



Horizontal Polarized Omni Antenna DATASHEET



Part Number

Horizontal - NWT-ANT-2458-4H

Product Description

Our dual-band, horizontally polarized omnidirectional wifi antenna provides the perfect balance between gain and vertical coverage. The wide vertical beamwidth allows it to reach great depths in open pit mining and similarly challenged topologies. The rugged design and build quality were created with heavy machinery in mind. These antennas are purpose built for industrial networks.

Product Overview

- Single model for both 2.4ghz and 5ghz reduces stocking SKUs for spare inventory by 50%
- Wide vertical beamwidth, ideal in topology with broad variations in elevation
- Low VSWR, and stable gain across entire working frequency range
- Optimal pattern plots across entire working frequency range, which ensures excellent RF coverage in all directions

ELECTRICAL SPECIFICATIONS

Frequency Band	MHz	2400-2500	5100-5900
Gain (Average)	dBi	3.5	4
Polarization		Horizontal	Horizontal
H-Plane 3dB Beamwidth	Degree	360°	360°
E-Plane 3dB Beamwidth Avg/Max	Degree	50°/63°	50°/62°
Azimuth Plane Ripple	dB	3	5
VSWR		<1.5typ / <2.0 max	1.5 typ / <2.0 max
Return Loss (typical)	dB	-13.9	-13.9
Max Input Power per Port	W	30	30
Impedance	Ohms	50	50

MECHANICAL CHARACTERISTICS

Antenna Size	50mm x 300mm / 2" x 11.8"
Mounting Type	Pipe Mount (U bolt or Hose Clamp)
Mounting Mast size	30mm - 65mm / 1.18" - 2.55"
Antenna Color	Gray or customized
Connectors	N Female
Ice-load	25mm
Weight	0.85kg / 1.87 lbs (U bolt) ; 0.54kg / 1.19 lbs (hose clamp)
Packaging	Carton
Single Unit	Retail Box: 110mm x 110mm x 400mm / 4.33" x 4.33" x 15.7"
20 Units	Carton Box: 420mm x 570mm x 470mm / 16.54" x 22.44" x 18.5"

ENVIRONMENT

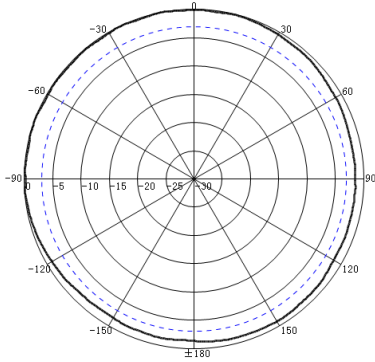
Waterproof level	IP66
Operating Temp Range	-40°C To +60°C / -40°F To 140°F
Salt Fog Exposure	120 hour
Wind Velocity Survival Rating	100 mph / 160km/h
Wind Velocity Operational	100 mph / 160km/h

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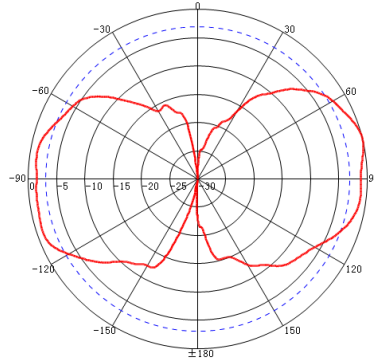


Pattern Plots



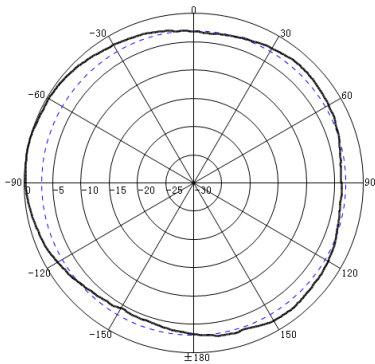
Freq:2450MHz
 Date:2023-07-19
 Elevation:H-plane
 Polar-Across:Main
 Polarization:Horizontal
 Max:-16.70dB
 HPBW(3dB):360.00°
 FBR:0.88dB
 Peak Gain:3.30dB

2450Mhz H-Plane



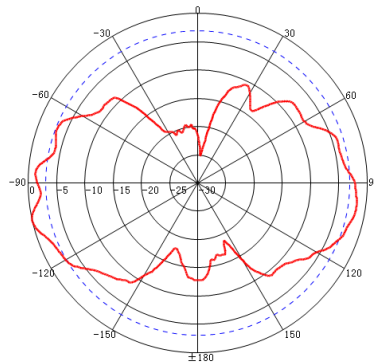
Freq:2450MHz
 Date:2023-07-19
 Elevation:V-plane
 Polar-Across:Main
 Polarization:Horizontal
 Max:-16.64dB
 HPBW(3dB):52.83°
 FBR:12.26dB
 Peak Gain:3.36dB

2450Mhz E-Plane



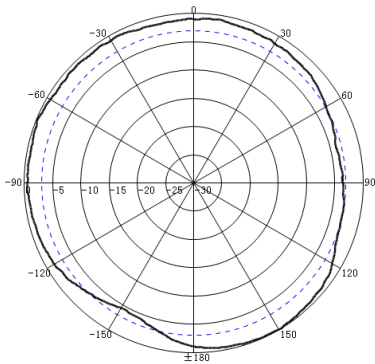
Freq:5200MHz
 Date:2023-07-19
 Elevation:H-plane
 Polar-Across:Main
 Polarization:Horizontal
 Max:-27.93dB
 HPBW(3dB):122.47°
 FBR:1.87dB
 Peak Gain:3.63dB

5200Mhz H-Plane



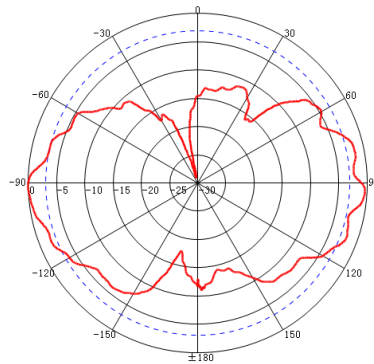
Freq:5200MHz
 Date:2023-05-25
 Elevation:V-plane
 Polar-Across:Main
 Polarization:Horizontal
 Max:-27.97dB
 HPBW(3dB):39.13°
 FBR:11.29dB
 Peak Gain:3.59dB

5200Mhz E-Plane



Freq:5800MHz
 Date:2023-07-19
 Elevation:H-plane
 Polar-Across:Main
 Polarization:Horizontal
 Max:-37.52dB
 HPBW(3dB):87.09°
 FBR:0.02dB
 Peak Gain:4.24dB

5800Mhz H-Plane



Freq:5800MHz
 Date:2023-07-19
 Elevation:V-plane
 Polar-Across:Main
 Polarization:Horizontal
 Max:-37.69dB
 HPBW(3dB):36.19°
 FBR:7.42dB
 Peak Gain:4.07dB

5800Mhz E-Plane

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