



PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
835-IF90.1M-19A	90.1MHz IF SAW Filter 19.10MHz Bandwidth

Specification Contents

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

Notes

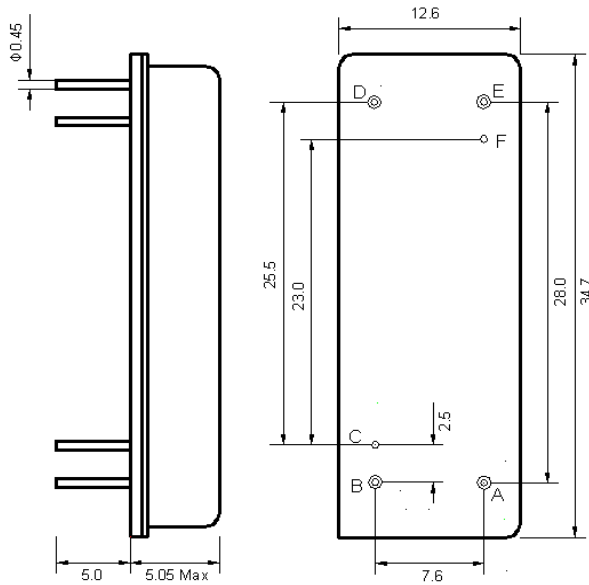
- o Electrostatic Sensitive Device (ESD) 
- o Avoid excessive ultrasonic exposure
- o Solderability compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature
- o This product complies with EU directive 2002/95/EC (RoHS compliance)



Oscilent Corporation
Telephone: 1.949.252.0522
Fax: 1.949.252.0522
Email: sales@oscilent.com

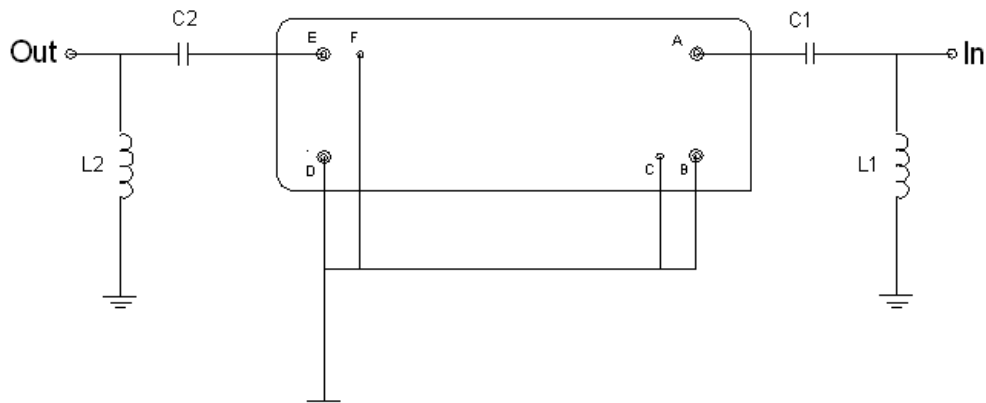


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=120 nH, C1=91pF
Output	L2=91 nH, C2=120pF
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-	25	-
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	-	90.01	-
Insertion Loss at Fo	dB	-	27.8	30.0
Group Delay Variation (Fo±9.42MHz)	ns	-	40	80
Absolute Delay Time at Fo	us	-	3.6	-
Temperature Coefficient	ppm/°C	-	-18	-
Amplitude Ripple (Fo±9.42MHz)	dB	-	1.08	1.20
Bandwidth at -1dB	MHz	18.84	19.10	-
Bandwidth at -3dB	MHz	-	19.26	-
Bandwidth at -50dB	MHz	-	20.11	-
Relative Attenuation				
Fo ± 10.0MHz~ Fo ± 10.8MHz	dBc	24	33	-
Fo ± 10.8MHz~ Fo ± 14.8MHz	dBc	39	58	-
Fo ± 14.8MHz~ Fo ± 19.8MHz	dBc	39	60	-
Fo ± 19.8MHz~ Fo ± 25.0MHz	dBc	49	60	-
Ultimate Rejection	dB	-	50	-



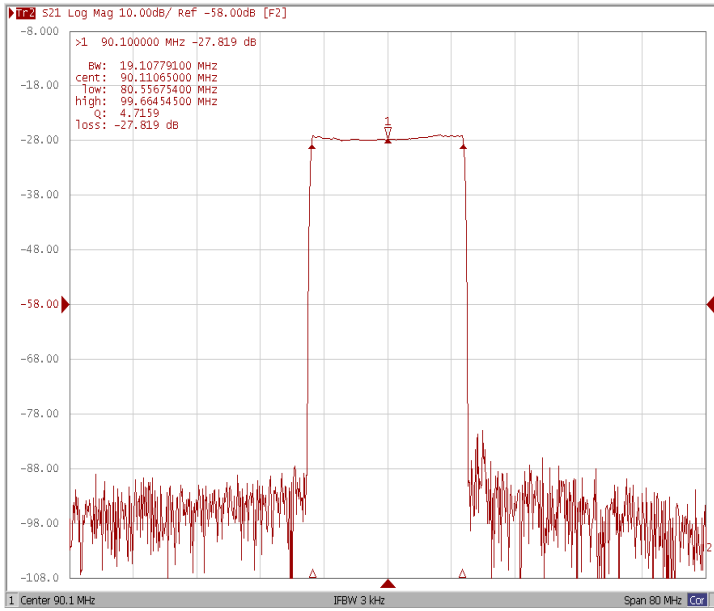
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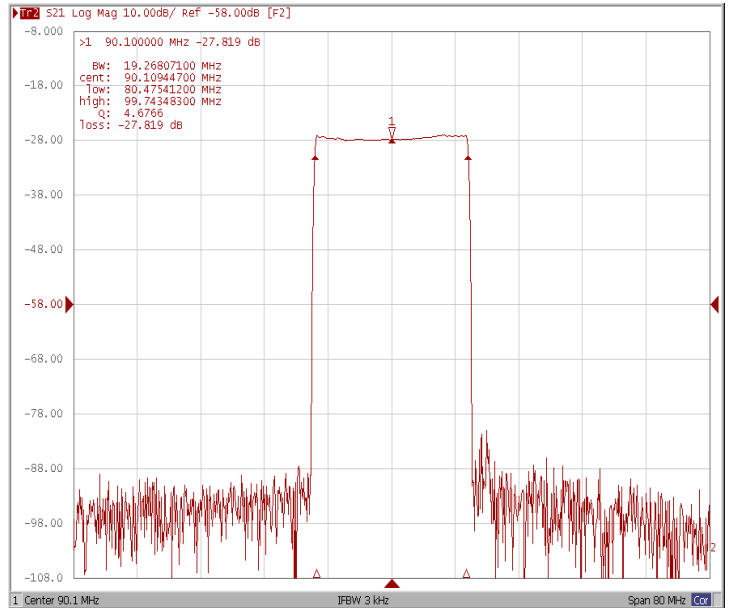
90.1MHz IF SAW Filter 19.10MHz Bandwidth

Frequency Response

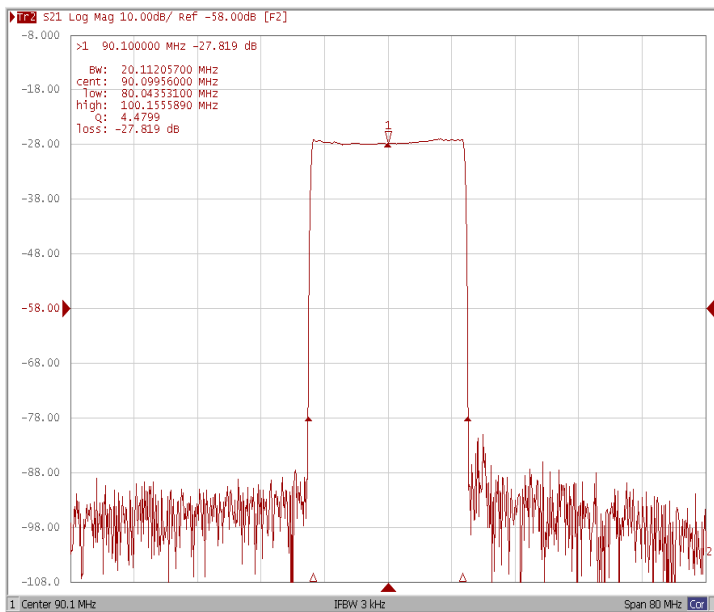
Bandwidth at -1.0 dB



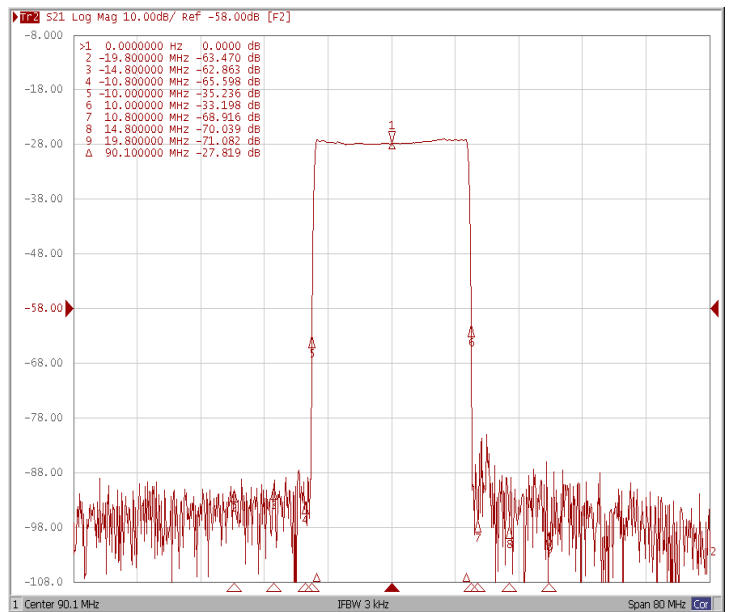
Bandwidth at -3.0 dB



Bandwidth at -50.0 dB

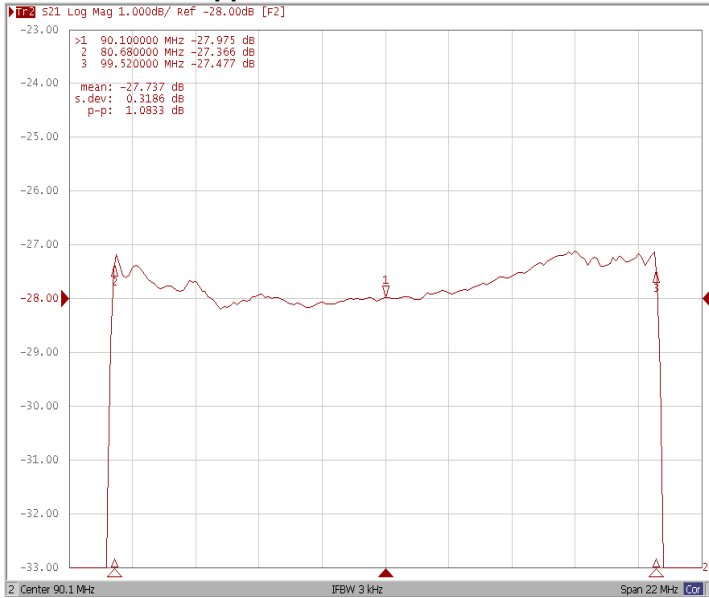


Relative Attenuation

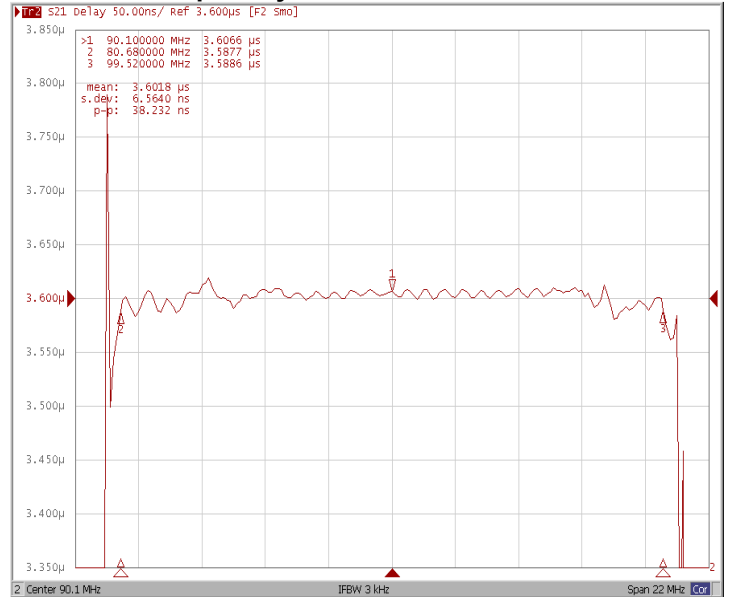




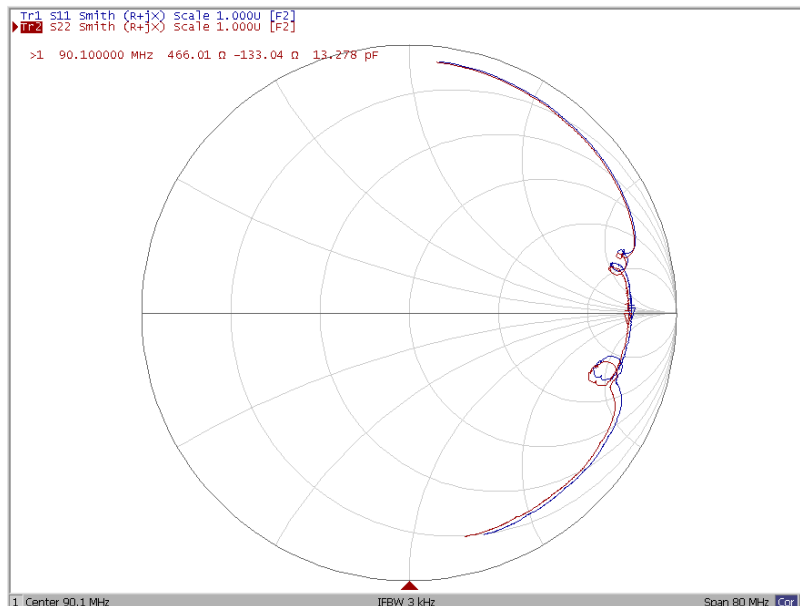
Ripple Variation Fo±9.42MHz



Group Delay Variation Fo±9.42MHz



Smith Chart





VSWR

