



SmartAnt

SAA05-050760 V1.0

Measurement Result

By Alvin

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SmartAnt

Photograph of Ant.

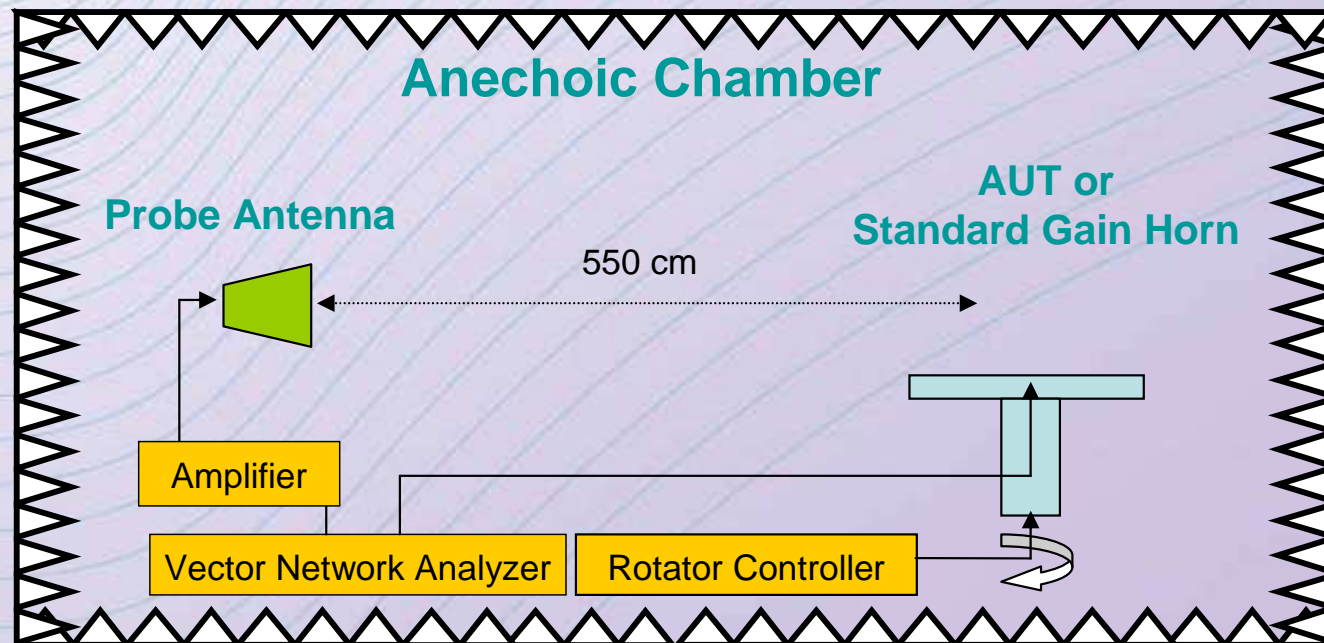


Antenna Electrical Specification

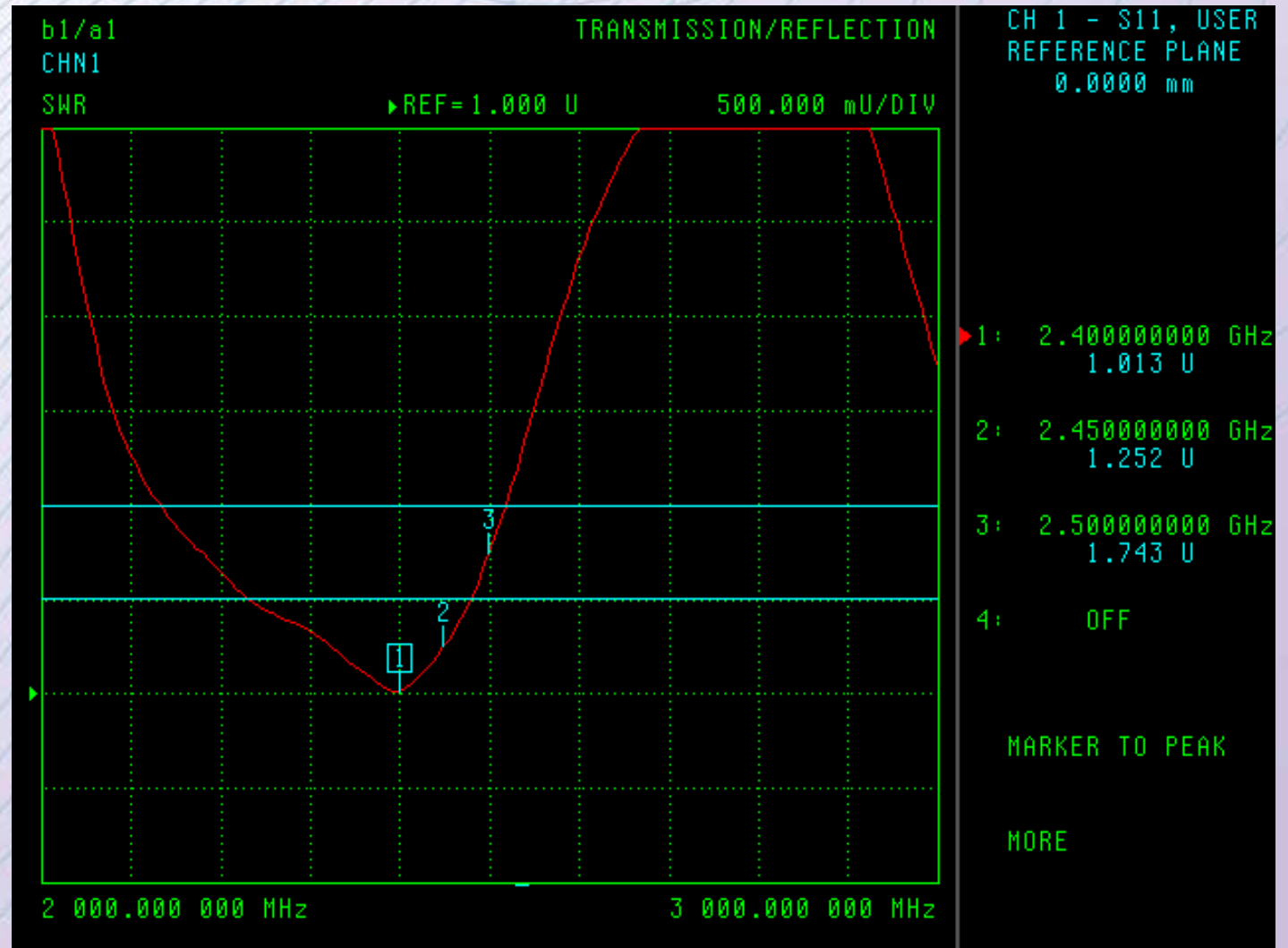
Frequency range	2400 MHz – 2500 MHz
Peak Gain	14 dBi
VSWR	2.0 : 1 Max.
HPBW / Horizontal	30 °
HPBW / Vertical	30 °
Polarization	Linear, Vertical
Side lobes	ETSI EN 301 525 V1.1.1 Class TS1
Cross polarization	ETSI EN 301 525 V1.1.1 Class TS2
Power handing	10 W (cw)
Input impedance	50 Ω
Cable	RG-316, 15 cm
Connector	N/A

Gain and Pattern Test Setup

Vector Network analyzer	HP 8722D 30kHz ~ 40 GHz
Standard gain horn	EMCO Model 3160-3 1.70 GHz ~ 2.60 GHz EMCO Model 3160-4 2.60 GHz ~ 3.95 GHz EMCO Model 3160-5 3.95 GHz ~ 5.85 GHz
Emitter Antenna	EMCO Model 3115 Double Ridged Guide Antenna 1GHz ~18 GHz
Anechoic Chamber	ANTCOM NFH003 Hybrid Near/Far-field System
Height between ground & AUT	1.9 meter
Distance between probe & AUT	5.5 meter

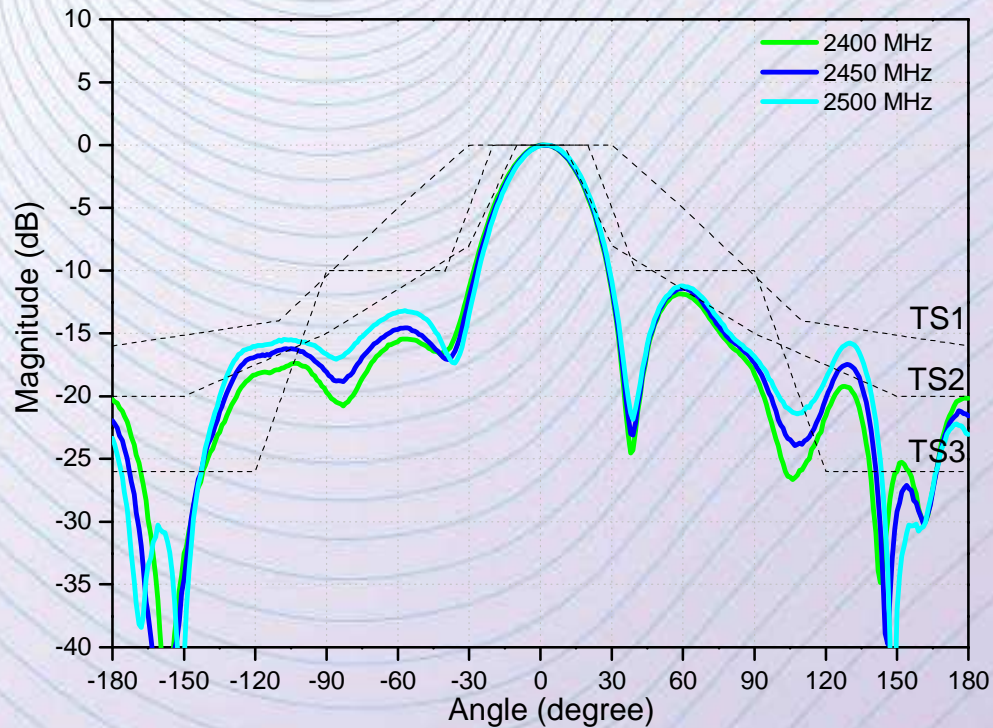


Frequency (MHz)	VSWR
2400	1.013
2450	1.252
2500	1.743

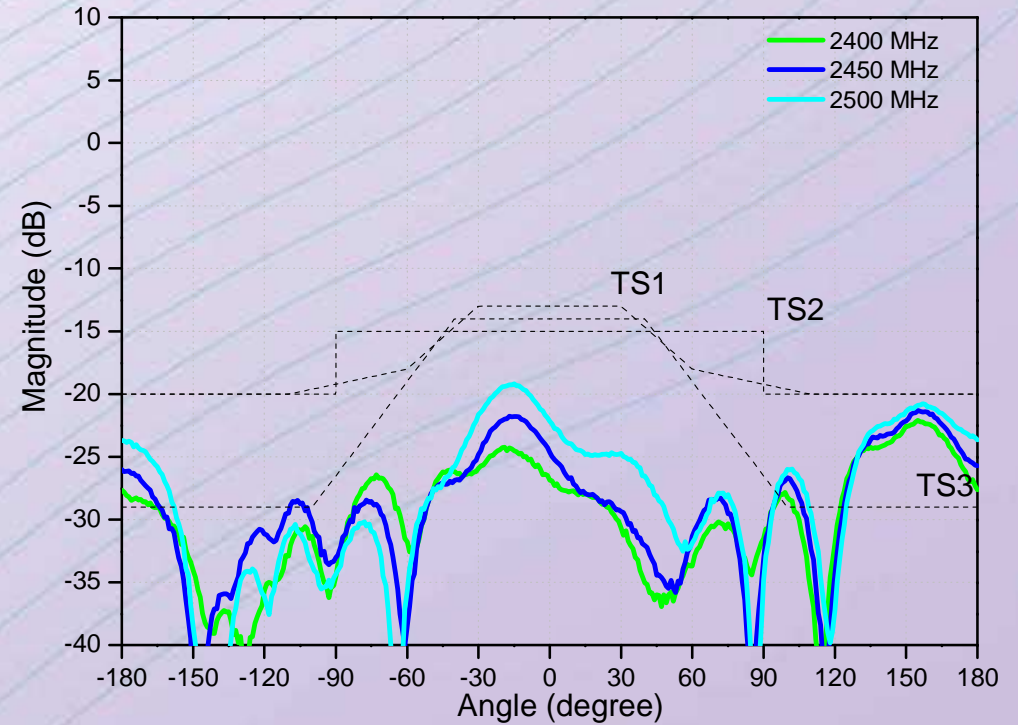


H-Plane Patterns

H-plane Co-polarization Pattern

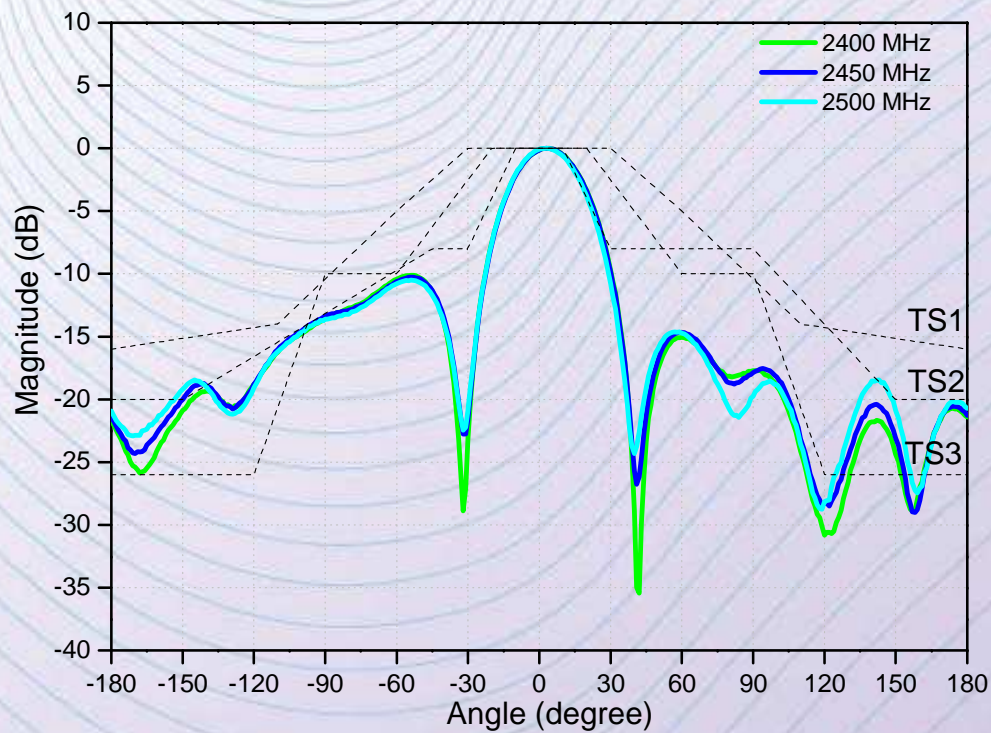


H-plane Cross-polarization Pattern

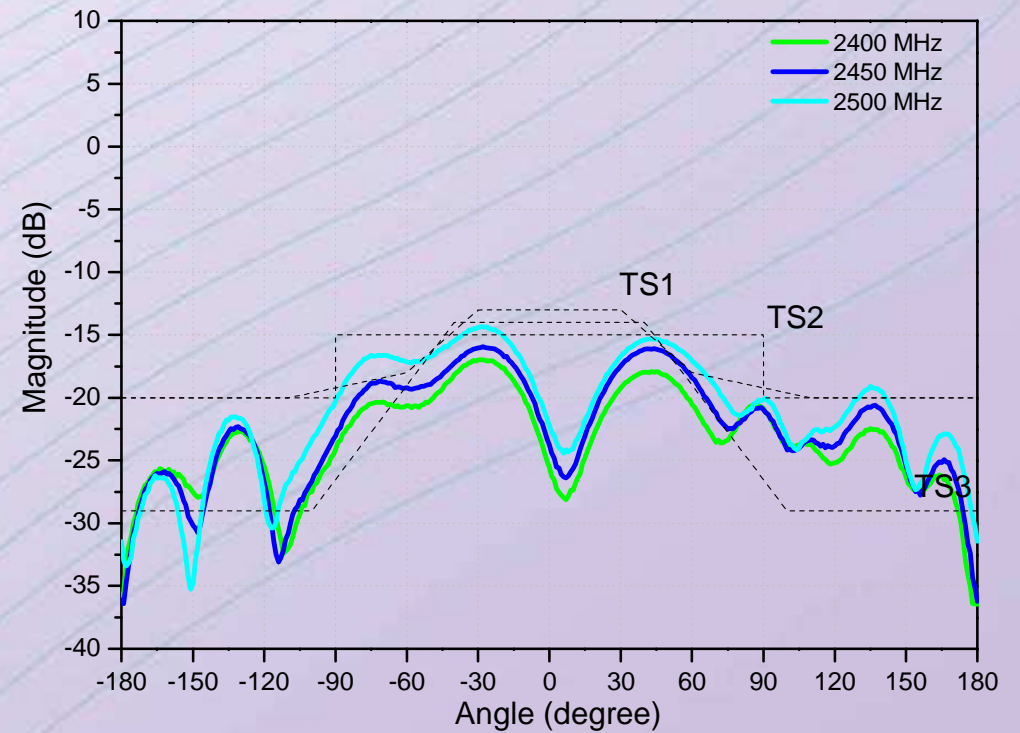


V-Plane Patterns

V-plane Co-polarization Pattern



V-plane Cross-polarization Pattern



Summary

Frequency (GHz)	2.30	2.35	2.40	2.45	2.50	2.55	2.60	2.65	2.70
VSWR			1.01	1.25	1.74				
H-Plane Peak Gain (dBi)	13.2	13.3	13.8	12.8	12	11.2	10.1	9.6	7.6
V-Plane Peak Gain (dBi)	13.2	13.5	13.3	12.9	12	11.2	9.8	9.2	7.7
H-Plane Aver. Gain (dBi)	3.40	3.52	3.38	3.08	2.39	1.77	0.83	0.49	-1.23
V-Plane Aver. Gain (dBi)	3.68	3.90	3.57	3.17	2.23	1.36	0.03	-0.51	-2.13
H-Plane HPBW (degree)	32.8	32.7	32.6	32.3	32.2	32.2	32.0	31.8	30.8
V-Plane HPBW (degree)	32.6	31.9	31.3	30.9	30.4	30.4	29.4	28.3	28.0