Addendum CENG0210\_XB Hardware Installation – nanoBTS



# FlexWave<sup>™</sup> microBTS Operation and Maintenance Manual Addendum

# PRODUCT DESCRIPTION

This publication provides basic information about the FlexWave<sup>™</sup> microBTS. Place this addendum with CENG0210\_XB Hardware Installation manual for the nanoBTS.

The FlexWave microBTS provides the same functionality as the nanoBTS. However, the microBTS utilizes an additional Linear Power Amplifier, and combines four nanoBTS units into one single chassis. This chassis is functional for indoor and outdoor installation. The chassis provides the degree of protection specified by NEMA 6 and IP67 as defined by IEC Publication 60529.

# INSTALLATION OVERVIEW



#### Mounting

The microBTS may be mounted on a flat vertical surface (such as the side of a building) or on a utility pole. A combination wall/pole mounting bracket is provided with each unit. A separate stand mount kit (accessory item) is available if it is necessary to mount the microBTS from a cable. A grounding lug is provided on the bottom of the microBTS enclosure for connecting a grounding wire.



# FlexWave<sup>™</sup> microBTS Nominal Specifications:

| PARAMETER                    | SPECIFICATION                 | REMARKS  |
|------------------------------|-------------------------------|--|
| System bandwidth             | 60 MHz                        |  |
| Frequency range              | 1930 – 1990 MHz               |  |
| Out-of-band emissions        | -13 dBm per 1 MHz bandwidth   |  |
|                              | from 30 MHz to 20 GHz         |  |
| Passband Gain                | 18.5 dB                       | Addition to +23 dBm gain setting on each nanoBTS |
| Composite RF Output power    | 41.5 dBm (14.13 Watts) at     | 40.5 dBm (11.22 Watts)                           |
| (see Note 1 at end of table) | antenna port                  | for Industry Canada using                        |
|                              |                               | two tone method                                  |
| Gain variation               | ± 3 dB over temp and unit-to- |  |
|                              | unit                          |  |
| Gain flatness                |                               |  |
| Band flatness                | ± 1.5 dB across freq. range   |  |
| Channel flatness             | ± 1.0 dB across any 1.25 MHz  |  |
|                              | channel                       |  |
| Mounting                     | Pole, wall, or strand mounted |  |
| Operating Temperature        | -5° C to +45° C               |  |
| Antenna Connector            | 50 ohm N-Type (Female)        | 50 ohm output impedance                          |
| Voltage Input                | 100-250 VAC, 47-63 Hz         |  |

Note 1: Per Industry Canada Section 5.3 - The Manufacturer's rated output power of this equipment is for single carrier operation. For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5 dB, especially where the output signal is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device."

# STANDARDS CERTIFICATION

**FCC**: This equipment complies with the applicable sections of Title 47 CFR Part 24 (1900 MHz)

**IC**: This equipment complies with the applicable sections of RSS-131. The term "IC:" before the radio certification number only signifies that Industry Canada Technical Specifications were met.

Caution: Modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Note**: To comply with Maximum Permissible Exposure (MPE) requirements, the maximum composite output form the antenna cannot exceed 1000 Watts EIRP and the antenna must be permanently installed in a fixed location that provides at least 6 meters (20 feet) of separation from all persons.