

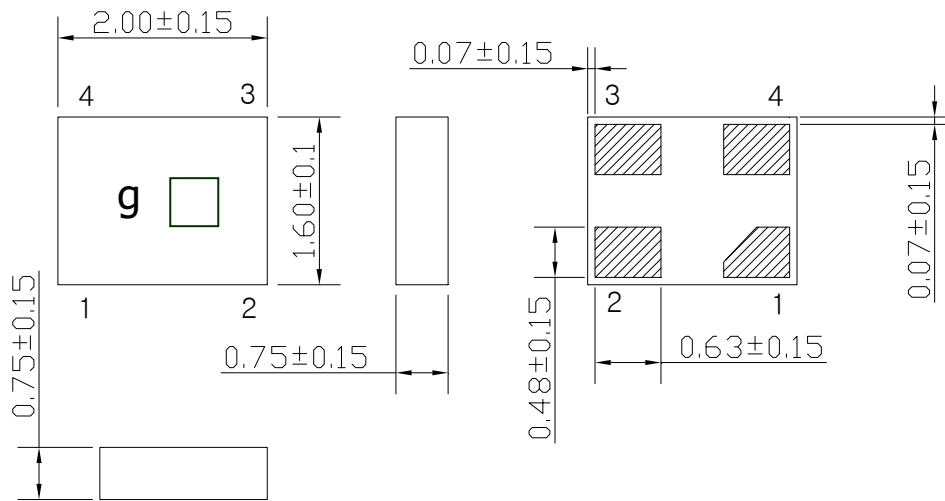
SAW Bandpass Filter F1G5C



Features

- GPS applications
- Usable bandwidth of 2 MHz
- No impedance matching require for operation at 50 Ω
- SMD Package 2.0 mm × 1.6 mm × 0.75 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 um, Over a 1.27 ~ 8.89 um
Ni Plating

Pin Configurations	
1	Input
3	Output
2, 4	Case ground

Maximum Ratings

Parameters	Unit	Minimum	Typical	Maximum
Operating Temperature Range	℃	-40	25	110
Storage Temperature Range	℃	-40	25	125
Power Handling Capability	dBm	-	-	10
ESD classification level (HBM)	V	-	-	100

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.	F1G5C	
		Rev. Date	2018-08-22	
		Rev.	NCMG01-AS05	1/8

SAW Bandpass Filter F1G5C



Specifications

$F_c = 1575.42 \text{ MHz}$


Terminating source impedance : 50Ω

Terminating load impedance : 50Ω

	Minimum	Typical	Maximum	Unit
Center Frequency (F_c)	-	1575.42	-	MHz
Insertion Loss ($F_o \pm 1 \text{ MHz}$)	-	1.2	1.6	dB
Amplitude Ripple ($F_o \pm 1 \text{ MHz}$)	-	0.1	1.0	dBp-p
VSWR ($F_o \pm 1 \text{ MHz}$)	-	1.2	2.0	
Relative Attenuation				
D.C. ~ 1000 MHz	20.0	34.0	-	dB
1500 MHz	33.0	38.0	-	
1625 ~ 1635 MHz	30.0	39.0	-	
1800 ~ 3000 MHz	25.0	32.0	-	
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

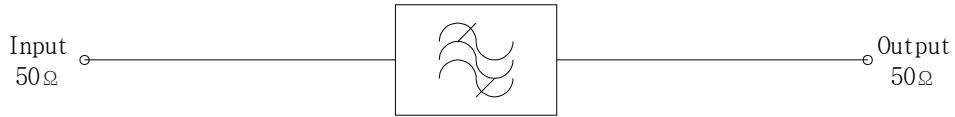
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Matching Schematic


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



Marking Configuration



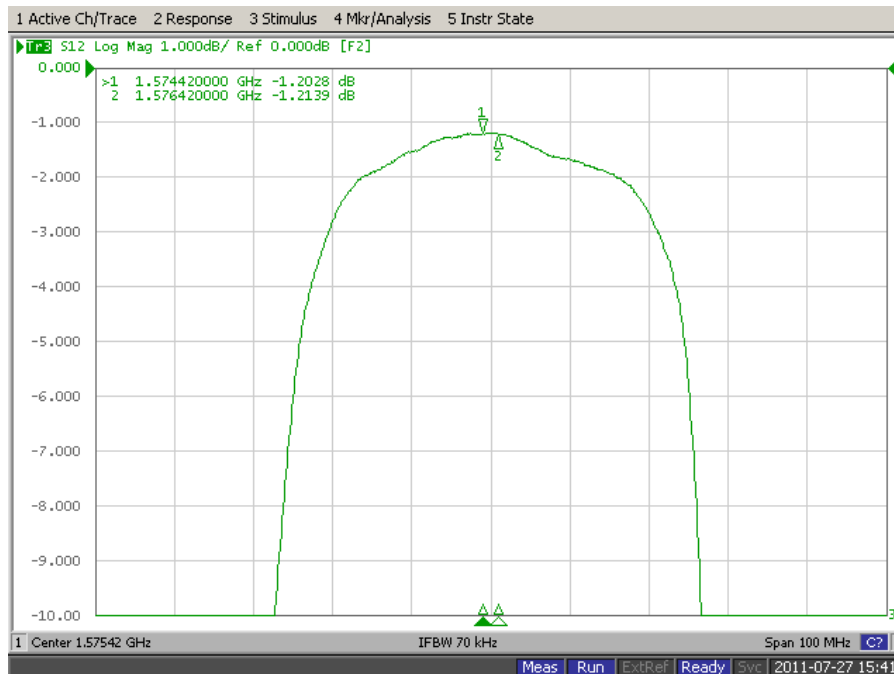
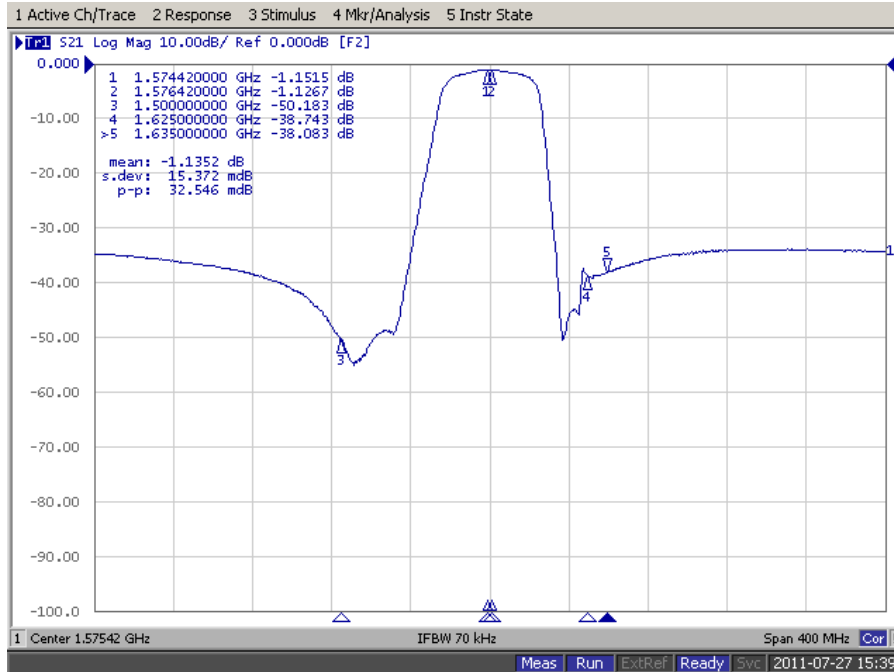
- 1) Marking Number
- 2) Year / Month Code


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Typical Performance (at 25°C)

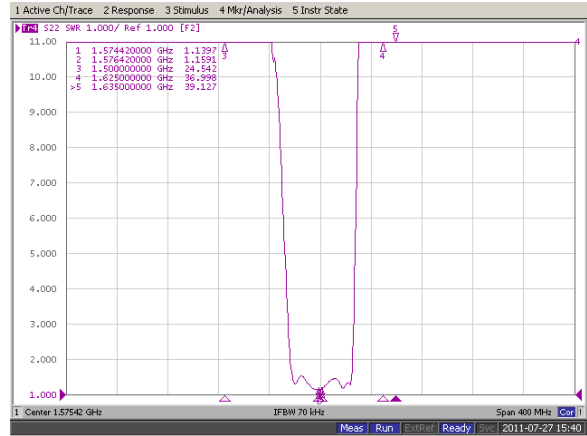
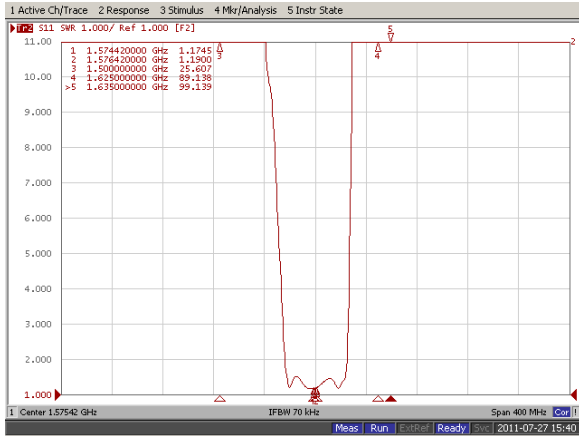


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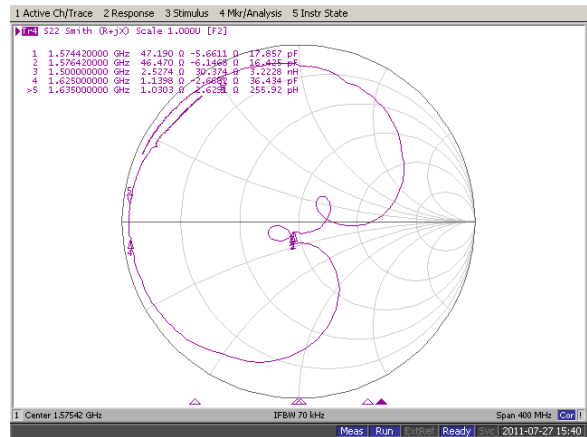
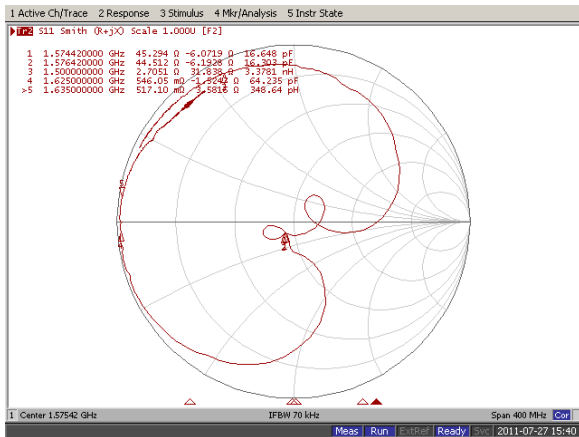
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Input / Output VSWR Charts



Input / Output Smith Charts

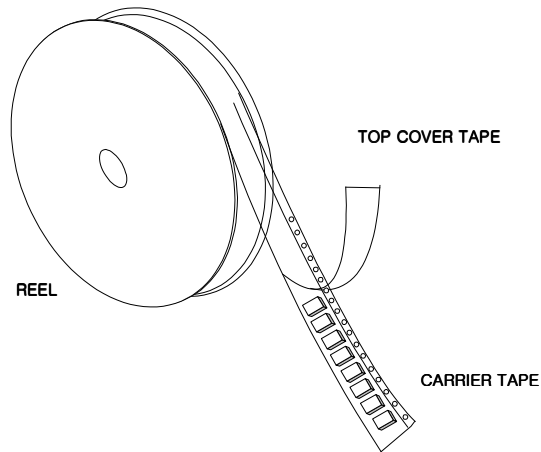


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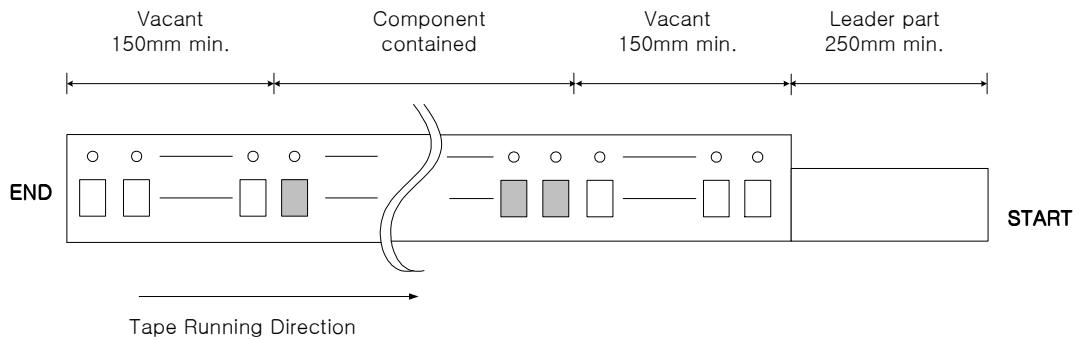
Packing Specification

1. Reeling Quantity : 3000 pcs / 13" reel
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

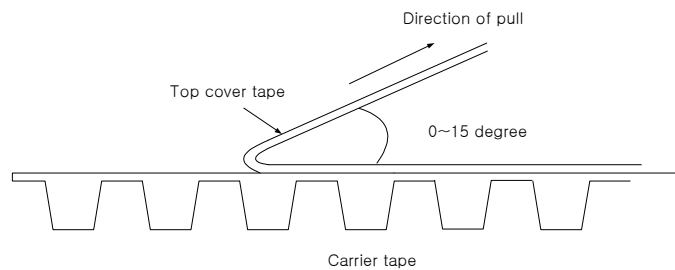


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

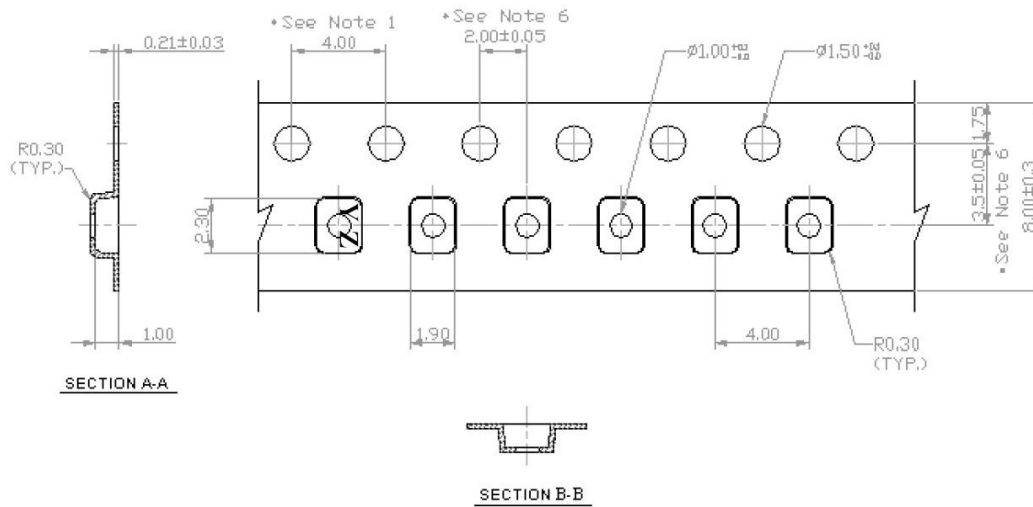


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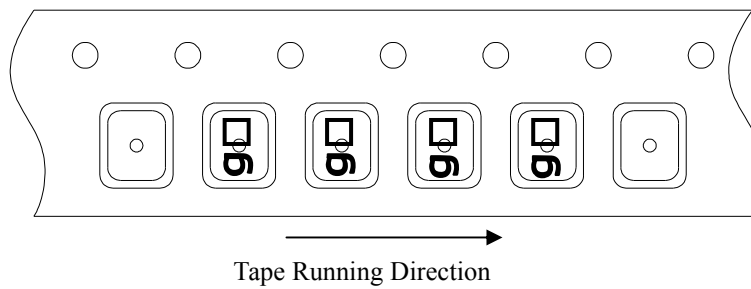
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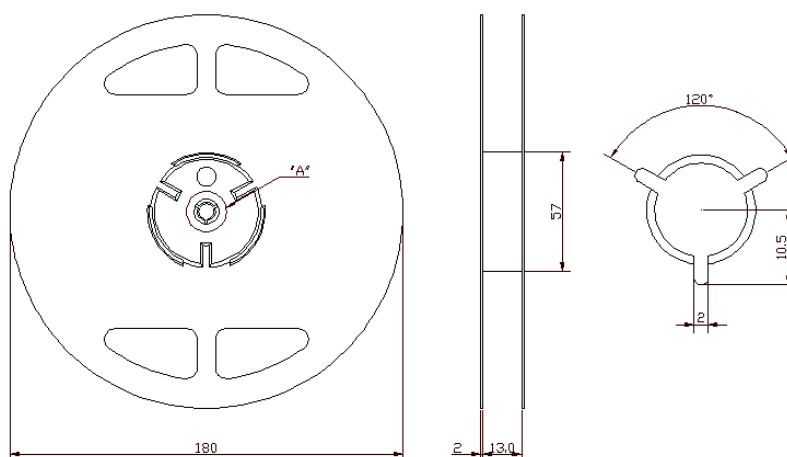
Carrier Tape Dimensions [unit : mm]




Part Direction

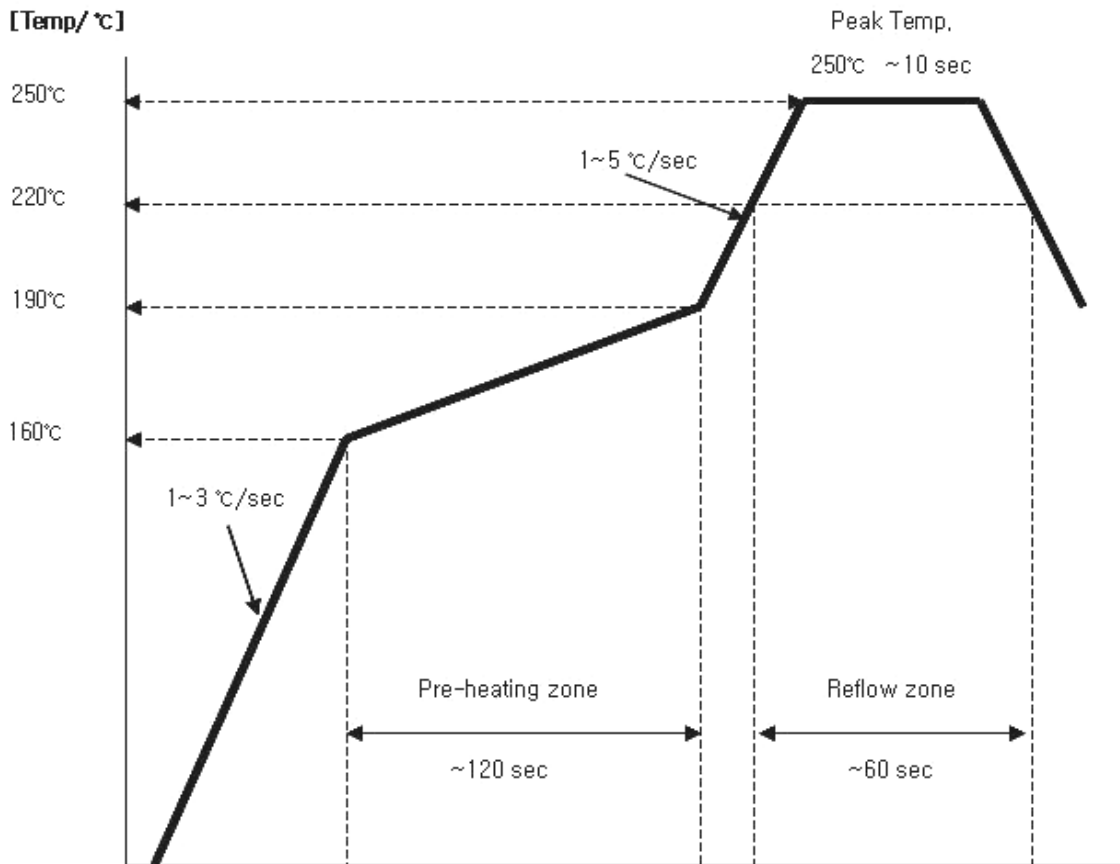


Reel Dimensions [unit : mm]



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Reflow Condition



Comment) The quality is guaranteed under this temperature conditions on 2 times solder reflows

Cautions

1. This is a hermetic device.

MSL (Moisture Sensitive Level) is the 1st level

2. This is an electrostatic sensitive device. Please avoid static voltage during operation and storage.


ESD (Electrostatic Discharge) Rating is class 0. (Test : HBM-Human Body Model)

3. Ultrasonic cleaning shall be avoided.

4. This device should not be used in any type of fluid such as water, oil , organic solvent ,etc.

Manual soldering process

- approximately 350°C in 15 to 20 seconds to be completed

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