

WiFi Mesh Mining Antenna – Dual Band 2.4/5.8ghz Horizontal Polarity Omni-directional



PART NUMBER

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

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"

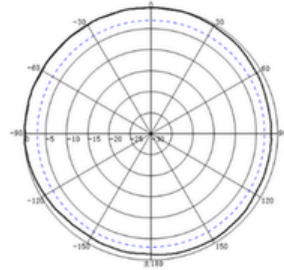
©2025 Northwest Towers, LLC All Rights Reserved.

Although Northwest Towers makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability. Northwest Towers provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Northwest Towers be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Northwest Towers has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

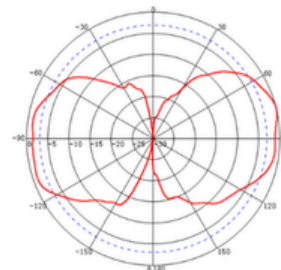
ENVIRONMENT

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

Pattern Plots



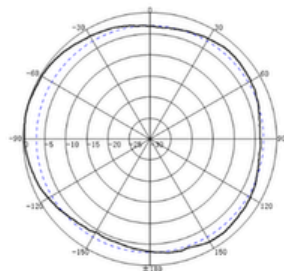
Freq: 2450MHz
Date: 2023-07-19
Elevation: H plane
Polar Axis: Mean
Polarization: Horizontal
Max: -16.7 dBm
HPBW(Cross): 260.00°
FBR: 0.8 dB
Peak Gain: 3.35 dBi



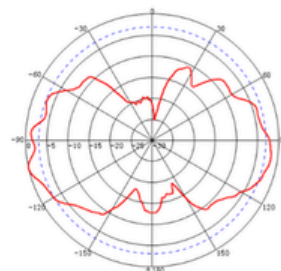
Freq: 2450MHz
Date: 2023-07-19
Elevation: V plane
Polar Axis: Mean
Polarization: Horizontal
Max: -18.8 dBm
HPBW(Cross): 92.83°
FBR: 12.26 dB
Peak Gain: 3.16 dBi

Hplane - 2450Mhz

Eplane - 2450Mhz



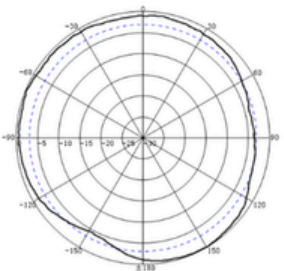
Freq: 5200MHz
Date: 2023-07-19
Elevation: H plane
Polar Axis: Mean
Polarization: Horizontal
Max: -27.8 dBm
HPBW(Cross): 122.41°
FBR: 1.87 dB
Peak Gain: 3.87 dBi



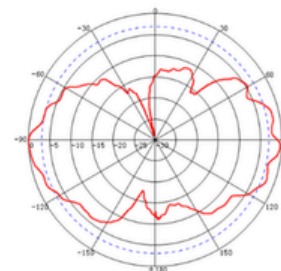
Freq: 5200MHz
Date: 2023-05-25
Elevation: V plane
Polar Axis: Mean
Polarization: Horizontal
Max: -27.87 dBm
HPBW(Cross): 38.93°
FBR: 11.29 dB
Peak Gain: 3.92 dBi

Hplane - 5200Mhz

Eplane - 5200Mhz



Freq: 5800MHz
Date: 2023-07-19
Elevation: H plane
Polar Axis: Mean
Polarization: Horizontal
Max: -27.5 dBm
HPBW(Cross): 87.00°
FBR: 0.82 dB
Peak Gain: 4.24 dBi

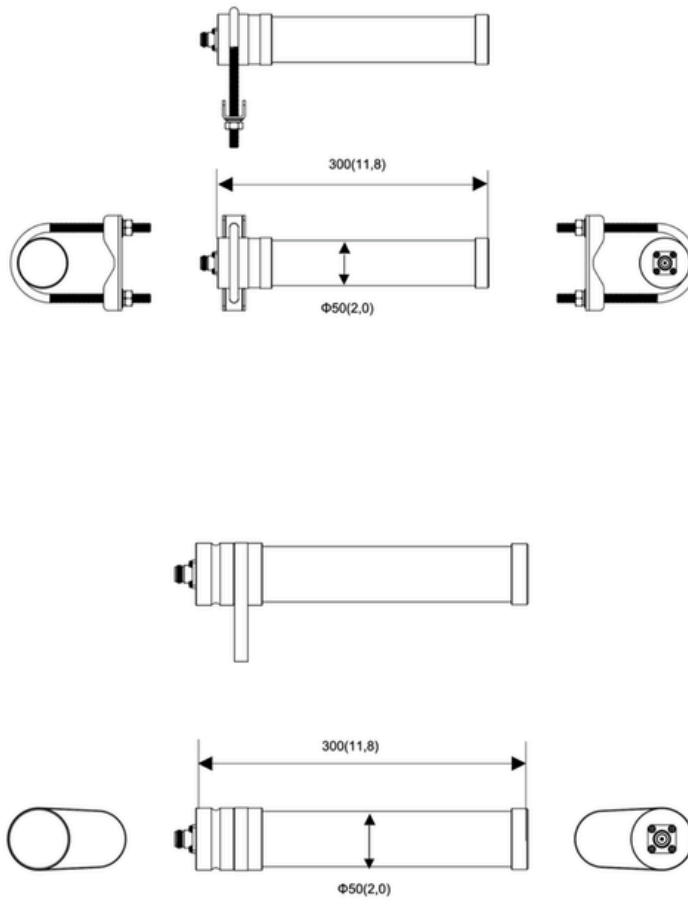


Freq: 5800MHz
Date: 2023-07-19
Elevation: V plane
Polar Axis: Mean
Polarization: Horizontal
Max: -27.69 dBm
HPBW(Cross): 26.93°
FBR: 7.42 dB
Peak Gain: 4.07 dBi

Hplane - 5800Mhz

Eplane - 5800Mhz

©2025 Northwest Towers, LLC All Rights Reserved.
Although Northwest Towers makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability. Northwest Towers provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Northwest Towers be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Northwest Towers has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.



©2025 Northwest Towers, LLC All Rights Reserved.

Although Northwest Towers makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability. Northwest Towers provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Northwest Towers be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Northwest Towers has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.