![DRT - Digital Receiver Technology, Inc.]

4302A+ – Wireless Test Transmitter

Stimulus for Testing Propagation

DRT's portable transmitter solution emulates a base station signal for field testing with both mobile phones and test receivers in a variety of environments. The test transmitter is an integral tool for many applications including analysis for base station tower site evaluation, propagation model tuning, and indoor coverage enhancement.

The 4302A+ has the following features:

- Support for CW, GSM, and WCDMA protocols covering all appropriate bands. Upgradeable to support CDMA.

- Base station broadcast signals with user settable channel and message parameters.

- Cell output recognizable by both mobile terminals and measurement receivers.

- Transmitter output supports most popular drive test measurement systems with decoding capability.

- Optional Antenna System with tripod and clamp mounting of antenna and unit for use indoors.

- RF power output settable up to +21 dBm.

- External LED and software interface indicators for transmit mode status.

- Bundled with *Nome* GUI and web-based interface.

- Software API available for user developed applications.

- 100 Mbps Ethernet and Wi-Fi based host interface.

- Small Size, Low Power, Light Weight.

- Includes 4-Hour Rechargeable Battery Pack.

Wireless Protocols

GSM - FCCH, SCH, BCCH Channels

User Settable Parameters
  Band Selection / ARFCN
  TX Enable
  Output Power Level
  Modulation Enable
  BSIC
    -PLMN Color Code
    -Base Station Color Code
  Cell Identity
    -Location Area Identification
    -Mobile Country Code
    -Mobile Network Code
    -Location Area Code
  RACH Control Parameters
    -Cell Barred Access
  Neighbor Cell Information
    -Number of Channels
    -Channel List

WCDMA - CPICH, SCH, PCCPCH Channels

User Settable Parameters
  Band Selection / ARFCN / Scrambling Code
  TX Enable / Output Power / Modulation Enable
  Identification Info
        Cell ID / PLMN Type / MCC / MNC / URA ID

CDMA2K[1] - Pilot, Sync, Paging Channels

User Settable Parameters
  Channel Number
  Pilot PN Offset
  TX Enable / Output Power / Modulation Enable
  Code Channels Power
  Sync Information
    -SID
    -NID
    -Pilot PN Offset
    -Page Data Rate
    -Protocol Revision
    -Minimum Protocol Revision
    -CDMA Channel Number
  Paging System Information
    -Station ID
    -Latitude
    -Longitude
    -Pilot Detection Threshold
    -Pilot Drop Threshold
    -Neighbor List Message
  Extended Paging System Information
    -Add Active Pilot Threshold
    -Drop Active Pilot Threshold
    -MCC

[1] CDMA2K is a future capability.

Transmitter

Frequency Coverage:	869-894 MHz
	925-960 MHz
	1805-1880 MHz
	1930-1990 MHz
	2110-2170 MHz
Max. Transmit Power:	+21 dBm; ±1 dB
Power Control Range:	32 dB; 1 dB Steps
Off Transmit Power:	< -50 dBm
VSWR:	<2.5:1
Internal Frequency Accuracy:	±1 PPM

Specifications

Operating Temp:	32° to 104°F (0° to +40° C)
Storage Temp:	-40° to 185°F (-40° to +85° C)
Humidity:	95%, Non-condensing
Power Consumption:	10 W (max)

4302 With Battery

Dimensions:	1.83" (46.5 mm) x 3.70" (94.0 mm) x 10.14" (257.6 mm)
Weight:	2.4 lbs. (1.10 kg)
Input Power:	11.0 to 14.4 VDC

Battery (BP1)

Dimensions:	1.83" (46.5 mm) x 3.70" (94.0 mm) x 3.90" (99.0 mm)
Weight:	1.3 lbs. (584 g)
Operating Time:	4 hours transmit time

Interfaces

DC IN:	Coaxial
Host Link:	RJ45 - Ethernet 100Base-T
Terminal:	Mini DB-9
TX Out:	SMA - 50Ω
Wi-Fi:	RP-SMA - 50Ω

Standard system ships with:

- One Protocol
- One Enabled Band
- 4-Hour Rechargeable Battery Pack
- Wi-Fi Host Interface with Antenna
- External AC Power Adapter & Cables
- Cigarette Lighter Adapter Cable
- Ethernet LAN Crossover cable
- Operator's Manual

Options

- Additional Protocol
- Additional Frequency Bands
- Fully Configured Laptop PC
- Extra 4-Hour Rechargeable Battery Pack (BP1)
- Indoor Antenna Kit, 806 – 960 MHz & 1710 – 2700 MHz