

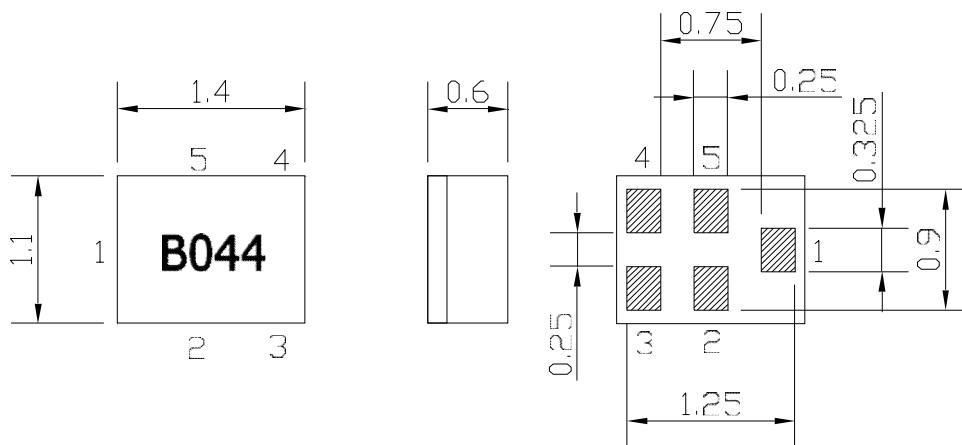
SAW Bandpass Filter F1G5S



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 : Al₂O₃ 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	°C	-40	25	110
Storage Temperature Range	°C	-45	25	125
Power Handling Capability	dBm	-	-	13

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.	F1G5S	
		Rev. Date	2021-9-16	
		Rev.	AS04	1/9

SAW Bandpass Filter F1G5S



Specifications (GPS + Glonass)

Fc = 1583.5 MHz

Room Temperature : +25°C		Minimum	Typical	Maximum	Unit
Center Frequency (Fc)		-	1583.5	-	MHz
Insertion Loss (1561 ~ 1606 MHz)		-	2.2	2.8	dB
VSWR (1561 ~ 1606 MHz)		-	1.5	2.3	
Attenuation					
0.3 ~ 824 MHz		42	45	-	dB
824 ~ 925 MHz		42	45	-	
1427 ~ 1453 MHz		40	45	-	
1710 ~ 1785 MHz		40	45	-	
1850 ~ 1910 MHz		40	44	-	
1920 ~ 1980 MHz		39	44	-	
2400 ~ 2500 MHz		43	45	-	
2500 ~ 2570 MHz		37	42	-	
2600 ~ 3000 MHz		30	38	-	
Input/Output Impedance			50		Ohms

Operating Temperature : -40°C ~ +105°C		Minimum	Typical	Maximum	Unit
Center Frequency (Fc)		-	1583.5	-	MHz
Insertion Loss (1561 ~ 1606 MHz)		-	2.2	3.0	dB
VSWR (1561 ~ 1606 MHz)		-	1.5	2.7	
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.	AS04	2/9

SAW Bandpass Filter F1G5S



Matching Schematic

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




Marking Configuration

B¹⁾ 044²⁾

1) Series Number

2) Date Code

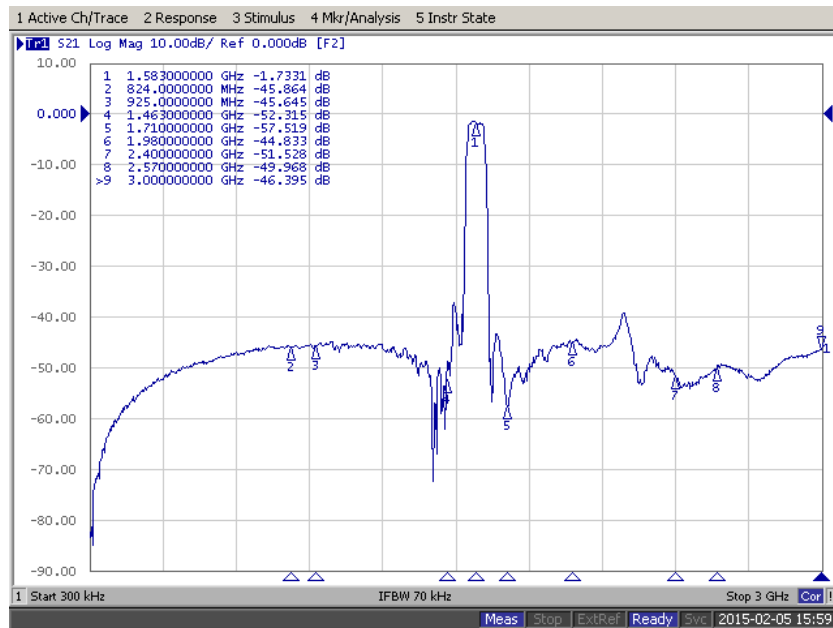
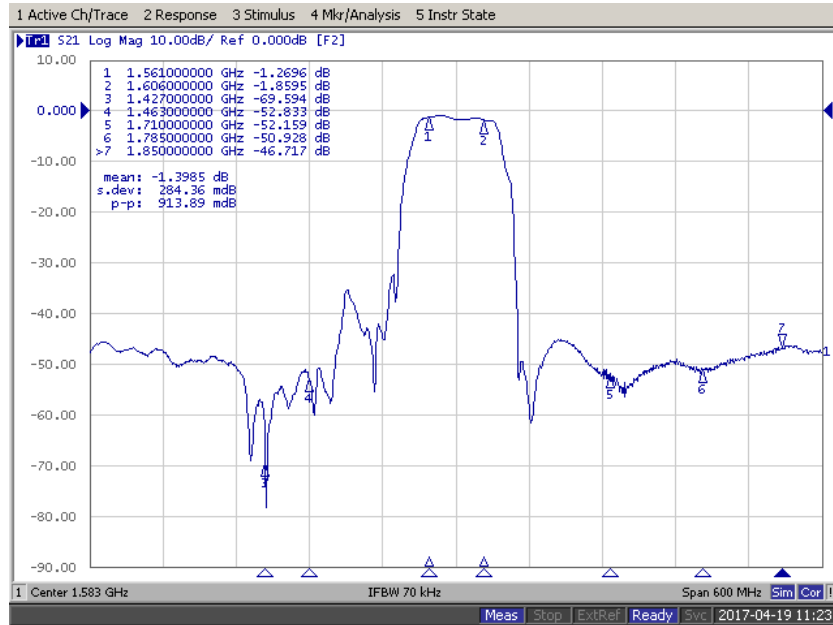
* Ink or Laser Marking available

 Integrated Technology Future	ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F1G5S	
		Rev. Date	2021-9-16	
		Rev.	AS04	3/9

SAW Bandpass Filter F1G5S



Typical Performance (at 25°C)



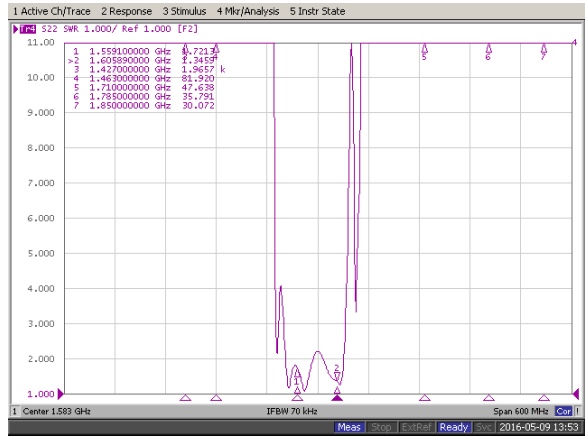
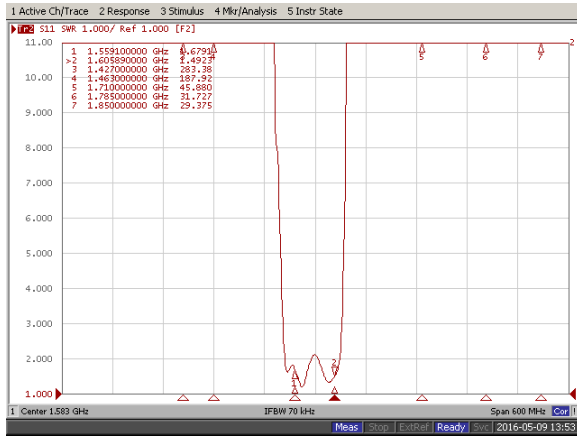
ITF Co., Ltd.
102-901, Bucheon Technopark 364,
Samjeong-Dong, Ojeong-Gu, Bucheon-City,
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Part No.	F1G5S	
Rev. Date	2021-9-16	
Rev.	AS04	4/9

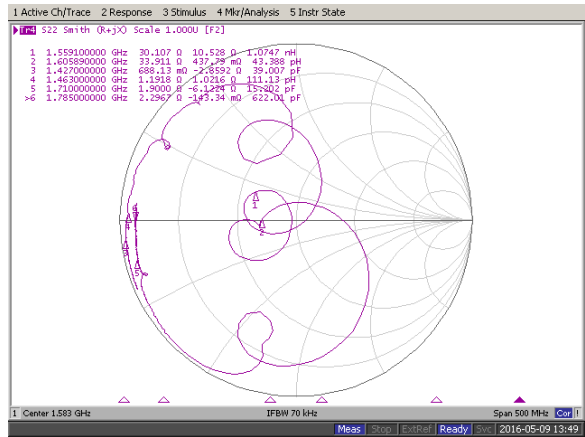
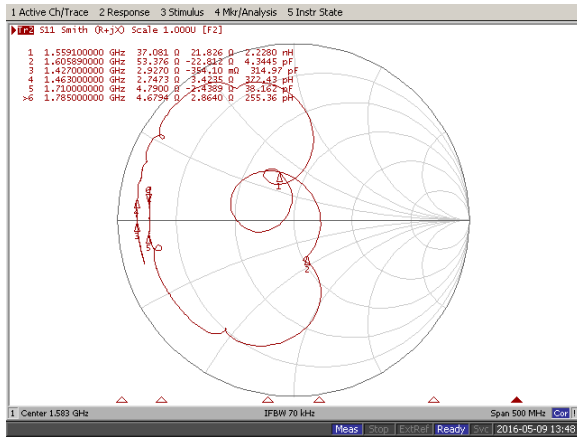
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Input / Output VSWR Charts



Input / Output Smith Charts



ITF Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F1G5S	
	Rev. Date	2021-9-16	
	Rev.	AS04	5/9

SAW Bandpass Filter F1G5S




Specifications (GPS + Glonass + Beidou)

Fc = 1588 MHz

Room Temperature : +25℃		Minimum	Typical	Maximum	Unit
Center Frequency (Fc)		-	1588	-	MHz
Insertion Loss	(1574.42 ~ 1576.42 MHz)	-	1.4	1.6	dB
	(1559.05 ~ 1563.15 MHz)		1.8	2.0	
	(1573.37 ~ 1577.47 MHz)		1.5	2.0	
	(1597.78 ~ 1605.66 MHz)		2.2	2.4	
VSWR	(1574.42 ~ 1576.42 MHz)	-	1.2	2.0	
	(1559.05 ~ 1563.15 MHz)		1.6	2.0	
	(1573.37 ~ 1577.47 MHz)		1.4	2.0	
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Attenuation	0.3 ~ 824 MHz	42	45	-	dB
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Input/Output Impedance			50		Ohms

Operating Temperature : -40℃ ~ +105℃		Minimum	Typical	Maximum	Unit
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		Rev.	AS04	6/9

SAW Bandpass Filter F1G5S

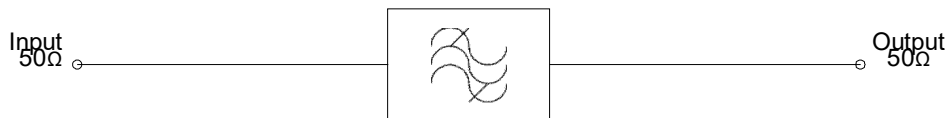


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Matching Schematic

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



Marking Configuration

B¹⁾ 044²⁾

3) Series Number

4) Date Code

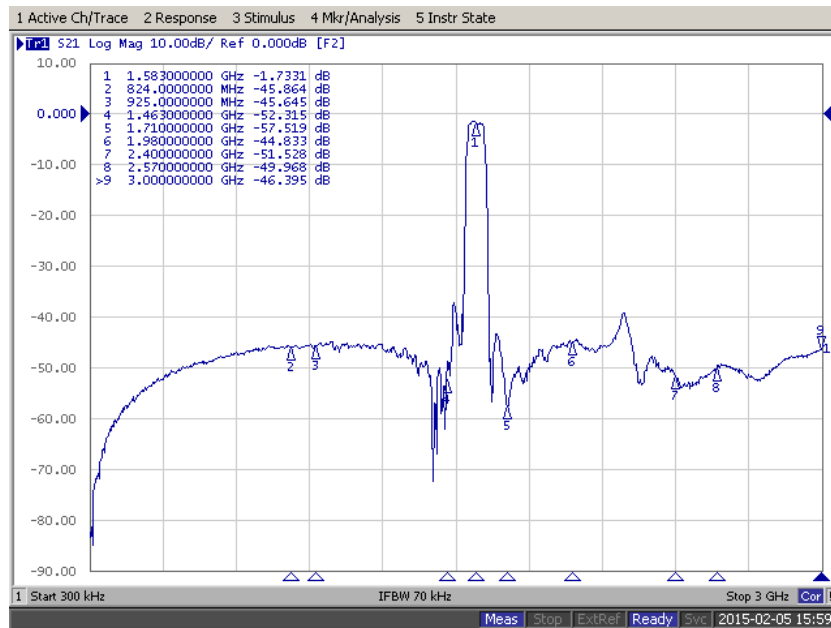
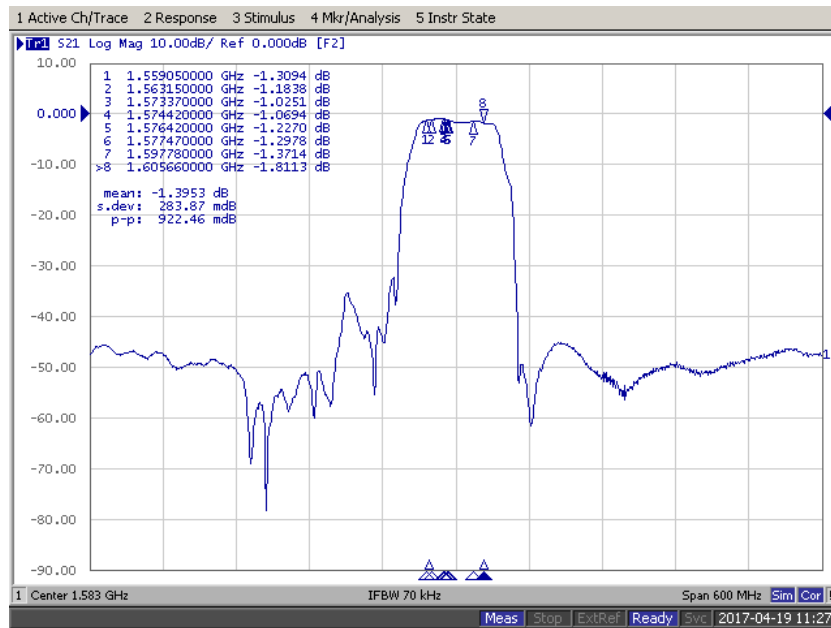
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		Rev.	AS04	7/9

SAW Bandpass Filter F1G5S



Typical Performance (at 25°C)

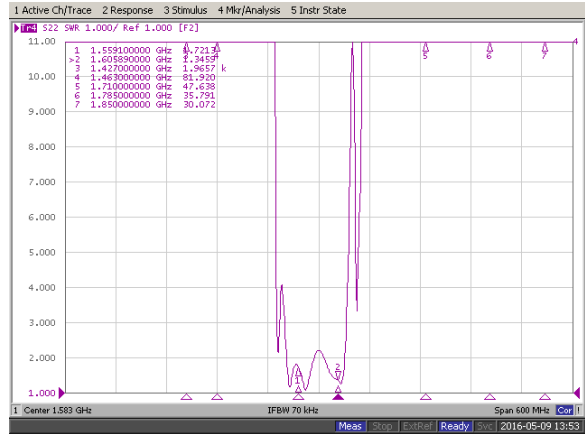
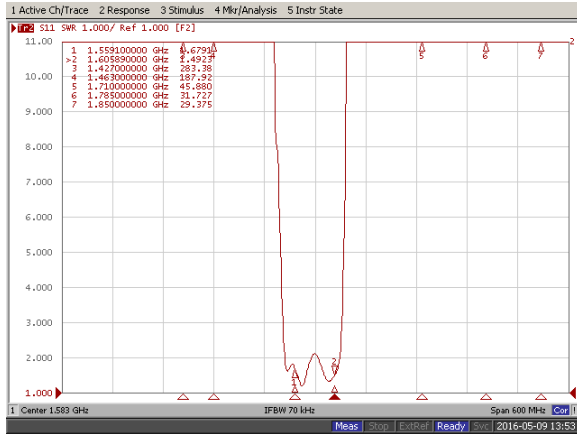


	I T F Co., Ltd. 102-901, Bucheon Technopark 364, Samjeong-Dong, Ojeong-Gu, Bucheon-City, Gyeonggi-Do, Korea 421-809	Part No.	F1G5S	
		Rev. Date	2021-9-16	
		Rev.	AS04	8/9

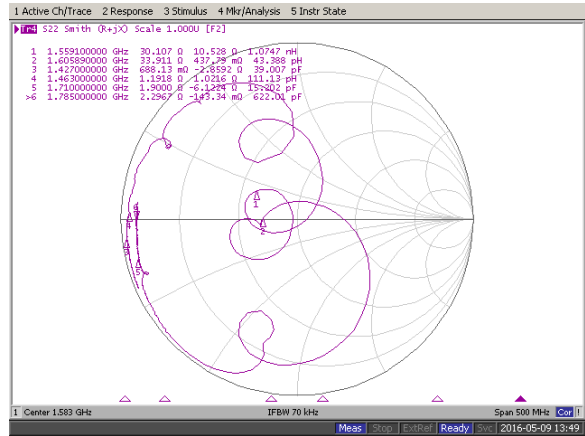
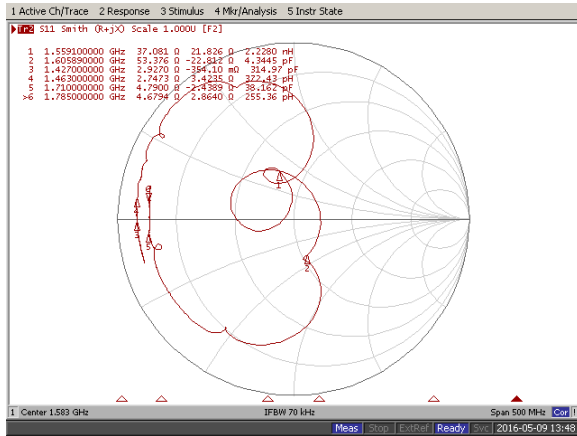
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Input / Output VSWR Charts



Input / Output Smith Charts



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 102-901, Bucheon Technopark 364,
 Samjeong-Dong, Ojeong-Gu, Bucheon-City,
 Gyeonggi-Do, Korea 421-809

Part No.	F1G5S	
Rev. Date	2017-4-19	
Rev.	AS03	9/9