

PADGPS-I4H4G-101-1Z

Engineering Specification

1. Typical Electrical Properties

GPS L1:

Characteristics	Specification	Unit	Conditions
Patch Center Frequency	1575.42 ± 3	MHz	By Test on 70x70 mm Ground
Zenith Gain	4 Typ.	dBic	By Test on 70x70 mm Ground
S ₁₁	≤ -10	dB	By Test on 70x70 mm Ground
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	By Test on 70x70 mm Ground
Zenith Gain	5 Typ.	dBic	By Test on 70x70 mm Ground
S ₁₁	≤ -10	dB	By Test on 70x70 mm Ground
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-I4H4G-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:謝立庭

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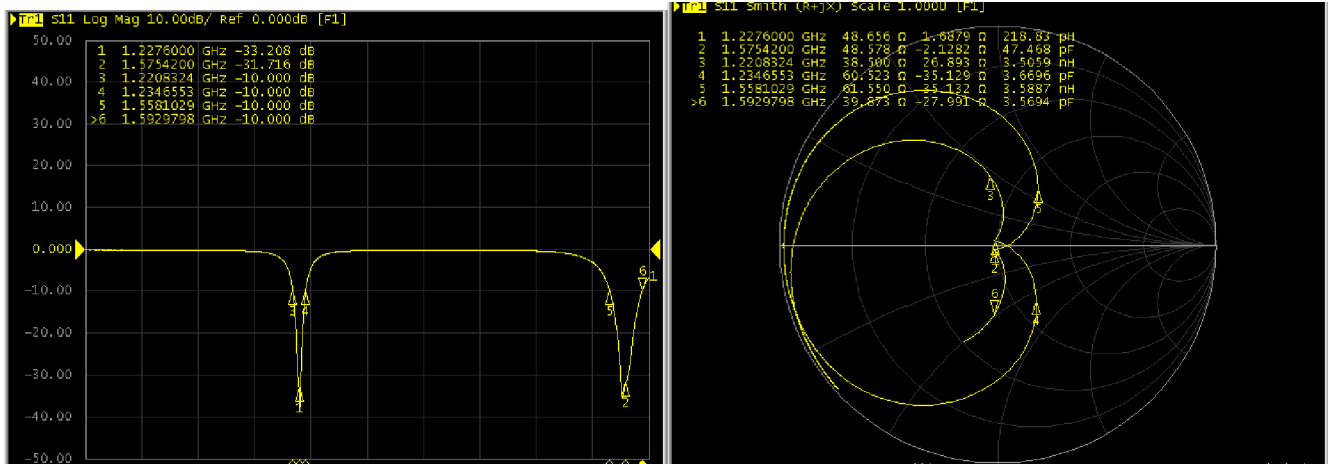
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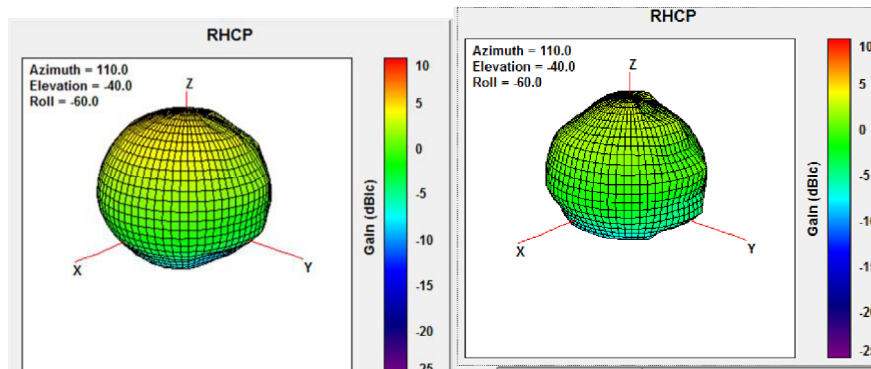
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2. Patch Antenna Performance and Characteristic Data on 70x70 mm Ground

2.1 Smith Chart/S₁₁

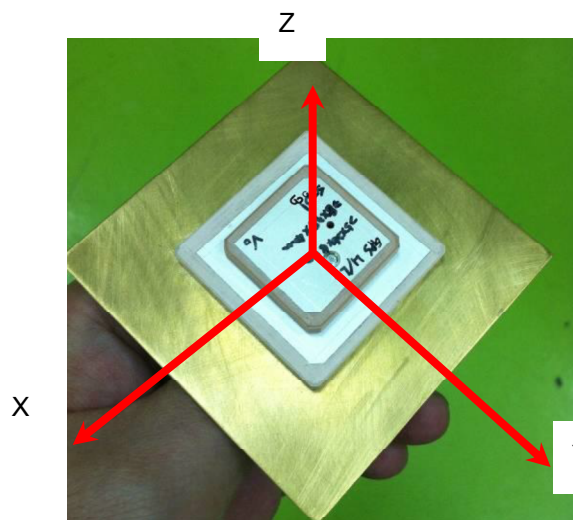


2.2 3D Circular Polarization Gain Pattern: RHCP (Unit : dBic)



GPS L1

GPS L2



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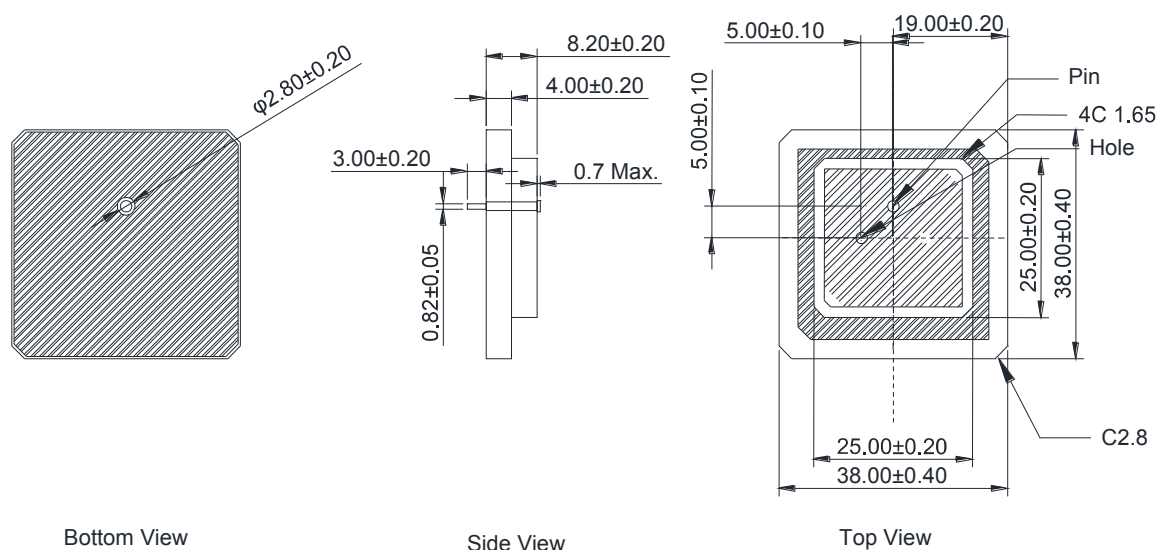
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2.3 Antenna on 70x70 m Ground:



3. Dimension

Unit : mm



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4. Typical Electrical Properties on INPAQ Test Ground

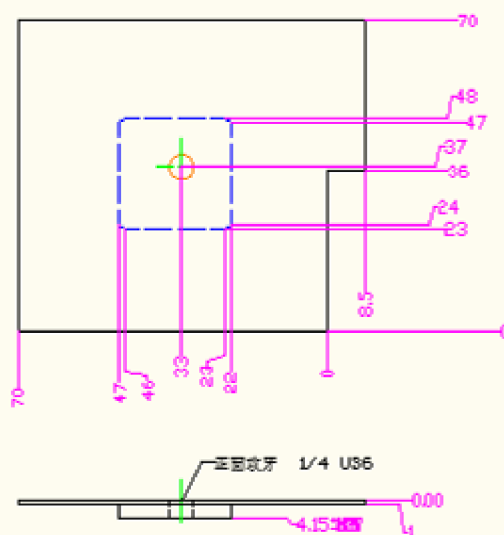
GPS L1:

Characteristics	Specification	Unit	Conditions
Center Frequency	1575 ± 3	MHz	By Test Ground Plane
Polarization	RHCP		By Test Housing
S11	< -20	dB	By Test Ground Plane
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

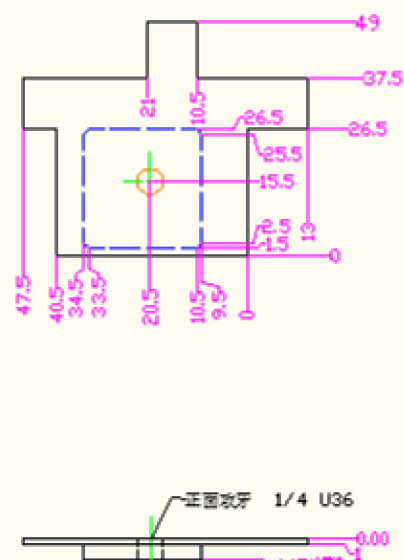
GPS L2:

Characteristics	Specification	Unit	Conditions
Center Frequency	1219 ± 3	MHz	By Test Ground Plane
Polarization	RHCP		By Test Housing
Impedance	(19.75±8)+j(17.33±8)	Ω	By Test Ground Plane
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

5. Test Condition Ground Plane

GPS-L1/L2(38*38*4)-V0
2013-03-25L2(38*38*4)-V0-02
2013-04-17正面俯视图,
虚线部分在
下方

GPS L1



GPS L2

Unit: mm

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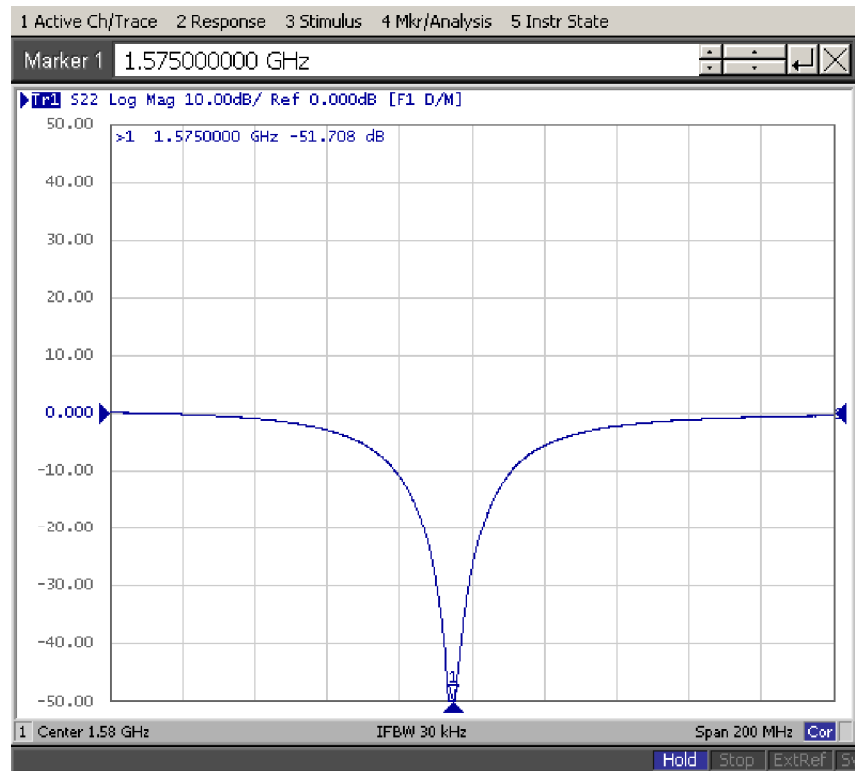
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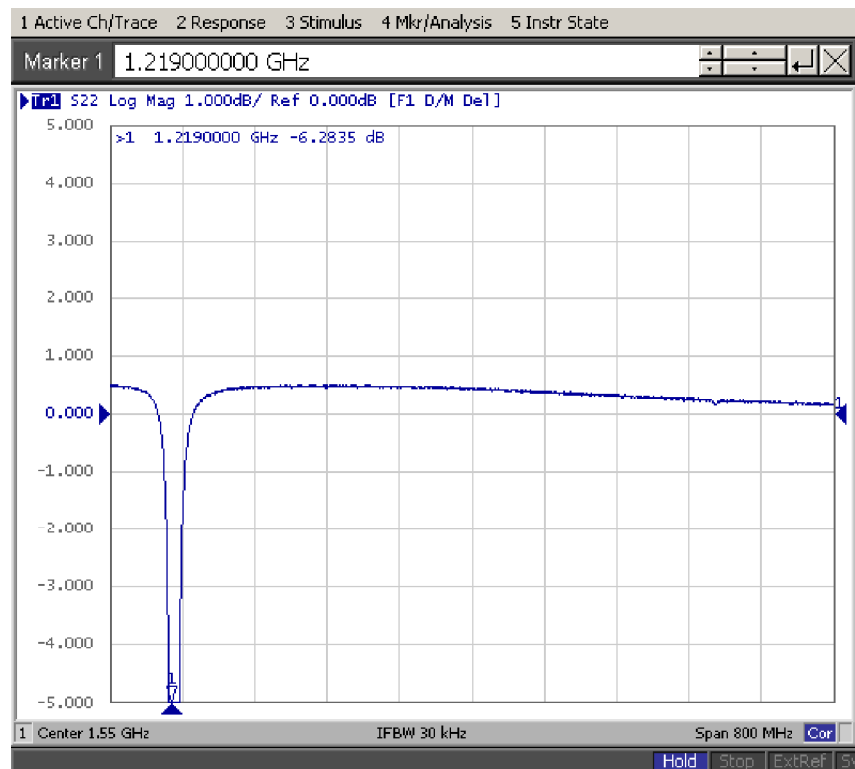
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6. Return Loss Characteristics

GPS L1:



GPS L2:



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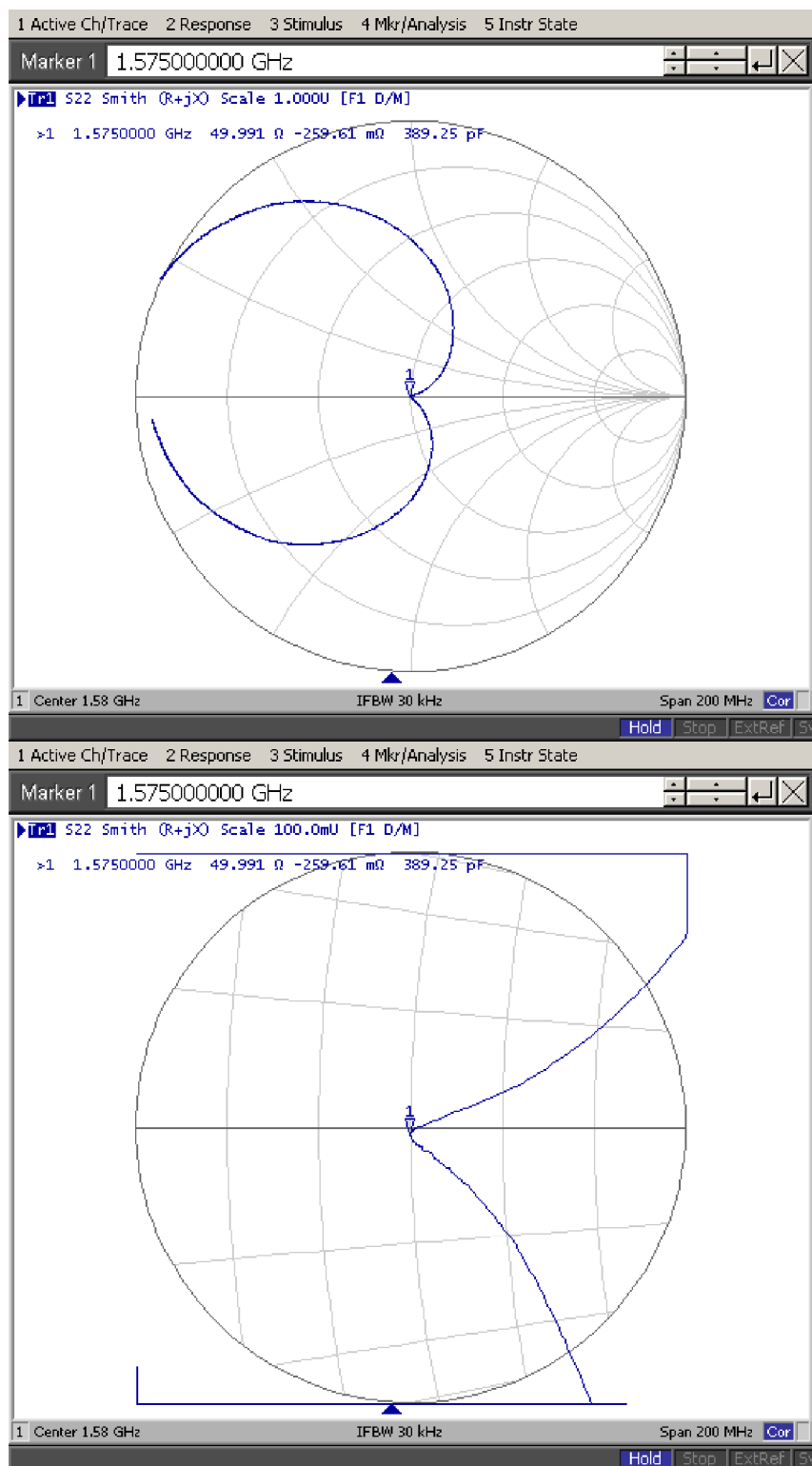
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7. Measured Input Impedance on a Smith Chart

GPS L1:



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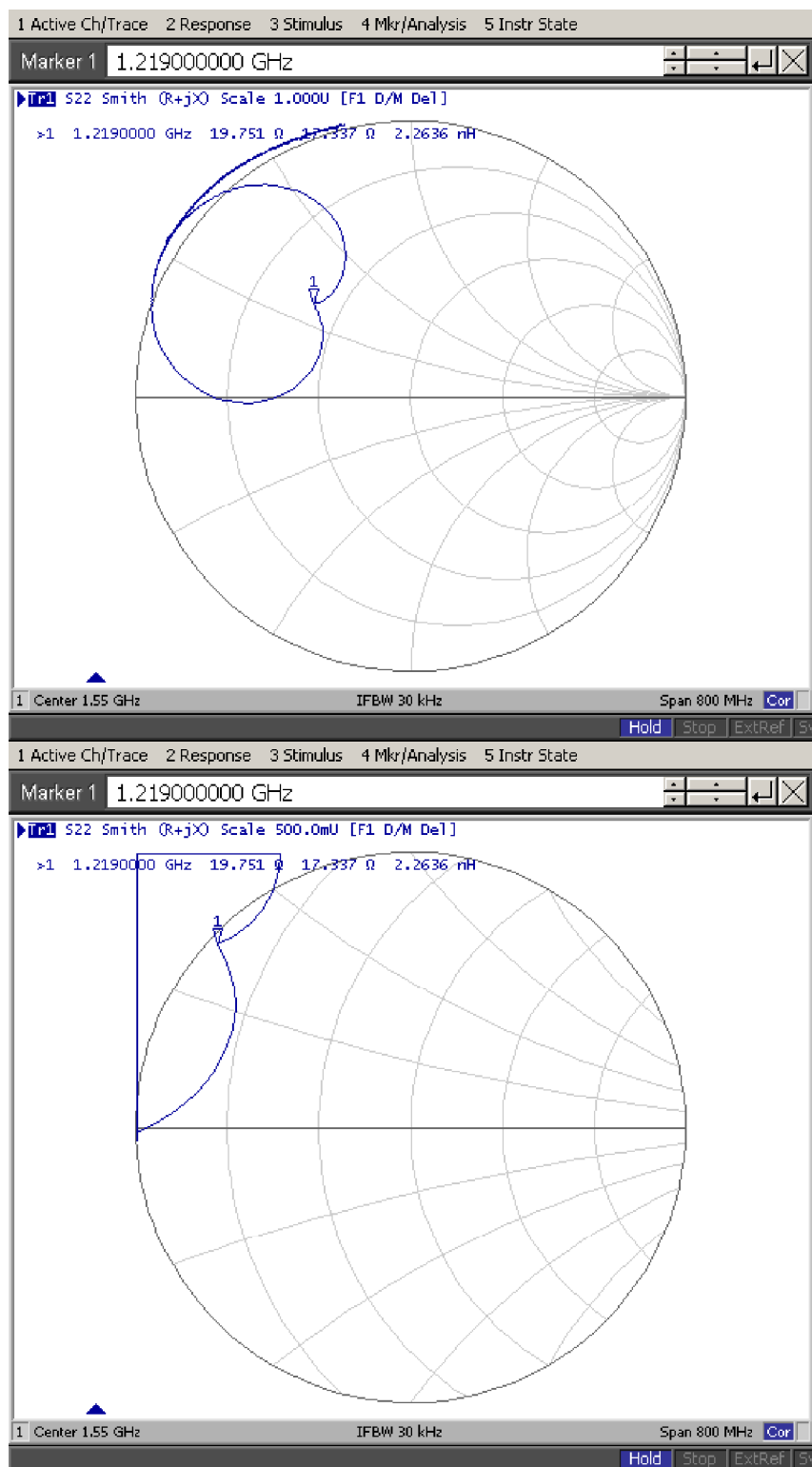
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GPS L2:



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8. Explanation of Appendix

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(1)(2)

(1) Pin = 3 mm

(2) Adhesive Tape **Z** 32×32mm

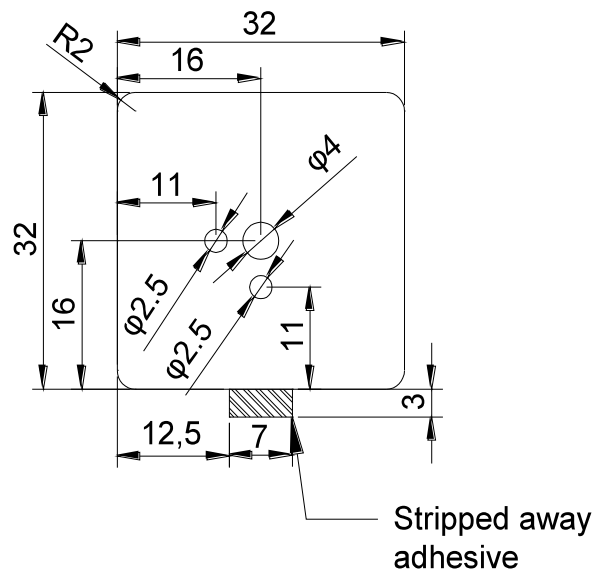
Adhesive Transfer Tape Specification

2.1 TAPE : Nitto 5000NS 32x32x0.16mm

2.2 Thickness : 0.16 mm

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

2.4 Dimension : mm



Tolerance: ± 0.5 mm

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