



Antenna Specification

Rev. 01

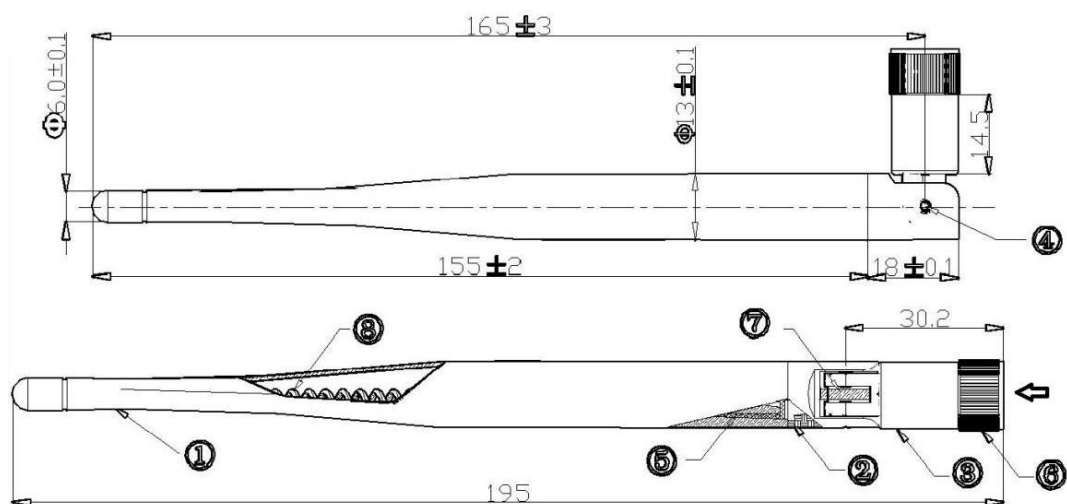
PRODUT NAME: 2.4GHz and 5.8GHz Whip Antenna with RP-SMAConnector

PRODUT NUMBER: BDE-ANT-2458-01

1. PRODUCT TECHNICAL SPECIFICATION

Electrical Specifications	
Frequency Range (MHz)	2400-2500 and 5150-5850
Bandwidth (MHz)	100/1000
Input Impedance (Ω)	50
Peak Gain (dBi)	6@2.4G,7@5.8G
Polarization Type	Vertical
Power Capacity (W)	50
Mechanical Specifications	
Antenna Length (mm)	195
Radiator	Copper
Connect Type	Reverse Polarity SMA
Operating Temp ($^{\circ}\text{C}$)	-40 ~ 85
Storage Temperature ($^{\circ}\text{C}$)	-20 ~ 40
Weight (g)	3

2. MECHANICAL DRAWING



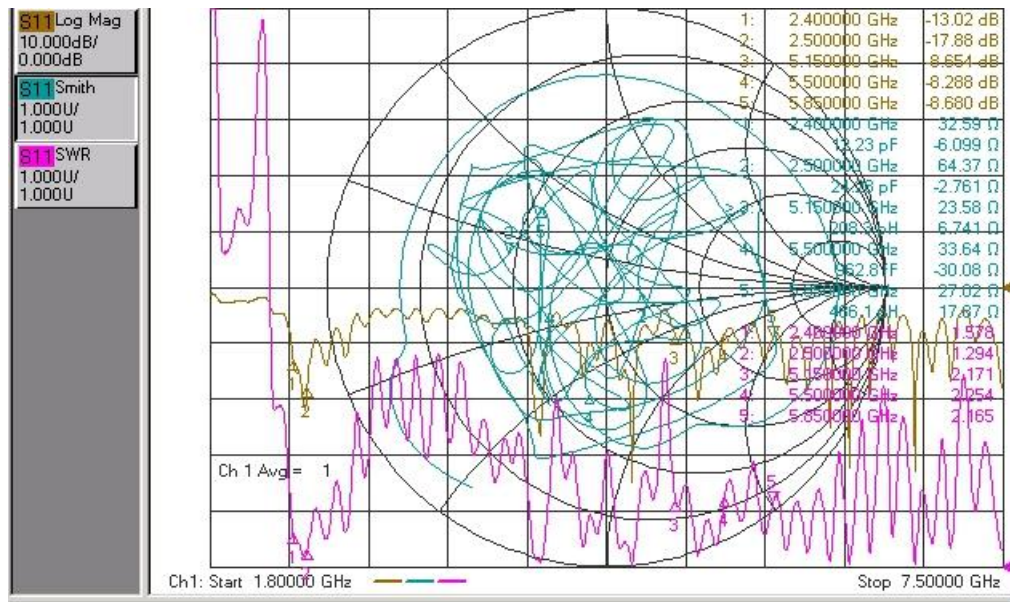
ITEM	NAME	SPECIFICATION
①	Rubber	TPE
②	Lower Whip	PC
③	Upper Whip	PBT
④	Rivet	PCM
⑤	Radiator	Ø6.8 x 23.5 mm
⑥	Connector	SMA-J
⑦	Cable	RG178
⑧	Spring	6.5T x 120 mm

3. TEST RESULTS

3.1. VSWR

2.4G and 5G

Frequency(MHz)	VSWR
2400	1.5
2500	1.2
5150	2.1
5550	2.2
5850	2.1



3.2. GAIN AND EFFICIENCY

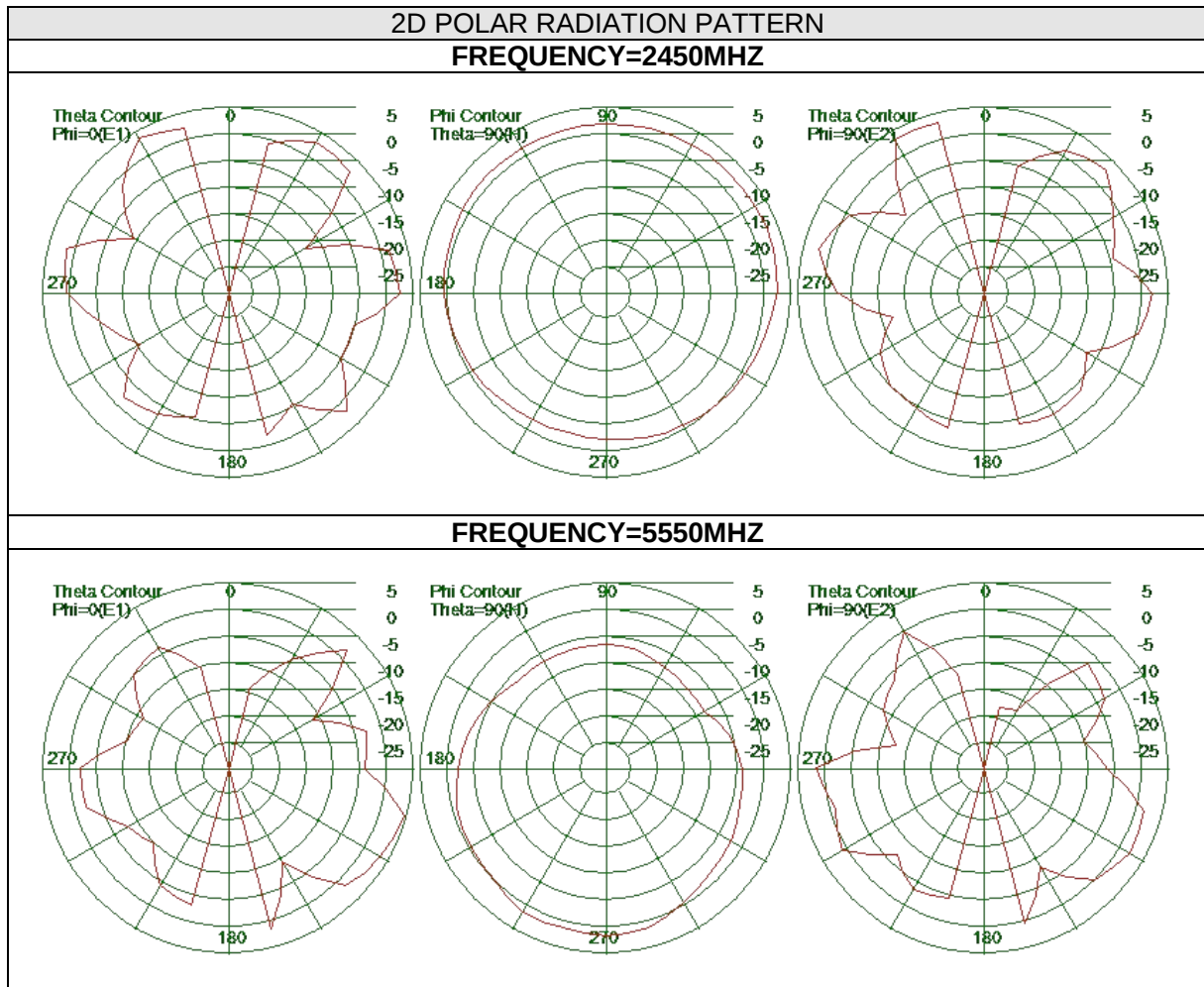
2.4G

Frequency(MHz)	Efficiency(dB)	Efficiency(%)	Gain(dBi)
2400	-13.02	50.12	2.66
2410	-13.82	55.70	4.35
2420	-14.55	56.32	4.88
2430	-16.24	55.33	5.23
2440	-14.22	54.32	5.01
2450	-13.05	52.62	3.44
2460	-17.64	55.76	3.59
2470	-13.20	50.36	4.35
2480	-15.61	49.85	3.56
2490	-16.55	50.67	3.54
2500	-17.88	55.99	6.00

5G

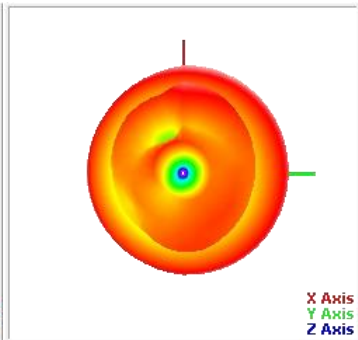
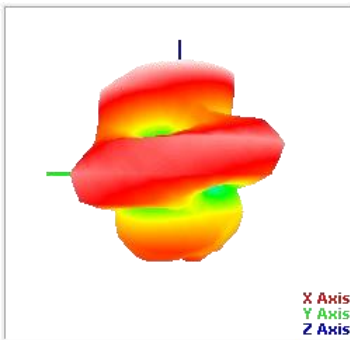
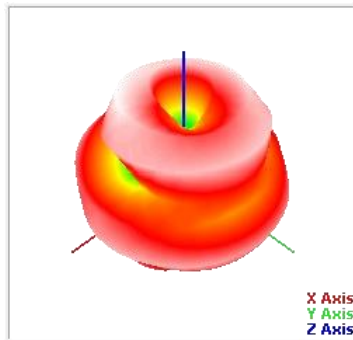
Frequency(MHz)	Efficiency(dB)	Efficiency(%)	Gain(dBi)
5150	-8.65	32.62	5.48
5180	-8.61	36.88	5.66
5200	-7.26	30.62	5.84
5300	-5.66	32.36	4.65
5350	-8.62	48.66	5.42
5470	-7.68	30.62	6.08
5450	-4.62	42.52	5.98
5500	-5.86	41.14	5.04
5580	-8.62	39.52	6.06
5600	-8.43	38.46	5.03
5680	-7.65	34.26	5.66
5700	-6.50	37.54	6.08
5785	-9.63	34.22	6.47
5825	-7.88	30.95	7.00
5850	-8.68	38.55	4.66

3.3. RADIATION PATTERN

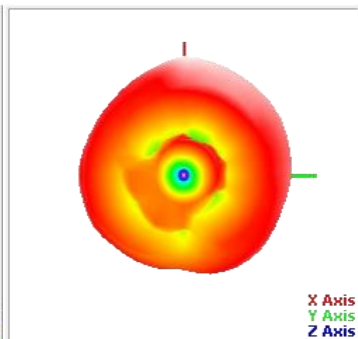
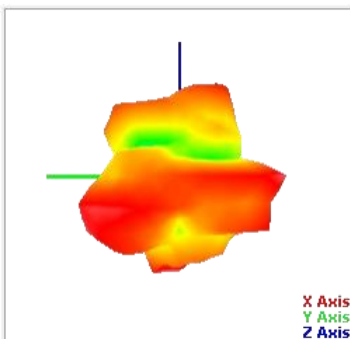
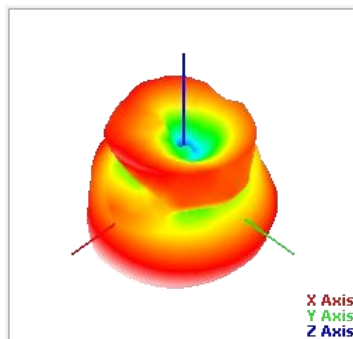


3D RADIATION PATTERN

FREQUENCY=2450MHZ



FREQUENCY=5550MHZ



APPENDIX A: PHOTOGRAPHS OF TEST SETUP

