



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF145.0M-10A	145.0 MHz IF SAW Filter 10.3 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)



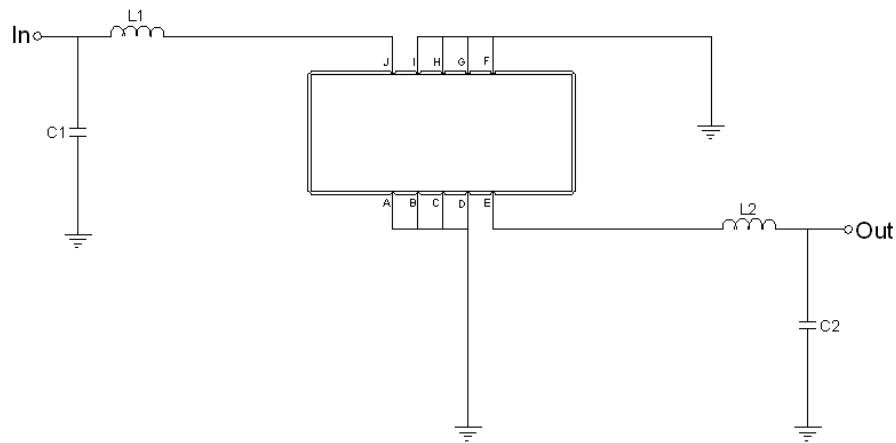


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1 = 33 nH, C1 = 61 pF
Output	L1 = 39 nH, C1 = 33 pF
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-30	-	+80
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.

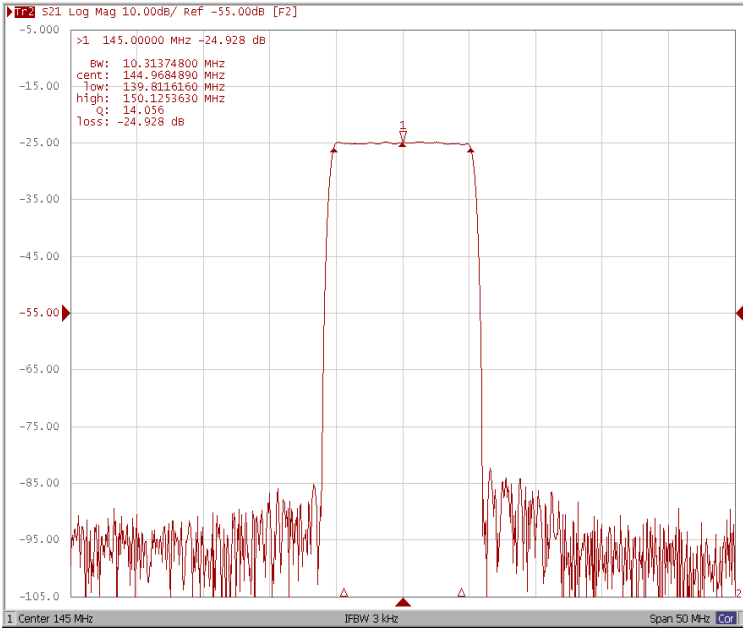
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	144.9	145.0	145.1
Insertion Loss at Fo	dB	-	25.0	27.0
Group Delay Variation at Fo ±4.42 MHz	nsec	-	40	100
Absolute Delay at Fo	usec	-	3.14	-
Passband Ripple Variation at Fo ±4.42 MHz	dB	-	0.55	0.8
Bandwidth at -1dB	MHz	9.70	10.30	-
Bandwidth at -3dB	MHz	-	10.60	-
Bandwidth at -40dB	MHz	-	11.90	-
Ultimate Rejection	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-18	-

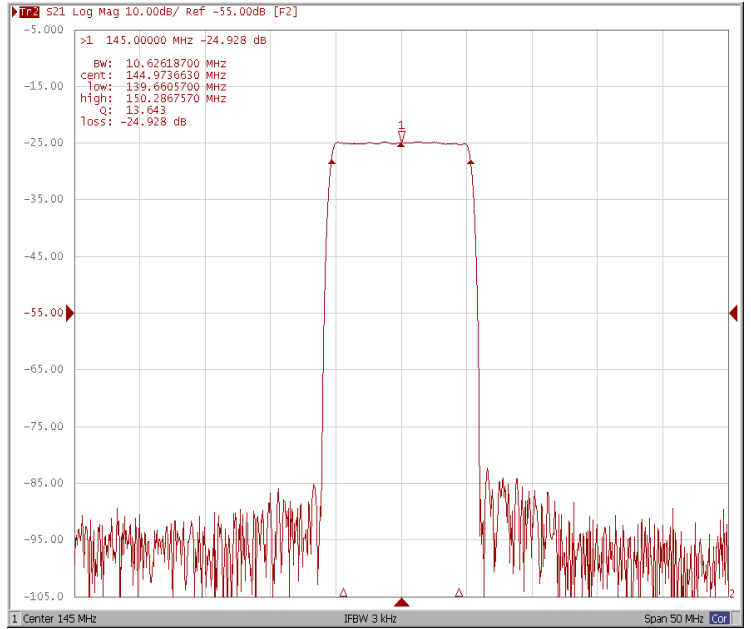


Frequency Response

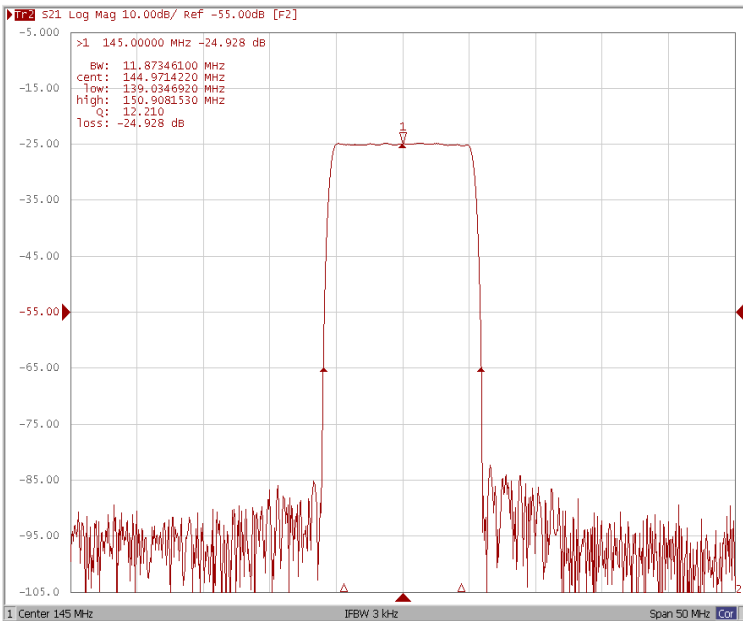
Bandwidth at -1.0 dB



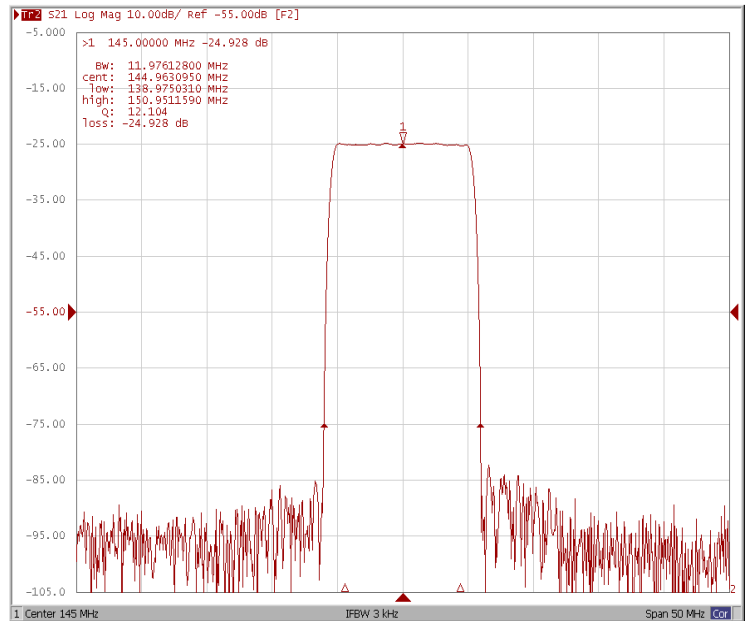
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

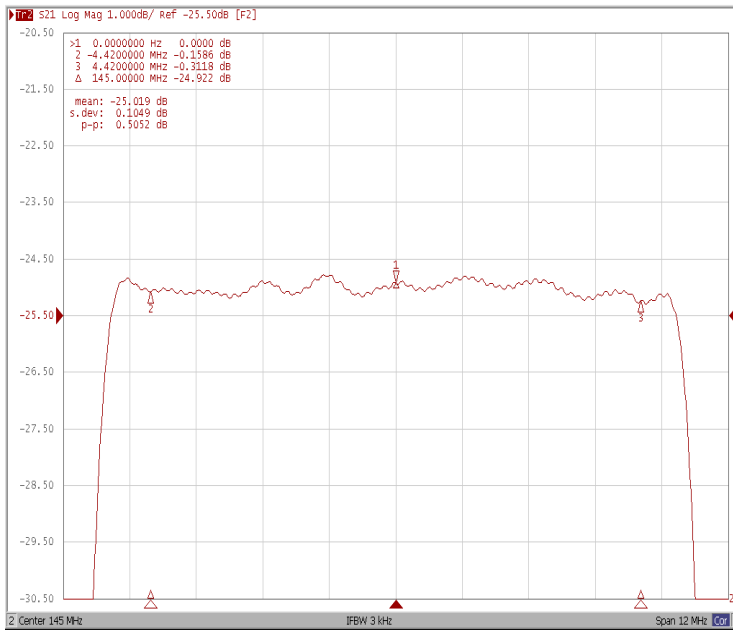


Bandwidth at -50.0 dB

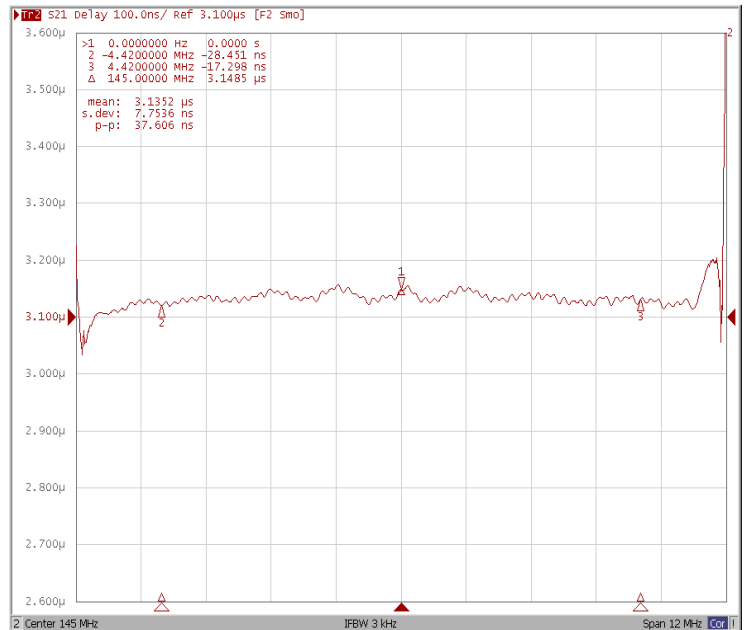




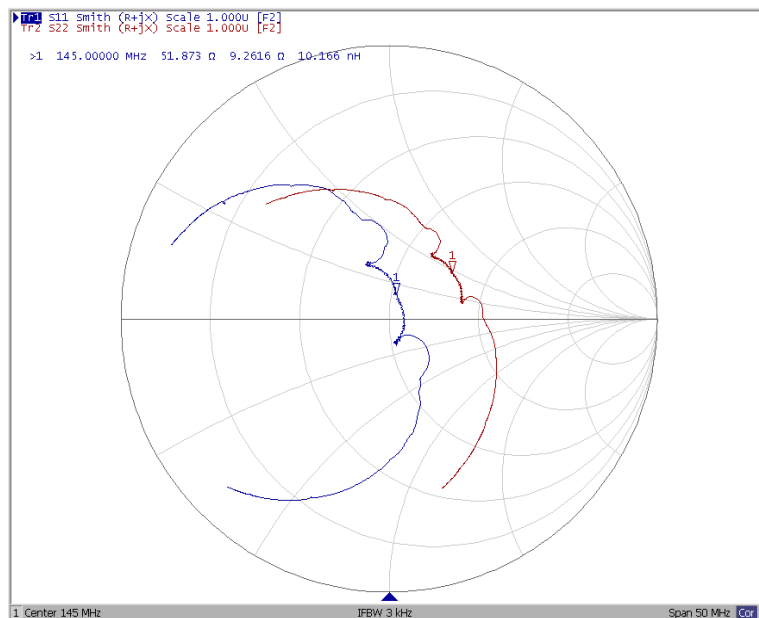
Ripple Variation Fo±4.42MHz



Group Delay Variation Fo±4.42MHz



Smith Chart





VSWR

