



## **PDM24499-CS1**

### **4-Port MIMO Antenna**

#### **2.4-2.5 AND 4.9-5.95 GHZ 9 DBI WALL/POLE-MOUNTED MIMO ANTENNA**

The PDM24499-CS1 antenna is a four-port dual-band, dual polarized directional panel antenna for use in 802.11 MIMO indoor and outdoor applications. The antenna is an excellent choice for high density Wi-Fi applications. . The dual-band frequency coverage means that a single type of antenna can be deployed with any MIMO radio in the 2400-2500 MHz and 5150-5900 MHz bands. In addition, the uniform and symmetrical radiation patterns will provide a high-level signal density into engineered coverage areas.

#### **FEATURES**

- Thin, compact UV stable housing
- Four radiating elements optimized for indoor and outdoor 802.11 MIMO applications
- Articulating arm mount can be anchored directly to a vertical surface or mast mounted and oriented for optimal signal radiation
- Horizontal and vertical polarization for multipath mitigation
- IP67-rated and RoHS-compliant
- Self-Identification Circuitry Included

#### **APPLICATIONS**

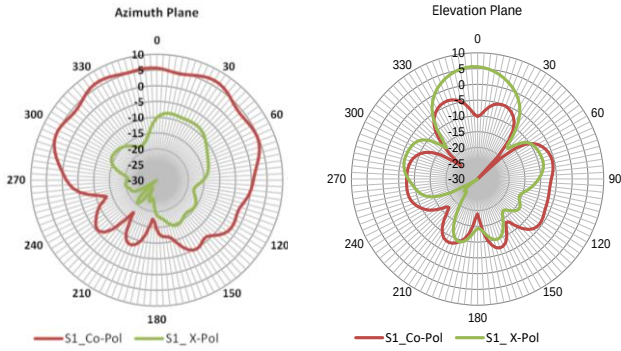
- High density Wi-Fi
- Outdoor stadiums, arenas, and convention centers
- Hotels and casinos
- Airport, bus, and train terminals
- Retail stores and indoor pedestrian malls
- Libraries and museums

## SPECIFICATIONS

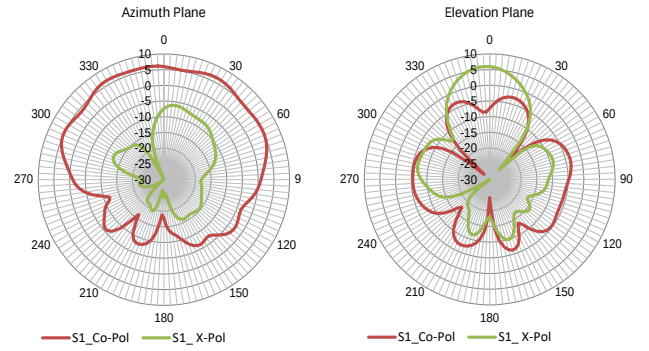
| PARAMETER                                   | SPECIFICATIONS                           |           |
|---------------------------------------------|------------------------------------------|-----------|
| Antenna Model                               | PDM24499-CS1                             |           |
| Number of Ports                             | AIR-ANT2588P4M-NS                        |           |
| Number of Ports                             | 07-100555-01                             |           |
| Number of Ports                             | 4                                        |           |
| Frequency Bands, MHz                        | 2400-2500                                | 4900-5950 |
| Peak Gain, Max. V-pol, dBi                  | 9.1                                      | 9.6       |
| Peak Gain, Max. H-pol, dBi                  | 7.1                                      | 7.8       |
| Max Gain $\pm 30^\circ$ above Horizon, dBi  | NA                                       | 3.8       |
| Azimuth 3 dB Beamwidth, Typ (V-pol/H-pol)   | 95°/144°                                 | 148°/150° |
| Elevation 3 dB Beamwidth, Typ (V-pol/H-pol) | 44°/34°                                  | 30°/33°   |
| Azimuth 6 dB Beamwidth, Typ (V-pol/H-pol)   | 120°/171°                                | 172°/179° |
| VSWR (Max)                                  | <2.0:1                                   |           |
| Front-to-Back Ratio V-pol                   | >20 dB                                   |           |
| Front-to-Back Ratio H-pol                   | >10 dB                                   |           |
| Nominal Impedance                           | 50 $\Omega$                              |           |
| Polarization                                | Vertical (2 ports), Horizontal (2 ports) |           |
| Maximum Input Power (per port)              | 10 W (ambient temperature of 25°C/77°F)  |           |
| Dimensions H x L x W mm (in.)               | 26.2 x 304.8 x 177.8 (1.0 x 12.0 x 7.0)  |           |
| Weight (without mount) g. (lbs.)            | 696.5 (1.54)                             |           |
| Mounting                                    | Articulating Mount, Mast, or Flush Mount |           |
| Wind Survival                               | 220 km/hr (136 mph)                      |           |
| Wind Operational                            | 160 km/hr (100 mph)                      |           |
| Operating Temperature                       | -30°C to +70°C (-22°F to +158°F)         |           |
| Storage Temperature                         | -40°C to +85°C (-40°F to +185°F)         |           |
| Radome                                      | PC + ABS, UL94-V0, Gray                  |           |
| Ingress Protection                          | IP67                                     |           |
| Material Compliance                         | RoHS                                     |           |

## RADIATION PATTERNS - PORT A (HORIZONTAL POLARIZATION PORT)

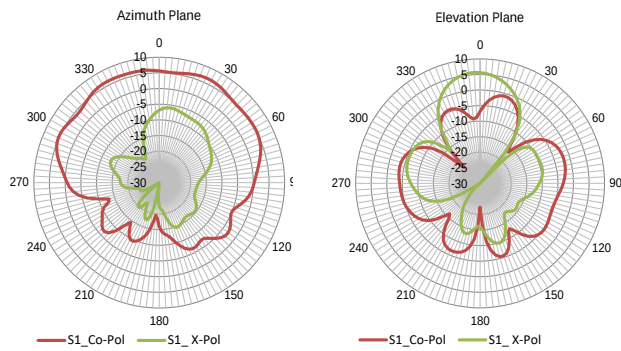
**2400 MHz**



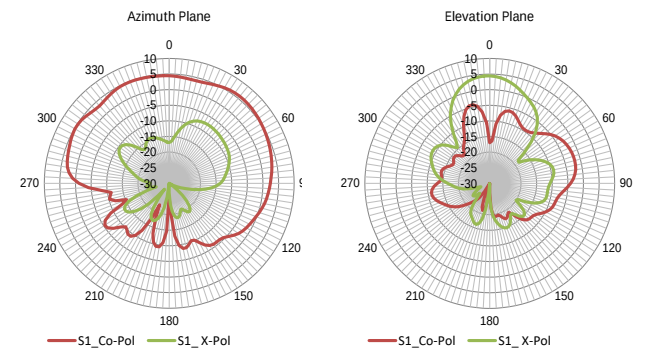
**2450 MHz**



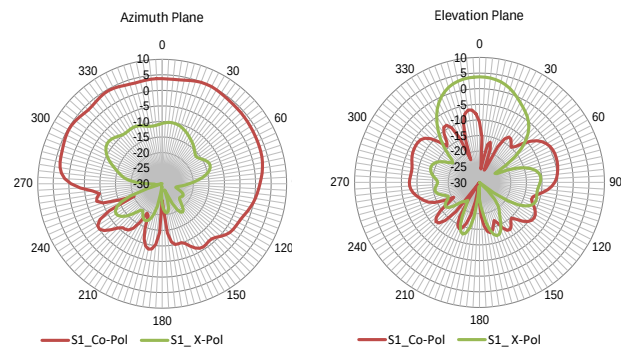
**2500 MHz**



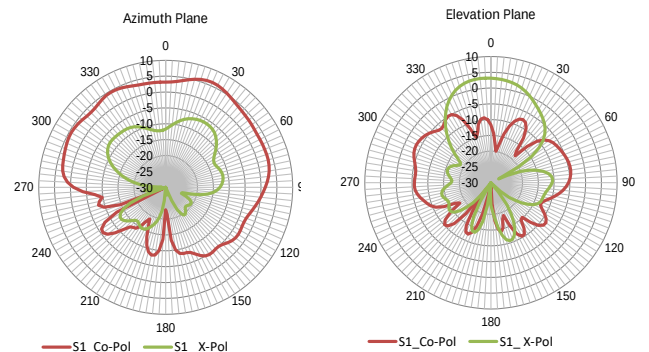
**5150 MHz**



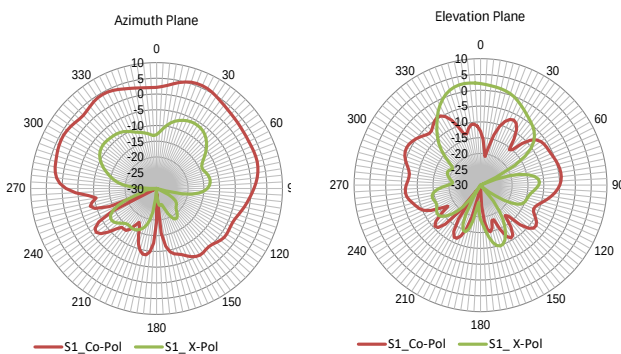
**5350 MHz**



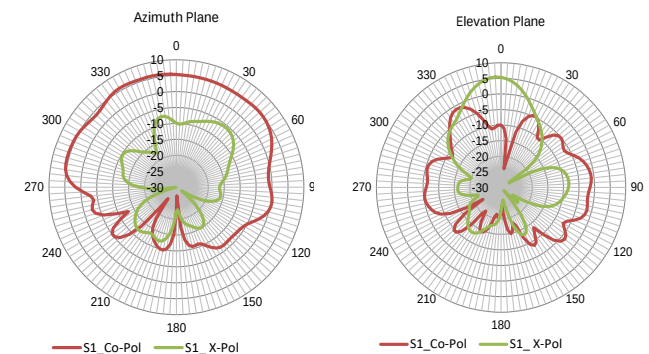
**5470 MHz**



**5500 MHz**

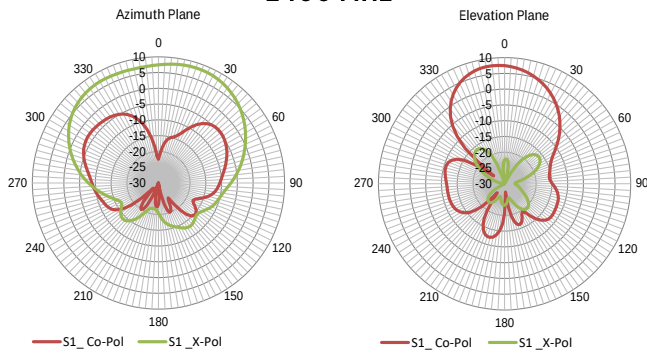


**5900 MHz**

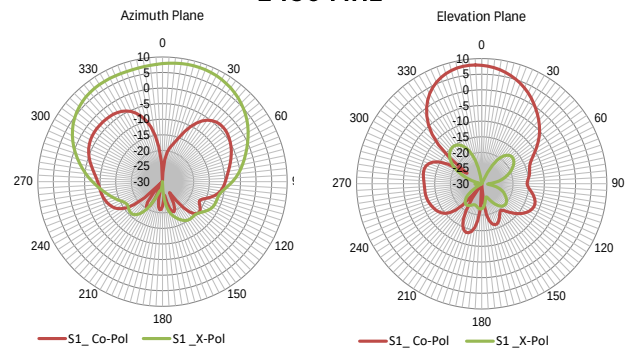


## RADIATION PATTERNS - PORT B (VERTICAL POLARIZATION PORT)

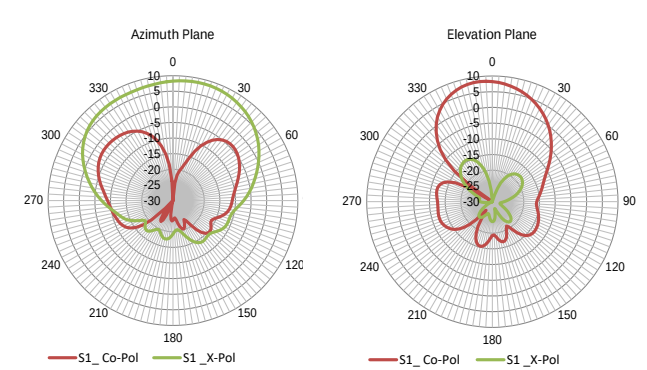
**2400 MHz**



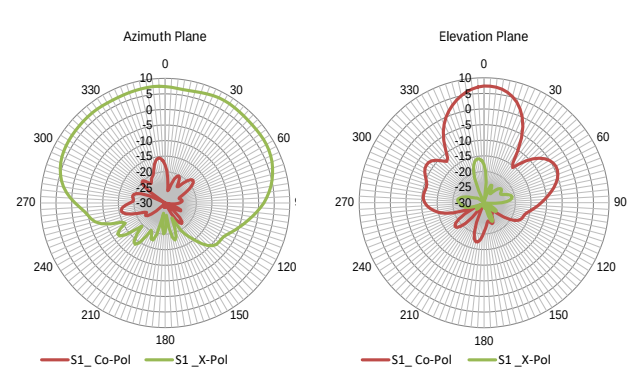
**2450 MHz**



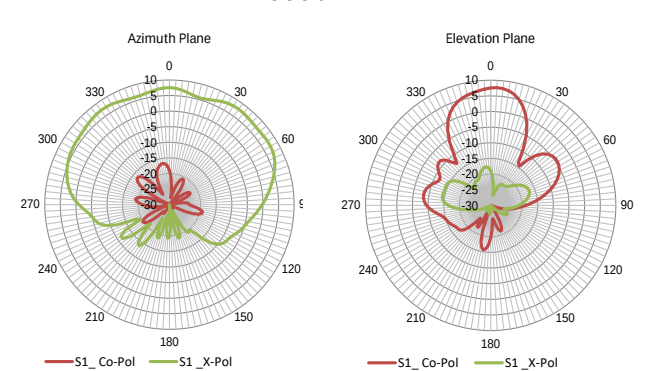
**2500 MHz**



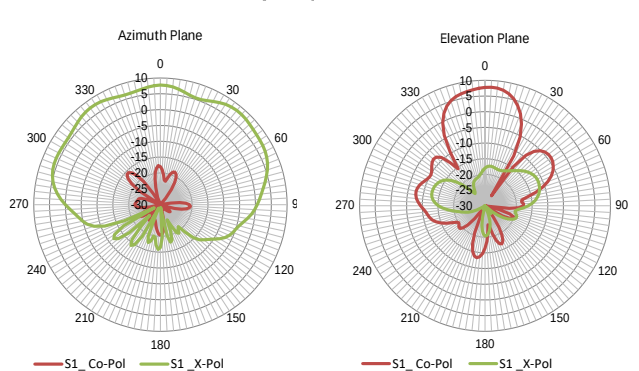
**5150 MHz**



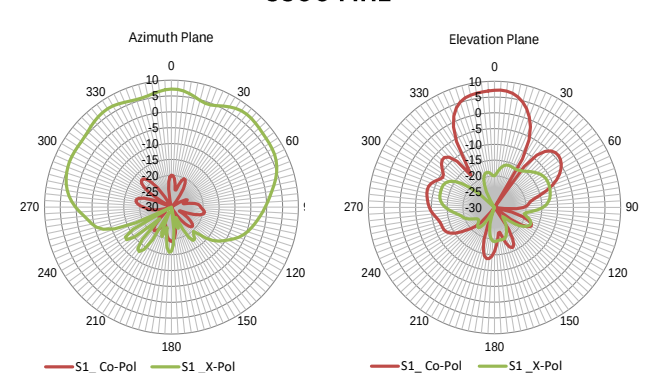
**5350 MHz**



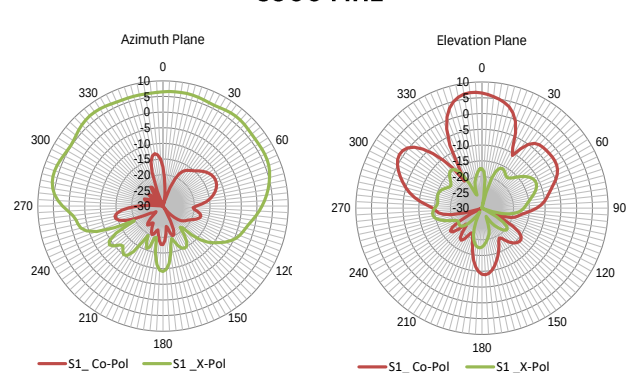
**5470 MHz**



**5500 MHz**



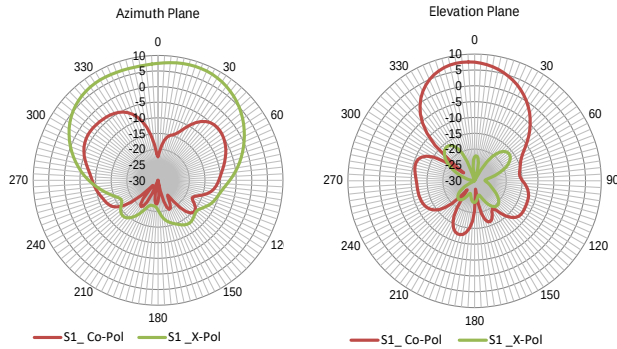
**5900 MHz**



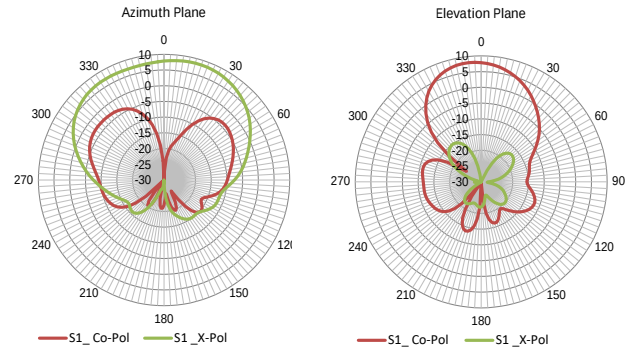


## RADIATION PATTERNS - PORT C (VERTICAL POLARIZATION PORT)

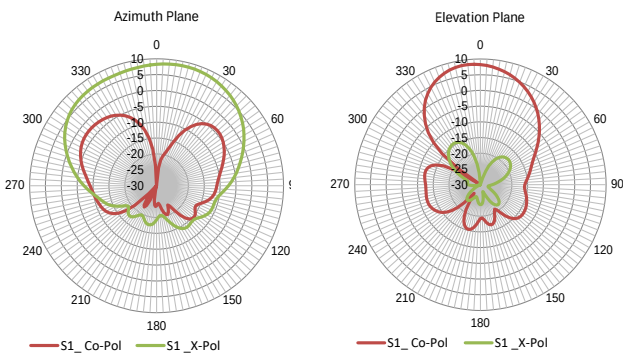
**2400 MHz**



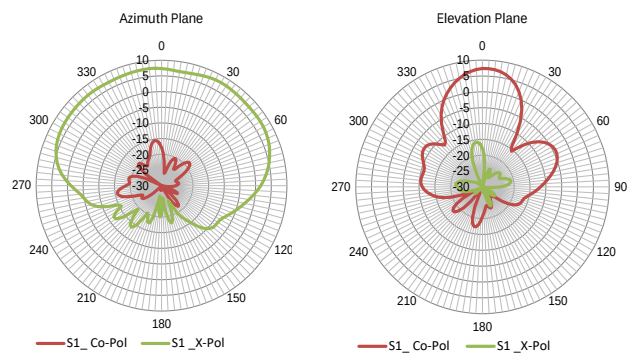
**2450 MHz**



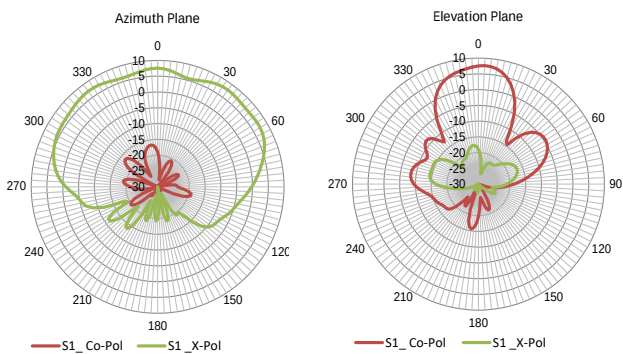
**2500 MHz**



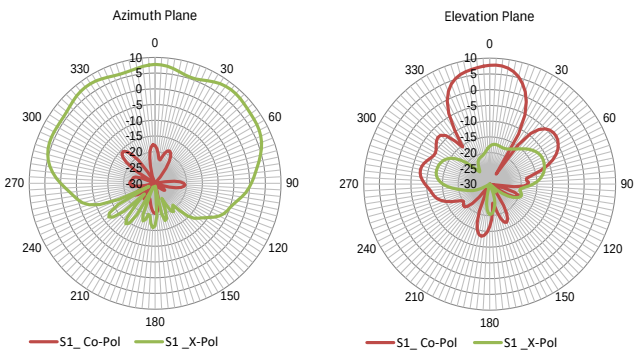
**5150 MHz**



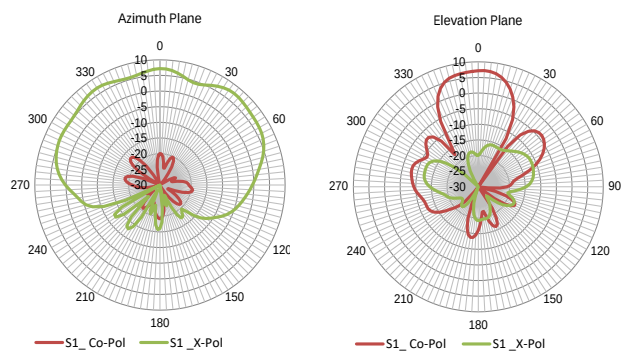
**5350 MHz**



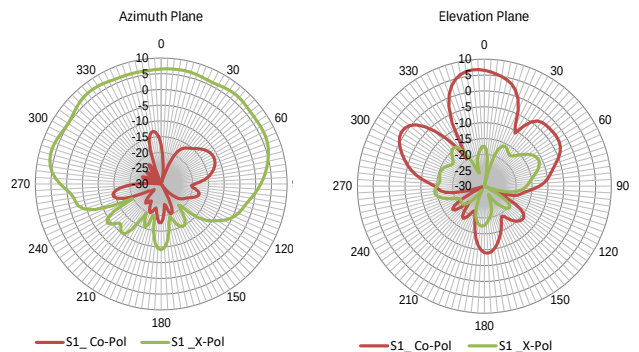
**5470 MHz**



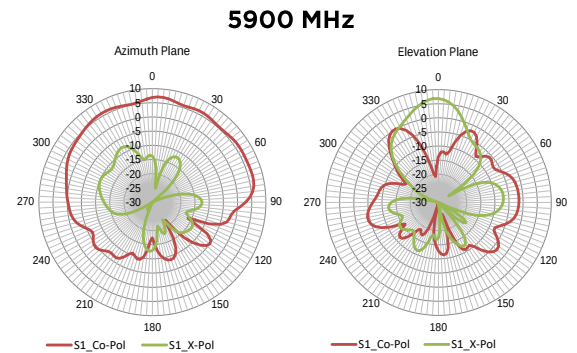
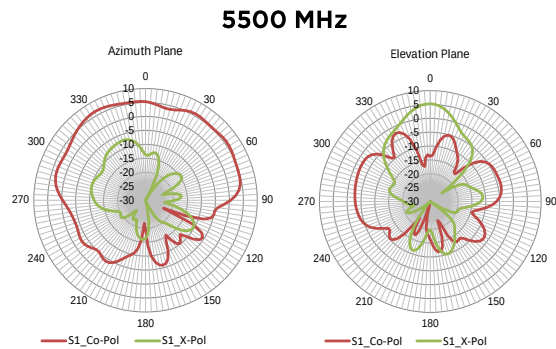
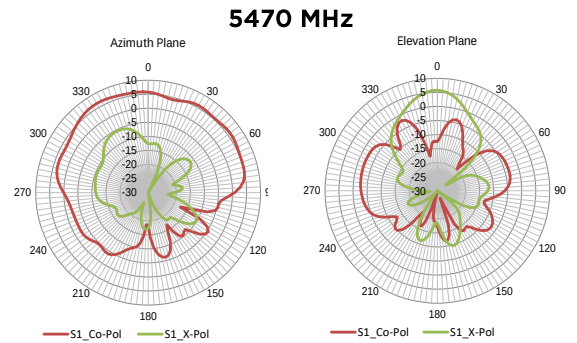
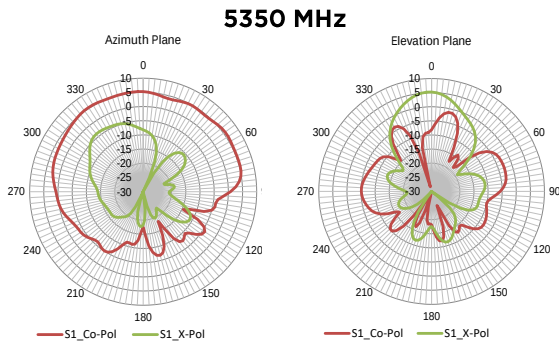
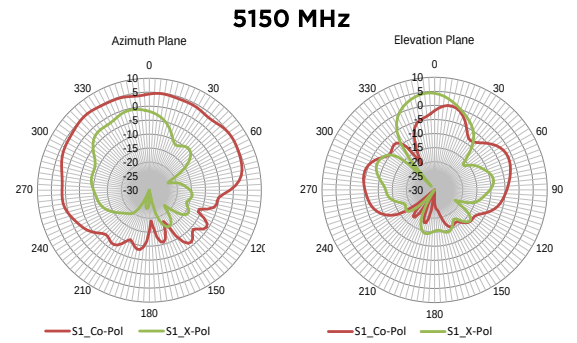
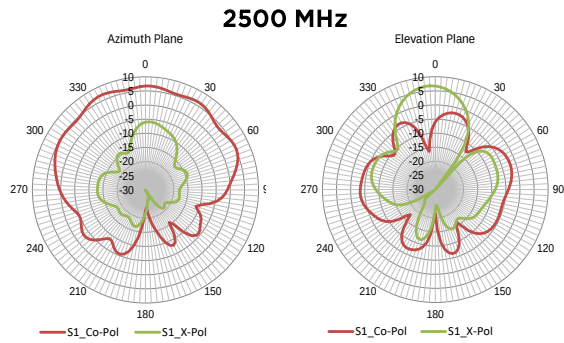
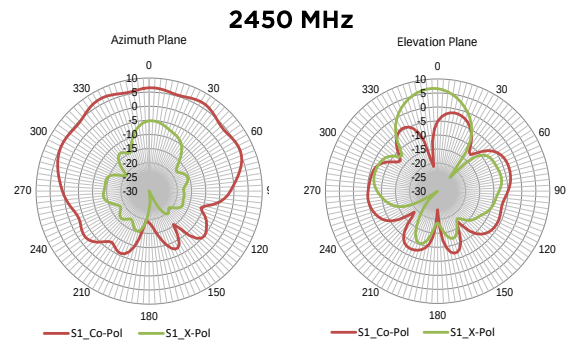
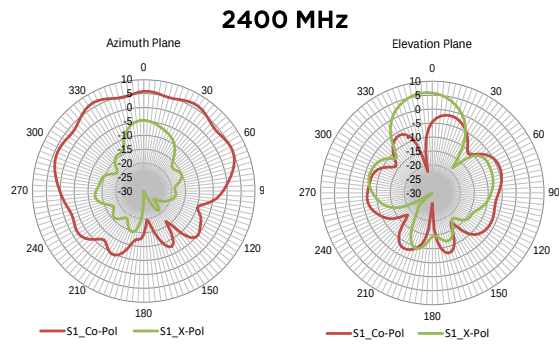
**5500 MHz**



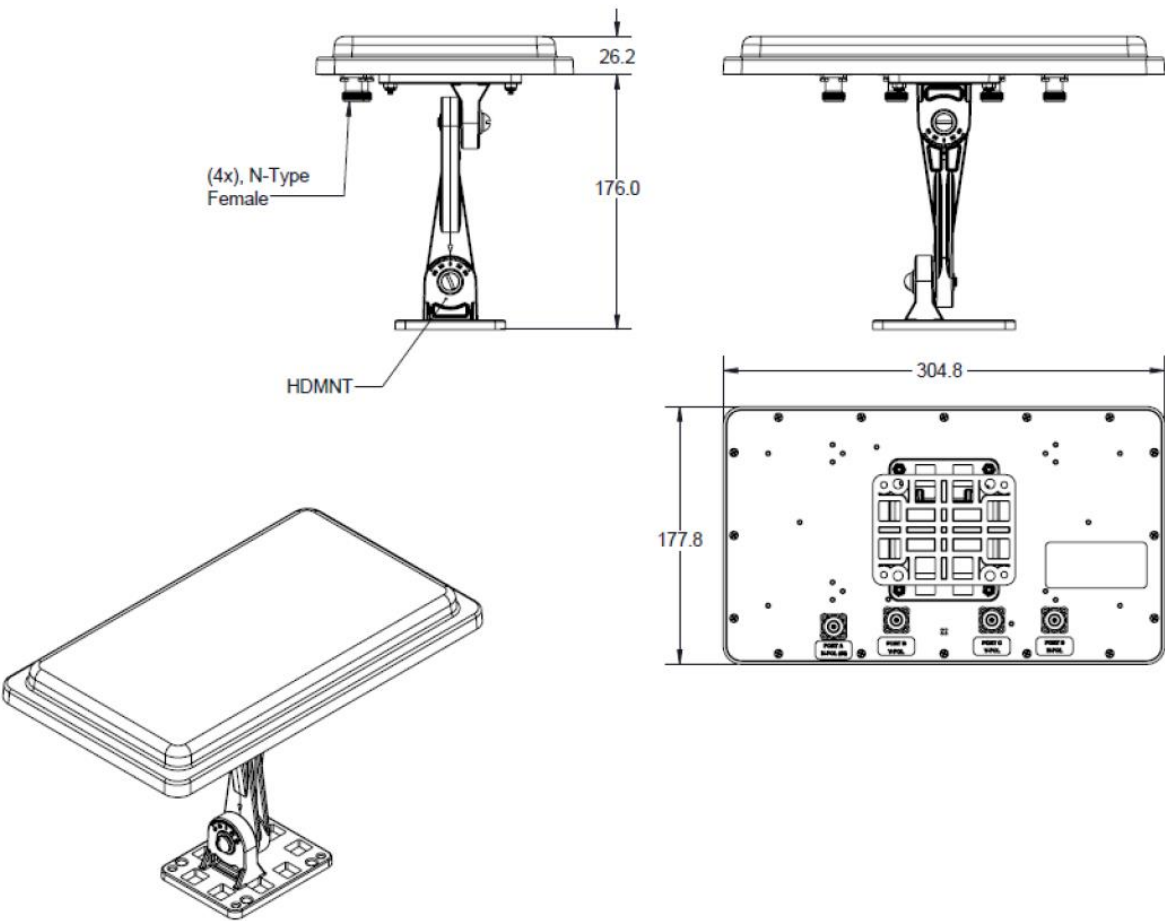
**5900 MHz**



## RADIATION PATTERNS - PORT D (HORIZONTAL POLARIZATION PORT)



# MECHANICAL DRAWINGS



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