

ARRIS Wireless Solutions

700MHz Wireless Modem Interface



Application

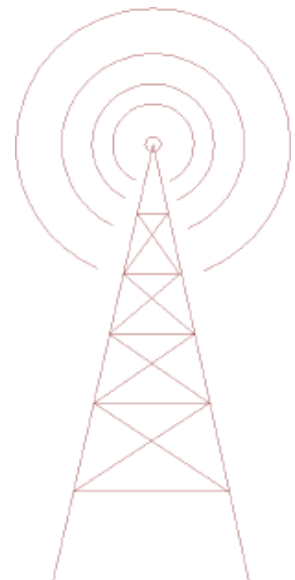
Provides a wireless interface between a DOCSIS® compliant data or voice modem.

Architectural Overview

The Wireless Interface is a UHF Transceiver for use in broadband wireless networks. It integrates an up-converter, a power amplifier, 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.



- **High gain and compression**
- **System gain allows for N-LOS**
- **Embedded microprocessor control**
- **Automatic transmit RF mute**
- **Fully weatherized enclosure**
- **Allows installation to be either indoor or outdoor**



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Specifications

Transmitter:	IF Input Frequency.....	36 to 42 MHz
	RF Output Frequency	710 to 716 MHz
	Linear Output Power	+24 dBm at RF port
	Output P1dB	+27 dBm at RF port
	Spectral Mask.....	FCC CFR 47 Part 27.53
	Gain.....	20 ± 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	24 ± 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

Physical	IF Connector	RF female, 75 ohms
	DC Supply Voltage	+18 to +28 VDC (+24V nominal)
	DC Power Consumption	10W maximum
	IF Return Loss	2:1 (transmit and receive RF bands)

General:	Frequency Stability	± 20 kHz (-30 to +60°C)
	Operating Ambient Temperature	-40 to +60°C
	Siz.....	e 4.9" x 6.8" x 1.1" (12.4 x 17.1 x 2.7 cm)
	Mounting Pole mount.....	1" to 1.75" diameter pole
	Weight.....	0.5 kg

Regulatory	EMC	FCC Part 15
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Ordering Information

700 MHz UHF Transceiver620210

Power Adapters:

Power Adapter and Inserter 115V620213
 Power Adapter and Inserter 220V620219

Yagi Antennas:

5 Element 8dB Gain620214
 7 Element 10dB Gain620212
 9 Element 12dB Gain620215
 12 Element 13.5dB Gain.....620216

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