



Basic Gigaplex

Digital HDTV – Ku and Q Band Transmitter Family DVB-MC/S – MVDDS- HyperWimax

Basic Gigaplex MVDDS Broadcast and Backbone Transmitter comply The new **Green Radio** specifications. Designed for quick and low cost MVDDS Digital Television and Internet deployment, the basic Gigaplex provide DVB-S 400 Mbits or 800 Mbits in DVB-S2 according to DVB standards and ITU recommendations. No less than 200 TV channels can be broadcasted in HD standard (DVB-S MPEG4) by the Basic Gigaplex. EIRP is 35 dBm in omni-directional mode and 42 dBm in sectorial mode.



Basic Gigaplex 400/800-270xxx MVDDS HDTV
3,4-4,2 GHz 10,7-12,7 GHz 40,5-43,5 GHz

Key features

- Designed for quick on air MVDDS Hypercable and BWA
- Easy to upgrade for the Triple Play wireless networks.
- MMDS 2.4/2.8GHz relocation in 11.7/12.7 & 40,5/42,5 GHz
- DTV Broadcast, BWA and backbone applications
- Cancel the need for backhaul by optical or microwave links.
- C Band (3,4-4,2 GHz). KU band (10,7-12,7 GHz). Q Band (40,5-43,5 GHz).
- Semi-automatic redundancy with Network Manager System local and remote control.
- Provide a capacity of 8 carriers @40 MHz bandwidth in 320 MHz.
- Basic Gigaplex is stackable up to 24 Carriers (3 Basic 5RU system)
- Industry's Most Compact solid state transmitter system.
- Advanced embedded intelligence in the Multicarrier exciter combiner system.
- Digital Signal Processing for Optimum signal quality.
- Easy to service modular design – hot-swappable modules - common set of spare parts
- Supports local and remote software upgrades–in-depth diagnostics.
- Very High Speed Internet with HyperWimax option
- Compliant with the Sustainable Development
- Energy Saving, Sun and Wind Powered.
- Maximizing Investment Return.



Terrestrial mobile TV & Data distribution

Another application of Basic **Gigaplex Backhaul** using remote transceivers in the VHF-UHF-L Bands is the efficient distribution of Digital TV, Data and radio channels DVB-T, DVB-H, TDMB and similar to remote transmission sites:

- Direct retransmission to large areas with additional power amplifiers
- Regional terrestrial coverage of shadow zones.
- Low power transmission in indoor area's like shopping centers, airports, hotels, etc





Product data sheet specifications

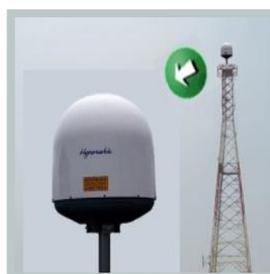
Each Hypercable Gigaplex integrates the exciter platform designed to ensure any migration to any DVB standard and any new wireless application. With our proprietary automatic gain control (AGC) and Phase Noise Reducer the Gigaplex line delivers the maximum output power for very low main power consumption 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 25 dBm. High Linearity, Compression point @ 2dB 27 dBm
- EIRP up to 43 dBm for broadcast service up to 50 km.
- AGC better than +/- 01 dB in a 33 dB dynamical range
- Full IP Ethernet Gigabit interfaces, ASI modules cabling.
- 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
- GigaplexS2 **modulators** to drive MFN SFN remote transceivers
- Gigaplex Transceiver for DVB-T DVB-H Broadcasting VHF-UHF

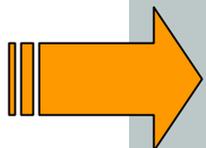
An Hypercable repeater in the mountain.
Powered by sun and windmill for satellite re-transmission in a deep valley not line of sight to the satellite



OPTION:
Weatherproof de-icing radome for ODU transmitter and antennae system



Bandwidth and data flow specifications



Hypercable Basic Gigaplex Single Polarization Ref. S1 Orthomode Polarization Ref. O2	Radio data output and bandwidth occupancy, Modulation DVB-S2 8PSK	
C Band: 3.2 – 4,2 GHz 5 – 6 GHz KU Band: 10.7 - 11.7 or 11.7 - 12.7 GHz Q Band: 40.5 - 41.5 or 41.5 - 42.5 or 42.5 - 43.5 GHz	Bandwidth occupancy (MHz)	Radio Throughput (Gigabits)
Gigaplex 400-S1 – One Rack 5 RU	320	0.800
Gigaplex 800-O2 - Two Racks 5 RU	320	1.600



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 mills Furtive RX antenna 45- 75- 90-120 cm

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

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SPECIFICATION FOR GIGAPLEX 2702KU series.

Item	Parameter	Value
1	RF Input Frequency Range	Model A: 950-1950MHz.
2	Input source power supply	Biass-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 $<1 \times 10^{-10}$ per second. Temp: $<+/-5 \times 10^{-8}$ (0 to $+60^{\circ}$ C). Ageing: $<+/-5 \times 10^{-9}$ 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 +25dBm +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 25°C.
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	-25°C to +60°C 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.