



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
835-IF162.5M-14B	62.5MHz IF SAW Filter 14.86 MHz Bandwidth

Specification Contents

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- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
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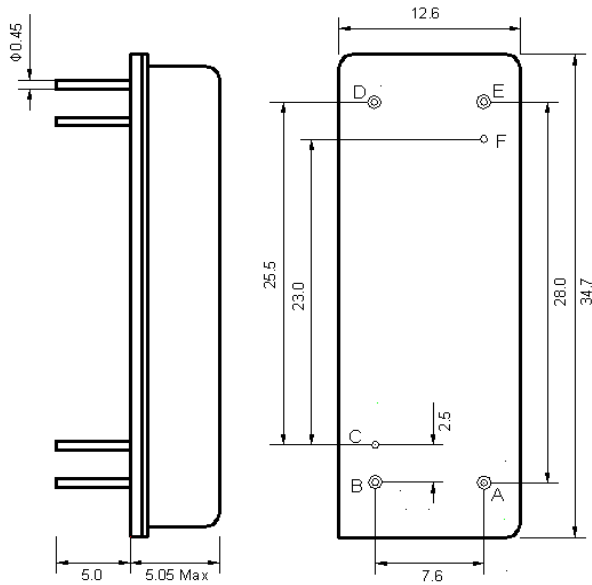
Notes

- 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)



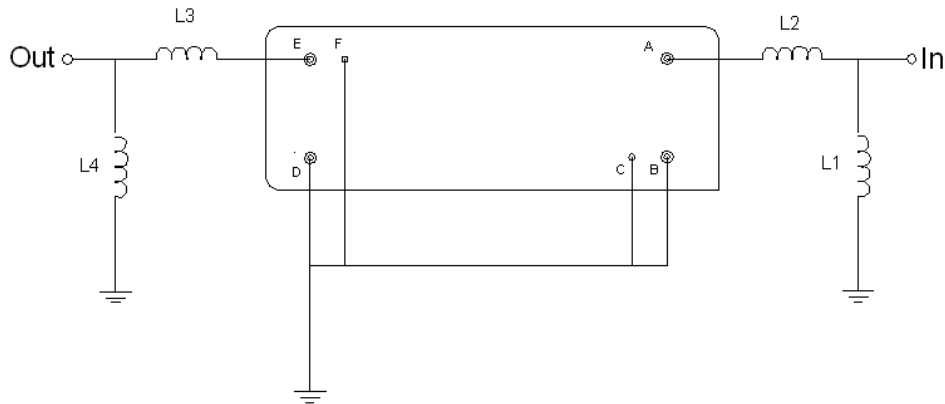


Mechanical Dimensions (mm)



Pin Description	
B, C, D, F	Ground
A	In
E	Out

Test Circuit



Test Fixture & Values	
Input	L1=18 nH, L2=5.6 nH
Output	L2=4.7 nH, L4=18 nH
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-20	-	70
Storage Temperature Range	°C	-20	-	70
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	28
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	-	162.5	-
Insertion Loss at Fo	dB	-	26.37	28.00
Group Delay Variation (Fo±7.09MHz)	ns	-	57	100
Phase Linearity (Fo±7.09MHz)	deg	-	13	-
Absolute Delay Time at Fo	us	-	3.4	4.2
Temperature Coefficient	ppm/°C	-	-20	-
Amplitude Ripple (Fo±7.09MHz)	dB	-	0.96	1.00
Bandwidth at -1dB	MHz	-	14.86	-
Bandwidth at -45dB	MHz	-	16.18	16.50
Input & Output Return Loss	dB	6.0	9.5	-
Triple transit attenuation	dBc	35	-	-
Relative Attenuation				
10MHz~150.0MHz	dBc	40	75	-
@154.84 MHz	dBc	5	5	-
@154.94 MHz	dBc	0.5	2	-
@170.06 MHz	dBc	0.5	4	-
@170.16 MHz	dBc	5	7	-
175.0MHz ~300.0MHz	dBc	40	65	-



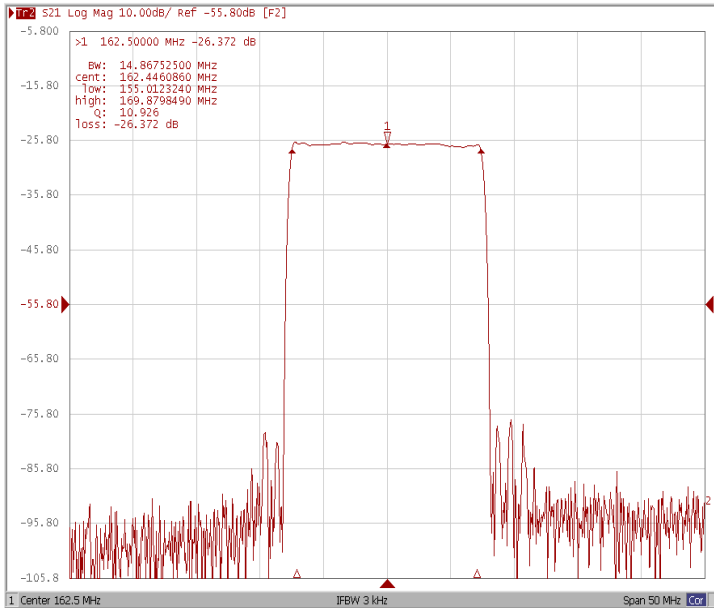
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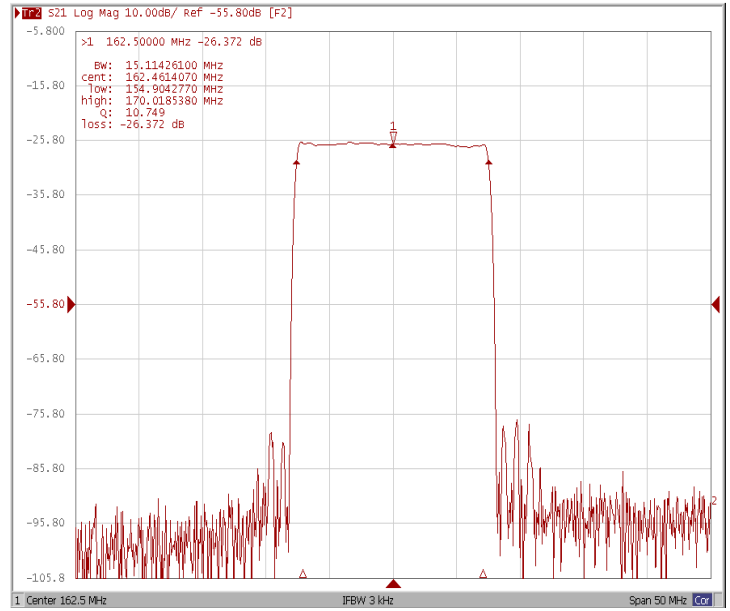
162.5MHz IF SAW Filter 14.86 MHz Bandwidth

Frequency Response

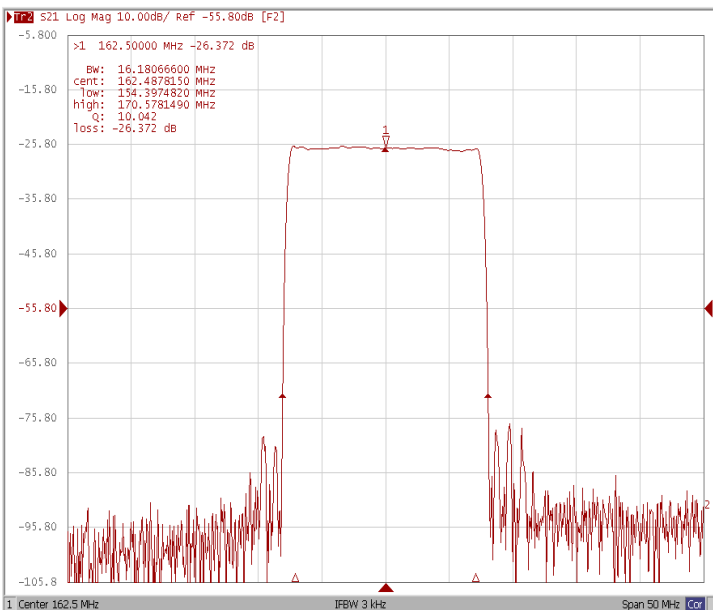
Bandwidth at -1.0 dB



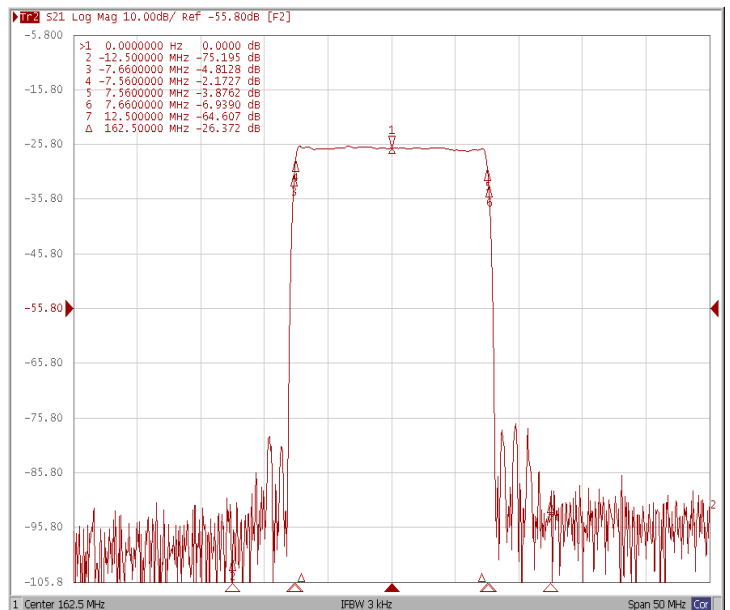
Bandwidth at -3.0 dB



Bandwidth at -45.0 dB

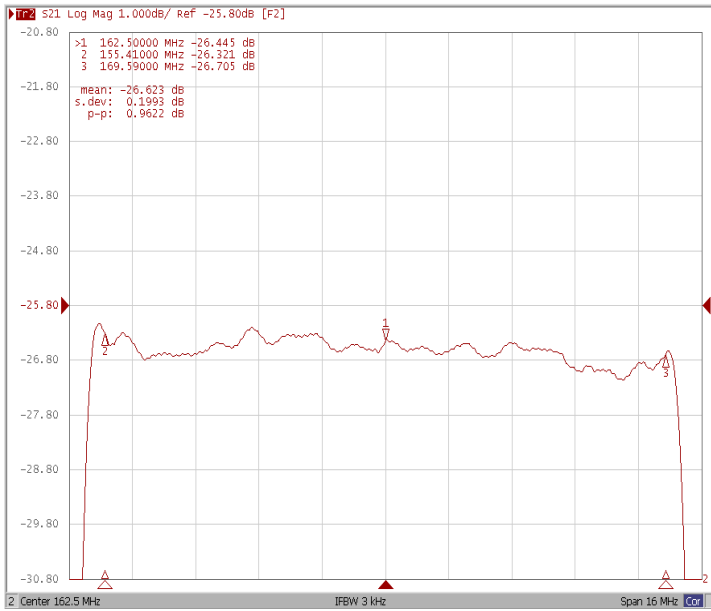


Relative Attenuation

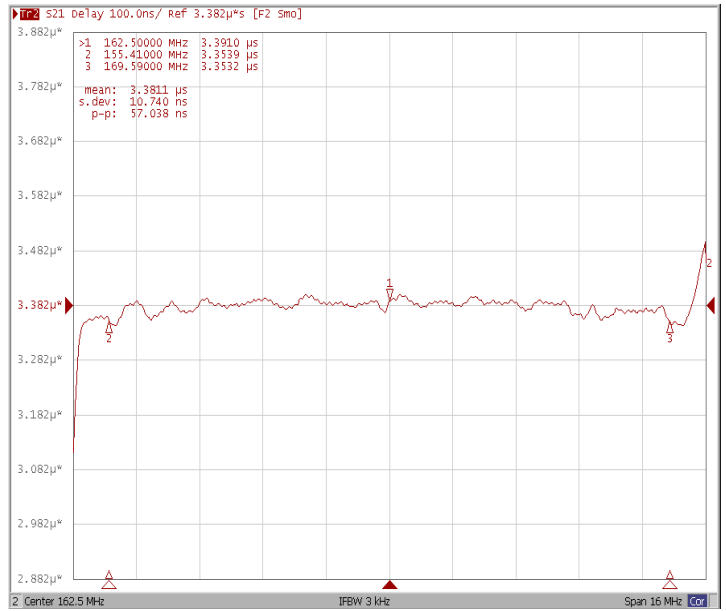




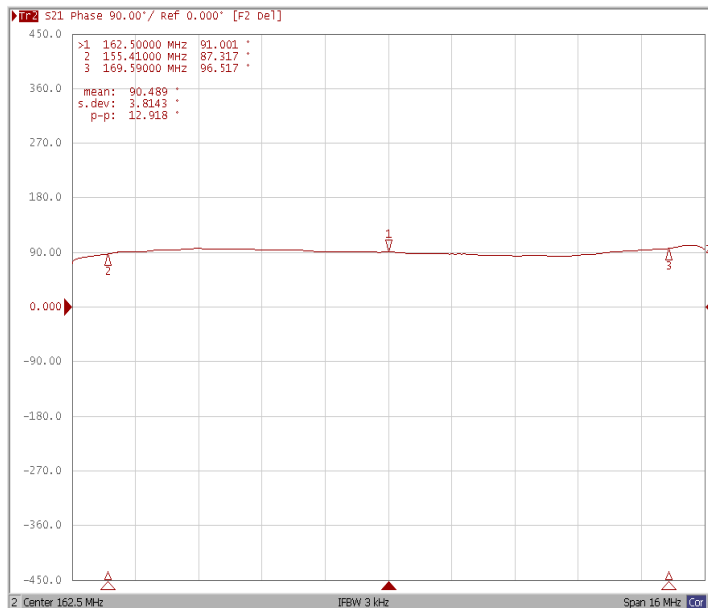
Ripple Variation Fo±7.09MHz



Group Delay Variation Fo±7.09MHz

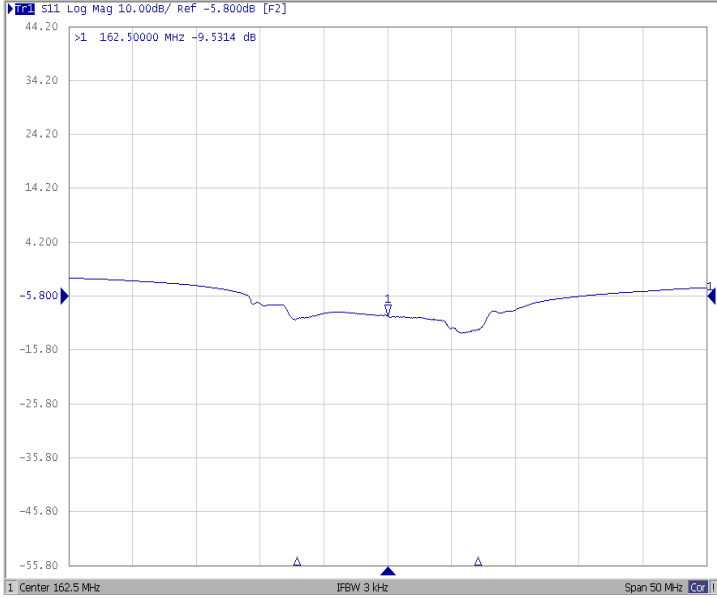


Phase Linearity Fo±7.09MHz

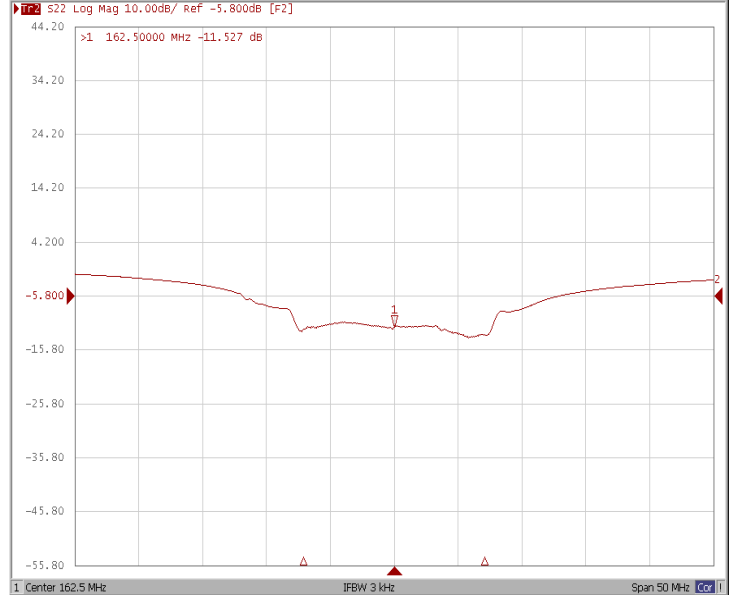




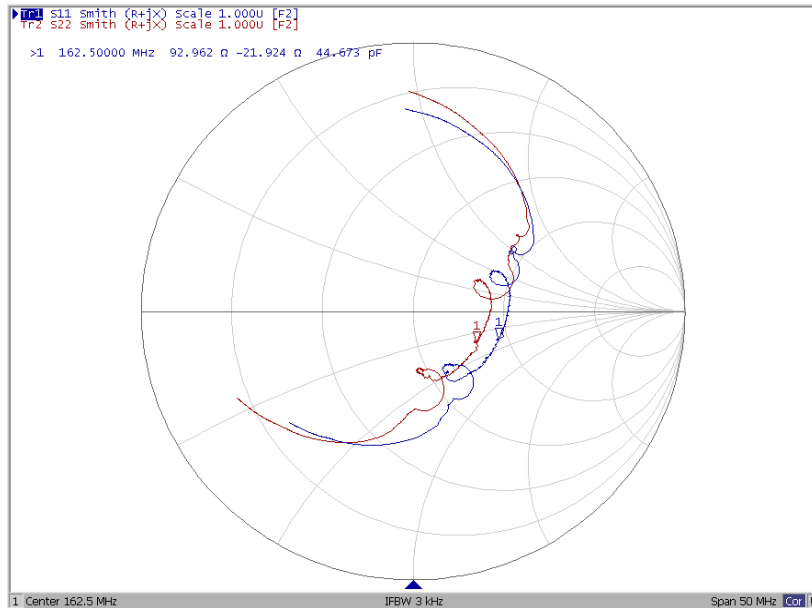
Return Loss S11



Return Loss S22



Smith Chart





VSWR

S11



S22

