

# ARRIS Wireless Solutions

## 2.5GHz MMDS/MDS Wireless Modem Interfaces



### Application

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

### Architectural Overview

The Wireless Interface is a MMDS/MDS Transceiver for use in broadband wireless networks. It integrates an 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 next to and connect directly to an antenna. Then 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. Different models are available to cover operation the various combinations of MMDS, MDS, and WCS frequencies



- High gain and compression
- Embedded microprocessor control
- Automatic transmit RF mute
- Fully weatherized enclosure
- Built in signal strength indicator



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### Specifications

<b>Transmitter:</b>	IF Input Frequency ..... 14.375 to 26.375 MHz RF Output Frequency ..... 2150 to 2162 MHz Output P1dB (620231) ..... +24 dBm at RF port (620232) ..... +30 dBm at RF port Spectral Mask ..... FCC CFR 47 Part 27.53 Gain ..... 20 ± 2 dB at 23°C Gain Flatness ..... ± 1.0 dB Spectral inversion ..... None In-band Spurious ..... -60dBc Out-of-band-spurious ..... -60dBc IF Level for RF Activation ..... -45 dBm maximum RF Activation/Mute Response Time ..... <2 microseconds
<b>Receiver:</b>	Frequency ..... 2500 to 2686 MHz If Output ..... 222 to 408MHz Gain ..... 32 ± 2 dB at 23°C Gain Flatness ..... ± 1.5 dB full band, ±.3dB per channel Noise Figure ..... <5 dB maximum
<b>RF Port:</b>	RF Connector (to antenna) ..... N female, 50 ohms RF Return Loss ..... 2:1 (transmit and receive RF bands) RF Spurious Emissions ..... FCC CFR 47 Part 27
<b>Modem Interface:</b>	Modem Connector ..... RF female, 75 ohms DC Supply Voltage ..... +18 to +28 VDC (+24V nominal) DC Power Consumption ..... 10W maximum Return Loss ..... 2:1 (transmit and receive RF bands)
<b>General:</b>	Phase Noise Tx/Rx ..... <-93 dBc/Hz @±10 kHz ..... <-115 dBc/Hz @±100kHz Frequency Accuracy ..... ±7.5 kHz (over temp) Frequency Stability ..... ± 10 kHz (over ten years) Operating Ambient Temperature ..... -40 to +60°C Size ..... 6" x 8" x .9" (15.24 x 20.32 x 2.29 cm) Mounting Pole ..... 1" to 1.75" (25mm to 44mm) diameter Weight ..... 0.7 kg
<b>Regulatory</b>	EMC ..... FCC Part 15 Safety ..... UL

### Ordering Information

2.5GHz MMDS/MDS Transceiver .....	620231
2.5GHz MMDS/MDS Transceiver High Power .....	620232
Power Supply US .....	620213KN
Power Supply Europe .....	620213KE

### Antennas:

15dB Gain Parabolic MMDS/MDS.....630235



19dB Gain Parabolic MMDS/MDS.....630236



24dB Gain Parabolic MMDS/MDS.....630237



Other antenna models available on request.

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