

# LTE Cat 1 Antenna Guide

## Information

Article Number 000007173

Problem Resolution

A wide variety of antennas are available for LTE. These include embedded antennas that go inside a device's enclosure, "rubber duck" external antennas, vehicle mounted versions, MIMO antennas that combine multiple elements in one package and many others. For Digi products that do not define a particular antenna, such as Digi XBee Cellular, users may choose the solution that best meets their needs.

Many LTE antennas come with SMA or N type connectors. These will require adapter cables to the U.FL connectors most common on embedded modems. For best antenna performance, total cable length should be kept as short as possible, with the antenna itself located apart from metal objects that can cause interference.

While Digi does not have a specific approved antenna or listing of approved antennas, the sources listed below can provide a good starting point for your application. Digi does not endorse any supplier over another; this is a partial listing.

## Antennas

- 2J Antennas  
<http://www.2j-antennae.com/search?frequency%5B%5D=39&useft=true>
- Taoglas  
<http://www.taoglas.com/product-category/lte-antennas/external-lte/>  
<http://www.taoglas.com/product-category/lte-antennas/internal-lte/>
- MobileMark  
<http://www.mobilemark.com/product-category/antennas-by-application/cellular-4g-lte-m2m/>
- Pulse Electronics  
[http://www.pulseelectronics.com/products/antennas/lte\\_antenna\\_solutions](http://www.pulseelectronics.com/products/antennas/lte_antenna_solutions)
- Nearson  
[http://www.nearson.com/Antenna\\_Search\\_Engine.asp?FreqBand=LTE](http://www.nearson.com/Antenna_Search_Engine.asp?FreqBand=LTE)
- Laird  
<https://www.lairdtech.com/products/category/all?keywords=LTE>

## Antenna cables and adapters

U.FL to U.FL extension cables

- Digi-Key  
<http://www.digikey.com/products/en/cable-assemblies/coaxial-cables-rf/456k=&pkeyword=&pv29=32&pv91=781&FV=ffe001c8&mnonly=0&newproducts=0&ColumnSort=0&page=1&quantity=0&ptm=0&fid=0&pageSize=25>

U.FL to SMA

- Digi-Key  
<http://www.digikey.com/products/en/cable-assemblies/coaxial-cables-rf/456?k=&pkeyword=&pv91=597&FV=ffe001c8&mnonly=0&newproducts=0&ColumnSort=0&page=1&quantity=0&ptm=0&fid=0&pageSize=25>