APPROVAL SHEET

PCB ANTENNA

2.4 / 5.x GHz Band Working Frequency

Halogens Free Product

P/N: RFPCA400761IMLB301

Customer：

Customer ‘s Part No.：

Approval No.：

Issue Date：

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

Contents

Version	Date	Description	Author
V01	2018 Sep.	New Release	SHLEE

Antenna Specification

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4 ~ 2.5 / 5.15 ~5.85 GHz
Return Loss	-10 dB
Peak Gain	2.28 dBi@2.4~2.5GHz 2.90 dBi@5.15~5.85GHz
VSWR	2 max.
Polarization	Linear Vertical
Radiation Pattern	Directional
Impedance	50Ω
Operation Temperature	－20℃ ～ ＋65℃

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

MATERIAL TABLE

Items	Description
PCB	FR4(Single Layer);T=0.6mm;黑漆
Cable	ϕ1.13 Cable(Gray)
Connector	IPEX Compatible(Gold)
Double Tape	3M9888T
Sponge(F-2G)+Double Tape(單面背膠DS10)	L580 x W15 x T2

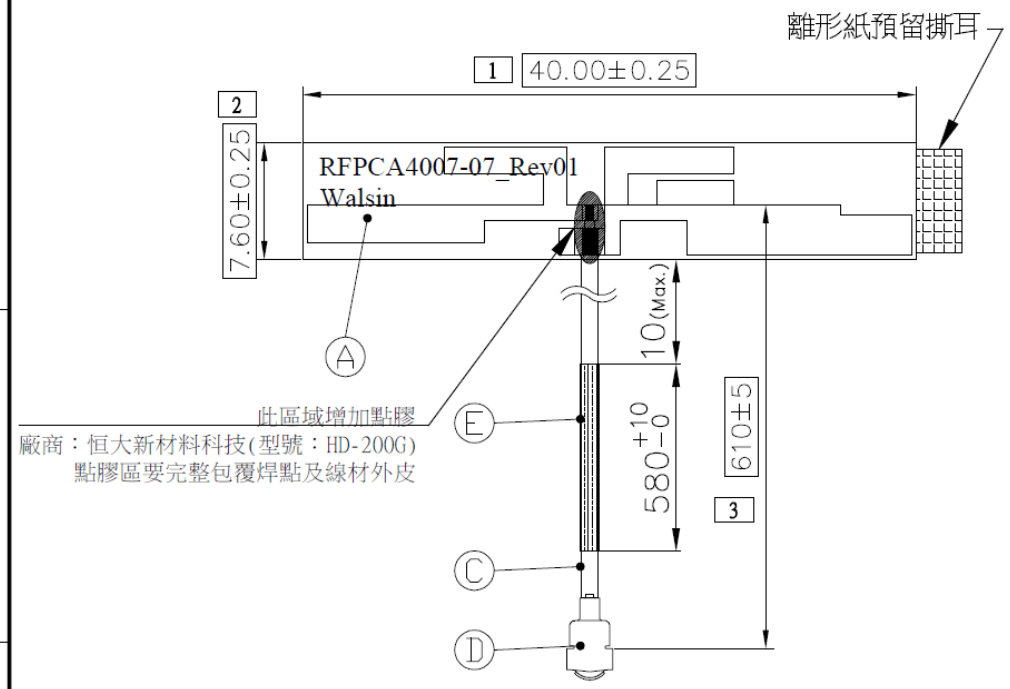
ORDERING RULE

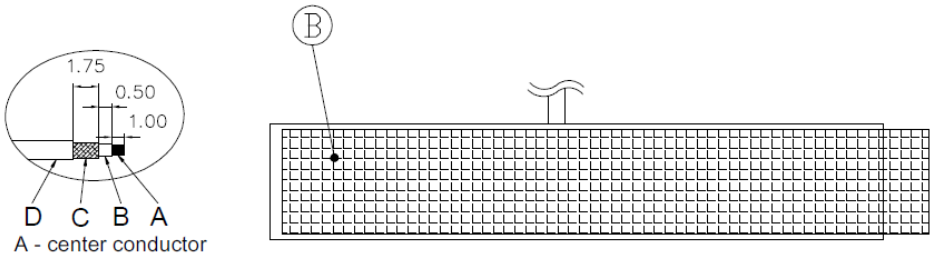
RF	PCA	4007	61	I	M	L	B	3	01
Type Code	**Product Code**	**PCB Dimension (Unit: mm)**	**Cable Length (unit: cm)**	**Connector Brand**	**Type of Connector**	**Application**	**Project status**	**Wire Diameter**	**Project**
Walsin RF Device	PCB Antenna	Per 2 digits of length, width e.g.: 4007 Length 40.0mm, Width7.6mm	2 digits for cable length e.g.:61 Length 61cm	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 6: 6GHz 5: 5GHz 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

DIMENSIONS

ELECTRICAL
Frequency : 2.4 GHz /
5.x GHz

NO	DESCRIPTION		QTY	REMARK
A	Body	FR4(Single Layer);T=0.6mm,黑漆	1	
B	Double Tape	3M9888T	1	
C	Coaxial cable	(Coaxial Cable Φ1.13);Gray	1	
D	Connector	IPEX Compatible(Gold)	1	
E	Sponge(F-2G)+Double Tape(單面背膠DS10):L580*W15*T2mm		1	





A - center conductor
B - Dielectric
C - Outer conductor
D - Jacket

※標記□記號者，為重點檢驗尺寸

LTR	DESCRIPTION	DATE	REQ. BY

設計 DR. PIPI 2018.09.26
核准 APPD. Marco

容許公差 TOLERANCE
6以下.....±0.2
6以上~30.....±0.5
30以上~120.....±0.8
120以上~315.....±1.2
315以上~1000.....±2.0
1000以上~2000.....±3.0

品名 ARTICLE: RFPCA400761IMLB301

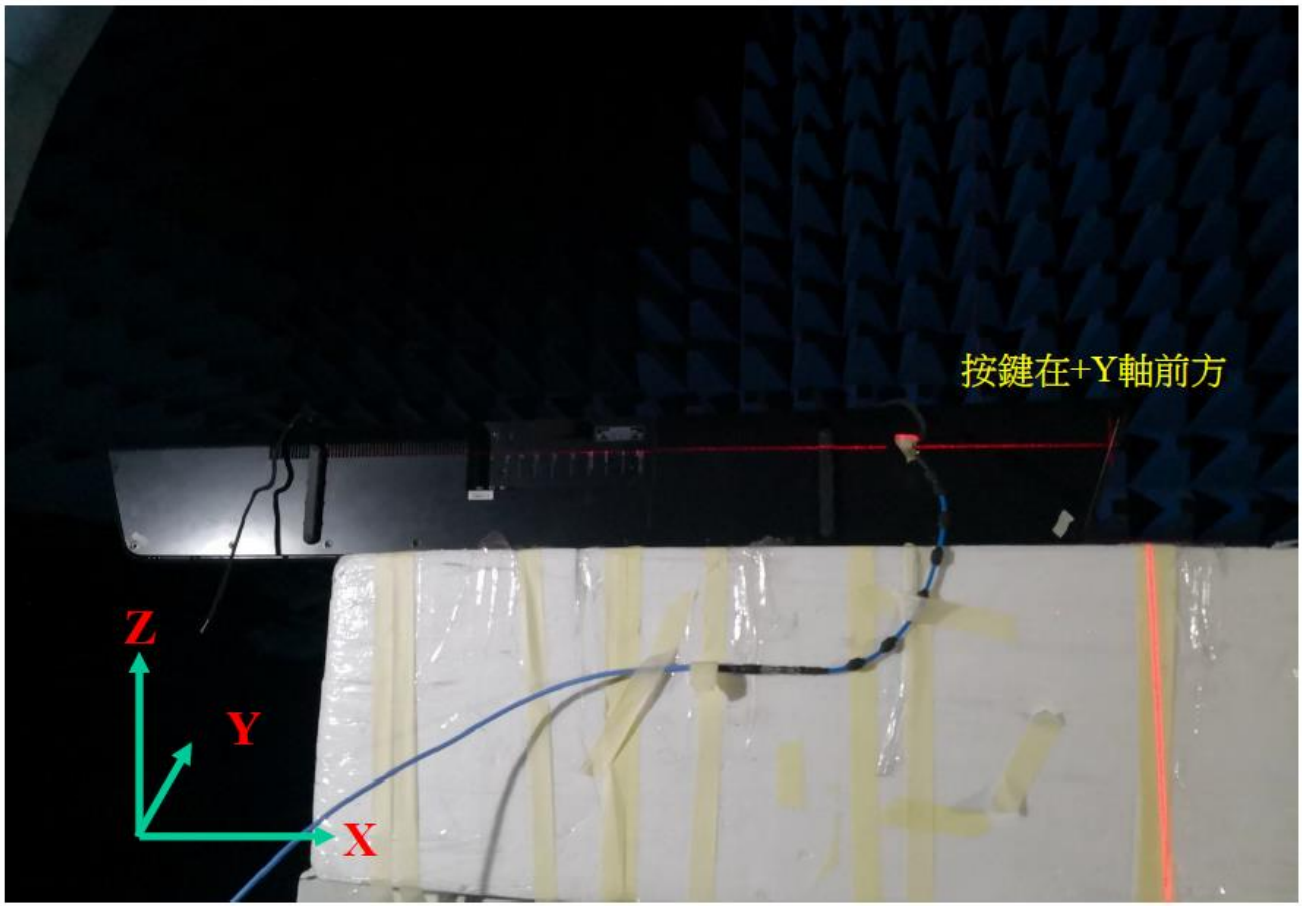
版本 REV. A

單位 UNIT: mm | 比例 SCALE: **** | 張數 SHEET: 1

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

Test Report

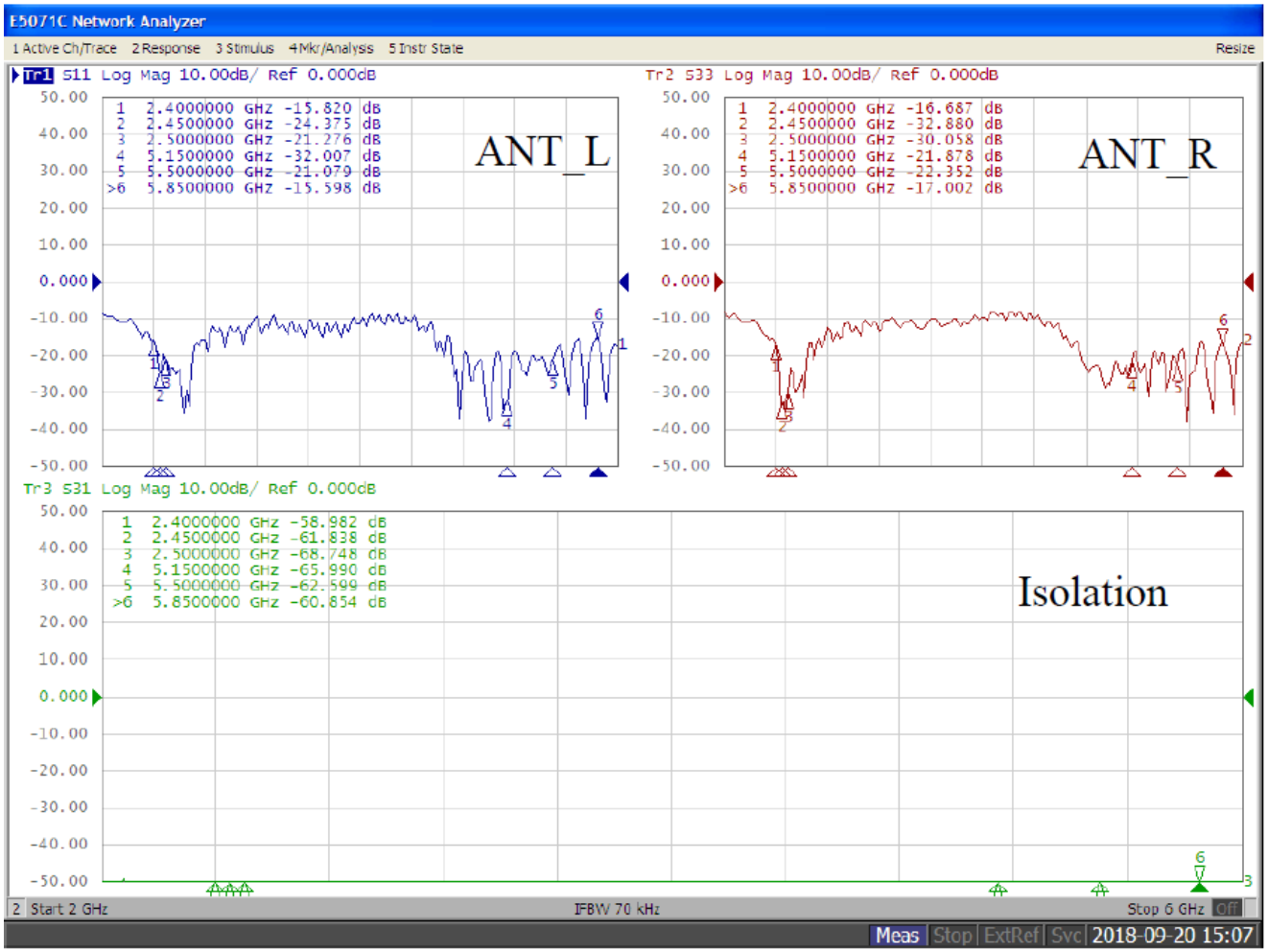
Experimental Setup



ELECTRICAL CHARACTERISTICS

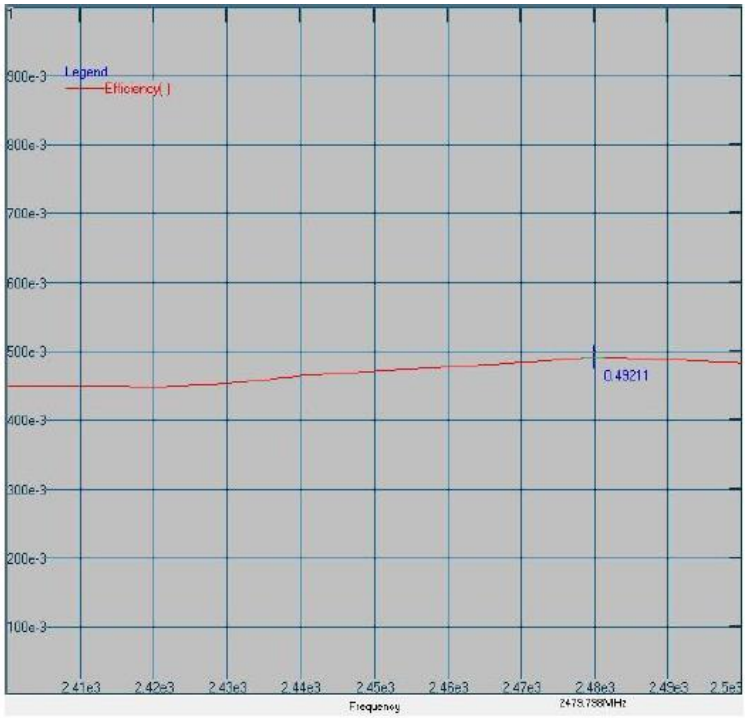
Return Loss & Isolation

ANT_R

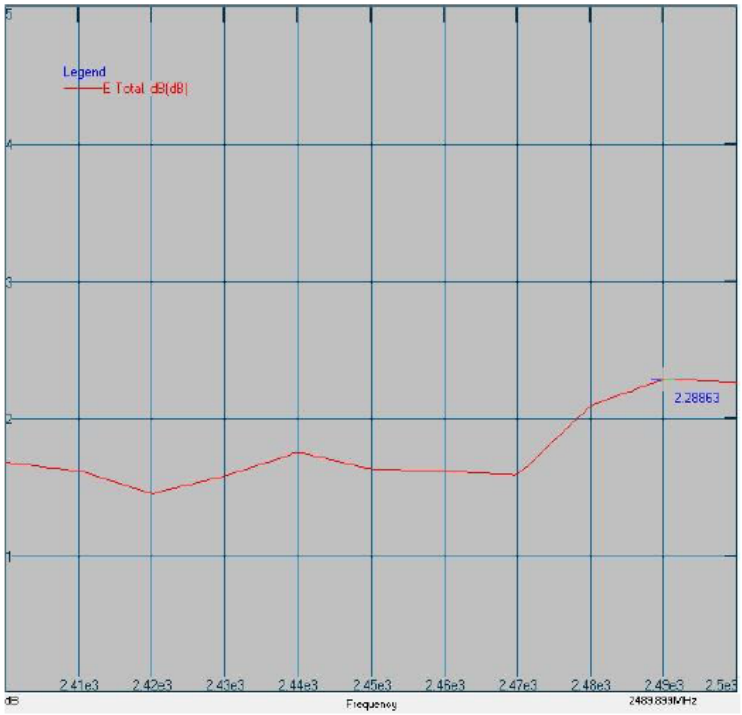


Efficiency & Peak Gain

2G

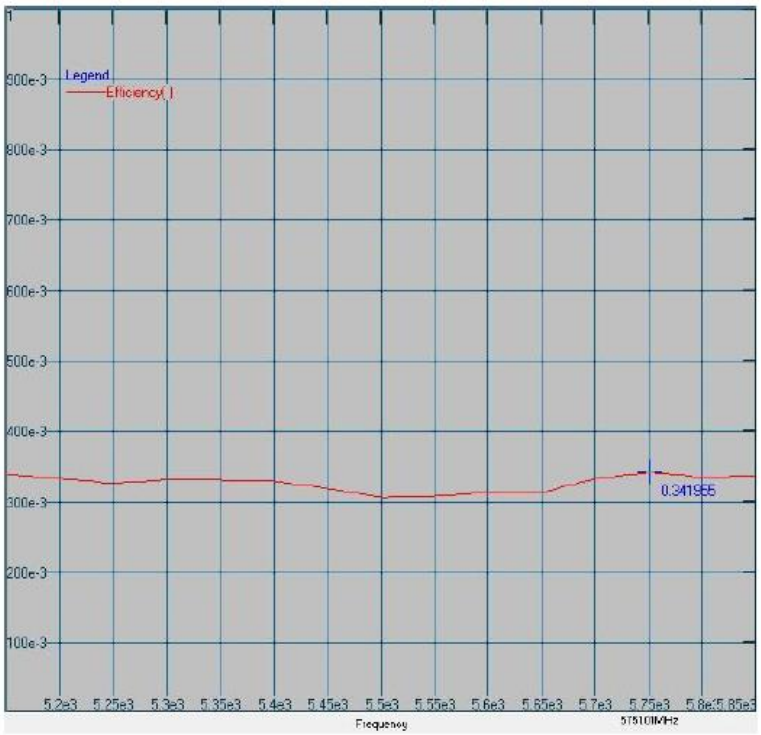


Maximum Efficiency at 2480 MHz : 49.2 %

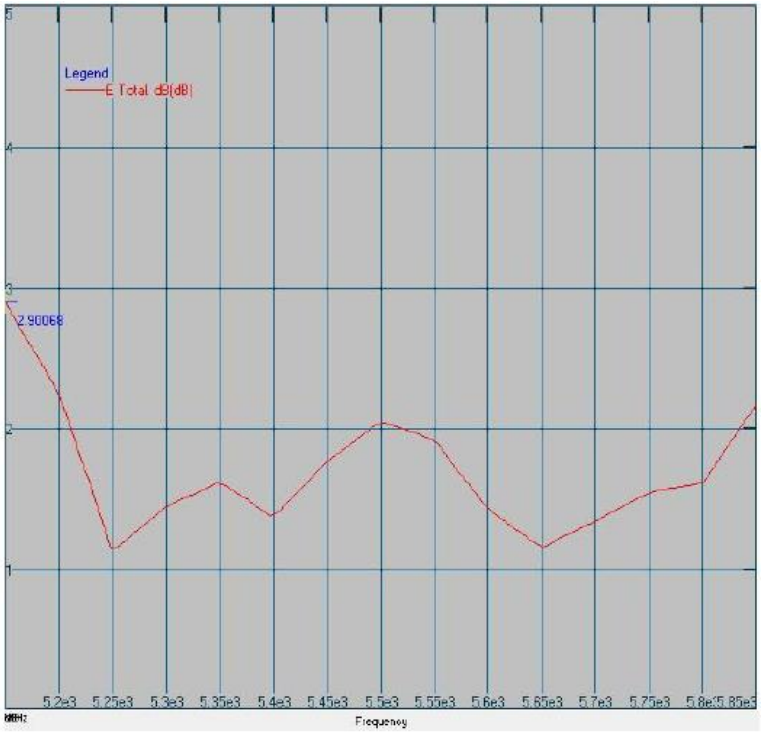


Maximum Peak Gain at 2490 MHz : 2.28 dBi

5G



Maximum Efficiency at 5750 MHz : 34.1 %



Maximum Peak Gain at 5150 MHz : 2.90 dBi

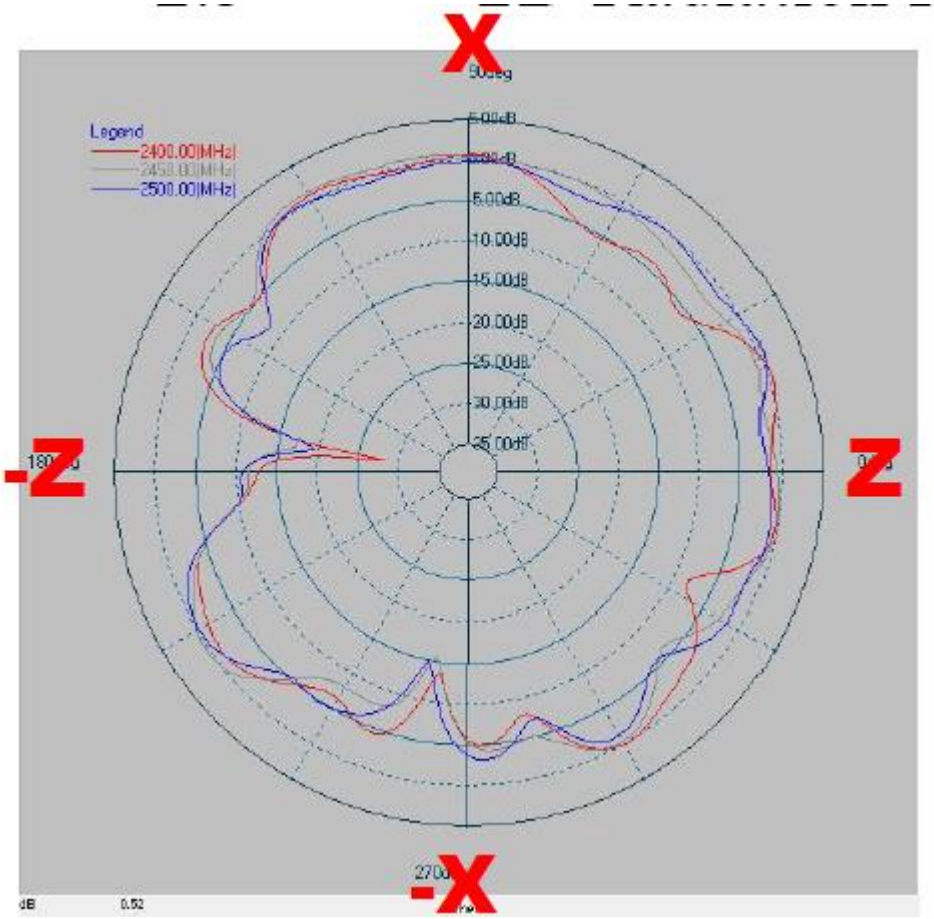
Radiation Patterns

2400~2500 MHz

X-Z Plane

Phi=0.00deg

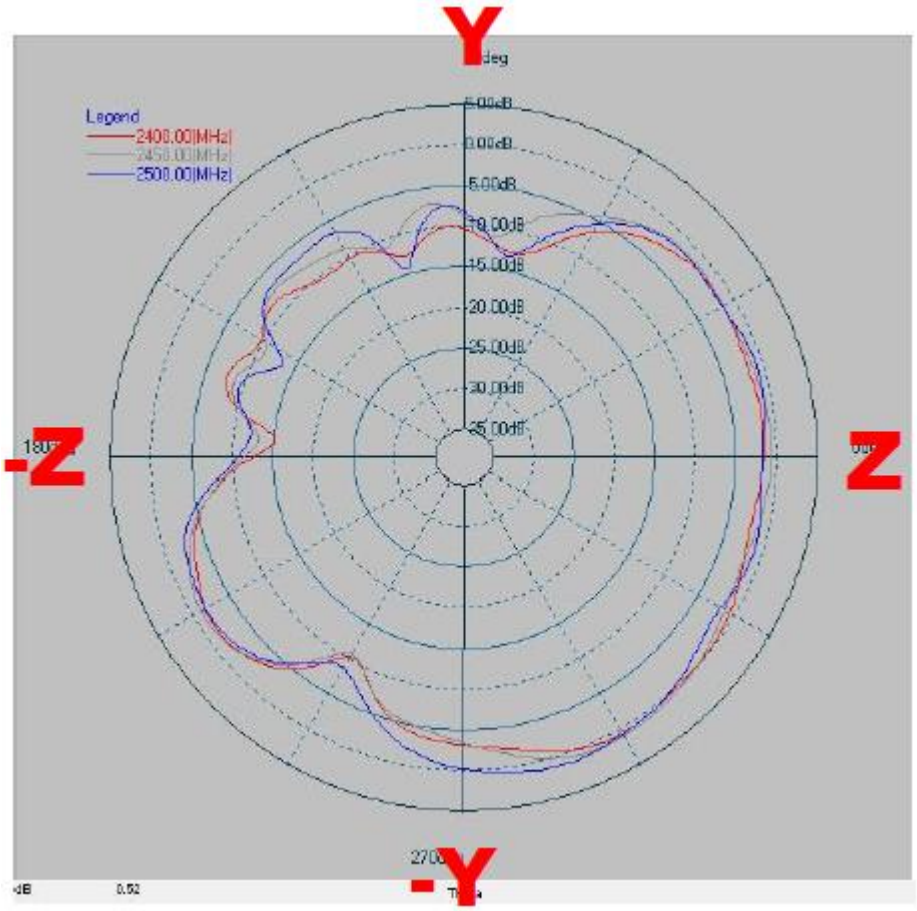
Gain . dB



Y-Z Plane

Phi=90.00deg

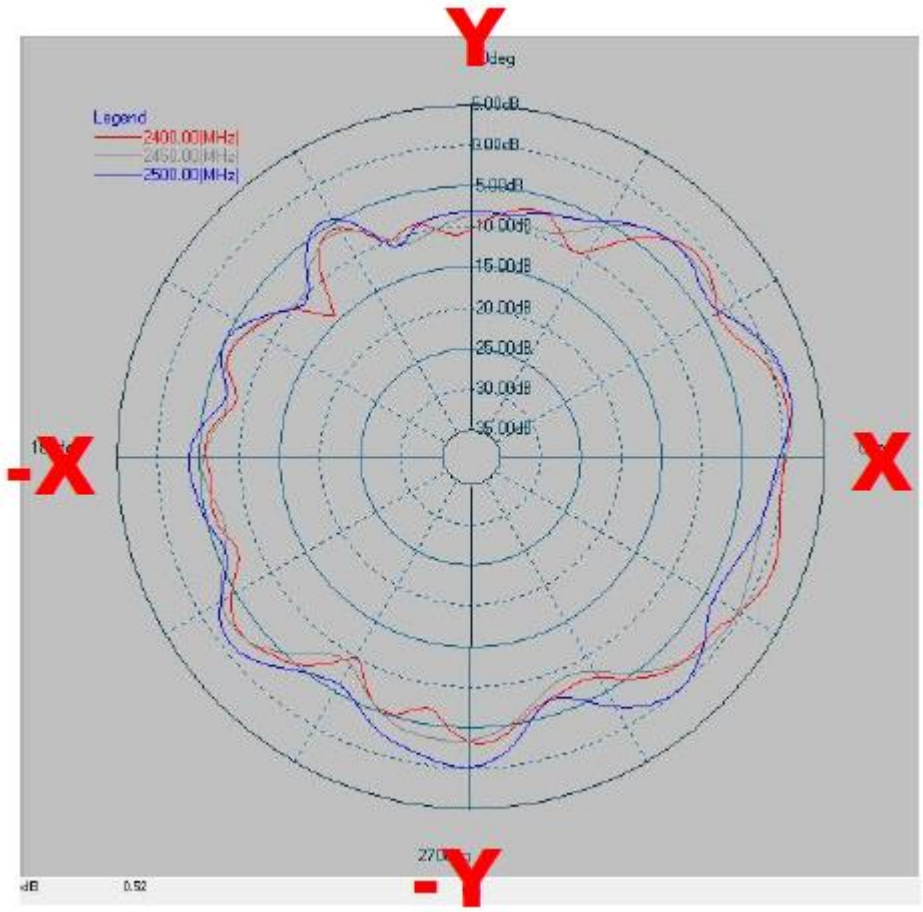
Gain . dB



X-Y Plane

Theta=90.00deg

Gain . dB



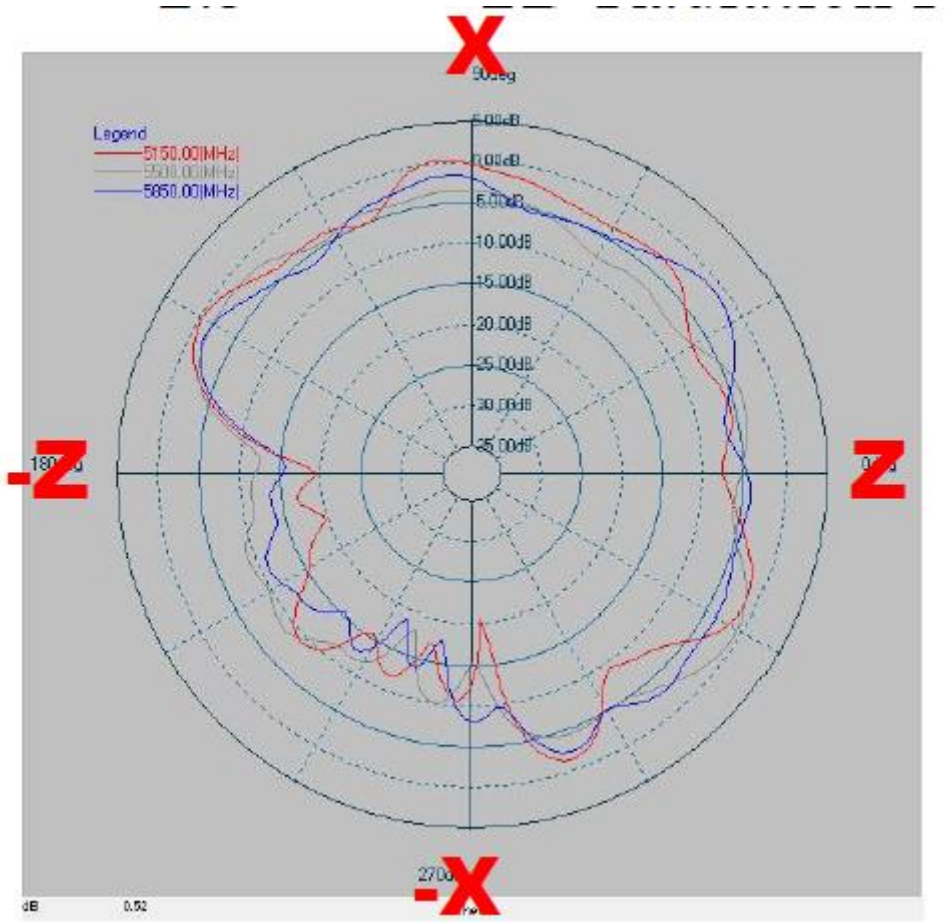
	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	0.65 dB	-2.73 dB	0.51 dB	-3.72 dB	1.20 dB	-3.96 dB
2450	1.10 dB	-2.15 dB	0.88 dB	-3.26 dB	1.55 dB	-3.97 dB
2500	0.59 dB	-2.47 dB	1.11 dB	-3.07 dB	1.58 dB	-3.28 dB

5150~5850 MHz

X-Z Plane

Phi=0.00deg

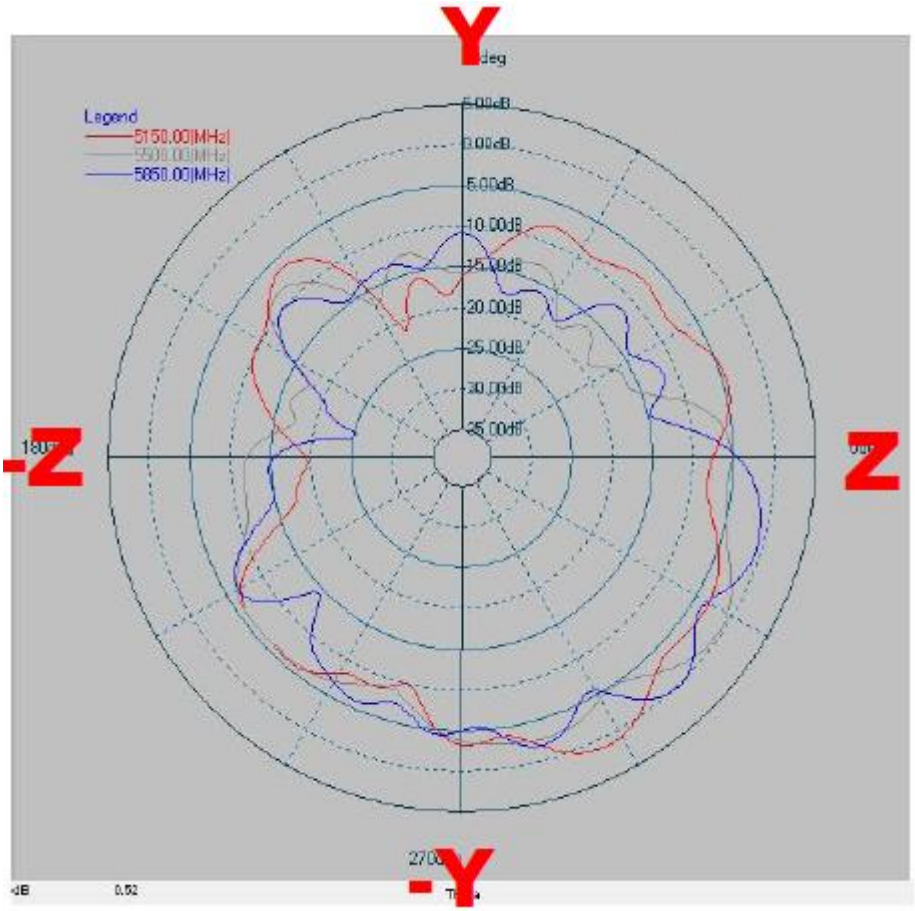
Gain . dB



Y-Z Plane

Phi=90.00deg

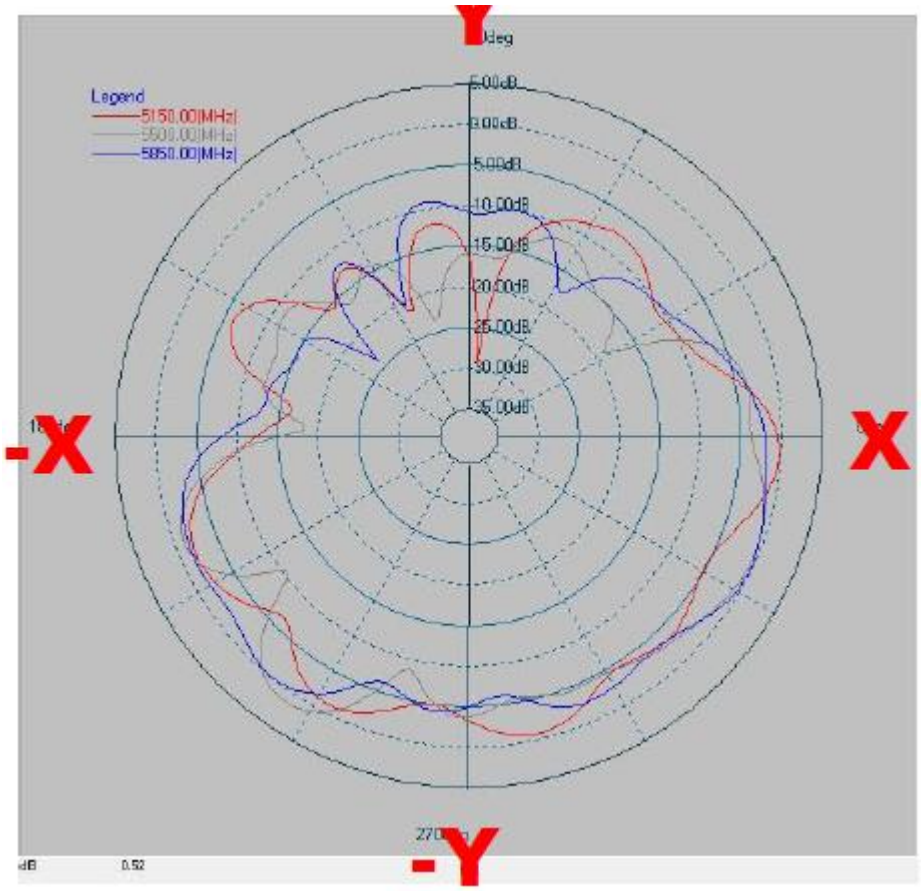
Gain . dB



X-Y Plane

Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
5150	0.19 dB	-4.79 dB	1.01 dB	-6.26 dB	-0.21 dB	-5.13 dB
5500	-0.63 dB	-5.25 dB	-0.31 dB	-7.00 dB	1.31 dB	-5.16 dB
5850	-1.12 dB	-5.08 dB	0.15 dB	-6.79 dB	-0.13 dB	-4.71 dB