

ARRIS Wireless Solutions

2.3G Inband Wireless Modem Interface



Application

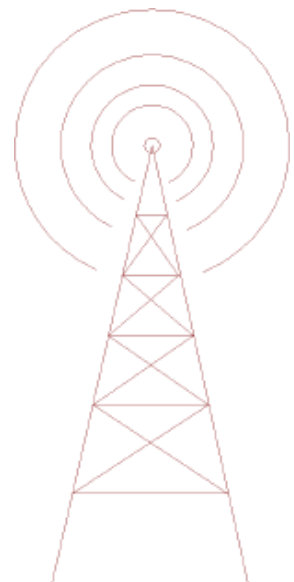
Provides a wireless interface between a DOCSIS® compliant data or voice modem.

Architectural Overview

The Wireless Interface is a 2.3GHz MMDS Transceiver for use in broadband wireless networks. It integrates an up-converter, down-converter, and power amplifier along with RF and IF duplexers 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.



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



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Specifications

Transmitter:	IF Input Frequency 16MHz to 42 MHz RF Output Frequency 2348 to 2374 MHz Output P1dB +25 dBm at RF port Spectral Mask -35 dBc ACPR Gain 18 ± 2 dB at 23°C Gain Flatness 1 dB p-p in any 3 MHz band Spectral inversion None In-band Spurious -60dBc Out-of-band-spurious -30 dBm (30 MHz to 12 GHz) IF Level for RF Activation -45 dBm maximum RF Activation/Mute Response Time <2 microseconds
Receiver:	Frequency 2200MHz to 2290 MHz If Output 318 to 408 MHz Gain 32 ± 2 dB at 23°C Gain Flatness ± 1.5 dB full band, ±.5dB per channel Noise Figure <4.5 dB typical, 6 dB maximum
RF Port:	RF Connector (to antenna) N female, 50 ohms RF Return Loss 2:1 (transmit and receive RF bands) RF Spurious Emissions -30 dBm (30 MHz to 12 GHz)
Modem Interface:	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)
General:	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
Regulatory	EMC will meet FCC Part 15

Ordering Information

2.3GHz MMDS Transceiver	620239
Power Supply US	620213KN
Power Supply Europe	620213KE

Antennas:

15dB Gain Parabolic MMDS/MDS	630235
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19dB Gain Parabolic MMDS/MDS	630236
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24dB Gain Parabolic MMDS/MDS	630237
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Other antenna models available on request.

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