

MVDS2

Multipoint Video Distribution System



MVDS2 is the 2nd generation Elber Multichannel Video Distribution System. It integrates in a new, compact and lightweight housing a complete system able to broadcast in 10, 12 or 14 GHz band a satellite transponder provided at input as multiplexed L-band signals.

Designed for full outdoor installations, housing is IP65 proved and very easy to be installed on a mast or on a tower. The high linearity and wide dynamic range allows the system guaranteeing optimum quality of the output signal, avoiding intermodulation undesired products and gain unbalances over the full band. MVDS2 is available as transmitter in 10/12 GHz and 14 GHz band as well as a receiver in 14 GHz. For every frequency range, provides two output power versions, Standard and High Power, covering 500 MHz or in special cases up to 800 MHz. The system embeds a web server for direct monitoring and configuration of the unit, via ad hoc cable or via WI-FI (optional). However, MVDS2 can be remotely controlled by ELBER CLEBER or CLEBER3 multi-purpose platform, offering a more complete user interface and TFT display; with CLEBER3 the connection can be wired and wireless, with CLEBER just wired. CLEBER and CLEBER3 can also host many different boards such as ELBER DVB-S/S2 modulators, encoders, Switches, so that the user can optimize the space, the number of devices and the costs of a full system.

MAIN FEATURES

- Full Outdoor Installation
- GaN Technology
- Two output power versions
- High Gain and Linearity
- Ku Band
- Fully protected against over-temperature, overcurrent and high VSWR
- Gain adjustment
- Output sample monitor port
- Remote Monitor & Control through Ethernet port (WEB and SNMP)
- Remote Monitor & Control via WiFi (optional)

SPECIFICATIONS

Model	Frequency	P _{SAT}	P _{LIN} (10 carriers)	Oscillator Frequency
MVDS2/TX14-AH	13.22÷13.98 MHz	44.0 dBm	34.0 dBm	12.220 MHz 12.080 MHz 12.550 MHz
MVDS2/TX14-BH	14.02÷14.78 MHz	44.0 dBm	34.0 dBm	13.020 MHz 12.580 MHz 13.150 MHz
MVDS2/TX12-BH	11.72÷12.48 MHz	41.7 dBm	32.5 dBm	10.720 MHz 10.280 MHz 11.160 MHz
MVDS2/TX10-AH	10.00÷10.50 MHz	43.0 dBm	33.0 dBm	9.020MHz 9.260 MHz
MVDS2/RX14-A	13.22÷13.98 MHz			12.220 MHz 12.080 MHz 12.550 MHz
MVDS2/RX14-B	14.02÷14.78 MHz			13.020 MHz 12.580 MHz 13.150 MHz

SPECIFICATIONS TX

Spectral Regrowth:	-30 dBc (@1.0 x SR in QPSK/8PSK)
Max Gain:	78 dB ± 2 dB High power option 50 dB ± 2 dB Std power option
Gain Adjustment:	18.0 dB in 0.1 dB step
Gain Flatness:	± 1.0 dB full band
Output Connector:	WR75 flange PBR120
Output Impedance:	50 Ω
Output VSWR:	1.3:1
Spurious emissions:	-55 dBc @P _{LIN}
Third Order IMD:	-25 dBc (2 tones 5MHz sep. @ P _{LIN})

SPECIFICATIONS RX

Input Connector:	WR75 flange PBR120
Input Impedance:	50 Ω
Input VSWR:	1.22:1
Output Connector:	2 x N(f)
Output Impedance:	50 Ω
Output VSWR:	1.15:1
Gain Flatness:	± 1.0 dB full band
AGC Dynamic Range:	-15 ÷ -60 dBm
Output Level adj.:	0 ÷ -20 dBm

UPCONVERTER

L-Band frequency:	950-1700 MHz
Connector:	N (f)
Impedance:	50 ohms
VSWR:	1.23:1
Cable AGC range:	0 ÷ -35 dBm
Frequency stability:	1 ppm
Phase Noise:	- 95 dBc/Hz @ 1 kHz -103 dBc/Hz @ 10 kHz -105 dBc/Hz @ 100 kHz -120 dBc/Hz @ 1 MHz -125 dBc/Hz @ 10 MHz

CONTROL

Stand-alone:

Ethernet (custom cable required)
WIFI (HW option)
Web interface
SNMP v2

Remote:

CLEBER3 (wired and WiFi)
CLEBER (wired)

ELECTRICAL

Supply:	24 VDC ± 20%
Connector:	HIRSCHMANN 932322100
Consumption:	Tx 10/12 GHz 100 W typ. (< 125 W max) Tx 14 GHz 80W typ. (< 125 W max) Rx 14 GHz 17W typ (< 25 W max)

MECHANICAL

Dimensions:

Width:	99.7 mm (Rx) 152 mm (Tx)
Height:	217.5 mm (connectors included)
Depth:	321 mm
Weight:	< 12 Kg

ENVIRONMENTAL

Operative temperature range:	-10÷ 55°C
Humidity:	100% condensing

Elber reserves the right to make changes to specifications of products described in this datasheet at any time without notice and without obligation to notify any person of such changes.