PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
835-IF82.8M-03A	82.8MHz IF SAW Filter 4.0 MHz Bandwidth

Specification Contents

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

Notes

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

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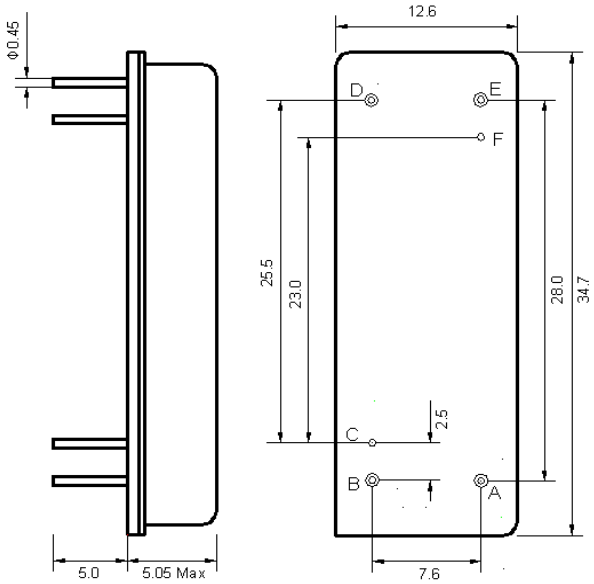
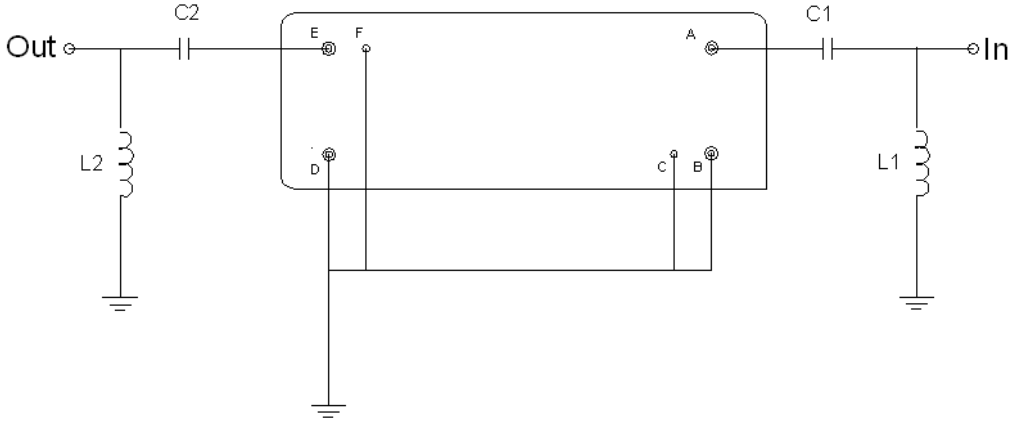
Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=82nH, C1=200pF
Output	L2=82nH, C2=200pF
Source/Load Impedance	50 Ω

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-	25	-
Storage Temperature Range	°C	-40	-	80
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended)(1)	Ω	-	50	-
Load Impedance (single ended)(1)	Ω	-	50	-

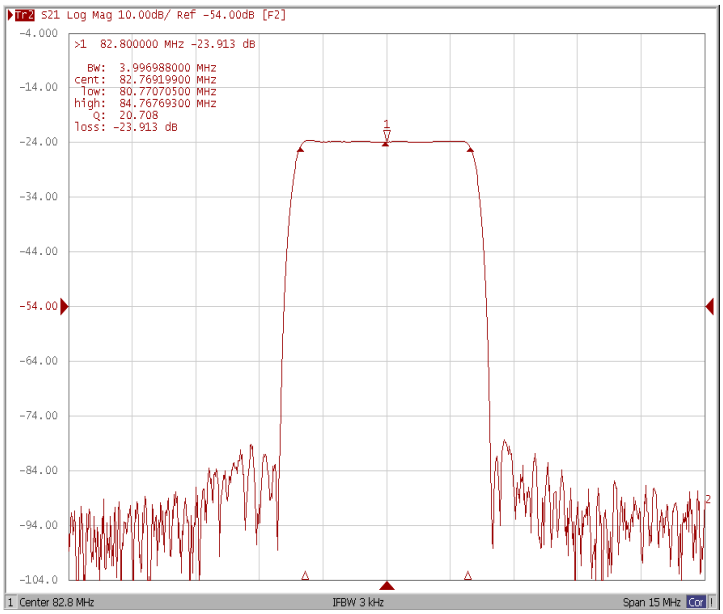
Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Electrical Specification

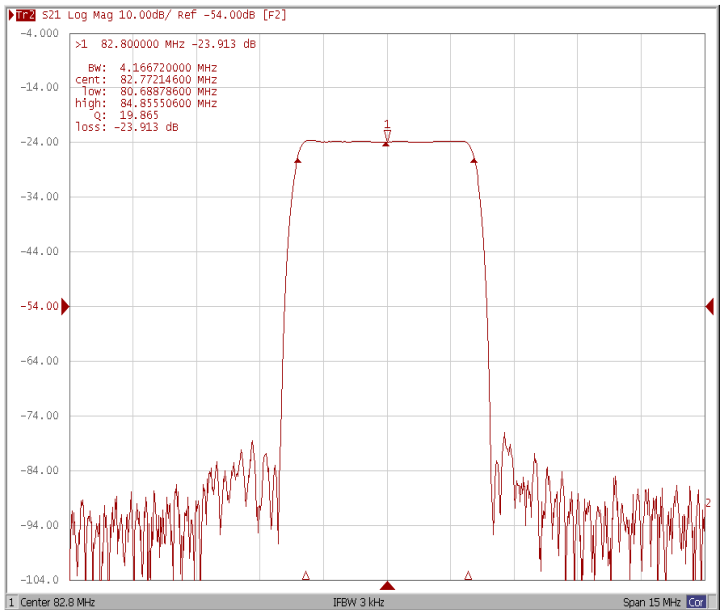
Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	82.8	-
Insertion Loss at Fo	dB	-	24.0	26.0
Group Delay Variation (Fo±1.92MHz)	ns	-	78	120
Absolute Delay Time at Fo	us	-	5.16	-
Temperature Coefficient	ppm/°C	-	-20	-
Amplitude Ripple (Fo±1.92MHz)	dB	-	0.76	-
Bandwidth at -1.0dB	MHz	3.84	4.00	-
Bandwidth at -3.0dB	MHz	-	4.16	-
Bandwidth at -40dB	MHz	-	4.87	-
Bandwidth at -50dB	MHz	-	4.93	5.0
Ultimate Rejection	-	50	55	-

Frequency Response

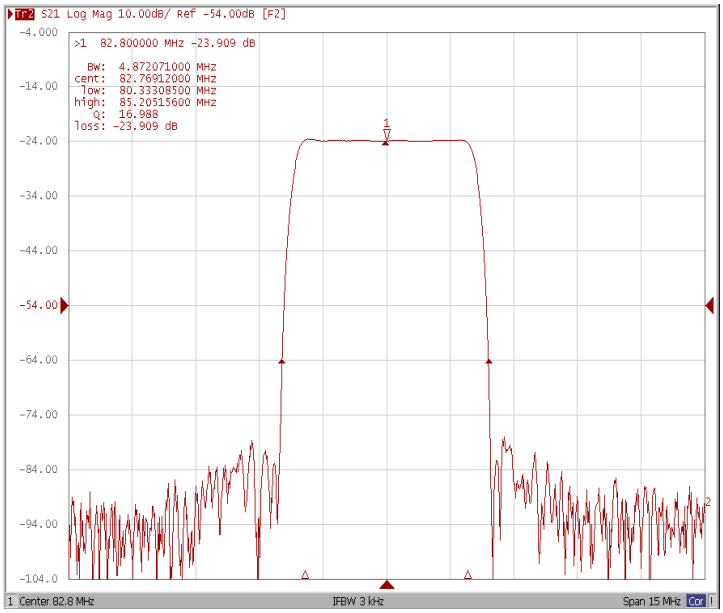
Bandwidth at –1.0 dB



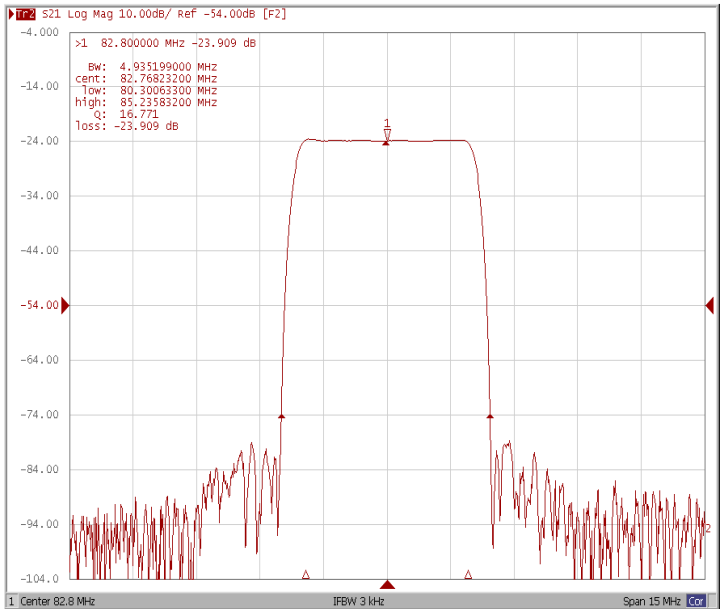
Bandwidth at –3.0 dB



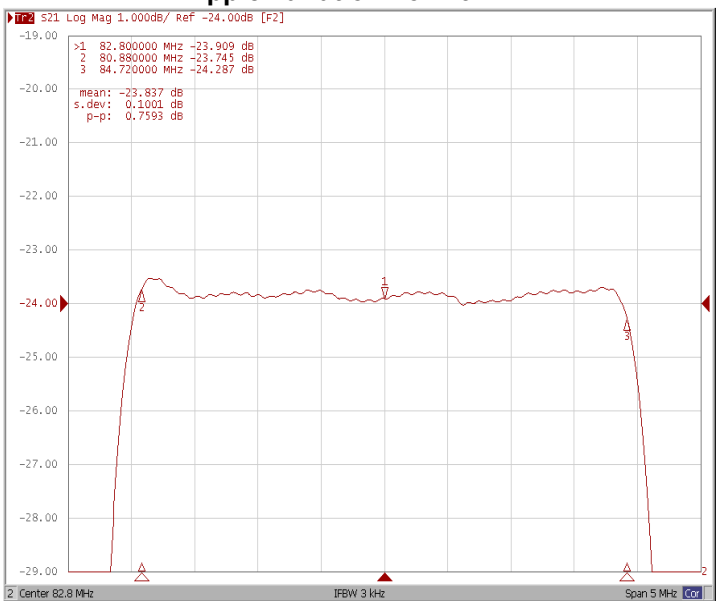
Bandwidth at –40.0 dB



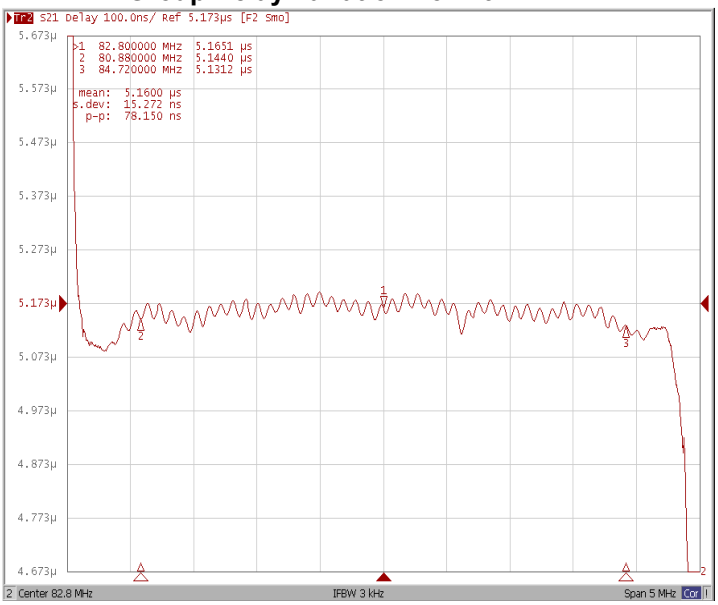
Bandwidth at –50.0 dB



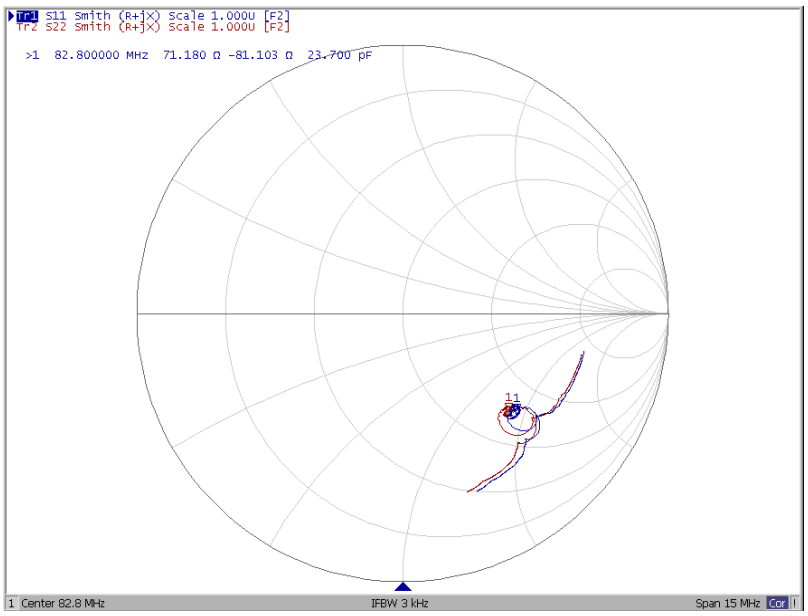
Ripple Variation Fo±1.92MHz



Group Delay Variation Fo±1.92MHz



Smith Chart



VSWR

Tr1 S11 SWR 1.000/ Ref 1.000 [F2]
Tr2 S22 SWR 1.000/ Ref 1.000 [F2]
>1 82.800000 MHz 3.7020
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 82.8 MHz
IFBW 3 kHz
Span 15 MHz