

**SAW Filter 1250.0MHz**  
**Part No: MP08739**

**Model No: TA2160A**  
**Rev No: 1**

**A. MAXIMUM RATING:**

Electrostatic Sensitive Device

1. Input Power Level: 20dBm for 5min without damage
2. Input Power Level: 15dBm
3. DC voltage: 3V
4. Operating Temperature: -40°C to +85°C
5. Storage Temperature: -55°C to +125°C
6. Moisture Sensitivity Level: Level 1 (MSL 1)
7. ESD 50V(MM), 100V(HBM)

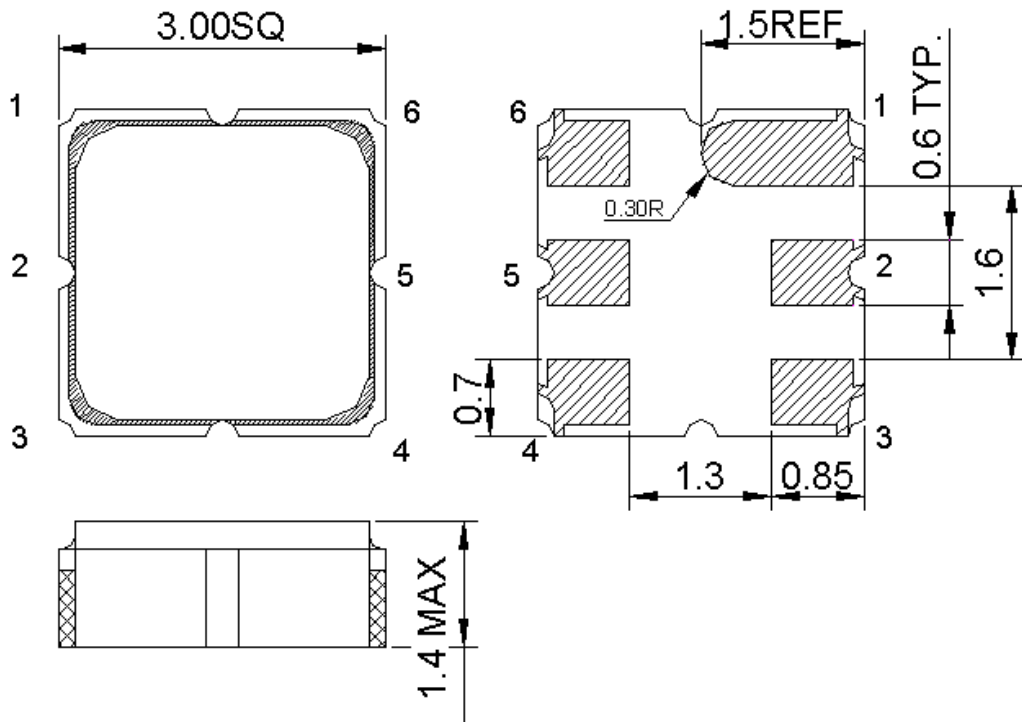
**B. ELECTRICAL CHARACTERISTICS:**

| Item   | Unit   | Min. | Typ. | Max. |
|--|--------|------|------|------|
| Center frequency Fc                          | MHz    | -    | 1250 | -    |
| Minimum Insertion loss IL                    | dB     | -    | 2.9  | 3.5  |
| Amplitude ripple (1246 ~ 1254MHz)            | dB     | -    | 0.4  | 1    |
| Group Delay (1246 ~ 1254MHz)                 | ns     | -    | 34   | 40   |
| Deviation from linear phase (1246 ~ 1254MHz) | deg    | -    | 3    | 5    |
| VSWR (1246 ~ 1254MHz)                        |        | -    | 1.7  | 1.9  |
| Attenuation (Reference level from IL)        |        |      |      |      |
| DC ~ 1180MHz                                 | dB     | 48   | 50   | -    |
| 1320 ~ 1700MHz                               | dB     | 50   | 52   | -    |
| 1700 ~ 2400MHz                               | dB     | 40   | 42   | -    |
| 2400 ~ 3600MHz                               | dB     | 33   | 35   | -    |
| 3600 ~ 5000MHz                               | dB     | 3    | 5    | -    |
| Temperature Coefficient                      | ppm/°C | -    | -36  | -    |
| Source impedance Z <sub>S</sub>              | Ω      | -    | 50   | -    |
| Load impedance Z <sub>L</sub>                | Ω      | -    | 50   | -    |

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**C. OUTLINE DRAWING:**



2: Input  
5: Output  
1, 3, 4, 6: Ground  
Unit: mm

**Notes:**

The base material is ceramic with Au over Ni plating.

The plating thicknesses are:

Electro Ni: 1.27 ~ 8.89 $\mu$ m.

Electro Au: 0.3 ~ 1.0 $\mu$ m (solder pads only).

0.3 $\mu$ m Min. (Others)

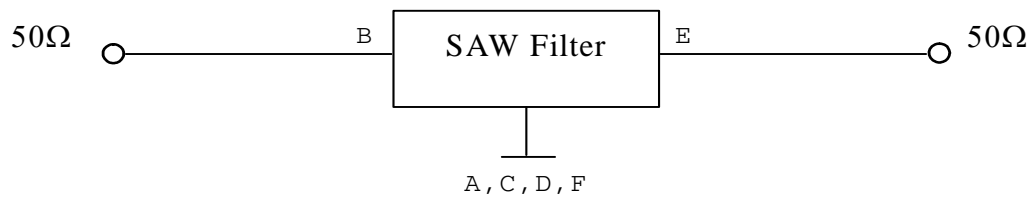
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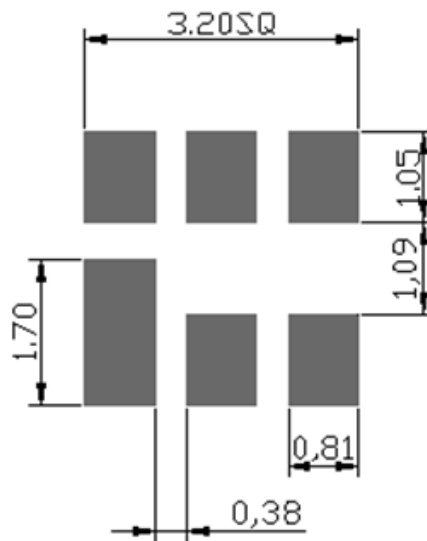
**D. MEASUREMENT CIRCUIT:**

50 Ohm Test circuit (single-ended / single-ended)

HP Network analyzer



**E. PCB FOOTPRINT:**

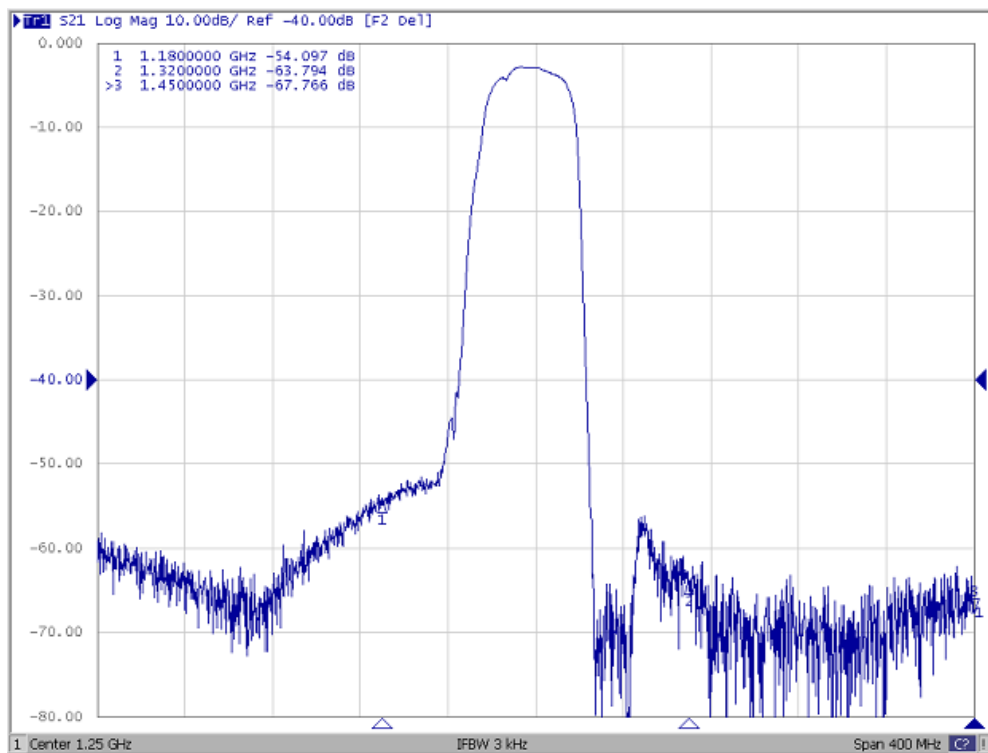
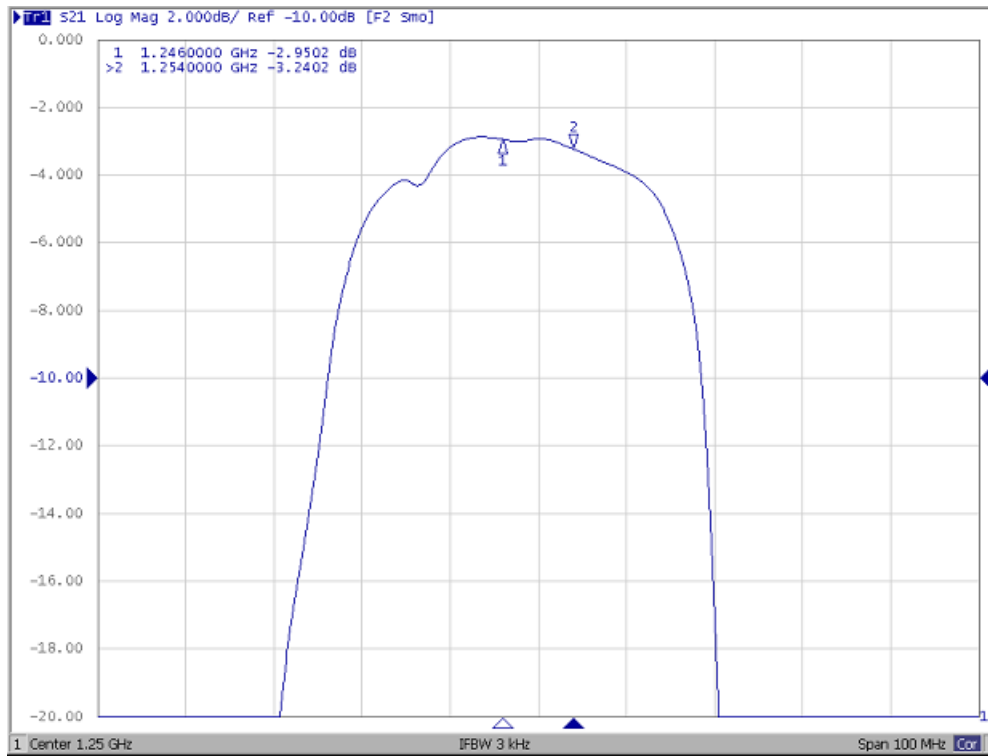


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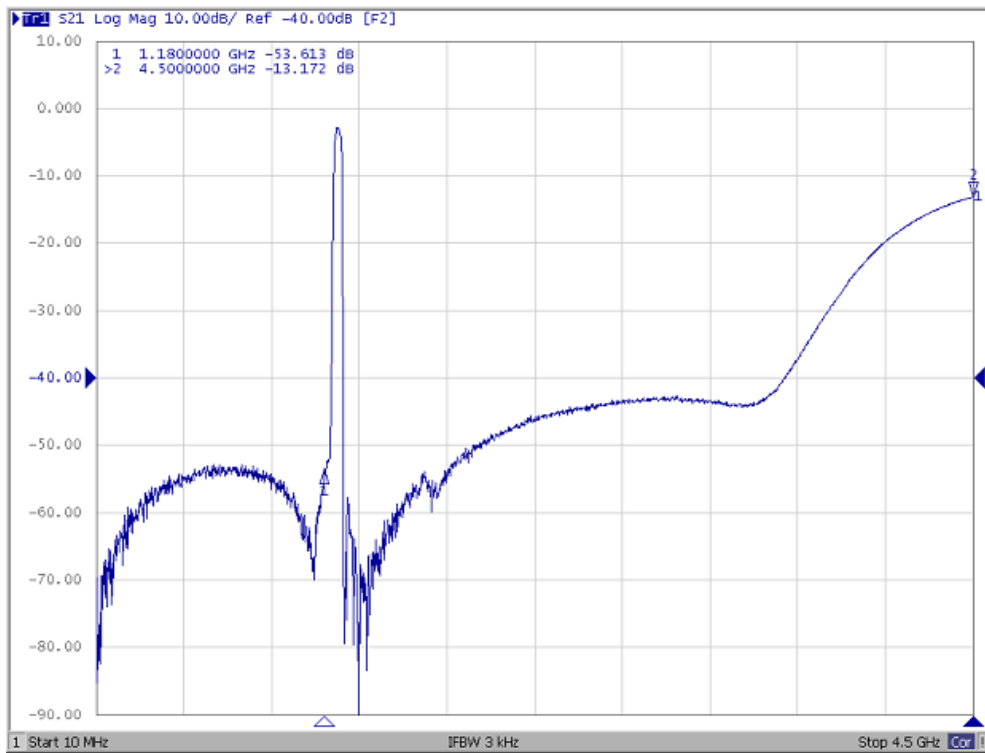
**F. FREQUENCY CHARACTERISTICS:**

1. Transfer function



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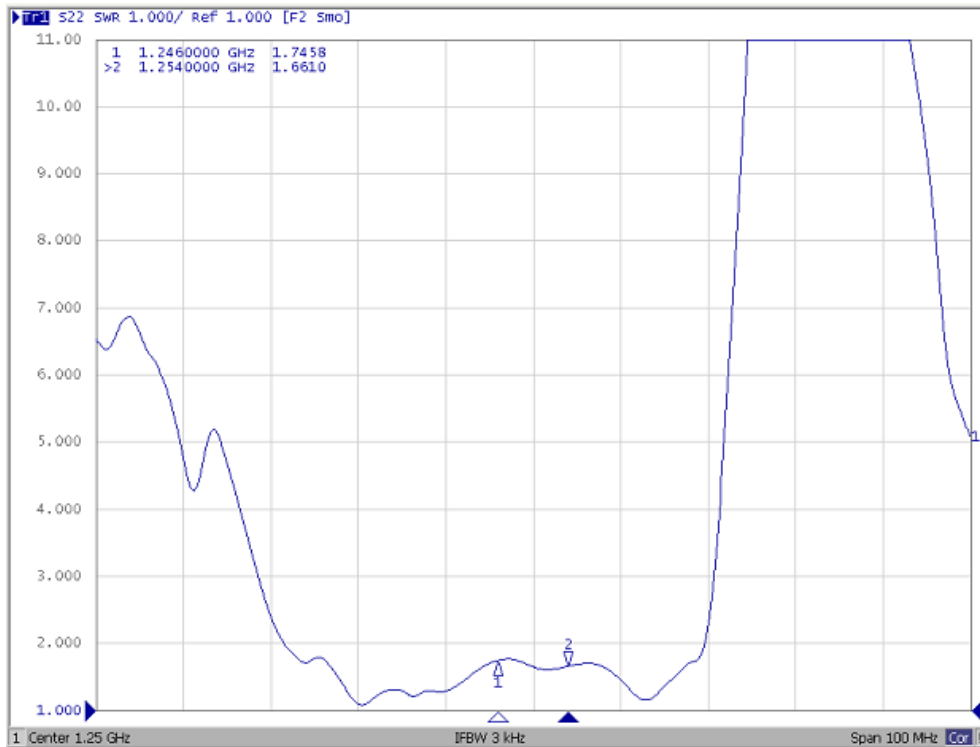
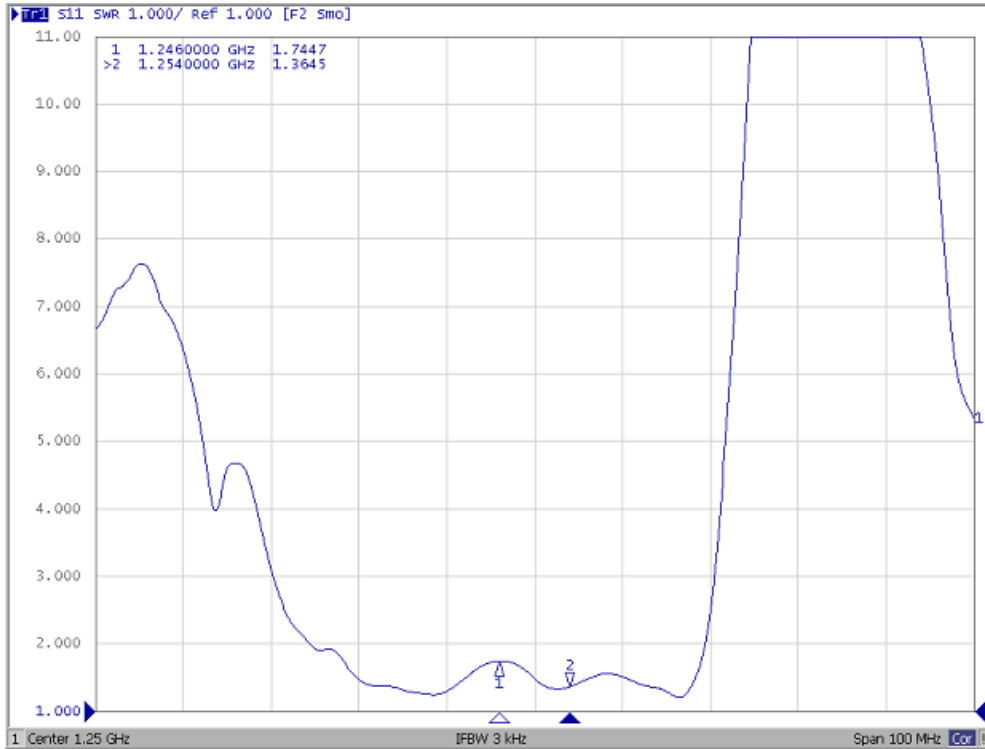
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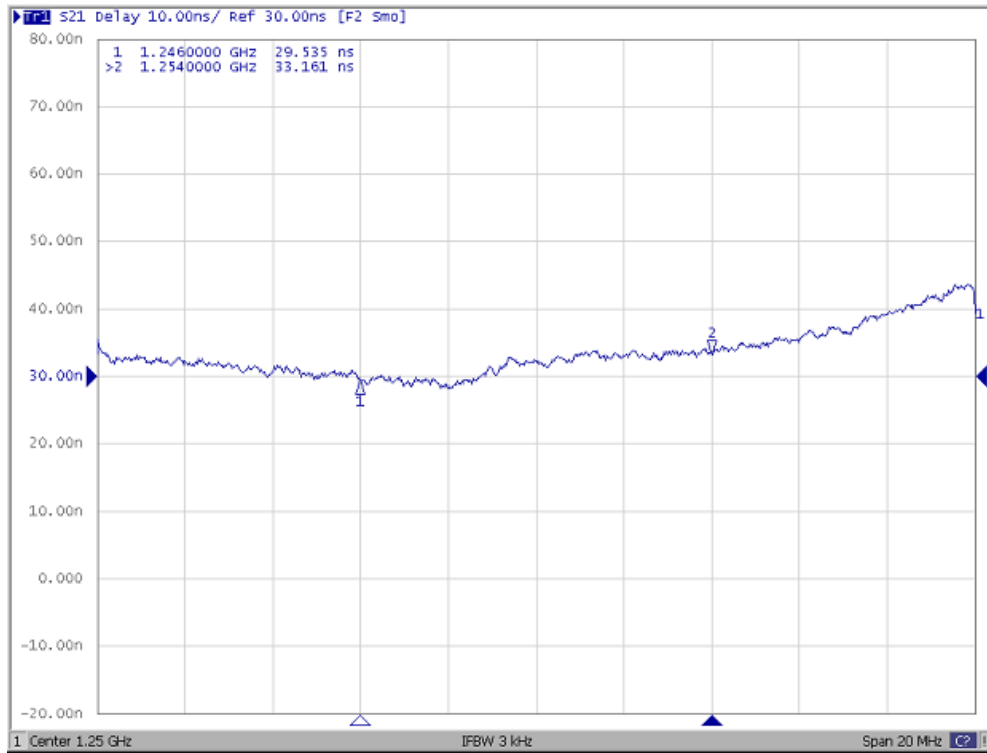
## 2. Reflection functions



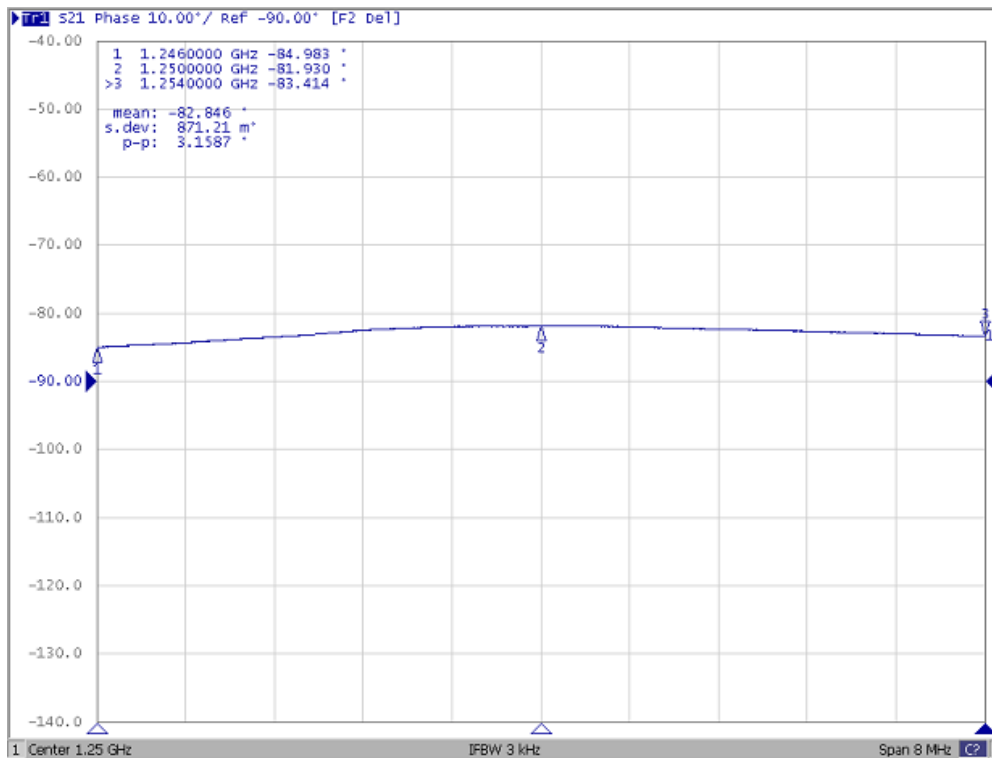
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### 3. Group delay



### 4. Linear Phase

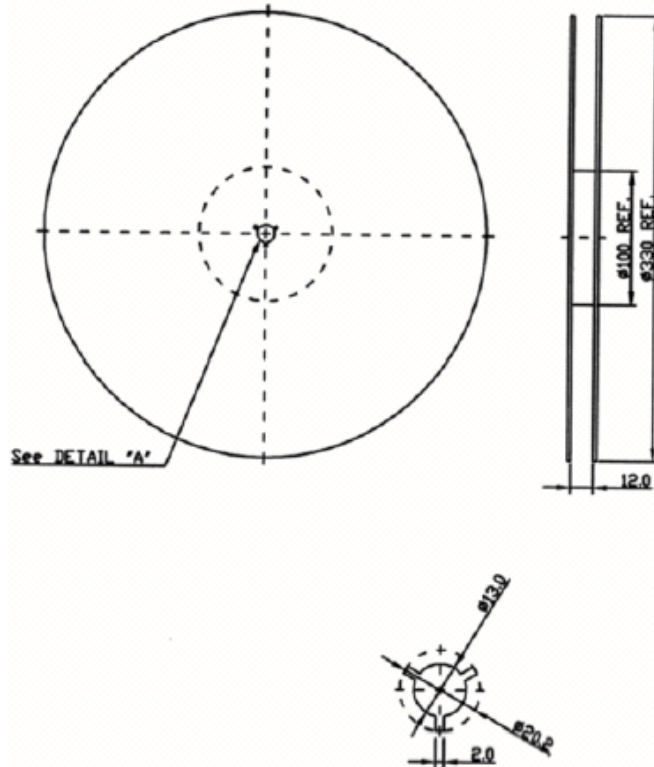


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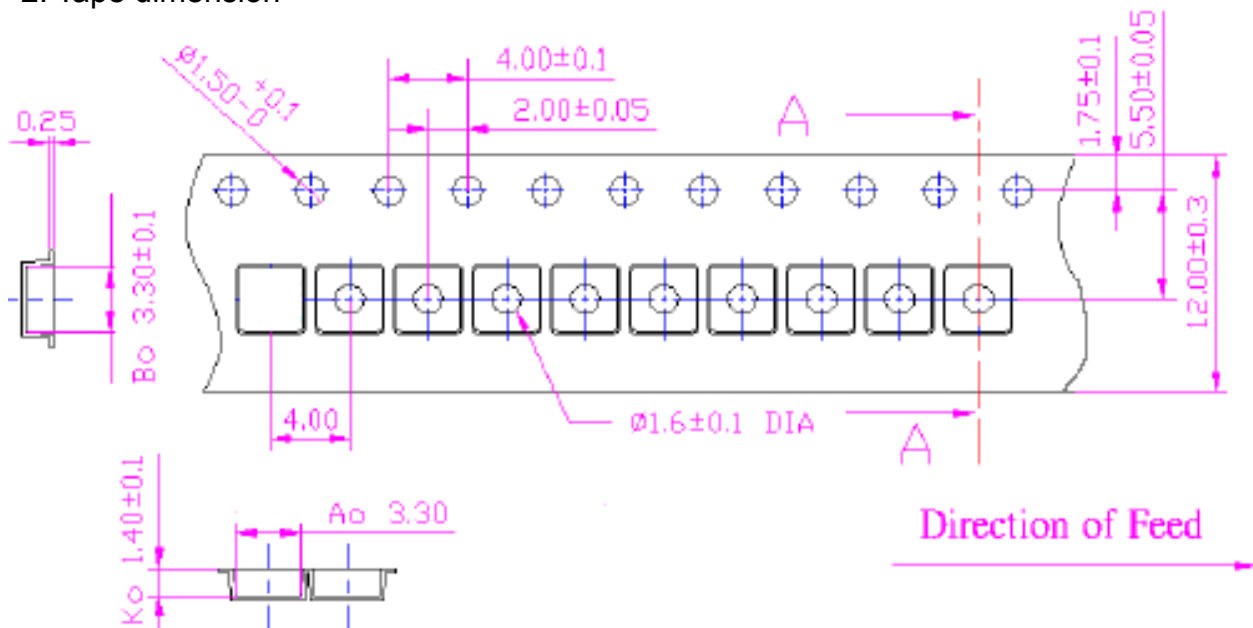
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**G. PACKING:**

1. Reel Dimension



2. Tape dimension





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**H. RECOMMENDED REFLOW PROFILE:**

1. Preheating shall be fixed at 150 ~ 180°C for 60 ~ 90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50 ~ 80 seconds and at 260°C +0/-5°C peak (20 ~ 40 sec).
4. Time: 2 times.

