



## 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.
- RF power output settable up to +21 dBm.
- Cell output recognizable by both mobile terminals and measurement receivers.
- Transmitter output supports most popular drive test measurement systems with decoding capability.
- 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 WiFi based host interface.
- Small Size, Low Power, Light Weight.
- Includes 4-Hour Rechargeable Battery Pack.

The products described in this document are subject to the export regulations of the Commerce Department. An export license may be required for the sale of these products outside the United States.

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## 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<sup>1</sup>** - 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

<sup>1</sup> 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;  $\pm 1$  dB  
**Power Control Range:** 32 dB; 1 dB Steps  
**Off Transmit Power:** < -50 dBm  
**VSWR:** < 2.5:1  
**Internal Frequency Accuracy:**  $\pm 1$  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 - 50 $\Omega$   
**WiFi:** RP-SMA - 50 $\Omega$

### **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)

The One  
Measure for  
Wireless  
Performance



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