



Satellite IoT D2D Ready

TN & NTN Dual-Mode Antenna - Satellite IoT Direct to Device Ready

Remote Mount Antenna Covering 4G/Satellite Band 25

The L001257-01 direct to device (D2D) antenna is a tough low-profile antenna for outdoor or indoor applications. This antenna provides frequency agility, low visibility, and improved gain in many applications.

The L001257-01 antenna is available in various industry standard mounting configurations including a threaded permanent stud mount model for vandal resistant mounting on brackets, panels, ceilings, or any other kind of housing.

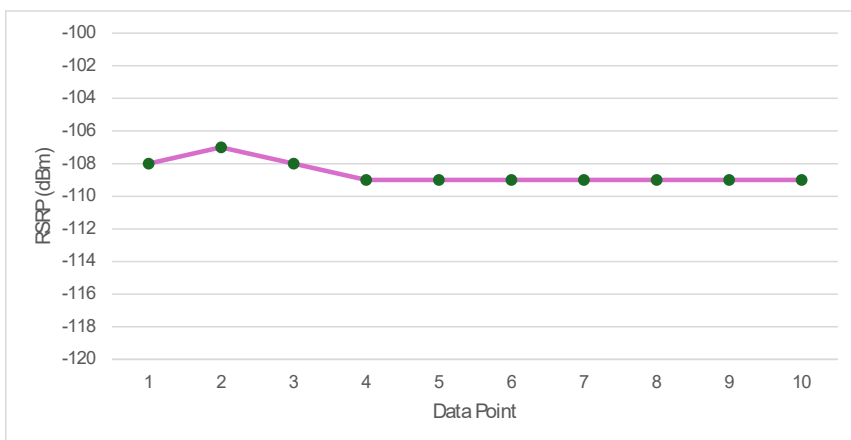
SATELLITE IOT D2D COMMUNICATIONS

Low Earth Orbit (LEO) satellites, positioned a few hundred km's above Earth, orbit rapidly and are ideal for IoT networks. A LEO satellite constellation can now support low data rate communications through specific LTE frequencies.

- Dual-mode capable - Supporting Terrestrial Networks (TN) and Non-Terrestrial Networks (NTN) from a single antenna
 - 698-2700 MHz terrestrial cellular coverage
 - Band 25 (1900 MHz) cellular satellite coverage
 - Testing available for other/future cellular satellite D2D frequency bands used by various network providers
- Enabling dual-mode communications via IoT devices
 - Prioritizing terrestrial networks but capable of automatically switching to satellite when the signal is weak or unavailable

REFERENCE SIGNAL RECEIVED POWER (RSRP) VALUES

The L001257-01 antenna was live-tested for receive signal strength. Data encompasses multiple satellite pass-overs, showing signal strength variation; exceeding the -120 dBm minimum for IoT devices.



An RSRP value of -120 dBm is generally the recognized minimum requirement suitable for the data rates of SMS, CAT-1, CAT-1 Bis connectivity.

RSRP can be susceptible to fluctuations for a variety of reasons. These can include: satellite elevation angle; antenna radiation patterns; solar flares; atmospheric conditions, and more.

FEATURES AND BENEFITS

- Multi-band operation: 698-960 MHz/1690-2700 MHz
 - Meets IP67 protection rating for dust tight seal and temporary water immersion
- Permanent mount with coaxial pigtail is ideal for radios within a metal enclosure
 - Conformance to RoHS

ELECTRICAL SPECIFICATIONS								
Operating Frequency (MHz)	698-824	824-894	880-960	1690-1880	1850-1990	1920-2170	2300-2500	2500-2700
Peak Gain – Avg (dBi)	1.0	1.2	1.0	2.8	3.1	3.3	3.3	3.4
Peak Gain – Max (dBi)	1.5	1.2	1.2	3.3	3.4	3.6	3.5	3.8
VSWR – Avg	<1.8	<1.8	<2.1	<1.4	<1.6	<1.5	<1.3	<1.6
VSWR – Max	<2.6:1				<2.0:1			
Nominal Impedance (Ohms)	50							
Max Power - Ambient 25°C (W)	10							
Polarization	Vertical							
Azimuth 3 dB Beamwidth	360° (Omnidirectional)							

MECHANICAL SPECIFICATIONS	
Dimensions – height x diameter – mm (inches)	80.0 x 37.0 (3.2 x 1.5)
Weight – kg (lbs.)	0.10 (0.22)
Radome	PC, Lexan EXL9330, UV Resistant, UL94 V-0
Antenna Color	Black
Installation Torque (Nm)	4-

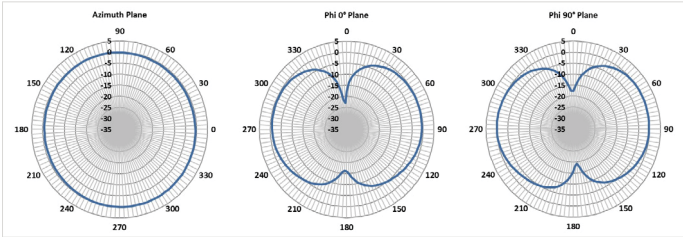
ENVIRONMENTAL SPECIFICATIONS	
Operating Environment (Indoor or Outdoor)	Indoor and Outdoor
Operating Temperature – °C (°F)	-30 to +70 (-22 to +158)
Storage Temperature – °C (°F)	-40 to +85 (-40 to +185)
Ingress Protection Rating	IP67
Material Substance Compliance	RoHS

CONFIGURATION

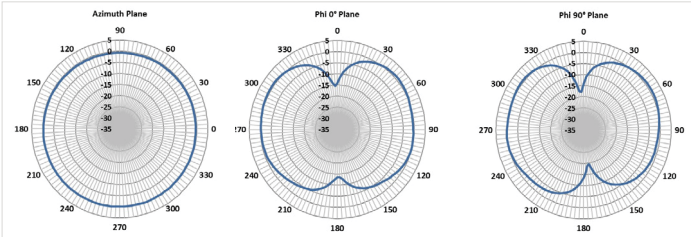
PART NUMBER	CABLE TYPE	CABLE LENGTH	CONNECTOR	COLOR
L001257-01	Ultralink 092463	60.8 cm (24 in.)	SMA Male	Black

RADIATION PATTERNS

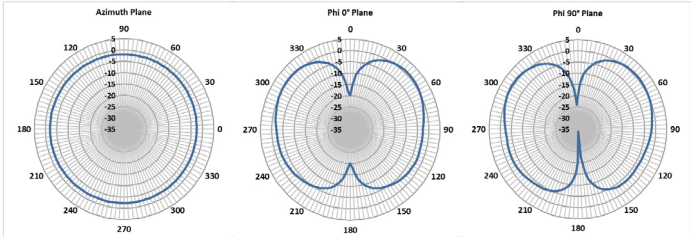
698 MHz



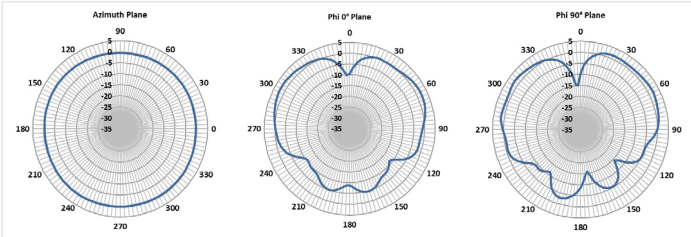
824 MHz



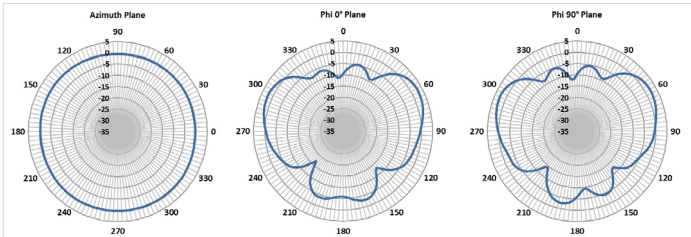
960 MHz



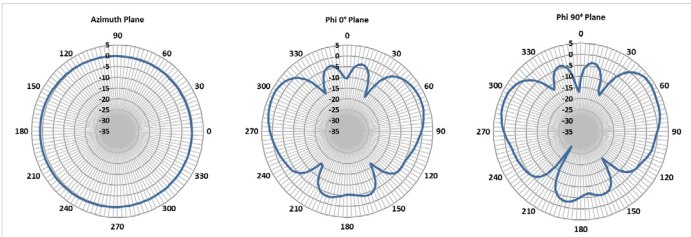
1690 MHz



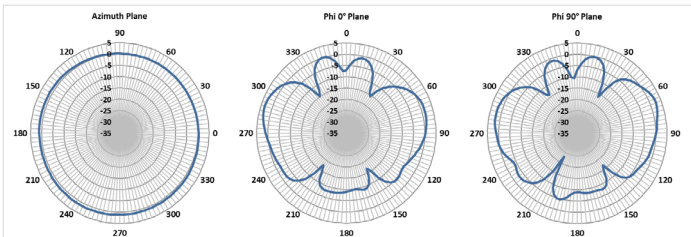
1950 MHz



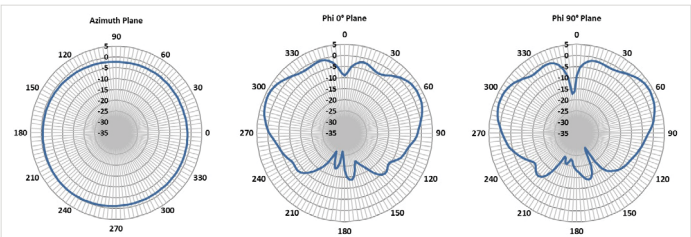
2170 MHz



2412 MHz

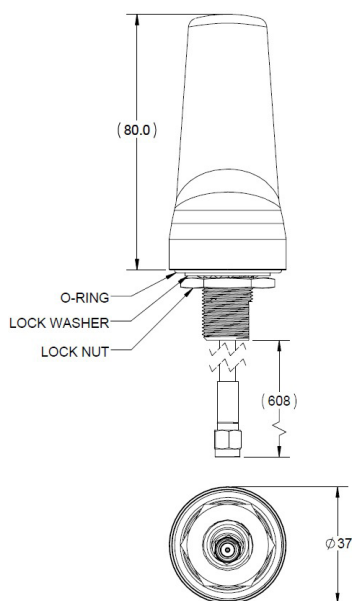


2700 MHz

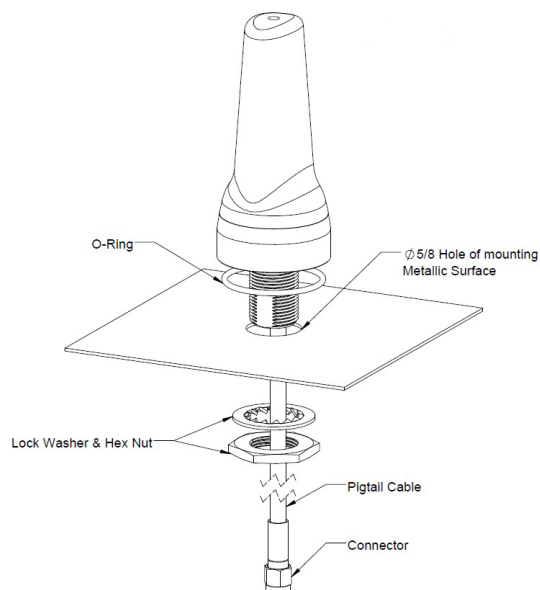


PACKAGED DIMENSIONS	CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	50	900	1,200
Height - cm (in.)	30.1 (11.85)	104.0 (41.0)	135.0 (53.15)
Length - cm (in.)	26.6 (10.47)	120.0 (47.24)	120.0 (47.24)
Width - cm (in.)	52.6 (20.71)	80.0 (31.5)	80.0 (31.5)
Shipping Weight - kg (lb.)	7.325 (16.15)	141.85 (312.73)	185.8 (409.62)

PACKAGING INFORMATION



MOUNTING OPTIONS



TE TECHNICAL SUPPORT CENTER

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
Mexico:	+52 (0) 55-1106-0800
Latin/S. America:	+54 (0) 11-4733-2200
Germany:	+49 (0) 6251-133-1999
UK:	+44 (0) 800-267666
France:	+33 (0) 1-3420-8686
Netherlands:	+31 (0) 73-6246-999
China:	+86 (0) 400-820-6015

te.com

TE, TE Connectivity, TE connectivity (logo), and EVERY CONNECTION COUNTS are trademarks owned or licensed by the TE Connectivity plc family of companies. Other product names, logos, and company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information in this document, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, complete, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES REGARDING THE INFORMATION CONTAINED HEREIN, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. In no event will TE be liable for any direct, indirect, incidental, special or consequential damages arising from or related to recipient's use of the information. It is the sole responsibility of recipient of this information to verify the results of this information using their engineering and product environment. Recipient assumes any and all risks associated with the use of the information. Antenna performance may vary. TE is a component manufacturer, and customer and/or end-user is responsible for all end-use compliance and regulatory requirements.

©2025 TE Connectivity. All Rights Reserved.

05/25 Original

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[TE Connectivity:](#)

[L001257-01](#)