EnGenius

Datasheet

SA2216
SA5219
SA2312
SA5315

Sector Antennas

EnGenius enterprise-class Sector Antennas are designed to improve RF performance and versatility in high-capacity, long-range, point-to-multipoint deployments. Join the Sector Antenna with an outdoor access point to create a powerful, IP55-rated, environmentally resistant, wireless base station with 120-degree, dual-polarity and sector-wide coverage up to 1.86 miles (3 km).

The Sector Antennas support cross-platform compatibility with an access point plug-in mounting system (SA2216 & SA5219) or by connecting any outdoor APs by utilizing the appropriate antenna cable. This provides added versatility and improved performance for high-capacity, long-range, point-to-multipoint applications.

Offering high-gain, 120-degree wireless beam performance for broad coverage, these Sector Antennas can be combined with other Sector Antennas to create 360-degree area coverage for any variety of point-to-multipoint scenarios.

Features & Benefits:

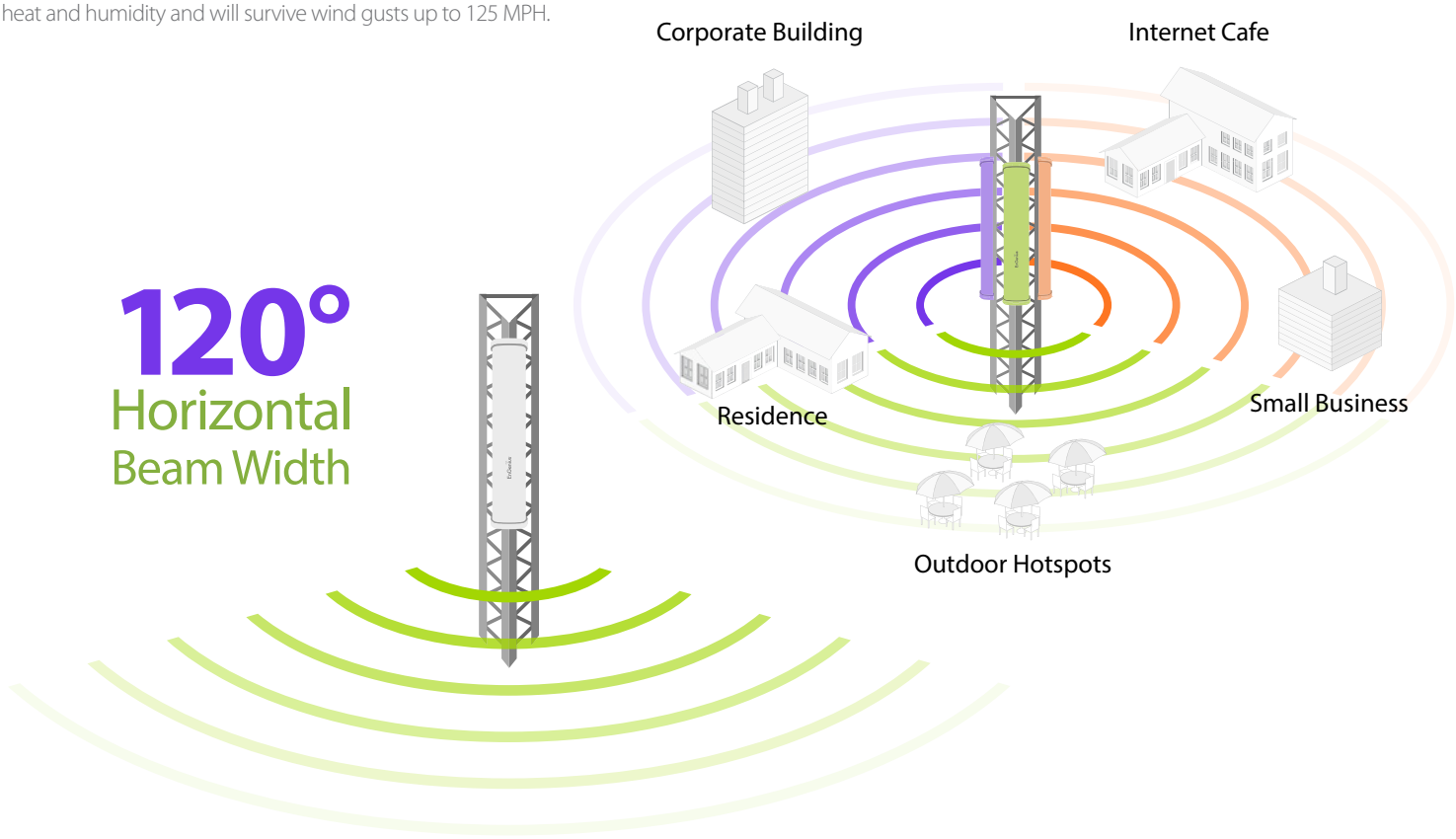
- Enterprise-Class, Long-Range, 120° 2x2 & 3x3 MIMO Sector Antennas
- Improves RF Performance & Versatility in High-Capacity, Point-to-Multipoint Deployments
- Plug-in Mounting System Supports EnGenius ENS202EXT & ENS505EXT Access Points
- Cross-Platform Compatibility for APs with External Connectors
- Create A Powerful Wireless Base Station with Coverage up to 1.86 Miles
- Adjustable Down-Tilt Ranges from 0-to10° for Flexible Line of Sight
- Compact, IP55-Rated Enclosure Resists Harsh Conditions & Wind Gusts to 125 MPH

Ideal for:

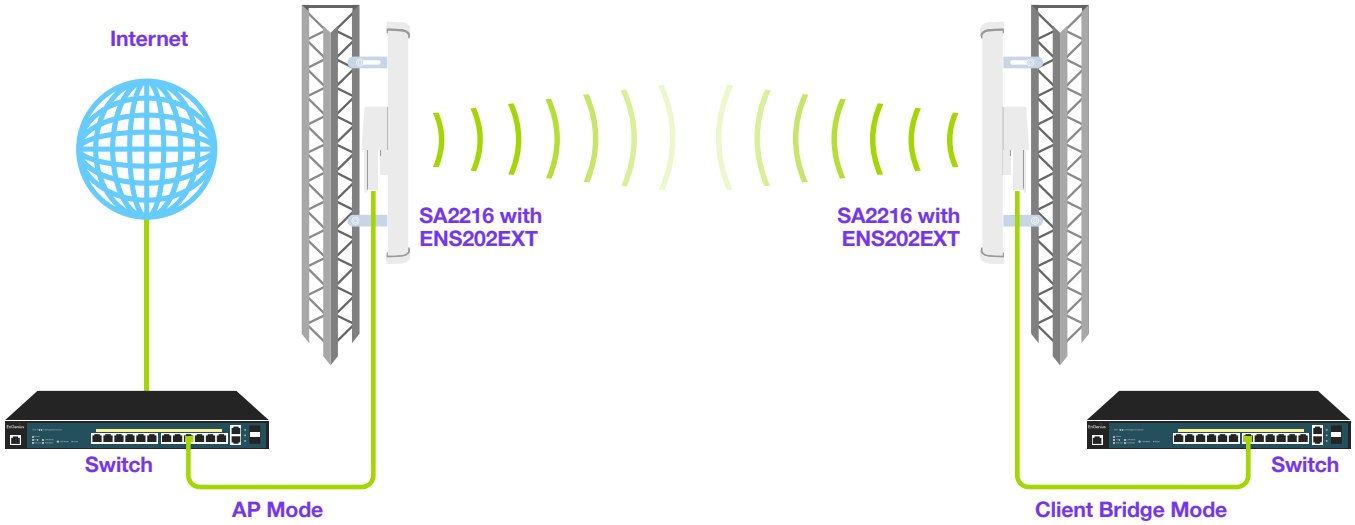
- Wireless Internet Service Providers
- Outdoor Hotspots
- Campgrounds & RV Parks
- Marinas & Docks
- Trucking & Transportation Centers
- Golf Courses & Regional Parks
- Ranches & Farms
- Retail Complexes
- Warehouse Facilities

EnGenius Sector Antennas are designed to fulfill both functional and ergonomic requirements. The solid, compact enclosure is engineered with an IP55-rating, and is highly resistant to various environmental conditions including prolonged exposure to sunlight, extreme cold, frost, snow, rain, hail, heat and humidity and will survive wind gusts up to 125 MPH.

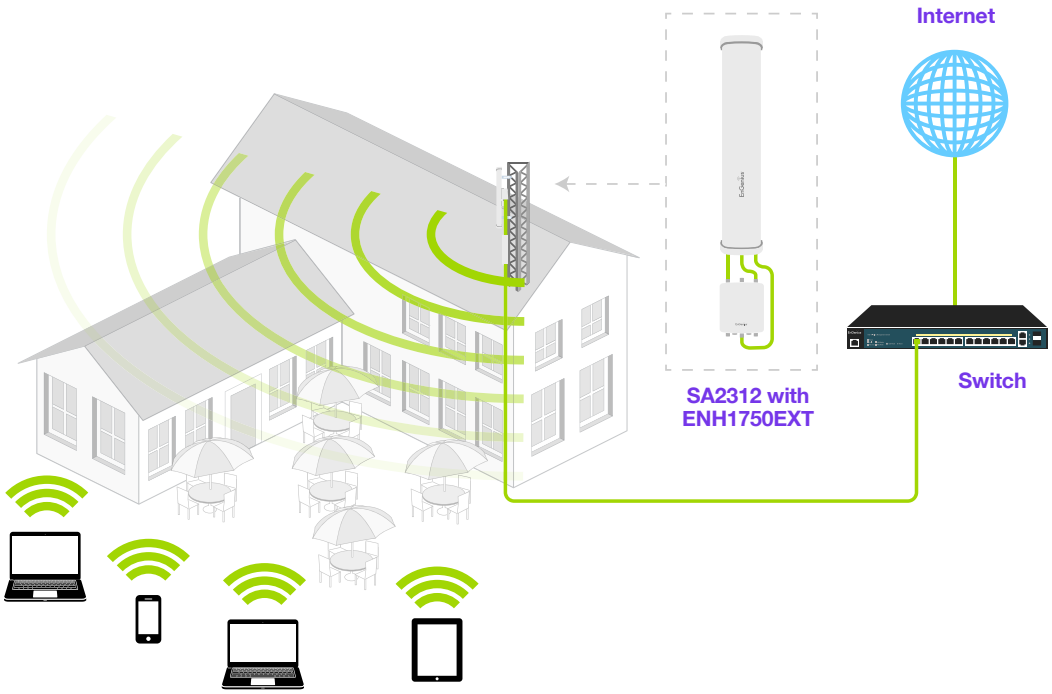
The antennas are constructed of heavy-duty, UV-resistant, ABS plastic with die-cast aluminum brackets and support an adjustable up or down-tilt range from 0- to 10-degrees ensuring a directed line of sight or to reduce interference in a centralized direction depending on the application needs.



Compatible EnGenius Access Points Application



Compatible EnGenius Access Points Application continued



Sector Antennas

Models	SA2216	SA5219	SA2312	SA5315
Frequency Range	2.3~2.7 GHz	4.9~6 GHz	2.3~2.7 GHz	4.9~6 GHz
Spatial Streams	2x2 MIMO	2x2 MIMO	3x3 MIMO	3x3 MIMO
Gain	16dBi	19dBi	12dBi	15dBi
Polarization	Dual-Linear	Dual-Linear	Dual-Linear	Dual-Linear
Vertical Beam Width	9°	9°	9°	9°
Horizontal Beam Width	120° (6dB)	120° (6dB)	120° (6dB)	120° (6dB)
Antenna/Port Type	2/N-Type Plug Female	2/N-Type Plug Female	3/N-Type Plug Female	3/N-Type Plug Female
Ingress Protection Rating	55	55	55	55
Wind Survivability	125 MPH	125 MPH	125 MPH	125 MPH
AP Mounting Bracket	EnGenius ENS202EXT (RP-SMA Female)	EnGenius ENS500EXT (RP-SMA Female)	-	-
Connectors	EnGenius & Any Outdoor AP w/ N-Type or Other External Connectors	EnGenius & Any Outdoor AP w/ N-Type or Other External Connectors	EnGenius & Any Outdoor AP w/ N-Type or Other External Connectors	EnGenius & Any Outdoor AP w/ N-Type or Other External Connectors

Technical Specifications Sector Antennas

Operating Frequency

SA2216 / SA2312

2.3 ~ 2.7 GHz

SA5219 / SA5315

4.9 ~ 6 GHz

Radio Chains/Spatial Streams

SA2216 / SA5219

2x2 MIMO

SA2312 / SA5315

3x3 MIMO

Gain

SA2216 16dBi

SA5219 19dBi

SA2312 12dBi

SA5315 15dBi

Polarization

Dual-Linear

Vertical Beam Width

9-Degrees

Horizontal Beam Width

120-Degrees (6dB)

Max. VSWR

2:1

Cross-Pol Isolation

25dB

Impedance

50 ohms

Mechanical Specifications

Antenna Port / Type

SA2216 / SA5219

2 / N-Type Plug

Female

SA2312 / SA5315

3 / N-Type Plug

Female

Mechanical Specifications

Antenna Port / Type

SA2216

EnGenius APs – ENS202EXT (w/ RP-SMA Connection - Cable Not Included)

SA5219

EnGenius APs – ENS500EXT (w/ RP-SMA Connection - Cable Not Included)

SA2312 / SA5315

N-Type Connectors

EnGenius and Most Other Outdoor APs with External Antenna Connectors

Environmental & Physical

Temperature Range

Operating: -4°F ~ 158°F (-20°C ~ 70°C)

Storage: -30°F ~ 80°F (-22°C ~ 176°C)

Humidity (non-condensing)

Operating: 90% or less

Storage: 90% or less

Wind Survivability

125 MPH

Dimensions & Weights:

Device

Weight: 5 lbs. (2.2 kg)

Height: 29.13" (74 cm)

Width: 5.9" (150 mm)

Depth: 2.6" (66 mm)

Package Contents

1x Sector Antenna

2x U-Brackets

2x Pole Brackets

2x Pole Clamps

4x Serrated Flange Bolts

4x Serrated Flange Hex Nuts

3x Mount Bracket Bolts

1x Protective Shroud

1x Access Point Mounting Bracket

Quick Installation Guide

Warranty:

1 Year

Compatible EnGenius Access Points

SA2216

2.4 GHz Plug-in Mounting System

ENS202EXT

Dual-Band 2x2 N-Type Connectors

ENH710EXT

SA5219

5 GHz Plug-in Mounting System

ENS500EXT

Dual-Band 2x2 N-Type Connectors

ENH710EXT

SA2312 / SA5315

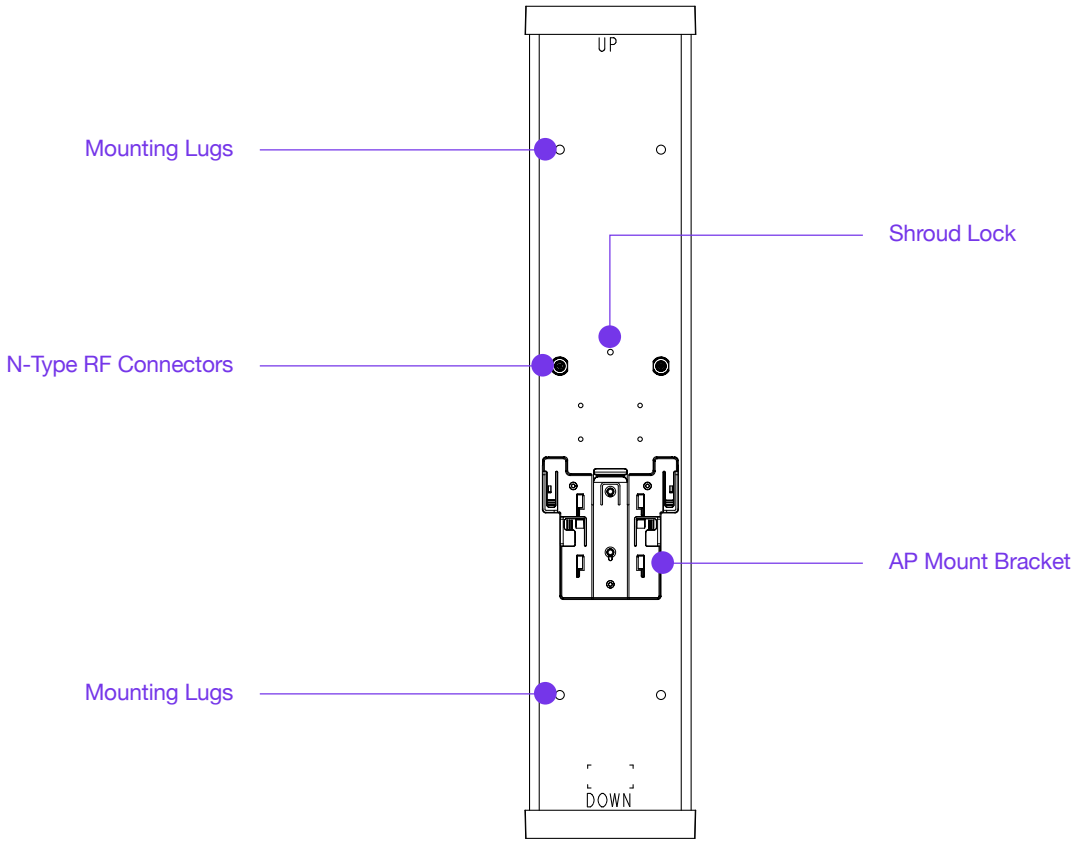
Dual-Band 3x3 N-Type Connectors

ENH900EXT

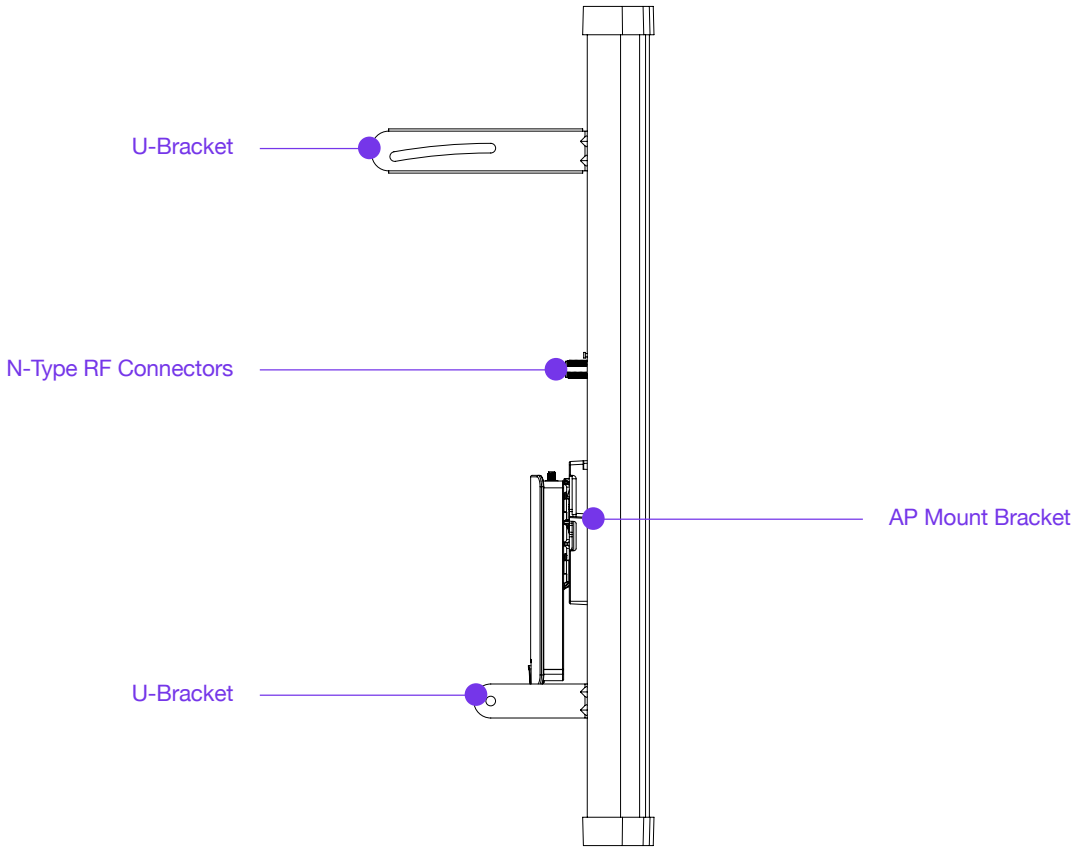
ENH1750EXT

EWS860EXT

Sector Antenna Back View

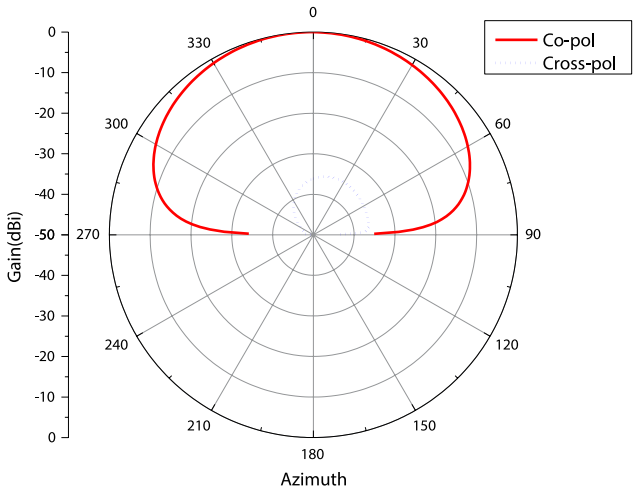


Sector Antenna Side View

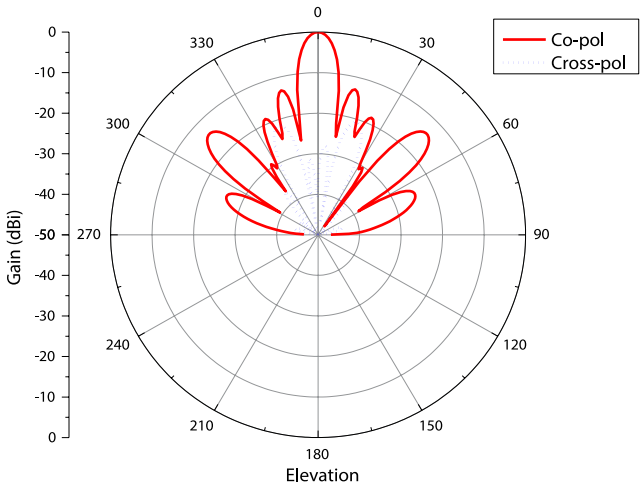


Radio Pattern SA2216 (2.4GHz, 2x2 MIMO)

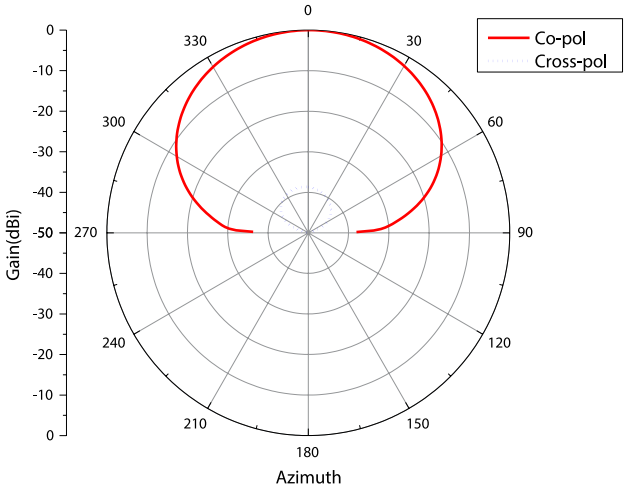
Vertical Port Azimuth Plane



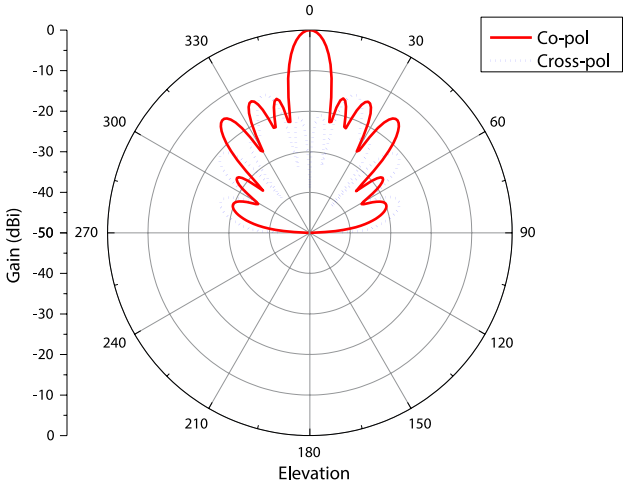
Vertical Port Elevation Plane



Horizontal Port Azimuth Plane

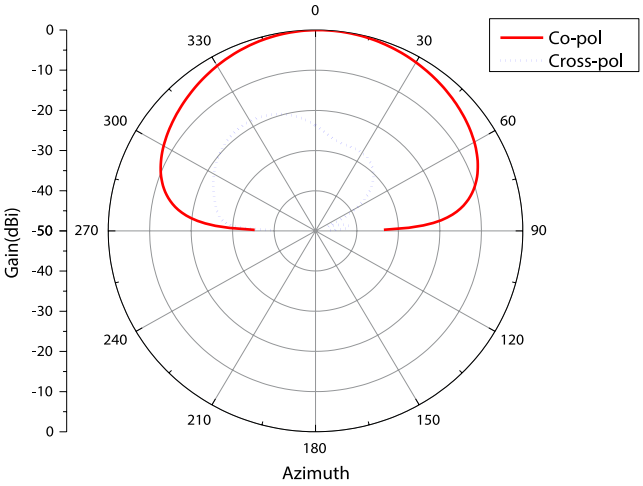


Horizontal Port Elevation Plane

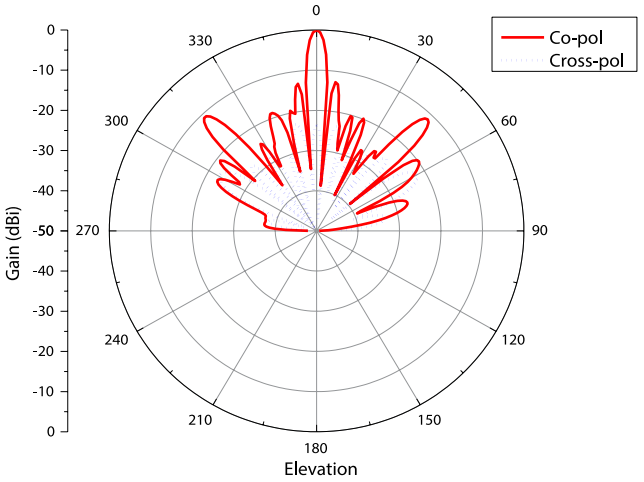


Radio Pattern **SA5219** (5GHz, 2x2 MIMO)

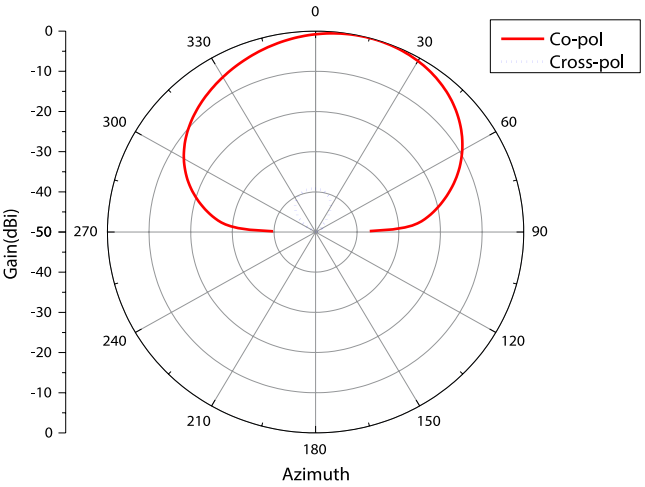
Vertical Port Azimuth Plane



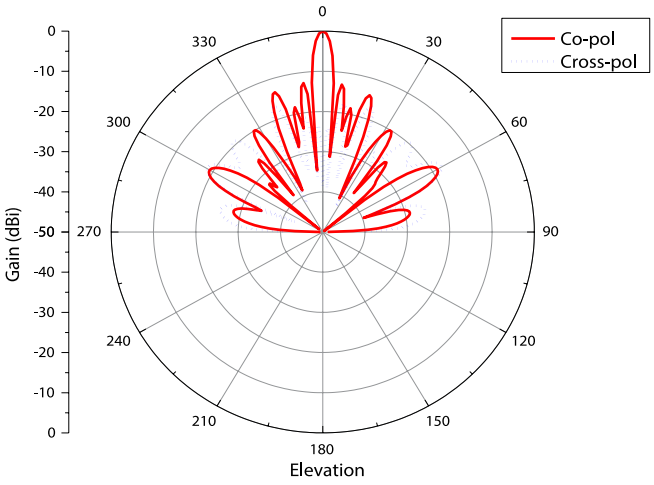
Vertical Port Elevation Plane



Horizontal Port Azimuth Plane

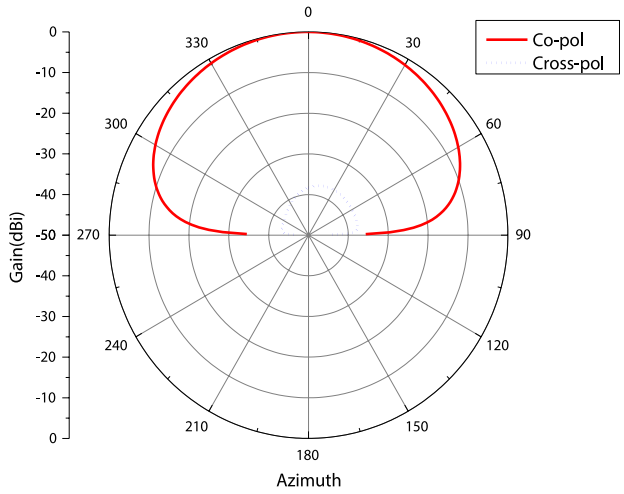


Horizontal Port Elevation Plane

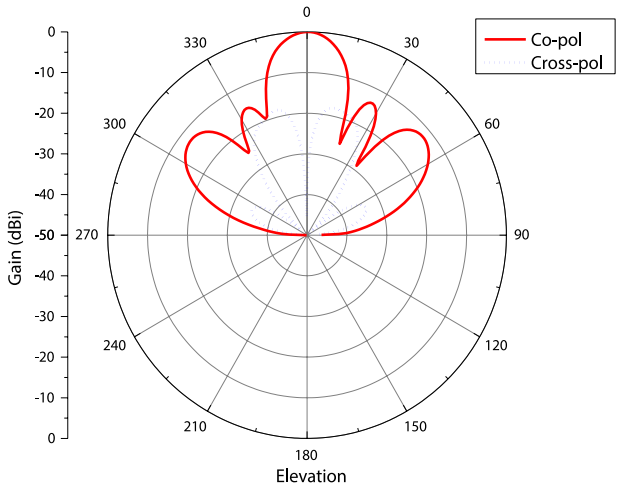


Radio Pattern SA2312 (2.4GHz, 3x3 MIMO)

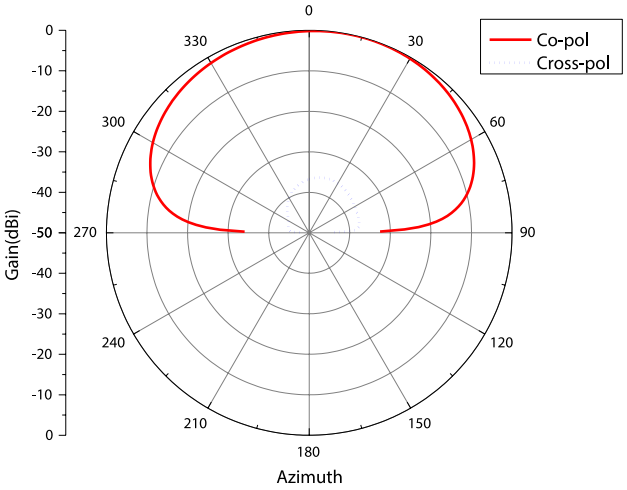
Vertical Port Azimuth Plane



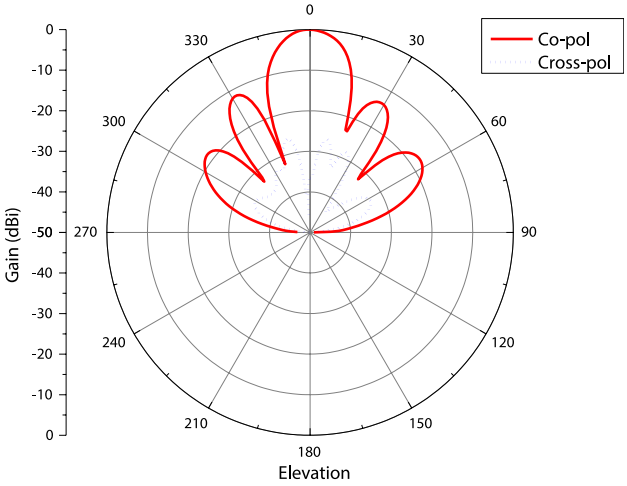
Vertical Port Elevation Plane



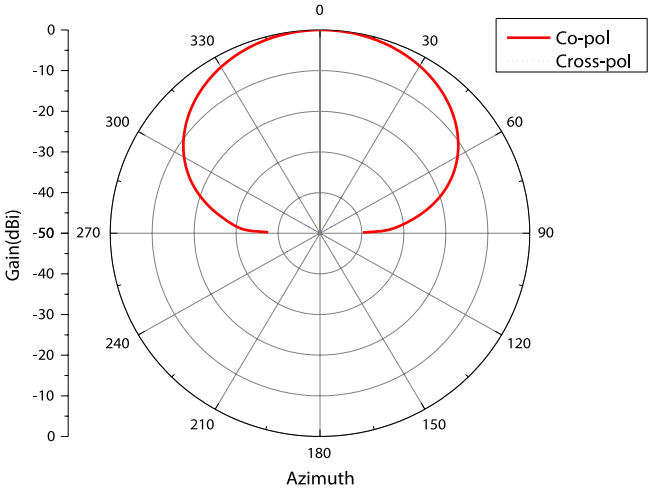
Vertical Port Azimuth Plane



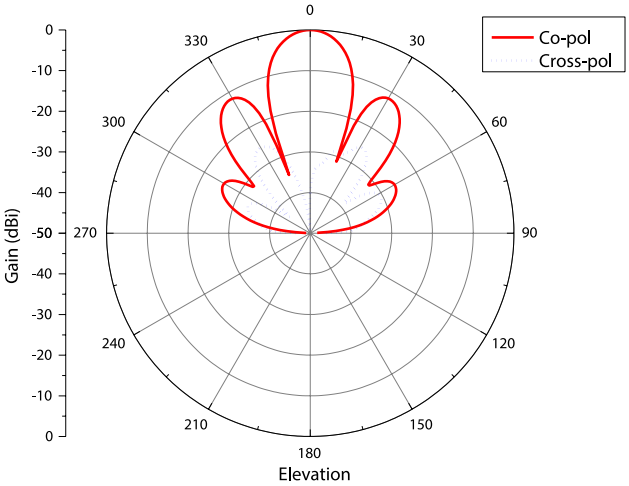
Vertical Port Elevation Plane



Horizontal Port Azimuth Plane

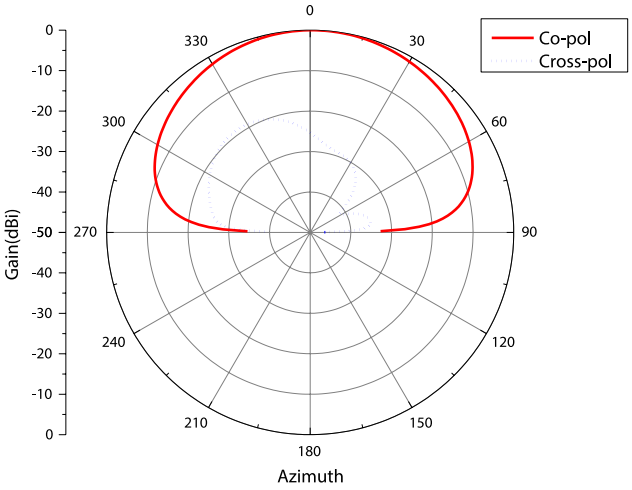


Horizontal Port Elevation Plane

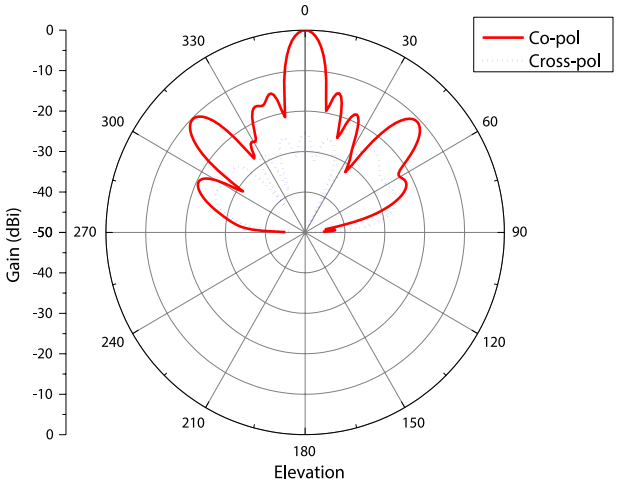


Radio Pattern SA5315 (5GHz, 3x3 MIMO)

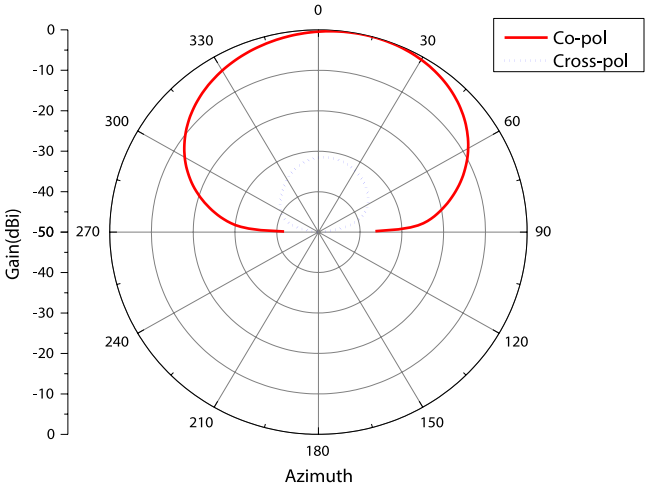
Vertical Port Azimuth Plane



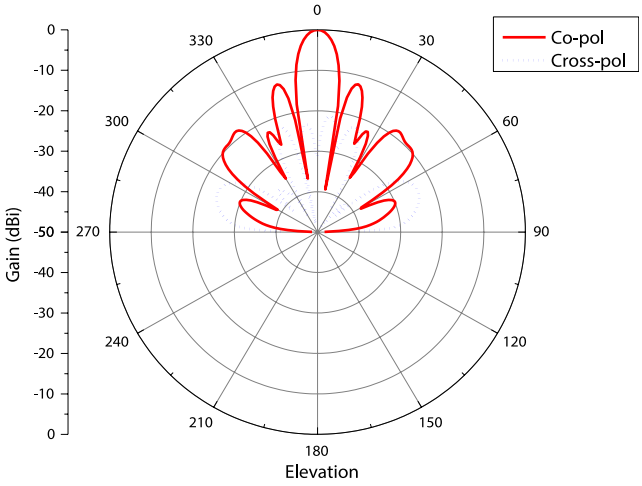
Vertical Port Elevation Plane



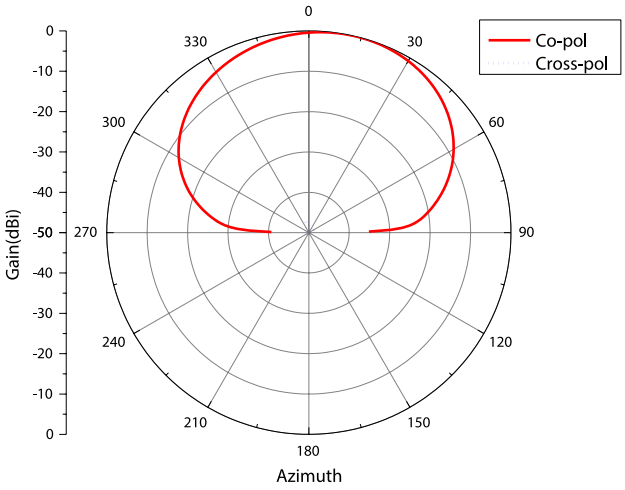
Horizontal Port Azimuth Plane



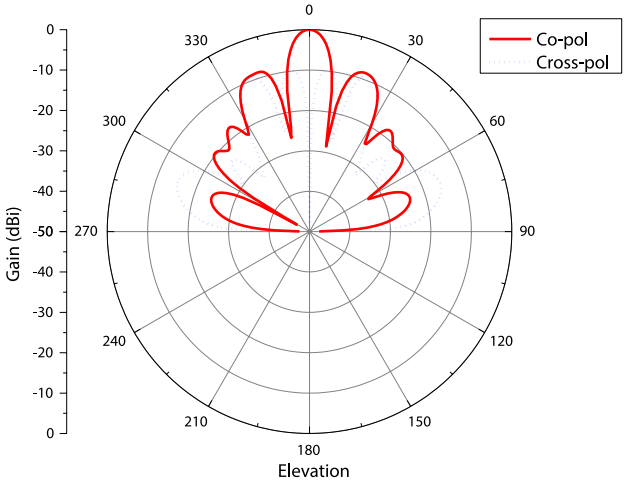
Horizontal Port Elevation Plane



Horizontal Port Azimuth Plane



Horizontal Port Elevation Plane



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