

SAW
DEVICE

- RF bandpass filter
- Usable bandwidth 65 MHz
- High attenuation
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device Package (3.0 mm × 3.0 mm)
- RoHS compliant

Technical drawing of a 1G89 component. The drawing includes three views: a front view, a side view, and a top view.

- Front View:** Shows a square component with rounded corners. The overall width is 3.00 ± 0.10 and the overall height is 3.00 ± 0.10 . The component is divided into three horizontal sections labeled 1, 2, and 3. The top section (1) has a width of 1. The middle section (2) has a width of 2. The bottom section (3) has a width of 3. The component is labeled "I 1G89". A fillet radius of $R 0.15$ is indicated at the bottom right corner.
- Side View:** Shows the component's profile, which is a rectangle with a width of 1.40 MAX and a height of 1.60. The component is divided into three horizontal sections labeled 1, 2, and 3. The top section (1) has a width of 0.85. The middle section (2) has a width of 1.50. The bottom section (3) has a width of 0.60.
- Top View:** Shows the component's top surface, which is a rectangle with a width of 1.40 MAX and a height of 1.60. The component is divided into three horizontal sections labeled 1, 2, and 3. The top section (1) has a width of 0.85. The middle section (2) has a width of 1.50. The bottom section (3) has a width of 0.60.

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

Parameters	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-25	25	85
Storage Temperature Range	°C	-40	-	85
Power Handling Capability	dBm	-	-	12

Electrostatics Sensitive Device (**ESD**)

SAW Bandpass Filter F1G89



Specifications

$F_c = 1882.5 \text{ MHz}$

	Minimum	Typical	Maximum	Unit
Center Frequency (F_c)	-	1882.5	-	MHz
Insertion Loss (In $F_c \pm 32.5 \text{ MHz}$)	-	2.6	3.8	dB
Amplitude Ripple (In $F_c \pm 32.5 \text{ MHz}$)	-	1.5	2.3	dB
VSWR (In $F_c \pm 32.5 \text{ MHz}$)	-	2.0	2.5	
Attenuation (Reference level from 0dB)				
800.0 MHz ~ 1300.0 MHz	24	30	-	dB
1400.0 MHz ~ 1475.0 MHz	25	31	-	
1930.0 MHz ~ 1940.0 MHz	4	8	-	
1950.0 MHz ~ 3000.0 MHz	20	35	-	
Temperature Range (Operational)	-25	25	85	°C
Input/Output Impedance		50		Ohms

Notes :

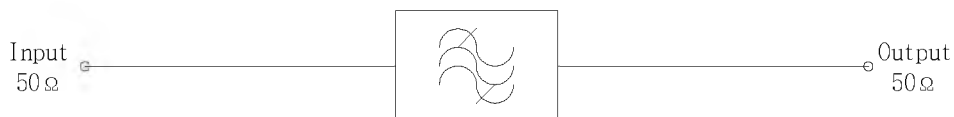
- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.
- 2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- 3) All attenuation measurements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

SAW Bandpass Filter F1G89

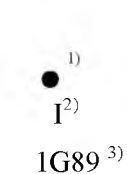


Matching Schematic

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



Marking Configuration



1) Pad Number 1 Index

2) Manufacturer name

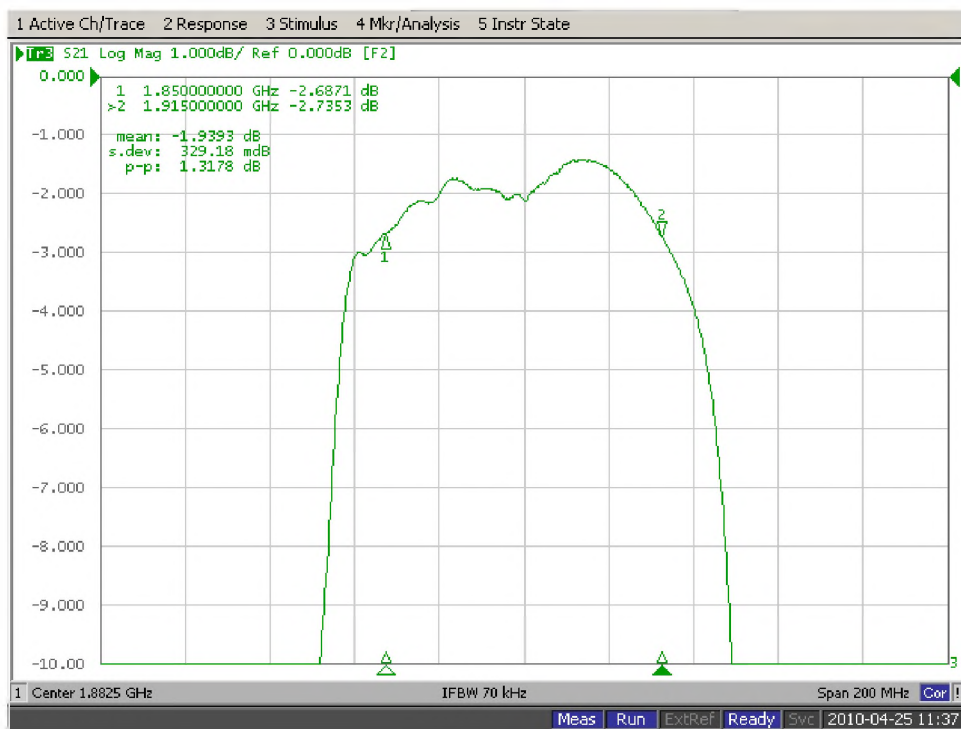
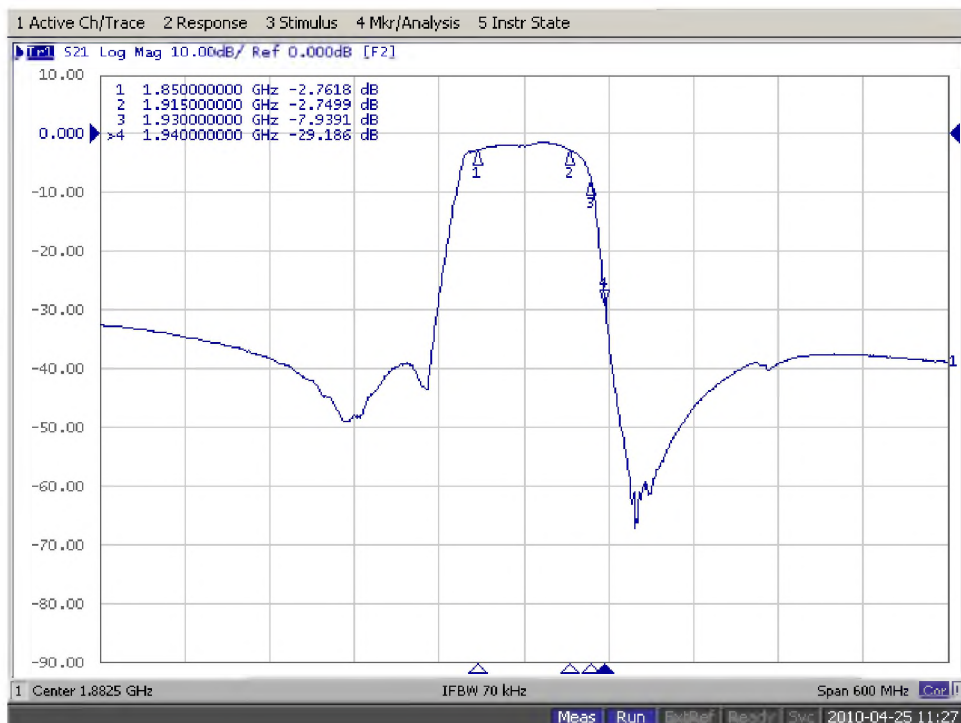
3) Marking Number

* Ink or Laser Marking available

SAW Bandpass Filter F1G89



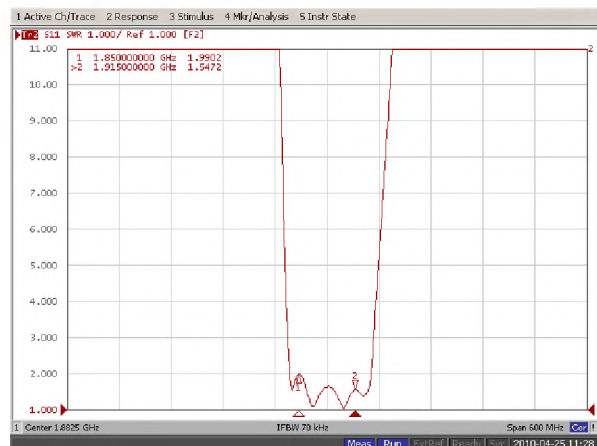
Typical Performance (at 25°C)



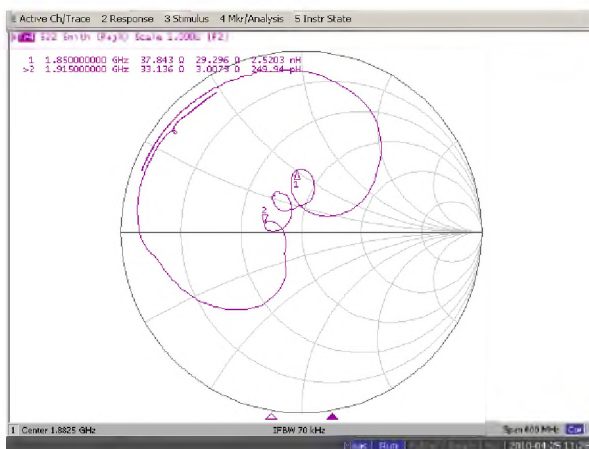
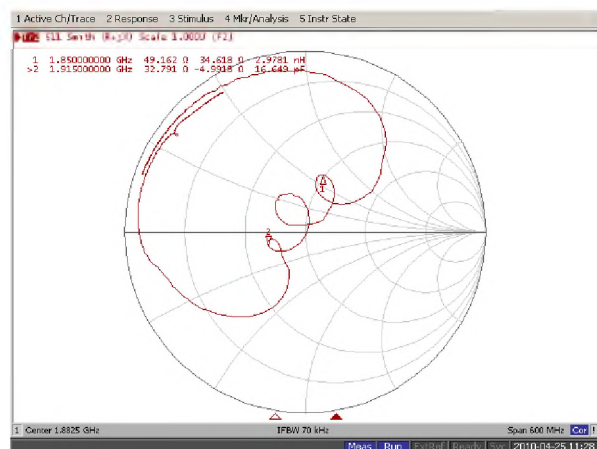
SAW Bandpass Filter F1G89



Input / Output VSWR Charts



Input / Output Smith Charts

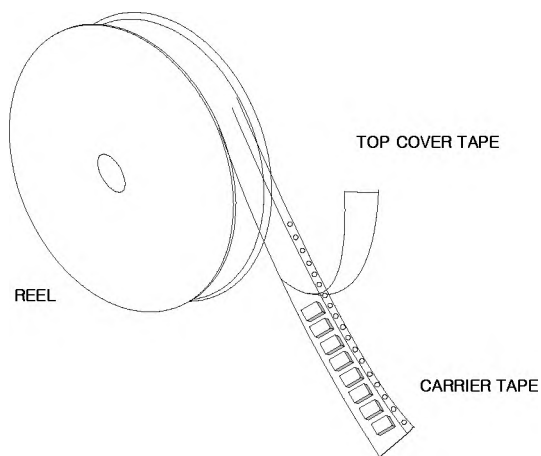


SAW Bandpass Filter F1G89



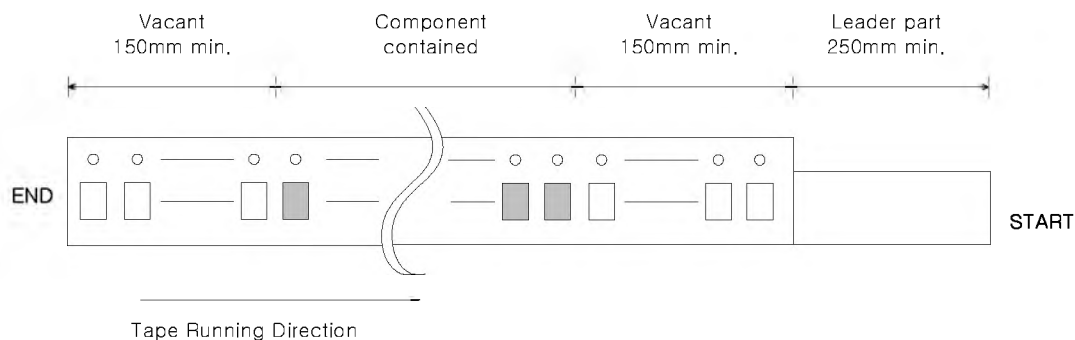
Packing Specification

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

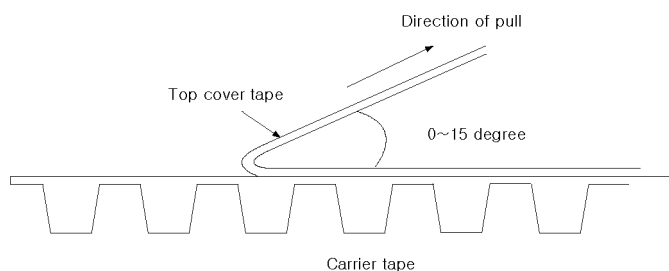
4.4N/mm width

3. Top cover tape adhesion

1) pull off angle : 0~15°

2) speed : 300mm/min

3) force : 20~70g



SAW
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Technical drawing of a mechanical part with dimensions and a table of values.

The drawing shows a side view and a top view of a component. The side view on the left indicates a total width of 0.3, a thickness of 1.75, and a height of C. The top view shows a rectangular plate with a width of 4 and a length of E. It features a series of circular holes along the top edge, with a center-to-center distance of 1.75. A specific hole is labeled with a diameter of $\phi 1.5$. The bottom edge has a series of rectangular cutouts, with a center-to-center distance of 1.75. The dimensions A, B, C, D, E, and F are labeled on the drawing.

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

A diagram showing a horizontal strip representing a tape. Along the top edge, there are 12 small circles representing holes. Inside the strip, there are four square frames, each containing a dot and the text "1G89". Below the strip, a long 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 (Left): A circular flange with a central hole. The overall diameter is 180. The central hole has a diameter of 10.5. There are four radial slots, each with a width of 10.5. The distance between the centers of the slots is 10.5. The distance from the center to the outer edge is 90.

Side View (Middle): A cylindrical profile with a central hole. The overall diameter is 180. The central hole has a diameter of 10.5. The distance from the center to the outer edge is 90.

Top View (Right): A circular flange with a central hole. The overall diameter is 180. The central hole has a diameter of 10.5. There are four radial slots, each with a width of 10.5. The distance between the centers of the slots is 10.5. The distance from the center to the outer edge is 90.