Smart Technology. Delivered.

Model : EMN2449A2S-25UFL

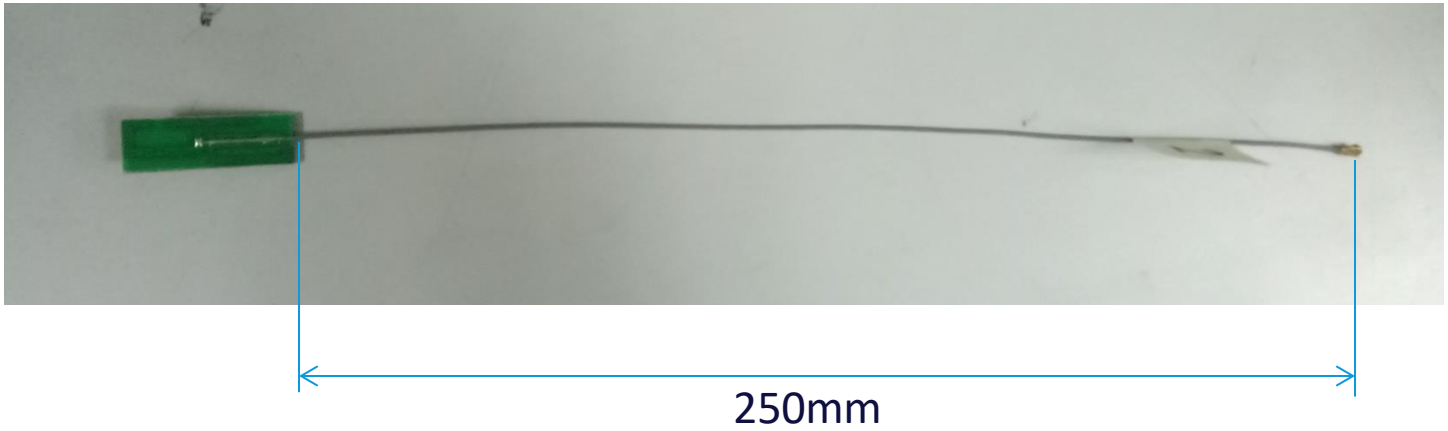
Mini-Nanoblade (250mm)

Date : 13/12/2017

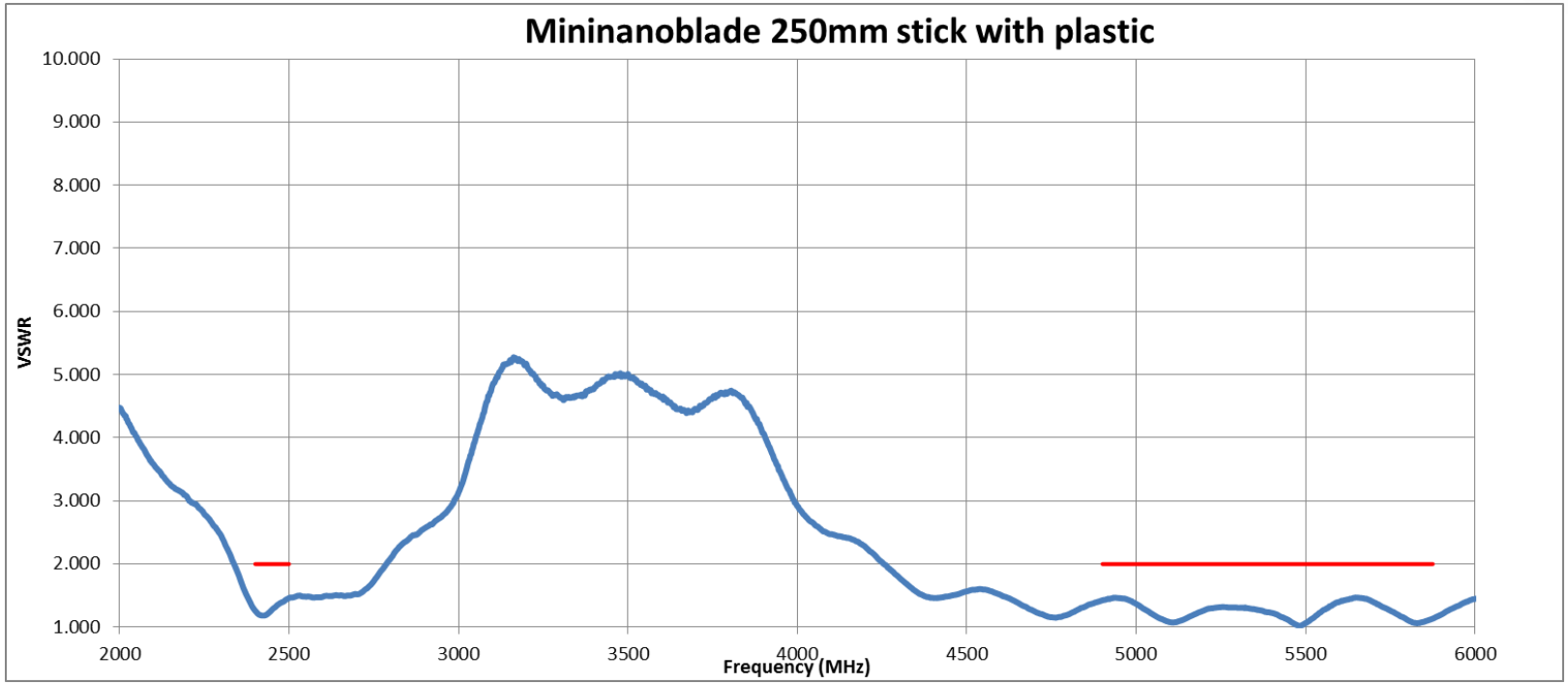
Laird™

Smart Technology. Delivered.

Mini-Nanoblade (250mm)



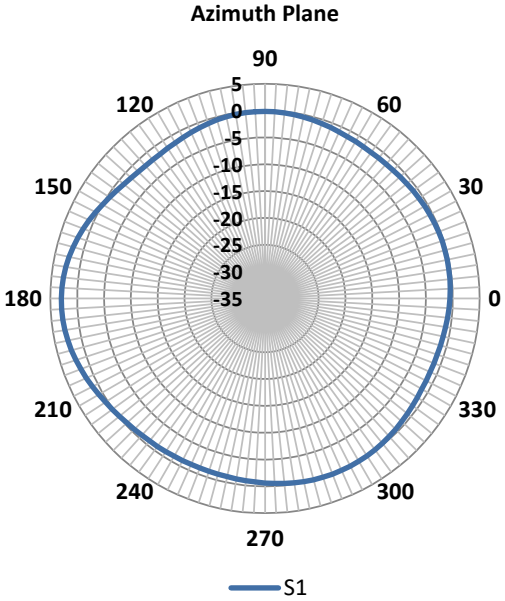
VSWR

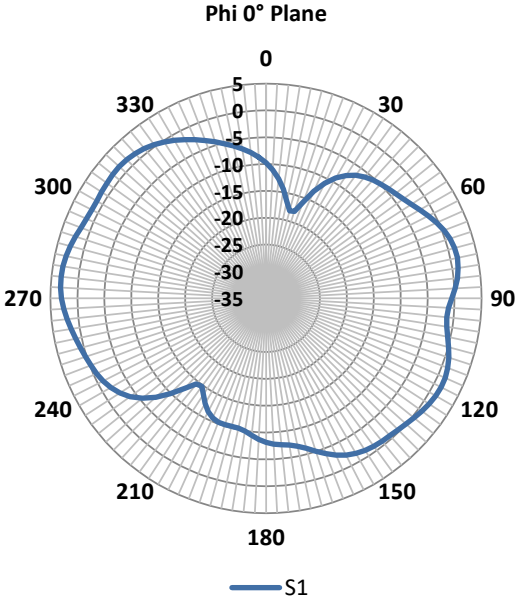


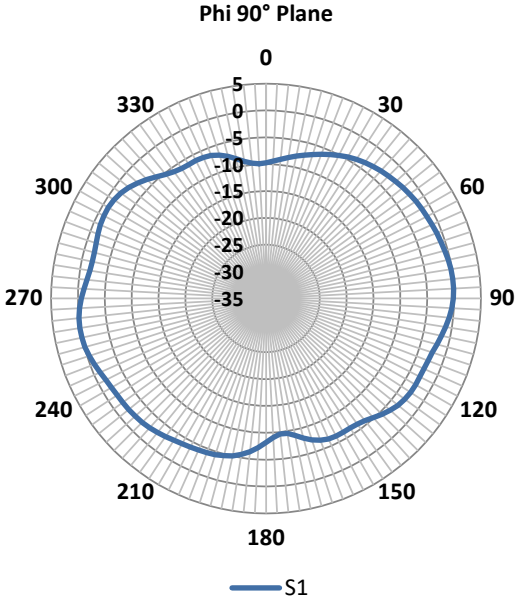
VSWR Data

Antenna #	2400 MHz	2450 MHz	2500 MHz	4900 MHz	5150 MHz	5350 MHz	5470 MHz	5750 MHz	5850 MHz	5875 MHz
S1	1.26	1.28	1.46	1.43	1.15	1.28	1.05	1.26	1.09	1.14
Min	1.26	1.28	1.46	1.43	1.15	1.28	1.05	1.26	1.09	1.14
Max	1.26	1.28	1.46	1.43	1.15	1.28	1.05	1.26	1.09	1.14

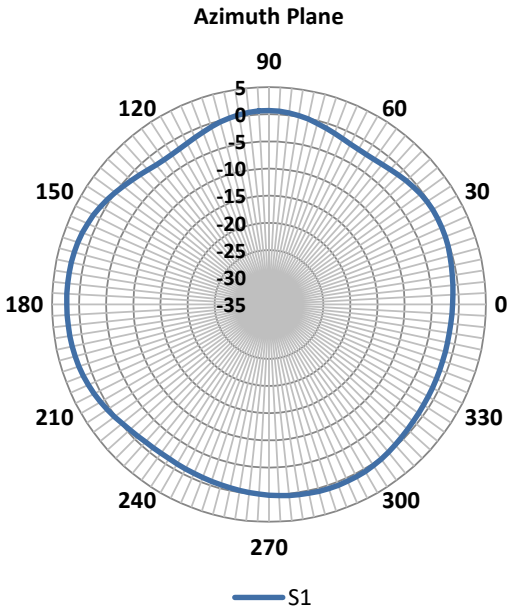
Radiation Pattern at 2400 MHz

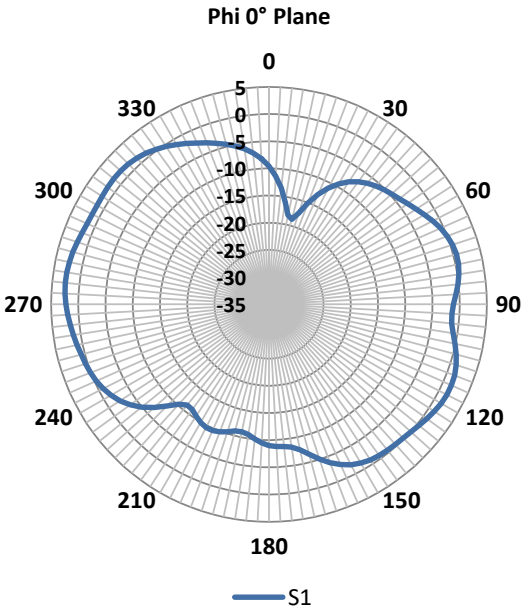


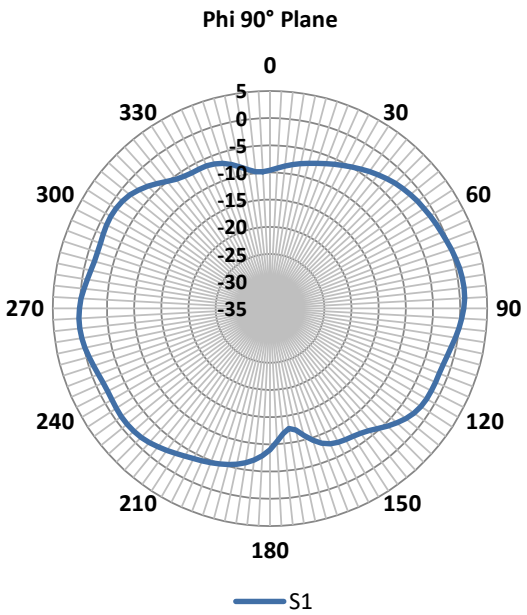




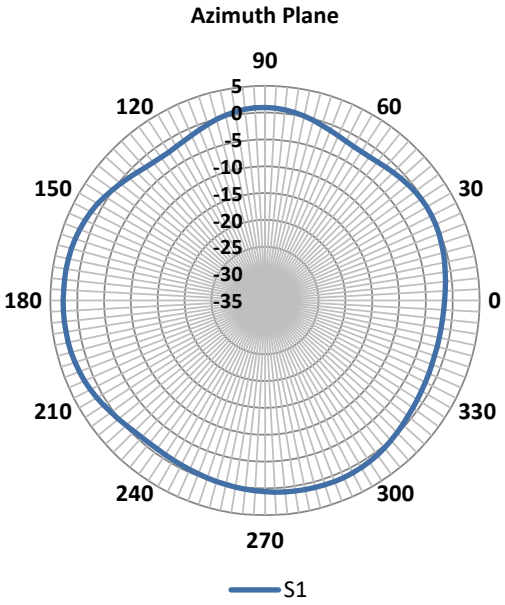
Radiation Pattern at 2420 MHz

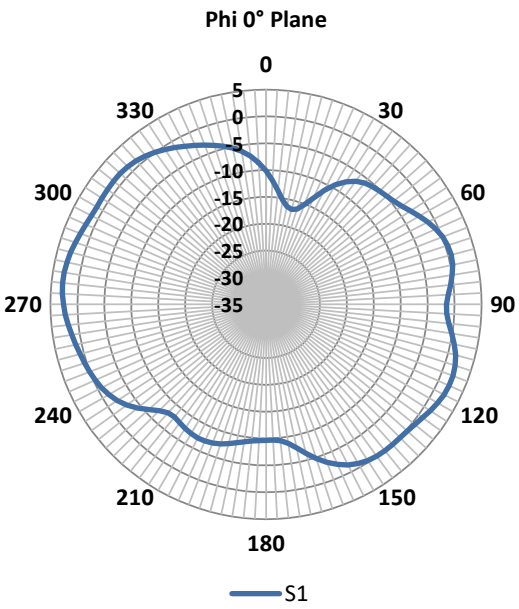


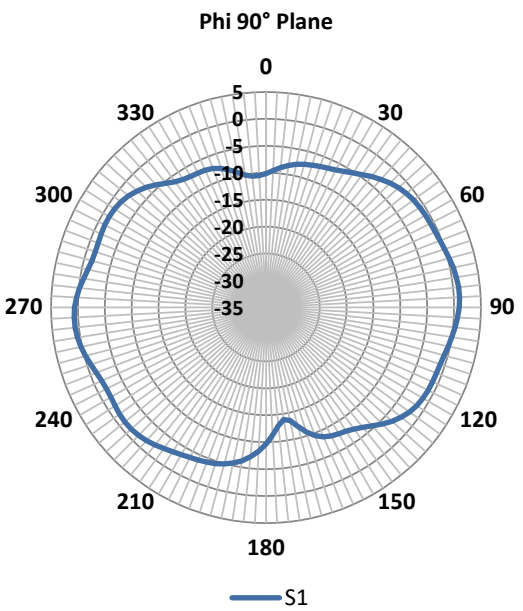




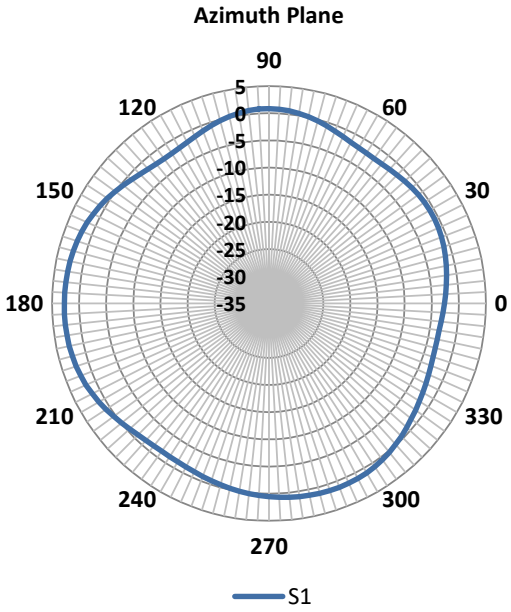
Radiation Pattern at 2440 MHz

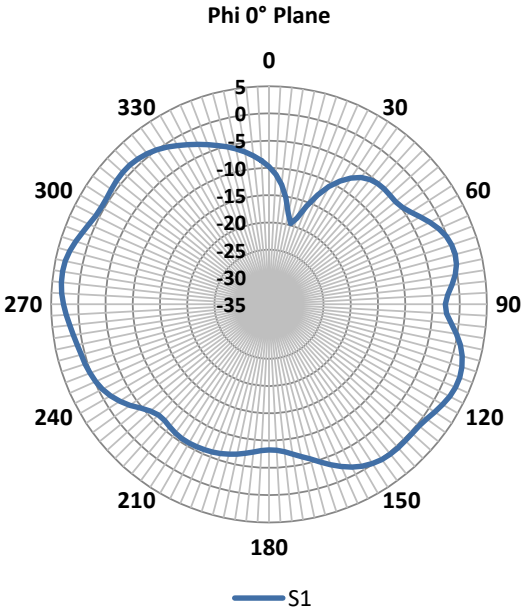


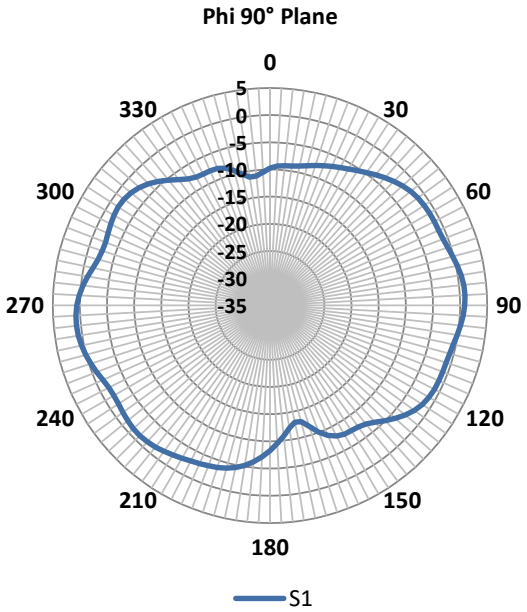




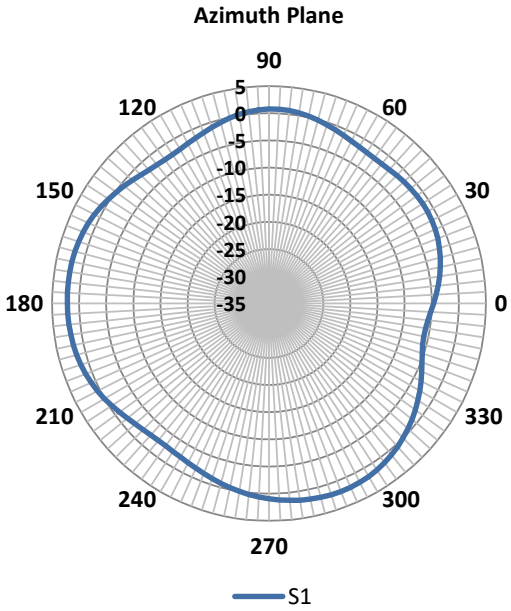
Radiation Pattern at 2460 MHz

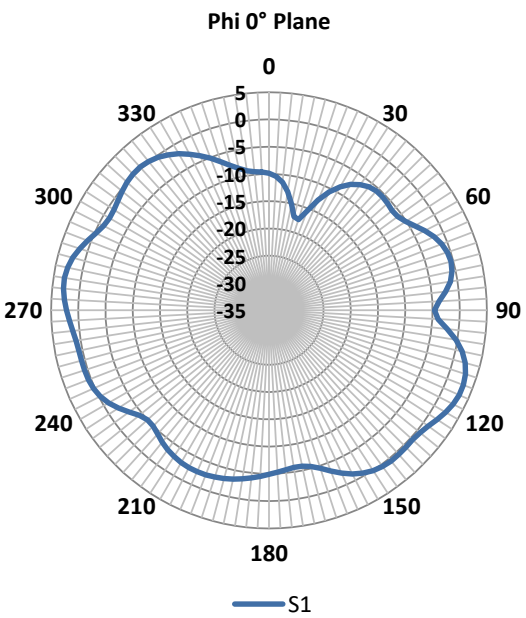


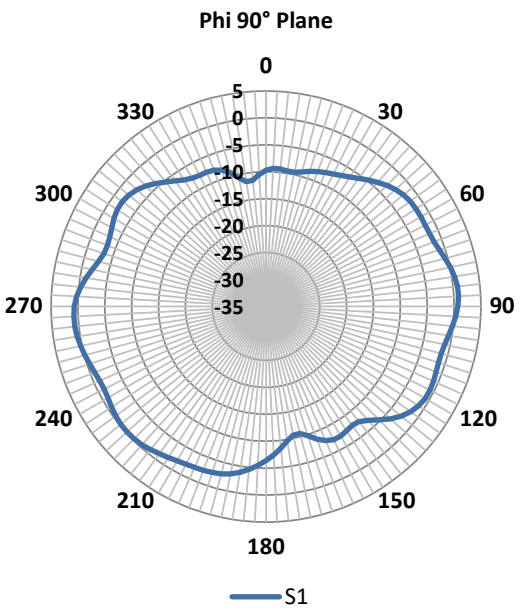




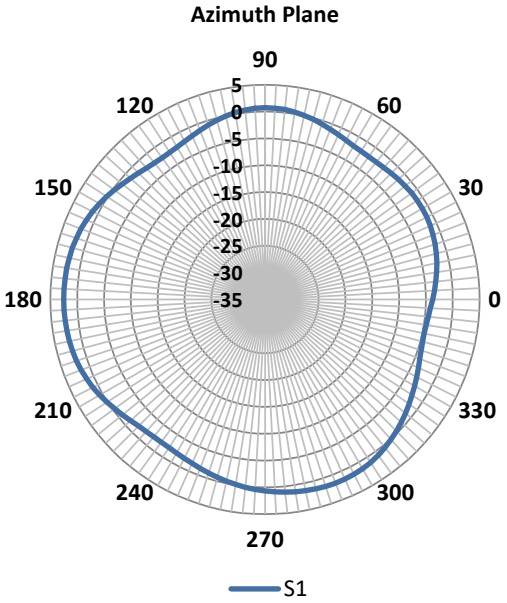
Radiation Pattern at 2480 MHz

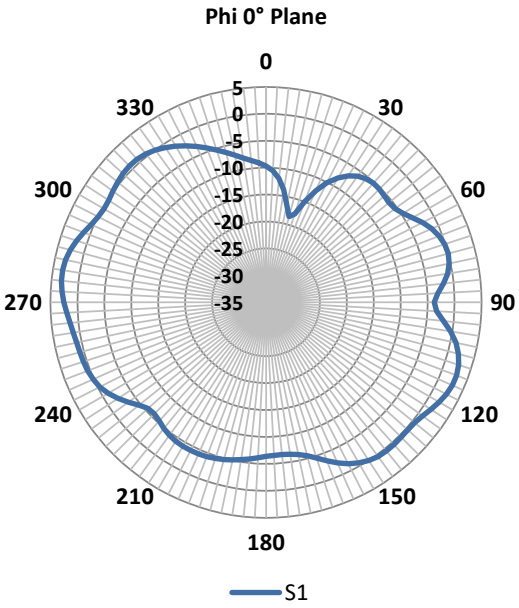


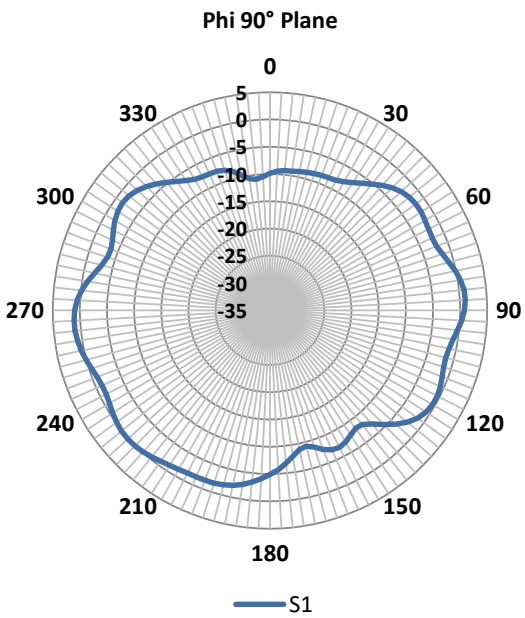




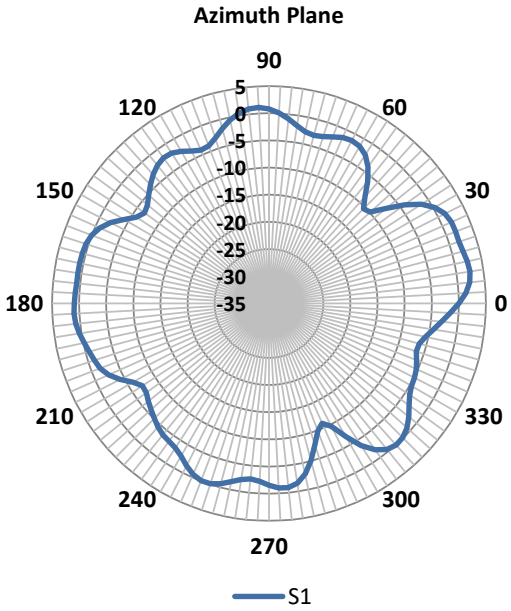
Radiation Pattern at 2500 MHz

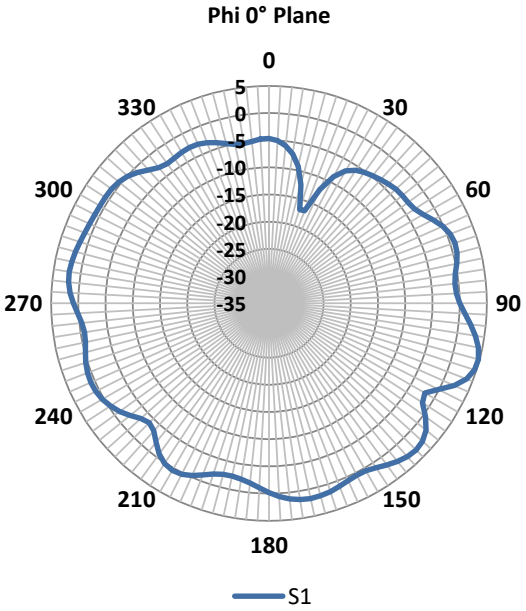


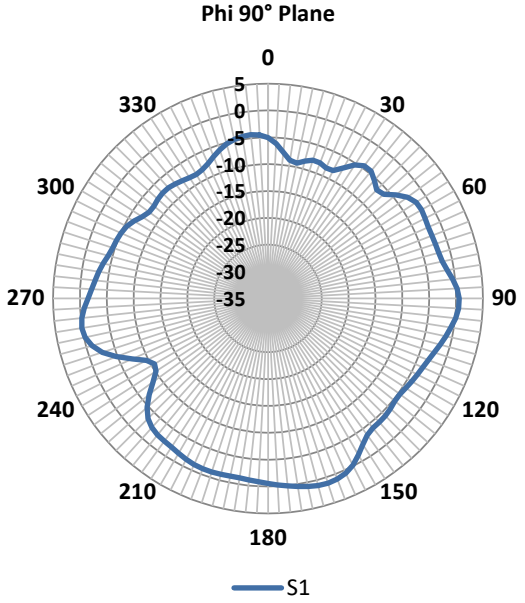




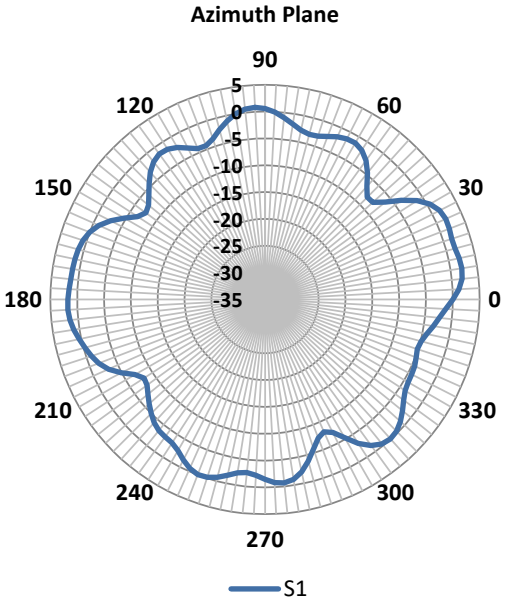
Radiation Pattern at 5150 MHz

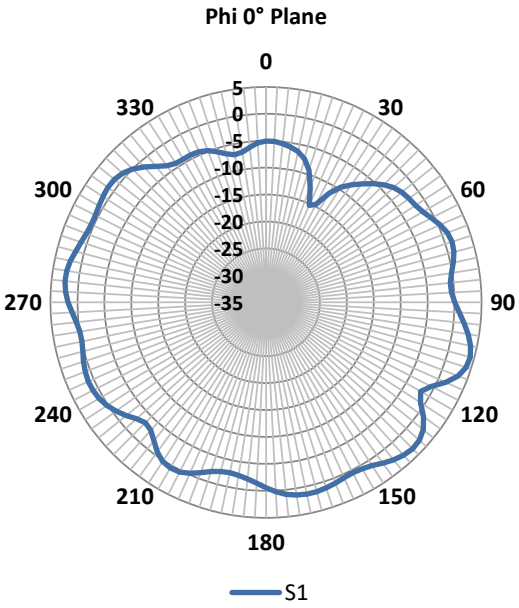


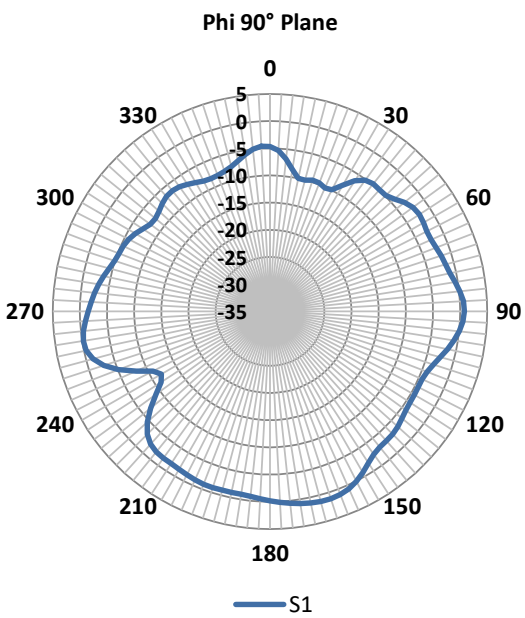




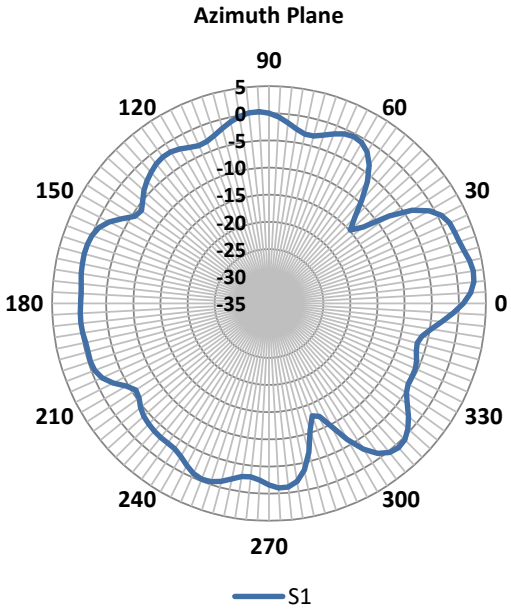
Radiation Pattern at 5200 MHz

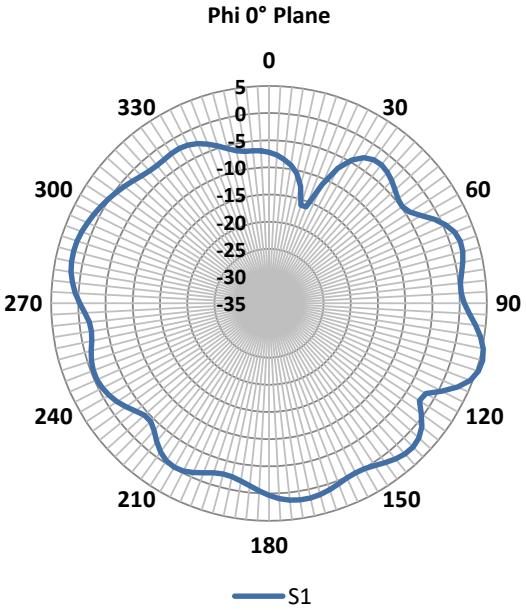


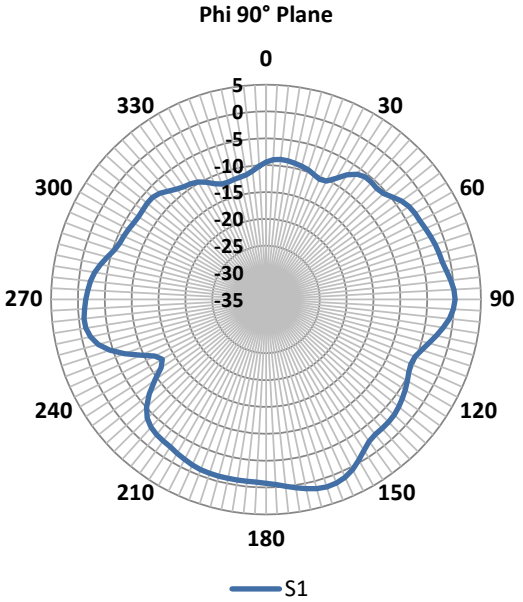




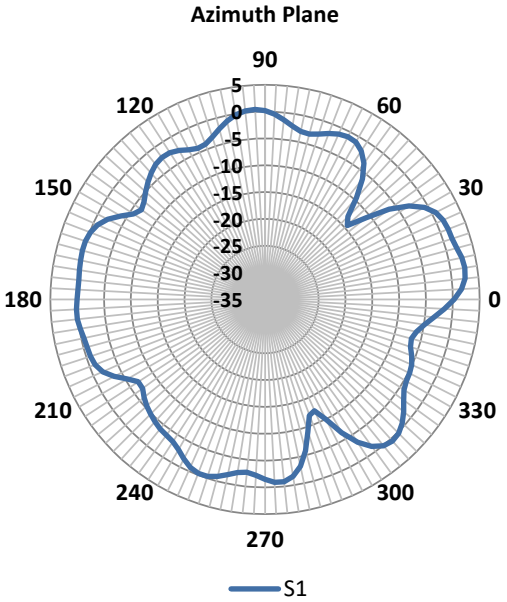
Radiation Pattern at 5250 MHz

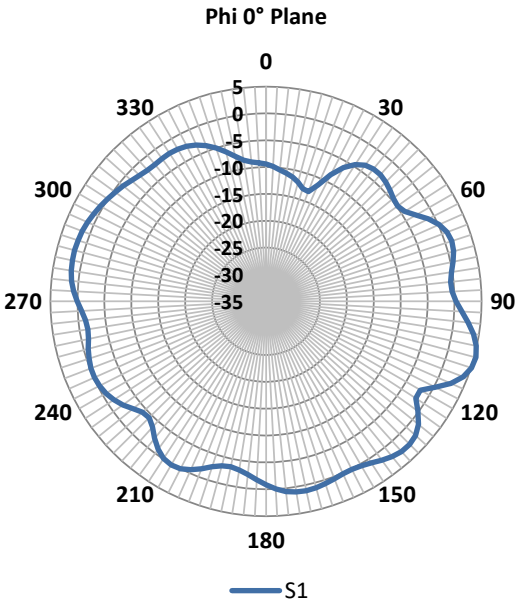


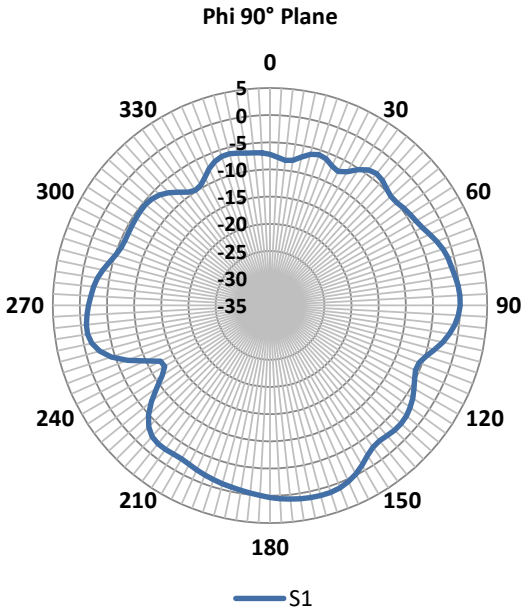




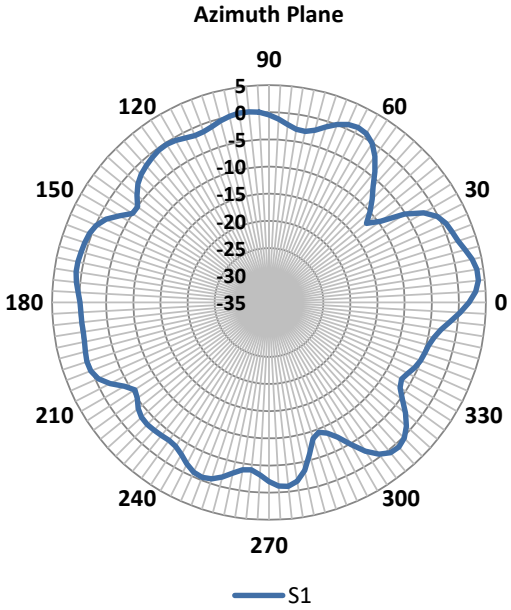
Radiation Pattern at 5300 MHz

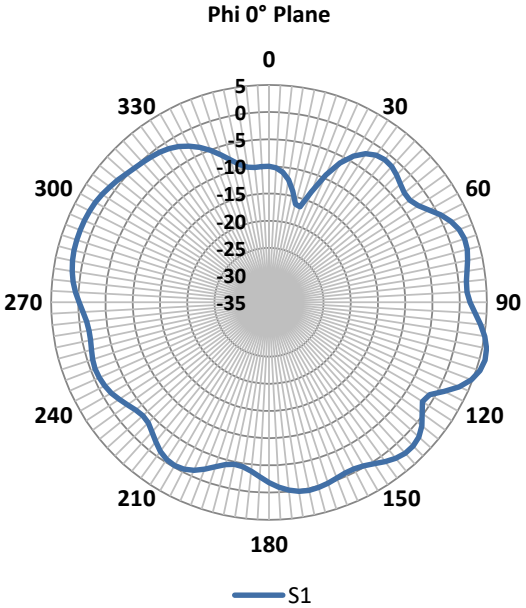


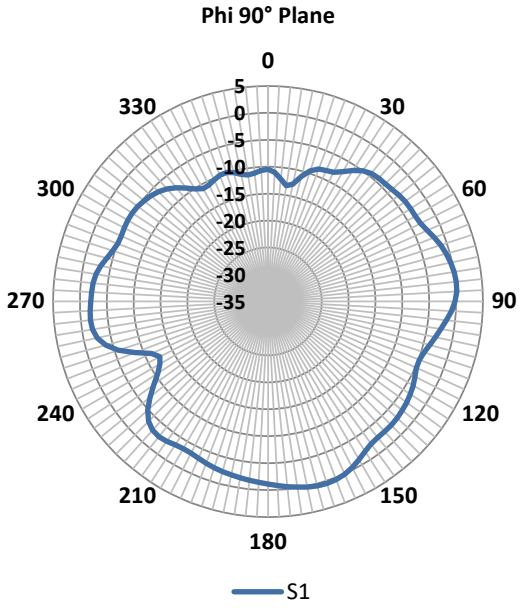




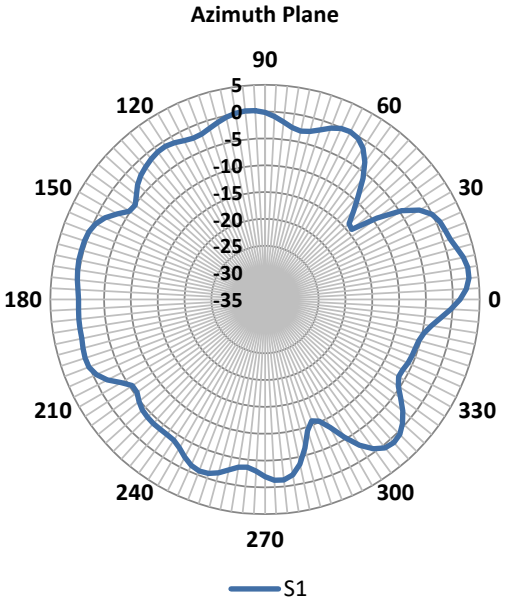
Radiation Pattern at 5350 MHz

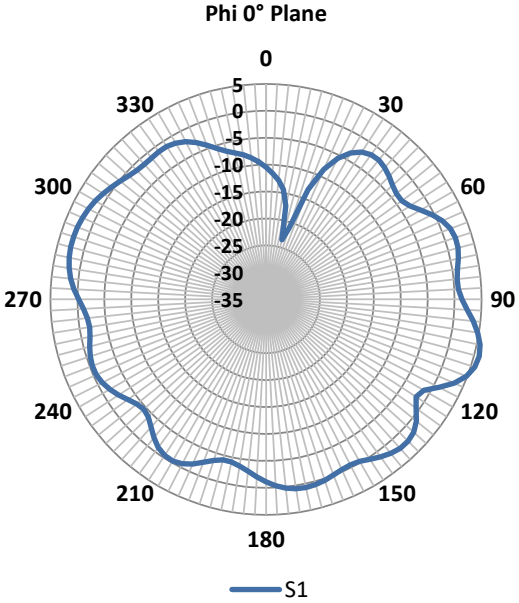


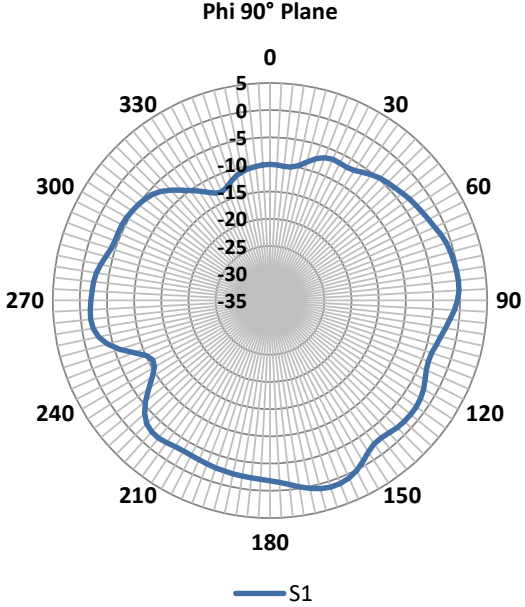




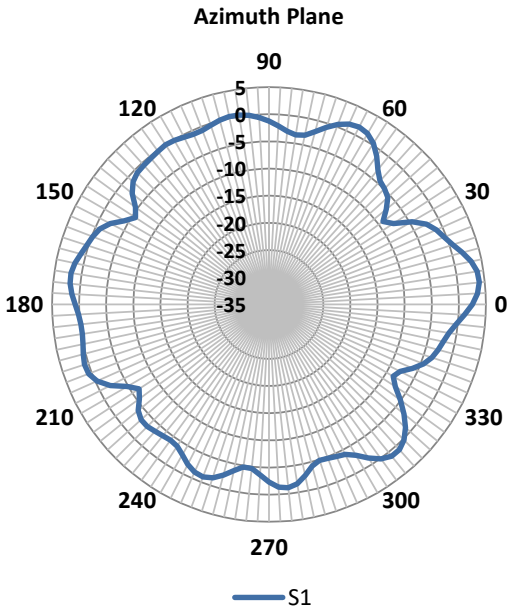
Radiation Pattern at 5400 MHz

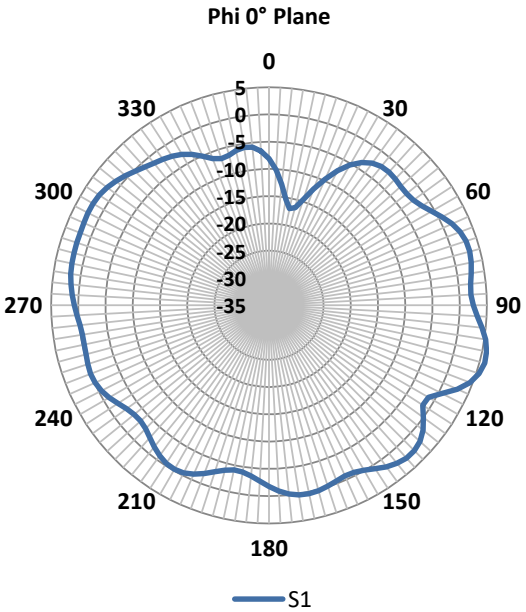


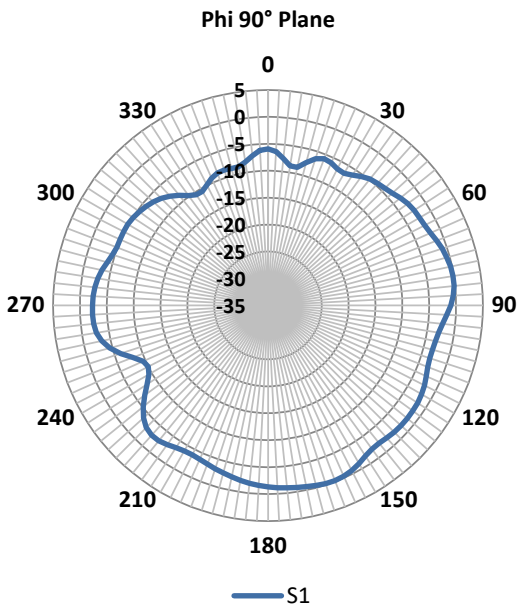




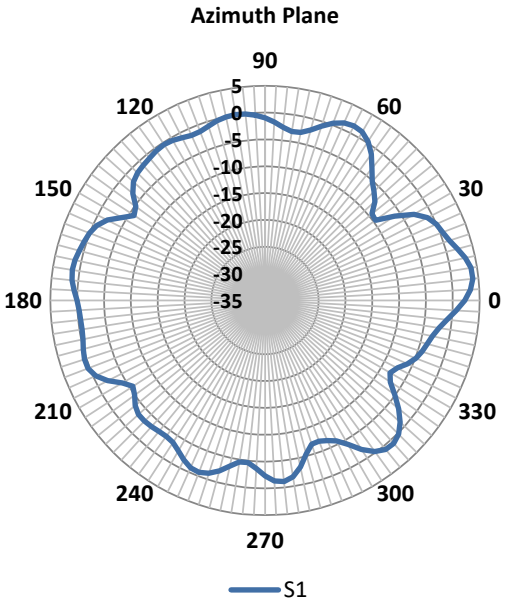
Radiation Pattern at 5450 MHz

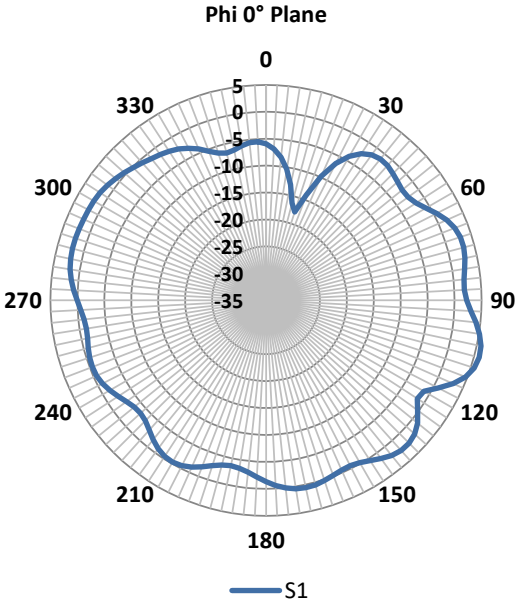


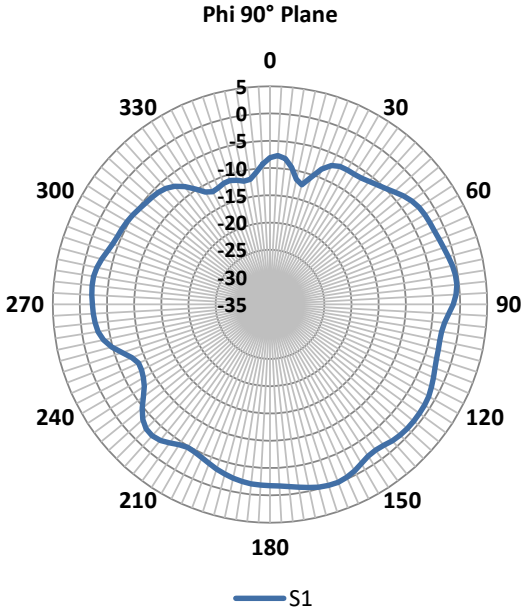




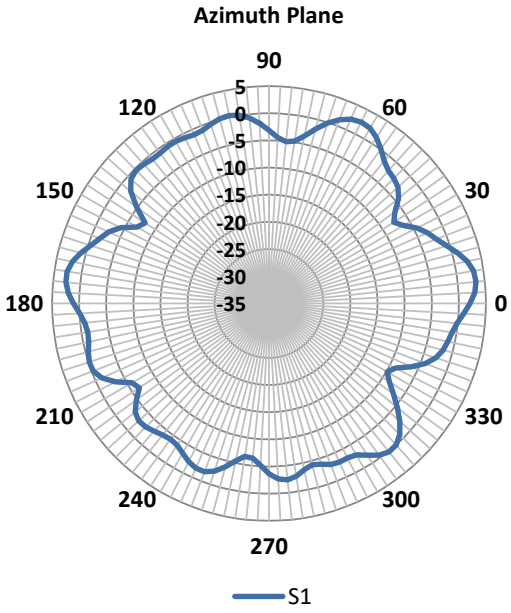
Radiation Pattern at 5500 MHz

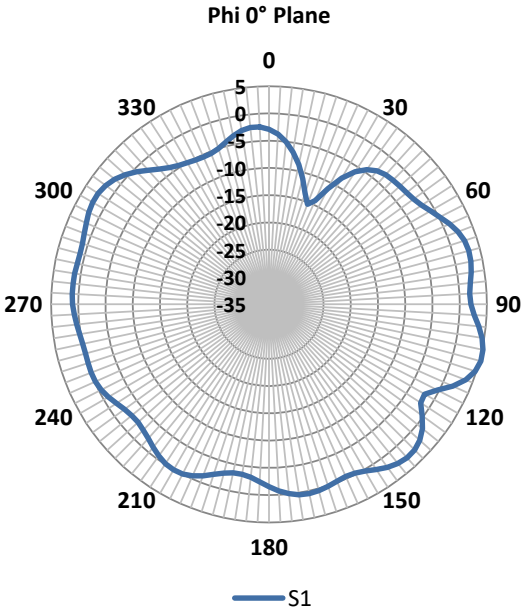


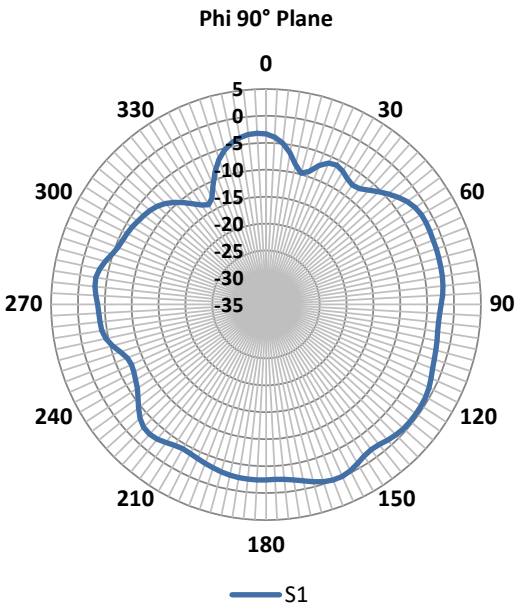




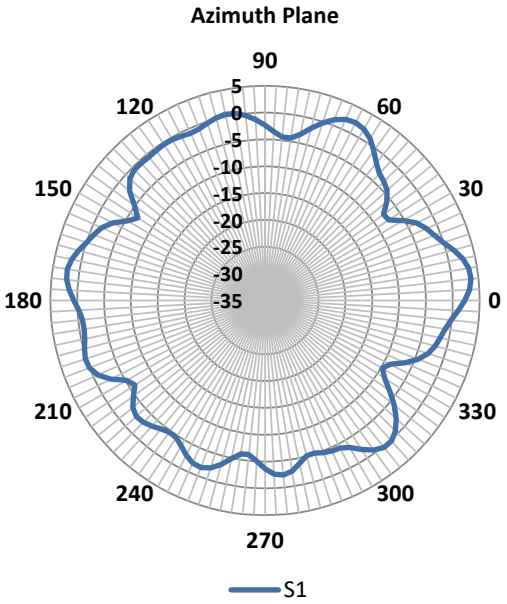
Radiation Pattern at 5550 MHz

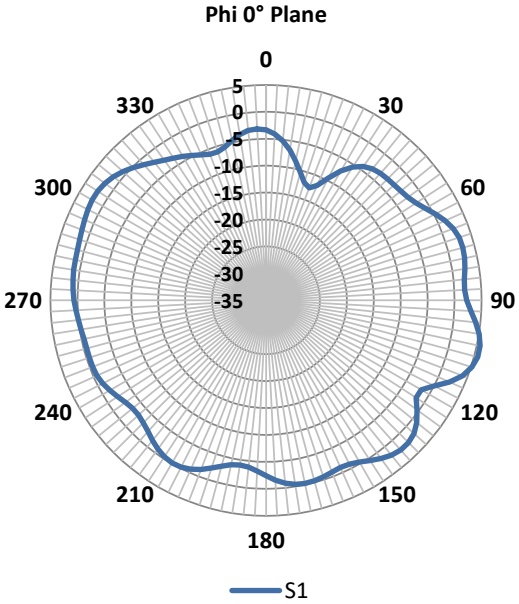


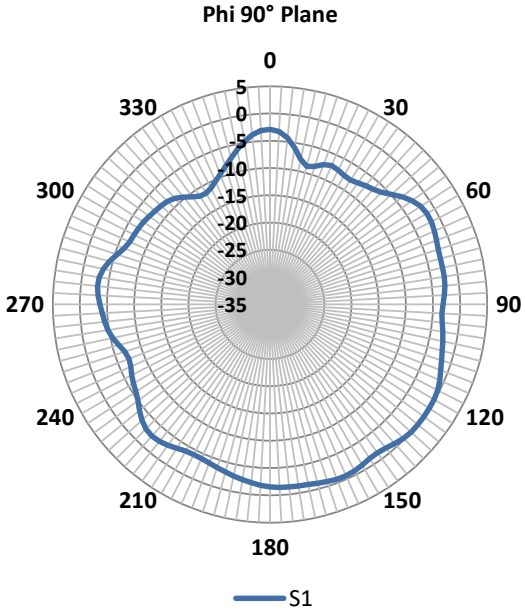




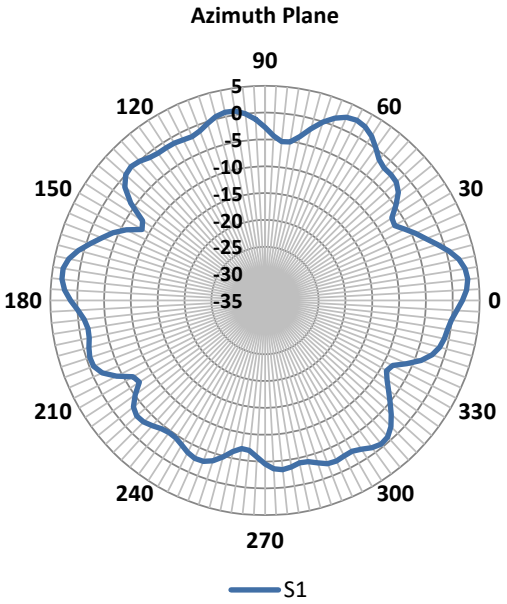
Radiation Pattern at 5600 MHz

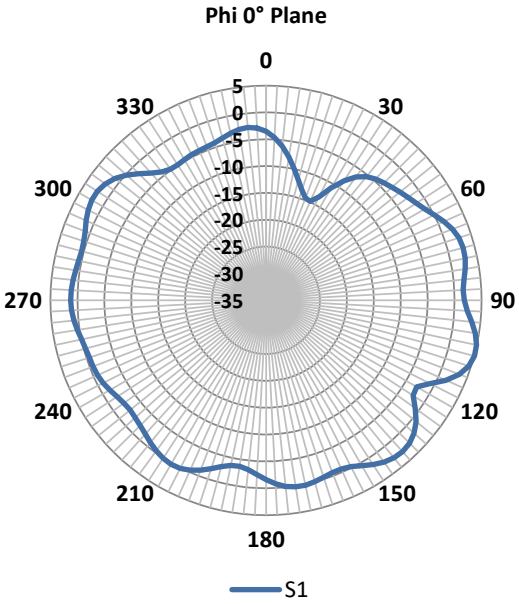


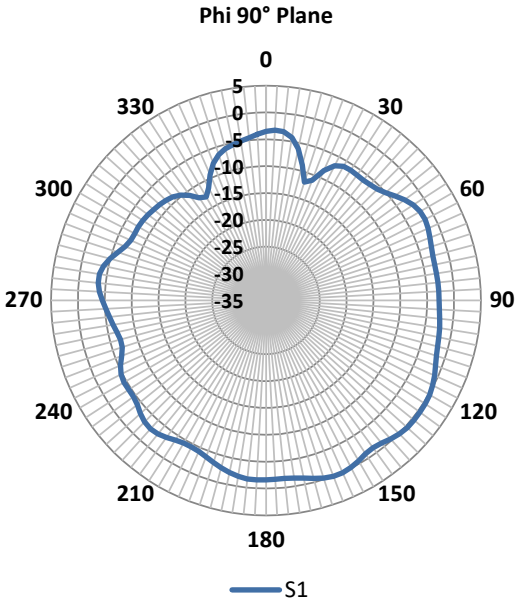




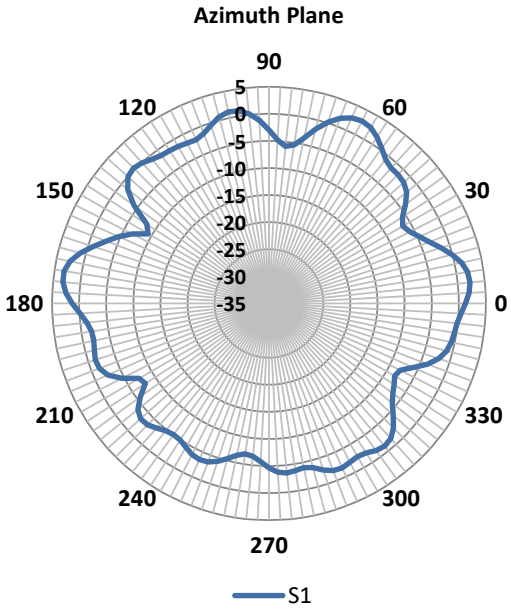
Radiation Pattern at 5650 MHz

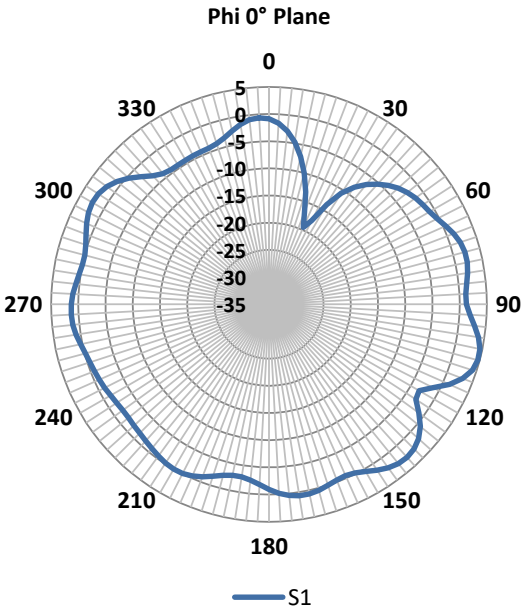


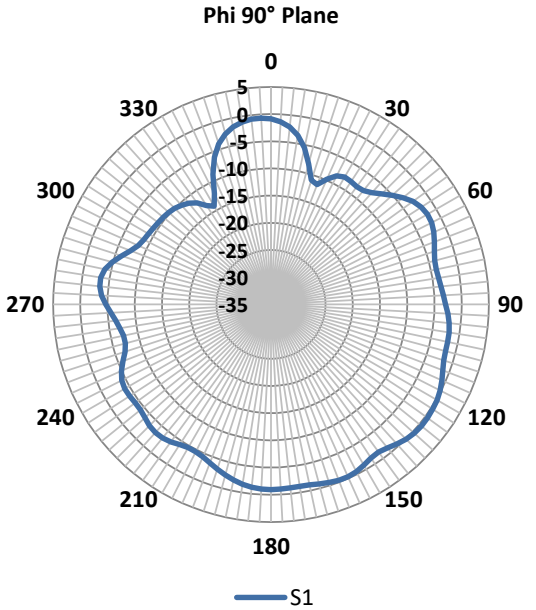




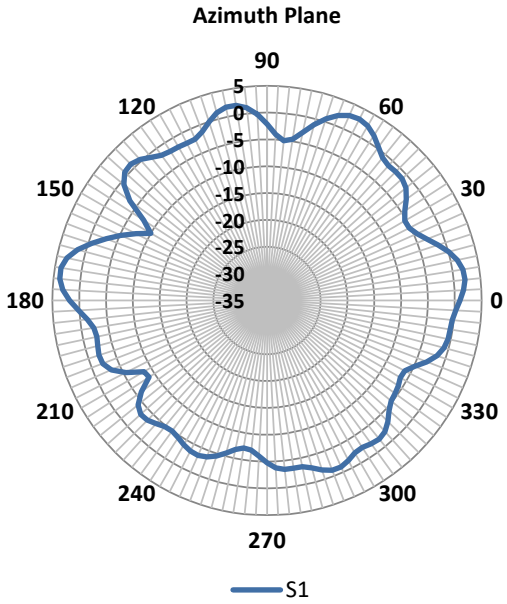
Radiation Pattern at 5700 MHz

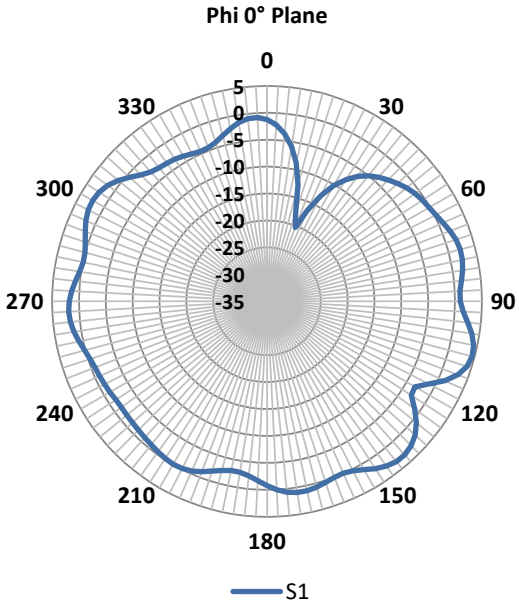


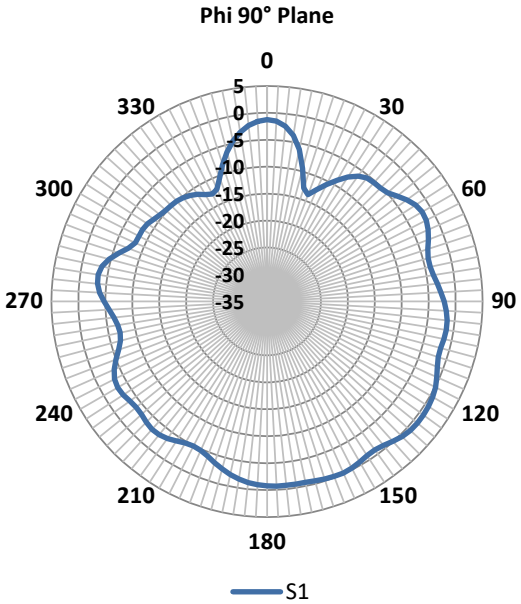




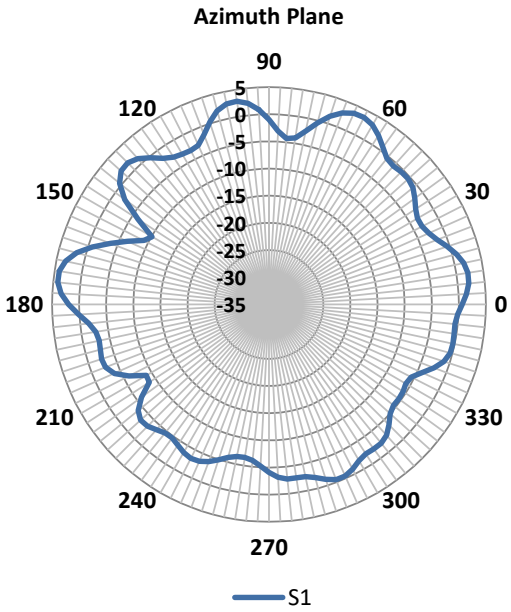
Radiation Pattern at 5750 MHz

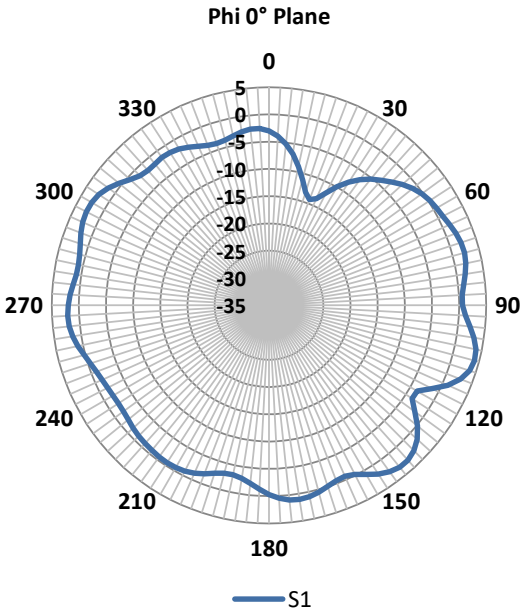


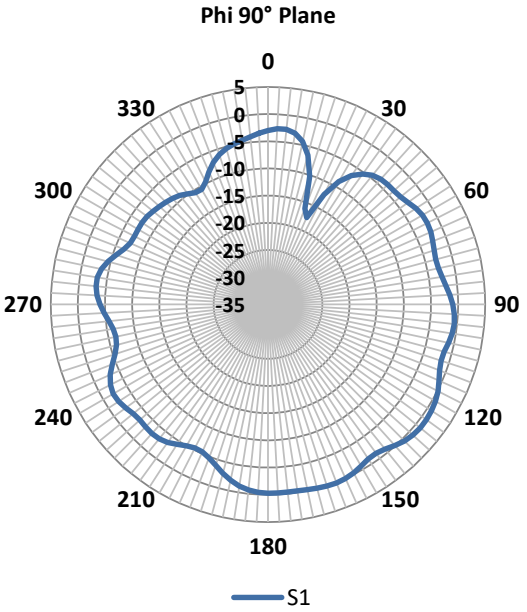




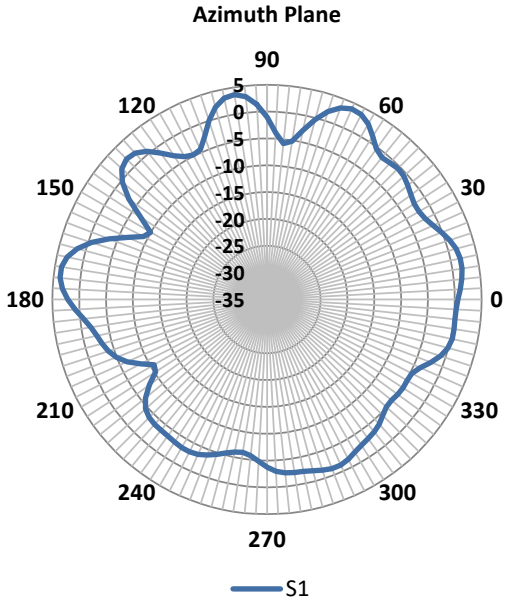
Radiation Pattern at 5800 MHz

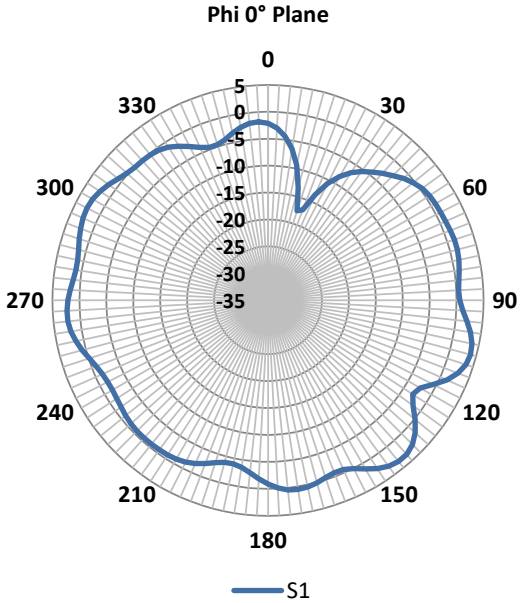


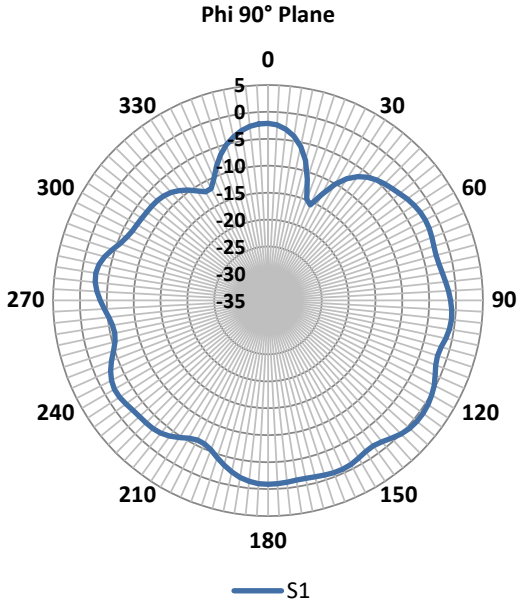




Radiation Pattern at 5850 MHz







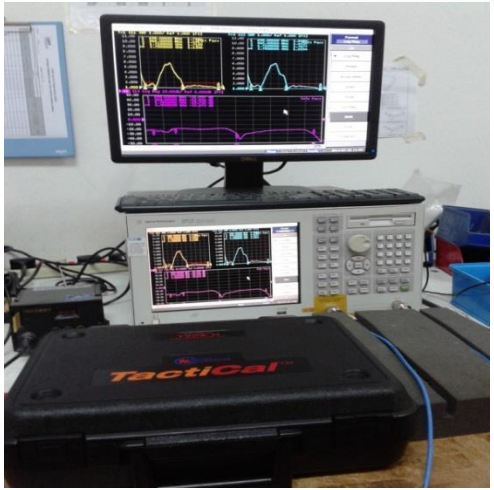
Gain Data

Frequency (MHz)	3D		Azimuth			Elevation 0°		Elevation 90°	
	Efficiency	Max Gain	Max Gain	Average Gain	Ripple	Max Gain	Average Gain	Max Gain	Average Gain
2400	68%	3.27	2.95	-0.09	4.72	3.24	-1.39	0.09	-3.09
2420	72%	2.60	2.31	-0.02	4.40	2.57	-1.48	0.93	-2.73
2440	74%	3.16	2.61	0.19	4.67	2.94	-1.29	1.06	-2.66
2460	73%	3.50	2.74	0.00	6.03	3.37	-1.30	0.95	-2.76
2480	72%	3.27	2.51	-0.23	7.16	3.20	-1.34	0.89	-2.70
2500	72%	3.44	2.19	-0.30	8.04	3.20	-1.39	1.13	-2.51
5150	61%	4.91	2.16	-1.52	10.31	4.23	-0.18	1.15	-2.88
5200	60%	5.38	2.51	-1.66	13.38	4.78	-0.22	1.20	-2.78
5250	57%	5.75	2.73	-1.83	17.11	5.31	-0.49	1.65	-3.22
5300	58%	5.96	3.15	-1.68	17.95	5.61	-0.27	1.20	-2.96
5350	58%	6.26	3.27	-1.52	17.48	5.94	-0.21	0.53	-3.44
5400	62%	6.37	3.82	-1.21	15.66	6.05	-0.08	1.10	-3.26
5450	61%	6.34	3.92	-1.21	13.49	5.99	0.08	-0.13	-3.34
5500	61%	6.24	4.00	-1.05	13.03	5.97	0.12	-0.08	-3.39
5550	59%	5.86	3.59	-1.29	13.37	5.66	-0.10	-0.11	-3.41
5600	59%	5.36	3.37	-1.31	13.20	5.24	0.00	0.04	-3.42
5650	58%	5.09	3.07	-1.40	11.92	5.05	-0.19	0.43	-3.32
5700	57%	4.74	3.21	-1.52	12.50	4.70	-0.19	0.51	-3.18
5750	59%	5.18	3.87	-1.29	13.89	4.53	-0.04	0.90	-3.09
5800	62%	5.08	4.15	-0.92	14.24	4.18	-0.06	1.09	-2.79
5850	62%	5.13	3.86	-0.90	14.54	3.93	0.00	0.66	-2.98

Measurement Setup

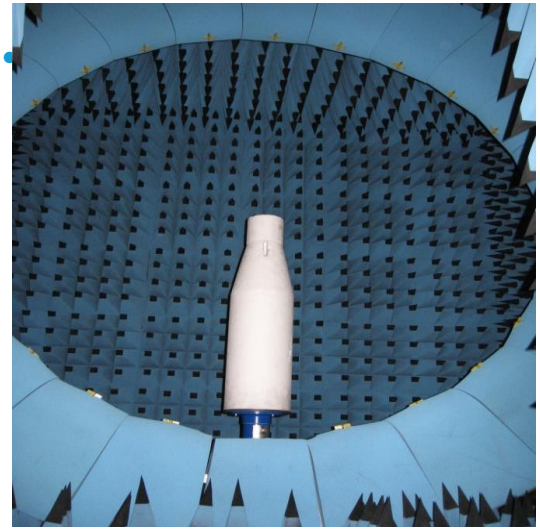
- VSWR Test Manner
- Radiation Pattern Test in Satimo 3D Chamber
- Measurement Coordinate System
- Sticked on a PC plastic material with thickness of 2.85mm for measurement

VSWR Test Manner



- VSWR tested with the VNA E5071C
- VNA is calibrated with the Maury TactiCal N-Type Calibration Kit

Radiation Pattern Test in Satimo 3D Chamber SG 24



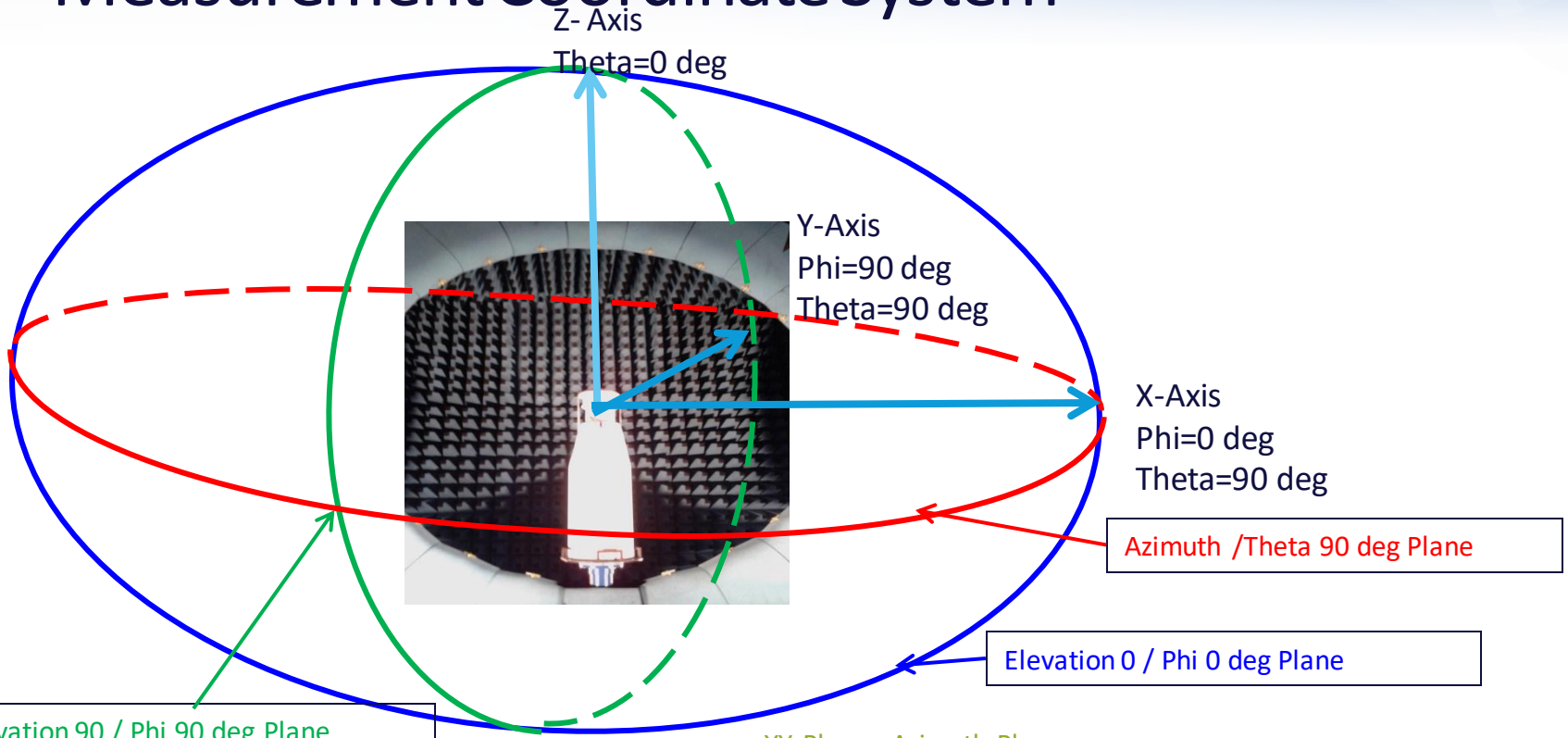
- SG24 has 23 probes, spaced at 15º in elevation, with an internal arch diameter of 2.4 meters.
- Passive antenna measurements are performed using a Vector Network Analyzer and software

SG24 Anechoic Chamber Specifications

External dimensions	4.0 x 4.0 x 4.0 m
Shielding effectiveness, plane wave 800 MHz – 6 GHz	100 dB
Pyramid absorber reflectivity	-30 dB @ 800 MHz

Stacked on a PC plastic material with thickness of 2.85mm for measurement

Measurement Coordinate System



XY-Plane : Azimuth Plane
XZ-Plane : Elevation 0°
YZ-Plane : Elevation 90°

Smart Technology. Delivered.