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 & ENS500EXT 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.

120°
Horizontal Beam Width

Compatible EnGenius Access Points Application
## Sector Antennas

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

#### EnGenius APs – ENS202EXT (w/ RP-SMA Connection - Cable Not Included)
- **SA2216**
- **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**
- **SA5219**
- **SA2312 / SA5315**

#### 2.4 GHz Plug-in Mounting System
- **ENS202EXT**
- **ENS500EXT**

#### 5 GHz Plug-in Mounting System
- **ENS900EXT**
- **ENS1750EXT**
- **EWS860EXT**
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