

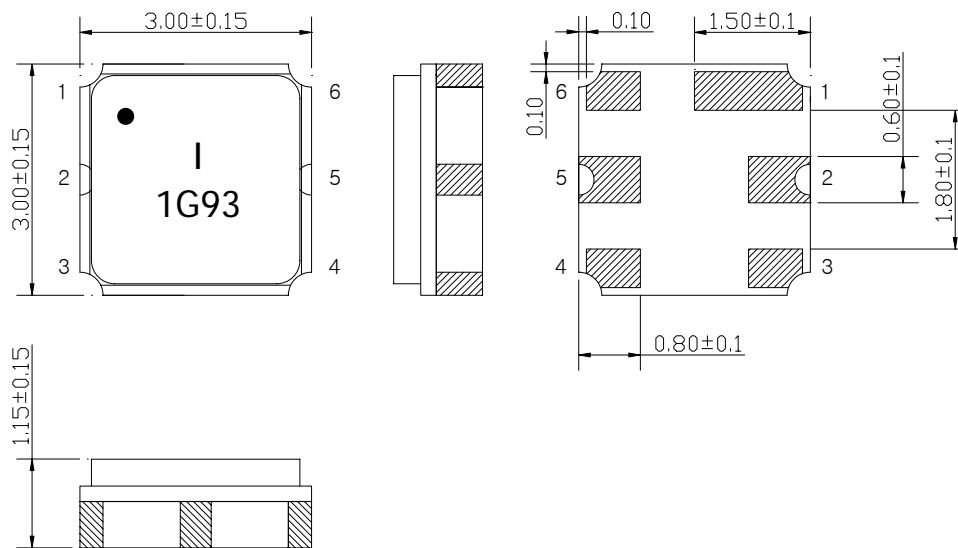
SAW Bandpass Filter F1G93



Features

- US-PCS applications
- Usable bandwidth of 60 MHz
- No impedance matching require for operation at 50 Ω
- Ceramic Surface Mounted Device Package (3.0 mm × 3.0 mm)
- Single-ended Operation
- RoHS Compliant

Package Dimensions



Dimensions shown are nominal in millimeters

Body : Al₂O₃ Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0 μm, Over a 1.27 ~ 8.89 μm
Ni Plating

| Pin Configurations | |
|--------------------|-------------|
| 2 | Input |
| 5 | Output |
| 1, 3, 4, 6 | Case ground |

Maximum Ratings

| Parameters | Unit | Minimum | Typical | Maximum |
|-----------------------------|------|---------|---------|---------|
| Operating Temperature Range | °C | -30 | 25 | 85 |
| Storage Temperature Range | °C | -40 | - | 90 |
| Power Handling Capability | dBm | - | - | - |

Electrostatics Sensitive Device (ESD)

| | | | | |
|--|---|-----------|-------------|-----|
| | ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809 | Part No. | F1G93 | |
| | | Rev. Date | 2007-05-29 | |
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Specifications

| | Minimum | Typical | Maximum | Unit |
|---------------------------------------|---------|---------|---------|-------|
| Center Frequency (Fc) | - | 1960.0 | - | MHz |
| Insertion Loss (In Fc +/- 30.0 MHz) | - | 2.3 | 4.5 | dB |
| Amplitude Ripple (In Fc +/- 30.0 MHz) | - | 1.0 | 2.8 | dBp-p |
| VSWR (In Fc +/- 30.0 MHz) | - | 1.9 | 2.5 | |
| Relative Attenuation | | | | |
| DC ~ 1500.0 MHz | 18.0 | 20.0 | - | dB |
| 1500.0 MHz ~ 1850.0 MHz | 18.0 | 21.0 | - | |
| 1850.0 MHz ~ 1910.0 MHz | 10.0 | 21.0 | - | |
| 2300.0 MHz ~ 2600.0 MHz | 20.0 | 23.0 | - | |
| Temperature Range (Operational) | -30 | 25 | 85 | °C |
| Input RF Power (In Fc +/- 30.0 MHz) | - | 10 | - | dBm |
| Input/Output Impedance | | 50 | | Ohms |

Notes :

- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.
- 2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- 3) All attenuation measurements are measured relative to insertion loss

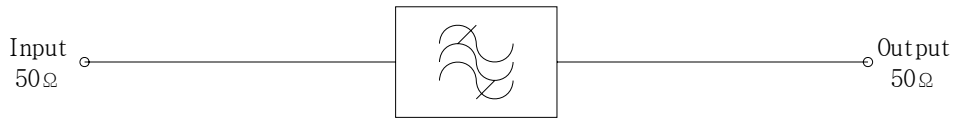
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|---|---|-----------|-------------|-----|
|  Integrated Technology Future | ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809 | Part No. | F1G93 | |
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Matching Schematic

(Actual matching values may vary due to PCB layout and parasitics)



Marking Configuration

- ¹⁾
I²⁾
1G93³⁾

- 1) Pad Number 1 Index
- 2) Manufacturer name
- 3) Marking Number

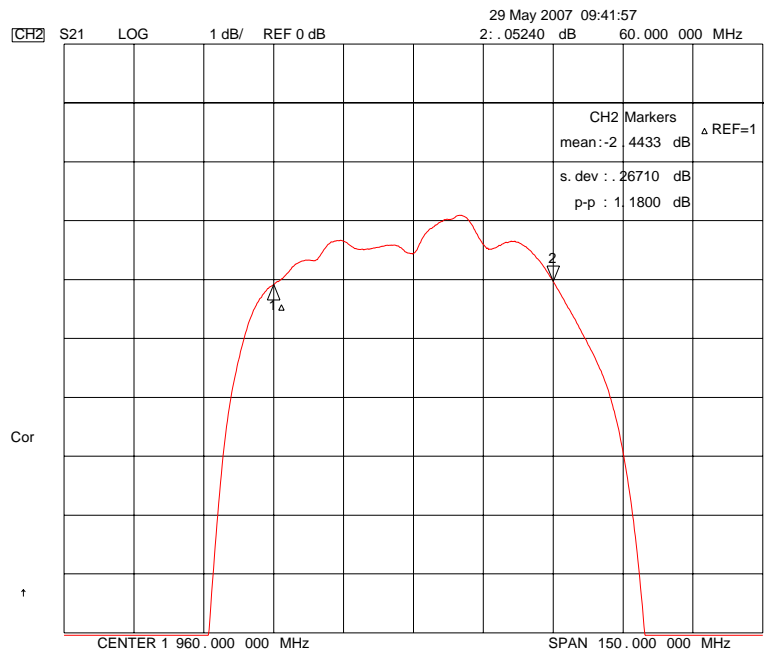
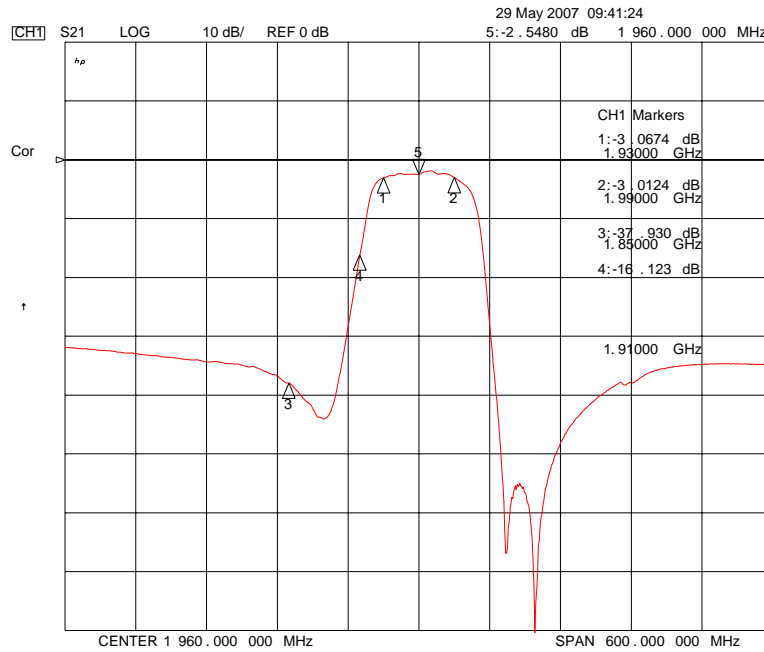
* Ink or Laser Marking available

| | | | | |
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Typical Performance (at 25°C)

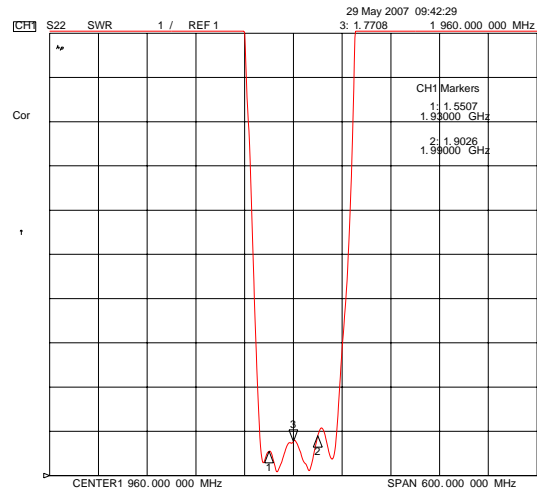
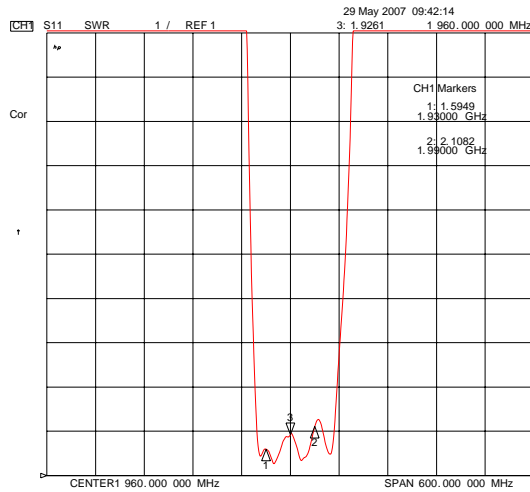


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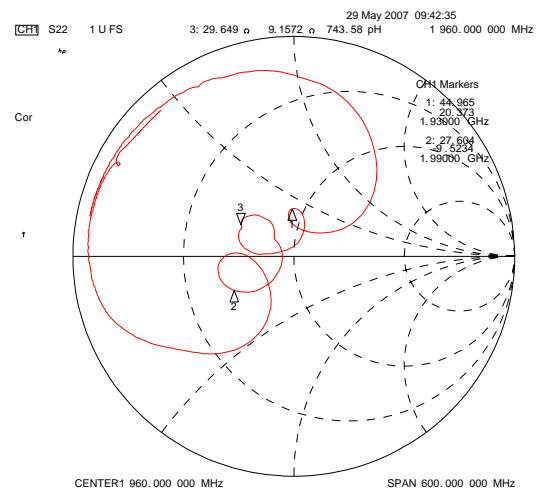
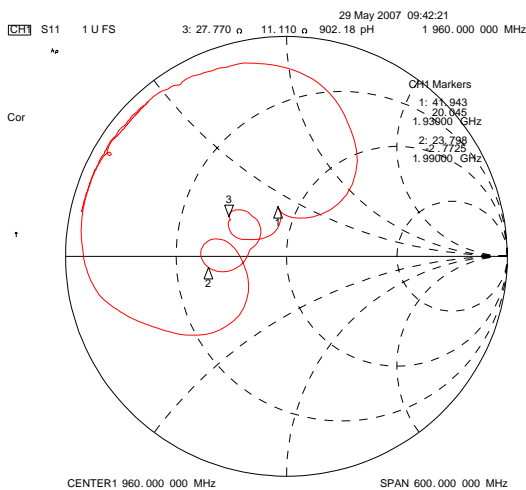
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Input / Output VSWR Charts



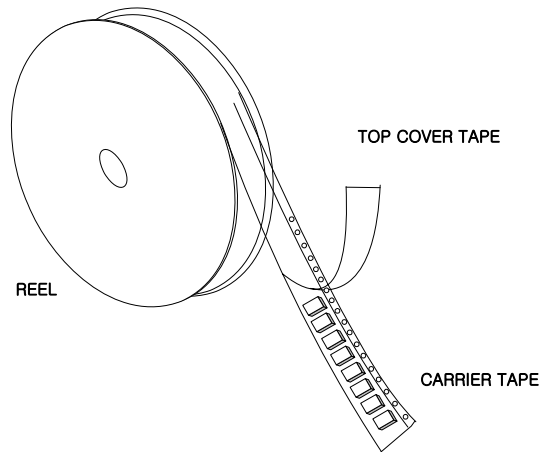
Input / Output Smith Charts



| | | | | |
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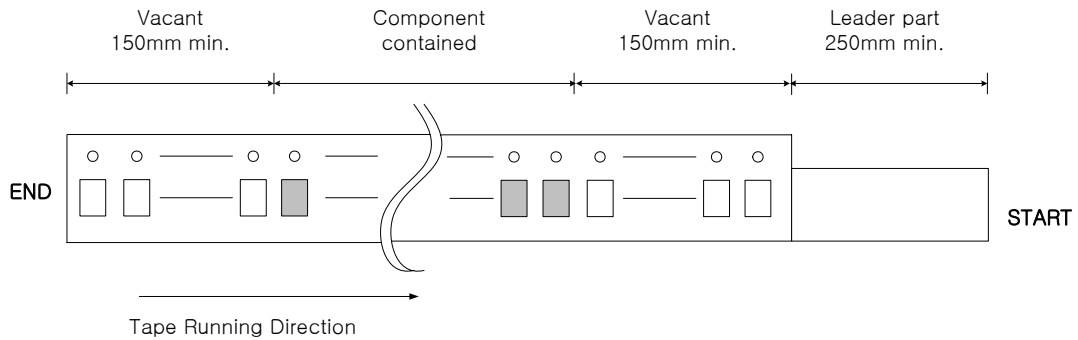
Packing Specification

1. Reeling Quantity : 3000 pcs / 13" reel (or 1000 pcs / 7" reel)
2. Taping Structure : The tape shall be wound around the reel in the direction shown below.



Tape Specification

1. Leader part and vacant position specification

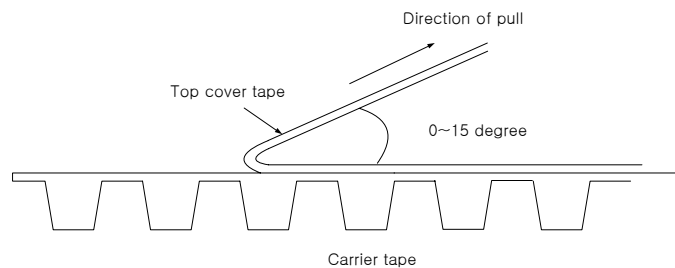


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

- 1) pull off angle : 0~15°
- 2) speed : 300mm/min
- 3) force : 20~70g

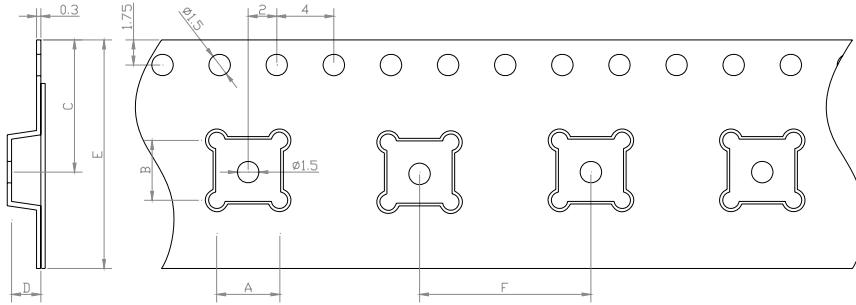


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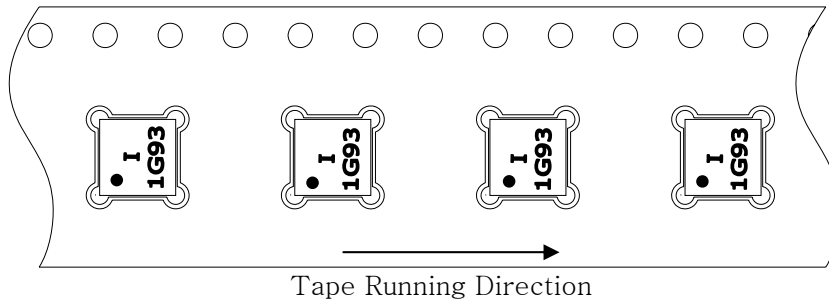


Carrier Tape Dimensions [unit : mm]

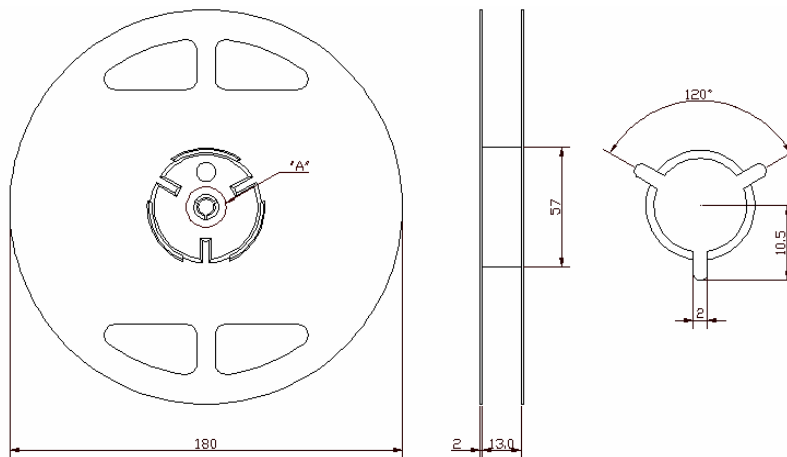


| | |
|---|-------------|
| A | 3.40 ± 0.1 |
| B | 3.40 ± 0.1 |
| C | 7.25 ± 0.1 |
| D | 1.70 ± 0.1 |
| E | 12.00 ± 0.1 |
| F | 8.00 ± 0.1 |

Part Direction



Reel Dimensions [unit : mm]



| | | | | |
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