ARRIS Wireless Solutions
2.5GHz Inband MMDS Base Station Downconverter

Application

Provides a complete solution for a redundant multi-sector base station downconverter

Architectural Overview

This downconverter is used in a multi-sector system designed for broadband wireless applications in the 2.5GHz frequency band. Each downconverter module receives return RF signals from subscribers in the 2500 to 2524 MHz band and downconverts these signals to 18MHz - 42MHz for compatibility with standard DOCSIS frequency plans. This frequency plan mirrors that of the 2.5Ghz inband MMDS transceiver family to ensure proper modem operation. The optional redundant configuration also allows up to 8 downconverter modules in a single chassis as four redundant pairs. In this optional arrangement, four input RF switches for each downconverter pair and dual independent power supplies allow this unit to be used in a redundant configuration. A standard RS232/RS485 serial interface and SNMP Agent over an Ethernet also allows for remote management, and alarm monitoring.

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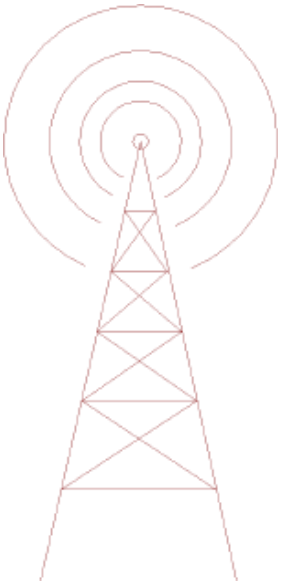
- **Extremely Low Noise Figure**
- **Frequency synthesized local oscillator locked to a high stability TCXO**
- **High reliability, state-of-the-art design using microstrip MMIC and surface mount technology**
- **Low noise figure <4 dB**
- **Standard RS232/RS485 serial interfaces and SNMP Agent available via 10BaseT Ethernet allows for remote monitoring and control**
- **Designed for high reliability**



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Specifications Down Converter

RF Input:	Frequency ..... 2500 to 2524 MHz Gain..... 32 ± 2 dB at 23°C Gain Flatness ..... ± .5 dB full band Noise Figure ..... 4 dB Spectrum Conversion..... Non-Inverting LO Accuracy..... ± 2ppm (10°C to 40°C) Input Connector..... N female Input return Loss ..... 15dB min
IF Output:	Output Frequency..... 18 to 42 MHz Phase Noise ..... -94 dBc/Hz at 10 kHz offset Output IP3 ..... +22dBm Output Connecter ..... F female Output return Loss..... 12dB min
General:	Supply Voltage .....-48VDC Power Consumption .....2.5W+7.5W per module Size ..... 19"W x 1.37"D x 5.25"H (48.3 x 34.8 x 13.4 cm) Weight ..... 31lbs + 3.3lbs per module (13kg+1.5kG per) Operating Temperature .....10° to +40°C Mounting (chassis) ..... Standard 19" rack - 3U (5.25")
Module Configuration	1 to 4 modules in a non-redundant mode. Individual RF input connectors 2 to 8 modules operating as redundant pairs. One RF input connector per pair. Individual output connectors in all combinations
Power Supply Configuration	1 module per chassis non-redundant 2 modules per chassis redundant

Ordering Information

2 channel non-redundant XXXXXX
4 channel non-redundant XXXXXX

Consult factory on other ordering options