

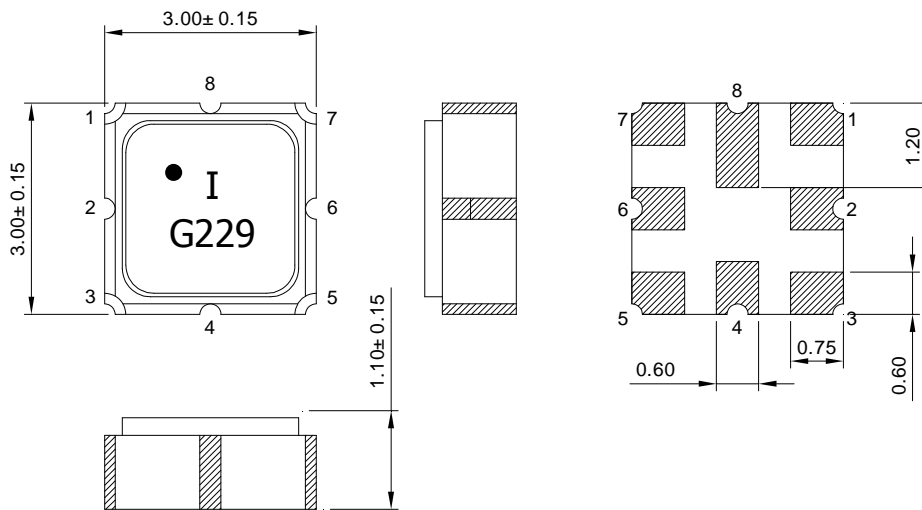
# SAW Bandpass Filter FG229



## Features

- RF bandpass filter
- High attenuation
- Ceramic Surface Mounted Device (SMD) Package ( 3.0 mm \* 3.0 mm )
- 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 Configuration	
1,2	Input
5,6	Output
3, 4, 7,8	Case ground

## Maximum Ratings

Parameter	Unit	Minimum	Typical	Maximum
Operating Temperature Range	℃	-40	25	85
Storage Temperature Range	℃	-40	25	85
Power Handling Capability	dBm	-	-	-

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.	FG229	
		Rev. Date	2011-10-14	
		Rev.	NCMJ01-AS01	1/7

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## Specifications

Fc = 1220 MHz

Balanced to balanced operation

Terminating source impedance : 200Ω

Terminating load impedance : 200Ω

	Minimum	Typical	Maximum	Unit
Center Frequency ( Fc )	-	1220	-	MHz
Insertion Loss ( 1216 ~ 1224 MHz )	-	3.4	5.3	dB
Amplitude Ripple ( 1216 ~ 1224 MHz )	-	0.6	1.8	dBp-p
Relative Attenuation				
0.5 MHz ~ Fc-91 MHz	50	57	-	dB
Fc-91 MHz ~ Fc-85 MHz	50	57	-	
Fc-76 MHz ~ Fc-68 MHz	46	57	-	
Fc-88 MHz	50	57	-	
Fc-72 MHz	48	57	-	
Fc-44 MHz	50	56	-	
Fc-36 MHz	46	55	-	
Fc+70 MHz ~ 2000 MHz	50	55	-	
Input/Output Impedance		200		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

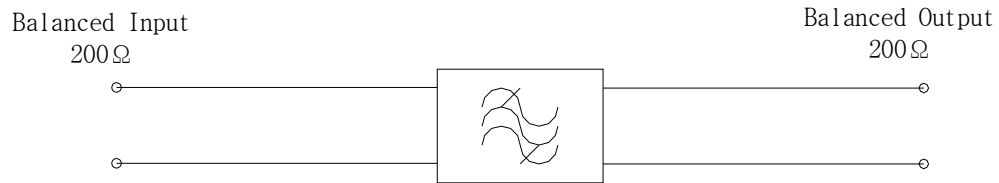
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## Matching Schematic

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



## Marking Configuration

- <sup>1)</sup>  
I<sup>2)</sup>  
G229<sup>3)</sup>

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

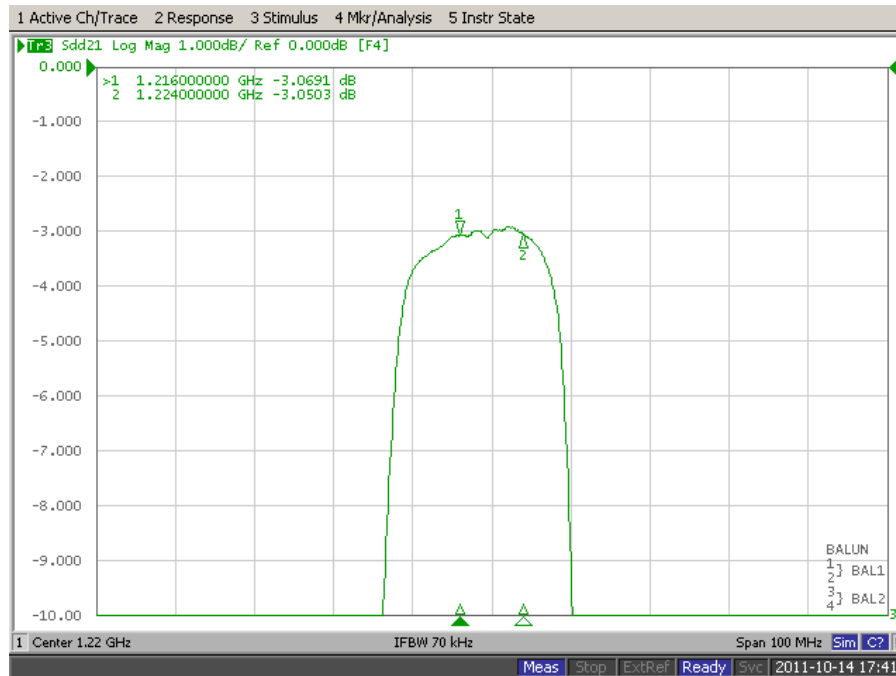
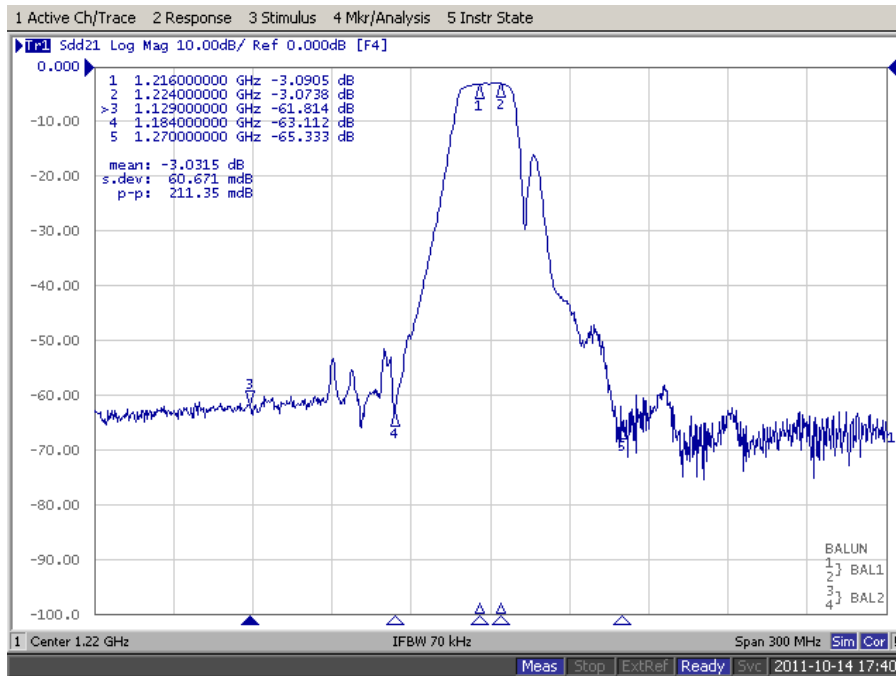
\* Ink or Laser Marking available

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## Typical Performance ( at 25°C )



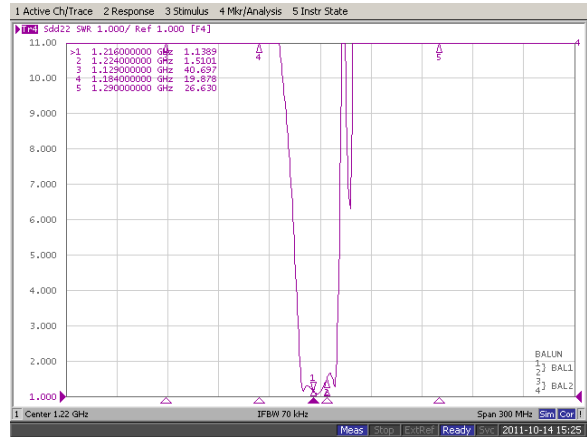
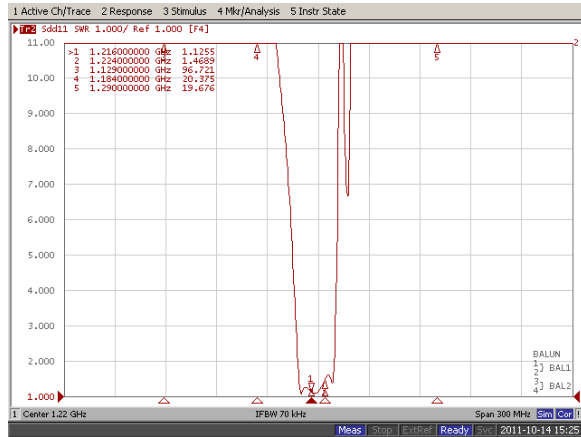
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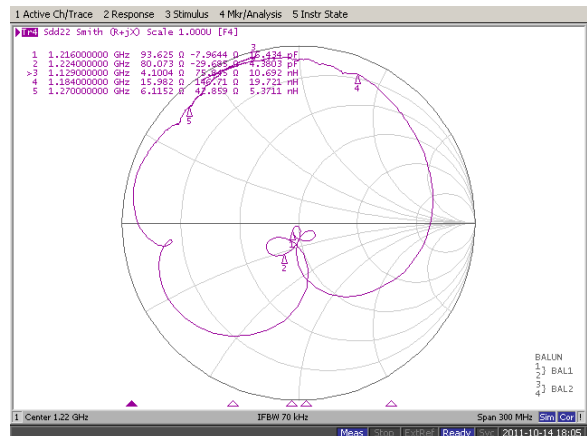
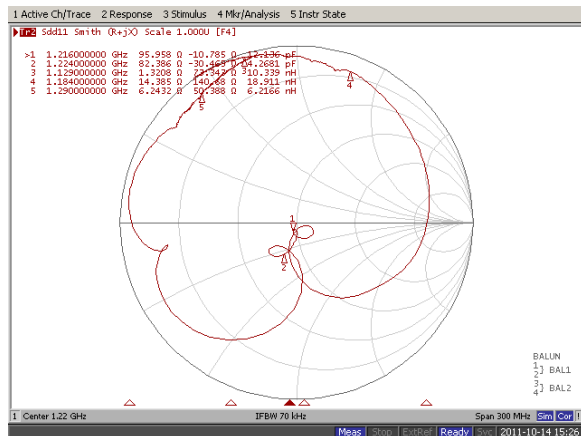
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## Input / Output VSWR Charts



## Input / Output Smith Charts



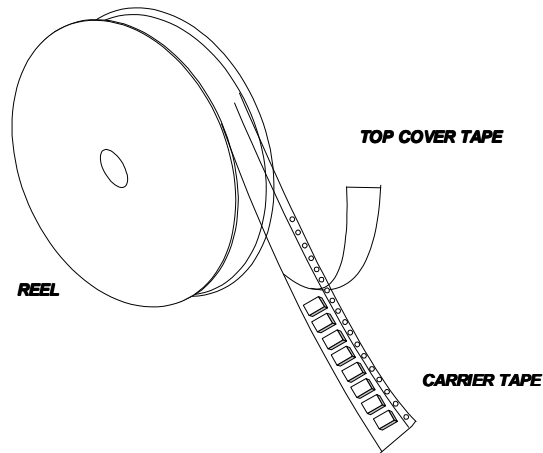
## Packing Specification

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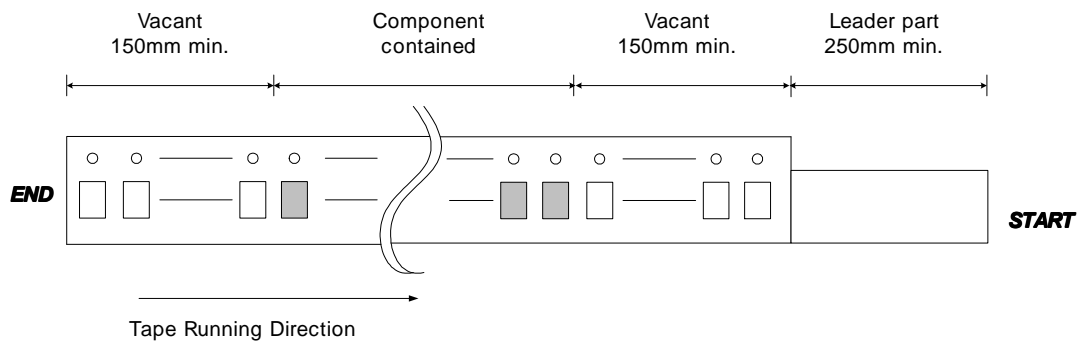


1. Reeling Quantity : 3000 pcs / 13" reel ( or 1000 pcs / 7" reel )
2. Taping Structure : The tape shall be wound around the reel in the direction shown below.



## Tape Specification

1. Leader part and vacant position specification

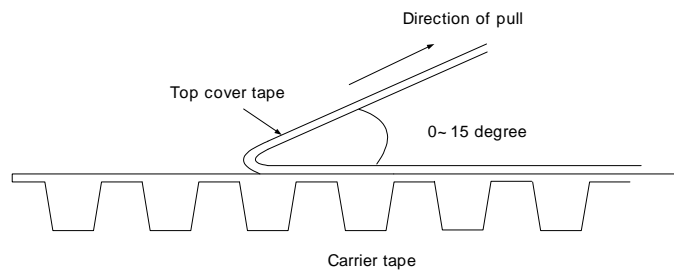



2. Tensile strength of carrier tape

4.4N/mm width

3. Top cover tape adhesion

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

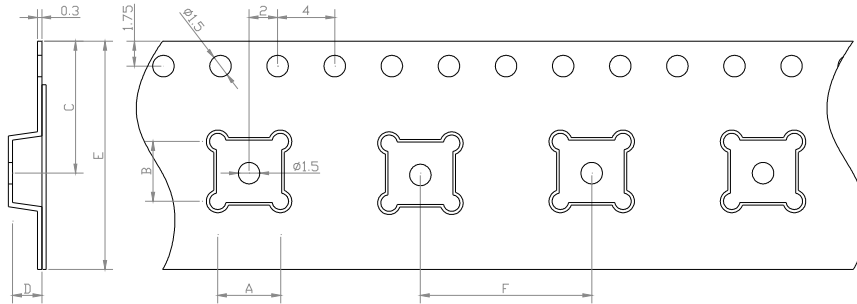


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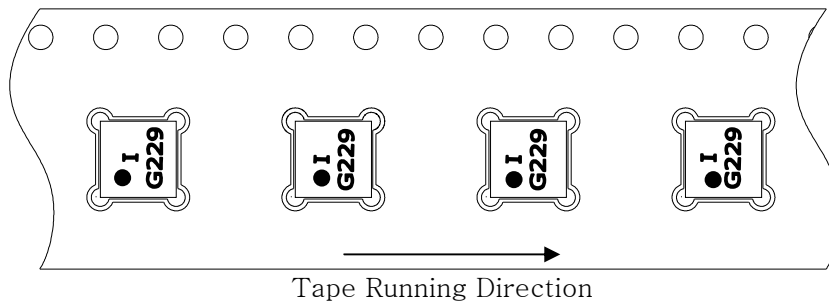


## Carrier Tape Dimensions [unit : mm]

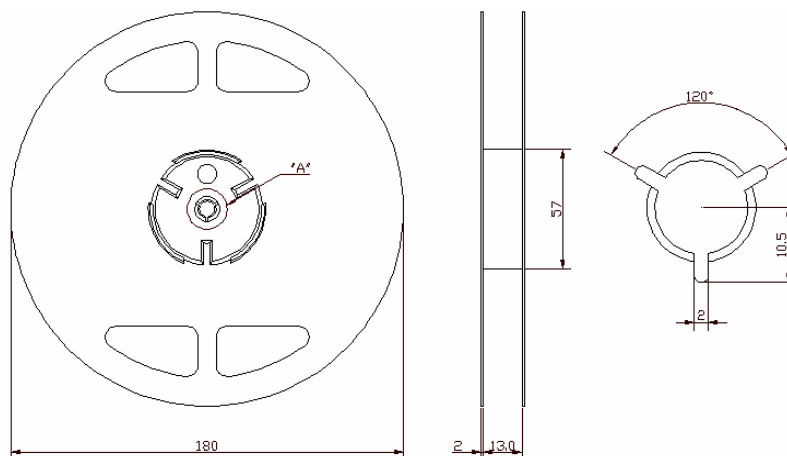


A	3.40 ± 0.1
B	3.40 ± 0.1
C	7.25 ± 0.1
D	1.70 ± 0.1
E	12.00 ± 0.1
F	8.00 ± 0.1

## Part Direction



## Reel Dimensions [unit : mm]



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