

## Fully Integrated Dual Band Repeater System

### Overview

Spotwave's carrier-approved, SpotCell 250® is a high-performance dual band repeater system which boosts wireless signals and ensures reliable coverage for cell phone, PDA's and 3G laptop air cards where they are used more often – indoors.

Geared for smaller commercial facilities and residential spaces, the SpotCell 250® is configurable to support specific wireless voice and data services (CDMA, 1xRTT, GSM, EDGE, UTMA, HSPA and EVDO) being delivered in the Cellular and PCS bands (850 MHz and 1900 MHz). Provides coverage up to a maximum of 5,000 sq ft per system.

### An Effective Solution for Residences or Small Business

Spotwave quickly overcomes barriers to coverage by the use of smart antennas, which consists of an outdoor Donor Unit that communicates with the cell tower and indoor Coverage Unit which retransmits the signal to the handsets inside the building. Both units are connected via coaxial cable, which allow the two units to communicate back and forth seamlessly.

### Supports GSM and CDMA Networks for Today and Tomorrow

The SpotCell® 250 provides enhanced coverage for both dual bands in GSM and CDMA cellular and PCS networks, cost-effectively improving indoor coverage for voice and data services.

### Powered by Network Protecting SpotCell® Technology

Spotwave has combined smart antenna technology and advanced adaptive algorithms – creating the only truly intelligent indoor wireless coverage systems available on the market. This unique adaptive capability of SpotCell product reduces much of the engineering effort associated with conventional coverage approaches. Once the system is installed, it automatically adjusts performance according to network signals and isolation – no costly maintenance or adjustments are required.

Unlike other products on the market, each SpotCell system is programmed for a specific carrier frequency – ensuring the highest possible signal performance while protecting carrier networks and other wireless devices from interference.

### Everything You Need

Our system comes complete with everything required for rapid deployment including cable and mounting hardware. Our systems include:

- Coverage Unit
- Donor Unit
- RF Cable
- Mounting Hardware
- Power Supply
- On Board Diagnostics
- Quick Install Guide

Coverage up to 5,000 sq ft per system



Fully integrated Dual Band 850 MHz and 1900 MHz repeater system. Supports voice and data (CDMA / 1x/ EVDO / GSM / EDGE / HSPA)

## Contact Us

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## Fully Integrated Dual Band Repeater System

### Technical Specifications

|   | Cellular   | PCS  |
|---|--|--|
| Frequency Band  | UL: 824 - 849 MHz<br>DL: 869 - 894 MHz                             | UL: 1850 - 1910 MHz<br>DL: 1930 - 1990 MHz |
| Operator sub-bands  | Operator Specific  |  |
| Primary sub-band  | A+A'+A'' or B+B'   | 5, 10, 15 MHz                              |
| Formats Supported   | CDMA, 1XRTT, EVDO, GSM, EDGE, UTMA, HSPA                           |  |
| Maximum Coverage Area<br>(max input signal, open area with no obstructions) | 5,000 sq ft (460 m2)   |  |
| System Gain<br>(fully adaptive, includes antenna)                           | UL: 0 to +70 dB maximum<br>DL: 0 to +70 dB maximum                 |  |
| System Stability Margin   | > 10 dB (fully adaptive)   |  |
| Downlink Operating Range<br>(receive isotropic power)                       | -95 to - 45 dBm  |  |
| Maximum Input Level<br>(receive isotropic power)                            | UL: -10 dBm maximum<br>DL: -45 dBm maximum                         |  |
| Output Level – EIRP<br>(fully adaptive)                                     | UL: +30 dBm maximum (composite)<br>DL: - 5 dBm maximum (composite) |  |
| Third Order Intercept<br>(EIRP, radiated)                                   | UL: +53 dBm<br>DL: +15 dBm   | UL: +50 dBm<br>DL: +15 dBm                 |
| Power Consumption   | < 45 W   |  |

Coverage up to 5,000 sq ft per system



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### Physical

|                       | Donor Unit   | Coverage Unit                          |
|-----------------------|--|--|
| Operating Temperature | -40° to 131°F (-40° to 55°C)   | 32° to 104°F (0° to 40°C)              |
| Size (wxhxd)          | 14 x 12.5 x 3 in (36 x 31.5 x 8 cm)  | 3 x 6.5 x 1.5 in (7.6 x 16/5 x 3.8 cm) |
| Weight                | 12 lbs (5.5 kg)  | 1 lbs (0.5 kg)                         |
| RF Connectors         | Type F: Coverage Port (weatherproof)   | Type F: Donor Port                     |
| RF Cable              | Supports up to 82 ft (25m) RG-6 cable between Donor and Coverage Units<br>Optional 165 ft (50m) RG-11 cable between Donor and Coverage Units |  |
| Power Supply          | Universal power adapter (90 - 260 VAC, 47 -63 Hz)  |  |

### Installation

|                      |  |
|----------------------|--|
| Donor Unit Alignment | No prior knowledge of base station location required<br>Built-in alignment algorithm (Auto-Trac LED indicator on Donor Unit) |
|----------------------|--|

### Indicators and Diagnostics

|                |  |
|----------------|--|
| User Interface | Power LED on Coverage Unit<br>Build-in signal strength display on Donor Unit |
|----------------|--|

