

ARRIS Wireless Solutions

850MHz 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 using the AMPS A and B band cellular Frequencies. 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-6 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.



- **One model for both A and B AMPS Cellular Channel Options**
- **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 17 to 42 MHz
 RF Output Frequency 824 to 849 MHz
 Linear Output Power +24 dBm at RF port
 Output P1dB +27 dBm at RF port
 Spectral Mask FCC CFR 47 Part 22.917
 Gain 20 ± 2 dB at 23°C
 Gain Flatness 1 dB p-p over any 3 MHz band
 Phase Noise <-87 dBc/Hz @ +/- 10 kHz
 Spectral inversion None
 IF Level for RF Activation -43 dBm maximum
 RF Activation/Mute Response Time <2 microseconds

Receiver: Frequency 869 to 894 MHz
 Gain 24 ± 2 dB at 23°C
 Gain Flatness 1 dB p-p over any 6 MHz band
 Noise Figure <5 dB typical, 6.0 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 FCC CFR 47 Part 22

Physical IF Connector F 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
 Size 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

Ordering Information

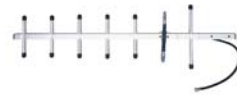
850 MHz Transceiver620270

Power Adapters:

Power Adapter and Inserter 115V620213KN
 Power Adapter and Inserter 220V 620213KE

Antennas:

850MHz Yagi Antenna 10dbi620277



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