PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
820-IF67.5M-19A	67.5MHz IF SAW Filter 19.20MHz Bandwidth

Specification Contents

- Mechanical Dimensions
- Test Circuit
- Maximum Ratings
- Electrical Specification
- Frequency Response
- Smith Chart
- VSWR

Notes

- Electrostatic Sensitive Device (ESD)
- Avoid excessive ultrasonic exposure
- Solderability compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature
- This product complies with EU directive 2002/95/EC (RoHS compliance)

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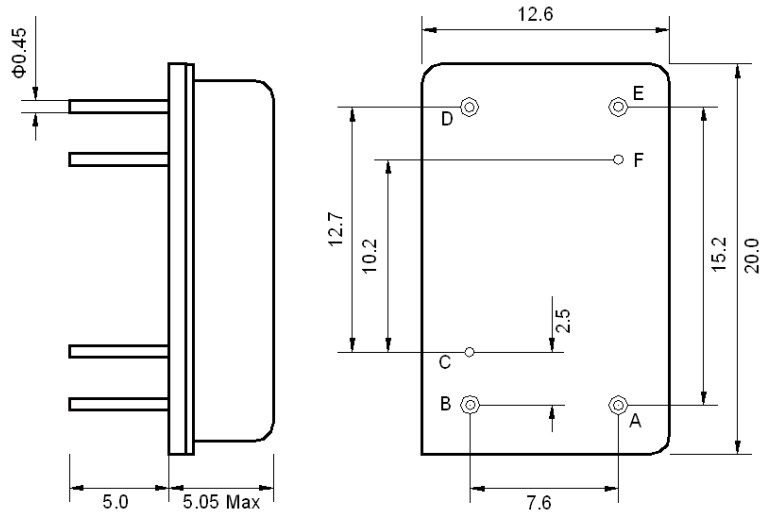
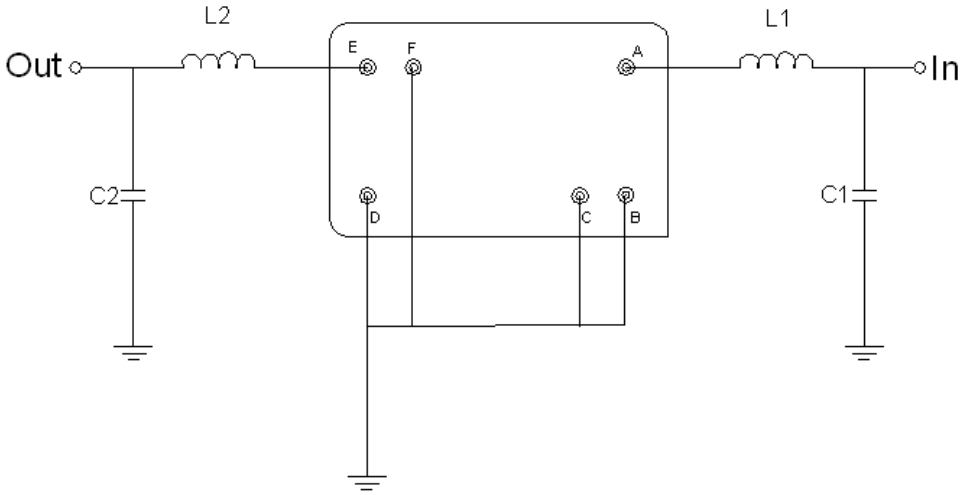
Mechanical Dimensions (mm)



Pin Description	
B, C, D, F	Ground
A	Input
E	Output

Test Circuit



Test Fixture & Values	
Input	L1= 220 nH, C1=12 pF
Output	L2= 180 nH, C2=16 pF
Source/Load Impedance	50 Ω

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-20	-	70
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended)(1)	Ω	-	50	-
Load Impedance (single ended)(1)	Ω	-	50	-

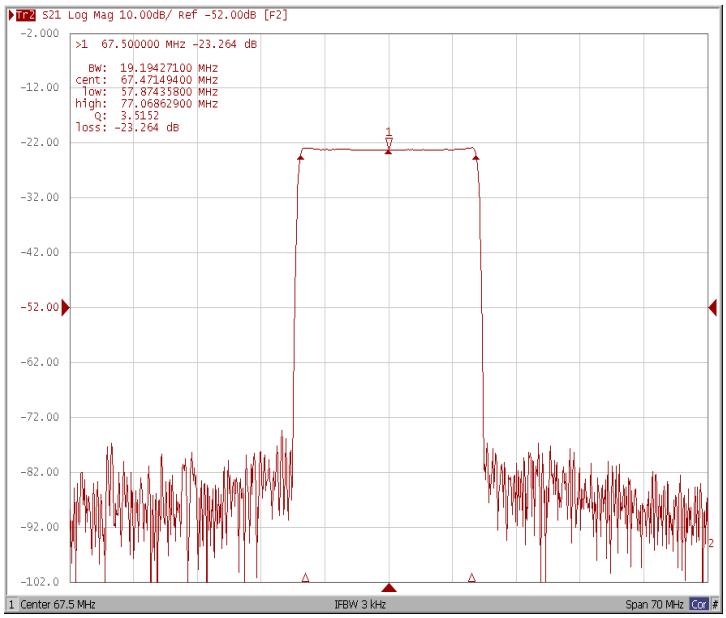
Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Electrical Specification

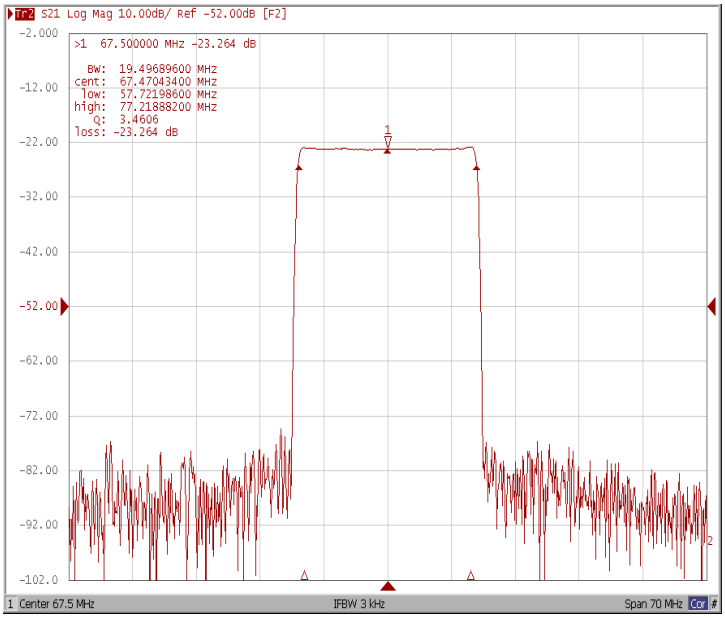
Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	67.42	67.50	67.58
Insertion Loss at Fo	dB	-	23.50	25.00
Amplitude Ripple Variation	dB_{p-p}	-	0.55	1.0
Group Delay Variation	nsec	-	30	50
Absolute Delay at Fo	μsec	-	2.25	-
Bandwidth at –1.0 dB	MHz	-	19.20	-
Bandwidth at –3.0 dB	MHz	19.30	19.50	-
Bandwidth at –40.0 dB	MHz	-	20.80	21.00
Relative Attenuation				
Lower Sidelobe	dB	50	55	-
Upper Sidelobe	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-72	-

Frequency Response

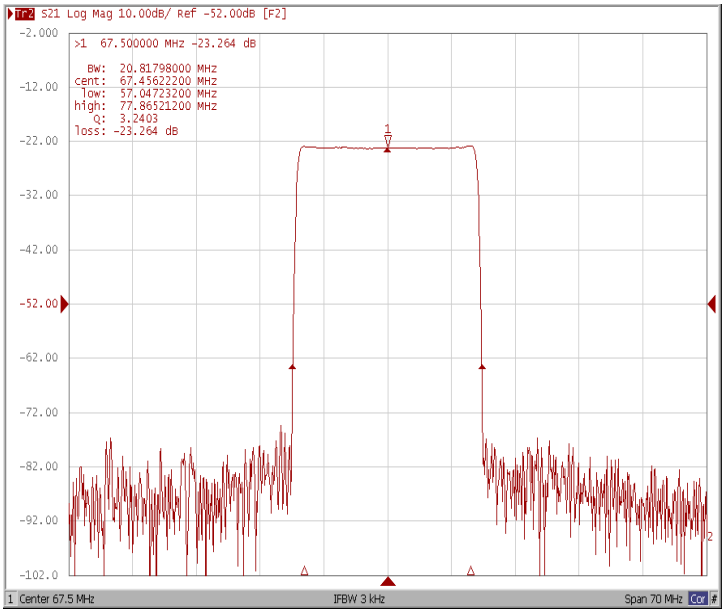
Bandwidth at –1.0 dB



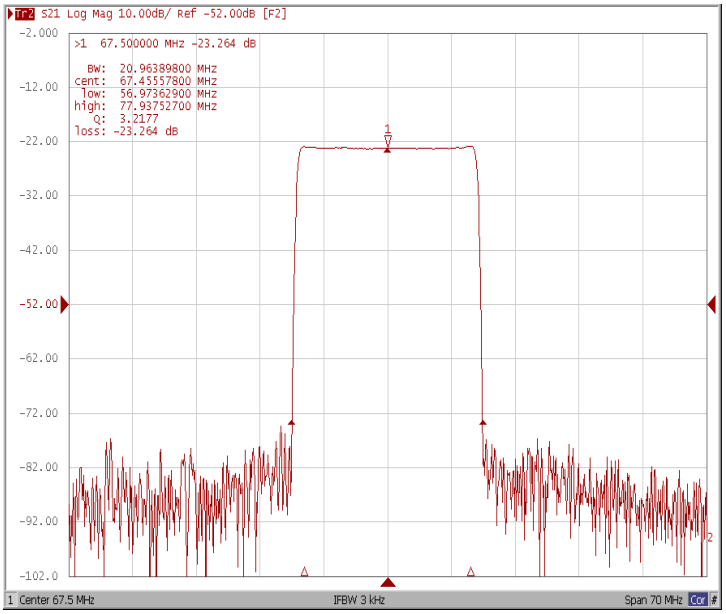
Bandwidth at –3.0 dB



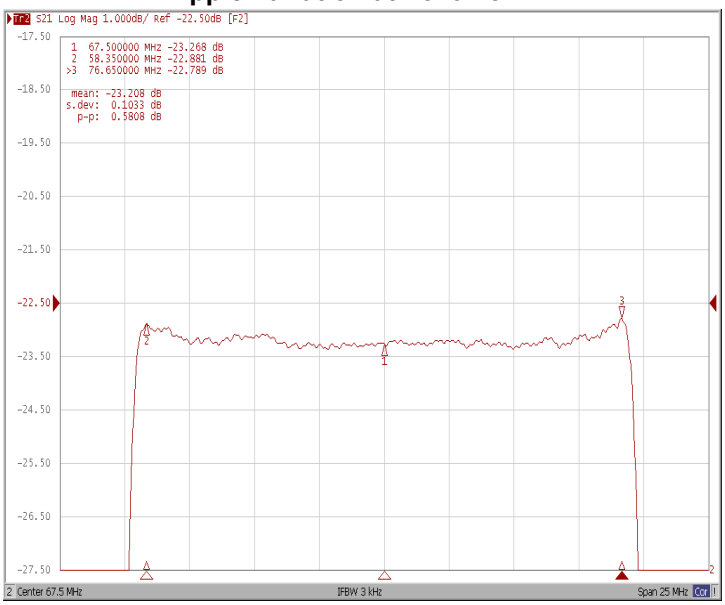
Bandwidth at –40.0 dB



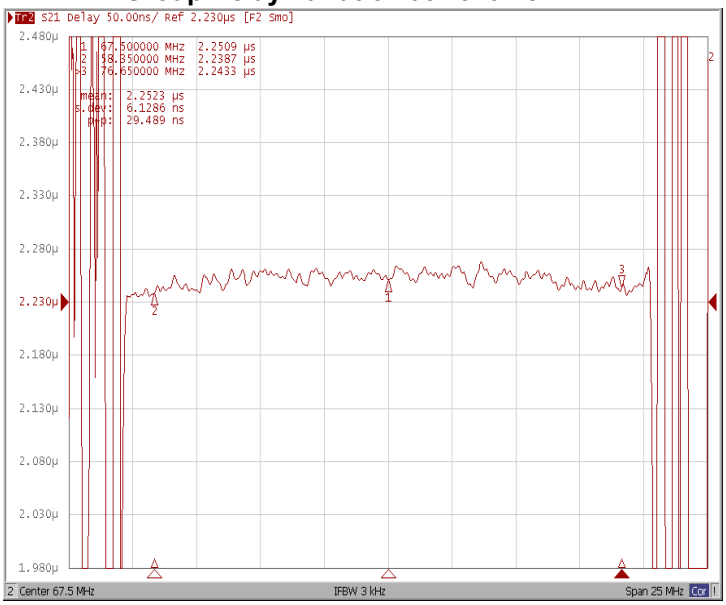
Bandwidth at –50.0 dB



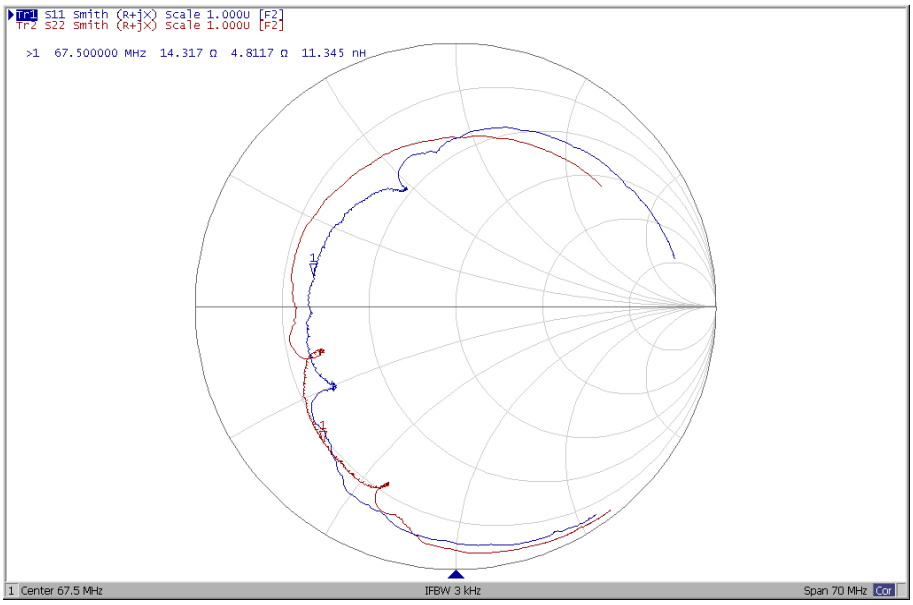
Ripple Variation at Fo±9.15 MHz



Group Delay Variation at Fo±9.15 MHz



Smith Chart



VSWR

Tr1 S11 SWR 1.000/ Ref 1.000 [F2]
Tr2 S22 SWR 1.000/ Ref 1.000 [F2]
>1 67.500000 MHz 3.5268
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 67.5 MHz
IFBW 3 kHz
Span 70 MHz