

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 2.4 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 | 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 | |

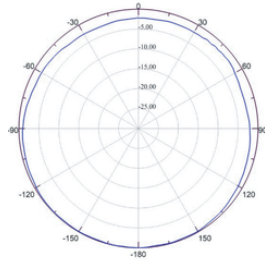
MECHANICAL CHARACTERISTICS

| | |
|-------------------------------|---|
| 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) |

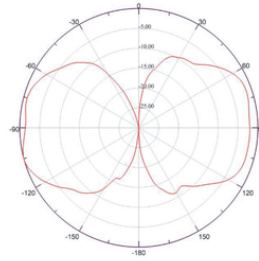
©2026 Northwest Towers, LLC All Rights Reserved.

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.

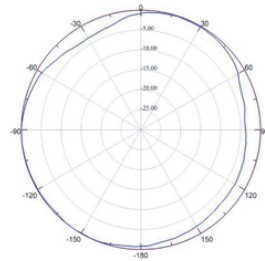
Pattern Plots



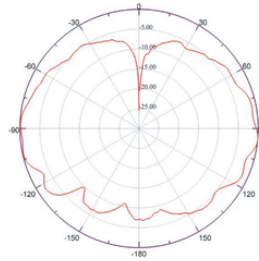
Azimuth Pattern -2400MHz



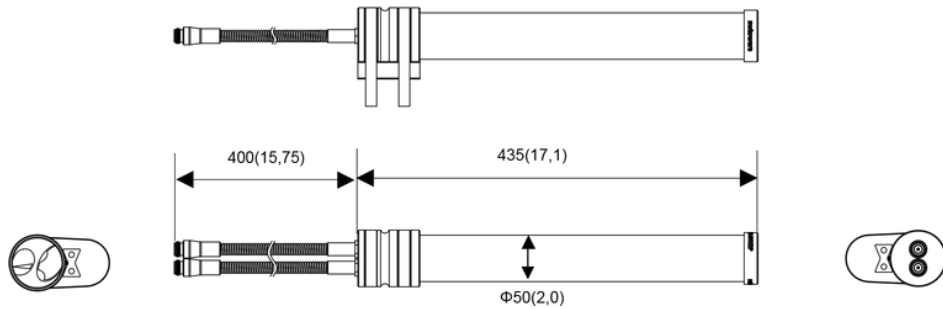
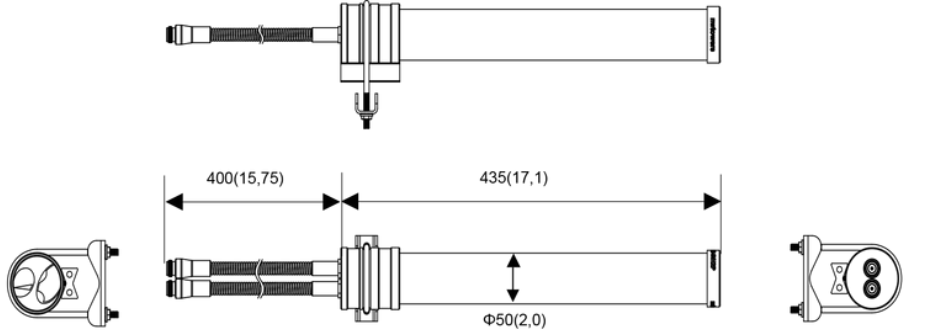
Elevation Pattern -2400MHz



Azimuth Pattern -5500MHz



Elevation Pattern -5500MHz



©2026 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.