



Description

The innovative "EDML" series of Digital Microwave Link for fixed applications represents the latest development based on VTE technological experience and knowledge.

It is an agile synthesized Digital Microwave Link, extremely compact, flexible and competitively priced (in comparison with the analogue products).

Standard Features

Versatile multi data rate Modulator / Demodulator in a single Rack 1U, digital modem for point to point or point to multipoint communication link.

The EDML1 series is available in QPSK modulation schemes. The available interfaces are: G703 (E1, E2, E3) and ASI TS.

DIGITAL MICROWAVE LINK 2-8-34 Mb 1,5-24 GHz QPSK MODULATION



Features

- 2–8–34 Mbit/s data rate available
- QPSK modulation
- 1,5 ÷ 24 GHz Band
- IF 70 MHz,
- G703 standard interfaces
- Alarms and metering for remote control (RS232 serial interface)

Options

- Transparent ASI I/O interface (SFN compliant)
- Video/dual Audio analog MPEG2 encoder/decoder
- 19" Rack U 1 unit
- Full compatibility with all other VTE products
- 230 Vac Power Supply (DC input optional)
- Weight: 5 Kg

Applications

- Fixed microwave connections
- STL (Studio to Transmitter) links
- Distribution / contribution terrestrial microwave link networks
- Point-to-multipoint connections (MMDS)



MTS EDML1

Technical Specifications

Main Power

Standard Primary Power ----- 230 VAC \pm 15% 50 Hz \pm 2 Hz
----- 115 VAC \pm 15% 60 Hz \pm 3 Hz

Optional Battery Power

Standard Battery Power ----- 24 VDC (20 to 28 VDC)
Optional Battery Power (special order) ----- 48 VDC (36 to 75 VDC)

Digital Input/Output Interface

Base Band Interface ----- Comply with (CCITT G.703)
Impedance ----- 75 Ohm (unbalanced)
Line Code ----- HDB3
Bit Rate ----- 2-8-34 Mbit/s

Mpeg Transport Stream Interface (EN50083-9)

1 to 32 Mbit/S payload TS

ASI Input

1 x BNC 75 Ohm
Return loss >15dB (from 5 to 270MHz)
Automatic cable adaptation

ASI Output

2 x BNC 75 Ohm
800 mVpp

IF

70 MHz IF MODULATION
Type of Modulation ----- QPSK (Offset)
70 MHz IF Carrier Frequency Drift ----- $\leq \pm 20$ PPM
Nominal IF Output Level ----- + 5 dBm

Connection Between Remote RF HEAD and IF MOD/DEM Unit

Recommended coaxial cable ----- RG 214
Cable Impedance ----- 50 Ohm
Connector ----- type "N"
Maximum Cable Length ----- 176 m preferably in multiples of 22 m
Remote RF Head Feed Voltage ----- + 24 V nominal

RF

General

Operating Frequency Bands ----- 1.5 GHz to 24 GHz
RF Connector System 1.5 to 10 GHz ----- type "N" or waveguide
RF Connector system: higher than 10 GHz ----- waveguide

Remote RF HEAD - Transmitter

Standard RF Output Power ----- +20 dBm \pm 2 dB (100 mW)
----- +30 dBm \pm 2 dB (1 W)
Frequency drift within the rated operating temperature range ----- $\leq \pm 10$ PPM
Spurious Suppression ----- ≥ 60 dB
Nominal 70 MHz IF Input Level ----- + 5 dBm (- 10 to + 5 dBm)

Remote RF HEAD - Receiver:

Noise Factor ----- ≤ 5 dB
Input Return Loss ----- ≥ 20 dB
Nominal Input Level ----- - 40 dBm
Maximum Input Level ----- - 20 dBm
Frequency Drift within the rated operating Temperature Range ----- $\leq \pm 10$ ppm
RF Alarm Threshold Factory Setting ----- RF signal for output "BER" = 1×10^{-3}
Image Rejection ----- ≥ 65 dB
Nominal IF Gain (RF Head) ----- + 40 dB

Mechanical Dimensions and Weight

Remote RF Head (Weatherproof Aluminium Alloy Case) ----- L = 260 W = 210 H = 130 mm
Weight ----- 4 kg
IF Mod/Dem Unit (19" Standard Chassis - one unit) ----- L = 335 W = 483 H = 44 mm
Weight ----- 5 kg

Environmental Conditions

Remote RF Heads Operating Temperature Range ----- - 20 °C to + 45 °C
IF Mod/Dem Units Operating Temperature Range ----- - 5 °C to + 45 °C
Storage Temperature Range ----- - 40 °C to + 70 °C



V.T.E. S.r.l.

Via Salvore, 20 - 21100 Varese (ITALY) - Tel: +39 0332 287389 / +39 0332 236559 - Fax: +39 0332 830630
E-Mail info@vtesrl.it - Web Site www.vtesrl.it - P.IVA IT00585150121