

[illegible]

Product name : RFFPA301311IMLB301

Customer : Formovie

Customer part number : E22030000155

Factory address : 81 Antai 1st Road, Xishan District,
Wuxi City, Jiangsu Province

1. Explanation of part number :

RF	FPA	3013	11	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
RF Device	FPC Antenna	Per 2 digits of length, width e.g.: 3013 Length 30mm, Width 13mm	2 digits for cable length e.g.: 11 Length 11.5cm	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	2.4 ~ 2.5 / 5.15 ~ 5.85 GHz
Return Loss	-10 dB(Max)
Gain(peak)	2 dBi@2.4~2.5 GHz 2.99 dBi@5.15~5.85 GHz
VSWR	< 2.0
Impedance	50 Ohm Nominal
Radiation	Omni-directional
Polarization	Linear Vertical
Operation Temperature	-20℃ ~ +65℃

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



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SCALE : N/A

UNIT : mm

DRAWN BY : SHLEE

CHECKED BY : HWCHAN

DESIGNED BY : Lang Huang

APPROVED BY : Brian Chen

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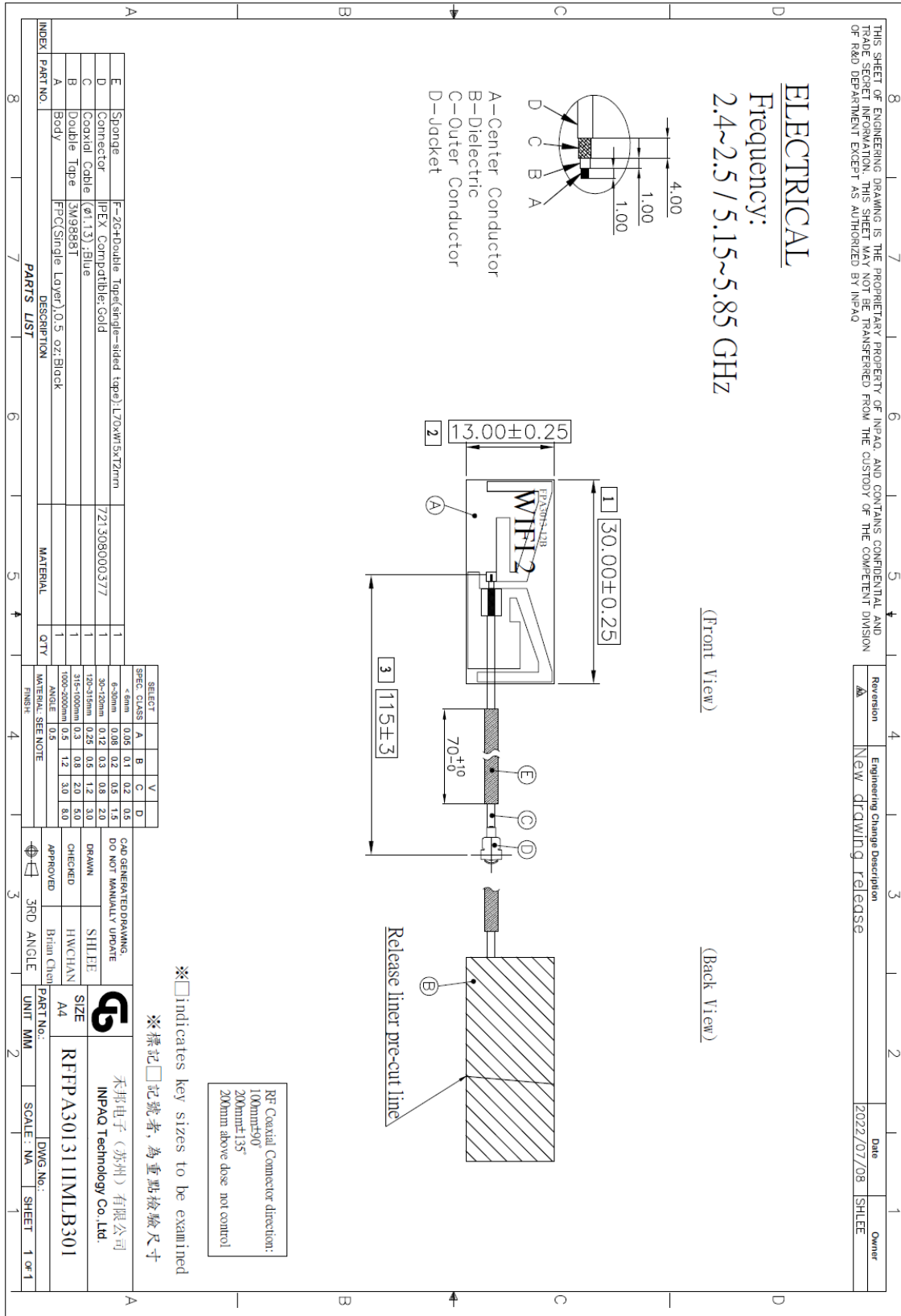
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SPEC REV.
A0

3. Antenna Drawing :



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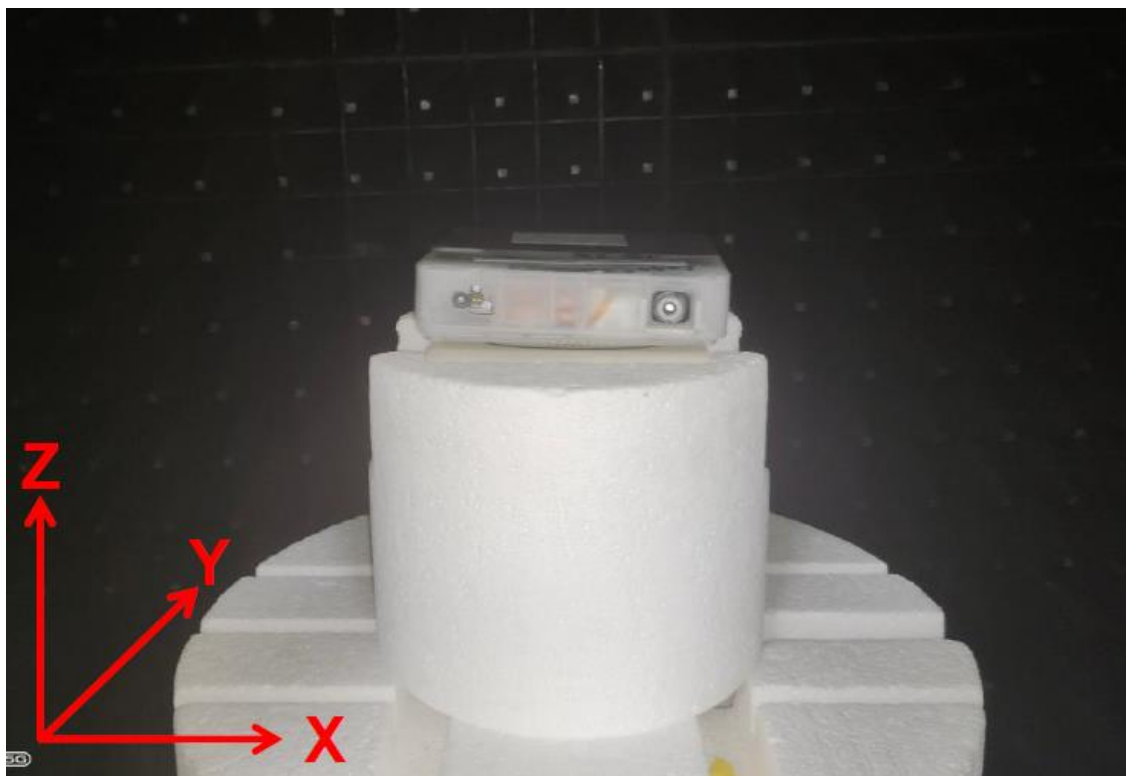
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SPEC REV.
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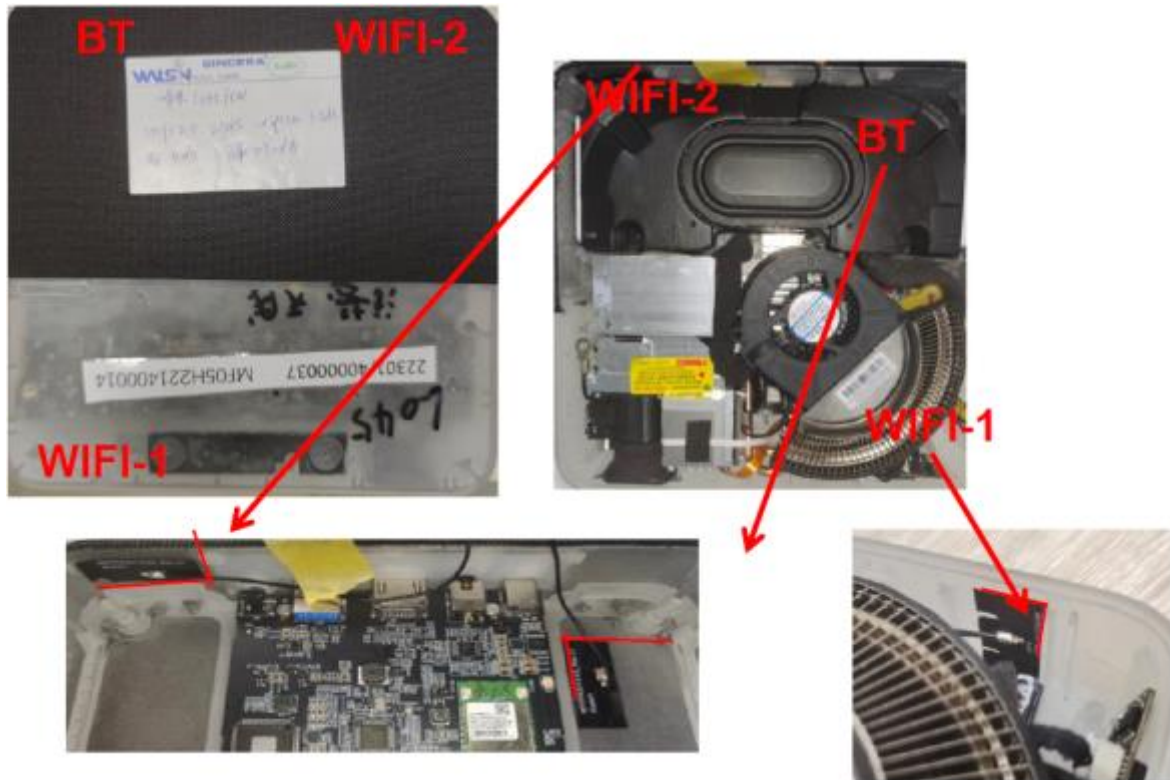
Test Report

Experimental Setup



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■ Antenna Solution Detail



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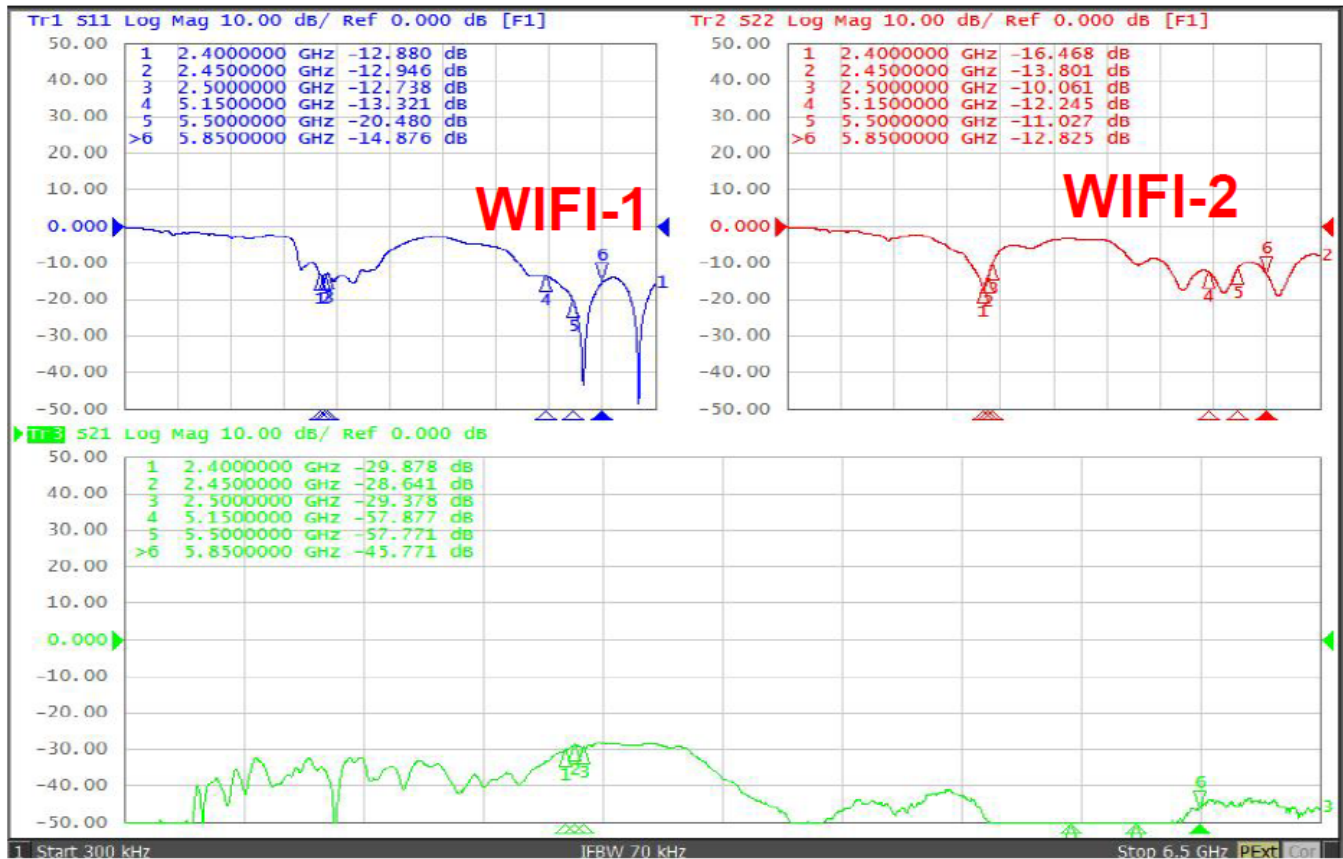
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ELECTRICAL CHARACTERISTICS

Return Loss & Isolation

WIFI-2



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



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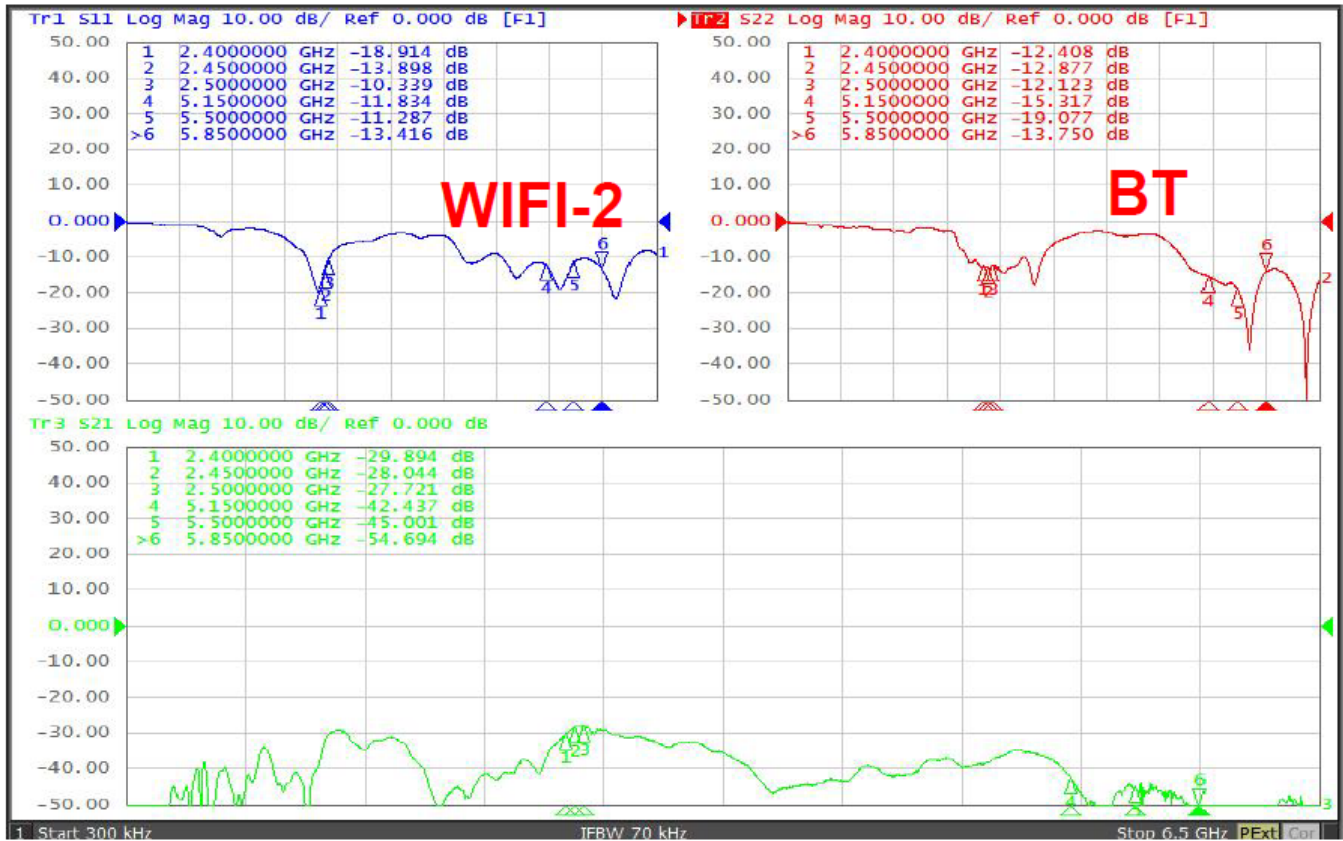
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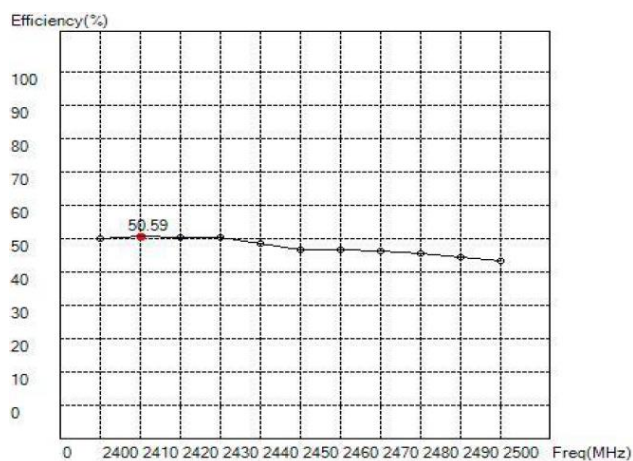
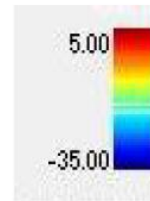
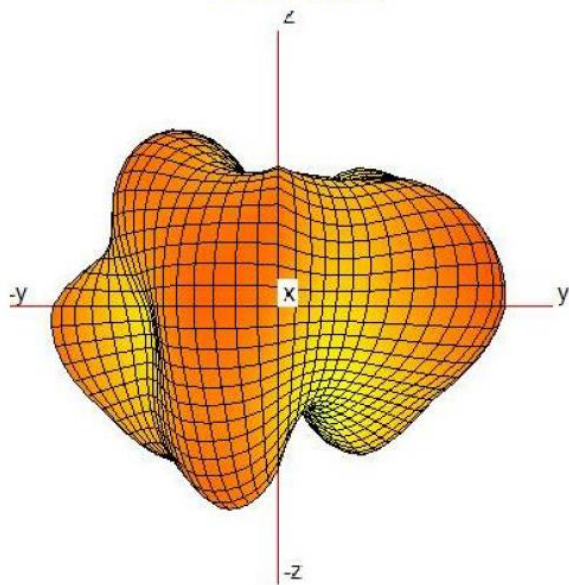
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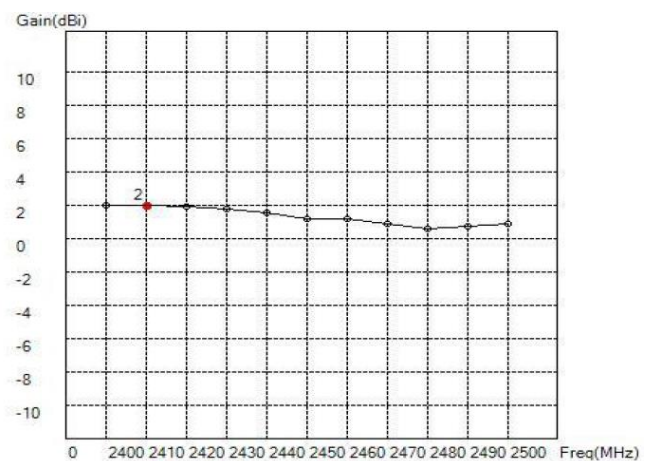
Antenna Efficiency & Peak Gain

2400~2500 MHz

2450 MHz



Maximum Efficiency at 2410MHz : 5.059 %



Maximum Peak Gain at 2410 MHz : 2 dBi

UNLESS OTHER SPECIFIED TOLERANCES ON :
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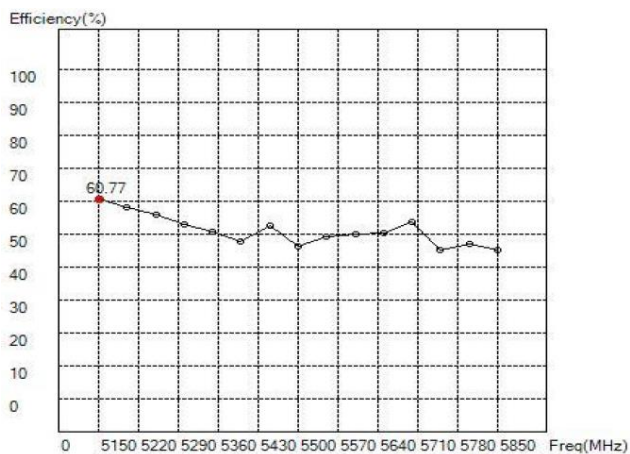
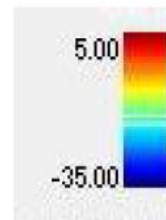
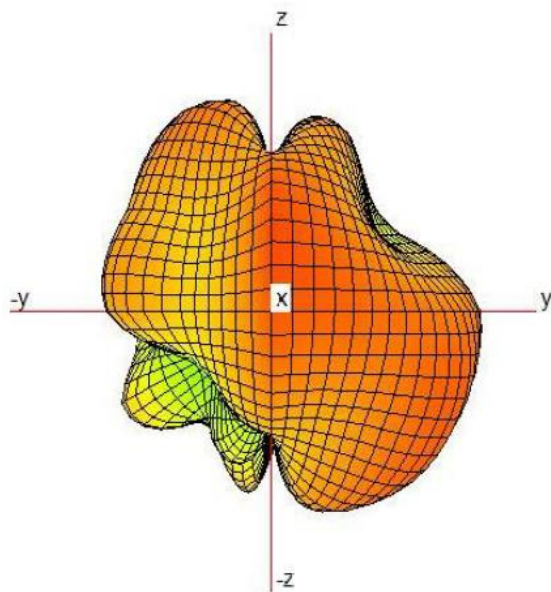
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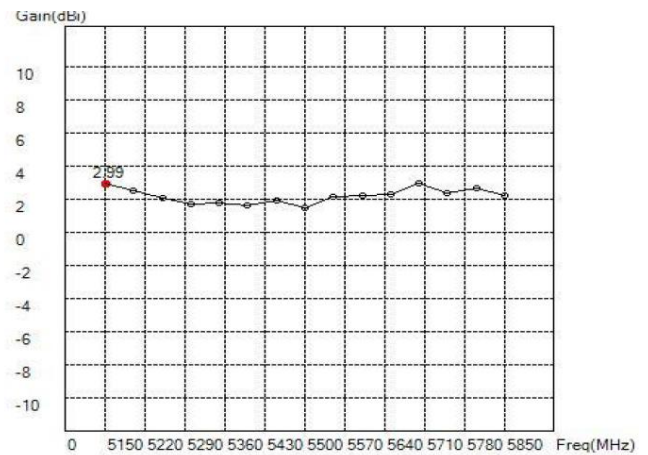
SPEC REV.
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5150~5850 MHz

5150 MHz



Maximum Efficiency at 5150MHz : 60.77%



Maximum Peak Gain at 5150MHz :2.99 dBi

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



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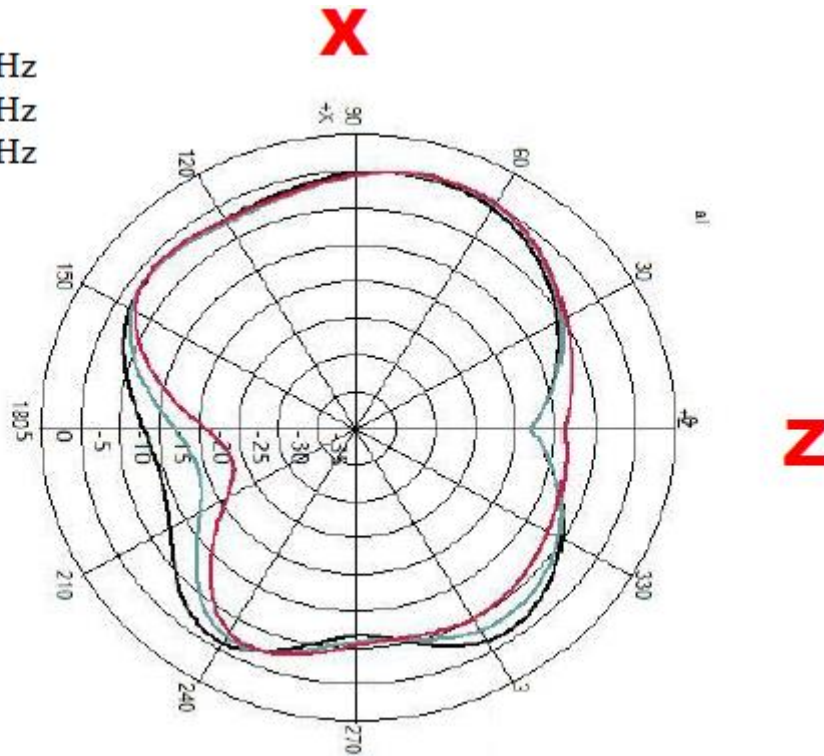
SPEC REV.
A0

RADIATION PATTERN

2400~2500 MHz

Phi=0.00deg

Gain . dB



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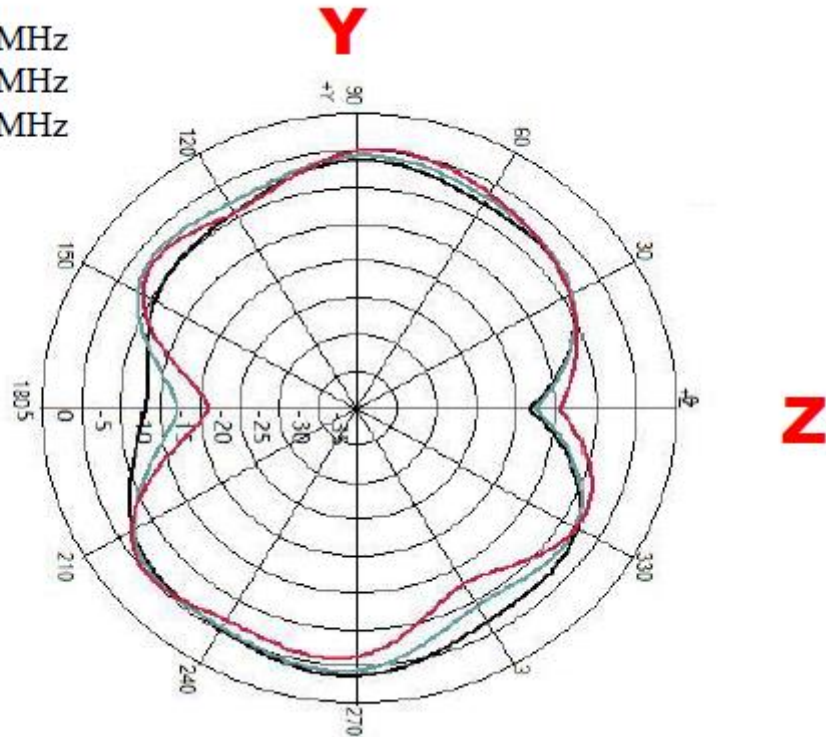
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SPEC REV.
A0

Phi=90.00deg

Gain . dB



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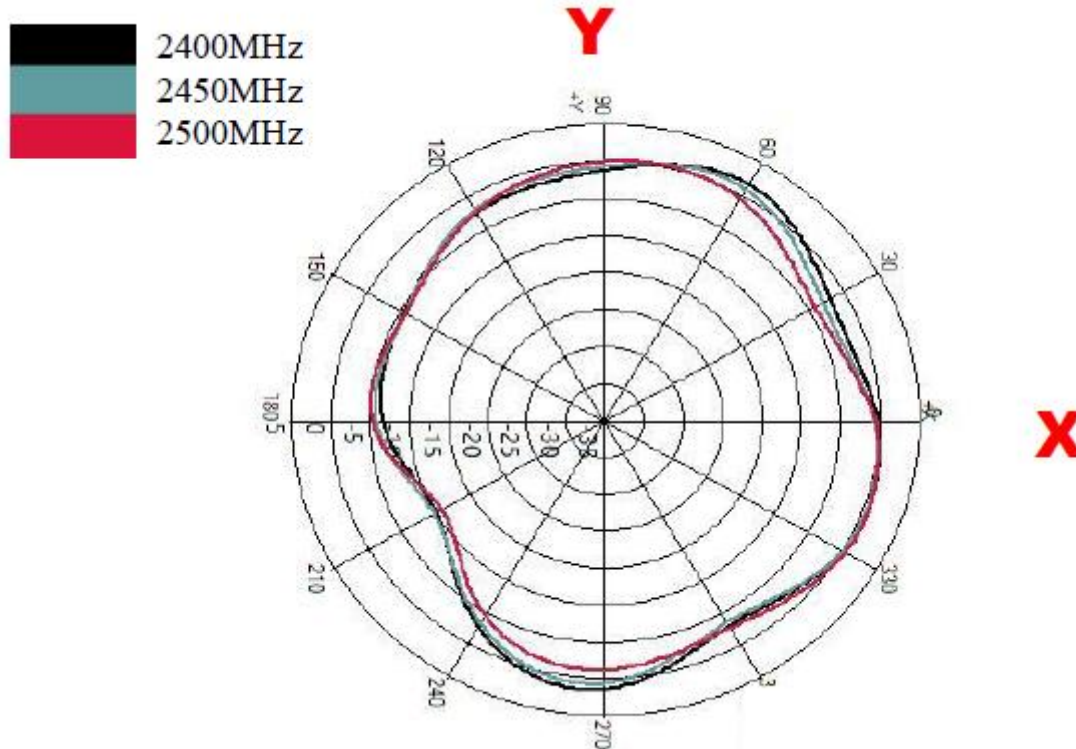
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SPEC REV.
A0

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]
2400	-0.11	-3.25	1.19	-2.72	1.98	-1.51
2450	0.33	-3.63	0.44	-2.71	1.22	-1.85
2500	0.55	-3.70	0.07	-3.12	0.48	-2.22

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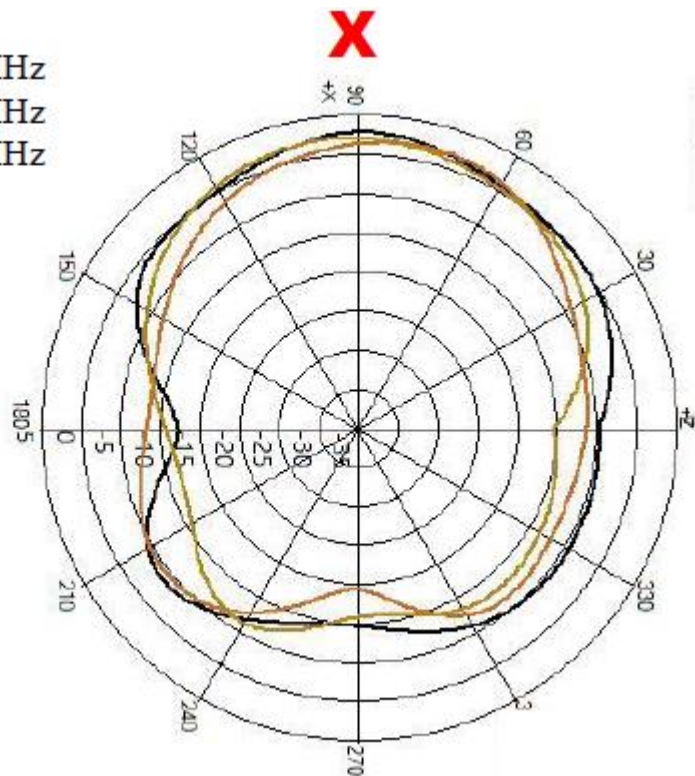
ENS070025490-000803514405

SPEC REV.
A0

5150~5850 MHz

Phi=0.00deg

Gain . dB



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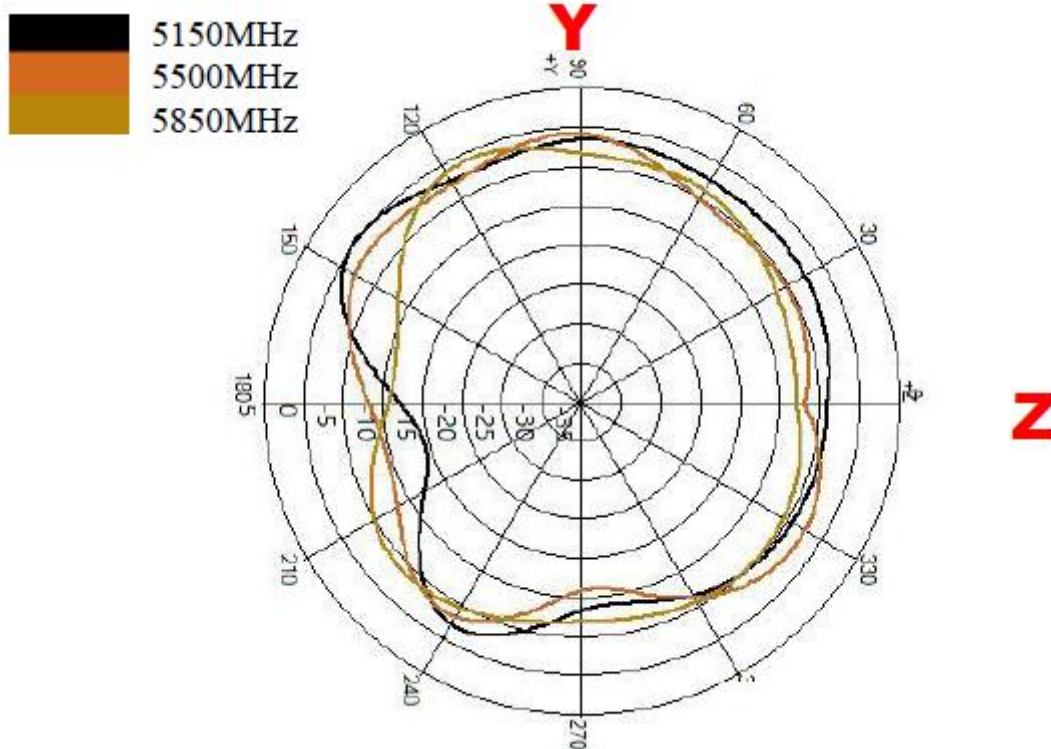
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SPEC REV.
A0

Phi=90.00deg

Gain . dB



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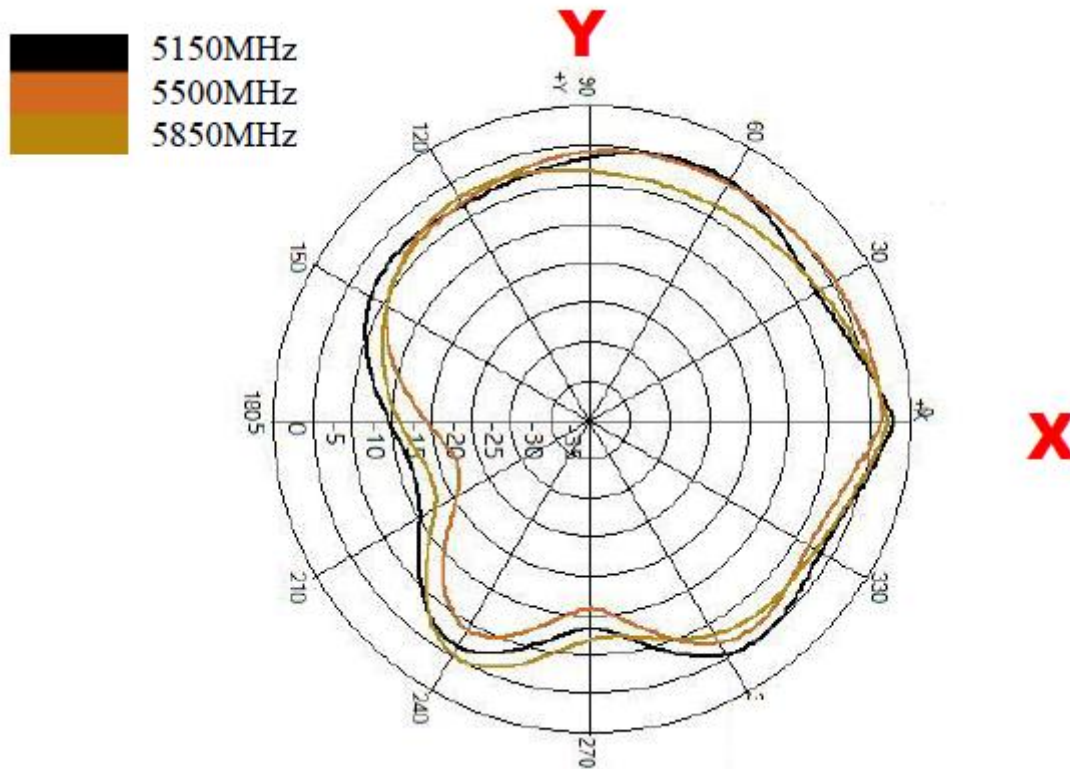
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SPEC REV.
A0

Theta=90.00deg

Gain . dB



Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
5150	2.99	-1.90	-0.51	-3.38	2.99	-1.77
5500	1.45	-3.42	-0.66	-4.25	1.45	-2.47
5850	2.23	-3.13	-1.08	-5.03	2.23	-2.67

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