



Oscilent Corporation

PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF120.0M-11B	120.0MHz IF SAW Filter 11.47MHz Bandwidth

Specification Contents

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

Notes

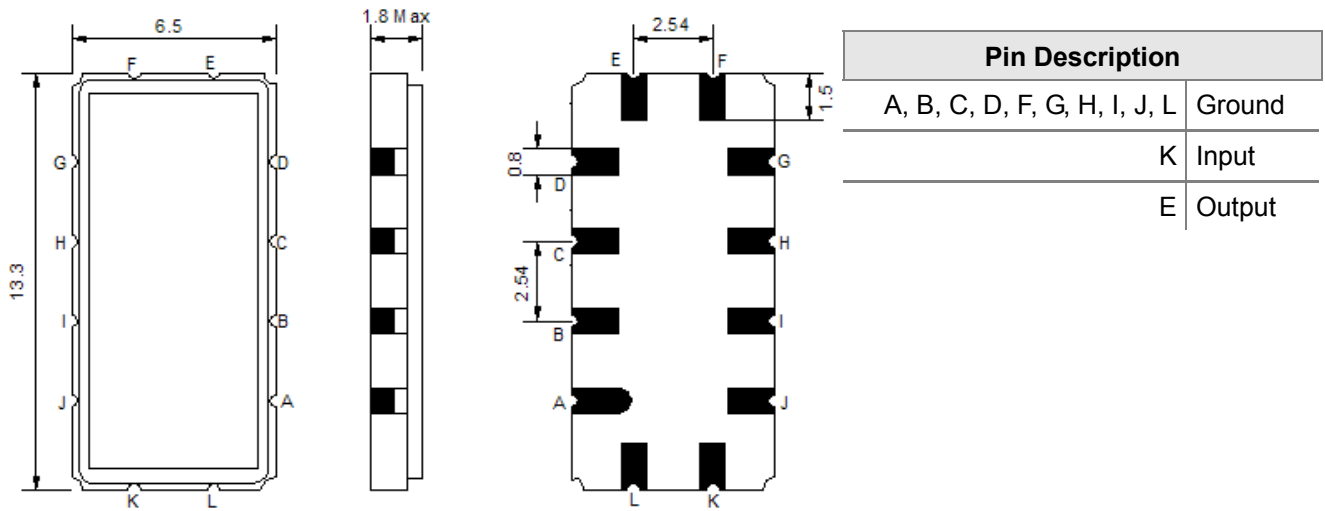
- o Electrostatic Sensitive Device (ESD) 
- o Avoid excessive ultrasonic exposure
- o Solderability compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature
- o This product complies with EU directive 2002/95/EC (RoHS compliance)



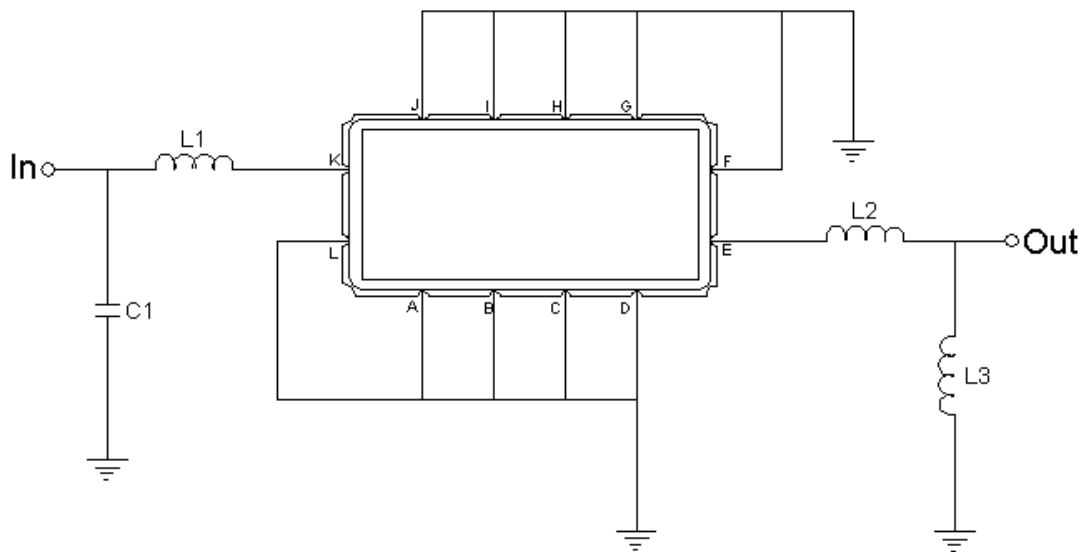
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Mechanical Dimensions (mm)



Test Circuit



Test Fixture & Values	
Input	L1 = 82 nH, C1 = 14 pF
Output	L2 = 33 nH, L3 = 39 nH
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.

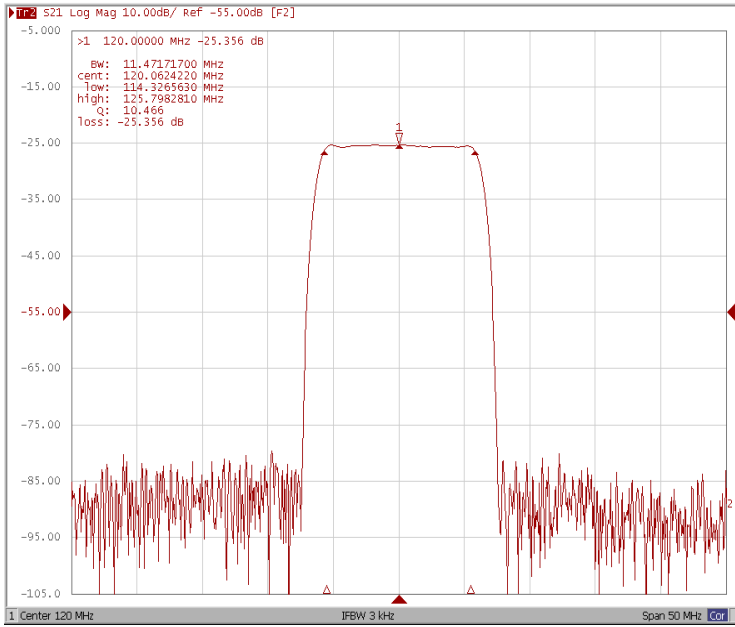
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	120.0	-
Insertion Loss at Fo	dB	-	25.4	27.0
Temperature Coefficient	ppm/°C	-	-18	-
Amplitude Ripple within fo ±5.5 MHz	dB _{p-p}	-	0.45	1.0
Group Delay Variation within fo ±5.5 MHz	nsec	-	30	70
Absolute Delay at Fo	µsec	-	2.16	-
Bandwidth at -1.0 dB	MHz	11.00	11.47	-
Bandwidth at -3.0 dB	MHz	-	12.10	-
Bandwidth at -40.0 dB	MHz	-	14.57	-
Relative Attenuation:				
Fo ±7.5 MHz	dB	45	50	
Lower Sidelobe	dB	50	55	-
Upper Sidelobe	dB	50	55	-

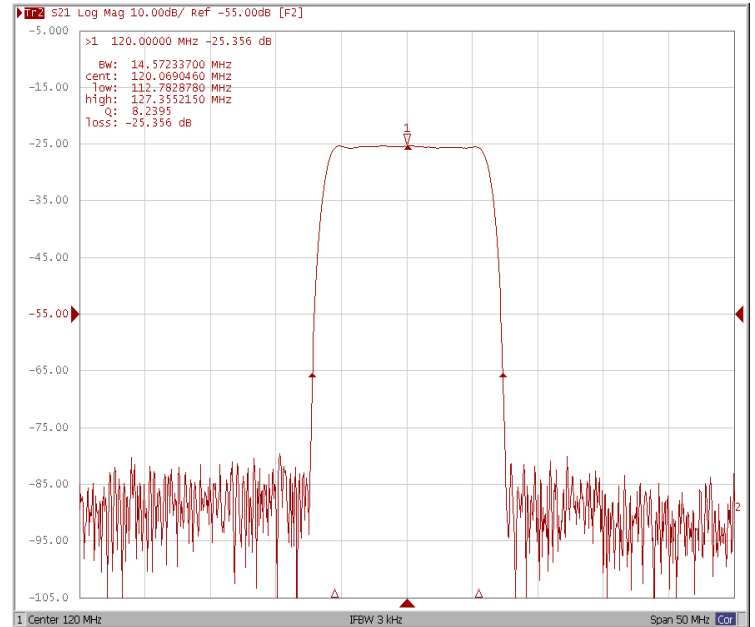


Frequency Response

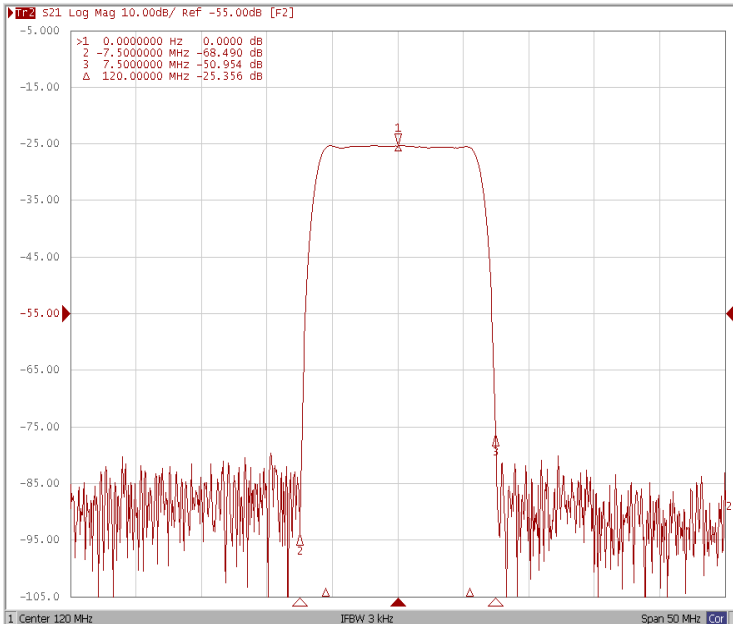
Bandwidth at -1.0 dB



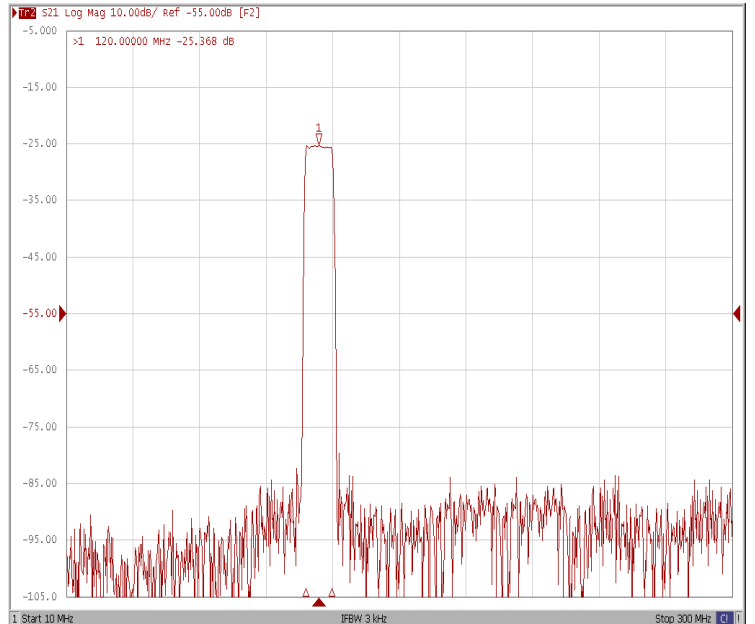
Bandwidth at -40.0 dB



Attenuation Fo±7.5MHz

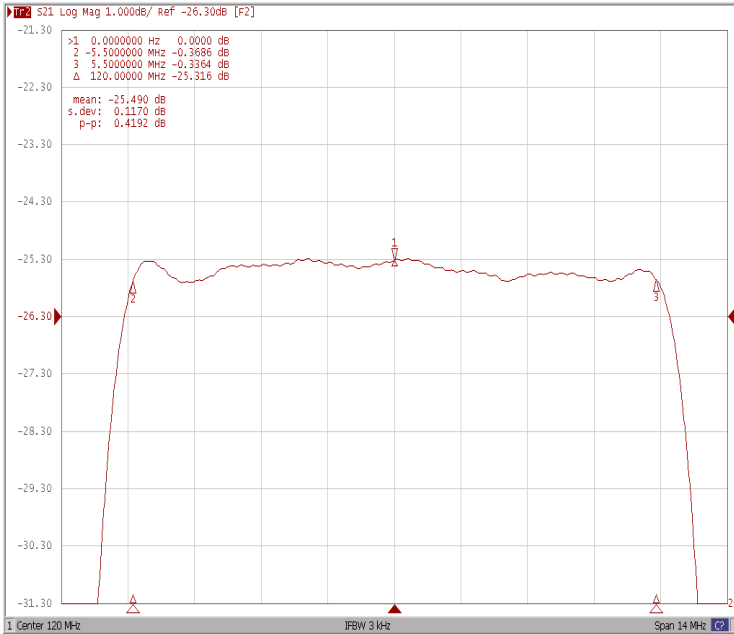


Wide-Band

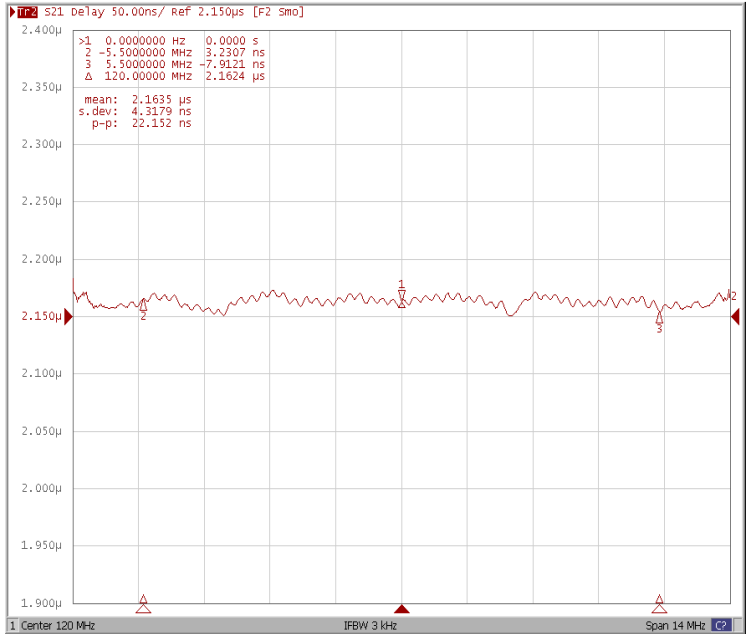




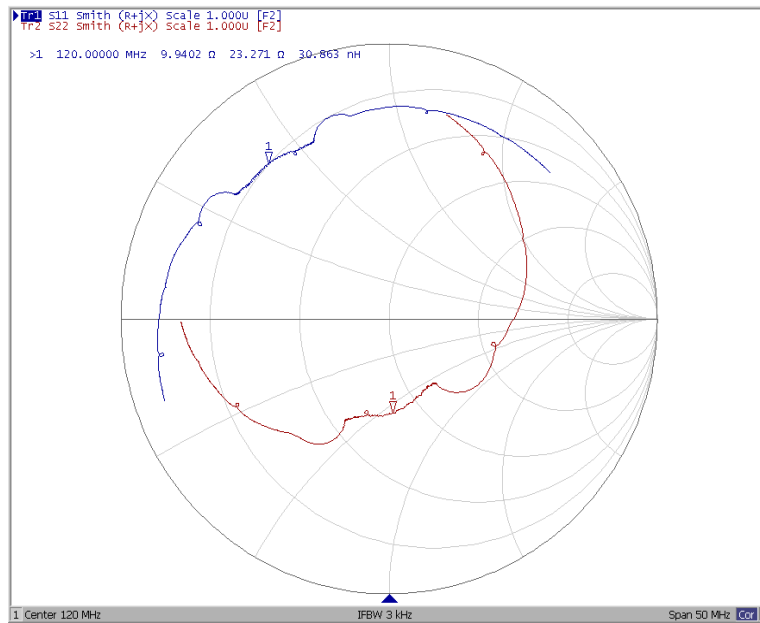
Ripple Variation Fo±5.5MHz



Group Delay Variation Fo±5.5MHz



Smith Chart





VSWR

