

APPROVAL SHEET

Dipole ANTENNA
2.4 ~2.5 GHz Working Frequency
Halogens Free Product
P/N: RFDPA480700SMABX01

Customer : _____
Customer 's Part No. : _____
Approval No. : _____
Issue Date : _____

*Contents in this sheet are subject to change without prior notice.

Version	Date	Description	Author
V01	2019 Oct.	New Release	CXLIU

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4~2.5 GHz (Note-1)
Gain	2.12 dBi@方案一 1.98 dBi@方案二
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω
Operation Temperature	- 20℃ ~ +65℃

*Note 1. Central Frequency should be defined after customers' application approval.

MATERIAL TABLE

Items	Description
Antenna Cover	TPEE(Black)
Connector	R/A SMA PLUG(Gold)
Cable	670-141/50SX E

ORDERING RULE

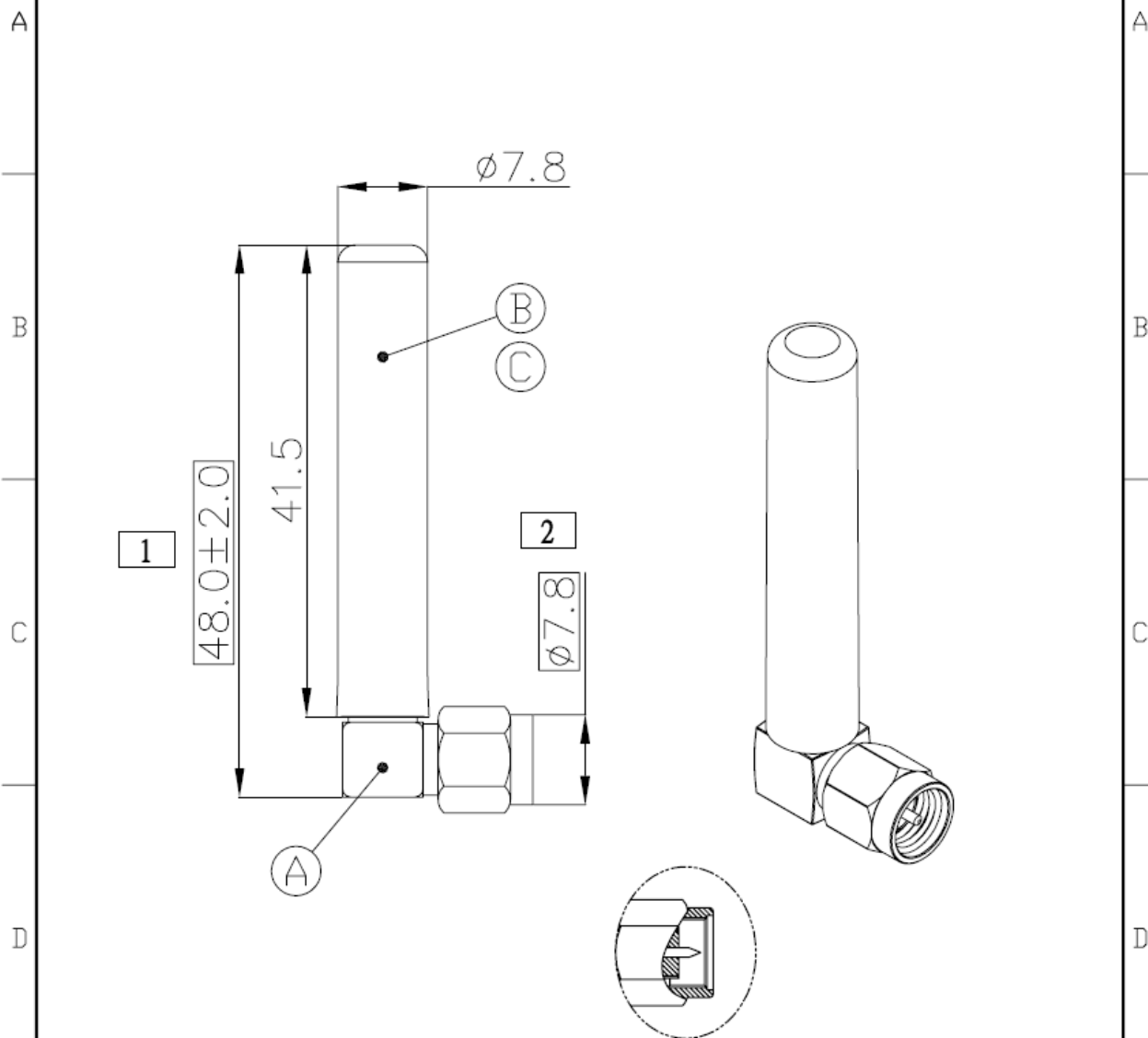
RF	DPA	4807	00	S	M	A	B	X	01
Type Code	Product Code	Dipole Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	DPA: Dipole Antenna	Per 2 digits of length, width e.g.: 4807 Length 48mm, Width Ø7.8mm	2 digits for cable length e.g.:00 None Cable	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: 5 GHz 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:Ø 0.81 3:Ø 1.13 6:RG316 7:Ø 1.37 8:RG178	01~99 series number

DIMENSIONS

ELECTRICAL

Frequency: 2.4~2.5 GHz

No.	DESCRIPTION	MAT'L	Color	Q'TY
A	R/A SMA PLUG	—	Gold	1
B	Antenna Cover	TPEE	Black	1
C	Coaxial Cable 670-141/50SXE	—	—	1



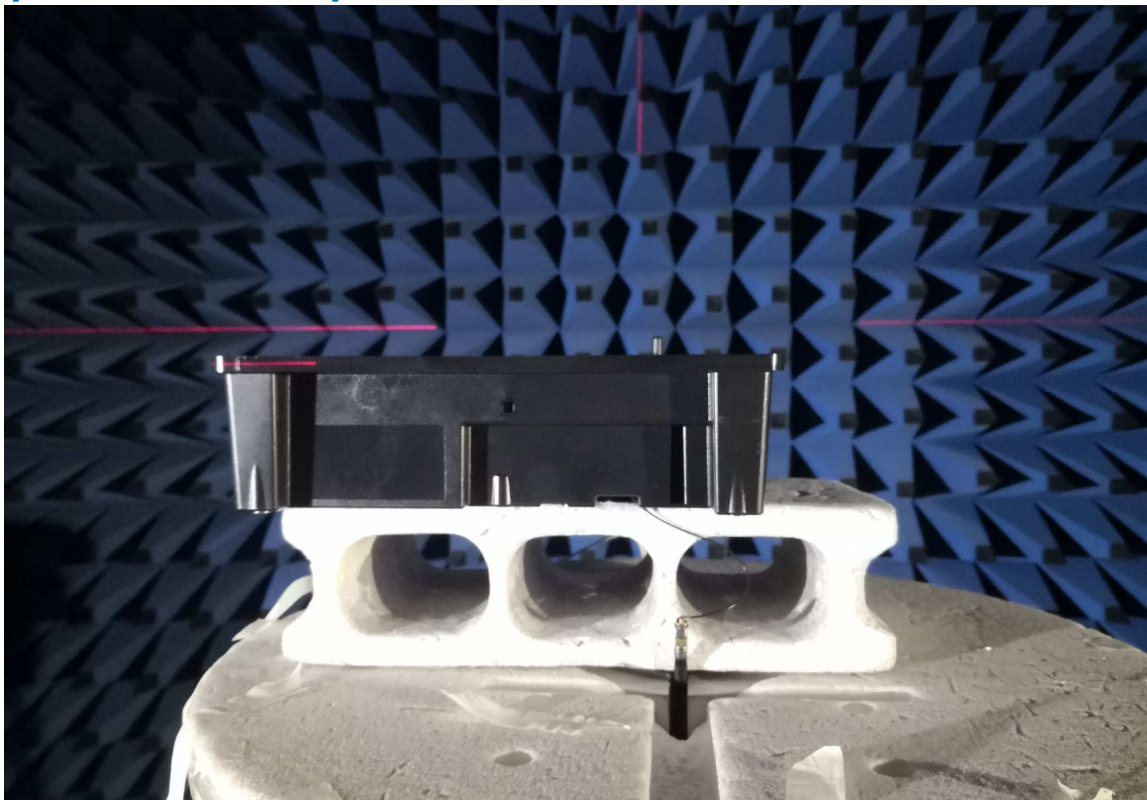
※標記□記號者，為重點檢驗尺寸

		設計DR.	CXLIU	2019.10.21	品名	版本REV.
		核准APP.	Marco		ARTICLE	A
		容許公差 TOLERANCE			RFDPA480700SMABX01	
		6mm.....±0.2			單位 UNIT	比例 SCALE
		6mm~30.....±0.5			mm	****
		30mm~120.....±0.8			張數 SHEET	1
		120mm~315.....±1.2				
		315mm~1000.....±2.0				
		1000mm~2000.....±3.0				

PSA 華新科技股份有限公司
WALSIN TECHNOLOGY CORPORATION

Test Report

Experimental Setup



方案一_天線垂直主板
天線會超過下殼一點
(目前未知主板與機殼相對位置)



方案二_天線傾斜45度
天線不超過下殼



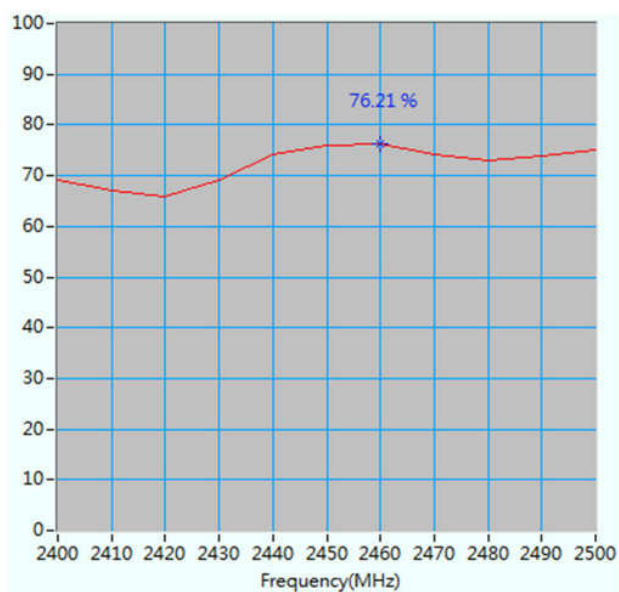
ELECTRICAL CHARACTERISTICS

Return Loss

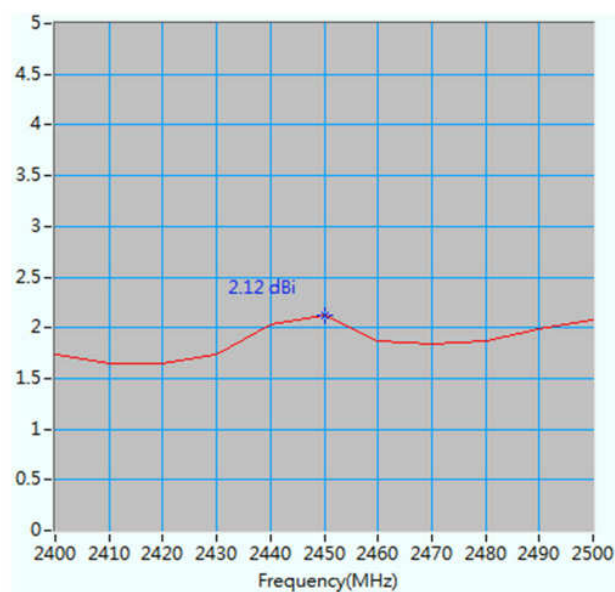


■ ANTENNA EFFICIENCY AND PEAK GAIN

方案一

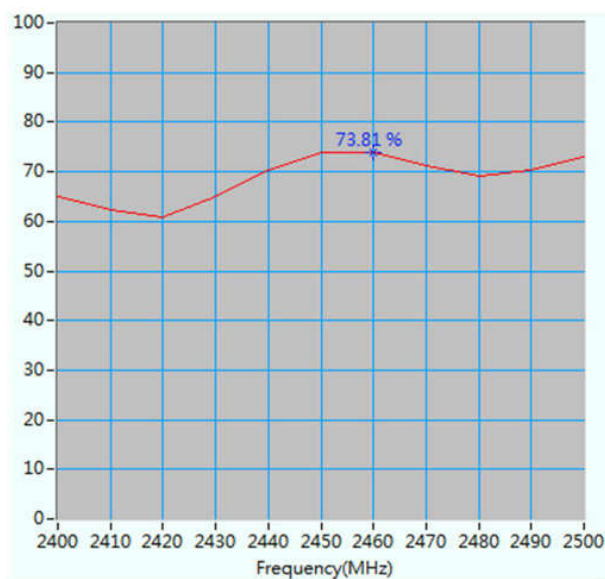


Maximum Efficiency at 2460 MHz : 76.2 %

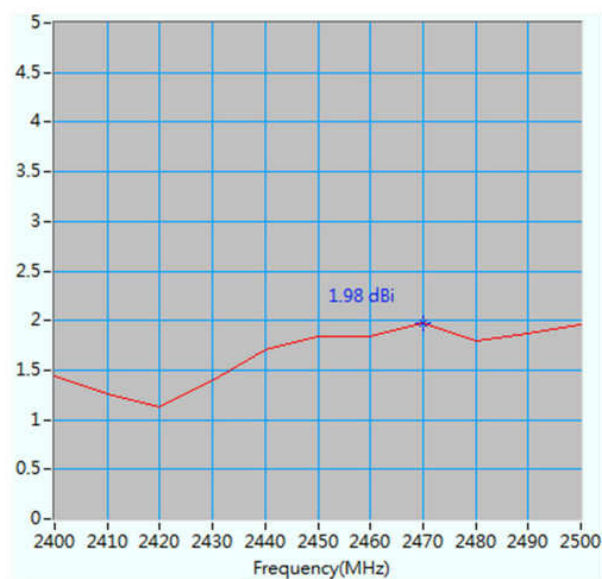


Maximum Peak Gain at 2450 MHz : 2.12 dBi

方案二



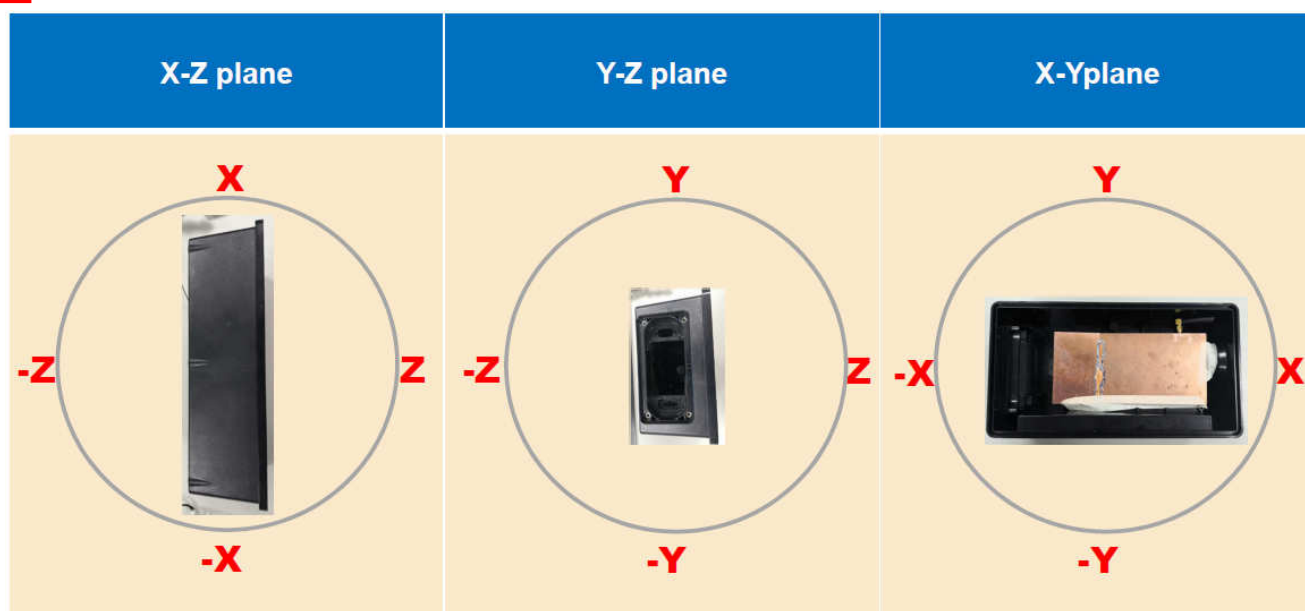
Maximum Efficiency at 2460 MHz : 73.8 %



Maximum Peak Gain at 2470 MHz : 1.98 dBi

	方案一		方案二	
Frequency (GHz)	Efficiency (%)	Peak gain (dBi)	Efficiency (%)	Peak gain (dBi)
2.4	69.0	1.74	65.1	1.44
2.45	76.1	2.12	73.8	1.84
2.5	75.0	2.08	72.9	1.96

■ 3 views of antenna



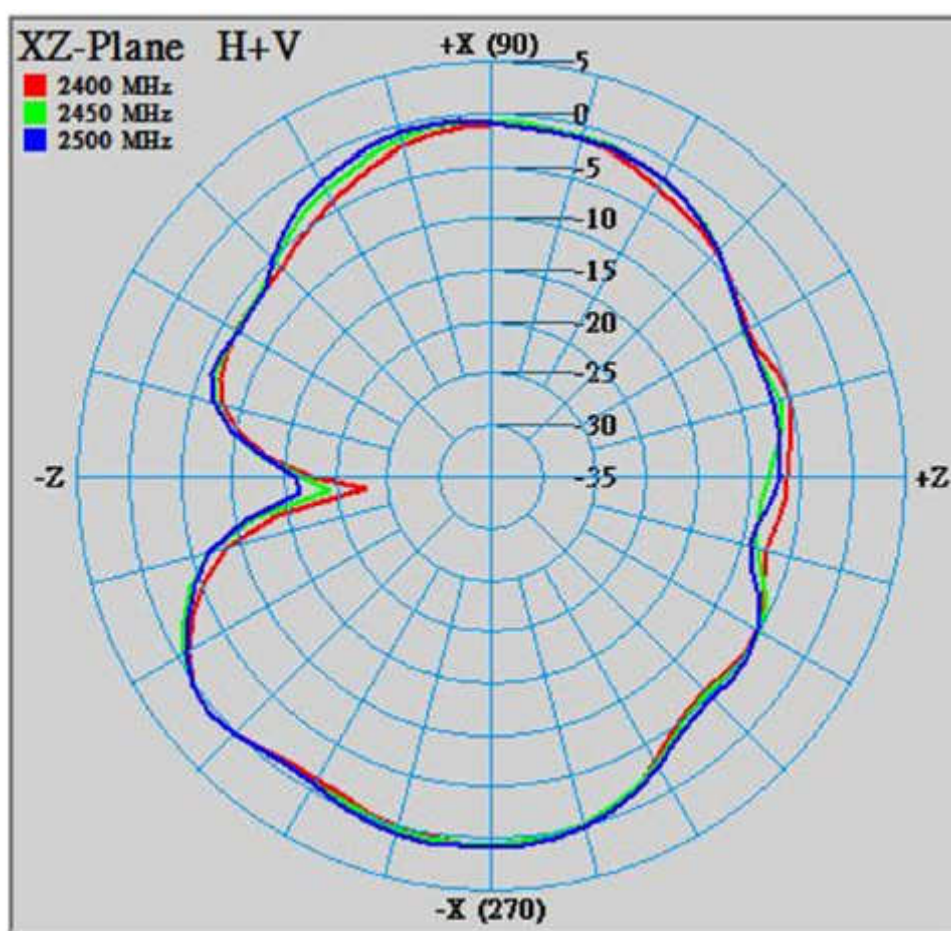
RADIATION PATTERN

方案一

X-Z Plane

Phi=0.00deg

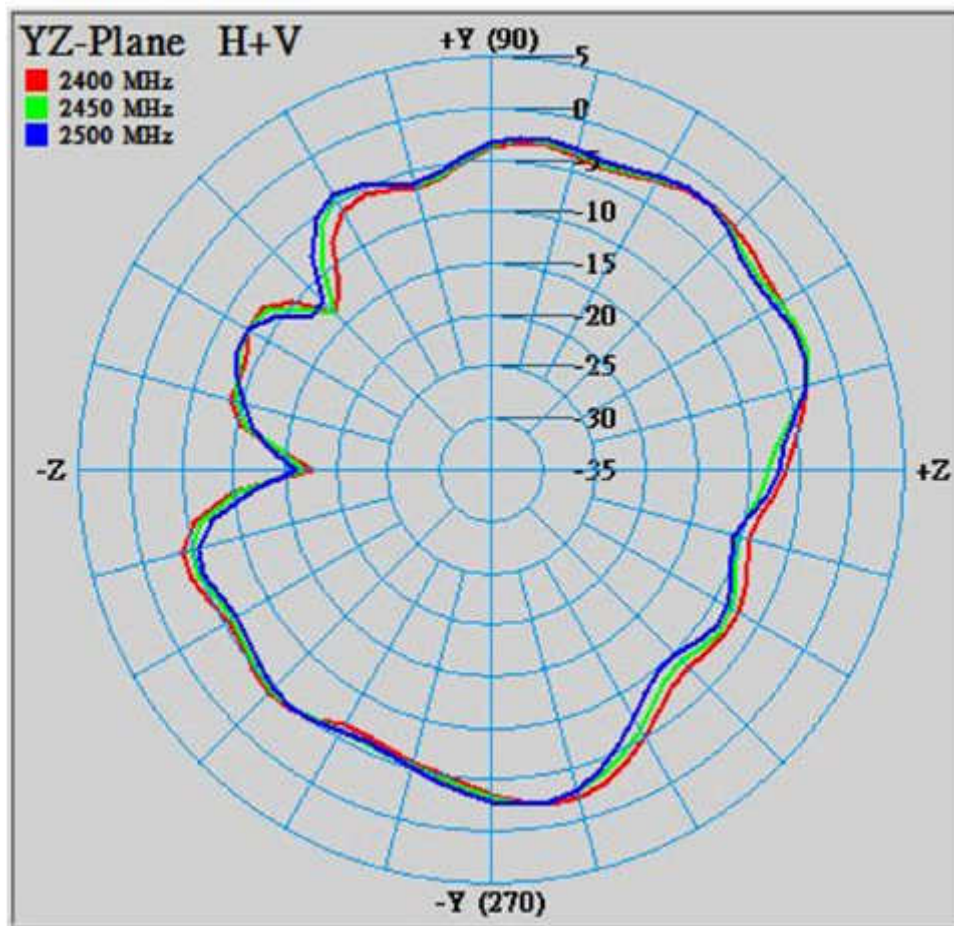
Gain . dB



Y-Z Plane

Phi=90.00deg

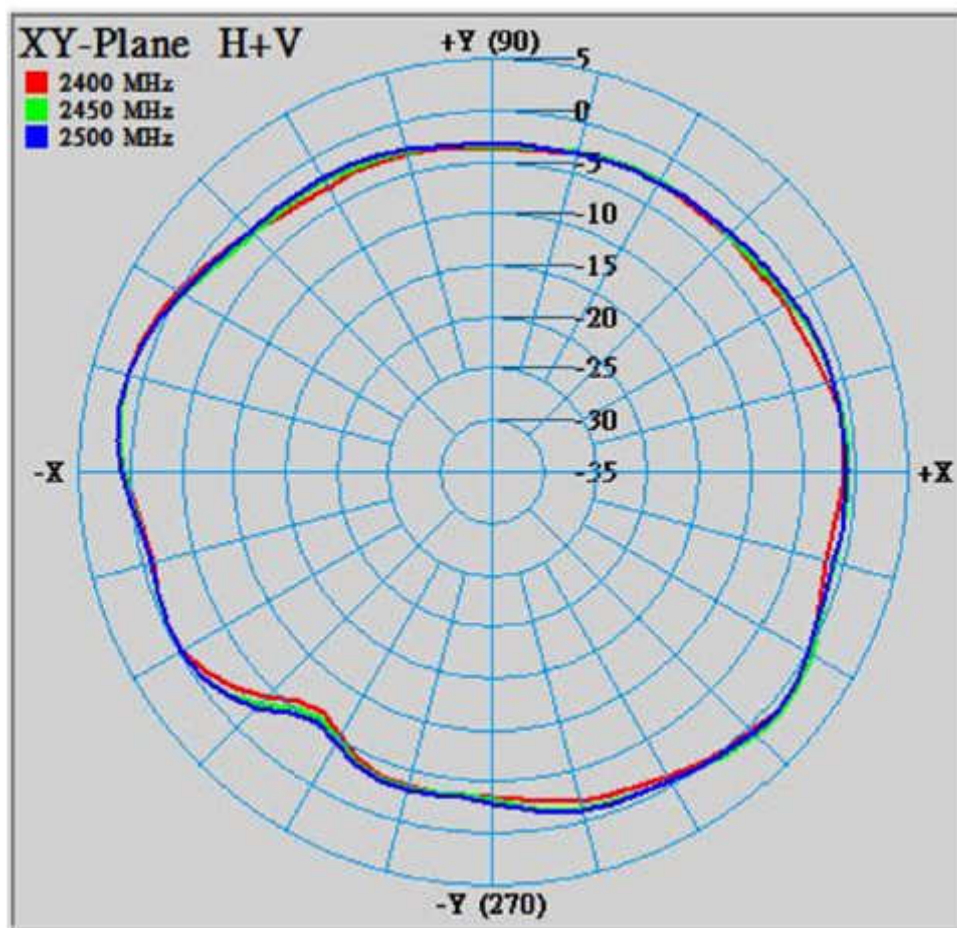
Gain . dB



X-Y Plane

Theta=90.00deg

Gain . dB

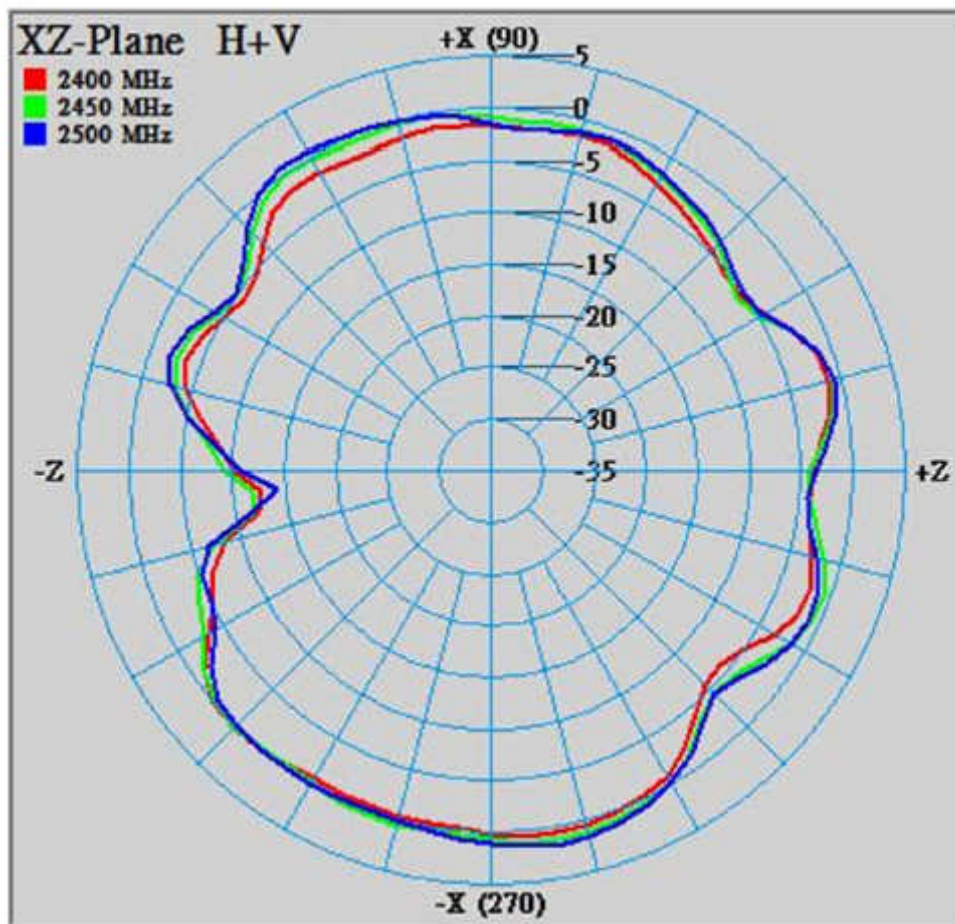


方案二

X-Z Plane

Phi=0.00deg

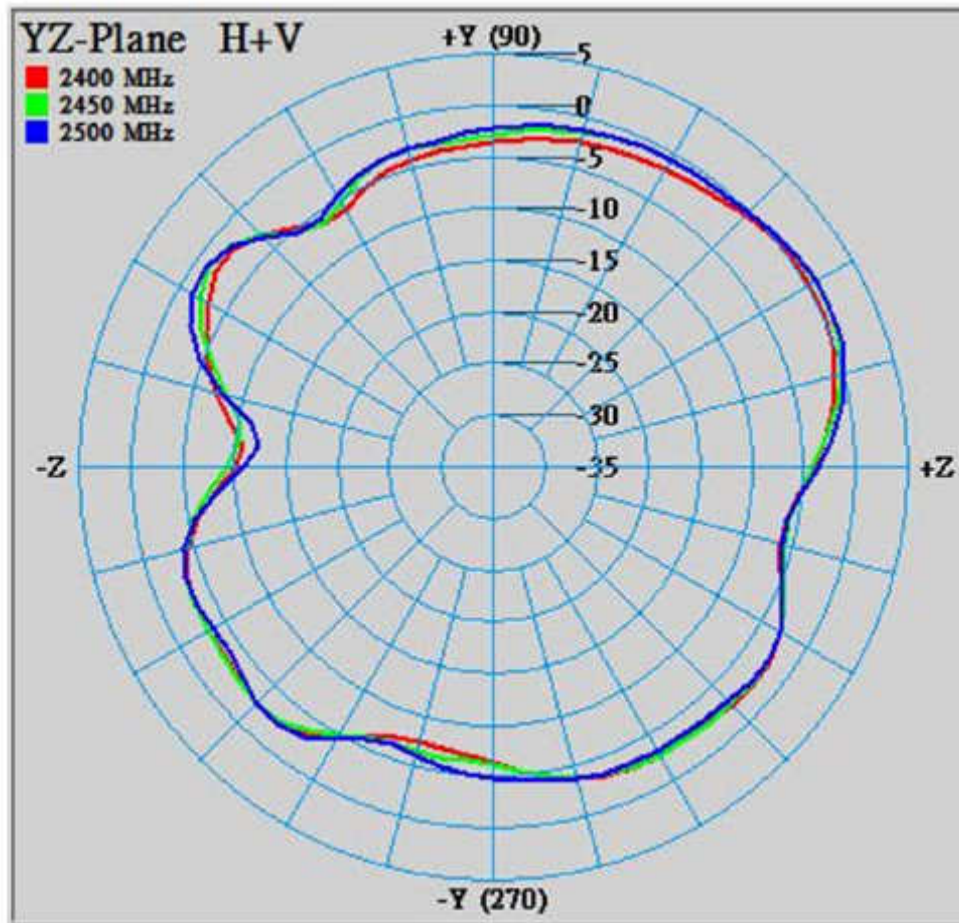
Gain . dB



Y-Z Plane

Phi=90.00deg

Gain . dB



X-Y Plane

Theta=90.00deg

Gain . dB

