

Oxygen 3000v2



The number 1 of the category, upgraded with extended features

Oxygen 3000 Digital Mixing Console for Radio defined a new standard in the broadcast market.

Characterized by an elegant design and compact size, **Oxygen 3000** is suitable to be used as On Air Console and Production Console. **Oxygen 3000** is based on digital technology with DSP audio processing to deliver high-end quality, latest features and flexibility with ease of use. **Oxygen 3000** is the Bestseller in its category at the best quality/price ratio. **Oxygen 3000** is a powerful and compact unit featuring 10 faders, meters for each single channel, built-in 7" display for settings, wide range of connectivity and accessories in a rugged and classy steel chassis.

Easy and reliable as the analogue mixing consoles, **Oxygen 3000** adds the value of the digital engine that grants a near 0 latency (< 0,7 ms I/O) and plenty of advanced functions as the internal routing signal, customizable preset and easy recall, user defined smart keys, analog and digital I/O.

Oxygen 3000 completely revised with a brand new firmware.

Oxygen 3000 New Features

General

- Automatic firmware update via Internet
- Conditional Access (4-digit PIN)

MIC-Mono Inputs

- Independent ON AIR Lights and Cut Off control, when opening Control Room and

☐ Save and recall EQ presets
(up to 10)

☐ New real-time EQ
algorithm with graphic

☐ Faster and more accurate
Led Meters display

☐ Save and recall control
panel configuration with 10
Snapshots

☐ Save and recall total
console configuration. The
configuration can be saved
to internal memory
(microSD), USB and PC (via
WEB interface)

☐ User custom GPIs (e.g.
Ring, Talkback, channel
ON/OFF, etc.)

☐ User custom GPOs (e.g.
Hook/ONAIR, Studio-Light,
Control Room-Light)

☐ Selectable home page
layouts for built-in 7"
display

☐ Selectable home page
layouts for HDMI Output

☐ Gain adjustment knobs

Studio microphones

☐ PFL button switches
to private conversation
on
Hybrid/Telco/Bluetooth
mode

☐ Enable TalkBack
feature on any Studio
or Control Room
microphone

☐ Parametric
Compressors/Expander
(drive, threshold,
attack time, release
time) for MICROPHONE
and MONO inputs

☐ Save and recall
microphone presets
including
Compressor/Expander
settings

☐ Phase inversion on
microphone inputs

Telco Channels

☐ GPI and GPO
management on all 5
Telco channels

with adaptive speed

☐ Dimmable buttons light

☐ Adjustable fader ON/OFF

threshold (from -50db to 0 db)

☐

CountUp/Timer/CountDown

on studio and control room microphones on the built-in 7" display

☐ A & B source names on the 7" Display and HDMI Out

☐ MONO inputs assignable as EXT source

☐ Ducking / AutoFader assignable to all sources (automatic attenuation of music on speech)

☐ WEB UI with service features (Save, restore, update, logs, etc)

☐ New theme icons on display screens

Stereo Inputs

☐ Channel mode selection: STEREO, MONO, L, R, INV-L, INV-R, INV

☐ RING and HOOK on F1

key for each TELCO channels

☐ N-1 on Telco outputs for all BUS (PGM, SUB, AUX-1, and AUX-2)

Monitor Out

☐ Adjustable maximum Control Room and Studio speakers volume

☐ Adjustable maximum Control Room and Studio headphones volume

☐ Adjustable CUT or Attenuation mode (-40, -30, -20, -10 dB) on Control Room and Studio speakers

☐ Independent source selection (PGM, SUB, AUX1, AUX2, EXT) for control room and studio speakers, control room and studio headphones with or without PFL

Bluetooth Module

With Bluetooth calls, PFL enables PRIVATE conversation mode

Independent Talk

Back management on Control Room and Studio speakers

Independent Talk

Back management on Control Room, Studio and Guest headphones

Selectable source for

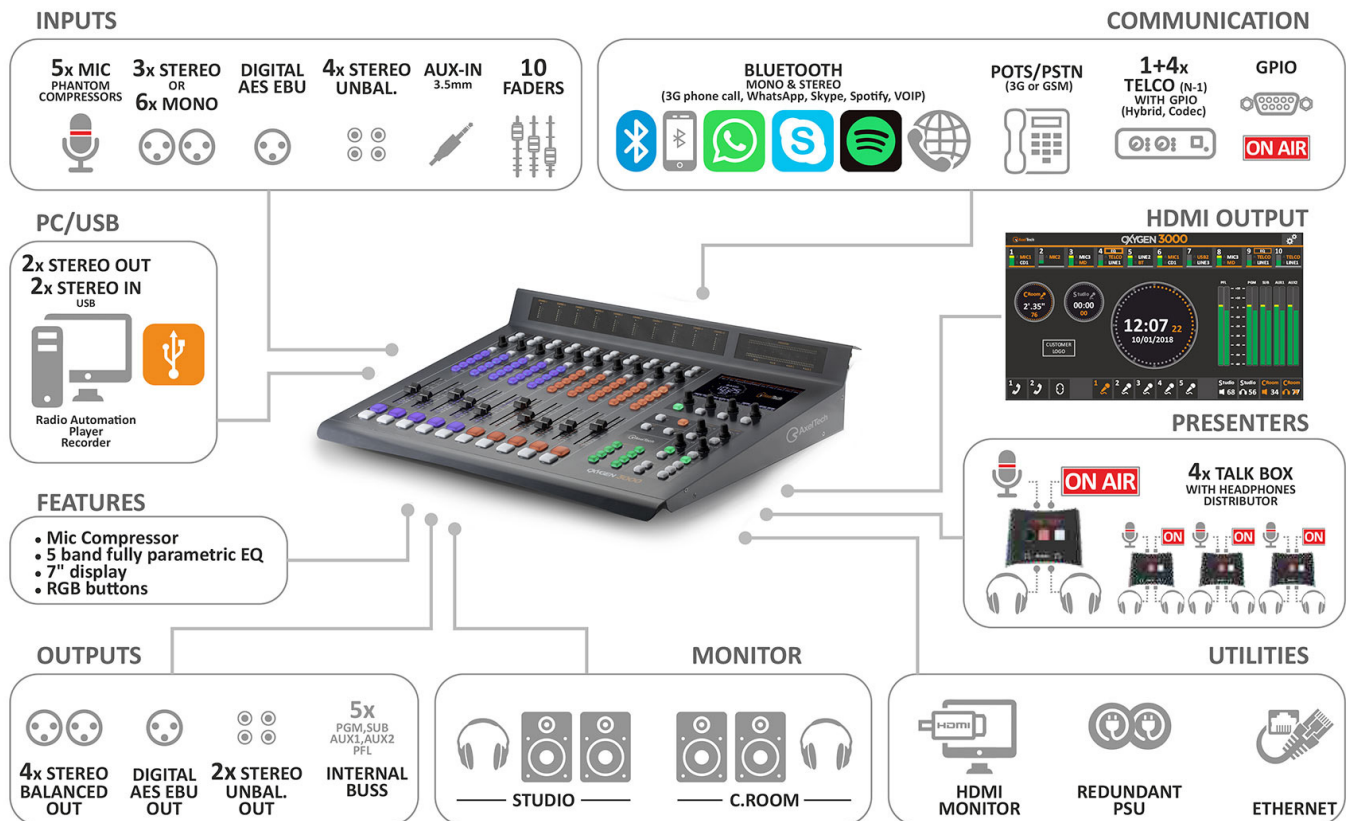
Guest headphones

(PGM, SUB, AUX1, AUX2, EXT)

Same source selection

for Control Room and Studio headphones, with independent level





Highlights

General

- Fully Digital Broadcast Console
- Near 0 latency (< 0,7 ms I/O)
- Signals routing
- 10-fader console
- 4+1 busses (PGM, SUB, Aux1, Aux2, PFL)
- User-definable Snapshot

Input Output

- 5 microphones inputs
- 8 stereo inputs
- 7 stereo outputs
- 1 built-in telephone hybrid,
- 1+4 telco interface with GPIO
- Bluetooth audio interface

5 band fully parametric

EQ

Dyn Processor on

microphone inputs

Webpage

Customizable RGB

colored buttons

7" Graphic Color Display

Ctrl-Room and Studio

Facilities

A/B Fast source switch

buttons

10 led meter bars for

input source monitoring

High Resolution led meter

bars for outputs (164 leds)

HDMI Out - Full HD

connection for mixer

monitor

2 Timers (Ctrl-Room and

Studio microphones timers

on HDMI Monitor)

TalkBox for guest and

presenter*

Redundant PSU (optional)

1 digital In/Out (AES EBU)

2 USB audio interface



Inputs & Outputs

Microphone Inputs - Oxygen 3000 allows connection of XLR and RJ45 connector:

- ▣ Inputs replicated from XLR to RJ45: 2-3-4-5, balanced with + 48V Phantom and GPIO
- ▣ Telco: Microphone No. 5 mutually exclusive

Digital input line:

- ▣ Digital Input: 1 AESEBU Input on XLR

Analogue Outputs:

- ▣ Line Outputs: 6
- ▣ Balanced outputs: 4 Line out on XLR - PGM, SUB, AUX-1, AUX-2
- ▣ Unbalanced outputs: 2 Line out on RCA - REC-1, REC-2

Headphones and local monitor outputs:

- ▣ Balanced outputs: 2 line out on RJ45 for

Analogue inputs lines:

- ▣ Line Inputs: 8
- ▣ Balanced inputs: 3 Line In on XLR
- ▣ Unbalanced Inputs: 4 Line on RCA
- ▣ Aux Input: 1 Line In Jack 3.5mm

Telephone hybrid and Telco:

- ▣ Telephone Hybrid: 1 POTS/PSTN telephone line with Line.In and Tel.Set connection
- ▣ Telco: 1 in/out N-1 to connect external telephone hybrid with control via TLC/GPIO
- ▣ 4 inputs/outputs N-1 on inputs STEREO 4/5 and outputs REC 1/2

Digital output:

- ▣ Digital Output: 1 AESEBU output on XLR

GPI/GPO:

- ▣ GPI: 12 in total, for Talk back, Telephone

Studio Presenter and Studio Guest

Hybrid or other features

Headphones

🔌GPO: 10 total, to control OnAir lamps or

🔌Unbalanced outputs: 2 Line out on RCA for

Telephone Hybrid

Control Room and Studio Speaker

🔌Unbalanced outputs: 2 Line out on Jack 6.3

for Control Room and Studio Headphones

Talk Box

It is a device dedicated to the presenter or guests.

This TalkBox is very simple to connect to the On Air Console, actually its take 2 RJ45 cables of the length that needed to connect it to the mixer. It is possible to connect maximum up to 4 units.

The TalkBox offer a direct connection of the microphone and relative On-Air light, it is also possible to directly connect the studio's On-Air Light.

The Talk Box has a headphone amplifier with two 6.3mm outputs.

Through the two large backlit buttons it is possible to activate and deactivate your own microphone (On / Off / Cough) or enable Talk back to the console.

Details

USB audio interface

The USB audio interface allows to directly connect the PC to the Oxygen 3000 console, with no need for audio cards: infact the PC detects the console as a digital audio card with 2 stereo inputs and 2 stereo outputs for simultaneous playout and recording.

Telephone Hybrid and Telco

The built-in telephone hybrid allows direct connection of a telephone line POTS/PSTN on RJ-11C. The audio is processed via DSP that delivers a state-of-the-art audio processing. It's also available a Telco N-1 in/out, to connect Oxygen 3000 to an external telephone hybrid. The output Telco N-1 is always available on XLR male, while the input receiving line is mutually shared with Mic-5. TLC commands are available on SubD connector with Hook and Ring interface for external telephone hybrid.

4 inputs/outputs N-1 on inputs STEREO 4/5 and outputs REC 1/2 are also available without GPIO controls.

Bluetooth

Oxygen 3000 has a Bluetooth connection. This allows airing the calls made via Skype, Viber, Whatsapp or a normal phone calls by a Smartphone and Tablet.

Oxygen 3000 has two modes of Bluetooth connection, bidirectional to support phone calls and mono monodirectional for streaming high quality stereo audio (A2DP): this last feature allows airing the music from smartphones and tablets.

GPIO

The console Oxygen 3000 has 12 GPI and 10 GPO, which allow connections to OnAir signal lamps according the opening of a microphone channel, or provide HOOK and RING commands for external telephone Hybrid.

Features details

Display 7"

The **OXYGEN 3000** has a 7 " colour graphic display for displaying all the airing parameters and for configuring all the device feature.

The large display combined with the 4 rotary knobs allow the fast and intuitive programming of all the mixer parameters. actually, Oxygen 3000 have a very easy and intuitive programming interface has been specially designed.

HDMI output

The HDMI output in OXYGEN 3000 is offer the possibility to connect a display monitor FullHD at the console. This feature providing multiple information on settings and operating levels. List of HDMI output display components.

🔍 Audio input source leave

🔍 4+1 BUS output leave

🔍 A/B sources assigned of
10 channels

🔍 Display ON-Air sources

🔍 Microphone On timer
(control room & studio)

🔍 Large Clock

🔍 Audio output level
(Loudspeakers &
Headphones)

🔍 OnAir microphone

🔍 Telephone active

**The HDMI interface also offers
the possibility for radio
stations to upload their own
logo on the graphic interface.**

Power supply

Universal Power on IEC Schuko cord, thanks to the universal power supply switching with working voltage between 90Vac and 264Vac and frequency between 50-60Hz. The PSU is able to adapt itself to the operating voltage of any country in the world. It's also available redundant power supply (optional)

Technical Specifications

Analog Balanced Stereo Inputs

Connector	XLR Balanced – EMI Suppressed
Input Impedance	10Kohm
Nominal Input Level (sensitivity)	0dBu
Max Input Level (clipping point)	+18,5dBu
A/D conversion	24 bit / 48 Khz
Frequency response	+/-0,5dB from 20Hz to 20kHz
Signal To Noise Ratio (referred to peak level)	>100dB
Stereo Separation (referred to peak level)	>90dB
THD+N	<0,002%

Analog Unbalanced Stereo Inputs

Connector	RCA unbalanced – EMI Suppressed
Input Impedance	10Kohm
Nominal Input Level (sensitivity)	0dBu
Max Input Level (clipping point)	+18,5dBu
A/D conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>90dB
Stereo Separation (referred to peak level)	>80dB
THD+N	<0,05%

Analog Balanced Microphone Inputs

Connector	XLR Balanced – EMI Suppressed
Input Impedance	2,4Kohm
Nominal Input Level (sensitivity)	-21dBu

Analog Balanced Microphone Inputs

Max Input Level (clipping point)	+7dBu
A/D conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>90dB
THD+N	<0,01%
Analog Gain	Adjustable +0 ÷ +60dB (3dB step)
Phantom Power	+48V

Analog Balanced Telco Input (shared with MIC5, mutually exclusive)

Connector	XLR Balanced – EMI Suppressed
Input Impedance	2,4Kohm
Nominal Input Level (sensitivity)	0dBu
Max Input Level (clipping point)	+18,5dBu
A/D conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>90dB
THD+N	<0,01%

Analog Balanced Stereo Outputs

Connector	XLR Balanced – EMI Suppressed
Output Impedance	23ohm, nominal 600ohm
Nominal Output Level	0dBu
Max Output Level (clipping point)	+18,5dBu
D/A conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>100dB
Stereo Separation (referred to peak level)	>90dB
THD+N	<0,002%

Analog Unbalanced Stereo Outputs

Connector	RCA Unbalanced – EMI Suppressed
Output Impedance	nominal 560ohm
Nominal Output Level	0dBu
Max Output Level (clipping point)	+19dBu
D/A conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>90dB
Stereo Separation (referred to peak level)	>80dB
THD+N	<0,05%

Analog Balanced Talkbox Outputs

Connector	RJ45 balanced – EMI Suppressed
Output Impedance	100ohm, nominal 600ohm

Analog Balanced Talkbox Outputs

Nominal Output Level	0dBu
Max Output Level (clipping point)	+14dBu
D/A conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>100dB
Stereo Separation (referred to peak level)	>90dB
THD+N	<0,05%

Analog Balanced Telco Output

Connector	XLR Balanced – EMI Suppressed
Output Impedance	23ohm, nominal 600ohm
Nominal Output Level	0dBu
Max Output Level (clipping point)	+18,5dBu
D/A conversion	24 bit / 48 Khz
Signal To Noise Ratio (referred to peak level)	>100dB
THD+N	<0,002%

Digital Input

Connector	Balanced on 1 XLR – EMI Suppressed
Input Impedance	110Ω
Standard	AES3
Audio Sample Rate	32/44.1/48KHz with aSRC
Resolution	24 bit
Dynamic Range (Converter Values)	124dB

Digital Output

Connector	Balanced on 1 XLR – EMI Suppressed
Input Impedance	110Ω
Standard	AES3
Audio Sample Rate	48KHz
Resolution	24 bit
Dynamic Range (Converter Values)	124dB

USB Audio Digital I/O

Connector	USB Type B – EMI Suppressed
Playback And Recording Sample Rate	48KHz fixed
Resolution	16 bit
Channel count	1 Stereo play, 1 stereo rec for each USB interface

PSTN Interface

Connector	RJ11
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PSTN Interface

Transhybrid loss >36dB

System

Audio Core	Analog Devices ADAU1452 32bit 294MHz fixed point DSP
Audio CODECs	Cirrus CS42448 24bit/192kHz
System Core	Allwinner A20 dual core cortex-A7 at 800MHz, 1GB RAM
System display	7" TFT 800x480 LCD
LAN Connection	RJ45 - 100Mbit
Nominal Delay (analog input to analog output)	0,7ms
GPIO Inputs/Outputs	12 GPI / 10 GPO
Communication Port	2xUSB type-A, 2xUSB type-B , 1xLAN, 1xHDMI
Operating Temperature	0°C ÷ 40°C

PSU (optionally redundant)

Power Supply 90-260 Vac / 47-63 Hz 45W

Dimensions

Dimensions (W; H; D) 660mm; 142mm; 540mm

Weight < 20Kg

Dimensions

