

Description: Ultra-thin white radome antenna for i-DAS

Series: CLARITY

PART NUMBER: DASUTCWxxxx

Features:



- Ultra-Thin
- White radome
- Industry leading -155 dBc at 2 x 20W (2 x 43dBm) PIM rating
- Covers cellular bands and WiFi from 608 through 2700 MHz
- Available with N, Mini-DIN and 4.3-10 female connector
- RoHS Compliant
- Patent Pending design

Applications:

- Ultra-Thin structure of products allow installation in places where Aesthetics is important
- White structure of antenna make this product easily camouflage onto ceiling
- In-building DAS systems requiring best PIM

All dimensions are in mm / inches

Issue:1651

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Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998



Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTWCxxx

This document covers all product variants of the following product family:

Antenna and accessory products covered in this documents are following:

Pulse Part Number	Connector Type	Reflector
DASUTWC500NF	N Female	Not Included
DASUTWC500MD	4.1-9.5 Mini-DIN Female	Not Included
DASUTWC5004310	4.3-10 DIN Female	Not Included
DASUTWCR500NF	N Female	Included
DASUTWCR500MD	4.1-9.5 Mini-DIN Female	Included
DASUTWCR5004310	4.3-10 DIN Female	Included

Accessory Part Number	Description
DASUTCCACC1	Reflector only (not antenna)



Reflector: DASUTCCACC1

Description: UltraThin, clear radome antenna for iDAS

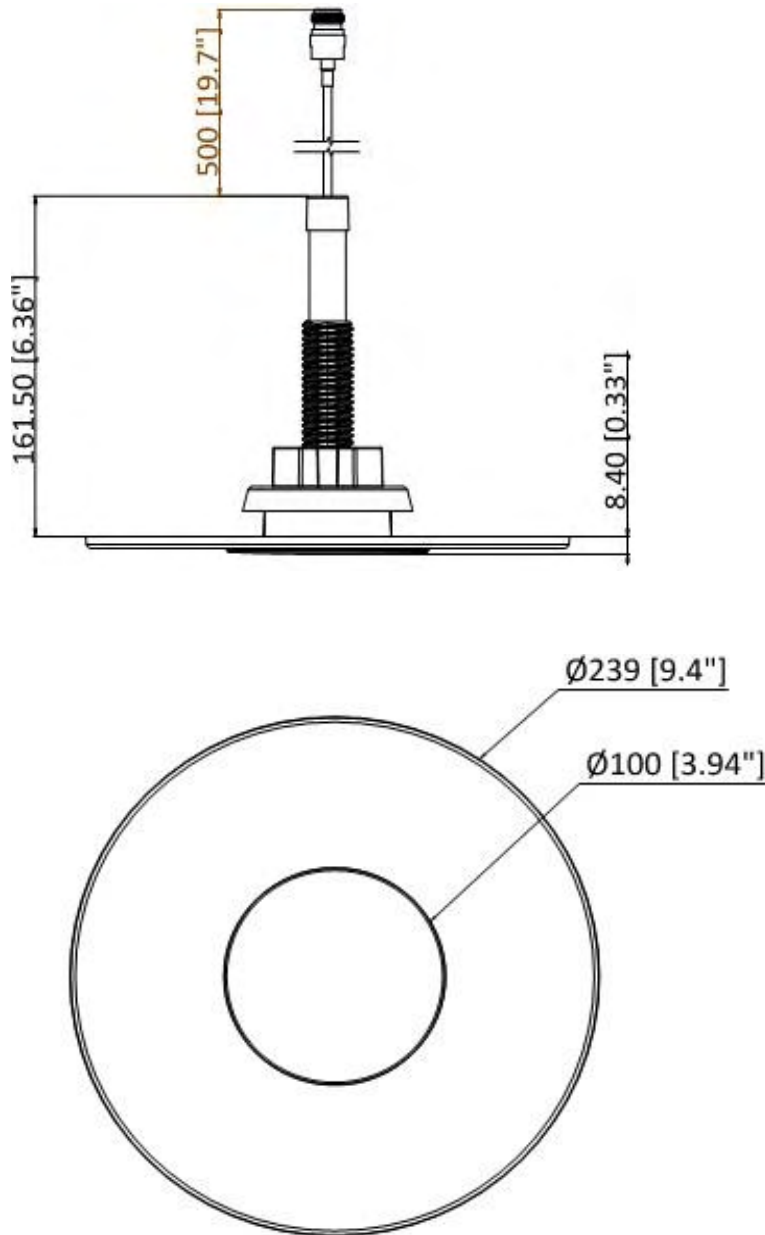
Series: CLARITY

PART NUMBER: DASUTWCxxx

MECHANICAL DRAWING

DASUTWC500NF, DASUTWC500MD and DASUTWC5004310

i.e. antennas **without** reflector DASUTCCACC1



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Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTWCxxx

ELECTRICAL SPECIFICATIONS

DASUTWC500NF, DASUTWC500MD and DASUTWC5004310

i.e. antennas without reflector DASUTCCACC1

Frequency	608-960 / 1695-2200 / 2300-2700MHz
Nominal Impedance	50Ω
VSWR (698-960MHz)	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)	100° Typ
HPBW Vertical plane (1695-2200MHz)	130° Typ
HPBW Vertical plane (2300-2700MHz)	130° Typ
Maximum power input	40W
PIM at 2x20W	<-155dBc
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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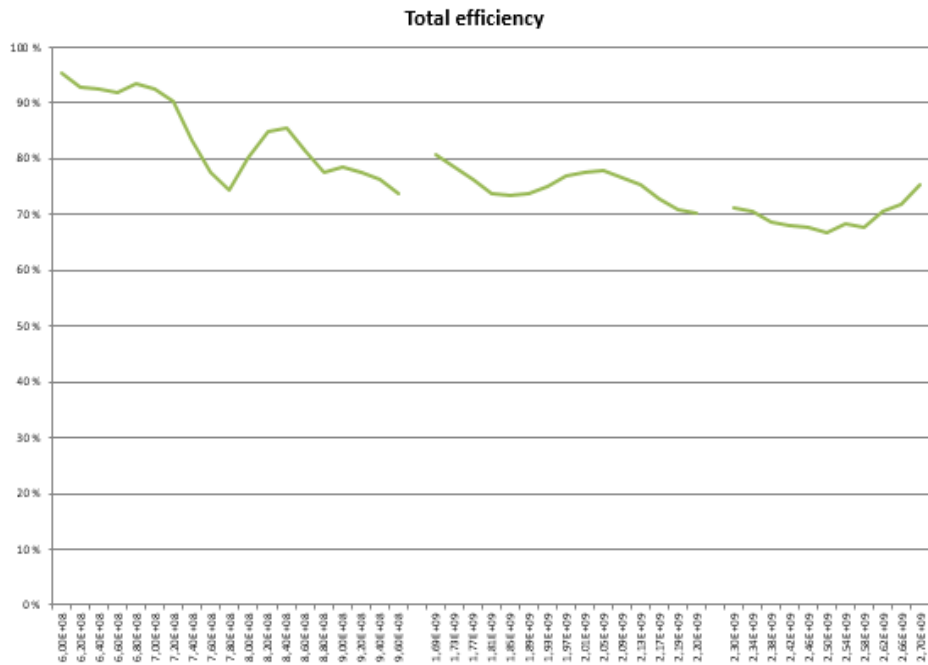
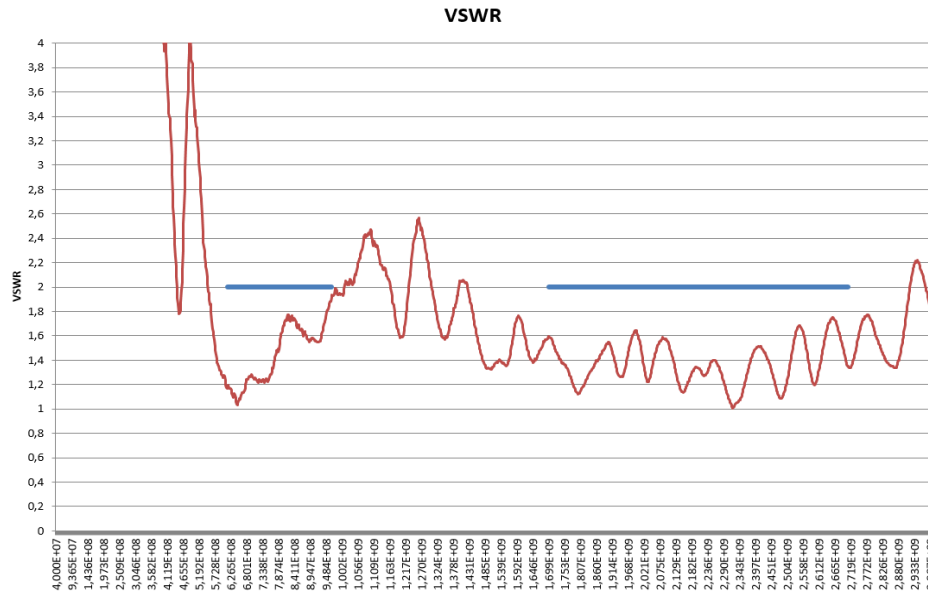
Series: CLARITY

PART NUMBER: DASUTWCxxx

CHARTS

DASUTWC500NF, DASUTWC500MD and DASUTWC5004310

i.e. antennas **without** reflector DASUTCCACC1



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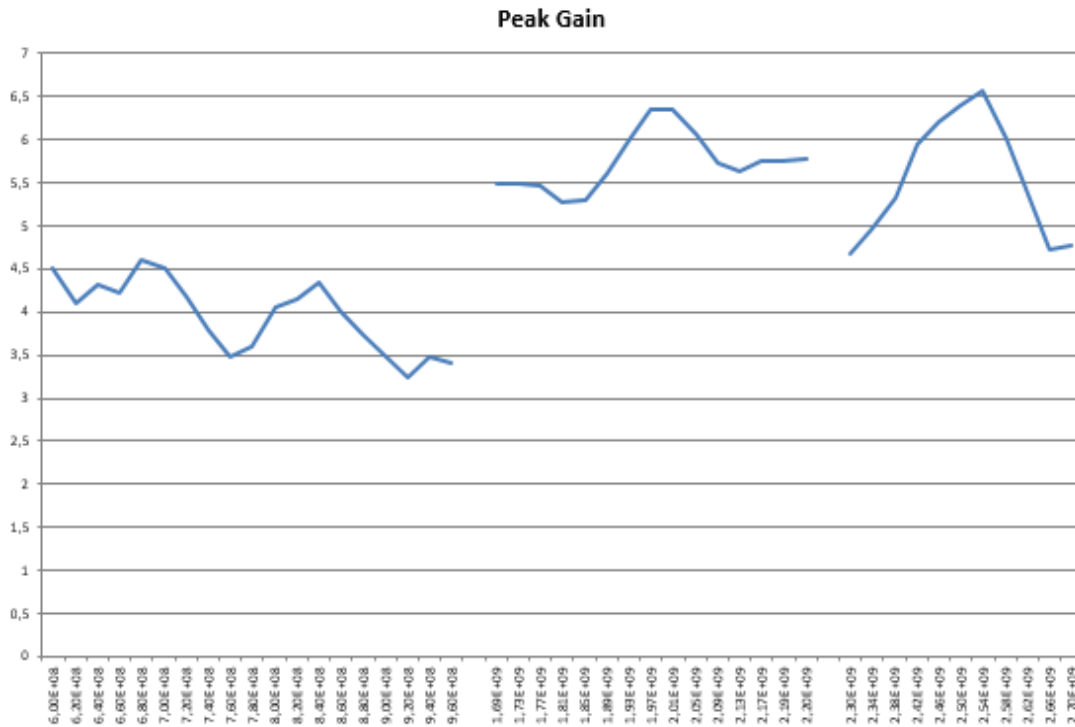
Description: UltraThin, clear radome antenna for iDAS

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PART NUMBER: DASUTWCxxx

CHARTS

DASUTWC500NF, DASUTWC500MD and DASUTWC5004310
i.e. antennas without reflector DASUTCCACC1



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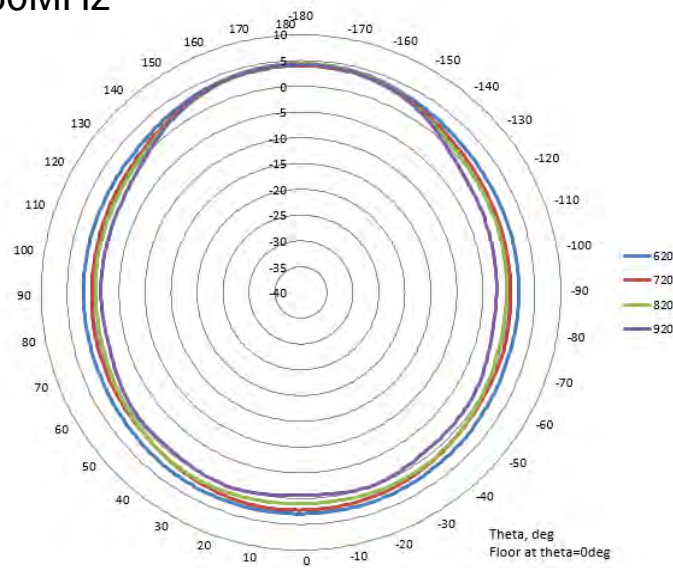
CHARTS

DASUTWC500NF, DASUTWC500MD and DASUTWC5004310

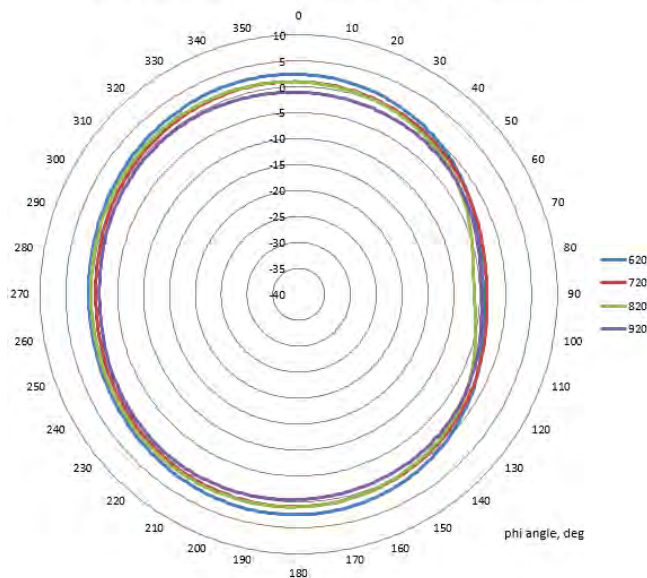
i.e. antennas **without** reflector DASUTCCACC1

Radiation patterns, 608-960MHz

Low band elevation plane



Low band conical azimuth plane @ 45deg elevation



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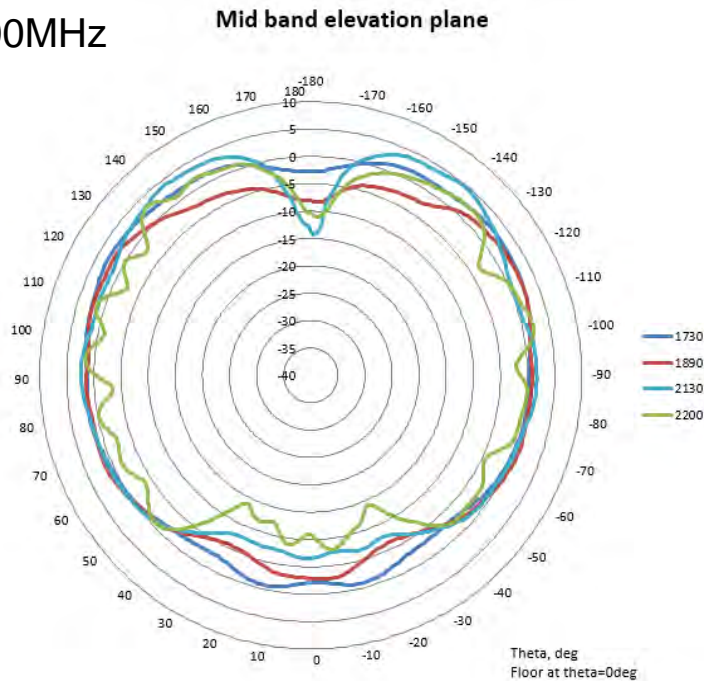
PART NUMBER: DASUTWCxxx

CHARTS

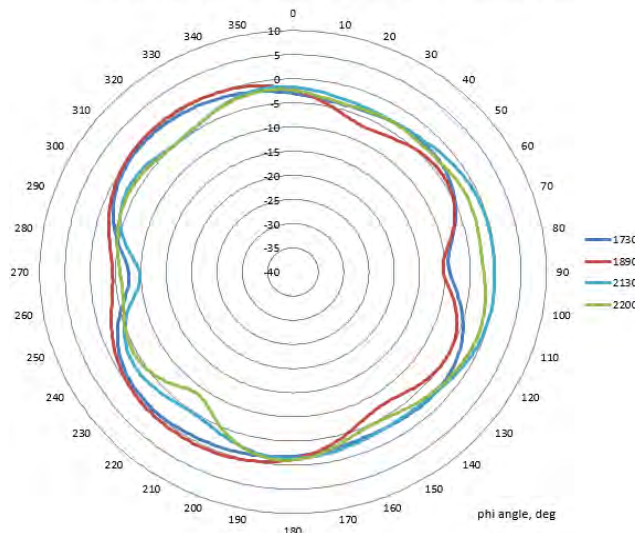
DASUTWC500NF, DASUTWC500MD and DASUTWC5004310

i.e. antennas without reflector DASUTCCACC1

Radiation patterns, 1695-2200MHz



Mid band conical azimuth plane @ 45deg elevation



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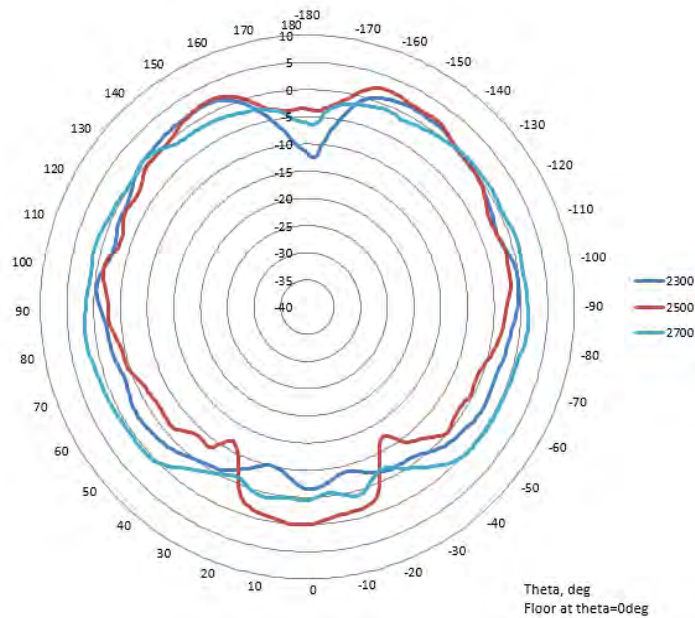
CHARTS

DASUTWC500NF, DASUTWC500MD and DASUTWC5004310

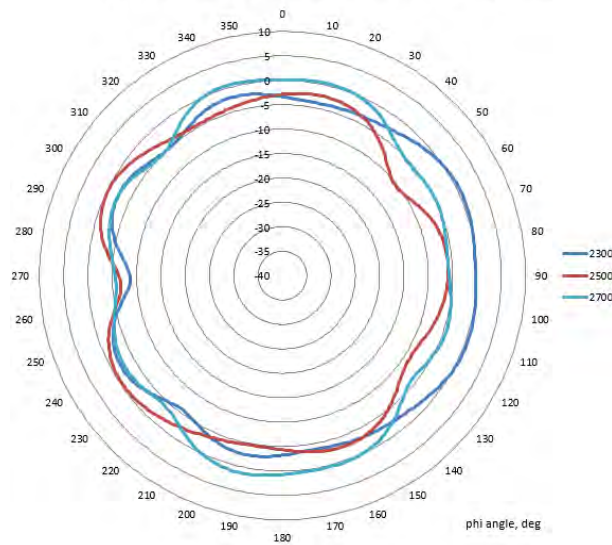
i.e. antennas without reflector DASUTCCACC1

Radiation patterns, 2300-2700MHz

High band elevation plane



High band conical azimuth plane @ 45deg elevation



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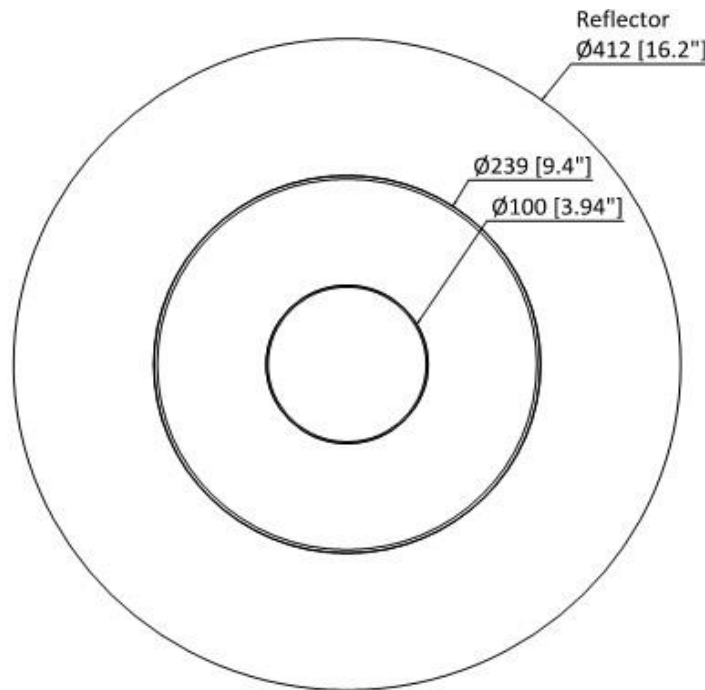
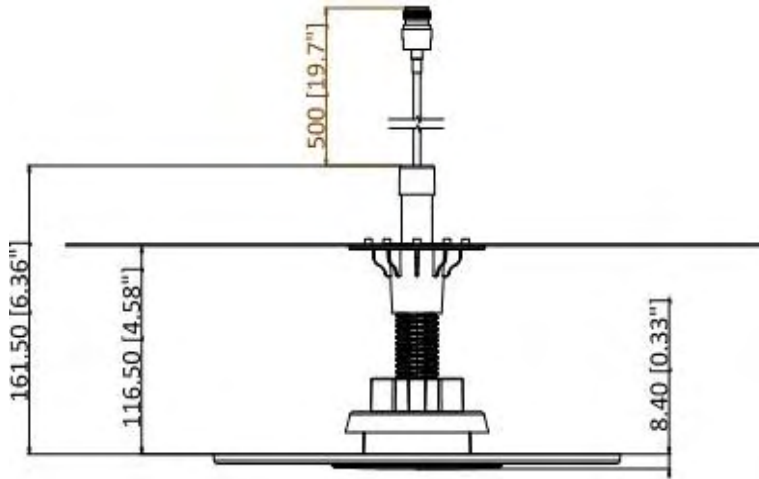
Series: CLARITY

PART NUMBER: DASUTWCxxx

MECHANICAL DRAWING

DASUTWCR500NF, DASUTWCR500MD and DASUTWCR5004310

i.e. antennas with reflector DASUTCCACC1



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Series: CLARITY

PART NUMBER: DASUTWCxxx

ELECTRICAL SPECIFICATIONS

DASUTWCR500NF, DASUTWCR500MD and DASUTWCR5004310

i.e. antennas with reflector DASUTCCACC1

Frequency	608-960 / 1695-2200 / 2300-2700MHz
Nominal Impedance	50Ω
VSWR (698-960MHz)	2:1
VSWR (1695-2700MHz)	2:1
Average Peak Gain (608-960MHz)	7dBi
Average Peak Gain (1695-2200MHz)	7dBi
Average Peak Gain (2300-2700MHz)	5dBi
Efficiency (608-960MHz)	70%
Efficiency (1695-2200MHz)	65%
Efficiency (2300-2700MHz)	60%
Horizontal plane (th=45deg)	Omni
HPBW Vertical plane (608-960MHz)	90° Typ
HPBW Vertical plane (1695-2200MHz)	25° Typ
HPBW Vertical plane (2300-2700MHz)	25° Typ
Maximum power input	40W
PIM at 2x20W	<-155dBc
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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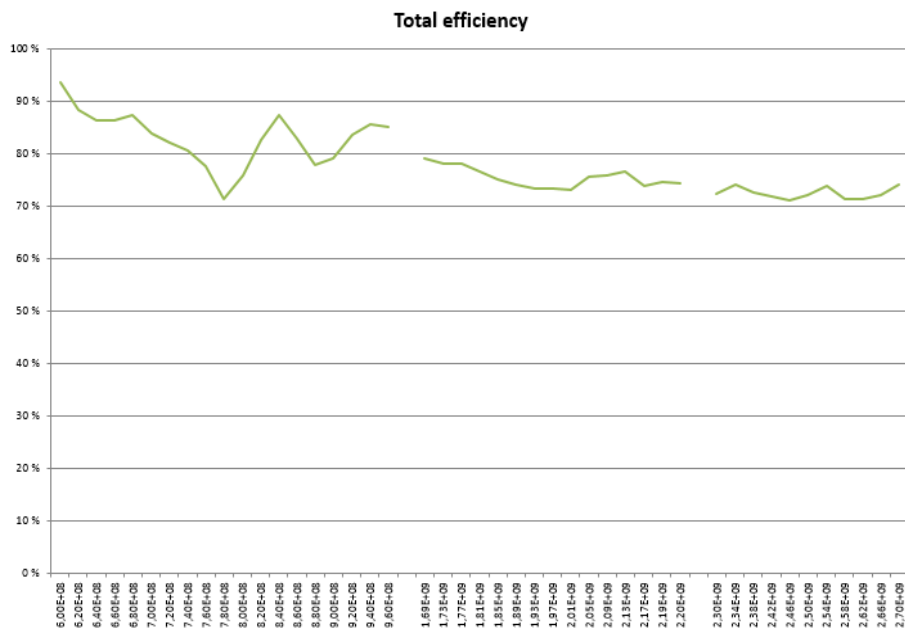
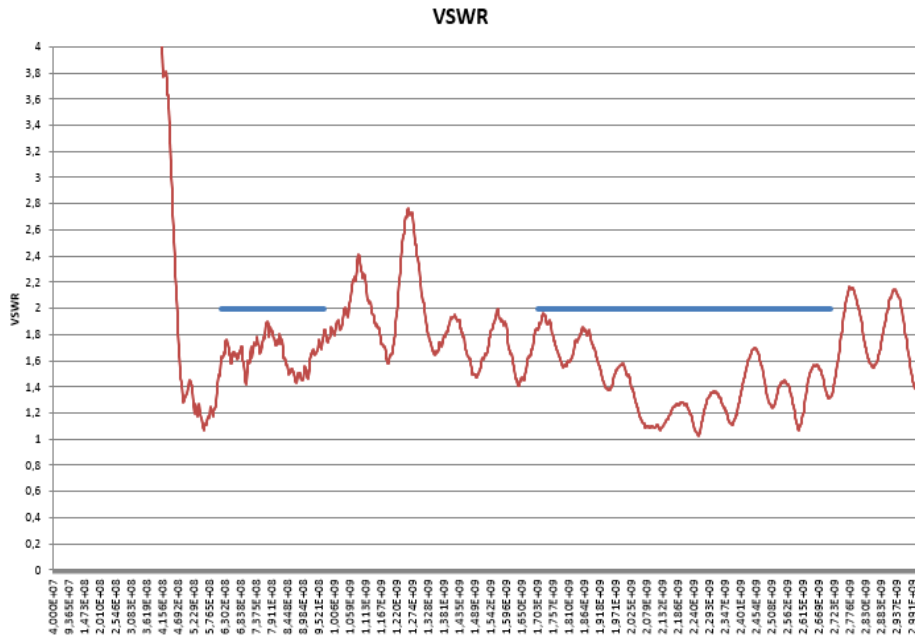
Series: CLARITY

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CHARTS

DASUTWCR500NF, DASUTWCR500MD and DASUTWCR5004310

i.e. antennas **with** reflector DASUTCCACC1



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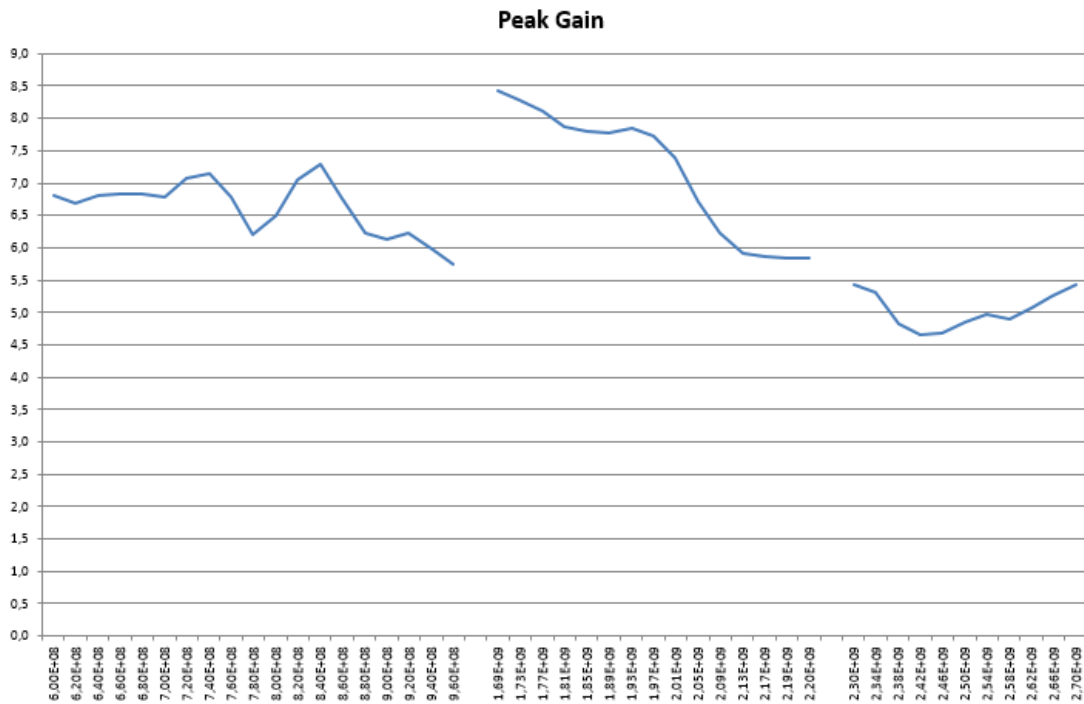
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CHARTS

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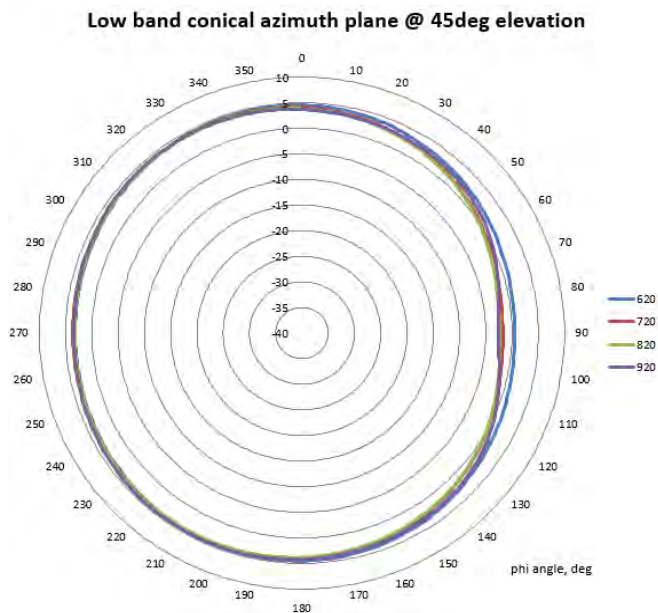
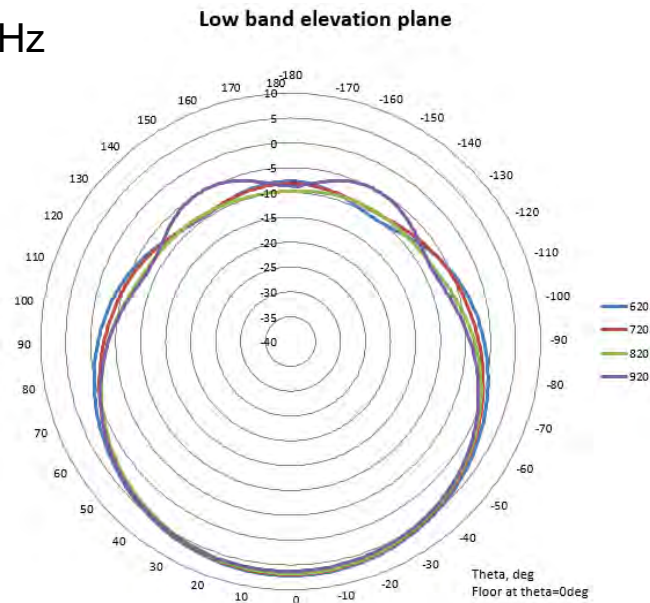
PART NUMBER: DASUTWCxxx

CHARTS

DASUTWCR500NF, DASUTWCR500MD and DASUTWCR5004310

i.e. antennas with reflector DASUTCCACC1

Radiation patterns, 608-960MHz



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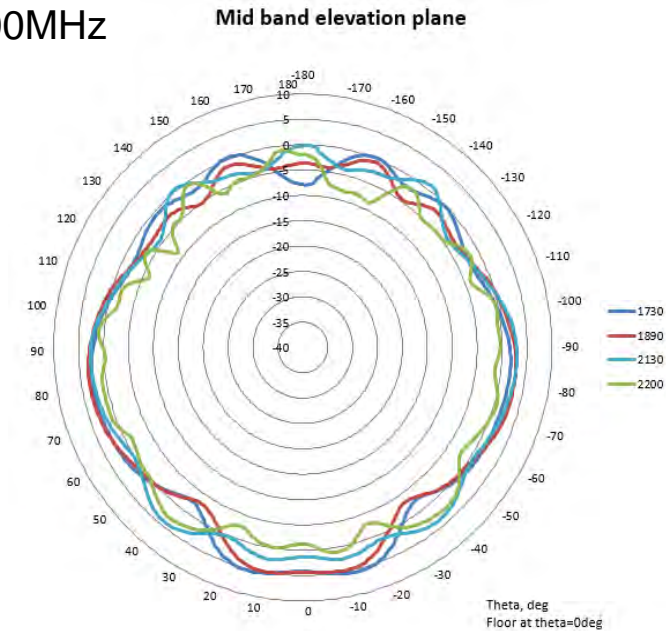
PART NUMBER: DASUTWCxxx

CHARTS

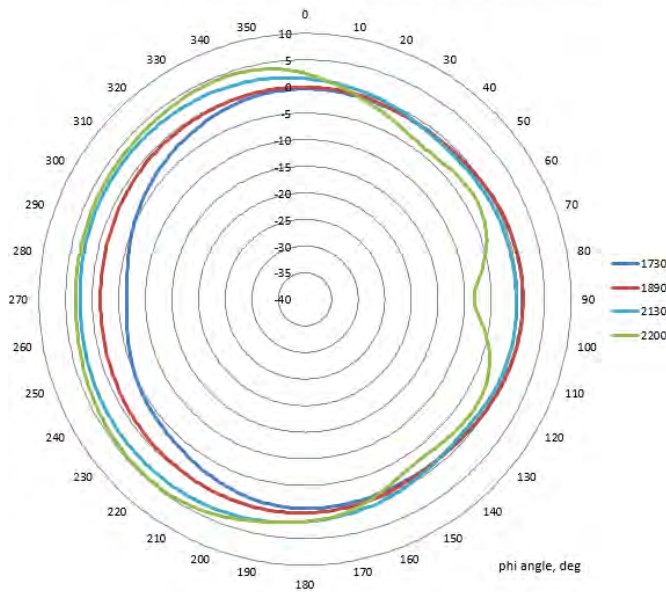
DASUTWCR500NF, DASUTWCR500MD and DASUTWCR5004310

i.e. antennas with reflector DASUTCCACC1

Radiation patterns, 1695-2200MHz



Mid band conical azimuth plane @ 45deg elevation



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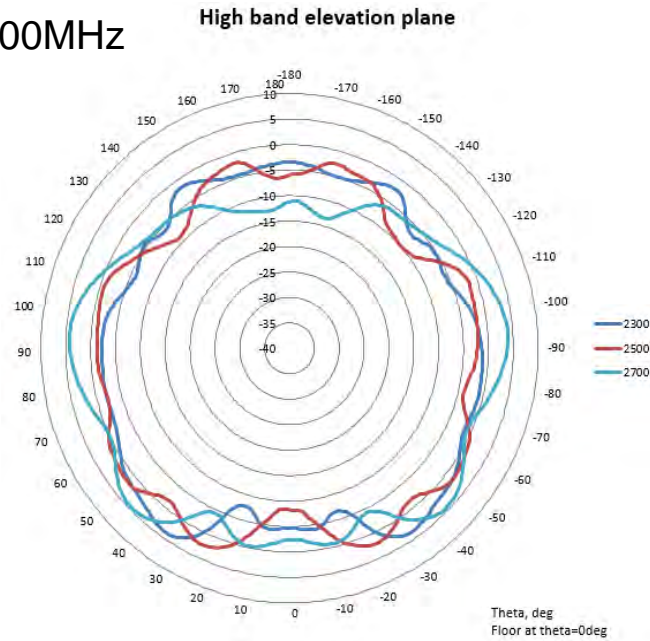
PART NUMBER: DASUTWCxxx

CHARTS

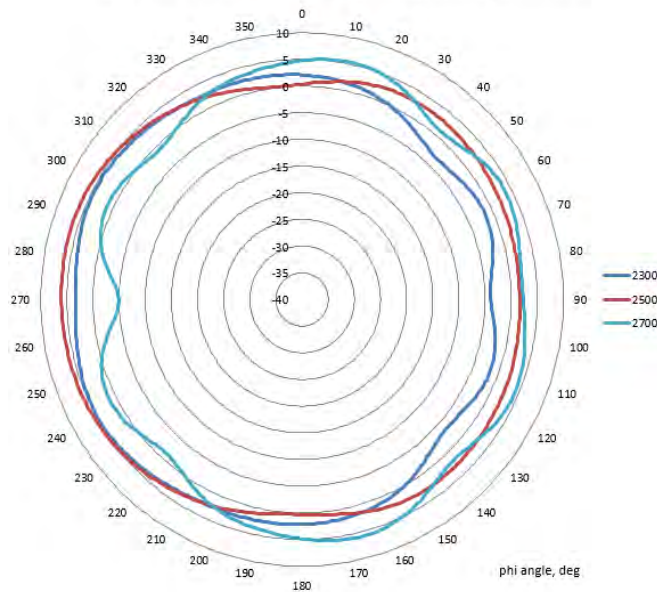
DASUTWCR500NF, DASUTWCR500MD and DASUTWCR5004310

i.e. antennas with reflector DASUTCCACC1

Radiation patterns, 2300-2700MHz



High band conical azimuth plane @ 45deg elevation



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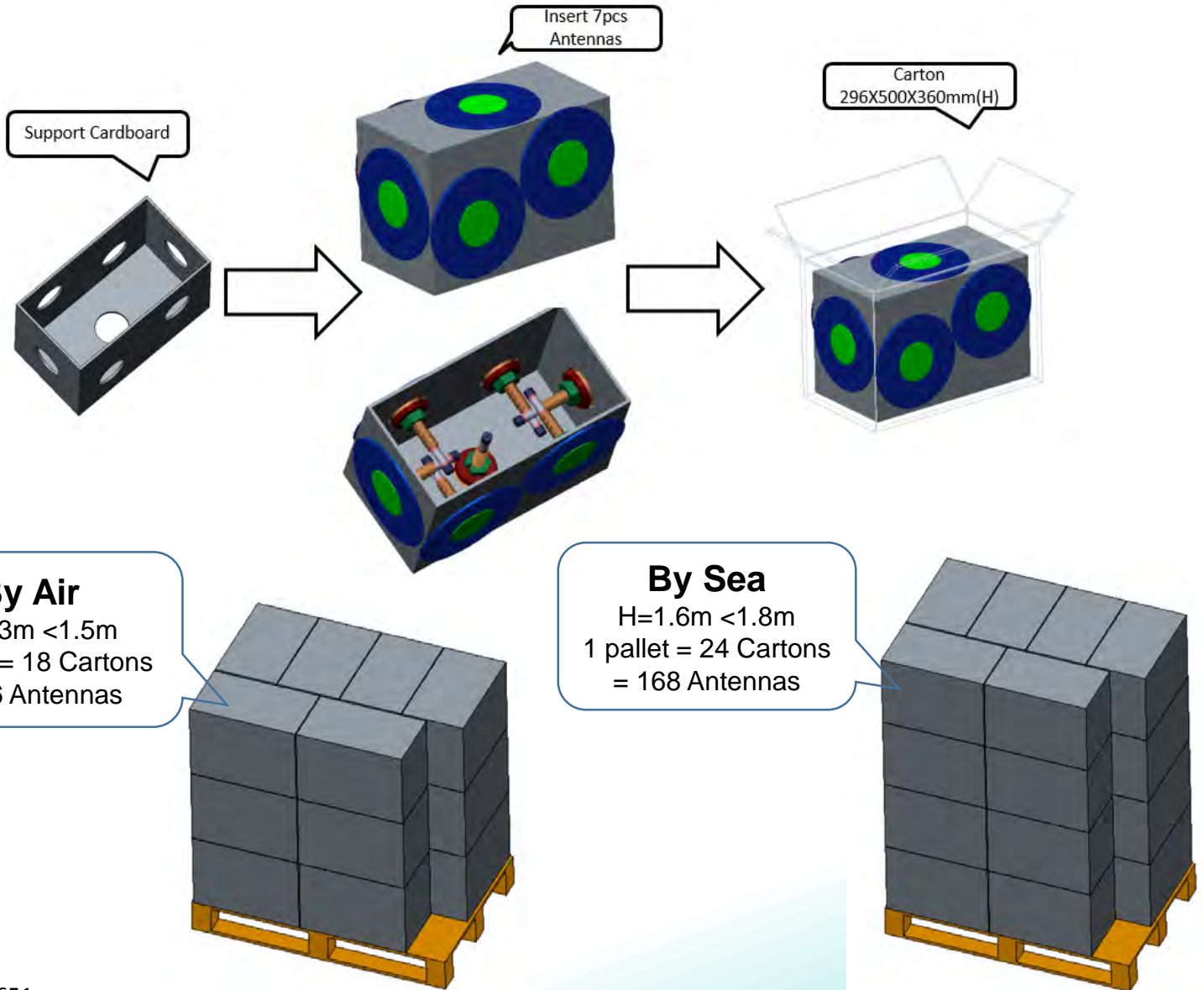
Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTWCxxx

PACKAGING

Pulse Part Number	Reflector	Carton	Pallet
DASUTWC500NF	Not Included	7 Antennas packed in a carton 1 label on each box with quantity, part number, date code.	18 cartons (126 antennas) stack on 1 pallet by air 24 cartons (168 antennas) stack on 1 pallet by sea
DASUTWC500MD	Not Included		
DASUTWC5004310	Not Included		



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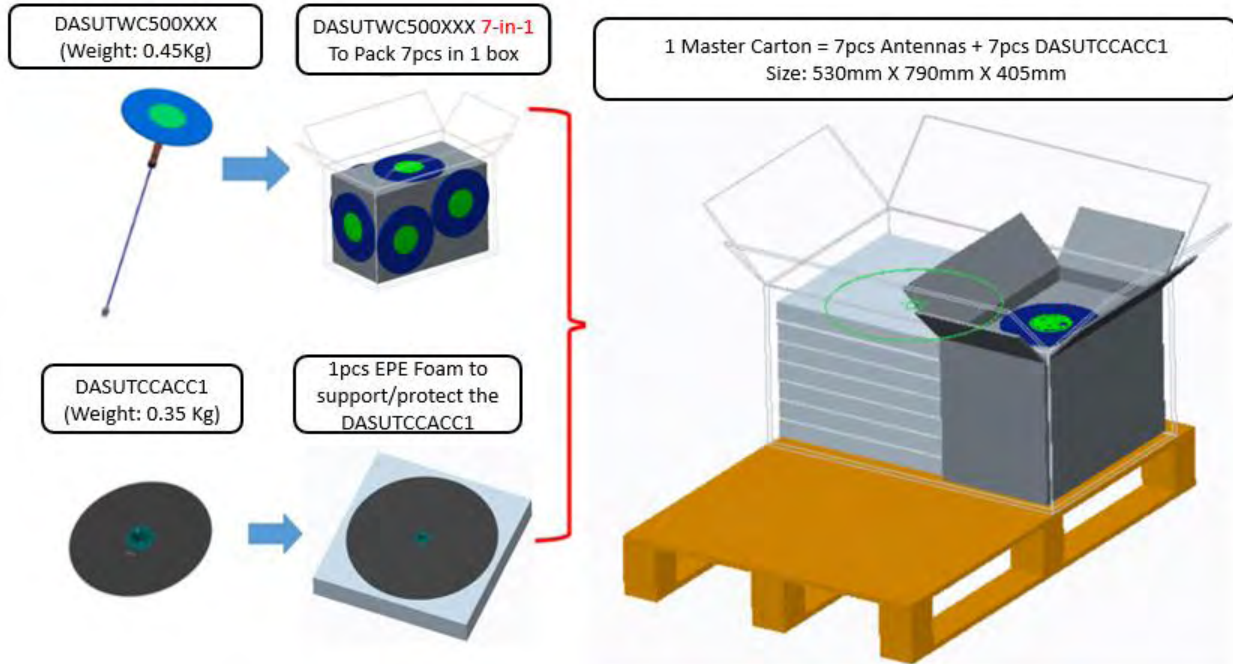
Description: UltraThin, clear radome antenna for iDAS

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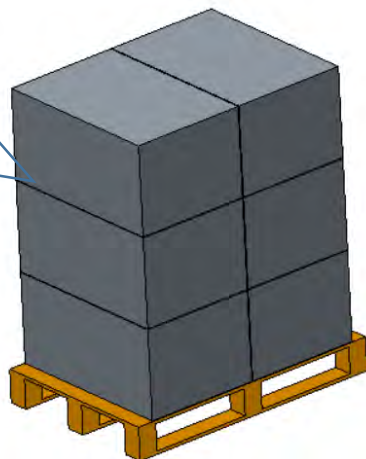
PACKAGING

Pulse Part Number	Reflector	Carton	Pallet
DASUTWCR500NF	Included	7 Antennas and 7 DASUTCCACC1 packed in a master carton 1 label on each box with quantity, part number, date code.	6 cartons (42 Antennas and 42 DASUTCCACC1) stack on 1 pallet by air 8 cartons (56 Antennas and 56 DASUTCCACC1) stack on 1 pallet by sea
DASUTWCR500MD	Included		
DASUTWCR5004310	Included		



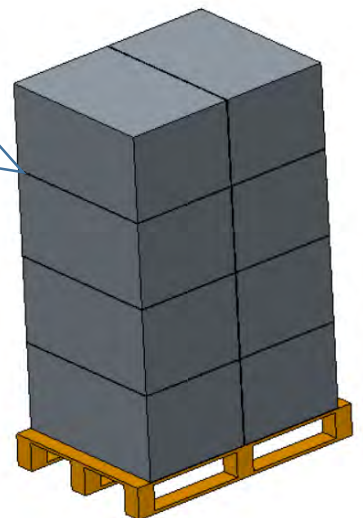
By Air

H=1.37m < 1.5m
1 pallet = 6 Cartons
= 42 Antennas + 42 DASUTCCACC1



By Sea

H=1.77m < 1.8m
1 pallet = 8 Cartons
= 56 Antennas + 56 DASUTCCACC1



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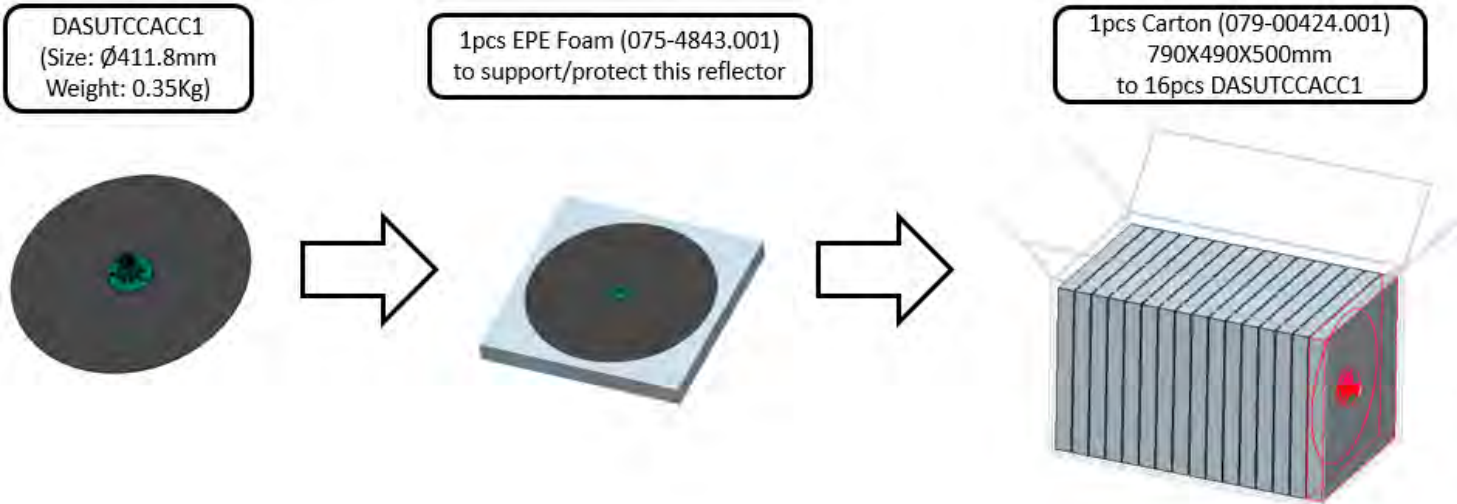
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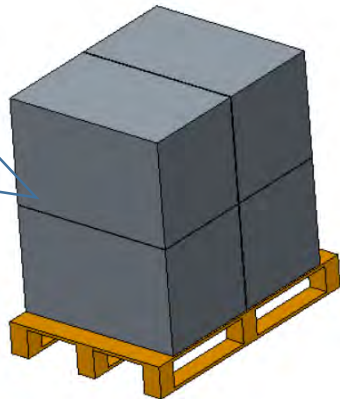
PART NUMBER: DASUTWCxxx

PACKAGING

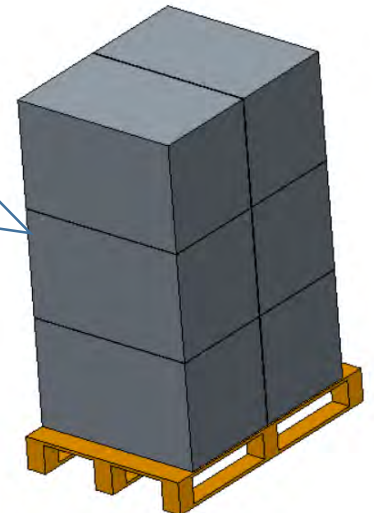
Accessory Part Number	Carton	Pallet
DASUTCCACC1	16 Reflectors (DASUTCCACC1) packed in a carton 1 label on each box with quantity, part number, date code.	4 cartons (64 DASUTCCACC1) stack on 1 pallet by air 6 cartons (96 DASUTCCACC1) stack on 1 pallet by sea



By Air
 H=1.2m < 1.5m
 1 pallet = 4 Cartons
 = 64 DASUTCCACC1



By Sea
 H=1.65m < 1.8m
 1 pallet = 6 Cartons
 = 96 DASUTCCACC1



Description: UltraThin, clear radome antenna for iDAS

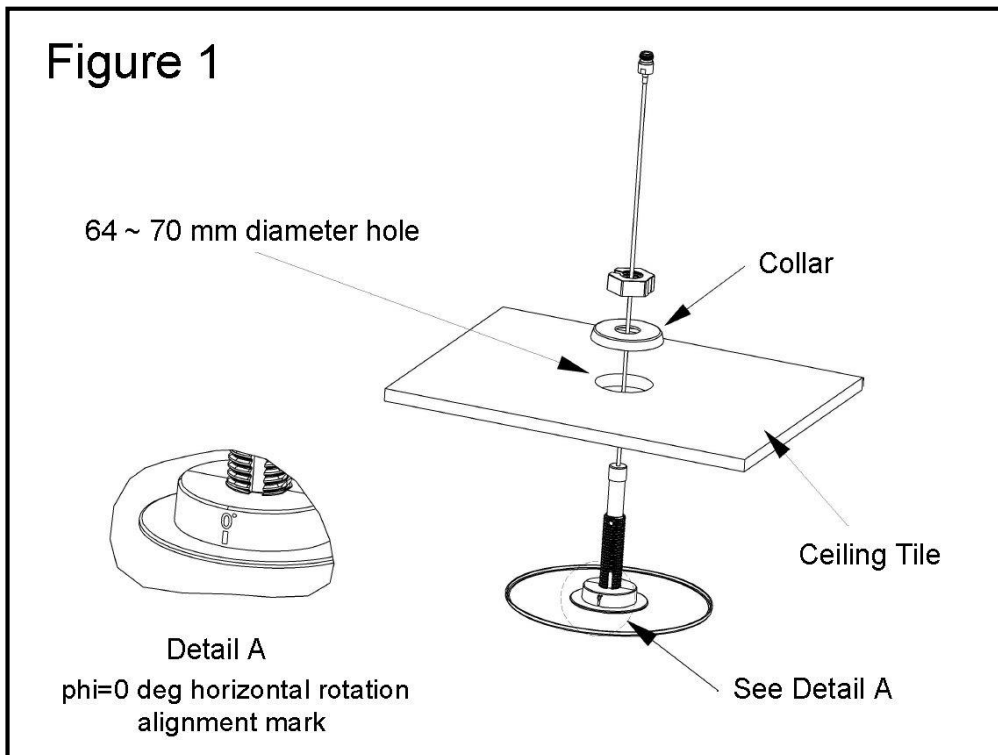
Series: CLARITY

PART NUMBER: DASUTCxxx

ASSEMBLY

Installation

1. 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



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

If using the reflector, thread the reflector onto the Antenna Stem before attaching the connectors. See Figure 2.

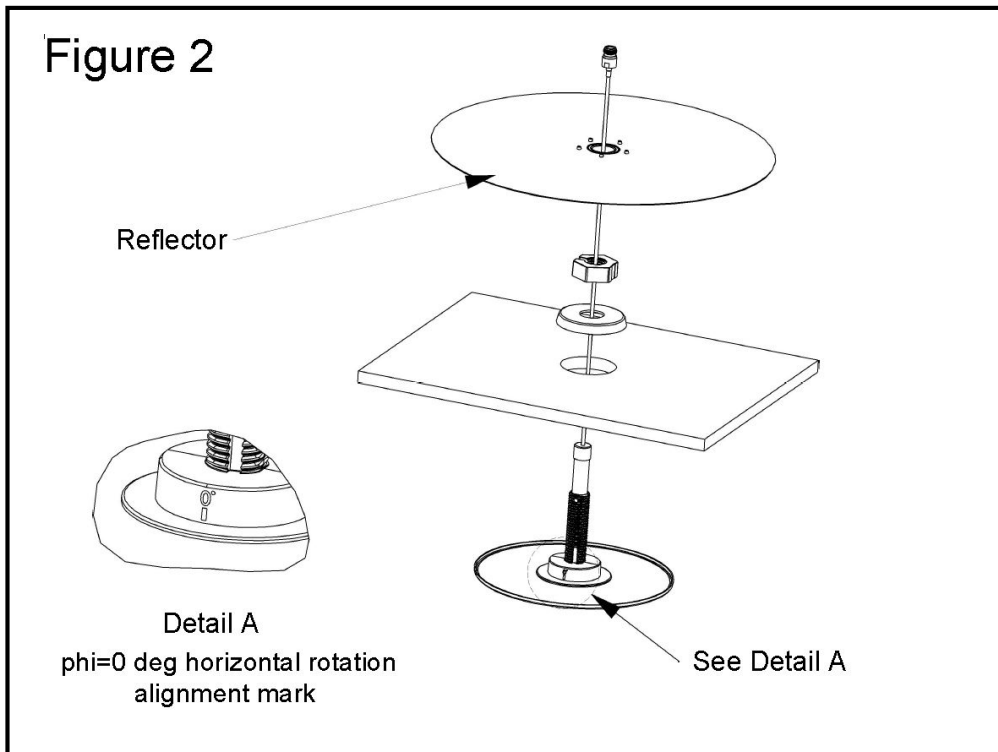
Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTCxxx

ASSEMBLY

If using the reflector, thread the reflector onto the Antenna Stem before attaching the connectors. See Figure 2.



ADDITIONAL NOTES:

Some customers may choose 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.

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)