



MPX-E1

FM Microwave Links



The **MPX-E1** is an encoder-decoder system for the transmission of a MPX audio signal over an E1 stream totally G.703 compliant.

In the Encoder version the MPX audio signal is digitized and, after a highly accurate digital processing stage, it is adapted into a 2.048Mbit/s (E1) stream.

The inverse operations are performed in the Decoder equipment which receives the E1 stream and returns the MPX audio analogue signal.

No stereo decoding & re-encoding operations are executed in the **MPX-E1** so the original audio quality is absolutely preserved without any kind of loss.

The digital approach gives to **MPX-E1** all the great advantages of the digital technology compared to the analogue FM links.

The display helps the user to program the working modes and to read the MPX input/output level.

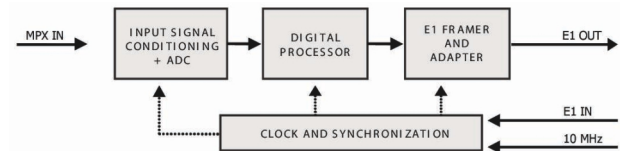
LEDs on front panel give to the operator a quick view of the status.

The small 1U rack enables easy and cost effective integration into more complex systems.

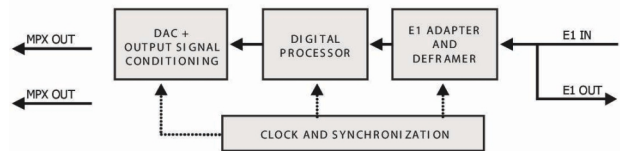
Neetra equipment is severely tested with highly accurate and professional laboratory testing instrumentation and is guaranteed by the ISO 9001 Quality Certification which ensures a perfectly managed production phase.

Neetra equipment is currently used by valuable world wide

customers, which is the best certification for infield performance over different operating environments.



MPX LINK E1 - Encoder



MPX LINK E1 - Decoder

Main characteristics (Encoder)

- E1 or 10MHz synchronisation signals
- Front panel display and LEDs indicator
- Digital adjustment of the MPX Input Level

Main characteristics (Decoder)

- E1 loopback on E1 Input
- Front panel display and LEDs indicator
- Digital adjustment of the MPX Output Level

Applications

- Compact, Super-Quality and Cost-Effective MPX Audio Transport through the Public Network
- Connections from Studio to Local or National Radio Network

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Technical characteristics

AUDIO SECTION

I/O Channels	MPX Audio
Connectors (Encoder)	1 BNC unbalanced
Connectors (Decoder)	2 BNC unbalanced
Input Voltage Range	From 1Vpp to 6Vpp (nominal input = 2.2Vpp)
Output Voltage Range	From 1Vpp to 6Vpp (nominal output = 2.2Vpp)
Input Impedance	10kOhm
Output Impedance	330Ohm
Frequency Response	±0.05dB, 20Hz - 53kHz / ±0.3dB, 20Hz - 60kHz
Sampling Frequency	144kHz
Stereo Separation	> 55dB (typ.)
SNR	> 75dB (typ.)
THD	< 0.03% (typ.)
SINAD	> 60dB (typ.)

E1 SECTION

Bit-Rate	2.048Mbit/s (G.703 compliant)
Input/Output Impedance	120 Ohm or 75Ohm (selectable by front panel)
Connectors	BNC (75Ohm) / Rj45 (120 Ohm)

10MHz SECTION

Connector	BNC
Impedance	10kOhm
Level	200mV to 800mV

GENERAL

Physical	Case 19"-1U, 4kg
External Reference Frequency Input	10MHz or E1
Local Control Port	USB
Remote Control Port	RS485 / Telemeasures
Remote Control Options	PSTN-GSM-ETHERNET with external RCU equipment
User Interface on Front Panel	LCD Display+Keyboard+Status LEDs
Power Supply Voltage	100 - 240VAC
Power Consumption	< 15W
Operating Temperature	0 - 45°C

Specifications and characteristics are subject to change without notice