

# RansNet ANT-520D

Dual-Band | High-Gain | Long-Range

High-Gain Outdoor Wi-Fi Antenna for Maximum Range & Performance



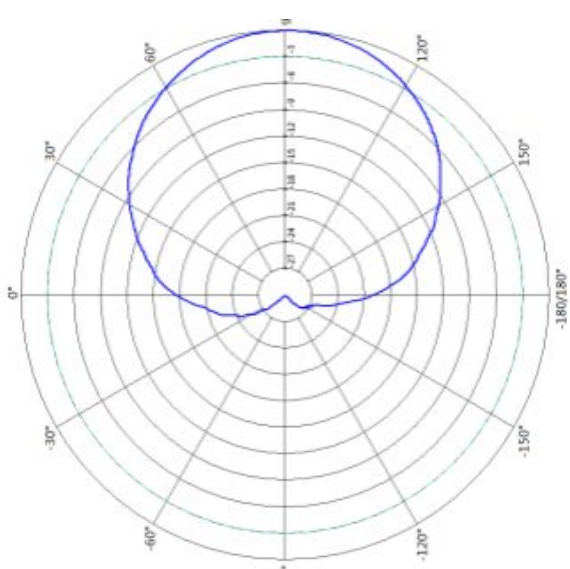
RansNet ANT-520D outdoor flat-panel directional antenna is designed for Wi-Fi coverage up to 800m in open environments. With dual polarization and high gain, it delivers reliable, long-range performance for wireless access points, point-to-point, and point-to-multipoint applications. The pole-mount antenna is ruggedized with UV-resistant ABS material and built to withstand harsh outdoor conditions.

## Key features

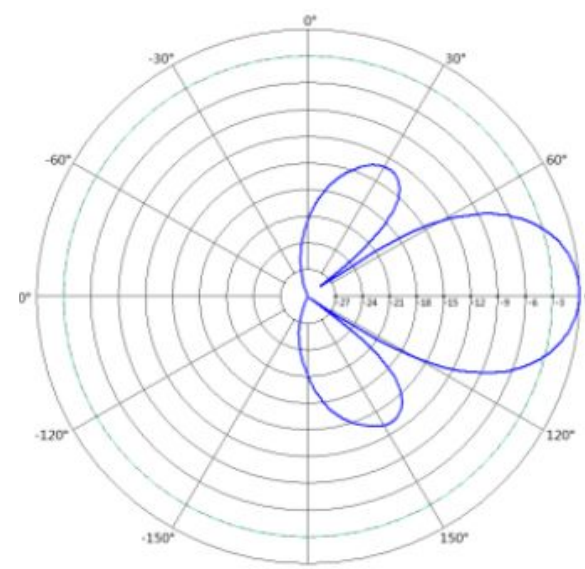
- Dual-band support: 2.4 GHz & 5.8 GHz
- High gain: 10/12 dBi
- Dual polarization: Vertical + Horizontal
- Weatherproof design with ABS radome
- Easy pole-mount installation with tilt adjustment
- DC grounding for lightning protection

## Applications

- Outdoor Wi-Fi hotspot coverage
- Long-range point-to-point (PtP) or point-to-multipoint (PtMP) connections
- Industrial wireless networking
- Smart city and video surveillance systems



Horizontal 3dB beamwidth(°)



Vertical 3dB beamwidth(°)

Electrical Specifications	
Frequency Range (MHz)	2400–2500 / 5150–5850
Bandwidth (MHz)	100 / 700
Polarization	Vertical + Horizontal
Electrical Downtilt (°)	0
VSWR	≤ 1.8
Return Loss (dB)	≤ -15
Max Input Power Handling (W)	≥ 100
Impedance (Ω)	50
Isolation (dB)	≥ 25
High gain options (dBi)	10 (2.4 GHz) / 12 (5.8 GHz)
Horizontal 3dB Beamwidth (°)	65 ± 5 (both)
Vertical 3dB Beamwidth (°)	40 ± 5 / 30 ± 5
Cross-polar Ratio (dB, ±60°)	≥ 10
Front-to-Back Ratio (dB, 180°±30°)	≥ 28
Radiation Pattern	Directional flat-panel, dual polarization

Mechanical Specifications	
Connector Type	RP-SMA Female × 2 (with 2 m 3DFB cable)
Antenna Dimensions (HxWxD)mm	220 × 220 × 25
Packing Dimensions (HxWxD)(mm)	247 × 238 × 77
Antenna Weight (kg)	0.8
Installation Kit Weight (kg)	0.2
Radome Material	Premium ABS (White, UV stabilized)
Mounting Pole Diameter (mm)	Ø30–55
Mounting Bracket Material	Galvanized steel
Mechanical Tilt (°)	0–180

Environmental Specifications	
Operating Temperature (°C)	-40 ~ +60
Storage / Limit Temperature (°C)	-55 ~ +75
Wind Load at 150 km/h (N)	949 (Frontal) / 326 (Lateral) / 1127 (Rear)
Humidity Resistance	≤ 95% RH (non-condensing)
Salt Fog Resistance	≥ 96 hrs per IEC 60068-2-11
UV Resistance	Yes, UV-stabilized radome
Lightning Protection	DC Grounded
Regulatory & Compliance	CE, FCC, IP65