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PRODUCT
SPECIFICATIONS

OneBase InSite™ RF Diagnostic Unit

- Measures uplink and downlink VSWR
- Improves network performance
- Measures interference and signal integrity from host BTS

The InSite RF Diagnostic Unit contains the RF test functions and features required to perform a suite of RF tests. The InSite RF Unit is a single, stand-alone unit mounted in a standard base station transceiver (BTS) rack, which works with any original equipment manufacturer's BTS radio equipment. It can run site tests automatically according to a schedule or in real-time via an Internet connection. OneBase InSite RF takes readings on antenna return loss, uplink and downlink VSWR, pilot power, and other site metrics and will notify RF technicians via alarms when performance is at or nearing sub-par levels.

Features & Characteristics:

- Cell site RF Diagnostic Unit
- BTS transmit signal analysis. Capable of 2G, 2.5G, and 3G air interfaces.
- Real-time antenna VSWR monitoring
- RX band VSWR measurements
- RX interference analysis
- Built-in spectrum analyzer with user-defined frequency span
- Built-in tone generator enabling PIM measurements and swept RF measurements
- Advanced digital receiver with wide dynamic range and auto-leveling
- Automatic, scheduled testing with alarm and measurement log
- Web server with Ethernet interface
- 19" rack-mount unit
- 3-sector capable unit

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Electrical & Mechanical Specifications

Frequency band	Dual-band, 850/1900 in a single unit. Other dual-band combinations possible.
Frequency range	869-894 MHz downlink measurements
	824-849 MHz uplink measurements
	1930-1990 MHz downlink measurements
	1850-1910 MHz uplink measurements
Antenna feedline monitor ports	12 total (6 Forward path, 6 Reverse path)
Receive band monitor ports	6 total
Return loss, all ports	16 dB, typical
Isolation, port-to-port	60 dB
Forward power monitor	True RMS, >20 dB dynamic range
VSWR measurement	>20 dB dynamic range with respect to output power
RX-band VSWR measurement	-30 dBm referenced to antenna feedline, >30 dB dynamic range
PIM test tones	2 carriers, 0 dBm to +10 dBm/tone
Receiver sensitivity	9 dB noise figure, max
Receiver instantaneous dynamic range	>80 dB, single tone
Supported air interfaces	CDMA, EVDO, GSM/EDGE, WCDMA
RF interface connectors	QMA(F)
Power supply	+24v or -48v versions available
Power connector	Weidmuller connector, male
Power consumption	30w, maximum
Mechanical outline	1.5 RU, 17.5"(w) x 2.5"(h) x 11.75"(d); 19" EIA rack-mount module
Weight	16 lbs
Temperature range	-5°C to +50° C, operational
Summary alarm types	3 severity levels: Minor, Major, Critical (user-defined mapping and limits)
Alarm physical interface to BTS or DSC	Dry relay, Form C, NO & NC contacts. Molex connector.
Local/Remote monitor interface	RJ-45 Ethernet port, IP-based, 10/100Mbps
LMT customer interface	Web server, graphical user interface
Controls & settings	Manual test or automatic test scheduling
Measurements & status	Alarm status, RF input/output power levels, VSWR, CDMA/WCDMA pilot and carrier levels
Software updates	Local or remote download capable
Remote access	Telnet, web server, SNMP Agent, XML files
Event Log	Alarm status and measurements

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Visit our Web site or contact your local Andrew Wireless Solutions representative for more information.

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