



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL104.0M-05A	104.0MHz IF SAW Filter 5.60MHz Bandwidth

Specification Contents

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- o Test Circuit
- o Maximum Ratings
- o Electrical Specification
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- o Smith Chart
- o VSWR

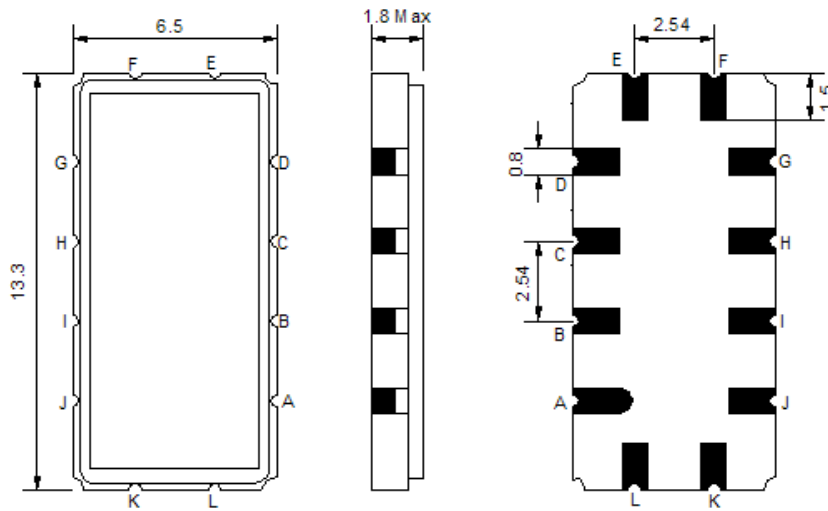
Notes

- 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)



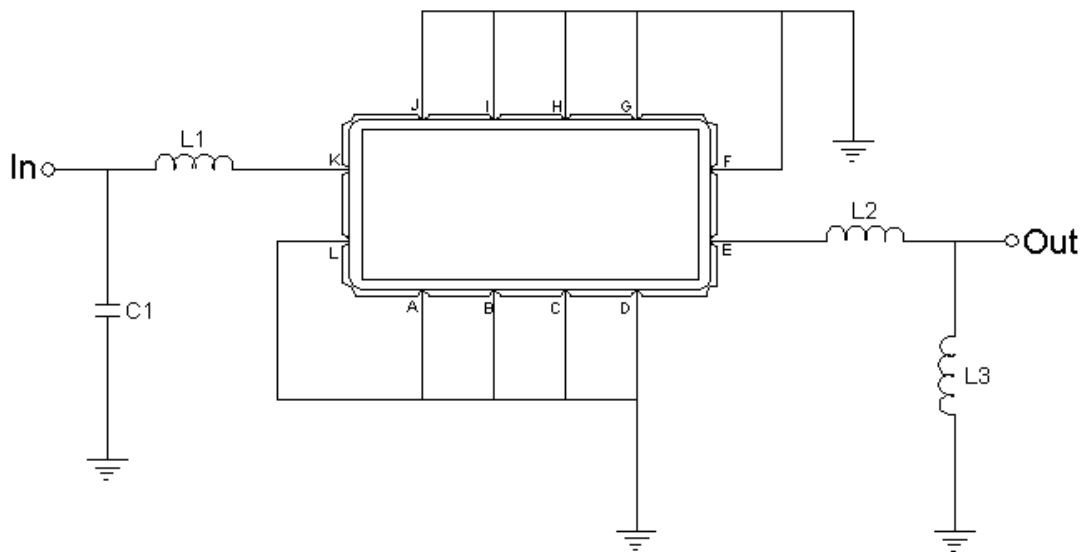


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=82nH, C1=47pF
Output	L2=18nH, L3=39nH
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	0	-	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	-	104.0	-
Insertion Loss at Fo	dB	-	14.0	15.5
Temperature Coefficient	ppm/°C	-	-18	-
Amplitude Ripple within fo ±2.5 MHz	dB _{p-p}	-	0.50	1.0
Group Delay Variation within fo ±2.5 MHz	nsec	-	60	100
Absolute Delay at Fo	µsec	-	1.63	-
Bandwidth at -1.0 dB	MHz	5.50	5.60	-
Bandwidth at -3.0 dB	MHz	-	5.98	-
Bandwidth at -40.0 dB	MHz	-	7.70	8.00
Relative Attenuation:				
Fo ±4.0 MHz	dB	-	50	-
Lower Sidelobe	dB	45	50	-
Upper Sidelobe	dB	45	50	-



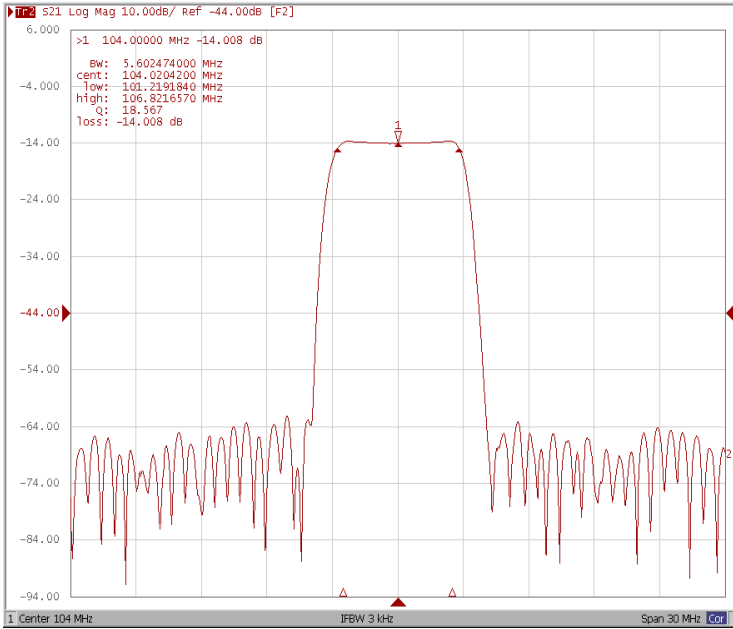
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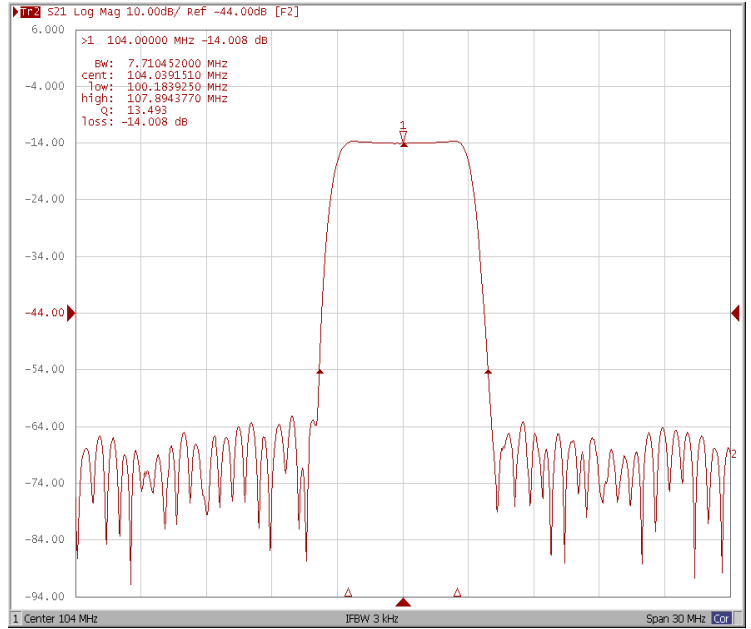
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Frequency Response

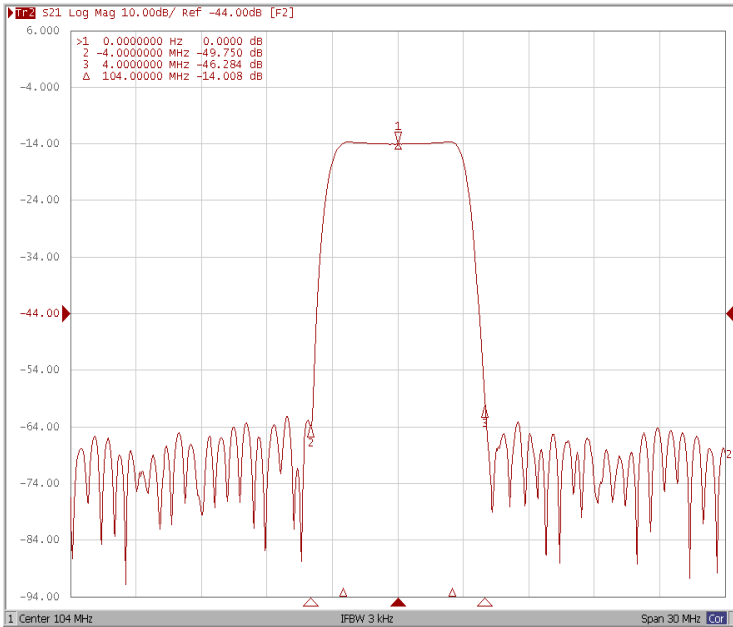
Bandwidth at -1.0 dB



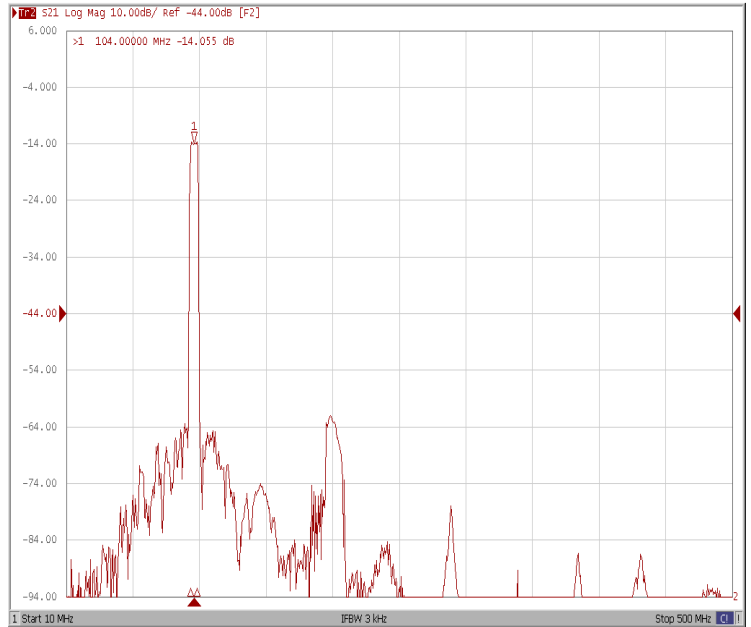
Bandwidth at -40.0 dB



Attenuation Fo±4.0MHz

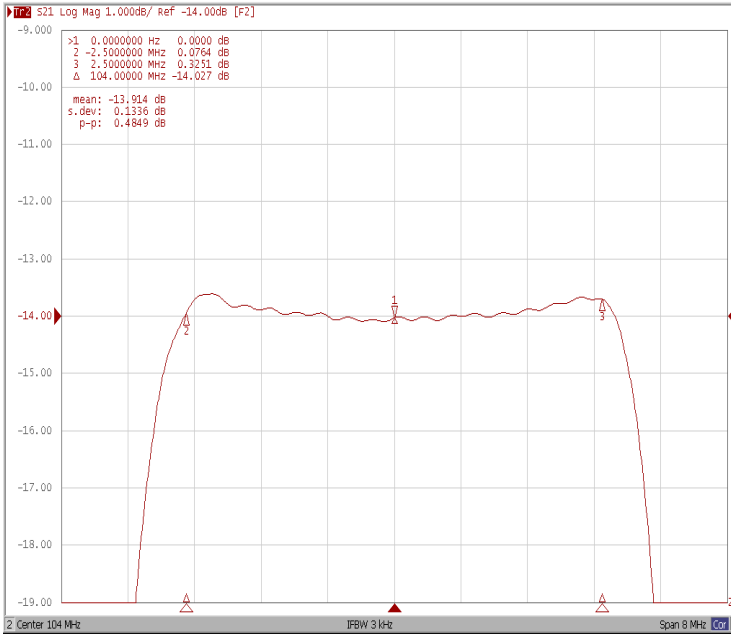


Wide-Band

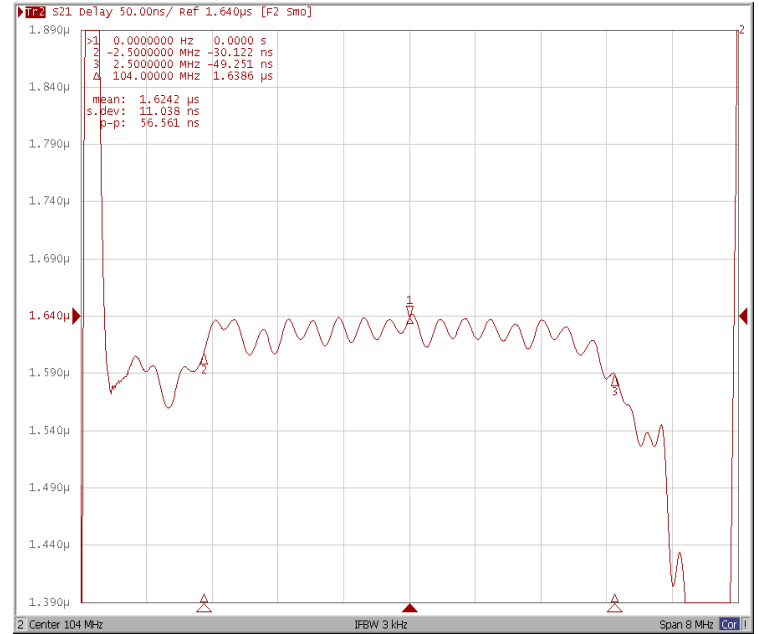




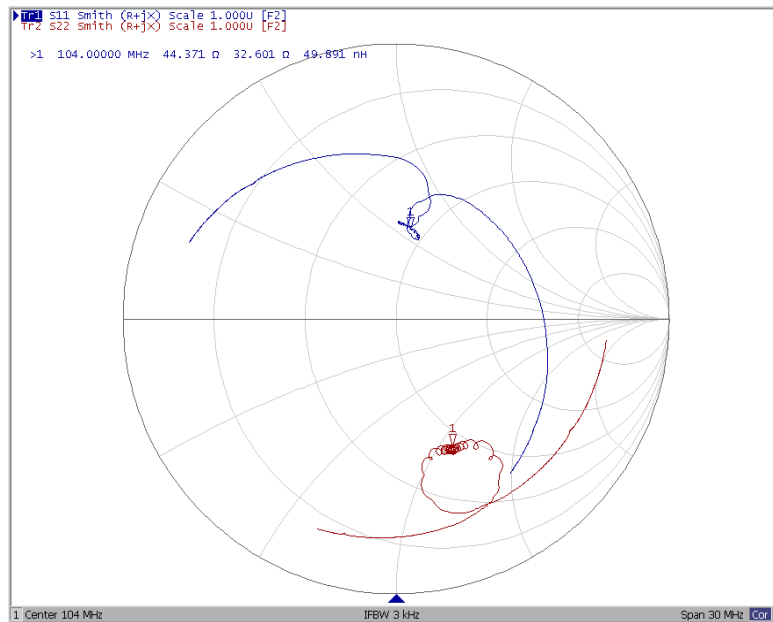
Ripple Variation Fo±2.5MHz



Group Delay Variation Fo±2.5MHz



Smith Chart





VSWR

