



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
835-IF119.9M-19B	19.90MHz IF SAW Filter 19.04 MHz Bandwidth

### Specification Contents

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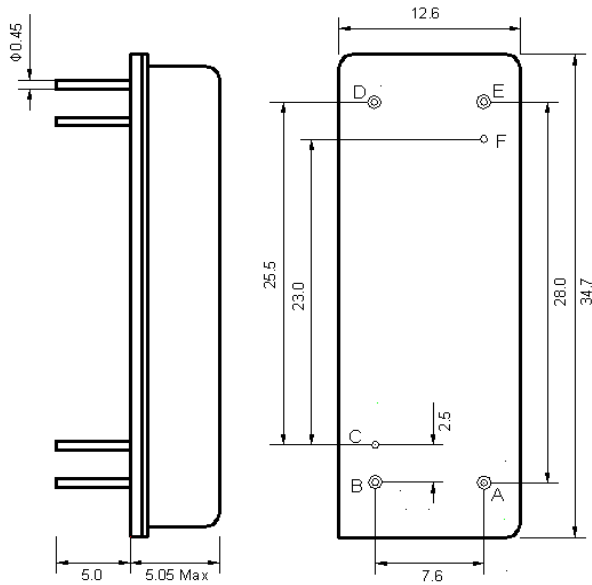
### Notes

- 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)



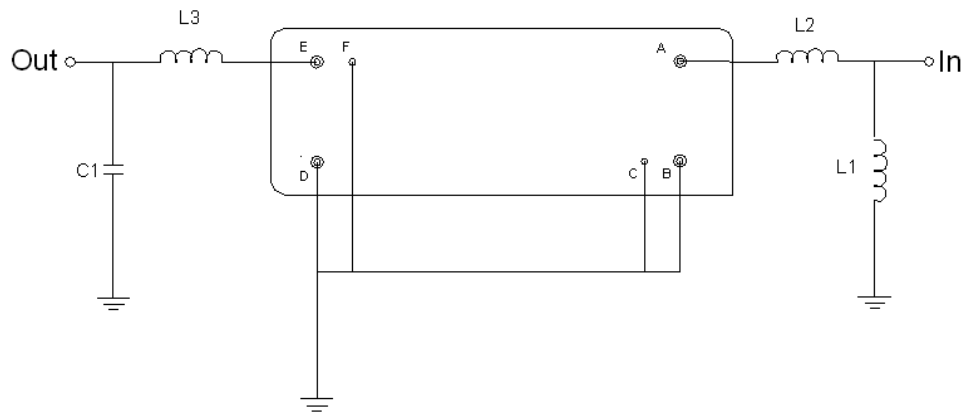


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=12 nH, L2=27 nH
Output	L3=56 nH, C1=51 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) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	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.

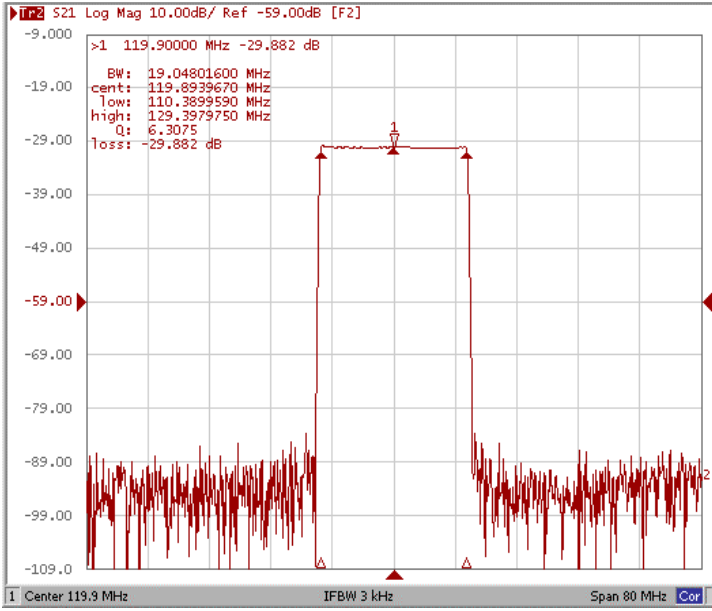
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	119.9	-
Insertion Loss at Fo	dB	-	29.8	31.00
Group Delay Variation (Fo±9.42MHz)	ns	-	50	80
Absolute Delay Time at Fo	us	-	3.9	4.0
Temperature Coefficient	ppm/°C	-	-18	-
Amplitude Ripple (Fo±9.42MHz)	dB	-	0.65	1.00
Bandwidth at -1dB	MHz	18.84	19.04	-
Bandwidth at -3dB	MHz	-	19.20	-
Bandwidth at -50dB	MHz	-	20.17	-
Relative Attenuation				
Fo ± 10.0MHz~ Fo ± 10.8MHz	dBc	24	31	-
Fo ± 10.8MHz~ Fo ± 14.8MHz	dBc	39	55	-
Fo ± 14.8MHz~ Fo ± 14.8MHz	dBc	39	55	-
Fo ± 19.8MHz~ Fo ± 25.0MHz	dBc	49	58	-
Ultimate Rejection	dB	-	50	-

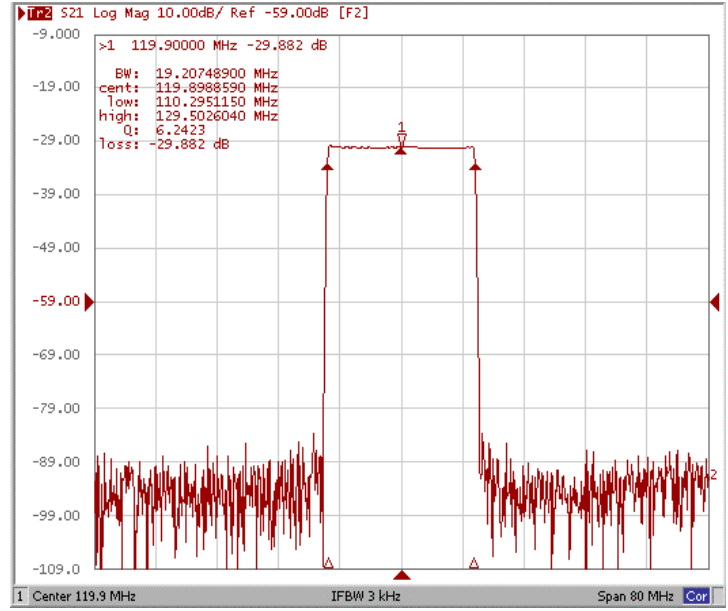


### Frequency Response

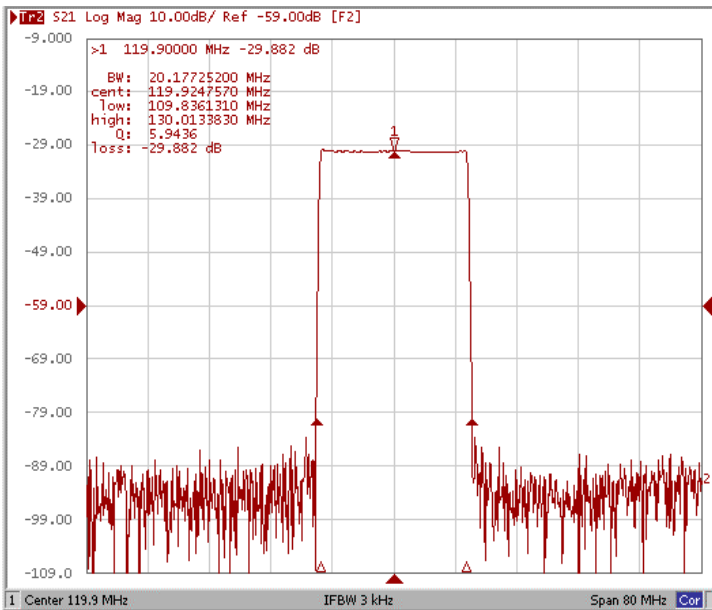
#### Bandwidth at -1.0 dB



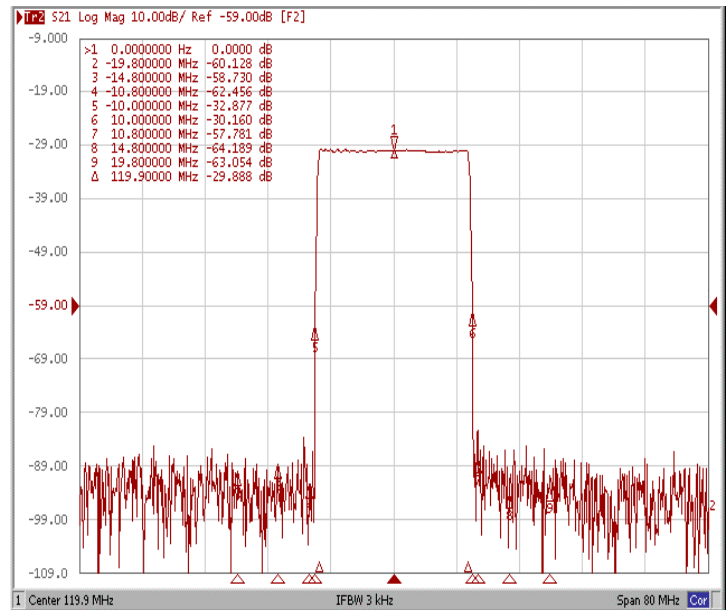
#### Bandwidth at -3.0 dB



#### Bandwidth at -50.0 dB

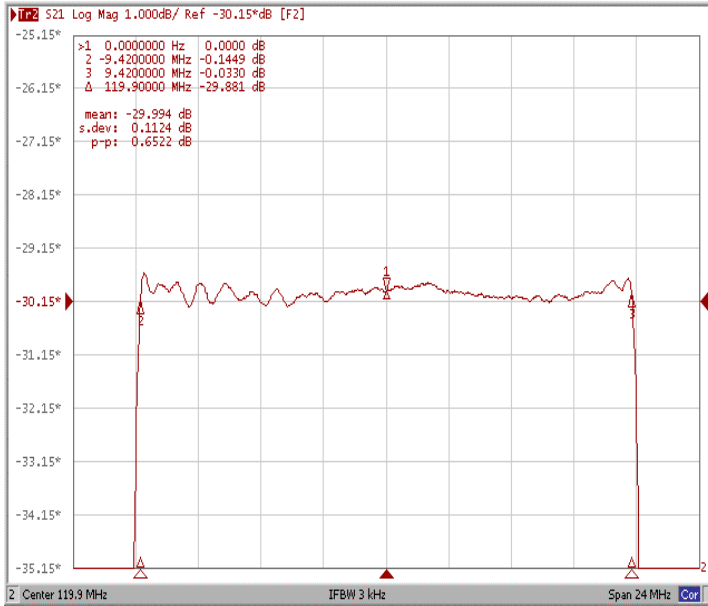


#### Relative Attenuation

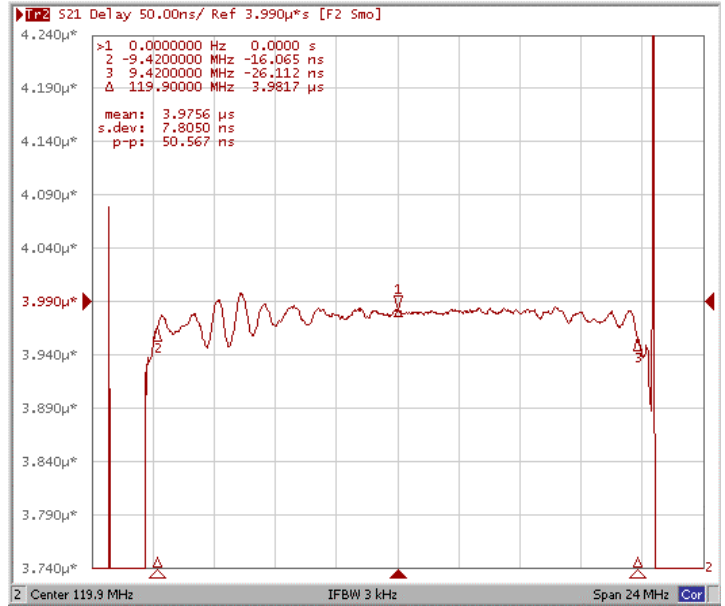




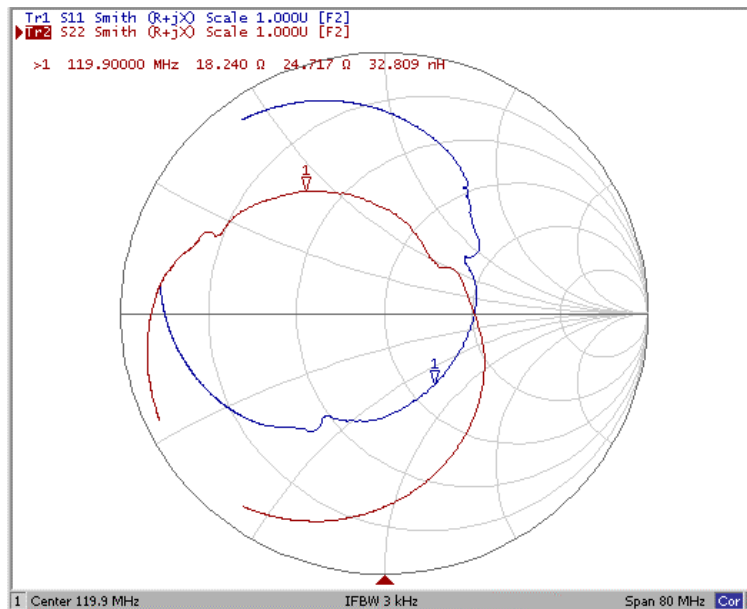
### Ripple Variation Fo±9.42MHz



### Group Delay Variation Fo±9.42MHz



### Smith Chart





### VSWR

