

# MACROTEL x1-x2



## Product overview

**Macrotel X1 and Macrotel X2** are **AxelTech's** Digital Telephone Hybrid third generation designed for a supreme audio quality.

**Macrotel X1** manages one POTS/PSTN line while **Macrotel X2** can operate on two POTS/PSTN lines.

Moreover, for every landline is available a switching “land-to-wireless mode” through one or two optional Quad Band GSM modules so to establish telephone connection where wired lines are not available.

**Macrotel X1 and Macrotel X2's** telephone interface perfectly suits every phone line specs all over the world (country selectable via remote control software).



## Models



## Macrotel X1

REAR CONNECTIONS



FRONT PANEL



FUNCTIONS





## Macrotel X2

### REAR CONNECTIONS



### FRONT PANEL



### FUNCTIONS



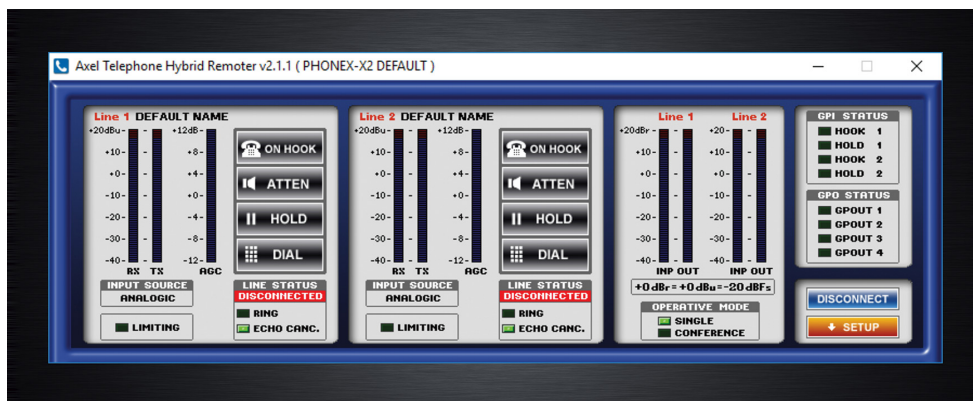


## Macrotel X1 & X2 Highlights

### General

- ☐ 1 and 2 line models
- ☐ POTS/PSTN and GSM Quad Band (option)
- ☐ Digital AGC processor with 2 band EQ
- ☐ Echo canceller and noise gate
- ☐ Balanced XLR I/O (mic/line)
- ☐ Auto answer and disconnection
- ☐ Remote control software

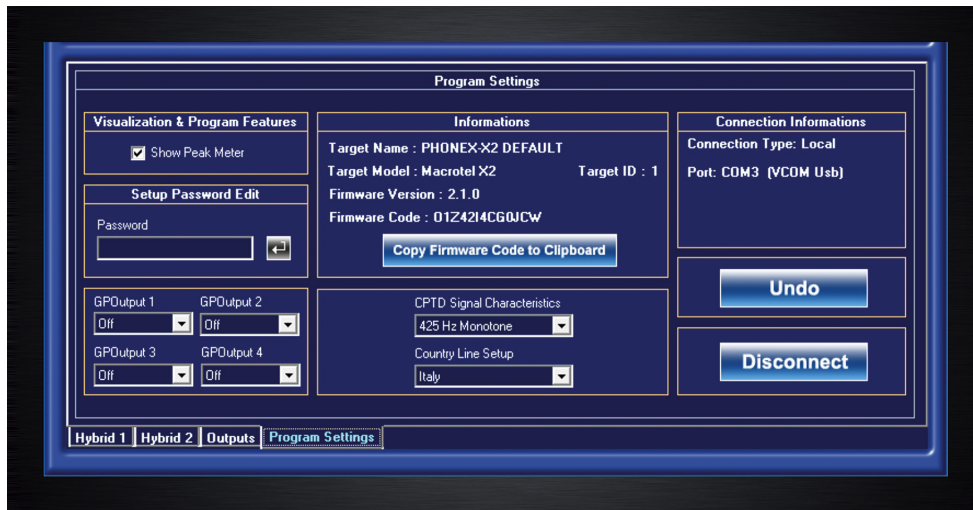
- ☐ Clear audio and natural sound
- ☐ 19" 1u rack
- ☐ Remote control from any mixing console
- ☐ Automatic line compensation
- ☐ Send/Receive audio level adjustment
- ☐ Grafical display
- ☐ Direct setting by front panel
- ☐ Internal PSU 90-260 Vac 50/60Hz on VDE connector



## Inputs & Outputs

- ☐ 2 Balance analog input on XLR -
- ☐ 2 Balance analog output on XLR
- ☐ RJ11 connector for POTS line connection (n.2 X2, n.1 X1)
- ☐ RJ11 connector for Tel Set connection (n.2 X2, n.1 X1)
- ☐ DB15 – 4 GPI and 4 GPO Programmable.
- ☐ USB Type B for remote connection
- ☐ 2 RS 232 Serial interface on DB9 female

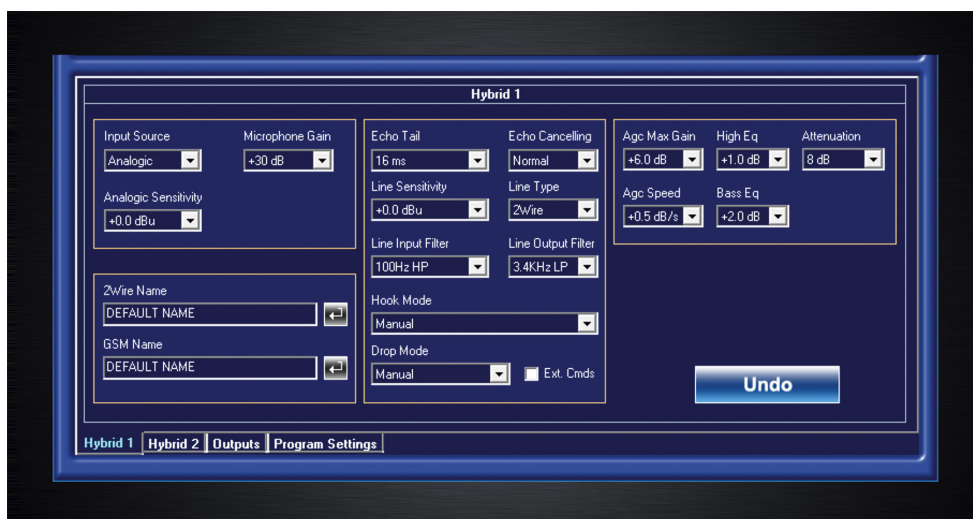
connector



### Audio Process and remote control software functions

- ☐ Direct managed by SW interface
- ☐ RX and TX Telephone Hybrid level meters
- ☐ IN and OUT Mixer level meters
- ☐ Hook Mode and Drop Mode
- ☐ Hold Function
- ☐ Nominal Output Level settings (from -10 to +14dB at 1 dB step)
- ☐ Conference Function (available only on Macrotel X2).
- ☐ ATT Function with Attenuation parameter
- ☐ Audio Filters (HP and LP)
- ☐ AGC settings (Max Gain and Speed)
- ☐ Input source mode (Line or Mic)
- ☐ Microphone Gain settings (+10 to +40dB at 1 dB step)

- ⓘ Sensitivity +/-12dB (0.1dB step)
- ⓘ Echo canceller settings (Echo Tail and Mode)
- ⓘ POTS Line setting (Country, Line Sensitivity, CPDT Characteristic, Label name)
- ⓘ Equalizer Settings (Hi and Bass freq. From 0 to +12dB)
- ⓘ GPO 1–4 function settings.



## Special Features

The audio processing via DSP together with the automatic gain control (A.G.C) provides a loud and clear receiving level, always steady even when audio caller conditions changes continuously.

Audio controls available on the **Macrotel X1 and Macrotel X2** series are: echo canceller with a range from 16 to 32ms, 1 A.G.C stage, 2 Band Equalizer and Attenuator audio feature.

Furthermore, the “hold” function allows you to put the caller On Hold before being On Air.

**Macrotel X1 and Macrotel X2** front panel controls allow



operators to manage phone calls easily, while the graphic display LCD shows Send and Receive audio levels.

The audio inputs and outputs are electronically balanced by XLR connectors; the send input has been designed to be managed as line level or microphone level to match perfectly each user needs. Channels are manageable via USB and Serial connection, or directly from Telco N-1 mixing console modules.

The software manages the phone hybrid operability globally, that means the user can change the working audio parameters and operative mode without any physical action on the equipments.

Auto-ranging internal switching power supply allows to use the equipment all over the world. **Macrotel X1 and Macrotel X2** fits 19" standard 1 RU.

## Technical Specification

### General Features

#### Macrotel X1

#### Macrotel X2

#### Lines

**1 Pots/Pstn Line or  
1 Gsm Line (optional)**

**2 Pots lines or  
2 GSM lines  
(optional) or  
1 Pots line + 1**

<b>General Features</b>	<b>Macrotel X1</b>	<b>Macrotel X2</b>
		<b>GSM line (by option)</b>
<b>Phone Line</b>	<b>1x RJ11 6/4</b>	<b>2x RJ11 6/4</b>
<b>Set Line</b>	<b>1x RJ11 6/4</b>	<b>2x RJ11 6/4</b>
<b>GSM Line</b>	<b>1x RJ10</b>	<b>2x RJ10</b>
	<b>Standard 2-Wire</b>	
<b>Line Mode</b>	<b>connection or GSM(by option)</b>	
<b>Telephone Set mode</b>	<b>Worldwide mode, software setup</b>	
<b>Audio Features</b>		
<b>Audio process</b>	<b>24Bit-120Mhz DSP-Based audio process</b>	
<b>A.G.C</b>	<b>Fixed - 1 stage</b>	
<b>Echo canceller</b>	<b>Yes</b>	<b>Yes</b>
<b>Attenuator</b>	<b>Yes</b>	<b>Yes</b>
<b>2-Band EQ</b>	<b>Yes</b>	<b>Yes</b>

<b>General Features</b>	<b>Macrotel X1</b>	<b>Macrotel X2</b>
<b>Tone generator</b>	<b>0 dBu @ 800 Hz</b>	<b>0 dBu @ 800 Hz</b>
<b>Dialer keypad</b>	<b>Yes</b>	<b>Yes</b>
<b>Software</b>		
<b>Auto call</b>	<b>Yes</b>	<b>Yes</b>
<b>Hook/Drop</b>		
<b>Front Panel operation</b>		
<b>Hook / drop push button</b>	<b>Yes, separate Hook and Drop</b>	<b>Yes, same button for Hook and Drop</b>
<b>Ring light</b>	<b>Hook-1 push button</b>	<b>Hook-1 &amp; Hook-2 push button</b>
<b>LCD Panel</b>	<b>160x32p LCD graphic display</b>	
<b>Level Send &amp; receive</b>	<b>Showed in LCD graphic display</b>	
<b>Audio Input</b>		

<b>General Features and Output</b>	<b>Macrotel X1</b>	<b>Macrotel X2</b>
<b>Send Analog-1</b>	<b>1x XLR female electronically balanced</b>	<b>1x XLR female electronically balanced</b>
<b>Receive Analog-1</b>	<b>1x XLR male electronically balanced</b>	<b>1x XLR male electronically balanced</b>
<b>Send Analog-2</b>	<b>1x XLR female electronically balanced</b>	<b>1x XLR female electronically balanced</b>
<b>Receive Analog-2</b>	<b>1x XLR male electronically balanced</b>	<b>1x XLR male electronically balanced</b>
<b>Microphone Input</b>	<b>Software switch Mic/Line</b>	
<b>Remote Control</b>		
<b>GPIO</b>	<b>SubD 15p HD</b>	



General Features	Macrotel X1	Macrotel X2
Connector		
GPIO Type	4x GP In optocoupled, 4x GP Out Open Collector optoisolated	
USB	1x USB – B Type EMI Filtered	
Serial	2x Rs232 EMI Filtered	
Software Remoter	Yes	
GSM Wireless module	Optional	

## Dimensions

