

AUDIO

COMREX MATRIX 15KHz PSTN / ISDN / GSM DIGITAL AUDIO CODEC

MATRIX



▼ Matrix portable

▼ Matrix 1-U Rackmount

DESCRIPTION

The Comrex Matrix POTS (Plain Old Telephone System) Codec is ideal for sending remote contributions to the studio using PSTN, ISDN and GSM, offering up to 15kHz full duplex real-time audio on a single PSTN telephone line, ISDN line or using a GSM wireless phone. The comprehensive mixing and monitoring capabilities make the Matrix a complete 'studio in a box' for Sports, News and Outside Broadcasts, whilst the automatic dialling and serial control features make it ideal for STL transmitter backup and remote monitoring.

The Matrix is fully compatible with the industry-standard Vector, HotLine and the new Blue Box POTS codecs. The Store-and-Forward capability allows recording of up to 10 minutes of audio within the Matrix to be played out as fast as a connection will allow to another Matrix via phone line or GSM, providing full 15KHz bandwidth when the lines are so poor that the connect rate will not otherwise support full bandwidth audio 'live'

The optional ISDN Module supports G.722, 15KHz MP3 (MPEG Layer III) and Comrex's Turbo G.722 for low-delay 15kHz links. The plug-in module incorporates the additional codecs and ISDN terminal adapter with both Euro-ISDN S-Interface and North American U-Interface.

The data management port connects directly to a suitable GSM wireless phone and provides typically 11KHz 2-way audio using the current GSM / HSCSD services whilst the new ultra-low bitrate algorithm provides excellent audio quality even on the basic data services provided on most networks.

MATRIX PSTN, ISDN, GSM DIGITAL AUDIO CODEC

The optional Battery Kit makes the Matrix truly independent of the wall-socket.

The Nickel Metal Hydride Battery Pack has an LED battery condition indicator and will power the Matrix for up to 7 hours. It can be used as a backup in case mains power fails during a broadcast and comes complete with charger and battery adaptor for the Matrix portable,

The Matrix-R 1-U Rackmount codec provides line level Input and Output and is fully compatible with the Industry-standard Vector, Hotline and Blue Box PSTN algorithms. It can also be equipped with an ISDN module providing MP3 / G.722 / G.722 Turbo ISDN connections to another Matrix or conventional ISDN codec. An external ISDN / PSTN converter is available to allow POTS connections over ISDN. A Serial remote control port is provided for integration to automation systems and product enhancements in the field.

SPECIFICATIONS

▼	AUDIO	Matrix-P
	Audio inputs	1x Mic, 1x Mic/Line switchable, Bal 10K XLR-F
	Audio outputs	1x Aux/Tape, unbalanced 0.125"/3.5mm mini-jack 1x Line level (adjustable) low-Z balanced XLR-M 1x Headphone, unbalanced 0.25" stereo-jack
	Level controls	2x I/P, Return, Local/Return Bal, Headphone level
	Nominal levels	Mic -65 to -40 dBu, Line -10 to +10 dBu Line out +12 dBu max, Headphones 0.5W
	Audio input	Matrix-R Line Level 0dBu, +4dBu, -10dBu s/ware controlled
	Audio Output	Line Level 0dBu, +4dBu, -10dBu s/ware controlled
▼	CODEC	
	PSTN	Comrex Vector / HotLine / Blue Box compatible up to 15kHz full duplex audio on a single PSTN line
	PSTN / GSM Store & Forward	15kHz audio stored and transmitted in non-real-time to another Matrix
	ISDN	ISO/MPEG layer III 15kHz full duplex (1 bearer) G.722 7.5kHz full duplex (1 bearer) Turbo G.722 15kHz full duplex (2 bearers)
	GSM	Up to 15kHz GSM via wireless (GSM) Network
▼	OPERATION	
	Codec and other Mode selection	LCD backlit menu-driven
	Dialling/call control	Keypad & function keys, incl. quick-dial numbers
	Indicators	Codec ready; ring/carrier detect; battery; peak
	Audio control	Input levels; input/return mix; headphone and line output levels
▼	OPTIONS	Matrix-P
	Size/Weight	241 x 254 x 89mm (WxDxH)
	Weight	1.1kg (without options)
	Power	External 24V supply
	Optional battery kit	NiMH battery kit giving 7 hours operation
	Optional ISDN Module	G.722 / G.722 Turbo & MP3 Euro-ISDN S/T- & N. American U-interface
	PSTN interface	RJ11 (telephone cable provided)
	GSM interface	Direct plug-in using multi-purpose serial port
	Optional GSM Phone module	Integrated GSM data phone and booster
	Size/Weight	Matrix-R 1-U rackmount x 250mm deep approx 2Kg
	Optional ISDN Module	Integrated G.722 / G.722 Turbo and MP3 - ISDN S/T & U Interface

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