



**Enterprise-class MIMO  
Sector Antenna**

# Enterprise-class MIMO Sector Antenna

**A Cost-effective PtMP Deployment Solution with Durable Design and Flexible Installation.**

EnGenius introduces the new Enterprise-class Sector Antennas in cross platform compatibility, which are equipped with easy plug-in mounting system, better RF performance and environmental resistance.

The Sector Series come with 3x3 MIMO and 2x2 MIMO options for both 2.4GHz and 5GHz, all featured with dual polarization.



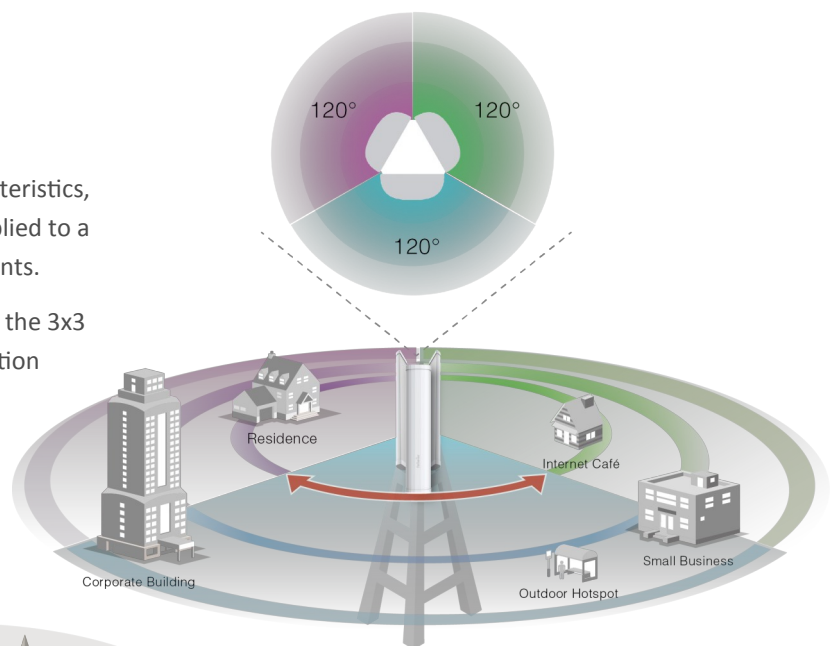
Models:

- > 2x2 MIMO: SA2216 / SA5219
- > 3x3 MIMO: SA2312 / SA5315

### Make Reliable 360° Radiation Easier

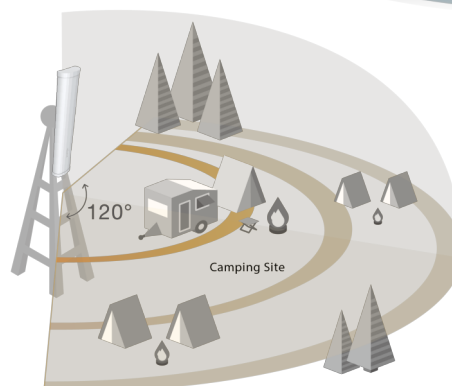
With the sector-shaped radiation pattern characteristics, EnGenius Sector Antennas can be versatily applied to a variety of Point-to-Multi-Point (PtMP) deployments.

Featured with horizontal beamwidth up to 120°, the 3x3 (or 2x2) MIMO technology and the dual polarization design, network installers can easily build a 360° surrounding radio effectively with the coverage up to 1.86 miles (3 kms).



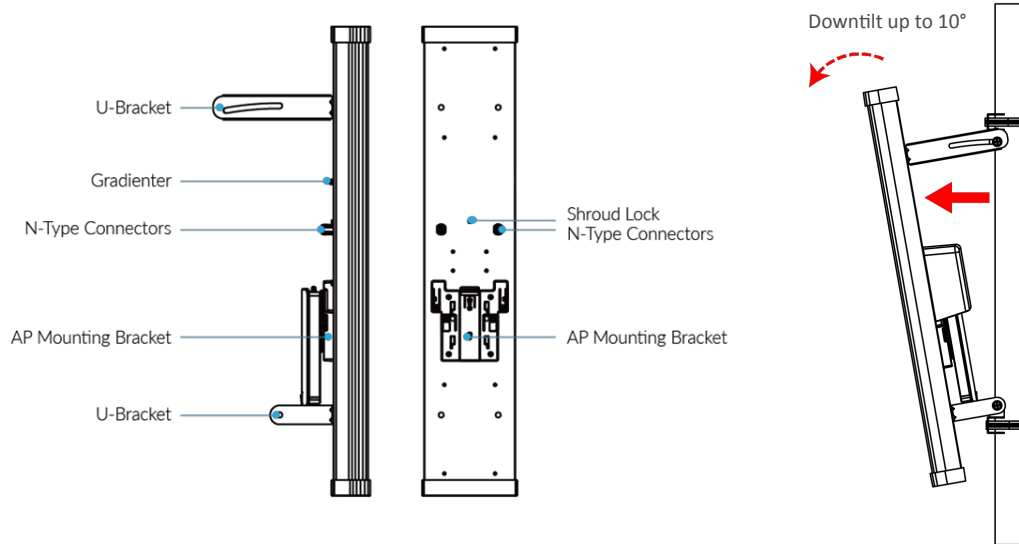
### Ideal for PtMP Deployments:

- > WISP Mobile Wi-Fi Services
- > Telecommunication
- > Ranch & Camping Sites
- > Retails & Warehouses
- > Golf Courses
- > Transportation Data Collection



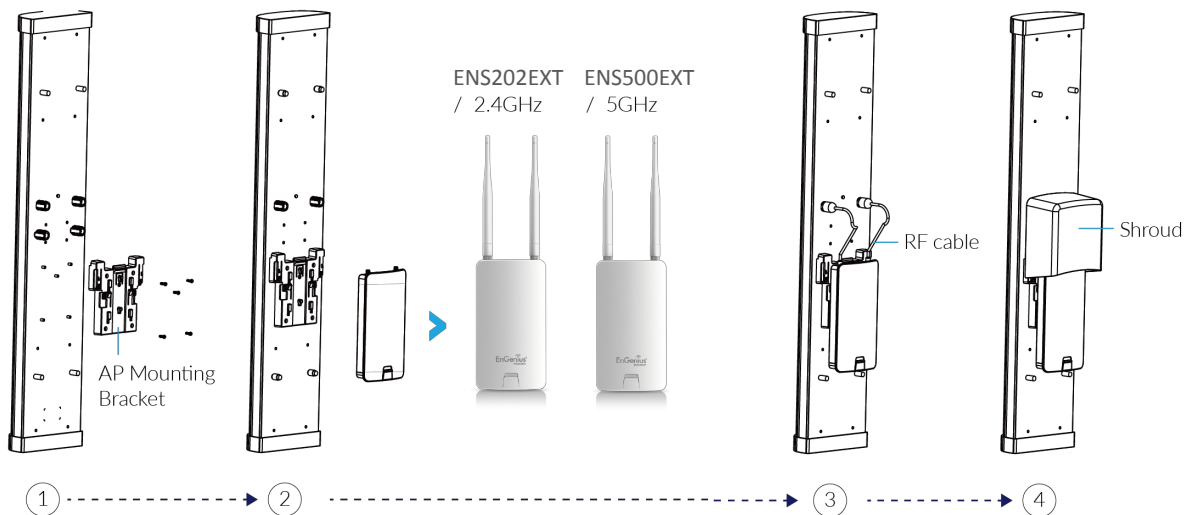
## Breakthrough Design and Performance

EnGenius Sector Antennas are designed to fulfill both functional and ergonomic requirements. The solid and compact enclosure is engineered to be highly resistant to a variety of harsh environmental conditions.



## Cross-platform Compatibility Design

The EnGenius Sector Antennas are equipped with easy plug-in mounting system, which is compatible with EnGenius ENS APs (ENS202EXT and ENS500EXT).



To install, simply attach RF cable to the AP and the N-type connectors.

Then cover with the customized protective shroud to shield installed AP from the elements.

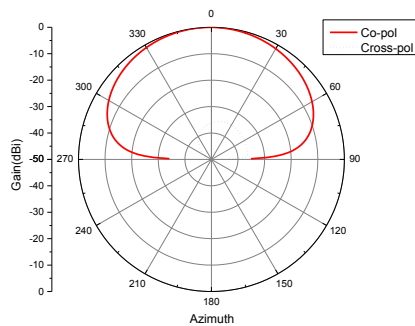
| MODEL                            | SA2216  | SA5219                    | SA2312                    | SA5315                    |
|----------------------------------|---|---------------------------|---------------------------|---------------------------|
| FREQUENCY                        | 2.3~2.7GHz  | 4.9~6GHz                  | 2.3~2.7GHz                | 4.9~6GHz                  |
| <b>HARDWARE SPECIFICATIONS</b>   |   |                           |                           |                           |
| ANTENNA GAIN                     | 16dBi   | 19dBi                     | 12dBi                     | 15dBi                     |
| POLARIZATION                     | Dual  | Dual                      | Dual                      | Dual                      |
| VERTICAL BEAMWIDTH               | 9°  | 9°                        | 9°                        | 9°                        |
| HORIZONTAL BEAMWIDTH             | 120°(6dB)   | 120°(6dB)                 | 120°(6dB)                 | 120°(6dB)                 |
| MAX. VSWR                        | 2:1   | 2:1                       | 2:1                       | 2:1                       |
| CROSS-POL ISOLATION              | 25dB  | 25dB                      | 25dB                      | 25dB                      |
| IMPEDANCE                        | 50 ohms   | 50 ohms                   | 50 ohms                   | 50 ohms                   |
| <b>MECHANICAL SPECIFICATIONS</b> |   |                           |                           |                           |
| ANTENNA PORT/TYPE                | 2 / N Type Plug<br>Female                                     | 2 / N Type Plug<br>Female | 3 / N Type Plug<br>Female | 3 / N Type Plug<br>Female |
| WEIGHT                           | 5kgs / 11lbs  |                           |                           |                           |
| DIMENSION (WxDxH)                | 150 x 66 x 740 in mm / 5.9 x 2.6 x 29.13 in inch              |                           |                           |                           |
| TEMPERATION                      | Operating: -20°~70° C (-4~158°F)Storage:-30°~80°C (-22~176°F) |                           |                           |                           |
| HUMIDITY                         | Operating: 0-90%; Storage:0-95%                               |                           |                           |                           |
| WIND SURVIVABILITY               | 125mph  |                           |                           |                           |
| <b>COMPATIBLE RADIO PLATFORM</b> |   |                           |                           |                           |
| AP MOUNT BRACKET                 | EnGenius APs (ENS202EXT and ENS500EXT)                        |                           |                           |                           |
| N-TYPE CONNECTORS                | EnGenius and Any Outdoor APs with N-type Connectors           |                           |                           |                           |

## Radio Pattern

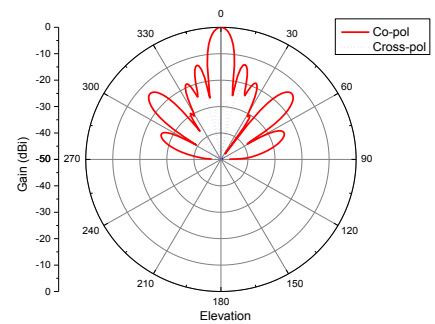
MODEL : SA2216  
(2.4GHz, 2x2 MIMO)



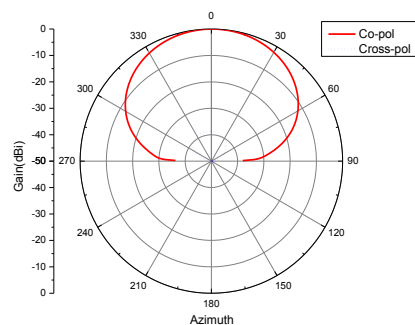
Vertical Port Azimuth Plane



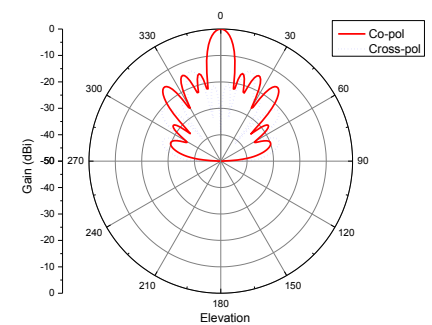
Vertical Port Elevation Plane



Horizontal Port Azimuth Plane



Horizontal Port Elevation Plane



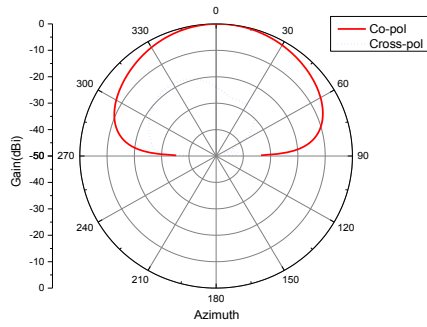
**Radio Pattern** –continued

MODEL : SA5219

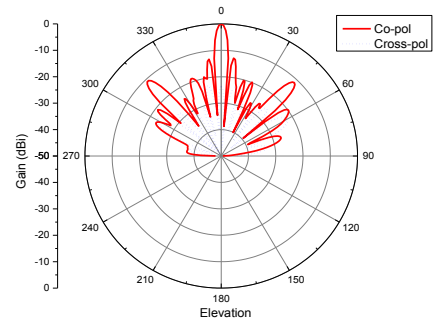
(5GHz, 2x2 MIMO)



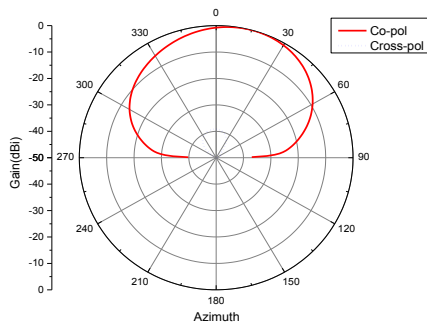
Vertical Port Azimuth Plane



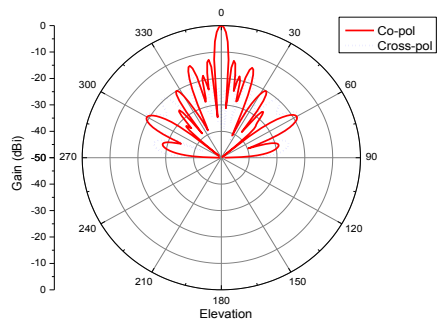
Vertical Port Elevation Plane



Horizontal Port Azimuth Plane



Horizontal Port Elevation Plane

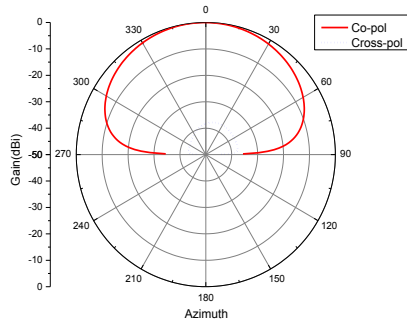


MODEL : SA2312

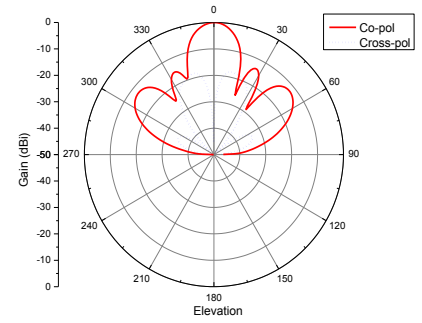
(2.4GHz, 3x3 MIMO)



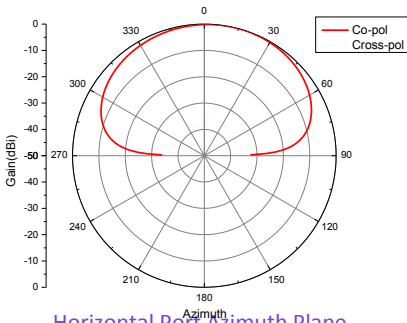
Vertical Port Azimuth Plane



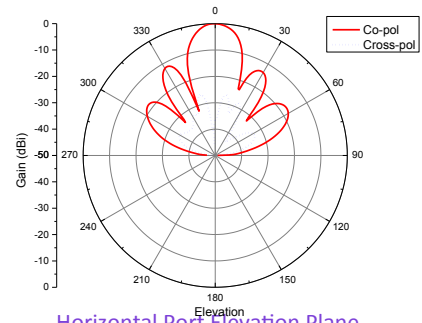
Vertical Port Elevation Plane



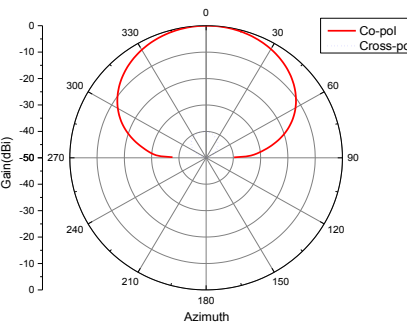
Vertical Port Azimuth Plane



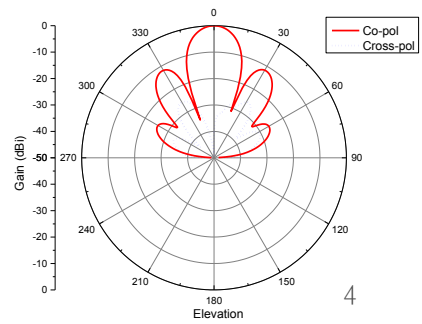
Vertical Port Elevation Plane



Horizontal Port Azimuth Plane



Horizontal Port Elevation Plane



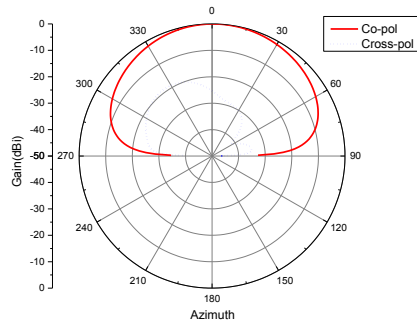
# Radio Pattern –continued

MODEL : SA5315

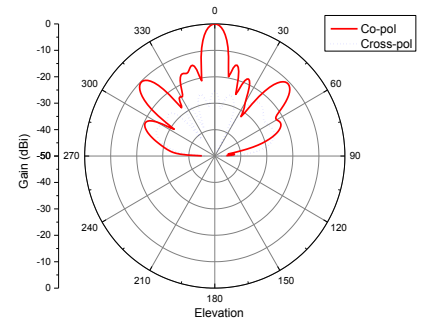
(5GHz, 3x3 MIMO)



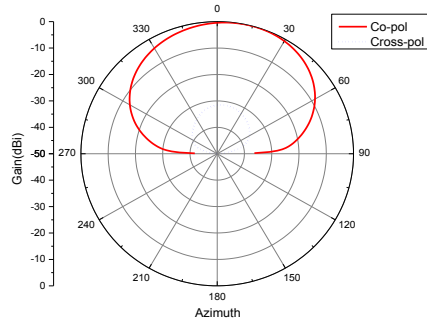
Vertical Port Azimuth Plane



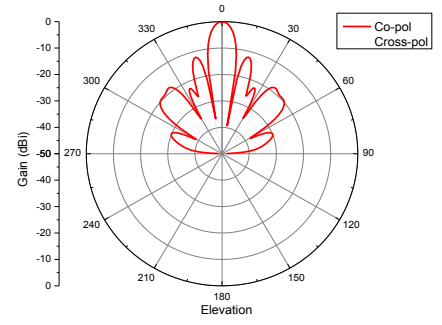
Vertical Port Elevation Plane



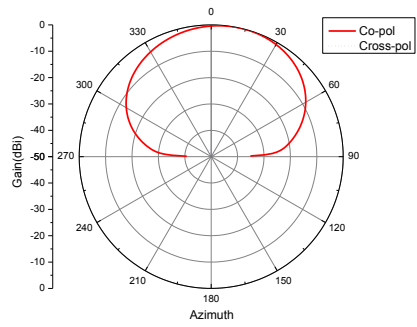
Horizontal Port Azimuth Plane



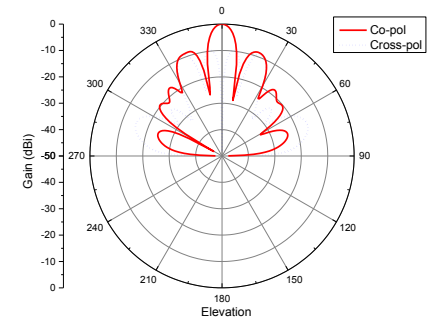
Horizontal Port Elevation Plane



Horizontal Port Azimuth Plane

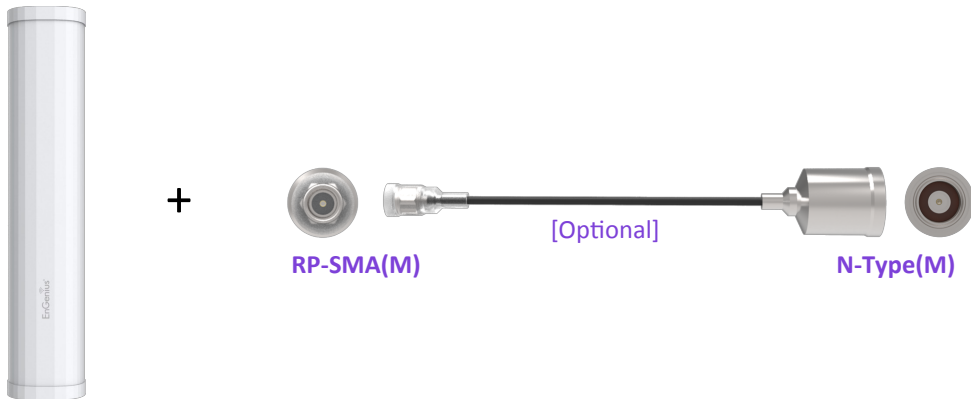


Horizontal Port Elevation Plane



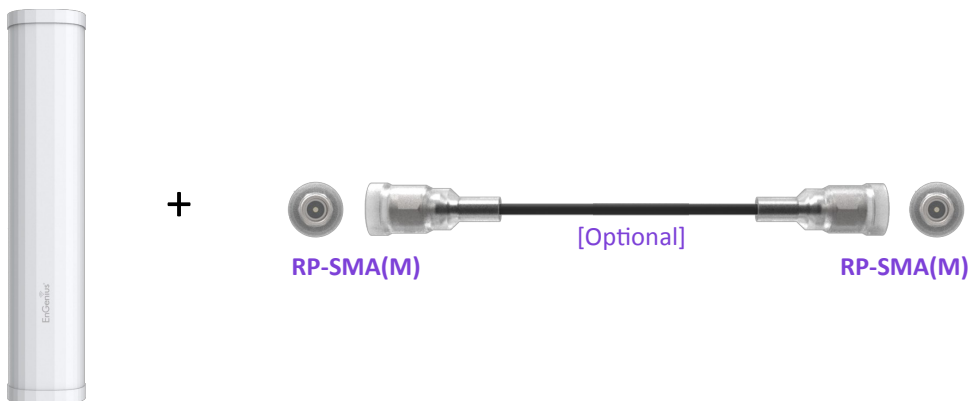
## Ordering Information

### 1<sup>st</sup> Type



| MODEL              | DESCRIPTION  |
|--------------------|--|
| <b>SA2216</b>      | 2x2MIMO, 2.4GHz, 16dBi, N-Type Port(Female) x 2                |
| <b>SA5219</b>      | 2x2MIMO, 5GHz, 19dBi, N-Type Port(Female) x 2                  |
| <b>SA2312</b>      | 3x3MIMO, 2.4GHz, 12dBi, N-Type Port(Female) x 3                |
| <b>SA5315</b>      | 3x3MIMO, 5GHz, 15dBi, N-Type Port(Female) x 3                  |
| <b>N(M)+SMA(M)</b> | N-Type Port(Male) and RP-SMA(Male) Two Side Cable, Length 14cm |

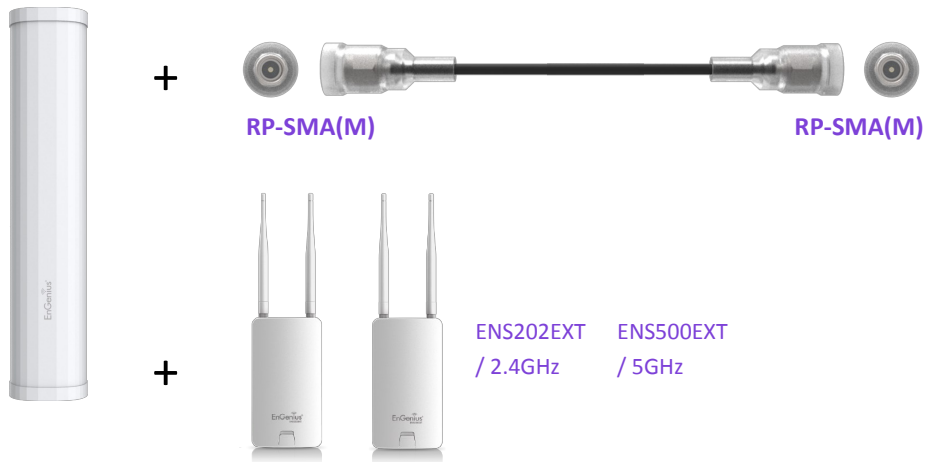
### 2<sup>nd</sup> Type



| MODEL                | DESCRIPTION   |
|----------------------|---|
| <b>SA2216</b>        | 2x2MIMO, 2.4GHz, 16dBi, RP-SMA Port(Female) x 2           |
| <b>SA5219</b>        | 2x2MIMO, 5GHz, 19dBi, RP-SMA Port(Female) x 2             |
| <b>SA2312</b>        | 3x3MIMO, 2.4GHz, 12dBi, RP-SMA Port(Female) x 3           |
| <b>SA5315</b>        | 3x3MIMO, 5GHz, 15dBi, RP-SMA Port(Female) x 3             |
| <b>SMA(M)+SMA(M)</b> | RP-SMA(Male) and RP-SMA(Male) Two Side Cable, Length 14cm |

Ordering Information –continued

Bundle KIT



| MODEL             | DESCRIPTION  |
|-------------------|--|
| <b>SA2216 KIT</b> | SA2216 with RP-SMA Ports x 1 +<br>RP-SMA(M)+RP-SMA(M) x 2 +<br>ENS202EXT Outdoor 2.4GHz Mini CPE x 1 |
| <b>SA5219 KIT</b> | SA5219 with RP-SMA Ports x 1 +<br>RP-SMA(M)+RP-SMA(M) x 2 +<br>ENS500EXT Outdoor 5 GHz Mini CPE x 1  |

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