Hypercable

Deploy it Yourself

MVDDS/DiY Multipoint Data Video Distribution System

DESCRIPTION

MVDDS/DiY is the 2017 new Hypercable 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 500 MHz 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 inter-modulation undesired products and gain unbalances over the full band.

MVDDS/DiY, for every frequency range, provides two output power versions, Standard and High Power, getting up to 10W linear @ 14 GHz High sub-band.

The system embeds a web server for direct monitoring and configuration of the unit, via ad hoc cable or via WI-FI. However, MVDDS/DiY can be remotely controlled by HYC-BER HYCBER or HYCBER3 multi-purpose platform, offering a more complete user interface and TFT display; with HYCBER3 the connection can be wired and wireless, with HYCBER just wired. HYCBER and HYCBER3 can also host many different boards such as HYCBER 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.

FEATURES

Hypercable MVDDS indoor system design

Hypercable MVDDS, 2 GHz bandwith capacity with 4 ODU's

- Full Outdoor Installation
- Ku Band
- Two Output Power Versions
- High Gain and Linearity
- Fully protected against over-temperature, over current and high VSWR.
- Gain adjustment
- Local M&C through Serial and Ethernet ports
- Remote M&C via WIFI
- Remote M&C via HYCEBER and HYCBER3, wired and wireless.

SPECIFICATIONS

General:

Model	Frequency	P_{sat}	P_{Lin} (per carrier)	Oscillator Frequency
MVDDS/TX14-AH	14.00-14.50 GHz	44.0 dBm	40.0 dBm	12580 MHz
MVDDS/TX14-A	14.00-14.50 GHz	37.5 dBm	33.5 dBm	12580 MHz
MVDDS/TX14-BH	13.50-14.00 GHz	44.0 dBm	40.0 dBm	12080 MHz
MVDDS/TX14-B	13.50-14.00 GHz	37.5 dBm	33.5 dBm	12080 MHz
MVDDS/TX12-A	12.20-12.75 GHz	39.0 dBm	35.0 dBm	11400 MHz
MVDDS/TX12-B	11.70-12.25 GHz	39.0 dBm	35.0 dBm	10280 MHz
MVDDS/TX12-C	11.50-11.90 GHz	39.0 dBm	35.0 dBm	10280 MHz
MVDDS/TX12-D	11.10-11.50 GHz	39.0 dBm	35.0 dBm	9680 MHz
MVDDS/TX12-E	10.70-11.10 GHz	39.0 dBm	35.0 dBm	9750 MHz
MVDDS/TX12-AH	10.70-12.25 GHz	42.0 dBm	38.0 dbm	10280 MHz
MVDDS/TX10-AH	10.00-10.50 GHz	42.0 dBm	38.0 dbm	9050 MHz

Microwave:

Spectral Regrowth: < -30 dBc @ 1.0 x SR QPSK/8PSK
Max Gain: 78 dB ±2 dB h.p.
50 dB ±2 dB s.p.
Gain Adjustment: 20 dB in 0.1 db step
Gain flatness: ±0.75 dB (over 40 MHz)
±2.0 dB (full band)
Gain Var. over temp: ±1.0 dB
Input Connector: N(f)
Input Impedance: 50 ohm
RF Input VSWR: 1.3 : 1
Output Connector: WR75
Output Impedance: 50 ohm
RF Output VSWR: 1.3 : 1
Power meter accuracy: ±1 dB
Spurious emissions: <-55 dBc @ PLIN
Third order IMD (two Signal 5 MHz apart @ P_{lin}):
< - 25 dBc

Upconverter:

L Band Frequency: 950-1700 MHz
AGC range: 25 dB
Phase Noise:

- 100 Hz -70 dBc/Hz
- 1 kHz -90 dBc/Hz
- 10 kHz -98 dBc/Hz
- 100 kHz -100 dBc/Hz
- 1 MHz -120 dBc/Hz

Control:

- Stand-alone:
  RS-232
  RS-485
  Ethernet (with custom cable)
  WIFI (HW option)
- With M&C unit CLEBER and CLEBER 3:
  Ethernet 10/100BaseT
  WIFI (Only CLEBER3)

Electrical:

Supply: 24V DC (22-65 Vdc)
Consumption: < 150 W

Mechanical:

Dimensions:
Width 128.5 mm
Height 210.0 mm
Depth 322.5 mm
Weight: 12 Kg

Environmental:

Temperature range: -20 ÷ 60°C
Humidity: 100% condensing