

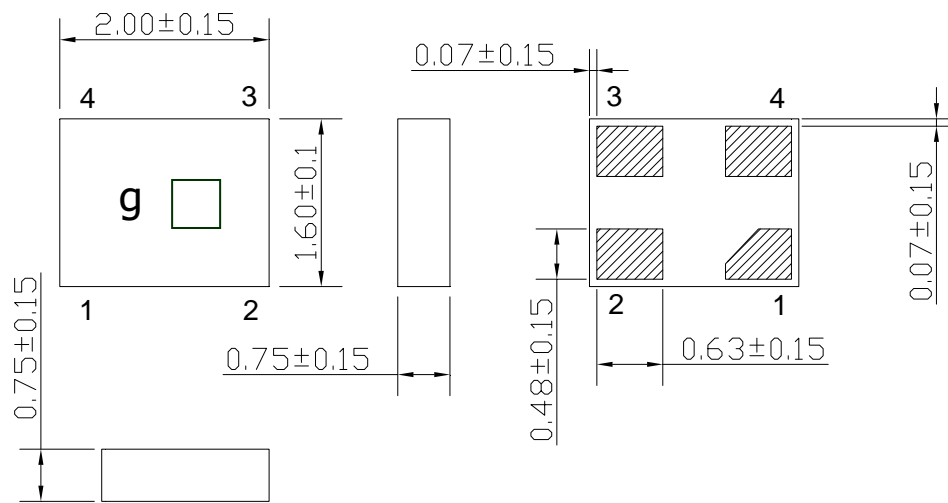
# SAW Bandpass Filter F1G5C



## 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 : Al<sub>2</sub>O<sub>3</sub> 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	85
Storage Temperature Range	℃	-40	25	85
Power Handling Capability	dBm	-	-	10

Electrostatics Sensitive Device (ESD)

	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F1G5C	
		Rev. Date	2011-07-27	
		Rev.	NCMG01-AS01	1/7

# SAW Bandpass Filter F1G5C



## Specifications

$F_c = 1575.42 \text{ MHz}$


Terminating source impedance :  $50\Omega$

Terminating load impedance :  $50\Omega$

	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

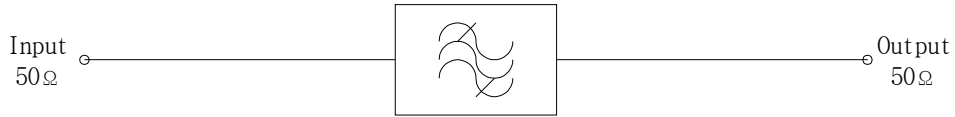
 Integrated Technology Future	<b>ITF Co., Ltd.</b> 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F1G5C	
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## Matching Schematic


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



## Marking Configuration

**g**<sup>1)</sup> <sup>2)</sup>

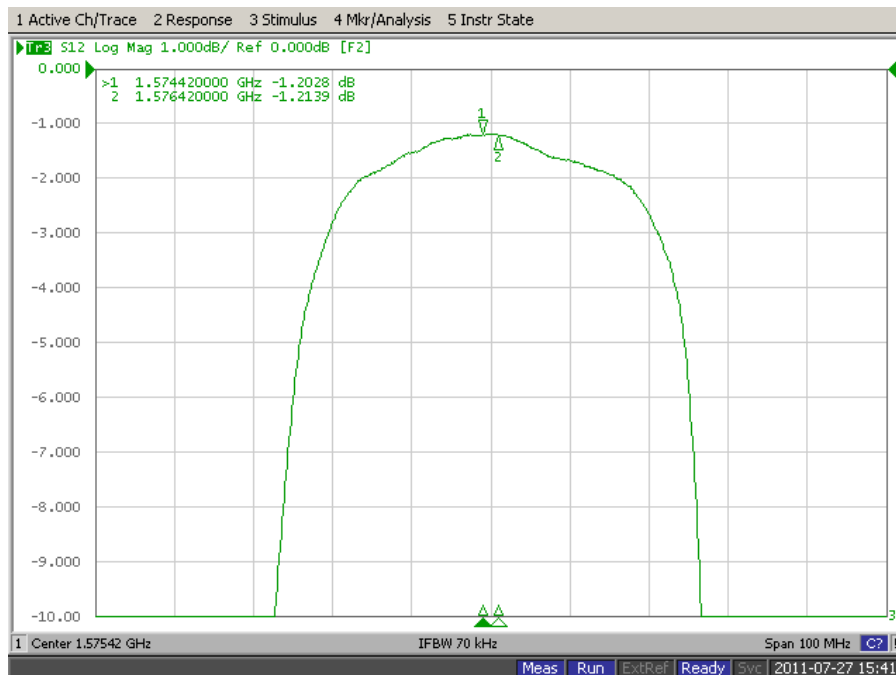
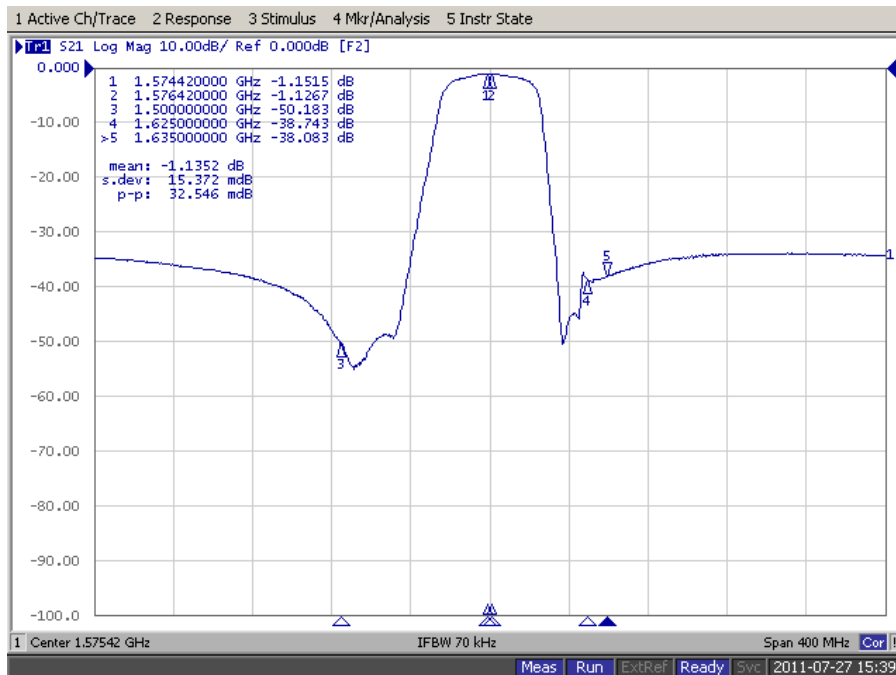
- 1) Marking Number
- 2) Year / Month Code


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# SAW Bandpass Filter F1G5C



## Typical Performance ( at 25°C )

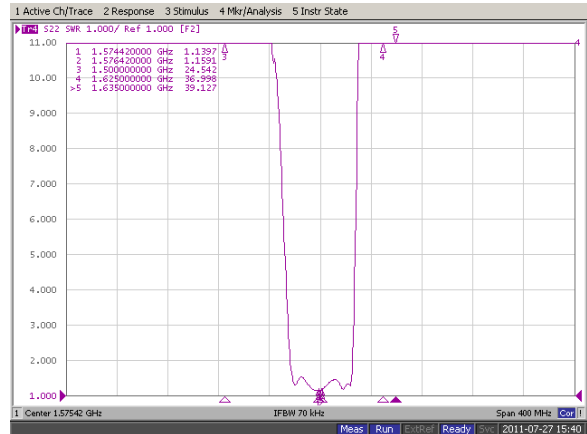
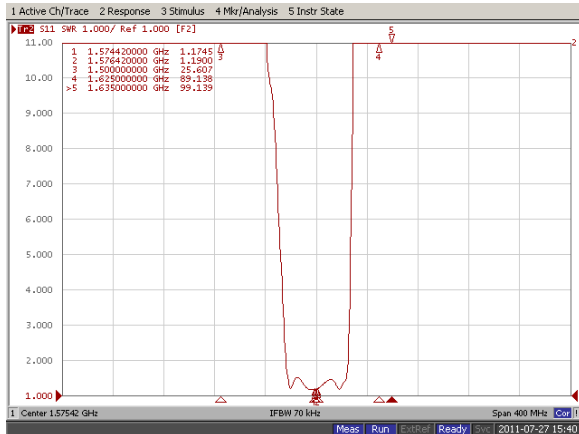


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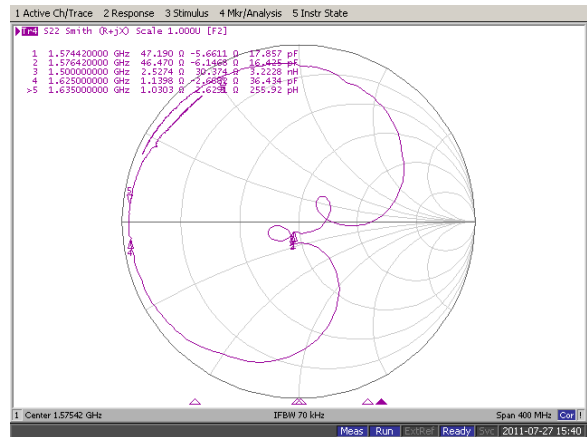
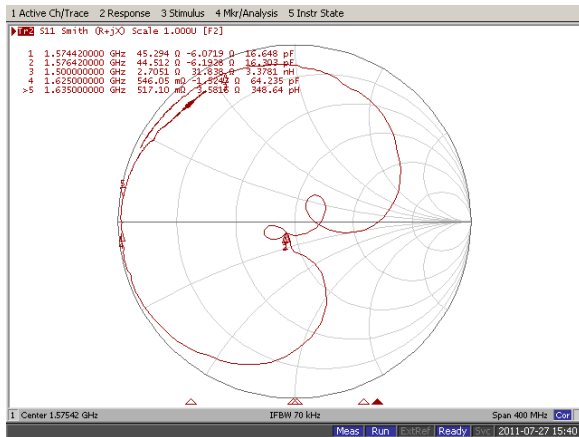
# SAW Bandpass Filter F1G5C



## Input / Output VSWR Charts



## Input / Output Smith Charts

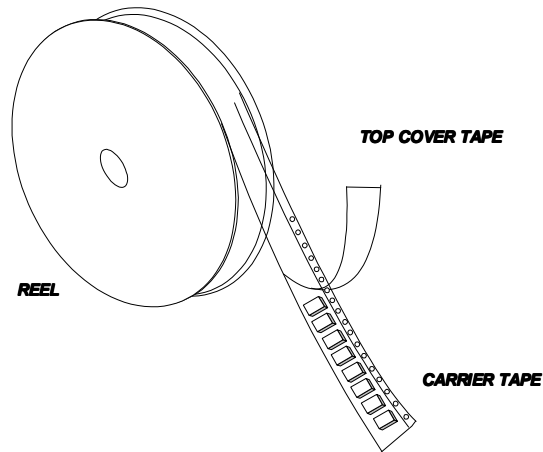


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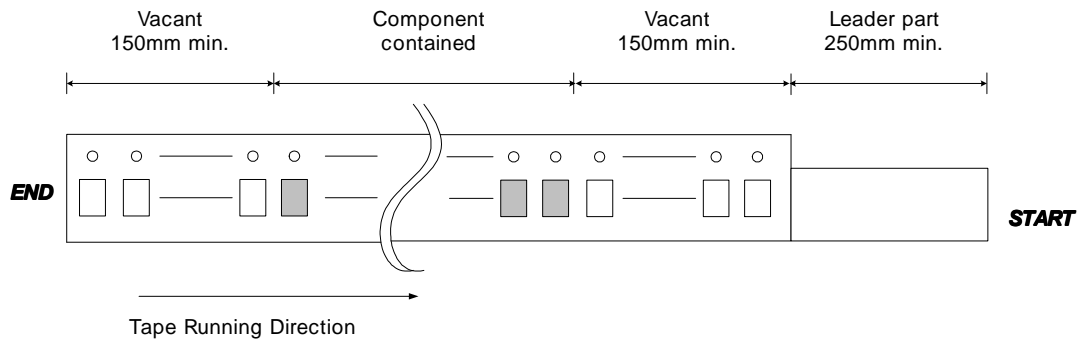
## Packing Specification

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

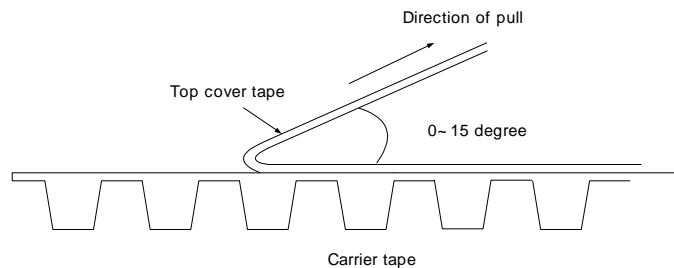


2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

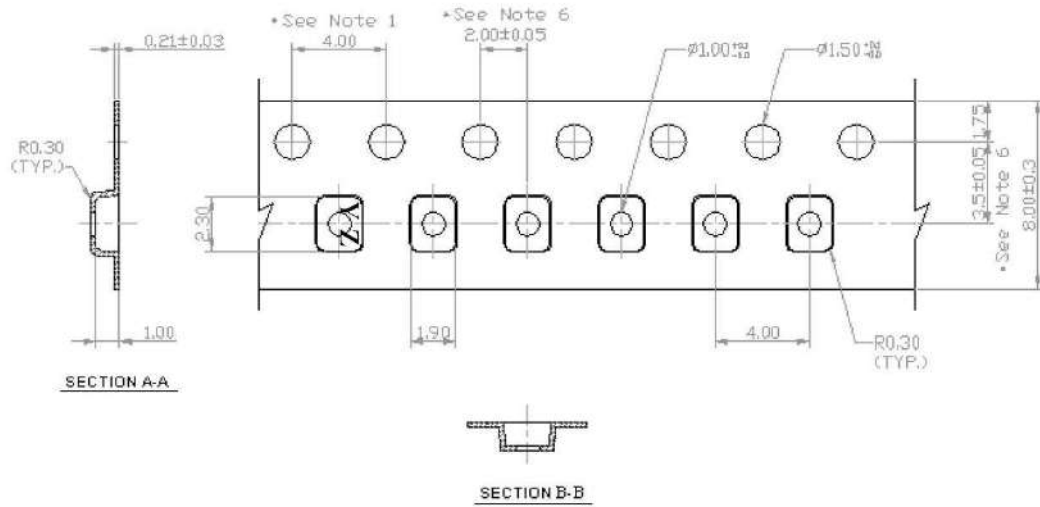


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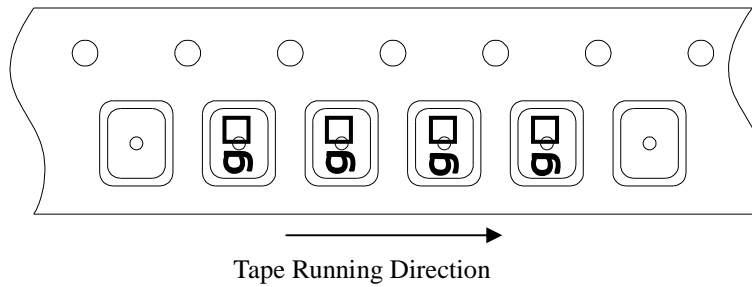
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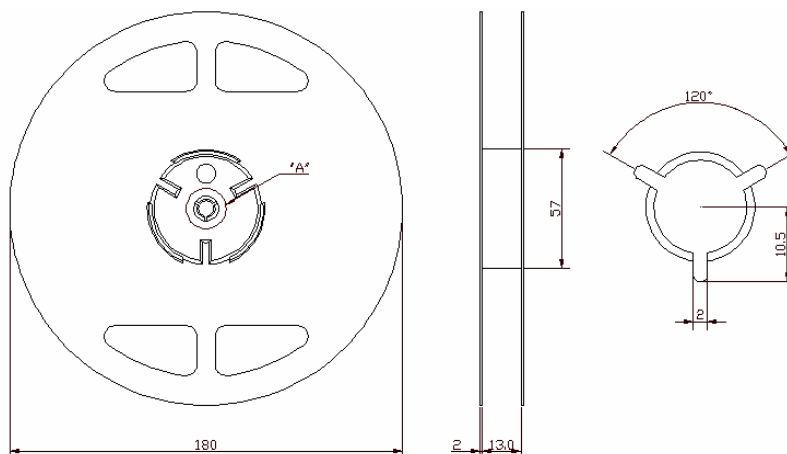
## Carrier Tape Dimensions [unit : mm]




## Part Direction



## Reel Dimensions [unit : mm]



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