品名：**RFFPA494517EM5B901**

History List

版本 REV.	修訂者 EDITOR	修訂頁次 PAGE	修訂內容 ITEMS OF CHANGE	申請日期 DATE	生效日期 VALID DATE	ECN 編號 ECN NO.
P0	李欣樺	ALL	New Release	2024/11/25	According to the date of PLM Release	N/A
P1	劉采璇	ALL	更正頻段	2025/02/18	According to the date of PLM Release	N/A

品名：RFFPA494517EM5B901

1. Explanation of part number：

RF	FPA	4945	17	E	M	5	B	9	01
Type Code	**Product Code**	**PCB Dimension (Unit: mm)**	**Cable Length (unit: cm)**	**Connector Brand**	**Type of Connector**	**Application**	**Project status**	**Wire Diameter**	**Project**
RF Device	FPC Antenna	Per 2 digits of length, width e.g.: 2813 Length 28mm, Width 13.1mm	2 digits for cable length e.g.: 12 Length 12.5cm	A: N C:MCX D:IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U:MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T: LTE band W: WCDMA band	B: MP T:During Test X: Pile Run	0:None 1:⌀ 0.81 2:⌀ 1.32 3:⌀ 1.13 4:Low Loss ⌀ 1.13 5:⌀ 0.5 6:RG316 7: ⌀ 1.37 8:RG178 9:Low Loss ⌀ 1.37	01~99 series number

2. Electrical Specification：

Item	Specification
Working Frequency Range	5150~5925 MHz
Return Loss	-10 dB(Max)
Gain(peak)	8.37 dBi
VSWR	2.0(Max)
Impedance	50 Ohm Nominal
Radiation	Omni-directional
Polarization	Linear Vertical
Operation Temperature	－20℃ ～ ＋65℃

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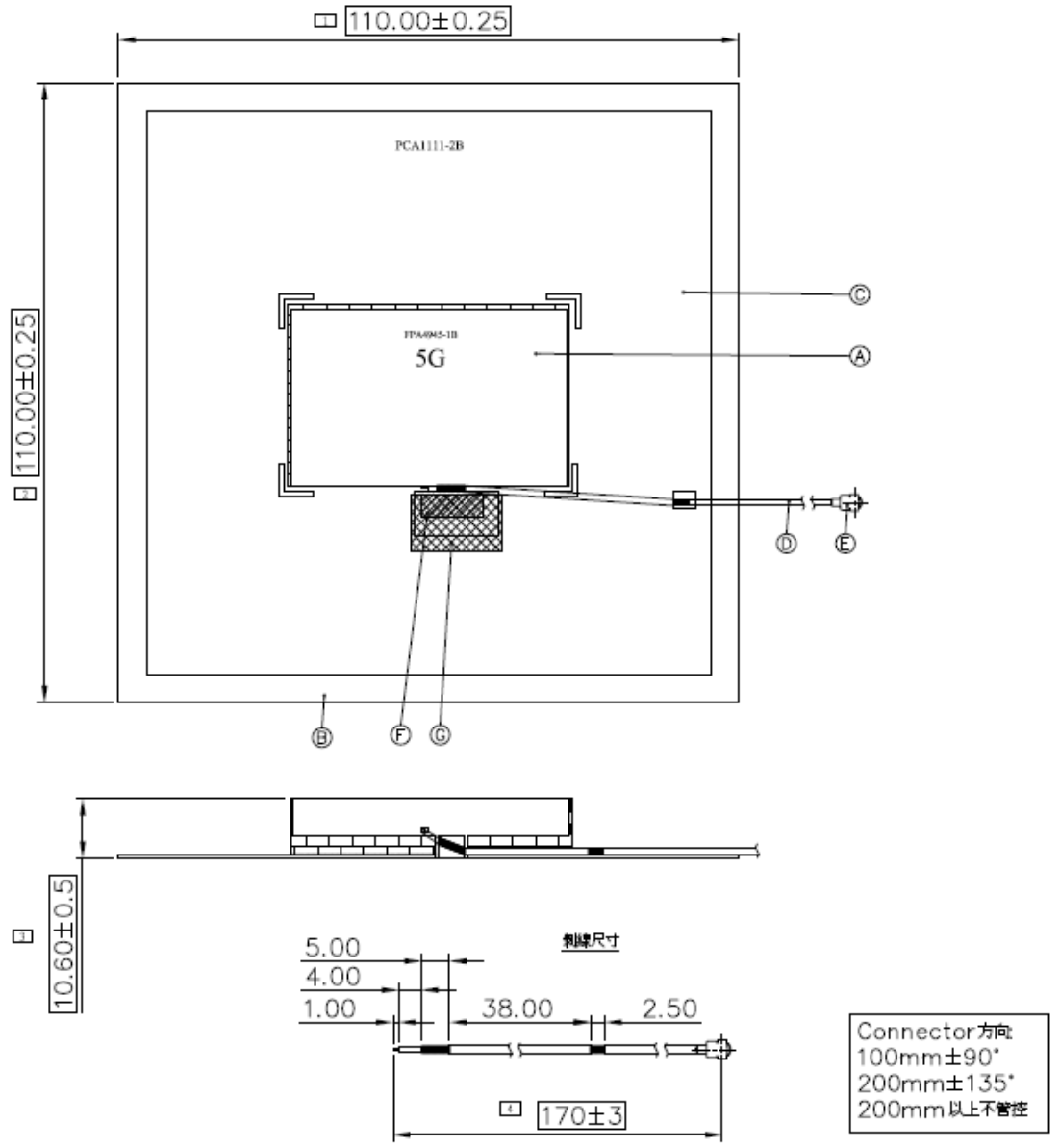
3. Antenna Drawing：

ELECTRICAL
Frequency : 5150~5925MHz

NO	DESCRIPTION		Q'TY	REMARK
A	Body	FPC (0.5oz) (Single Layer) ;Black	1	
B	Body	PCB FR4(Single Layer),T=0.6mm ;Green	1	
C	Sponge	Sponge(EVA)+Double Tape(3M9448):L50xW32xT10mm	1	
D	Cable	Coaxial Cable ø1.37 Low Loss ;Gray	1	
E	Connector	4代IPEX ;Ni/Gold	1	731308000001
F	銅箔(含導電背膠)	L11xW4mm	1	
G	醋酸膠布	L16xW10mm ;Black	1	



※標記□記號者，為重點檢驗尺寸

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DESIGNED BY： 黃瑞郎	APPROVED BY：陳振榮	
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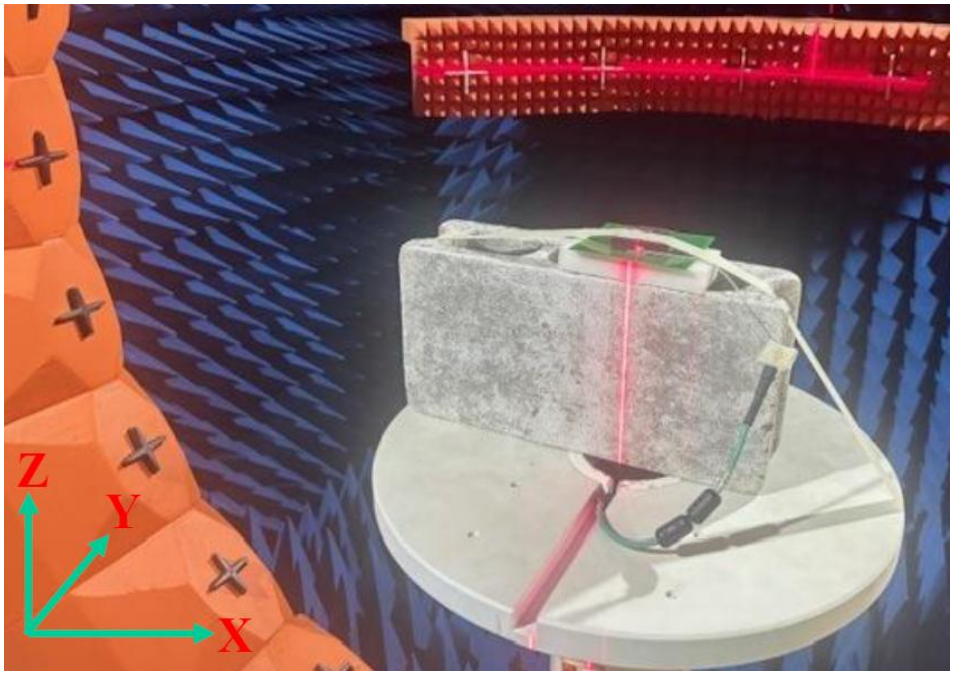
4. Performance Report：

Test Report

■ Experimental Setup



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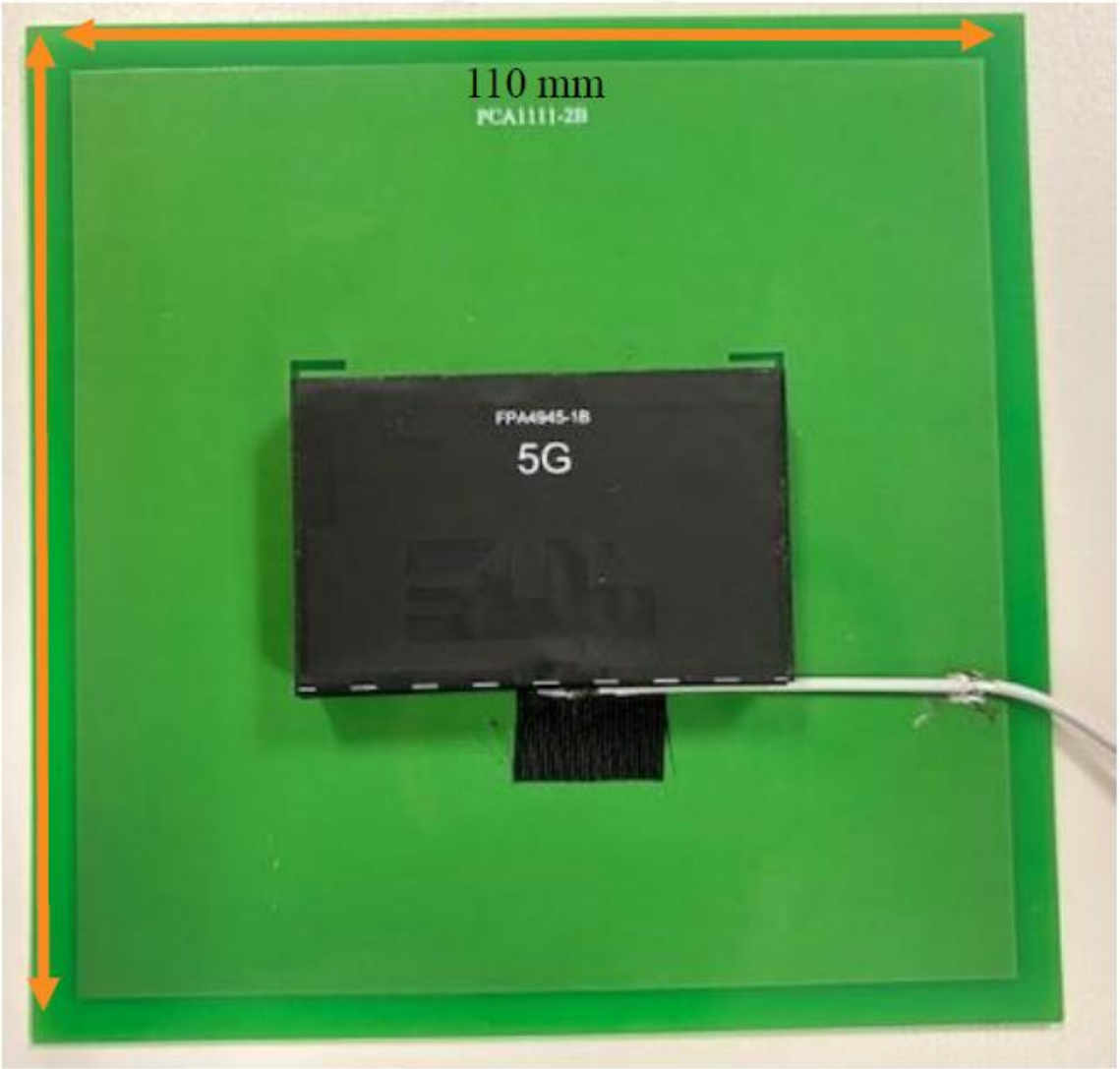
Antenna Solution Detail



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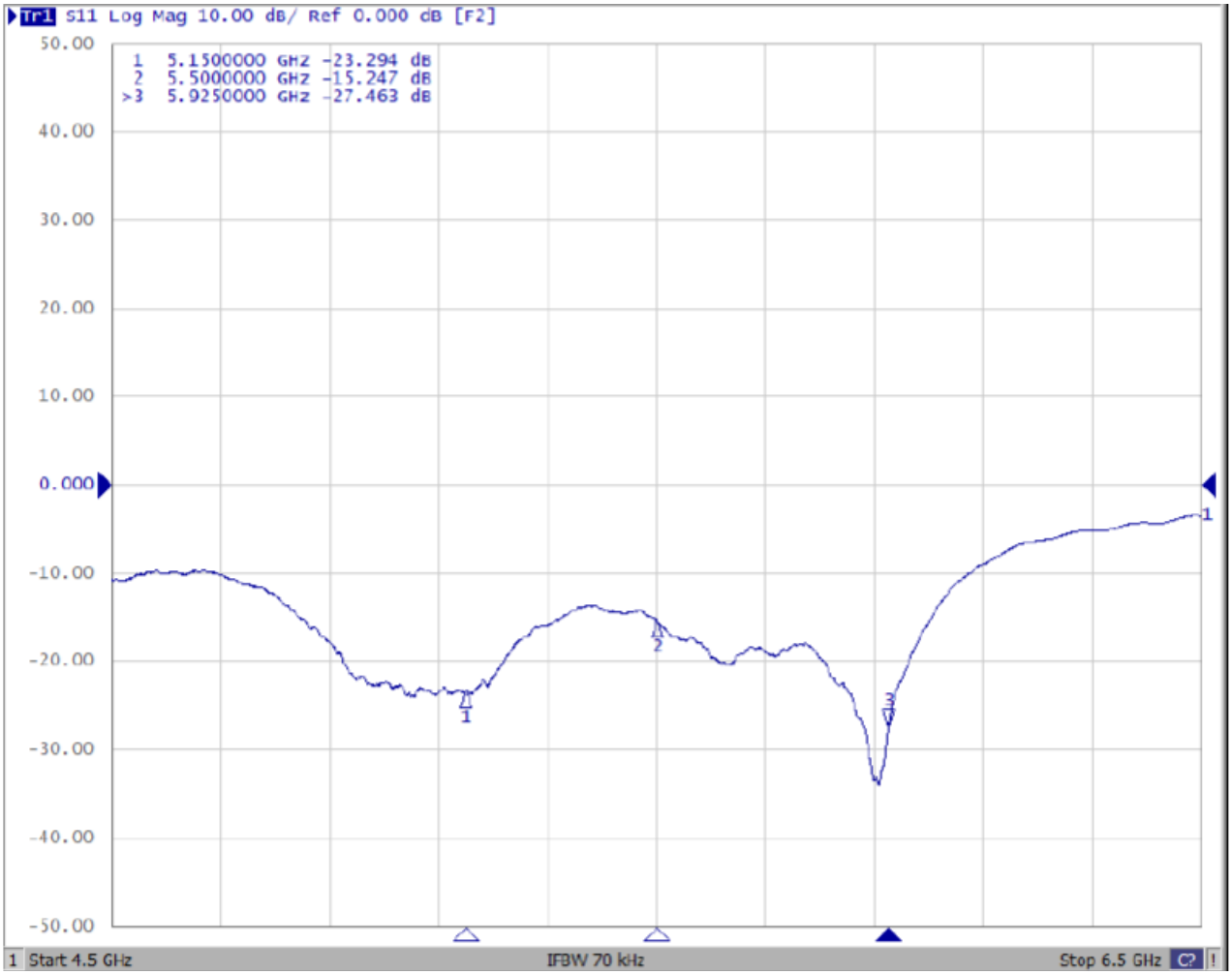
ELECTRICAL CHARACTERISTICS

Return Loss



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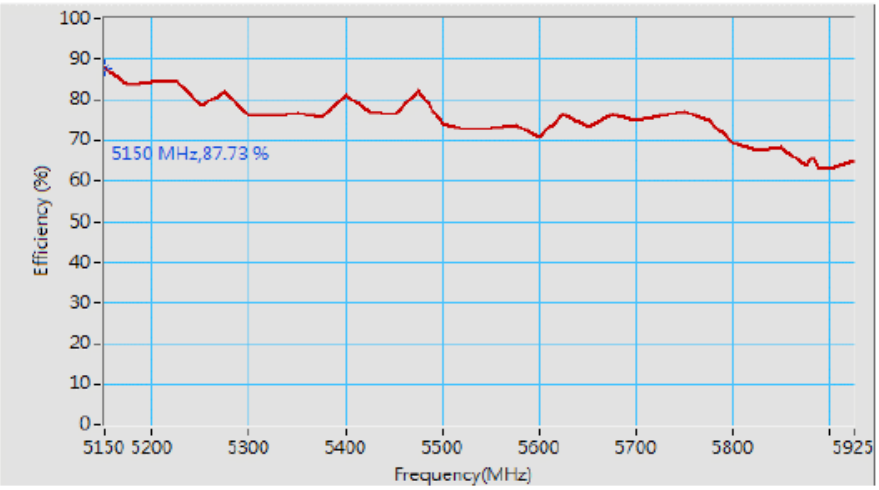
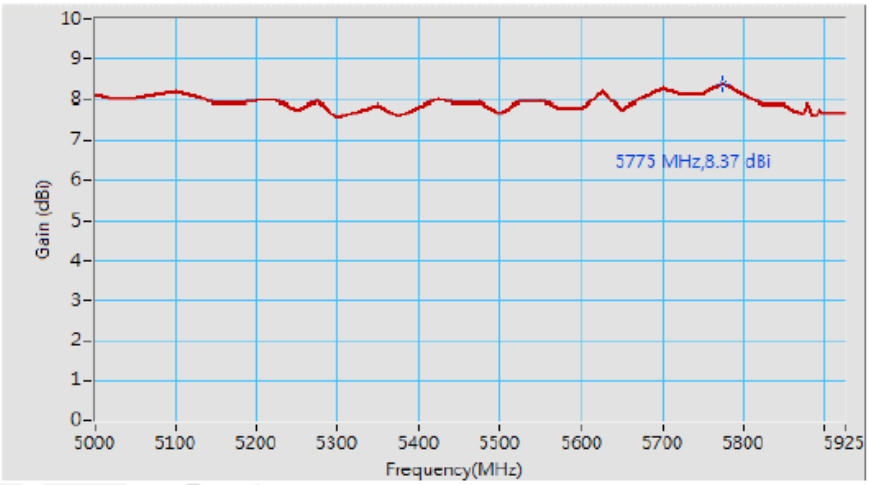
Antenna Efficiency & Peak Gain

5150~5850 MHz



Maximum Efficiency at 5150 MHz : 87.73 %



Maximum Peak Gain at 5775 MHz : 8.37 dBi

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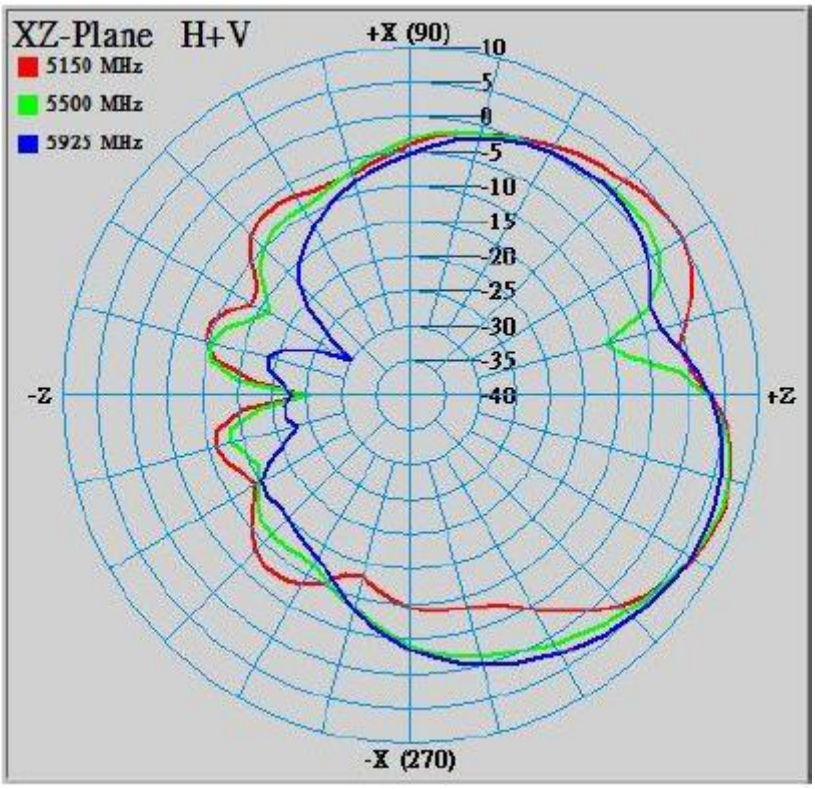
RADIATION PATTERN

5150~5850 MHz

Phi=0.00deg

Gain . dBi



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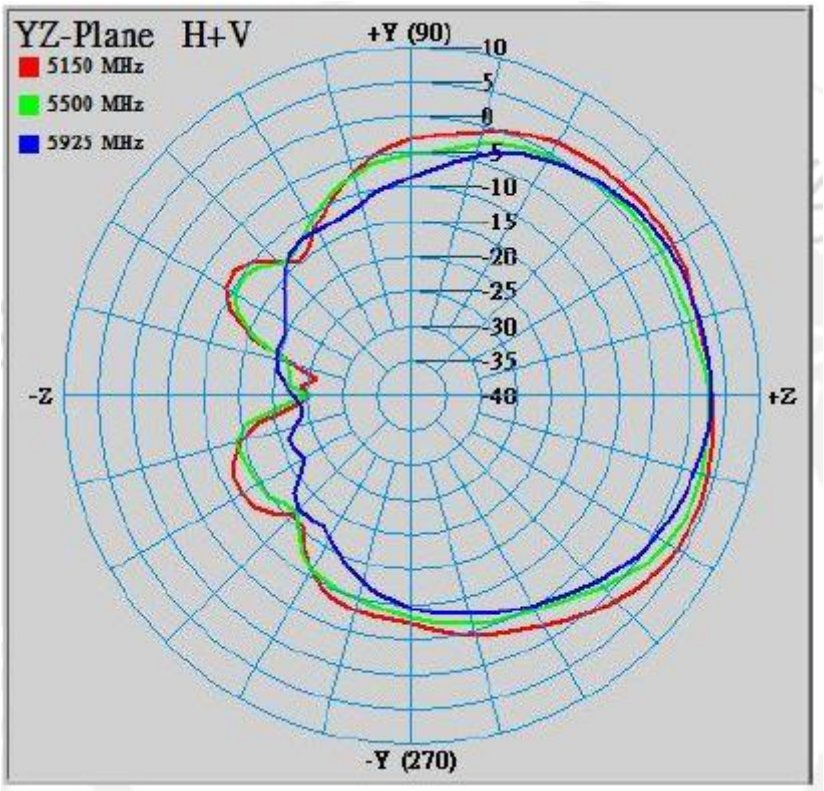
Phi=90.00deg

Gain . dBi



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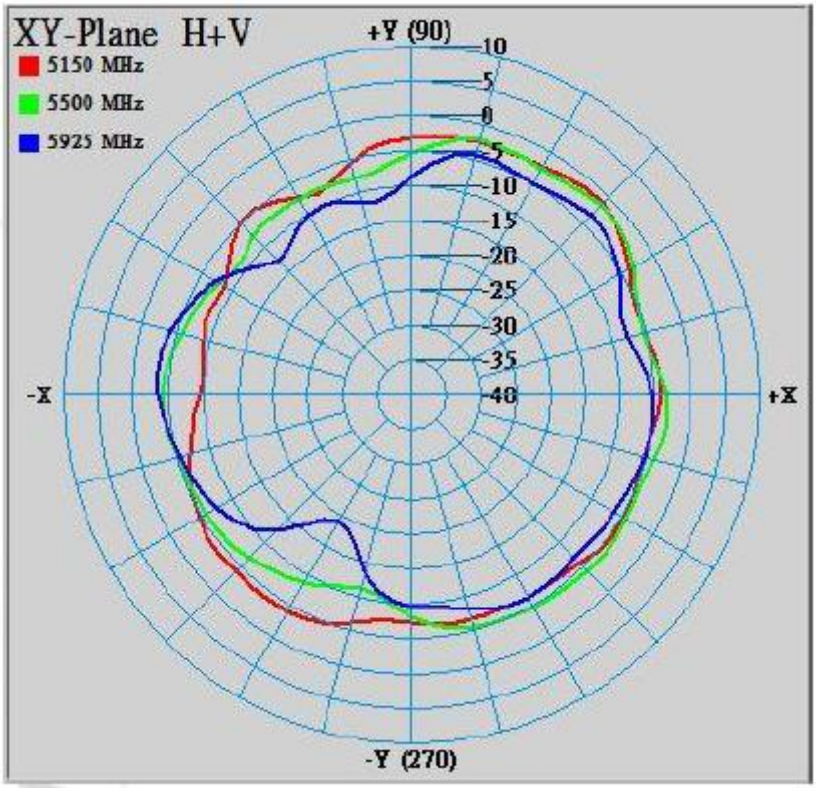
Theta=90.00deg

Gain . dBi



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5150	7.84	0.29	4.34	-0.88	-1.17	-4.93
5500	7.55	-0.21	3.15	-2.48	-1.49	-5.04
5925	6.72	-0.27	3.14	-2.74	-3.32	-6.81

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