PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL87.5M-02A	87.50 MHz IF SAW Filter 2.4 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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Oscilent Part Number

813-SL87.5M-02A

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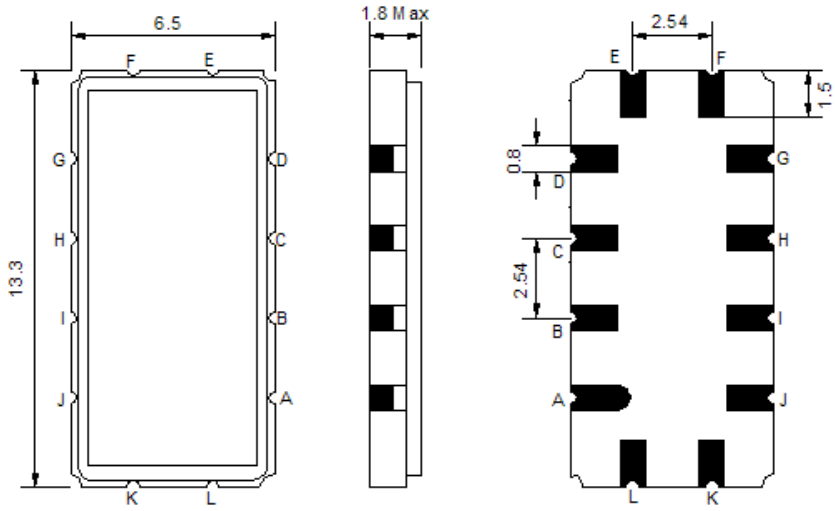
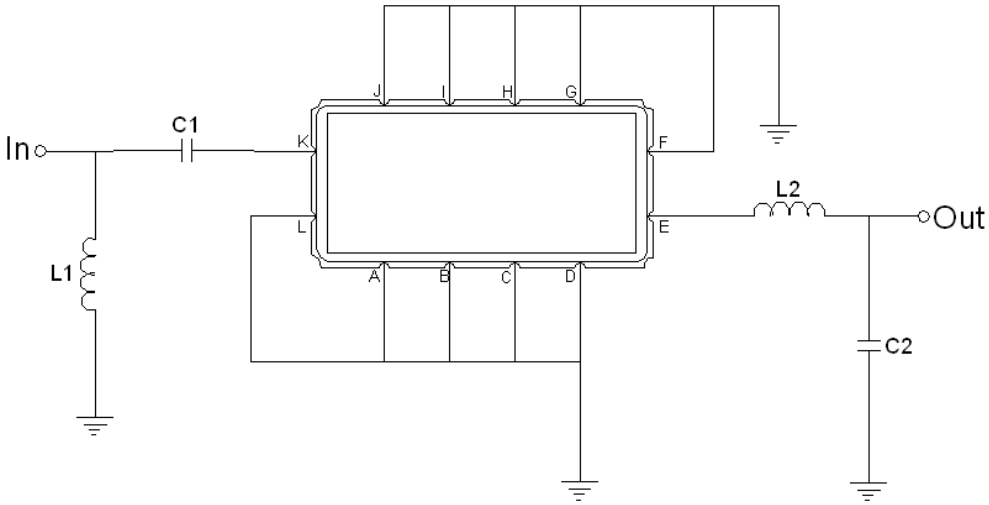
87.50 MHz IF SAW Filter 2.4 MHz Bandwidth

Mechanical Dimensions (mm)



Pin Description	
A, B, C, D, F, G, H, I, J, L	Ground
K	Input
E	Output

Test Circuit



Test Fixture & Values	
Input	L1 = 56 nH, C1 = 160 pF
Output	L2 = 47 nH, C2 = 100 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	-

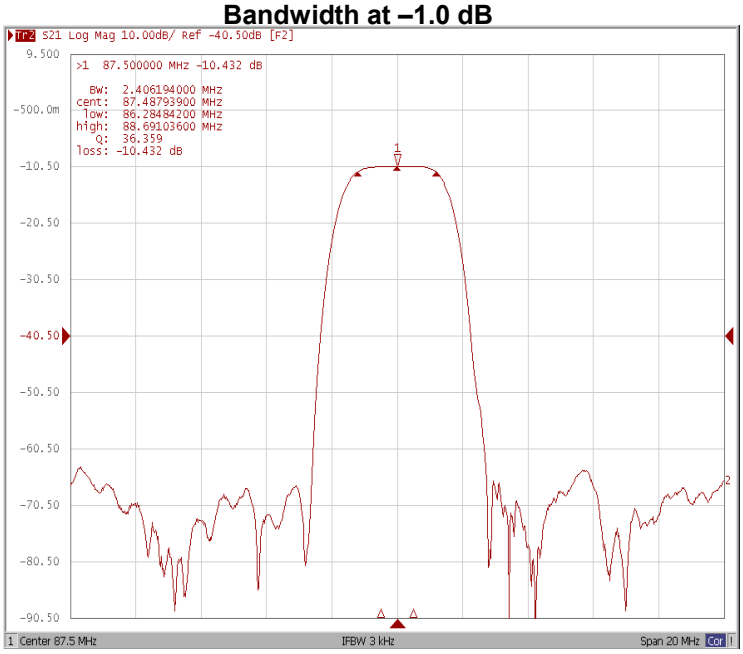
Notes: With Matching Network (Ref. Testing Environment Circuit as shown above).
Those impedances could be modified with different impedance values and/or structures, if necessary.

Electrical Specification

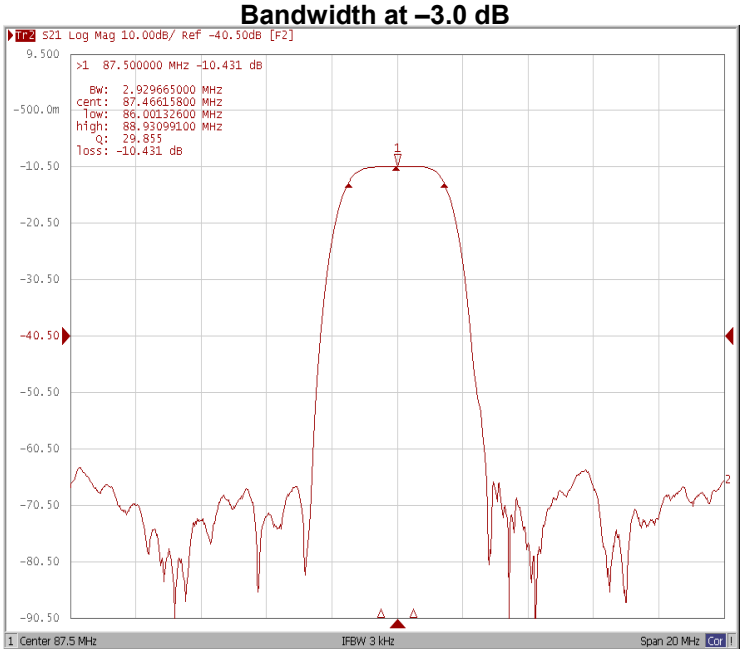
Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	87.38	87.50	87.62
Insertion Loss at Fo	dB	-	10.5	13.0
Group Delay Variation (Fo±500KHz)	nsec	-	15	50
Absolute Delay at Fo	usec	-	1.32	-
Passband Ripple Variation (Fo±500KHz)	dB	-	0.1	0.6
Bandwidth at -1dB	MHz	2.0	2.4	-
Bandwidth at -3dB	MHz	-	2.9	-
Bandwidth at -40dB	MHz	-	4.9	5.5
Ultimate Rejection	dB	40	48	-
Phase Linearity (Fo±500KHz)	deg_{p-p}	-	1.0	5.0
Temperature Coefficient	ppm/°C	-	-18	-

Frequency Response

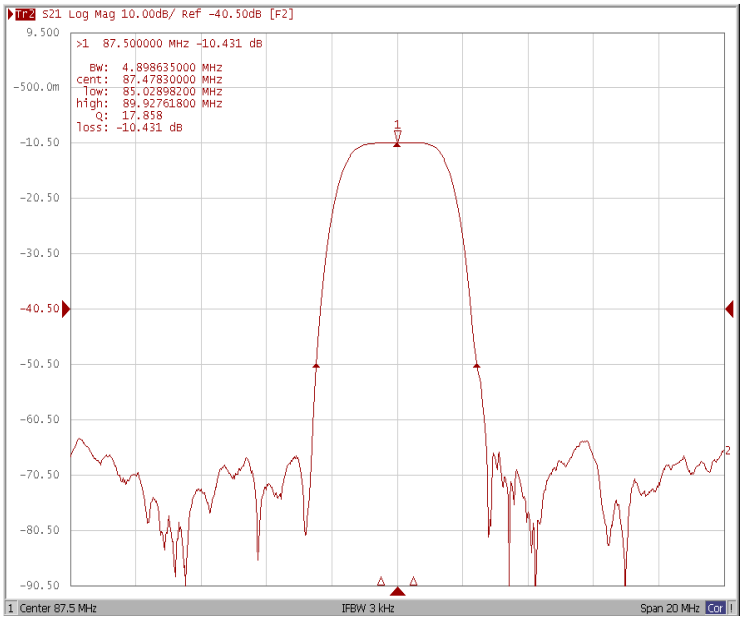
Bandwidth at –1.0 dB



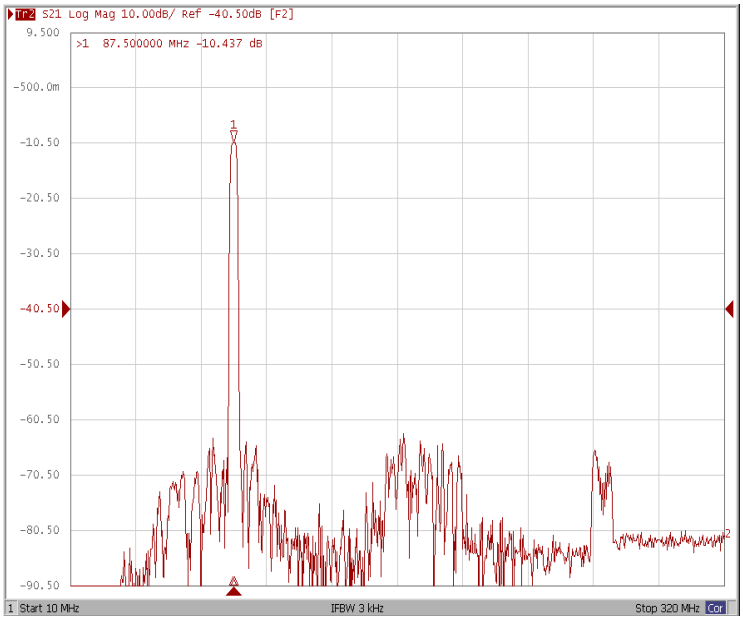
Bandwidth at –3.0 dB



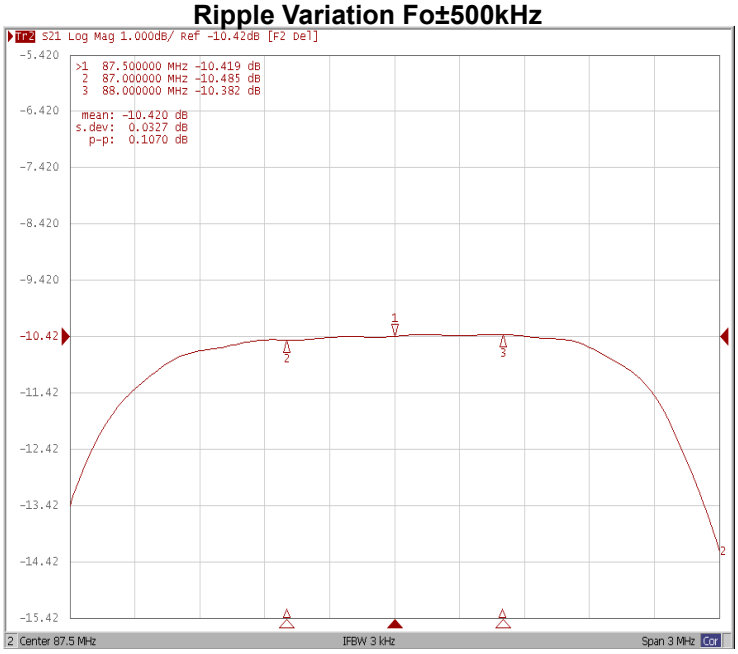
Bandwidth at –40 dB



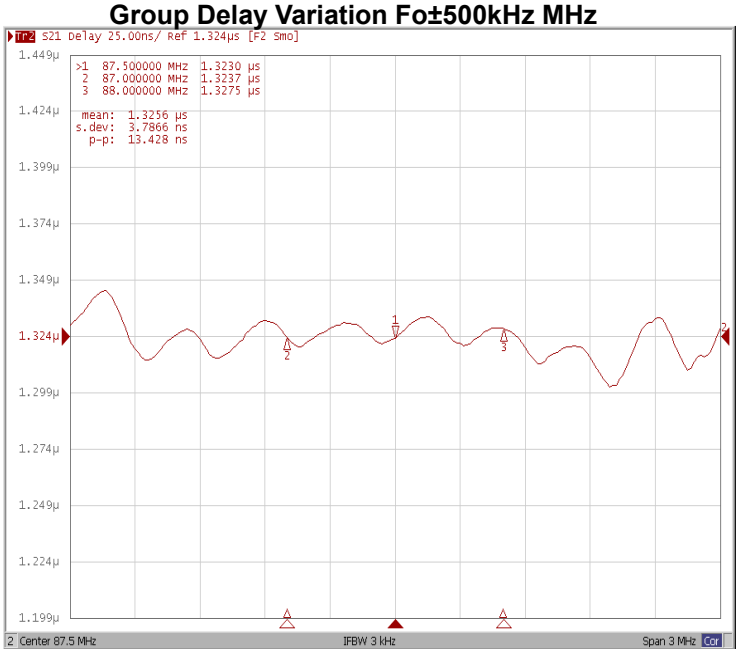
Wide Band



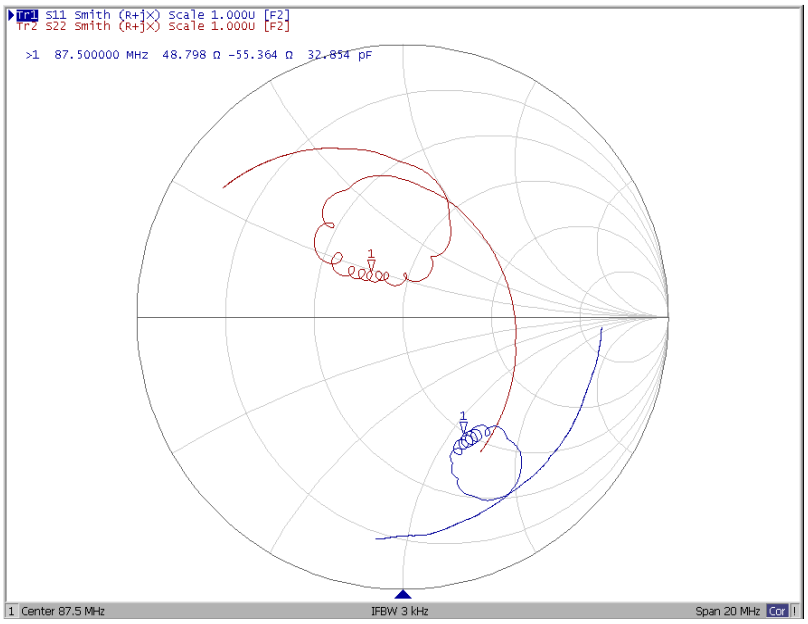
Ripple Variation Fo±500kHz



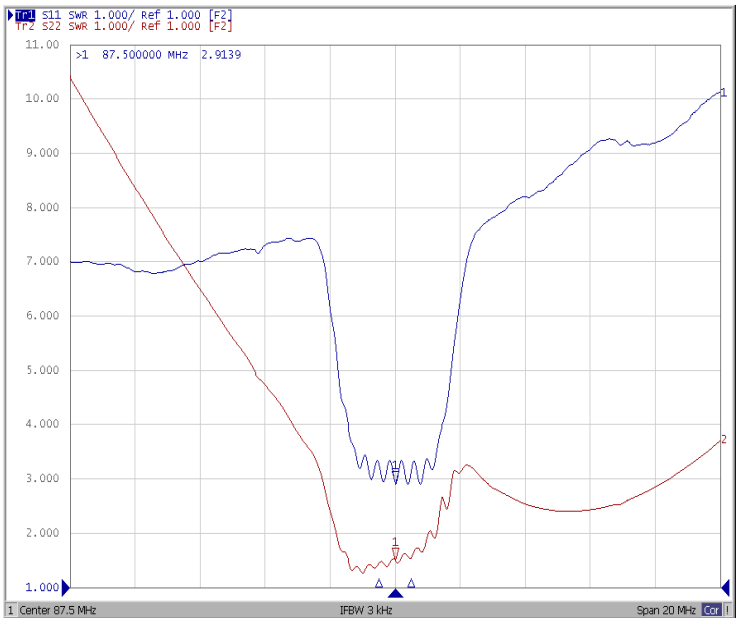
Group Delay Variation Fo±500kHz MHz



Smith Chart



VSWR


Tr1 S11 SWR 1.000/ Ref 1.000 [F2]
Tr2 S22 SWR 1.000/ Ref 1.000 [F2]
>1 87.500000 MHz 2.9139
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 87.5 MHz
IFBW 3 kHz
Span 20 MHz