

AlarmNet GSM-ANT3dB Remote Weatherproof Antenna Installation Guide

General

7845GSM and 7845i-GSM Communication Modules both come equipped with internal dual band cellular antennas. In most cases, this antenna will provide a sufficient received signal strength indication (RSSI) for a successful installation.

The Honeywell GSM-ANT3dB Remote Weatherproof Antenna should be used in installations where the antenna must be mounted outdoors at some distance from the radio and gain is needed.

Signal Strength

For reliable service, 7845GSM and 7845i-GSM should only be installed in locations where the RSSI is a minimum of three bars. RSSI is a measure of how well the 7845GSM is receiving the cell tower.

The RSSI value measured in dBm can be viewed using the 7720P Programming Tool, by using the *shift <E>* command.



dBm is displayed as a negative value on the 7720P. A less negative number is a better RSSI (for example, -60 dBm is a better RSSI than -100 dBm).

Installation Guidelines

By following a few simple guidelines, you can maximize the performance of the 7845GSM / 7845i-GSM and simplify your installation using the internal antenna.

- Find the best coverage before mounting and wiring into the radio by moving 7845GSM to several locations while monitoring the RSSI.
- The best RSSI can usually be found at the highest point in the building on an exterior wall. Avoid the basement.
- Do not mount the 7845GSM or 7845i-GSM on or near large metal objects such as steel I-beams, HVAC ducts, etc.

If a consistent RSSI of three bars cannot be found with the internal antenna, an external antenna should be used.

External Antenna

The GSM-ANT3dB is an exterior weatherproof antenna that can be mounted up to 50 feet away from the radio when the proper coax cable is used. Refer to Table 1 for coax cable selection. Install the GSM-ANT3dB as follows:

1. Measure and record the 7845GSM RSSI using the internal antenna for reference.
2. Disconnect all power from the unit including the battery.
3. Remove plastic plug from the SMA mounting hole on top of the 7845GSM and insert the SMA end of the adapter cable. Secure the SMA connector with the included nut.
4. Plug the MMCX end of the adapter cable into the external antenna port and route cable as shown.
5. Attach the antenna to the mounting bracket as shown in Figure 1.
6. Find a suitable location so that the antenna will be mounted vertically. The best antenna location is usually at the highest point in the building.
 - Avoid the basement.
 - Avoid mounting on or near large metal objects.
7. Route the coax cable and make all required connections.
8. Restore power to the unit, measure the RSSI and compare the new value to the value recorded in Step 1.
9. Adjust the location of the antenna if needed to maximize the RSSI, for at least three bars.
10. Permanently mount the antenna vertically using the hardware as shown. The included silicon rubber tape is used to waterproof the antenna connection.

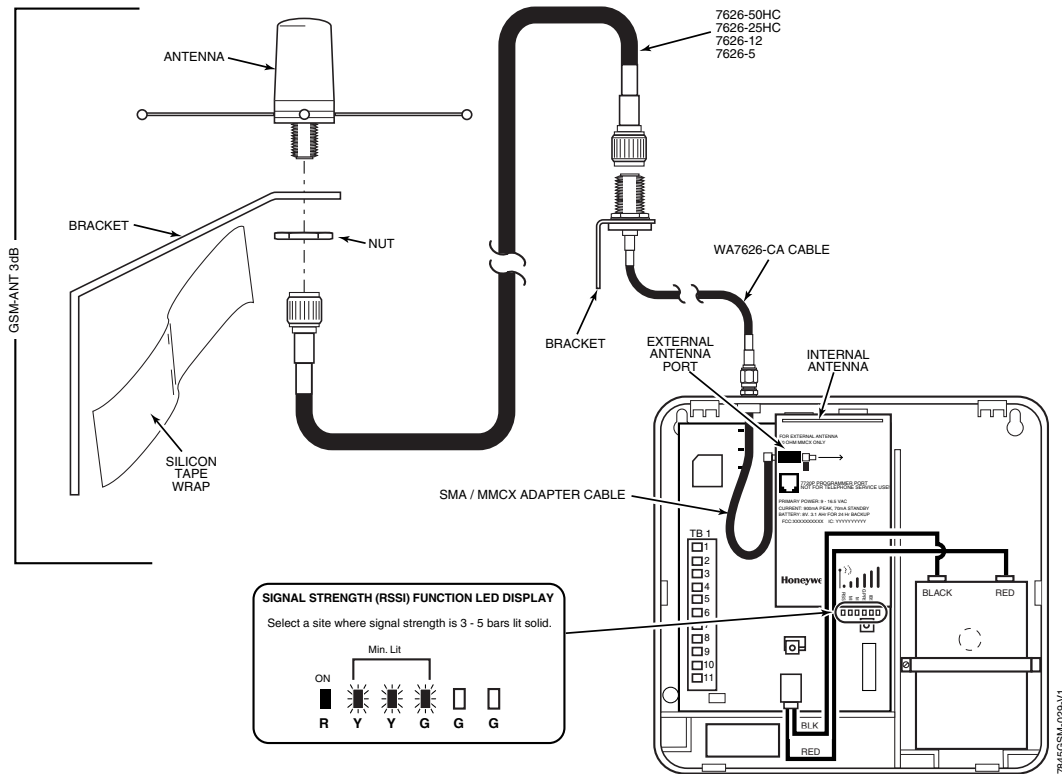


Figure 1 – GSM-ANT3dB Remote, Weatherproof Antenna Installation

Kit Part No.	Includes:
GSM3dB50KT	7626-50HC, 50 ft., RG8 cable
GSM3dB25KT	7626-25HC, 25 ft., RG8 cable
GSM3dB12KT	7626-12, 12 ft., RG142 cable
GSM3dB5KT	7626-5, 5 ft., RG142 cable

Table 1: GSM-ANT3dB Antenna Kits

SPECIFICATIONS:

Type:	Dual band, field diverse	Input Power (Max.)	100W
Bands:	824-896 MHz 1850-1990 MHz	VSWR:	<2:1
Polarization:	Vertical and horizontal	Dimensions:	3.15" x 1.44"
Gain (Average):	3dBi	Random Material:	ABS, black
Impedance:	50 Ohms	Connector Type:	Type N female

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K14441V2 1/07 Rev. A