

ARRIS Wireless Solutions

700MHz Integrated Wireless Modem Interface



Application

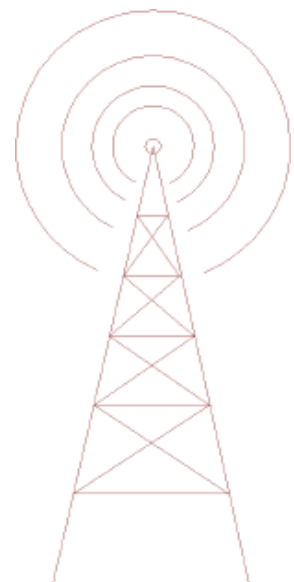
Provides a wireless interface between a DOCSIS® compliant data or voice modem complete with antenna.

Architectural Overview

The Integrated Wireless Interface is a UHF Transceiver for use in broadband wireless networks. It integrates an up-converter, a power amplifier and antenna 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 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 direct connection. The transceiver also includes an RF mute function to reduce power consumption and broadband noise emissions.



- **Integrated antenna**
- **High gain and compression**
- **System gain allows for N-LOS**
- **Embedded microprocessor control**
- **Automatic transmit RF mute**
- **Fully weatherized enclosure**
- **Allows simple outdoor installation**
- **Aesthetically pleasing**



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Specifications

Transmitter:	IF Input Frequency..... 36 to 42 MHz
	RF Output Frequency 710 to 716 MHz
	Linear Output Power +32 dBm at antenna
	Spectral Mask..... FCC CFR 47 Part 27.53
	Integrated Gain..... 28 ± 2 dB at 23°C
	Gain Flatness ± 1.0 dB over 710 to 716 MHz
	Phase Noise..... <-87 dBc/Hz @ +/- 10 kHz
	Spectral inversion None
	IF Level for RF Activation..... -45 dBm maximum
	RF Activation/Mute Response Time..... <2 microseconds

Receiver:	Frequency..... 740 to 746 MHz
	Gain 32 ± 2 dB at 23°C
	Gain Flatness..... ± 1.0 dB over 740 to 746 MHz
	Noise Figure <5 dB typical, 6.0 dB maximum

RF Port:	RF Connector (to antenna)..... F female, 75 ohms
	RF Return Loss 2:1 (transmit and receive RF bands)
	RF Spurious Emissions FCC CFR 47 Part 27

Antenna:	Polarity Vertical or Horizontal
	Cross Polarization Level -20dB max
	Front to Back Ration -20dB max
	Wind Speed 200km Survival

Physical	IF Connector RF female, 75 ohms
	DC Supply Voltage +18 to +28 VDC (+24V nominal)
	DC Power Consumption 10W maximum
	IF Return Loss >10dB (transmit and receive RF bands)

General:	Frequency Stability ± 20 kHz (-30 to +60°C)
	Operating Ambient Temperature -40 to +60°C
	Size 12" x 12" x 2.5" (305 x 305 x 64 mm)
	Mounting Pole mount..... 1" to 1.75" diameter pole
	Weight..... 1.2 kg

Regulatory	EMC..... FCC Part 15
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Ordering Information

Integrated 700 MHz UHF Transceiver	620211
Power Adapter and Inserter 115V	620213
Power Adapter and Inserter 220V	620219

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