



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF491.0M-05A	491.0 MHz IF SAW Filter 5.85MHz Bandwidth

Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
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- 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)



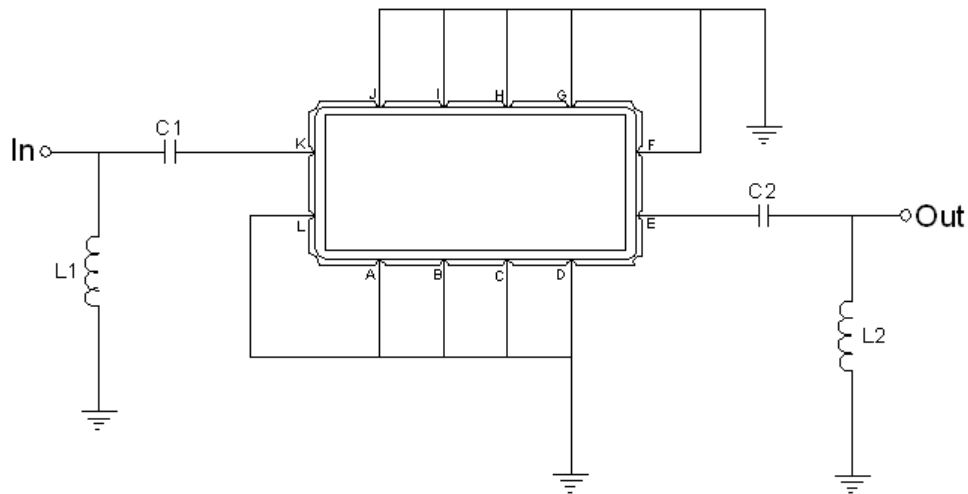


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1 = 5.6 nH, C1 = 14 pF
Output	L2 = 3.9 nH, C2 = 13 pF
Source/Load Impedance	50 Ω

**Maximum Ratings**

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	+80
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	-	491.0	-
Insertion Loss at Fo	dB	-	21.6	23.0
Group Delay Variation at Fo ± 2.69 MHz	nsec	-	104	180
Absolute Delay at Fo	usec	-	1.38	-
Passband Ripple Variation at Fo ± 2.69 MHz	dB	-	0.67	1.00
Bandwidth at -1dB	MHz	5.50	5.85	-
Bandwidth at -3dB	MHz	-	6.36	-
Bandwidth at -20dB	MHz	-	7.53	-
Bandwidth at -40dB	MHz	-	8.03	8.30
Ultimate Rejection	dB	-	52	-
Temperature Coefficient	ppm/°C	-	-0.03	-



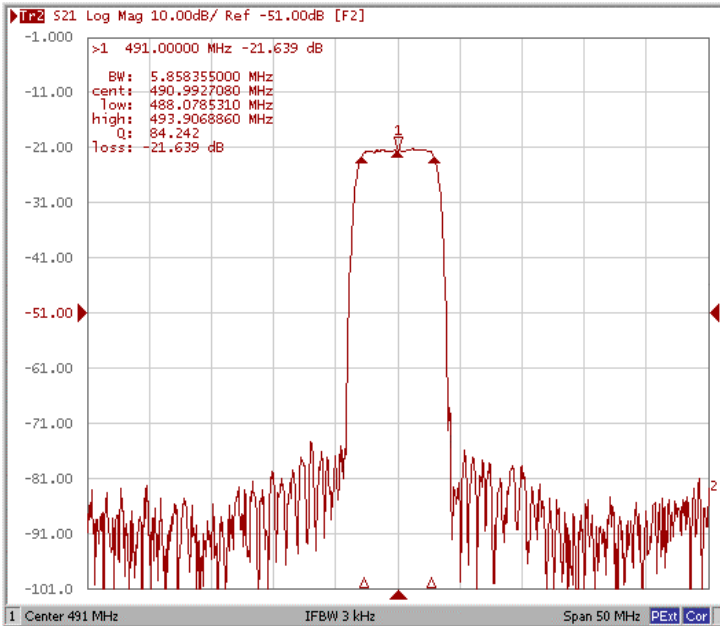
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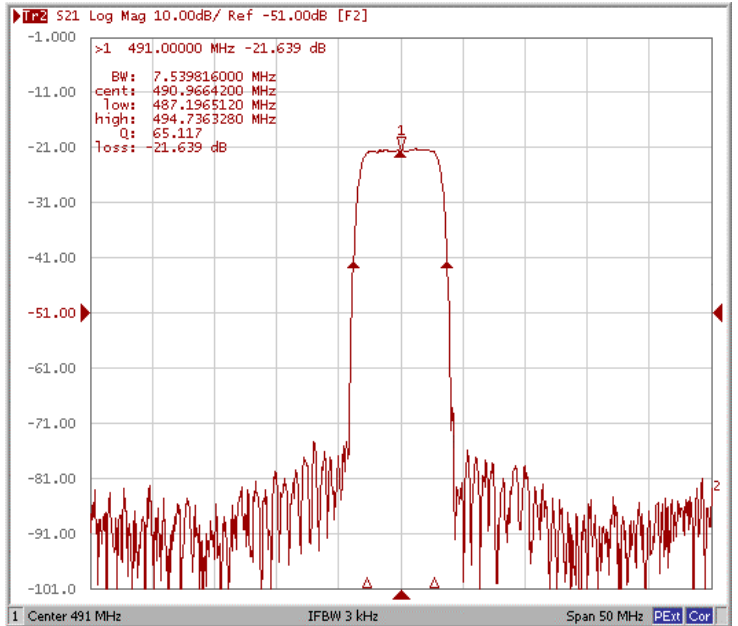
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Frequency Response

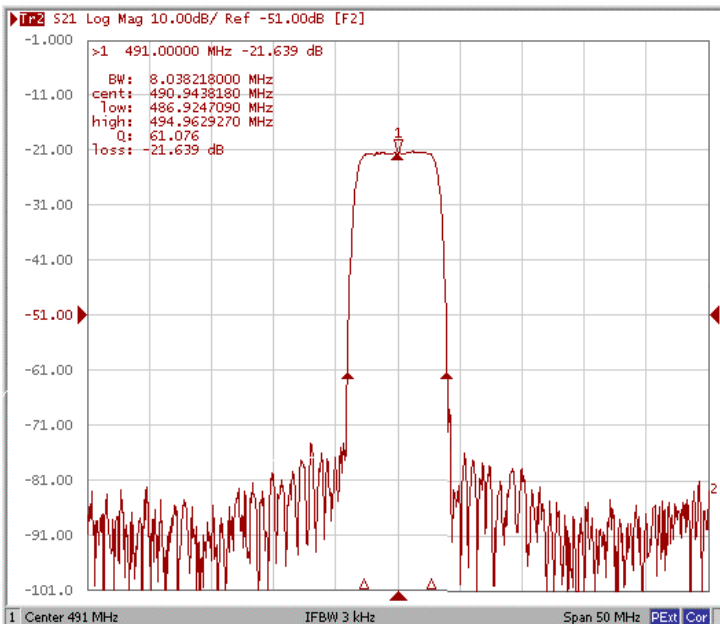
Bandwidth at -1.0 dB



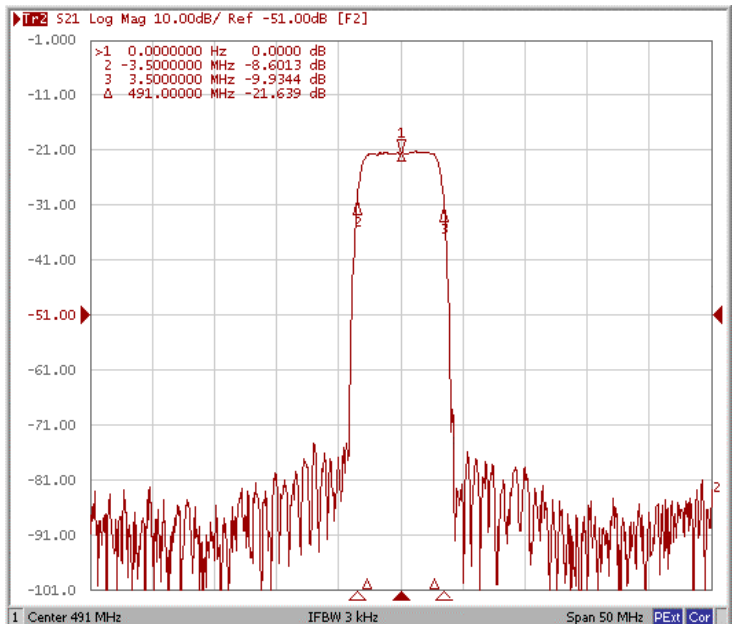
Bandwidth at -20.0 dB



Bandwidth at -40 dB

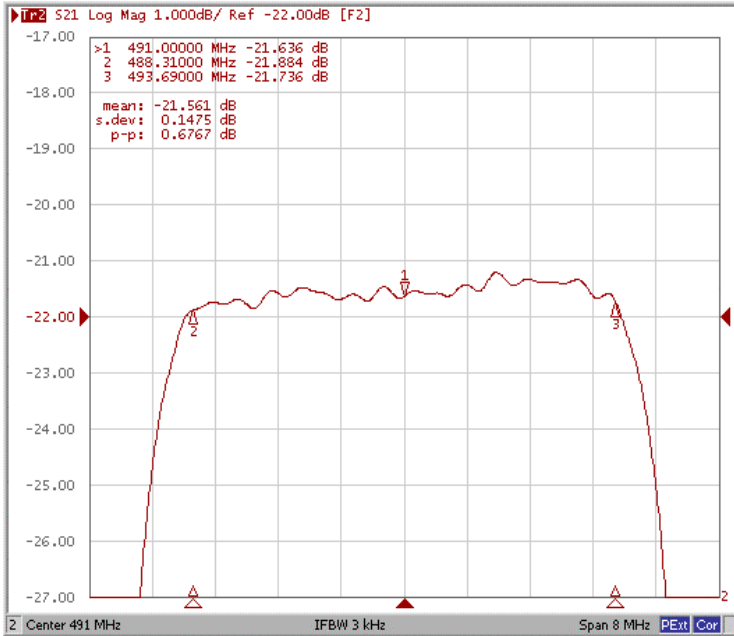


Attenuation (Fo±3.5MHz)

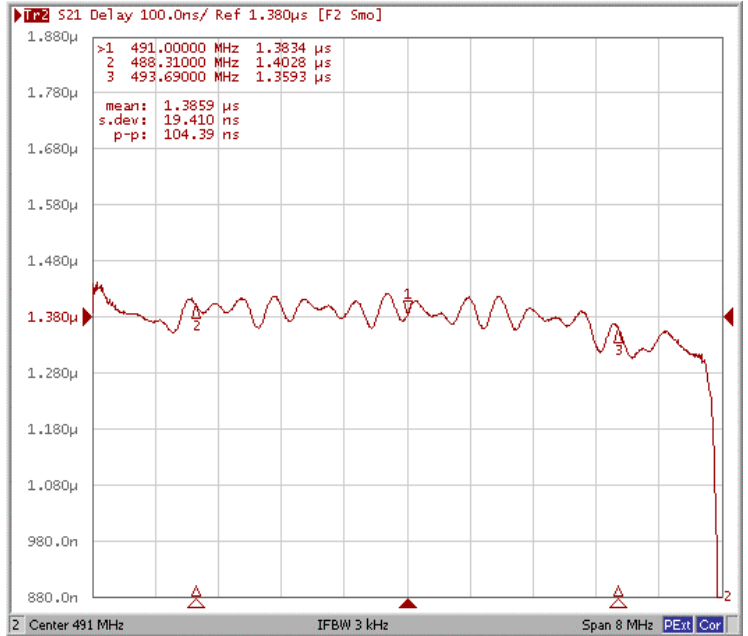




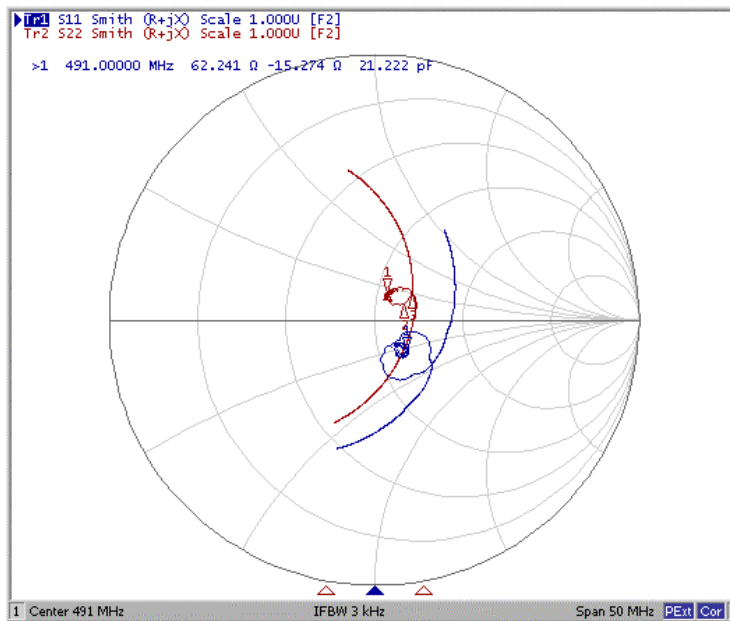
Ripple Variation Fo±2.69MHz



Group Delay Variation Fo±2.69MHz



Smith Chart





VSWR

