



SPECIFICATION FOR APPROVAL

零件承認書

IEI Part Number :
(威強電料號)

CKP-32505-006200-100-RS

IEI Description :
(威強電料號描述)

**Dipole Antenna
2.4~2.5/5.15~5.85 GHz Dual Band Working
Frequency Halogens Free Product**

Manufacturer :
(製造商)

INPAQ TECHNOLOGY CO., LTD.

Manufacturer Model Name :
(製造商型號)

RFDPA171300SBLB801

Manufacturer Part Number :
(製造商料號)

RFDPA171300SBLB801

Manufacturer / Supplier Description :
(製造商/代理商料號描述)

2.4+5GHz Wi-Fi External Antenna

RoHS or Halogen Free :
(符合 RoHS 或無鹵)

RoHS

Manufacturer/Supplier contact window & stamped

(製造商/代理商窗口資訊及用印)

Enclosure List (附件清單)

One .Component approving sheet (零件承認書)

Y N

- | | |
|--|----------------------------|
| 1.English file name.....
(英文檔名) | V <input type="checkbox"/> |
| 2. Component Spec.....
(零件規格) | V <input type="checkbox"/> |
| 3. Component Monomer Packing.....
(零件單體封裝) | <input type="checkbox"/> V |
| 4. Component Dimension.....
(零件尺寸) | V <input type="checkbox"/> |
| 5. Component material approving.....
(零件材料承認) | V <input type="checkbox"/> |
| 6. Safety certificate of plastic material or component.....
(塑膠材質安規或零件安規) | <input type="checkbox"/> V |
| 7. Component Shipment Packing.....
(零件出貨包裝) | V <input type="checkbox"/> |

Two .Component RoHS test report in one year (零件一年內 RoHS 檢測報告)

- | | |
|---|----------------------------|
| 1. The third party test report...ex. SGS TEST REPORT.....
(第 3 公正單位測試報告...例如: SGS,ICT) | V <input type="checkbox"/> |
| 2. If there's no test report, please add the announcement at the attachment | <input type="checkbox"/> V |
| (無第 3 公正單位測試報告,提供自我宣告書) | |
| 3. The better is to add the MSDS at the attachment.....
(各原材料 MSDS) | V <input type="checkbox"/> |

Three. Item Attributes(零件特性)

- | | |
|--|-------|
| 1. Operating Temperature(Max.)..... | +65℃ |
| (最高使用溫度) | |
| 2. Operating Temperature(Min.)..... | -20℃ |
| 3. (最低使用溫度) | |
| 4. Storage Temperature(Max.)..... | +75℃ |
| (最高儲存溫度) | |
| 5. Storage Temperature(Min.)..... | -30℃ |
| 6. (最低儲存溫度) | |
| 7. Meeting IPC/JEDEC J-STD-20 MSL Classifications | _____ |
| (符合 IPC/JEDEC J-STD-20 MSL Classifications 等級) | |
| 6. If not meeting Item5,that can meet_____ (standard) and attached documents for
certifying.(如不符合上述第 5 項,可符合_____標準,並提供相關資料說明) | |

品名：RFDPA171300SBLB801

History List

[illegible]

品名：RFDPA171300SBLB801

客戶料號：CKP-32505-006200-100-RS

1. Explanation of part number：

RF	DPA	1713	00	S	B	L	B	8	01
Type Code	Product Code	Dipole Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
RF Device	DPA: Dipole Antenna	Per 2 digits of length, width e.g.: 1713 Length 172mm, Width 13mm	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.x GHz tri-band N: NFC T: LTE band W: WCDMA band	B: MP T: During Test X: Pile Run	0: None 1: Ø0.81 3: Ø1.13 6: RG316 7: Ø1.37 8: RG178	01~99 series number

2. Electrical Specification：

Item	Specification
Working Frequency Range	2.4 ~ 2.5 / 5.15 ~ 5.85 GHz (Note-1)
Peak Gain	2.4 ~ 2.5 GHz @ 2.22 dBi 5.15 ~ 5.85 GHz @ 4.29 dBi
Return Loss	-10dB(Max)
VSWR	2 max.
Polarization	Linear
Radiation Pattern	Omni-directional
Impedance	50Ω
Operation Temperature	-40℃ ~ +75℃
Storage Temperature	-40℃ ~ +85℃

If the operating or storage temperature is higher than 70 ° C, the antenna cover may be deformed by external load or gravity.

With slight deformation of the antenna cover, the antenna can maintain normal operation.

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

DRAWN BY：邱瑩鈺

CHECKED BY：詹惠雯

DESIGNED BY：

APPROVED BY：陳振榮

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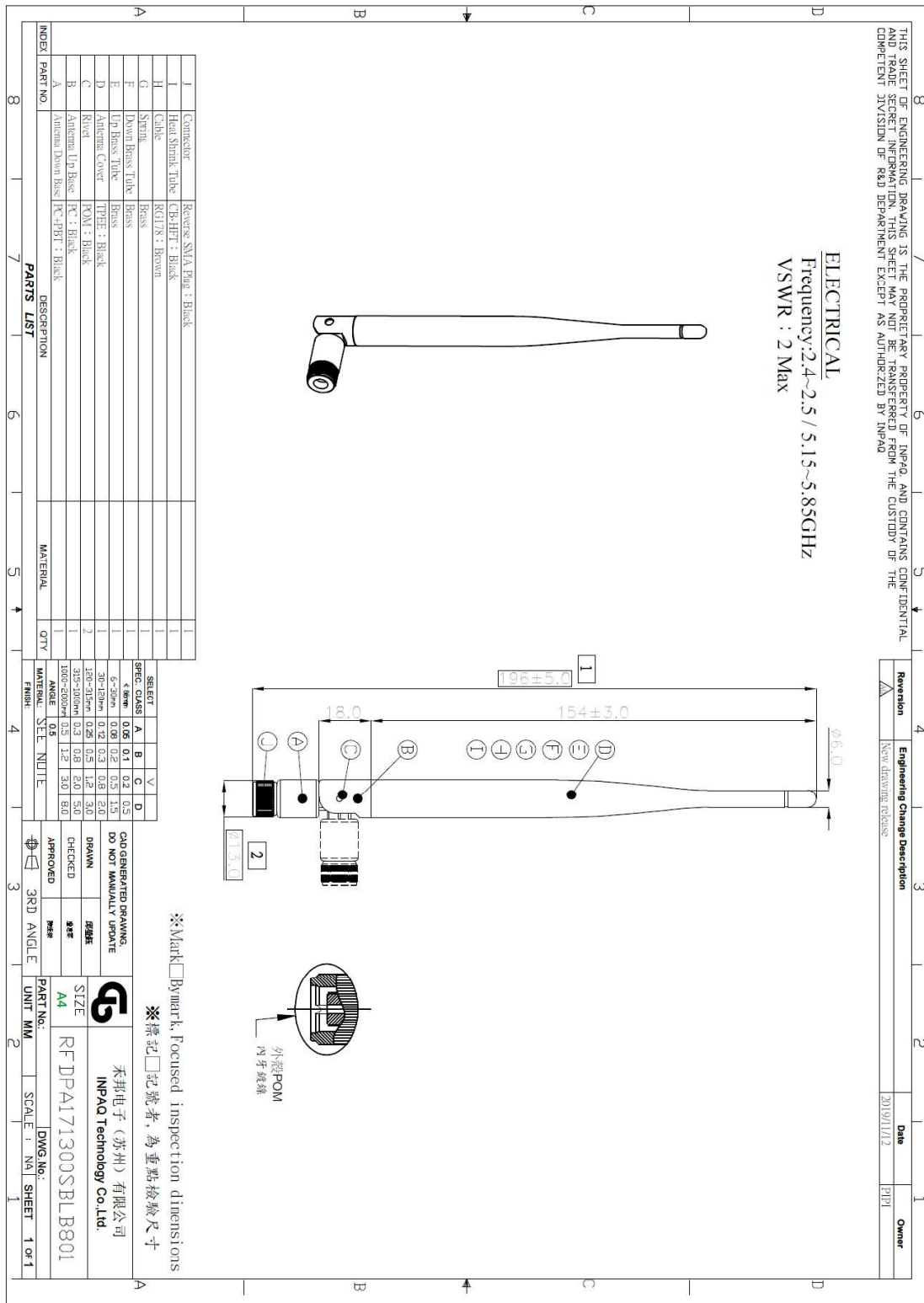
TITLE：RFDPA171300SBLB801

DOCUMENT NO.

ENS070001810-000821101778

SPEC REV.
A4

3. Drawing :



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=N/A

X.X=N/A

X.XX=N/A

ANGLES=N/A

HOLEDIA=N/A

SCALE : N/A

UNIT : mm

DRAWN BY : 邱盛鈺

CHECKED BY : 詹惠受

DESIGNED BY :

APPROVED BY : 陳振榮

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5. Performance Report

Equipment	Brand and test program	Calibrated Equipment	Calibration date
Reflection Coefficient Measurement	Keysight Network Analyzer	Keysight Network 85033E	2019/2/20
Pattern Measurement	Satimo Test Program: SPM V15	Satimo SD2450 (2G) SD5150 (5G) SD5450 (5G)	2019/4/23

Tested date : 2019/11/12

Test personnel : Jason Lin

■ Operating instructions:

- 1.Place the DUT at the center of the turntable,
- 2.Connecting the test cable to the DUT, and use the SPM software for passive measurement.
- 3.During the measured process, SATIMO SG24 will conduct radiation testing with the DUT through 23 probes by a vertical 360- degree; then the turntable will rotate a horizontal 180- degree.
4. After, a complete measurement of spherical 3D is completed.

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

DRAWN BY : 邱瑩鈺

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ELECTRICAL CHARACTERISTICS

Return Loss & Isolation



10dB-Return Loss

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

ANGLES=N/A HOLEDIA=N/A

SCALE : N/A

UNIT : mm

DRAWN BY : 邱瑩鈺

CHECKED BY : 詹惠受

DESIGNED BY :

APPROVED BY : 陳振榮



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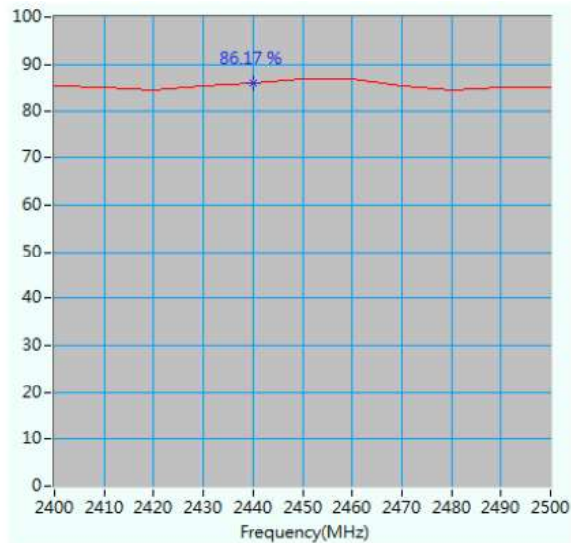
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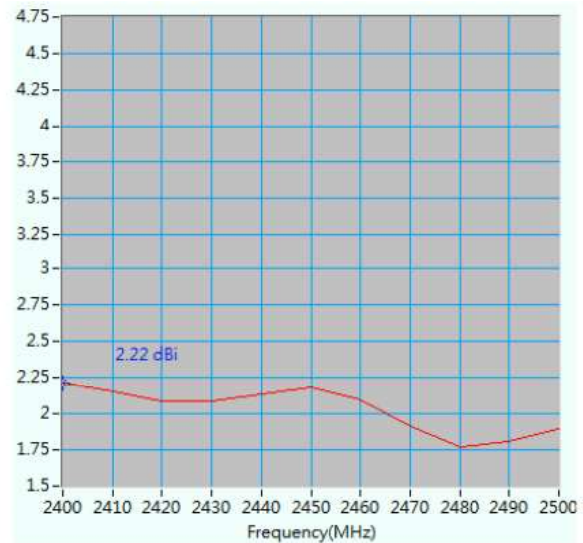
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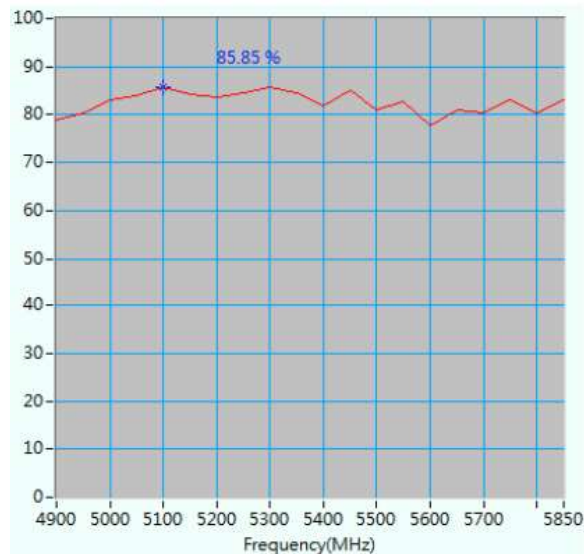
Efficiency & Peak Gain



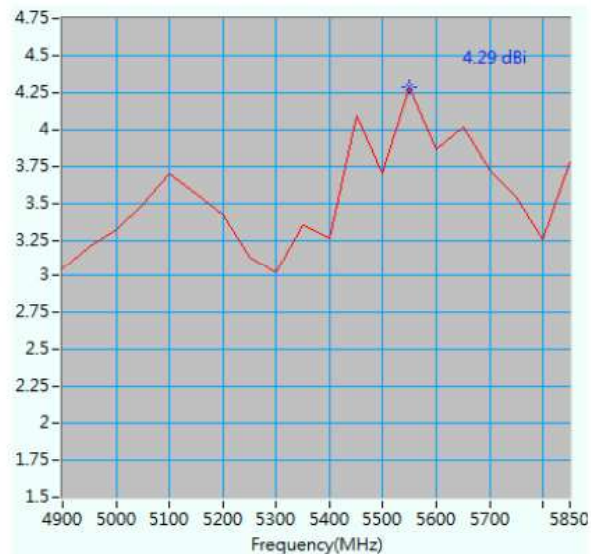
Maximum Efficiency at 2440 MHz : 86%



Maximum Efficiency at 2400 MHz : 2.22 dBi



Maximum Efficiency at 5100 MHz : 85 %



Maximum Efficiency at 5550 MHz : 4.29 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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UNIT : mm

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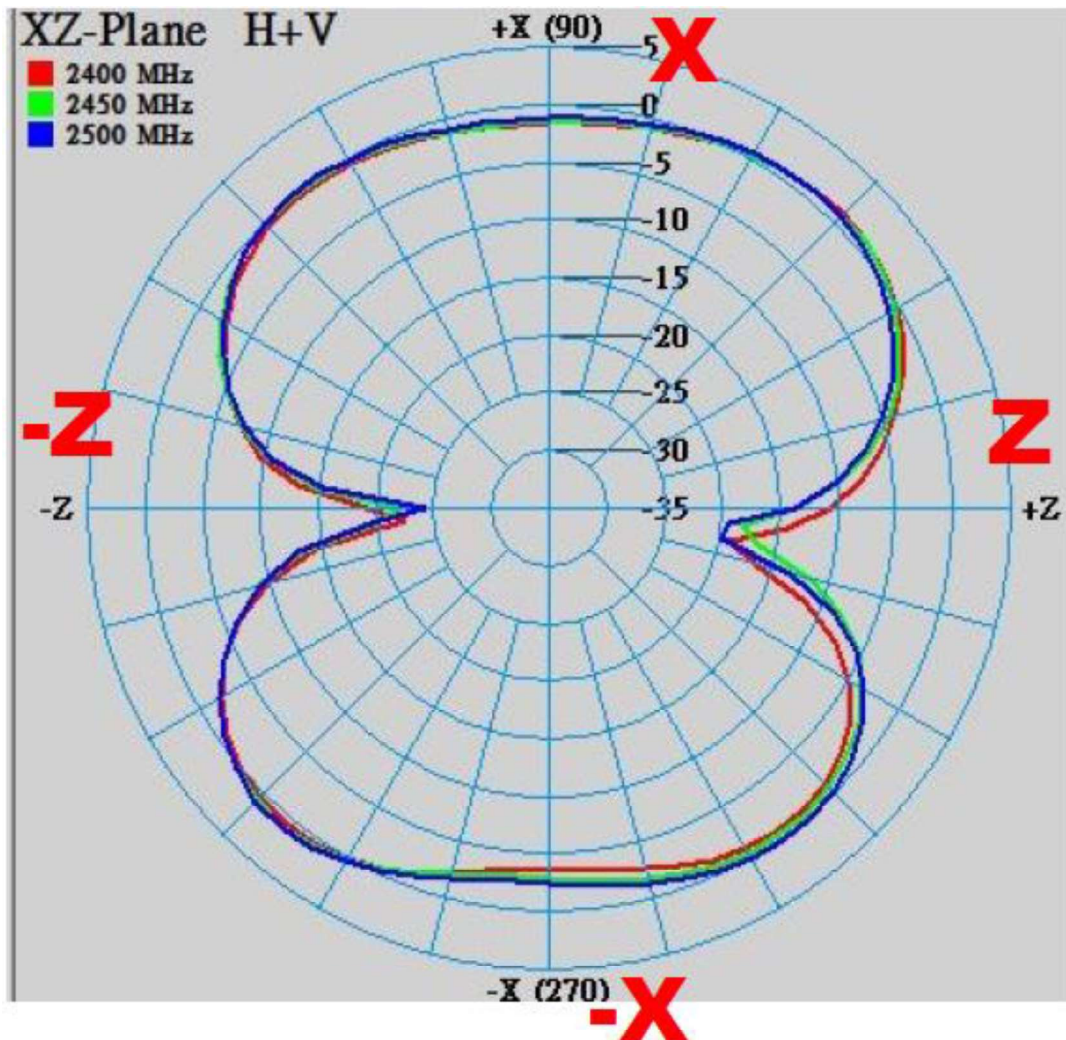
Radiation Patterns

2400~2500 MHz

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

SCALE : N/A

UNIT : mm

DRAWN BY : 邱瑩鈺

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DESIGNED BY :

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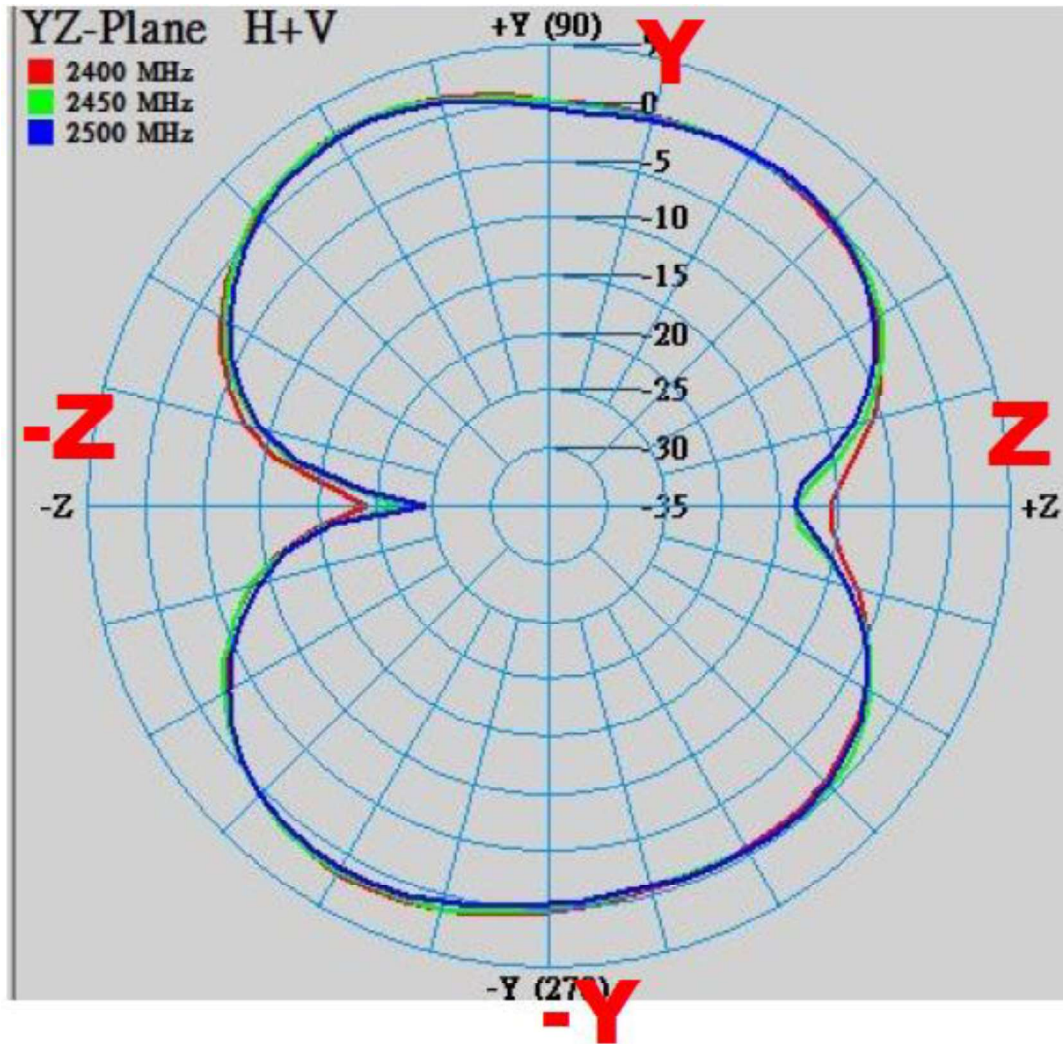
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A4

Y-Z Plane

Phi=90.00deg

Gain . dB



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=N/A X.X=N/A X.XX=N/A

ANGLES=N/A HOLEDIA=N/A

SCALE : N/A

UNIT : mm

DRAWN BY : 邱瑩鈺

CHECKED BY : 詹惠受

DESIGNED BY :

APPROVED BY : 陳振榮

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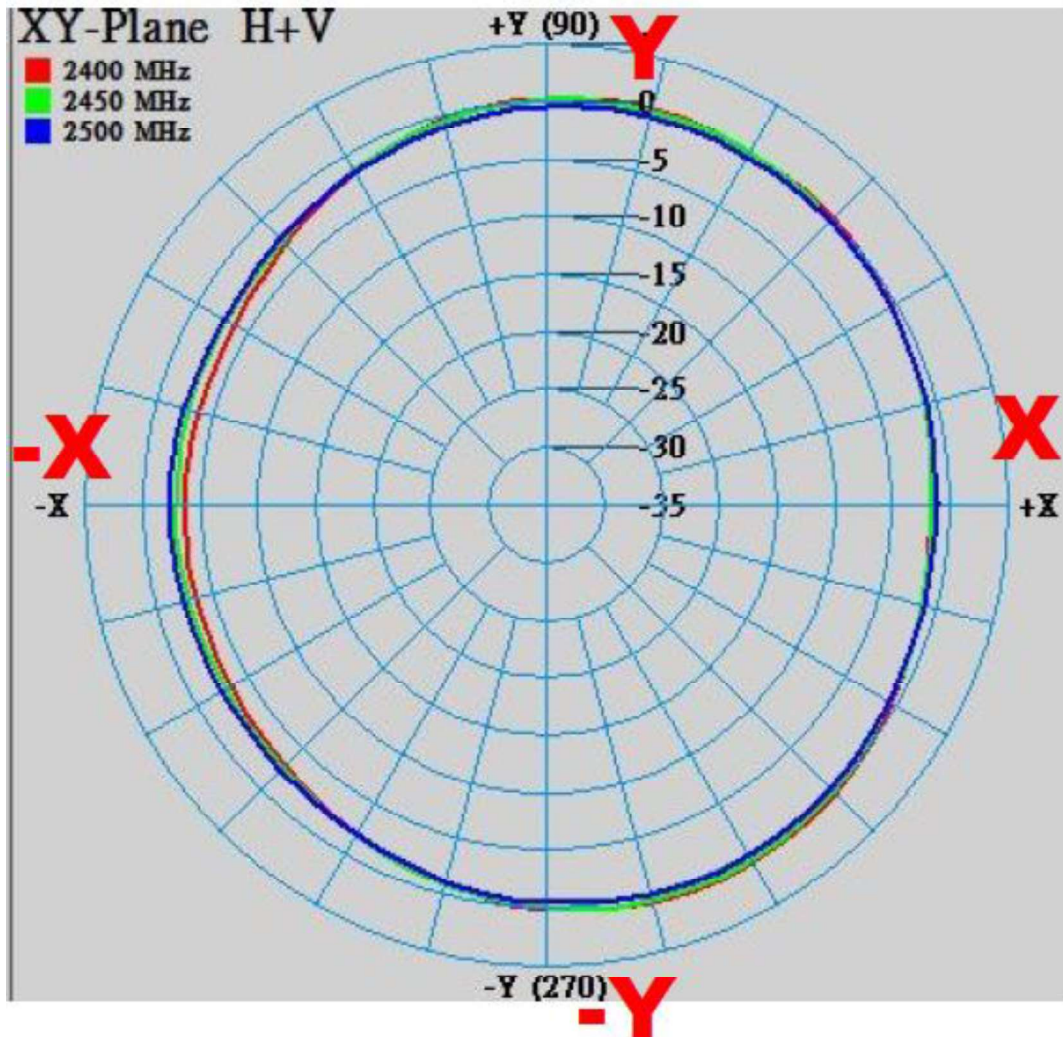
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X-Y Plane

Theta=90.00deg

Gain . dB



	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	1.04	-2.08	2.22	-1.06	0.82	-1.04
2450	1.01	-1.86	2.13	-1.07	0.64	-0.99
2500	1.06	-1.76	1.83	-1.39	0.11	-1.16

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

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DESIGNED BY :

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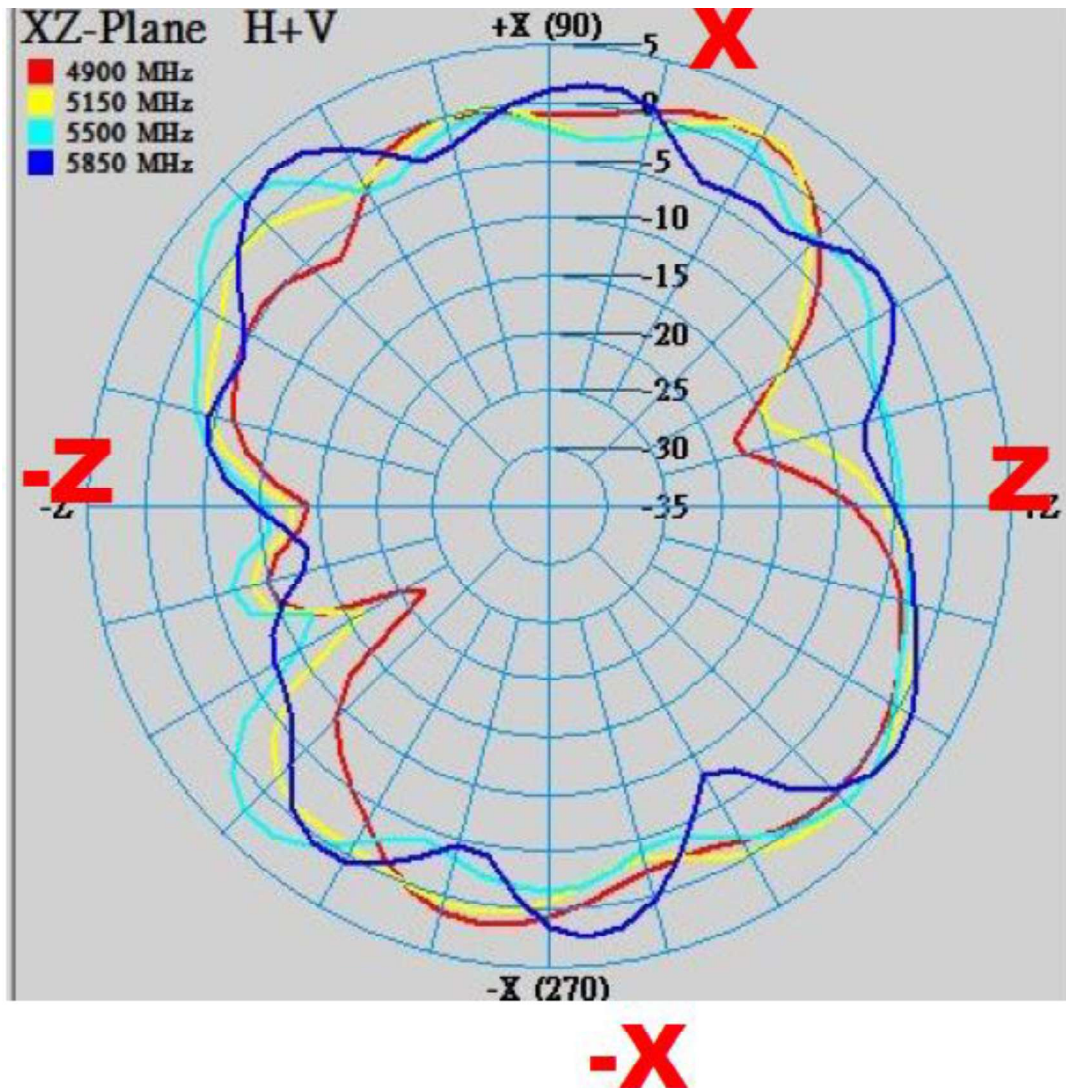
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5150~5850 MHz**X-Z Plane****Phi=0.00deg****Gain . dB**

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=N/A X.X=N/A X.XX=N/A

ANGLES=N/A HOLEDIA=N/A

SCALE : N/A

UNIT : mm

DRAWN BY : 邱瑩鈺

CHECKED BY : 詹惠受

DESIGNED BY :

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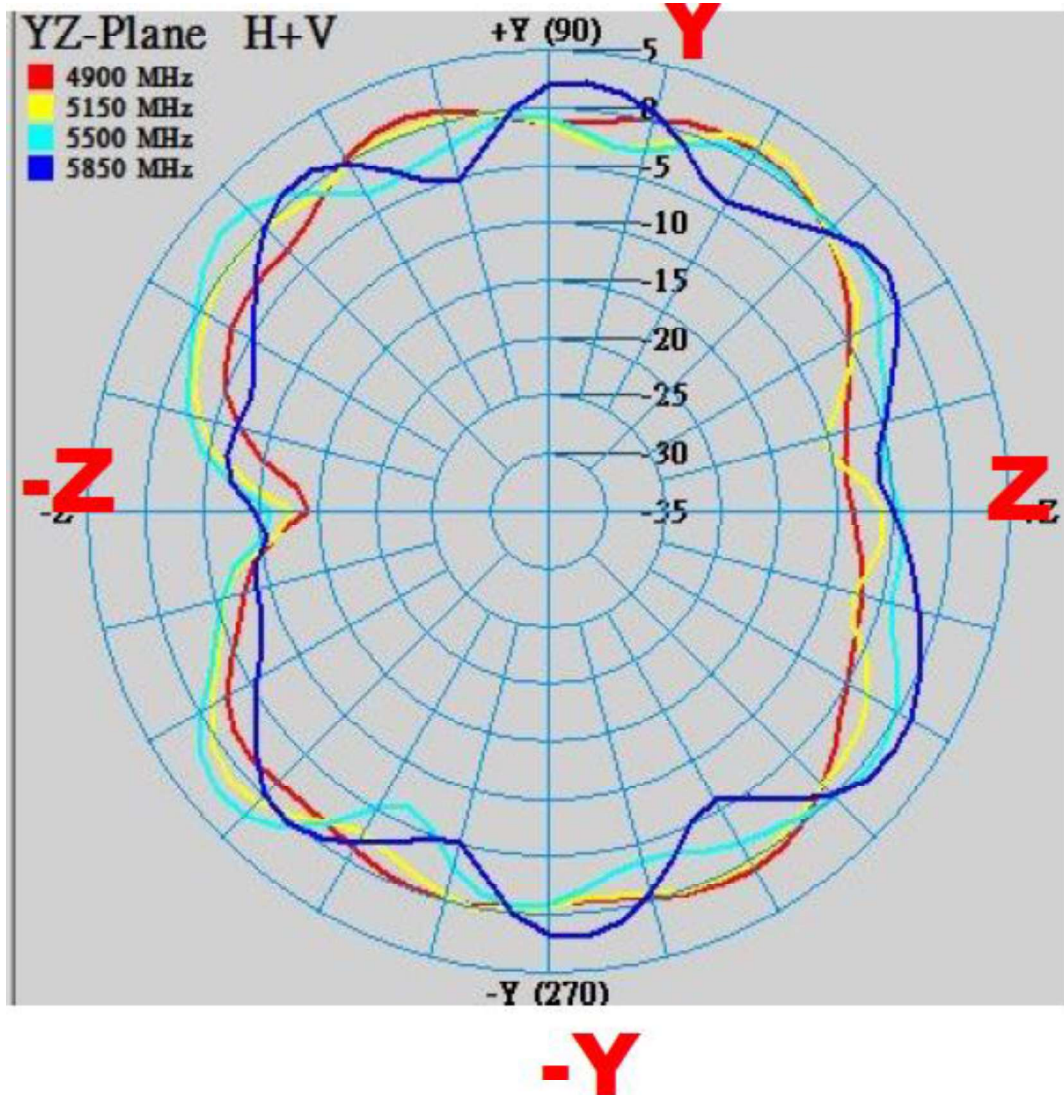
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SPEC REV.
A4

Y-Z Plane

Phi=90.00deg

Gain . dB



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=N/A X.X=N/A X.XX=N/A

ANGLES=N/A HOLEDIA=N/A

SCALE : N/A

UNIT : mm

DRAWN BY : 邱瑩鈺

CHECKED BY : 詹惠受

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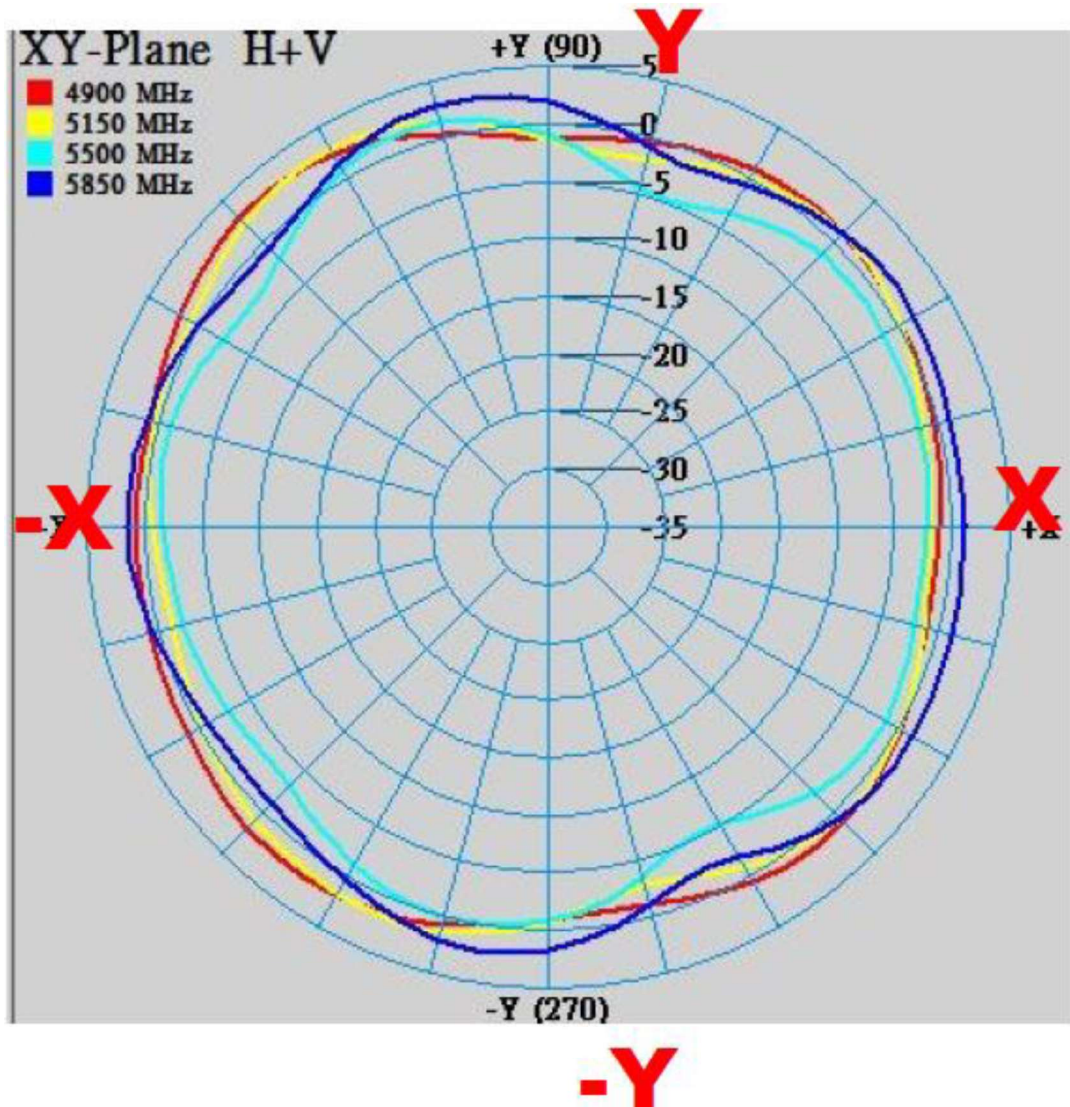
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X-Y Plane

Theta=90.00deg

Gain . dB



Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
4900	1.98	-2.50	1.31	-1.95	3.05	0.67
5150	2.33	-1.91	1.91	-1.62	3.56	0.20
5500	4.29	-1.56	2.74	-1.44	1.48	-1.69
5850	2.78	-1.60	2.30	-1.70	3.77	0.73

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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UNIT : mm

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