

**Description:** DAS, Ultra Thin, Low Clearance Antenna

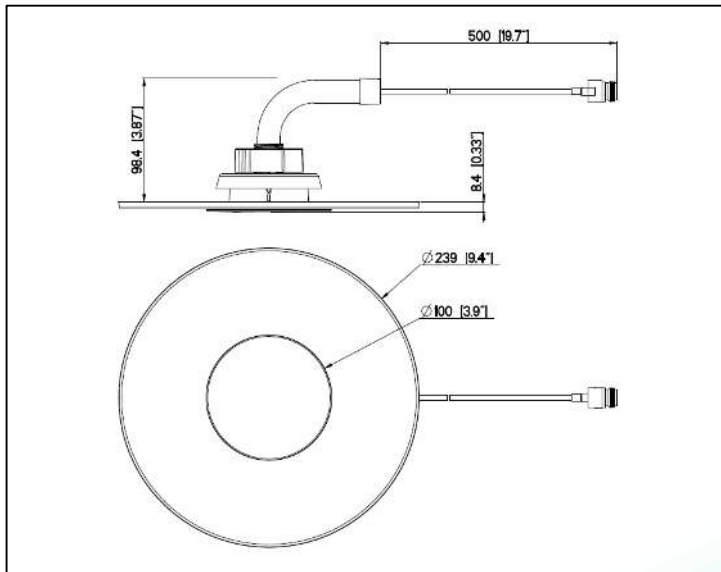
**Series:** Clarity

**PART NUMBER:** DASUTLC500NF



**Features:**

- 608-2700MHz
- Low PIM <-155dBc@2x20W
- L-bent stem to allow mounting on reduced height ceiling clearance
- Mounting height min 98.4mm



**Applications:**

- In building DAS systems
- Translucent radiator technology, ideal for areas with high visibility
- Ultra thin, only 4.3mm exposed under ceiling tile

All dimensions are in mm / inches

Issue: 1723

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**Description:** DAS, Ultra Thin, Low Clearance Antenna**Series:** Clarity**PART NUMBER:** DASUTLC500NF**This document covers all product variants of the following product family:**

Pulse Part Number	Connector Type
DASUTLC500NF	N Female
DASUTLC500MD	4.1-9.5 Mini-DIN Female
DASUTLC5004310	4.3-10 DIN Female

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**ELECTRICAL SPECIFICATIONS**

Frequency	608-960/1695-2200/2300-2700MHz
Nominal Impedance	50Ω
VSWR (608-960MHz)	2: 1
VSWR (1695-2700MHz)	2: 1
Average Peak Gain (608-960MHz)	4dBi
Average Peak Gain (1695-2200MHz)	6dBi
Average Peak Gain (2300-2700MHz)	6dBi
Efficiency (608-960MHz)	70%
Efficiency (1695-2200MHz)	65%
Efficiency (2300-2700MHz)	60%
Horizontal plane(th=45deg)	Omni
HPBW Vertical plane (608-960MHz)	80° Typ
HPBW Vertical plane (1695-2200MHz)	60° Typ
HPBW Vertical plane (2300-2700MHz)	60° Typ
Maximum power input	40W
PIM at 2x20W	<-155dBc

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## ELECTRICAL SPECIFICATIONS

Connector type	N-female, 4.1-9.5 Mini-DIN female or 4.3-10 DIN female
Cable type	Dia. 0.16" low loss, Low PIM, Plenum Rated
Cable length [Inches/mm]	19.7"/500mm

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Plastic radome	UV Protected, UL94 V-0
Color	Translucent (clear)
Weight	900 g
Mounting	Ceiling
Mounting Hole [Inches / mm]	2 1/2"-2 3/4" / 64-70 mm

**ENVIRONMENTAL SPECIFICATIONS**

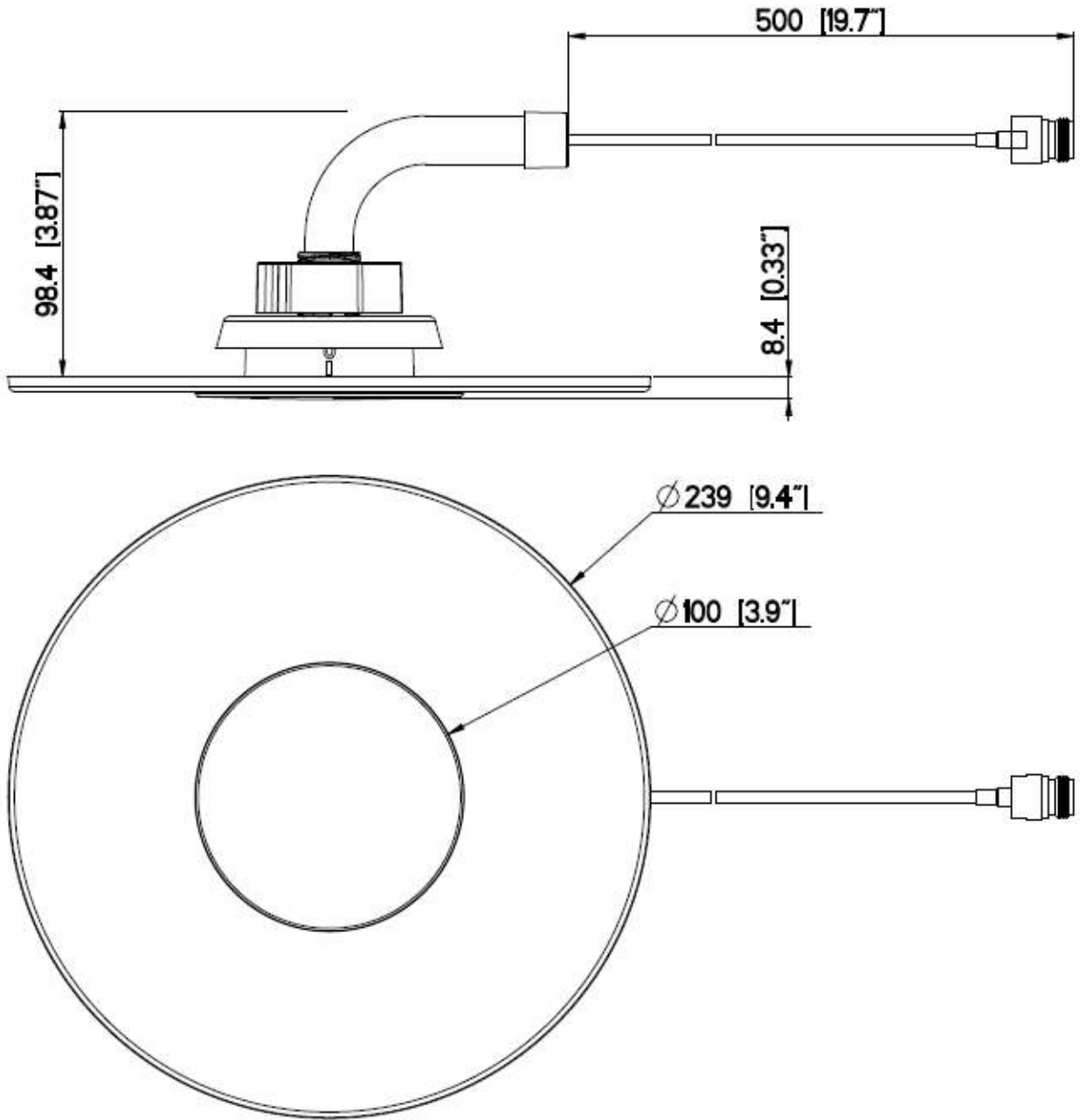
Operating temperature	-40~+85° C
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**MECHANICAL DRAWING**



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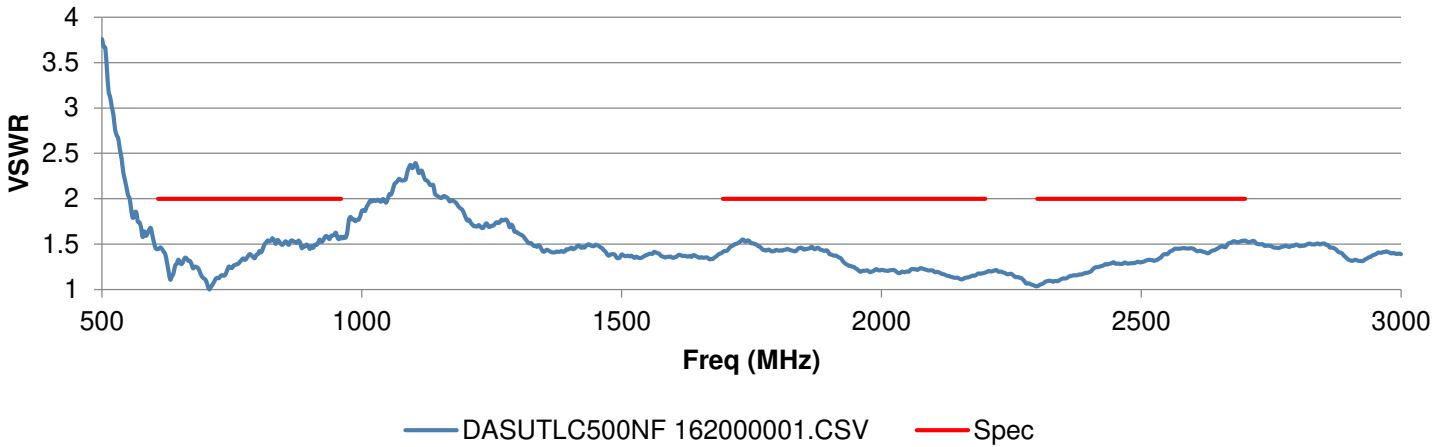
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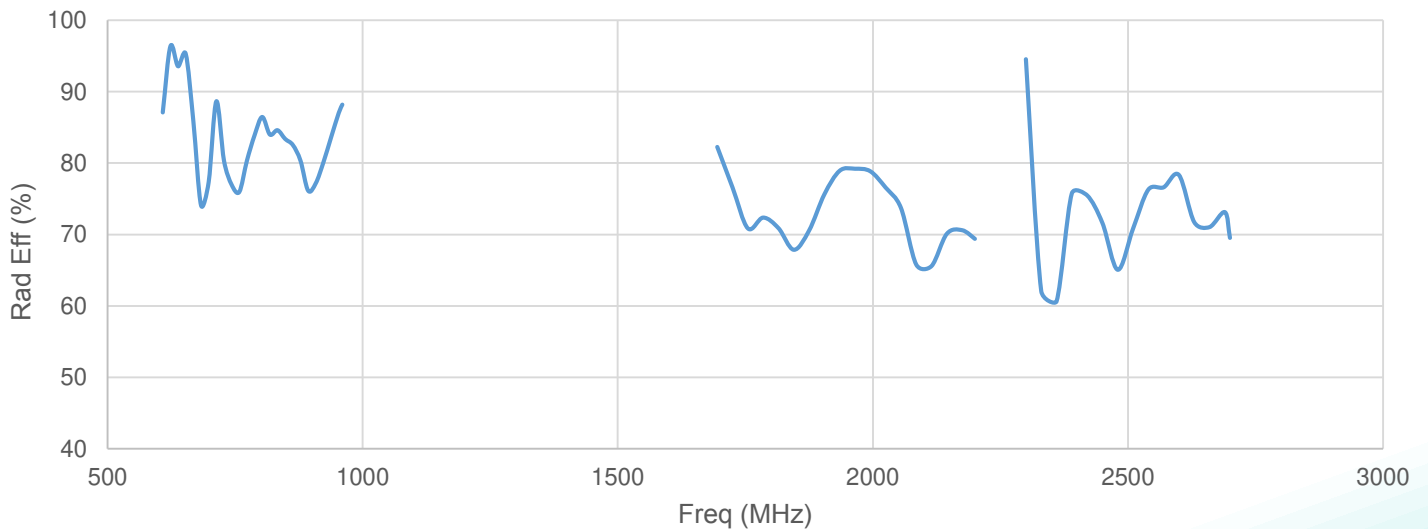
**PART NUMBER:** DASUTLC500NF

CHARTS

DASUTLC500NF, DASUTLC500MD and DASUTLC5004310 i.e. antennas



Total Efficiency



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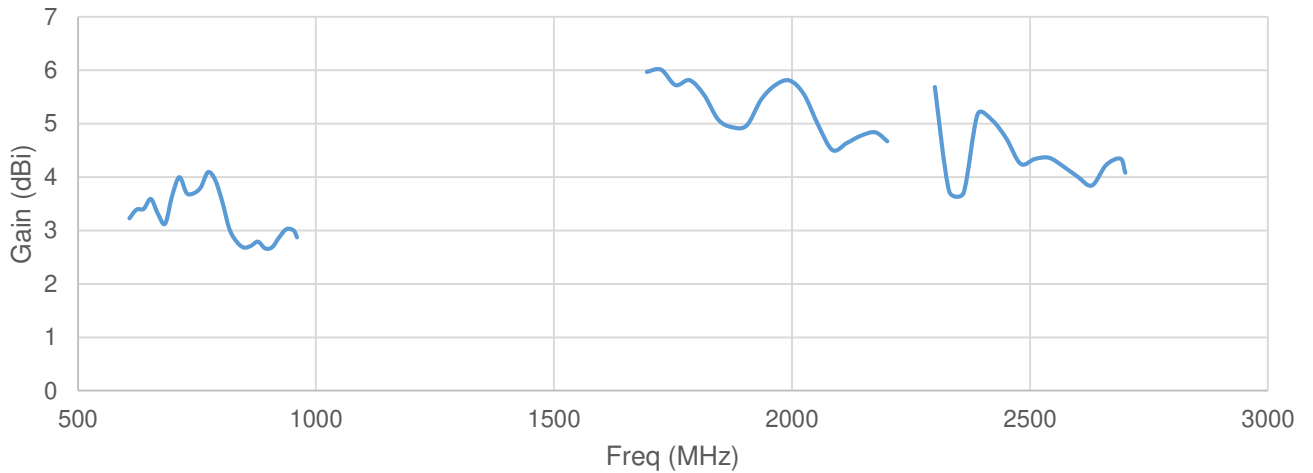
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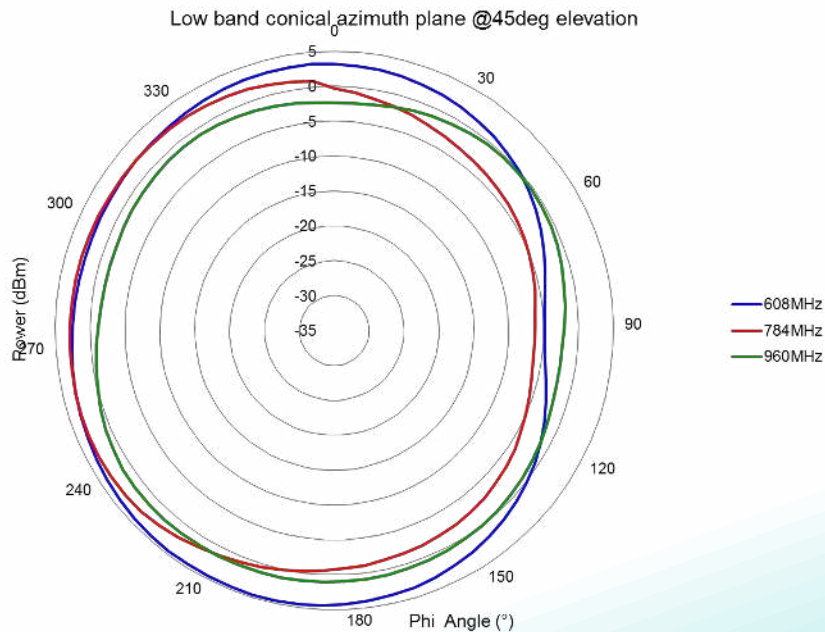
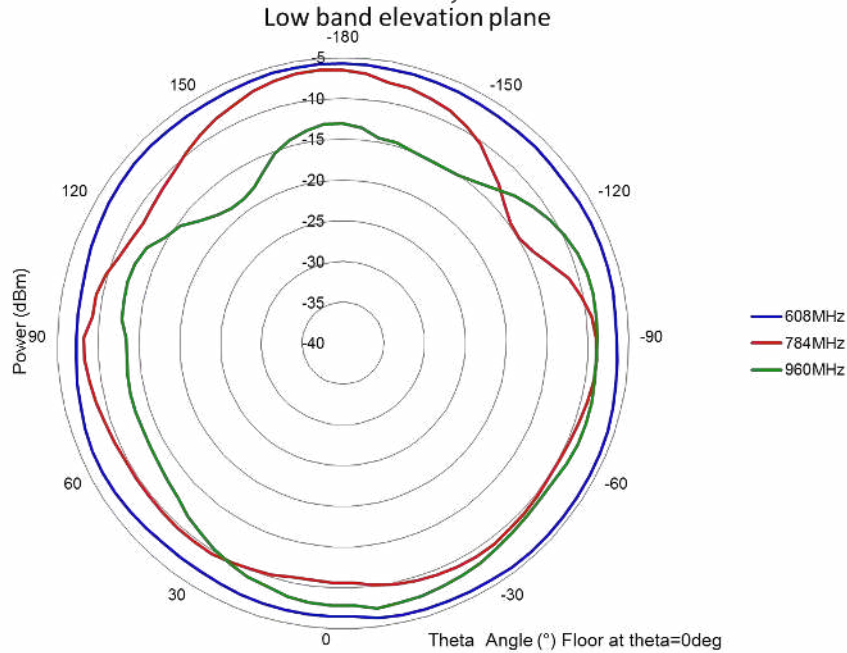
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**CHARTS**

DASUTLC500NF, DASUTLC500MD and DASUTLC5004310 i.e. antennas

**Radiation Pattern, 608-960MHz**



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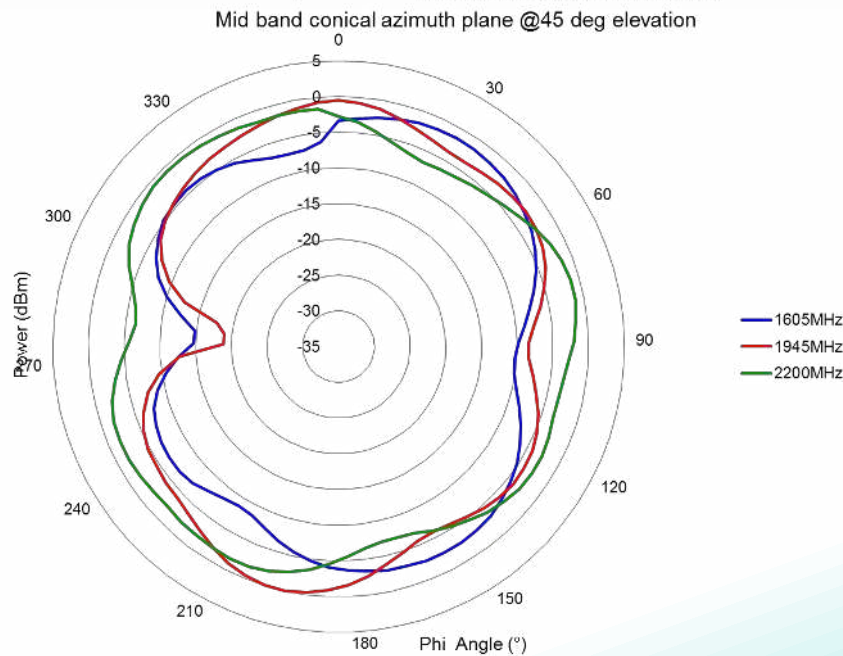
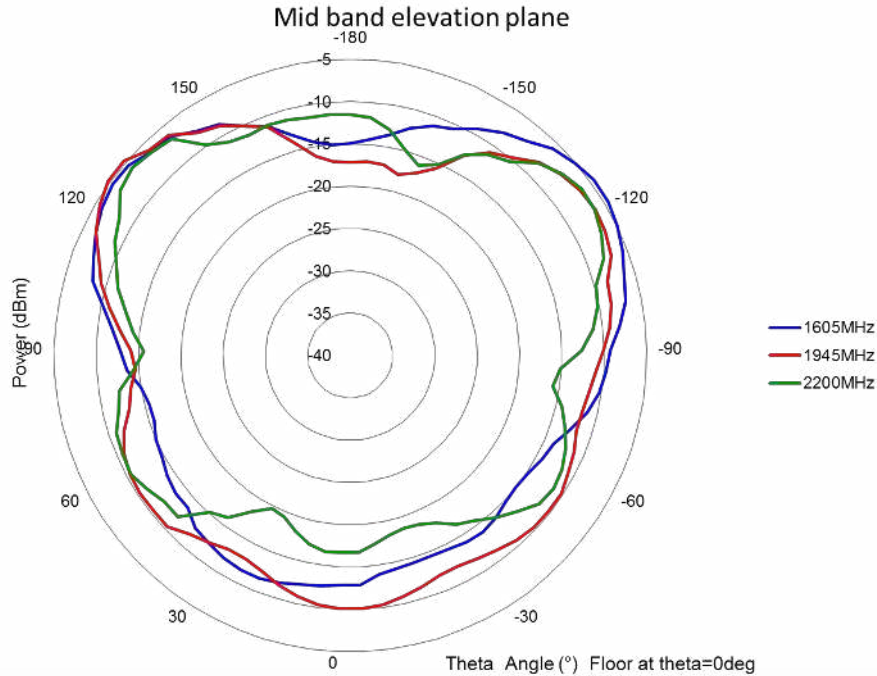
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**CHARTS**

**Radiation Pattern, 1695-2200MHz**



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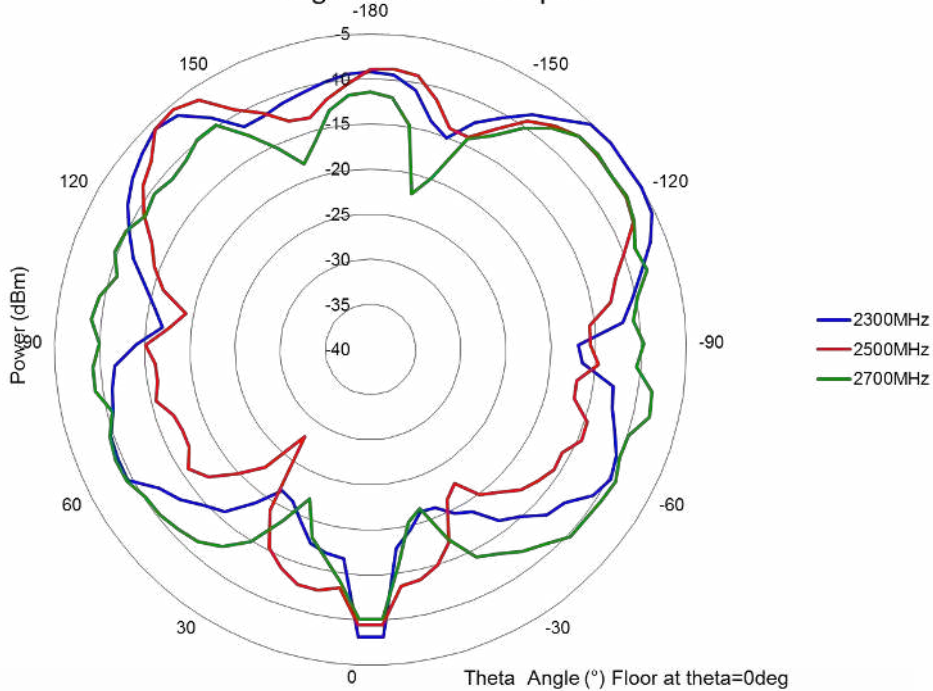
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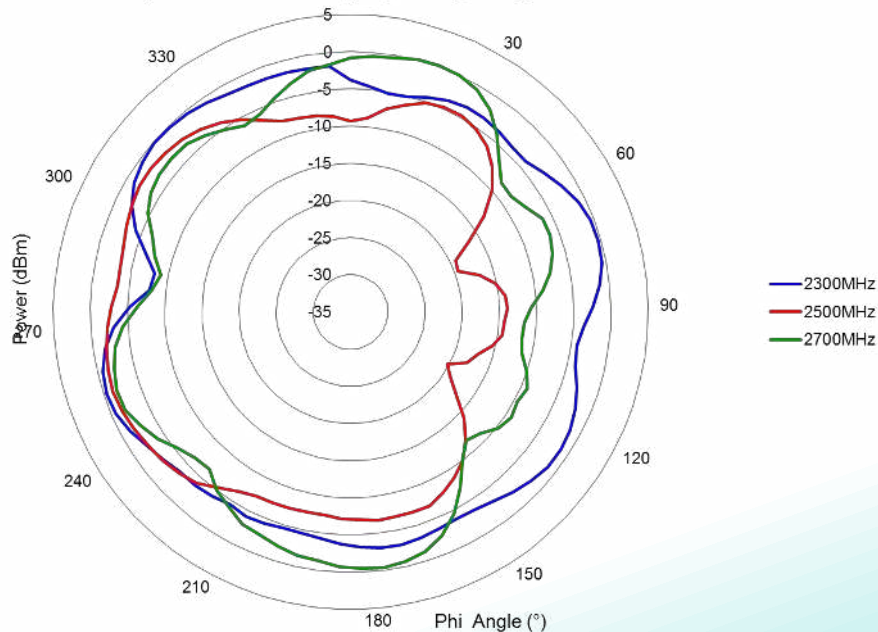
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**CHARTS**

**Radiation Pattern, 2300-2700MHz**  
High band elevation plane



High band conical azimuth plane @45deg elevation



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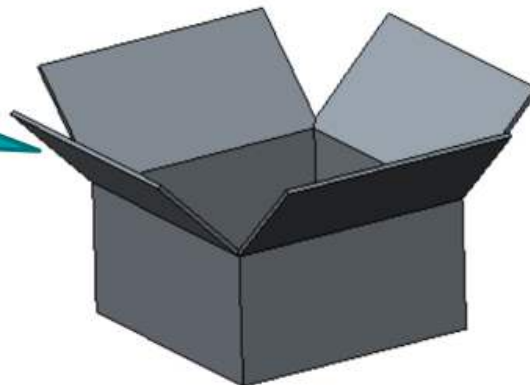
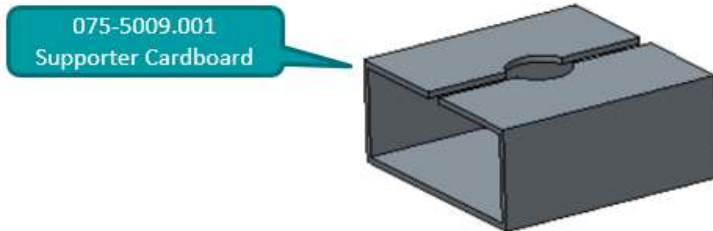
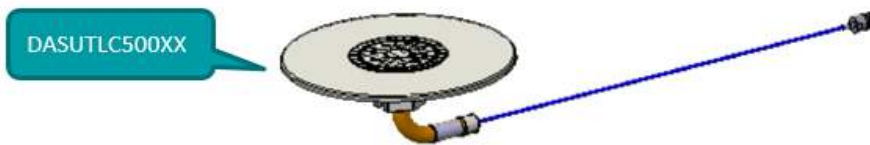
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## PACKAGING



P.S.: Antenna DASUTLC500NF should be packed by PE bag(075-4692.001) first.

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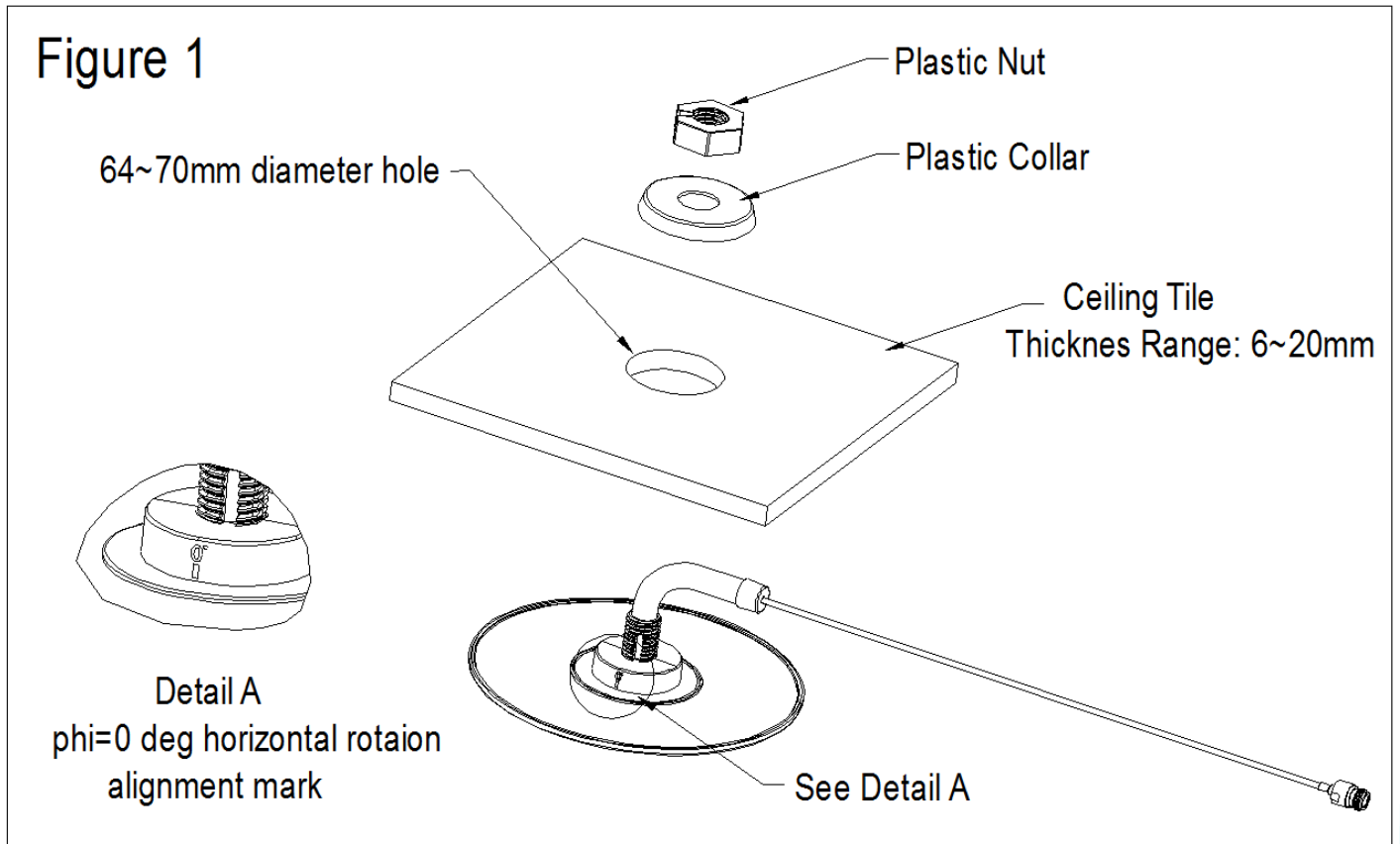
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## INSTALLATION INSTRUCTION

Drill or cut a hole 2.5-2.75 inches (64-70 mm) diameter at the center of the ceiling tile or at the desired location. Slide the antenna cable/connector assembly through the hole. Slide the Collar and Nut onto the cable. Turn the Nut, tightening the antenna against the ceiling tile. See Figure 1 and Figure 2





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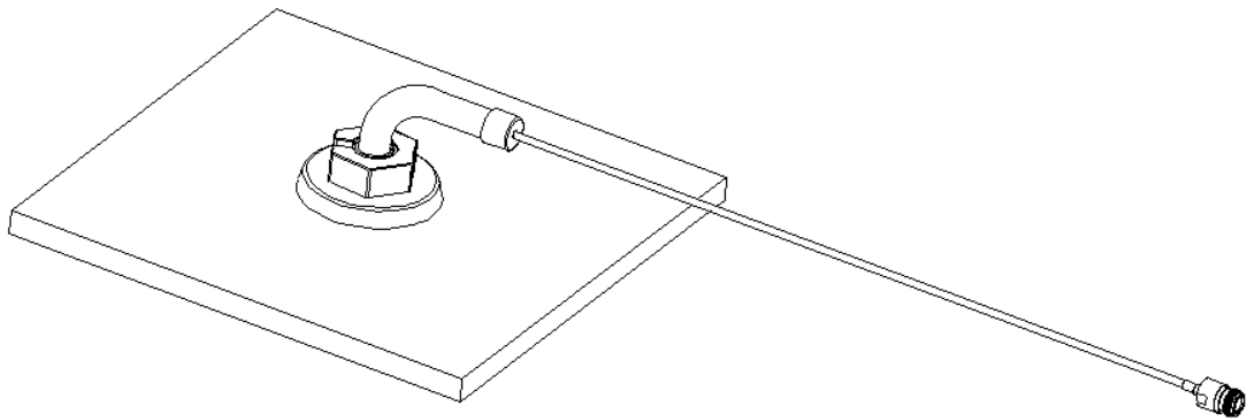
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Figure 2

Note:

Fiberboard ceiling tile is soft; tighten the nut just enough to hold the antenna firmly in place.



### ADDITIONAL NOTES:

Some customers may chose to take into consideration the antenna propagation orientation during their planning process. The Horizontal rotation alignment mark ( $\Phi=0$  deg), along with data from iBwave file will support this.

For Optimum Performance, Metal ceiling rails need to be a minimum 200mm from the - antenna center as the antenna requires 400mm x 400mm space free of any metal.

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## CONNECTOR TORQUE REQUIREMENTS

N Female: Maximum Torque 6.2-9.74 in-lbs (0.7-1.1Nm)

Mini-DIN: Maximum torque 12-16 ft Lbs (17-22Nm)

4.3-10 DIN: Maximum torque 45-70 in-lbs (5-8Nm)