

品名：RFFPA281332IMLB301

History List

[illegible]

品名：RFFPA281332IMLB301

客戶：光峰

客戶料號：E22030000200

1. Explanation of part number :

RF	FPA	2813	32	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.: 2924 Length 29.6mm, Width 24.7mm	2 digits for cable length e.g.: 33 Length 33.5cm	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: $\varnothing$ 0.81 2: $\varnothing$ 1.32 3: $\varnothing$ 1.13 4: Low Loss $\varnothing$ 1.13 5: $\varnothing$ 0.5 6: RG316 7: $\varnothing$ 1.37 8: RG178 9: Low Loss $\varnothing$ 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)	2.82 dBi@2.4~2.5 GHz 4.56 dBi@5.15~5.85 GHz
VSWR	< 2.0
Impedance	50 Ohm Nominal
Radiation	Omni-directional
Polarization	Linear Vertical
Operation Temperature	-20°C ~ +65°C

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 : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : RFFPA281332IMLB301

DOCUMENT NO.

SPEC REV.
P0

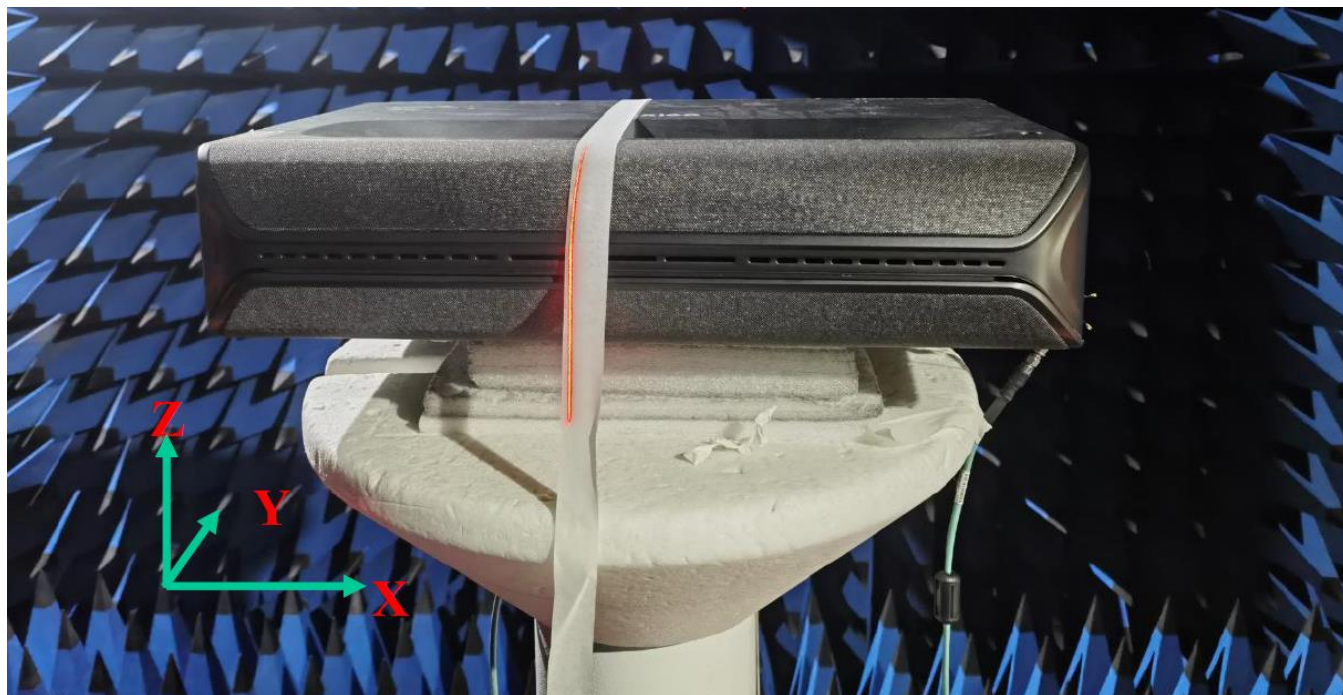
3. Antenna Drawing :



4. Performance Report :

Test Report

■ Experimental Setup



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 : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

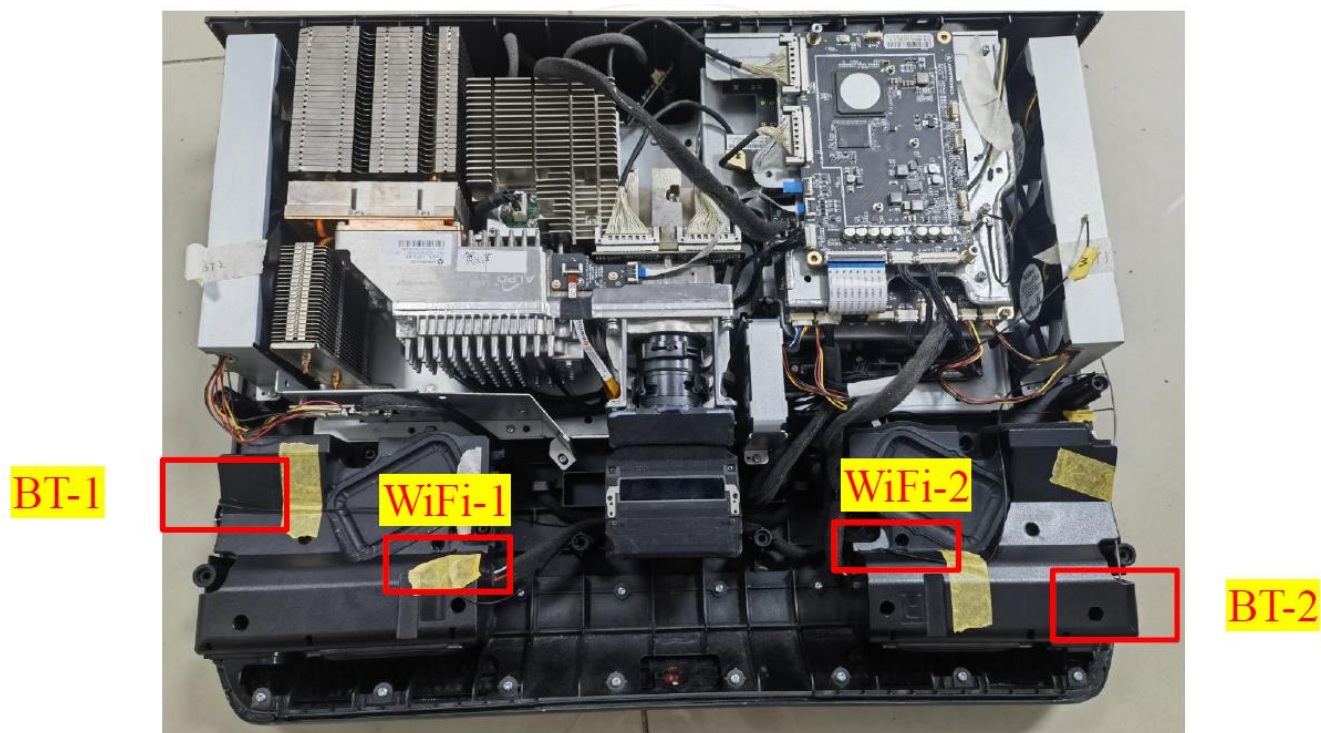
APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
 INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
 OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
 APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : RFFPA281332IMLB301

DOCUMENT
NO.SPEC REV.
P0

■ Antenna Solution Detail



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 : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : RFFPA281332IMLB301

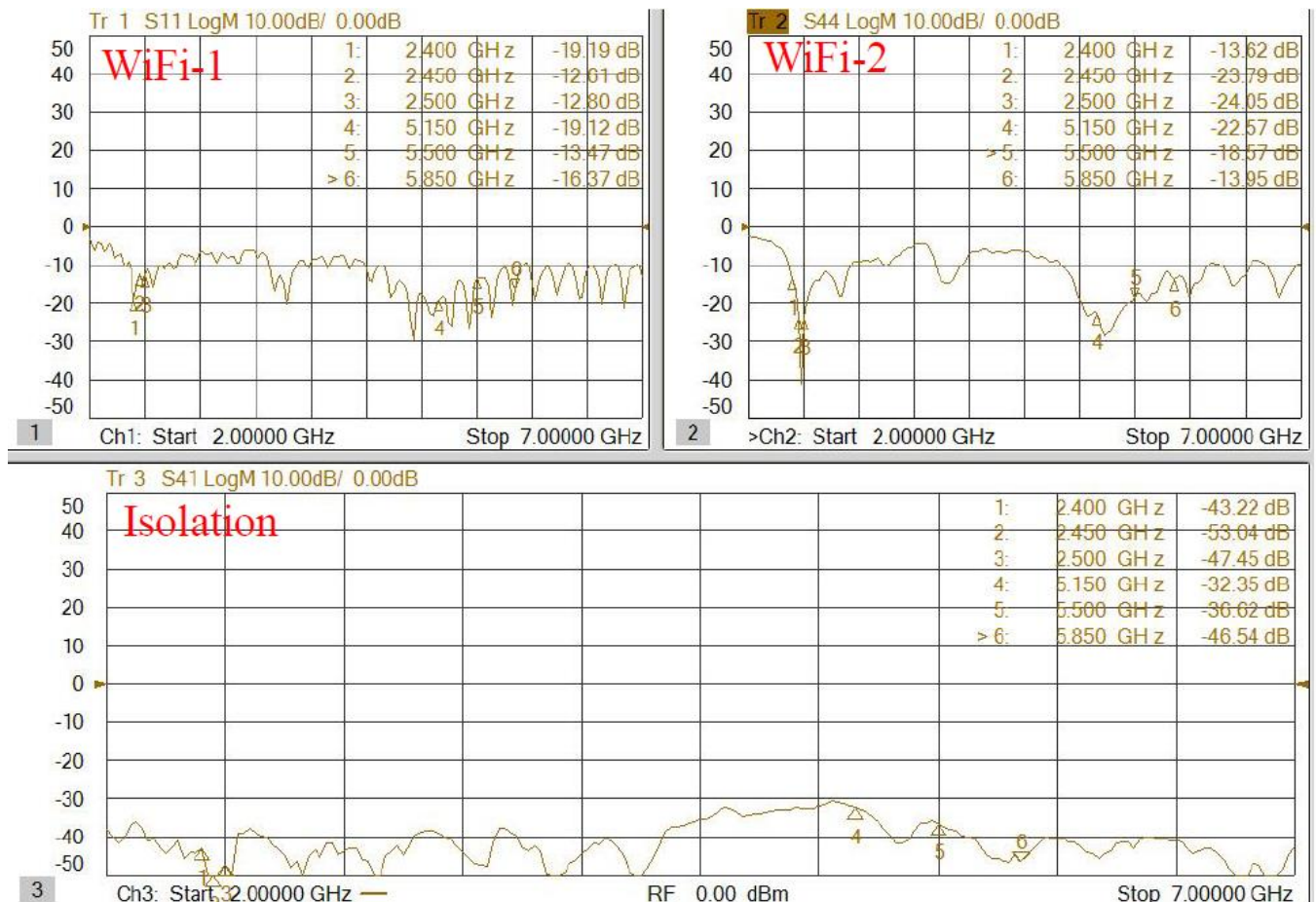
DOCUMENT
NO.

SPEC REV.
P0

ELECTRICAL CHARACTERISTICS

Return Loss & Isolation

WiFi-2



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 : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

TITLE : RFFPA281332IMLB301

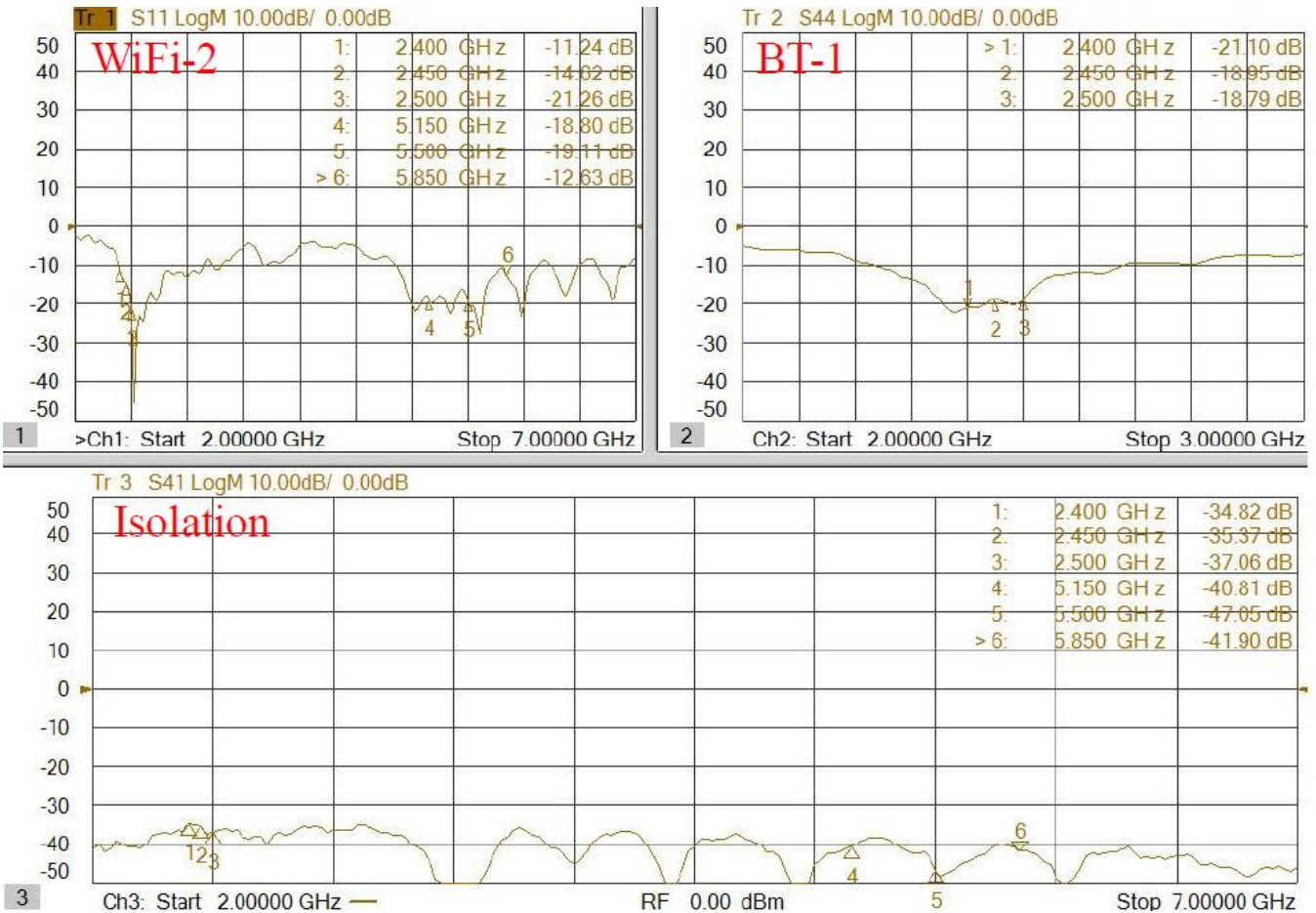


INPAQ TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

SPEC REV.
P0



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 : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

TITLE : RFFPA281332IMLB301

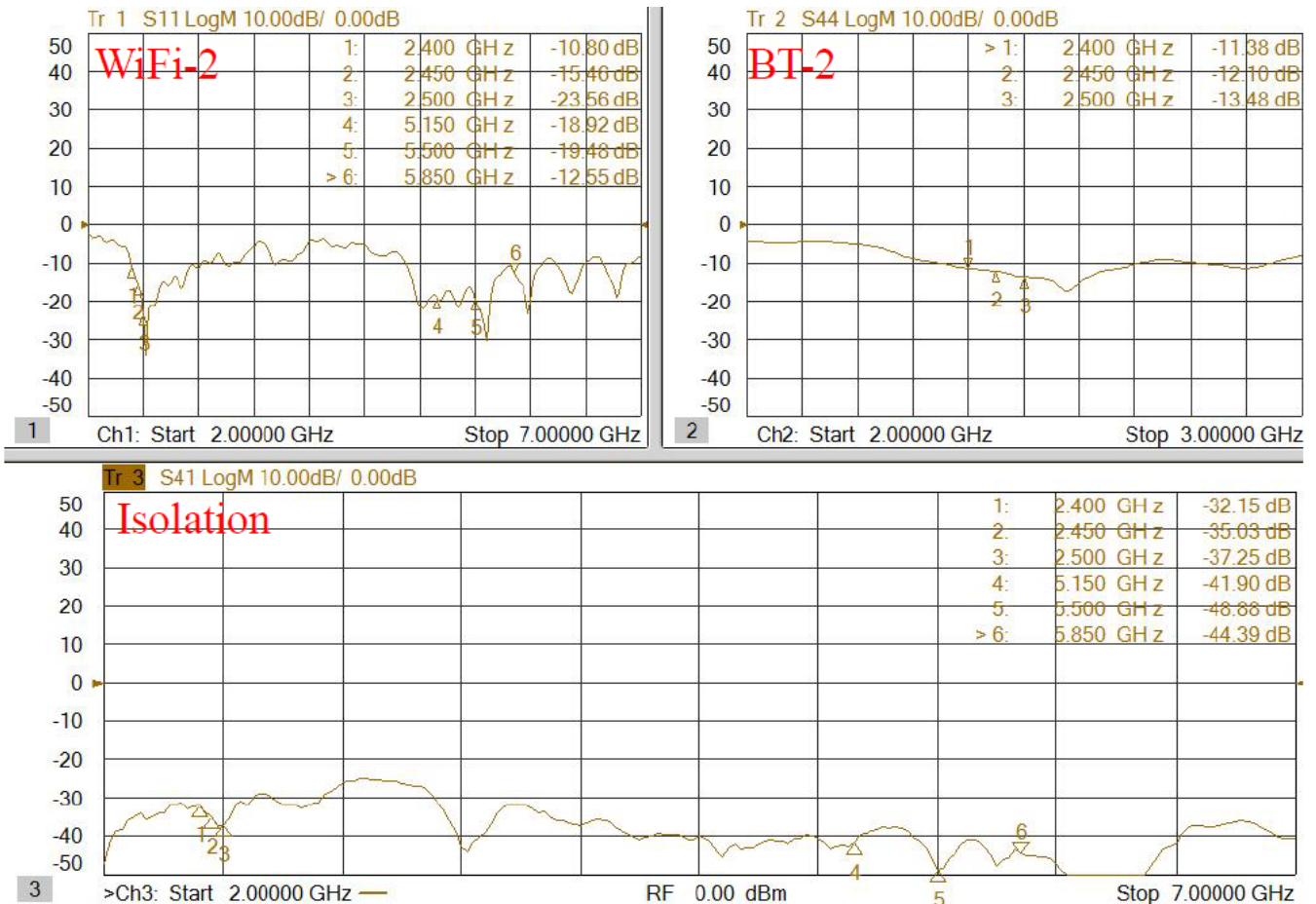


INPAQ TECHNOLOGY CO., LTD.

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

SPEC REV.
P0



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 : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

TITLE : RFFPA281332IMLB301



INPAQ TECHNOLOGY CO., LTD.

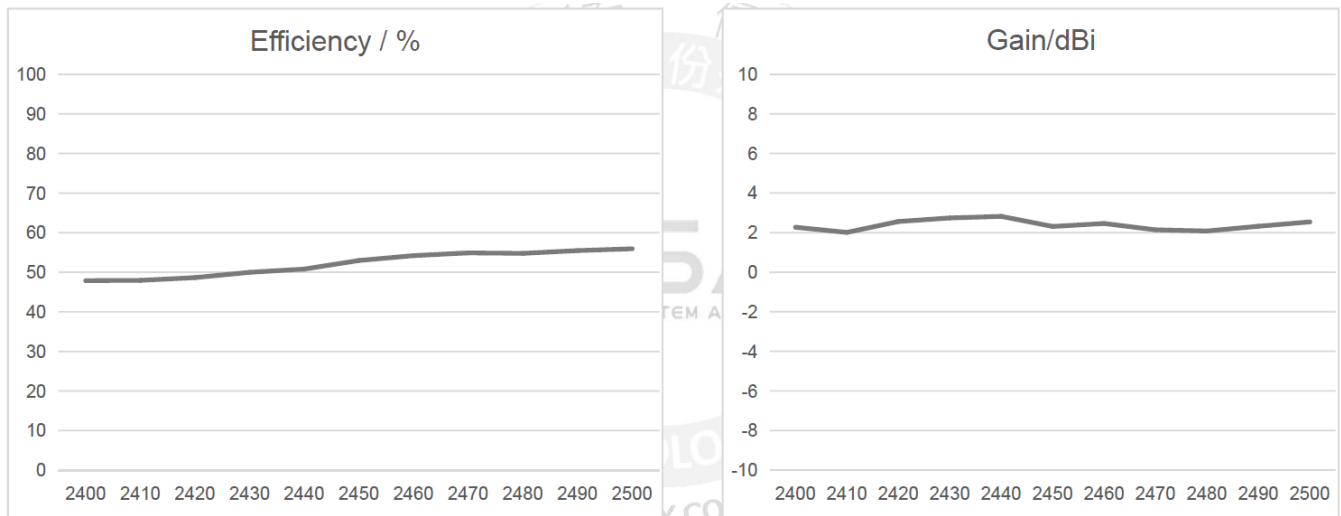
THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION

DOCUMENT
NO.

SPEC REV.
P0

■ Antenna Efficiency & Peak Gain

2G



Maximum Efficiency at 2500 MHz : 55.93 %

Maximum Peak Gain at 2440 MHz : 2.82 dBi

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 : 李欣樺

CHECKED BY : 詹惠雯

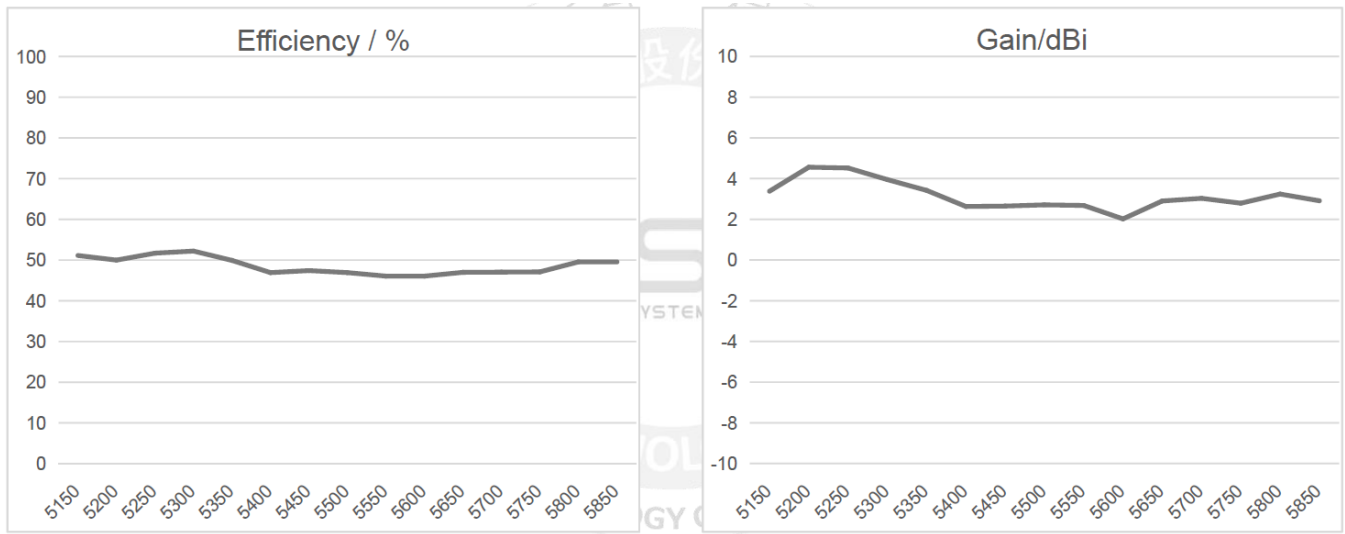
DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : RFFPA281332IMLB301

DOCUMENT
NO.SPEC REV.
P0

5G

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 : 李欣樺****CHECKED BY : 詹惠雯****DESIGNED BY : 黃瑞郎****APPROVED BY : 陳振榮**

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
 INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
 OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
 APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : RFFPA281332IMLB301

DOCUMENT
NO.

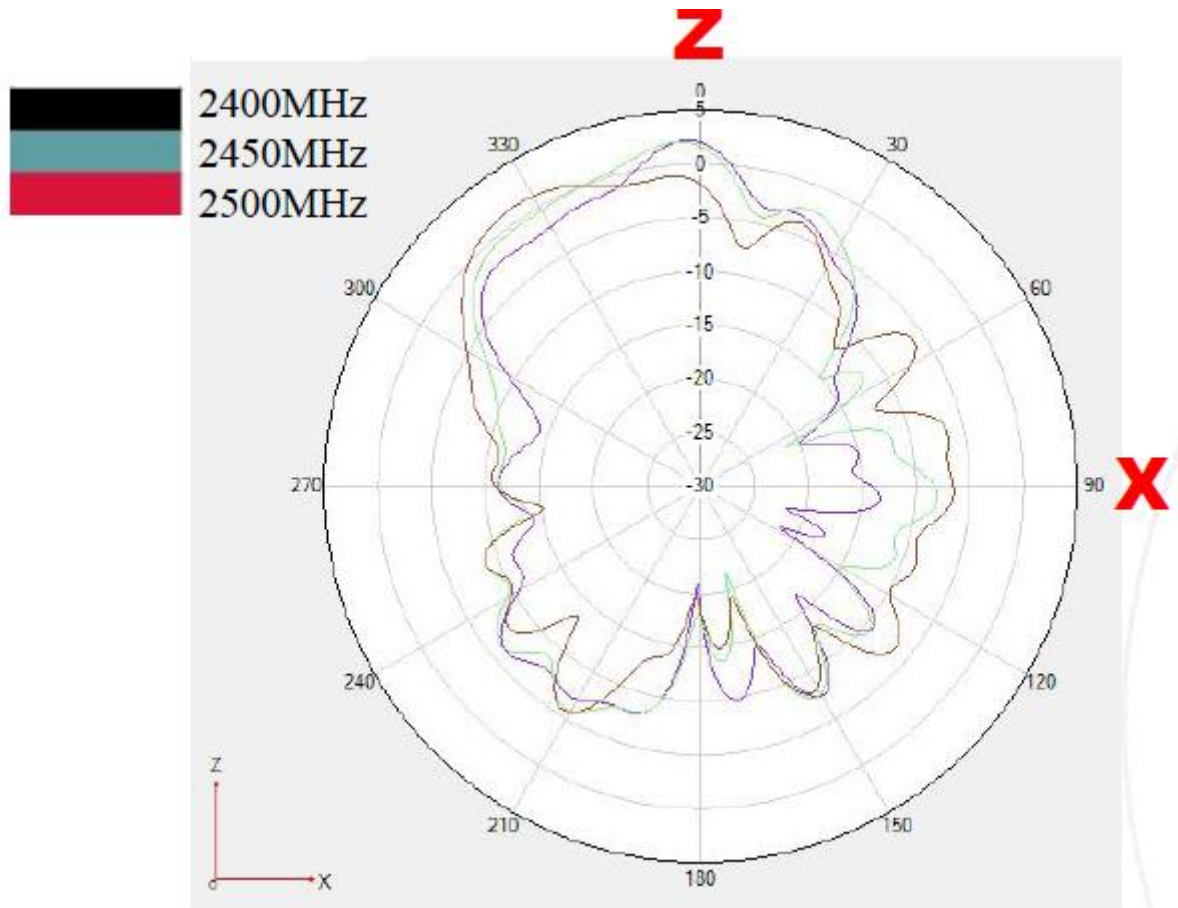
SPEC REV.
P0

RADIATION PATTERN

2400~2500 MHz

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.

SCALE : N/A

UNIT : mm

DRAWN BY : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
APPARATUS OR DEVICES WITHOUT PERMISSION

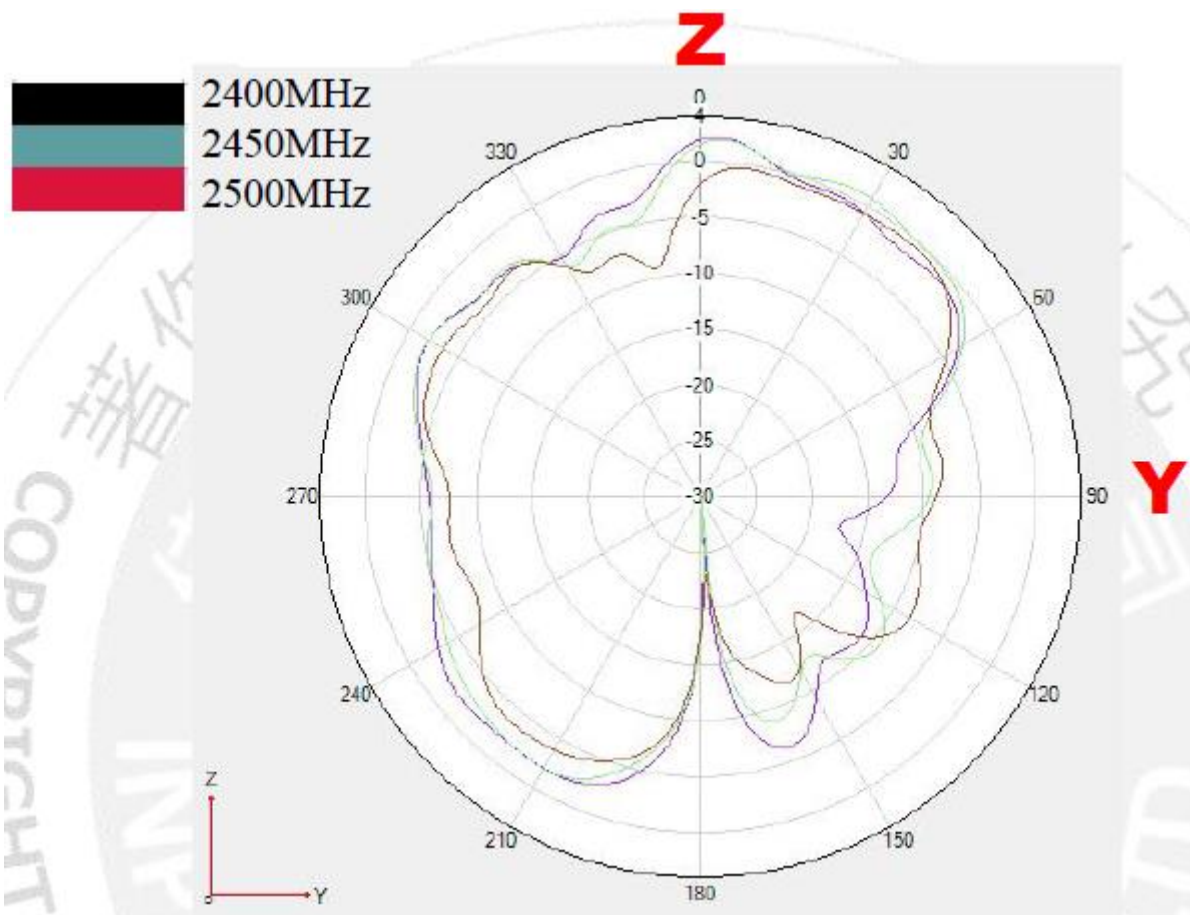
TITLE : RFFPA281332IMLB301

DOCUMENT
NO.

SPEC REV.
P0

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



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A

UNIT : mm

DRAWN BY : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
 INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
 OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
 APPARATUS OR DEVICES WITHOUT PERMISSION

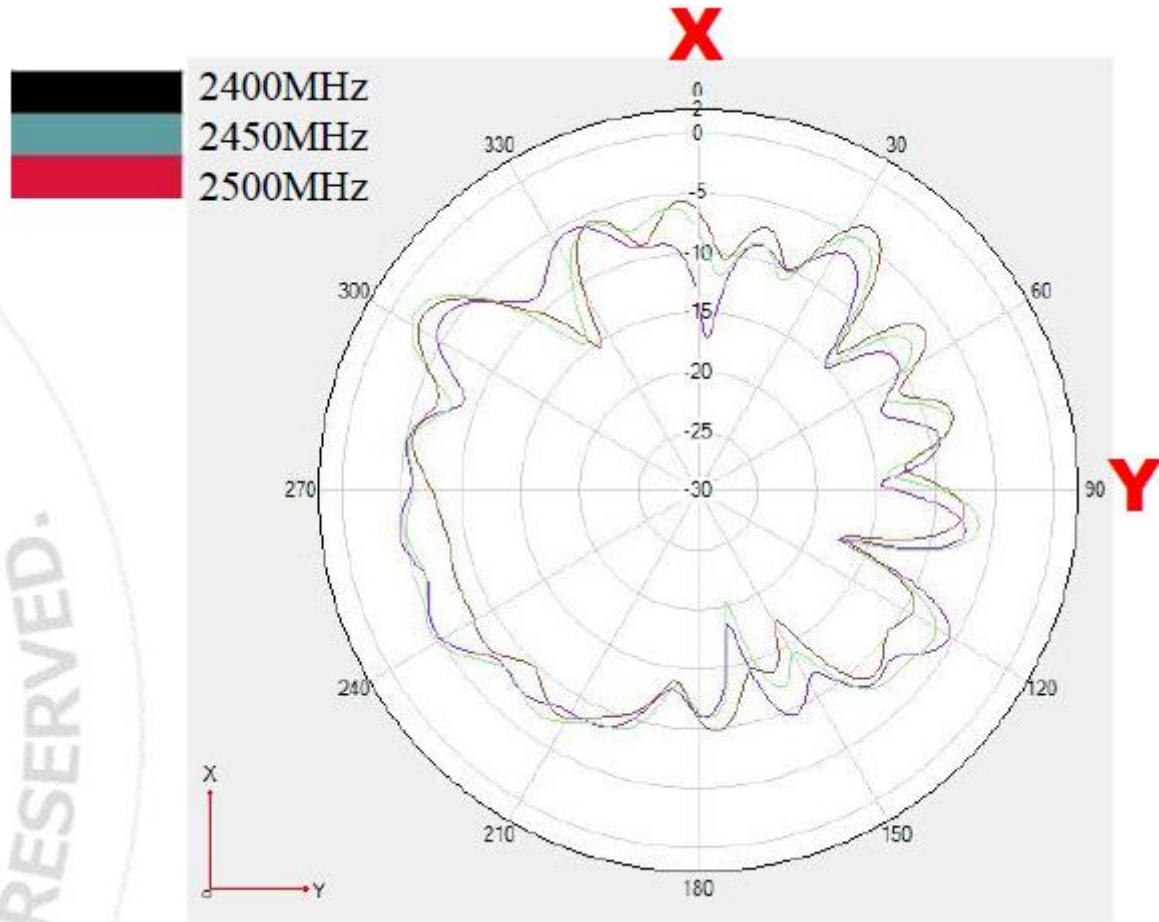
TITLE : RFFPA281332IMLB301

DOCUMENT
NO.

SPEC REV.
P0

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]
2400	2.16	-7.89	2.16	-4.61	-3.99	-8.53
2450	2.07	-6.89	1.94	-4.53	-1.79	-8.11
2500	1.31	-6.83	-0.35	-5.91	-2.45	-8.63

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 : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
 INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
 OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
 APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : RFFPA281332IMLB301

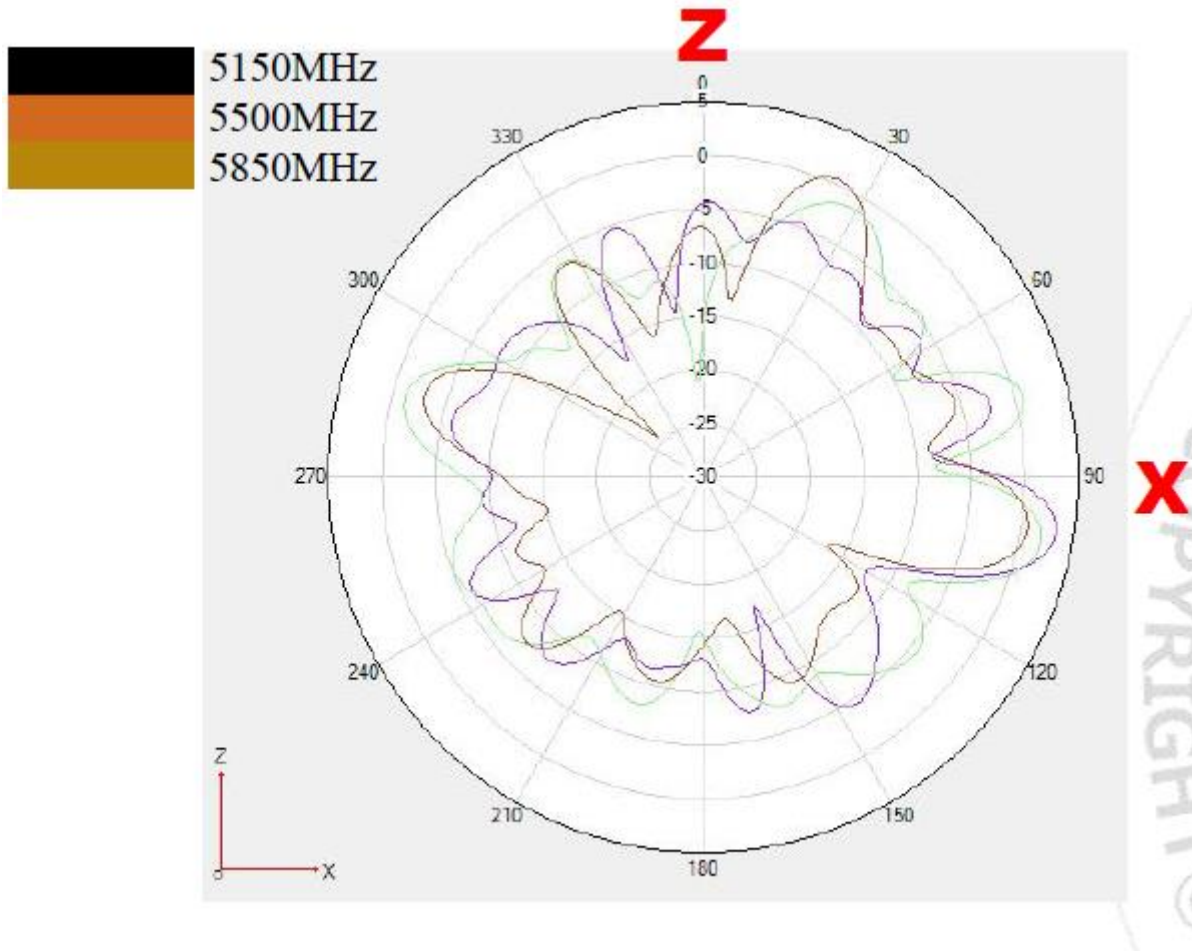
DOCUMENT
NO.

SPEC REV.
P0

5150~5850 MHz

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.

SCALE : N/A

UNIT : mm

DRAWN BY : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
 INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
 OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
 APPARATUS OR DEVICES WITHOUT PERMISSION

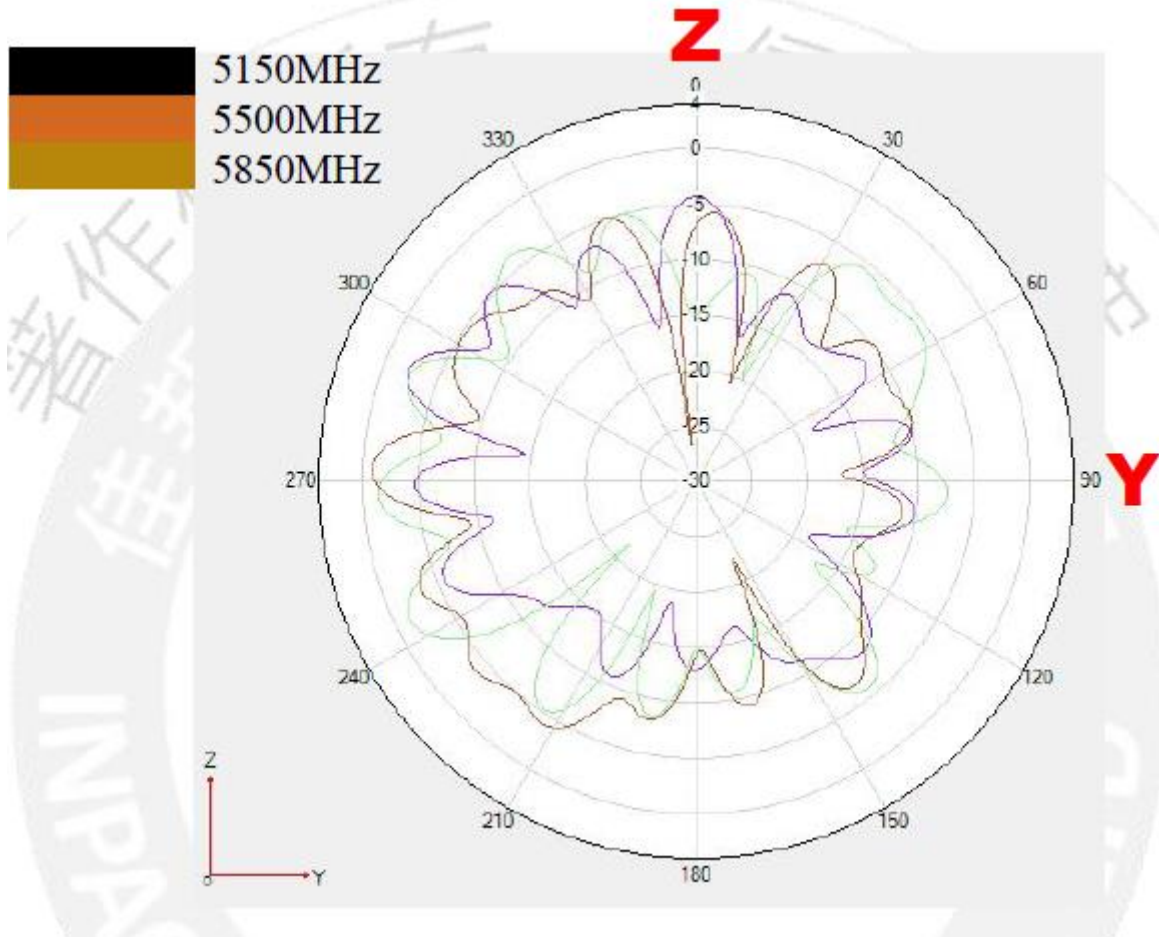
TITLE : RFFPA281332IMLB301

DOCUMENT
NO.

SPEC REV.
P0

$\Phi = 90.00^\circ$

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.

SCALE : N/A

UNIT : mm

DRAWN BY : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
APPARATUS OR DEVICES WITHOUT PERMISSION

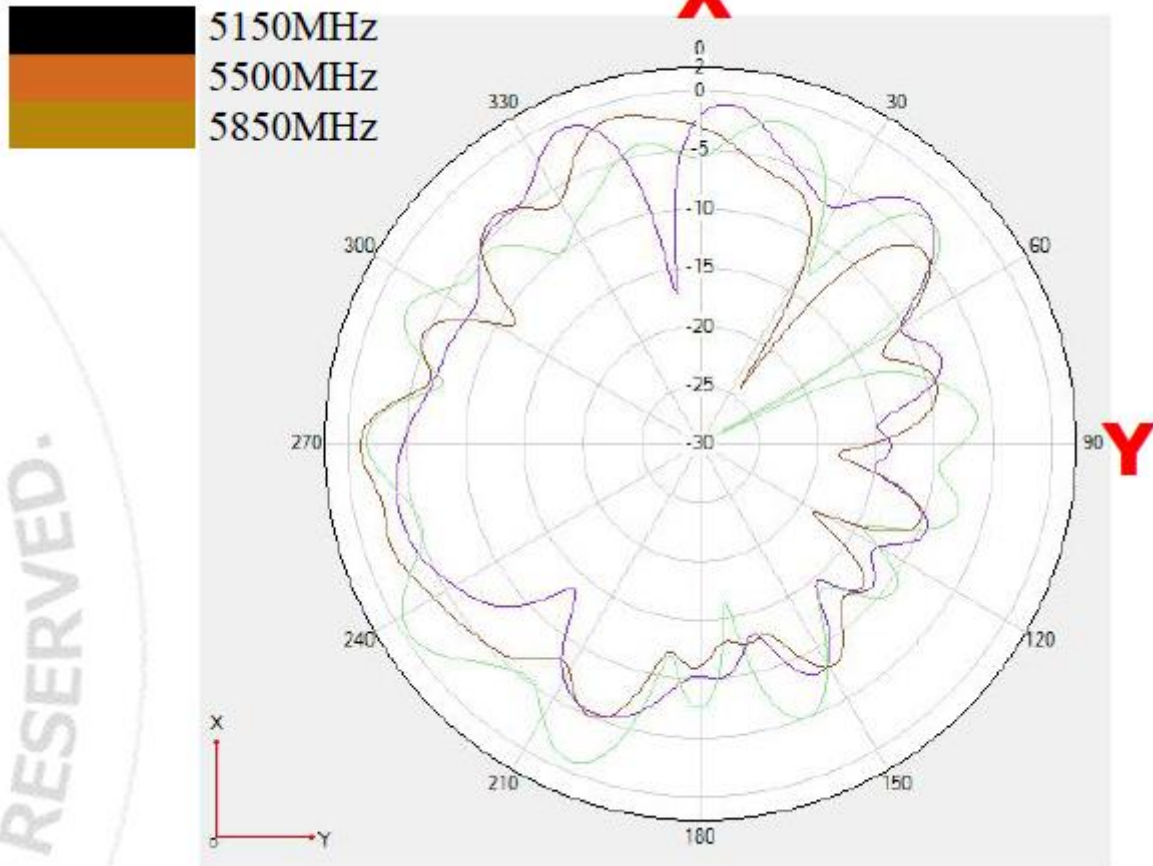
TITLE : RFFPA281332IMLB301

DOCUMENT
NO.

SPEC REV.
P0

Theta=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



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A

UNIT : mm

DRAWN BY : 李欣樺

CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF
INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED
OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF
APPARATUS OR DEVICES WITHOUT PERMISSION

TITLE : RFFPA281332IMLB301

DOCUMENT
NO.

SPEC REV.
P0