



Oscilent Corporation

PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF69.99M-16B	69.99 MHz IF SAW Filter 16.02 MHz Bandwidth

Specification Contents

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

Notes

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





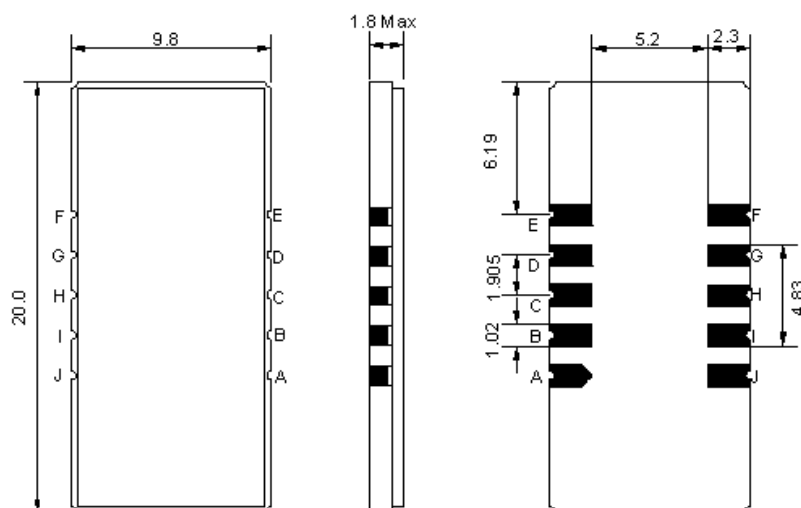
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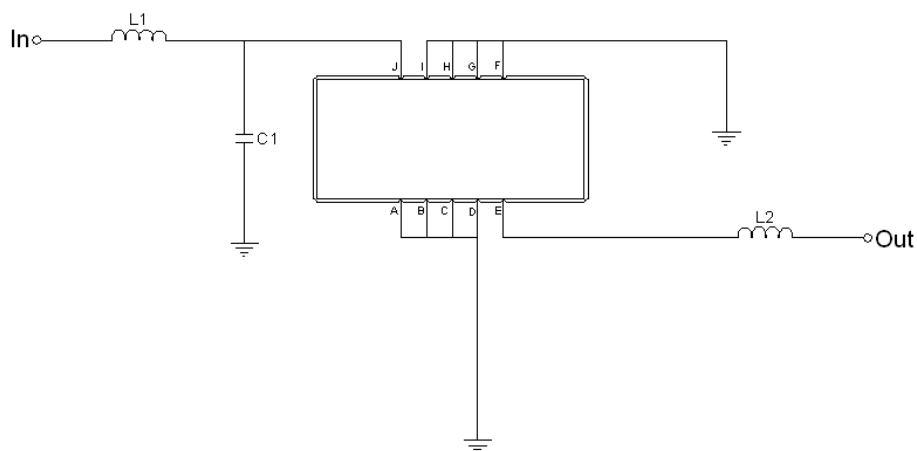
Mechanical Dimensions (mm)



Pin Description

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

Test Circuit



Test Fixture & Values

Input	L1 = 82 nH, C1=9pF
Output	L2 = 100 nH
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	-	69.99	-
Insertion Loss at Fo	dB	-	23.5	26.0
Group Delay Variation (Fo $\pm$ 7.47MHz)	nsec	-	28	50
Absolute Delay at Fo	usec	-	2.17	-
Passband Ripple Variation (Fo $\pm$ 7.47MHz)	dB	-	0.28	0.70
Bandwidth at -1dB	MHz	15.80	16.02	-
Bandwidth at -10dB	MHz	-	16.93	-
Bandwidth at -20dB	MHz	-	17.34	-
Bandwidth at -40dB	MHz	-	17.77	17.95
Ultimate Rejection	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-72	-



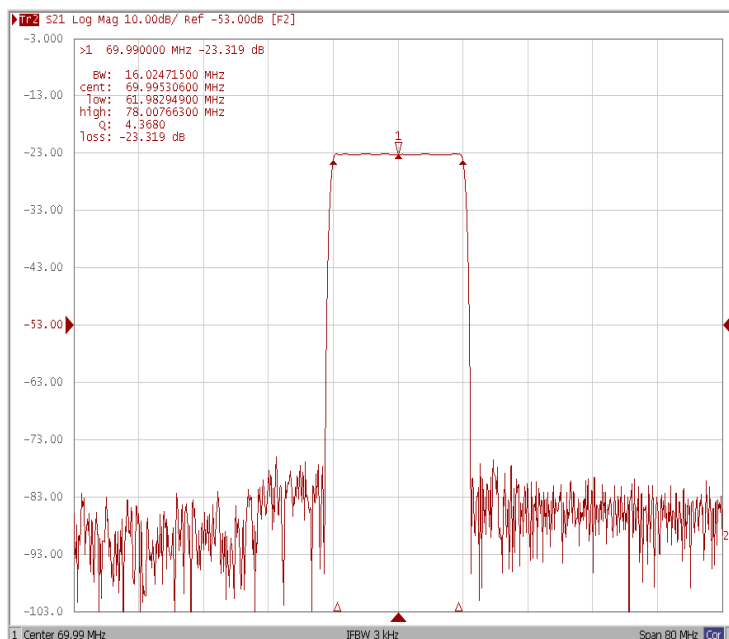
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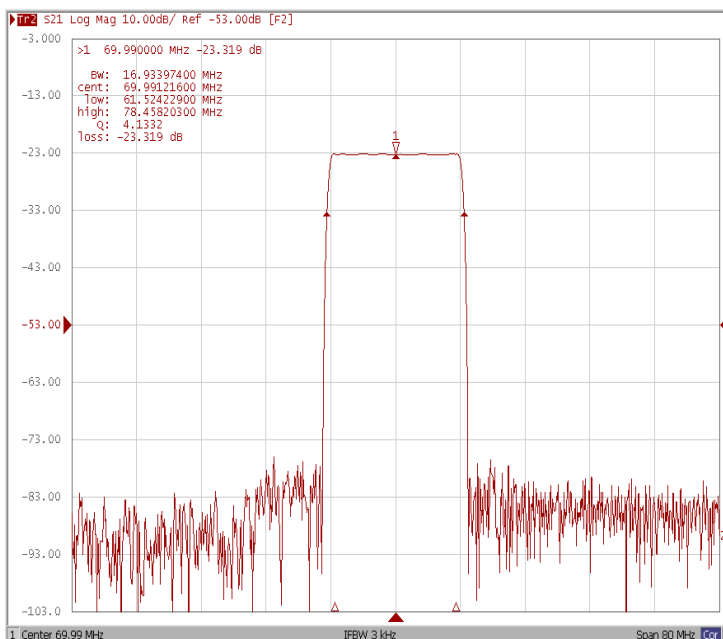
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Frequency Response

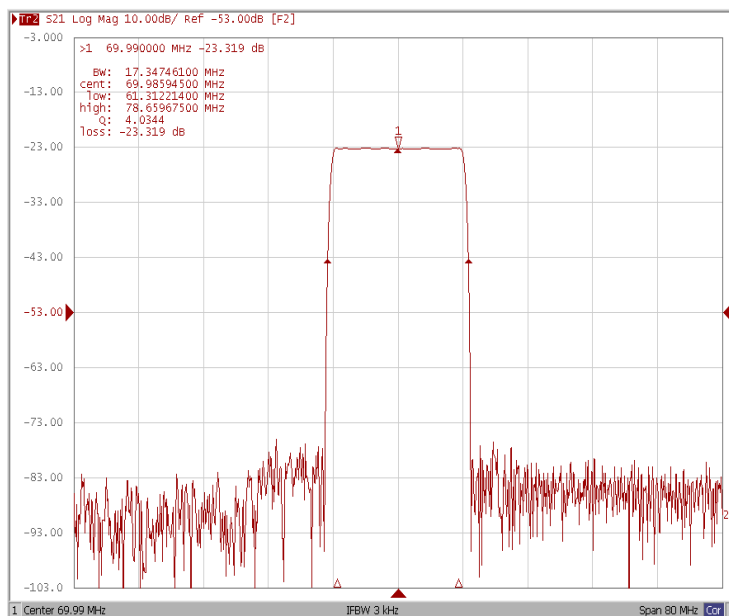
Bandwidth at -1.0 dB



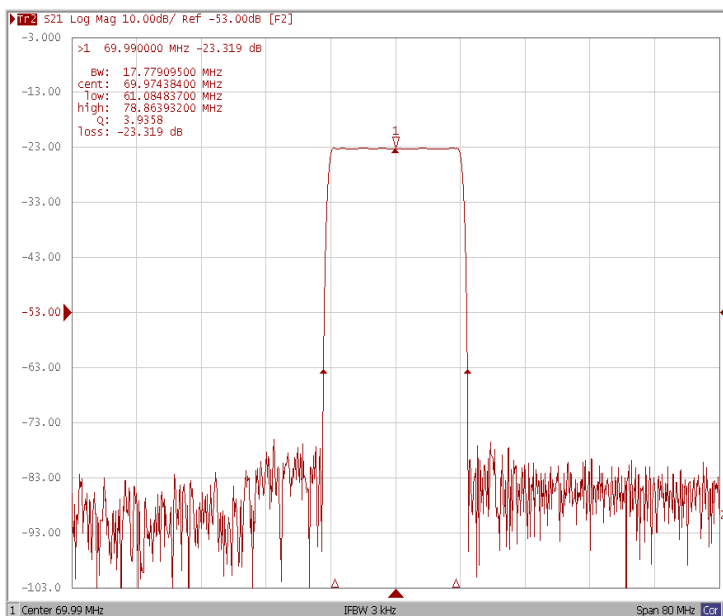
Bandwidth at -10.0 dB



Bandwidth at -20.0 dB



Bandwidth at -40.0 dB





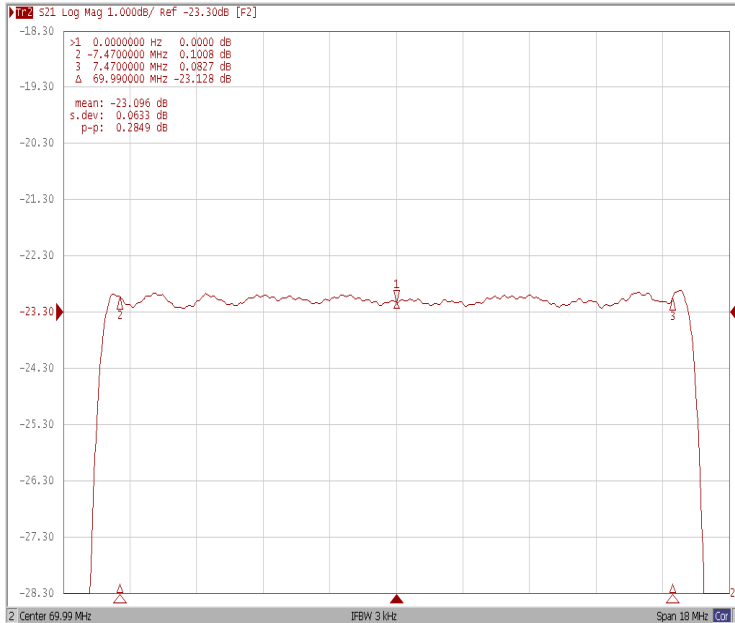
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Ripple Variation Fo±7.47MHz





VSWR

