PulseLARSEN Antennas

TECHNICAL DATA SHEET

Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTCCxxx

Features:

- Ultra-Thin
- Translucent (Clear)
- 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
- Clear (Translucent) structure of antenna make this product nearly-invisible
- In-building DAS systems requiring best PIM

All dimensions are in mm / inches

Issue:1836

RoHS COMPLIANT

For more information:

Pulse Worldwide Headquarters
12220 World Trade Drive
San Diego, CA 92128
USA
Tel:1-858-674-8100

Pulse/Larsen Antennas
18110 SE 34th St Bldg 2 Suite 250
Vancouver, WA 98683
USA
Tel: 1-360-944-7551

Europe Headquarters
Pulse GmbH & Do, KG
Zeppelinstrasse 15
Herrenberg, Germany
Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg,4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998

PulseLARSEN Antennas

TECHNICAL DATA SHEET

Series: CLARITY

Description: UltraThin, clear radome antenna for iDAS

PART NUMBER: DASUTCCxxx

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
DASUTCC500NF	N Female	Not Included
DASUTCC500MD	4.1-9.5 Mini-DIN Female	Not Included
DASUTCC5004310	4.3-10 DIN Female	Not Included
DASUTCCR500NF	N Female	Included
DASUTCCR500MD	4.1-9.5 Mini-DIN Female	Included
DASUTCCR5004310	4.3-10 DIN Female	Included

Accessory Part Number	Description
DASUTCCACC1	Reflector only (not antenna)

Reflector: DASUTCCACC1

RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

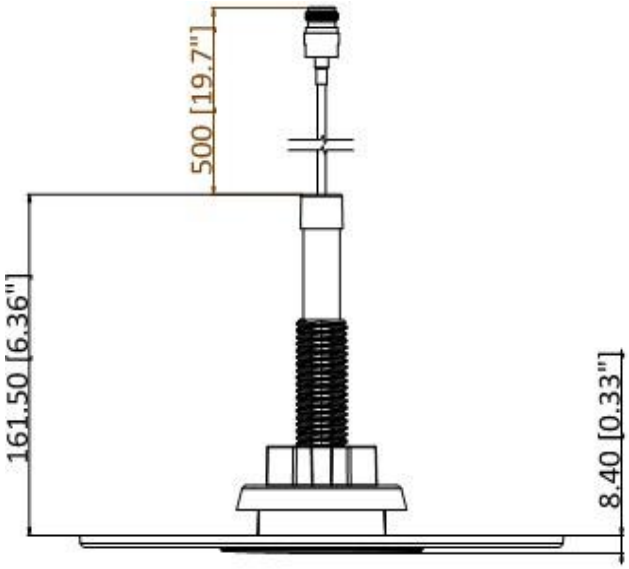
Series: CLARITY

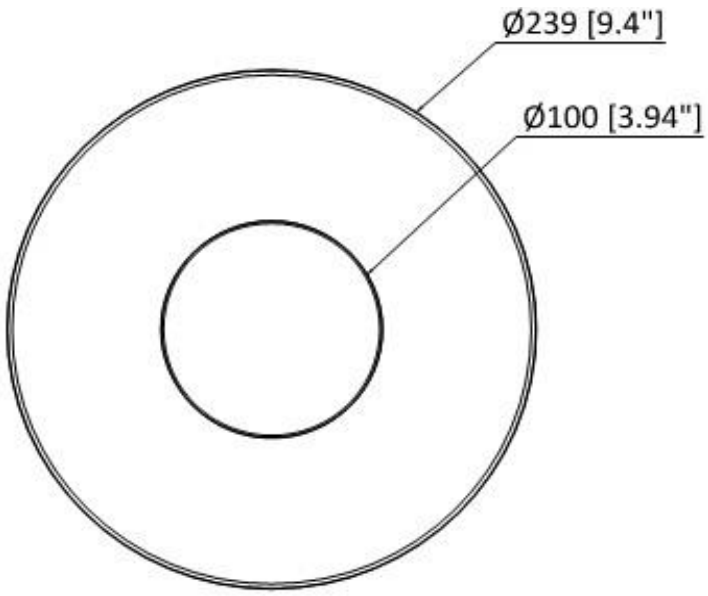
PART NUMBER: DASUTCCxxx

MECHANICAL DRAWING

DASUTCC500NF, DASUTCC500MD and DASUTCC5004310

i.e. antennas without reflector DASUTCCACC1





RoHS COMPLIANT

PulseLARSEN Antennas

TECHNICAL DATA SHEET

Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTCCxxx

ELECTRICAL SPECIFICATIONS

DASUTCC500NF, DASUTCC500MD and DASUTCC5004310

i.e. antennas without reflector DASUTCCACC1

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)	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

RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

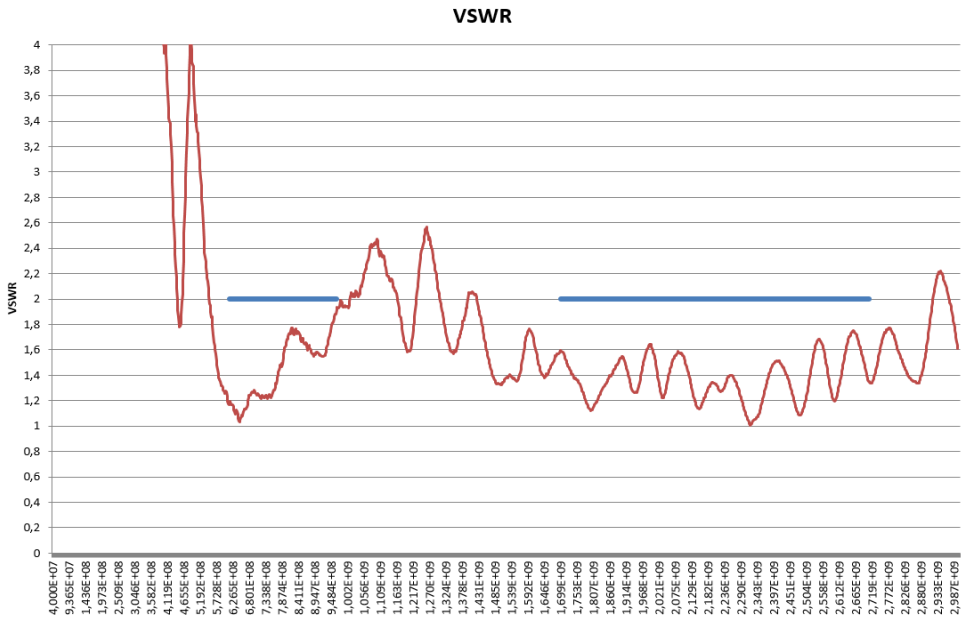
Series: CLARITY

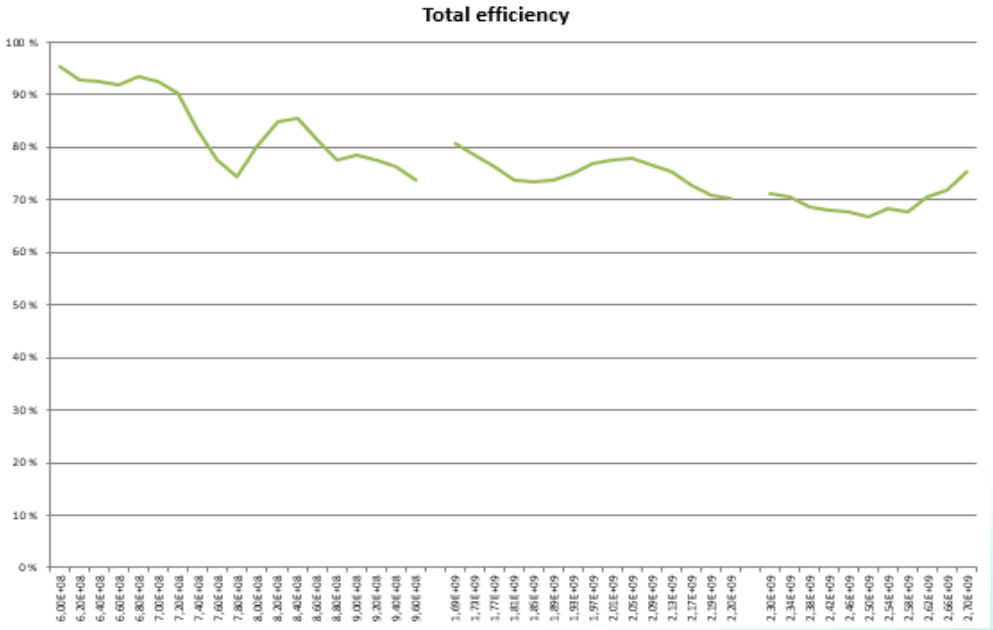
PART NUMBER: DASUTCCxxx

CHARTS

DASUTCC500NF, DASUTCC500MD and DASUTCC5004310

i.e. antennas without reflector DASUTCCACC1





RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

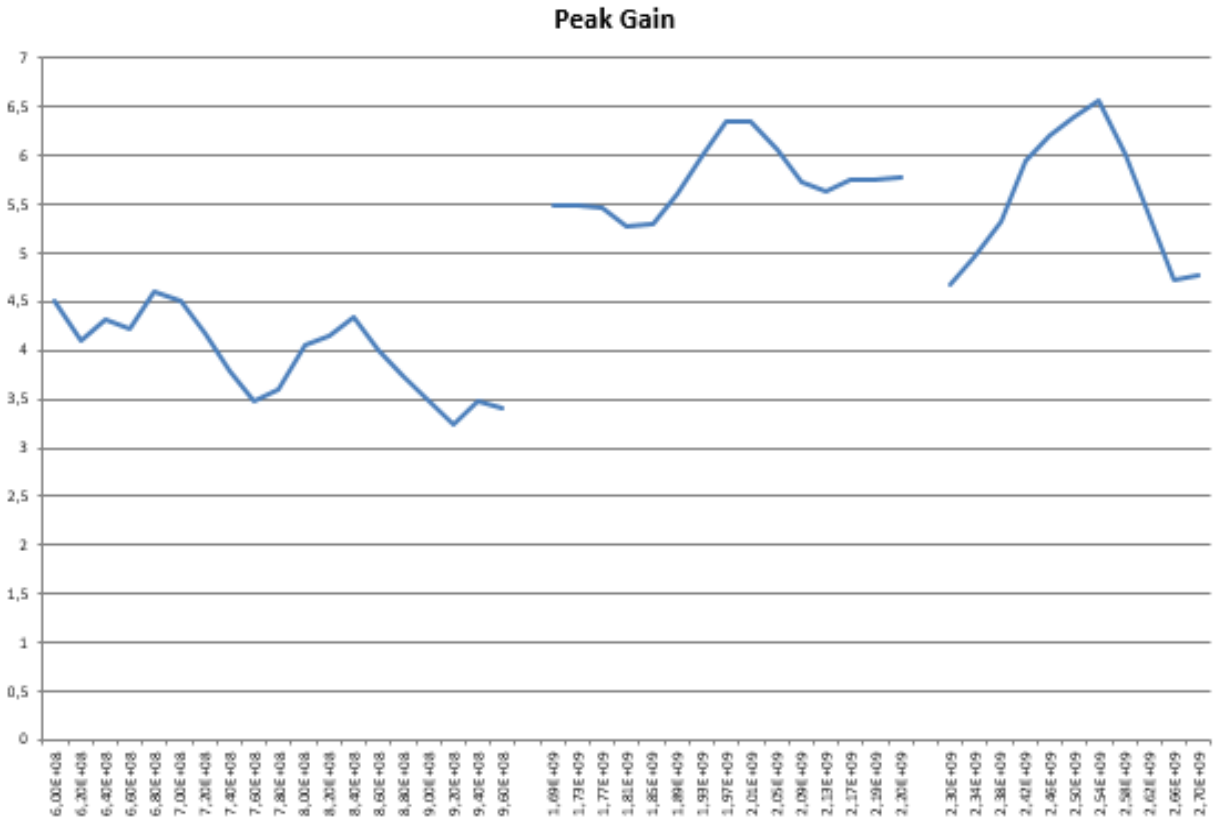
Series: CLARITY

PART NUMBER: DASUTCCxxx

CHARTS

DASUTCC500NF, DASUTCC500MD and DASUTCC5004310

i.e. antennas without reflector DASUTCCACC1



Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

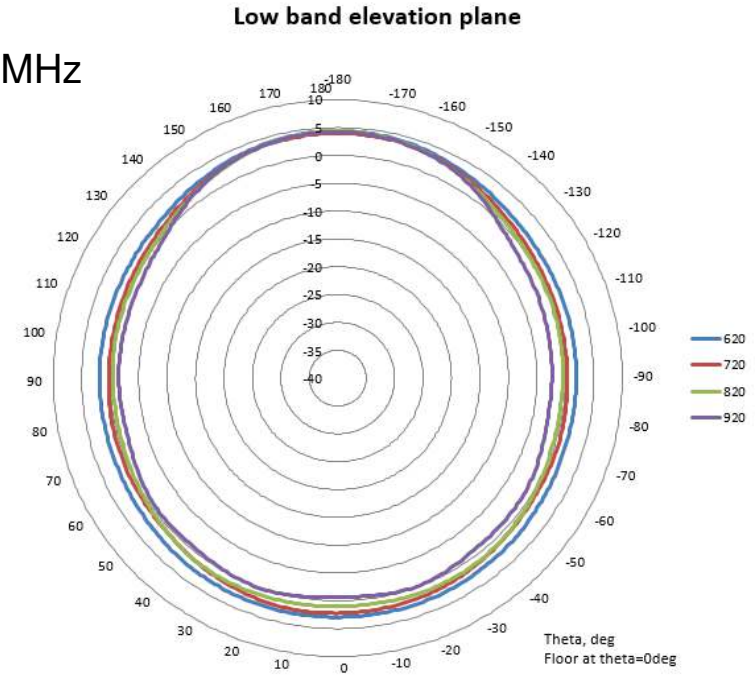
PART NUMBER: DASUTCCxxx

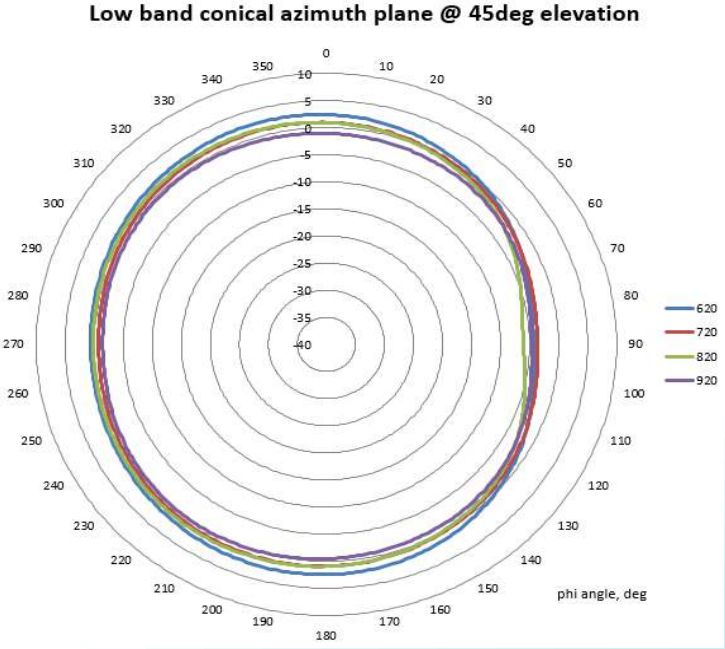
CHARTS

DASUTCC500NF, DASUTCC500MD and DASUTCC5004310

i.e. antennas without reflector DASUTCCACC1

Radiation patterns, 608-960MHz





RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTCCxxx

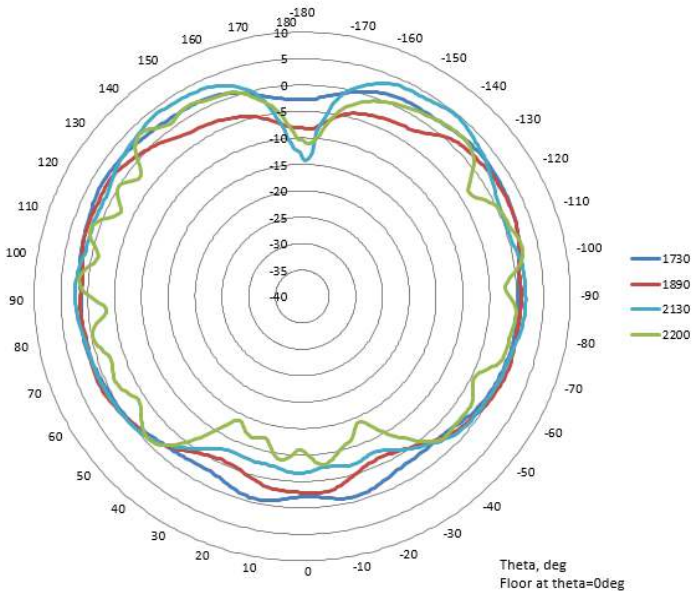
CHARTS

DASUTCC500NF, DASUTCC500MD and DASUTCC5004310

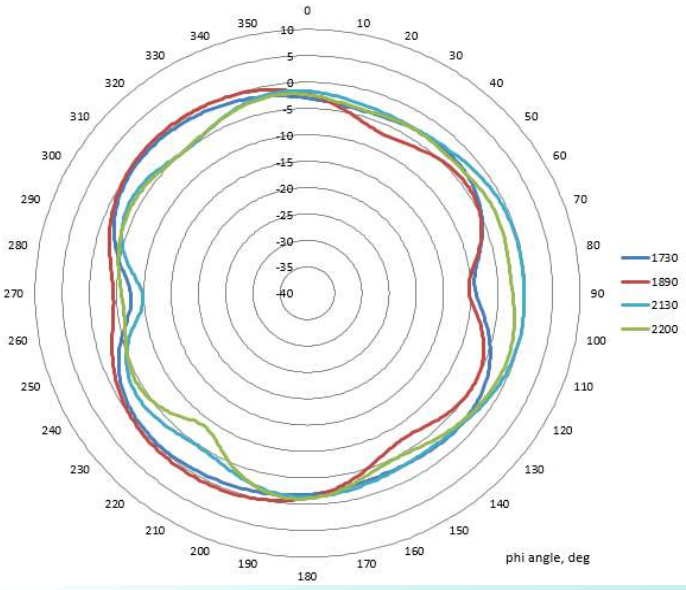
i.e. antennas without reflector DASUTCCACC1

Radiation patterns, 1695-2200MHz

Mid band elevation plane



Mid band conical azimuth plane @ 45deg elevation



RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTCCxxx

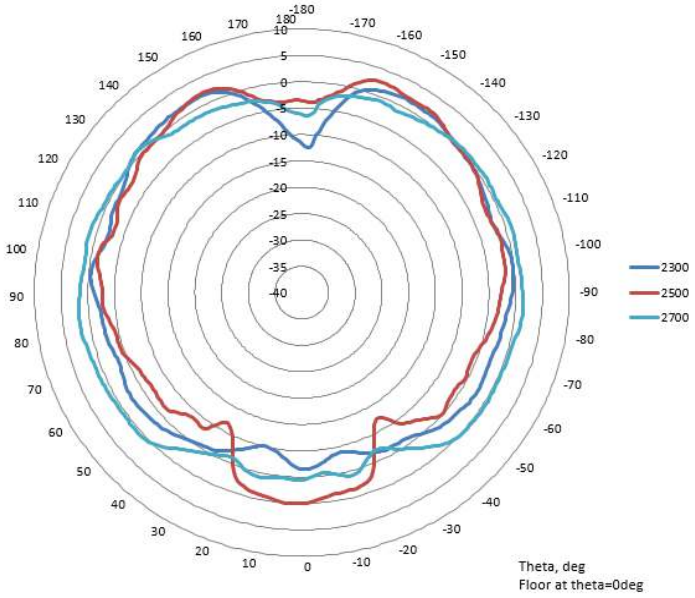
CHARTS

DASUTCC500NF, DASUTCC500MD and DASUTCC5004310

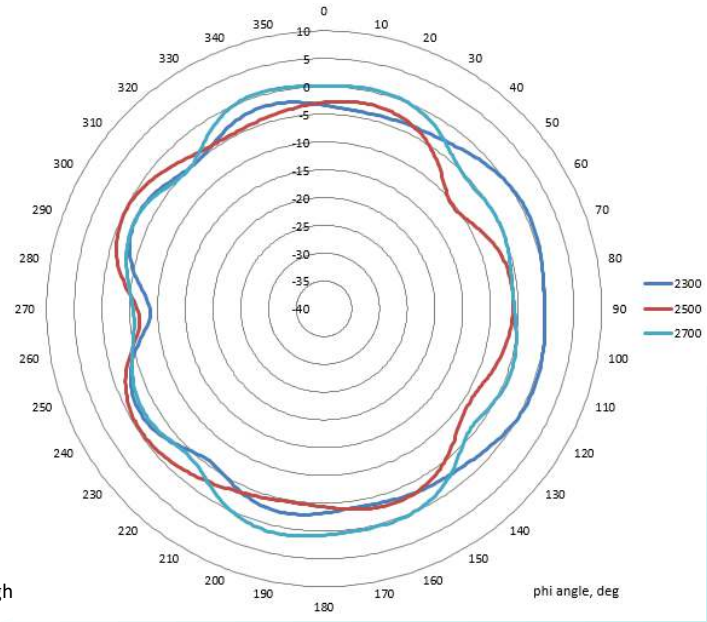
i.e. antennas without reflector DASUTCCACC1

Radiation patterns, 2300-2700MHz

High band elevation plane



High band conical azimuth plane @ 45deg elevation



RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

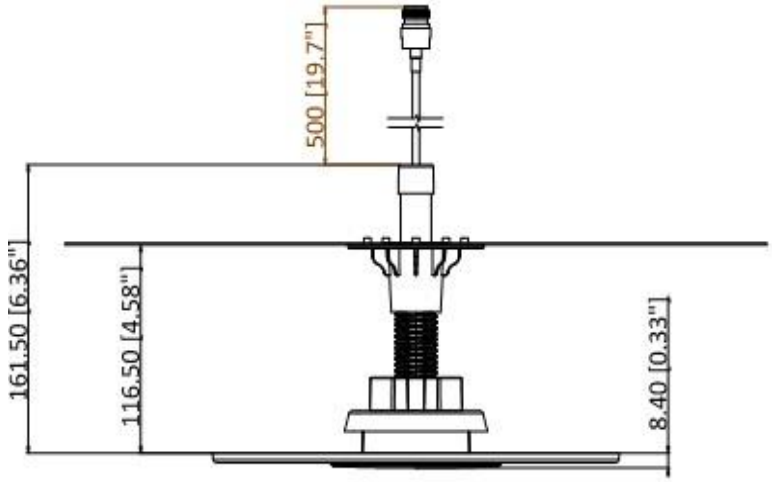
Series: CLARITY

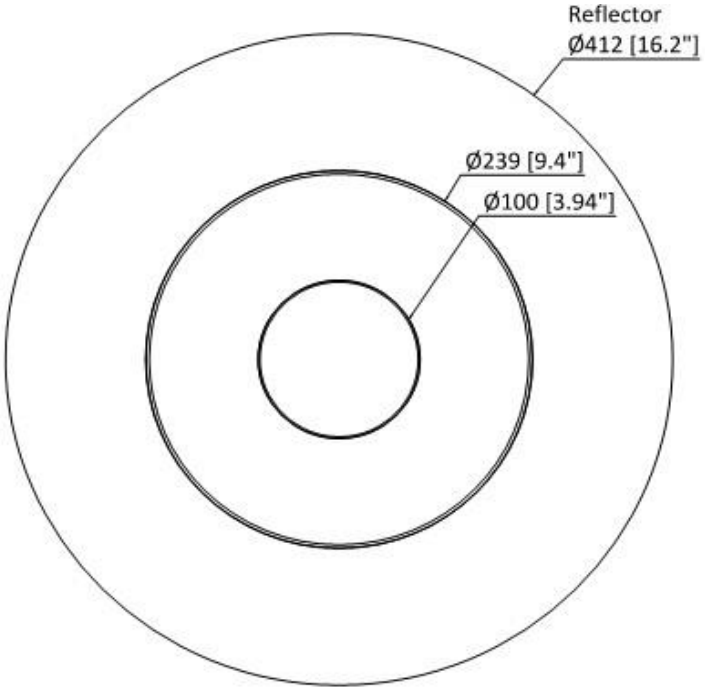
PART NUMBER: DASUTCCxxx

MECHANICAL DRAWING

DASUTCC5R00NF, DASUTCCR500MD and DASUTCCR5004310

i.e. antennas with reflector DASUTCCACC1





PulseLARSEN Antennas

TECHNICAL DATA SHEET

Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTCCxxx

ELECTRICAL SPECIFICATIONS

DASUTCC5R00NF, DASUTCCR500MD and DASUTCCR5004310

i.e. antennas with reflector DASUTCCACC1

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)	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

RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

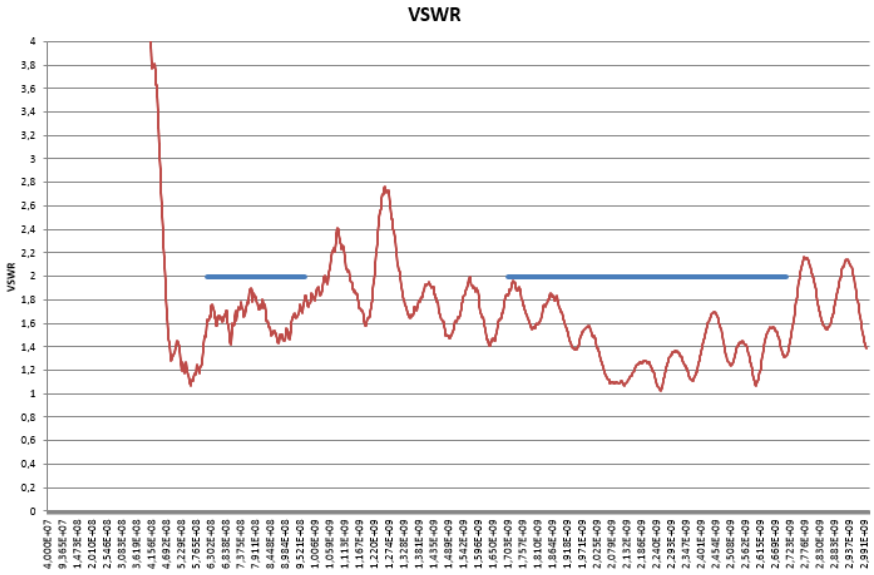
Series: CLARITY

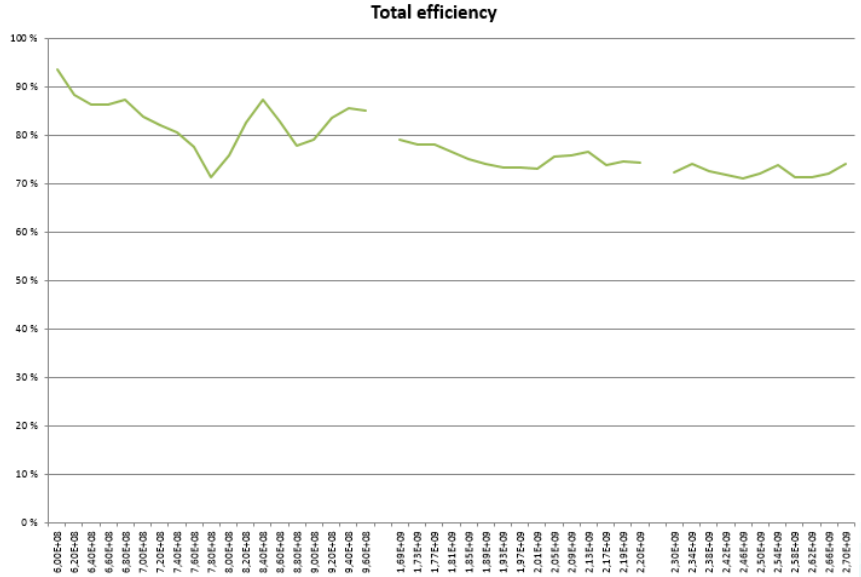
PART NUMBER: DASUTCCxxx

CHARTS

DASUTCC5R00NF, DASUTCCR500MD and DASUTCCR5004310

i.e. antennas with reflector DASUTCCACC1





Description: UltraThin, clear radome antenna for iDAS

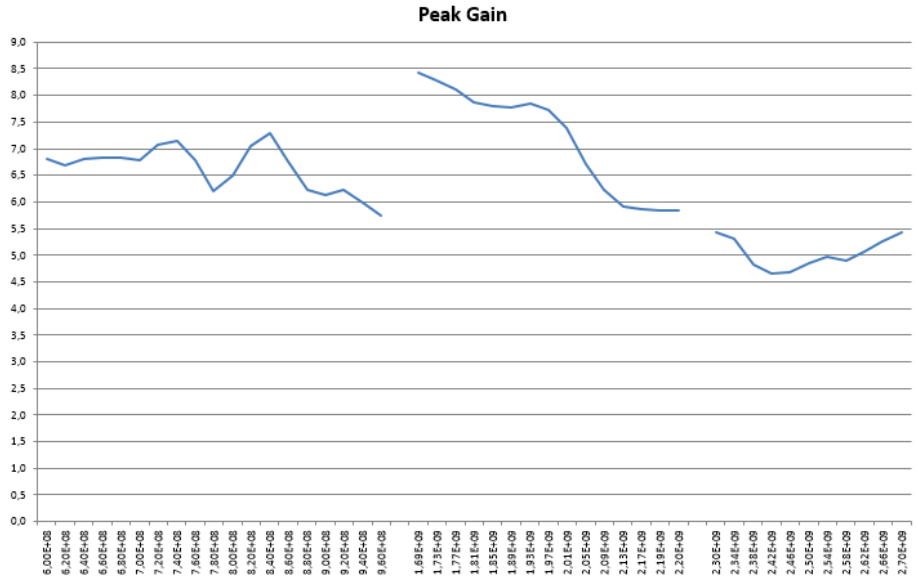
Series: CLARITY

PART NUMBER: DASUTCCxxx

CHARTS

DASUTCC5R00NF, DASUTCCR500MD and DASUTCCR5004310

i.e. antennas with reflector DASUTCCACC1



Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

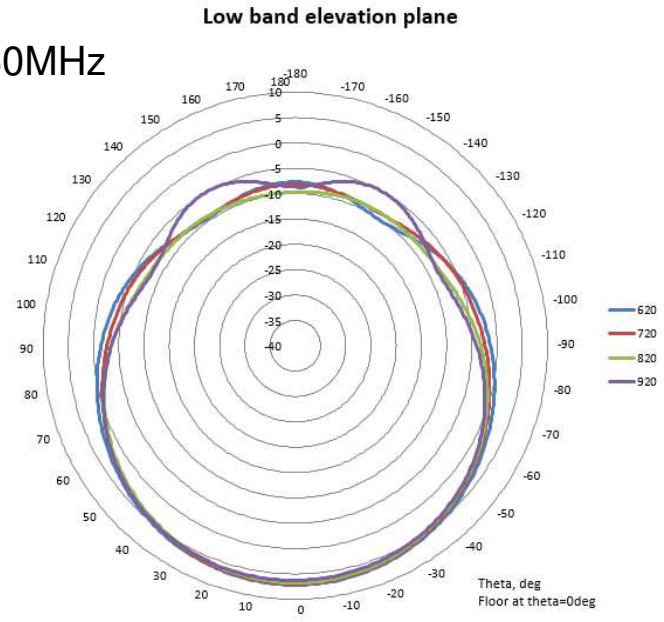
PART NUMBER: DASUTCCxxx

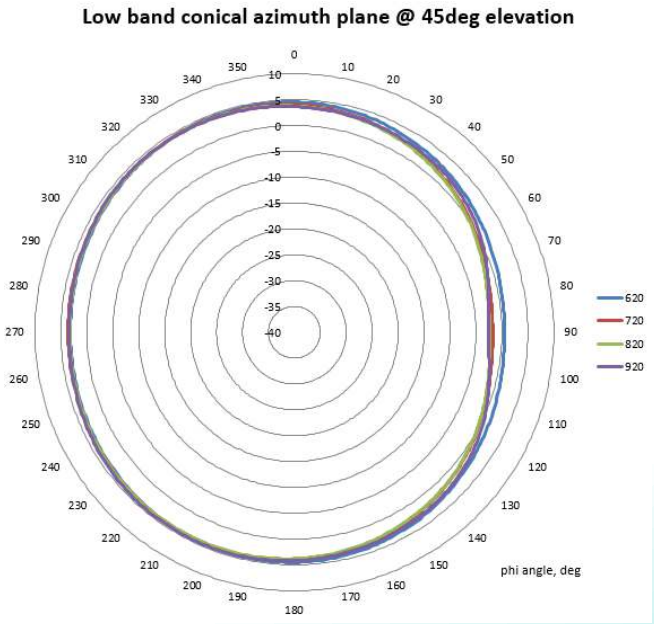
CHARTS

DASUTCC5R00NF, DASUTCCR500MD and DASUTCCR5004310

i.e. antennas with reflector DASUTCCACC1

Radiation patterns, 608-960MHz





Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

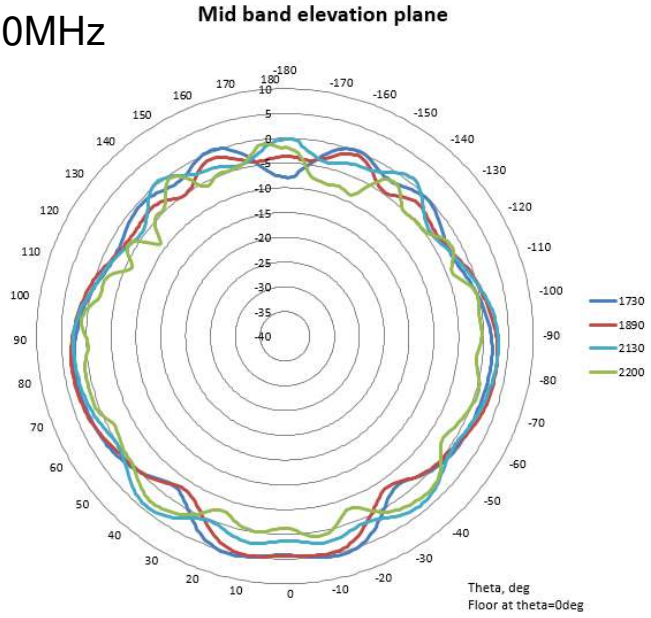
PART NUMBER: DASUTCCxxx

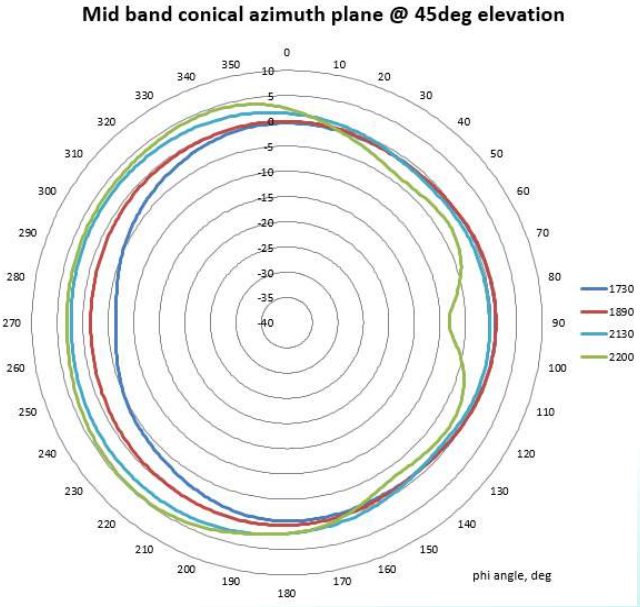
CHARTS

DASUTCC5R00NF, DASUTCCR500MD and DASUTCCR5004310

i.e. antennas with reflector DASUTCCACC1

Radiation patterns, 1695-2200MHz





RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

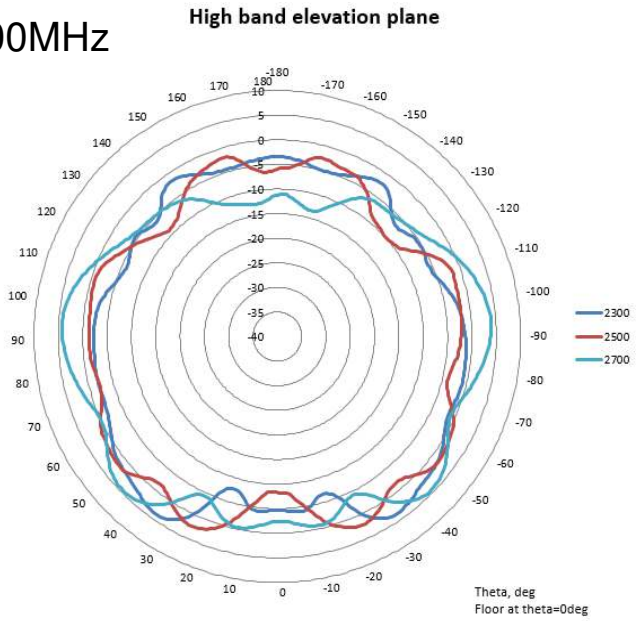
PART NUMBER: DASUTCCxxx

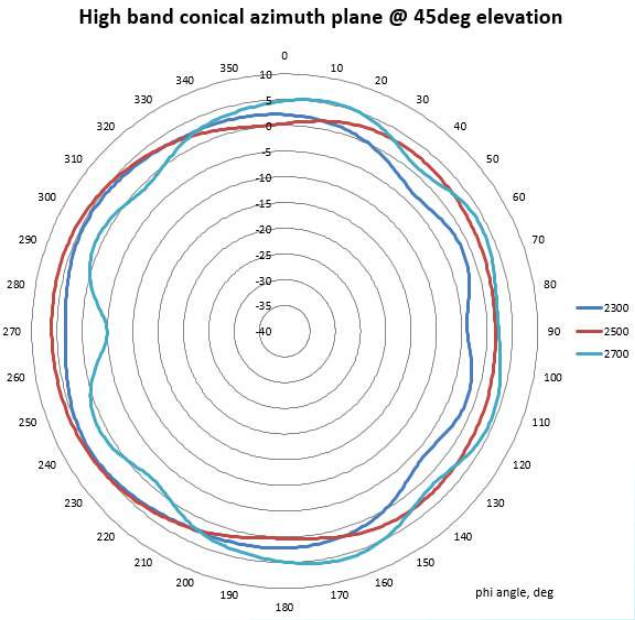
CHARTS

DASUTCC5R00NF, DASUTCCR500MD and DASUTCCR5004310

i.e. antennas with reflector DASUTCCACC1

Radiation patterns, 2300-2700MHz





RoHS COMPLIANT

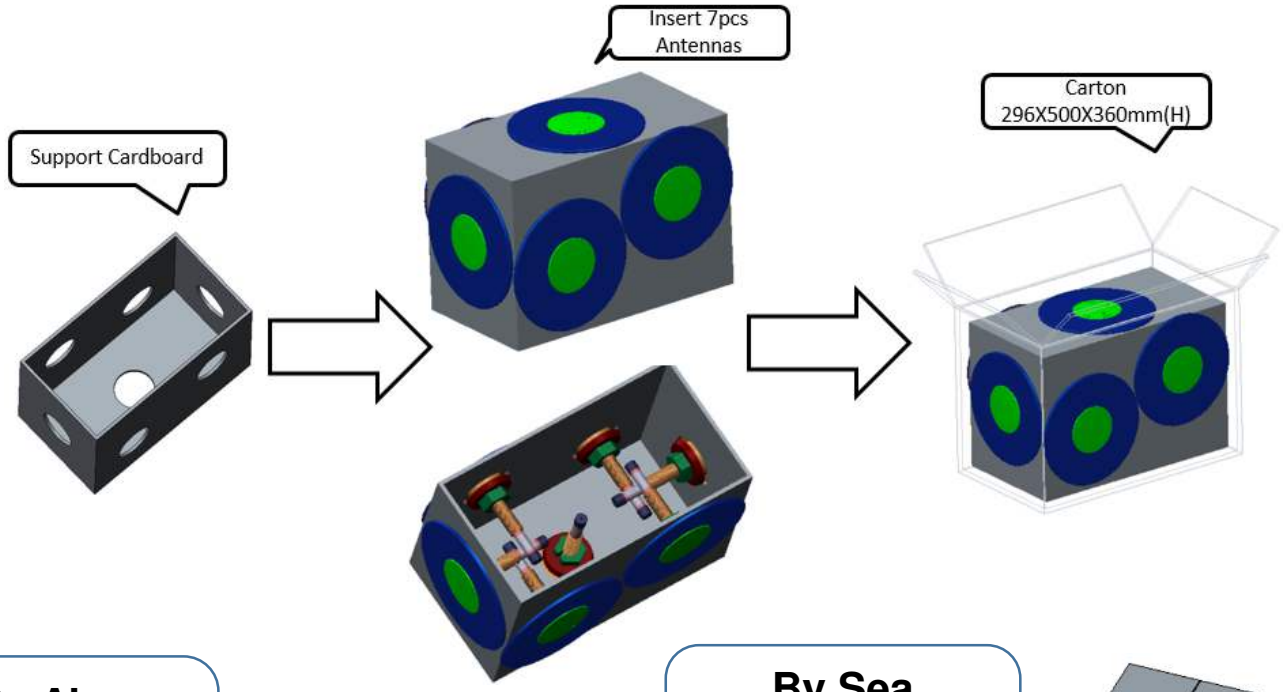
Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

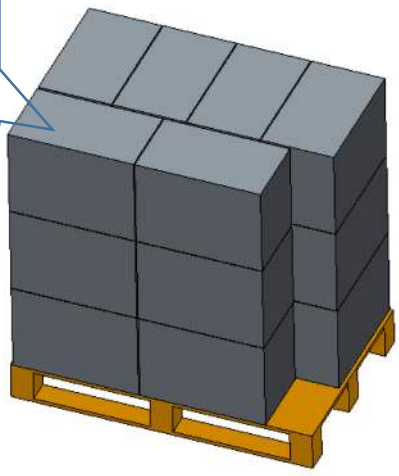
PART NUMBER: DASUTCCxxx

PACKAGING

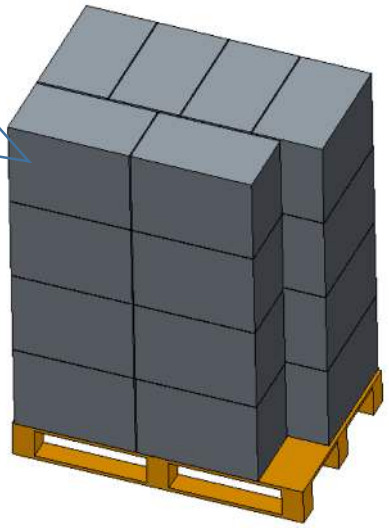
Pulse Part Number	Reflector	Carton	Pallet
DASUTCC500NF	Not Included	**7 Antennas packed in a carton** **1 label on each box with quantity, part number, date code.**	**18 cartons (126 antennas) stack on 1 pallet by air** **24 cartons (168 antennas) stack on 1 pallet by sea**
DASUTCC500MD	Not Included		
DASUTCC5004310	Not Included		



By Air
H=1.3m <1.5m
1 pallet = 18 Cartons
= 126 Antennas



By Sea
H=1.6m <1.8m
1 pallet = 24 Cartons
= 168 Antennas



PulseLARSEN Antennas

TECHNICAL DATA SHEET

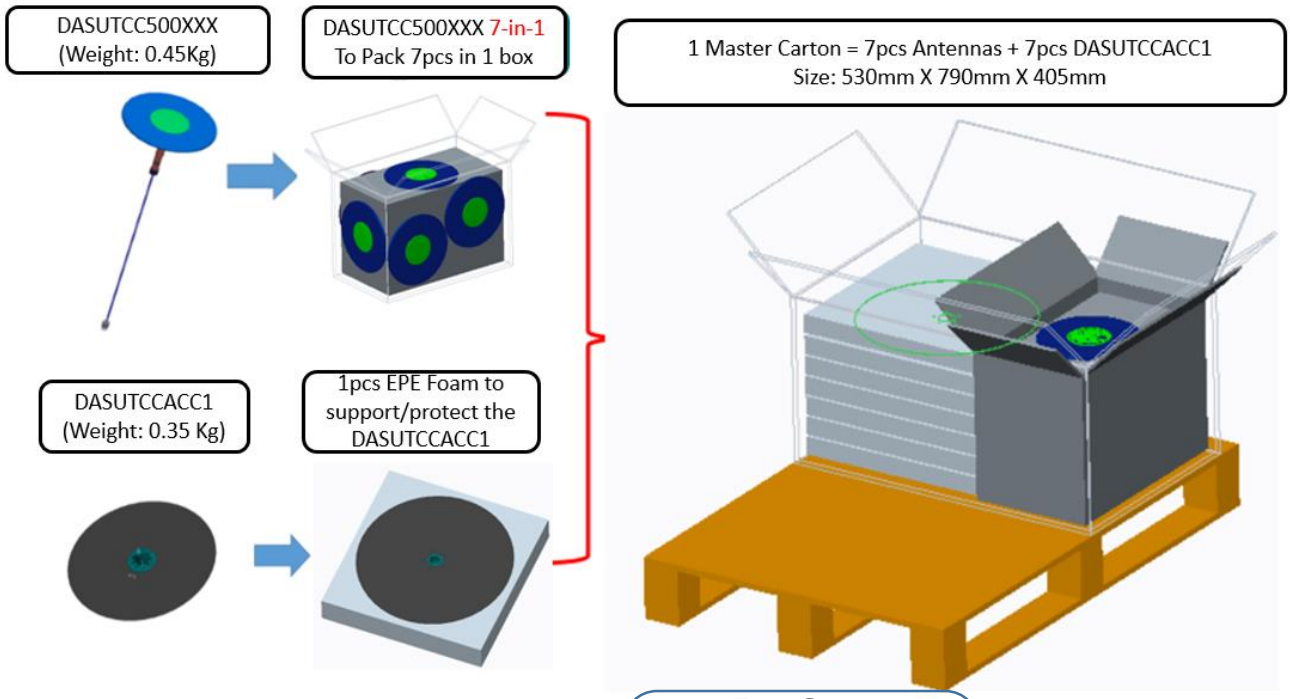
Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

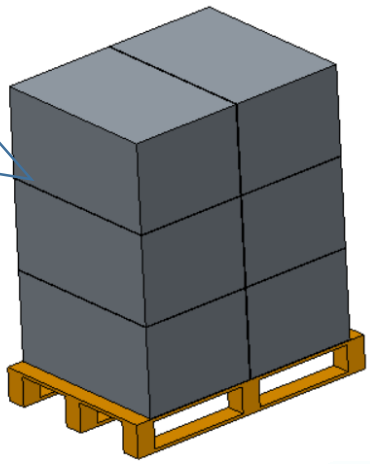
PART NUMBER: DASUTCCxxx

PACKAGING

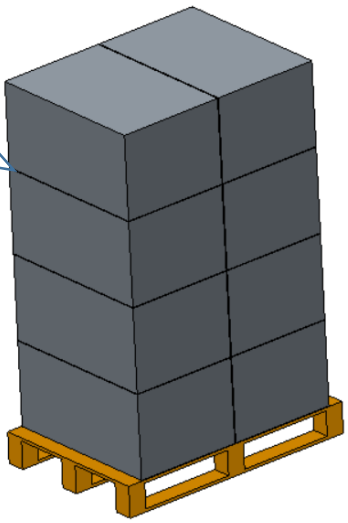
Pulse Part Number	Reflector	Carton	Pallet
DASUTCCR500NF	Included	**7 Antennas and 7 DASUTCCACC1 packed in a master carton 1 label on each box with quantity, part number, date code.**	**6 cartons (42 Antennas and 42 DASUTCCACC1) stack on 1 pallet by air 8 cartons (56 Antennas and 56 DASUTCCACC1) stack on 1 pallet by sea**
DASUTCCR500MD	Included		
DASUTCCR5004310	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



Issue:1836

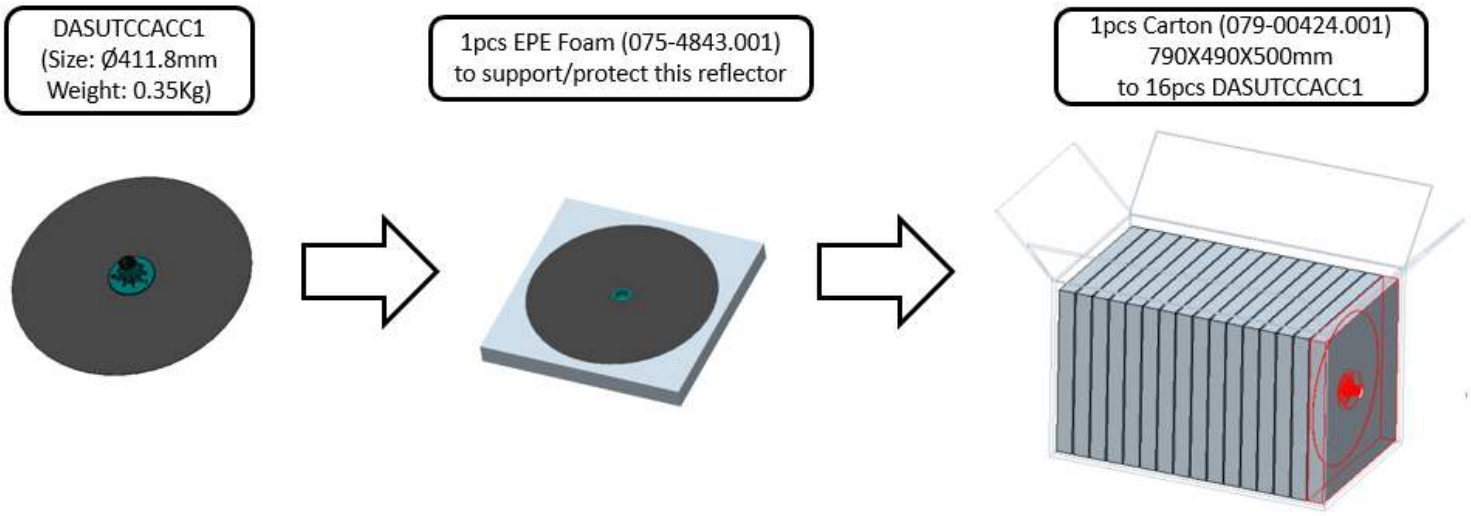
Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

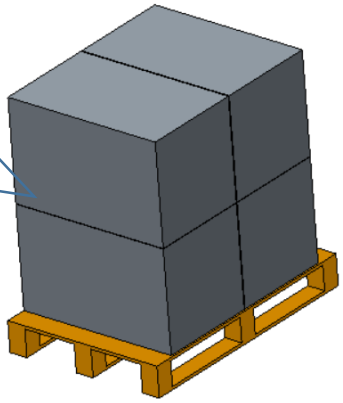
PART NUMBER: DASUTCCxxx

PACKAGING

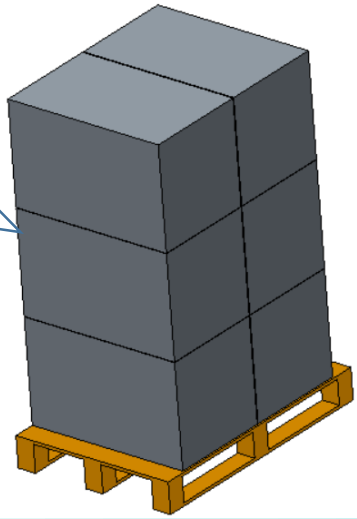
Accessory Part Number	Carton	Pallet
DASUTCCACC1	**16 Reflectors (DASUTCCACC1) packed in a carton** **1 label on each box with quantity, part number, date code.**	**4 cartons (64 DASUTCCACC1) stack on 1 pallet by air** **6 cartons (96 DASUTCCACC1) stack on 1 pallet by sea**



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



RoHS COMPLIANT

Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

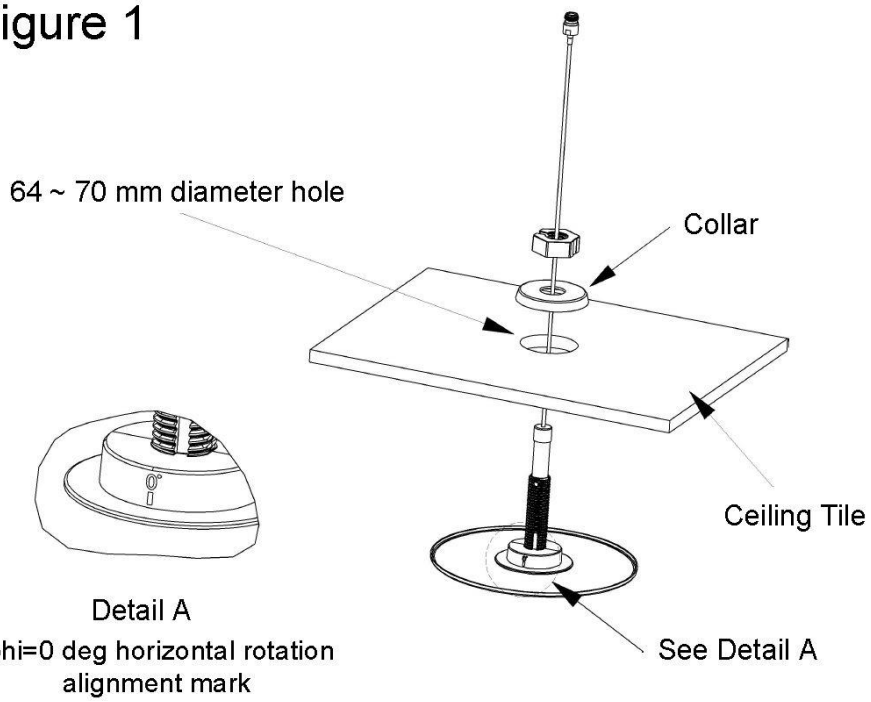
PART NUMBER: DASUTCCxxx

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

Figure 1



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.

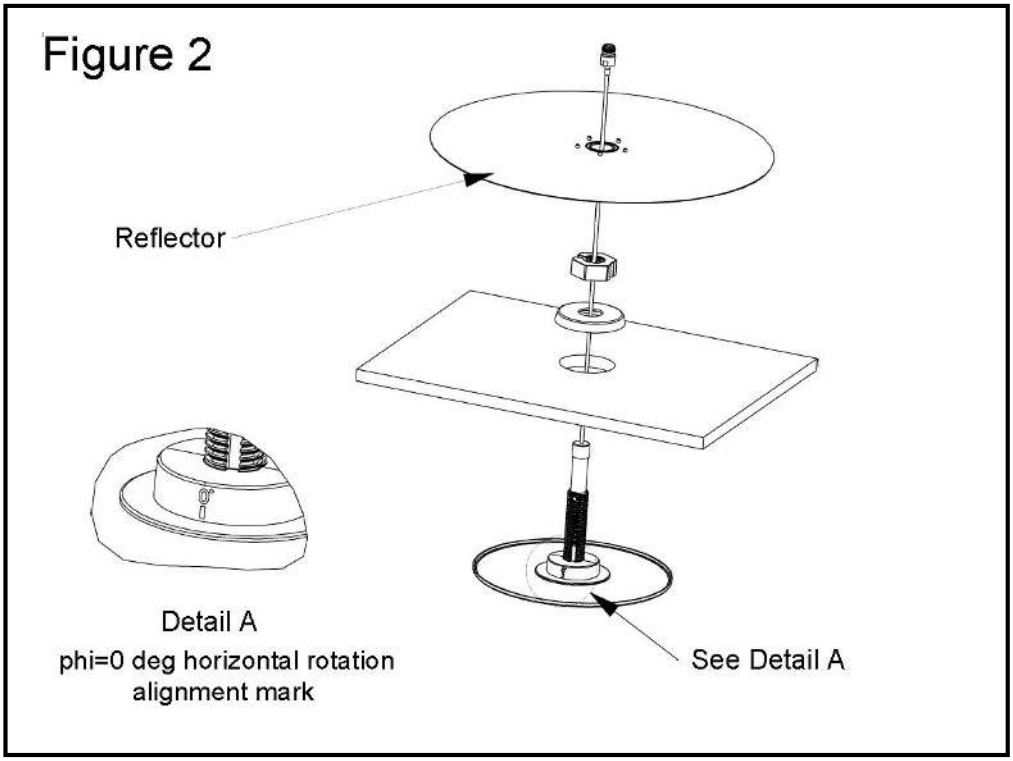
Description: UltraThin, clear radome antenna for iDAS

Series: CLARITY

PART NUMBER: DASUTCCxxx

ASSEMBLY

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



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.

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)