



CSB.01.A.001

Specification

| | |
|---------------------|---|
| Part No. | CSB.01.A.001 |
| Product Name | Cellular Booster 850/1900 MHz 2x SMA(F) Connectors and DC Power Connector |
| Features | <ul style="list-style-type: none"> 15dB Gain Cellular Signal Booster Frequency: 824-894MHz, 1850-1990 MHz 27 dBm Output Power Easy "Plug & Play" Direct Connect Device Automatic Gain & Oscillation Control Passive Bypass Technology SMA Female Connectors 8.0 to 36.0 VDC Input LED Diagnostics FCC & IC Type Accepted Dims: 4.9" L x 2.7" W x 0.92" H RoHS Compliant |



1. Introduction

The CSB.01 cellular booster is a high performance, microprocessor controlled, bi-directional RF booster for the North American 850 MHz cellular and 1900 MHz PCS frequency bands. The booster has an automatic gain and oscillation control system that will automatically adjust the gain and output power if a signal anomaly occurs. This booster is designed to operate as a direct connect “plug and play” unit for maximum performance in weak signal coverage areas.

The CSB.01 is equipped with passive bypass technology. This feature allows the booster to be passively bypassed and become a pass through cable when amplification is not necessary, during loss of power or when a fault is detected. This is useful in applications where the booster is mobile, moving in and out of poor signal areas. The booster will bypass itself when close to cell towers, completely eliminating any potential for network disrupting noise power caused by too much amplification near a cell tower. The technology is also extremely useful in fire and security system installations where a network connection must always be maintained, even with loss of power.

The CSB.01 has a wide input voltage range of 8.0 to 36.0V allowing for a variety of power sources. Integrated LED diagnostics alert the user to events such as initialization, normal operation, increase in gain, decrease in gain, and fault detection.

2. Specification

| ELECTRICAL | |
|-------------------------|---|
| Frequency | 824 MHz -894 MHz, 1850 MHz - 1990 MHz |
| Maximum RF Output Power | 27 dBm |
| Maximum RF Input Power | -20 dBm |
| Nominal RF Gain | 15 dB |
| Current Draw @ 12V | Idle:250 mA, Max: 1A |
| Input Voltage | +8.0 to 36.0V |
| Impedance | 50 Ohms |
| MECHANICAL | |
| Dimensions | 4.9" L x 2.7" W x 0.92" H / 125mm x 68mm x 23.5mm |
| Weight | 226g / 0.5lb |
| Connector | SMA(F) |
| ENVIRONMENTAL | |
| Operating Temperature | -20C to +50C |
| Storage Temperature | -30C to +70C |
| Relative Humidity | 5% to 90% storage |

3. Parts included in the kit

Depending upon the connector type of the cellular device, Taoglas can customize the M2M kit to include the appropriate adapters to ensure a seamless and quick installation. Adapter types include, but are not limited to SMA, RP-SMA, MMCX, MCX, FME, and TNC.

1: CSB.01 Amplifier Unit



2: AC/DC Power Adaptor



3: Hardwire DC Power Cable



4: Magnetic-Mount Outdoor Signal Antenna

MB.TG30.A.305111



5: SMA-to-SMA Device

if connecting to an SMA device



6: Optional-SMA-to-MMCX Device Cable

if connecting to an MMCX device



4. Installation

Disclaimer: Installation of this device requires knowledge of basic electrical and experience with installing electronic devices. We recommend seeking a professional installer if you are not accustomed to installing electronics or high tech devices. Installation of this device is at your own risk. Taoglas assumes no responsibility for the installation or improper operation of this device.

4.1 Required Items

1. AC/DC power adapter, +8V to +36V output voltage, >6 Watts
2. Cellular Antenna
3. Coaxial cable with SMA(M) connector and proper connector required for connecting to cellular device.
4. Your cellular device

4.2 Instructions

1. Connect Antenna to SMA connector labelled "Antenna".
2. Connect coaxial cable to SMA connector labelled "Device".
3. Connect other end of coaxial cable to your cellular device.
4. Power your device and observe the LED indicators.

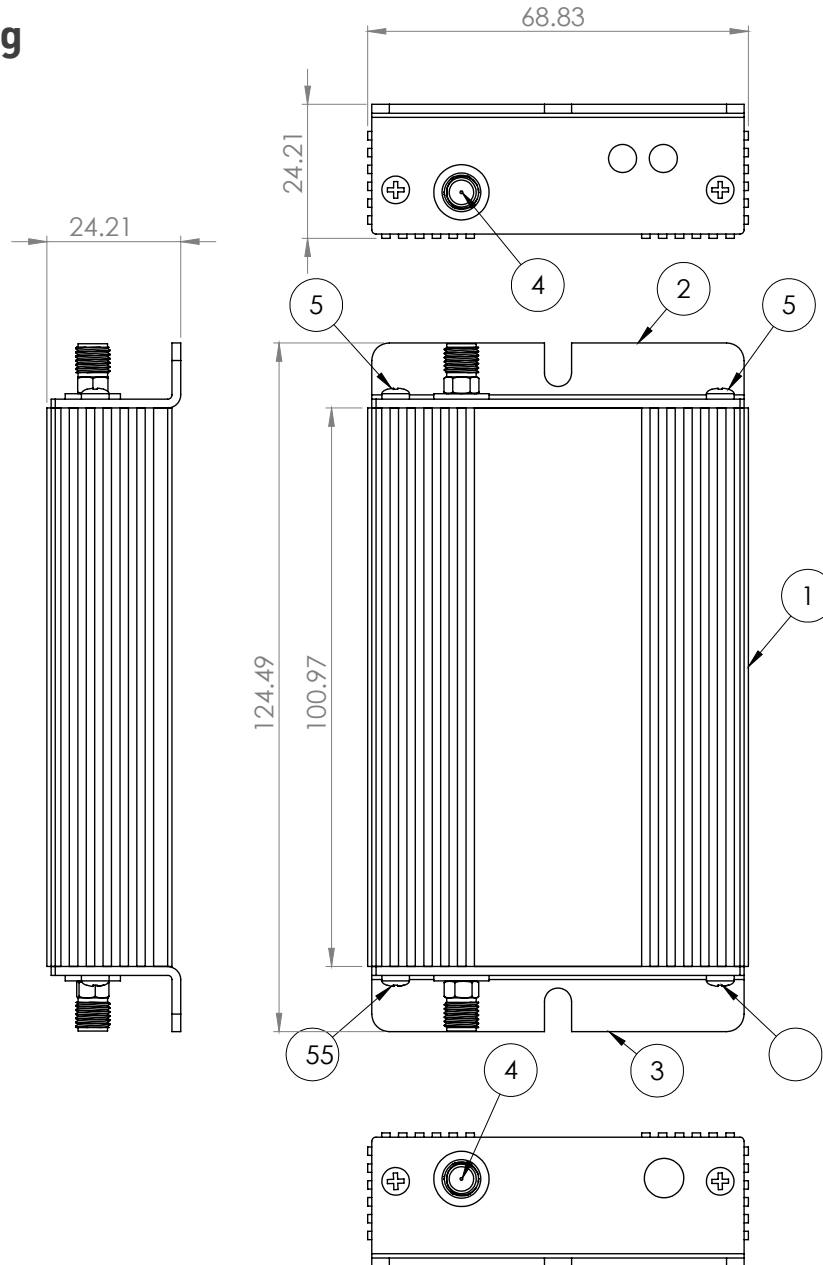
5. LED Diagnostics

Once the booster is properly installed and power is applied, both LEDs will turn on followed by the green LED flashing. The green LED will flash while the booster increases its gain to the optimum level. The red LED may also flash during this stage while the gain is properly set on the booster. When power control is established, the green LED will remain constantly on. You may see the green and red LEDs flash back and forth; this is normal. In areas where the cellular network is adequate, the booster will maintain a maximum power level acceptable for normal operation and prevent overloading the wireless device, as well as keeping RF signal levels at a minimum for a healthy environment. **If the red LED is constantly on and the green LED is off, the booster has detected a fault.** The booster will shut down automatically and restart. If the fault persists, reposition the antenna until normal operation is achieved. Once normal operation is established, you may permanently mount the antennas in the locations you chose in prior steps.

Diagnostic LED Definitions

1. Solid Green and Red - LED test, the unit is initializing
2. Solid Green - Normal Operation
3. Flashing Green - Normal Operation, increasing gain setting
4. Solid Green and Flashing Red - Normal Operation, decreasing gain setting
5. Solid Red and no Green - Fault Detected

6. Drawing



| | Name | Material | Finish | Qty |
|---|--------------|-----------|---------|-----|
| 1 | Housing | ABS | Black | 1 |
| 2 | End Plate 1 | Aluminium | Brushed | 1 |
| 3 | End Plate 2 | Aluminium | Brushed | 1 |
| 4 | SMA (F) Jack | Brass | Gold | 2 |
| 5 | Screw | Steel | Silver | 4 |



FCC ID: XS7-WRE2710

IC ID: 8918A-WRE2710

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. The term "IC:" before the radio certification number only signifies that Industry of Canada technical specifications were met. 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.

La puissance de sortie nominale indiquée par le fabricant pour cet appareil concerne son fonctionnement avec porteuse unique. Pour des appareils avec porteuses multiples, on doit réduire la valeur nominale de 3,5 dB, surtout si le signal de sortie est retransmis et qu'il peut causer du brouillage aux utilisateurs de bandes adjacentes. Une telle réduction doit porter sur la puissance d'entrée ou sur le gain, et ne doit pas se faire au moyen d'un atténuateur raccordé à la sortie du dispositif. FCC Regulatory Guidance: The Taoglas CSB.01.A.001 operates under the rules and regulations as provided by the Federal Communications Commission (FCC). For more information on these rules and regulations, please contact the FCC directly at (888)-225-5322.

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