



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
835-IF119.9M-19A	19.90MHz IF SAW Filter 19.05 MHz Bandwidth

Specification Contents

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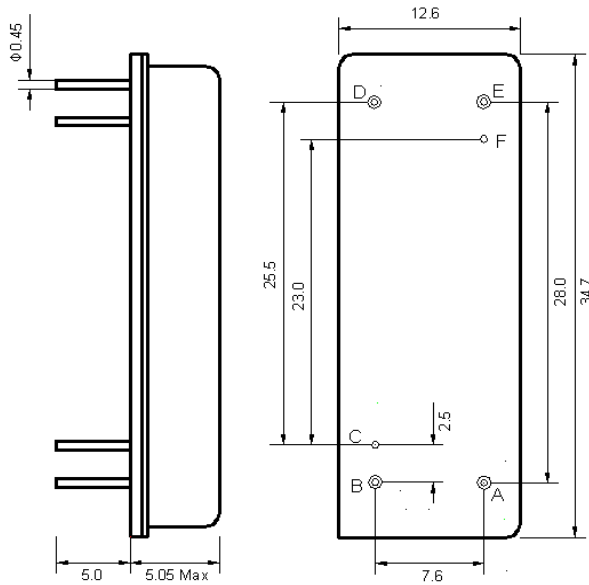
Notes

- 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)



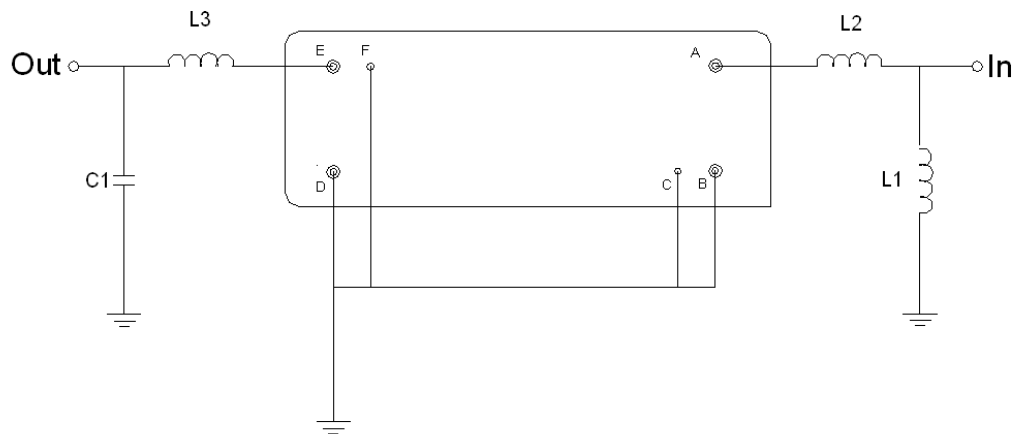


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=39 nH, L2=15 nH
Output	L1=56 nH, C1=62 pF
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.

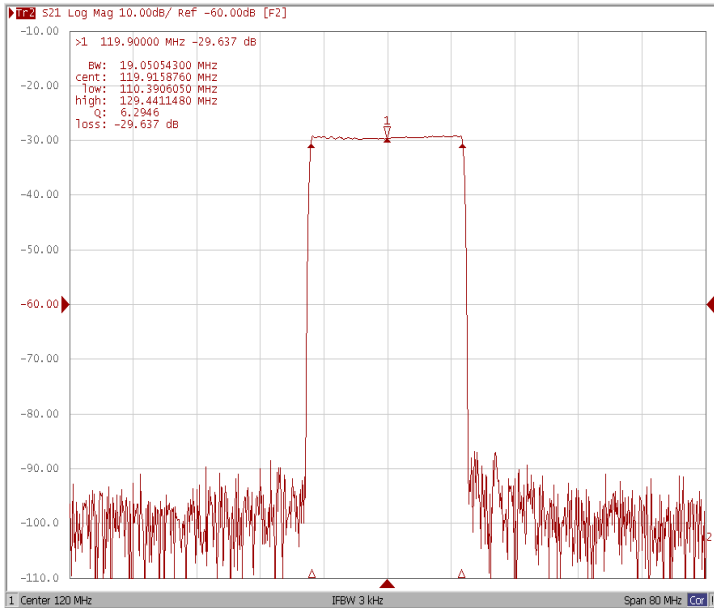
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	119.9	-
Insertion Loss at Fo	dB	-	29.60	31.00
Group Delay Variation (Fo±9.42MHz)	ns	-	35	80
Absolute Delay Time at Fo	us	-	3.7	-
Temperature Coefficient	ppm/°C	-	-18	-
Amplitude Ripple (Fo±9.42MHz)	dB	-	0.65	1.00
Bandwidth at -1dB	MHz	18.84	19.05	-
Bandwidth at -3dB	MHz	-	19.25	-
Bandwidth at -50dB	MHz	-	20.27	20.40
Relative Attenuation				
Fo ± 10.0MHz ~ Fo ± 10.8MHz	dB	-	24	-
Fo ± 10.8MHz ~ Fo ± 14.8MHz	dB	39	55	-
Fo ± 14.8MHz ~ Fo ± 19.8MHz	dB	39	55	-
Fo ± 19.8MHz ~ Fo ± 25.0MHz	dB	49	58	-
Ultimate Rejection	dB	-	50	-

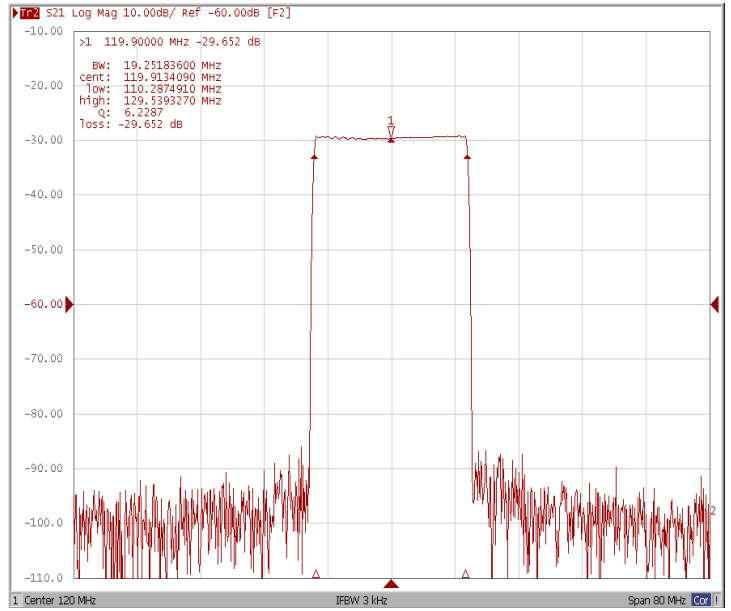


Frequency Response

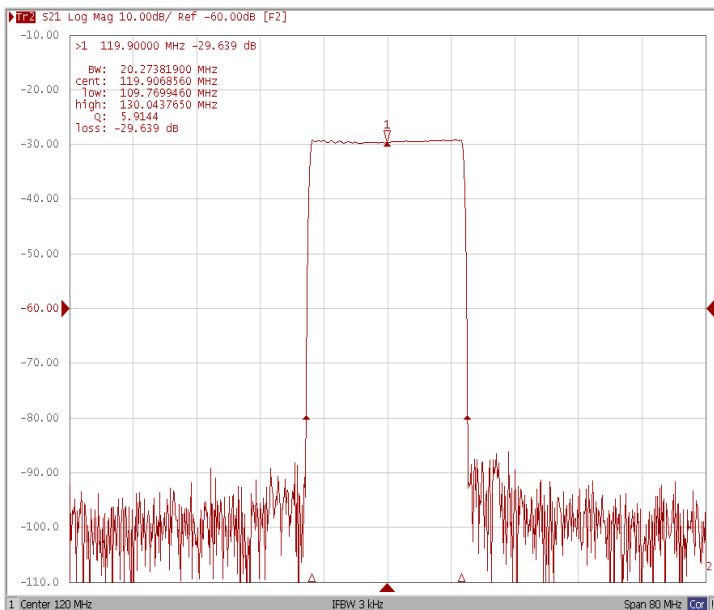
Bandwidth at -1.0 dB



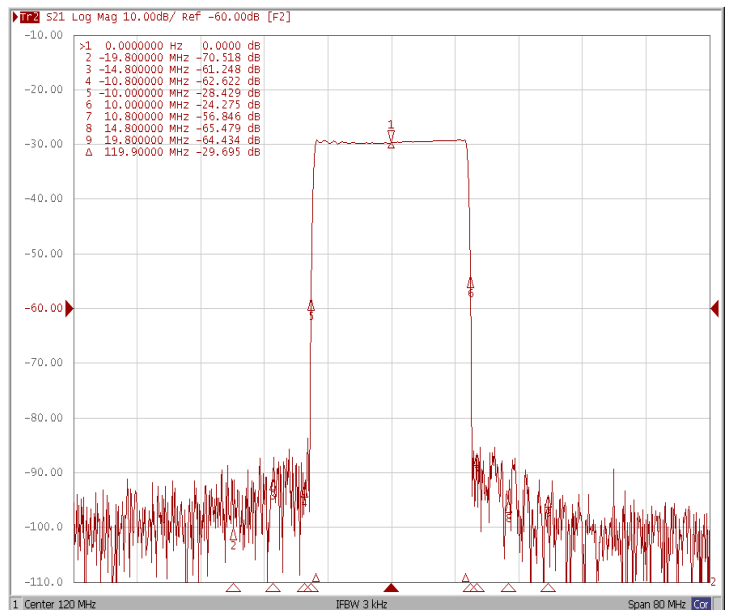
Bandwidth at -3.0 dB



Bandwidth at -50.0 dB

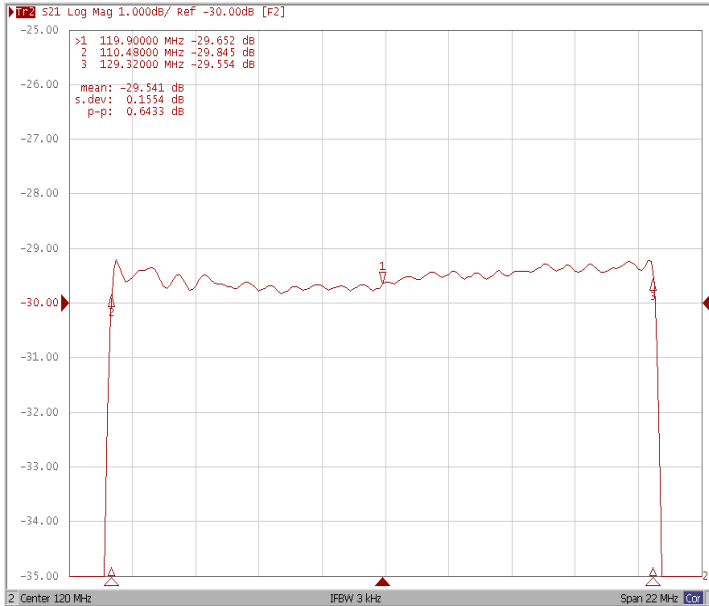


Relative Attenuation

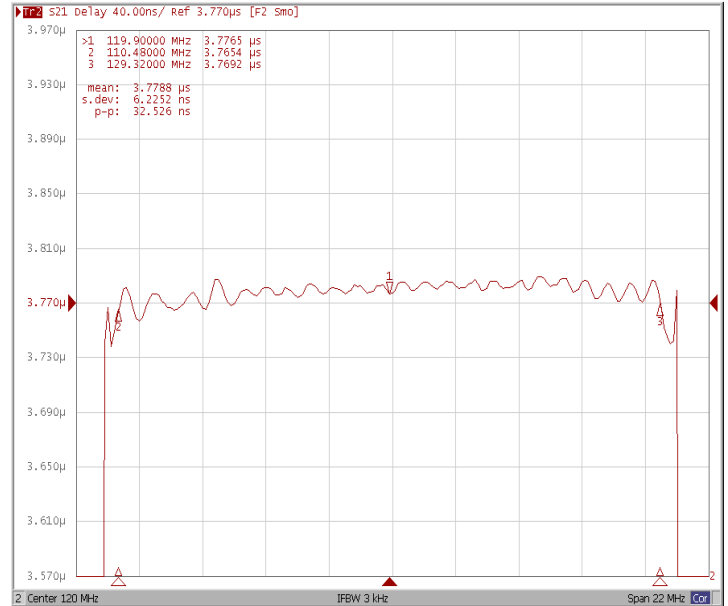




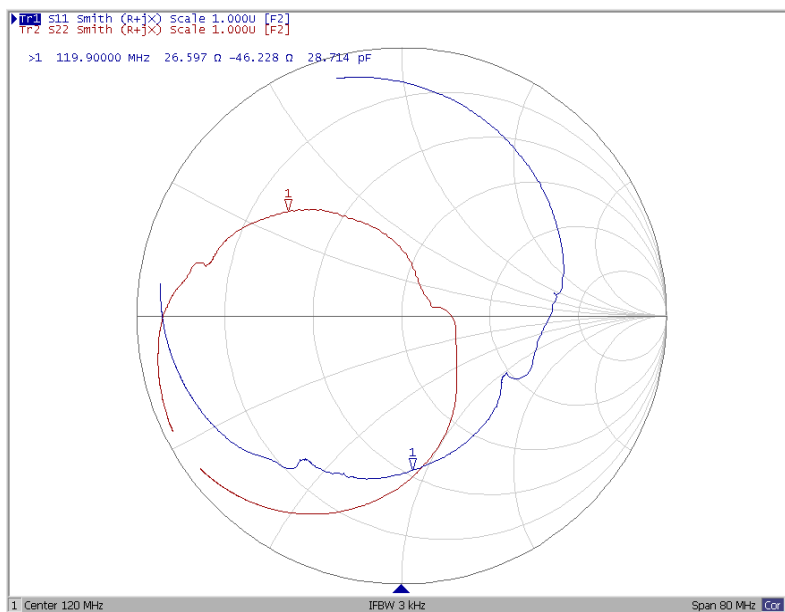
Ripple Variation Fo±9.42MHz



Group Delay Variation Fo±9.42MHz



Smith Chart





VSWR

