



SolidRF

SOLID WIRELESS CONNECTION

What bands and wireless providers are served with this booster?

Frequency Bands: Cellular 850 (Band5)/PCS-1900(Band2)

Frequency (MHz)		Cellular	PCS
	Uplink	824-849	1850-1910
Downlink	869-894	1930-1990	

SolidRF SR42152001 Delivers up to 10 dB of gain and supports CDMA, GSM, EVDO, LTE, HSPA+ and WCDMA technologies.

How does it work?

The signal from the cell tower is received by the outside antenna, then amplified by the booster and transmitted directly to the cellular modem (in the ATM, Vending machine or other cellular modem applications).

Why use a Booster ?

Sometime, mobile devices cannot connect to the cell tower; experiences failure data connection, it is generally due to one of two reasons:

1. Location of the nearest cell tower – cell towers are situated to provide broad coverage; however, there are many areas in which signal strength may be reduced by topographic features or by local government restrictions on the height or placement of the towers themselves. Rural areas generally have fewer cell towers than urban regions.
2. Natural and man-made obstructions – signal strength can also be negatively affected by trees, hills, buildings, weather, and other obstructions. It may be relatively close to

a cell tower but still experience failure data connection. This often occurs in buildings in which stucco, concrete or metal walls may block the signal.

Easily solve these problems by installing a SolidRF booster.

Overview of installation

1. Select installation location away from direct sunlight, heat, water and proper ventilation.
2. Run the Outside Antenna cable to the Signal Booster and attach it to the connector labeled "Outside" on the Signal Booster. Connect cellular modem and the "inside" connector of the signal booster by using "Inside Antenna".
3. Before powering up the Signal Booster, verify that both the Outside and the Inside connectors are connected properly and check that all connections are tight. *Note: Be careful when plugging the connectors in so as not to bend the center pins on the connectors.*
4. The Signal Booster has been packaged with the gain control knobs adjusted to the highest gain position.

Booster function

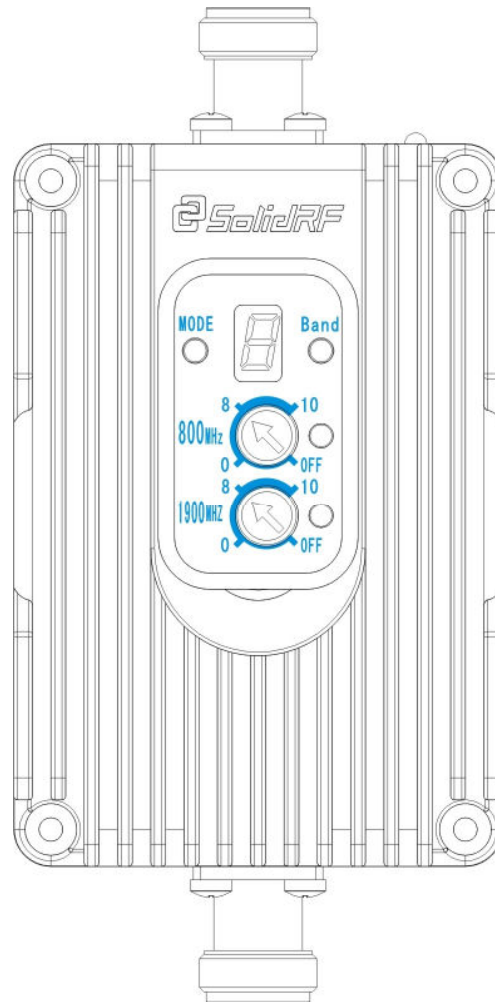


Figure 1

OUTSIDE : Outside port is connected to outdoor cable, outdoor antenna, lightning arrester.

INSIDE: Inside port is connected to the indoor cable.

LED display: it shows the signal strength (see table 1) of selected band.

LED show	Output power
0	$\leq -90\text{dBm}$

1	$\geq -85\text{dBm}$
2	$\geq -80\text{dBm}$
3	$\geq -75\text{dBm}$
4	$\geq -70\text{dBm}$
5	$\geq -65\text{dBm}$
6	$\geq -60\text{dBm}$
7/8	$\geq -55\text{dBm}$
E	Over heat / the antennas are NOT installed properly.
F	Self-Protection

Table 1

MODE button: press it to choose LED display modes:

1. Turn off all display (except power light).
2. Display circularly the output signal strength of 800MHz, 1900MHz.
3. Display the output signal strength on the band selected by PRESS Band button.

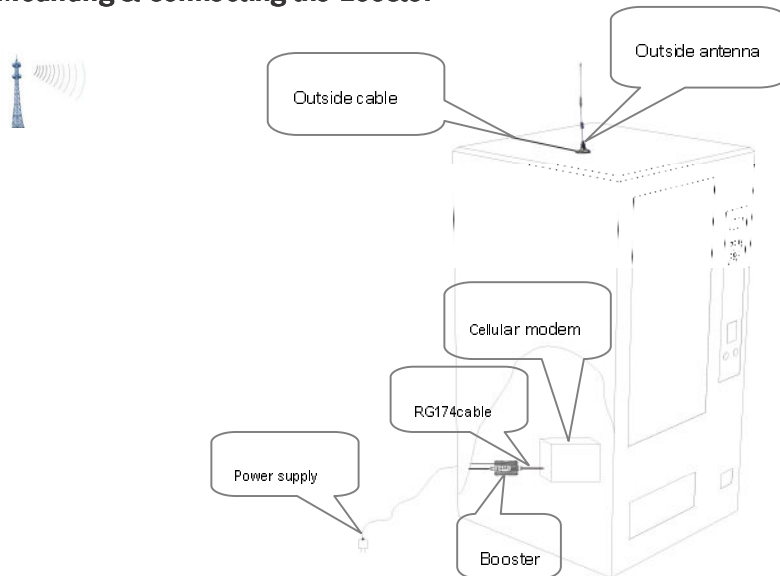
Band button: when LED display mode has been set as MODE 3, press it to choose a band and display its output signal strength on LED.

Blue knobs: Adjust the booster's gain from minimum 0dB to maximum 15dB, Adjustment to the OFF position close the band uplink and downlink link, LED display red.

Band lights: it shows the status of indicated band. Flicker means the booster fail on the band.

Power light: It indicated whether the power is on.

Mounting & Connecting the Booster



- 1、 Connection outside antenna: Attach the magnetic mount antenna to any metallic surface. The best location will be clear of obstacles. Make sure the area under the magnet is clean. Connect the magnetic antenna cable to the “OUTSIDE” connector of the booster and tighten it.
- 2、 Connect the cellular Modem (inside ATM, vending machine or other cellular modem applications): Connect one end of the RG174 cable to the booster marked “INSIDE” and the other end to the cellular modem and tighten both connections.
- 3、 Connect the Power Cord: In order to prevent damage of booster, please make sure the 1, 2, is connected properly. Once switch it on, LED indicates if the booster is working.
- 4、 Adjust the blue knobs to have best performance.

Warnings and Recommendations

- ⚠ Warning: This is a consumer booster only.
- ⚠ Warning: The antenna must not be co-located or operating in conjunction with any other antenna or booster.
- ⚠ Warning: Unauthorized antennas, cables, and/or coupling devices are prohibited by FCC regulations. Please contact FCC for details: 1-888-CALL-FCC.
- ⚠ Warning: RF safety, any antenna used with this device must be located at 20 cm (8 inches) away from persons or by bystanders.
- ⚠ Warning: Use the power supply provided by SolidRF only. Other power supplies may cause damage of the booster.

Antenna Kitting Information

Component	Prod No. Description	Gain/Loss		Notes
		800MHz	1900MHz	
Outside Antenna	SR-01000200	3dBi	3.5dBi	Sucker antenna
Outdoor Cable	SRG174-10N 10Feet	4.2dB	8.6dB	
Outside Antenna	SR-31400100	7dBi	10dBi	Directional antenna
Outdoor Cable	SRG58-30FN 30Feet	4.9dB	7.6dB	

Default antenna and cable shipped with the booster

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		800MHz	1900MHz	

Outside Antenna	SR-01000200	3dBi	3.5dBi	Sucker antenna
Outdoor Cable	SRG174-10N 10Feet	4.2dB	8.6dB	

Description of network protection features:

The SolidRF SR42152001 including safeguards to protect the cellular network from interference. Each Signal Booster is individually tested and factory set to ensure FCC compliance.

1. The Signal Booster cannot be adjusted without factory reprogramming or disabling the hardware.
2. The Signal Booster will amplify, but **ONLY** incoming and outgoing signals in order to increase coverage of authorized frequency bands.
3. If the Signal Booster is not in use for five minutes, it will reduce gain until a signal is detected.
4. If a detected signal is too high in a frequency band, or if the Signal Booster detects an oscillation, the Signal Booster will automatically turn the power off on that band.
5. For a detected oscillation the Signal Booster will automatically resume normal operation after a minimum of 1 minute. After 5 times consecutive such automatic restarts, if the detected oscillation still remains, any problematic bands are permanently shut off until the Signal Booster has been manually restarted by reconnecting power supply to the Signal Booster.
6. Noise power, gain, and linearity are maintained by the Signal Booster's microprocessor.

This is a CONSUMER device

BEFORE USE, you **MUST REGISTER THIS DEVICE** with your wireless provider and have your provider's consent. Most wireless provider consent to the use of signal boosters. Some provider may not consent to the use of this device on their network. If you are unsure, contact your provider.

You **MUST** operate this device with approved antenna and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20cm (8inches) from any person.

You **MUST** cease operating this device immediately if requested by the FCC or a licensed wireless service provider.

WARNING. E911 location information may not be provided or may be inaccurate for calls served by using this device.

This device complies with Part 15 of 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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or

television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Contact information for providers

A subscriber must have the consent of a wireless provider to operate a consumer signal booster. Please register your booster with your wireless service provider, refer to contact information for providers:

Sprint:

signalbooster@sprint.com

T-Mobile:

www.T-Mobile.com/BoosterRegistration

<https://support.t-mobile.com/docs/DOC-9827>

Verizon:

<http://www.verizonwireless.com/wcms/consumer/register-signal-booster.html>

AT&T:

<https://securec45.securewebsession.com/attsignalbooster.com/>

U.S. Cellular:

<http://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp>

Metro PCS

<https://www.metroPCS.com/support/signal-booster>