



PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL138.24M-20A	38.24 MHz IF SAW Filter 21.95 MHz Bandwidth

Specification Contents

- o Mechanical Dimensions
- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
- o Frequency Response
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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)



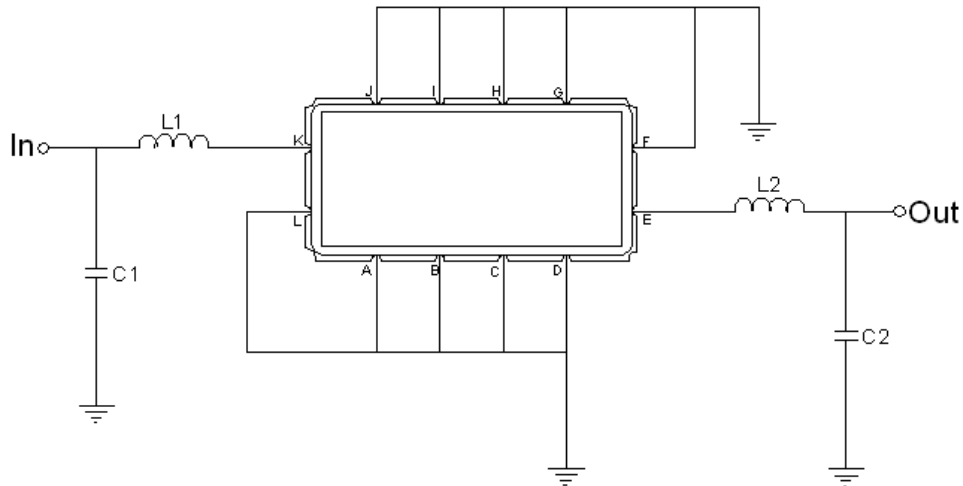


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1 = 47 nH, C1 = 27 pF
Output	L2 = 56 nH, C2 = 27 pF
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-40	-	85
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.

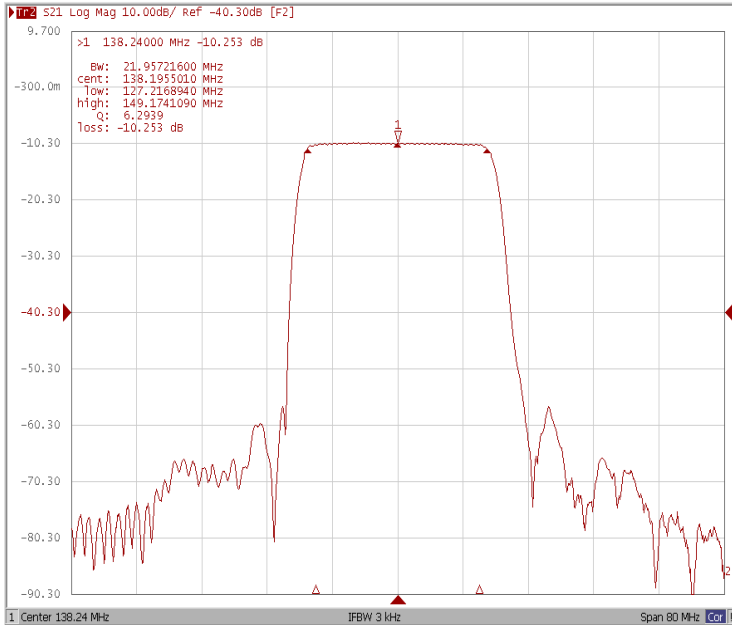
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	138.24	-
Insertion Loss at Fo	dB	-	10.2	12.00
Group Delay Variation (128.24MHz ~ 148.24MHz)	nsec	-	26.8	50
Absolute Delay at Fo	usec	-	0.85	-
Passband Ripple Variation (128.24MHz~148.24MHz)	dB	-	0.5	1.0
Bandwidth at -1dB	MHz	-	21.95	-
Bandwidth at -3dB	MHz	-	23.23	-
Bandwidth at -40dB	MHz	-	28.25	30
Relative Attenuation				
@ 0 MHz ~ 108.24 MHz	dB	58	60	-
@108.24MHz ~ 117.52MHz	dB	52	56	-
@122.88MHz	dB	45	60	-
@220.4MHz ~ 271.12MHz	dB	58	80	-
@271.12MHz ~ 1000MHz	dB	40	60	-
Temperature Coefficient	ppm/°C	-	-86	-

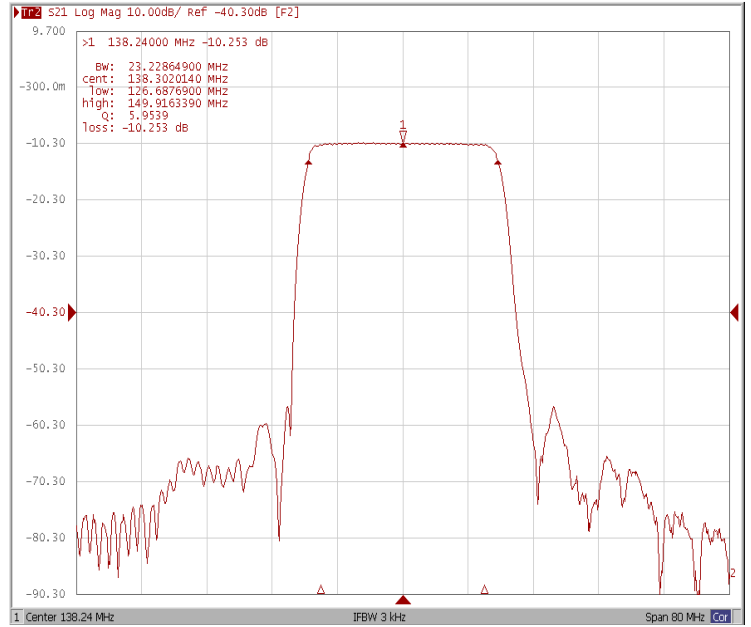


Frequency Response

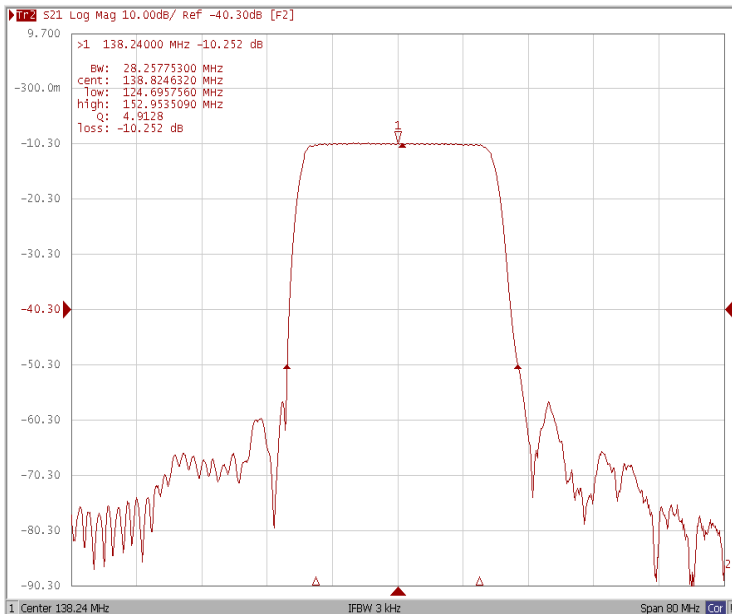
Bandwidth at -1.0 dB



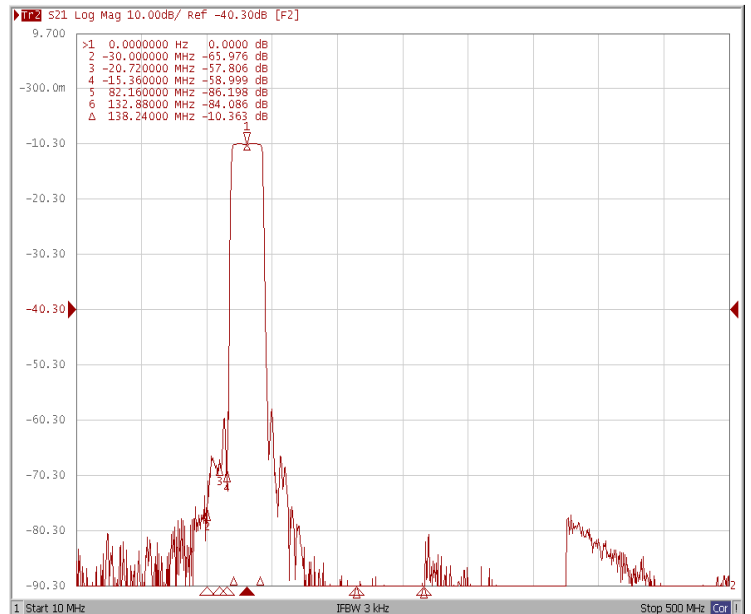
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

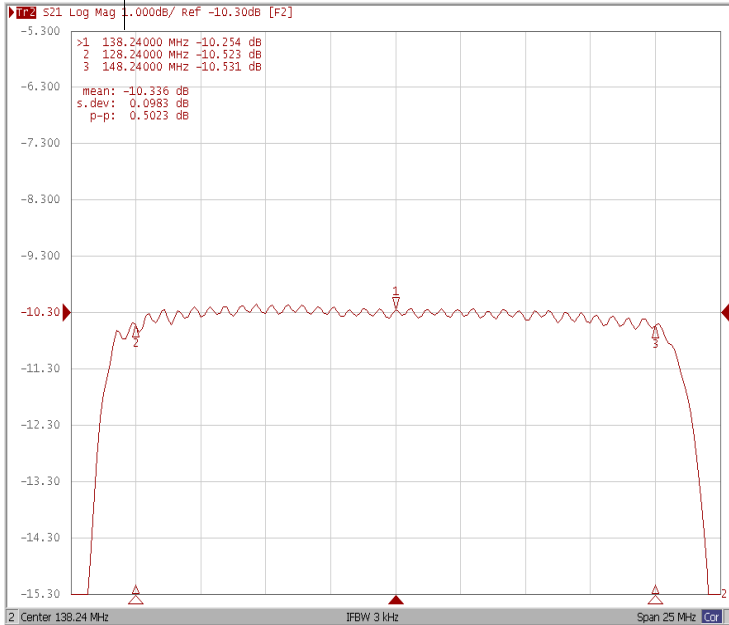


Relative Attenuation

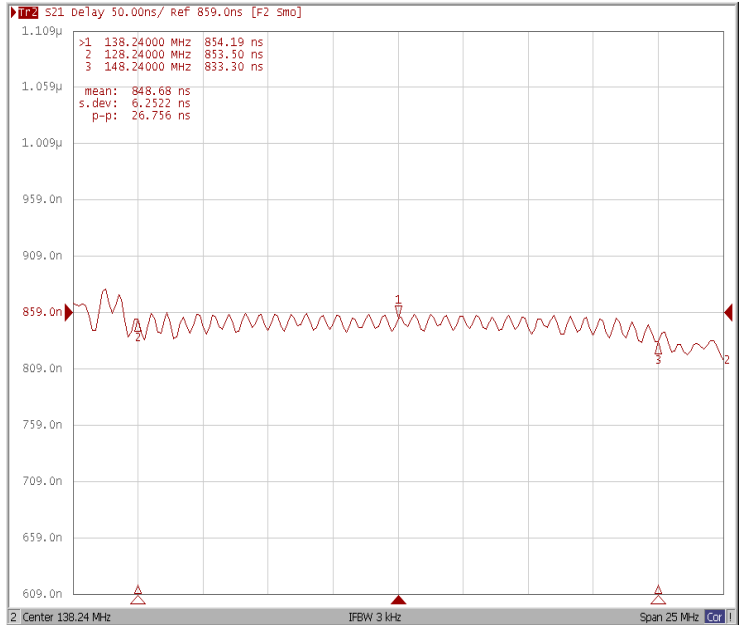




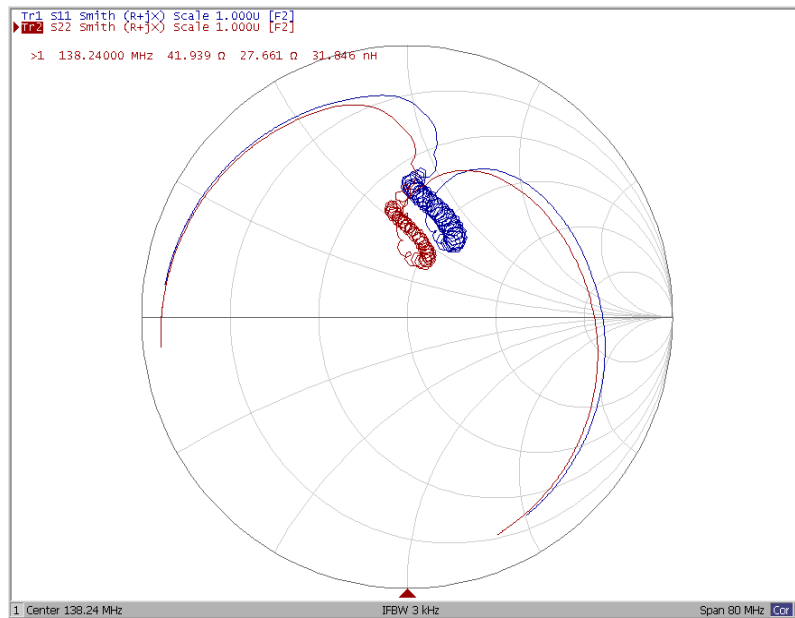
Ripple Variation (128.24MHz ~ 148.24MHz)



Group Delay Variation F(128.24MHz ~ 148.24MHz)



Smith Chart





VSWR

