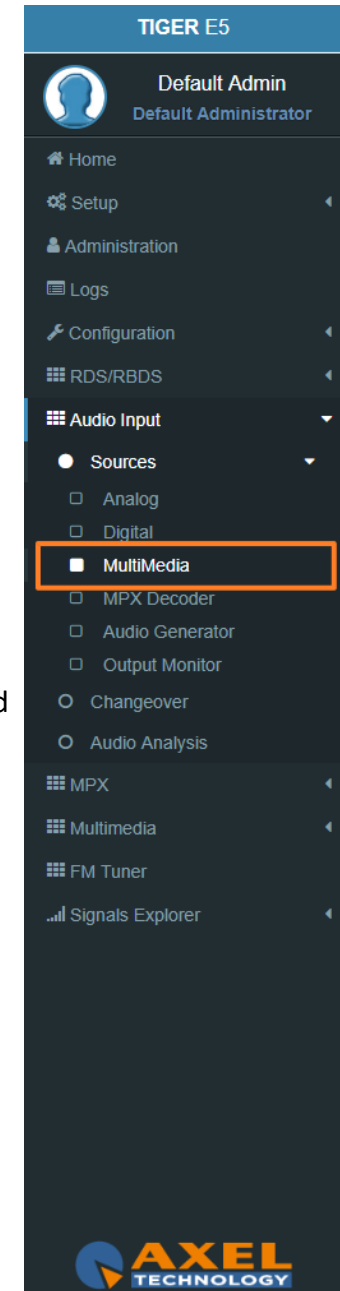
For a General Purpose, we suggest you choose the **Mode 2**.

For a musical radio, we suggest you the **Mode 1**.

For a talk radio, we suggest you the **Mode 3**.

Off: this function is off.

Mode 1: silence blocks window=80ms, Percentage=10%, Time=30secs (Music).



Mode 2: *silence blocks window*=120ms, *Percentage*=15%, *Time*=30secs (General Purpose).

Mode 3: *silence blocks window*=180ms, *Percentage*=20%, *Time*=30secs (Talk).

Silence blocks window: seconds of the single audio hole.

Percentage: percentage of *Silence blocks window* that the Changeover has to find in a *Time=Time*

Time: time in which the check is done.

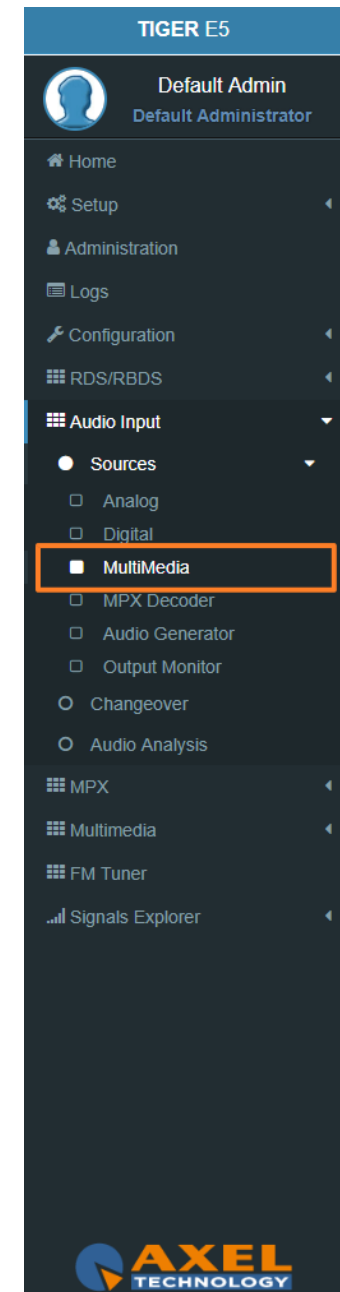
Events

Audio Inp Media Events

masked

Audio Inp Media Alarm

Audio Inp Media Masked/Unmasked: Mask/Unmask the alarm of the Audio Inp Media.



3.7.1.4 MPX DECODER

This source is an MPX decoder, it extracts the L/R channels from the MPX signal.

INPUT

Input

Source

MPX Aux1

Sensitivity

+0.00 dB

Mode

Stereo

Deemphasis

50 uSec

Source: Select here the source for the Mpx Decoder. You can choose between:

MPX Aux1

MPX Aux2

MPX Source A

MPX Source B

MPX Out1

MPX Out2

Sensitivity: sensitivity of the input level. (For example: if a signal of -6.00 dBu arrives, this parameter has to be set on -6.00 dBu).

Mode:-

Stereo: the sound is reproduced in his both left and right channels.

Mono: the sound is reproduced only in one channel in monophonic way.

Mono-Left: the left channel of the input signal is reproduced in monophonic way.

Mono-Right: the right channel of the input signal is reproduced in monophonic way.

Swap Left-Right: the left and right channels are swapped. The left becomes the right, and the right becomes the left. The sound is reproduced in stereophonic way.

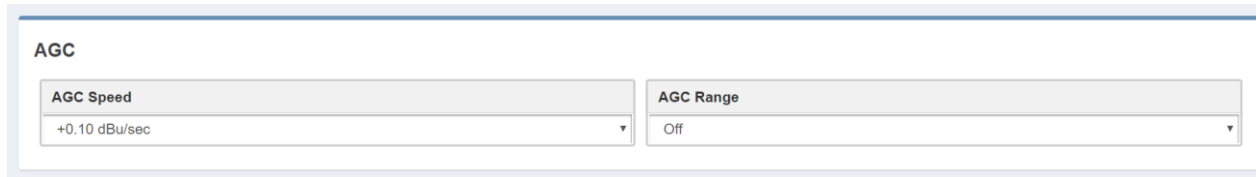
Inv Left: the sound is reproduced in stereophonic way, but the phase of the left channel is inverted.

Inv Right: the sound is reproduced in stereophonic way, but the phase of the right channel is inverted



Deemphasis: Here is possible to select the deemphasis to apply on the signal. It is possible to choose between *off*, *50uSec* and *75uSec*.

AGC



AGC

AGC Speed +0.10 dBu/sec	AGC Range Off
----------------------------	------------------

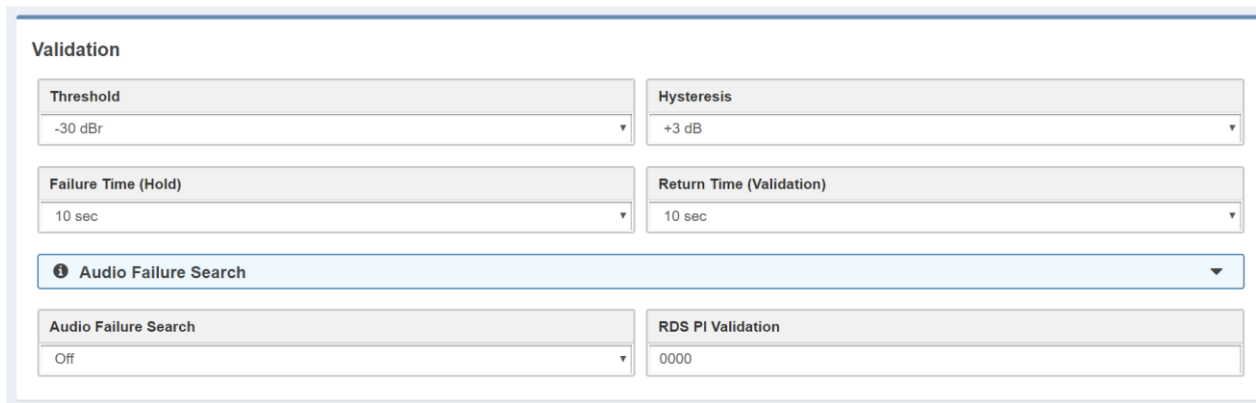
AGC Speed: gain speed of action.

AGC Range: this parameter rules the maximum gain to apply on the received signal.

VALIDATION

In this section, it is possible to manage the parameter for the signal validation.

The **CHANGEOVER** looking at these parameters can consider valid or not the source.



Validation

Threshold -30 dB	Hysteresis +3 dB
Failure Time (Hold) 10 sec	Return Time (Validation) 10 sec
Audio Failure Search	
Audio Failure Search Off	RDS PI Validation 0000

Threshold: the source is considered invalid if the signal is lower than this value for the time typed in *Validation* parameter.

Hysteresis: the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed in *Hold*.

Failure Time (Hold): the source is considered valid if the signal is higher than *Threshold + Hysteresis* for the time typed here.



TIGER E5

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Default Administrator

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- RDS/RBDS
- Audio Input
 - Sources
 - Analog
 - Digital
 - MultiMedia
 - MPX Decoder**
 - Audio Generator
 - Output Monitor
 - Changeover
 - Audio Analysis
- MPX
- Multimedia
- FM Tuner
- Signals Explorer

AXEL TECHNOLOGY

Return Time (Validation): the source is considered invalid if the signal is lower than *Threshold* for the time typed here.

Audio Failure Search: This function enables statistical research of small audio holes inside the audio signal. Useful to recognize corrupted decoded audio from satellite or digital links.

For a General Purpose, we suggest you choose the **Mode 2**.

For a musical radio, we suggest you the **Mode 1**.

For a talk radio, we suggest you the **Mode 3**.

Off: this function is off.

Mode 1: *silence* blocks window=80ms, *Percentage*=10%, *Time*=30secs (Music).

Mode 2: *silence* blocks window=120ms, *Percentage*=15%, *Time*=30secs (General Purpose).

Mode 3: *silence* blocks window=180ms, *Percentage*=20%, *Time*=30secs (Talk).

Silence blocks window: seconds of the single audio hole.

Percentage: percentage of *Silence blocks window* that the Changeover has to find in a *Time=Time*

Time: time in which the check is done.

RDS PI Validation: In this field, you can fill the desired RDS PI.

If the RDS PI Validation=0000 the source is not under validation control. the signal is always considered valid.

If the RDS PI Validation=*number* then:

if *RDS PI = number* the source is considered valid.

if *RDS PI ≠ number* all the MPX source is invalidated.

Events

Audio Inp MPX Decoder Events

masked

Audio Inp MPX Decoder Alarm

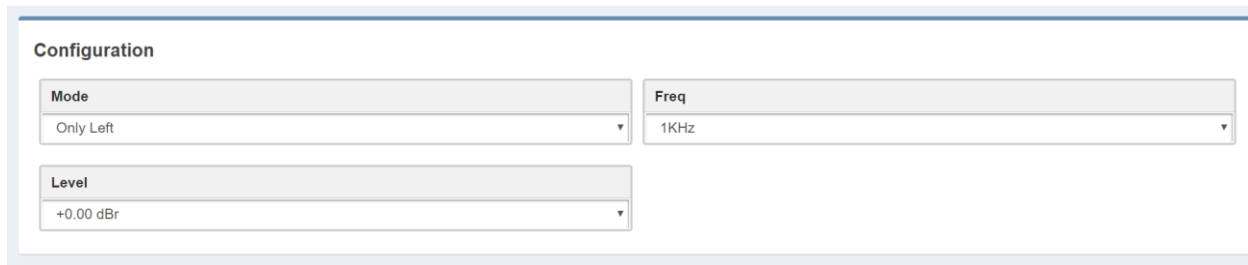
Audio Inp MPX Decoder Masked/Unmasked: Mask/Unmask the alarm of the Audio Inp MPX Decoder.



3.7.1.5 AUDIO GENERATOR

TIGER E3/E5 comes with a built-in audio tone generator. The tone range is 30 Hz - 15 kHz. This option is too useful for the tuning instruments, science experiments, testing audio equipment. The Audio Generator module sets the parameters for the internal tone generator.

CONFIGURATION



The screenshot shows a configuration window titled "Configuration". It contains three dropdown menus: "Mode" set to "Only Left", "Freq" set to "1KHz", and "Level" set to "+0.00 dBr".

Mode: this parameter sets the mode with the audio generator generates a tone. The possible modes are

Left=Right: the Left and the Right channels are in phase

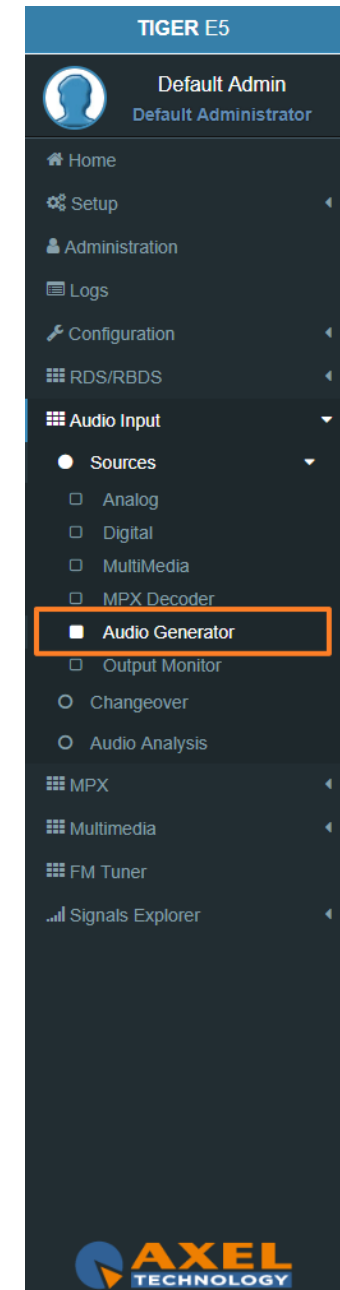
Left=-Right: the Left and the Right channels are in reverse phase

Only Left: only the Left channel is available

Only Right: only the Right channel is available

Freq: Select here the frequency of the tone that you want to generate.

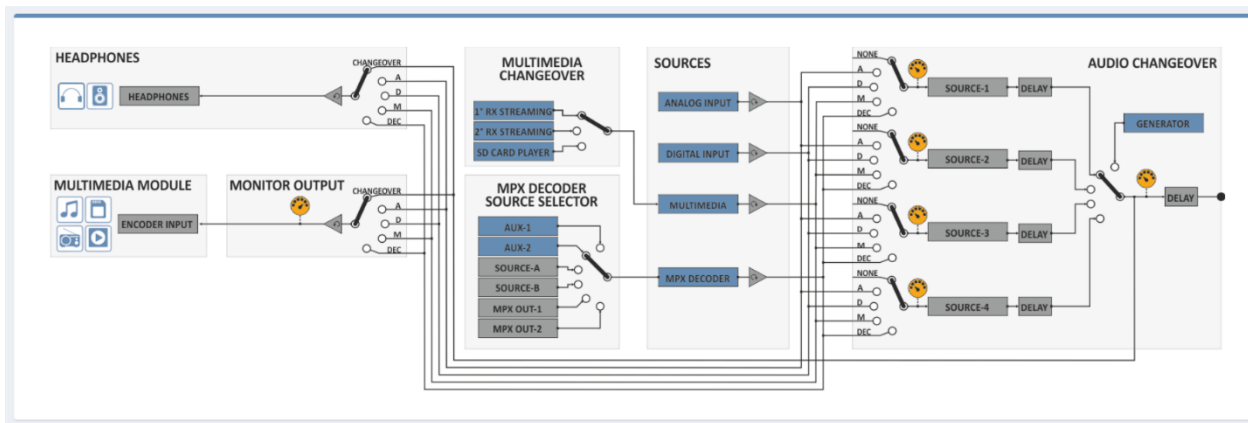
Level: select here the level (dBr) of the tone that you want to generate.



3.7.1.6 OUTPUT MONITOR

The **TIGER E3/E5** has two OUTPUT MONITORS:

1. The first one can choose to listen to one of the following sources. Select the desired source from the **TIGER E3/E5** front panel and listen for it from the Headphones Jack. It is possible to select between one of the following sources: **Analogic, Digital, Multimedia (decoding side), Mpx-Decoder, Changeover**.
2. The second **OUTPUT MONITOR** has the task of forwarding one of the same sources to the **MULTIMEDIA MODULE** (encoding side) for the streaming.



CONFIGURATION

Configuration

Audio Monitor Sources

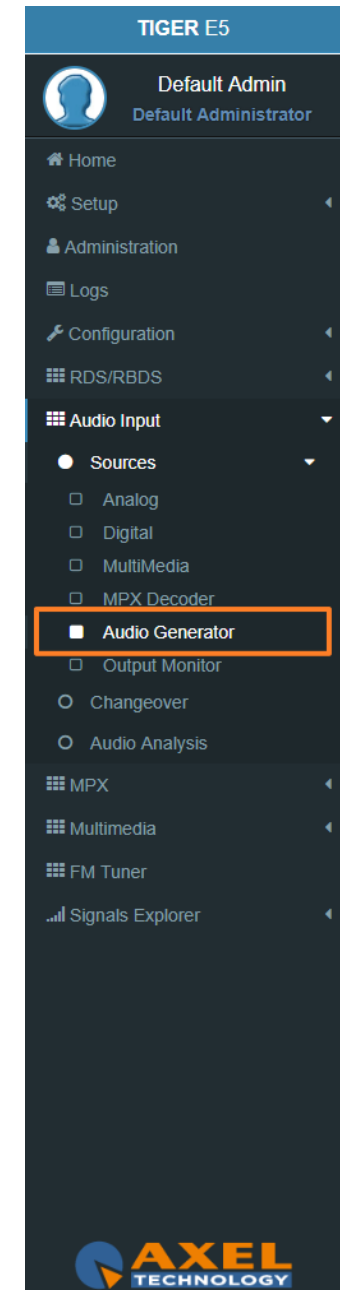
Changeover

Audio Monitor Level

+0.00 dB

Audio Monitor Sources: select here the source of the Audio Monitor. (Choose between Analogic, Digital, Multimedia, Mpx-Decoder and Changeover)

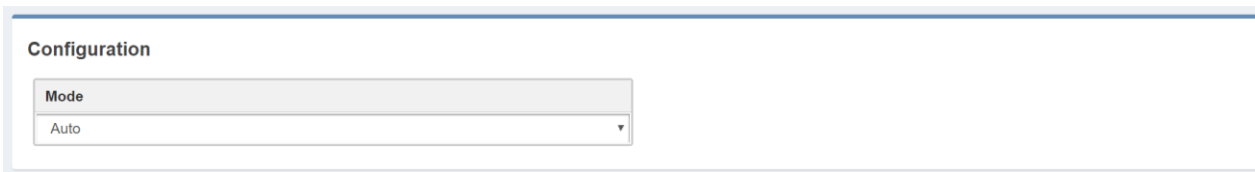
Audio Monitor Level: select here the Audio Monitor Level.



3.7.2 CHANGEOVER

The audio changeover has the task to forward the selected source to the **INTERNAL MPX ENCODER**.

CONFIGURATION



Configuration

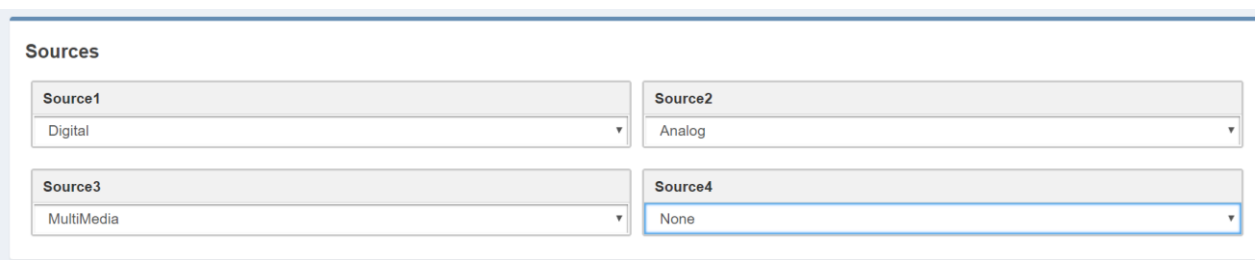
Mode

Auto

Mode:

- a) Choose between **Source1**, **Source2**, **Source3**, **Source4** to force the changeover selection. the changeover keeps the source even if it is invalidated.
- b) Choose **Auto** if you want that the changeover selects the source automatically. If the source is invalidated, the changeover selects the next source available.
- c) Choose **Generator** if you want to forward at the **INTERNAL MPX ENCODER** the internal **AUDIO GENERATOR** (tone generator).

SOURCES



Sources

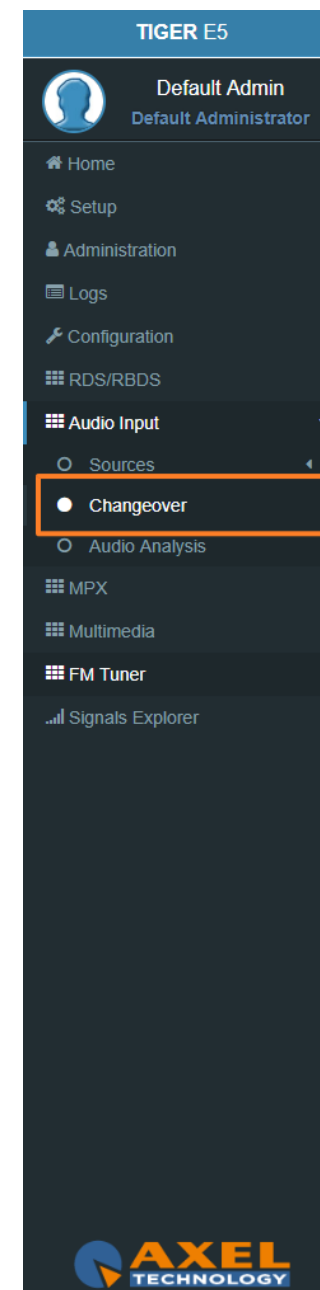
Source1	Source2
Digital	Analog
Source3	Source4
MultiMedia	None

Source1: assign here the source you want as the first one.

Source2: assign here the source you want as the second one.

Source3: assign here the source you want as the third one.

Source4: assign here the source you want as the fourth one.



DELAY

You can assign a **DELAY** to one of the sources or to the output for any required alignment

Delay

Delay

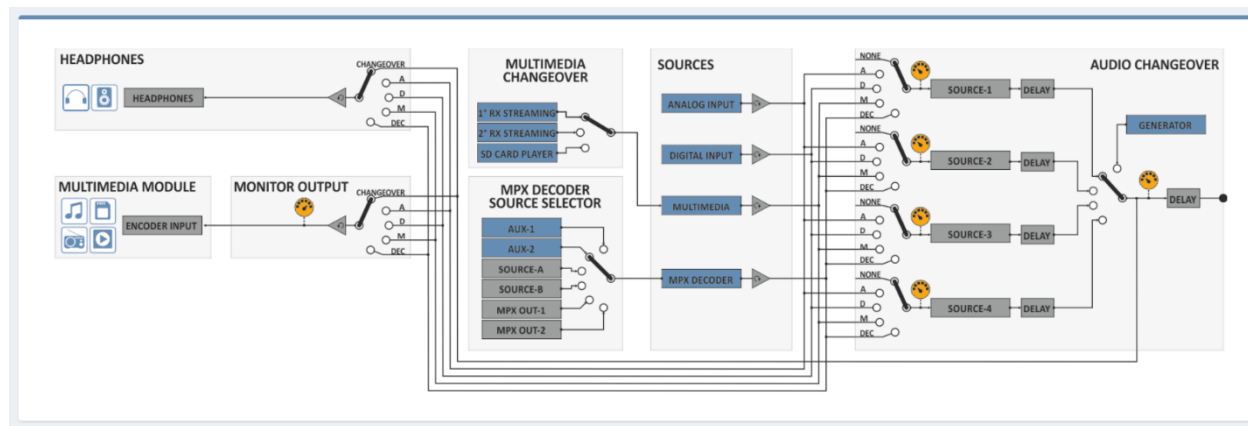
Off

Delay Time

5 ms

Delay: select here on which source you want to apply the **DELAY** or if you want to apply it to the **OUTPUT**.

Delay Time: select here the delay time to apply.



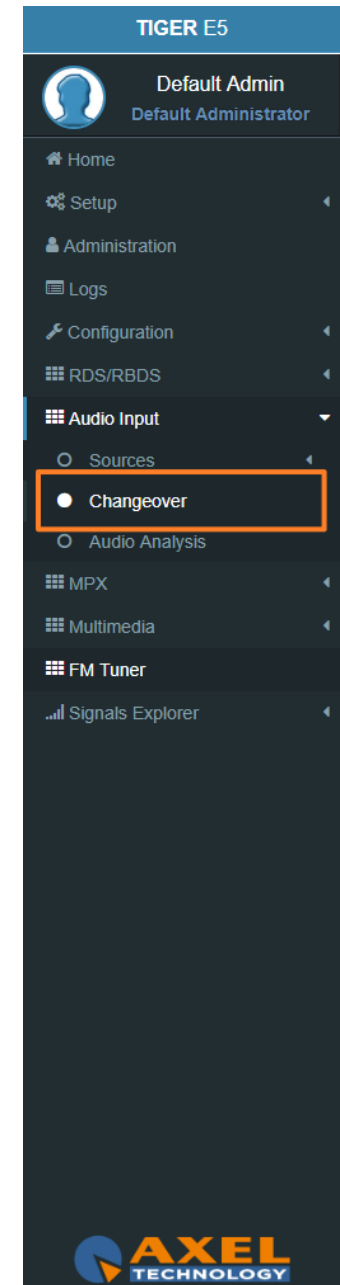
Events

Audio Changeover Events

unmasked

Audio Changeover Failure Alarm

Audio Changeover Masked/Unmasked: Mask/Unmask the alarm of the Audio Changeover.



3.7.3 AUDIO ANALYSIS

In this section is possible to see the peak levels and the meters of each changeover source.

AUDIO MODULE OUTPUT

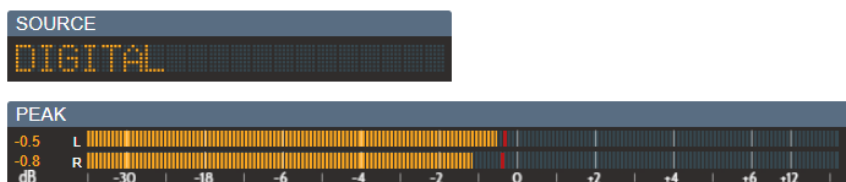


Source: name of the source selected by the changeover.

Peak-L: peak level and meters of the left channel.

Peak-R: peak level and meters of the right channel.

SOURCE-1

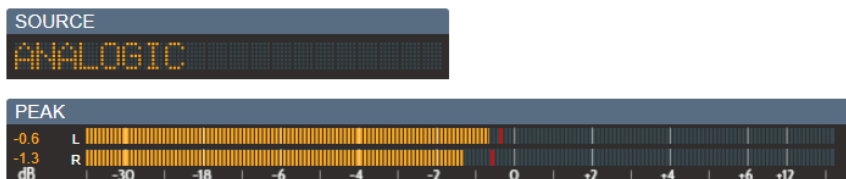


Source: name of the source selected as SOURCE 1 in the CHANGEOVER section.

Peak-L: peak level and meter of the left channel.

Peak-R: peak level and meter of the right channel.

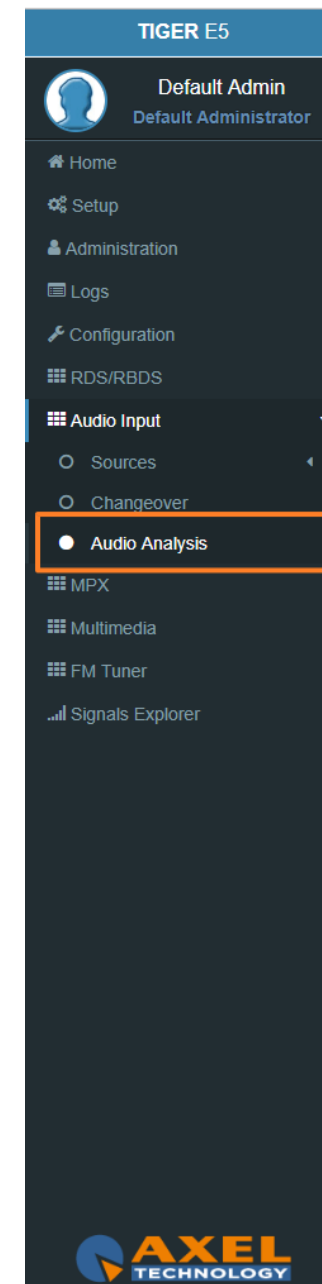
SOURCE-2



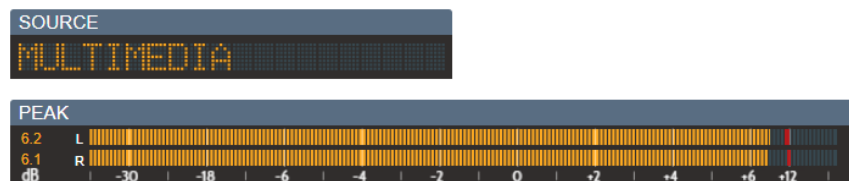
Source: name of the source selected as SOURCE 2 in the CHANGEOVER section.

Peak-L: peak level and meter of the left channel.

Peak-R: peak level and meter of the right channel.



SOURCE-3

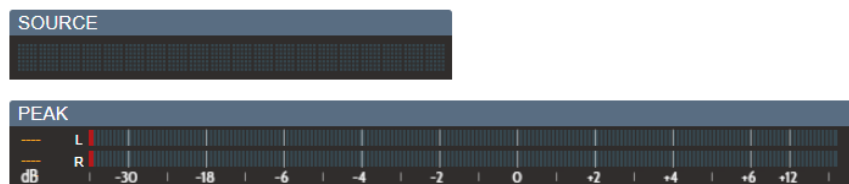


Source: name of the source selected as SOURCE 3 in the CHANGEOVER section.

Peak-L: peak level and meter of the left channel.

Peak-R: peak level and meter of the right channel.

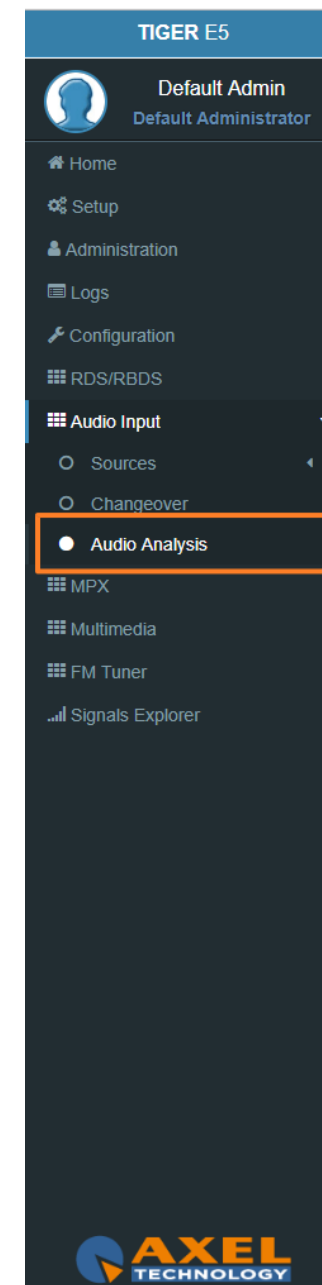
SOURCE-4



Source: name of the source selected as SOURCE 4 in the CHANGEOVER section.

Peak-L: peak level and meter of the left channel.

Peak-R: peak level and meter of the right channel.



3.8 MPX

3.8.1 INTERNAL MPX ENCODER

CONFIGURATION

Configuration		
Preemphasis 50uSec	LimiterMode Pshychoacustic	LimiterDrive +0.30 dB
Psychoacoustic Mask General Purpose	Audio Power Limiter (MPX1) Off	Post Audio Limiter Gain +0.00 dB

Preemphasis: Technical parameter. Could be **Off**, **50μSec**, **75μSec**.

LimiterMode: Off, Normal, Look-Ahead, Pshychoacustic. If LimiterMode is on you can set

LimiterDrive: off or from +0.10dB to +1.60dB.

Psychoacoustic Mask: Set it on **General Purpose** or **Dance**.

Audio Power Limiter (MPX1): Here you can set for a special limiter that complies with the ITU-BS412 legislation. Use it only when you have the needs described by the legislation.

Post Audio Limiter Gain: form -12dB to +12dB.

SETUP

Setup		
Pilot Level -21.00 dBr	Mpx Mode Stereo	Internal Mpx Final Gain +0.00 dB

Pilot Level: Select here the Pilot level.

Mode: Select here the Mode.

Internal Mpx Final Gain: form -12dB to +12dB.

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 - ☐ Changeover
 - ☐ Outputs / Inputs
 - ☐ MPX Analysis
- Multimedia
- FM Tuner
- Signals Explorer

3.8.2 CHANGEOVER

3.8.2.1 DELAY / Mode

CONFIGURATION

Configuration

Mpx Changeover Mode

Auto

Mpx Delay

5 ms

Mpx Delay Mode

Off

Mpx Changeover Mode: *Auto* – The source is chosen automatically.

Source A – The source is forced manually on Source A.

Source B – The source is forced manually on Source B.

Mpx Delay: Select here the delay time (ms) to apply on the MPX.

Mpx Delay Mode: Select here if you want the delay **Off**, **OnSourceA**, **OnSourceB**, **OnOutput**.

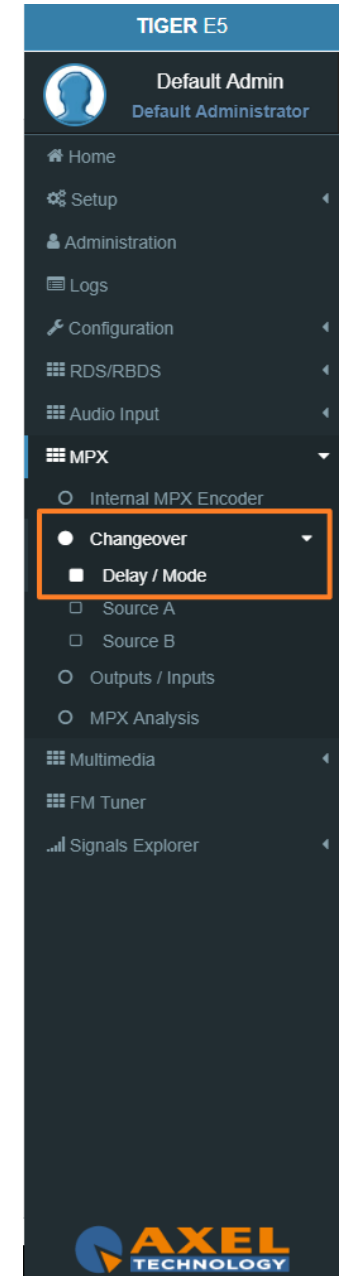
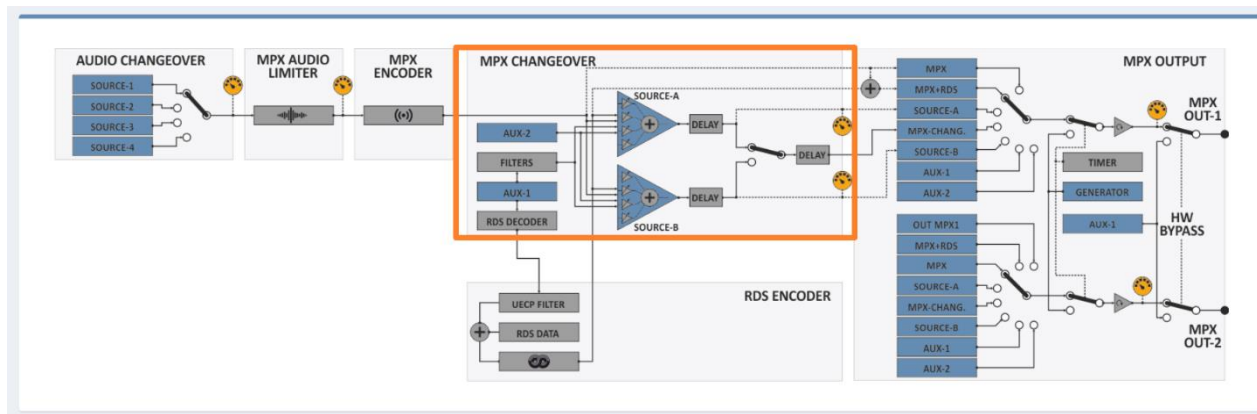
Events

MPX Changeover Events

masked

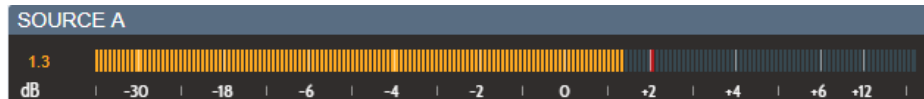
MPX Changeover Failure Alarm

MPX Changeover Masked/Unmasked: Mask/Unmask the alarm of the MPX Changeover.



As shown in the previous picture the **MPX Changeover** can select between two different sources: **SourceA** or **SourceB**. In this section, you can define parameters related to **Source A** and all its components like (**Mpx, Aux1, Aux2, RDS, Filters**).

3.8.2.2 SOURCE A



MPX MIXER

MPX Mixer	
Internal Mpx Mix <div>+0.00 dB</div>	Internal RDS Mix <div>On</div>
External Aux1 Mix <div>Off</div>	External Aux1 Mode <div>Full band</div>
External Aux2 Mix <div>Off</div>	Reference Label <div></div>

Internal Mpx Mix: Select here the **Mpx** Mix level (dB).

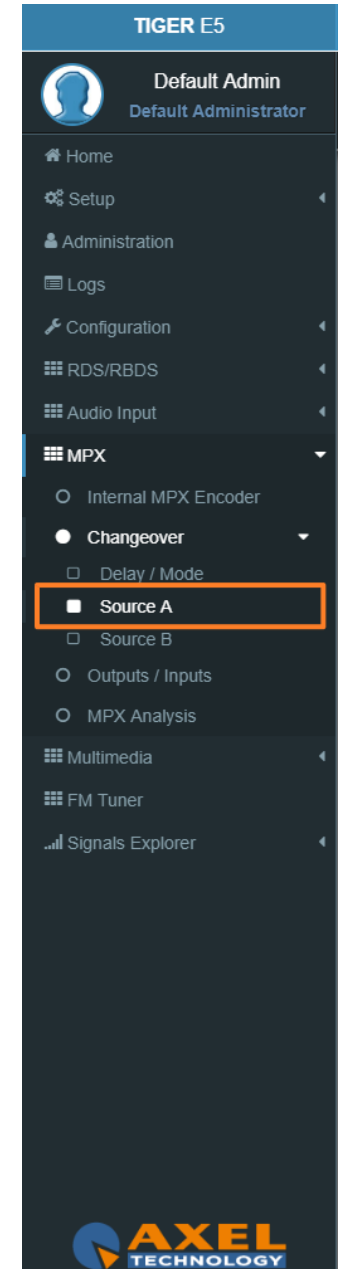
Internal RDS Mix: Select here if you want the RDS or not.

External Aux1 Mix: Select here the level of Aux1.

External Aux1 Mode: Select here the **Aux1** filter. **Full Band** or **RDS Filtered**.

External Aux2 Mix: Select here the level of **Aux2**.

Reference Label: In this parameter, you can assign the source name.



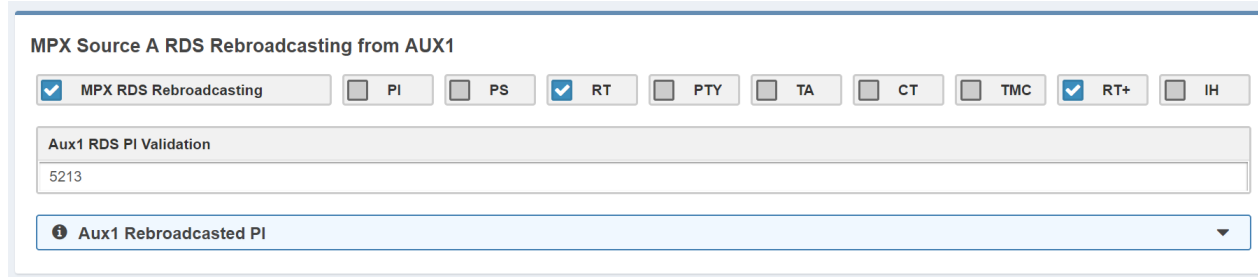
TIGER E5

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 - Changeover**
 - Delay / Mode
 - Source A**
 - Source B
 - Outputs / Inputs
 - MPX Analysis
- Multimedia
- FM Tuner
- Signals Explorer

AXEL TECHNOLOGY

MPX SOURCE A RDS REBROADCASTING



From this section, you can select which RDS services of the Aux1 signal you want to rebroadcast.

- From MPX Mixer section (previous section)
- > turn on the **Internal RDS Mix**
- > and in **External Aux1 Mode** selects **RDS Filtered**.

Here enable **MPX RDS Rebroadcasting** and select all the desired services from Aux1.

For example: if you select **PS** from here, you will rebroadcast the PS of Aux1 and not the PS of the Internal RDS.

Attention: The **AF** is always chosen from the Internal RDS and not from Aux1.

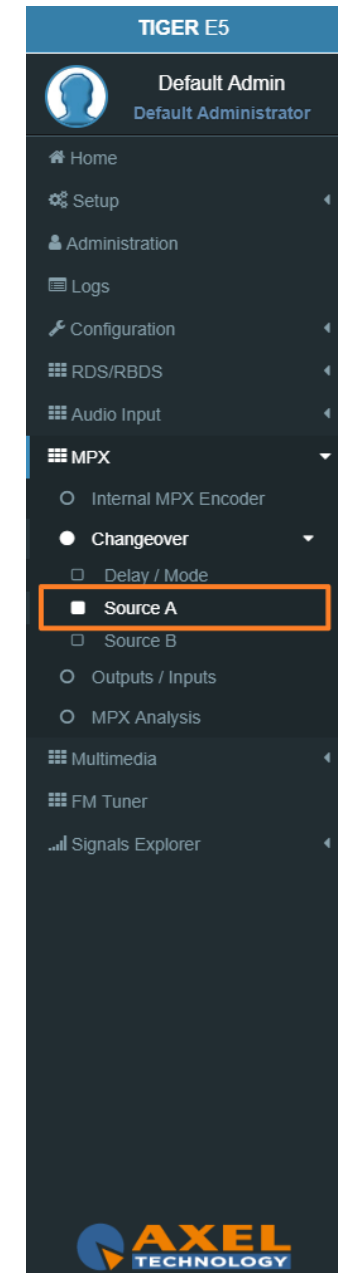
Aux1 Rebroadcasted PI:

A valid **RDS** services rebroadcast source will be available only if **Aux1** decoded **PI** will match with the above set **Aux1 RDS PI Validation** value.

Note: A value=0 will bypass this check.

MPX SOURCE A Changeover Reference Dataset

It is can specify if and which **Dataset** to use as a reference when the **Changeover Mpx** changes to source. We can also decide if the Extended **Dataset** is controlled by the **MPX Changeover**. That is mean the possibility to change dataset depending on the Audio Source. Change a **DataSet** it's possible from **GPI**, **Software**, **UECP** but it's also possible by Audio Source. In case of Fault of MAIN Audio (**Analog**, **Digital** or **MPX**) when the device change Audio Input could automatically change DataSet. This function is already known as "**DataSet Chane on Changeover**".



MPX Source A Changeover Reference Dataset

Changeover Reference Dataset

Off

This is useful for example when we are rebroadcasting one or more **RDS** services on Source A and for some reason, the **Changeover MPX** passes on **Source B**. In this way we can check the contents of the services that interest us.

MPX SOURCE A VALIDATION

From this section, you decide all the parameters related to the validation of the **SourceA** MPX Signal. Some of these parameters are indicated on the Home Page top mask in the section **MPX-SOURCES CHANGEOVER**, A SRC.

MPX Source A Validation

Pilot Min Level Control -23.00 dB	Pilot Min Level Failure Time (Hold) 5 sec	Pilot Min Level Return Time (Validation) 5 sec
RDS Min Level Control Off	RDS Min Level Failure Time (Hold) 5 sec	RDS Min Level Return Time (Validation) 5 sec
Narrow Pilot Noise Off	Out of Band Noise Off	Noise Observation Window Time 20 sec
Peak Max Control Off	Peak Observation Window Time 20 sec	
RDS PI Validation 0000		
MPX Audio Level Control -37.40 dB	MPX Audio Level Failure Time (Hold) 5 sec	MPX Audio Level Return Time (Validation) 5 sec
Mpx Audio Alarm forced by Audio Changeover Failure Disabled		


Pilot Min Level Control: if the Mpx pilot is under the threshold selected here the signal is not valid.

RDS Min Level Control: if the RDS level is under the threshold selected here the signal is not valid.


Peak Max Control: If the peak of the MPX level is higher then this value the signal is not valid.

Audio Level Control: If the Audio Level is under the threshold selected here the signal is not valid.

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 **Default Admin**
Default Administrator

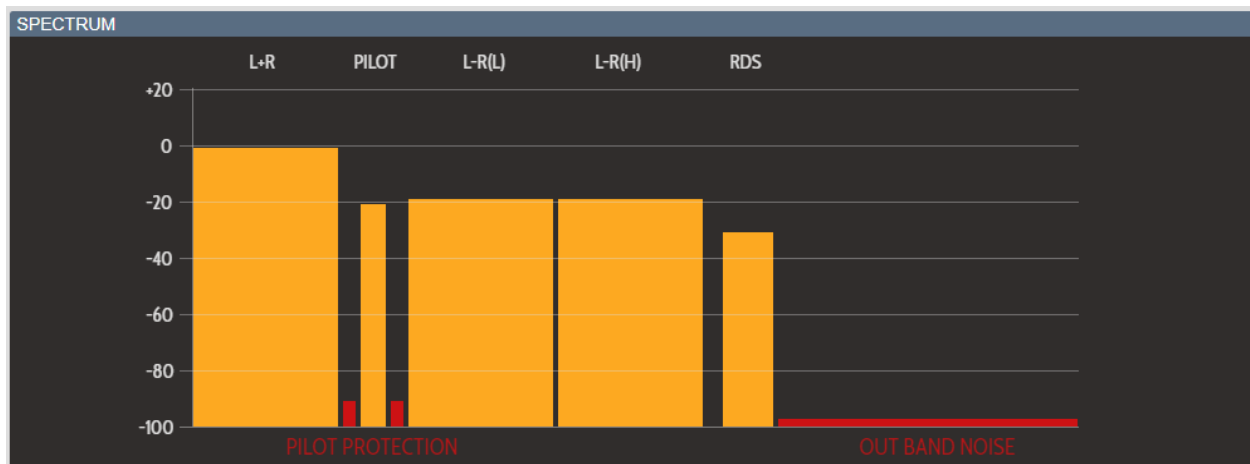
- Home
- Setup
- Administration
- Logs
- Configuration
- RDS/RBDS
- Audio Input
- MPX**
 - Internal MPX Encoder
 - Changeover**
 - Delay / Mode
 - Source A**
 - Source B
 - Outputs / Inputs
 - MPX Analysis
- Multimedia
- FM Tuner
- Signals Explorer



Out of Band Noise: If the Noise level is higher then this value the signal is not valid. (Out of Band Noise > 60 kHz).

Narrow Pilot Noise: If the Noise level is higher then this value the signal is not valid. (15 kHz < Narrow Pilot Noise < 23 kHz)

RDS PI Validation: If the PI is 0000 the RDS PI Validation is disabled. In the other cases, the signal is valid only if SourceA PI = RDS PI Validation.



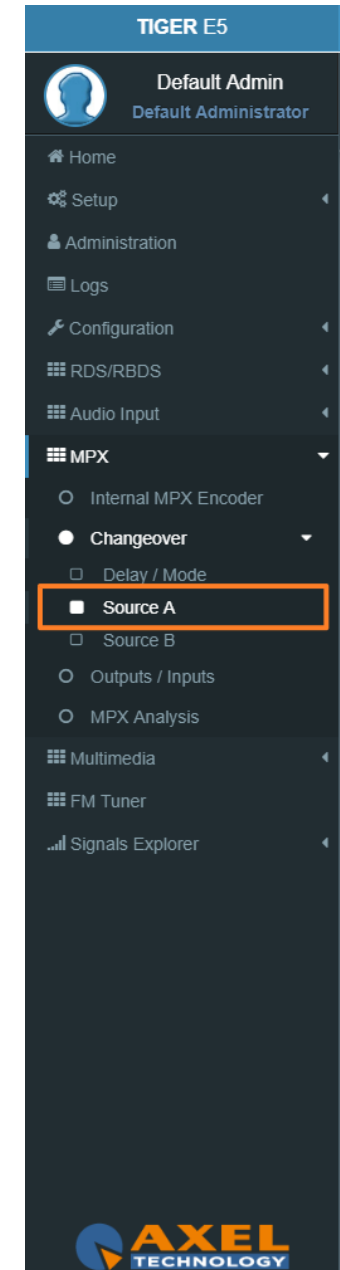
In red the noise
Pilot protection = Narrow Pilot Noise
Out Band Noise = Out of Band Noise

Events

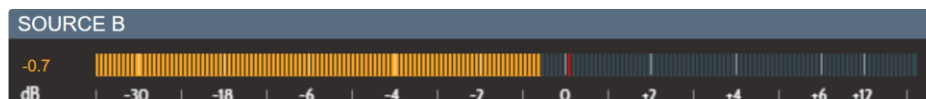
MPX Source A Events

☒ masked ☐ unmasked MPX Source A Alarm

MPX Source A Masked/Unmasked: Mask/Unmask the alarm of the MPX Source A.



3.8.2.3 SOURCE B



MPX MIXER

MPX Mixer

Internal Mpx Mix

Off

Internal RDS Mix

Off

External Aux1 Mix

+0.00 dB

External Aux1 Mode

Rds Filtered

External Aux2 Mix

Off

Reference Label

Internal Mpx Mix: Select here the Mpx Mix level (dB).

Internal RDS Mix: Select here if you want the RDS or not.

External Aux1 Mix: Select here the level of Aux1.

External Aux1 Mode: Select here the Aux1 filter. **Full Band** or **Rds Filtered**.

External Aux2 Mix: Select here the level of Aux2.

Reference Label: In this parameter, you can assign the source name.

MPX SOURCE B RDS REBROADCASTING

From this section, you can select which RDS services of the Aux1 signal you want to rebroadcast. From MPX Mixer section (previous section) turn on the **Internal RDS Mix** and in **External Aux1 Mode** select **RDS Filtered**. Here enable **MPX RDS Rebroadcasting** and select all the desired services from AUX1. For example: if you select PS from here, you will rebroadcast the PS of Aux1 and not the PS of the Internal RDS.

Attention: The AF is always chosen from the Internal Rds and not from Aux1.

MPX Source B RDS Rebroadcasting

MPX RDS Rebroadcasting

PS

RT

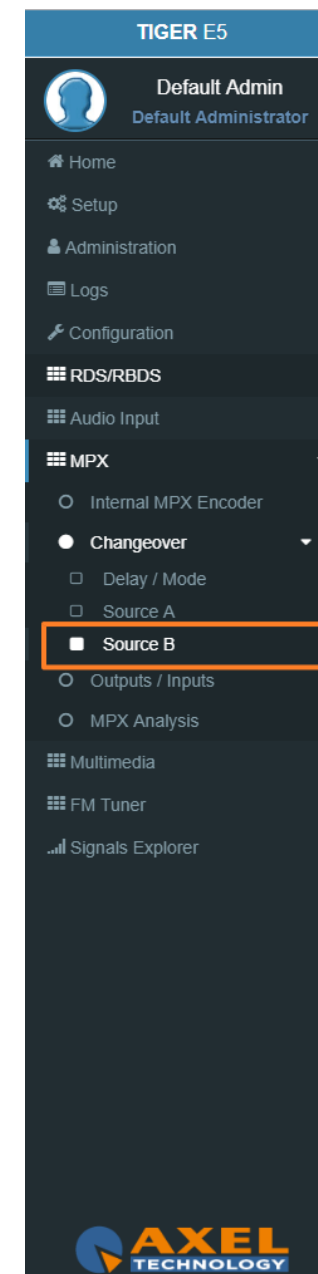
TA/TP

CT

TMC

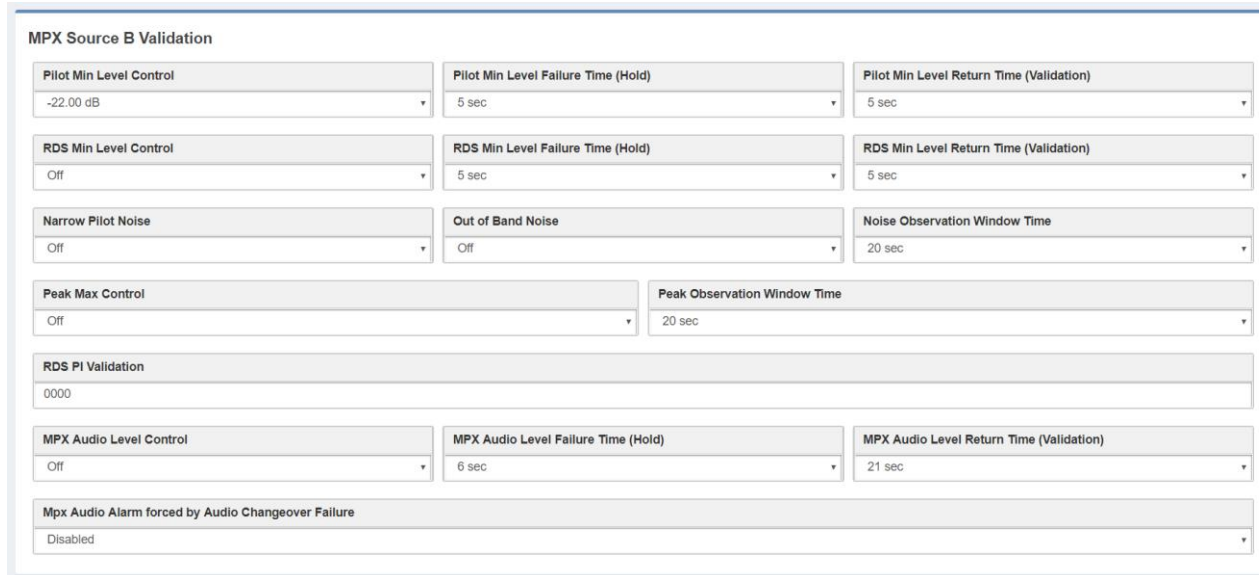
RT+

IH



MPX SOURCE B VALIDATION

From this section, you decide all the parameters related to the validation of the **SourceB** MPX Signal. Some of these parameters are indicated on the Home Page top mask in the section **MPX-SOURCES CHANGEOVER**, B SRC.



MPX Source B Validation

Pilot Min Level Control -22.00 dB	Pilot Min Level Failure Time (Hold) 5 sec	Pilot Min Level Return Time (Validation) 5 sec
RDS Min Level Control Off	RDS Min Level Failure Time (Hold) 5 sec	RDS Min Level Return Time (Validation) 5 sec
Narrow Pilot Noise Off	Out of Band Noise Off	Noise Observation Window Time 20 sec
Peak Max Control Off	Peak Observation Window Time 20 sec	
RDS PI Validation 0000		
MPX Audio Level Control Off	MPX Audio Level Failure Time (Hold) 6 sec	MPX Audio Level Return Time (Validation) 21 sec
Mpx Audio Alarm forced by Audio Changeover Failure Disabled		

Pilot Min Level Control: if the MPX pilot is under the threshold selected here the signal is not valid.

RDS Min Level Control: if the RDS level is under the threshold selected here the signal is not valid.

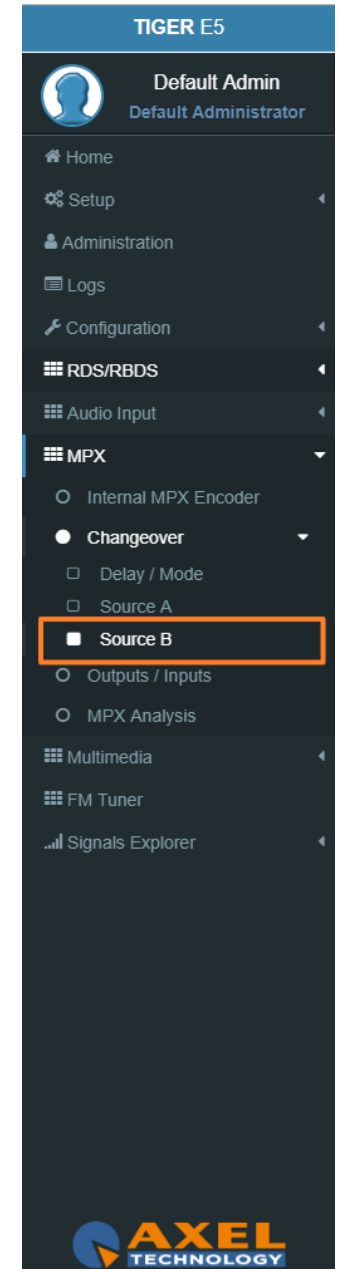
Peak Max Control: If the peak of the MPX level is higher then this value the signal is not valid.

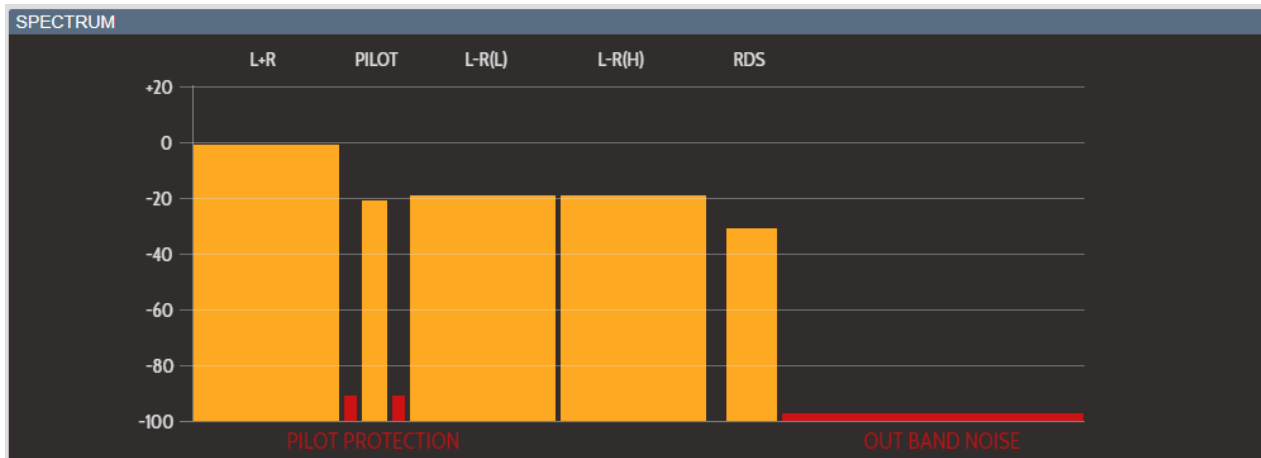
Audio Level Control: If the Audio Level is under the threshold selected here the signal is not valid.

Out of Band Noise: If the Noise level is higher then this value the signal is not valid. (Out of Band Noise > 60 kHz).

Narrow Pilot Noise: If the Noise level is higher then this value the signal is not valid. (15 kHz< Narrow Pilot Noise < 23 kHz).

RDS PI Validation: If the PI is 0000 the RDS PI Validation is disabled. If the other cases the signal is valid only if **SourceB PI** = RDS PI Validation.





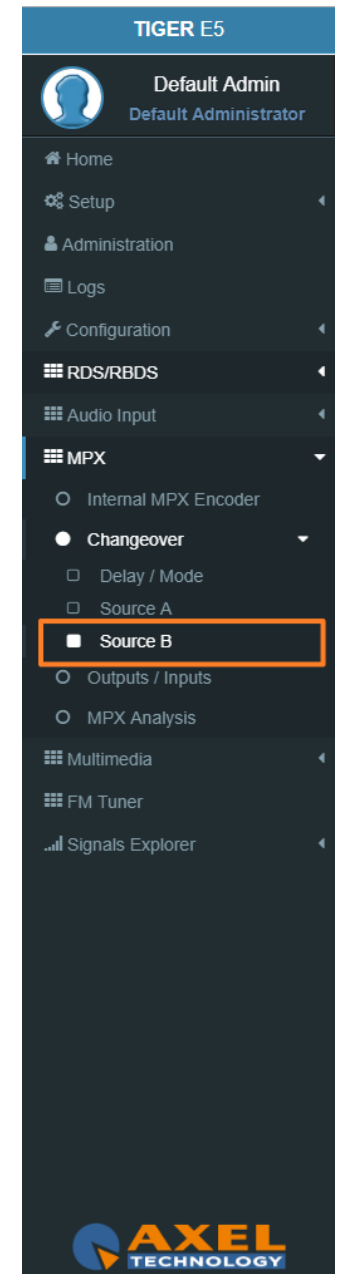
In red the noise
 Pilot protection = Narrow Pilot Noise
 Out Band Noise = Out of Band Noise

Events

MPX Source B Events

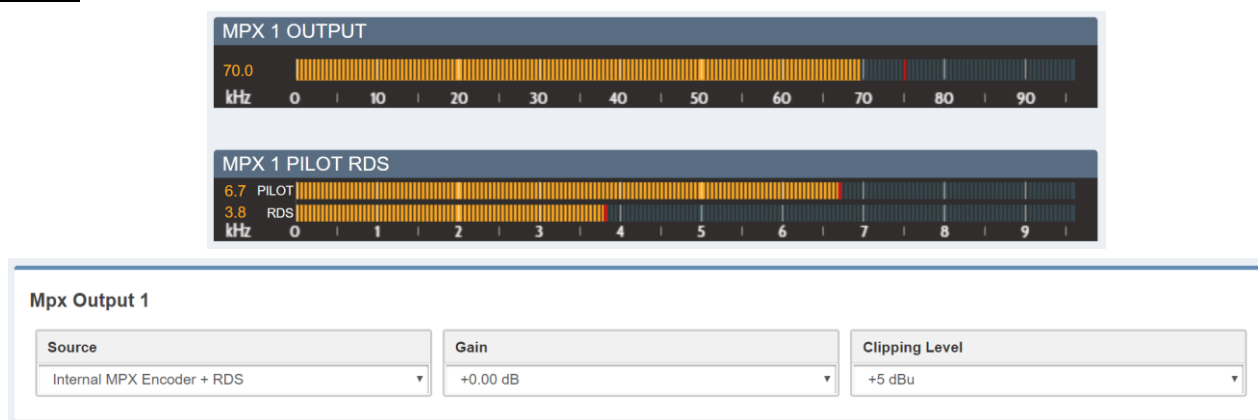
☒ masked MPX Source B Alarm

MPX Source B Masked/Unmasked: Mask/Unmask the alarm of the MPX Source B.



3.8.3 OUTPUTS

MPX OUTPUT 1

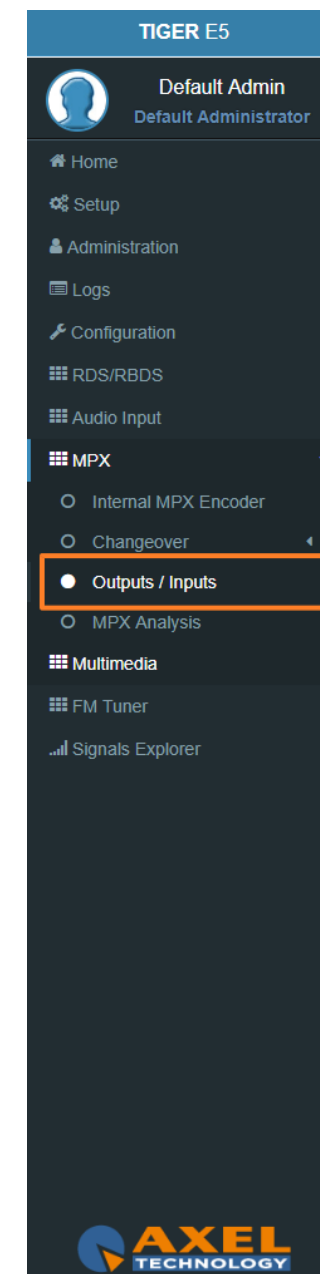


Source: Select here the source for the **MPX OUT-1**.

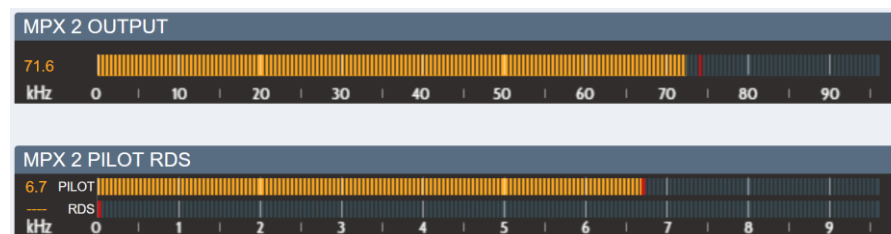
Select here between (Internal MPX Encoder, Internal MPX Encoder + RDS, Source A, Source B, Changeover, Aux 1 or Aux 2).

Gain: Set here the gain of the MPX signal.

Clipping Level: If you work with values < 2 dB, set this parameter at **+5 dBu**. If you work with values > 2 dB, set this parameter at **+18 dBu**.



MPX OUTPUT 2



Mpx Output 2

Source Internal MPX Encoder	Gain +0.00 dB	Clipping Level +5 dBu
--------------------------------	------------------	--------------------------

Source: Select here the source for the **MPX OUT-2**.

Select here between: Internal MPX Encoder, Internal MPX Encoder + RDS, Source A, Source B, Changeover, Aux 1, Aux 2, Mpx1 Output.

Gain: Set here the gain of the MPX signal.

Clipping Level: If you work with values < 2 dB, set this parameter at **+5 dBu**. If you work with values > 2 dB, set this parameter at **+18 dBu**.

Mpx Inputs

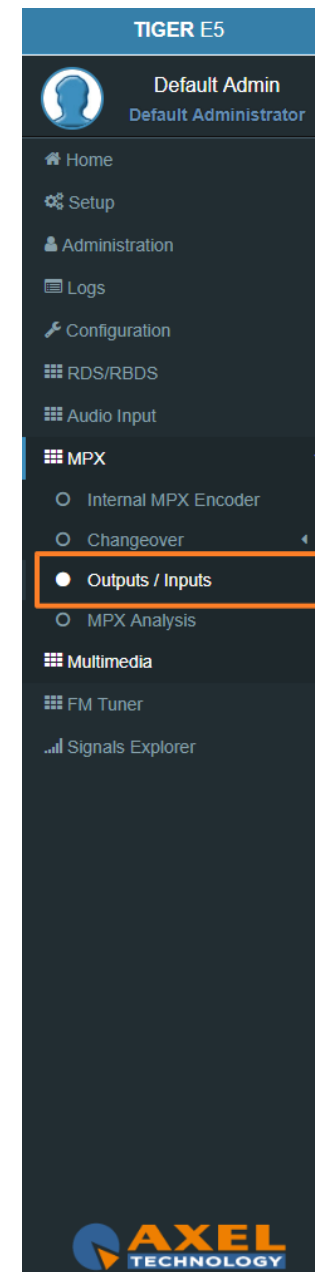
Mpx Inputs

Aux1 Sensitivity +0.00 dBu	Aux2 Sensitivity +0.00 dBu
-------------------------------	-------------------------------

Mpx Outputs Timed Test

Mpx Outputs Timed Test

Test Mode Muted	Test on Mpx1	Test on Mpx2
--------------------	--------------	--------------

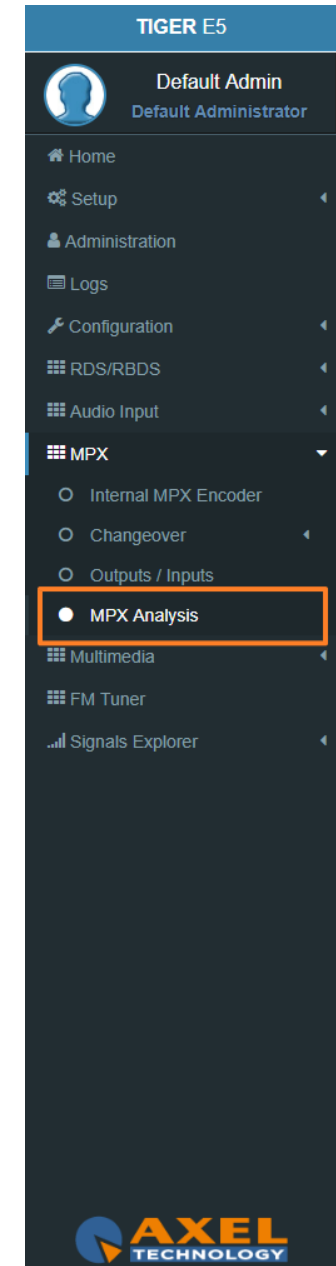


Here you can test the output signal of **MPX1** or **MPX1** by choosing one of the test modes and select the MPX that you want to test it.

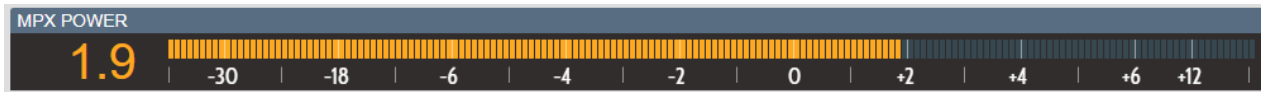
Test Mode: Muted, Pilot (-21dBr), 100Hz (0.0dBr), 400Hz (0.0dBr), 1kHz (0.0dBr), 5kHz (0.0dBr), 10kHz (0.0dBr), 13kHz (0.0dBr), 15kHz (0.0dBr).

3.8.4 MPX ANALYSIS

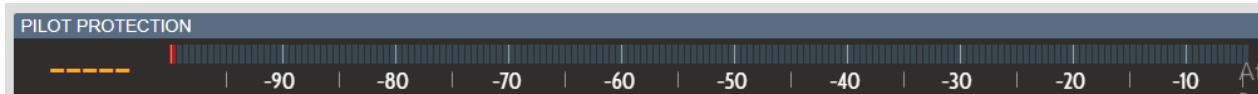
This spectrum shows you the levels of the MPX components.



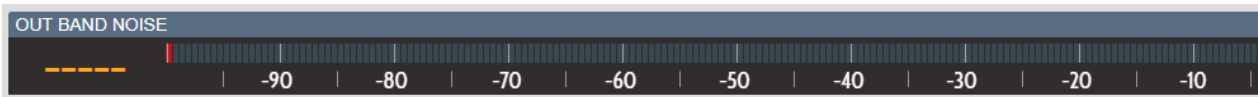
RDS: RDS level



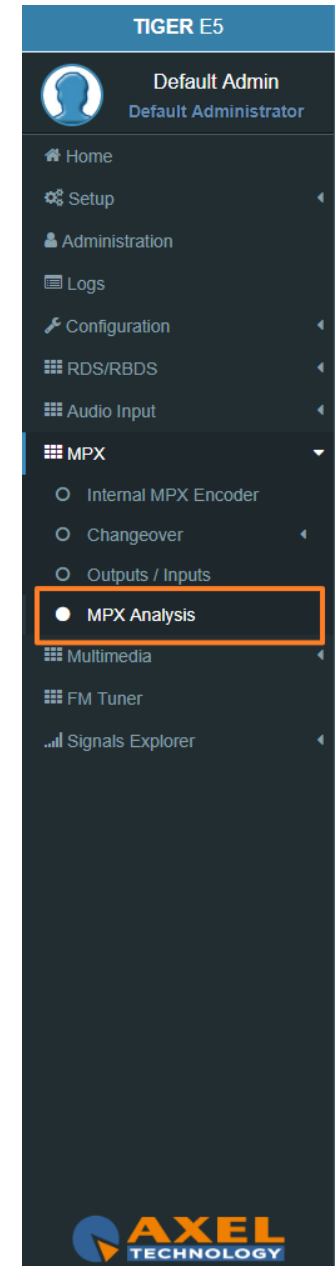
MPX POWER: ITU-R BS412 measure, average power measured over 60 seconds



PILOT PROTECTION: Pilot protection level



OUT BAND NOISE: Out Band Noise level.



3.9 MULTIMEDIA

3.9.1 SOURCES

3.9.1.1 STREAM 1 DECODER (STREAM 2 DECODER)

STATUS (The status parameters are only readable)

Status					
Status	Protocol	Encoder	BitRate	Mode	Freq
Connected	Icecast	MPEG-1 Layer 3 (MP3)	128kBits	Stereo	44.1 KHz

Status: Decoder Status

Protocol: Transport protocol

Encoder: Format of the decoded signal

BitRate: BitRate – the bits conveyed or processed per unit of time

Mode: Stereo or Mono

Freq: Sampling rate

CONFIGURATION

Configuration		
<div>Mode</div> <div>IcecastReceiver</div>	<div>Buffer (ms)</div> <div>3000</div>	
<div>Multicast RX Enable</div> <div>Enabled</div>	<div>Multicast Host Group</div> <div>239.10.1.2</div>	<div>Output Gain (dB)</div> <div>0.0</div>

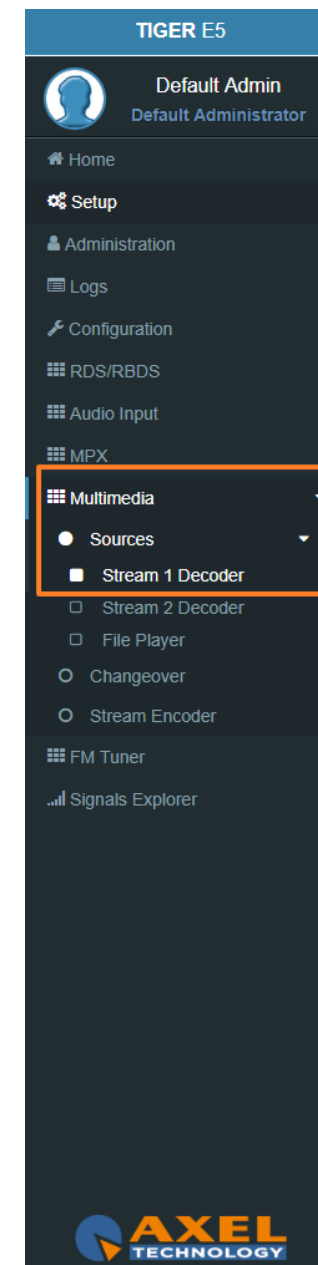
Mode: Select here the Protocol of the Transport and the format of the decoded signal.

Buffer (ms): Set here the desired buffer delay (ms).

Multicast RX Enable: Enable/Disable the Multicast receiving.

Multicast Host Group: Set here the IP of the Multicast Group.

Output Gain: Set here the Output Gain.



TRANSPORT MODE

RTP

Port
10000

Port: Here you can set the Port of your RTP encoder.

UDP

Port
10000

Port: Here you can set the Port of your UDP encoder.

ICECAST

Location
http://icestreaming.rai.it/2.mp3

Location: Here you can type the URL of the stream to receive your audio from your Icecast.

CODEC SETTINGS

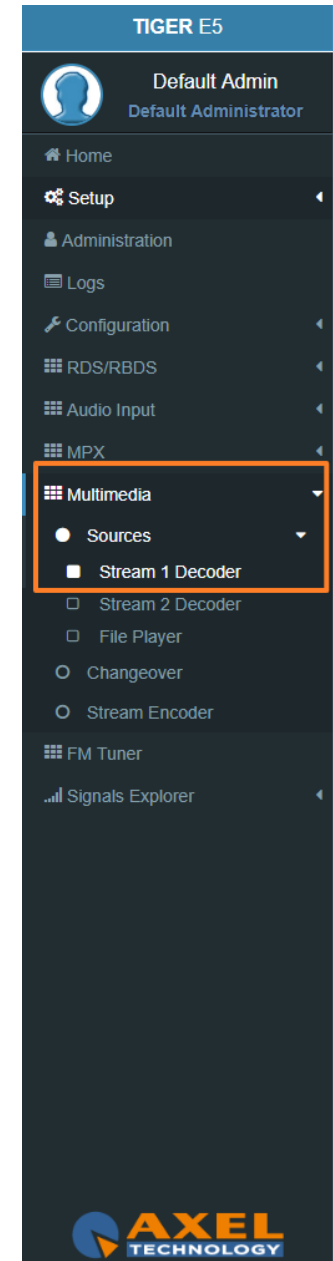
RAW 16 BIT

Mode
Stereo

Sample Rate
32 kHz

Mode: Select here the Mode of the RAW 16 BIT audio decoded.

Sample Rate: Select here the Sample Rate of the RAW 16 BIT audio decoded.



MP3

Mode
Stereo ▼

Sample Rate
32 kHz ▼

Mode: Select here the Mode of the MP3 audio decoded.

Sample Rate: Select here the Sample Rate of the MP3 audio decoded.

OPUS

Mode
Stereo ▼

Sample Rate
48 kHz ▼

Mode: Select here the Mode of the OPUS audio decoded.

Sample Rate: Select here the Sample Rate of the OPUS audio decoded.

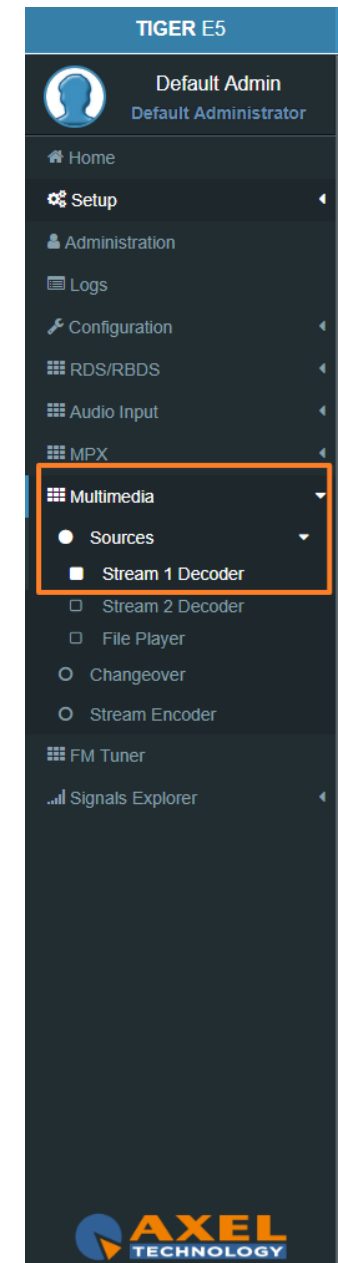
AAC

Mode
Stereo ▼

Sample Rate
44.1 kHz ▼

Mode: Select here the Mode of the AAC audio decoded.

Sample Rate: Select here the Sample Rate of the AAC audio decoded.



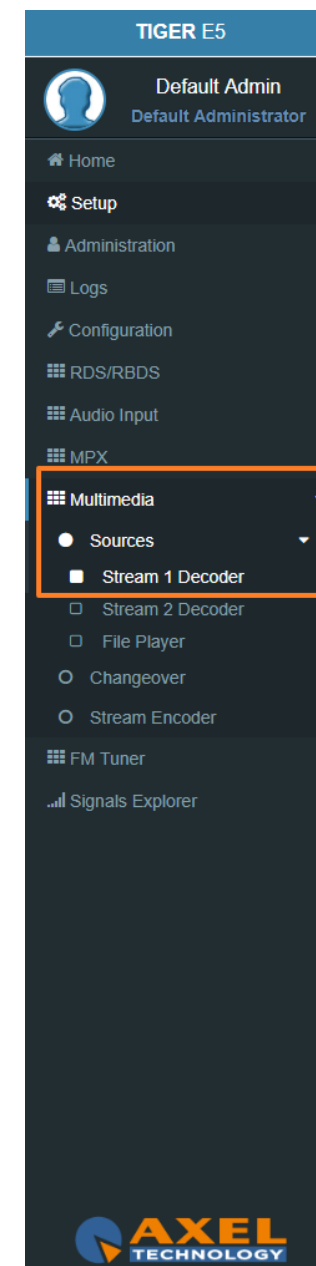
MPEG-2

Mode
Stereo ▼

Sample Rate
48 kHz ▼

Mode: Select here the Mode of the MPEG-2 audio decoded.

Sample Rate: Select here the Sample Rate of the MPEG-2 audio decoded.



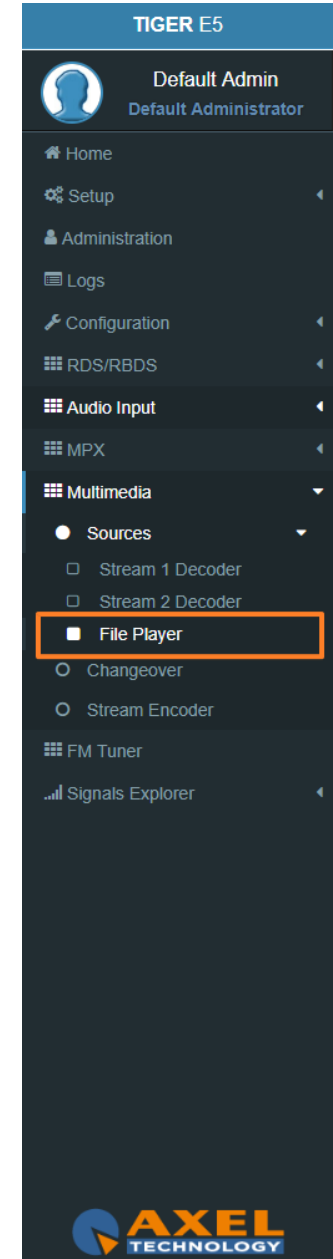
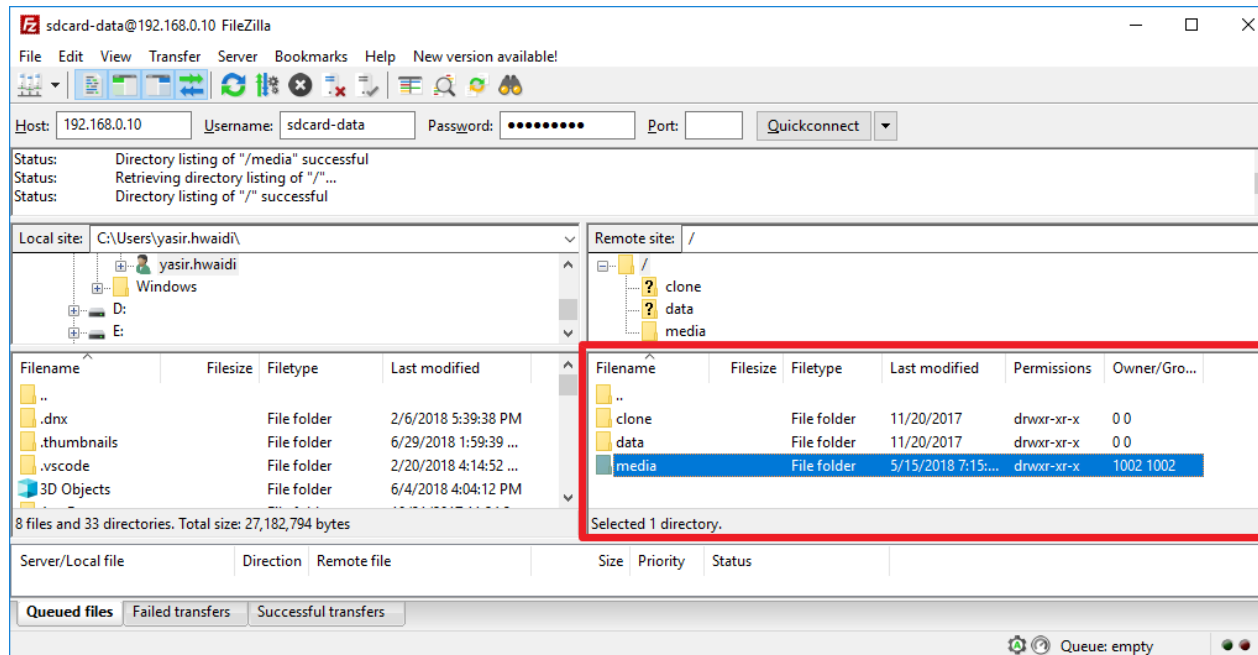
3.9.1.2 FILE PLAYER

To load new audio files inside the device you have to connect with it through an **FTP Client** (in this example we use Filezilla). The device must be reachable.

In the following line you can read for the **FTP Credentials** useful for the connections:

Host: **device IP** User: **sdcard-data** Password: **ax-sdcard**

Click on the **media** folder and paste the new firmware file in the red area as shown in the picture.



STATUS (The status parameter are only readable)



CONFIGURATION

Configuration

Mode

Enabled

Buffer (ms)

3000

Output Gain (dB)

-6.0

Play Order

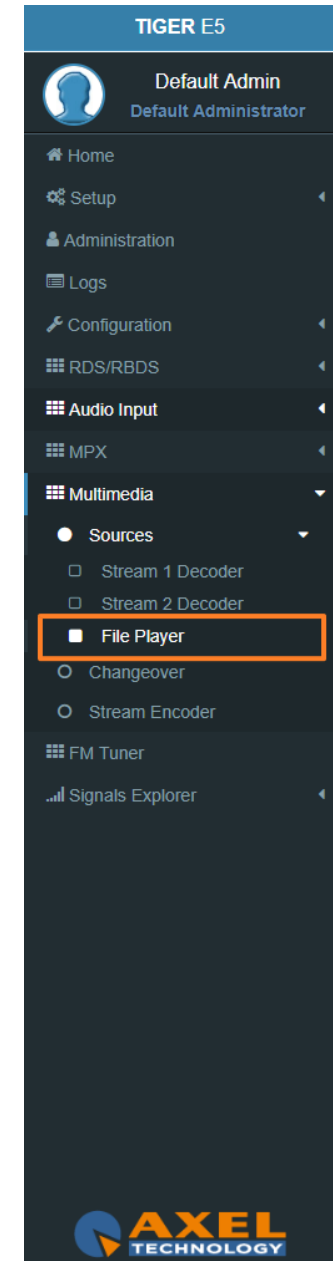
Alphabetic

Mode: Enable/Disable the File Player from SD.

Buffer (ms): Set here the desired buffer (ms).

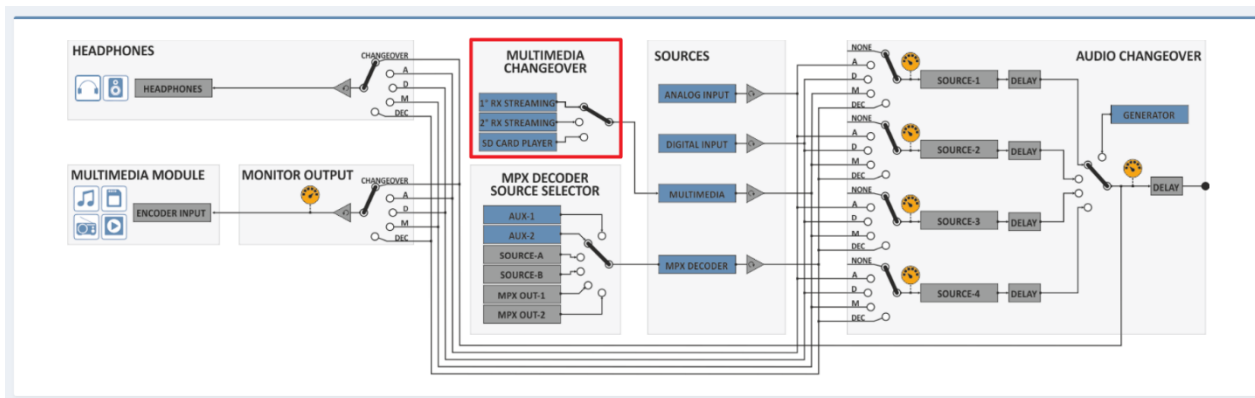
Output Gain (dB): Set here the desired output gain for the File Player.

Play Order: Set here the Play Order, decide between Shuffle, Alphabetic, By Date.



3.9.2 CHANGEOVER

Multimedia Changeover switch between two Decoders and Multimedia Player in AUTOMATIC or MANUAL mode.



Configuration

Configuration

Multimedia Changeover Mode

FilePlayer

Multimedia Changeover Mode: can choose between three sources including the **MULTIMEDIA MODULE** (Decoder1, Decoder2, FilePlayer) or can select Auto to switch automatically at the source available.

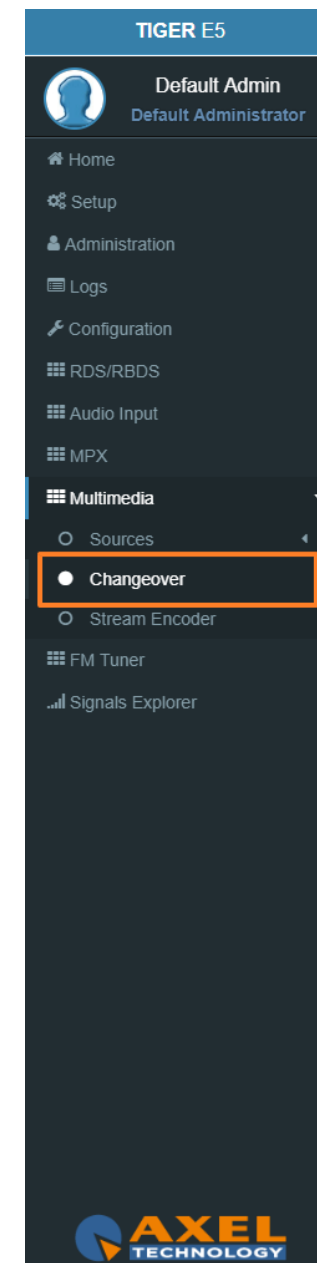
Multimedia Changeover Events.

Multimedia Changeover Events

unmasked

Multimedia Changeover Failure Alarm

Multimedia Changeover Events: Masked /Unmasked the Alarm or notifications related to the connection between the device and one or more SMTP Servers.



3.9.3 STREAM ENCODER

STATUS (The status parameters are only readable)

Status					
Status	Protocol	Encoder	BitRate	Mode	Freq
Connected	Icecast Server	MP3	192kBits	Stereo	48 KHz

Status: Encoder Status

Protocol: Transport protocol

Encoder: Format of the encoded signal

BitRate: BitRate – the bits conveyed or processed per unit of time

Mode: Stereo or Mono

Freq: Sampling rate

CONFIGURATION

Configuration	
Mode IcecastServer-WebAudioHighQuality	Input Gain (dB) 1.0
Multicast Tx Enable Enabled	Multicast Host 239.10.1.3
Multicast TTL 1	

Mode: Select here the Protocol of the Transport and the format of the encoded signal

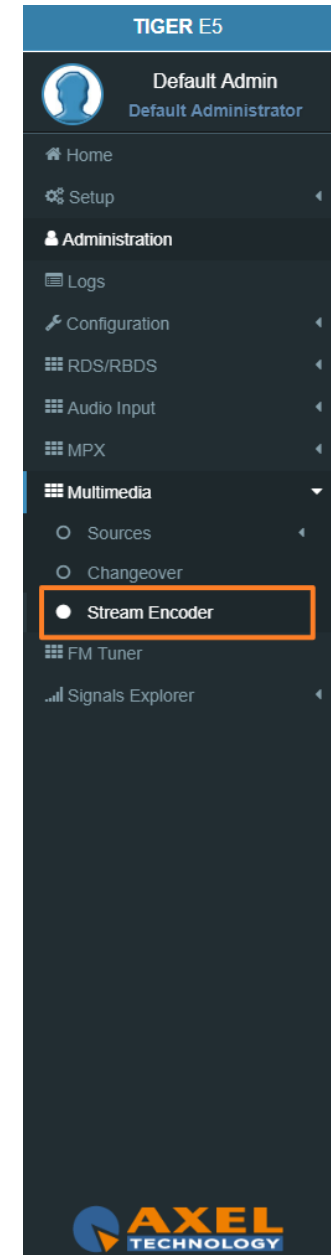
Input Gain: Type here the gain that you want to assign to the signal

Multicast Tx Enable: Enable or Disable the Multicast transmission.

Multicast Host: Type here the address of the Multicast Host.

Multicast TTL: Time-to-live (TTL)

Force Encoder Restart: This command forces the encoder restart.



TRANSPORT MODE

ICECAST SOURCE

If you have an external Icecast server here you can set all the parameters to stream your audio into a specific mount point of your Icecast.

Uri	
Source Port	1
Username	
Password	
Mount Point	tge5
Tag Enable	Disabled
Tag Title	POLLOLANDIA

Uri: Set the Uri of your Icecast server

Source Port: set the Icecast port in which your audio will be sent

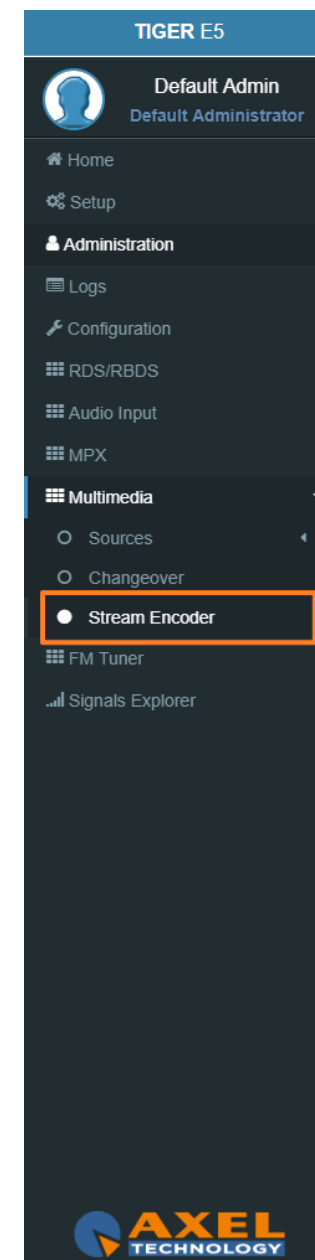
Username: Username for the authentication

Password: Password for the authentication

Mount Point: Type here the Mount point in which your audio will be sent.

Tag Enable: Set here if you want to enable or disable your Icecast Source

Tag Title: Give a title to your Icecast



ICECAST SERVER

If you don't have an external Icecast Server you can distribute the audio directly to your listeners as if your **TIGER E3/E5** would be an Icecast Server. This Mode, differently from the Icecast Source, could have only a few users.

Mount Point
tge5
Tag Enable
Enabled
Tag Title
sdsdsd

Mount Point: Type here the Mount point in which your audio will be sent

Tag Enable: Set here if you want to enable or disable your Icecast Source

Tag Title: Give a title to your **TIGER E3/E5** used as Icecast.

RTP

Host
172.20.0.52
Port
5656

Host: Type here the IP address of your RTP decoder.

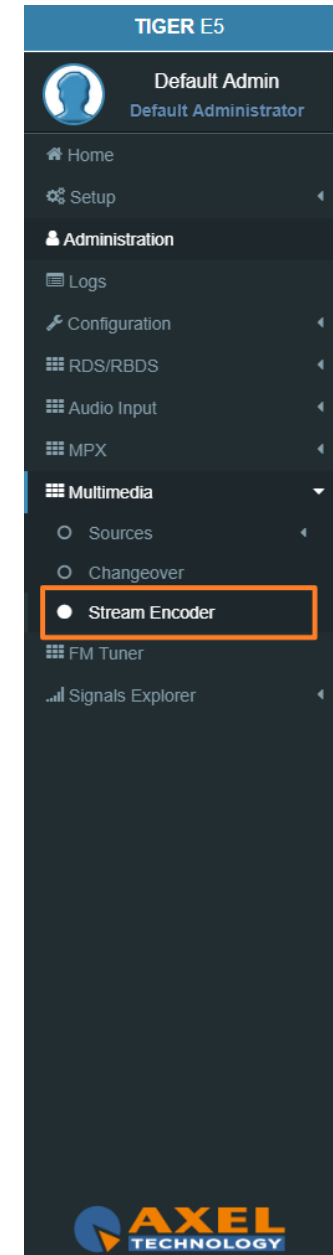
Port: Type here the Port of your RTP decoder.

UDP

Host
172.20.0.52
Port
5656

Host: Type here the IP address of your UDP decoder.

Port: Type here the Port of your UDP decoder.



CODEC SETTINGS

VORBIS

Rate
192kBits
Mode
Stereo
Sample Rate
48 kHz

Rate: Select the Rate of the Vorbis audio encoding.

Mode: Select the Mode of the Vorbis audio encoding.

Sample Rate: Select the Sample Rate of the Vorbis audio encoding.

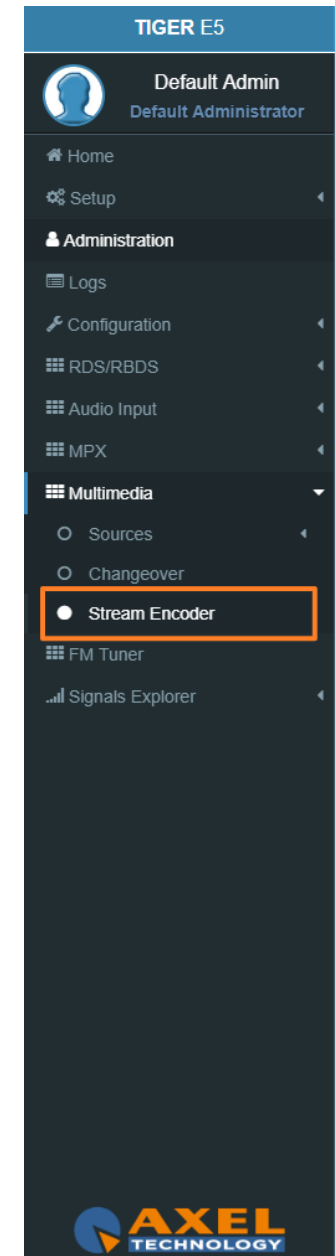
MP3

Rate
128kBits
Mode
Stereo
Sample Rate
32 kHz

Rate: Select the Rate of the MP3 audio encoding.

Mode: Select the Mode of the MP3 audio encoding.

Sample Rate: Select the Sample Rate of the MP3 audio encoding.



OPUS

Rate
256kBits
Mode
Stereo
Sample Rate
48 kHz
Bandwidth
Full Band

Rate: Select the Rate of the Opus audio encoding.

Mode: Select the Mode of the Opus audio encoding.

Sample Rate: Select the Sample Rate of the Opus audio encoding.

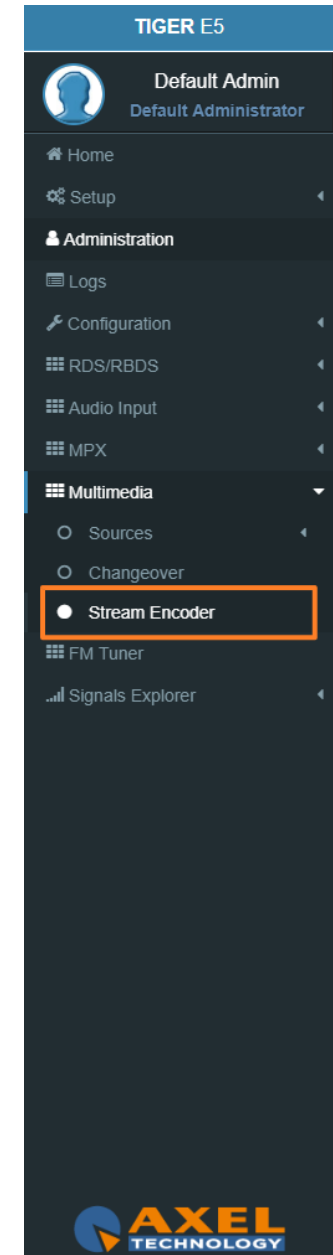
Bandwidth: Select the Bandwidth of the Opus audio encoding.

RAW 16 BIT

Mode
Stereo
Sample Rate
32 kHz

Mode: Select the Mode of the Raw 16 Bit audio encoding.

Sample Rate: Select the Sample Rate of the Raw 16-bit audio encoding.



AAC

Rate
128kBits ▼
Mode
Stereo ▼
Sample Rate
48 kHz ▼

Rate: Select the Rate of the AAC audio encoding.

Mode: Select the Mode of the AAC audio encoding.

Sample Rate: Select the Sample Rate of the AAC audio encoding.

MPEG-2


Rate
128kBits ▼
Mode
Stereo ▼
Sample Rate
32 kHz ▼

Rate: Select the Rate of the MPEG-2 audio encoding

Mode: Select the Mode of the MPEG-2 audio encoding.


Sample Rate: Select the Sample Rate of the MPEG-2 audio encoding.

TIGER E5



Default Admin
Default Administrator

- Home
- Setup
- Administration
- Logs
- Configuration
- RDS/RBDS
- Audio Input
- MPX
- Multimedia
- FM Tuner**
- Signals Explorer
- Version Info



3.10 FM TUNER

It's a professional FM tuner with worldwide FM band support which provides access to a wide variation of radio stations while guaranteeing a high-quality audio reproduction. Station selection can be done manually. Information such as radio station information carried by RDS and signal reception strength are indicated.

The FM tuning range starts from 87.50 ~ 107.99 MHz worldwide FM band support. The antenna input is implemented by a BNC connector allowing connection of the external antenna using 75 Ω coaxial cabling.

3.10.1 SETTINGS

Settings

Tuner

Enabled

Tuned Frequency

107.99 MHz

Tuner: to enable/disable it.

Tuned Frequency: start from 87.50 ~ 107.99 MHz.

3.10.2 TUNER SIGNAL VALIDATION

Tuner Signal Validation

Pilot Min Level Control

5.00 Khz

Rds Min Level Control

3.00 Khz

Deviation Peak Control

80 Khz

RF Min Level Control

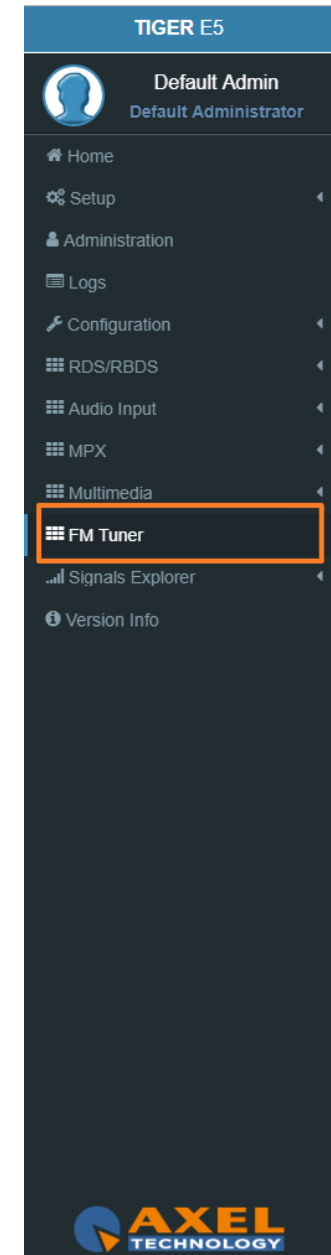
70 dBuV

Rds BLER Control

5 %

RDS PI Validation

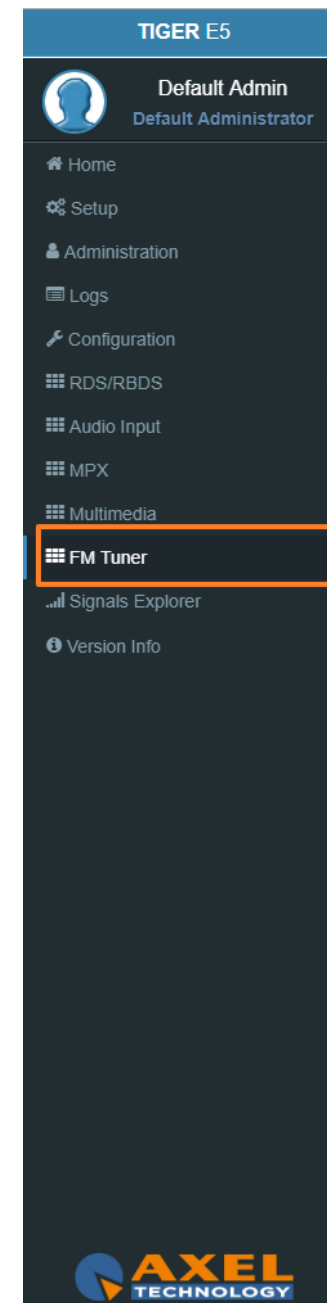
52A1



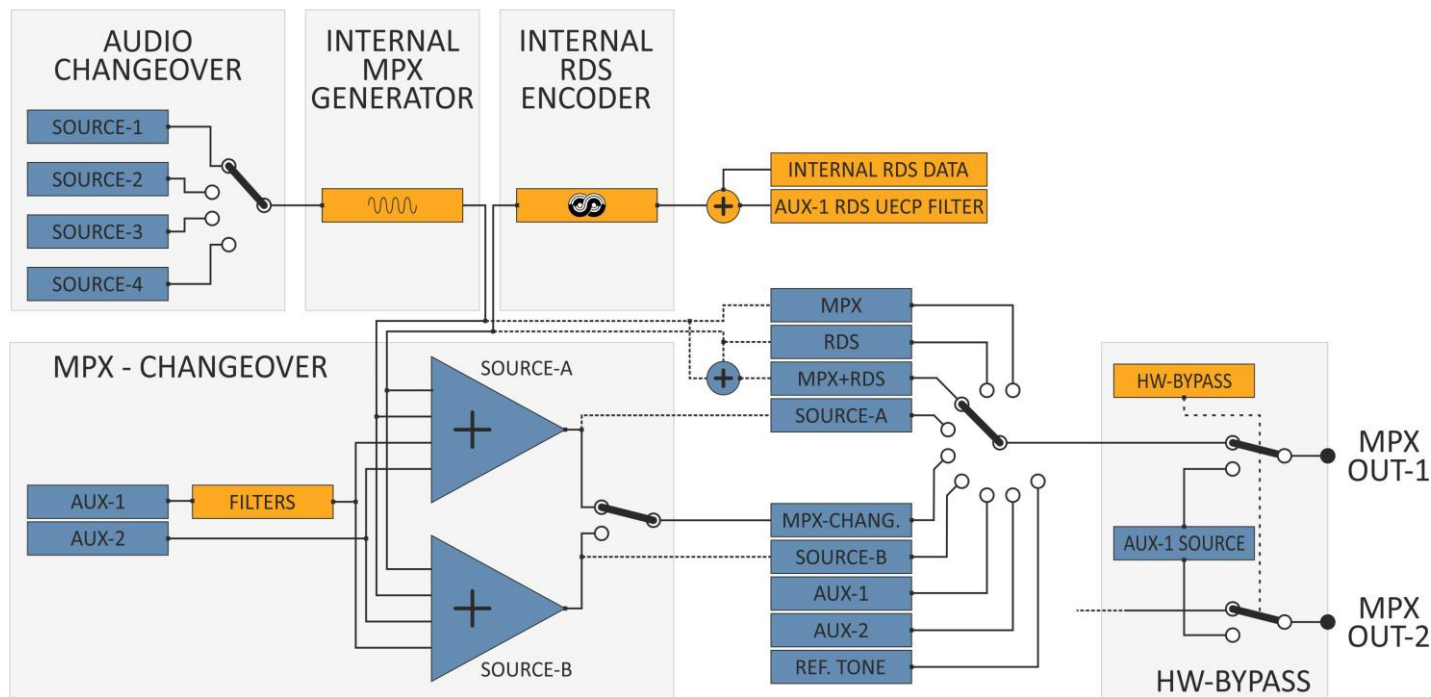
3.10.3 TUNER EVENTS

Tuner Events		
<input checked="" type="radio"/>	unmasked	Tuner Rds Level Alarm
<input checked="" type="radio"/>	unmasked	Tuner Pilot Level Alarm
<input checked="" type="radio"/>	unmasked	Tuner Deviation Alarm
<input checked="" type="radio"/>	unmasked	Tuner RF Level Alarm
<input checked="" type="radio"/>	unmasked	Tuner RdsBLER Alarm
<input type="radio"/>	unmasked	Tuner RdsPI Alarm

Tuner Deviation Alarm: Masked /Unmasked the Alarm or notifications related to the connection between the device and one or more SMTP Servers.



3.11 TIGER E3/E5 WAYS OF USE



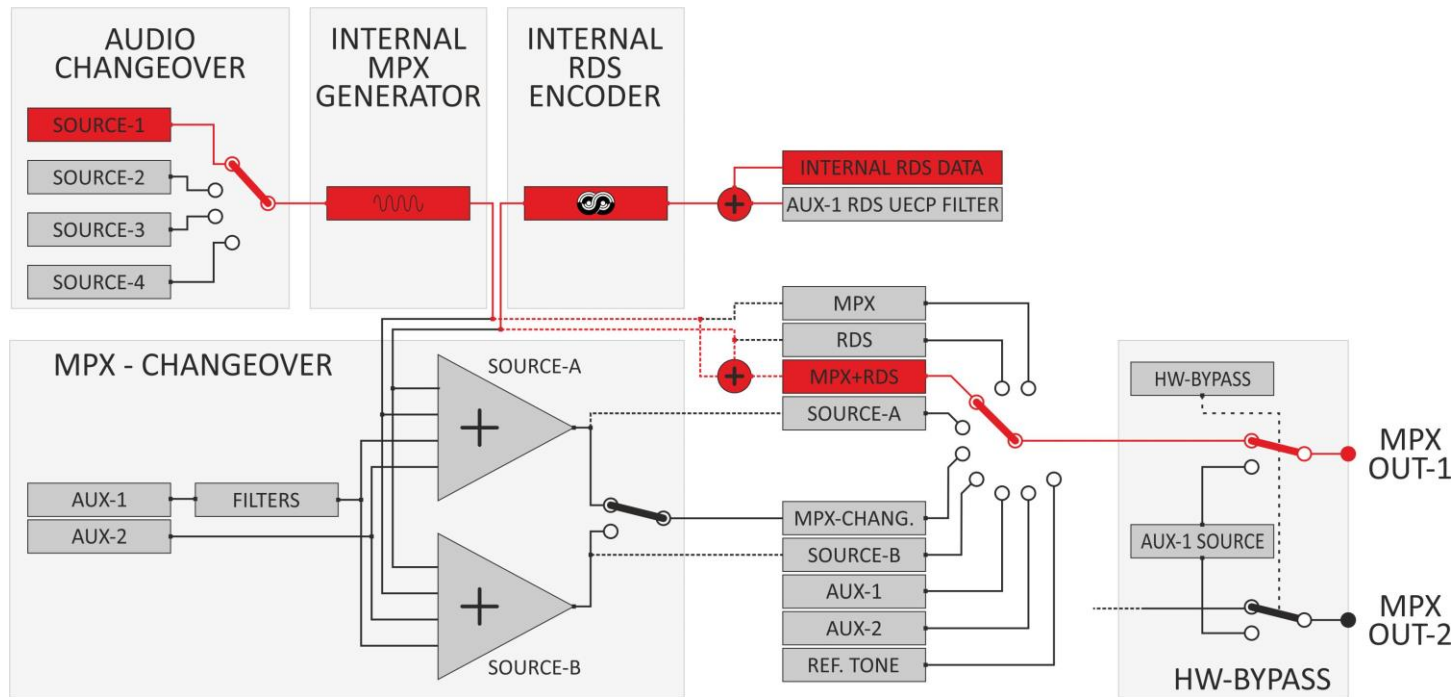
The Tiger E3/E5 has an audio Changeover that forwards one of the four selected audio sources to an Internal Mpx Generator/Encoder.

The Tiger E3/E5 has an Internal RDS Encoder that combines Internal RDS Data and AUX-1 RDS UECP Filter.

The MPX Changeover can select between two MPX sources (A, B). Each one of the two MPX sources could mix the Internal Mpx Generator, the Internal Rds Encoder, the Aux1, the Aux 2.

At the two MPX OUT, you can forward a mix of the 3 MPX signals.

3.11.1 SINGLE AUDIO SOURCE WITH RDS GENERATION



In this case, the Audio Changeover selects only the audio source-1. It forwards the selected audio signal to the Internal MPX Generator and combines the MPX with the RDS signal encoded by the Internal RDS Encoder.

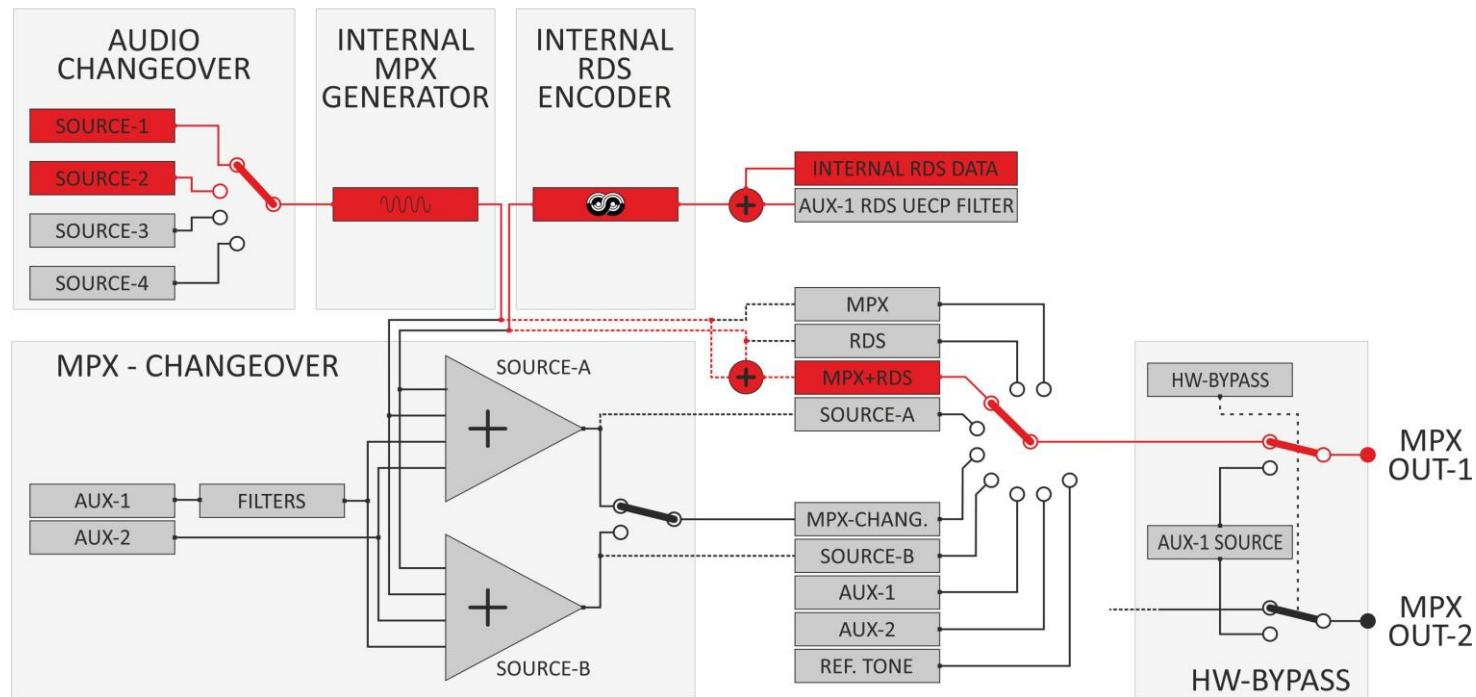
In **Audio Input > Sources** choose between Analogic, Digital, Multimedia, Mpx Decoder, Audio Generator, Output Monitor and set all the related parameters.

In **Audio Input > Changeover** set the source-1 that your audio changeover can select and send to the Internal MPX Generator.

In **MPX > Internal MPX Encoder** set the parameters related with the MPX Encoder.

In **RDS/RBDS** set all the parameters of the Internal RDS Encoder.

3.11.2 DOUBLE AUDIO SOURCES WITH AUDIO CHANGEOVER



In this case, the Audio Changeover can select between audio source-1 and source-2. It forwards the selected audio signal to the Internal MPX Generator and combines the MPX with the RDS signal encoded by the Internal RDS Encoder.

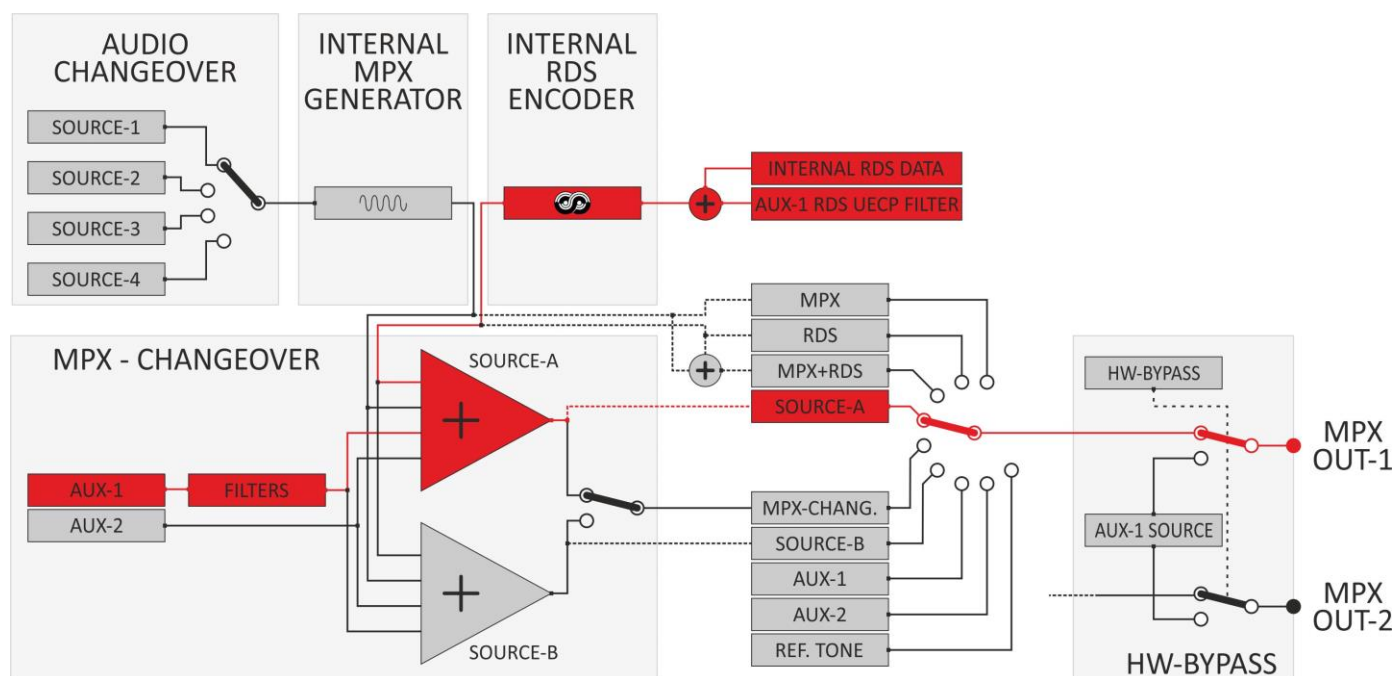
In [Audio Input > Sources](#) choose between Analogic, Digital, Multimedia, Mpx Decoder, Audio Generator, Output Monitor and set all the related parameters.

In [Audio Input > Changeover](#) set the source-1 and the source-2 that your audio changeover can select and send to the Internal MPX Generator.

In [MPX > Internal MPX Encoder](#) set the parameters related with the MPX Encoder.

In [RDS/RBDS](#) set all the parameters of the Internal RDS Encoder.

3.11.3 MPX REBROADCAST WITH RDS REGENERATION + UECP FILTER ON INCOMING RDS



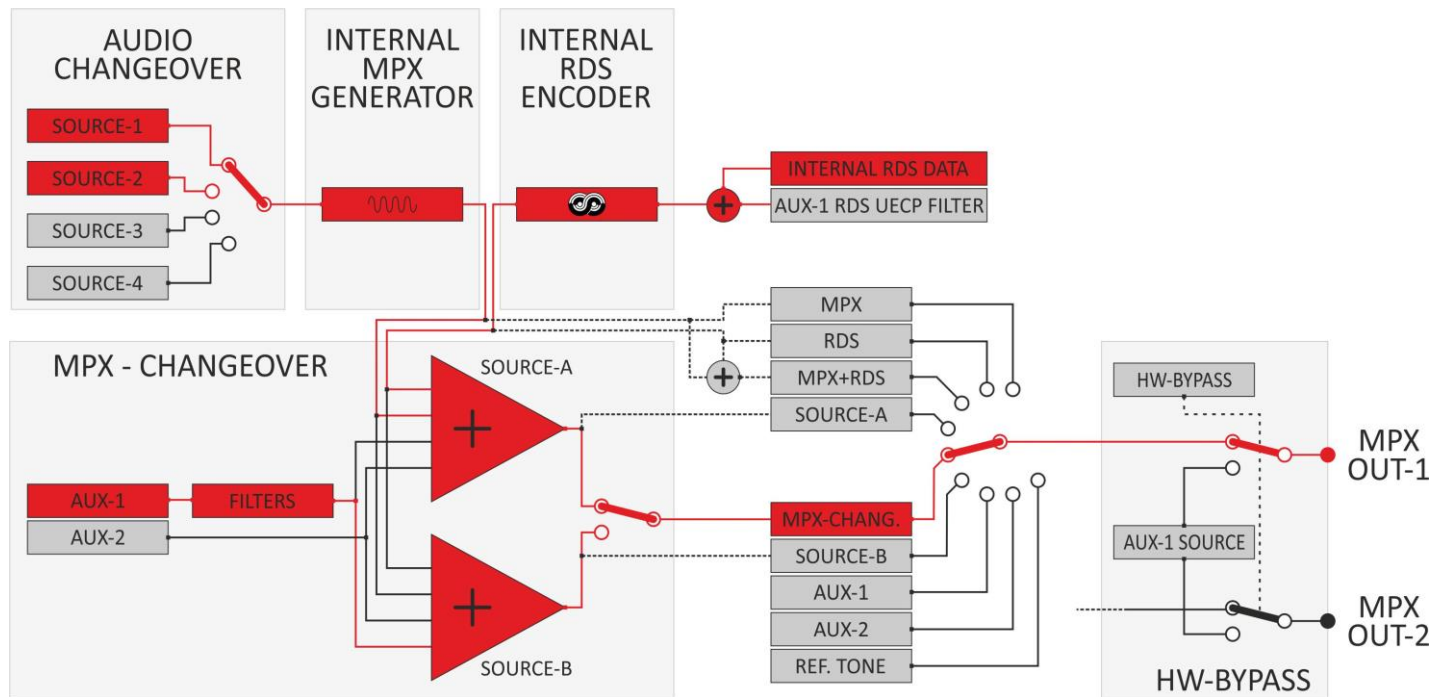
In this case, Mpx Changeover takes the Aux-1 Mpx source and uses its Audio. The RDS comes from the Internal RDS Encoder and from the Aux-1 Rds Uecp Filter.

In **MPX > Changeover > Source A** put the Internal MPX Mix in Off, and turn on the External Aux1 Mix and the Internal Rds Mix.

From **MPX > Changeover > Source A > MPX Source A RDS Rebroadcasting** select which services you want to rebroadcast from Aux-1.

In **RDS/RBDS** set all the parameters of the Internal RDS Encoder.

3.11.4 DOUBLE AUDIO SOURCES WITH AUDIO CHANGEOVER. MPX CHANGEOVER WITH MPX BACKUP SOURCE



In this case, the Mpx Changeover can select between Source A and Source B.

Source-A = Internal MPX Generator + Internal RDS Encoder. The Internal MPX Generator could receive from the Audio Changeover audio Source-1 or Source-2.

Source B = audio from Aux-1 + Internal RDS Data

In **Audio Input > Sources** set the parameters related to the sources

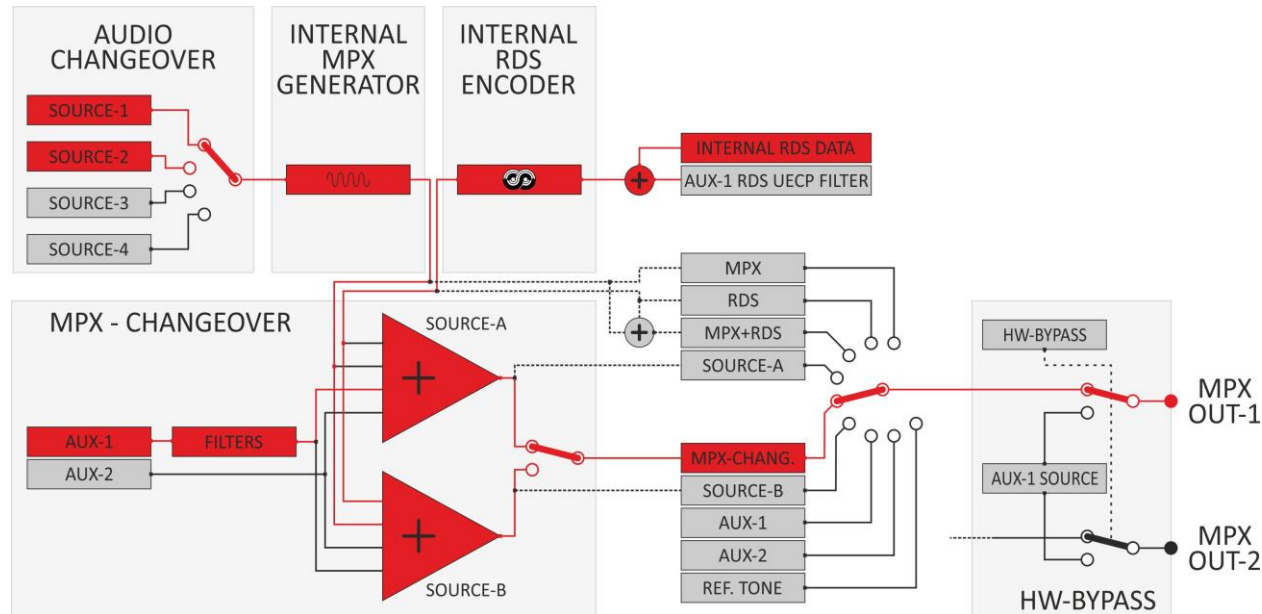
In **Audio Input > Changeover** set only Source1 and Source 2

In **MPX > Changeover > Source A** turn on the Internal Mpx Mix and the Internal Rds Mix

In **MPX > Changeover > Source B** turn on the External Aux Mix

In **MPX > Outputs > Mpx Outputs 1** select Changeover.

3.11.5 DOUBLE AUDIO SOURCES WITH AUDIO CHANGEOVER. MPX CHANGEOVER WITH MPX MAIN SOURCE



In this case, the Mpx Changeover can select between Source A and Source B.

Source-A =audio from Aux-1 + Aux 1 RDS

Source B = Internal MPX Generator + Internal RDS Encoder. The Internal MPX Generator could receive from the Audio Changeover audio Source-1 or Source-2.

In **Audio Input > Sources** set the parameters related to the sources

In **Audio Input > Changeover** set only Source1 and Source 2

In **MPX > Changeover > Source A** turn on the External Aux Mix

In **MPX > Changeover > Source B** turn on the Internal Mpx Mix and the Internal Rds Mix

In **MPX > Outputs > Mpx Outputs 1** select Changeover.

3.12 ASCII COMMANDS

By **Parser ASCII** can acquire text commands by activating the '**ASCII Commands**' mode from the software or via web browser. The ASCII commands string can be accepted also via **SNMP** sending to **OID** the "**Ascii Code**" string (see MIB for further details).

It can be used in three ways:

- Share SAMBA
- UDP Port: 15000
- SNMP OID on MIB

The **RDS** services contemplated are:

- PS, PS Scrolling
- Radiotext
- RT+
- TA/TP
- MS
- Dataset
- PTY
- PTYN

For each of them, it is possible to select the data source separately.

In the case of **SAMBA Share**, simply select the corresponding mode on the **RDS** Settings page:

PTY Extended Source

REST Command ▼

REST Command

SMB/SAMBA Share

ASCII Parser on UDP Port

ASCII Parser on MIB OID

Aux1 Mpx Changeover Filtered Rebroadcasting Rds Decoder

SMB/SAMBA Share Settings

File Name
PLAYLIST.XML

Format
DjPro V.2.0 ▼

DjPro V.1.0
DjPro V.2.0
Dalet Simple
MB Studio (Flat Mode)
Zara Studio
Dinesat Pro
ASCII Parser

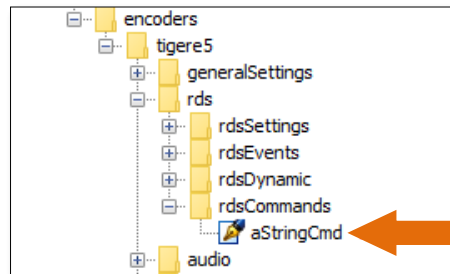
If the **UDP port** is selected, this must be enabled (always on the same page):

ASCII Parser on UDP Port Settings

☒ Active

Port
15000

Finally, if you choose to operate via **MIB**, there is the **OID .1.3.6.1.4.1.27295.2.3.2.9.1.0** which contains the string **aStringCmd** where you can insert commands:



3.12.1 ASCII PARSER (DESCRIPTION OF THE PROTOCOL)

All **ASCII commands** optionally allow you to expose **SiteAddress** and **EncoderAddress**. In this case, the device only actuates the command if the values shown belong to the device's address list (see [RDS / RBDS menu > Basic Settings > UECP Addressing](#)).

Uecp Addressing (RDS/RBDS > Basic Settings)

Individual Address

Site
2

Encoder
3

Uecp Address

Site Addresses

1

+

Encoder Addresses

1

+

3.12.2 SYNTAX

Each command begins with a keyword that identifies it, a series of separators ',' designed to separate the parameters related to the keyword and, if the command provides it, from a string of characters enclosed by double quotes (ascii code: 34).

- Spacing characters are allowed.
- The keywords and parameters are not case-sensitive.
- The parameters must respect the sending order as described below.
- The command must end with a return (ascii code: 13).
- If the command is expected, **UECP** addressing can be added by indicating **SiteAddress** and **EncoderAddress**.

3.12.3 COMMANDS

Radiotext

Keyword:	RADIOTEXT
Parameters:	<"string max 64 characters">, [SiteAddress, EncoderAddress]
Answer:	RT OK

Example:

RADIOTEXT, "text max 64 characters" ↵

with **UECP** addressing: SiteAddress = 2, EncoderAddress = 18

RADIOTEXT, "text max 64 characters", 2, 18 ↵

PS Scroll

Keyword:	PSSCROLL
Parameters:	<RIP>,<CHARS>,<SPEED>,<"string max 64 characters">, [SiteAddress, EncoderAddress]
Answer:	PS OK

RIP: { NORIP, 1_RIP, 2_RIP, 3_RIP, 4_RIP, 5_RIP, 6_RIP, 7_RIP }

CHARS: { 1CHAR, 2CHAR, 3CHAR, 4CHAR }

SPEED: { SLOWER, NORMAL, FASTER }

Example 1:

PSSCROLL with no repetition, **PSSCROLL** of **2** characters for refresh, low speed:

PSSCROLL, NORIP, 2CHAR, SLOWER, "text max 64 characters"↓

Example 2:

PSSCROLL with **4** repetitions, **PSSCROLL** of **2** characters for refresh, normale speed:

PSSCROLL, 4_RIP, 2CHAR, NORMAL, "text max 64 characters", 2, 18 ↓

RT Plus

Keyword:	RTPLUS
Parameters:	ToggleBit, RunningBit, RTContent type 1, Start Content Type 1, Lenght Content Type 1, RTContent type 2, Start Content Type 2, Lenght Content Type 2, [SiteAddress, EncoderAddress]
Answer:	RT+ OK

ToggleBit: Inform the receiver that the item has changed

RunningBit: Inform the receiver of the validity of the item

RTContent Type1: Content type 1

Start Content Type1:	Starting position of content type 1
Length Content Type1:	Number of characters following the first defining the content type 1
RTContent Type2:	Content type 2
Start Content Type2:	Starting position of content type 2
Length Content Type2:	Number of characters following the first defining the content type 2

Example:

The following string **RT** is sent:

I n o n d a : U p r i s i n g , M u s e - T h e R e s i s t a n c e - 2 0 0 9																																													
0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	4	4				
0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5

With **UECP** addressing: **Site Address** = 2, **Encoder Address** = 18

RTPLUS, 1, 1, 1, 8, 7, 4, 18, 3, 2, 18 ↓

Note: For more information on **RT+** consult the official **RDS** Forum document.

Dataset

Select the active **Dataset**.

Keyword:	DATASET
Parameters:	DataSet number (1 to 6), [SiteAddress, EncoderAddress]
Answer:	DS OK

Example for **Dataset 1**:

DATASET, 1 ↓

With **UECP** addressing:

DATASET, 1, 2, 18 ↓

TA/TP

Set the **TA/TP** of the current Dataset.

Keyword:	TATP
Parameters:	TA, TP, [SiteAddress, EncoderAddress]
Answer:	TATP OK

Example: TA OFF, TP ON

TATP, 0, 1 ↵

With **UECP** addressing: **SiteAddress** = 2, **EncoderAddress** = 18

TATP, 0, 1, 2, 18 ↵

Example: TA ON, TP ON

TATP, 1, 1 ↵

With **UECP** addressing: **SiteAddress** = 2, **EncoderAddress** = 18

TATP, 1, 1, 2, 18 ↵

PTY

Set the **Program Type**.

Keyword:	PTY
Parameters:	PTY number (0 to 31), [SiteAddress, EncoderAddress]
Answer:	PTY OK

Select **PTY** News:

PTY, 1 ↵

PTYN

Set the **Program Type Name**.

Keyword:	PTYN
Parameters:	PTYN "string max 8 characters", [SiteAddress, EncoderAddress]
Answer:	PTYN OK

Select **PTYN** "Football":

PTYN, "Football" ↓

M/S

Set the **Music/Speech**.

Keyword:	MS
Parameters:	MS number (0 to 1), [SiteAddress, EncoderAddress]
Answer:	MS OK

Select **Speech**:

MS, 0 ↓

Select **Music**:

MS, 1 ↓

4. TECHNICAL SPECS

PSU	
Power Supply	90-260 Vac / 47-63 Hz 15W
Analog Left & Right Input	
Connector	Balanced on 2 XLR – EMI Suppression
Input Impedance	20Kohm
Nominal Input Level (Sensitivity)	Software Adjustable from -9dBm to + 15,0 dBm
Range of Level	-21,0dBu ÷ + 24,0dBu
Max Input Level	+ 24,0dBu
A/D conversion	CS4272, 24 bit / 48 Khz
Input CMRR	>60dB (20Hz-20kHz)
Digital Input	
Connector	Balanced on 1 XLR – EMI Suppression
Input Impedance	110Ω
Standard	AES3-192/EBU
Sample Rate Audio	32/44.1/48/96KHz / 192
Adjustable Nominal Input Level (Sensitivity)	From 0,0dBFs to 24dBFs (0,1dBu step)
Range of Level	0,0 dBFs ÷ -36dBFs
Dynamic Range (Converter Values)	124dB (32KHz) – 126dB (44,1KHz) 126dB(48KHz) – 122dB (96KHz)
Resolution	24 bit
MPX Input – MPX	
Connector	Unbalanced on 2 BNC – EMI Suppression
Input Impedance	50K
Adjustable Nominal Input Level (Sensitivity)	Software Adjustable -9dBm to +15,0dBm
Range of Level	-21,0dBu ÷ +24,0dBu
Max Input Level	+24,0dBu
A/D Conversion	Texas PCM4202

MPX Output - MPX	
Connector	Unbalanced on 2 BNC – EMI Suppression
Output Impedance	10 Ω
Load Impedance	600 Ω or greater
Maximum Load Capacitance 5nF	192KHz
D/A Conversion	Texas PCM 1796
Composite output level	-9,0dBm to +15,0 dBm (0,1 dBm step)
S/N	≥ 85 dB
THD	$\leq 0.01\%$
Separation	≥ 65 dB
Backup Player	
Support	On Micro SD CARD (max 64GB)
Supported extensions	MP3, WAV
Sample Rate	32,44.1,48,64,96 KHz
MPX & RDS Signal	
Pilot Frequency	19 KHz +/- 1Hz
Pilot Injection	Adj from -25,0dB a -15,5dB (0,1 dB step); 6 to 18% of total deviation
Pilot Stability	± 10 ppm (-10 to +55°C)
Pilot Distortion	0,05% (typical)
Pilot Distortion + Noise	0,068% (on 100KHz band)
Composite out THD	0,01% (typical on the whole band)
Stereo Separation	>70 dB (typical on the whole band)
Linear Crosstalk Main to Sub / Sub to Main	>70 dB (minimum)
Digital filtering / band	30 Hz to 15 kHz (-0,1dB), 17 kHz (-70 dB), 19 kHz (-100 dB)
57 kHz (RDS/RBDS) Protection	Better than 51 dB
Pre-emphasis	Off, 50uS, 75uS (+-0,1dB)
Freq Response	$\pm 0,3$ dB (30Hz-15kHz)
Operation	Mono / Stereo
MPX/RDS Output	Adj from -10,0 dB to 15,0 dB (0,1 dB step)
Signal/Noise Ratio	≥ 85 dB (on 100 kHz band)
Carrier Suppression	> 85 dB

System		
GPIO Inputs/Outputs	6 GPI / 4 GPO	
Communication Port	2xRS232, 3xUSB, 1xLAN	
Synchronization	Ext(Pilot Mpx)/ Int/ Auto	
Synchronization Monitoring	Yes	
RDS Level adjustment	Digitally controlled	
Phase adjustment	Yes, 0 ÷ 359.9°	
Separate outputs for RDS+MPX and for RDS only	Yes	
Command to activate the RDS SCA	Yes	
Side Chain Mode, Loop through mode, Bypass feature	Yes	
RDS Subcarrier	100% Digitally Generated Shape	
CENELEC – EN50067 compliant –	Yes	
Accurate Clock Time (CT) Sync with Internet Connection	Yes	
Remote TA actuation for Traffic Announcements	Yes	
GPS module for automatic synchronization of the built-in Real Time Clock (RTC)	Optional (USB External)	
RDS decoder for rebroadcasting RDS Data	Yes	
Firmware can be upgraded in the field	Yes	
Front-panel Colour TFT Display	No (Tiger E3)	Yes (Tiger E5)
Data may be entered on-site with Front-panel Buttons	No (Tiger E3)	Yes (Tiger E5)
Front Panel LEDs	40	
Operating Temperature	0°C ÷ 50°C	
RDS Features		
Group supported	All	
Group Sequence	Configurable	
PS	8 DSN x MAIN+10 PSN	
PI	8 DSN x MAIN+10 PSN	
PIN & PTY	RDS/RBDS	
AF Method A	up to 1024 (64 lists)	
AF Method B	up to 1024 (64 lists)	
RT	Yes, 32 messages	

RT rate adjustment	Group Sequence
RT+ for songs and content tagging	Yes
TP	Yes
TA Control	Command, Software, GPI
PTYN	Yes
EON	10 PSN
CT	Yes
TMC, EWS, IH, TDC	Yes
Free Format Groups (FFG)	Yes
Open Data Application (ODA)	Yes
PS Scrolling	Yes
Scrolling by characters, by word, auto centre, truncate long words	Yes (Characters – from 1 up to 8)
Communication	
Connection with Automation Software	Yes
Network Connectivity	4 TCP ports / 4 UDP / 1 SNMP
PSN Scheduler	Yes
Configuration Software	Web Server, FTP
Password Protection	Yes
ASCII Protocol	Configuration Messages
REST Command	Yes
Alert notifications on user-defined events via SNMP traps or E-mails	Yes
Embedded SNMP agent permitting active management tasks	Yes
Supported Network Protocols	HTTP, SMTP, UDP, TCP, NTP, FTP
UECP Protocol	EBU SPB490 Ver.7.05
PI Calculator	Yes
RDS 2.0 Ready	Yes
Dimensions	
Dimensions (W; H; D)	485 x 44 x 240 mm
Weight	< 3Kg

5. WEEE DIRECTIVE – INFORMATIVA RAEE



In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.

In Übereinstimmung mit der Richtlinie 2002/96/EG des Europäischen Parlaments und des Rates über Elektro- und Elektronik-Altgeräte (WEEE) darf dieses Elektrogerät nicht im normalen Hausmüll oder dem Gelben Sack entsorgt werden. Wenn Sie dieses Produkt entsorgen möchten, bringen Sie es bitte zur Verkaufsstelle zurück oder zum Recycling-Sammelpunkt Ihrer Gemeinde.

Conformément à la Directive 2002/96/EC sur les déchets d'équipements électriques et électroniques (DEEE), ce produit électrique ne doit en aucun cas être mis au rebut sous forme de déchet municipal non trié. Veuillez vous débarrasser de ce produit en le renvoyant à son point de vente ou au point de ramassage local dans votre municipalité, à des fins de recyclage.

In navolging van richtlijn 2002/96/EG van het Europees Parlement en de Raad betreffende afgedankte elektrische en elektronische apparatuur (AEEA) mag dit elektrische product niet als ongescheiden huisvuil worden weggedaan. Breng dit product terug naar de plaats van aankoop of naar het gemeentelijke afvalinzamelingspunt voor recycling.

In ottemperanza alla Direttiva UE 2002/96/EC sui rifiuti di apparecchiature elettriche ed elettroniche (RAEE), questo prodotto elettrico non deve essere smaltito come rifiuto municipale misto. Si prega di smaltire il prodotto riportandolo al punto vendita o al punto di raccolta municipale locale per un opportuno riciclaggio.

De conformidad con la Directiva 2002/96/CE de la UE sobre residuos de aparatos eléctricos y electrónicos (RAEE), este producto eléctrico no puede desecharse con el resto de residuos no clasificados. Deshágase de este producto devolviéndolo al punto de venta o a un punto de recogida municipal para su reciclaje.

I henhold til EU-direktiv 2002/96/EF om affald af elektrisk og elektronisk udstyr (WEEE) må dette udstyr ikke bortskaffes som usorteret husholdningsaffald. Bortskaf dette produkt ved at returnere det til salgsstedet eller til det lokale indsamlingssted, så det kan genbruges.

I linje med EU-direktiv 2002/96/EG om avfall som utgörs av eller innehåller elektriska eller elektroniska produkter (WEEE) får denna elektriska produkt inte bortskaffas som osorterat kommunalt avfall. Bortskaffa den i stället genom att lämna in den på försäljningsstället eller din lokala återvinningsstation.

EU:n sähkö- ja elektroniikkalaiteromudirektiivin (2002/96/EY) mukaisesti tätä elektroniikkalaitetta ei saa laittaa lajittelemattoman yhdyskuntajätteen sekaan. Hävitä laite palauttamalla se ostopaikkaan tai viemällä se elektroniikkaromun keräyspisteeseen.

De acordo com a Directiva Europeia 2002/96/EC sobre resíduos sólidos de equipamento eléctrico e electrónico (WEEE), este produto eléctrico não pode ser deixado fora juntamente com o lixo municipal indiferenciado. Por favor, no final da vida útil deste produto, devolva-o ao estabelecimento de aquisição, ou entregue no local de recolha apropriado para reciclagem designado pelo seu município.

V souladu se smrnici EU . 2002/96/ES o odpadních elektrických a elektronických zaYízeních (OEEZ) se tento elektrický výrobek nesmí likvidovat jako neYídný komunální odpad. PYi likvidaento výrobek vrat'te prodejci nebo ho odevzdejte k recyklaci do komunálního sborného zaYízení.

Vastavalt EL direktiivile 2002/96/EÜ, mis käsitleb elektri- ja elektroonikaseadmete jäätmeid (WEEE), ei või antud toodet visata majapidamisjäätmete hulka. Palun tagastage antud toode taaskasutamise eesmärgil müügipunkti või kohaliku piirkonna jäätmekogumise punkti.

V súlade so smernicou 2002/96/ES o odpade z elektrických a elektronických zariadení (OEEZ) sa toto elektrické zariadenie nesmie odstranovať ako netriedený komunálny odpad. Výrobok odstráňte jeho vrátením v mieste nákupu alebo odovzdaním v miestnom zbernom zariadení na recyklovanie.


V súlade so smernicou 2002/96/ES o odpade z elektrických a elektronických zariadení (OEEZ) sa toto elektrické zariadenie nesmie odstranovať ako netriedený komunálny odpad. Výrobok odstráňte jeho vrátením v mieste nákupu alebo odovzdaním v miestnom zbernom zariadení na recyklovanie.

6. WARRANTY

The manufacturer offers a one-year warranty ex-works. Do not open the equipment. Any breaking of the seals will result in forfeiture of the same. The manufacturer is not liable for damages of any kind arising from, or in connection with, the use of the wrong product.




Dichiarazione di conformità

Il sottoscritto Giuseppe Vaccari	
In qualità di legale rappresentante della ditta Axel Technology S.r.l.	
con sede in: Via Caduti di Sabbiuno, 6/F – 40011 – Anzola Emilia (BO)	
Partita IVA: IT01735031203	
Dichiara	
che il prodotto: Codificatore MPX+RDS con ingressi analogici/digitali/MPX. Changeover Audio & MPX. RDS con 8 Dataset. UECP v.7.05. ODA, TMC, IH, RT, RT+. Scheduler PS, RT, PTY. Web Server, SNMP v2.0. 6 GPI, 4 Relè. Interfaccia per automazione radio. GPS. Streaming I/O disponibili come opzione.	
Modello e/o codice: Tiger E3	
Data Fabbricazione: vedi etichetta sul prodotto	Numero di serie: vedi etichetta sul prodotto
È stato costruito rispettando le seguenti direttive e norme:	
<ul style="list-style-type: none"> • Direttiva 2014/35/UE nota come "Direttiva bassa tensione" • Direttiva 2014/30/UE nota come "Direttiva compatibilità elettromagnetica" • Direttiva 2011/65/CE nota come "RoHS" • Direttiva delegata (UE) 2015/863 della commissione del 31 marzo 2015 recante modifica dell'allegato II della direttiva 2011/65/UE • Direttiva 2012/19/UE nota come "RAEE" • Direttiva 2001/95/CE nota "Sicurezza generale dei prodotti" • UNI EN ISO 7010:2021 Titolo: Segni grafici - Colori e segnali di sicurezza - Segnali di sicurezza registrati • EN 62368-1:2018 - relativa alla sicurezza elettrica per le apparecchiature informatiche e i prodotti audio/video • IEC 62311:2019 - Valutazione degli apparecchi elettronici ed elettrici in relazione alle restrizioni per l'esposizione umana ai campi elettromagnetici (0 Hz – 300 GHz) • EN 55032:2015+A1:2020 - Compatibilità elettromagnetica delle apparecchiature multimediali. Requisiti di emissione • EN 55103-2:2010 Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 2: Immunità. • EN 60065:2019 Apparecchi audio, video e apparecchi elettronici similari Requisiti di sicurezza. • EN 61000-6-1:2016 – EMC – Immunità per ambienti residenziali, commerciali e industria leggera. • EN 61000-6-3:2020 – EMC – Emissione per ambienti residenziali, commerciali e industria leggera. • EN 60950-1:2014 – Sicurezza degli apparati ITE (Information Technology Equipment) • EN 55024:2017 Apparecchiature per la tecnologia dell'informazione - Caratteristiche di immunità Limiti e metodi di misura. • EN IEC 63000:2018 Nuovo standard armonizzato per dimostrare la conformità RoHS • EN 55032:2015+A1:2020 Compatibilità elettromagnetica delle apparecchiature multimediali - Requisiti di emissione • EN 55035:2017 - Compatibilità elettromagnetica delle apparecchiature multimediali - Requisiti di immunità 	
Ed è quindi conforme alle direttive e normative vigenti.	
La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante.	
Data: 15/6/2023	Firma: 
Luogo: ANZOLA DELL'EMILIA (BO) - ITALIA	




Declaration of Conformity

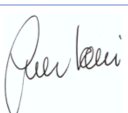
The undersigned Giuseppe Vaccari	
As legal representative of the company Axel Technology Srl	
based in: Via Caduti di Sabbiuno, 6/F – 40011 – Anzola Emilia (BO)	
VAT number: IT01735031203	
<i>declares</i>	
that the product: MPX+RDS encoder with analog/digital/MPX inputs. Audio & MPX changeovers. RDS with 8 datasets. UECP v.7.05. ODA, TMC, IH, RT, RT+. PS, RT, PTY Scheduler. Web Server, SNMP v2.0. 6 GPI, 4 Relays. Radio automation interface. GPS. Streaming I/O available as an option.	
Model and/or code: Tiger E3	
Date of manufacture: see label on the product	Serial number: see label on the product
It was built in compliance with the following directives and standards:	
<ul style="list-style-type: none"> • Directive 2014/35/EU known as the "Low Voltage Directive" • Directive 2014/30/EU known as the "Electromagnetic Compatibility Directive" • Directive 2011/65/EC known as "RoHS" • Commission Delegated Directive (EU) 2015/863 of 31 March 2015 amending Annex II of Directive 2011/65/EU • Directive 2012/19/EU known as "WEEE" • Directive 2001/95/EC known as "General product safety" • UNI EN ISO 7010:2021 Title: Graphic signs - Colors and safety signs - Registered safety signs • EN 62368-1:2018 - relating to electrical safety for computer equipment and audio/video products • IEC 62311:2019 - Evaluation of electronic and electrical equipment with regard to restrictions on human exposure to electromagnetic fields (0 Hz – 300 GHz) • EN 55032:2015+A1:2020 - Electromagnetic compatibility of multimedia equipment. Issue requirements • EN 55103-2:2010 Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 2: Immunity. • EN 60065:2019 Audio, video and similar electronic equipment Safety requirements. • EN 61000-6-1:2016 – EMC – Immunity for residential, commercial and light industry environments. • EN 61000-6-3:2020 – EMC – Emission for residential, commercial and light industry environments. • EN 60950-1:2014 – Safety of ITE (Information Technology Equipment) • EN 55024:2017 Information technology equipment - Immunity characteristics Limits and methods of measurement. • EN IEC 63000:2018 New harmonized standard to demonstrate RoHS compliance • EN 55032:2015+A11:2020 Electromagnetic compatibility of multimedia equipment - Emission requirements • EN 55035:2017 - Electromagnetic compatibility of multimedia equipment - Immunity requirements 	
And it is therefore compliant with current directives and regulations.	
This declaration of conformity is issued under the sole responsibility of the manufacturer.	
Date: 15/6/2023	Signature: 
Place: ANZOLA DELL'EMILIA (BO) - ITALY	



Dichiarazione di conformità

Il sottoscritto Giuseppe Vaccari	
In qualità di legale rappresentante della ditta Axel Technology S.r.l.	
con sede in: Via Caduti di Sabbiuno, 6/F – 40011 – Anzola Emilia (BO)	
Partita IVA: IT01735031203	
Dichiara	
che il prodotto: Codificatore MPX+RDS con ingressi analogici/digitali/MPX. Streaming IN/OUT. Media player. Changeover Audio & MPX. RDS con 8 Dataset. UECP v.7.05. ODA, TMC, IH, RT, RT+. Scheduler PS, RT, PTY. Web Server, SNMP v2.0. 6 GPI, 4 Relè. Interfaccia per radio automa- tion. GPS. Display TFT Hi-Res.	
Modello e/o codice: Tiger E5	
Data Fabbricazione: vedi etichetta sul prodotto	Numero di serie: vedi etichetta sul prodotto
È stato costruito rispettando le seguenti direttive e norme:	
<ul style="list-style-type: none">• Direttiva 2014/35/UE nota come "Direttiva bassa tensione"• Direttiva 2014/30/UE nota come "Direttiva compatibilità elettromagnetica"• Direttiva 2011/65/CE nota come "RoHS"• Direttiva delegata (UE) 2015/863 della commissione del 31 marzo 2015 recante modifica dell'allegato II della direttiva 2011/65/UE• Direttiva 2012/19/UE nota come "RAEE"• Direttiva 2001/95/CE nota "Sicurezza generale dei prodotti"• UNI EN ISO 7010:2021 Titolo: Segni grafici - Colori e segnali di sicurezza - Segnali di sicurezza registrati• EN 62368-1:2018 - relativa alla sicurezza elettrica per le apparecchiature informatiche e i prodotti audio/video• IEC 62311:2019 - Valutazione degli apparecchi elettronici ed elettrici in relazione alle restrizioni per l'esposizione umana ai campi elettromagnetici (0 Hz – 300 GHz)• EN 55032:2015+A1:2020 - Compatibilità elettromagnetica delle apparecchiature multimediali. Requisiti di emissione• EN 55103-2:2010 Norme di famiglie di prodotto per apparecchi audio, video, audiovisivi e di comando di luci da intrattenimento per uso professionale - Parte 2: Immunità.• EN 60065:2019 Apparecchi audio, video e apparecchi elettronici similari Requisiti di sicurezza.• EN 61000-6-1:2016 – EMC – Immunità per ambienti residenziali, commerciali e industria leggera.• EN 61000-6-3:2020 – EMC – Emissione per ambienti residenziali, commerciali e industria leggera.• EN 60950-1:2014 – Sicurezza degli apparati ITE (Information Technology Equipment)• EN 55024:2017 Apparecchiature per la tecnologia dell'informazione - Caratteristiche di immunità Limiti e metodi di misura.• EN IEC 63000:2018 Nuovo standard armonizzato per dimostrare la conformità RoHS• EN 55032:2015+A1:2020 Compatibilità elettromagnetica delle apparecchiature multimediali - Requisiti di emissione• EN 55035:2017 - Compatibilità elettromagnetica delle apparecchiature multimediali - Requisiti di immunità	
Ed è quindi conforme alle direttive e normative vigenti.	
La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante.	
Data: 15/6/2023	Firma: 
Luogo: ANZOLA DELL'EMILIA (BO) - ITALIA	

CE Declaration of Conformity

The undersigned Giuseppe Vaccari	
As legal representative of the company Axel Technology Srl	
based in: Via Caduti di Sabbiano, 6/F – 40011 – Anzola Emilia (BO)	
VAT number: IT01735031203	
<i>declares</i>	
that the product: MPX+RDS encoder with analog/digital/MPX inputs. Stream IN/OUT. Media player. Audio & MPX changeovers. RDS with 8 datasets. UECP v.7.05. ODA, TMC, IH, RT, RT+. PS, RT, PTY Scheduler. Web Server, SNMP v2.0. 6 GPI, 4 Relays. Interface for radio automation. GPS. Hi-Res TFT display.	
Model and/or code: Tiger E5	
Date of manufacture: see label on the product	Serial number: see label on the product
It was built in compliance with the following directives and standards:	
<ul style="list-style-type: none"> • Directive 2014/35/EU known as the "Low Voltage Directive" • Directive 2014/30/EU known as the "Electromagnetic Compatibility Directive" • Directive 2011/65/EC known as "RoHS" • Commission Delegated Directive (EU) 2015/863 of 31 March 2015 amending Annex II of Directive 2011/65/EU • Directive 2012/19/EU known as "WEEE" • Directive 2001/95/EC known as "General product safety" • UNI EN ISO 7010:2021 Title: Graphic signs - Colors and safety signs - Registered safety signs • EN 62368-1:2018 - relating to electrical safety for computer equipment and audio/video products • IEC 62311:2019 - Evaluation of electronic and electrical equipment with regard to restrictions on human exposure to electromagnetic fields (0 Hz – 300 GHz) • EN 55032:2015+A1:2020 - Electromagnetic compatibility of multimedia equipment. Issue requirements • EN 55103-2:2010 Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use - Part 2: Immunity. • EN 60065:2019 Audio, video and similar electronic equipment Safety requirements. • EN 61000-6-1:2016 – EMC – Immunity for residential, commercial and light industry environments. • EN 61000-6-3:2020 – EMC – Emission for residential, commercial and light industry environments. • EN 60950-1:2014 – Safety of ITE (Information Technology Equipment) • EN 55024:2017 Information technology equipment - Immunity characteristics Limits and methods of measurement. • EN IEC 63000:2018 New harmonized standard to demonstrate RoHS compliance • EN 55032:2015+A11:2020 Electromagnetic compatibility of multimedia equipment - Emission requirements • EN 55035:2017 - Electromagnetic compatibility of multimedia equipment - Immunity requirements 	
And it is therefore compliant with current directives and regulations.	
This declaration of conformity is issued under the sole responsibility of the manufacturer.	
Date: 15/6/2023	Signature: 
Place: ANZOLA DELL'EMILIA (BO) - ITALY	