



**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.

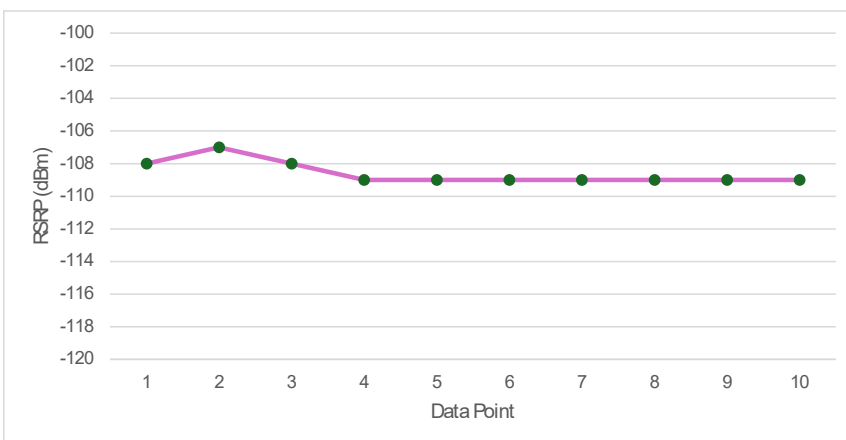
### SATELLITE IOT D2D COMMUNICATIONS

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

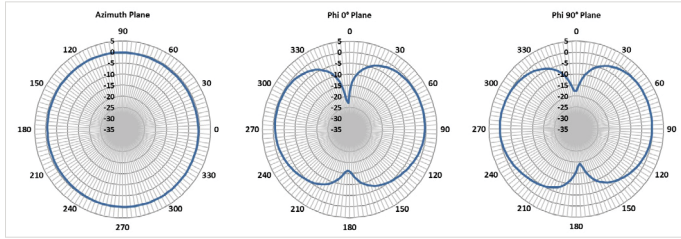
Operating Environment (Indoor or Outdoor)	Indoor and Outdoor
Operating Temperature - °C (°F)	-30 to +70 (-22 to +158)
Storage Temperature - °C (°F)	-40 to +85 (-40 to +185)
Ingress Protection Rating	IP67
Material Substance Compliance	RoHS

## CONFIGURATION

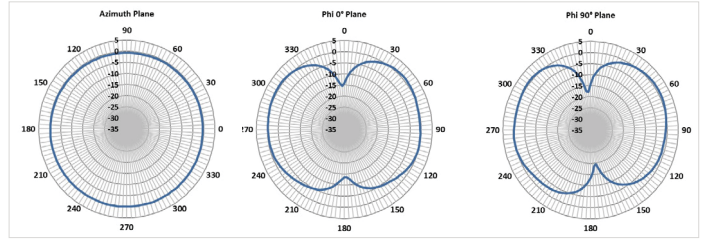
PART NUMBER	CABLE TYPE	CABLE LENGTH	CONNECTOR	COLOR
L001257-01	Ultralink 092463	60.8 cm (24 in.)	SMA Male	Black

# RADIATION PATTERNS

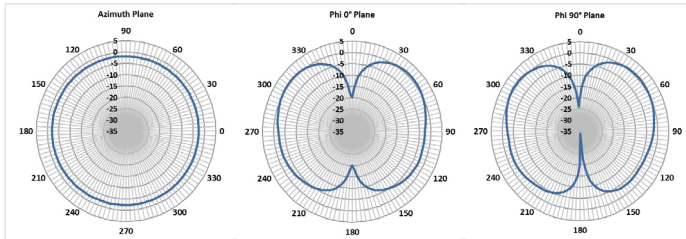
## 698 MHz



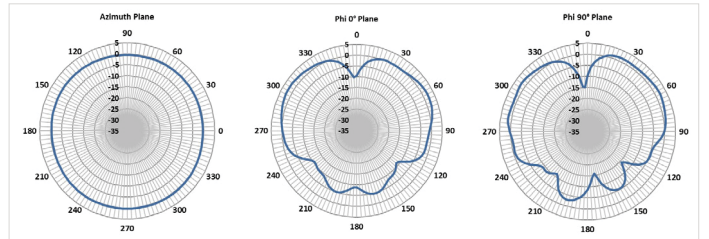
## 824 MHz



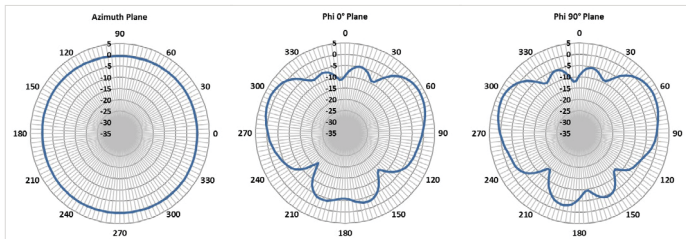
## 960 MHz



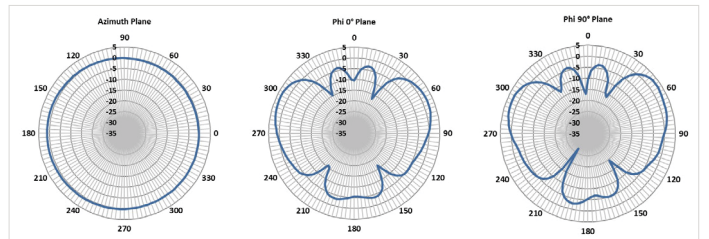
## 1690 MHz



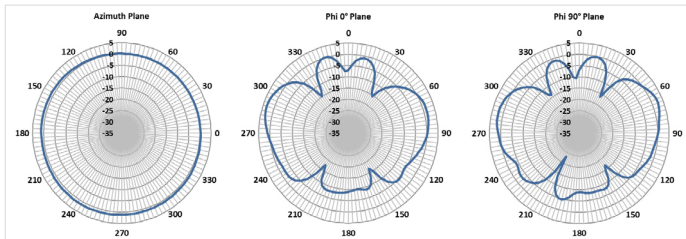
## 1950 MHz



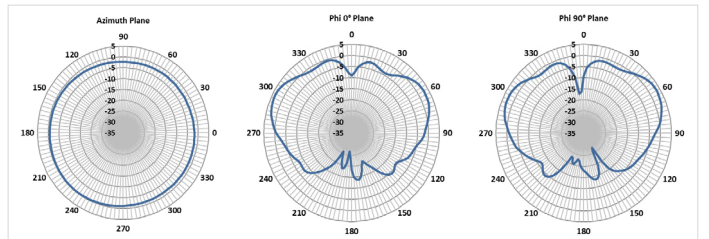
## 2170 MHz



## 2412 MHz

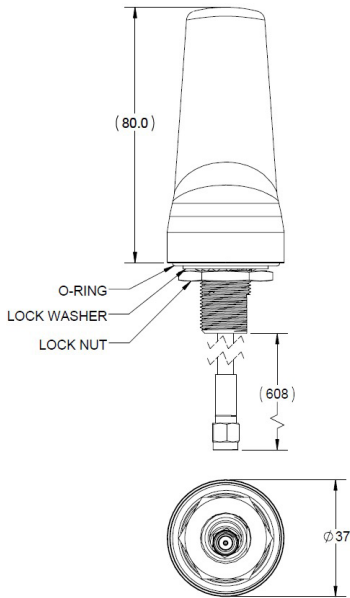


## 2700 MHz

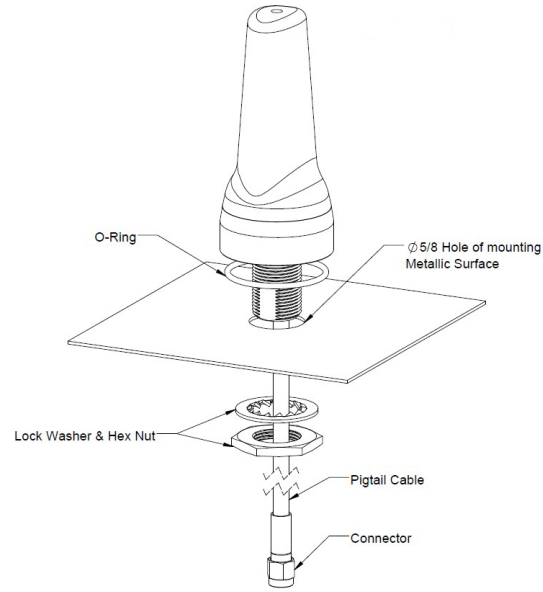


PACKAGED DIMENSIONS	CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	50	900	1,200
Height - cm (in.)	30.1 (11.85)	104.0 (41.0)	135.0 (53.15)
Length - cm (in.)	26.6 (10.47)	120.0 (47.24)	120.0 (47.24)
Width - cm (in.)	52.6 (20.71)	80.0 (31.5)	80.0 (31.5)
Shipping Weight - kg (lb.)	7.325 (16.15)	141.85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

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