



MOBILE COFDM LINK

Digital TV Transmitters



The **MOBILE COFDM LINK** is a new professional product born after the strong expertise of Neetra in the Digital TV scenario, addressing the needs of live events reporting in urban and mobile environments. The **MOBILE COFDM LINK** is a 10Wrms, DVB-T based, mobile microwave link operating in the range 2.4-2.6GHz assuring great robustness of operation and extreme signal quality even in non-line-of-sight conditions.

The **MOBILE COFDM LINK** can be configured upon the specific customer needs. At transmitter side the input can be Analogue Audio/Video, SDI with embedded audio or dual ASI input with automatic redundancy switch. At receiver side the user can choose to have UHF output, ASI output or Analogue Audio/Video output. The link may also be configured with space or frequency diversity architectures and different antenna models. Moreover, a DC battery supply option is available upon specific request. The Transmitter of the **MOBILE COFDM LINK** is totally frequency agile over the 2.4-2.6GHz range and is equipped with a low-phase-noise local oscillator and with a state-of-the-art digital precorrector, thus guaranteeing high MER performances over the whole bandwidth and at every output power level.

The Transmitter is housed in a single 19" 3U case, where we have concentrated the powerful digital signal processing section, the agile up-conversion module, the output filtering module, the power amplifier stage, the

microprocessor-based control section and a very user-friendly LCD interface.

A complete remote control of the Transmitter unit is possible by means of different cabled or wireless telecommunications networks.

All of its parameters are also quickly and easily controllable through a remote PC connection for a comfortable control and monitoring inside an OB Van. 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 for Digital TV broadcasting is currently used by valuable worldwide customers, which is the best certification for in-field performance over different operating environments.

Main characteristics

- Compact and cost competitive
- Top-quality air cooling system
- Optimal non-line-of-sight behaviour
- Agile output frequency over the 2.4-2.6GHz range
- All DVB-T modes supported
- Multi-platform remote control
- User-friendly Graphical User Interface
- Extreme signal quality thanks to accurate digital precorrection
- Low-phase-noise local oscillator
- Input/output interfaces configurable upon customer requests

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Technical characteristics

SIGNAL PROCESSING SECTION

Reference Standard	ETSI EN 300 744 v1.5.1
DVB-T Modes	2k, 4k, 8k
Constellations	QPSK, 16QAM, 64QAM
Code Rates	1/2, 2/3, 3/4, 5/6, 7/8
Guard Intervals	1/4, 1/8, 1/16, 1/32
Hierarchical Modes	$\alpha=1$, $\alpha=2$ and $\alpha=4$ over 16QAM and 64QAM
Inner Interleaver	Native, In-depth
Network Support	MFN and SFN
TPS Signalling	DVB-T or DVB-H
Bandwidths	8MHz, 7MHz, 6MHz and 5MHz
Digital Pre-Correction	Linear and Non-Linear
Automatic NIT Update	User enabled
Automatic PCR Restamping	User enabled
Output OFDM Peak Factor	Adjustable with Digital Pre-Corrector
Test Modes	PRBS Generator, Null Symbol Insertion, Central Carriers removal

INPUT SECTION

TS Input	2 DVB-ASI inputs (fully redundant)
Input TS Format	SPTS/MPTS, Burst Mode - Continuous Mode
MPEG-2 Packet Length	188/204 bytes
Frequency Reference	10MHz
Frequency Reference Interface	BNC, 50 Ohm, -15dBm to +15dBm
Time Reference	IPPS
Time Reference Interface	BNC, 5kOhm, TTL 0-5V

OUTPUT SECTION

RF Output Frequency	2.4 - 2.6GHz
Output Level	10Wrms
Output Interface	N type connector, 50 Ohm
Spectrum Polarity	Non-inverted and Inverted
Harmonics and Spurious	< 60dB relative to the total output power
MER	> 35dB

GENERAL

Physical	Case 19"-3U, 12kg
Remote Control Port	Rs232 / Rs485
Remote Control Options	PSTN-GSM-Ethernet (with external RCU equipment)
User Interface on Front Panel	LCD Display + Keyboard + Status LEDs
Power Supply Voltage	90 - 250VAC
Power Consumption	180VA max
Operating Temperature	0 - 45°C

Specifications and characteristics are subject to change without notice

