

ARRIS Wireless Solutions

2.5GHz Integrated MMDS/MDS Wireless Modem Interface

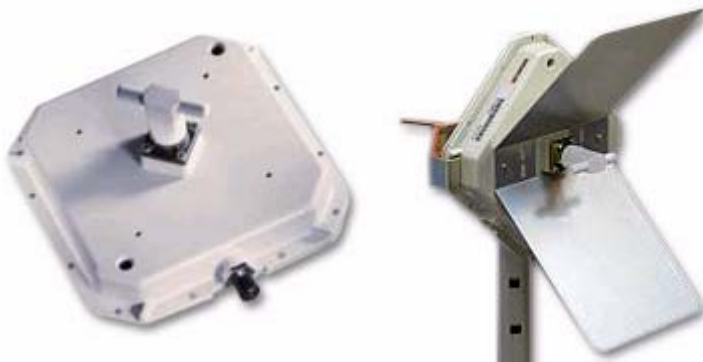


Application

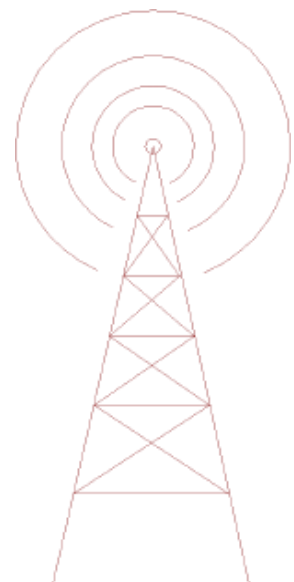
Provides a wireless interface between a DOCSIS® compliant data or voice modem.

Architectural Overview

The Integrated Wireless Interface is a MMDS/MDS Transceiver for use in broadband wireless networks with a directly attachable antenna. It integrates the up-converter, down-converter, and power amplifier along with RF and IF diplexers to provide a single unit solution for two-way wireless RF communications. The circuitry is field hardened over a broad temperature range and is contained in a weatherproof housing. The unit is ready to mount directly to the antenna. It is connected to the wireless modem by standard low cost RG-59 cable. The transceiver is configured to work with standard DOCSIS® cable modem frequency plans and levels, permitting a direct connection. The transceiver also includes an RF mute function to reduce power consumption and broadband noise emissions. Other models are available to cover operation the various combinations of MMDS, MDS, and WCS frequencies



- High gain and compression
- Automatic transmit RF mute
- Fully weatherized enclosure
- Tightly integrated with antenna
- Choice of antenna gains



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Specifications

Transmitter:	IF Input Frequency..... 14.375 to 26.375 MHz RF Output Frequency 2150 to 2162 MHz Output P1dB (620231)..... +25 dBm at RF port Spectral Mask..... FCC CFR 47 Part 27.53 Gain..... 24 ± 2 dB at 23°C Gain Flatness ± 1.5 dB Spectral inversion None In-band Spurious -60dBc Out-of-band-spurious -60dBc IF Level for RF Activation..... -50 dBm maximum RF Activation/Mute Response Time..... <1.2 microseconds
Receiver:	Frequency..... 2500 to 2686 MHz Modem Frequency..... 222 to 408 MHz Gain 28 ± 2 dB at 25°C Gain Flatness..... ± 2 dB full band, ±.3dB per channel Noise Figure <5.5 dB
RF Port:	RF Return Loss 2:1 (transmit and receive RF bands) RF Spurious Emissions FCC CFR 47 Part 27
Modem Interface:	Modem Connector RF female, 75 ohms DC Supply Voltage +18 to +28 VDC (+24V nominal) DC Power Consumption 6W maximum Return Loss 2.5:1 (transmit and receive RF bands)
General:	Phase Noise Tx/Rx <-93 dBc/Hz @±10 kHz <-98 dBc/Hz @±100kHz Frequency Stability ± 10 kHz (over ten years) Operating Ambient Temperature -40 to +60°C Size..... 5.9" x 5.9" x 1.6" (150 x 150 x 40 mm) Mounting Pole 1" to 1.75" (25mm to 44mm) diameter Weight..... 0.7 kg
Regulatory	EMC..... FCC Part 15 Safety..... UL

Ordering Information

2.5GHz MMDS/MDS Transceiver	
Power Supply US	
Power Supply Europe.....	

Antennas:

12dB Corner Reflector MMDS/MDS	
15dB Panel MMDS/MDS	
18dB Gain Parabolic MMDS/MDS.....	
21dB Gain Parabolic MMDS/MDS.....	
Other antenna models available on request.	

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