PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF75.3M-10A	75.3MHz IF SAW Filter 10.20MHz Bandwidth

Specification Contents

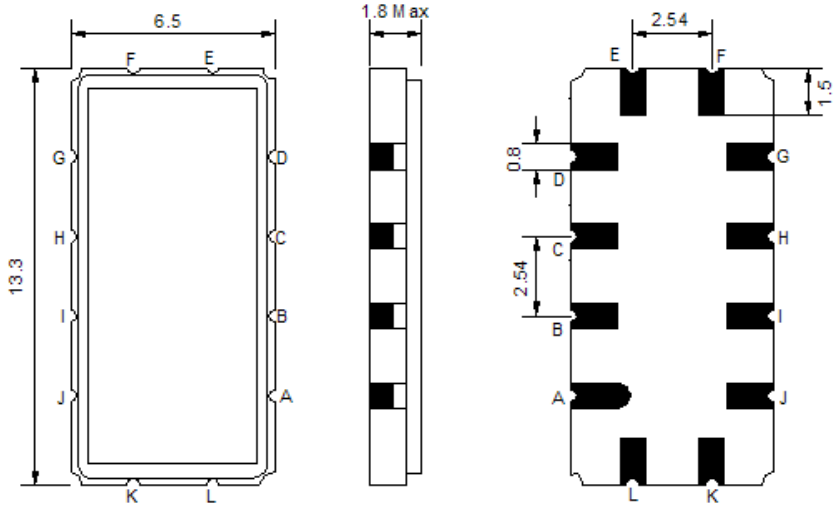
- Mechanical Dimensions
- Test Circuit
- Maximum Ratings
- Electrical Specification
- Frequency Response
- Smith Chart
- VSWR

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)

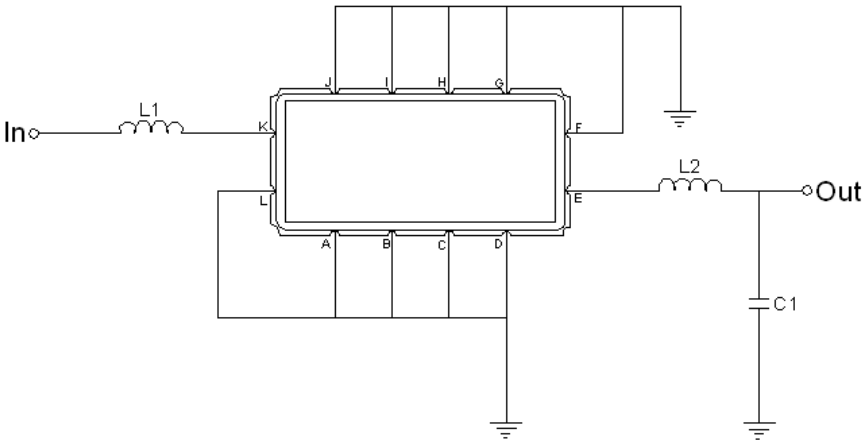
Oscilent Corporation
Telephone: 1.949.252.0522
Fax: 1.949.252.0522
Email: sales@oscilent.com

Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1 = 56 nH
Output	L2 = 56 nH, C1 = 20 pF
Source/Load Impedance	50 Ω

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-	25	-
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	-

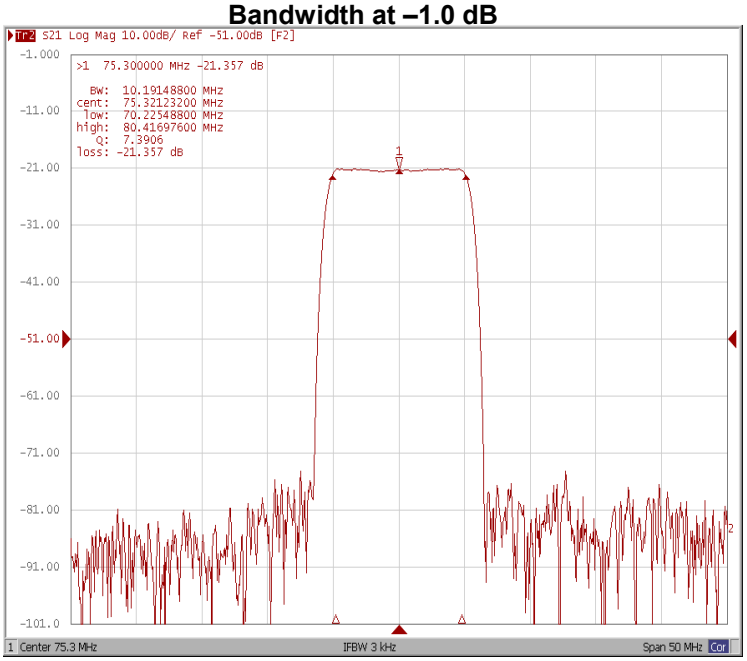
Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Electrical Specification

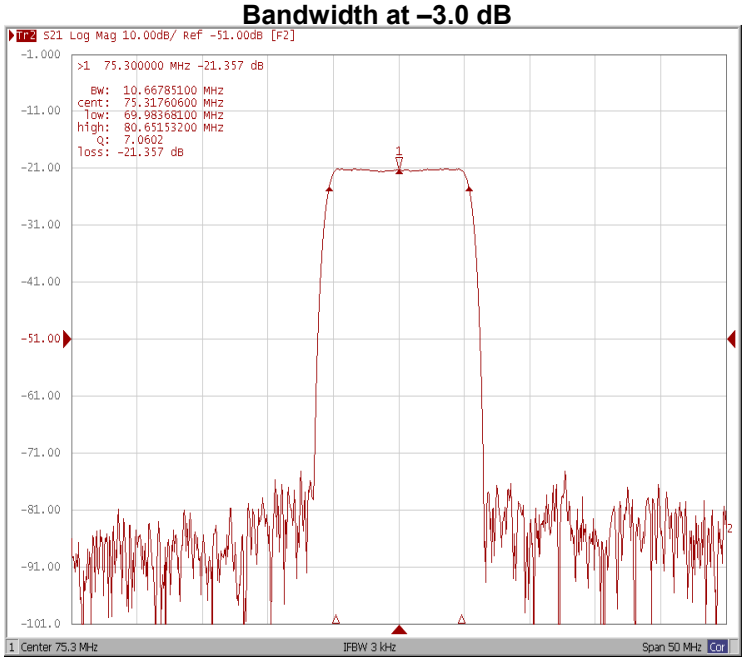
Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	75.3	-
Insertion Loss at Fo	dB	-	21.3	23.0
Group Delay Variation	ns	-	50	90
Absolute Delay Time	us	-	1.65	-
Amplitude Ripple	dB	-	0.55	1.00
Bandwidth at -1dB	MHz	10.00	10.20	-
Bandwidth at -3dB	MHz	-	10.66	-
Bandwidth at -25dB	MHz	-	12.20	12.40
Bandwidth at -40dB	MHz	-	12.63	-
Relative Attenuation				
Lower Sidelobe	dB	50	53	-
Upper Sidelobe	dB	50	53	-
Temperature Coefficient	ppm/°C	-	-72	-

Frequency Response

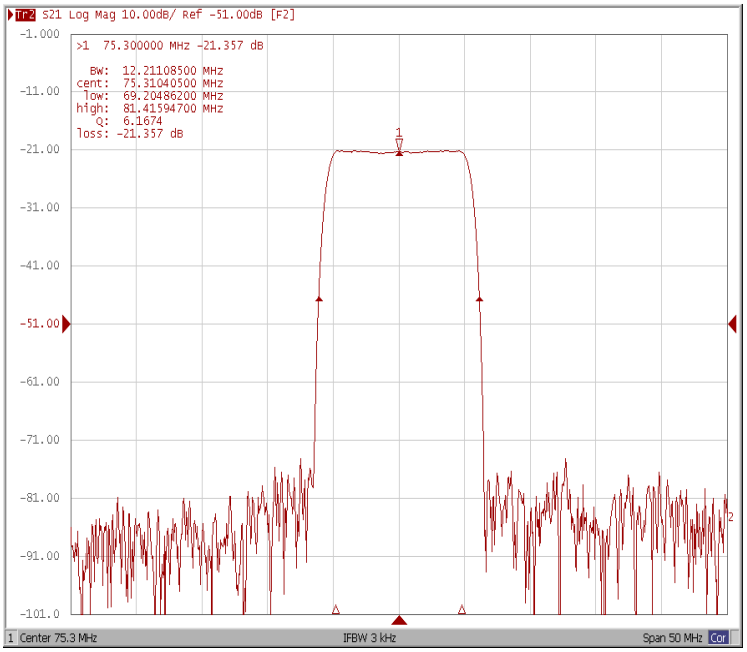
Bandwidth at –1.0 dB



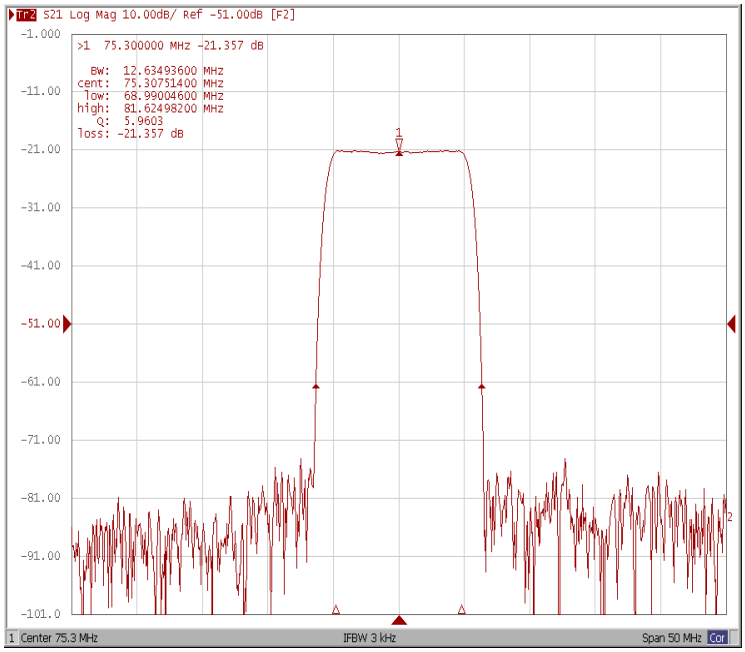
Bandwidth at –3.0 dB



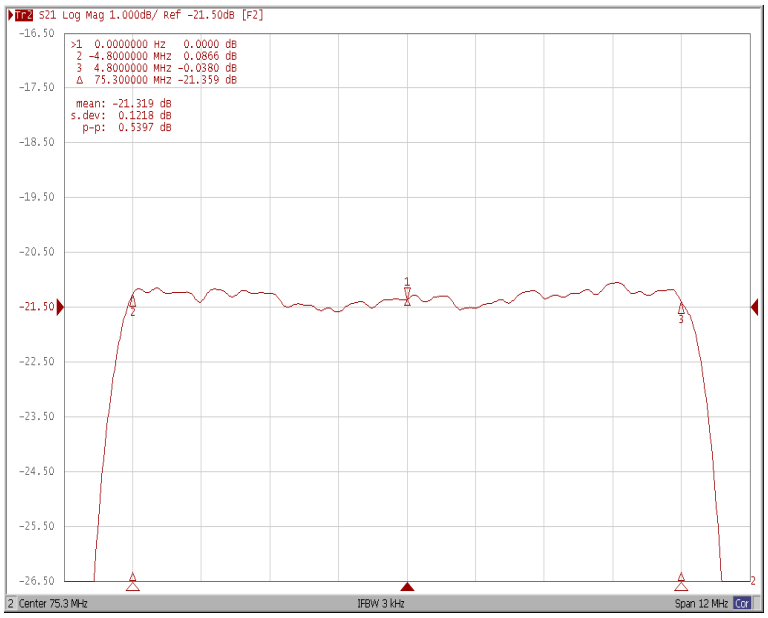
Bandwidth at –25.0 dB



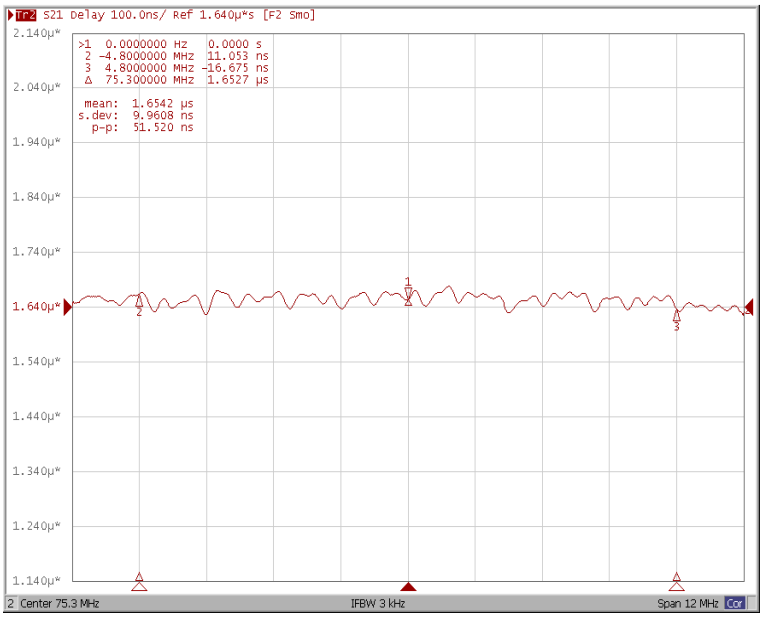
Bandwidth at –40.0 dB



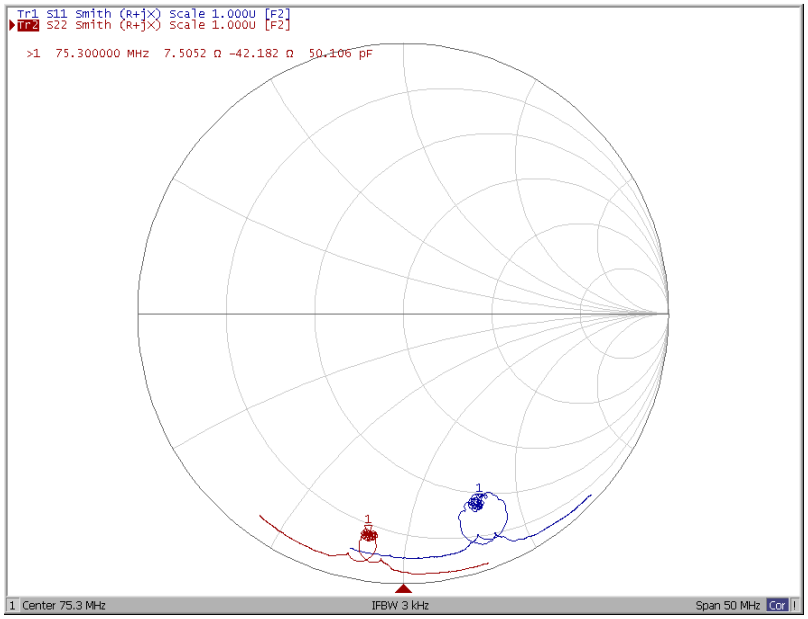
Ripple Variation



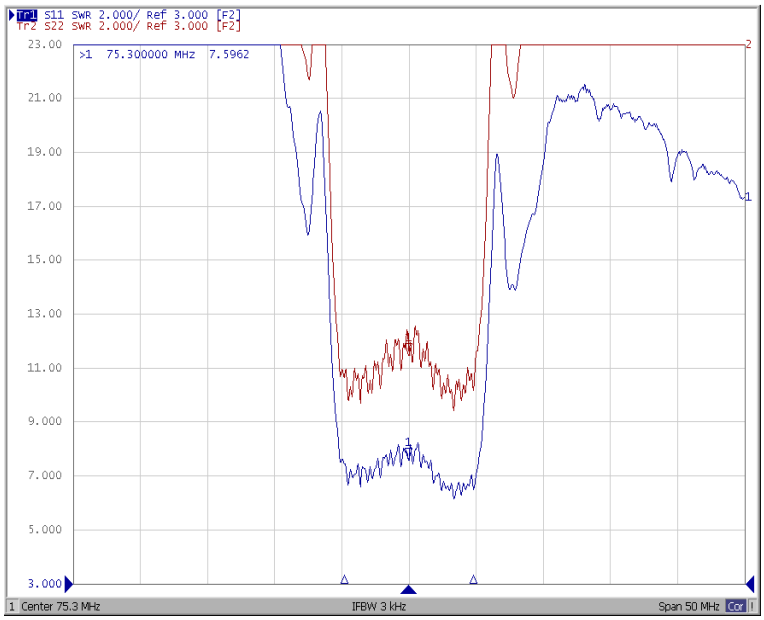
Group Delay Variation



Smith Chart



VSWR


Tr1 S11 SWR 2.000/ Ref 3.000 [F2]
Tr2 S22 SWR 2.000/ Ref 3.000 [F2]
>1 75.300000 MHz 7.5962
23.00
21.00
19.00
17.00
15.00
13.00
11.00
9.000
7.000
5.000
3.000
1 Center 75.3 MHz
IFBW 3 kHz
Span 50 MHz