


1.Explanation of part number :

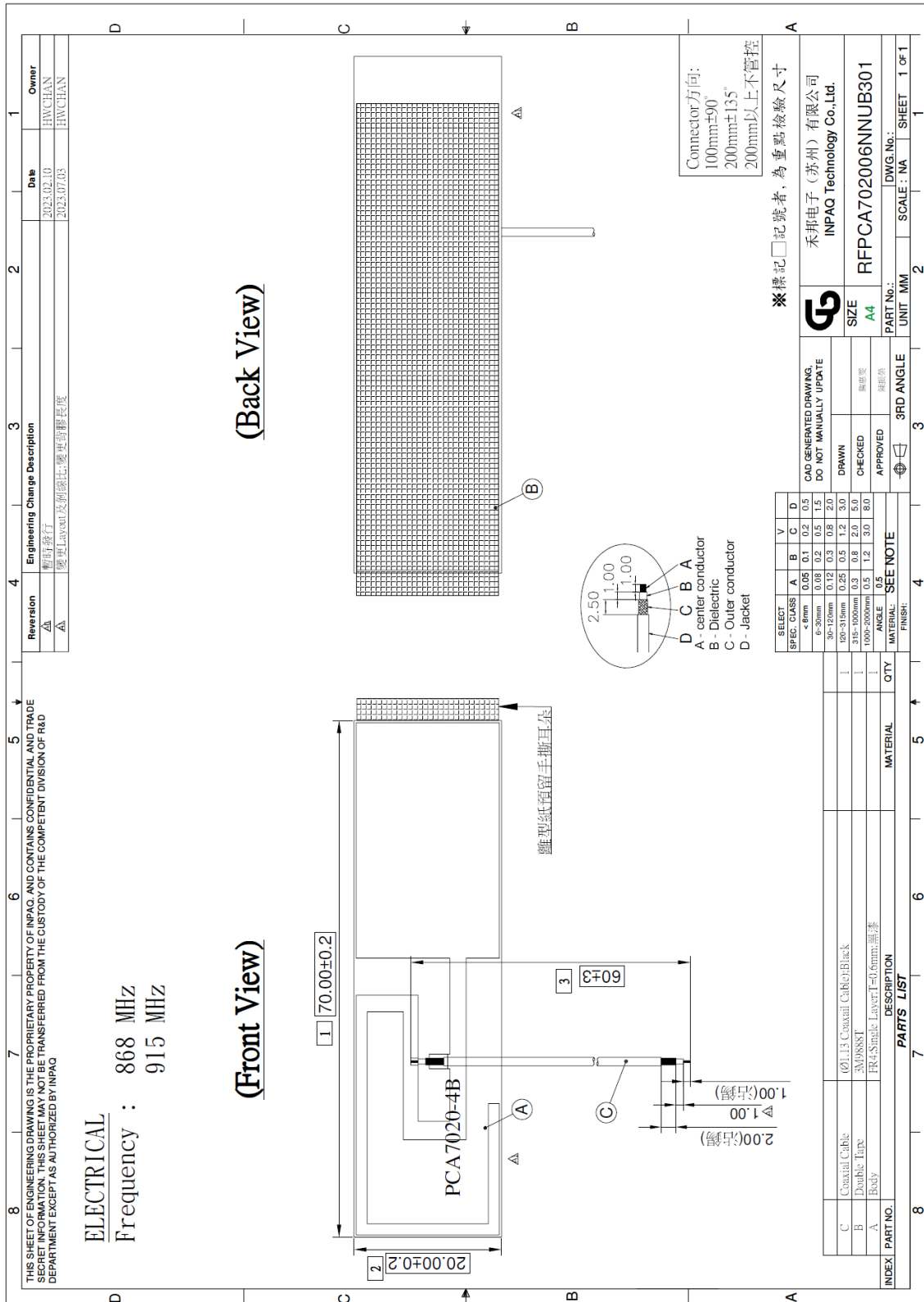
| RF | PCA | 7020 | 06 | N | N | U | B | 3 | 01 |
|------------------|--------------|--|--|--|--|---|--|---|---------------------|
| Type Code | Product Code | PCB Dimension (Unit: mm) | Cable Length (unit: cm) | Connector Brand | Type of Connector | Application | Project status | Wire Diameter | Project |
| Walsin RF Device | PCB Antenna | Per 2 digits of length, width e.g.:7020 Length 70.0mm, Width 20.0mm | 2 digits for cable length e.g.06 Cable Length: 6.0cm | 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 U: UHF(470~860MHz) Lora(433、868、915MHz) Sigfox(歐洲 868MHz ; 美國 915MHz) 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 | 868 / 915 MHz |
| Return Loss | -10 dB |
| Peak Gain | 2.99 dBi (@863 ~ 873 MHz) 2.95 dBi (@910 ~ 920 MHz) |
| VSWR | 2 max. |
| Polarization | Linear Vertical |
| Radiation Pattern | Directional |
| Impedance | 50Ω |
| 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 | |  INPAQ TECHNOLOGY CO., LTD. |
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| TITLE : RFPCA702006NNUB301 | | DOCUMENT NO. ENS070029070-000803720763 |
| | | SPEC REV. A0 |

3. Antenna Drawing :

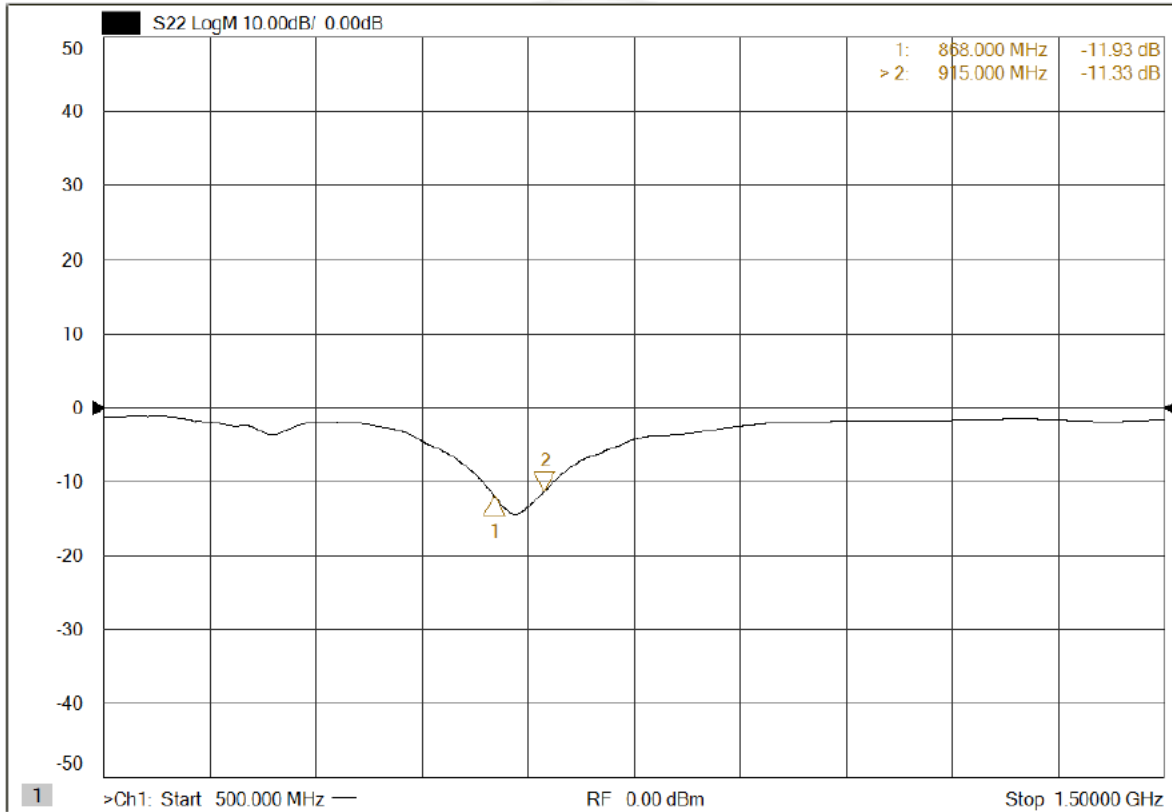



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|--|---------------------------|---|-----------------------------------|---------------------|--|
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| ANGLES = N/A HOLEDIA = N/A | | THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF INPAQ TECHNOLOGY CO.,LTD.AND SHALL NOT BE REPRODUCED OR USED AS THE BASIS FOR THE MANUFACTURE OR SALE OF APPARATUS OR DEVICES WITHOUT PERMISSION | | | |
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ELECTRICAL CHARACTERISTICS

868MHz

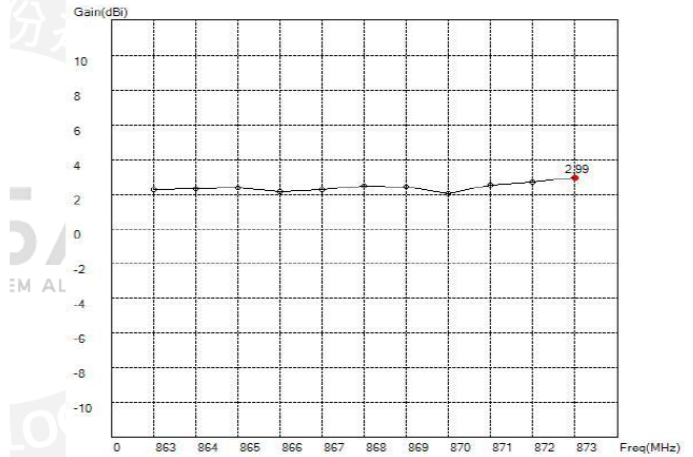
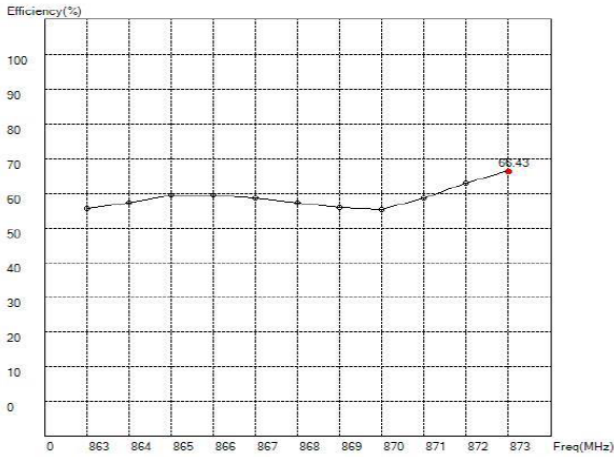
Return Loss



| | | |
|---|-------------------|---|
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Antenna Efficiency & Peak Gain

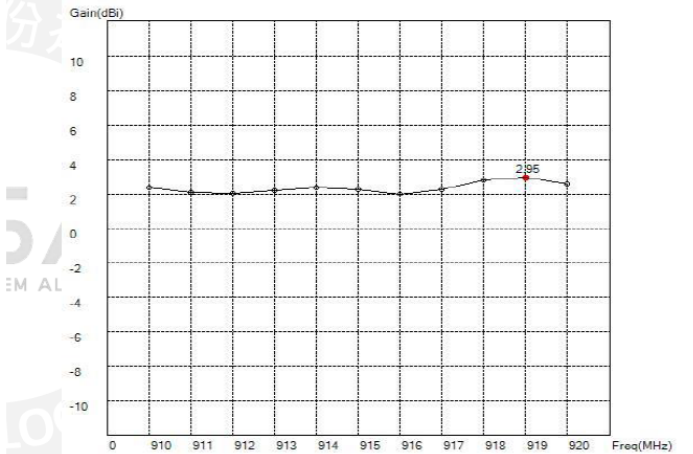
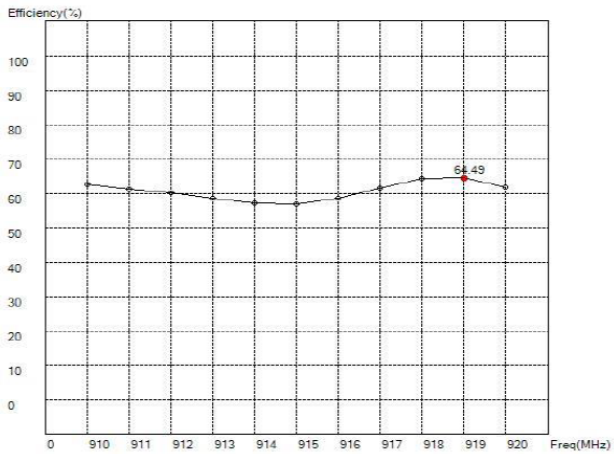
868MHz



Maximum Efficiency at 873 MHz : 66.43 %

Maximum Peak Gain at 873 MHz : 2.99 dBi

915MHz



Maximum Efficiency at 919 MHz : 64.49 %

Maximum Peak Gain at 919 MHz : 2.95 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

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CHECKED BY : 詹惠雯

DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

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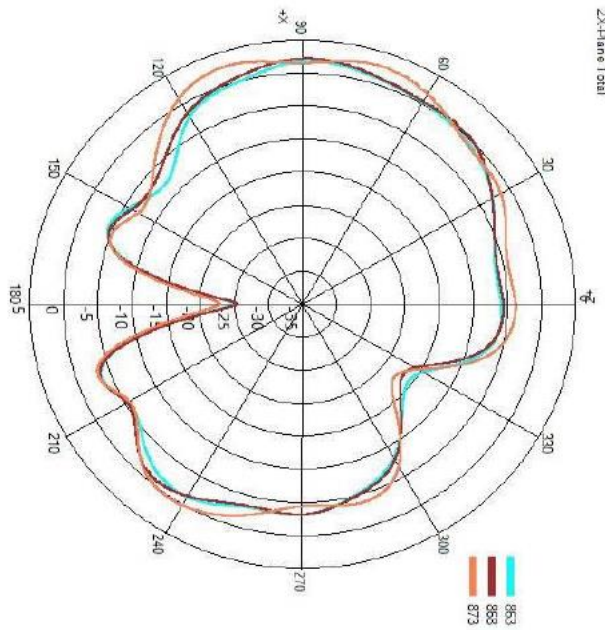
RADIATION PATTERN


863-873MHz

X-Z Plane

Phi=0.00deg

Gain . dB

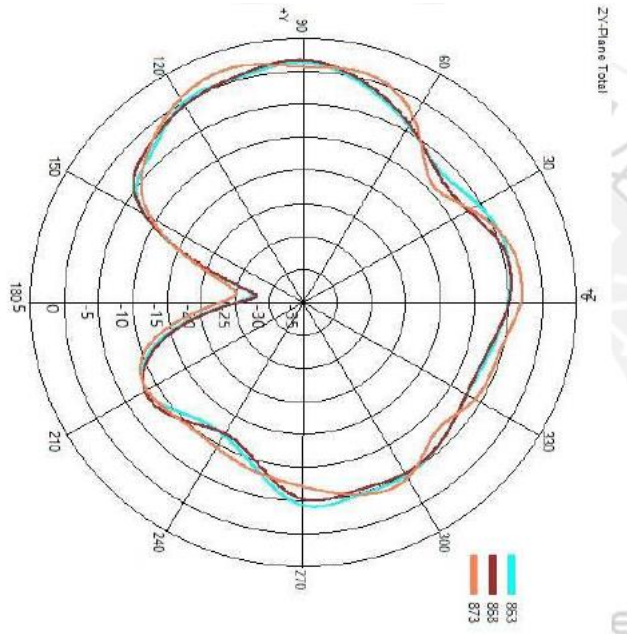



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|---|-------------------|---|
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Y-Z Plane

Phi=90.00deg

Gain . dB

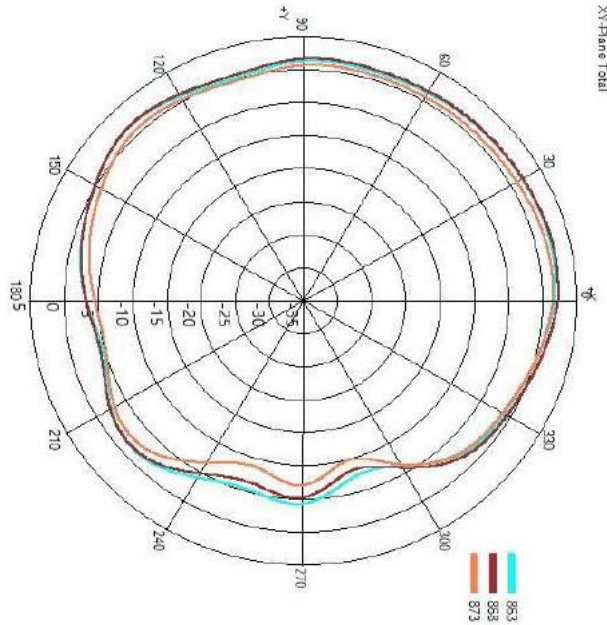


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| | | SPEC REV. A0 |

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] |
| 863 | 1.81 | -3.08 | 1.40 | -4.26 | 2.24 | -0.39 |
| 868 | 2.25 | -2.74 | 1.73 | -4.25 | 2.48 | -0.20 |
| 873 | 2.82 | -1.82 | 2.03 | -3.64 | 1.59 | -1.16 |

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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DESIGNED BY : 黃瑞郎

APPROVED BY : 陳振榮

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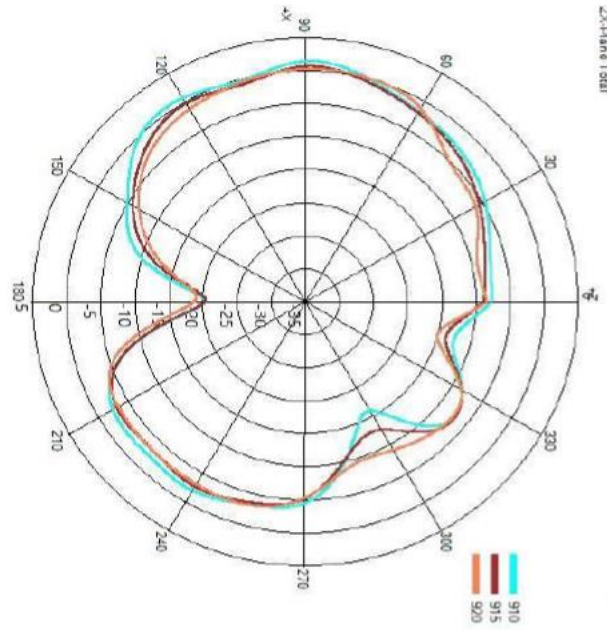
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910-920MHz

X-Z Plane

Phi=0.00deg

Gain . dB

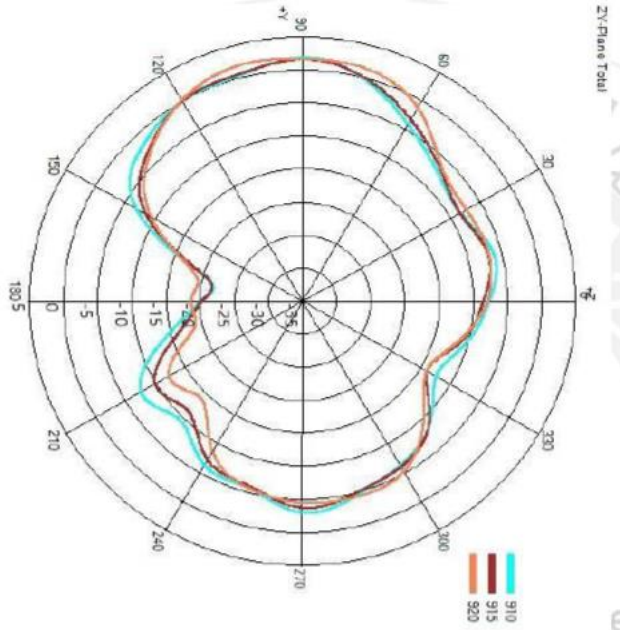



| | | |
|---|-------------------|---|
| UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A X.X=N/A X.XX=N/A ANGLES=N/A HOLEDIA=N/A | |  INPAQ TECHNOLOGY CO., LTD. |
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Y-Z Plane

Phi=90.00deg

Gain . dB

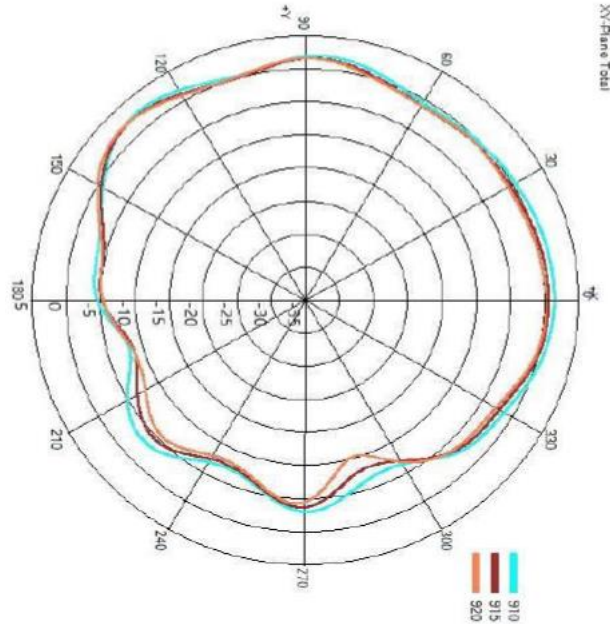


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X-Y Plane

Theta=90.00deg

Gain . dB



| Frequency [MHz] | ZX plane | | ZY plane | | XY plane | |
|-----------------|----------------|--------------|----------------|--------------|----------------|--------------|
| | Max Value [dB] | Average [dB] | Max Value [dB] | Average [dB] | Max Value [dB] | Average [dB] |
| 910 | 1.45 | -3.30 | 1.93 | -4.24 | 2.37 | -0.94 |
| 915 | 0.70 | -4.01 | 1.64 | -4.49 | 2.26 | -1.51 |
| 920 | 0.28 | -4.12 | 1.91 | -4.01 | 2.35 | -1.68 |

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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