

PADGPS-I4H10G-101-1Z

Engineering Specification

1. Typical Electrical Properties

GPS L1:

Characteristics	Specification	Unit	Conditions
Patch Center Frequency	1575.42 ± 3	MHz	Note: (1)
S ₁₁	≤ -10	dB	
Zenith Gain	5 typ.	dBic	
Axial Ratio	3 typ.	dB	
Polarization	RHCP		
Frequency Temperature Coefficient	0 ± 20	ppm/°C	-40°C to +85°C

GPS L2:

Characteristics	Specification	Unit	Conditions
Patch Center Frequency	1227.6 ± 3	MHz	Note: (1)
S ₁₁	≤ -10	dB	
Zenith Gain	4.5 typ.	dBic	
Axial Ratio	3 typ.	dB	
Polarization	RHCP		
Frequency Temperature Coefficient	0 ± 20	ppm/°C	-40°C to +85°C

Note: (1) Patch Antenna is located on 70x70 mm Ground
PADGPS-I4H10G-101-1Z, G : Green parts (RoHS compliance)
-101 are the code of project number, -1Z show of appendix

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
ANGLES=± HOLEDIA=±



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SCALE : UNIT : mm

DRAWN BY : 王瑞娟 CHECKED BY : 馬敏勝

DESIGNED BY : 賴右城 APPROVED BY : 李守仁

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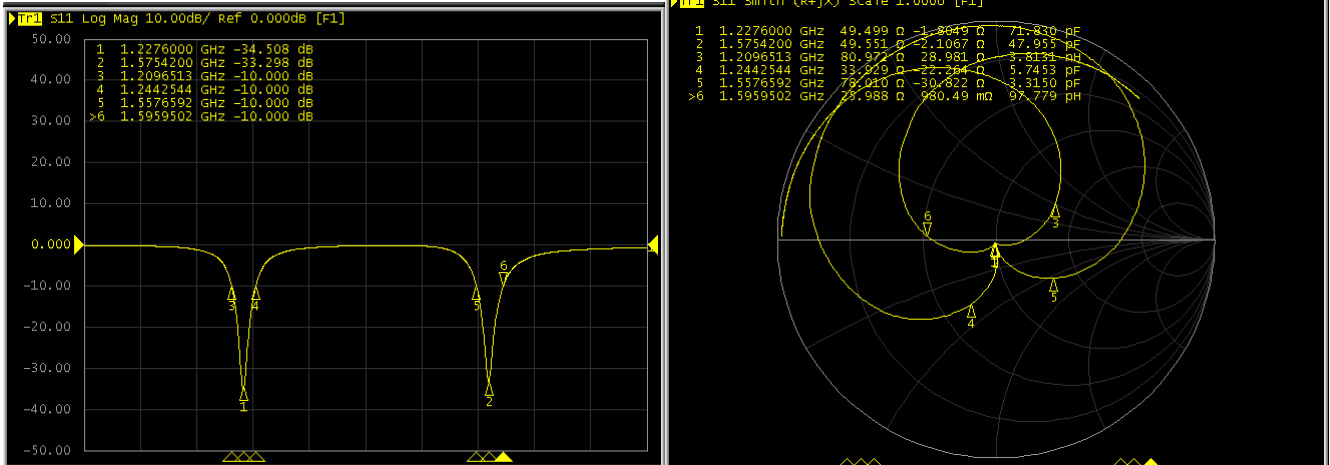
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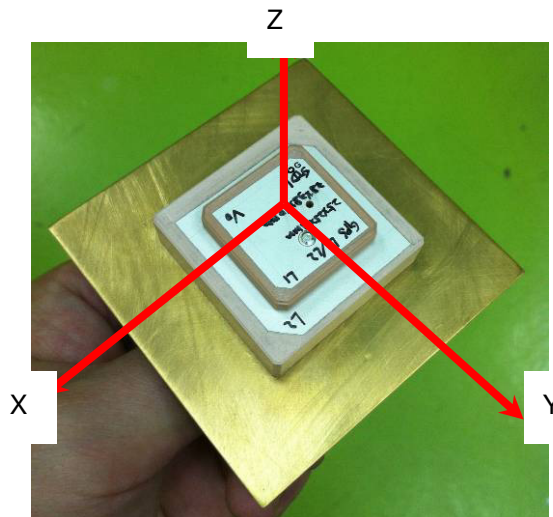
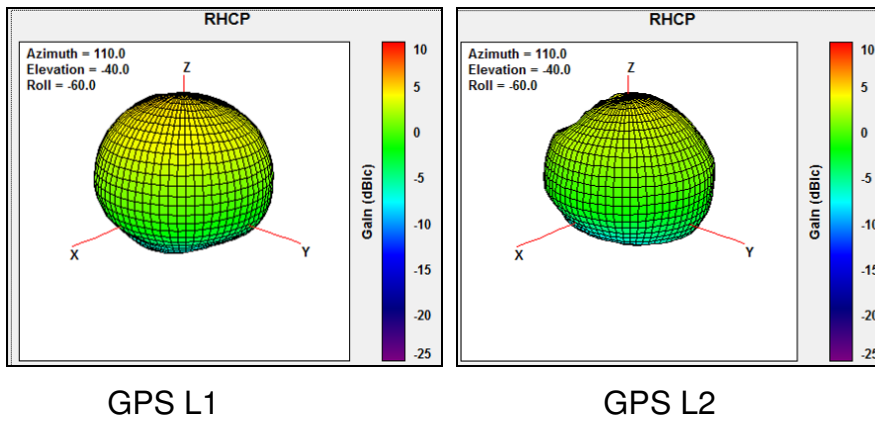
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2. Patch Antenna Performance and Characteristic Data on 70x70 mm Ground

2.1 Smith Chart/S₁₁



2.2 3D Circular Polarization Gain Pattern: RHCP (Unit : dBic)



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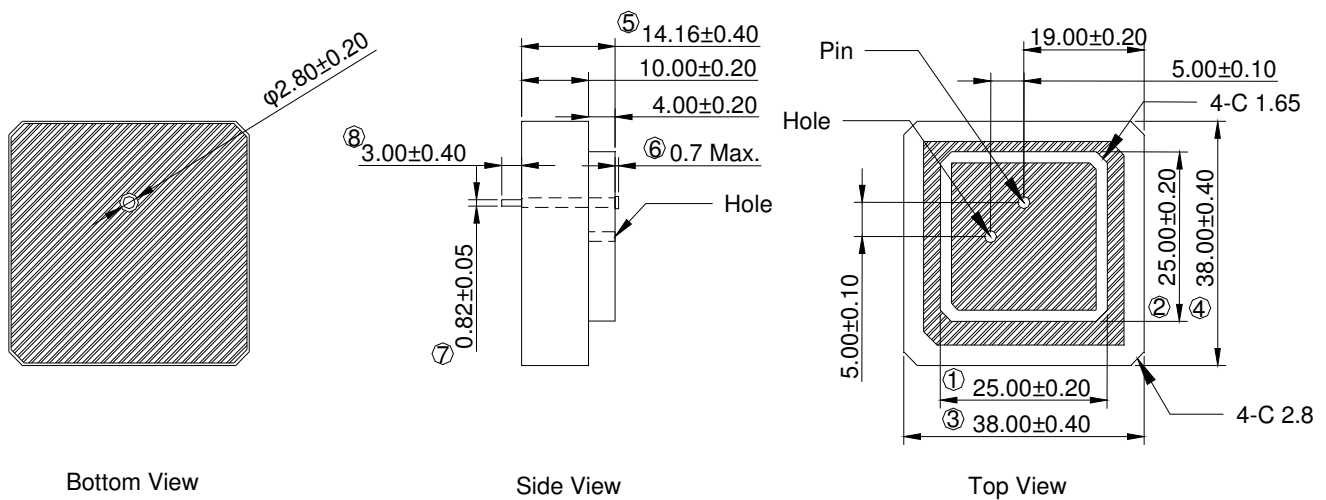
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2.3 Antenna on 70x70 m Ground:



3. Dimension



Unit: mm

Note: These 1~8 balloons are important dimension, the others are reference dimension.

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
 ANGLES=± HOLEDIA=±



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4. Typical Electrical Properties on INPAQ Test Ground

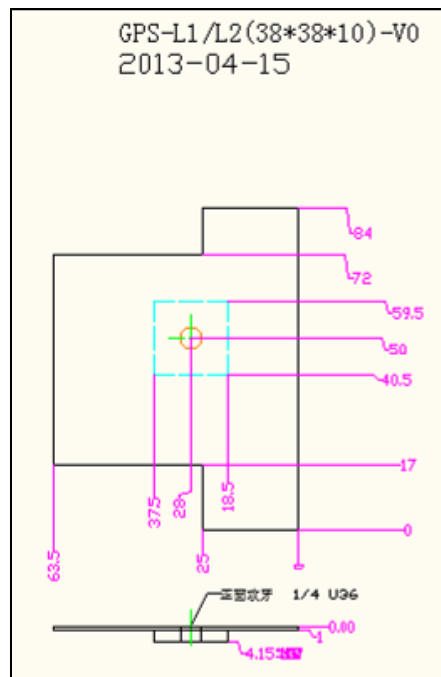
GPS L1:

Characteristics	Specification	Unit	Conditions
Center Frequency	1577.8 ± 3	MHz	By INPAQ Test Ground
S11	< -20	dB	

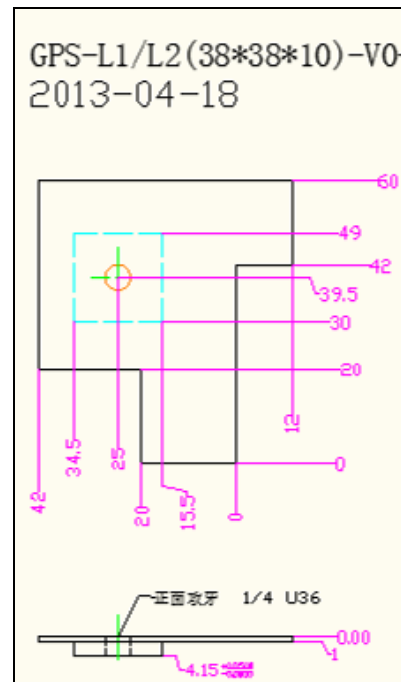
GPS L2:

Characteristics	Specification	Unit	Conditions
Center Frequency	1212.2 ± 3	MHz	By INPAQ Test Ground
S11	< -20	dB	

5. Test Condition Ground Plane



GPS L1



GPS L2

Unit: mm

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
 ANGLES=± HOLEDIA=±

SCALE : UNIT : mm

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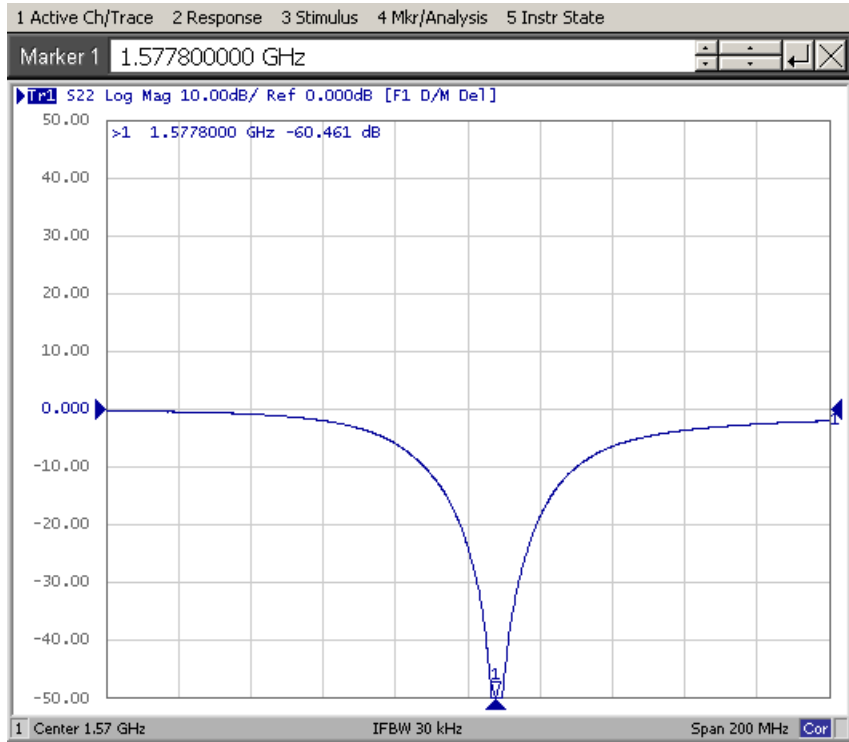
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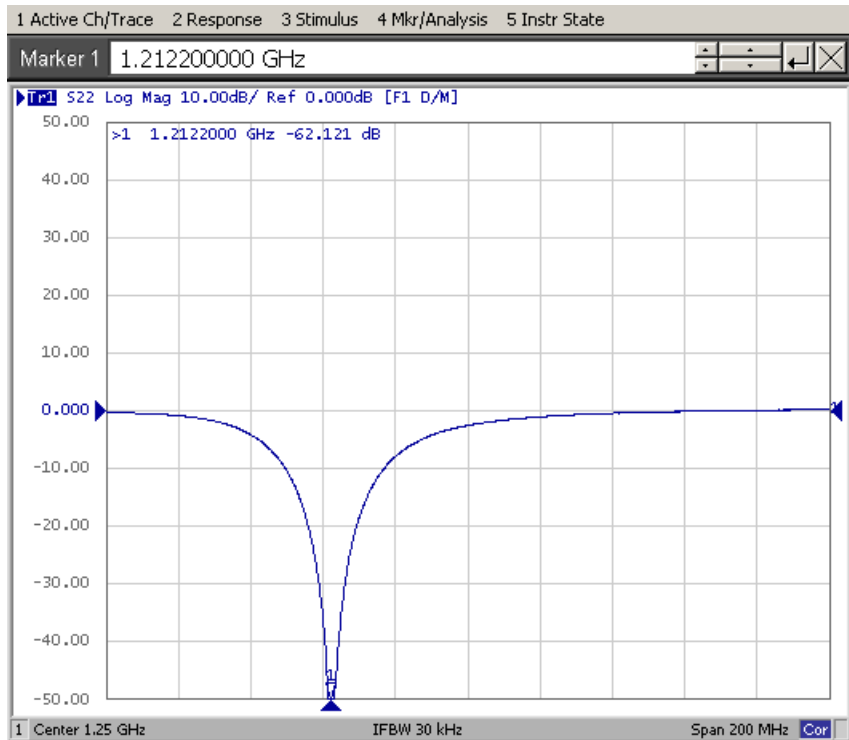
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6. Return Loss Characteristics

GPS L1:



GPS L2:



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X=±	X.X=±
ANGLES=±	X.XX=±
SCALE :	HOLEDIA=±
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	APPROVED BY : 李守仁
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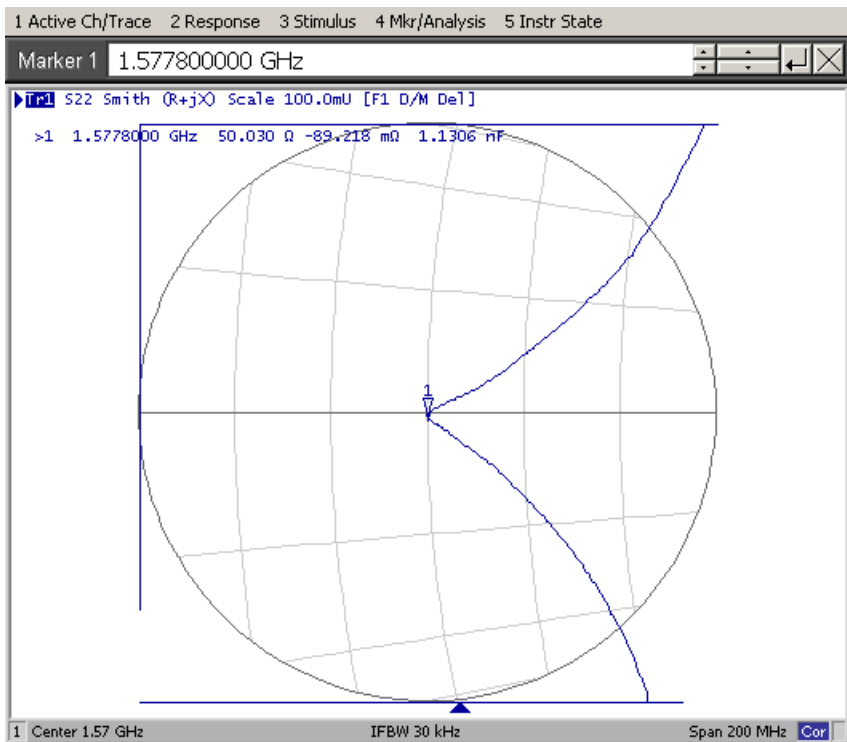
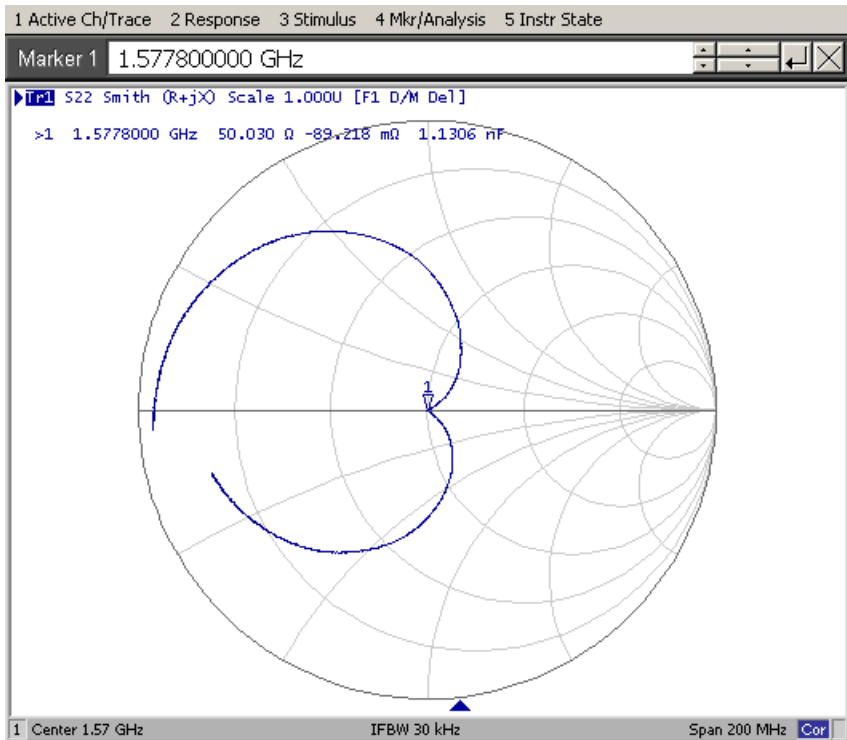
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7. Measured Input Impedance on a Smith Chart

GPS L1:



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 ANGLES=± HOLEDIA=±

SCALE : UNIT : mm

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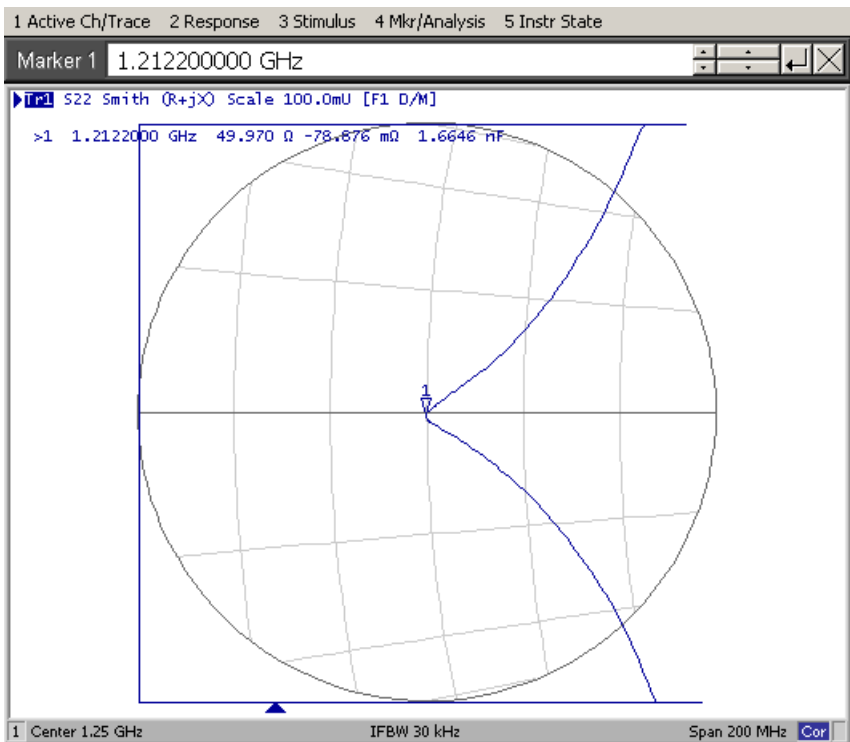
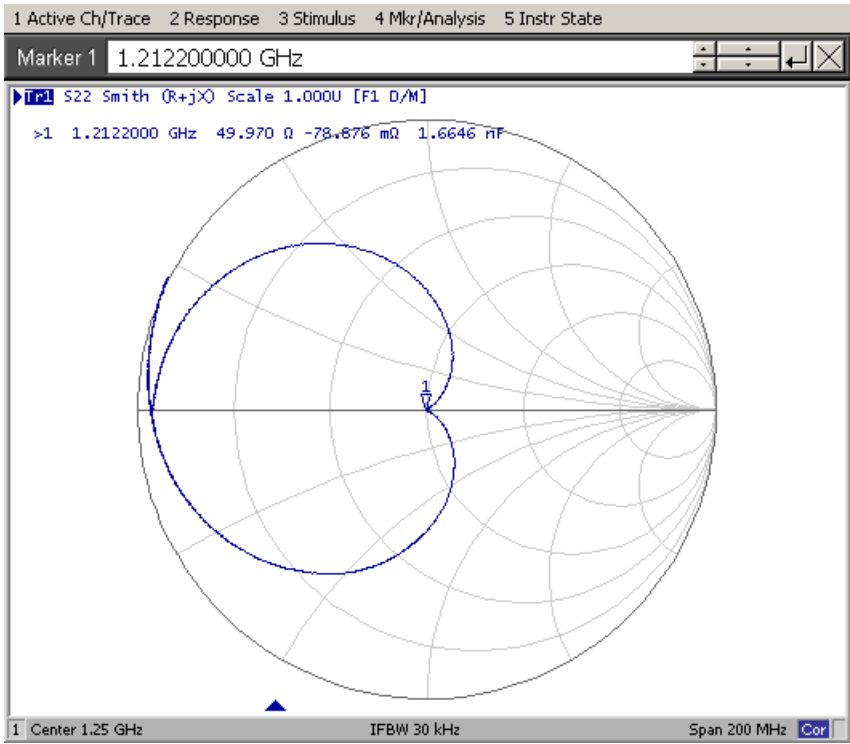
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GPS L2:



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ANGLES=±	X.XX=±
	HOLEDIA=±
SCALE :	UNIT : mm
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8. Explanation of Appendix

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(1)(2)

(1) 1 = 3 mm pin Length

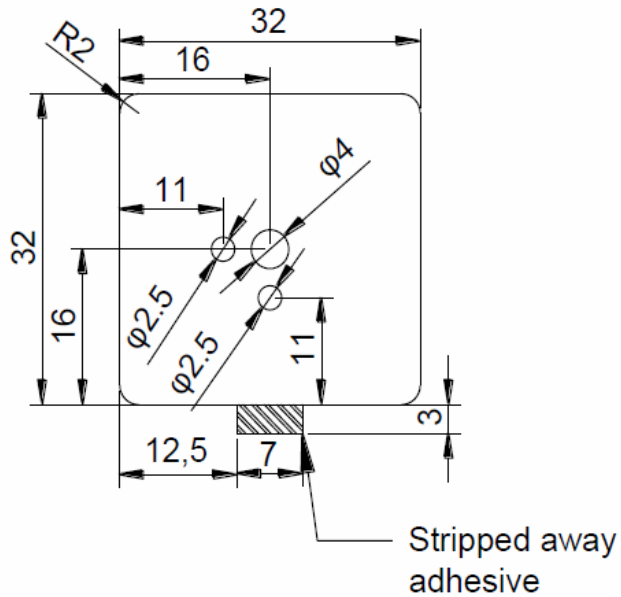
(2) Adhesive Tape **Z** 32×32mm Nitto 5000NS

Adhesive Transfer Tape Specification

2.1 Thickness : 0.16mm

2.2 Release Liner : 0.1mm (typ.) printed paper or paper

2.3 Dimension : mm



Tolerance: ± 0.5 mm



UNLESS OTHER SPECIFIED TOLERANCES ON :

X= \pm X.X= \pm X.XX= \pm
 ANGLES= \pm HOLEDIA= \pm

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