

N5-45x2 Sector Antenna

All the gain and ground coverage of a sector.
All the sidelobe rejection of a horn.



The Mimosa N5-45x2 is the industry's first sector antenna to deliver the best of both worlds — incredible noise rejection and long-distance performance, with wideband 4.9–6.4 GHz operation for fixed wireless broadband. The dual-slant polarization, 45° sector can be used with any third-party 2x2 MIMO radio solution, or two N5-45x2 antennas can be connected to the 4x4 MIMO Mimosa A5c access point, aimed in different directions, for 2x spectrum reuse, superior range and noise rejection at collocation and tower sites.

Reject Noise and Synchronize

Overcoming noise at tower sites is key to scaling capacity. The N5-45x2 delivers industry-leading side lobe rejection and an unprecedented 43 dB front-to-back (FTB) performance — the highest FTB ratio of any sector or horn antenna in the industry. Compatible with any third-party, 2x2 MIMO radio solution, there's no higher performance antenna in the industry.

Wideband Operation

Supporting 4.9 GHz public safety applications and multipoint licensed operation up to 6.4 GHz, where regulations allow, the N5-45x2 provides an additional 800 MHz of spectrum beyond the crowded 5.15–5.85 GHz unlicensed channels.

Key Features

- Industry-Leading Front-to-Back Ratio for 2x Spectrum Reuse
- World-Class Noise Rejection
- High-Gain for Long Distances
- Wideband 4.9–6.4 GHz Sector

Go the Distance

The Mimosa N5-45x2 offers the best of both worlds — a long distance, high gain sector with the superior noise isolation of a horn. Competitive sectors offer high-gain, but fail to reduce side lobe and front-to-back noise. Symmetric horn antennas achieve good noise isolation, but typically offer lower gain and inefficient symmetrical ground coverage patterns.

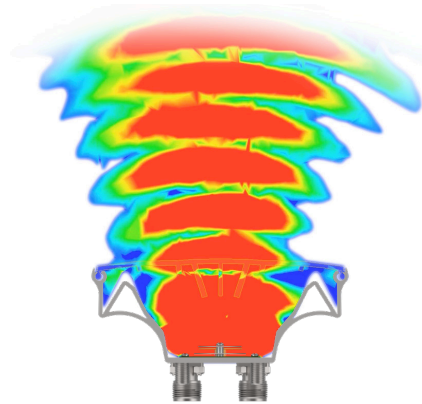
Compatible with Third-Party Radios

Blending the best of sector antennas with the best features of a horn, the Mimosa N5-45x2 is a great sector antenna choice to use with any 2x2 MIMO radio. Even better, the ultra-wide 9° vertical beamwidth covers substantially more ground than other leading sector antennas.

Technical Specifications

Antenna

- **Gain:** 19 dBi
- **Polarization:** Slant 45°
- **Azimuth Beamwidth (4 dB):** 45°
- **Azimuth Beamwidth (3 dB):** 42°
- **Elevation Beamwidth (3 dB):** 9°
- **Electrical Downtilt:** 2°
- **Front-to-Back Ratio (min):** 43 dB
- **Cross-Polar Isolation:** >30 dB
- **Port-to-Port Isolation:** >10 dB
- **Impedance:** 50 Ω
- **Max Input Power:** 30 dBm



Physical

- **Dimensions:**
Height: 427 mm (16.81")
Width: 143 mm (6.63")
Depth: 76 mm (3.0") including connectors
- **Shipping Box Dimensions:**
Height: 662 mm (26.06")
Width: 166 mm (6.53")
Length: 100 mm (3.94")
- **Weight:** 2.81kg (6.2 lbs)
- **RF Connectors:** 2 N-type female
(includes two 1 meter LMR 240 Type-N to Type-N cables)
- **RF Connectors Position:** Back of antenna, near center
- **Enclosure Characteristics:**
Outdoor, UV stabilized, engineered polymer
- **Mounting:** Galvanized steel, dual attached pole mount with 20° mechanical up or down tilt. Two mounting brackets included. For pole sizes, maximum is 3.5" (90 mm) and minimum is 1.5" (38 mm).
- **Wind Survivability:** 200 km/h (125 mph)
- **Wind Loading:** 4.77 kg @ 160 km/h
(10.49 lbs @ 100 mph)

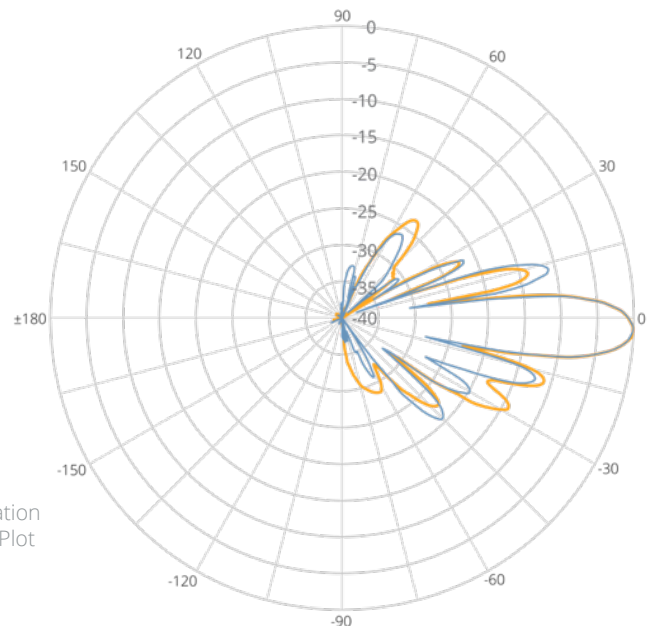
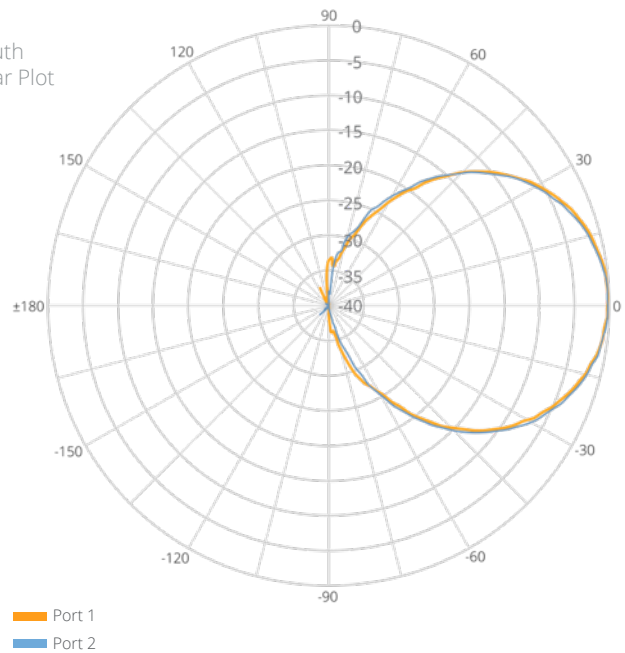
Environmental

- **Outdoor Ingress Protection Rating:** IP55
- **Operating Temperature:** -40°C to +55°C
(-40°F to 131°F)
- **Operating Humidity:** 5 to 100% condensing
- **Operating Altitude:** 4,420 m (14,500') max
- **Shock & Vibration:** ETS 300-019-2-4 class 4M5

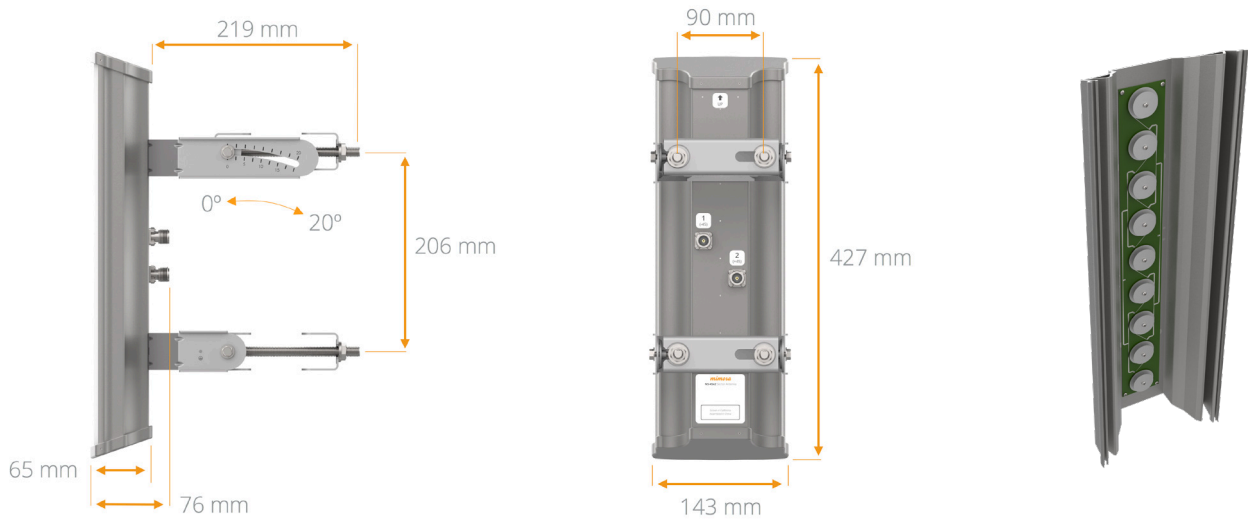
Regulatory and Compliance

- **RoHS Compliance:** Yes

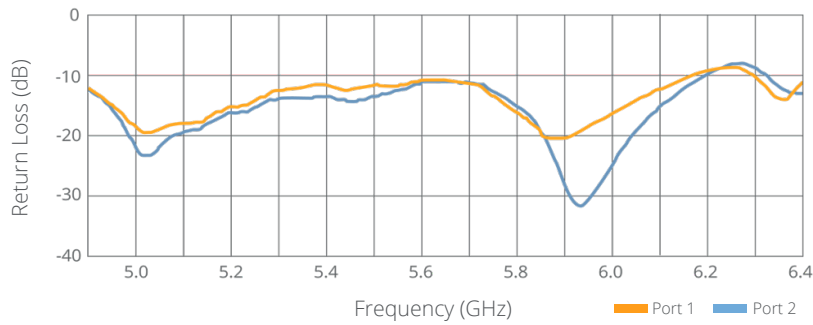
N5-45x2 Azimuth
Horizontal Polar Plot



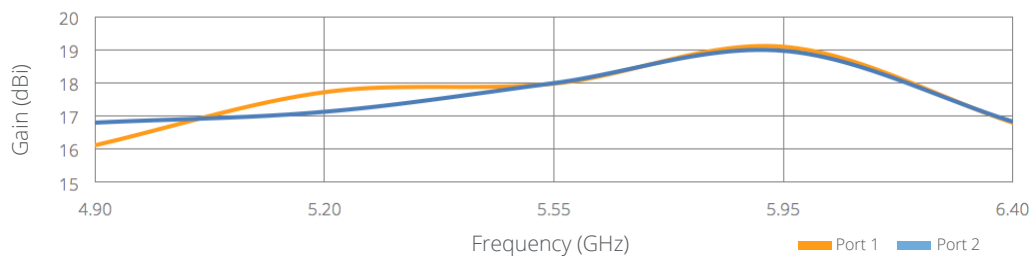
N5-45x2 Elevation
Vertical Polar Plot



N5-45x2 Return Loss



N5-45x2 Gain Across Frequency



Mimosa Networks, a wholly owned subsidiary of Radisys, is the global technology leader in wireless broadband solutions, enabling service providers to connect dense urban and hard-to-reach rural homes at a fraction of the cost of fiber. Mimosa Networks was acquired in 2023 by Radisys Corporation, a wholly owned subsidiary of Jio Platforms Limited.