Dual Band Dual Port Mining Antenna

PART NUMBER

NWT-ANT-2458-3VH2P

PRODUCT DESCRIPTION

Our WiFi Mesh 2x2 MIMO mining antenna supports dual-band (2.4 / 5.8 GHz) operation. This dual polarization (horizontal/vertical) omni directional is designed for use with MIMO radio systems in open pit mining environments.
The coverage pattern provides the perfect balance between gain and vertical coverage, delivering exceptional results in open-pit mining environments for both WiFi and Mesh industrial wireless networks in 2.4 GHz and 5.8 GHz bands. The wide vertical beamwidth allows it to reach great depths in open pit mining and similarly challenged topologies.
The rugged antenna design and build quality were created with heavy machinery in mind. These antennas are purpose built for open-pit mining and industrial wifi and mesh 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	2400–2500 MHz	5100–5900 MHz
Gain (Average)	3.5 dBi	3.7 dBi
Polarization	Horizontal & Vertical	
Horizontal -3dB Beamwidth	360°	360°
Vertical -3dB Beamwidth	55° (Typical)	55° (Typical)
VSWR	< 1.5 (Typ); < 2.3 (Max)	< 1.5 (Typ); < 2.5 (Max)
Return Loss (Typical)	14 dB (Typ); 8 dB (Max)	14 dB (Typ); 7 dB (Max)
Ports Isolation	30 dB	
Max Power	30 W	
Impedance	50 Ohms	

MECHANICAL CHARACTERISTICS

Antenna Size	Φ50 x 435 mm (Φ2 x 17.13 in)
Mounting Type	Pipe Mount (via U-bolt or Hose Clamp)
Mounting Mast Size	Φ30-Φ65 mm (Φ1.18-2.55 in) OD
Radome Material	Polycarbonate (UV-Stabilized, Black)
Pigtail Length	400 mm (15.75 in), Staggered
Connector	2 x N-Female
Waterproof Level	IP67
Salt Fog Exposure	120 Hours
Wind Velocity Survival Rating	100 mph (160km/h)
Wind Velocity Operational	100 mph (160km/h)
Ice-load	25 mm
Operating Temperature	-40°C to + 60°C
Weight	1.05kg (2.3 lbs) with U-bolt) ; 0.97kg (2.1 lbs) with Hose Clamp
Packaging	Retail Box: 95 x 65 x 900 mm (3.74 x 2.6 x 35.43 in)

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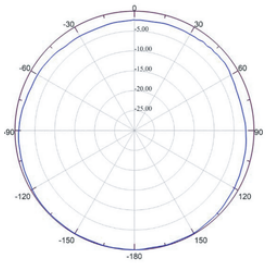
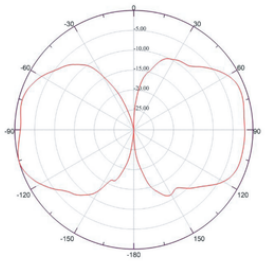
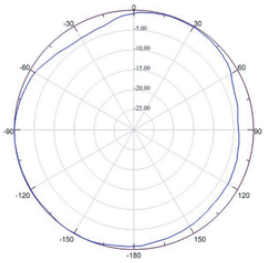
Pattern Plots



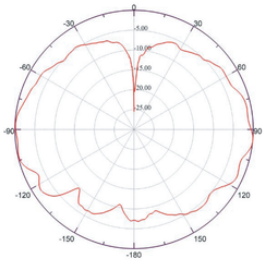
Azimuth Pattern **-2400MHz**



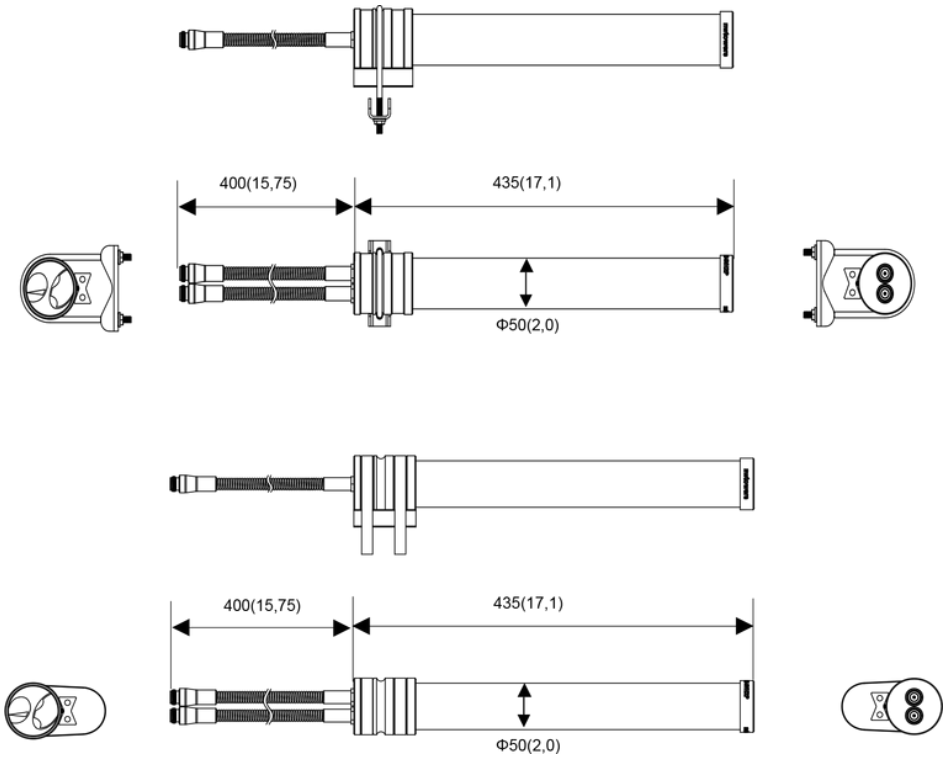
Elevation Pattern **-2400MHz**



Azimuth Pattern **-5500MHz**



Elevation Pattern **-5500MHz**



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