

## What antenna options are available with Alarm.com modules?

Alarm.com offers MMCX antenna solutions in various cable lengths. For all antenna solutions, the cable connects the antenna to the module but just the very tip of the antenna captures the signal.

Alarm.com also offers Signal Booster Kits designed to help increase signaling in areas where there is very low signaling. It is designed by ClearRF and is normally recommended as a last resort for signaling troubleshooting. For more information, see [What signal boosters are compatible with Alarm.com?](#)

**Note:** The Qolsys IQ/DSC Touch and Qolsys IQ Panel 2 use a built-in antenna so it is not possible to disconnect the antenna on those panels. The connection between the panel and the built-in antenna is not an MMCX connection, which our extended antennas and booster kit use.

### MMCX antennas

There are different MMCX antennas for 3G modules versus LTE modules.

- The 3G MMCX antennas are the same as the antenna packaged with Alarm.com 3G modules, the only difference being the length. Alarm.com offers these antennas in 5 inches (12.7 cm), 6 feet (1.8 m), or 18 feet (5.5 m).
- The LTE MMCX antennas are the same as the ones packaged with LTE Alarm.com modules and come in 8 inches (20.3 cm), 6 feet (1.8 m), or 18 feet (5.5 m).

The following image displays a visual comparison of MMCX versus Coax (SMA) connectors.



### Important considerations

- All MMCX antennas that Alarm.com offers are rated for indoor use only and cannot be used to mount outdoors.
- All MMCX antennas should not be extended by splicing or connecting additional coaxial cables. Extending the



antennas in this matter would not result in a net gain in signal strength.

- None of the antennas are directional. They all radiate the same way in all directions that are perpendicular to the axis of the antenna tip. They should be held vertically.

## MMCX and SMA antenna specifications

Alarm.com antennas generally have the following specifications:

<b>Gain</b>	~ 3db
<b>Bands</b>	Quad bands (800/900/1800/1900 MHz)
<b>Impedance</b>	50 ohm
<b>Polarization</b>	Linear
<b>Connector</b>	<p>MMCX (Rev4) or SMA (Rev3)</p> <p><b>Notes:</b></p> <p>SMA connections are on older 2G modules. They can be identified by a large screw on connection. They are not compatible with 3G modules.</p> <p>MMCX are the standard connections for new 2G, 3G, and 4G modules. They can be identified by a smaller snap-on connection. They are not compatible with older 2G modules.</p>

