CUSTOMER : CastleNet

PART NO. :LTA-6025-2G4S3-B1(Original matching)

AUTHORIZED BY: Marco Hsu

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美磊科技股份有限公司

MAG. LAYERS SCIENTIFIC-TECHNICS CO., LTD

HEAD OFFICE / HSINCHU PLANT

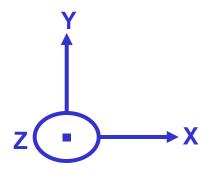
No 18, Tz-Chiang Road, Hsin-Chu Industrial Park, Hsin-Chu, Taiwan

TEL: +886-3-5972488 FAX: +886-3-5972477

http://www.maglayers.com.tw

E-mail: info@maglayers.com.tw

1.Experimental





- Measurement Item :
 - a. Return loss
 - b. Radiation pattern
- Return Loss :
 - a. Instrument: vector network analyzer Agilent N5230A
 - b. Calibration method: SOLT
- 3D Radiation Pattern :
 - a. Instrument: Satimo StarLab

2.Antenna Matching Circuit Diagram

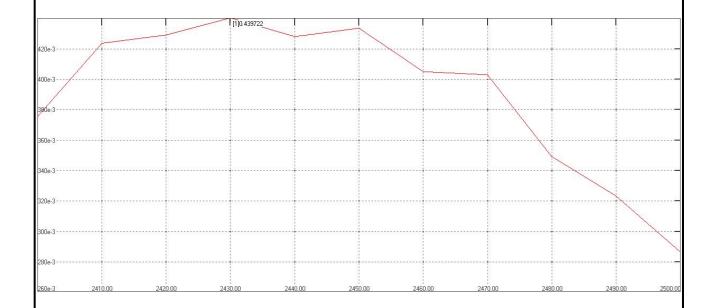




Document Code: Version: 1 Page - 4 3. Return loss ▶ 📶 S33 Log Mag 10.00dB/ Ref 0.000dB [F1] Trigger 50.00 1 2.4000000 GHz -12.522 dB 2 2.4500000 GHz -15.031 dB >3 2.4800000 GHz -7.8892 dB Hold 40.00 Single 30.00 Continuous 20.00 Hold All Channels 10.00 Continuous Disp Channels 0.000 Trigger Source -10.00 Trigger Event -20.00 Restart -30.00 Trigger -40.00 Return -50.00 1 Start 2 GHz IFBW 70 kHz Stop 3 GHz Cor VSWR<2 Band Width=80MHz



4. Antenna Efficiency



Maximum Efficiency at 2.4G~2.48G:43.9%

Minimum Efficiency at 2.4G~2.48G:34.8%

Document Code:	Version: 1	Page - 6
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5. Measurement Results

	Б	Y-Z Plane					
Antenna Frequency (GHz)	Horizont	al (dBi)	Vertica	ıl (dBi)	Total(dBi)	
	(GHZ)	Max Value	Average	Max Value	Average	Max Value	Average
	2.4	-3.02	-6.71	-11.17	-14.96	-2.64	-6.10
LTA-6025-2G4S3-B1	2.45	-2.59	-6.23	-10.64	-13.96	-2.16	-5.56
	2.48	-3.60	-7.27	-11.48	-14.79	-3.13	-6.56
	Eraguanar			X-Z P	lane		
Antenna	Frequency (GHz)	Horizontal (dBi) Vertical (dBi)		(dBi) Total(dBi)		dBi)	
	(GHZ)	Max Value	Average	Max Value	Average	Max Value	Average
	2.4	-10.02	-14.69	-1.83	-2.94	-1.67	-2.66
LTA-6025-2G4S3-B1	2.45	-9.33	-13.55	-1.08	-2.29	-0.48	-1.97
	248	-10.54	-14.36	-1.78	-3.23	-1.25	-2.91
	X-Y Plane						
Antenna	Frequency (GHz)	Horizontal (dBi) Vertical (dBi)		ıl (dBi)	Total(dBi)	
	(GHZ)	Max Value	Average	Max Value	Average	Max Value	Average
	2.4	-2.39	-5.69	-14.15	-17.54	-2.20	-5.41
LTA-6025-2G4S3-B1	2.45	-1.56	-5.16	-13.39	-16.79	-1.41	-4.87
	2.48	-2.33	-6.02	-13.48	-17.88	-2.20	-5.74



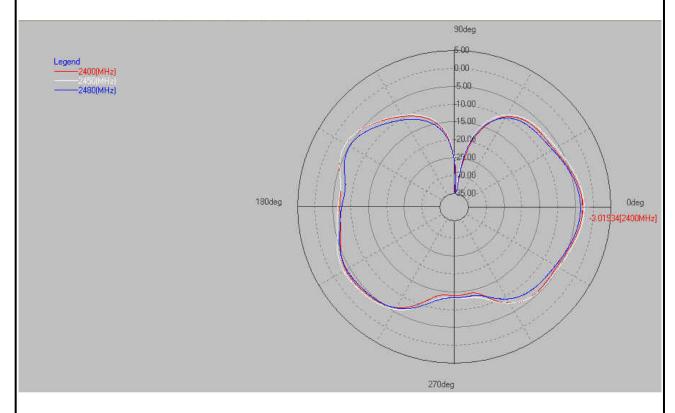
Document Code: Version: 1 Page - 7

6.0Radiation Patterns (Original)

Y-Z Plane

90 YZ-plane scanning direction

Horizontal Polarization



Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-3.02	-6.71
2.45	-2.59	-6.23
2.48	-3.60	-7.27

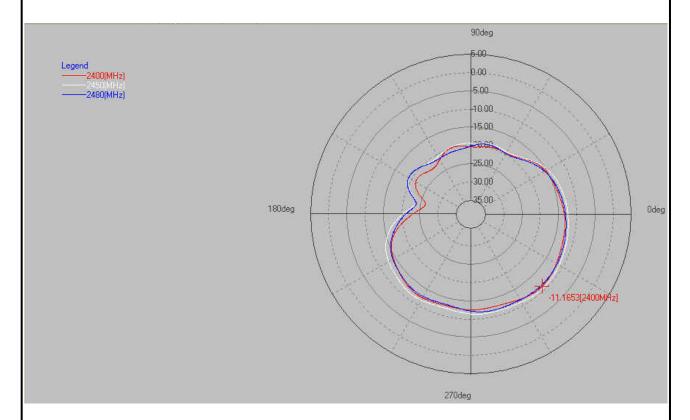


YZ-plane scanning direction

Y-Z Plane

Version: 1 Page - 8

Vertical Polarization



Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-11.17	-14.96
2.45	-10.64	-13.96
2.48	-11.48	-14.79



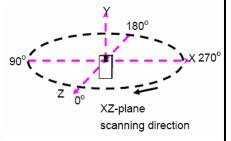
Page - 9 **Document Code:** Version: 1 Y-Z Plane YZ-plane scanning direction **TOTAL** 90deg Legend _____2400(MHz) -2480(MHz) 10.00 15.00 25.00 30.00 35.00 180deg Odeg -2.6399[2400MHz]

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-2.64	-6.10
2.45	-2.16	-5.56
2.48	-3.13	-6.56

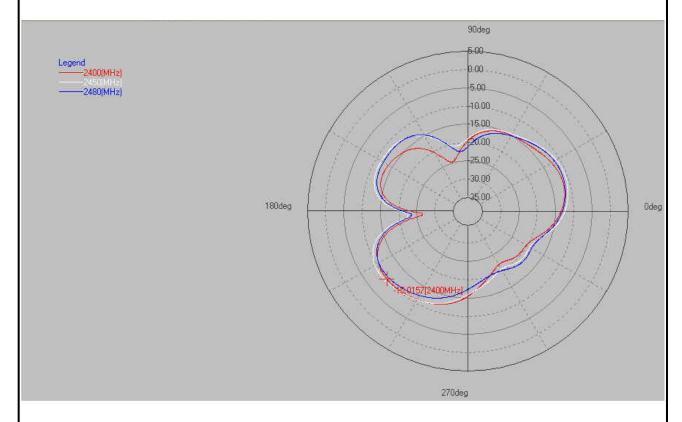


Document Code: Version: 1 Page - 10

X-Z Plane



Horizontal Polarization

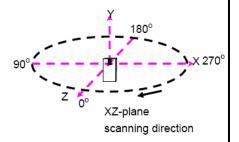


Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-10.02	-14.69
2.45	-9.33	-13.55
2.48	-10.54	-14.36

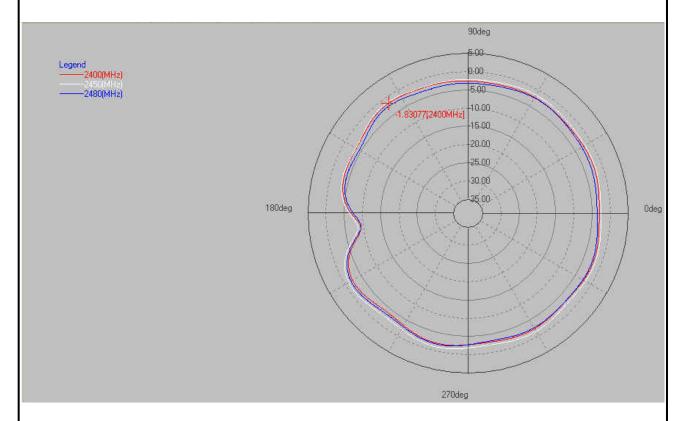


Document Code: Version: 1 Page - 11

X-Z Plane



Vertical Polarization



Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-1.83	-2.94
2.45	-1.08	-2.29
2.48	-1.78	-3.23



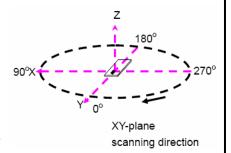
Page - 12 **Document Code:** Version: 1 180° X-Z Plane XZ-plane **TOTAL** scanning direction 90deg 5.00 Legend 2400(MHz) 0.00 5.00 -2480(MHz) 10.00 15.00 20.00 25.00 30.00 35.00 180deg Odeg 67307[2400MHz]

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-1.67	-2.66
2.45	-0.48	-1.97
2.48	-1.25	-2.91

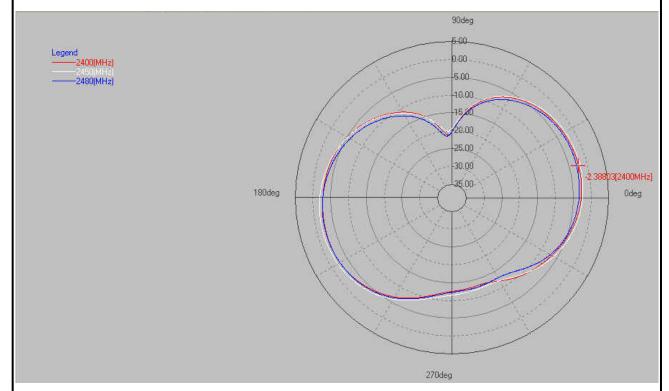


Document Code: Version: 1 Page - 13

X-Y Plane



Horizontal Polarization



Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-2.39	-5.69
2.45	-1.56	-5.16
2.48	-2.33	-6.02



Page - 14 **Document Code:** Version: 1 X-Y Plane **Vertical Polarization** XY-plane scanning direction 90deg 5.00 Legend 2400(MHz) 0.00 5.00 -2480(MHz) 10.00 15.00 20.00 25.00 500 \$.00 180deg Odeg

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-14.15	-17.54
2.45	-13.39	-16.79
2.48	-13.48	-17.88

-14.1456[2400MHz]

270deg



Page - 15 **Document Code:** Version: 1 X-Y Plane **TOTAL** XY-plane scanning direction 90deg 5.00 Legend 2400(MHz) 0.00 5.00 -2480(MHz) 10.00 20.00 25.00 30.00 35.00 180deg Odeg 19684[2400MHz] 270deg

Frequency(GHz)	Max Value(dBi)	Average(dBi)
2.4	-2.20	-5.41
2.45	-1.41	-4.87
2.48	-2.20	-5.74