4301A+ - Miniature Test Receiver - WiMAX

Ultra-Compact and Diverse Measurement Capability

The DRT4301A provides the telecommunications industry with a miniature, yet powerful, receiver measurement capability to test and monitor wireless signals. DRT's advanced architecture offers a variety of solutions that are optimized to process different cellular protocols. These test receivers use the latest in digital signal processing (DSP) and microprocessor technology to provide the following capabilities:

- WiMAX protocol support for measurements and decoding features.

- Real time decoding of WiMAX broadcast messages: FCH, DL-MAP, UL-MAP, DCD, UCD…

- Support for the most common wireless scanner measurements.

- Integrated Spectrum Analysis Tool for all protocols and bands.

- Embedded application ideal for OEM use or with DRT-supplied Pioneer™ collection tool.

- MIMO Support

- Optional removable flash device for localized logging.

- Quad-band model for switched support—band coverage of forward channels or dual-band model for both forward and reverse channels.

- Internal GPS receiver with frequency and timing discipline.

- 100 Mbps Ethernet interface to the host allows for high throughput of logged test data and remote operation.

- Small Size, Low Power, Light Weight.

- 100% DRT warranty for three (3) years.

Measurements and Features

General:
Quad-Band Support
Removable Flash Memory Card
Integrated GPS Navigation and
   Disciplined Reference
Software Defined Architecture
Autonomous Operation
Sleep Mode

WiMAX Measurements:
Spectral Display
Channel Response
Carrier Frequency Offset
Preamble Detection
Preamble Index
Preamble RSSI
   Mean and Standard Deviation
Preamble CINR
   Mean and Standard Deviation
DL Data Power
DL Pilot Power
DL Pilot CINR
MIMO Post Processing CINR

WiMAX Decoding:
Preamble
   Index
   Segment
   IDcell
FCH
   Used Channel Bitmap
   Repetition Coding Indication
   DL-MAP Length
DL-MAP
   Frame Duration Code
   Frame Number
   DCD Count
   Base Station ID
UL-MAP
   UCD Count
   Allocation Start Time
DCD
   Downlink Burst Profile
UCD
   Uplink Burst Profile

WiMAX Profile Support:
WiMAX Forum Mobile System Profile,
Ver: 1.4.0
   Prof1.A 2.3*
   Prof1.B 2.3 - 5
   Prof1.B 2.3 - 10
   Prof2.A 2.305*
   Prof2.B 2.305
   Prof2.C 2.305
   Prof3.A 2.496 - 10
   Prof3.A 2.496 - 5
   Prof4.A 3.3
   Prof4.B 3.3*
   Prof4.C 3.3
   Prof5.A 3.4
   Prof5.B 3.4*
   Prof5.C 3.4
   * Consult Factory

Receiver Specifications

Band Coverage:

WiMAX Quad-Band Tuner	2300 - 2400 MHz
	2496 - 2690 MHz
	3300 - 3800 MHz
	5150 - 5825 MHz (Consult Factory)

Amplitude Accuracy:	-100 dBm to -25 dBm ± 1dB*
	-110 dBm to -100 dBm ± 2dB*

* Measurement Bandwidth = 250 kHz

Noise Figure:	7.0 dB
Input 3rd Order Intercept:	-10 dBm
Phase Noise:	-88 dBc at 1 kHz offset
VSWR:	<2.5:1
Internal Generated Spurs:	<-115 dBm
Maximum Safe Input:	+15 dBm

Physical

Dimensions:	1.3" H x 3.0" W x 6.2" D
	(3.3 cm H x 7.6 cm W x 15.7 cm D)
Weight:	1.25 lbs. (567 g)
Operating Temp:	+32° to +122°F (0° to +50°C)
Storage Temp::	-40° to +185°F (-40° to +85°C)
Humidity:	95%, Non-condensing
Power Consumption:	8 W (max)
Power Required:	6-30 VDC

Interfaces

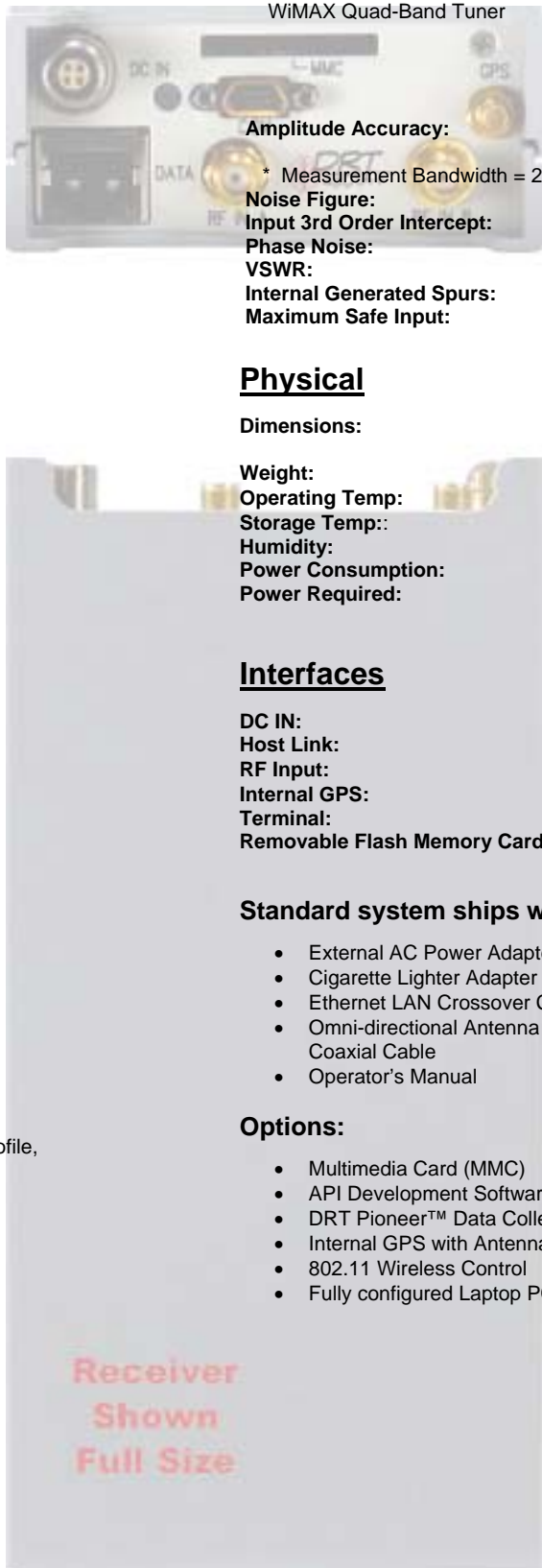|	
DC IN:	Lemo P/N EXG.OB.304.HLN
Host Link:	RJ45 - Ethernet 100Base-T
RF Input:	SMA - 50Ω
Internal GPS:	SMB - 50Ω
Terminal:	Mini DB-9
Removable Flash Memory Card:	Multimedia Card (MMC)

Standard system ships with:

- External AC Power Adapter & Cables
- Cigarette Lighter Adapter Cable
- Ethernet LAN Crossover Cable
- Omni-directional Antenna with Magnetic Mount and Coaxial Cable
- Operator's Manual

Options:

- Multimedia Card (MMC)
- API Development Software
- DRT Pioneer™ Data Collection Software
- Internal GPS with Antenna
- 802.11 Wireless Control
- Fully configured Laptop PC

Receiver
Shown
Full Size

CE

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