

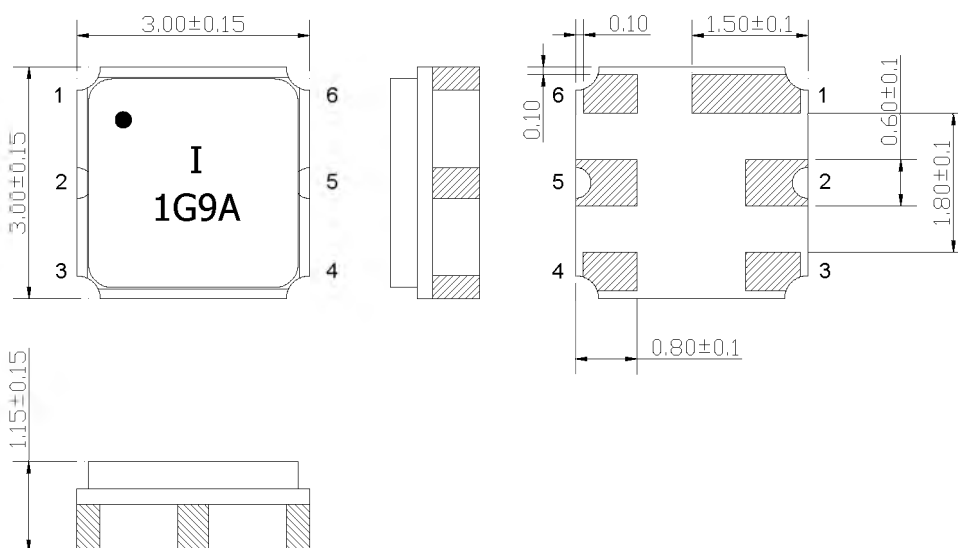
# SAW Bandpass Filter F1G9A



## Features

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

## Package Dimensions



Dimensions shown are nominal in millimeters

Body : Al<sub>2</sub>O<sub>3</sub> Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0  $\mu$ m, Over a 1.27 ~ 8.89  $\mu$ m  
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     | 25      | 90      |
| Power Handling Capability   | dBm  | -       | -       | 10      |

Electrostatics Sensitive Device (ESD)

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## Specifications

|                                                                                                                          | Minimum                      | Typical                      | Maximum          | Unit  |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------|------------------|-------|
| Center Frequency ( Fc )                                                                                                  | -                            | 1960.0                       | -                | MHz   |
| Insertion Loss (In Fc +/- 30.0 MHz)                                                                                      | -                            | 2.8                          | 4.0              | dB    |
| Amplitude Ripple (In Fc +/- 30.0 MHz)                                                                                    | -                            | 1.4                          | 2.4              | dBp-p |
| VSWR (In Fc +/- 30.0 MHz)                                                                                                | -                            | 2.1                          | 2.5              |       |
| Relative Attenuation<br>DC ~ 1500.0 MHz<br>1500.0 MHz ~ 1850.0 MHz<br>1850.0 MHz ~ 1910.0 MHz<br>2300.0 MHz ~ 2600.0 MHz | 20.0<br>20.0<br>10.0<br>20.0 | 30.0<br>30.0<br>21.0<br>30.0 | -<br>-<br>-<br>- | dB    |
| 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

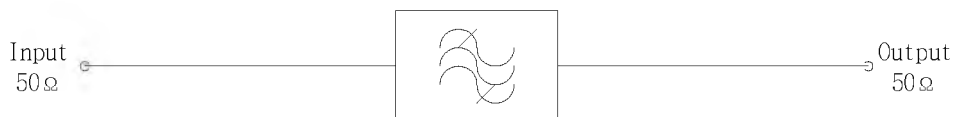
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## Matching Schematic

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



## Marking Configuration

1)  
●

I<sup>2)</sup>

1G9A<sup>3)</sup>

1) Pad Number 1 Index

2) Manufacturer name

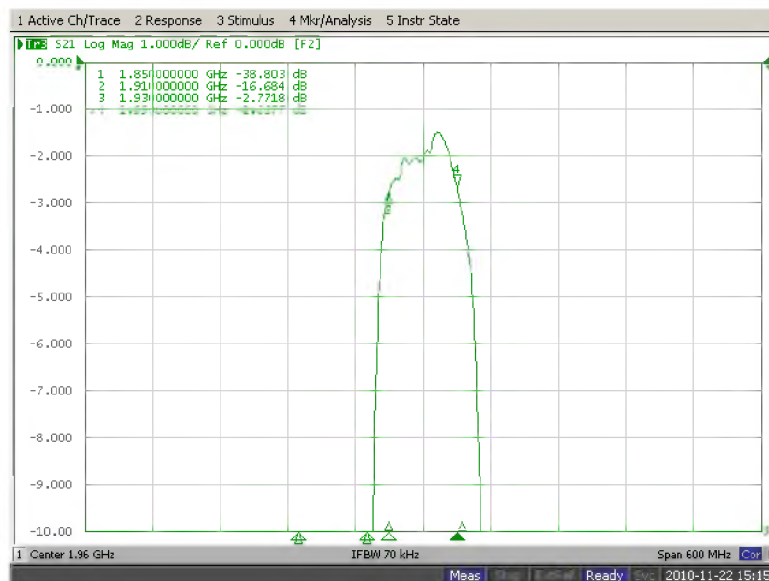
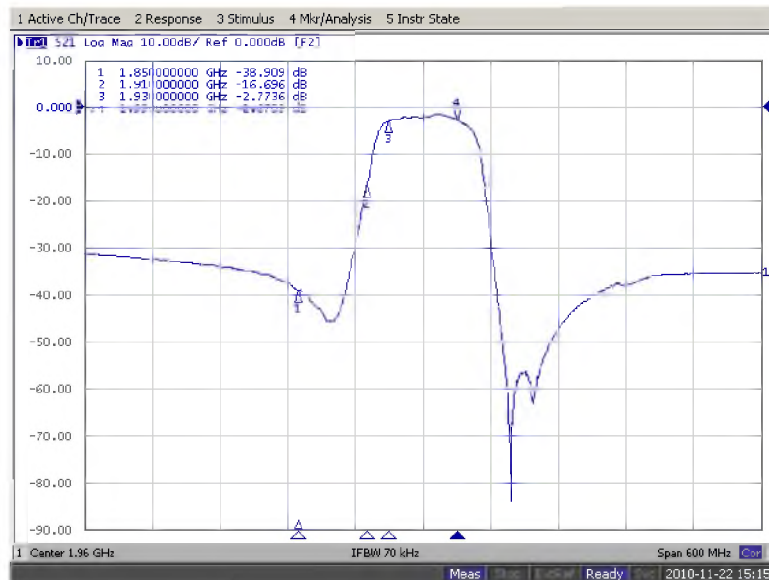
3) Marking Number

\* Ink or Laser Marking available

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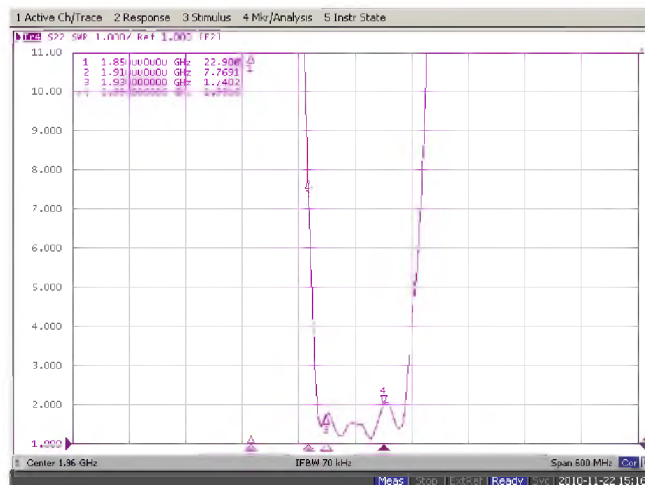
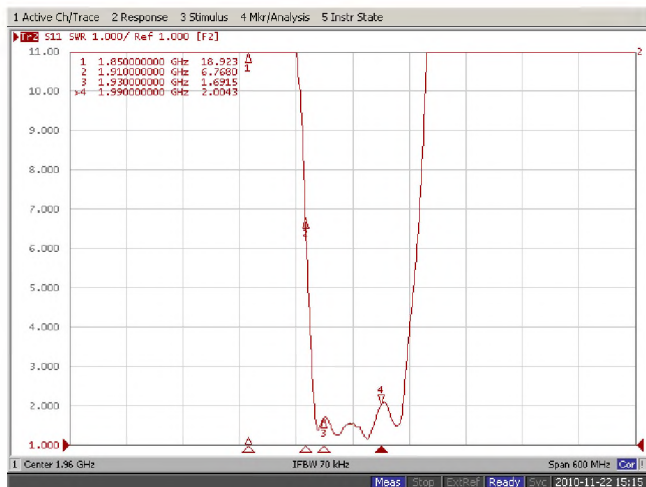
## Typical Performance ( at 25°C )



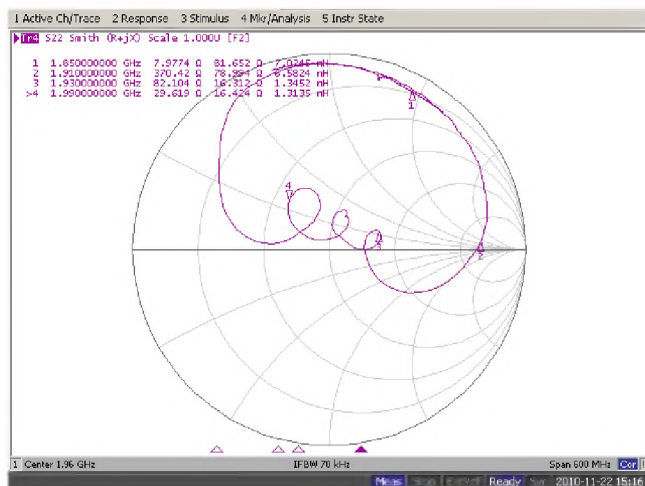
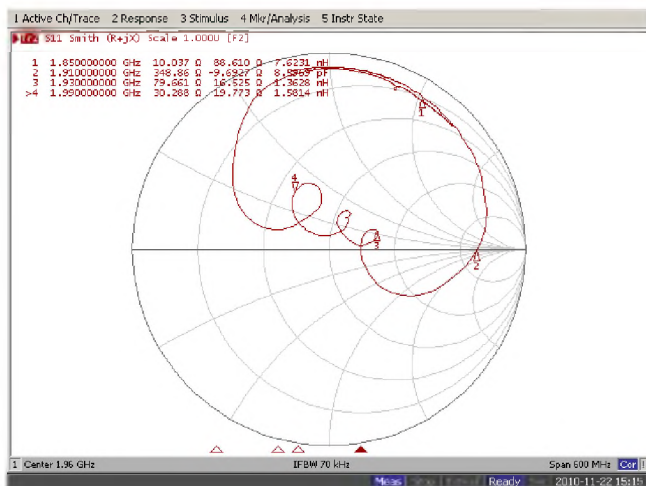
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## Input / Output VSWR Charts



## Input / Output Smith Charts

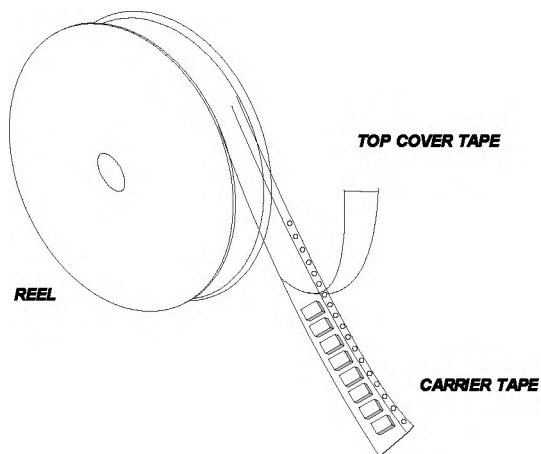


# SAW Bandpass Filter F1G9A



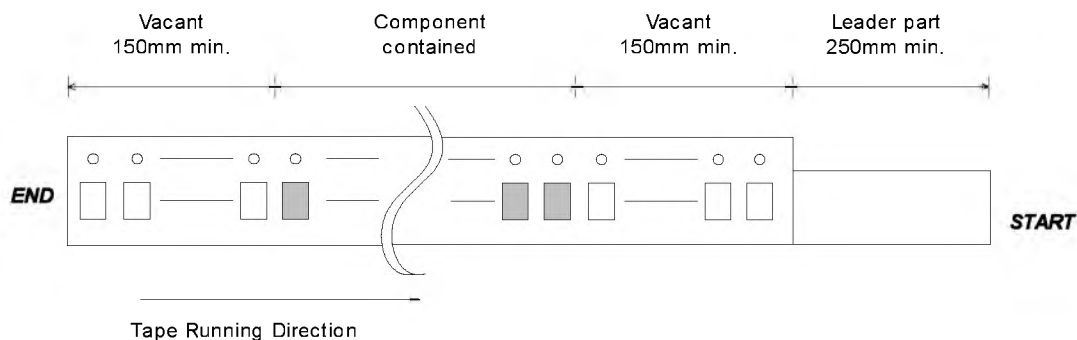
## Packing Specification

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

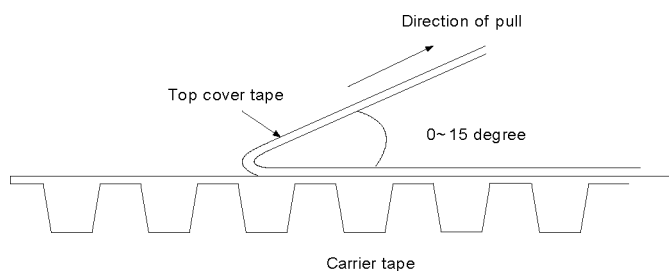
4.4N/mm width

3. Top cover tape adhesion

1) pull off angle : 0~15°

2) speed : 300mm/min

3) force : 20~70g





**SAW**  
DEVICE

|   |                 |
|---|-----------------|
| A | $3.40 \pm 0.1$  |
| B | $3.40 \pm 0.1$  |
| C | $7.25 \pm 0.1$  |
| D | $1.70 \pm 0.1$  |
| E | $12.00 \pm 0.1$ |
| F | $8.00 \pm 0.1$  |

A diagram of a tape with four 1G9A components. Each component is a rectangular box with rounded corners, containing a black dot and the text "1G9A". The components are arranged horizontally on the tape. Below the tape, an arrow points to the right, labeled "Tape Running Direction".

Technical drawing of a circular mechanical part, showing three views: front, side, and top.

- Front View:** A circular disc with a central hub and four trapezoidal slots. The overall diameter is 180.
- Side View:** A thin profile with a total thickness of 17. The central hole has a diameter of 13.0.
- Top View:** A circular cross-section with a 120° angle and a radius of 10.5.