

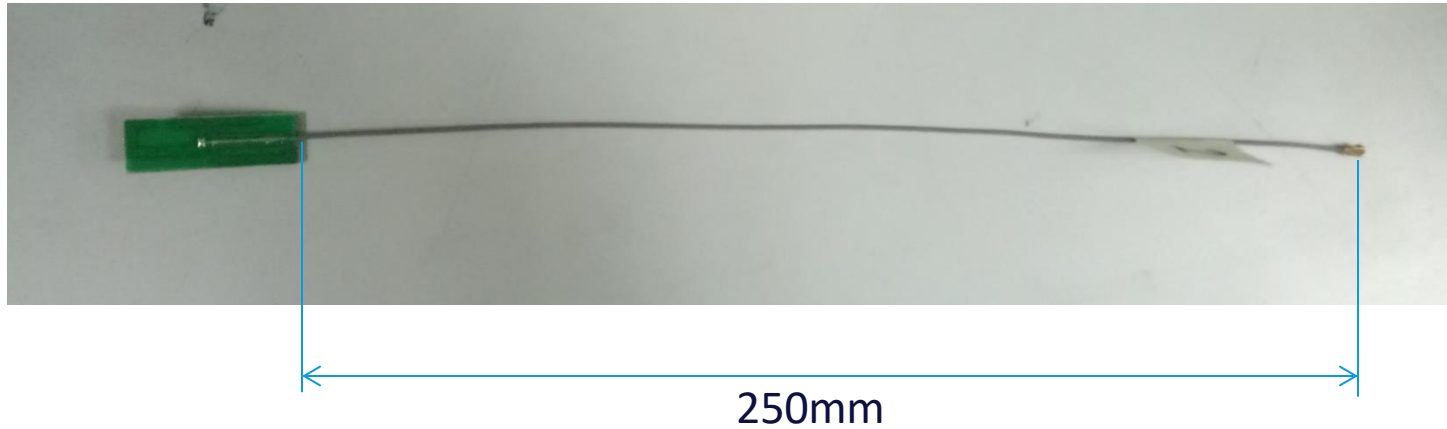


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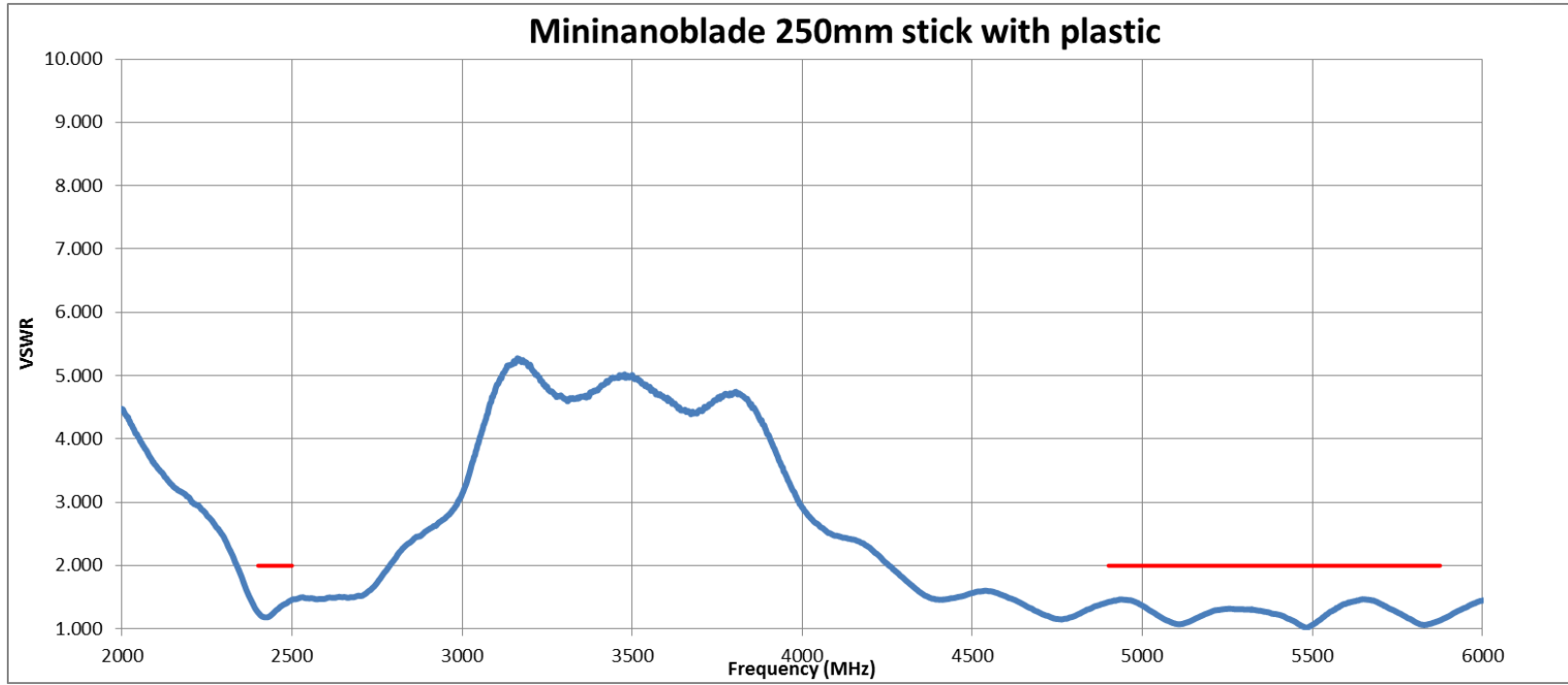
Model : **EMN2449A2S-25UFL**
Mini-Nanoblade (250mm)

Date : 13/12/2017

Mini-Nanoblade (250mm)



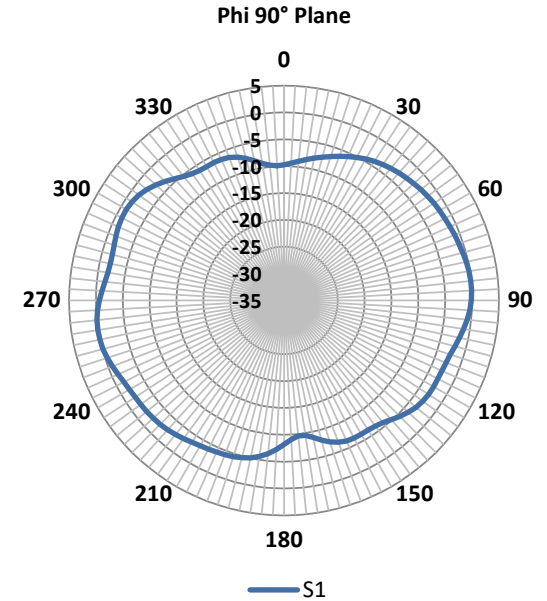
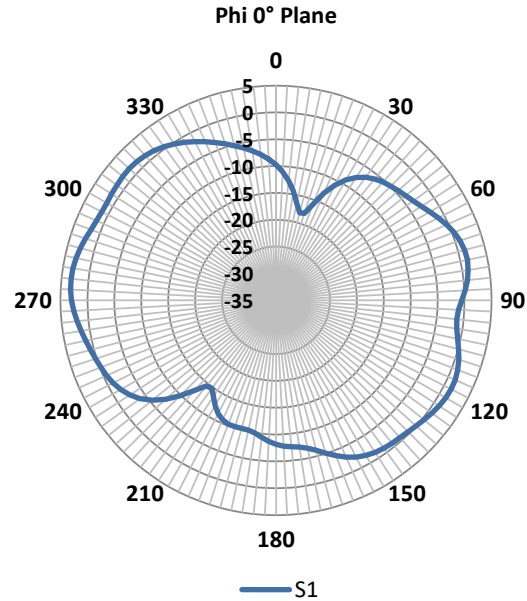
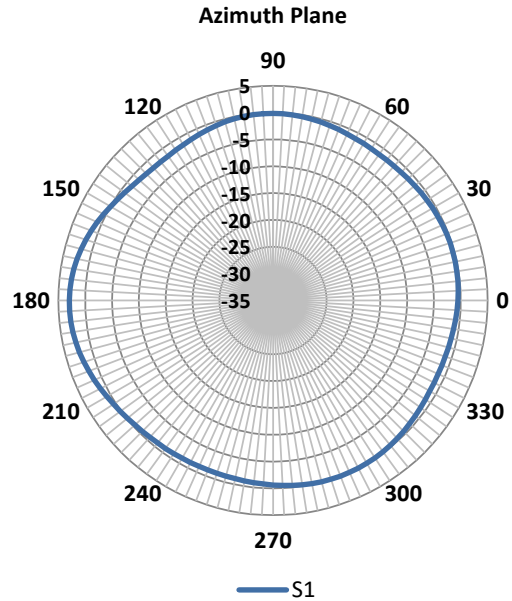
VSWR



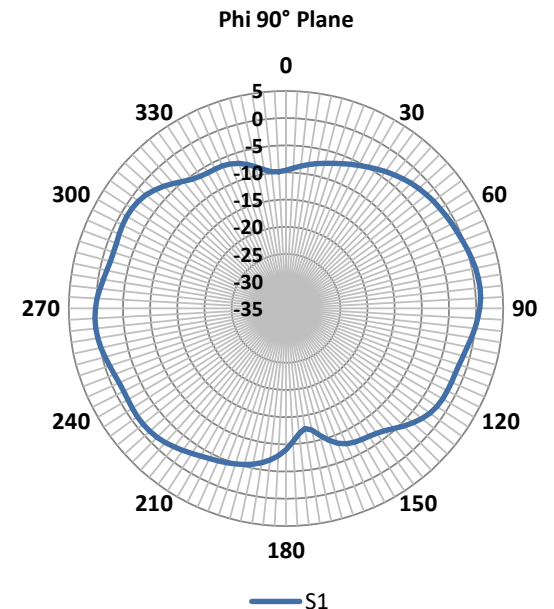
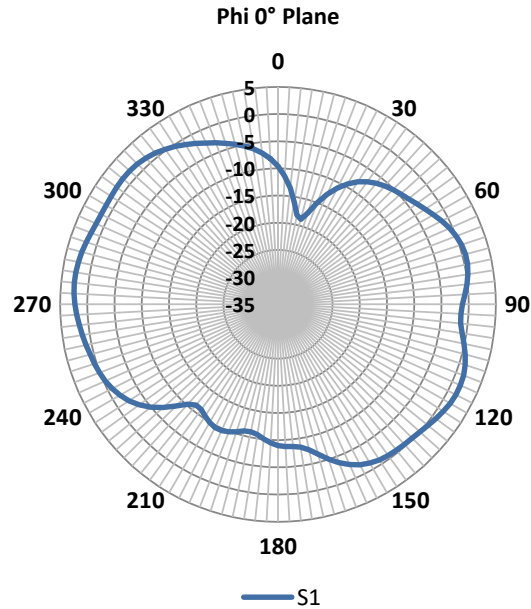
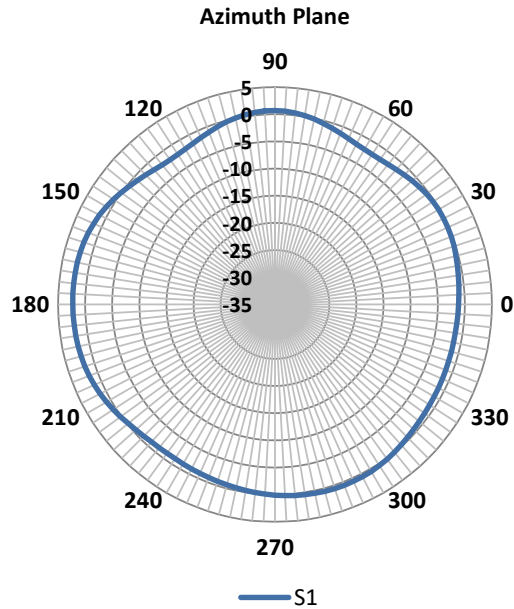
VSWR Data

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

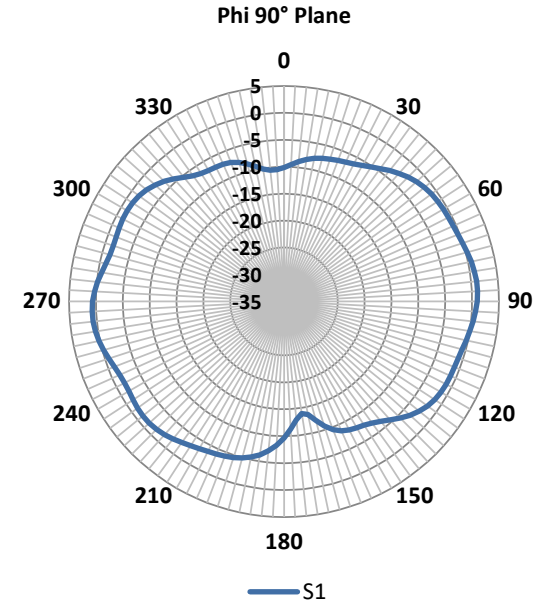
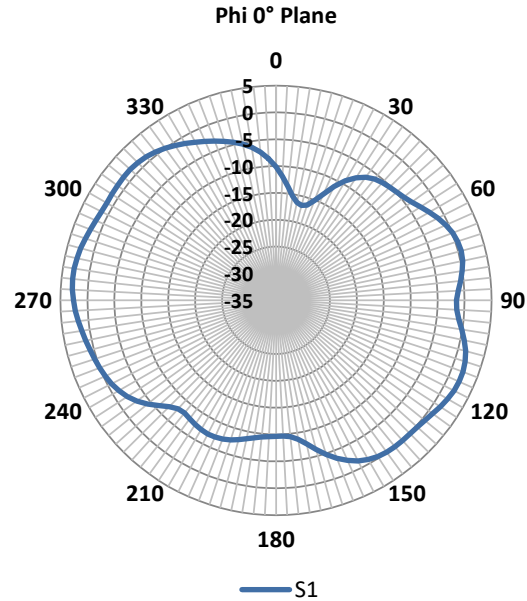
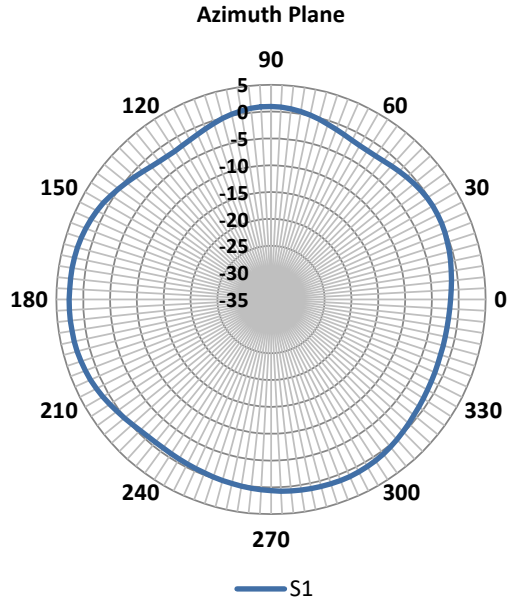
Radiation Pattern at 2400 MHz



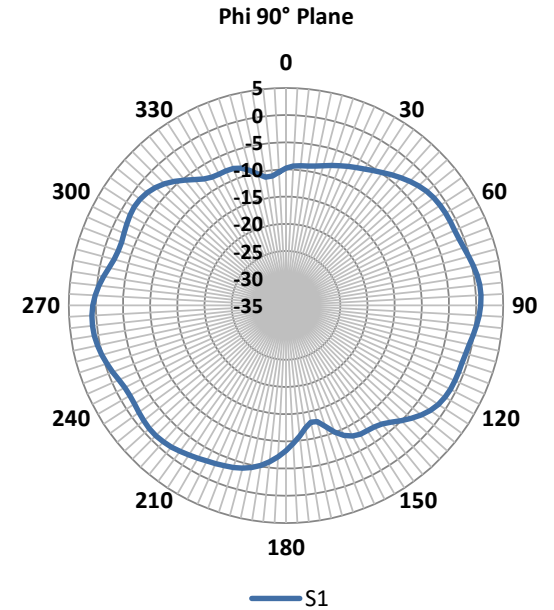
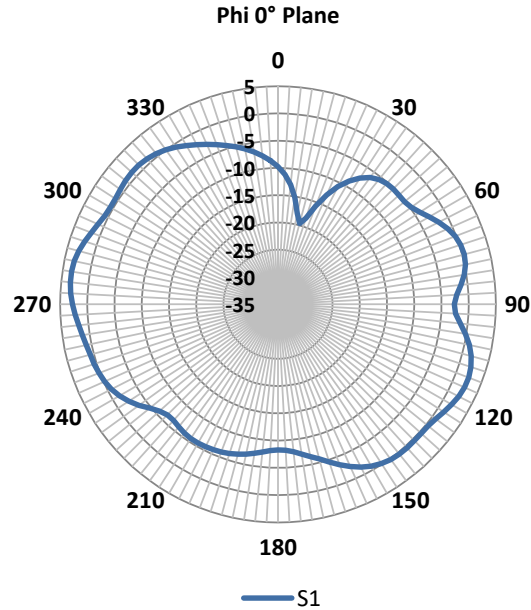
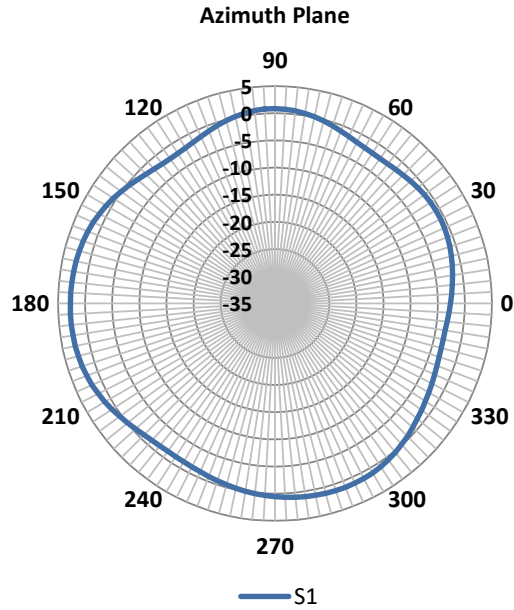
Radiation Pattern at 2420 MHz



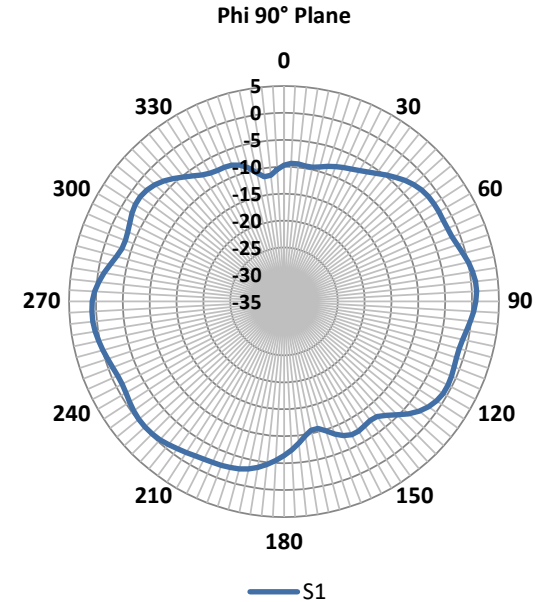
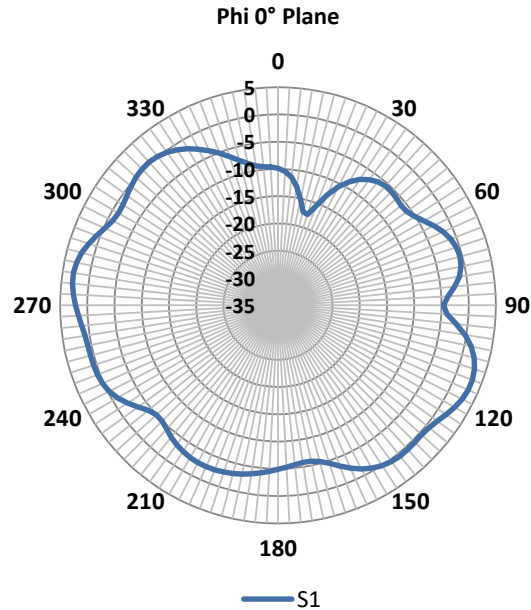
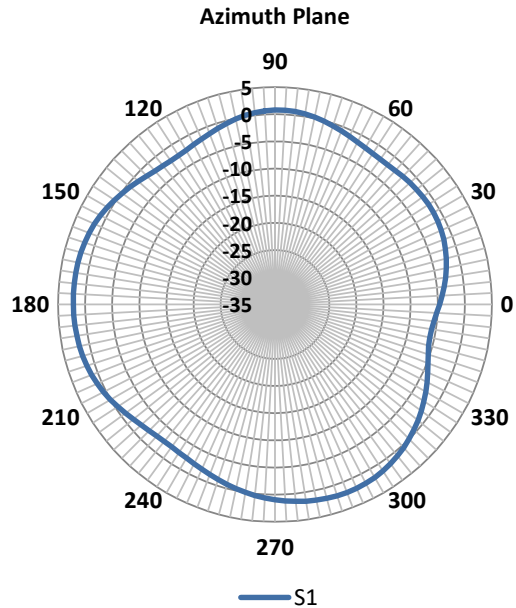
Radiation Pattern at 2440 MHz



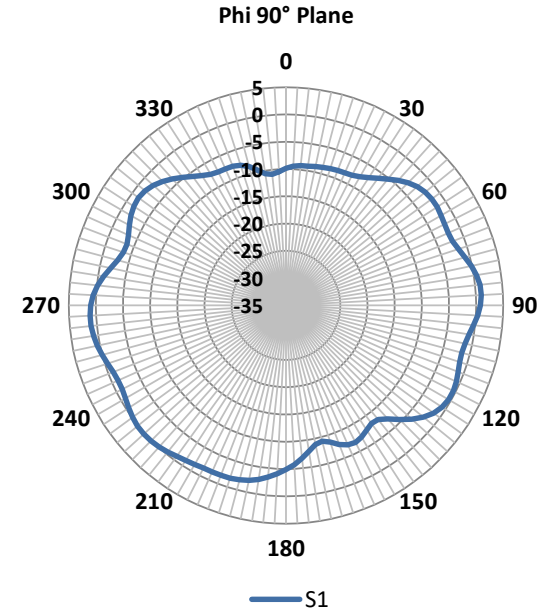
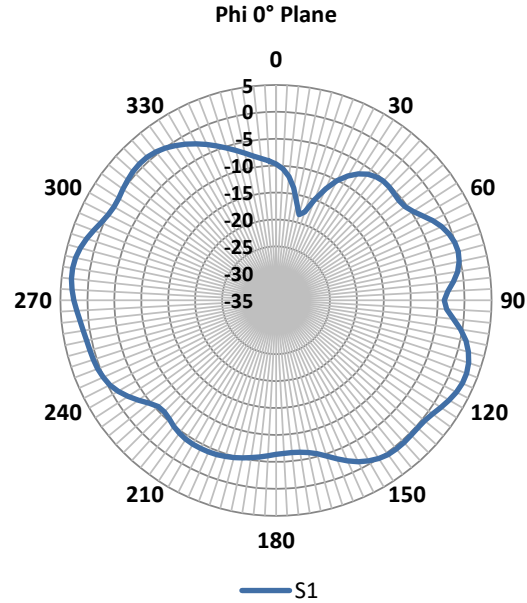
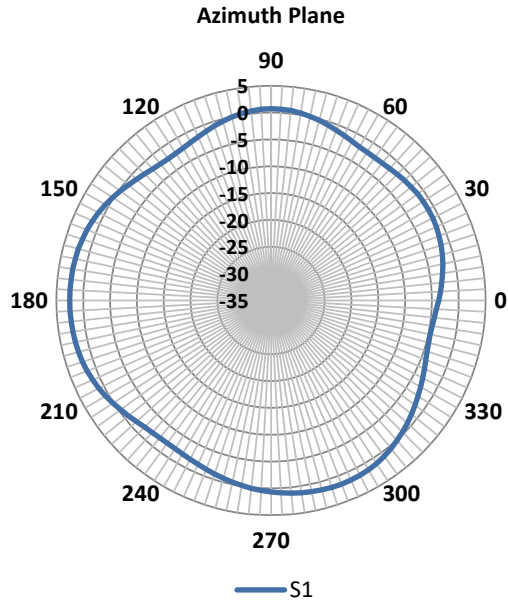
Radiation Pattern at 2460 MHz



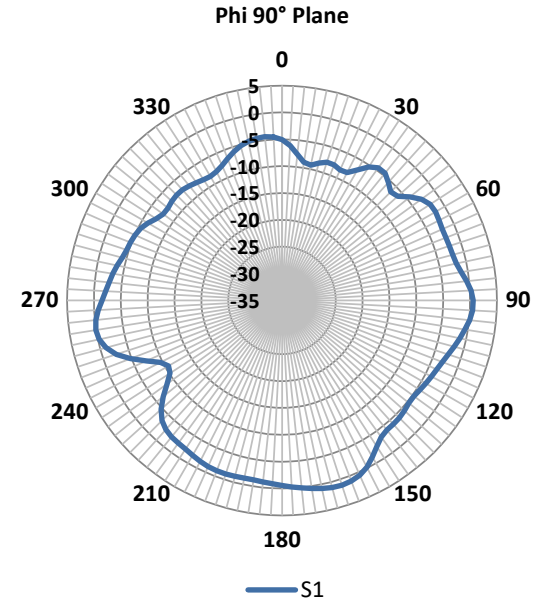
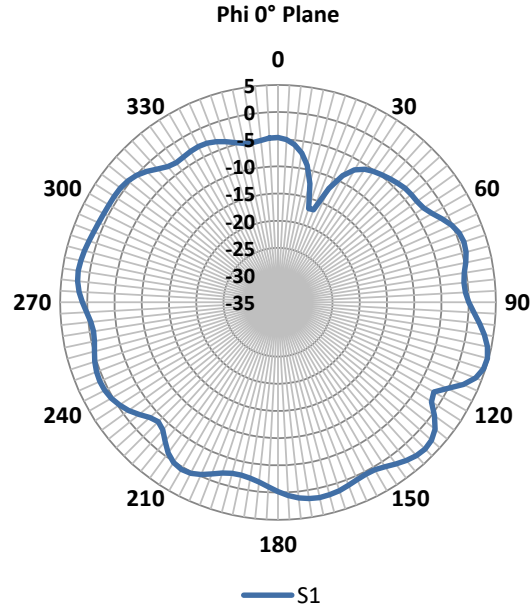
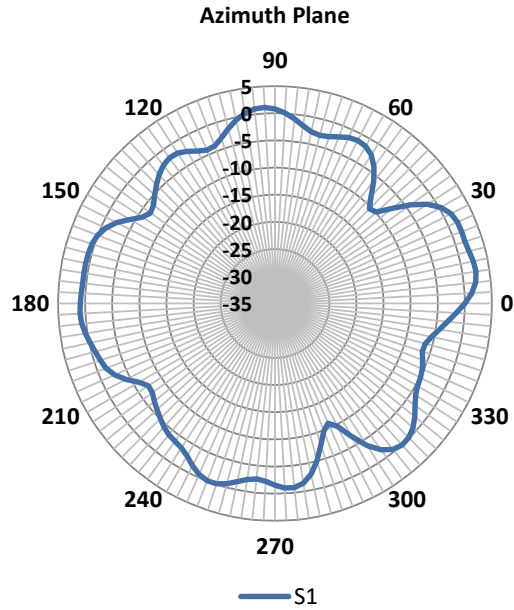
Radiation Pattern at 2480 MHz



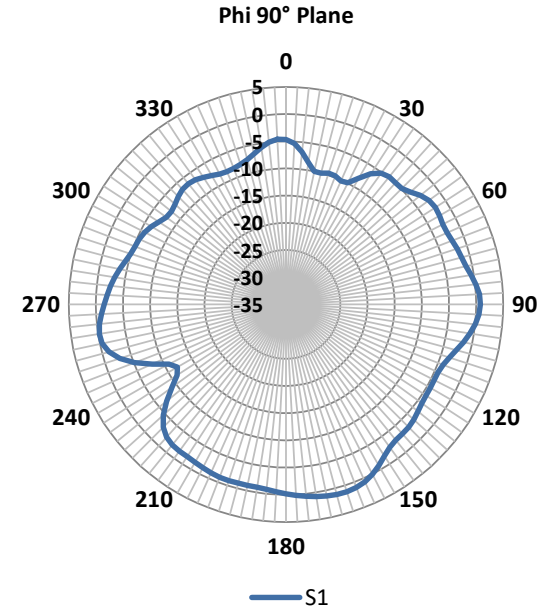
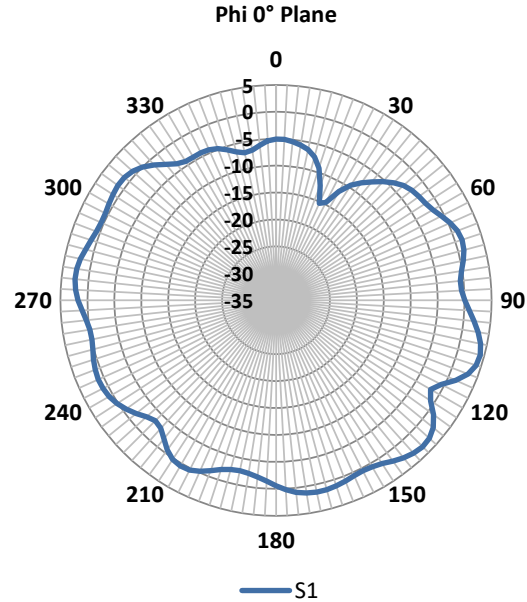
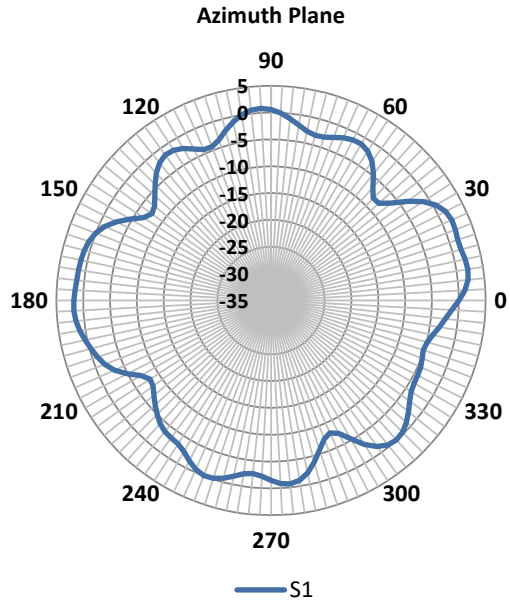
Radiation Pattern at 2500 MHz



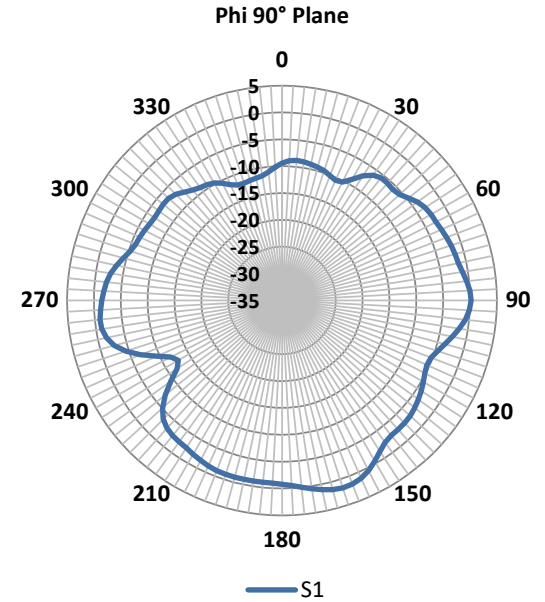
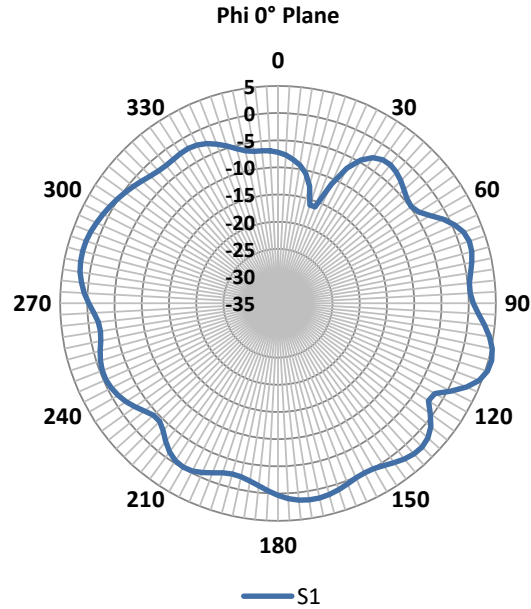
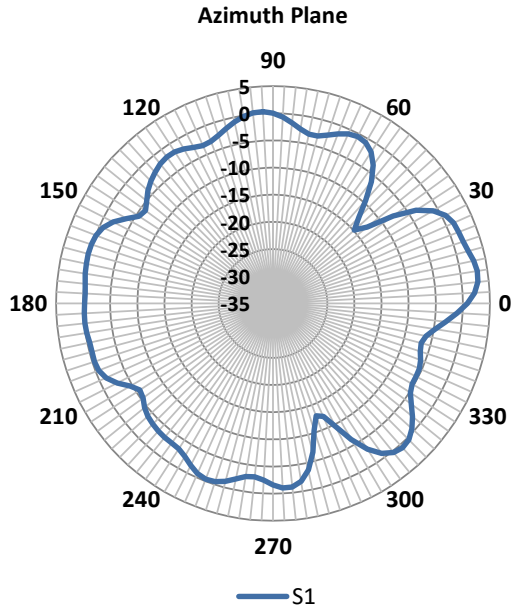
Radiation Pattern at 5150 MHz



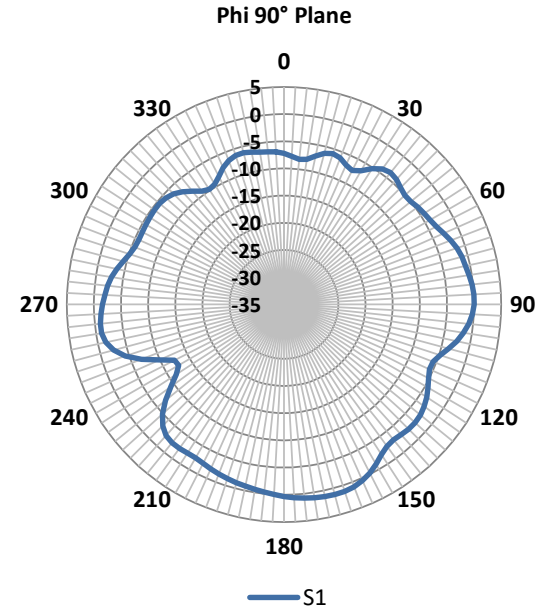
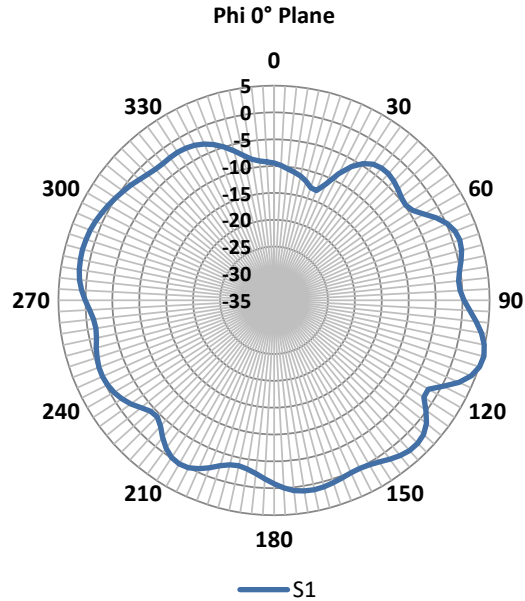
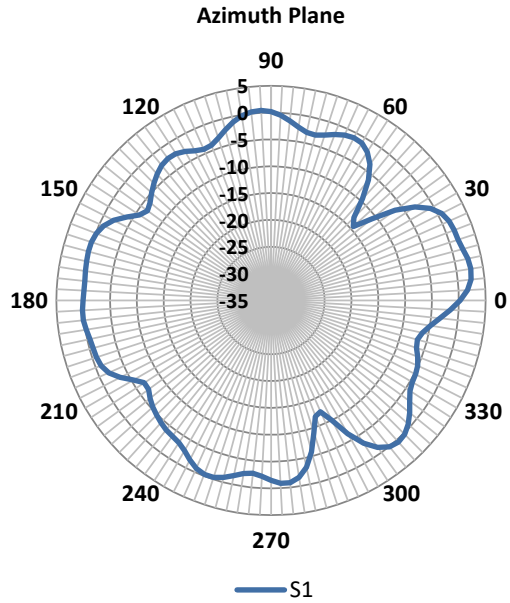
Radiation Pattern at 5200 MHz



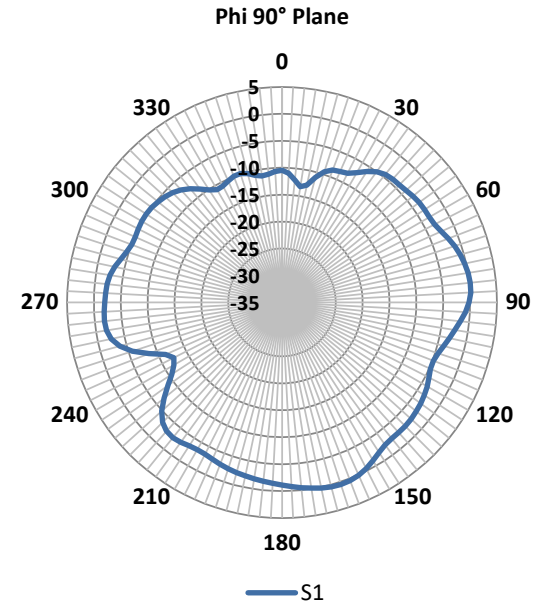
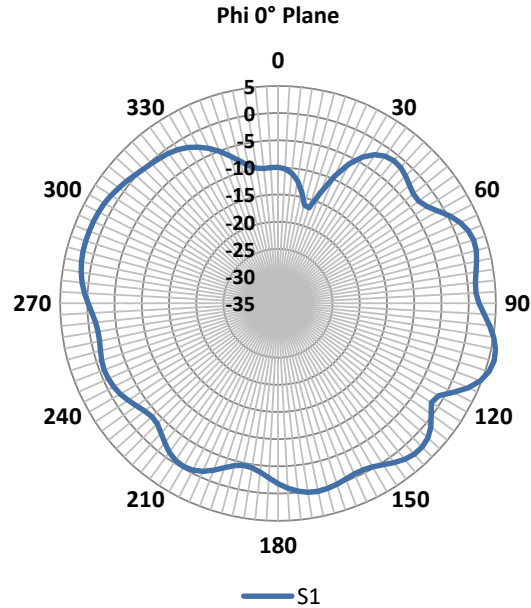
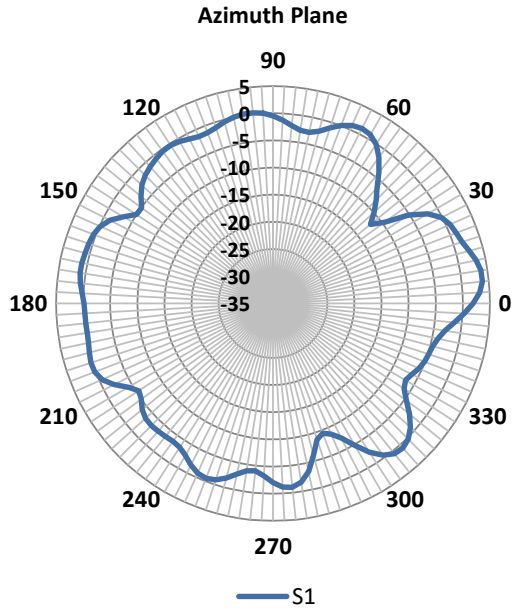
Radiation Pattern at 5250 MHz



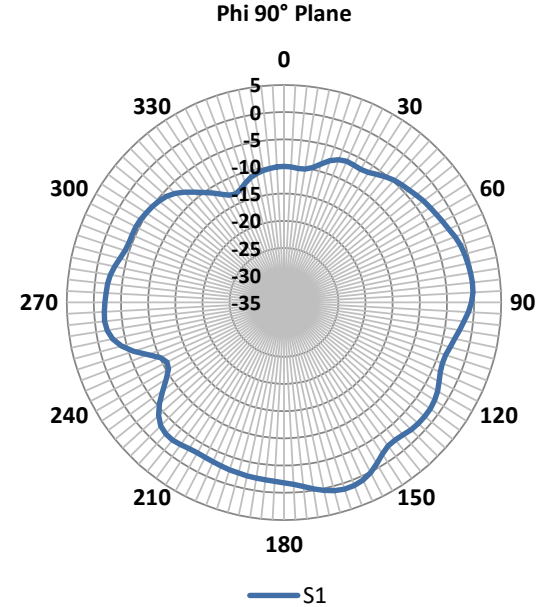
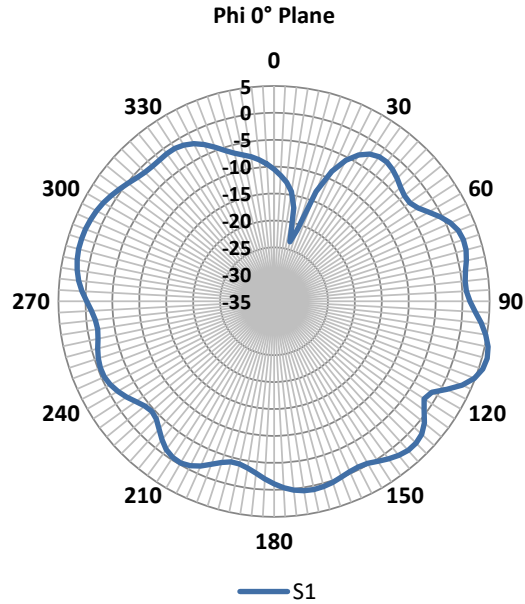
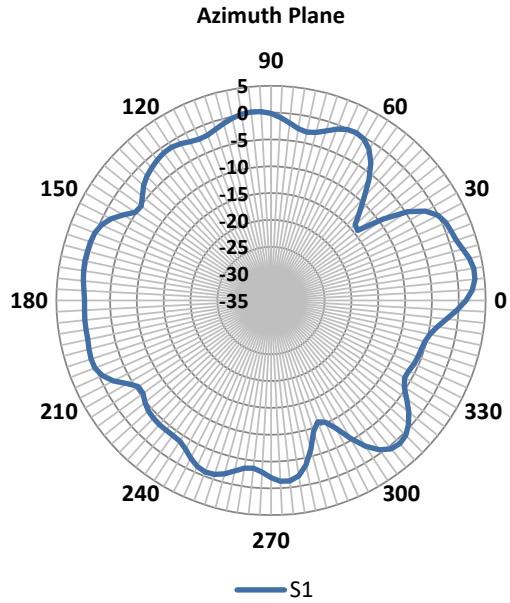
Radiation Pattern at 5300 MHz



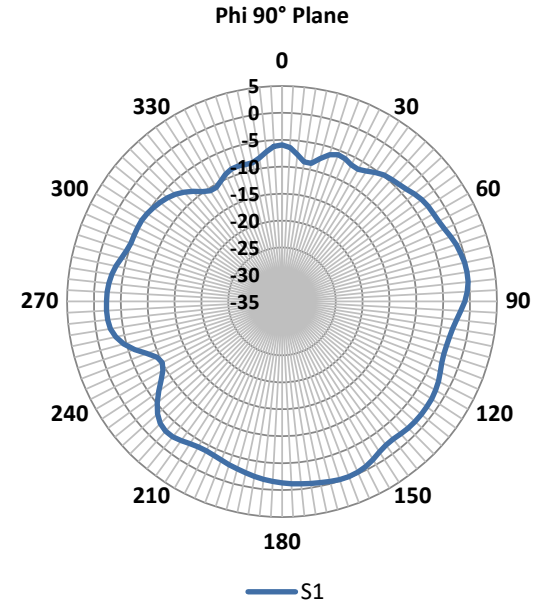
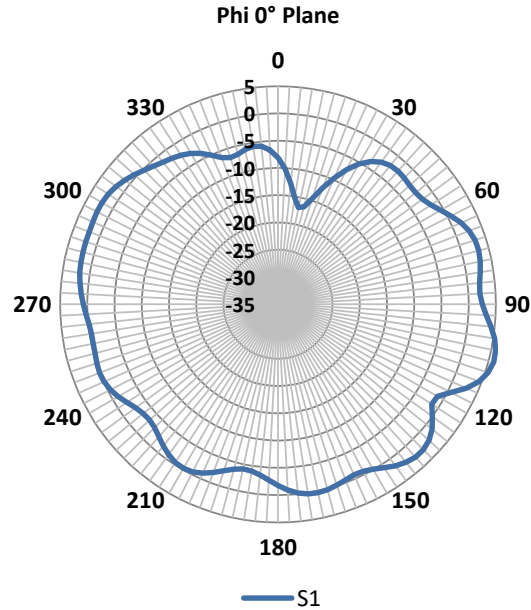
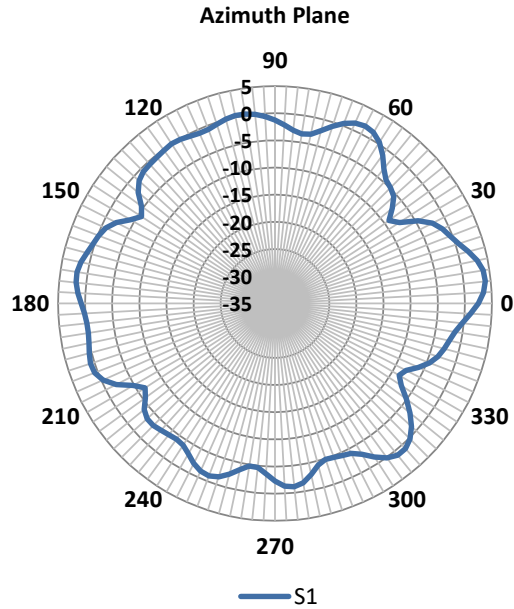
Radiation Pattern at 5350 MHz



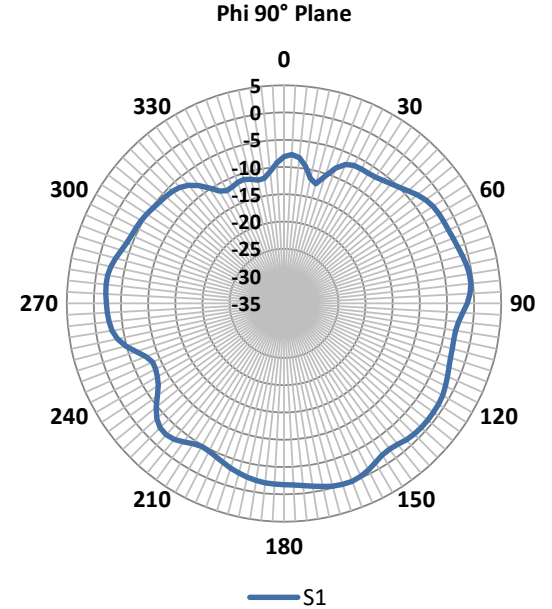
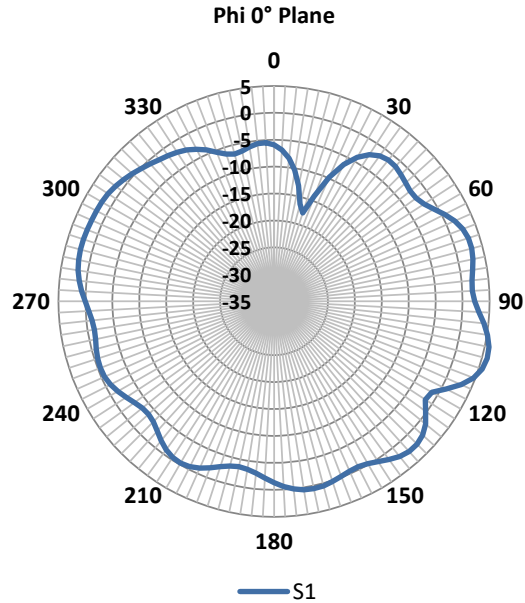
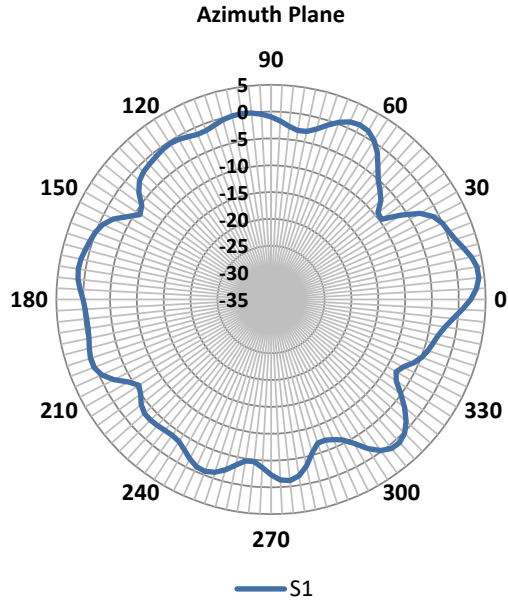
Radiation Pattern at 5400 MHz



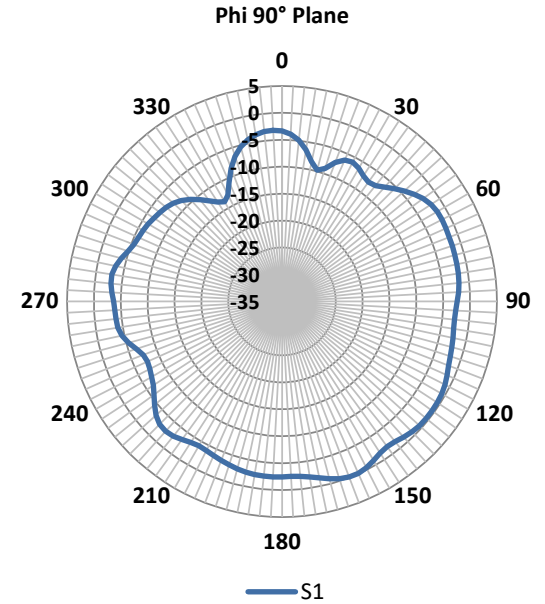
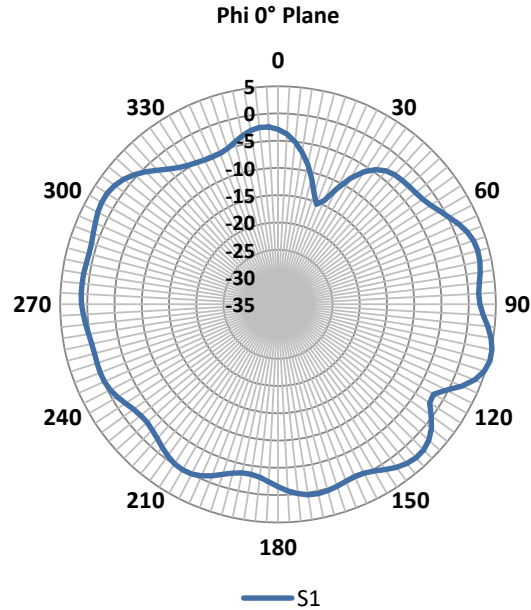
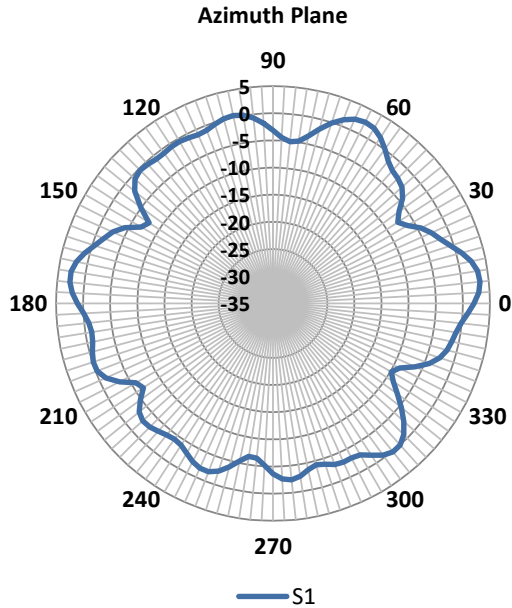
Radiation Pattern at 5450 MHz



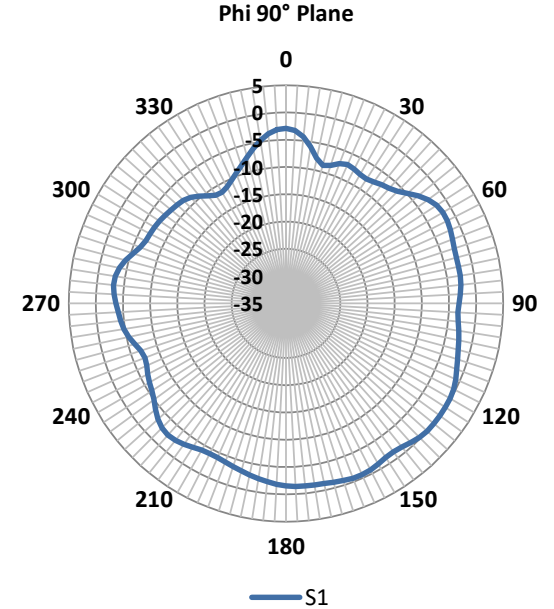
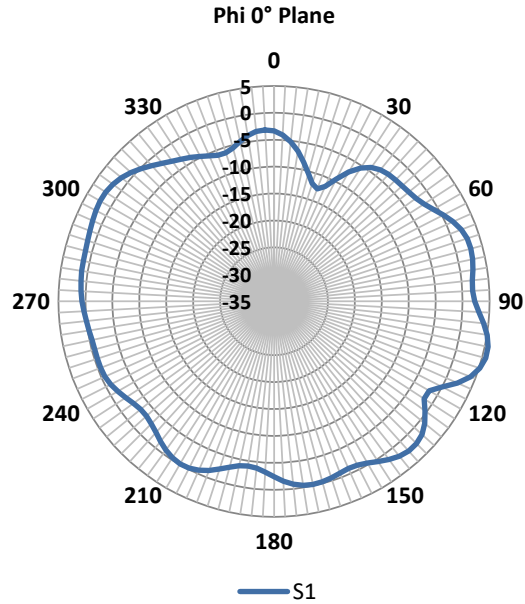
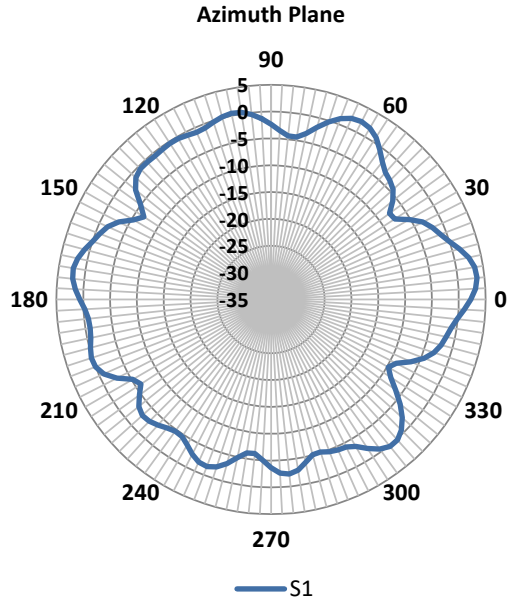
Radiation Pattern at 5500 MHz



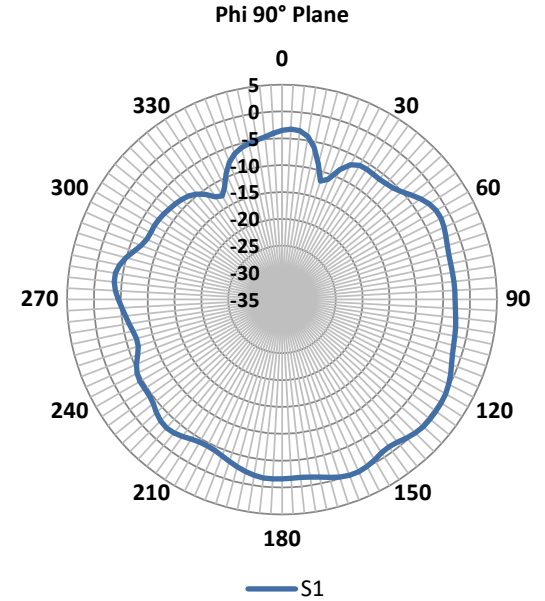
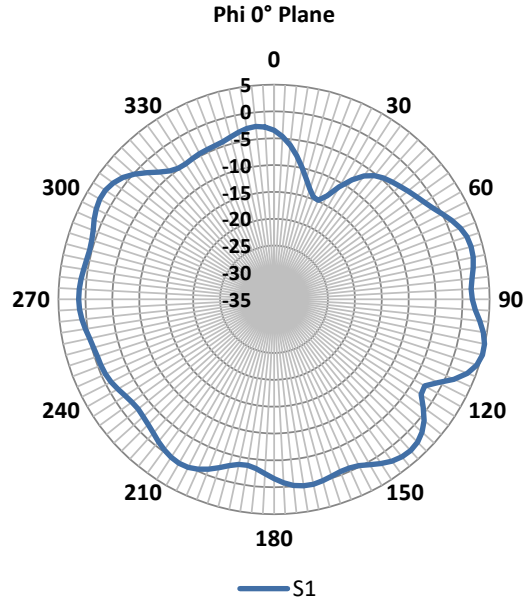
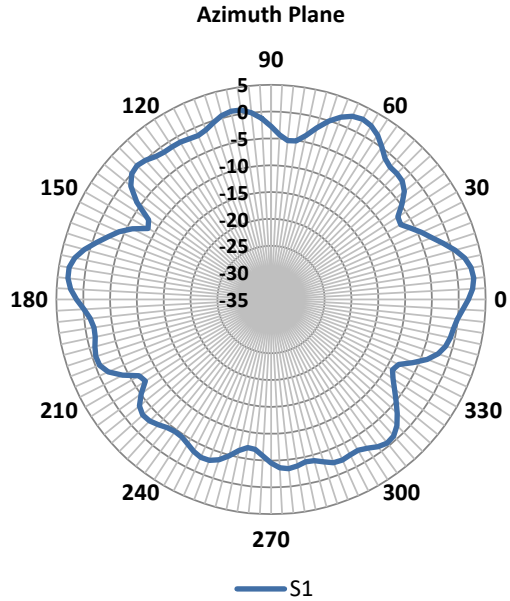
Radiation Pattern at 5550 MHz



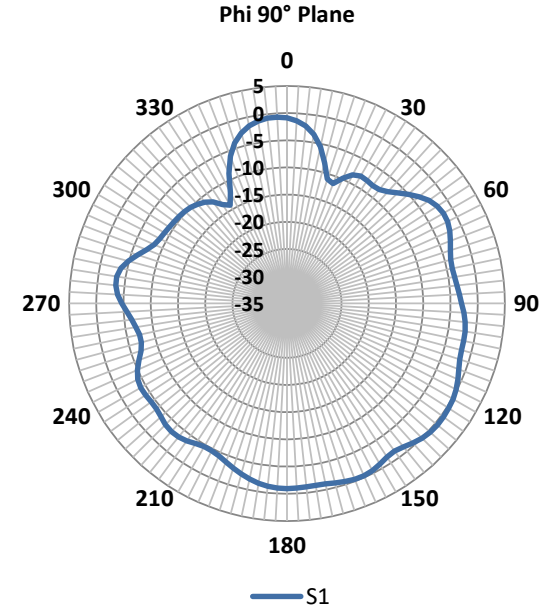
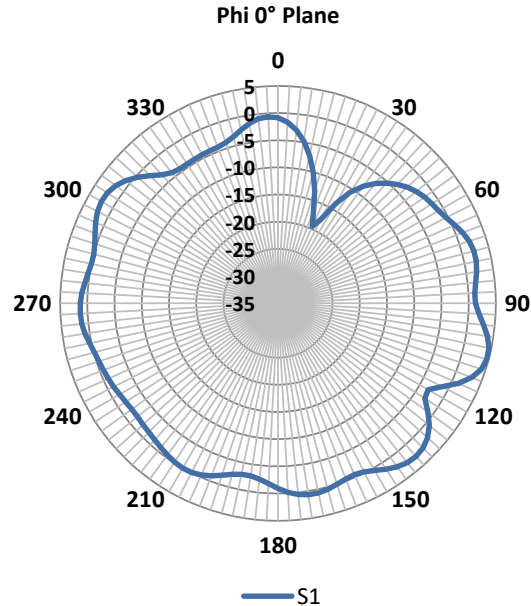
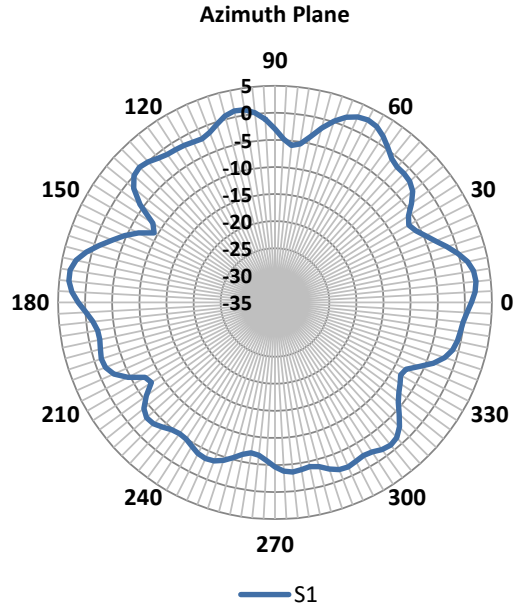
Radiation Pattern at 5600 MHz



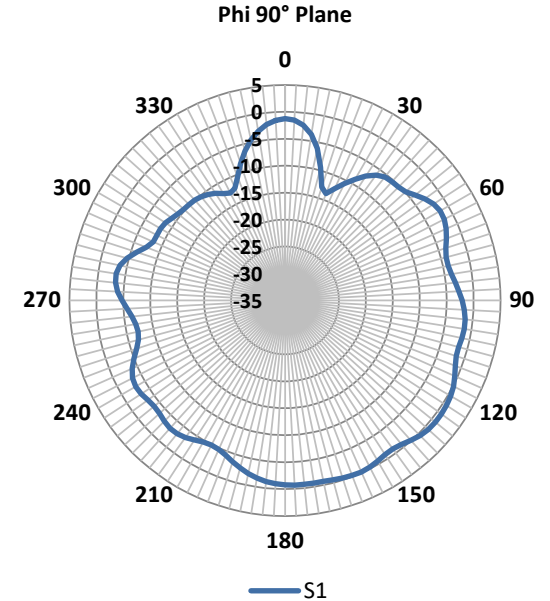
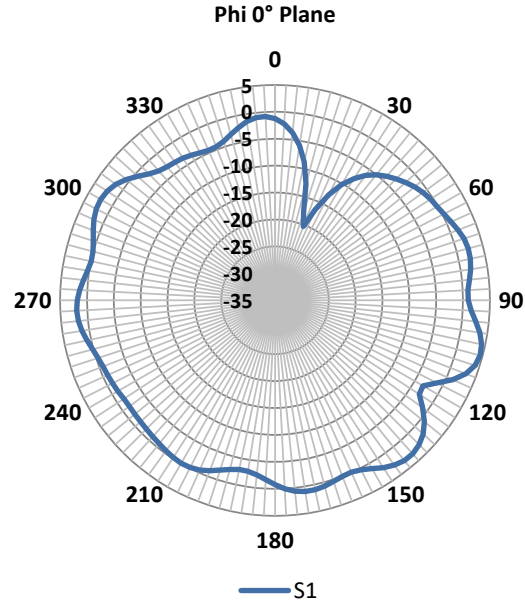
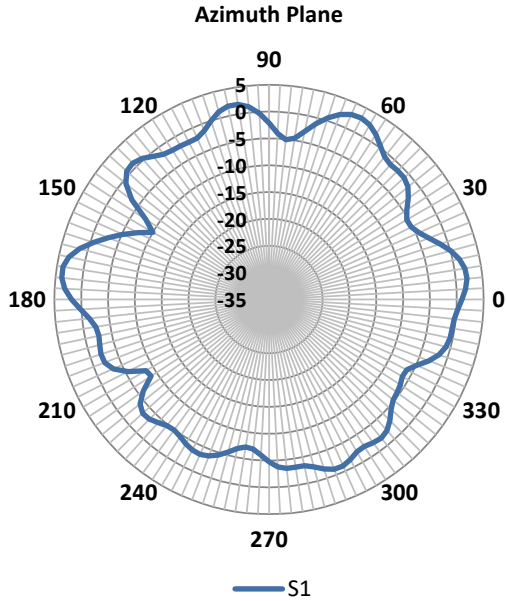
Radiation Pattern at 5650 MHz



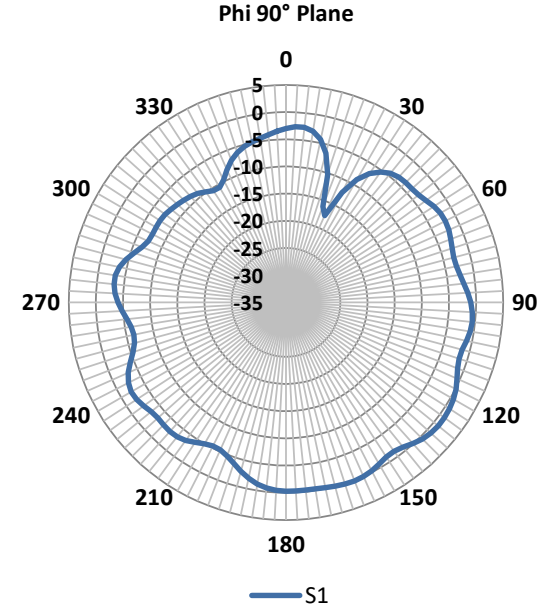
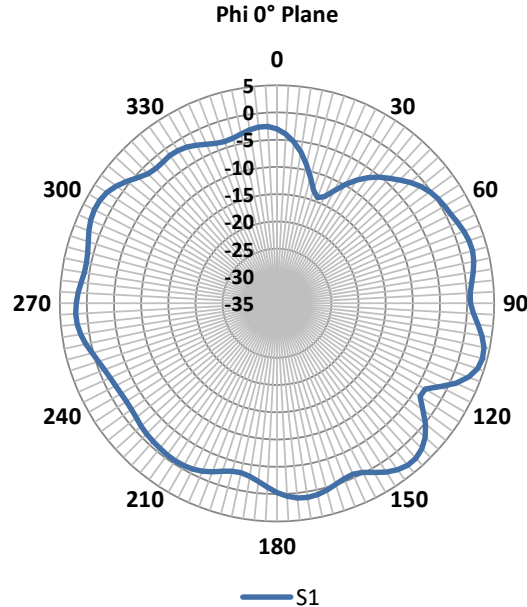
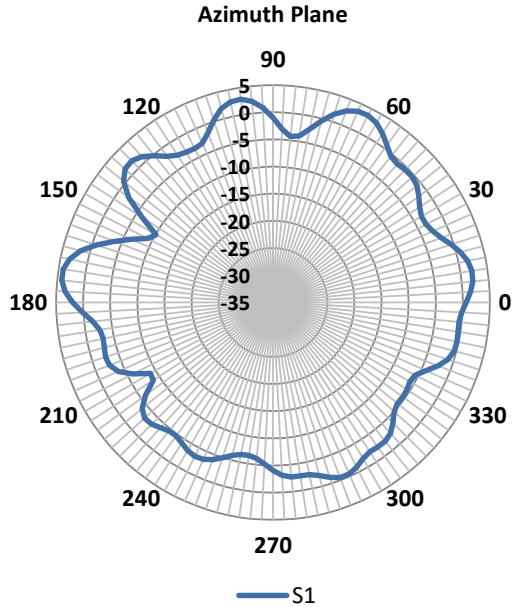
Radiation Pattern at 5700 MHz



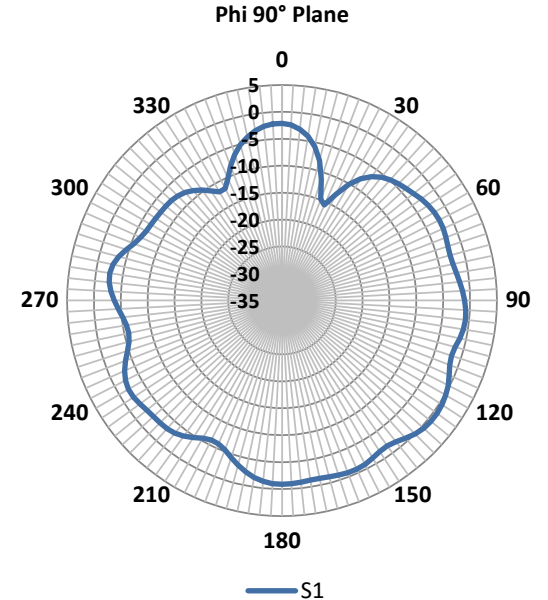
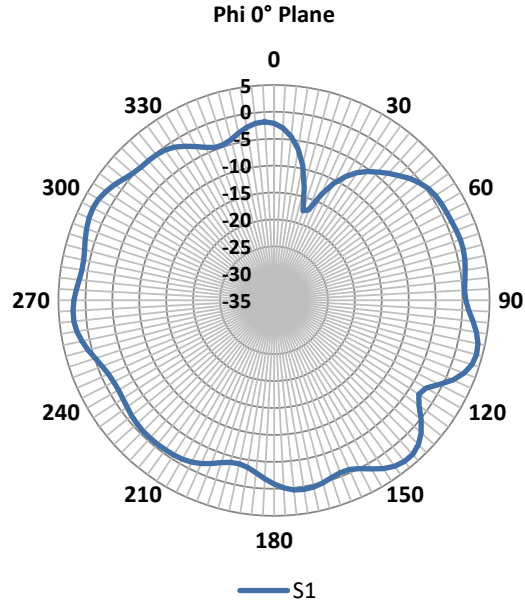
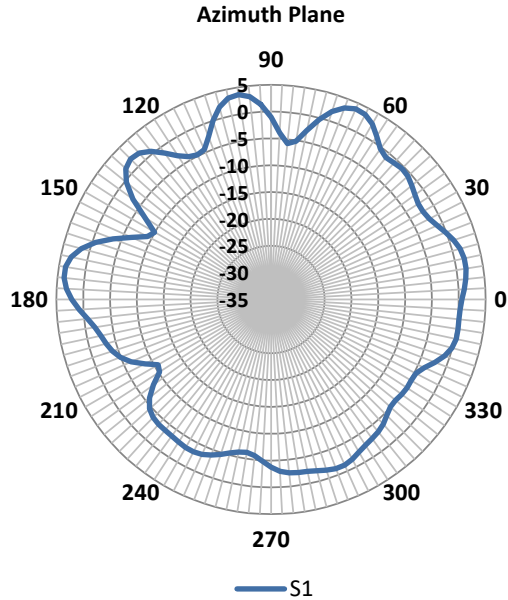
Radiation Pattern at 5750 MHz



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

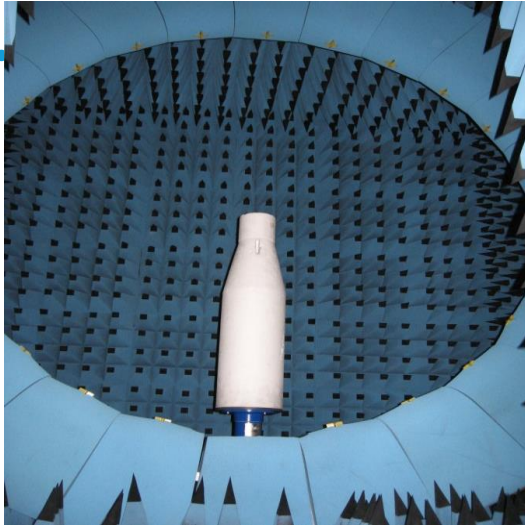


VSWR Test Manner



- 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 15° 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

Shielding effectiveness, plane wave 800 MHz – 6 GHz

Pyramid absorber reflectivity

4.0 x 4.0 x 4.0 m

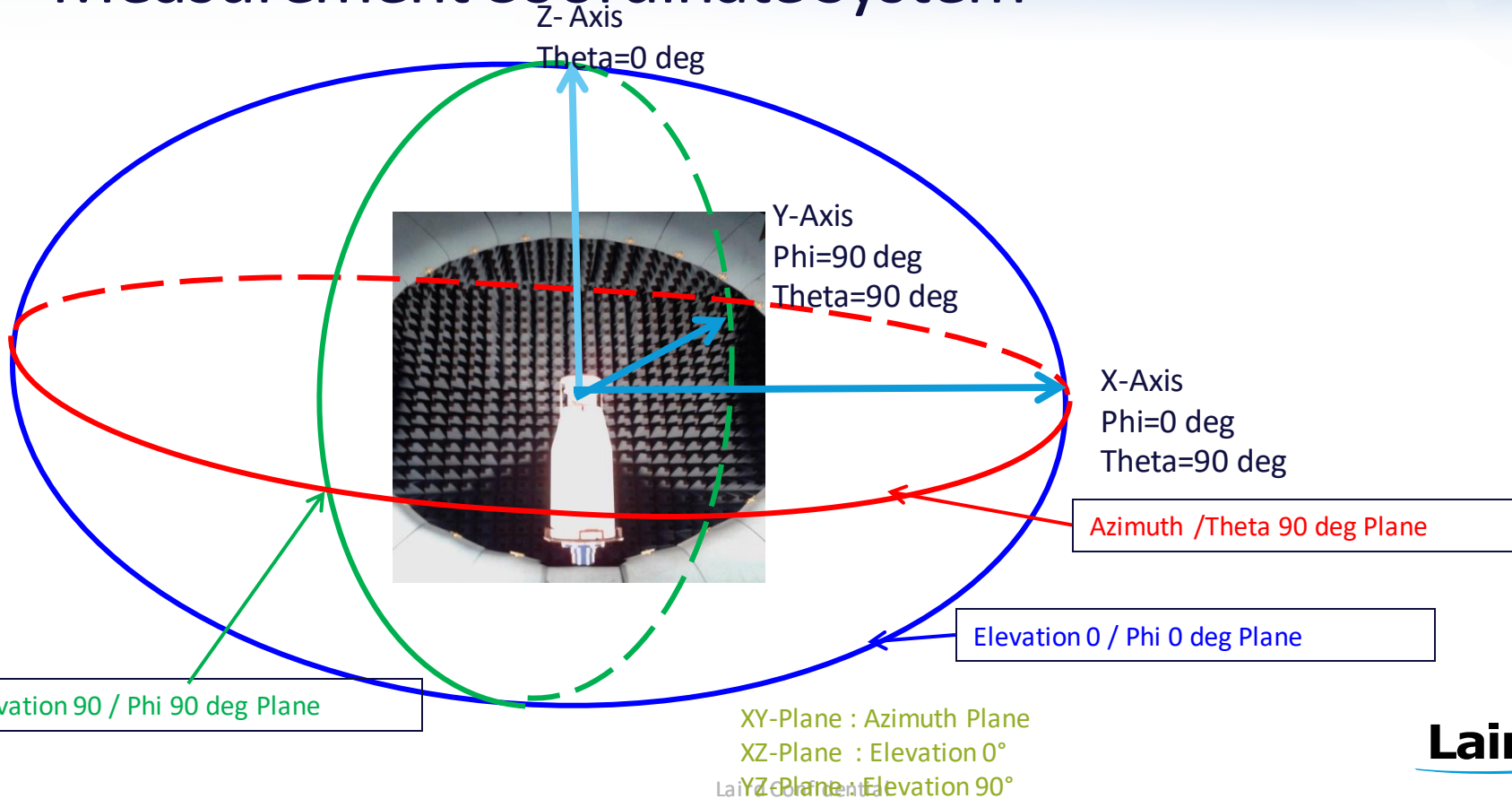
100 dB

-30 dB @ 800 MHz



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

Measurement Coordinate System





Smart Technology. Delivered.