

# Telcosat Inc

## Telephone 403 291 4031

### RBB 850 Full Band Indoor/ Outdoor Cellular Booster



**The RBB is an indoor or outdoor carrier class cellular extender and repeater for GSM, CDMA, WCDMA, 3G, 4G, LTE, iDEN.** The unit is designed primarily for in-building reception problems. Distances away from the cell tower can be up to ~ 40Km/25 miles or more.

**Typical applications include enhancing cellular reception inside concrete and/or metal structures.** Cellular extension inside large buildings, hospitals, government complexes or just about any location with limited or non-existent cellular reception.

**The RBB 850 has an advanced web-based interface** for programming, monitoring and troubleshooting with Email alert capability.

**The RBB 850 is proudly manufactured in North America** to the highest engineering and component standards providing the most powerful and reliable indoor cellular repeater in its class.

- Indoor/Outdoor cellular booster with IP management access
- Oscillation detection and auto-correction
- Remote control (soft turn on/turn off/standby)
- Remote monitoring (temperature, current) with email alert
- Two level password (monitoring vs. configuration)
- Extends GSM, CDMA, WCDMA, 3G, 4G and LTE cellular service from existing cell towers up to 40Km/25 miles or more.
- Extends cellular Voice and Data services
- Saves money over FEMTO and PICO cells which have recurring monthly costs.
- Allows indoor building areas with weak or dead spot signals to have full cellular service
- Provides cell phone reception throughout large buildings such as in hospitals, medical centers and governmental buildings
- Simple and rapid deployment
- No programming knowledge required - Manual or Web Based GUI (Graphical User Interface) capability
- Supports 700 MHz LTE service, 800 MHz iDEN service, 850 MHz cellular service or 900 MHz GSM service.
- Current FCC certified frequency is 850 Mhz.
- Power output - +25dBm RMS, 2 Tone.
- Hardened NEMA enclosure with AC or DC power supply
- Low power requirements - 20 watts
- Extreme temperature capability / -40° to +55° Celsius
- Power Amplification Protection
- 2 Year Warranty



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**The RBB 850 can easily address limited cellular reception or dead spots within buildings.**

In many cases there will be cellular reception issues within concrete or steel buildings. Certain offices or parts of the building may have cellular access, while others have limited or non-existent service. Cellular calls may take place but quickly drop the call, produce poor call quality or slow Internet access. These are all symptoms of cellular signal obstruction.

**Cellular signals on certain concrete and/or steel buildings get reflected causing poor cellular reception inside**



**The RBB 850 picks up the cellular signal on the outside of the building and regenerates it on the inside for crystal clear calls and high speed internet access.**





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**The alternative to Satellite, Wi-Fi and Phone lines.** Providing emergency voice services to rural, underground or hard to reach places can be a challenge. A popular choice is satellite which can be effective in certain applications except for the high cost, complex technical equipment and restrictions not inherent in cellular services. With cellular services, the complex technology is hidden, you only require the cellular signal. The RBB 850 regenerates a clear and strong signal.



The use of Wi-Fi has many limitations including distance. Traditional phone lines will not solve the problem since they are fixed and not mobile. The same is true for traditional microwave and ISM solutions. The obvious choice is to extend cellular service and maintain all the features with the RBB 850

## Technical Specifications

## 700/800/850/900 MHz

### Frequency Range:

703-733/758-788 MHz (LTE)  
806-821/851-866 MHz (iDEN 800)  
824-849/869-894 MHz (Cell 850)  
890-915/935-960 MHz (GSM 900)

### Passband Gain:

80 dB

### Noise Level:

< 5dB

### EVM:

< 3%

### Absolute Delay:

< 2  $\mu$ s

### Power Output:

+25 dBm RMS, 2 Tone

### RF Gain Adjustment:

0.5dB increments via software

### RF Connectors:

50  $\Omega$  N Type, Female

### Software/Digital Gain Control:

31 dB adjustment range

### Digital Power Control:

Adjustable max. power output

### Power Supply (AC):

110-230 VAC 50/60Hz 20 Watts

### Power Supply (DC):

24 VDC (optional 12VDC factory set)

### Operating Temperature:

-40°C - +55°C

### Storage Temperature:

-40°C - +70°C

### Unit Size:

12 x 16.5 x 3"  
30.5 x 41.9 x 7.6 cm

### Weight:

25 lbs, 11 kg Typical

### Enclosure Type:

IP67, Aluminum

### Compliance:

EMC

### Warranty:

2 Year

**For more information:**

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