

PA1590MJ4G-100-SMD-P

Engineering Specification

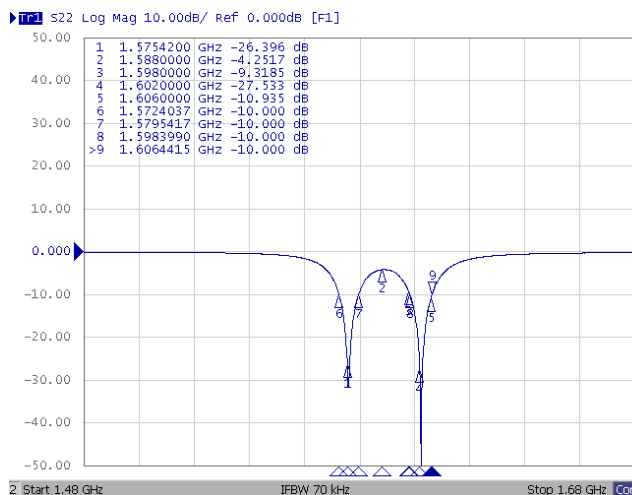
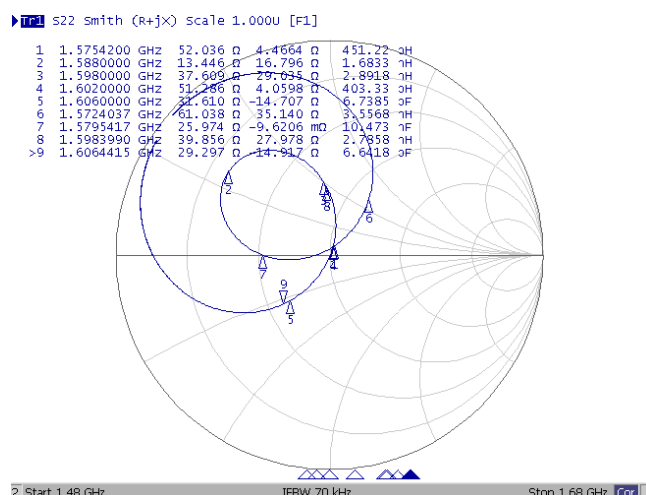
1. Typical Electrical Properties

Characteristics	Specification	Unit	Conditions
GPS Frequency	1575.42 ± 2	MHz	On 50x50 mm Ground Plane
Glonass Frequency	1602 ± 2	MHz	On 50x50 mm Ground Plane
GPS Patch Gain at Zenith	0.5 typ.	dBic	Center Frequency
Glonass Patch Gain at Zenith	1.2 typ.	dBic	Center Frequency
Polarization	RHCP		On 50x50 mm Ground Plane
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

PA1590MJ4G-100-SMD-P, G : Green parts (RoHS compliance)
 -100 are the code of project number, -SMD SMD type

2. Patch Antenna Performance and Characteristic Data on 50x50 mm Ground

2.1 Smith Chart/Return Loss



UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
 ANGLES=± HOLEDIA=±



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SCALE : UNIT : mm

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 DESIGNED BY:許瑞麟 APPROVED BY:曾源標

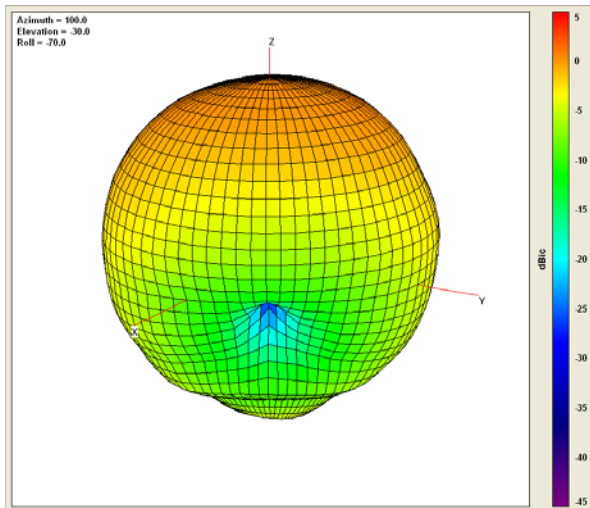
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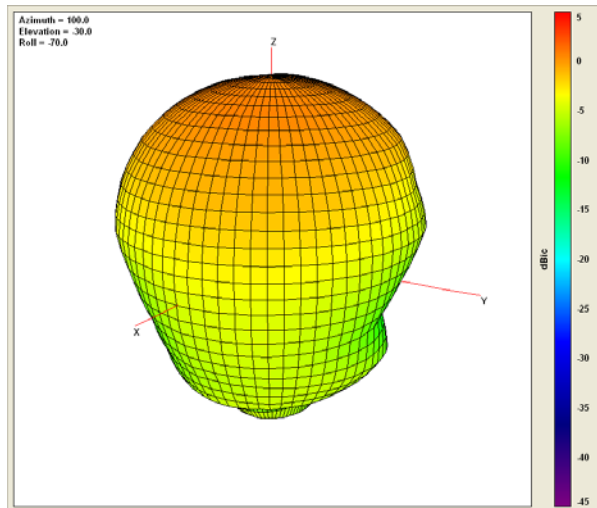
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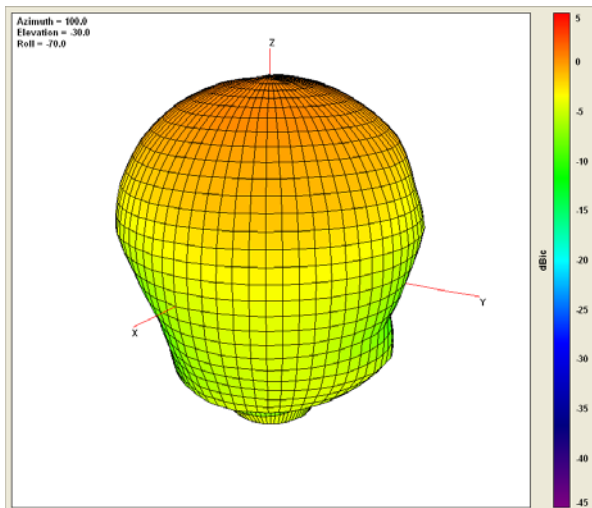
2.2 Gain Pattern (Unit : dBic)



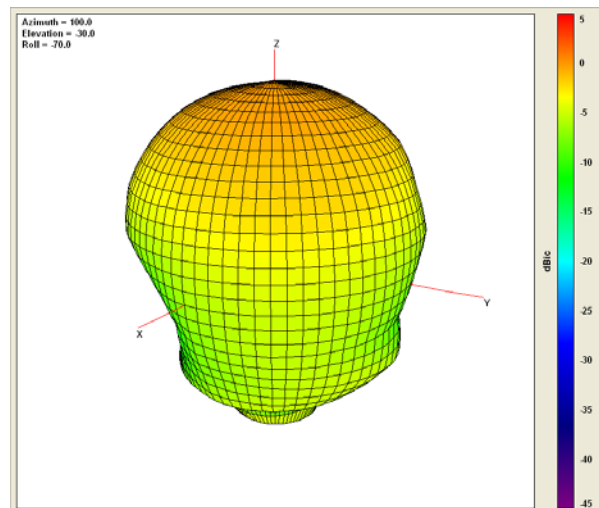
1575.42 MHz



1598 MHz

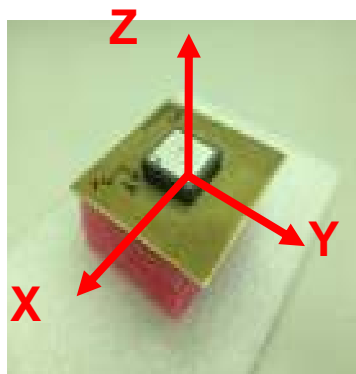


1602 MHz



1606 MHz

2.3 Antenna Direction



UNLESS OTHER SPECIFIED TOLERANCES ON :	
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ANGLES=±	HOLEDIA=±
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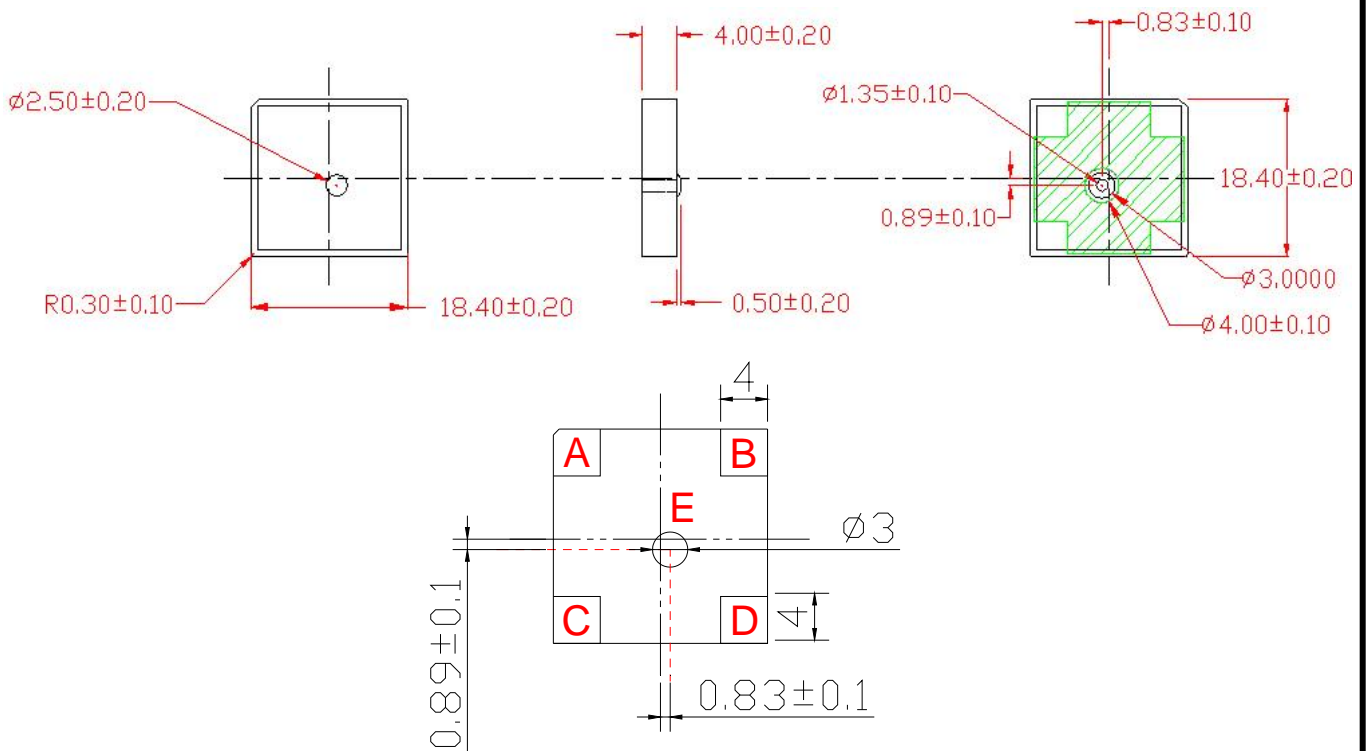


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3. Dimension



A、B、C、D、E 爲 SMT Solder Joint Tolerance : ±0.1mm Unit : mm

4. Typical Electrical Properties on INPAQ Test Ground

Characteristics	Specification	Unit	Conditions
Patch Center Frequency	1592.80 ± 3	MHz	By Test on INPAQ Ground Plane
S11	< -20	dB	By Test on INPAQ Ground Plane
Polarization	RHCP		
Frequency Temperature Coefficient	0±20	ppm/°C	-40°C to +85°C

UNLESS OTHER SPECIFIED TOLERANCES ON :

X=± X.X=± X.XX=±
 ANGLES=± HOLEDIA=±



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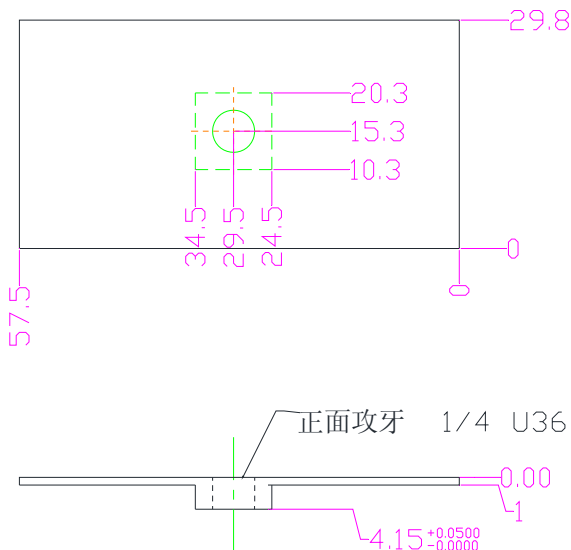
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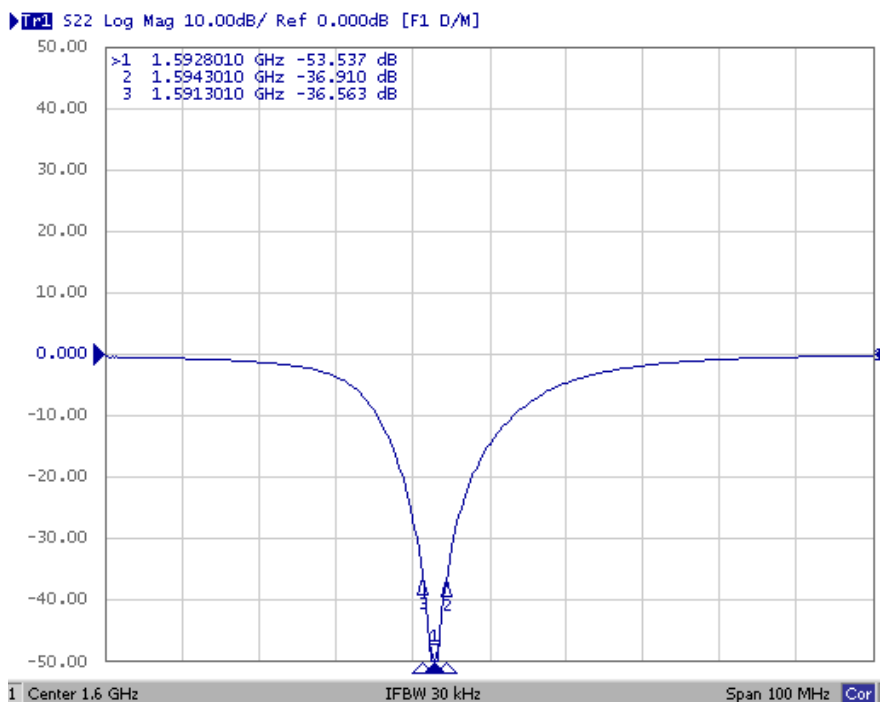
5. Test Condition Ground Plane

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2014-6-13



Unit : mm

6. Return Loss Characteristics



UNLESS OTHER SPECIFIED TOLERANCES ON :
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 ANGLES=± HOLEDIA=±



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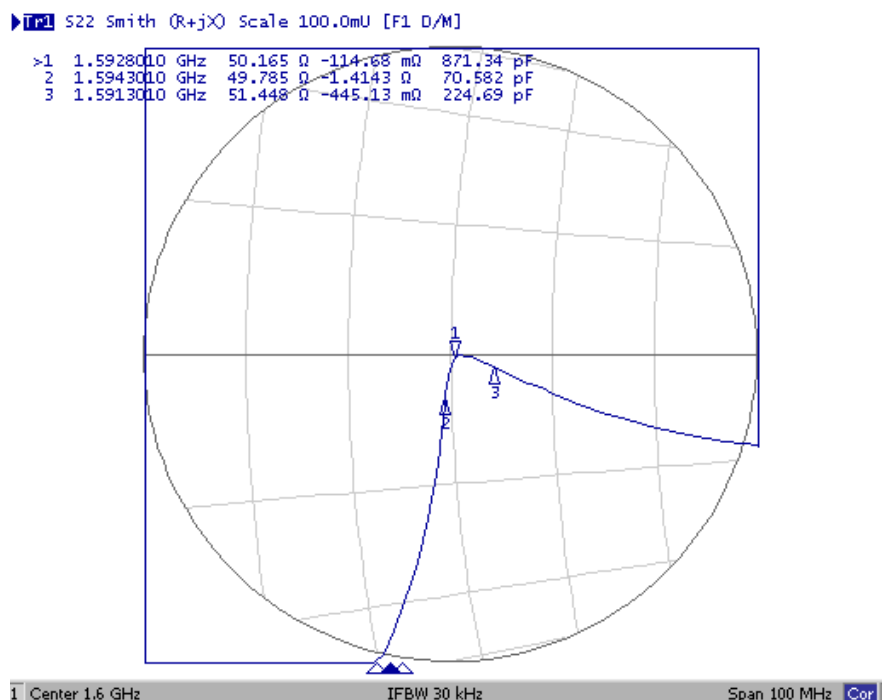
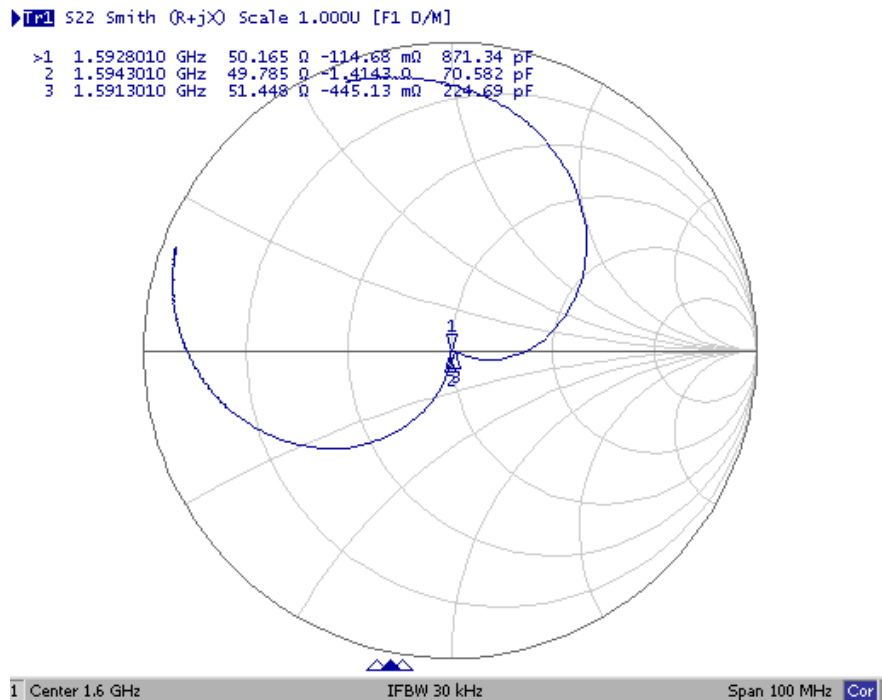
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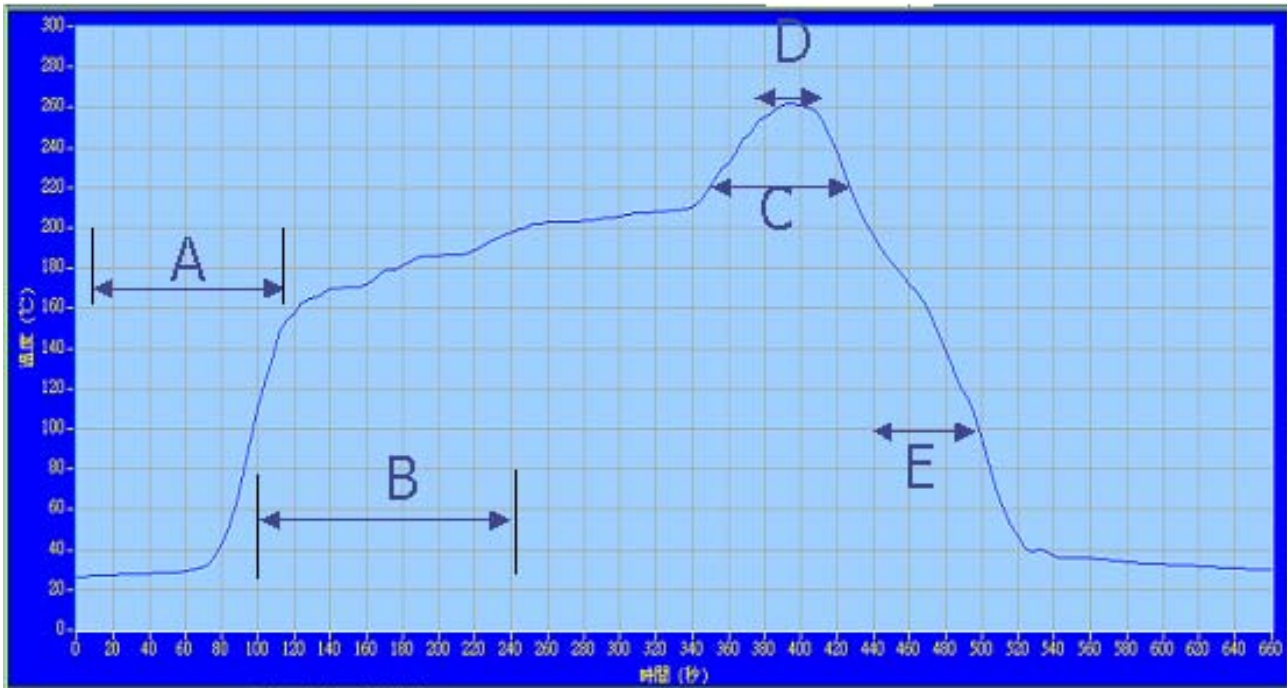
7. Measured Input Impedance on a Smith Chart



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8. Recommendable Reflow Soldering



A	Rising temperature	The normal to Preheating	60s to 120s
B	Preheating	80°C to 200°C	140s to 150
C	Temperature	220°C to 260°C to 220°C	80 to 90s
D	Main heating	if 260°C	20s~30s
E	Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s

* The thickness of Solder should be controlled to be higher than 0.1 mm.

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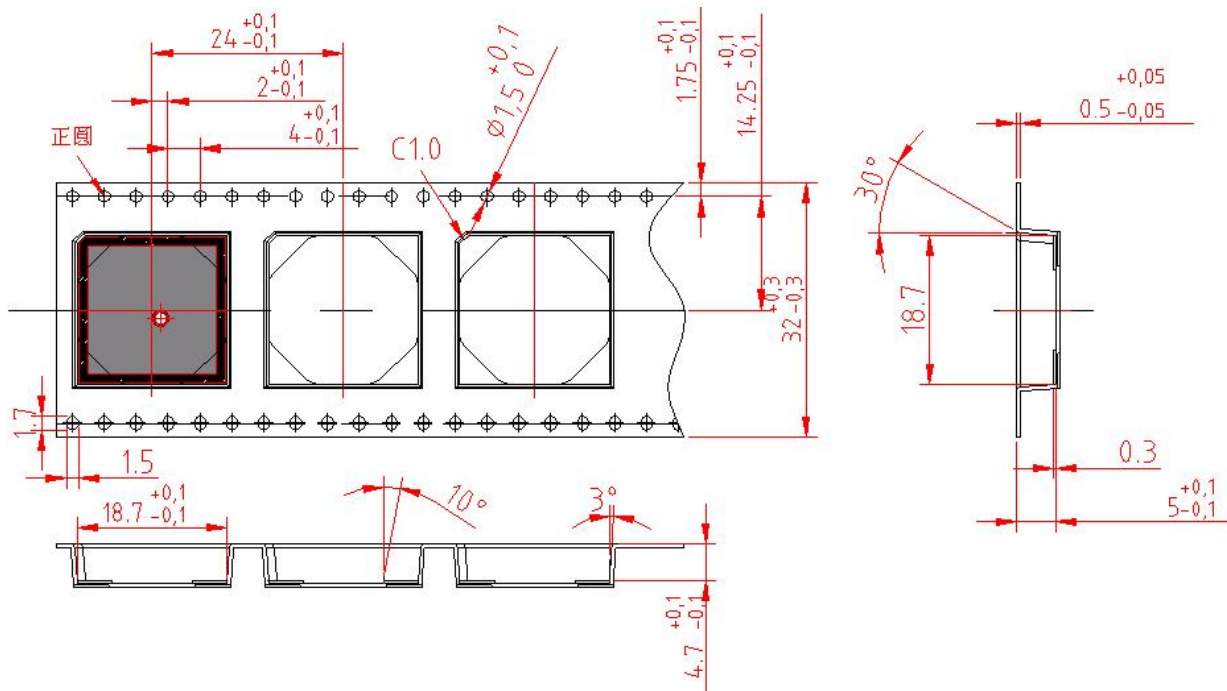
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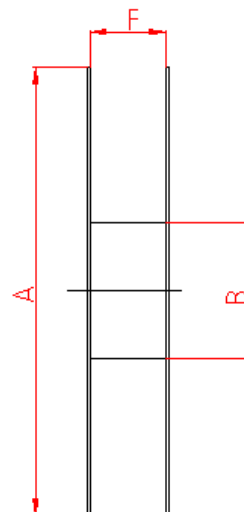
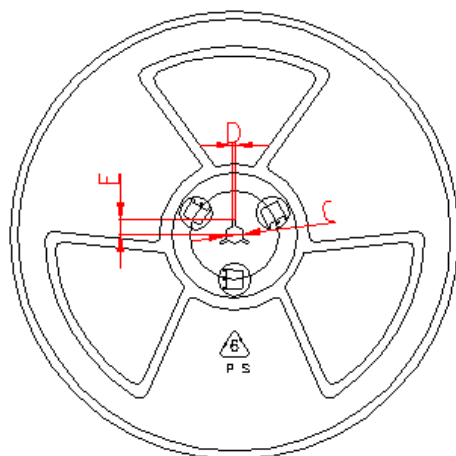
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9. Delivery mode



10. Taping Reel Dimensions



A	B	C	D	E	F
± 2.0	± 4.0	± 0.2	± 0.2	± 2.0	± 2.0
330	100	13.2	2	10.75	32.4

11. Quantity of Products in the Taping Package

(1) Standard quantity : 300Pcs/Reel

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