PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF75.0M-11A	75.0 MHz IF SAW Filter 11.65 MHz 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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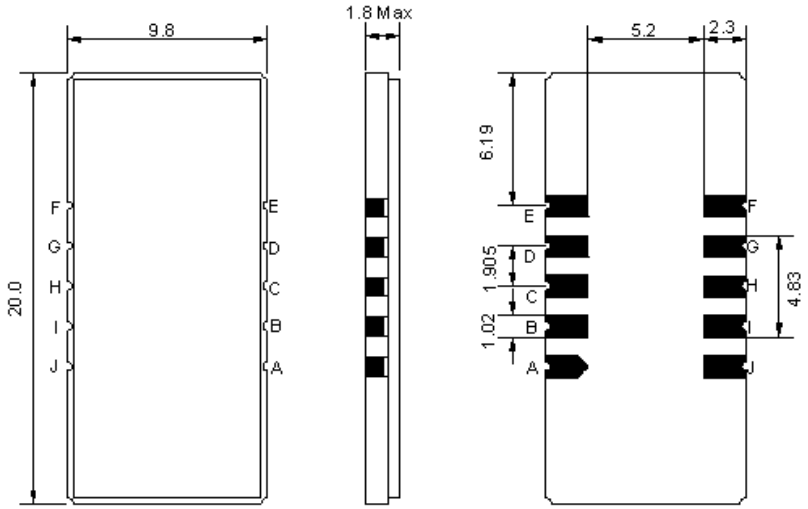
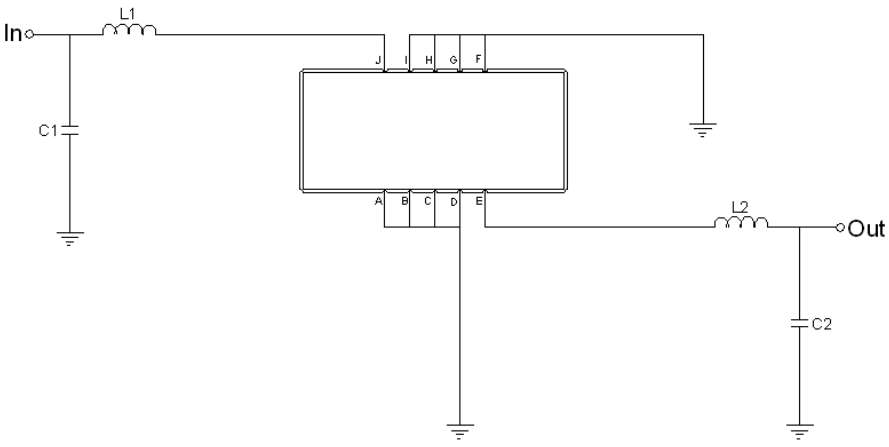
Mechanical Dimensions (mm)



Pin Description	
A, B, C, D, F, G, H, I	Ground
J	Input
E	Output

Test Circuit



Test Fixture & Values	
Input	L1=68nH, C1=20pF
Output	L2=68nH, C2=20pF
Source/Load Impedance	50 Ω

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	0	-	60
Storage Temperature Range	°C	-20	-	70
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended)(1)	Ω	-	50	-
Load Impedance (single ended)(1)	Ω	-	50	-

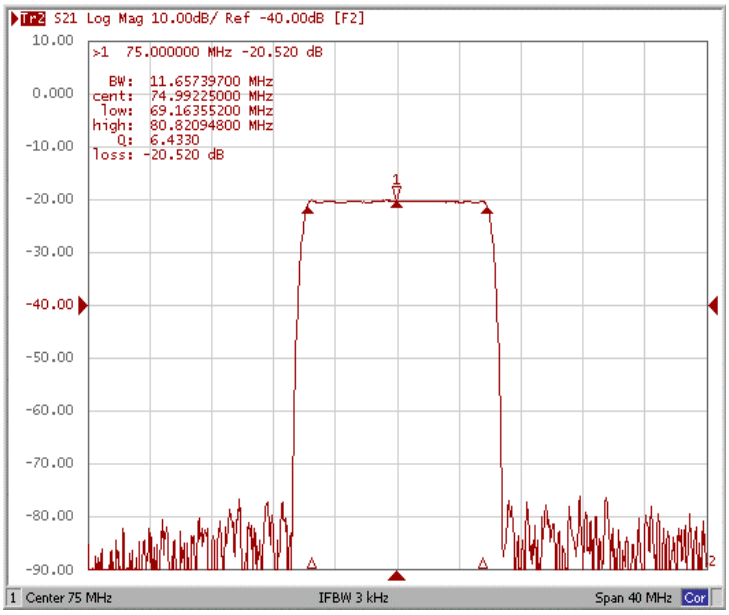
Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Electrical Specification

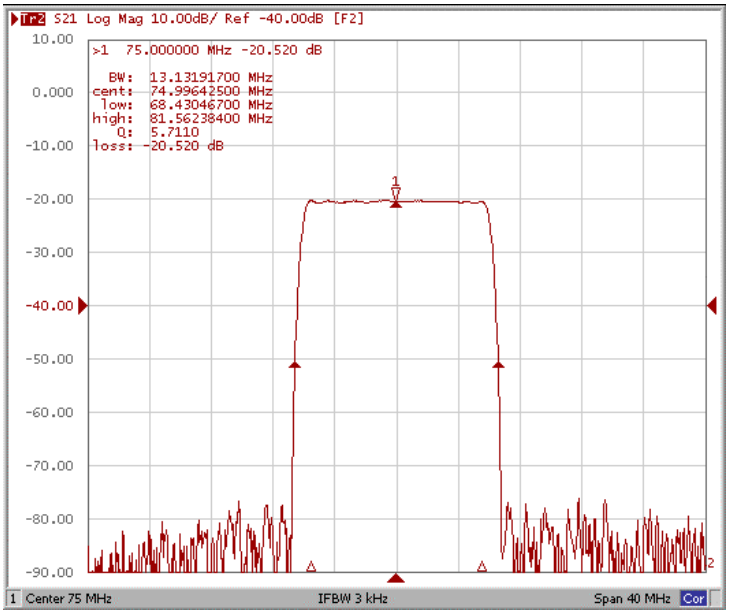
Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	75.00	-
Insertion Loss at Fo	dB	-	20.5	23.5
Group Delay Variation (Fo±5.5MHz)	ns	-	42	100
Absolute Delay	us	-	2.40	-
Temperature Coefficient	ppm/°C	-	-72	-
Passband Ripple (Fo±5.5MHz)	dB	-	0.56	1.00
Bandwidth at -1dB	MHz	11.00	11.65	-
Bandwidth at -30dB	MHz	-	13.13	-
Bandwidth at -45dB	MHz	-	13.40	15.00
Ultimate Rejection	dB	-	55	-
Relative Attenuation Fo±6.5MHz /Fo±7.5MHz	dB		24 / 55	

Frequency Response

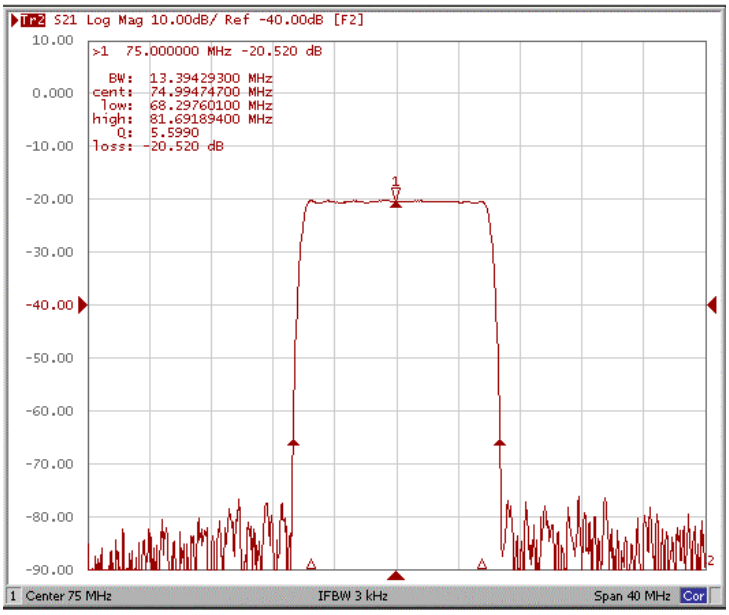
Bandwidth at –1.0 dB



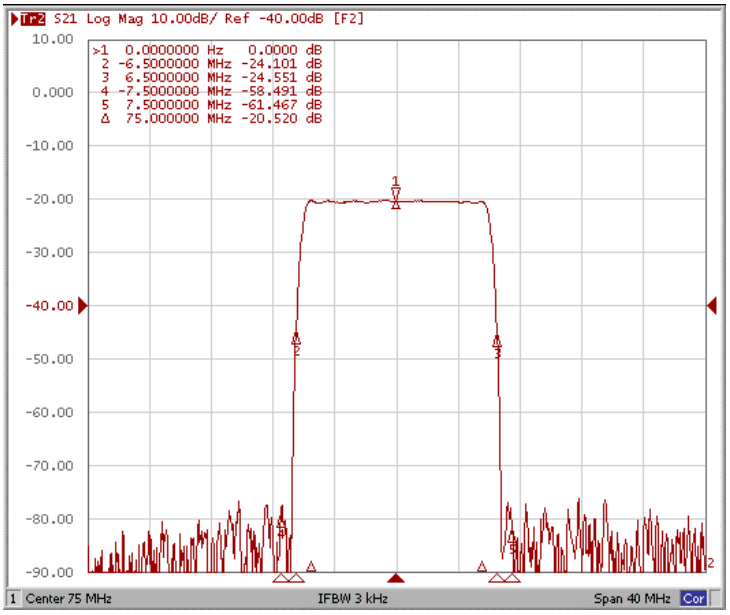
Bandwidth at –30.0 dB



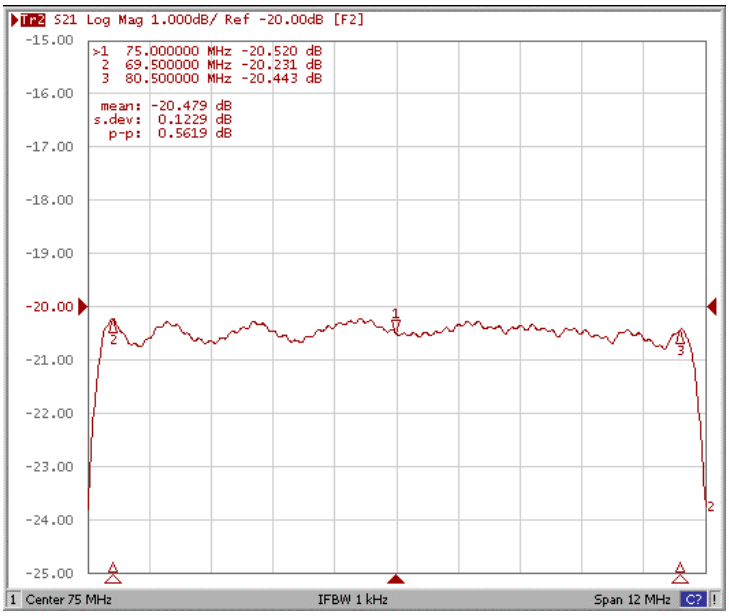
Bandwidth at –45.0 dB



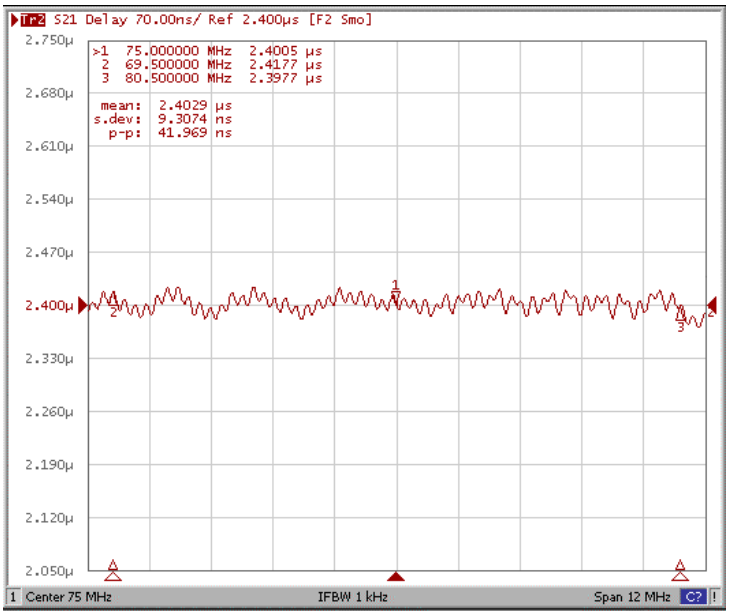
Relative Attenuation Fo±6.5MHz /Fo±7.5MHz



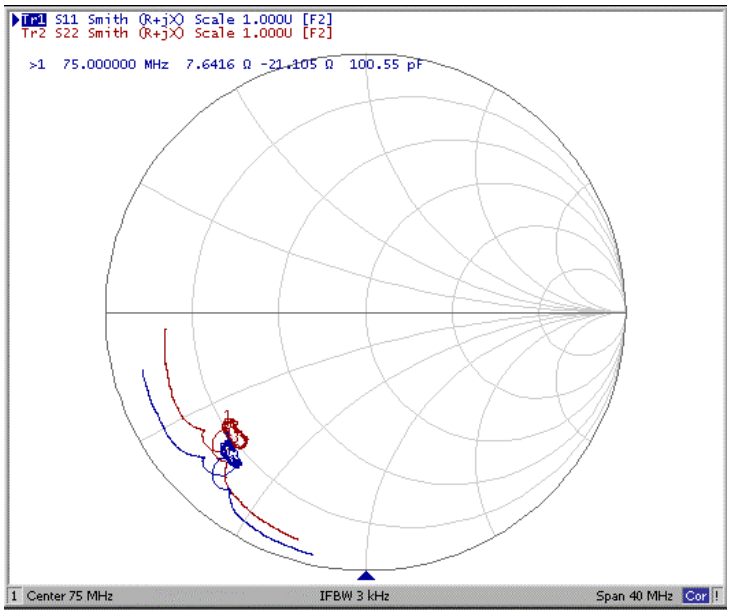
Ripple Variation Fo±5.5MHz



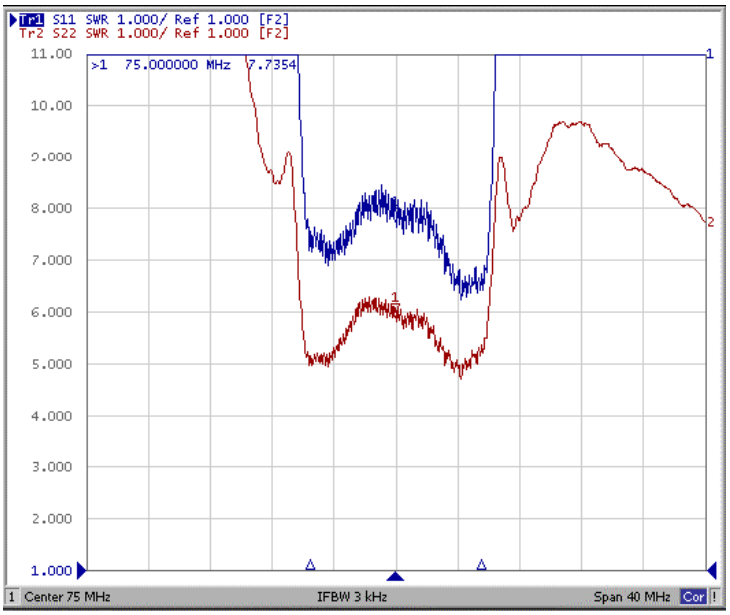
Group Delay Variation Fo±5.5MHz



Smith Chart



VSWR


Tr1 S11 SWR 1.000/ Ref 1.000 [F2]
Tr2 S22 SWR 1.000/ Ref 1.000 [F2]
>1 75.000000 MHz 7.7354
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 75 MHz
IFBW 3 kHz
Span 40 MHz
Cor