

BoxTel MKII

BoxTel MKII GSM



COMPACT TELEPHONE HYBRID REL 2.6

HIGHLIGHTS

1. Compact telephone hybrid
2. 1 POTS/PSTN or GSM DualBand telephone line
3. *Send/Receive* audio levels control and visualization
4. Backlit Hook/Ring button
5. Software configuration
6. Phone call auto-answer feature
7. International selection of the line impedance
8. Remote control
9. Potentiometer levels and front panel control
10. Analogue *Send/Receive* balanced over XLR
11. 1 USB port
12. GPIO to remotely control Telco N-1 modules

GENERAL FEATURES

BoxTel MKII is an analogue telephone hybrid, designed to interface a telephone line with audio equipments. BoxTel MKII manages 1 POTS/PSTN line, whereas BoxTel GSM manages 1 GSM line to establish telephone connections where wired lines are not present.

A powerful internal microcontroller completely manages both BoxTel MKII and BoxTel GSM, allowing the configuration of the operating modes via software. The internal microcontroller provides further functions such as adjustment of the line impedance according to the region, visualization of the *Send/Receive* audio levels on the front leds, *line detecting* – presence of a telephone line, buzzer with adjustable level, *AutoHook* - automatic line hooking and answering after a certain number of rings. While BoxTel MKII is operative, it's possible to exclude or keep connected in parallel an external telephone set (Tel.Set).

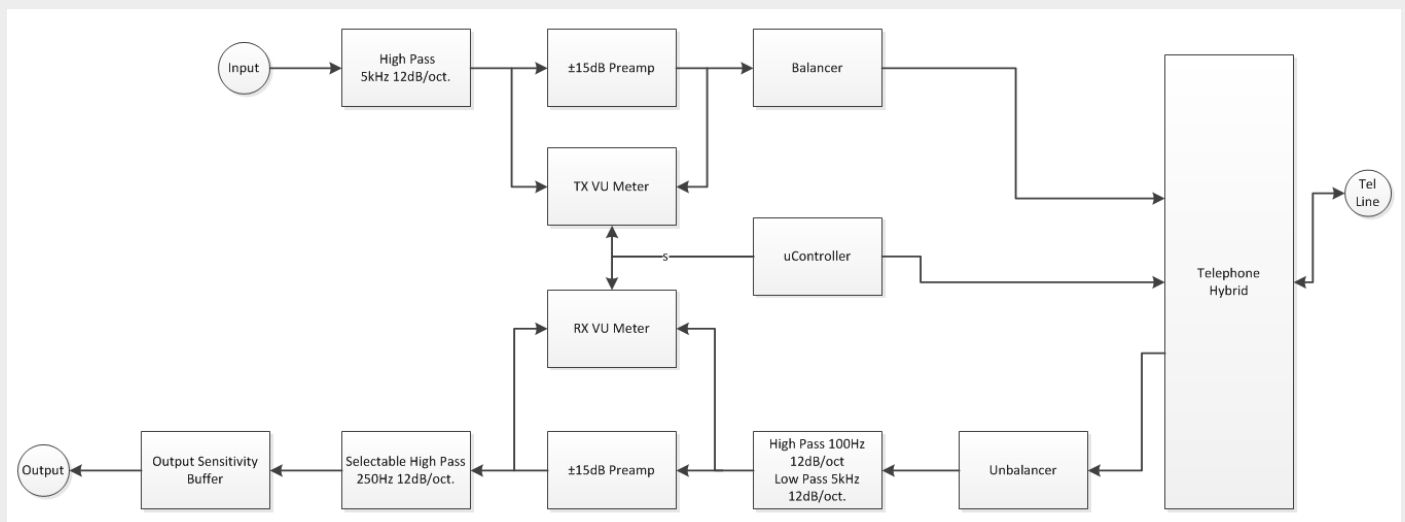
The backlit *Hook/Ring* button on the front panel allows a quick management of the phone calls; each time a telephone call is incoming the BoxTel's *Hook/Ring* button starts to flash, by pressing it the operator answer the phone call. BoxTel MKII has the *Line Detecting* function, which makes the *Hook/Ring* button switch on in presence of a telephone line.

BoxTel MKII and BoxTel GSM are devices equipped with an internal power supply enabling great audio performance: two separate *Send/Receive* front potentiometers manage the audio level, with a total range of +/- 15dB. The input sensitivity is set at 0dBu while the maximum output level is greater than +20 dBu.

The audio connections are separated for *Send/Receive* and are available over XLR electronically balanced connectors. A RJ11C connector allows the telephone line connection (*Tel.Line*) and one more RJ11C connector performs the connection to an external telephone set (*Tel.Set*). A GPIO port with optocouplers and open collector is provided to establish remote connections between BoxTel MKII and BoxTel GSM and mixing console. It is possible to connect directly the Telco module of an Oxygen4, Oxygen5 and Oxygen7 console with BoxTel MKII/BoxTel GSM by using a simple Pin-to-Pin cable. Internal universal power supply 90-264Vac/47-63Hz to operate worldwide.

Thanks to all of their features, BoxTel MKII and BoxTel GSM represent the telephone hybrids with the best quality/price ratio available on the marketplace. BoxTel MKII and BoxTel GSM occupy ½ rack unit - LxHxD 22x5x13cm.

BLOCK DIAGRAM



APPLICATIONS

- RADIO AND TELEVISION BROADCASTING
- MASTER CONTROL ROOM
- OB VAN / S.N.G

FRONT PANEL



- RX: RX level, reception of the telephone line
- TX: TX level, transmission of the telephone line
- HOOK/RING: button for the hooking and unhooking of the telephone line
- 3 leds for the reception level: -12dBu | 0dBu | +3dBu
- 3 leds for the transimission level: -12dBu | 0dBu | +3dBu
- 1 led integrated in the button intended for signalling RING (flashing) and OH (fixed)
- ON: 1 led signalling the on/off status of the device

REAR PANEL



- VDE plug for the main power supply and on/off switch
- USB – B TYPE: Port for the connection to a PC and the configuration via software
- TEL.LINE: Connector RJ11 for telephone lines
- TEL.SET: Connector RJ11 for external telephones
- OUTPUT: Male XLR connector for audio output
- INPUT: Female XLR connector for audio input
- REMOTE CONTROL: Female SubD-9p connector for remote control

BOXTEL GSM



TECHNICAL SPECS

GENERAL	VALUE
Dimension	LxHxD 22x5x13cm
AC Rate	230Vac / 110Vac 50 Hz / 60 Hz 30VA
Type of power supply	Switching power supply, worldwide
Weight	≈ 2500 gr
Operating Temperature	-5°C / +50°C
ANALOG INPUT MODULE (send)	
Connectors:	XLR, female - Electronically balanced
Operative Nominal Level:	0 dBu
Line Impedance	10 kΩ (Electronically balanced selectable) EMI-suppressed
Distortion:	less than 0.01% TDH+NOISE (0.0dBu 1Khz)
Input Modes:	Mono
ANALOG OUTPUT MODULE (receive)	
Connectors	XLR, male - Electronically balanced
Output Level	0dBu +4dBu +6dBu – Max +20dBu
Load Impedance	600 Ω
Distorsion	Less than 0.01% TDH+NOISE (0.0dBu @ 1Khz)
Output Modes:	Mono
TELEPHONE MODULE PSTN / POTS	
Connectors "LINE"	RJ 11C 6/4 socket
Connectors "SET"	RJ 11C 6/4 socket
Bandwidth telephone line	100Hz – 5kHz, -3dB @ 1 kHz
Telephone line compliance	ETSI TBR21, FCC Part68
Isolation	3 kV
REMOTE INTERFACE	
Digital Inputs GP In	2x GP In opto coupled. Only 1 is used as Hook
Digital Outputs GP Out	2x GP Out Open Collector opto isolated. Only GPOut 1 is used as Ring
Technical Specification about BoxTel MKII GSM	
TELEPHONE MODULE GSM Module	
Standard	DualBand GSM 900/1800 Mhz Phase 2+
Frequency	GSM 900: (Tx) 890 – 915 Mhz / (Rx) 935 – 960 Mhz GSM 1800: (Tx) 1710 – 1785 Mhz / (Rx) 1805 – 1880 Mhz
Sensitivity	-104 dB
Channel bandwidth	200 kHz
Maximum consumption	0.25 W / 0.5W
Stand-by consumption	< 25mA – in use < 400 mA
Sensitivity	-104 dB
Dial tone frequency	450 Mhz Standard
Environment noise	< 60 dB
Transmitting Power	< 3 W
External Antenna	2.5 dBi omnidirectional with 1mt standard cable
External power supply unit	Input: 100-240 Vac – Output: 12 V – 500 mA
External Antenna connector	SMA
Total rechargeable battery time	6 h
PSTN / POTS connector	RJ 11C 6/4 socket
Operating temperature	0°C ≈ +45°C
EN COMPLIANCY for GSM Modul	EN 60950-1 EN 301 489-1/-7 EN 301 511

ORDERING INFORMATION

CODE#	MODEL	COMMERCIAL DESCRIPTION
A112070000	BOXTEL MKII	Compact telephone hybrid. Management of 1 wired PSTN/POTS line. Backlit hook/ring key, front send/receive control. USB software included. In/Out over XLR, port for Telco and remote control modules. Internal universal PSU 90-264Vac/47-63Hz
CODE#	MODEL	COMMERCIAL DESCRIPTION
A112070010	BOXTEL MKII GSM	Compact telephone hybrid. Management of 1 GSM line via DualBand module. Backlit hook/ring key, front send/receive control. USB software included. In/Out over XLR, port for Telco and remote control modules. Internal universal PSU 90-264Vac/47-63Hz