MTRA61274Cx2

M2M MIMO Antenna
617-960 MHz/1350-2700 MHz

The user experience requirements will become more demanding over the next couple of years. The resources of today's mobile broadband networks are becoming insufficient as operators offer broadband multimedia access anywhere to meet the increased demand. The MIMO Phantom MTRAxx antennas are multi-protocol to support multiple applications with one antenna and are new members of Laird Connectivity's industry-leading Phantom series. They support high quality 2G, 3G, 4G, 5G, Cellular, ISM 868, ISM 900, SIGFOX, LoRaWAN, and the unlicensed 2.4 GHz band.

They are engineered for high reliability and they support 2x2 MIMO for better throughput. The MTRA61274Cx2 antenna is an excellent addition to new designs, or as a replacement for existing SISO phantom antennas suitable for both metallic and nonmetallic surfaces.

FEATURES AND BENEFITS

- Covers 617-960 MHz and 1350-2700 MHz
- 2G, 3G, 4G, 5G, Cellular, WLAN, ISM, SIGFOX, LoRaWAN, unlicensed 2.4 GHz
- Omnidirectional high gain patterns
- Rugged IP67 for vehicle and fixed installations

APPLICATIONS

- IoT and M2M
- Smart metering and AMI
- Remote monitoring and control
- Industrial and energy
- Automation, robotics, and AI

ELECTRICAL SPECIFICATIONS										
Antenna Model	MTRA61274Cx2									
Number of Ports	2									
Operating Frequency (MHz)	617-698	698-824	824-894	880-960	1350-1550	1690-1880	1850-1990	1910-2180	2300-2500	2500-2700
Peak Gain – Average (dBi)*	2.4	3.1	2.8	2.7	2.7	3.6	3.9	3.5	3.6	2.9
Peak Gain – Max (dBi)*	3.2	4.0	4.0	3.4	4.7	4.1	4.1	4.2	4.0	3.4
Peak Gain- Max, No Ground Plane (dBi)	3.6	3.9	5.1	5.1	2.5	3.1	2.9	2.8	2.6	2.8
VSWR – Max*	2.5									
VSWR – Max, No Ground Plane	3.0									
VSWR Average*, Port 1	1.4	1.8	1.9	1.9	1.5	1.3	1.4	1.8	1.8	1.9
VSWR Average*, Port 2	1.4	1.8	1.9	1.9	1.5	1.3	1.4	1.8	1.8	1.8
Port-to-Port Isolation* (dB)	-8	-10	-10	-10	-15	-17	-18	-18	-18	-25
Port-to-Port Isolation, No Ground Plane (dB)	-7	-7	-8	-8	-15	-23	-22	-21	-24	-30
Nominal Impedance (Ohms)	50									
Polarization	Linear vertical									
Azimuth Beamwidth (°)	360, Omnidirectional									
Max Power - Ambient 25°C (W)	50									

* - Measured on a one-foot ground plane.

MECHANICAL SPECIFICATIONS	
Dimensions – L x W x H – mm (inches)	130 x 84 x 95 (5.12 x 3.31 x 3.74)
Weight – g (oz.)	343 (12.1)
Radome/Baseplate Material	PC, UL94 V0 Rating, UV Stable

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature – °C (°F)	-30 to +70°C (-22 to +158°F)
Storage Temperature – °C (°F)	-40 to +85°C (-40 to +185°F)
Material Substance Compliance	RoHS
Ingress Protection	IP67 (when installed on a hard, flat surface)

CONFIGURATION

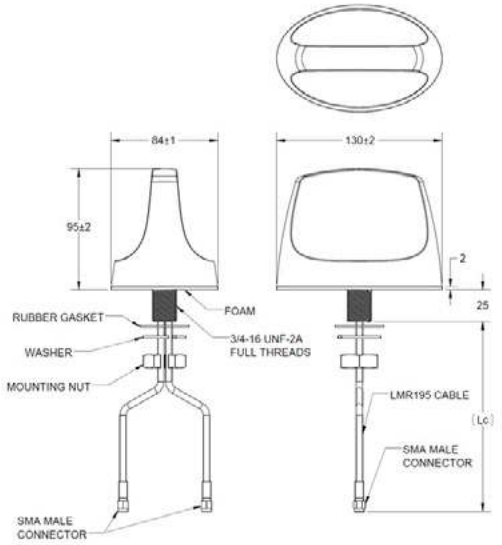
PART NUMBER	CABLE TYPE	CABLE LENGTH	CONNECTOR	COLOR
MTRA61274CB2-001	LMR®-195 or equivalent	610 mm (24 in.)	SMA- male	Black
MTRA61274CW2-001	LMR®-195 or equivalent	610 mm (24 in.)	SMA- male	White

Note: Specifications vary with different types of cable, different lengths of cables and connectors. Contact Laird for detailed specifications.

PACKAGING INFORMATION

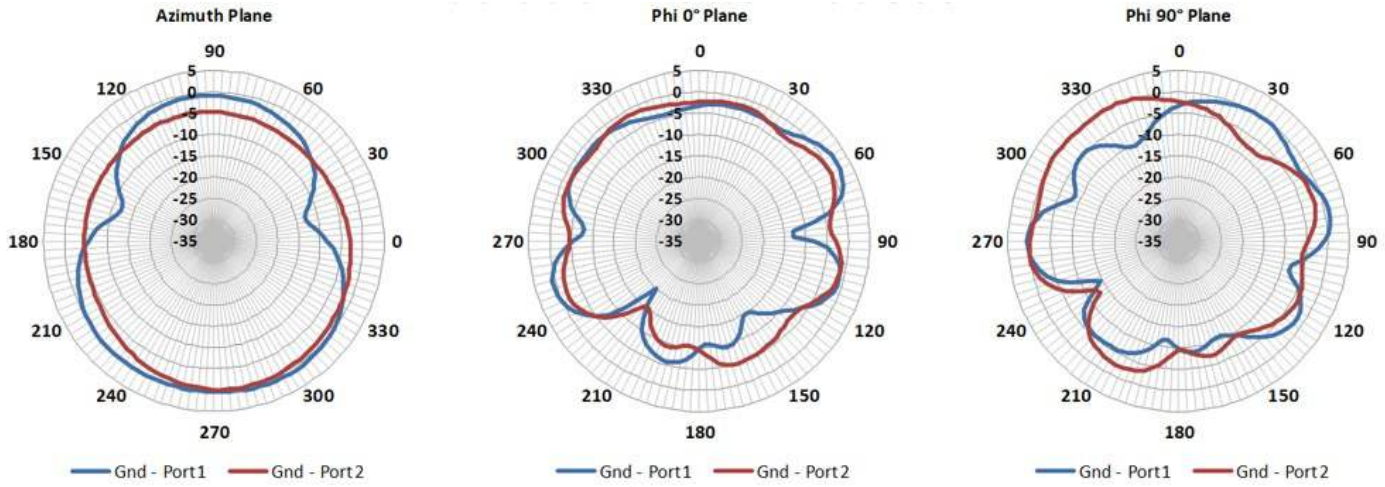
PACKAGED DIMENSIONS	MASTER CARTON	AIR PALLET	OCEAN PALLET
Number of Antennas	20	480	600
Height – cm (in.)	30.0 (11.8)	135 (53.2)	165 (65.0)
Length – cm (in.)	52.5 (20.7)	105 (41.3)	105 (41.3)
Width – cm (in.)	26.5 (10.4)	79.5 (31.3)	79.5 (31.3)
Shipping Weight – kg (lbs.)	7.36 (16.2)	190 (419)	230 (507)

MECHANICAL DRAWING



RADIATION PATTERNS- ON GROUND PLANE

633 MHZ



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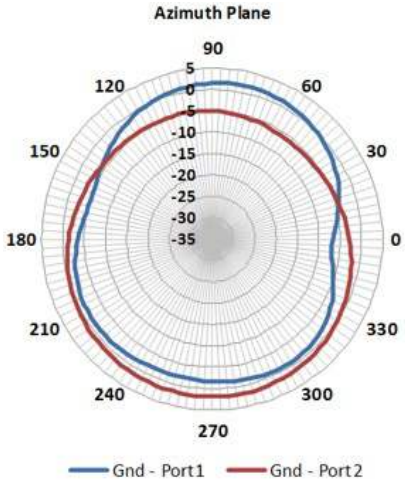

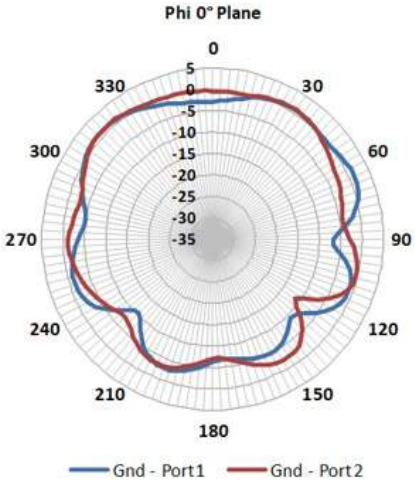

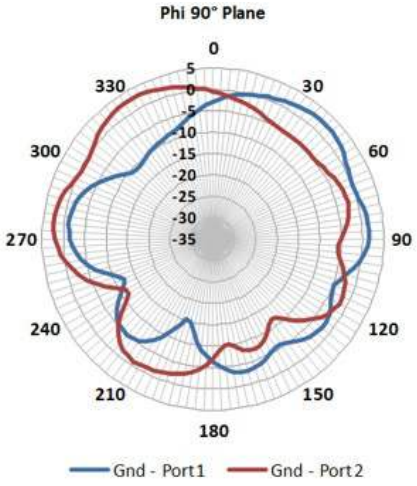

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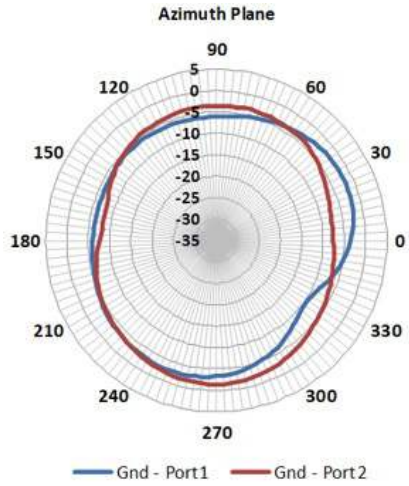

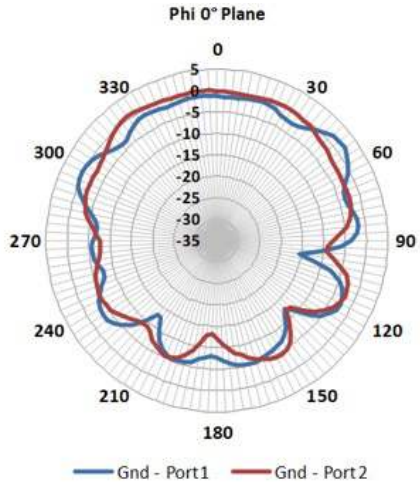

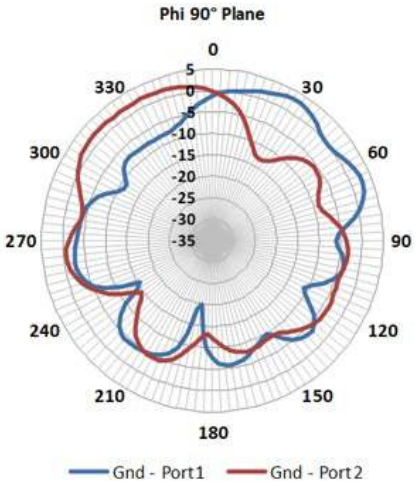

RADIATION PATTERNS- ON GROUND PLANE

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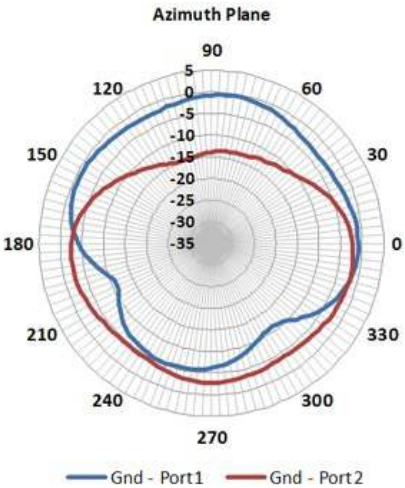

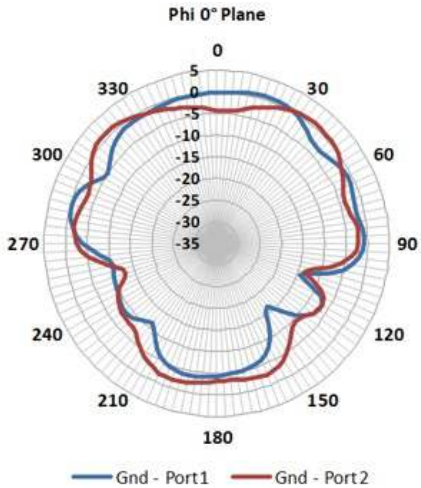

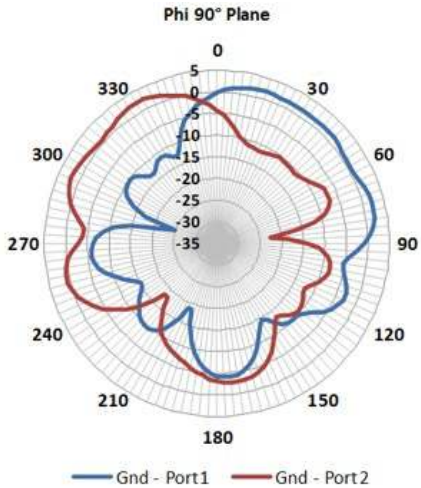

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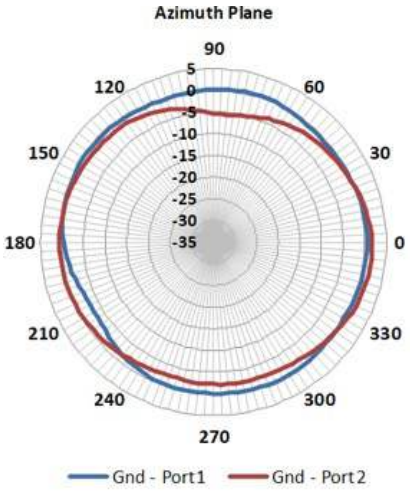

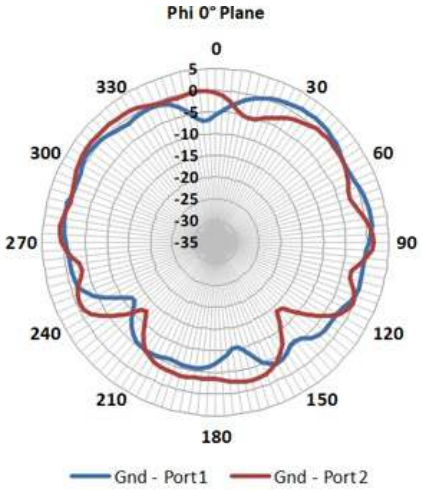

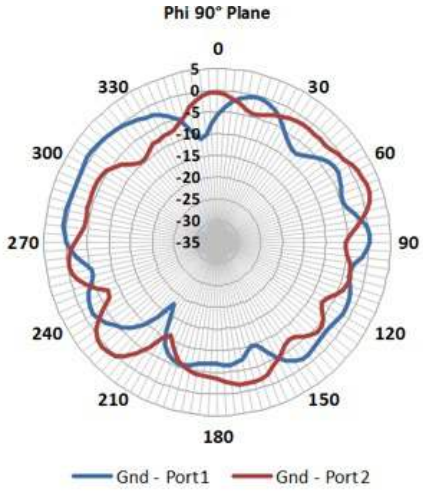

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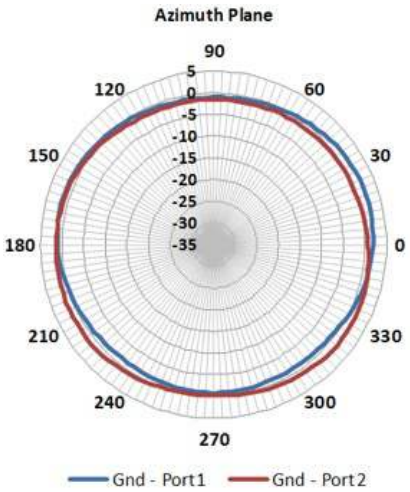
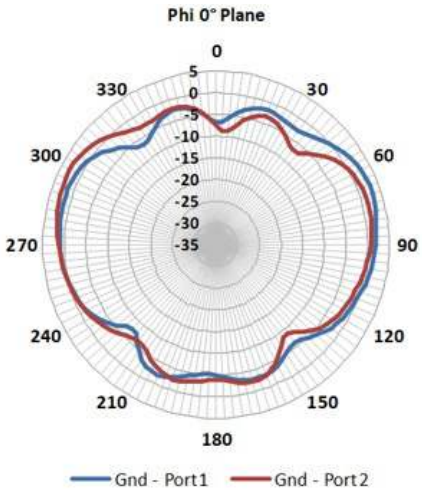
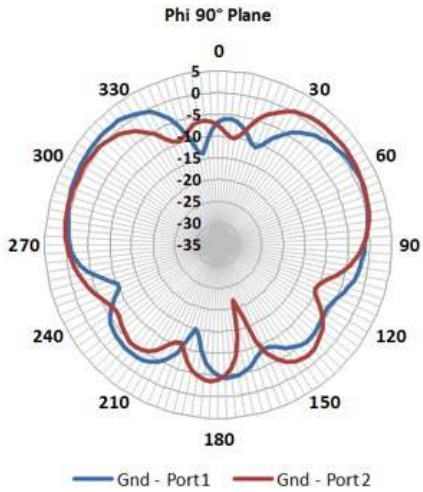
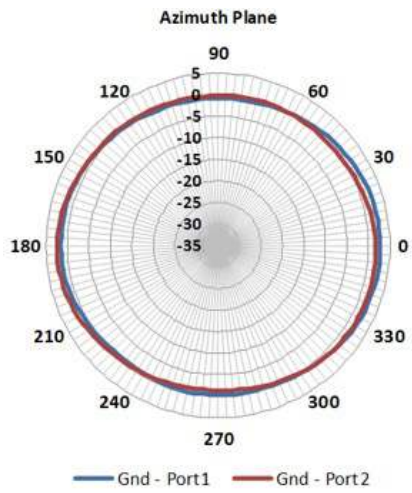


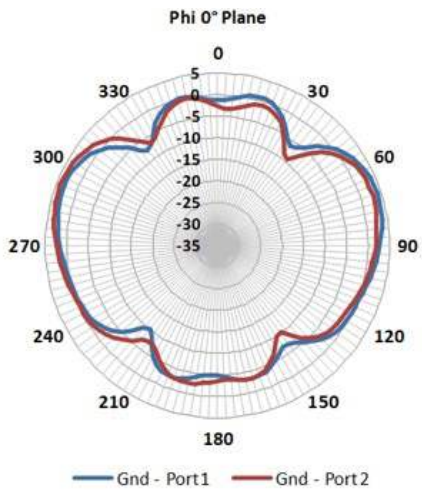


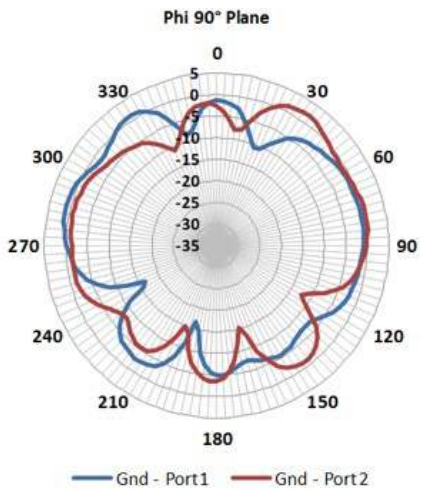


RADIATION PATTERNS- ON GROUND PLANE

1930 MHZ







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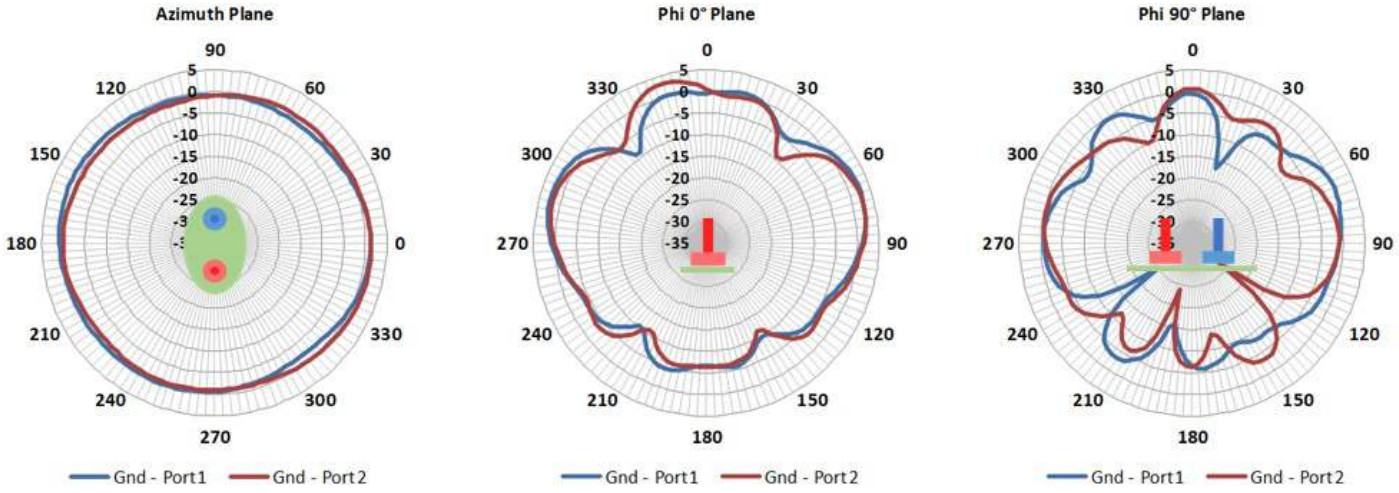

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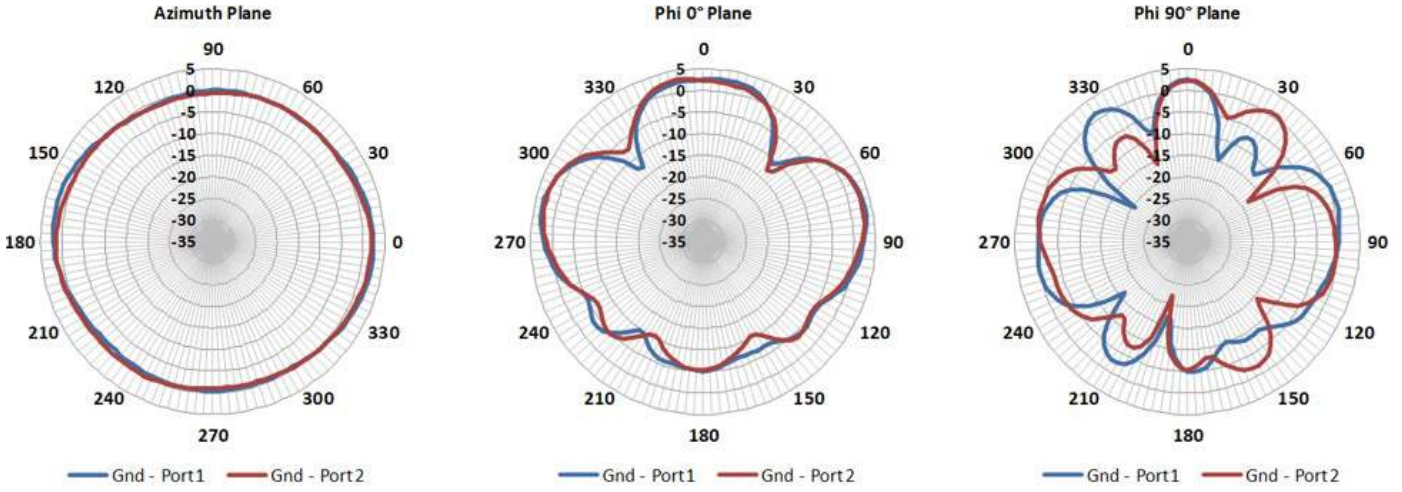
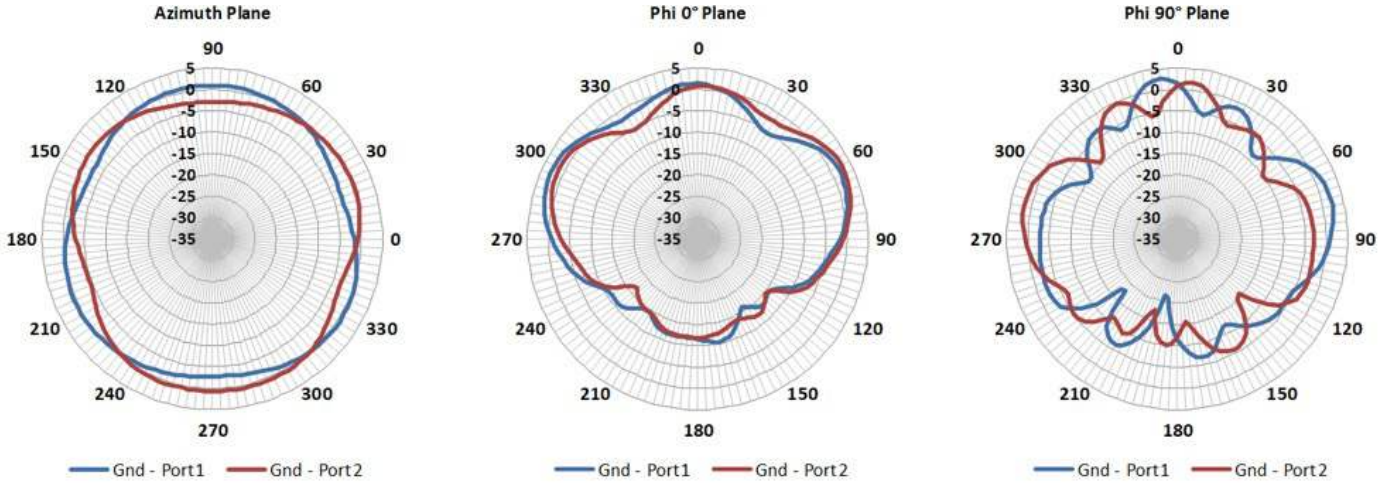


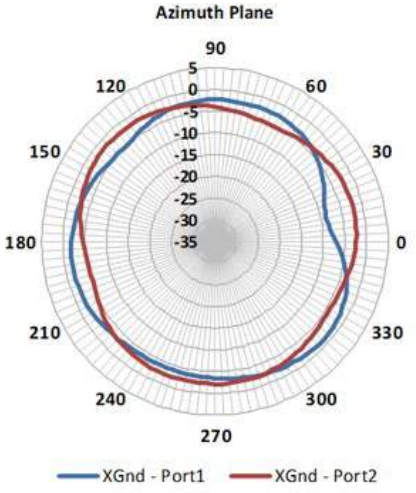
RADIATION PATTERNS- ON GROUND PLANE

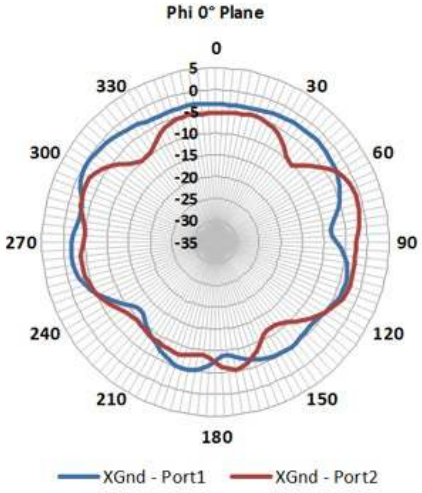
2595 MHZ

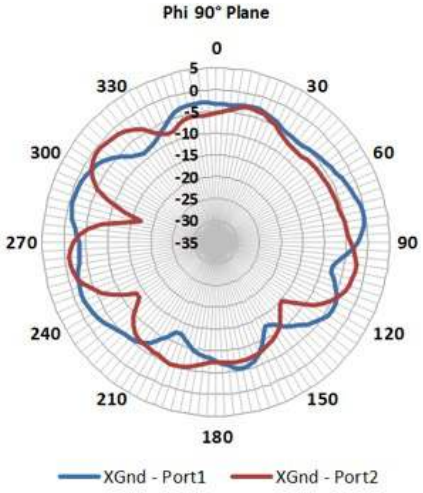


RADIATION PATTERNS- NO GROUND PLANE

633 MHZ







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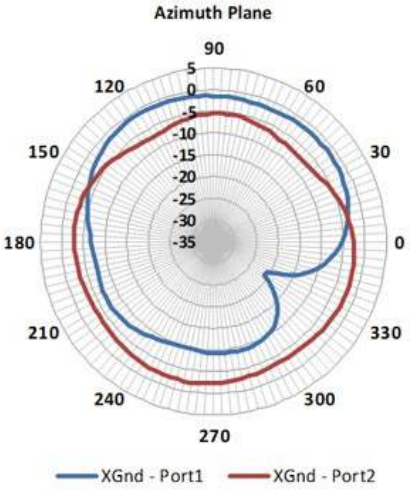

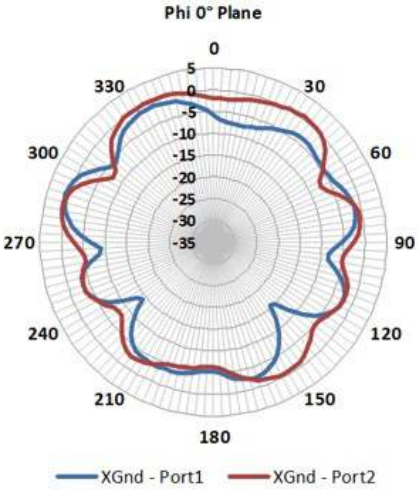

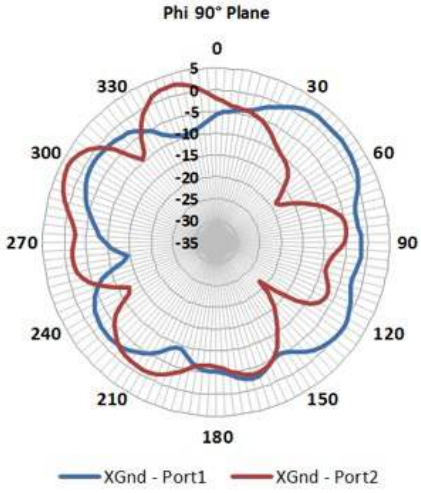

RADIATION PATTERNS- NO GROUND PLANE

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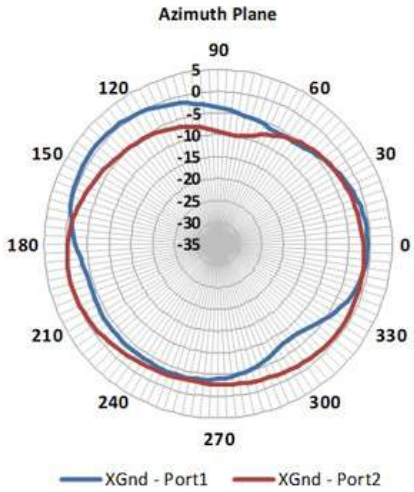

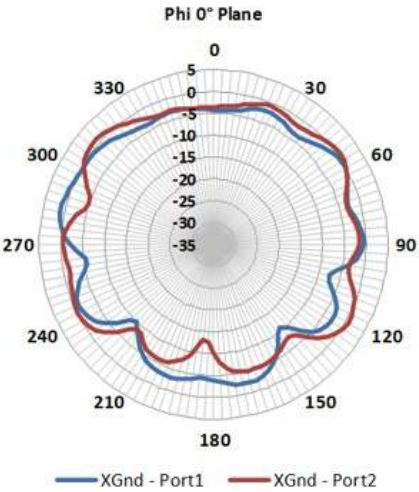

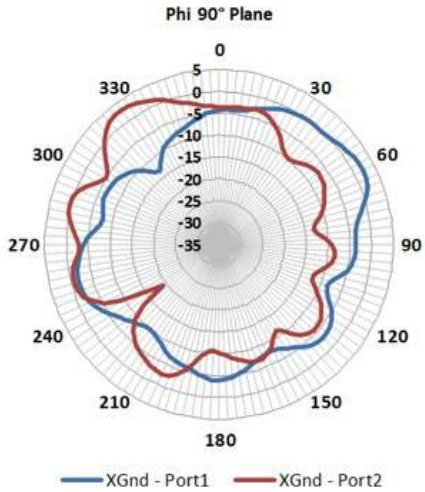

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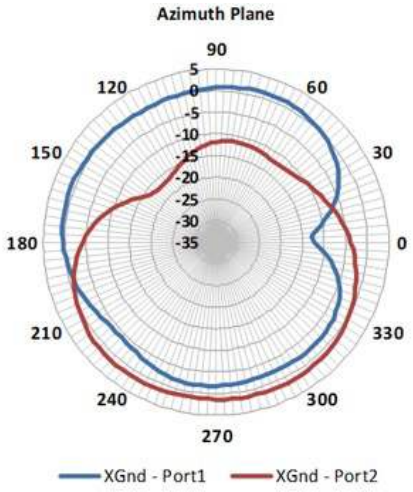

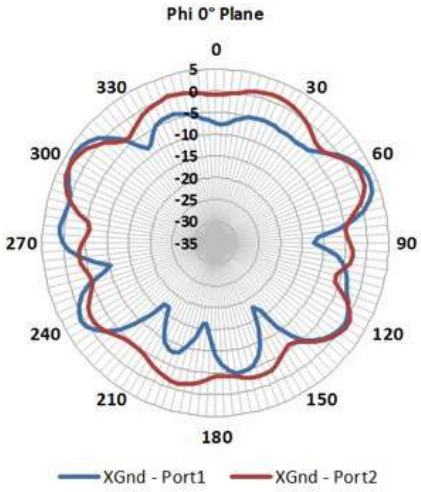

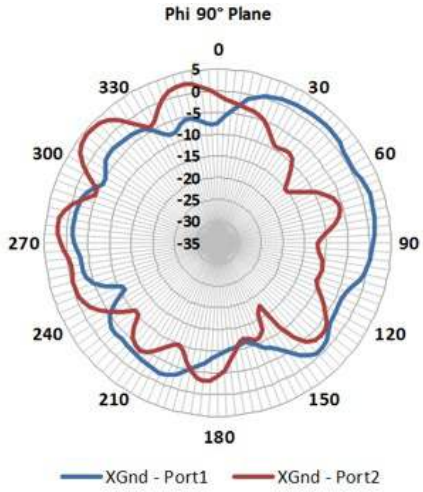

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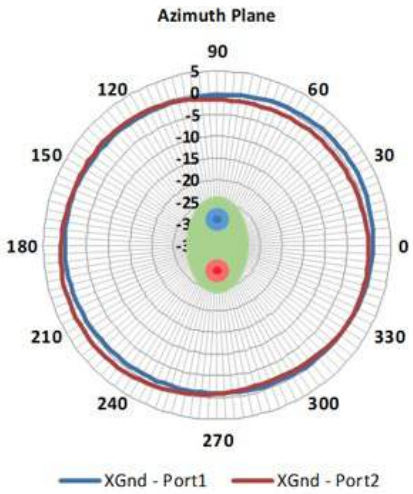

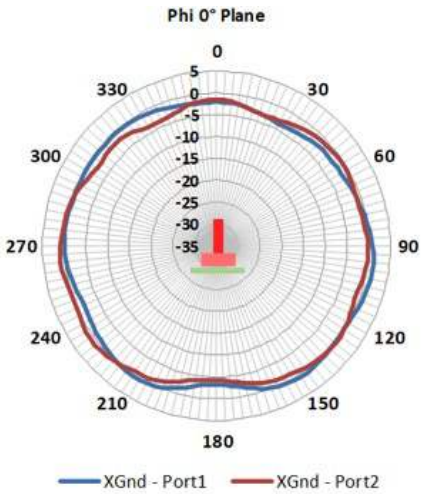

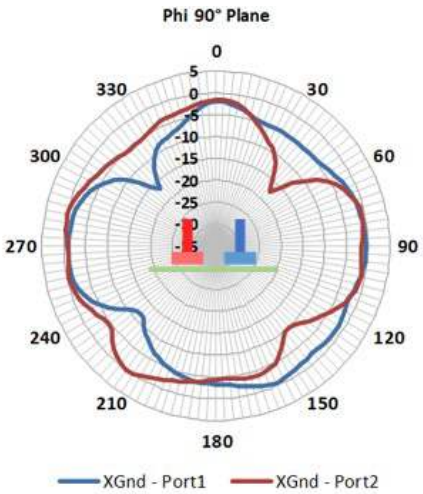

RADIATION PATTERNS- NO GROUND PLANE

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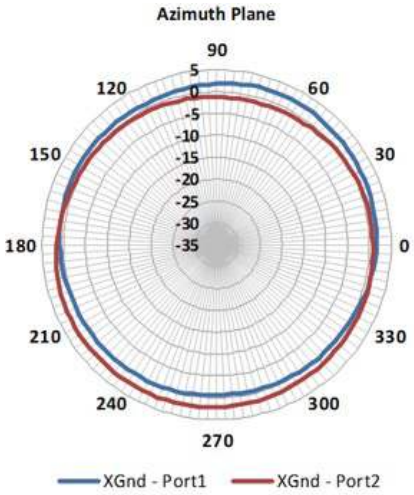

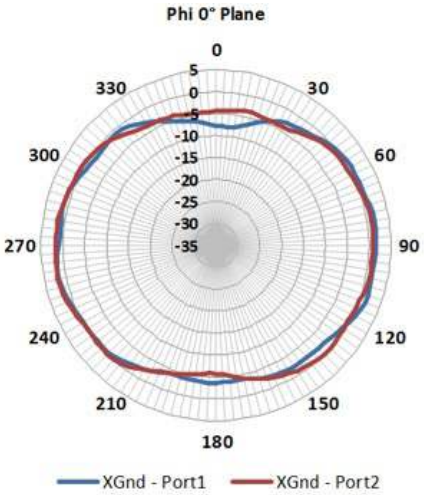

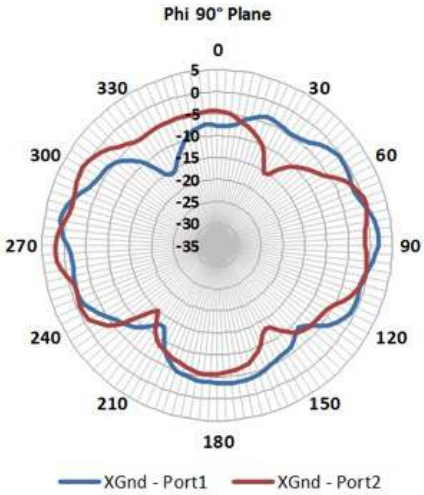

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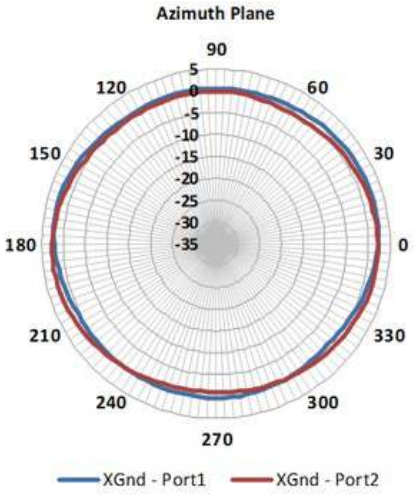

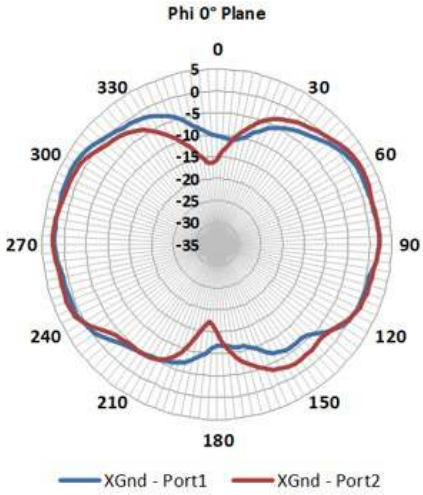

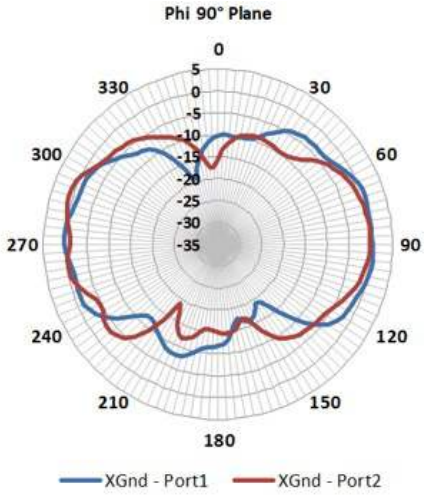

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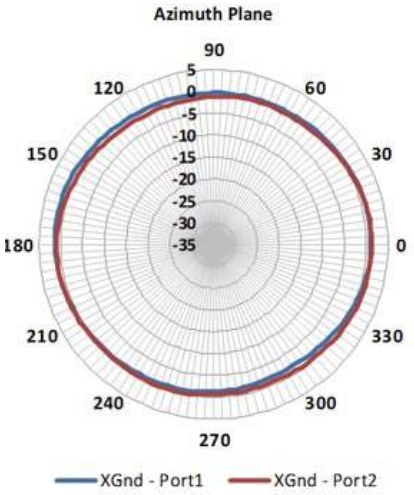
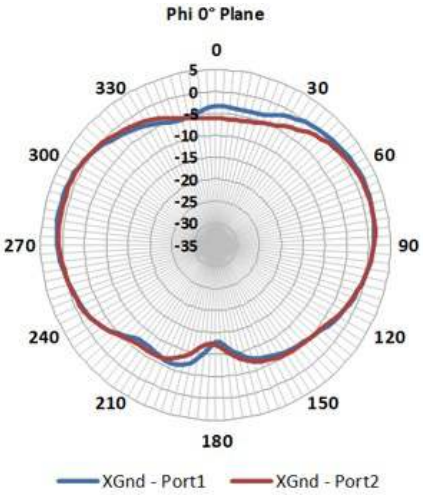
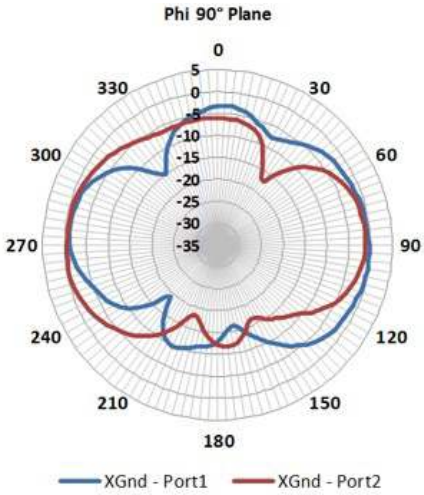
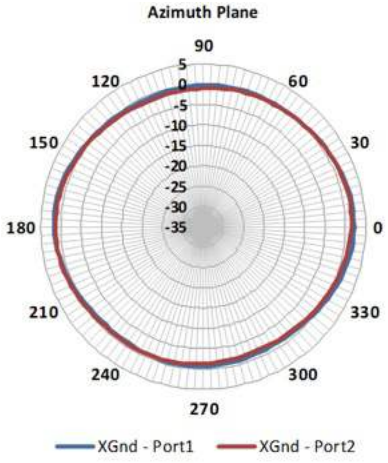


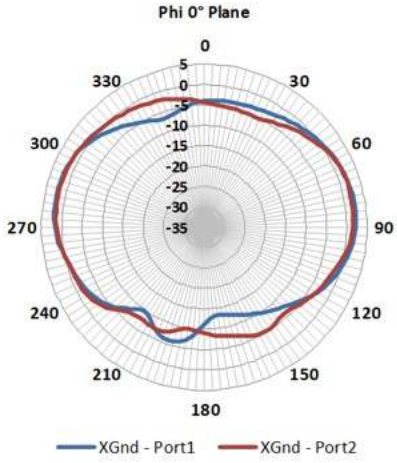


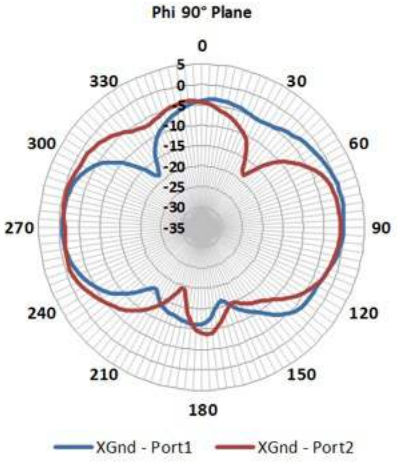


RADIATION PATTERNS- NO GROUND PLANE

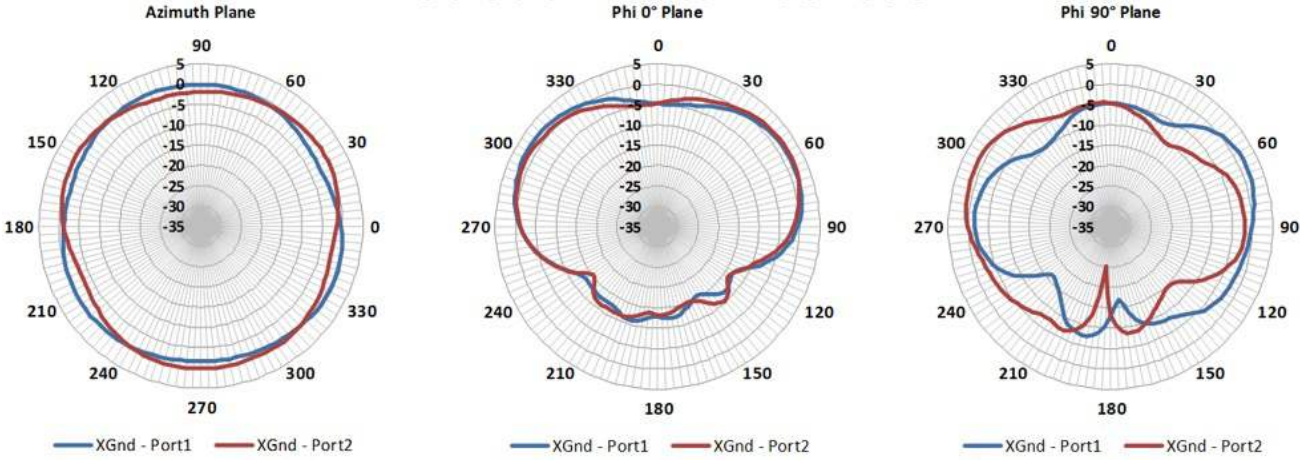
2300 MHZ







2595 MHZ



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