

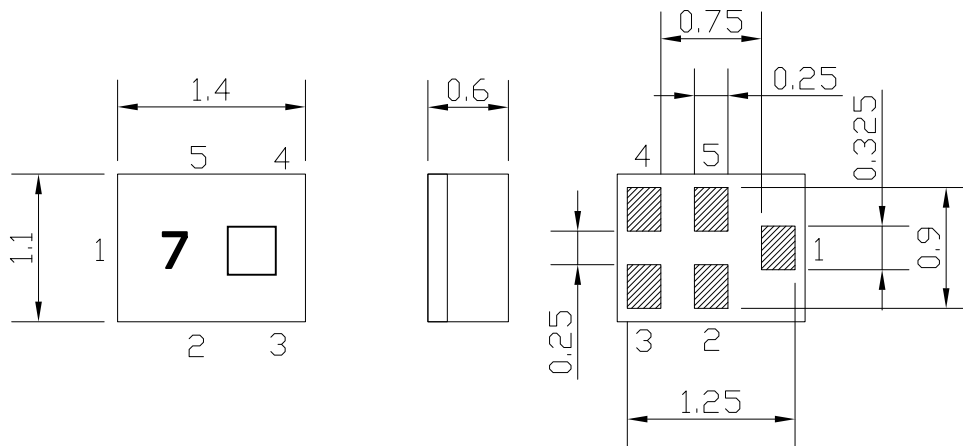
# SAW Bandpass Filter F1G5P



## Features

- RF bandpass filter
- No matching 50Ω single-ended operation
- Ceramic Surface Mounted Device Package ( 1.4 mm × 1.1 mm )
- RoHS Compliant
- This part is compliant with AEC-Q200

## 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	Input
4	Output
2, 3, 5	Ground

## Maximum Ratings

Parameter	Unit	Minimum	Typical	Maximum
Operating Temperature Range	℃	-40	25	105
Storage Temperature Range	℃	-45	25	125
Power Handling Capability	dBm	-	-	13

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.	F1G5P	
		Rev. Date	2021-9-16	
		Rev.	AS05	1/8

# SAW Bandpass Filter F1G5P




## Specifications ( GPS + Glonass )

Fc = 1583.5 MHz

	Minimum	Typical	Maximum	Unit
Center Frequency ( Fc )	-	1583.5	-	MHz
Insertion Loss ( 1561 ~ 1606 MHz )	-	1.5	2.1	dB
Amplitude Ripple ( 1561 ~ 1606 MHz )	-	0.5	0.8	dB p-p
VSWR ( 1561 ~ 1606 MHz )	-	1.5	1.9	
Attenuation				
0.3 ~ 824 MHz	20	25	-	dB
824 ~ 925 MHz	20	25	-	
1427 ~ 1463 MHz	25	30	-	
1710 ~ 1785 MHz	25	30	-	
1850 ~ 1980 MHz	25	30	-	
2400 ~ 2570 MHz	27	32	-	
2570 ~ 3000 MHz	30	35	-	
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

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		Rev. Date	2021-9-16	
		Rev.	AS05	2/8

# SAW Bandpass Filter F1G5P



## Matching Schematic

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




## Marking Configuration

7<sup>1)</sup> □<sup>2)</sup>

1) Series Number

2) Date Code

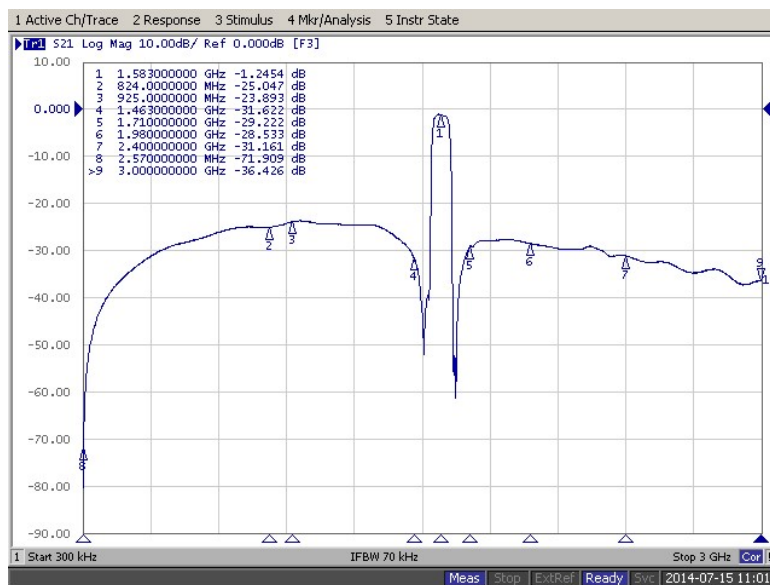
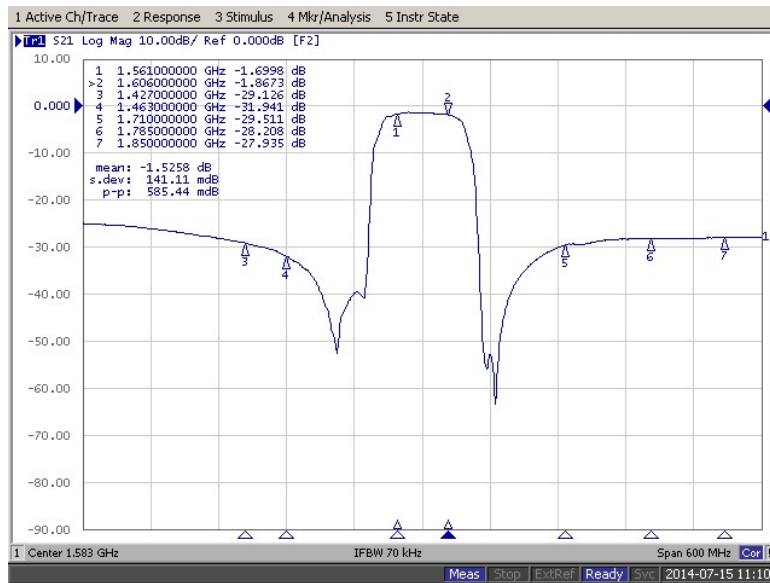
\* Ink or Laser Marking available

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		Rev. Date	2021-9-16	
		Rev.	AS05	3/8

# SAW Bandpass Filter F1G5P



## Typical Performance ( at 25°C )

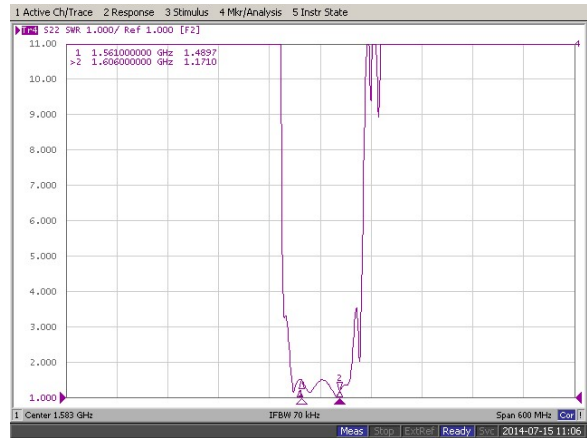
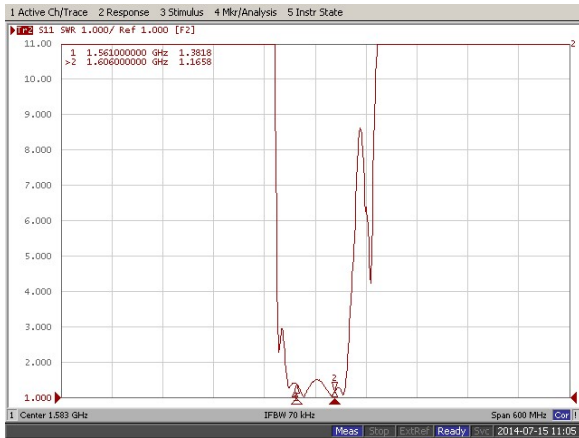


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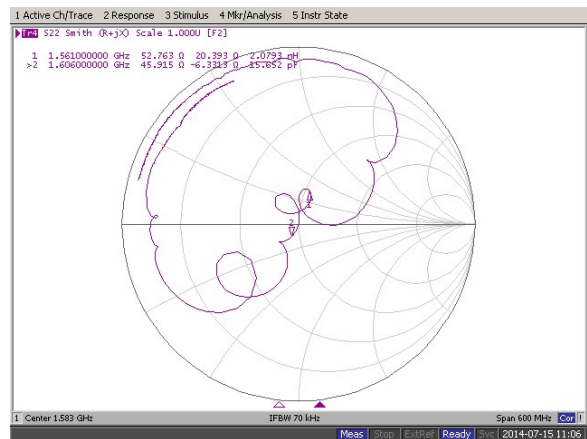
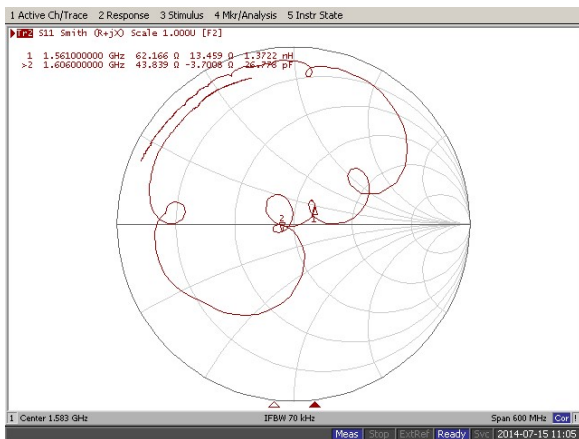
# SAW Bandpass Filter F1G5P



## Input / Output VSWR Charts



## Input / Output Smith Charts



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	Rev. Date	2021-9-16	
	Rev.	AS05	5/8

# SAW Bandpass Filter F1G5P




## Specifications (GPS + Glonass + Beidou )

Fc = 1588 MHz

	Minimum	Typical	Maximum	Unit
Center Frequency ( Fc )	-	1588	-	MHz
Insertion Loss ( 1574.42 ~ 1576.42 MHz ) ( 1559.05 ~ 1563.15 MHz ) ( 1573.37 ~ 1577.47 MHz ) ( 1597.78 ~ 1605.66 MHz )	-	1.5 1.9 1.6 2.0	1.8 2.2 1.9 2.3	dB
Amplitude Ripple ( 1574.42 ~ 1576.42 MHz ) ( 1559.05 ~ 1563.15 MHz ) ( 1573.37 ~ 1577.47 MHz ) ( 1597.78 ~ 1605.66 MHz )	-	0.1 0.4 0.2 0.3	0.4 0.7 0.5 0.6	dB p-p
VSWR ( 1574.42 ~ 1576.42 MHz ) ( 1559.05 ~ 1563.15 MHz ) ( 1573.37 ~ 1577.47 MHz ) ( 1597.78 ~ 1605.66 MHz )	-	1.3 1.4 1.5 1.2	1.7 1.8 1.9 1.5	
Attenuation 0.3 ~ 824 MHz 824 ~ 925 MHz 1427 ~ 1463 MHz 1710 ~ 1785 MHz 1850 ~ 1980 MHz 2400 ~ 2570 MHz 2570 ~ 3000 MHz	20 20 25 25 25 27 30	25 25 30 30 30 32 35	- - - - - - -	dB
Input/Output Impedance		50		Ohms

### Notes :

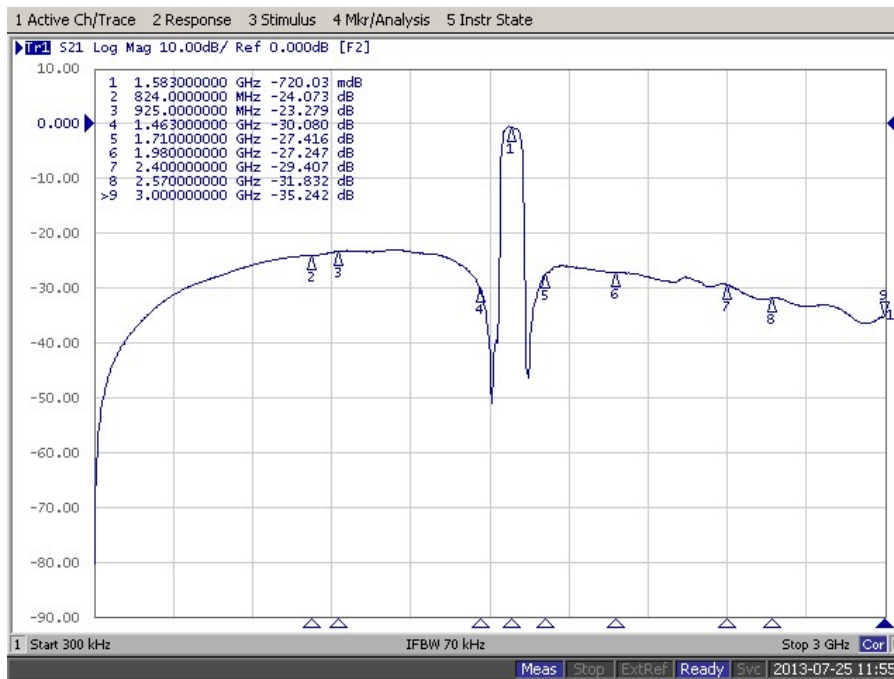
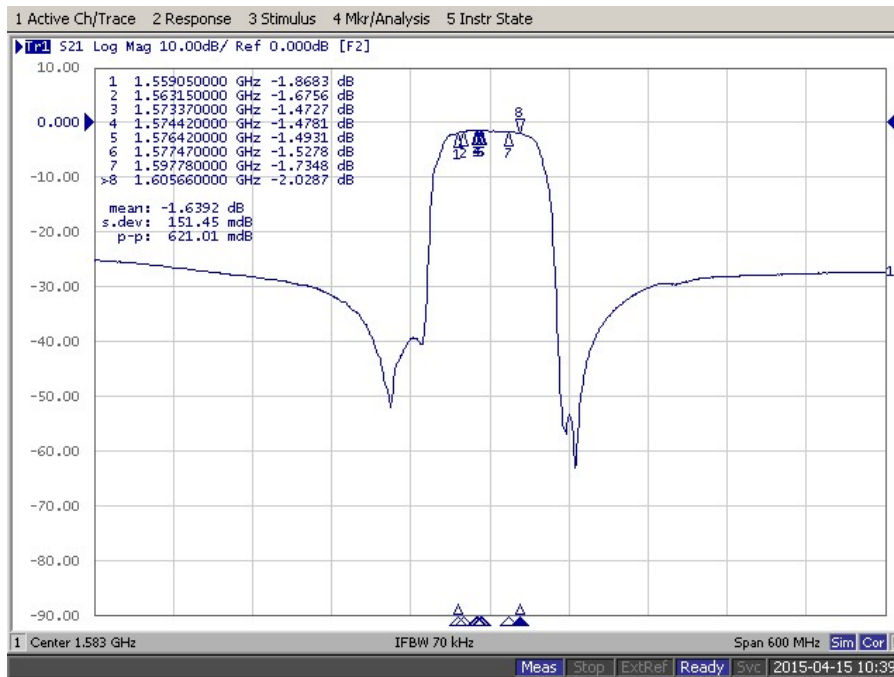
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		Rev. Date	2021-9-16	
		Rev.	AS05	6/8

# SAW Bandpass Filter F1G5P



## Typical Performance ( at 25°C )

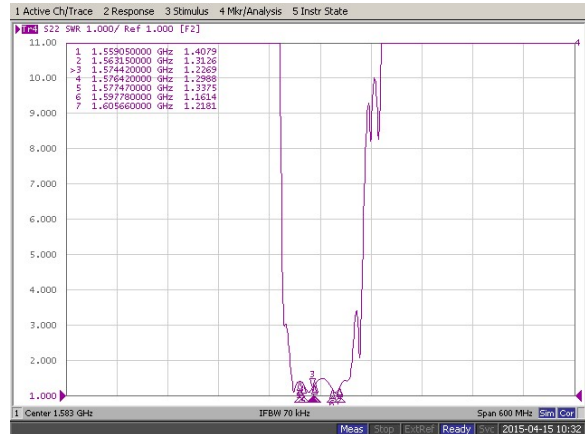
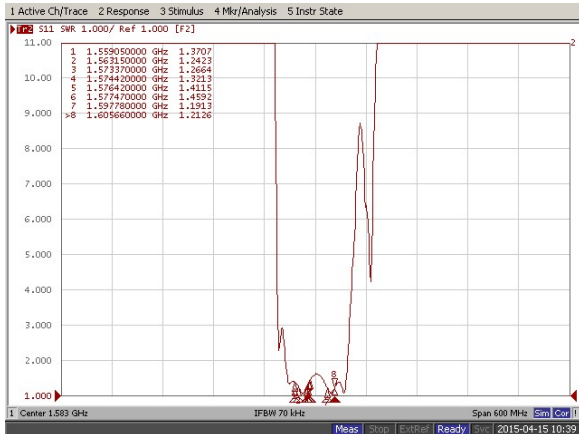


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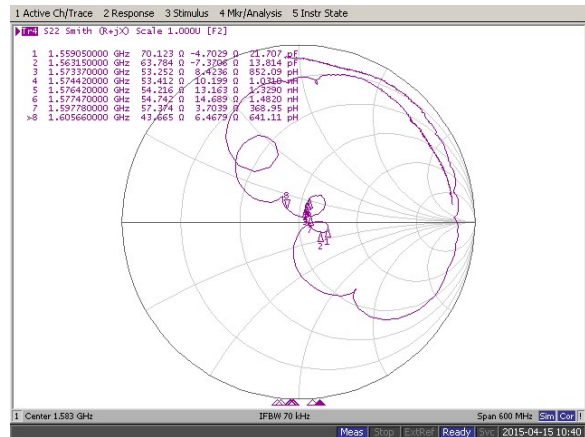
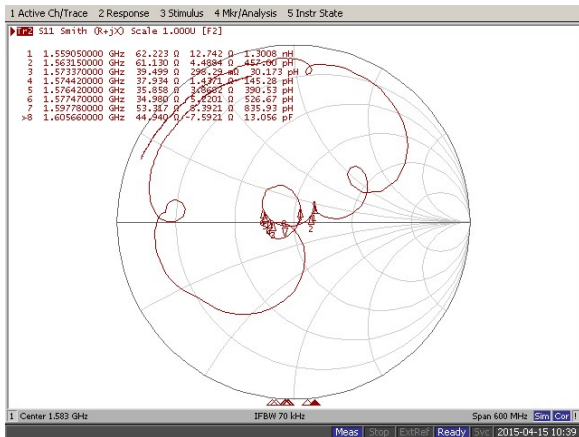
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## Input / Output VSWR Charts



## Input / Output Smith Charts



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Part No.	F1G5P	
Rev. Date	2021-9-16	
Rev.	AS05	8/8