

PADGPS-J2J2G-103-18M

Engineering Specification

1. Typical Electrical Properties

GPS L1:

Characteristics	Specification	Unit	Conditions
Center Frequency	1584±2	MHz	Note: (1)
Peak Gain	2.0 typ.	dBic	
Axial Ratio	<3	dB	
S ₁₁	≤ -10	dB	
Impedance	50	Ω	
Polarization	RHCP		
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C ~ + 85°C

GPS L5:

Characteristics	Specification	Unit	Conditions
Center Frequency	1176±2	MHz	Note: (1)
Peak Gain	-0.1 typ.	dBic	
Axial Ratio	<3	dB	
S ₁₁	≤ -10	dB	
Impedance	50	Ω	
Polarization	RHCP		
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C ~ + 85°C

Note: (1) Patch antenna is located on 70x70mm ground plane.

PADGPS-J2J2G-103-18M, G: Green parts (RoHS compliance)

-103 are the code of project number, -18M show of appendix

UNLESS OTHER SPECIFIED TOLERANCES ON:

X= X.X= X.XX=

ANGLES= HOLEDIA=

SCALE: UNIT: mm

DRAWN BY: 王瑞娟 CHECKED BY: 李守仁

DESIGNED BY: 許瑞麟 APPROVED BY: 黃月碧



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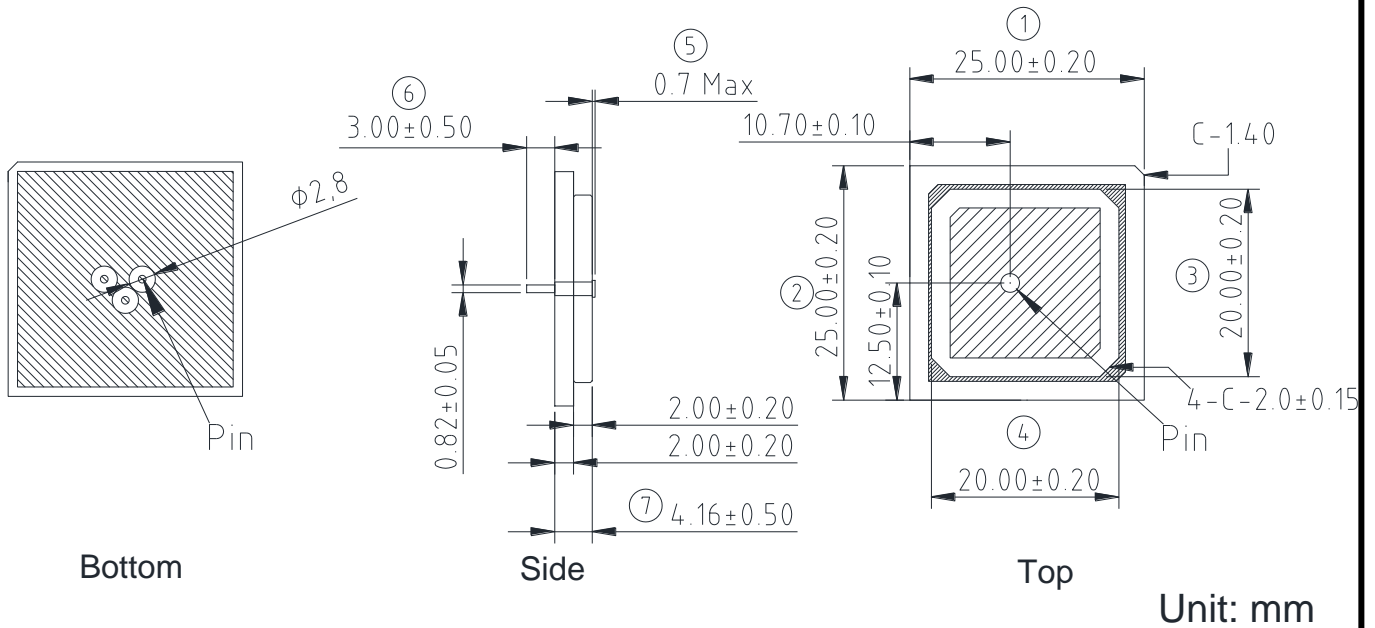
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DOCUMENT
NO.

ENS000133020

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2. 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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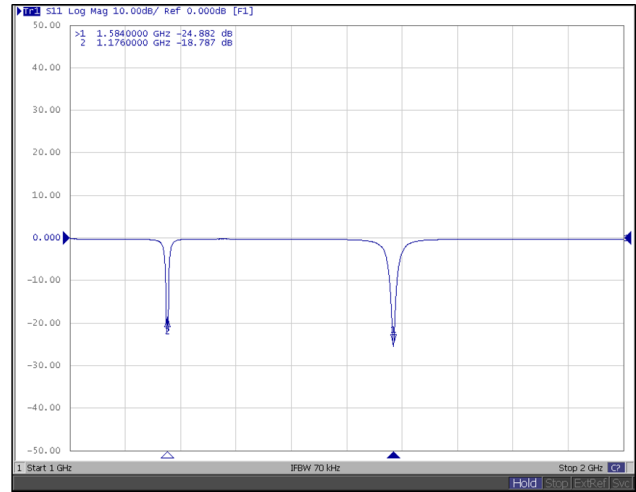
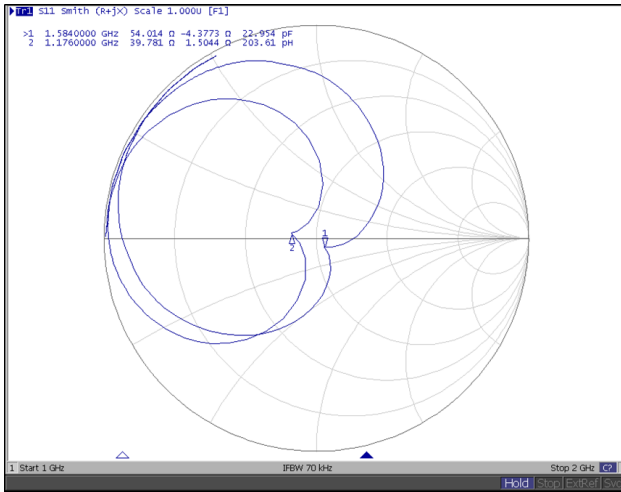
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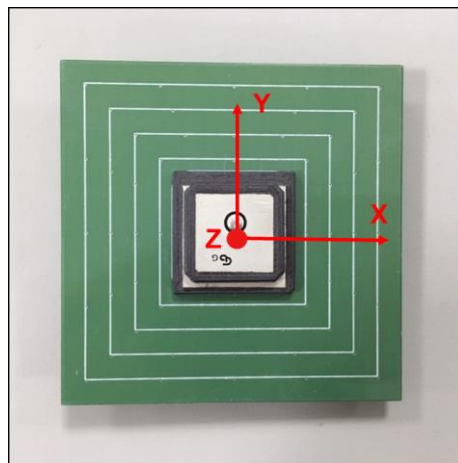
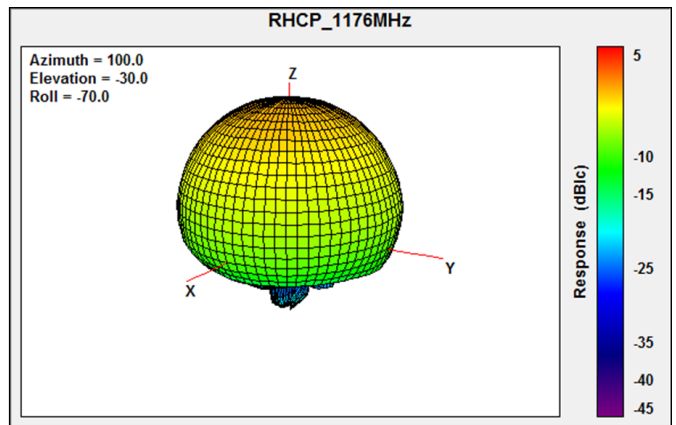
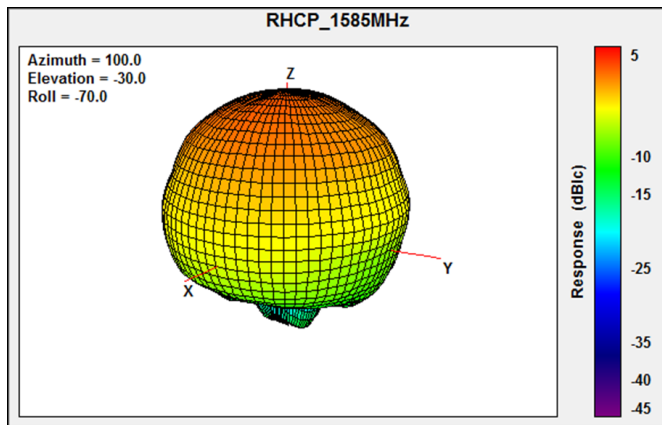
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3. Patch Antenna Performance and Characteristic Data on 70x70mm Ground Plane

3.1 Smith Chart and Return Loss:



3.2 3D Circular Polarization Gain Pattern: (unit: dBic)



• The 3D coordinate system

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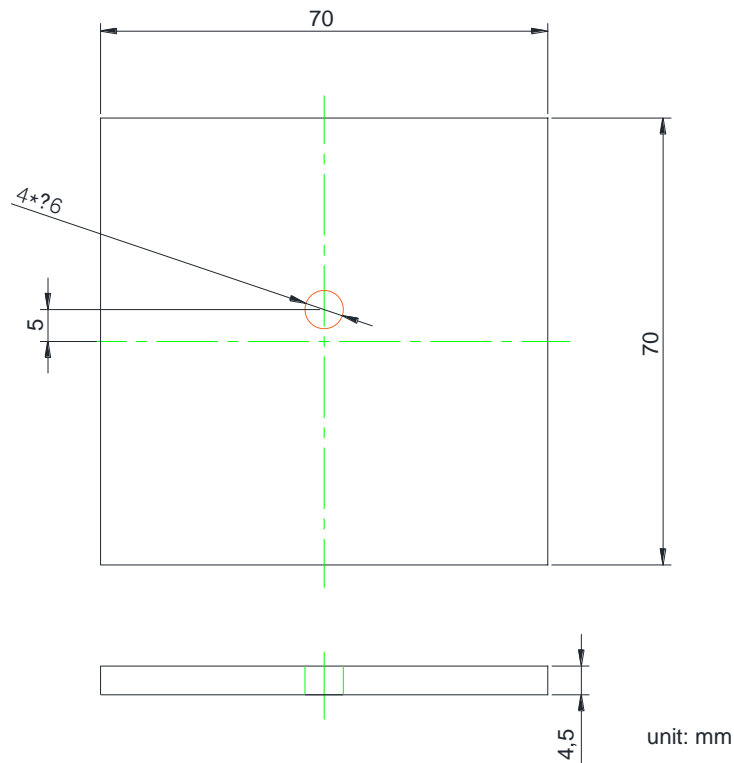
P1

4. Typical Electrical Properties

Characteristics		Specification	Unit	Conditions
L5	Center Frequency	1181.2 ± 2	MHz	By INPAQ Test Ground Plane
	Impedance	(41.86±8) + j(-10.73±8)	Ω	
L1	Center Frequency	1586.8 ± 2	MHz	
	Impedance	(54.28±8) + j(4.23±8)	Ω	

5. Test Condition Ground Plane (unit: mm)

PADGPS-J2J2G-103-18M-V1



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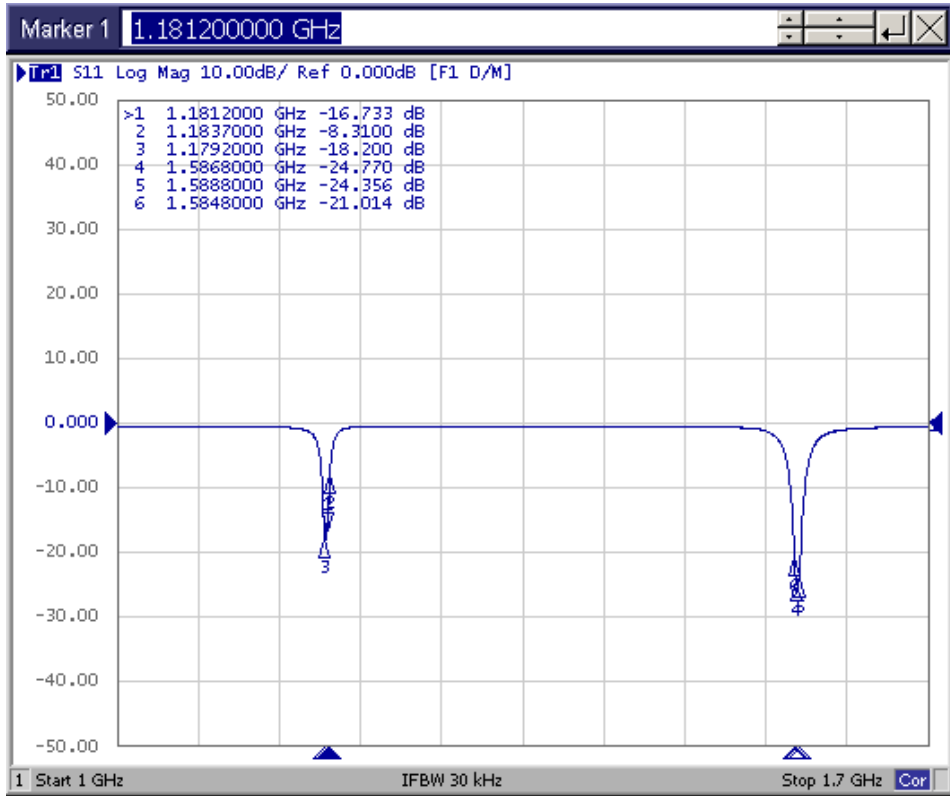
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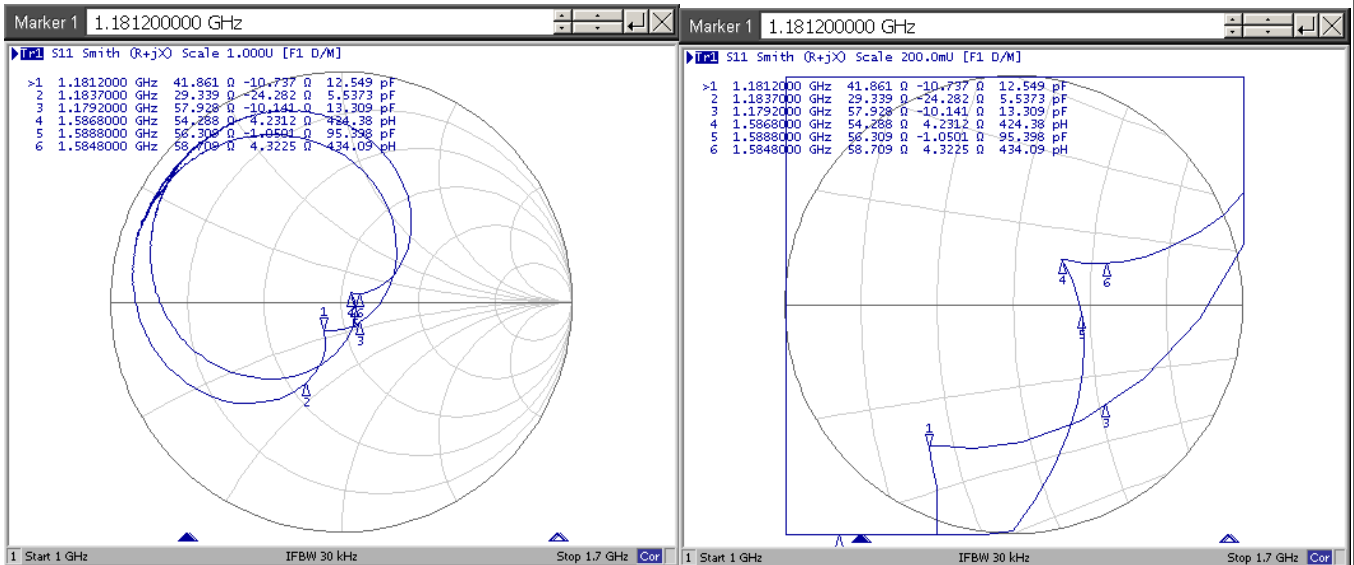
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6. Return Loss Characteristics



7. Measured Input Impedance on a Smith Chart



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8. Explanation of Appendix

PADGPS-J2J2G-103-18M (1)(2)(3)

(1) "1" denotes 3 mm pin length

(2) Adhesive tape "8" denotes tape model

Adhesive transfer tape specification

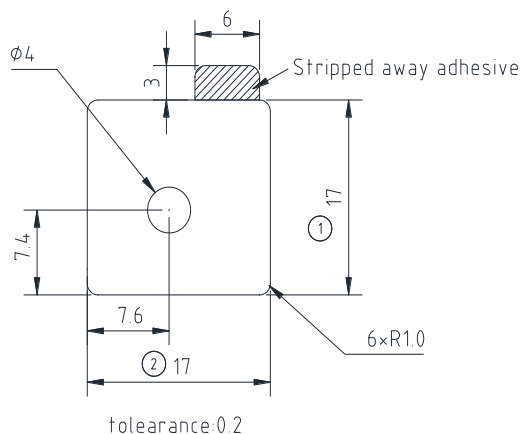
2-1 Top layer:

2-1.1 Tape: Nitto 5000NS 17x17x0.16mm

2-1.2 Thickness: 0.16mm

2-1.3 Release liner: 0.1mm

2-1.4 Dimension: mm



Unit:mm

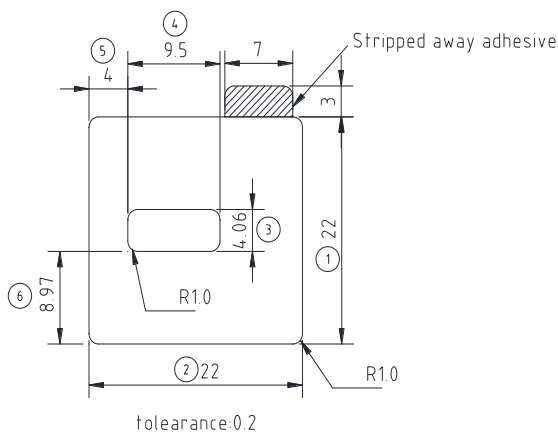
2-2 Bottom layer:

2-2.1 Tape: Nitto 5000NS 22x22x0.16mm

2-2.2 Thickness: 0.16mm

2-2.3 Release Liner: 0.1mm

2-2.4 Dimension: mm



Unit:mm

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
SPEC REV. P1

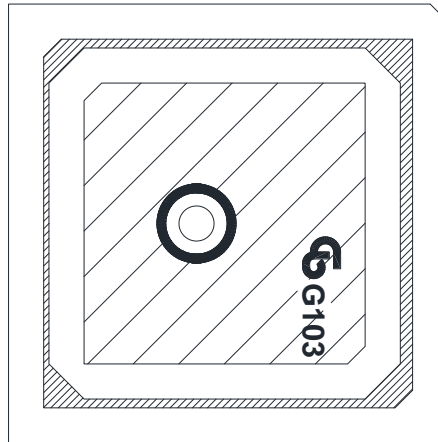
(3) Option appendix "M" denotes marking needed

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

9. Packing Specification

9-1 包裝方式 Packing Flow

Follow packing number PKS000000760, GPS N 系列包裝規格(抗靜電)

9-2 Packing Material List

項次	料號	品名
1	800001097908	金屬抗靜電袋 610*380mm
2	800001201007	包裝內箱 390*275*90mm
3	800001406009	Partition Board 345*245mm
4	800000399303	Plastic tray(6*5pcs 黑色抗靜電)
5	800000700302	Carton-O,420*305*390mm
6	800001401207	天地板 360*320mm
7	800001100202	EPE PKG BUFFER 50*40*5mm

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