APPROVAL SHEET

Monopole Antenna

2.4 ~ 2.5/5.15 ~ 6.5 GHz Working Frequency

P/N: RFPCA501010EMMB101

Antenna Type : monopole

Customer：	
Approval No.：	
Issue Date：	
Production：	INPAQ TECHNOLOGY(SUZHOU)
Address：	No. 81,Antai Road 1,Xishan Econmic Development Zone, Wuxi City,Jiangsu Province ,China

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

品名：**RFPCA501010EMMB101** **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.
A0	Huiwenchan	ALL	Temporary Release	2024/12/20	According to the date of PLM Release	N/A

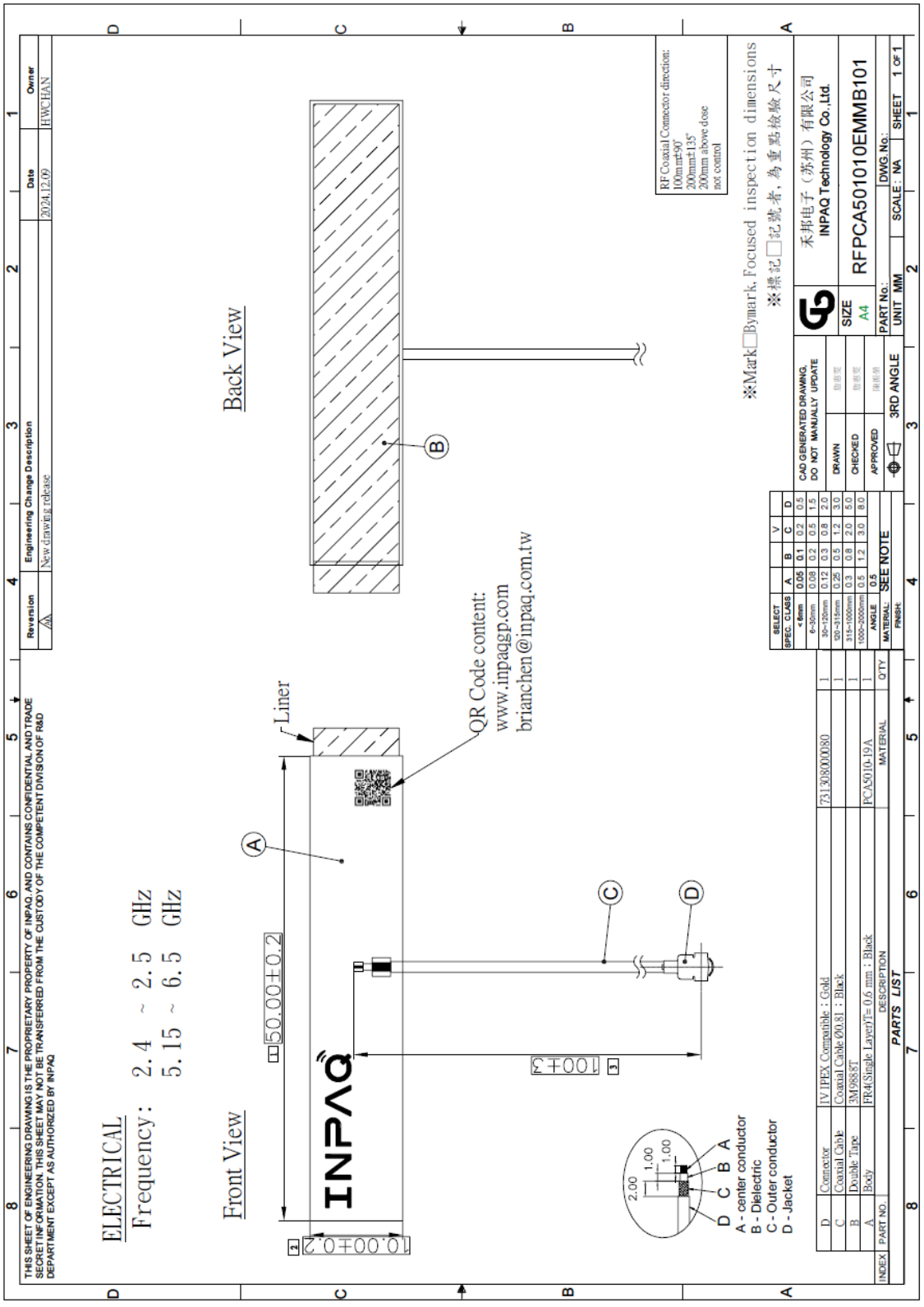
1.Explanation of part number：

RF	PCA	5010	10	E	M	M	B	1	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.: 5010 Length 50.0 mm, Width 10.0mm	2 digits for cable length e.g.: 10 Cable Length 10.0 cm	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 M: LTE+Sub-6G+5G LTE：617~960/1710~2690MHz Sub-6G：3300~4200MHz 5G：5150~7150MHz N79：4.4~5GHz N: NFC S: UWB(6~7GHz) T:LTE band M:LTE+Sub-6G +5G	B: MP T:During Test X: Pile Run	0:None 1:Ø0.81 3:Ø1.13 6:RG316 7:Ø1.37 8:RG178 Y: Ø0.81 Low Loss	01~99 series number

2.Electrical Specification：

Item	Specification
Frequency Range	2.4 ~ 2.5/5.15 ~ 6.5 GHz
Impedance	50 Ohm Nominal
VSWR	2.0 (Max)
Peak Gain	2.4 ~ 2.5 GHz @3.27 dBi 5.15 ~ 6.5 GHz@3.33 dBi
Radiation	Omni-directional
Polarization	Linear Vertical
Admitted Power	1W
Operation Temperature	－20℃ ～ ＋65℃

3. Antenna Drawing：



UNLESS OTHER SPECIFIED TOLERANCES ON： X＝N/A X.X＝N/A X.XX＝N/A ANGLES＝N/A HOLEDIA＝N/A		INPAQ TECHNOLOGY CO., LTD.	
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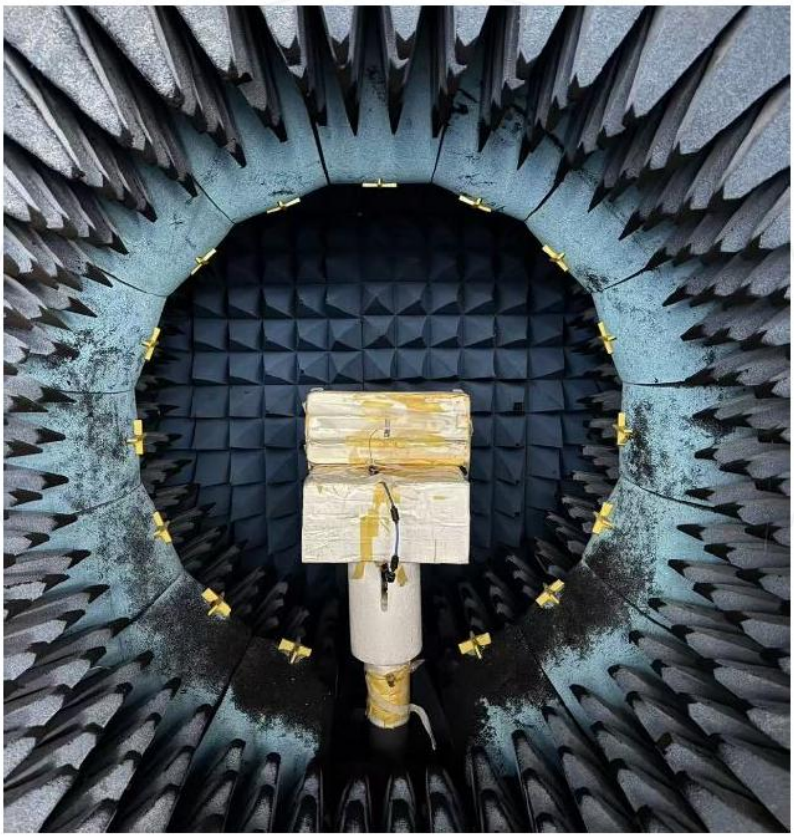
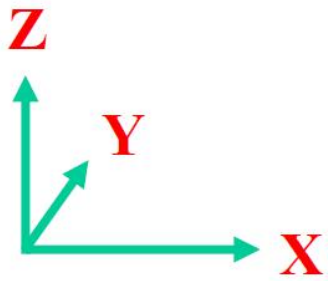
DESIGNED BY：Lang	APPROVED BY：Brian		
TITLE：RFPCA501010EMMB101		DOCUMENT NO.	SPEC REV. A0

Test Report

ELECTRICAL CHARACTERISTICS





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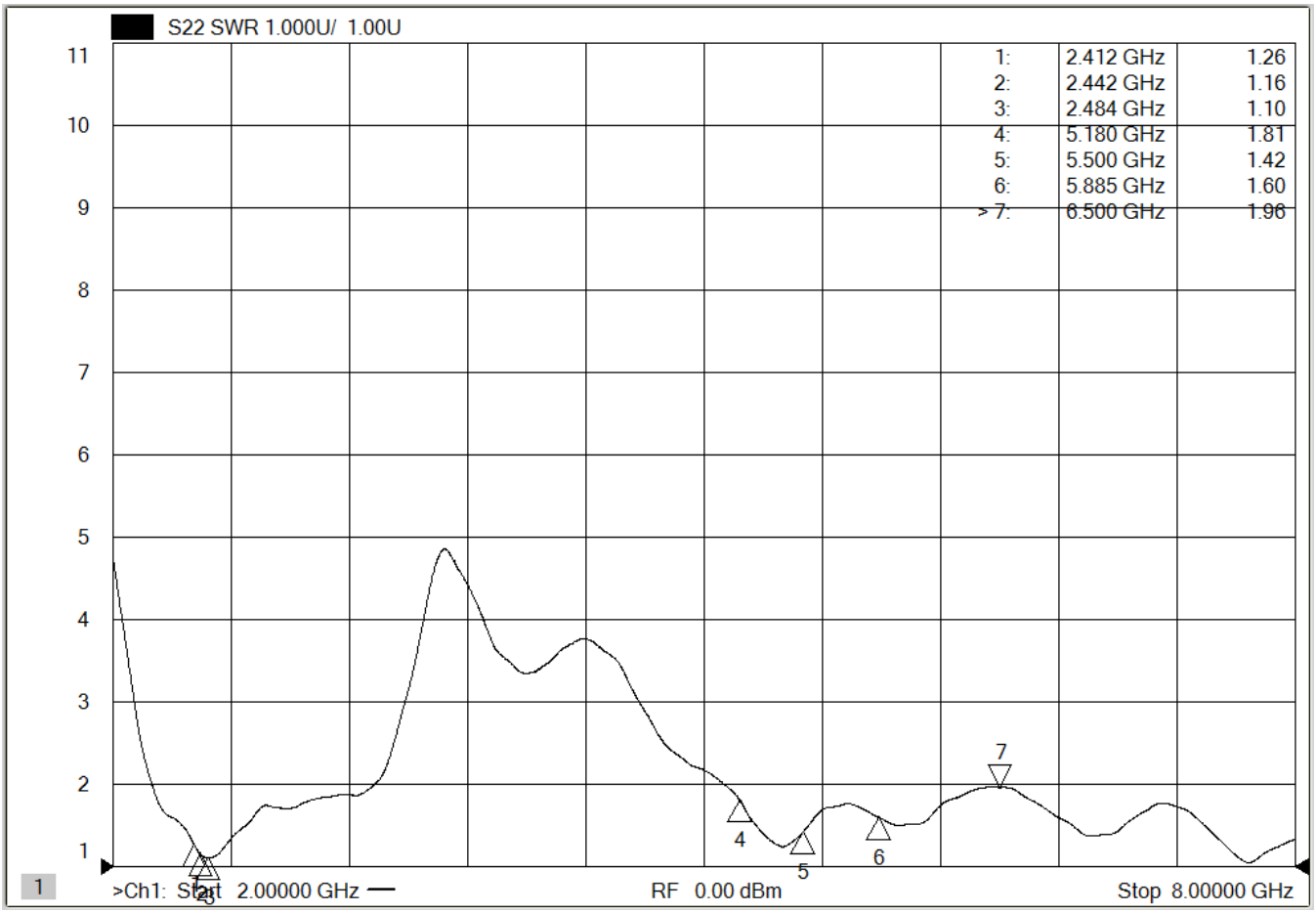
ELECTRICAL CHARACTERISTICS

VSWR



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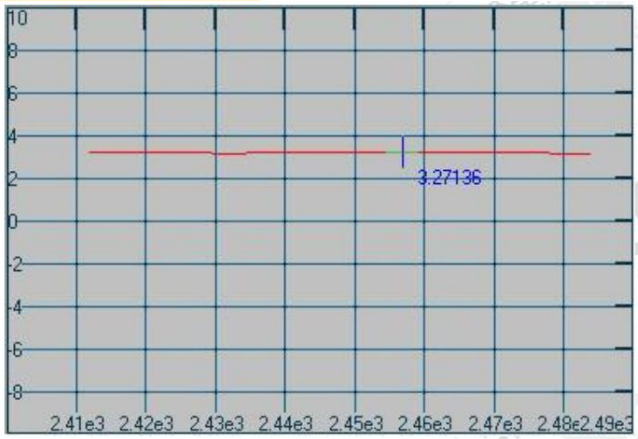
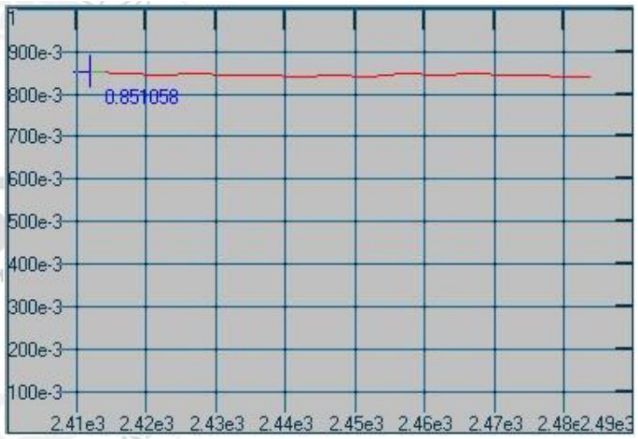
Antenna Efficiency & Peak Gain

ANT_2.4G

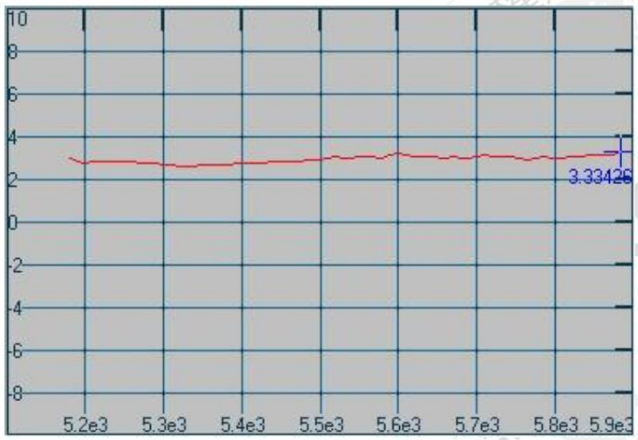


Maximum Peak Gain at 2457 MHz : 3.27 dBi

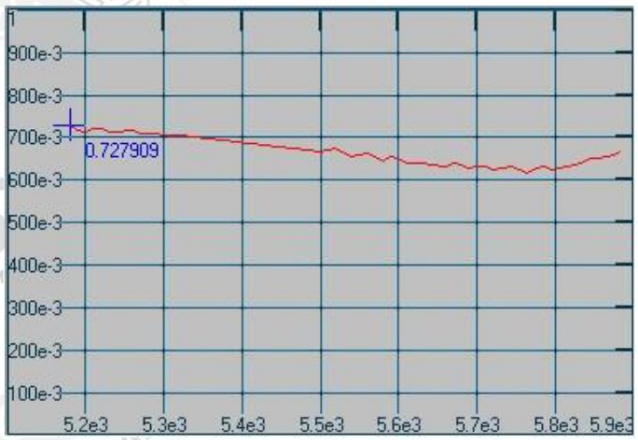


Maximum Efficiency at 2412 MHz : 85.11 %

ANT_5G



Maximum Peak Gain at 5885 MHz : 3.33 dBi



Maximum Efficiency at 5180 MHz : 72.79 %

UNLESS OTHER SPECIFIED TOLERANCES ON : X＝N/A X.X＝N/A X.XX＝N/A ANGLES＝N/A HOLEDIA＝N/A			INPAQ TECHNOLOGY CO., LTD.
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Antenna Efficiency and Peak Gain

Frequency(MHz)	Efficiency(%)	Peak gain(dBi)
2412	85.11	3.25
2417	84.76	3.25
2422	84.55	3.24
2427	84.64	3.25
2432	84.27	3.22
2437	84.49	3.26
2442	84.05	3.23
2447	84.33	3.27
2452	84.15	3.27
2457	84.70	3.27
2462	84.27	3.25
2467	84.83	3.26
2472	84.61	3.25
2484	84.23	3.21

ANT_5G

Frequency(MHz)	Efficiency(%)	Peak gain(dBi)
5180	72.79	3.00
5190	71.92	2.90
5200	71.42	2.84
5210	72.16	2.88
5220	72.07	2.88
5230	71.41	2.87
5240	71.34	2.90
5260	71.58	2.87
5270	71.11	2.82
5280	71.08	2.79
5290	71.02	2.78
5300	70.62	2.77
5310	70.70	2.76
5320	70.66	2.68

Frequency(MHz)	Efficiency(%)	Peak gain(dBi)
5500	66.57	2.96
5510	67.15	3.03
5520	67.55	3.08
5530	66.49	3.04
5540	65.47	3.01
5550	66.15	3.11
5560	66.28	3.15
5580	64.34	3.07
5590	65.48	3.17
5600	65.11	3.29
5610	63.98	3.21
5620	64.13	3.15
5630	64.16	3.13
5640	63.78	3.09

Frequency(MHz)	Efficiency(%)	Peak gain(dBi)
5660	63.14	3.02
5670	63.92	3.09
5680	63.74	3.06
5690	62.88	3.02
5700	63.10	3.09
5710	63.45	3.16
5720	62.55	3.09

Frequency(MHz)	Efficiency(%)	Peak gain(dBi)
5745	63.17	3.08
5755	62.34	3.04
5765	61.69	2.98
5775	62.80	3.01
5785	63.32	3.08
5795	62.45	3.04
5805	62.92	3.01
5825	63.73	3.11
5835	64.08	3.10
5845	65.08	3.18
5855	65.21	3.21
5865	65.56	3.18
5875	65.91	3.16
5885	66.90	3.33

UNLESS OTHER SPECIFIED TOLERANCES ON :
X＝N/A X.X＝N/A X.XX＝N/A
ANGLES＝N/A HOLEDIA＝N/A

INPAQ TECHNOLOGY CO., LTD.

SCALE：N/A | UNIT：mm
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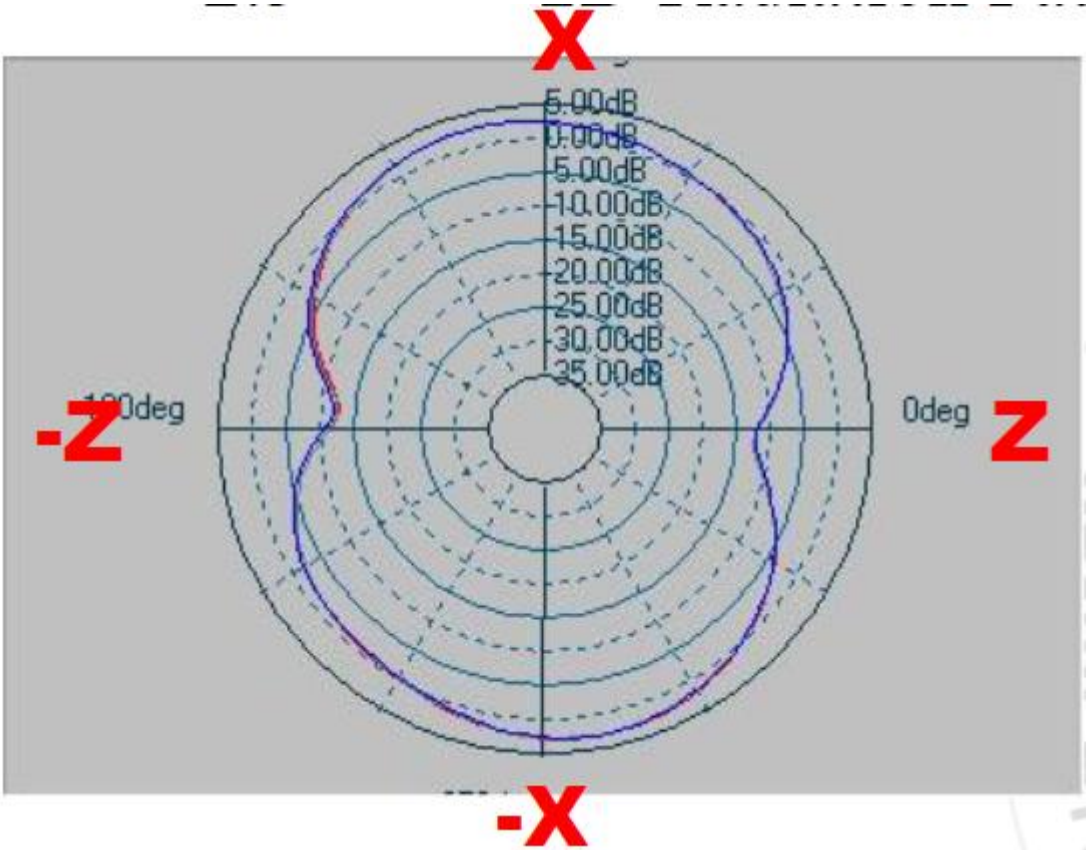
RADIATION PATTERN

ANT_2.4G

X-Z Plane

Phi=0.00deg

Gain . dB



UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A X.X=N/A X.XX=N/A ANGLES=N/A HOLEDIA=N/A			INPAQ TECHNOLOGY CO., LTD.
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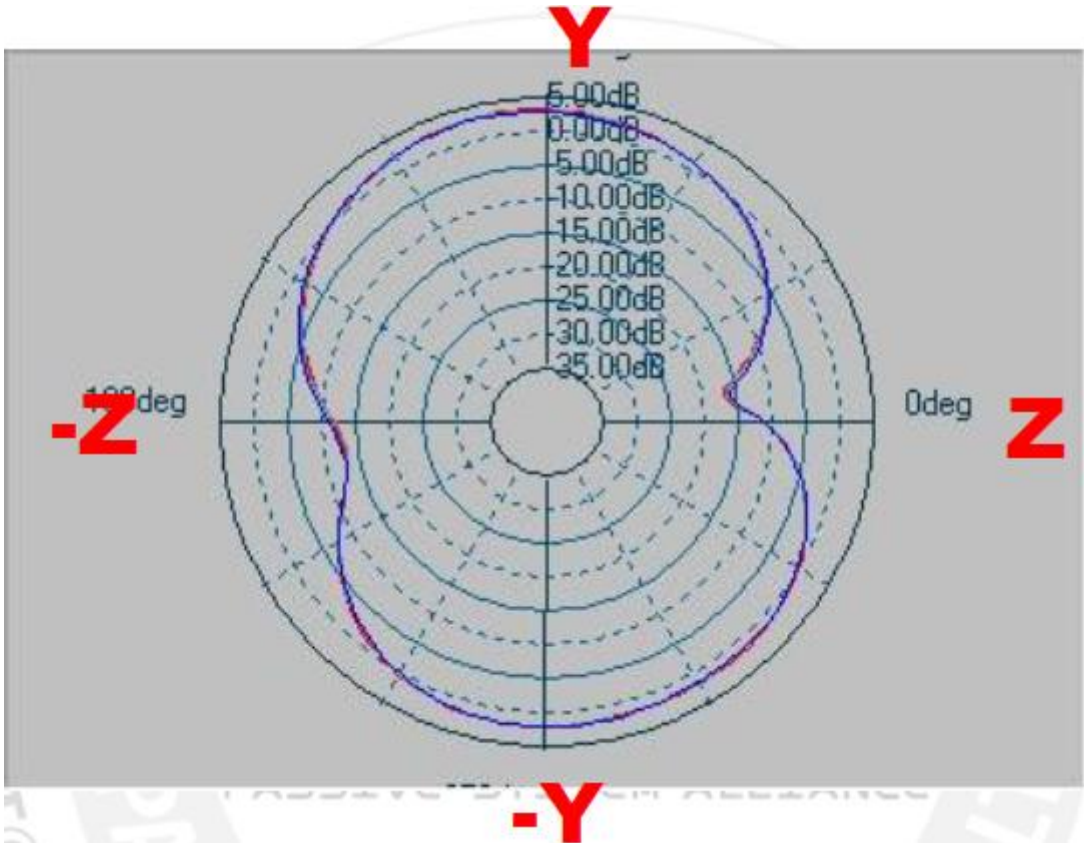
Y-Z Plane

Phi=90.00deg

Gain . dB



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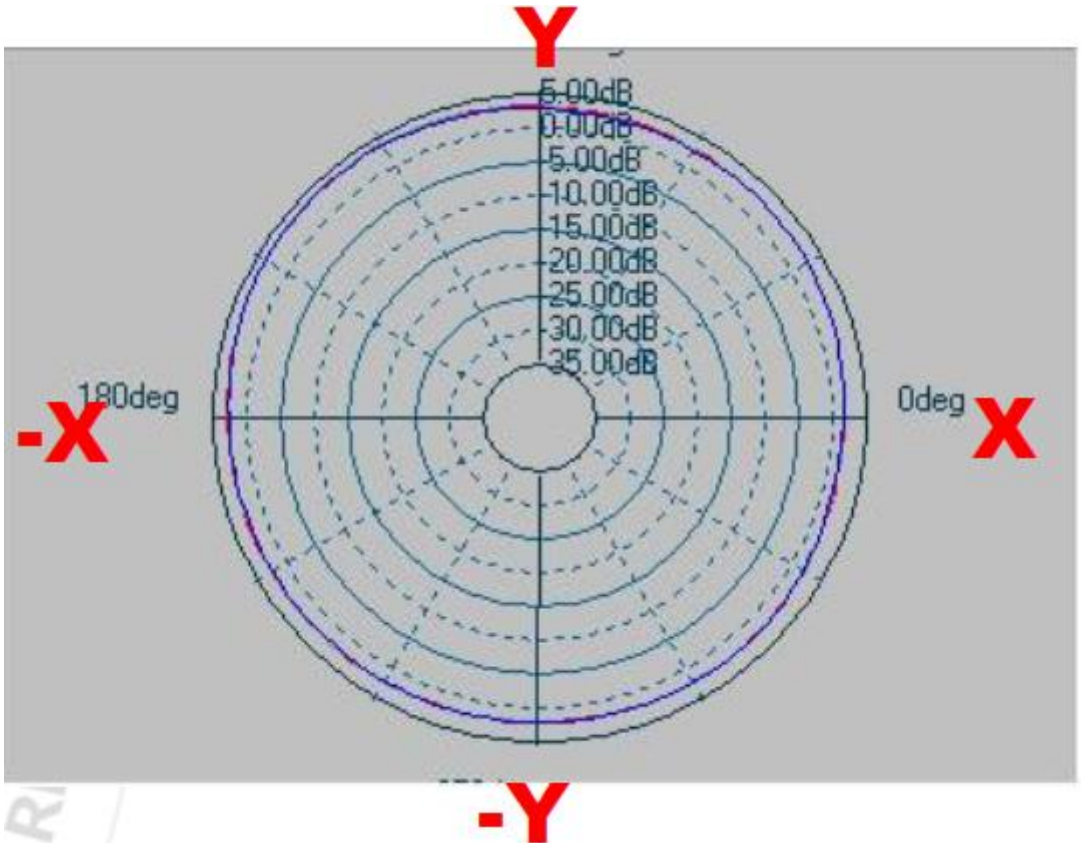
X-Y Plane

Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2412	2.89	-0.80	2.62	-0.60	3.25	2.40
2442	2.80	-0.87	2.47	-0.66	3.23	2.36
2484	2.86	-0.81	2.30	-0.67	3.17	2.32

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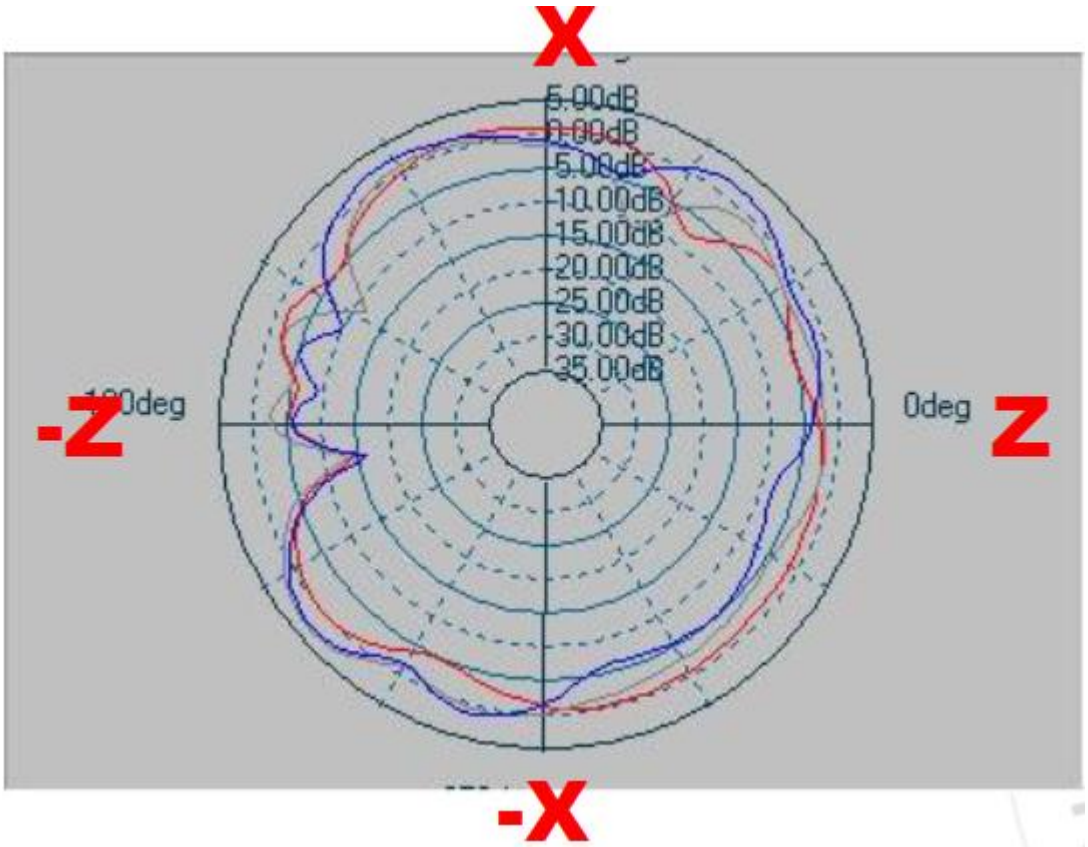
ANT_5G

X-Z Plane

Phi=0.00deg

Gain . dB



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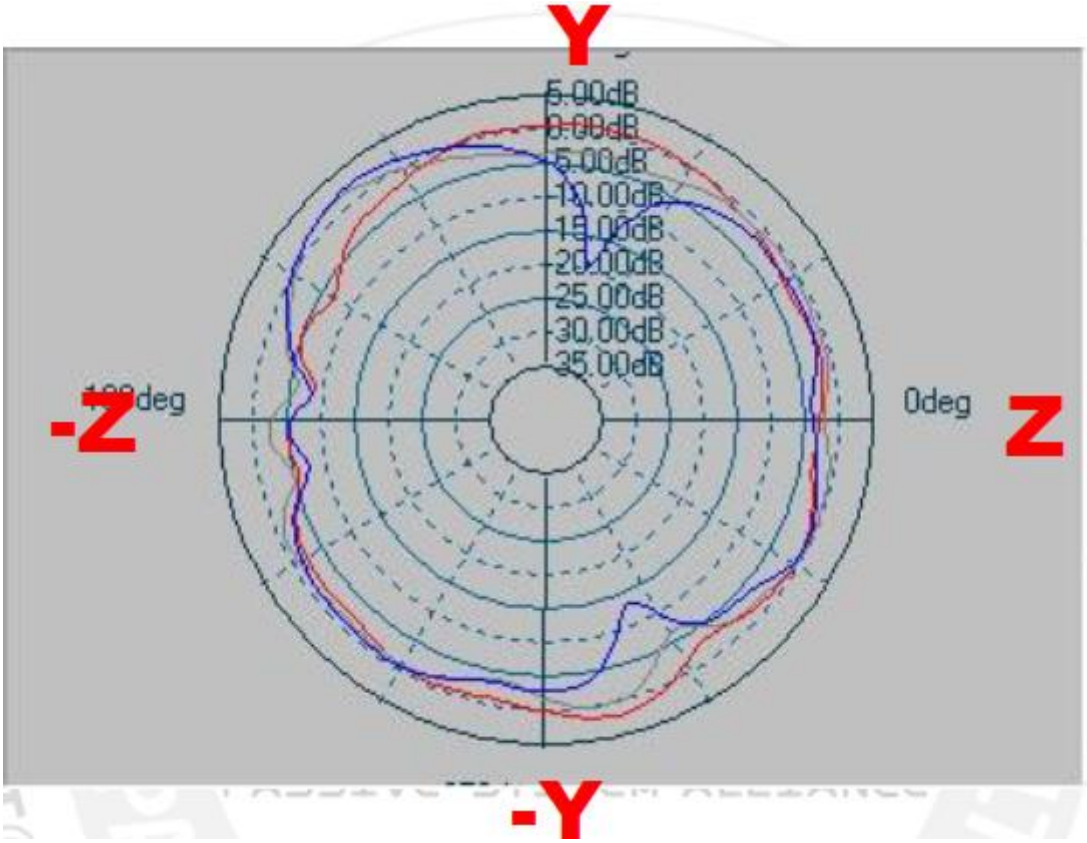
Y-Z Plane

Phi=90.00deg

Gain . dB



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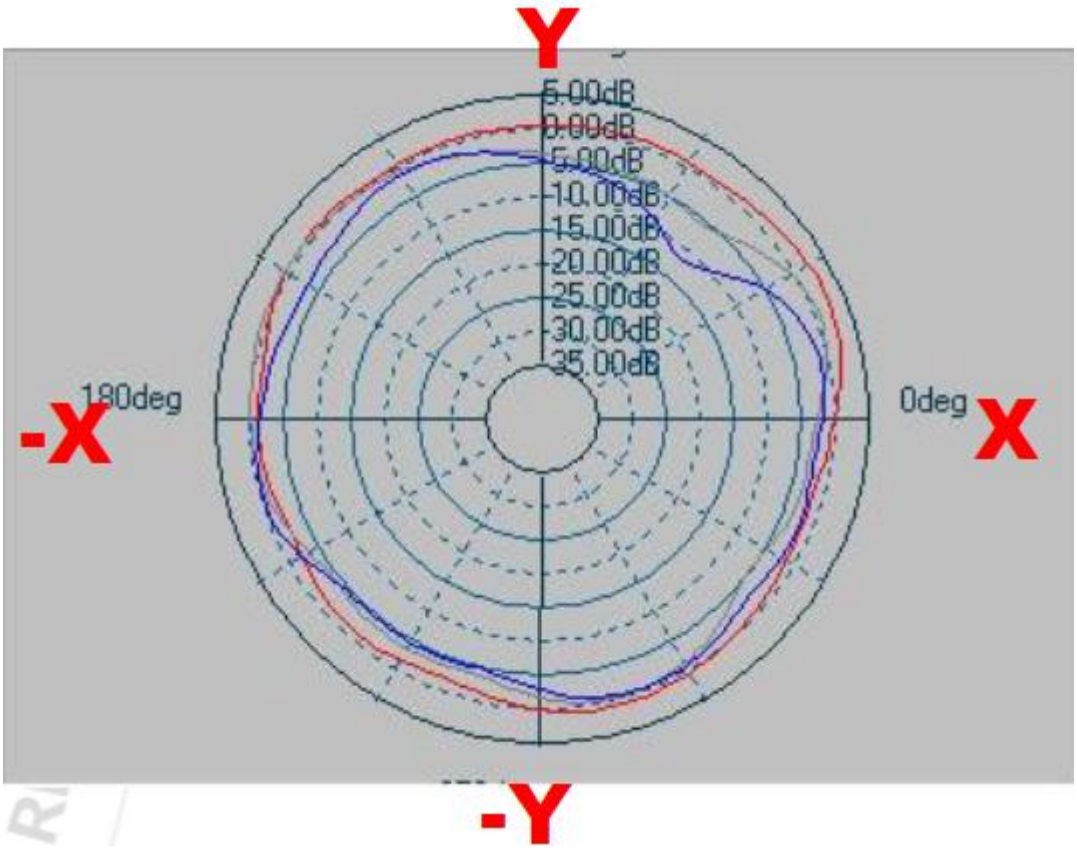
X-Y Plane

Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5180	0.75	-2.16	1.80	-1.67	2.61	-0.15
5500	2.93	-1.90	1.15	-1.77	0.57	-2.07
5885	2.48	-1.77	1.69	-2.64	-0.49	-2.98

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