

PANOS
inženjering

2026

Panos Indoor DAS Solutions

Reliable In-Building Coverage with Advanced Antenna Systems



PRODUCT OVERVIEW

Panos Inženjering



Panos inženjering is a company specializing in the design, integration and implementation of telecommunications and information systems.

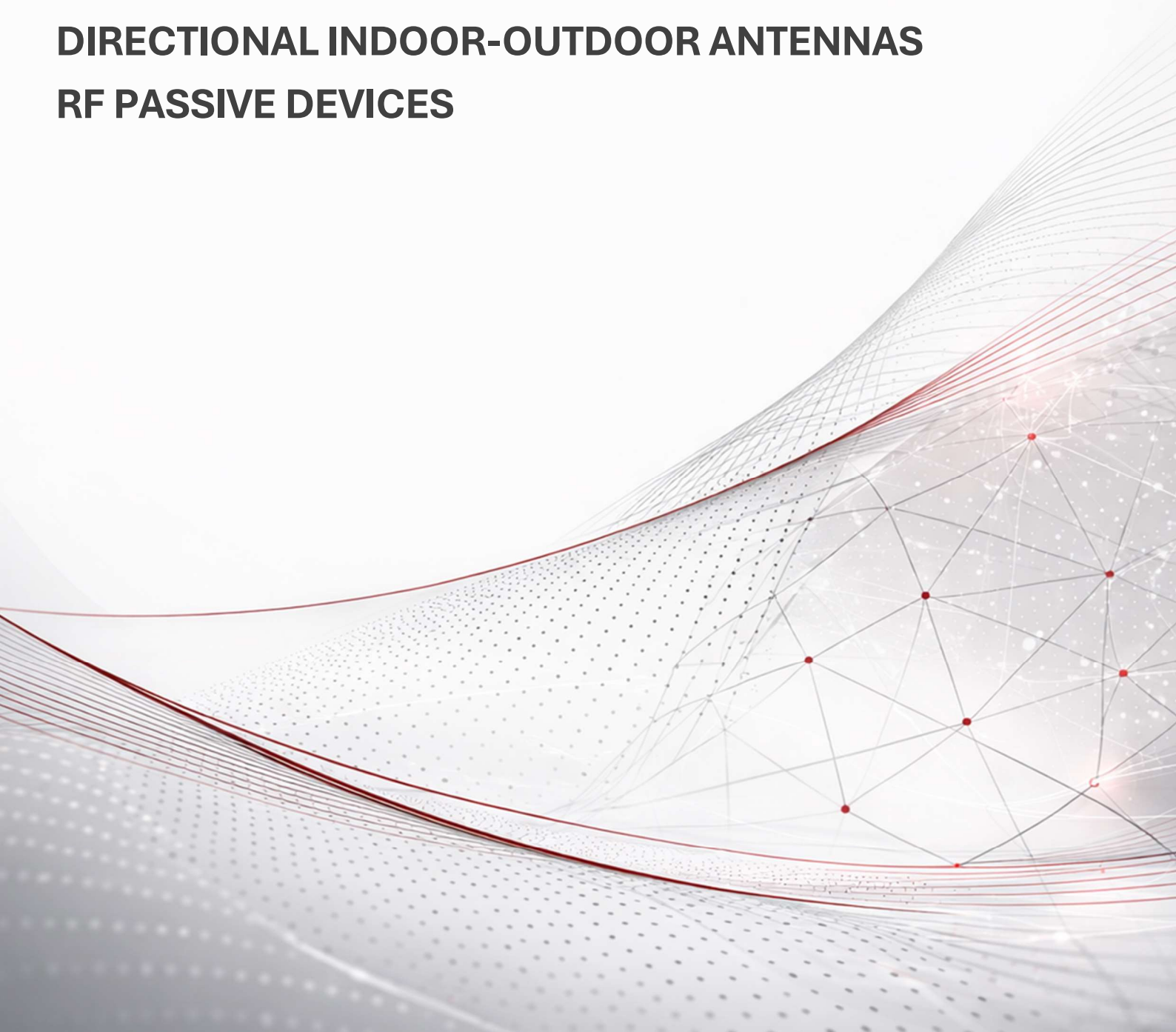
Through a combination of practical experience, engineering expertise, and a systematic approach, the company develops infrastructure solutions that ensure stable and reliable operation of modern communication networks.

The company's main focus is on development and implementation of in-building wireless solutions, Distributed Antenna Systems (DAS) and support for telecommunications infrastructure.

These solutions are designed to deliver reliable coverage, stable network operation, and long-term sustainability in various types of buildings and infrastructure environments.

SUMMARY OF ANTENNAS AND RF PASSIVE DEVICES

OMNIDIRECTIONAL INDOOR ANTENNAS
DIRECTIONAL INDOOR ANTENNAS
DIRECTIONAL INDOOR-OUTDOOR ANTENNAS
RF PASSIVE DEVICES



 **OMNIDIRECTIONAL INDOOR ANTENNAS**

PNS-AOS-0640-MH

PNS-AOS-0740-3H

PNS-AOS-03560-FL

PNS-AOM-0740-3H

PNS-AOS-0640-MH

Indoor Ceiling Omni Antenna

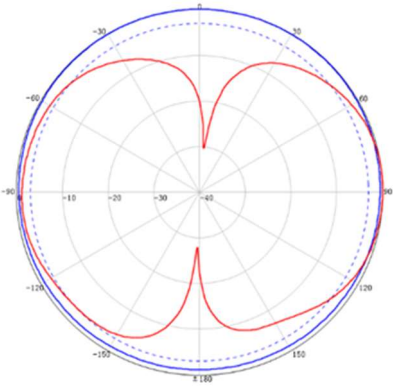


Features

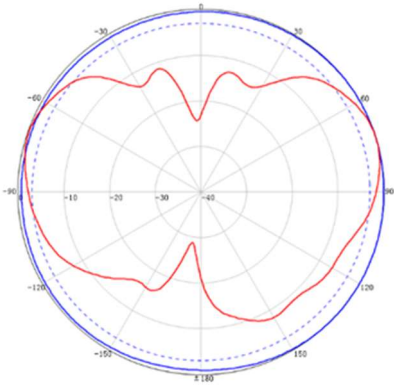
- Indoor wireless coverage system
- 617-960/1695-2700/3300-4000 MHz
- SISO

Type No.	PNS-AOS-0640-MH		
Frequency range	617-960 MHz	1695-2700 MHz	3300-4000 MHz
Polarization	Vertical		
Gain	2 dBi	3 dBi	3 dBi
Half-Power Beamwidth	H:360°		
	V:85°	V:50°	V:60°
VSWR	≤2.0		
Impedance	50 Ω		
Intermodulation IM3 (43dBm carrier)	≤-153 dBc		
Maximum power	50 W		
Lightning protection	DC ground		
Connector	4.3-10 Female		
Coaxial cable	low-loss, 30 cm		
Height/width/depth	Φ 174 x 130 mm		
Weight	0.3 kg		
Radome material	PS		
Radome color	White		
Mounting	Fixed with central nut/hard ceiling mount		
Operating temperature	-40 to +60 °C		
Application	Indoor		

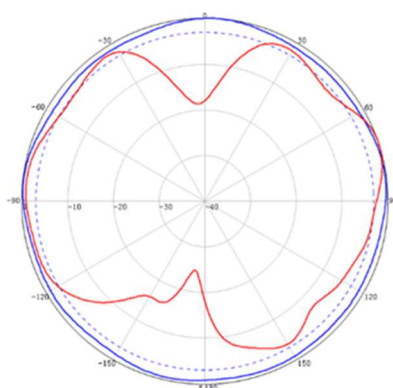
Antenna typical pattern:



617-960 MHz



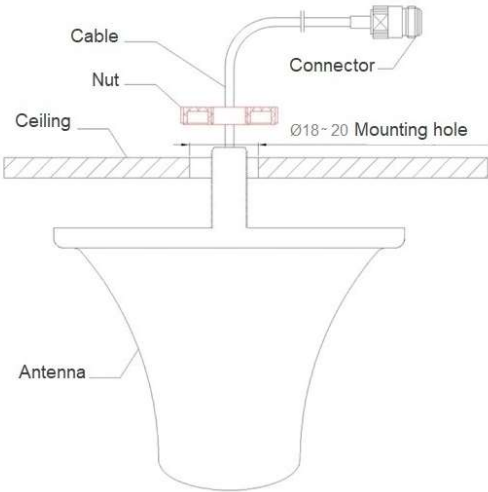
1695-2700 MHz



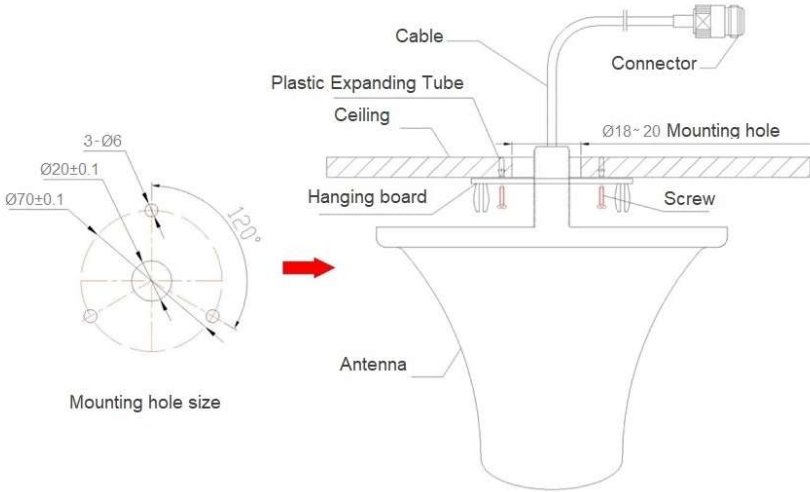
3300-4000 MHz

Installation Instructions:

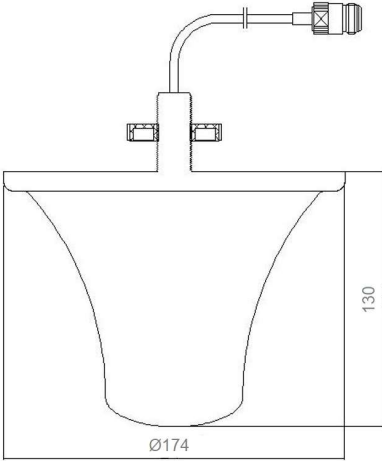
Standard Ceiling Mount



Hard Ceiling Mount



Product size drawing:



PNS-AOS-0740-3H

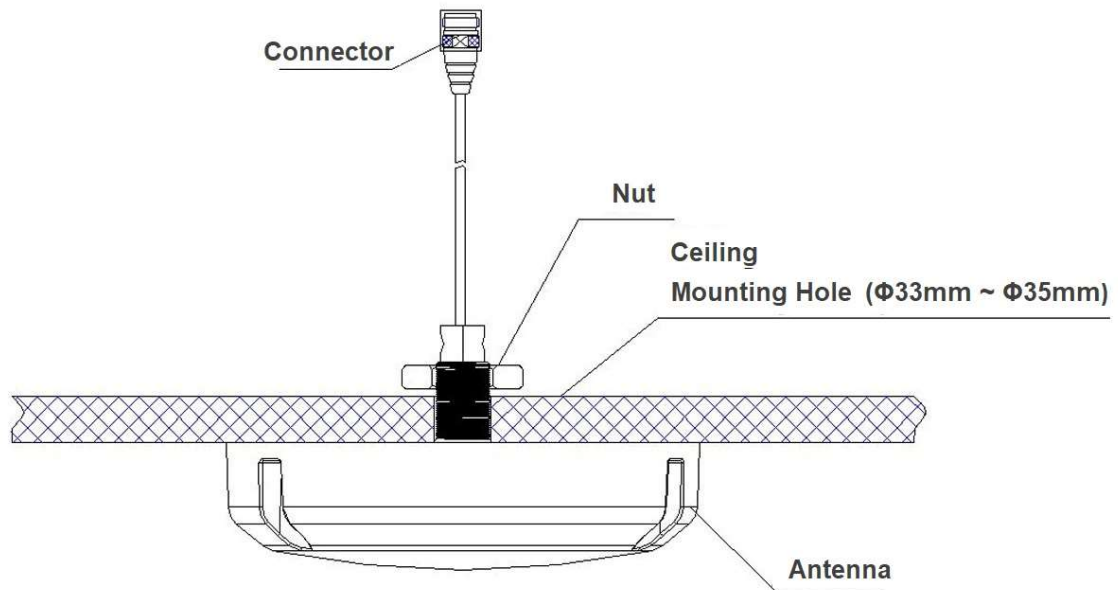
Indoor Ceiling Omni Antenna



Features

- Indoor wireless coverage system
- 698-960/1710-2700/3300-4000 MHz
- SISO

Type No.	PNS-AOS-0740-3H		
Frequency range	698-960 MHz	1710-2700 MHz	3300-4000 MHz
Polarization	Vertical		
Gain	4±1 dBi	5±1 dBi	5±1 dBi
Half-Power Beamwidth	H:360°		
	V:90°	V:60°	V:40°
VSWR	≤1.8		
Impedance	50 Ω		
Intermodulation IM3 (43dBm carrier)	≤-150 dBc		
Maximum power	50 W		
Lightning protection	DC ground		
Connector	4.3-10 Female		
Coaxial cable	low-loss, 30 cm		
Height/width/depth	Φ 207 x 56 mm		
Weight	0.5 kg		
Radome material	ABS		
Radome color	White		
Mounting	Fixed with central nut/3 screws over antenna rim		
Operating temperature	-40 to +60 °C		
Application	Indoor		

Installation Instructions:

1. Drill a $\Phi 33 - \Phi 35$ hole on the ceiling
2. Install the antenna as the following picture shows then tighten the bolts
3. Connect the RF-jumper to antenna connector

PNS-AOS-03560-FL

Indoor Ceiling Omni Antenna

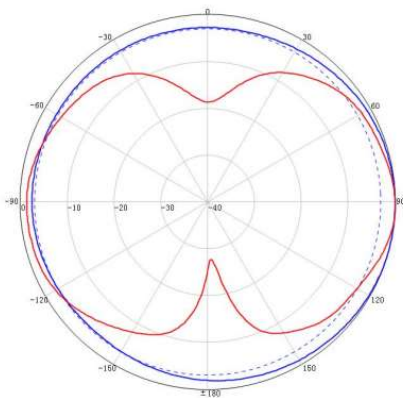


Features

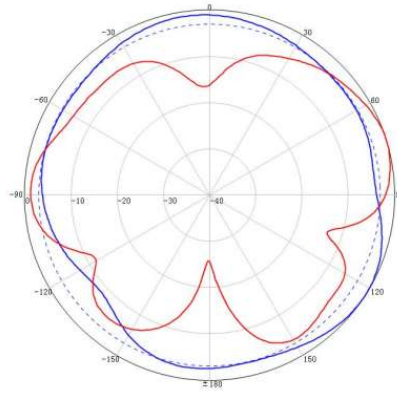
- Indoor wireless coverage system
- 350-520/617-960/1695-2700/3300-4200/4800-6000 MHz
- SISO

Type No.	PNS-AOS-03560-FL				
Frequency range	350-520 MHz	617-960 MHz	1695-2700 MHz	3300-4200 MHz	4800-6000 MHz
Polarization	Linear and Horizontal				
Gain	4 dBi	4 dBi	6 dBi	7 dBi	7 dBi
Half-Power Beamwidth	H:360°				
	V:120°	V:90°	V:80°	V:50°	V:40°
VSWR	≤1.8	≤1.5			
Impedance	50 Ω				
Intermodulation IM3 (43dBm carrier)	≤-153 dBc				
Maximum power	50 W				
Lightning protection	DC ground				
Connector	4.3-10 Female				
Coaxial cable	low-loss, 30 cm				
Height/width/depth	Φ 300 x 13 mm				
Weight	0.55 kg				
Radome material	ABS				
Radome color	White (RAL 9003)				
Mounting	Fixed with central nut/hard ceiling mount with screws				
Operating temperature	-40 to +60 °C				
Application	Indoor				

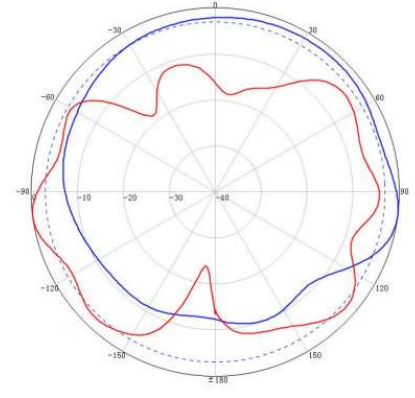
Antenna typical pattern:



350-960 MHz

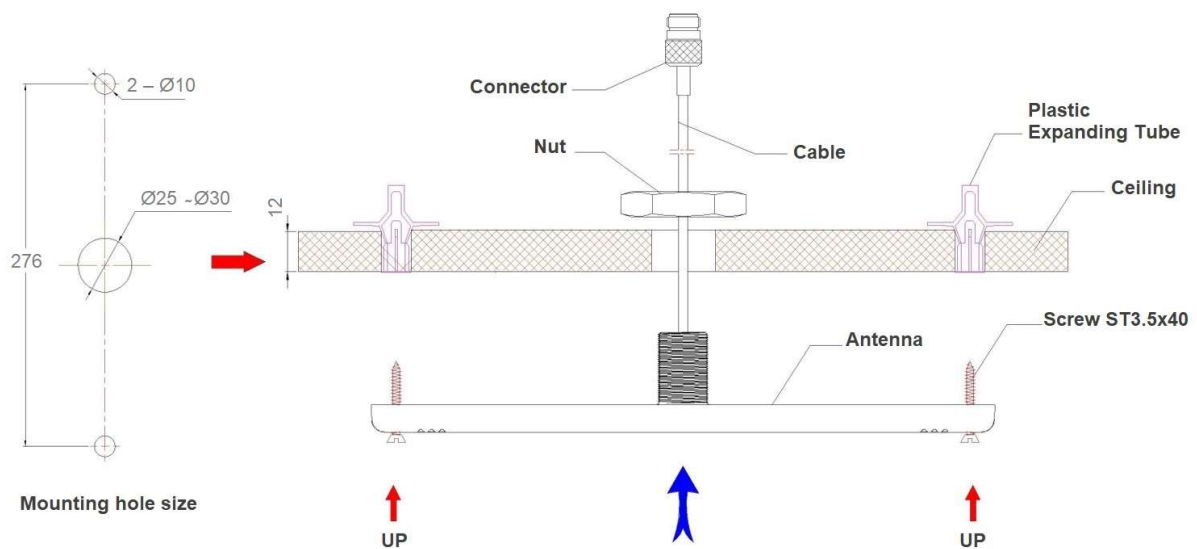


1695-2700 MHz



3300-6000 MHz

Installation Instructions:



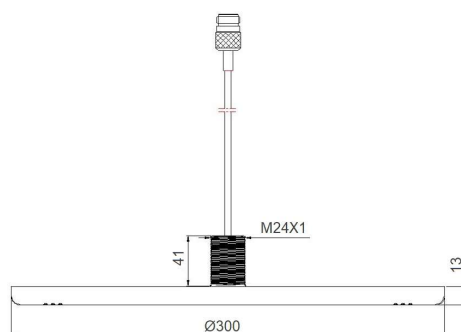
Method 1:

1. Drill a $\Phi 33 - \Phi 35$ hole on the ceiling
2. Install the antenna as the following picture shows then tighten the central nut
3. Connect the RF jumper to the antenna connector
4. Place suspended board to place

Method 2:

1. Drill a $\Phi 33 - \Phi 35$ hole on the ceiling
2. Place antenna just to mark 3 holes on rim
3. Drill 3 x 4mm hole on marked places and insert plug
4. Connect the RF jumper to the antenna connector
5. Install the antenna and screw 3 x wood screw

Product size drawing:



PNS-AOM-0740-3H

Indoor Ceiling Omni Antenna

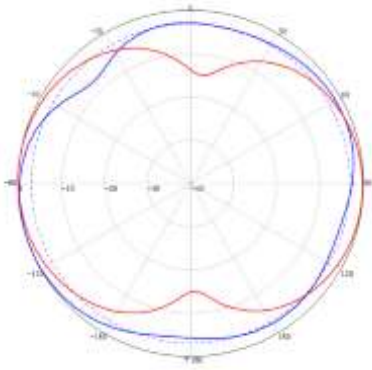


Features

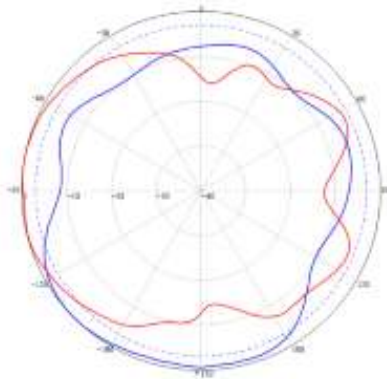
- Indoor wireless coverage system
- 698-960/1710-2700/3300-4000 MHz
- MIMO

Type No.	PNS-AOM-0740-3H		
Frequency range	698-960 MHz	1710-2700 MHz	3300-4000 MHz
Polarization	Vertical		
Gain	4±1 dBi	5±1 dBi	5±1 dBi
Half-Power Beamwidth	H:360°		
	V:90°	V:60°	V:40°
VSWR	≤1.8		
Isolation	≥20 dB		
Impedance	50 Ω		
Intermodulation IM3 (2×43dBm carrier)	≤-150 dBc		
Maximum power	50 W		
Lightning protection	DC ground		
Connector	2 x 4.3-10 Female		
Coaxial cable	low-loss, 30 cm		
Height/width/depth	Φ 207 x 56 mm		
Weight	0.6 kg		
Radome material	ABS		
Radome color	White		
Mounting	Fixed with central nut/3 screws over antenna rim		
Operating temperature	-40 to +60 °C		
Application	Indoor		

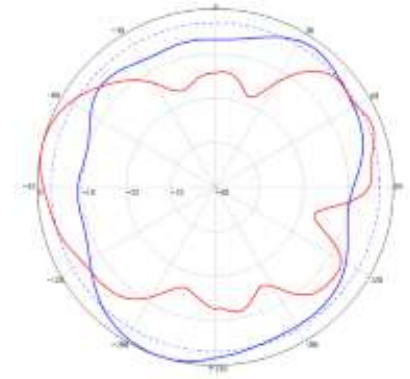
Antenna typical pattern:



698-960 MHz

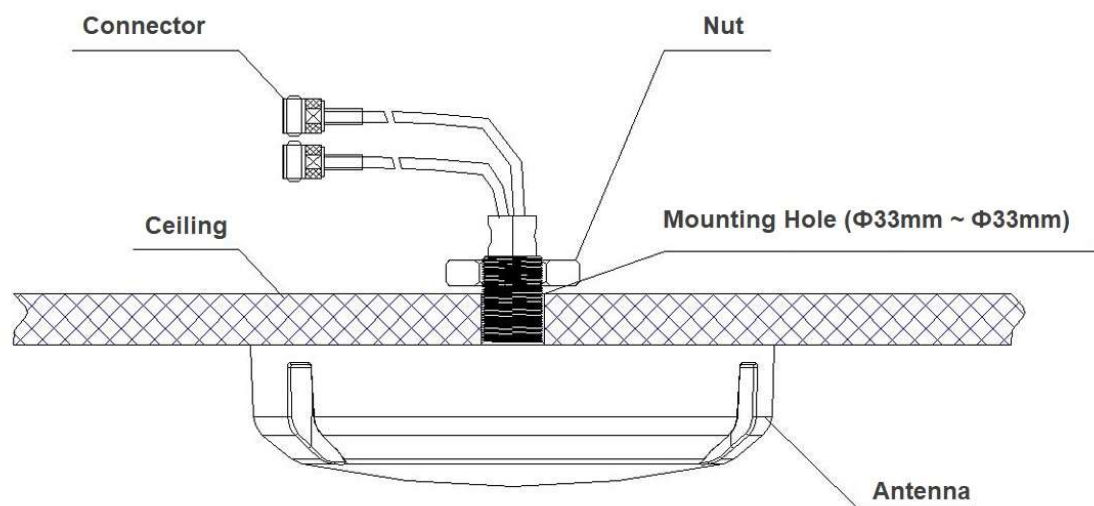


1710-2700 MHz



3300-4000 MHz

Installation Instructions:



1. Drill a round hole $\Phi 25\text{mm}-\Phi 30\text{mm}$ on the ceiling
2. Match the antenna to the round hole
3. Fix the antenna onto the ceiling with the screws

Attention!

The hole on the ceiling must be slightly bigger than the antenna connector flange, and the antenna base plate should be in close contact with the ceiling, which influences the performance of the antenna.

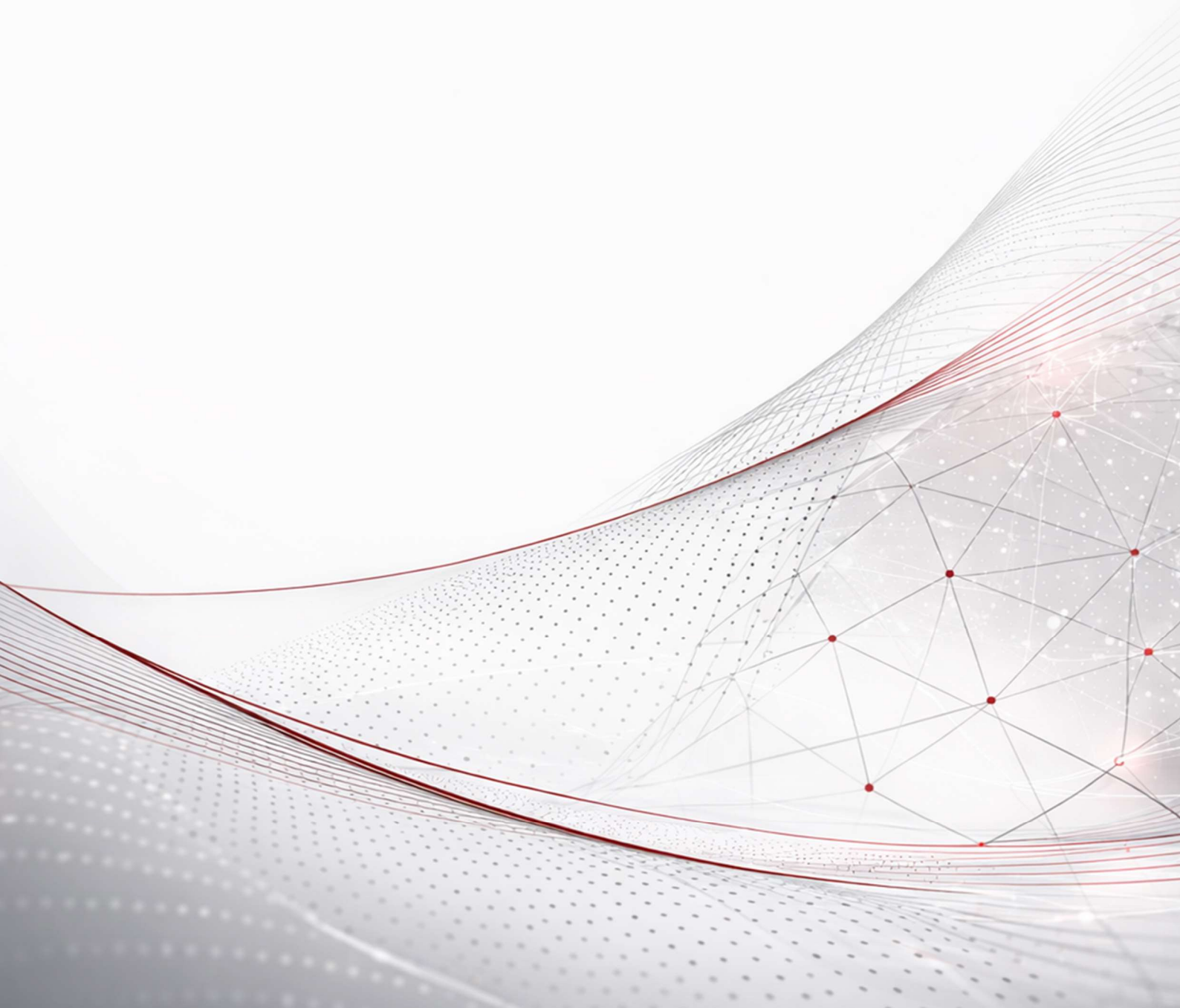


DIRECTIONAL INDOOR ANTENNAS

PNS-APS-0738-V

PNS-APS-0740-V

PNS-APM-0738-VH



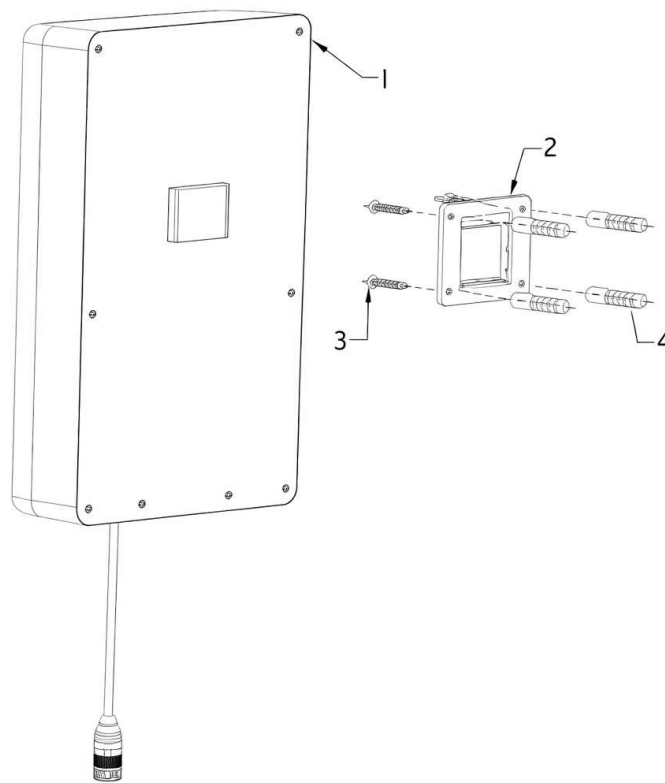
PNS-APS-0738-V
Wall Mounting Antenna



Features

- 698-960/1710-2700/3300-3800 MHz
- Lightweight and small size
- UV Stable ABS radome

Type No.	PNS-APS-0738-V		
Frequency range	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Polarization	Vertical		
Gain	6±1 dBi	8±1 dBi	8±1 dBi
Hor. beamwidth	90±15°	75±15°	60±15°
Vert. beamwidth	65±10°	60±10°	45±10°
VSWR	≤1.8		
Front to back ratio	≥8 dB	≥15 dB	≥15 dB
Impedance	50 Ω		
Intermodulation IM3 (43dBm carrier)	≤-150 dBc		
Maximum power	50 W		
Connector	4.3-10 Female		
Coaxial cable	low-loss, 30 cm		
Height/width/depth	284 x 180 x 67 mm		
Weight	1.0 kg		
Radome material	ABS		
Radome color	White		
Mounting	Wall Mounting (mounting plate and screws included)		
Operating temperature	-40 to +60 °C		
Application	Indoor		

Installation Instructions:

1. Position the mounting plate on the wall and mark holes
2. Insert plastic plugs and fix the plate by the countersunk self-tapping screws ST4.2×25
3. Clamp the antenna on the mounting plate
4. Connect the RF jumper to the antenna connector

PNS-APS-0740-V

Wall Mounting Panel Antenna

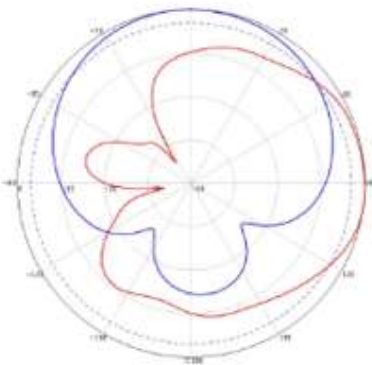


Features

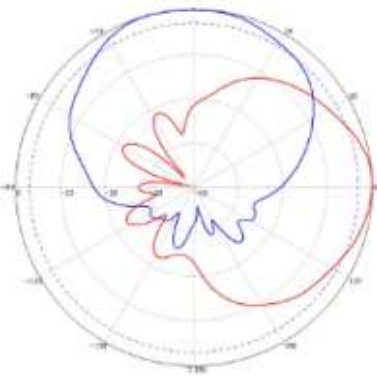
- Indoor wireless coverage system
- 698-960/1710-2700/3300-4000 MHz
- SISO

Type No.	PNS-APS-0740-V				
Frequency range	698-806 MHz	806-960 MHz	1710-2170 MHz	2200-2700 MHz	3300-4000 MHz
Polarization	Vertical				
Gain	5±0.5 dBi	6±0.5 dBi	7±0.5 dBi	7.5±0.5 dBi	8.5±0.5 dBi
Hor. beamwidth	80°	80°	65°	60°	55°
Vert. beamwidth	73°	70°	60°	60°	30°
Front to back ratio	5 dB	8 dB	10 dB	15 dB	10 dB
VSWR	≤1.8				
Impedance	50 Ω				
Intermodulation IM3 (43dBm carrier)	≤-153 dBc				
Maximum power	50 W				
Connector	4.3-10 Female				
Coaxial cable	low-loss, 90 cm				
Height/width/depth	180 x 170 x 60 mm				
Weight	0.4 kg				
Radome material	ABS				
Radome color	White (RAL9003)				
Mounting	Wall Mounting (mounting plate and screws included)				
Operating temperature	-40 to +60 °C				
Application	Indoor				

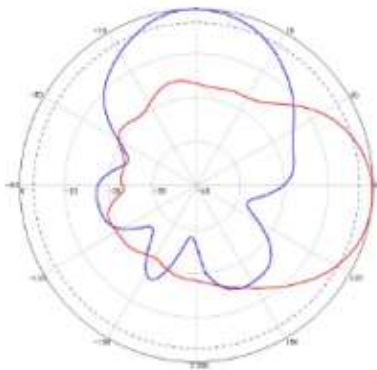
Antenna typical pattern:



698-960 MHz

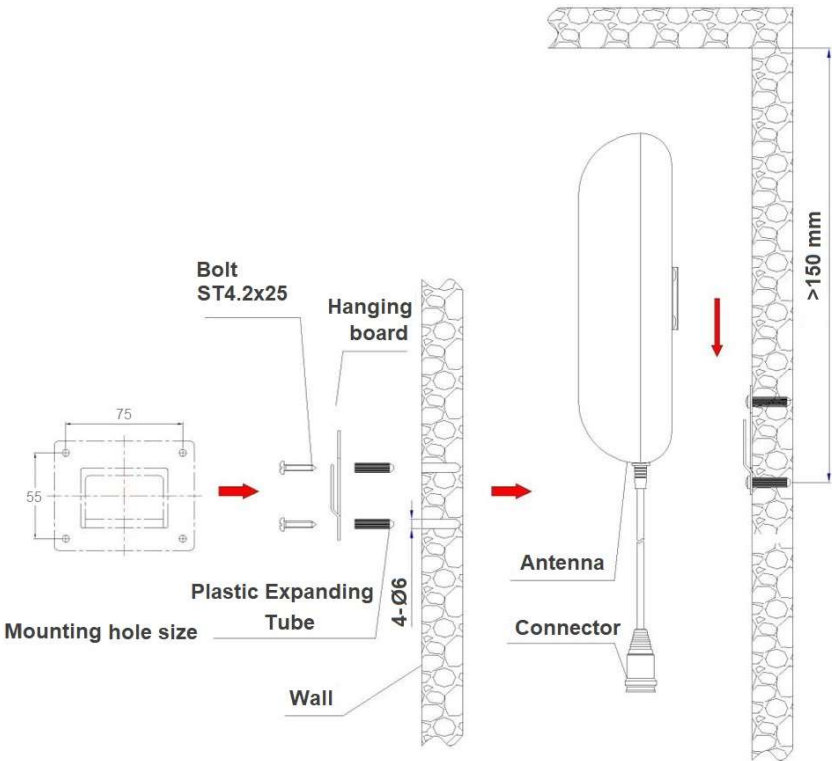


1710-2700 MHz



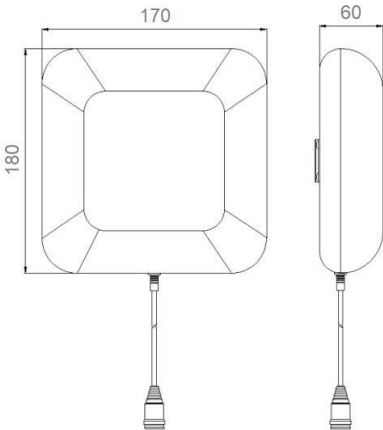
3400-4000 MHz

Installation Instructions:



- 1. Position and fix the mounting plate on the wall with the countersunk self-tapping screws ST4.2×25 and plastic accessories
- 2. Finish the installation by matching the clamp piece on the antenna base plate to the mounting plate hanger

Product size drawing:



PNS-APM-0738-VH

Wall Mounting Panel Antenna

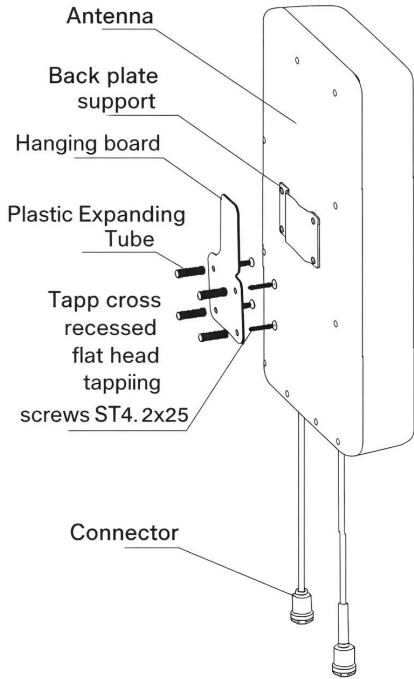


Features

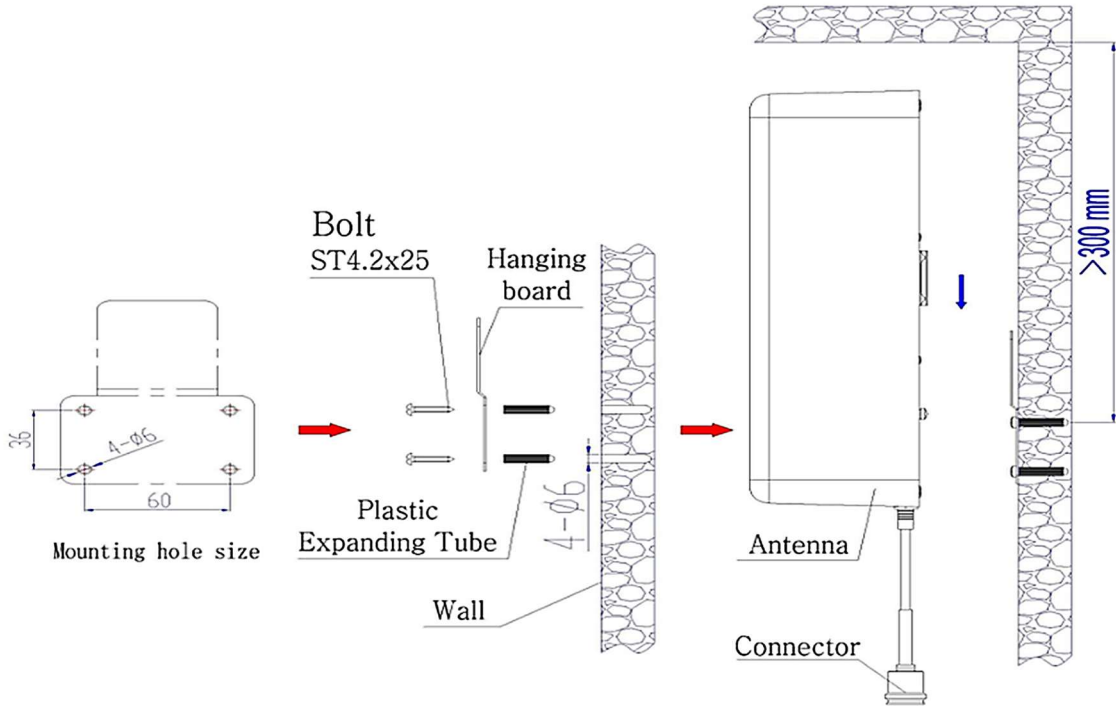
- 698-960/1710-2700/3300-3800 MHz
- Indoor wireless coverage system
- MIMO

Type No.	PNS-APM-0738-VH		
Frequency range	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Polarization	±45°		
Gain	≥7 dBi	≥7 dBi	≥6.5 dBi
Hor. beamwidth	85±15°	70±15°	60±15°
Vert. beamwidth	70°	65°	60°
VSWR	≤1.8		
Front to back ratio	≥10 dB	≥15 dB	≥10 dB
Impedance	50 Ω		
Intermodulation IM3 (2×43dBm carrier)	≤-150 dBc		
Maximum power	50 W		
Connector	2×4.3-10 Female		
Coaxial cable	low-loss, 30 cm		
Height/width/depth	320 x 210 x 73 mm		
Weight	1.4 kg		
Radome material	ABS		
Radome color	White		
Mounting	Wall Mounting (mounting plate and screws included)		
Operating temperature	-40 to +60 °C		
Application	Indoor		

Installation Instructions:



- 1. Position and fix the mounting plate on to the wall with the countersunk self-tapping screws M4.2 x 25 and plastic accessories.
- 2. Finish the installation by matching the clamp piece on the antenna base plate to the mounting plate hanger





DIRECTIONAL INDOOR-OUTDOOR ANTENNAS

PNS-APS-0727-R3-V

PNS-APOD-0738-9/10-X

PNS-ALP-0738-9/10



PNS-APS-0727-R3-V

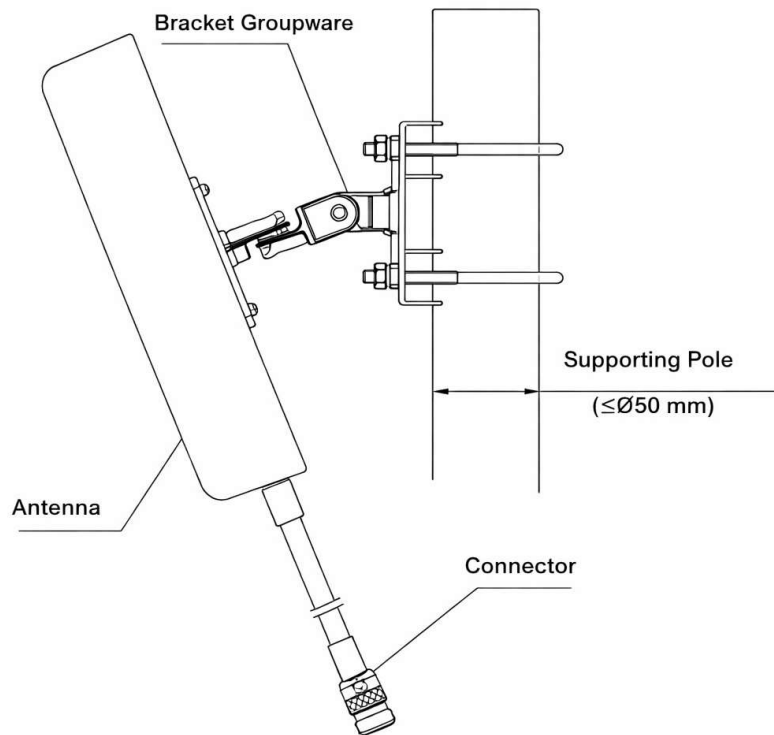
Wall/pole Mounting Antenna



Features

- 698-960/1710-2700 MHz
- Indoor/Outdoor
- SISO

Type No.	PNS-APS-0727-R3-V	
Frequency range	698-960 MHz	1710-2700 MHz
Polarization	Vertical	
Gain	7 dBi	10 dBi
Hor. beamwidth	70°	60°
Vert. beamwidth	55°	45°
VSWR	≤2.0	≤1.5
Impedance	50 Ω	
Intermodulation IM3 (43dBm carrier)	≤-150 dBc	
Maximum power	50 W	
Lightning protection	DC ground	
Connector	4.3-10 Female	
Coaxial cable	low-loss, 30 cm	
Height/width/depth	210 x 180 x 44 mm	
Weight	0.4 kg	
Radome material	ABS	
Radome color	White	
Mounting	Wall Mounting / Pole mounting (max Φ 50mm) / Clamps for pole included	
Operating temperature	-40 to +60 °C	
Application	Indoor/Outdoor	

Installation Instructions:**Wall mounting**

1. Remove fixed part of the pole-mounting bracket
2. Temporary set the joint base to the wall and mark holes
3. Drill 4 x 4 mm holes and insert plugs
4. Fix the antenna using wood screws
5. Set azimuth and elevation

Pole mounting

1. Remove 2x U-brackets
2. Set the antenna against the pole (vertical or horizontal)
3. Set x 2 U-brackets over the pole and tighten loose nuts
4. Adjust the height and main direction of the antenna
5. Tighten nuts on 2 x U-brackets firmly
6. Set azimuth and elevation

PNS-APOD-0738-9/10-X
Wall Mounting Panel Antenna

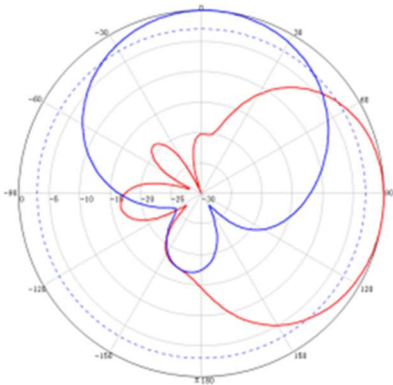


Features

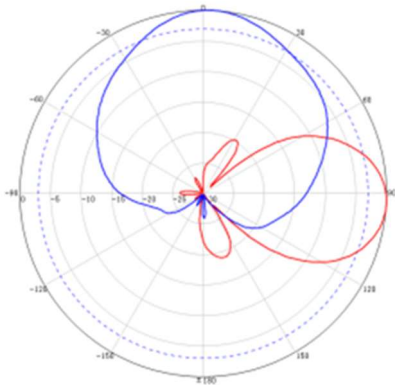
- Outdoor Panel Antenna
- 698-960 MHz/1710-2700 MHz/
3300-3800 MHz
- MIMO

Type No.	PNS-APOD-0738-9/10-X		
Frequency range	698-960 MHz	1710-2700 MHz	3300-3800 MHz
Polarization	±45 °		
Gain	8±1 dBi	11±1 dBi	12±1 dBi
Hor. beamwidth	70±10°	65±15°	60±15°
Vert. beamwidth	65±10°	35±10°	30±10°
Electrical downtilt	0°		
Front to back ratio	≥20 dB		
VSWR	≤1.8		
Impedance	50 Ω		
Cross polar discrimination	≥15 (±60°≥8) dB		
Isolation	≥28 dB	≥20 dB	≥20 dB
Intermodulation IM3 (2×43dBm carrier)	≤-150 dBc		
Maximum power	100 W		
Lightning protection	DC ground		
Connector	2 x 4.3-10 Female		
Connector position	Bottom		
Height/width/depth	420 x 280 x 125 mm		
Weight	3.8 kg (Including bracket)		
Radome material	UPVC		
Radome color	Gray		
Mechanical tilt	0-15°		
Rated wind velocity	60 m/s		
Mounting	Pole Mounting (bracket included)		
Suitable pole diameter	Φ35 – Φ70 mm		
Operating temperature	-40 to +60 °C		
Application	Indoor/Outdoor		

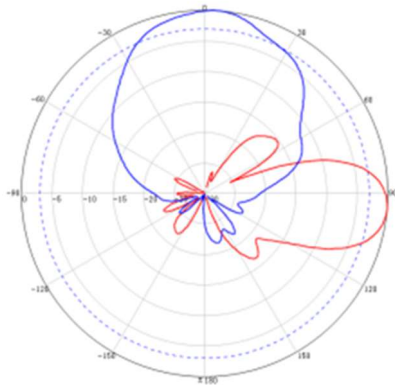
Antenna typical pattern:



698-960 MHz

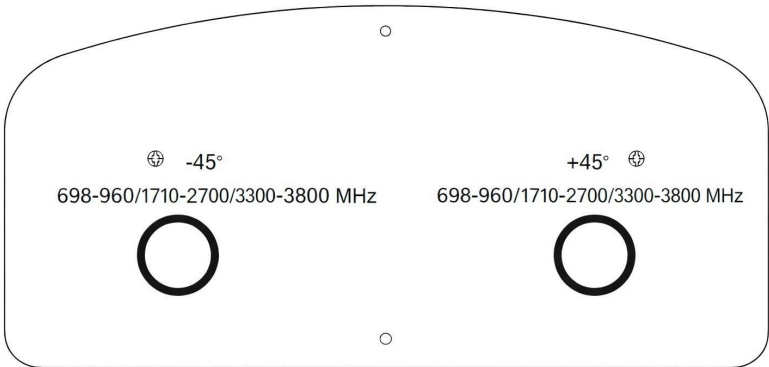


1710-2700 MHz



3300-3800 MHz

Installation Instructions:



PNS-ALP-0738-9/10

LogPeriodic Directional Outdoor Antenna

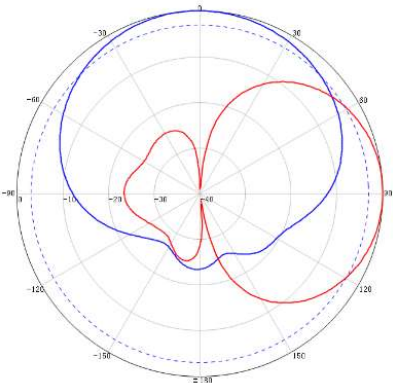


Features

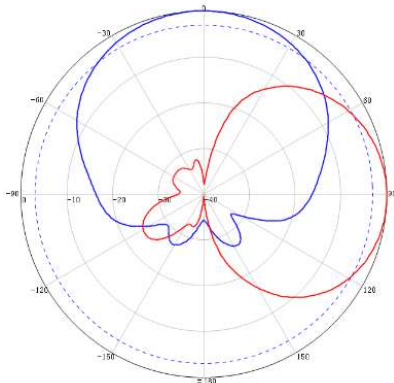
- 698-960/1710-4000 MHz
- Outdoor
- SISO

Type No.	PNS-ALP-0738-9/10		
Frequency range	698-960 MHz	1710-2700 MHz	3300-4000 MHz
Polarization	Vertical		
Gain	9.5±1 dBi	10.5±1 dBi	11±1 dBi
Hor. beamwidth	85±15°	70±15°	60±15°
Vert. beamwidth	60°	55°	50°
VSWR	≤1.7		
Impedance	50 Ω		
Intermodulation IM3 (43dBm carrier)	≤-153 dBc		
Maximum power	50 W		
Lightning protection	DC ground		
Connector	4.3-10 Female		
Coaxial cable	low-loss, 30 cm		
Height/width/depth	442 x 210 x 65 mm		
Weight	1.0 kg, including bracket		
Radome material	ABS		
Radome color	White		
Mounting	Pole mounting (max Φ 50mm), Clamps for pole included		
Operating temperature	-40 to +60 °C		
Mechanical tilt	0-60°		
Rated wind velocity	55 m/s		
Suitable pole diameter	Φ25 - Φ50 mm		
Application	Indoor/Outdoor		

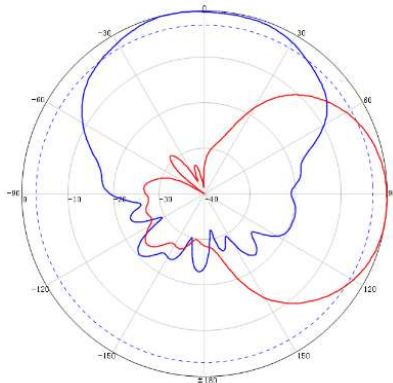
Antenna typical pattern:



698-960 MHz

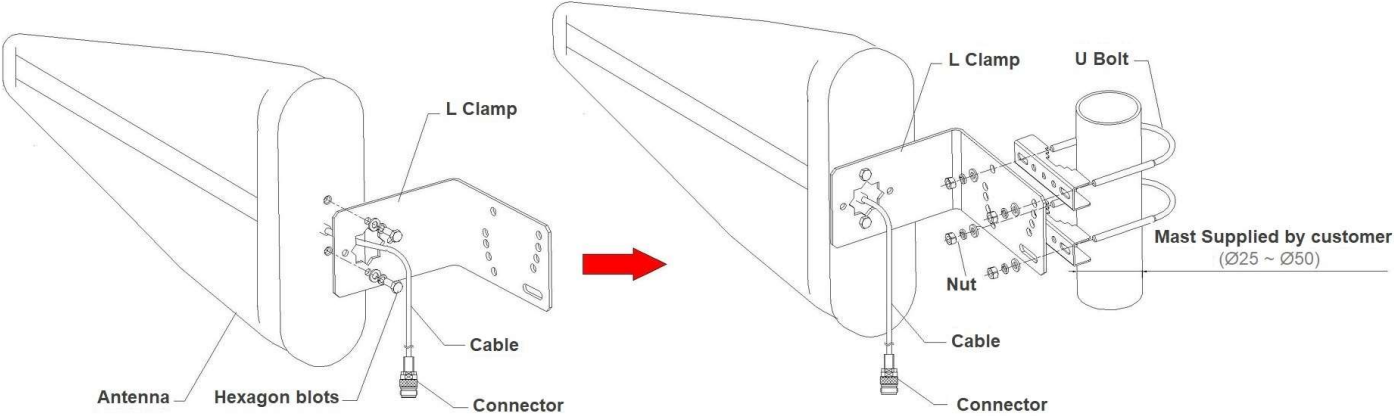


1710-2700 MHz

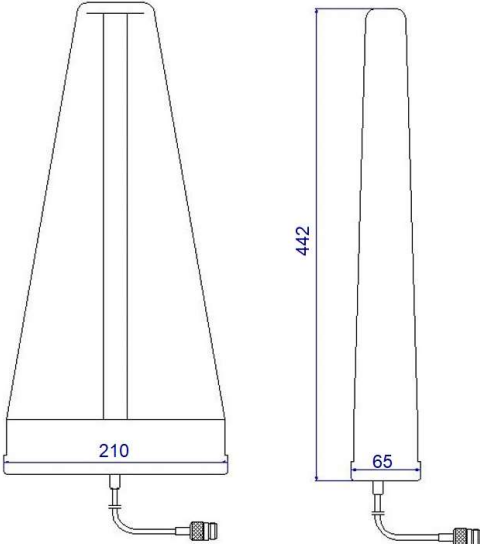


3300-4000 MHz

Installation Instructions:



Product size drawing:





RF PASSIVE DEVICES

PNS-S1x-0738-500

PNS-S12-0738-500

PNS-S13-0738-500

PNS-Cx-0738-500

PNS-C7-0738-500

PNS-C10-0738-500

PNS-C15-0738-500

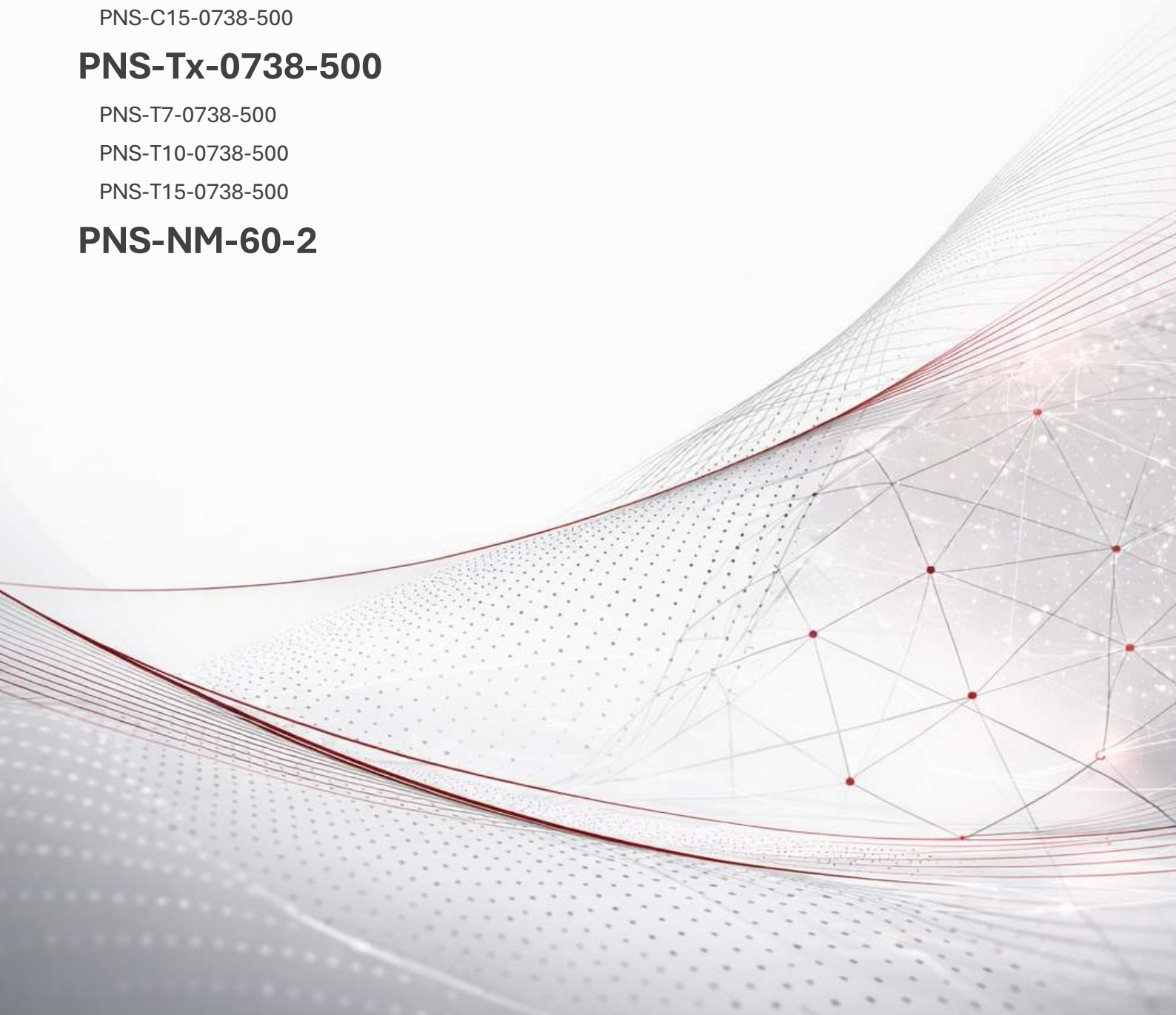
PNS-Tx-0738-500

PNS-T7-0738-500

PNS-T10-0738-500

PNS-T15-0738-500

PNS-NM-60-2



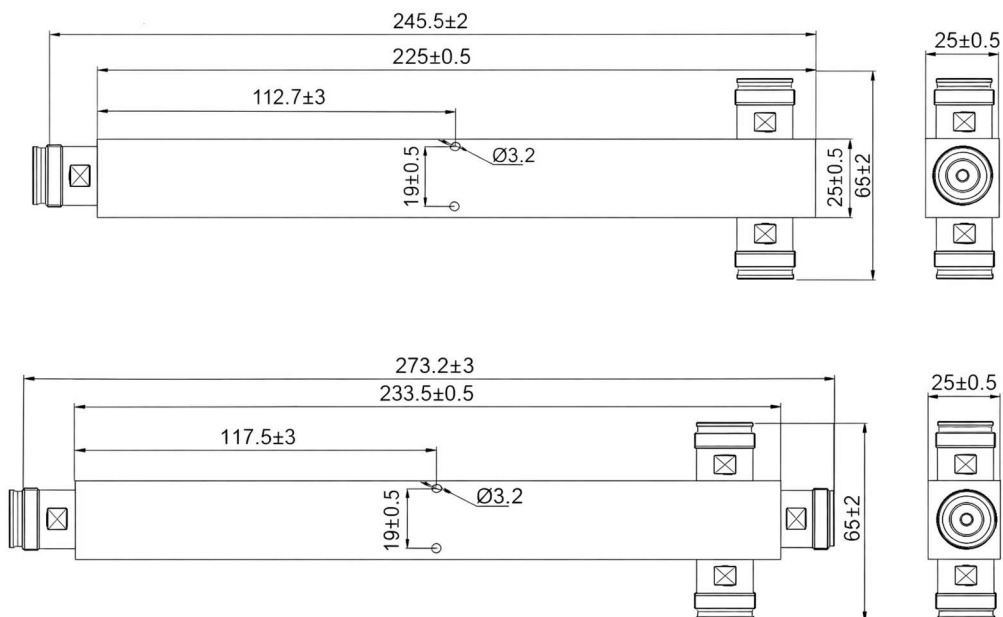
PNS-S1x-0738-500

Power Splitter Series 12-14

Features

- 690-3800 MHz
- Low Passive Intermodulation (-160 dBc)
- Low VSWR & Insertion Loss

Type No.	PNS-S12-0738-500	PNS-S13-0738-500
Frequency range	698-3800 MHz	
Output ports	2	3
Split loss	3 dB	4.8 dB
Insertion loss	≤0.4 dB	≤0.6 dB
VSWR	≤1.25	
Impedance	50 Ω	
Intermodulation IM3 (2×43dBm carrier)	≤-160 dBc	
Power capacity	500 W (average)	
Connector	4.3-10 Female	
Height/width/depth (mm)	See drawings below	
Body color	Black	
Operating temperature	-35 to +60 °C	
Application	Indoor/Outdoor	
Ingress protection rate	IP65	



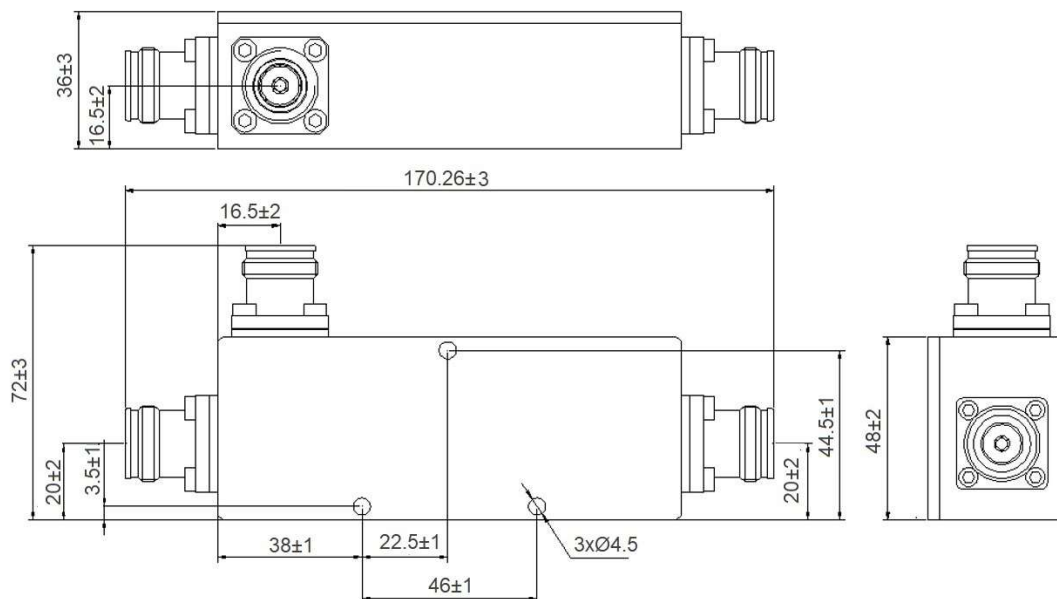
PNS-Cx-0738-500

Directional Coupler Series C7, C10, C17

Features

- 694-3800 MHz
- Low Passive Intermodulation (-155 dBc)
- Low VSWR & Insertion Loss

Type No.	PNS-C7-0738-500	PNS-C10-0738-500	PNS-C15-0738-500
Frequency range	694-3800 MHz		
Coupling	7 dB	10 dB	15 dB
Insertion loss	≤1.4 dB	≤1.0 dB	≤0.5 dB
Accuracy	±0.8 dB	±1.0 dB	±1.2 dB
VSWR	≤1.25		
Impedance	50 Ω		
Intermodulation IM3 (2×43dBm carrier)	≤-155 dBc		
Power capacity	500 W (average)		
Connector	4.3-10 Female		
Height/width/depth (mm)	See drawings below		
Body color	Grey		
Operating temperature	-35 to +65 °C		
Application	Indoor/Outdoor		
Ingress protection rate	IP65		



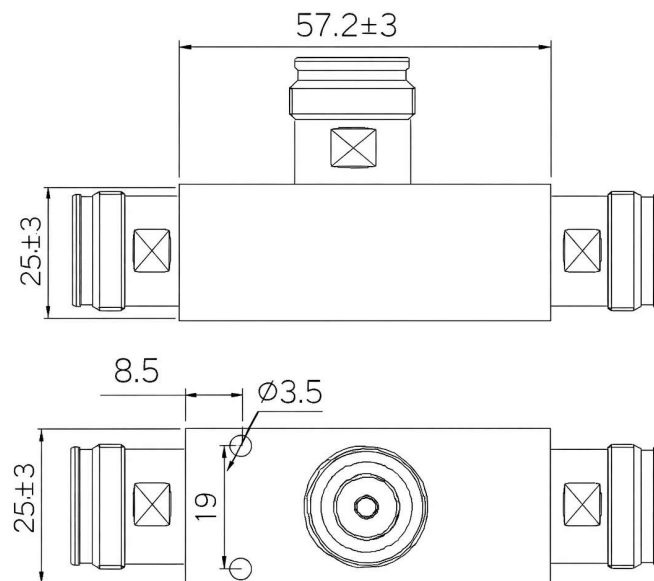
PNS-Tx-0738-500

Power Tapper Series T7, T10, T17

Features

- 694-3800 MHz
- Low Passive Intermodulation (-160 dBc)
- Low VSWR & Insertion Loss

Type No.	PNS-T7-0738-500	PNS-T10-0738-500	PNS-T15-0738-500
Frequency range	694-2700 / 3400-3800 MHz		
Coupling	7±1 dB	10.5±1 dB	15.3±1.25 dB
Ratio, nominal	4:1 /6 dB	10:1 /10 dB	30:1 /15 dB
Insertion loss	≤1.75 dB	≤0.8 dB	≤0.45 dB
VSWR	≤1.3		
Impedance	50 Ω		
Intermodulation IM3 (2×43dBm carrier)	≤-155 dBc		
Power capacity	500 W (average)		
Connector	4.3-10 Female		
Height/width/depth (mm)	See drawings below		
Body color	Black		
Operating temperature	-35 to +75 °C		
Application	Indoor/Outdoor		
Ingress protection rate	IP65		



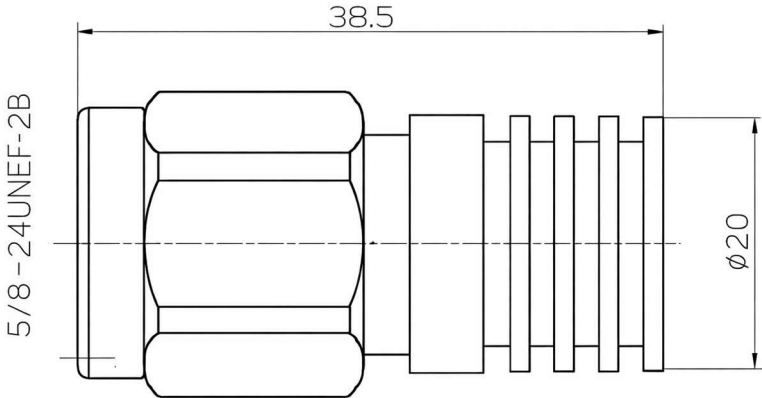
PNS-NM-60-2

Termination load 2W, N male connector

Features

- DC-6000 MHz

Type No.	PNS-NM-60-2
Frequency range	DC-6000 MHz
VSWR	≤1.25
Impedance	50 Ω
Power capacity	2 W
Connector	N male
Height/width/depth (mm)	See drawings below
Body color	Silver
Operating temperature	-55 to +85 °C
Application	Indoor



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