ARRIS Wireless Solutions
3.5GHz 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 complete 3.5GHz 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.

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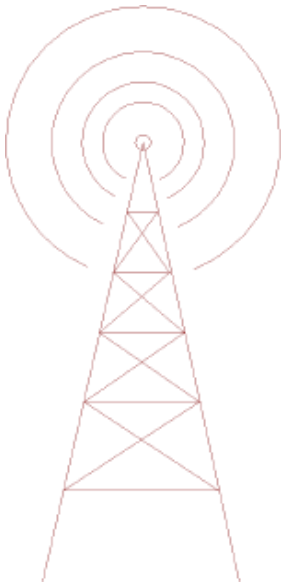
- **Integrated Antenna**
- **+40dBm TX Power QPSK**
- **Audible Installation Alignment Beeper**
- **Embedded Microprocessor Control**
- **Automatic transmit RF Mute**
- **Fully weatherized Enclosure**
- **Allows simple outdoor installation**
- **Aesthetically pleasing**



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Specifications

Transmitter:	IF Input Frequency..... 18 to 42 MHz RF Output Frequency .....3526 to 3550MHz (other models available) Linear Output Power +40 dBm QPSK, +38dBm QMA16 at antenna Spectral Mask. ETSI EN 301 21 section 5.3.3 system type A,B depending on modulation. Integrated Gain..... 38 ± 2 dB over temperature Gain Flatness .....± 1.0 dB over 3 MHz Phase Noise ..... <-85 dBc/Hz @ +/- 10 kHz <-45dBc integrated over 10kHz to 2.5MHz Spectral inversion .....None IF Level for RF Activation..... -45 dBm maximum RF Activation/Mute Response Time ..... <2 microseconds
Receiver:	Frequency..... 3426 to 3450MHz (other models available) Gain ..... 45dB ± 2 dB IF Output Frequency.....366 to 390MHz Gain Flatness..... ± .5 dB over 6MHz Noise Figure .....<5 dB Input Third Order Intercept.....-7dBm at LNA input Phase Noise ..... <-85 dBc/Hz @ +/- 10 kHz <-45dBc integrated over 10kHz to 2.5MHz Interference Sensitivity.....As per ETSI EN 301 032 section 5.4.4.3 when used in conjunction with a CMTS upstream input
RF Output Port:	RF Connector (to modem)..... F female, 75 ohms RF Return Loss .....10dB (transmit and receive RF bands) DC Supply Voltage ..... +18 to +28 VDC (+24V nominal) DC Power Consumption ..... 10W maximum
Antenna:	Polarity .....Vertical or Horizontal Beamwidth ..... 15° typical Antenna Gain.....18dB min Cross Polarization Level .....-20dB max Front to Back Ration .....-20dB max Wind Speed .....200kM Survival Antenna Compliance .....ETSI EN 301 215 TS3
General:	Frequency Stability ..... ± 8.5 kHz Long Term Stability.....± 23 kHz over 10 years Operating Temperature Range ..... ETS 300 019 Class 4.1 (-30°C to +40°C) full specifications ETS 300 019 Class 4.1E (-45°C to +45°C) operational Size..... 12" x 12" x 2.5" (305 x 305 x 64 mm) Mounting Pole 1" to 1.75" (25mm to 44mm) diameter pole Weight..... 7lbs (3.2 kg)
Regulatory	EMC..... ETSI EN 300 385 Spurious Emissions .....ETSI EN 310 390, ERC 74-01E

Ordering Information

3.5GHz Subscriber Transceiver with Integrated 18dbi Antenna 620XXX
Consult Factory on Correct Ordering Number

Power Adapter and Inserter 115V 620213
Power Adapter and Inserter 220V 620219

Transceiver Frequency Options

Tx RF Frequency Range (MHz)	B/W	Rx RF Frequency Range (MHz)
3526 to 3550	24Mhz	3426 to 3450
3410 to 3424	14Mhz	3510 to 3524
3480 to 3496	16MHz	3580 to 3596
3420 to 3431	11MHz	3520 to 3531
3524 to 3545	21MHz	3424 to 3445
3600 to 3624	24Mhz	3500 to 3524
3626 to 3650	24Mhz	3526 to 3550
3417 to 3431	24Mhz	3517 to 3531
3476 to 3500	24Mhz	3576 to 3600
3576 to 3600	24Mhz	3476 to 3500
3417 to 3442	25MHz	3417 to 3542
3526 to 3550	24Mhz	3626 to 3650
3431 to 3452	21MHz	3531 to 3552