

Recommended Use of MIMO Antennas

TECHNICAL BULLETIN

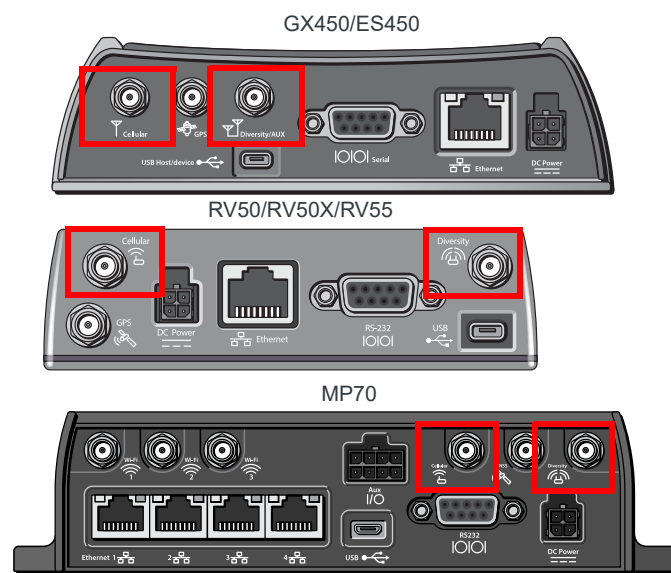
This bulletin highlights the requirement to use both LTE MIMO antenna connections with Sierra Wireless AirLink® routers and gateways when connecting to an LTE network.

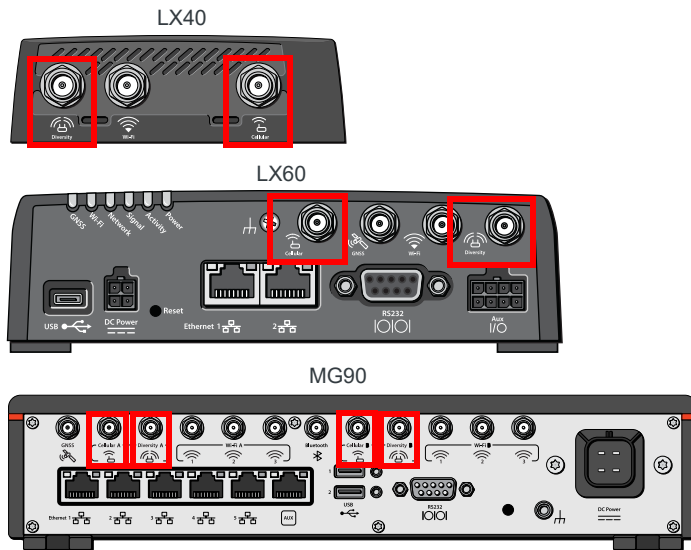
Description

LTE networks continuously evolve, and with recent upgrades to LTE networks, Sierra Wireless requires the use of both LTE MIMO antennas with all of our LTE products (Cat 3 or above) for optimal performance and reliable connectivity. Both LTE MIMO antenna elements can be housed within the same physical antenna, often referred to as a '2-in-1' antenna. This applies to the following products:

- GX450/ES450
- RV50/RV50X
- RV55
- MP70/MP70E
- LX60/LX40
- MG90

Products that support LTE MIMO technology (Cat 3 and above) must use both LTE MIMO antennas (Main and Diversity antennas as shown below) to avoid dropped calls, reduced data rates and unreliable connections.





Note: The only exceptions to the Main/Diversity two-antenna guideline are AirLink “CatM1 / Cat NB-IoT” product variants. These products have only one cellular antenna SMA connector, and therefore only use one LTE antenna.

Please also be aware that even though your systems may appear to be working initially, any LTE gateways or routers deployed with only one LTE antenna may stop operating correctly at any time if your service provider makes changes to their network.

Further Information

For further information and technical support, please contact your authorized AirLink® reseller or Sierra Wireless representative.

More information on AirLink® antennas is available here:

www.sierrawireless.com/products-and-solutions/routers-gateways/airlink-antennas/

For information on antenna selection and configuration for AirLink XR Series Routers, see the [AirLink XR Series Router Antenna FAQ](#).

Document History

Revision number	Release date	Changes
1	October 2021	First release
2	January 2022	Added RV50X/MC7455
3	June 2022	Added RV55, LX series, doc number (at revision 1) and new template

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