

PA1585MJ6D-154-1ZM

ENGINEERING SPECIFICATION

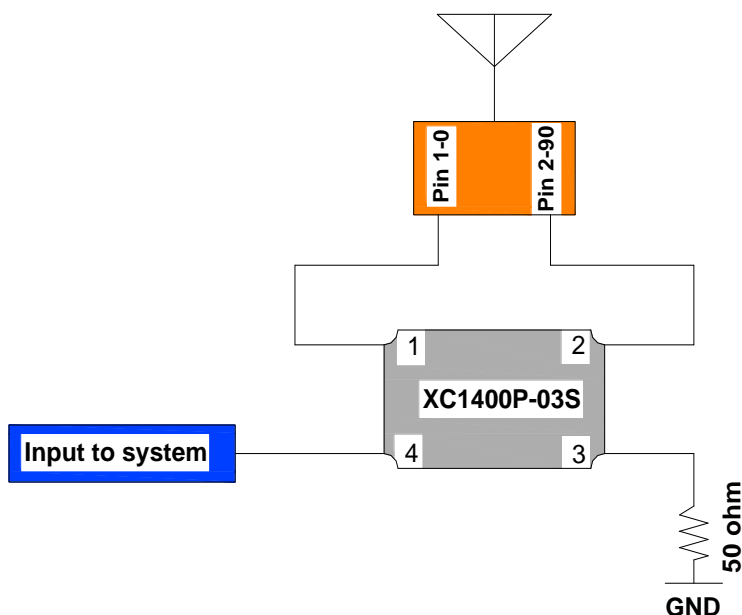
1. Typical Electrical Properties

Characteristics	Specification	Unit	Conditions
General Receiving Frequency Range	1559~1606	MHz	Note: (1)
Center Frequency	1584±5	MHz	
Gain at Center Frequency	2.5 typ.	dBic	
Axial Ratio at Center Frequency	< 3	dB	
S ₁₁ at Center Frequency	≤ -10	dB	
Impedance	50	Ohm	
Polarization	RHCP		
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

Note: (1) Patch antenna is located on 70x70mm ground plane and measured with coupler.

2. Coupler Electrical Specifications and Circuit

Hybrid Coupler XC1400P-03S	Frequency	Isolation	Insertion Loss	VSWR
	1563-1588 MHz	23 dB	0.32 dB	1.20



UNLESS OTHER SPECIFIED TOLERANCES ON :
 X=±0.2 X.X=±0.2 X.XX=±0.2
 ANGLES=±1 HOLEDIA=±0.1



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SCALE : UNIT : mm
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 DESIGNED BY: 許瑞麟 APPROVED BY: 黃月碧

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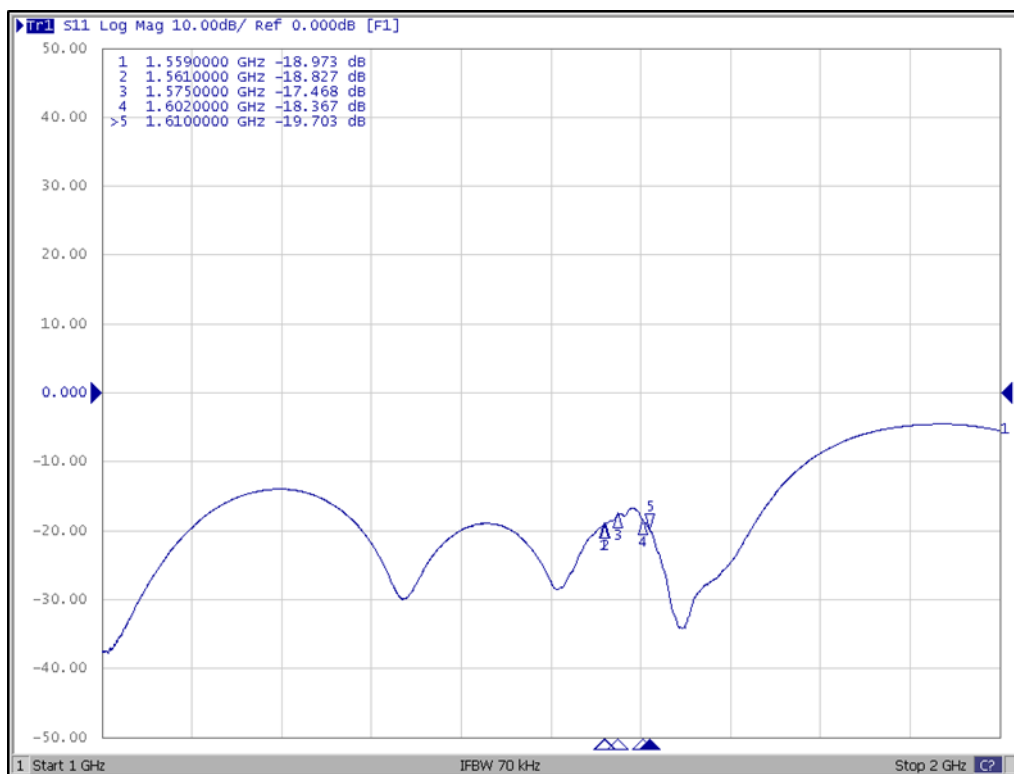
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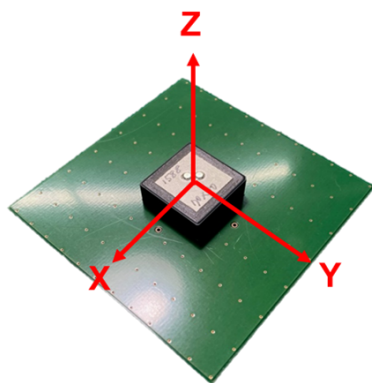
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3. Patch Antenna Performance and Characteristic Data

3-1 S-parameter

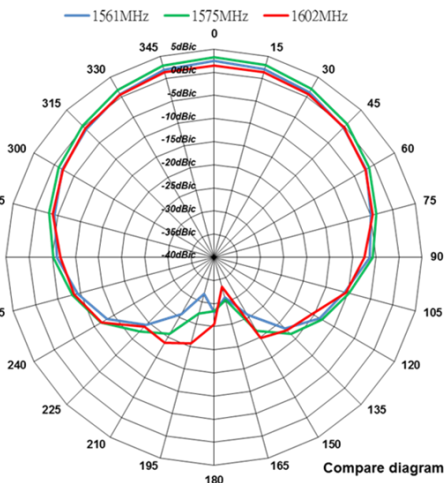


3-2 2D Gain Pattern

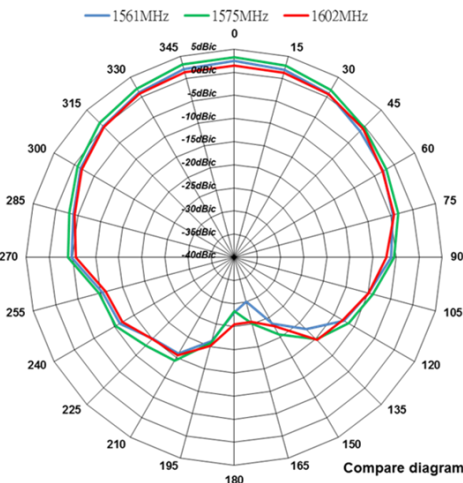


• The 3D coordinate system

Circular Gain Radiation XZ Pattern



Circular Gain Radiation YZ Pattern



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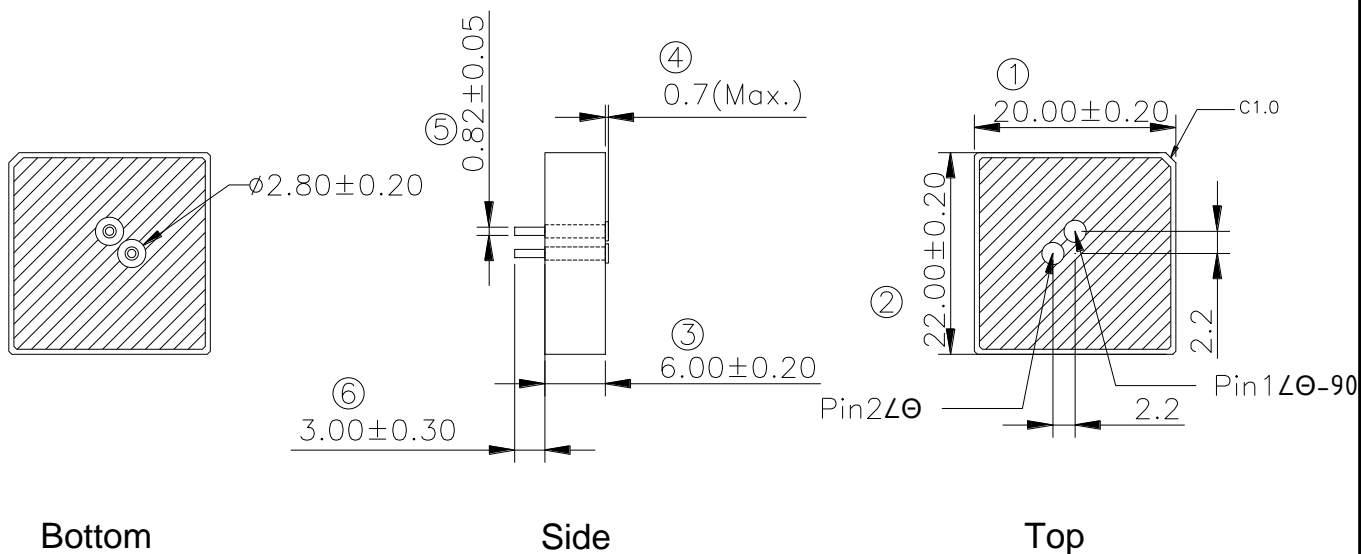
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4. Dimension



Note: These balloons are important dimension, the others are reference dimension.
 For the electrical characteristics adjustment, silver electrode might be trimmed.
 This will not affect antenna performance.

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5. Explanation of Appendix

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(1)(2)(3)

(1) "1" denotes 3.0 mm pin length

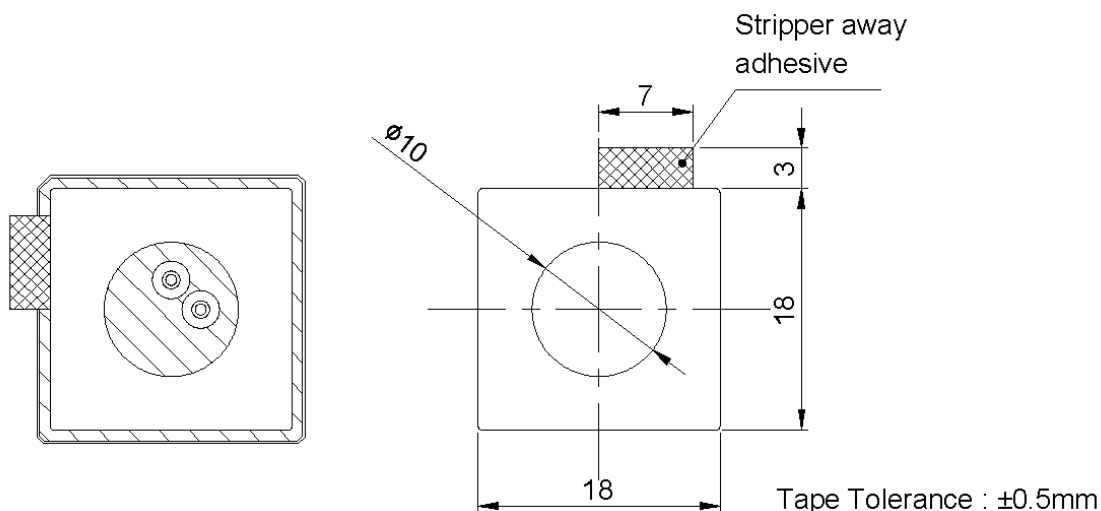
(2) Adhesive Tape "Z" denotes 17x17mm Nitto 5000NS

Adhesive transfer tape specification

2.1 Thickness: 0.16mm


2.2 Release liner: 0.1mm (typ.)

2.3 Dimension: mm




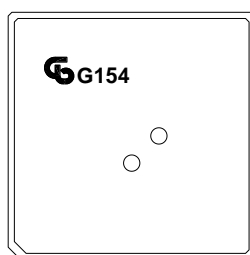
(3) Option appendix "M" denotes marking needed

Marking configuration

3.1 Logo  for INPAQ logo

3.2 Type  for green product antenna

3.3 Three digits  are the code of our project number



Patch Top Electrode

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6. Soldering

Manual Soldering(By Iron) - Pb free

Soldering Temperature : 350°C max, 5sec max. (Solder : Sn/Ag/Cu : 96.5/3.0/0.5)

Must comply with above soldering condition to prevent from degradation of antenna performance.

7. Caution and Warranty

- (1) In order to slow down the oxidation and sulfurization from air onto silver, the products are sealed by vacuum packaging. It is ok to use them within 12 months of delivery.
- (2) Once the package is open, please assemble them as soon as possible. If there are products left for future assembly, please repack and reseal them within 48 hours after opening.
- (3) Please recheck the solderability before using if the products are over 12 months of delivery, no matter they are originally sealed or resealed.
- (4) The silver may eventually become tarnish because of oxidation and sulfurization, however, it won't affect the electrical performance, but only solderability. Thus, please assemble them as early as possible.

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