Gigaplex Satellite & MVDDS Gapfiller

Digital HDTV–Broadband Transmitter DVB-MC/S – MVDDS

Gigaplex Gapfiller for satellite and MVDDS Broadcast terrestrial coverage enhancement, comply with the WCAA specifications. Designed for quick and low cost MVDDS Hypercable Digital Television & Internet deployment, Gigaplex Gapfiller is also a terrestrial broadband satellite repeater to provide a reliable service for the DVB-S DVB-S2.

Gigaplex Gapfiller is the beautiful solution when the satellite antenna size required is more than one meter and when in tropical areas daily rain fade occur, Gigaplex Gapfiller provide a reliable service with small size user antennas (Flat 20cm up to 45 cm). One Gigahertz up to 1000 TV channels can be re-broadcasted in HD standard (DVB-S MPEG4) by the Gigaplex Gapfiller according to DVB standards & ITU recommendations.

EIRP is 35 dBm in omni-directional mode and 42 dBm in sectorial mode, in Option high stability GPS reference clock can be provided.

Gigaplex Gapfiler for MVDDS HDTV and satellite enhanced coverage and reliable service.

Key features

- Designed for quick on air MVDDS Hypercable and BWA Broadband Repeaters
- Easy to upgrade for the Triple Play wireless networks.
- DTV Broadcast, BWA and backbone applications
- C Band (3,4-4,2 GHz). KU band (10,7-12,7 GHz). Q Band (40,5-43,5 GHz).
- Automatic redundancy if required.
- Provide a capacity of One Gigahertz.
- Industry's Most Compact solid state transmitter system.
- Digital Signal Processing for Optimum signal quality and channels transposition
- Very High Speed Internet with HyperWimax option
- Compliant with the Sustainable Development
- Energy Saving, Sun and Wind Powered.
- Maximizing Investment Return.

Conforme au Développement Durable
Compliant with Sustainable Development

Hypercable the Wireless Cable

Product data sheet specifications

Each Hypercable Gigaplex Gapfiller is designed to ensure any migration to any DVB standard and any new wireless application. With our proprietary automatic gain control (AGC) and Phase Noise Reducer the Gigaplex delivers the maximum output power for very low main power consumption and the better phase noise quality for DVB-S-QPSK, DVB-S2-8PSK-16APSK-32APSK Broadcasting standards. Gigaplex family have been designed with a highly modular architecture to reduce running costs and makes the transmitters and the system easy to maintain in service.

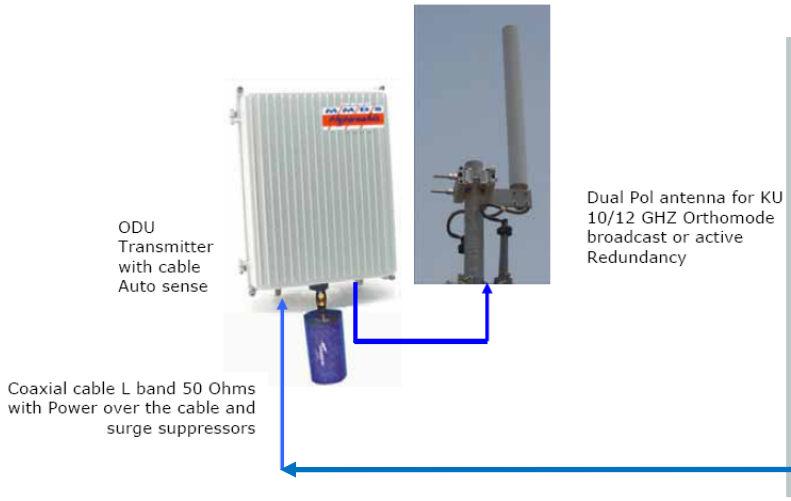
- Fine output power tuning 0 dBm to 27 dBm. High Linearity, Compression point @ 2dB 27 dBm
- EIRP up to 43 dBm for broadcast service up to 50 km.
- Global AGC better than +- 01 dB in a 33 dB dynamical range
- Channels filter with 20dB AGC (option)
- Large family of transmit and receive antennas MISO and SIMO systems with space and angular diversity.

OPTIONS:

- GPS 10 MHz genlock
- 48 VDC powered for easy wind or solar energy system

Hypercable Satellite Gapfiller repeater in the mountain. Powered by sun and windmill for satellite re-transmission in a very deep valley not line of sight to the satellite

Satellite Gapfiller Diagram



Dual Pol antenna for KU 10/12 GHZ Orthomode broadcast or active Redundancy

Radio TX ODU 27 dBm | Omni TX antenna 10 dB | Four sectorial TX 360° 4x17dB | High gain 90 & 120cm Inverted Gregorian 40dB | Energy by solar panels combined with wind mill | Furtive RX antenna 45- 75- 90-120-200 cm

For further information, about Operators and Distributors franchising please contact M/M/D/S Hypercable

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Hypercable **® The Wireless Broadband ®**

Basic Gigaplex

SPECIFICATION FOR GIGAPLEX 2702KU series.

Item	Parameter	Value
1	RF Input Frequency Range	Model A: 950-1950MHz.
2	Input source power supply	Bias-Tee to apply power +15vdc to input. Internal isolating switch or jumper.
3	LO Frequency.	Model A: 9.75GHz. Model B: 10.75GHz.
4	LO Stability over temp. range	Internal frequency reference: Stability $<1x10^{-10}$ per second. Temp: $<+/-5x10^{-8}$ (0 to $+60^{0}$ C). Ageing: $<+/-5x10^{-9}$ per day. or as per ext. freq. ref. i/p.
5	RF Output Frequency Range	Model A: 10.7-11.7GHz. Model B: 11.7-12.7GHz.
6	Automatic Gain Control (AGC)	AGC: Output signal power to be held at +27dBm +0-3dBm for input signal power range of -10dBm to -40dBm..
7	Phase Lock Alarm Output	Lock +5vdc. Alarm 0vdc.
8	External 10MHz Freq. Ref input	0dBm approx. with auto select.
9	Ext. 10MHz input connector	Sealed TNC type
10	Input/Output Impedance	50 ohm.
11	Return Loss	Typically better than 15dB.
12	Input Connector (L-band)	Sealed N-type.
13	Noise figure	Typically 10dB for low signal level.
14	Output Connector (Ku-band)	Sealed SMA-type.
15	Output Power at –1dB Compression.	Typically +27dBm min at 25ºC.
16	Conversion Gain	Variable 35dB-65dB depending upon input signal power.
17	Gain Flatness	+/-0.5dB/40MHz segment, over band.
18	Image Rejection	40dB min.
19	LO Leakage at Input.	-50dBm min
20	Phase Noise (with int. ref.)min.	-75dBc/Hz @ 100Hz offset. -92dBc/Hz @ 1KHz offset. -100dBc/Hz @ 10KHz offset. -107dBc/Hz @ 100KHz offset. -125dBc/Hz @ 1MHz offset.
21	DC Power Supply.	+24+/-4vdc at 1 amp approx. Internal fuse protected. Internal power conditioner for module/LNB supplies.
22	Power supply/Lock Alarm Connector	Sealed male 5-pin type.
23	Operating Temperature Range	-25ºC to +60ºC from 30 minutes after switch-on.
24	Environmental	Weatherproof sealed IP65 including an Andrew type SD003 dehydrator with replaceable cartridge.
25	Mechanical construction	In special metal alloy box painted grey. Fitted clamp to mount on pole
26	Dimensions excl. clamp & connectors	40-60mm diameter. Connectors on lower face.