



BOARD PLUG-IN "TRANSMODEM" DVB-S / DVB-T / DVB-H

The board EK-UNM/2 allows a versatility without precedents in the connection point to point in fact allows to modulate/demodulate signals on quadrature single carrier and also on OFDM.

The more innovative feature is the possibility to use different types of modulation in reception and transmission, like for example receive a **DVB-S** signal from satellite and transmit the same or other signals with **DVB-T / DVB-H** mode.

When used in **DVB-S** configuration allows the transport, further than E3 signals, also of transport stream (TS) with Bit-rate till 155 Mbit/s using constellations from QPSK to 64 QAM.

The settings allows a lot of configuration about modulation's parameters, for example the symbol rate is selectable to steps of 100 Kbit/s from 1 to 32 MSym/s. The board allows to manage also an aggregate signal for the telecontrol and the telemetry in all operation modalities (SFN excluded).

It is also possible a commutation between the internal signal IF 70 MHz generated, an external carrier (Clean Carrier) or external auxiliary one signal (digital or analogue) that can be used in order to obtain an automatic switch over.

Features

- Modulation: QPSK - 16/32/64/128QAM -COFDM
- DVB-ASI Input / Output
- E3 Input / Output
- IF 70MHz Input / Output
- DVB-S / DVB-T
- 6/7/8MHz channel bandwidth
- Viterbi rate
- Reed Solomon
- Very good MER

Applications

- Digital Microwave Links
- DTV, DVB-T, DVB-S
- Terrestrial and satellite use
- Transceiver mode

TECHNICAL SPECIFICATION

Digital Mo-Demodulator		
<i>Common SPECS</i>	BB Input selection	ASI Main, ASI Sec., E3, Internal , Baseband Remote Loop Back
	BB Output selection	Demodulator output, Baseband Local Loop Back
	Dem Input selection	Internal, IF2, Local Loop Back
	Mod output selection	Modulator, External, IF2, Clean Carrier (CW), Off
	Readings	Input bitrate / IF RX level /MSE / RS error rate/ Fifo status / RX Carrier Frequency error / Temperature
	IF frequency	70 MHz
	Frequency error	5 ppm
	Reference	External (10 MHz /1pps), Internal, Data
	Input level	-20 ÷ 5 dBm
	Output Level	-15 ÷ 0 dBm
<i><u>DVB-S</u></i>	Reference	EN 300 421 EN 301 210
	Constellation	QPSK (DVB-S std.), 16 QAM, 32 QAM, 64 QAM, 128 QAM
	Roll-off	0.15/ 0.20/ 0.25/ 0.35
	Viterbi rate	QPSK (1/2 2/3 3/4 5/6 7/8) 16 QAM (3/4 7/8) 32 QAM(9/10) 64 QAM (5/6 11/12) 128 QAM (6/7 13/14)
	Symbol rate	1 – 31,5 MSym/s in 100 KSym/s steps
<i><u>DVB-T</u></i>	Reference	EN 300 744
	Constellation	QPSK 16 QAM 64 QAM
	Viterbi rate	1/2 2/3 3/4 5/6 7/8
	Guard interval	1/4 1/8 1/16 1/32
	Channel Bandwidth	6 MHz 7 MHz 8 MHz
	Carriers	2K, 4K, 8K
	Hierarchic Modes	Alfa1 Alfa2 Alfa4
	TPS cell	Editable

**Str.Com.Savonesa, N° 9
15050 RIVALTA SCRIVIA –
(AL) - ITALY
Tel +39 (0) 131 860205 r.a.
Fax +39 (0) 131 860993
e-mail: info@eurotektel.com**