



IP-DVB Gateway

MDG-101

Digital Head End Series

The MDSA DVB-S2 Gateway MDG-101 is a robust carrier-grade IP modulator, optimized for terrestrial broadcast Internet Service Providers. The modulator supports high speed modulation rates up to 32APSK at 50 Msps. It has a rich XML-RPC based remote control interface.



Specifications

- IF Output Frequency: 950 to 2150 MHz
- Output Power: -30 dBm to 0 dBm in 0.1 dBm steps
- Modulation Types: QPSK, 8PSK, 16APSK, 32 APSK
- Symbol Rate: Up to 60 Msps in 1 sps steps
- Data Bitrate: 3 kbps to 267 Mbps
- Data Interfaces: 10/100/1000 Mbits/sec RJ45 control
10/100/1000 Mbits/sec RJ45 data
- Spurious output: < -60 dBc / 4 kHz (modulated carrier)
< -60 dBc (unmodulated carrier, in-band)
< -45 dBc (unmodulated carrier, out of band)
- Frequency Stability: $\pm 5 \times 10^{-8}$ (-30°C to 60°C)
- Dimensions: 1RU, 19", 482 x 365 x 44 mm
- Power: 100 to 240 VAC, 50 to 60 Hz, <50 W consumption
< 0.8 A RMS at 230 VAC
< 1.3 A RMS at 115 VAC
- Temperature range: Operational 0° to 40° C / 32° to 104° F
Storage 0° to 70° C / 32° to 158° F
- Weight: 4.6 kg



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Technical Specifications

MDG-101

RF Specifications

- Frequency range: 950 to 2050 MHz
- Output impedance: 50 Ohm
- Output signal range: -25 to 0 dBm
- Adjustment of output signal level: 0.1 dB step
- Output Return loss, min: 15 dB
- Phase noise @ offset:
 - 100 Hz: - 66 dBc
 - 1 kHz: - 70 dBc
 - 10 kHz: - 85 dBc
 - 100 kHz: - 100 dBc
 - 1 MHz: - 120 dBc
- Modulation type: BPSK, QPSK
- Symbol rate: 45 MSps max
- FEC encoding
 - QPSK: 1/2, 2/3, 3/4, 5/6 and 7/8
- Internal clock stability: 10 ppm

Interfaces

- Data Interfaces
 - DVB ASI- internal loop
 - Optional G.703, T1 to T3, E1 to E3, DSS, LVDS
- Monitoring and Control
 - RS232, RS485, Ethernet, SNMP

Hardware Specifications

- Power supply: 100 to 240 VAC, 50/60 Hz
- Power consumption: 43 watts max
- Temperature: 10 to 50 degrees Celsius
- 19" rack mount, 16 inch depth



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