

In only 1RU high and with analogue and digital audio natively integrated, the TB3000 from KROMA represents an affordable option for small and medium-sized intercom systems, with the advantages of a matrix-based design and state-of-the-art digital technology.



## Integration of different audio sources

The TB3000s are provided with up to 20 ports of 2 different types:

- **Analogue ports:** Four transformer-isolated 4-wires ports can be used to connect Camera Control Units (CCUs) or audio programme sources, as well as any other 4-wires analogue audio source. A 6-to-1 concentrator (CE6000) may be used to expand the matrix analogue capabilities, if necessary.
- **Digital Ports:** The digital ports may be used for KROMA digital or hybrid user panels. Alternatively, an interface frame and cards for external audio sources may be also connected to this kind of port: telephone lines or additional analogue ports may be integrated this way.

## Crosspoint audio monitoring

The LCD screen may be used for monitoring the status of the different crosspoints and devices.

Indeed, the matrix can even be used as a simplified user panel: 4 dedicated keys in the front panel, and the 3-character electronic labels in the LCD screen, allow to speak with any of the users in the system thanks to headset front port (mini-XLR) and the built-in speaker.

## IFB

Different modes of IFB are implemented by the matrix and configured by the Crossmapper software. The different modes include complete interruption and attenuation of the signals involved.

## Easy configuration

The PC based Crossmapper software for easy system setup provides a simple way to configure the complete talkback system through an intuitive graphic user interface. The map can then be loaded through front USB port or through the LAN connection

## Different models for different requirements

The TB3000 is available in 2 different sizes with 12 and 20 ports (see attached chart). It is possible to upgrade from the small to the large version with just a password license.

Model #	Digital ports	Analogue Ports	Total
TB3012R01	8	4	12
TB3020R01	16	4	20

## Configurable crosspoint audio levels

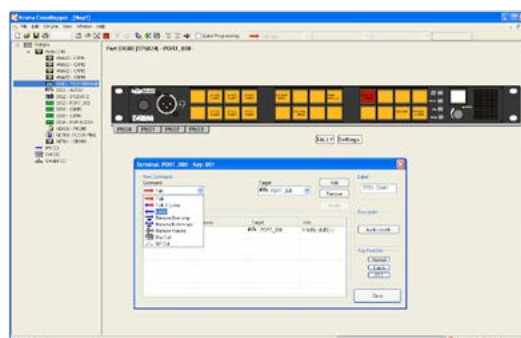
The TH3000s provide independent control of the input and output audio levels for each crosspoint combination. The system is capable of balancing the different audio levels when audio from external devices is used.

## Compatible with the new IP wired beltpacks

The network port of the TB3000 can be enabled to host the new IP wired beltpack BP3004 and work as a party-line system (for independent channels for each beltpack, a TH5000 is required).

## PTSN/ISDN/GSM calls

The matrix is compatible with external phone calls implemented either by the public telephone network, ISDN or GSM SIM cards. A KROMA interface frame and KROMA interface cards are required.



# TB3000 Technical Specifications



Example diagram of a TB3020 connection with multiple audio sources



Front and rear view of the TB3000

## Technical specs

I/O Technical specs.	
Analogue connection	SUB-D9M ANALOGUE balanced data. PWM 4 wires audio Nominal level 4 dBV, 600 Ω output, 15 KΩ input, B=150Hz-10KHz
Digital connection	RJ45 DIGITAL 2Mb/s, 16 bits, 44.1 KHz
Control	Data RS-232 115.200 Hz
	SNR > 80 dB
	THD < 2% at 2dB
Dimensions and weight	1RUx19"x190mm. 2.3Kg
Power supply	External AC/DC adapter. Input: 110-240V. Optional redundant PSU

Ordering info	
TB3012R01	12 ports matrix (4 analogue, 8 digital ports)
TB3020R01	20 ports matrix (4 analogue, 16 digital ports)
PS1800X1x	Redundant power supply

## Compatible equipment and accesories

User panels	
TP5024R01	2 dig, 1 Net, 1 an. ports; 24 graphic LCD keys
EP5024R01	Extra 24 graphic LCD keys for TP5024
TP5008R01	2 dig, 1 Net, 1 an. ports; 8 graphic LCD keys
TP4016R01	2 dig, 1 Net, 1 an. ports; 16 keys, 2 LCD
TP3016R01	2 dig, 1 an. ports; 16 keys
EP4016R01	Extra 16 keys and 2 LCD for TP4016 or TP3016
TP4216R01	2 dig, 1 Net, 1 an. ports; 16 keys, 2 LCD. Desktop
TP3216R01	2 dig, 1 an. ports; 16 keys. Desktop
Headsets	
MC7000X09	One-ear headset with mic.
MC7000X10	Two-ear headset with mic.
MC7000X11	Beyerdynamic closed two-ear headset with mic.
MC7000X07	Ear plug (no microphone)
Beltpacks	
BP6000R01	Analogue (4-wires) wired beltpack
BP3004R01	IP wired beltpack. 4 keys
Headsets	
MC6000X01	Beyerdynamic two-ear headset with mic.
MC6000X04	Beyerdynamic one-ear headset with mic.
MC6000X02	In-ear headset (no microphone)

## Interfaces and linkers

Analogue interfaces	
CE6000X01	6-to-1 concentrator. 6 4-wires ports.
EL6000X01	Interface for 4-wires. 2 ports to 1 port.
EL6001X01	Interface for 2-wires. 4 ports to 1 port.
IR6000R01	Interface for radio telephone (Walkie RF)
HN6000X01	Interface for telephone lines
Digital Interface frames	
TR7000R01	3RU interfaces frame for 6 cards
TR5000R01	1RU interfaces frame for 2 cards
Interface cards	
TA7000X01	4 wires audio interface card (transformer isolated). 4 ports
TA7001X01	4 wires audio interface card (with ISDN Pronto controller). 4 ports
TA7003X01	2 wires audio interface card (transformer isolated). 4 ports
TA7002X01	Telephone line interface card (2 ports)
TD7000X01	ISDN line interface card (G711 protocol). 2 ports
TD7003X01	1 RU ISDN lines encoder (G711 and G722 protocols). 2 ports TA7001X01 card required
TD7001X01	GSM card interface card. 1 port
TA7004X01	Telephone set interface
IP Linkers	
IL5004R02	IP linker. 4 analogue, 4 digital, 4 IP ports.
IL5008R01	IP linker. 4 analogue, 8 digital, 8 IP ports.
IL5016R01	IP linker. 4 analogue, 16 digital, 16 IP ports.