

ROM-5050-5-5-NM

Rugged 5–6 GHz Omnidirectional, Dual-Port, 2x2 MIMO Antenna

Rajant's ROM-5050-5-5-NM is an omnidirectional, dual-port, 5–6 GHz antenna ideal for harsh environments. It supports reliable, high-performance 2x2 MIMO links with a peak gain of 5 dBi. The heavy-duty, foam-filled design can withstand adverse environmental conditions, and is aimed at industrial and military applications. The compact form-factor is ideal for installations that are space-constrained and cannot support multiple single-port antennas.



Key Features

- Dual-port, 2x2 MIMO, 5–6 GHz antenna with 50 cm pigtails
- Omnidirectional with 5 dBi gain
- Rugged, foam-filled design
- Dust-tight and high-pressure waterproof enclosure (IP69K)
- High impact resistance rating (IK10)
- Easy pole or wall mounting using the included heavy-duty, stainless steel L-bracket mount

Applications

- Industrial IoT markets including mining, construction, ports, oil & gas, utilities, solar, wind, smart cities, and public safety
- Tele-remote and autonomous
- Industrial factory automation and M2M systems
- Mobile equipment

Technical Data

Rajant Part Number	75-100164-001
Model	ROM-5050-5-5-NM
Ports	2
SISO/MIMO	MIMO
Maximum Power	10 W
Nominal Impedance	50 Ohm
Cable Type/Length	RTK 031 / 50 cm (19.7 in)

RF/Electrical Specifications

Frequency Range	Peak Gain	Polarization	VSWR	Return Loss	E-Plane Beamwidth	Port-to-Port Isolation	Connector Type
5000–6000 MHz	5 dBi	Vertical	< 1.7:1	> 11.7 dB	24°	> 30 dB	N male

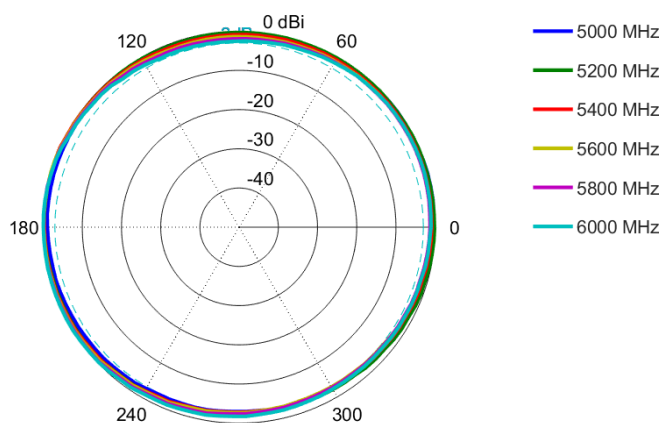
Mechanical/Environmental Specifications

Dimensions	Weight	Radome Material	Enclosure	Rated Wind	Temperature	Salt Spray
306 mm x 70 mm (12.0 in x 2.75 in)	501 g (1 lb 1.7 oz) ¹	UV-stable ASA	IP69K, IK10	190 km/h (118 mph)	-40 °C to 80 °C (-40 °F to 176 °F)	MIL-STD 810G/ ASTM B117

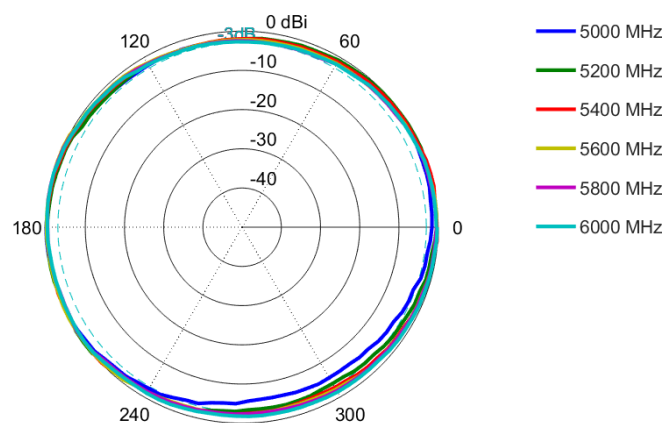
¹ Weight includes antenna and L-bracket mount.

Radiation Patterns

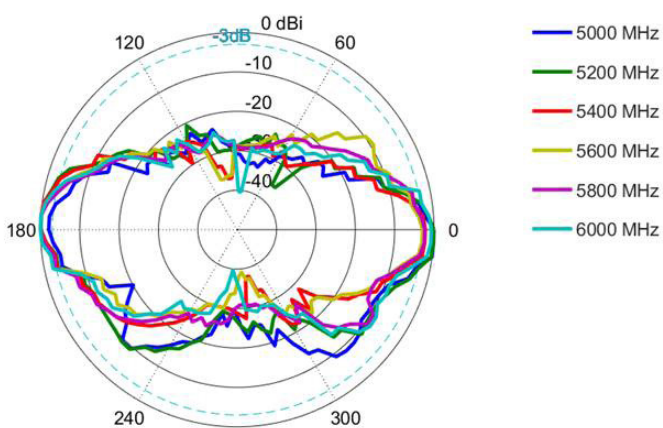
Port 1 Azimuth: 5000–6000 MHz



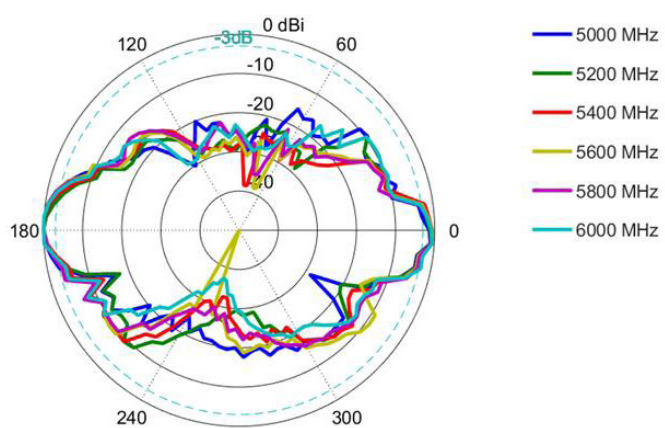
Port 2 Azimuth: 5000–6000 MHz



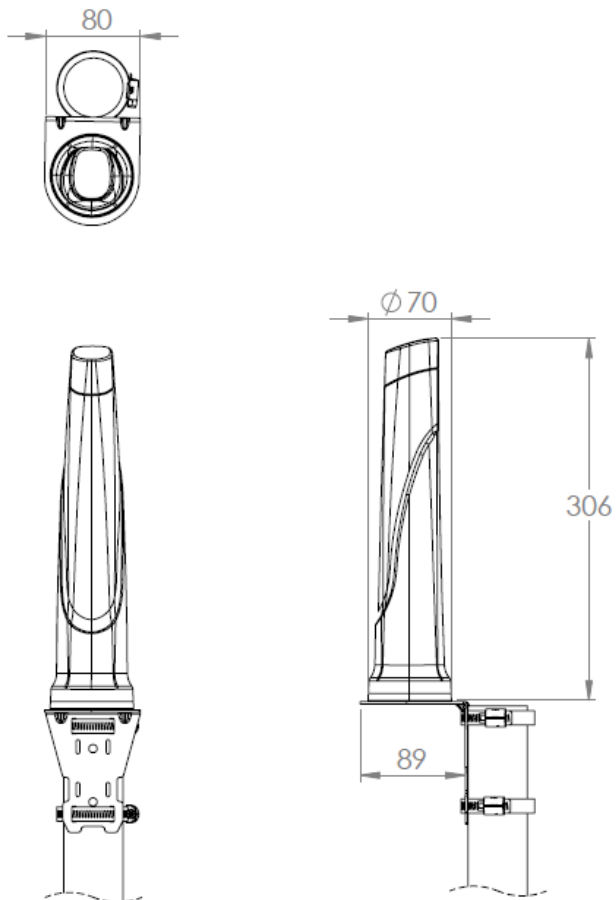
Port 1 Elevation: 5000–6000 MHz



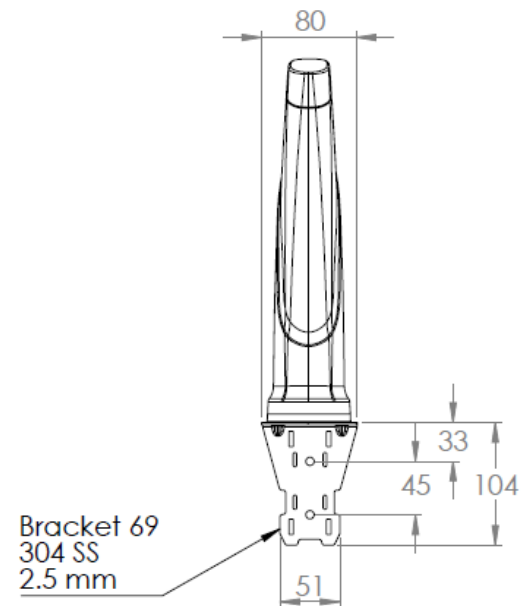
Port 2 Elevation: 5000–6000 MHz



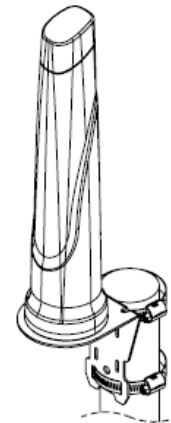
Technical Drawings



Overall bracket Dimensions

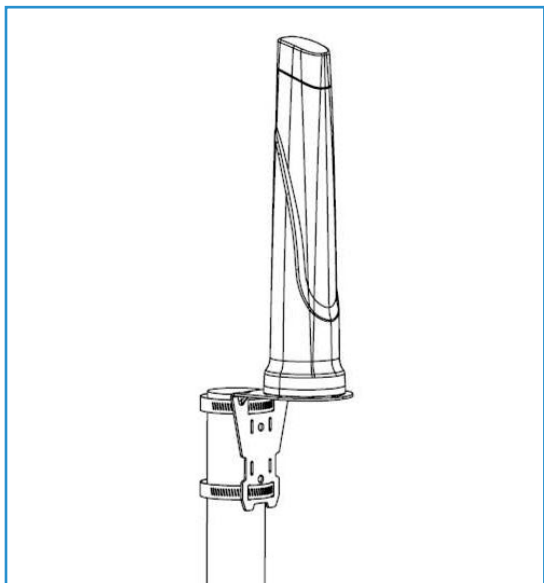


Pole Mount 3D View



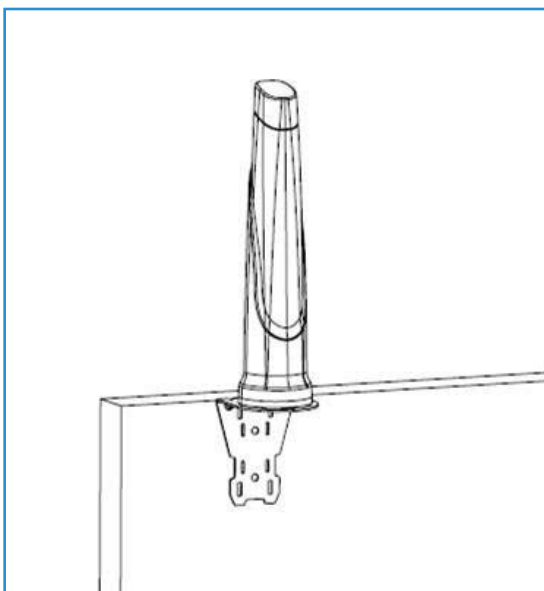
Mounting Options

For both pole and wall mount options, attach the L-bracket to the antenna first using the included M4 screws and flat washers.



Pole Mount

Pole mounted using the included L-bracket and hose clamps.



Wall Mount

Wall mounted using the included L-bracket and M6 x 50 mm wall anchors and screws.