PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF75.0M-15B	75.0 MHz IF SAW Filter 15.83 MHz Bandwidth

Specification Contents

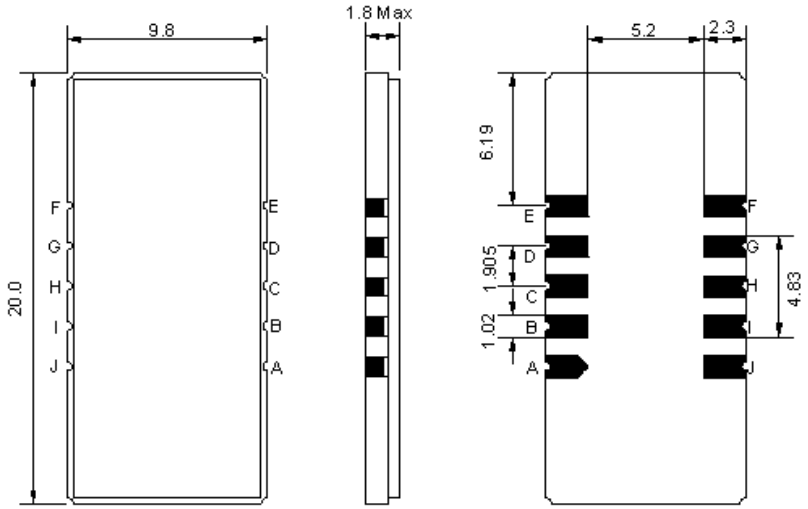
- Mechanical Dimensions
- Test Circuit
- Maximum Ratings
- Electrical Specification
- Frequency Response
- Smith Chart
- VSWR

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)

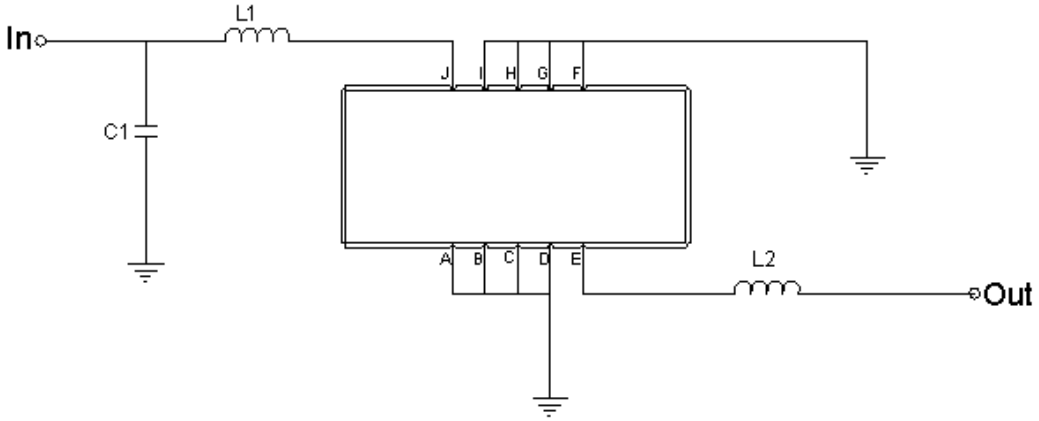
Oscilent Corporation
Telephone: 1.949.252.0522
Fax: 1.949.252.0522
Email: sales@oscilent.com

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 = 120 nH, C1 = 15 pF
Output	L2 = 120 nH
Source/Load Impedance	50 Ω

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-5	-	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	-

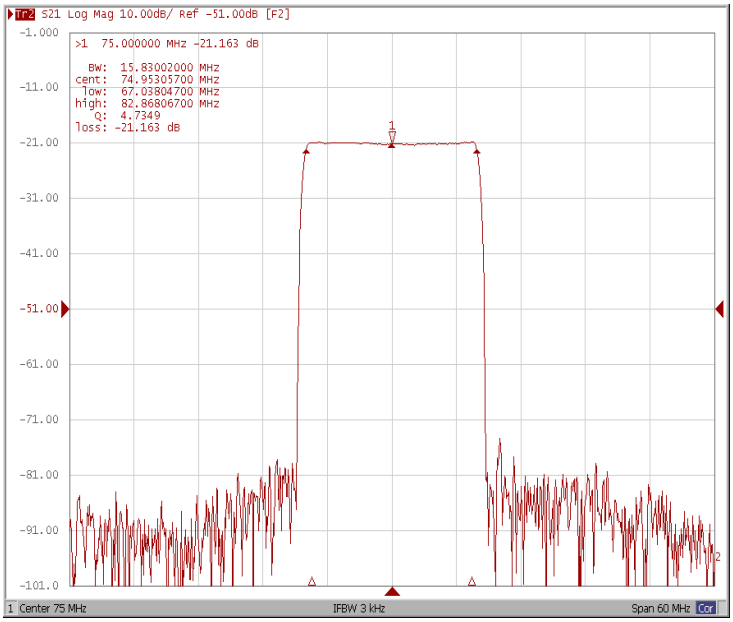
Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Electrical Specification

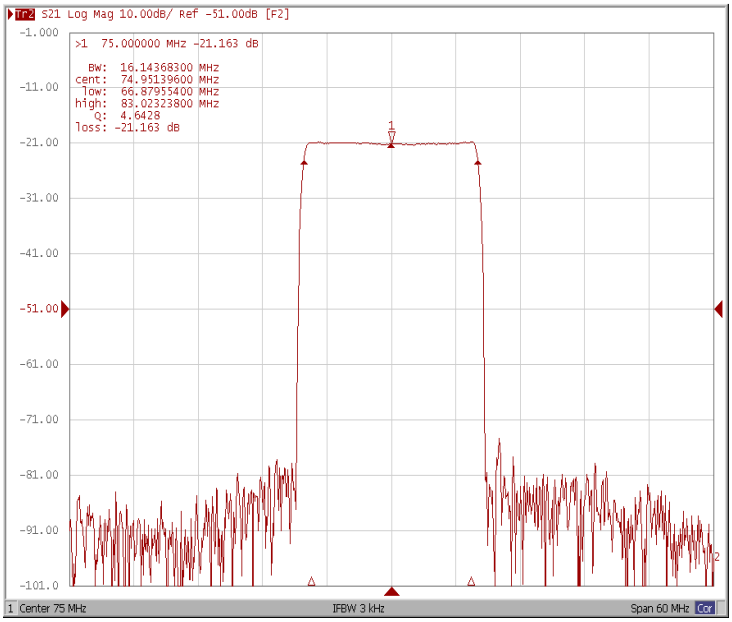
Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	75.0	-
Insertion Loss at Fo	dB	-	21.15	23.50
Group Delay Variation at Fo ± 7.47 MHz	nsec	-	47	80
Absolute Delay at Fo	usec	-	2.44	-
Passband Ripple Variation at Fo ± 7.47 MHz	dB	-	0.65	1.00
Bandwidth at -1dB	MHz	15.70	15.83	-
Bandwidth at -3dB	MHz	-	16.14	-
Bandwidth at -40dB	MHz	-	17.46	17.60
Ultimate Rejection	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-72	-

Frequency Response

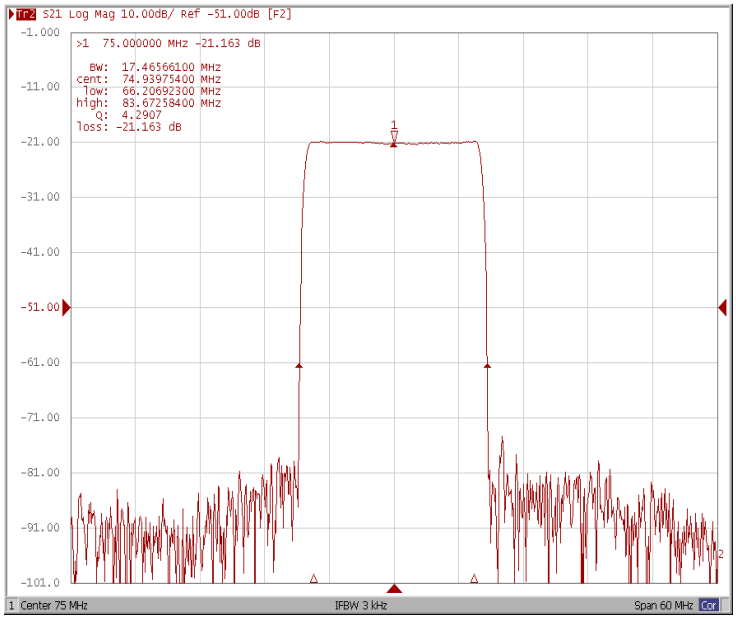
Bandwidth at –1.0 dB



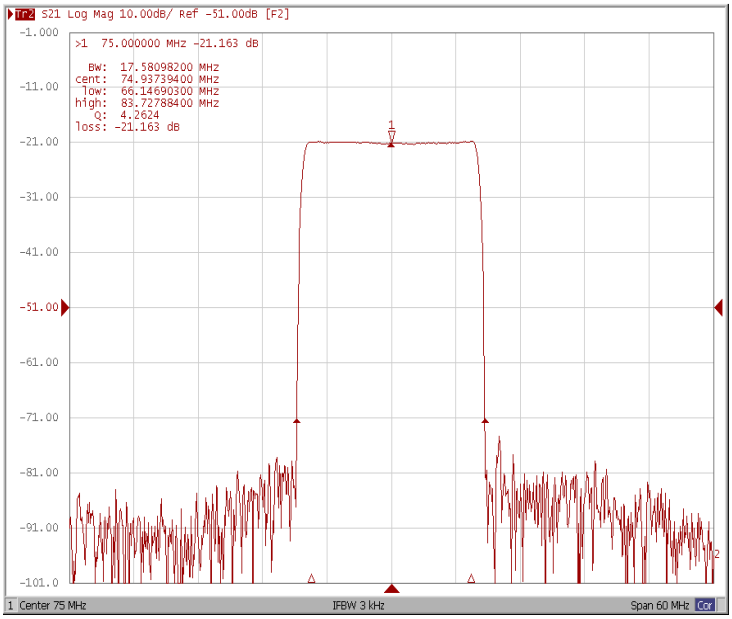
Bandwidth at –3.0 dB



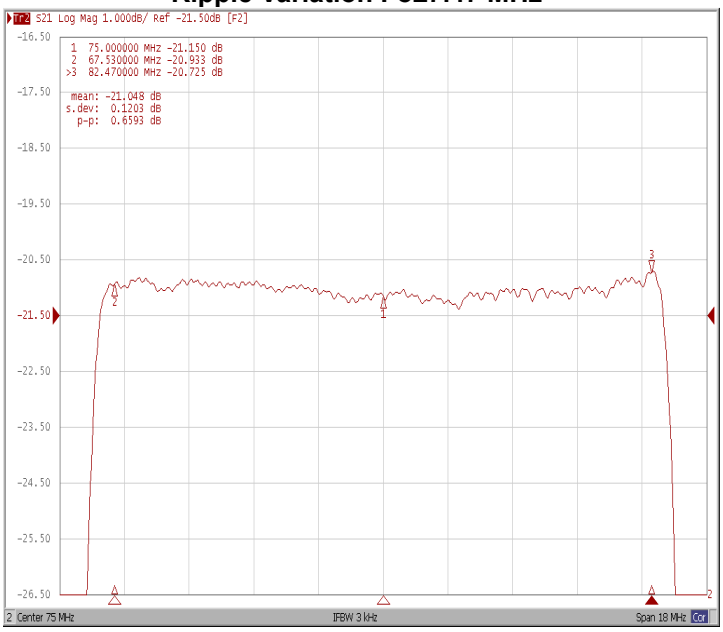
Bandwidth at –40.0 dB



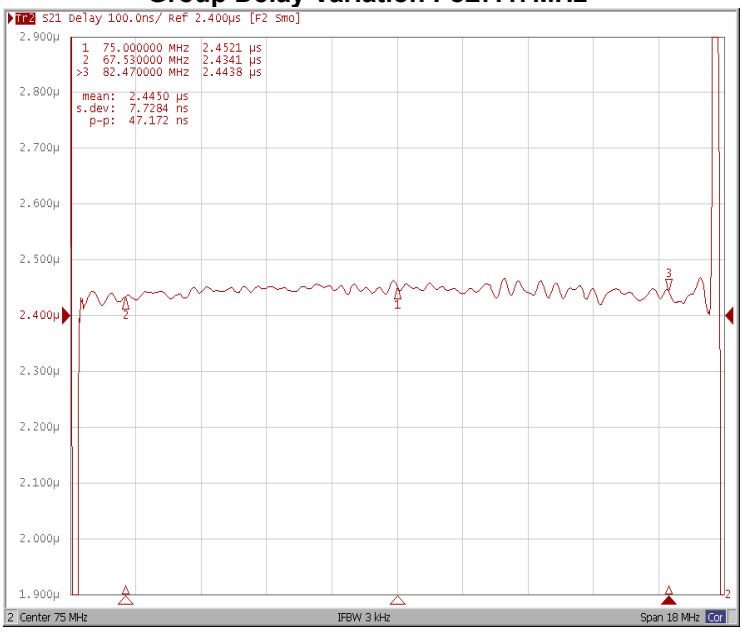
Bandwidth at –50.0 dB



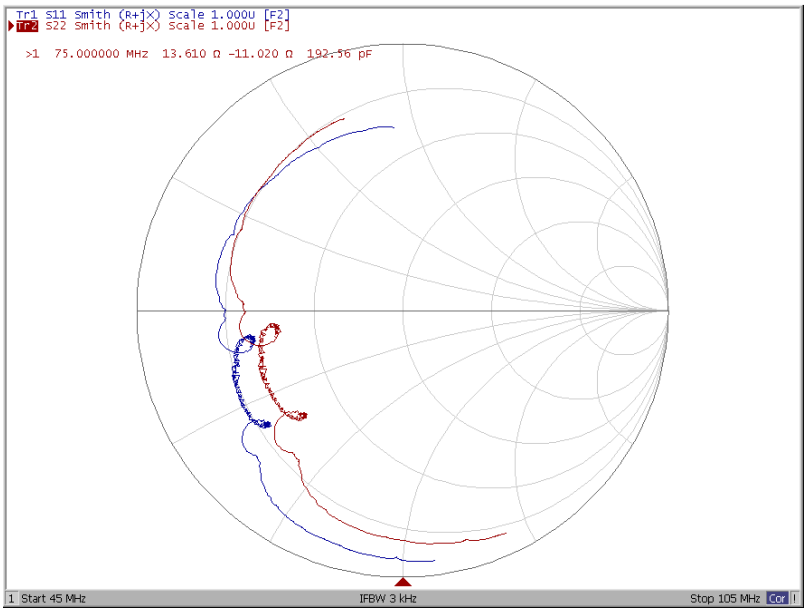
Ripple Variation Fo±7.47 MHz



Group Delay Variation Fo±7.47MHz



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 5.4256
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Start 45 MHz
IFBW 3 kHz
Stop 105 MHz