



PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
821-IF80.0M-20C	80.0MHz IF SAW Filter 19.82 MHz 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)



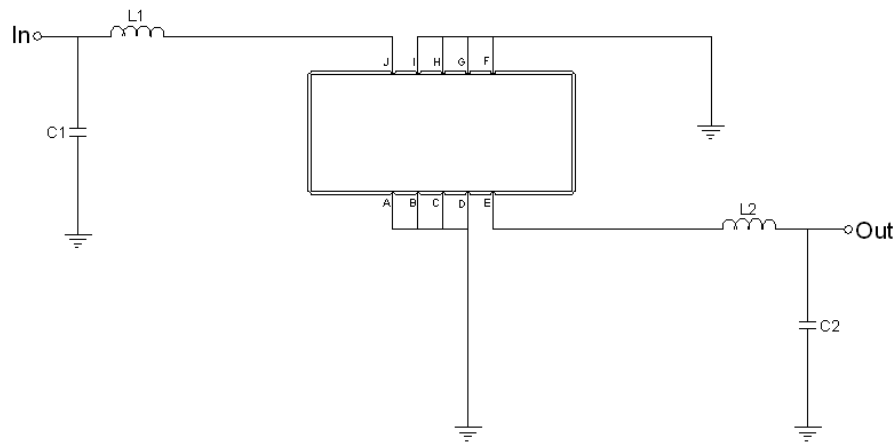


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=120nH, C1=8.2pF
Output	L2=120nH, C2=15pF
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-10	-	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.

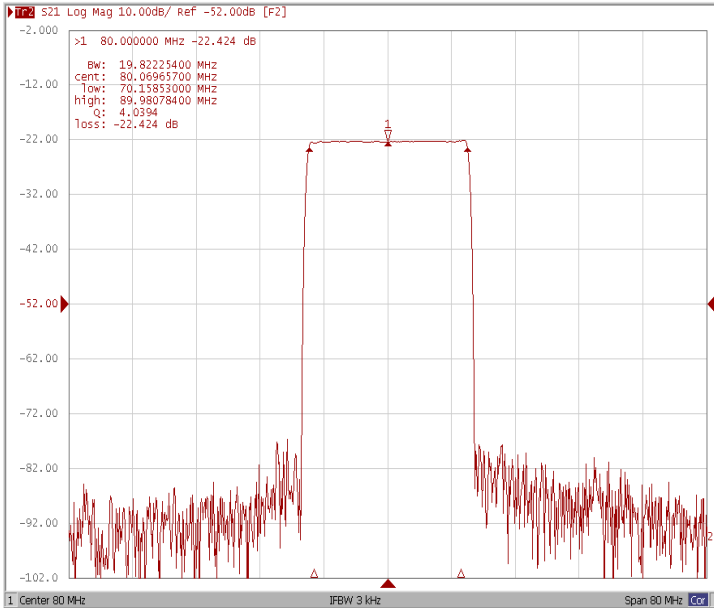
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	80.0	-
Insertion Loss at Fo	dB	-	22.4	24.0
Group Delay Variation (Fo±9.42MHz)	ns	-	35	60
Absolute Delay Time at Fo	us	-	2.37	-
Temperature Coefficient	ppm/°C	-	-72	-
Amplitude Ripple (Fo±9.42MHz)	dB	-	0.48	0.90
Bandwidth at -1dB	MHz	19.70	19.82	-
Bandwidth at -3dB	MHz	-	20.13	-
Bandwidth at -40dB	MHz	-	21.42	21.60
Bandwidth at -50dB	MHz	-	21.55	-
Ultimate Rejection	dB	50	53	-

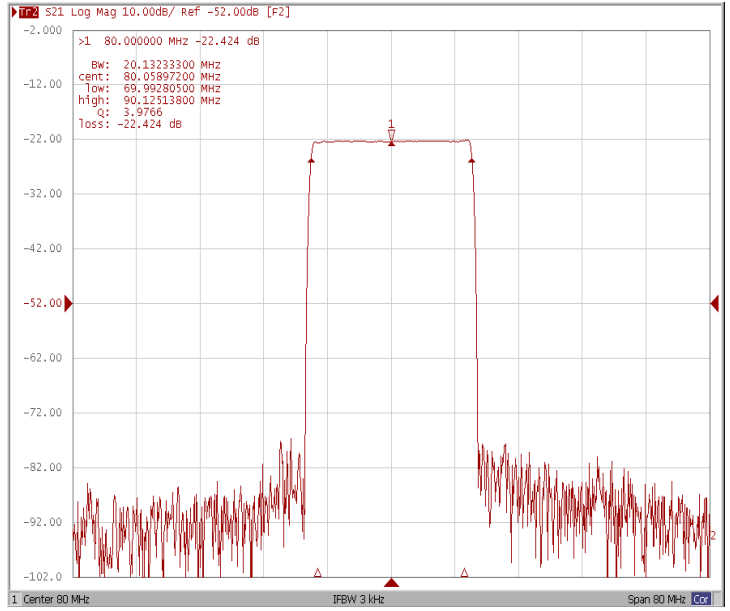


Frequency Response

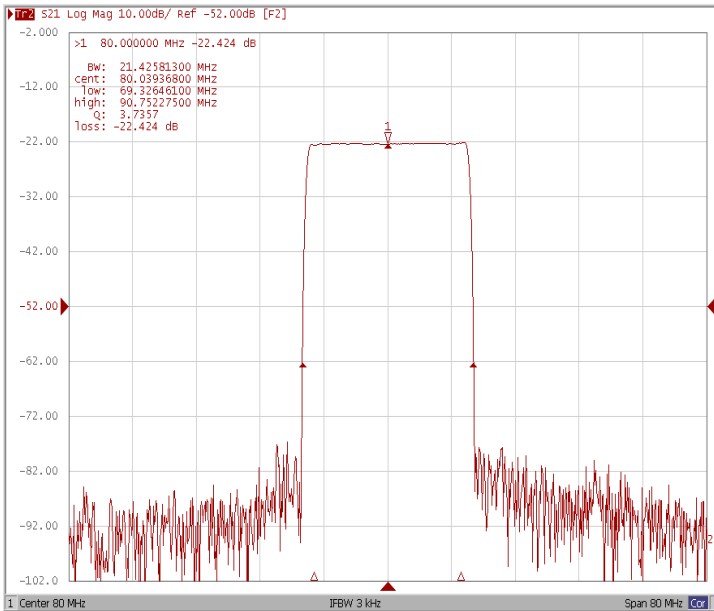
Bandwidth at -1.0 dB



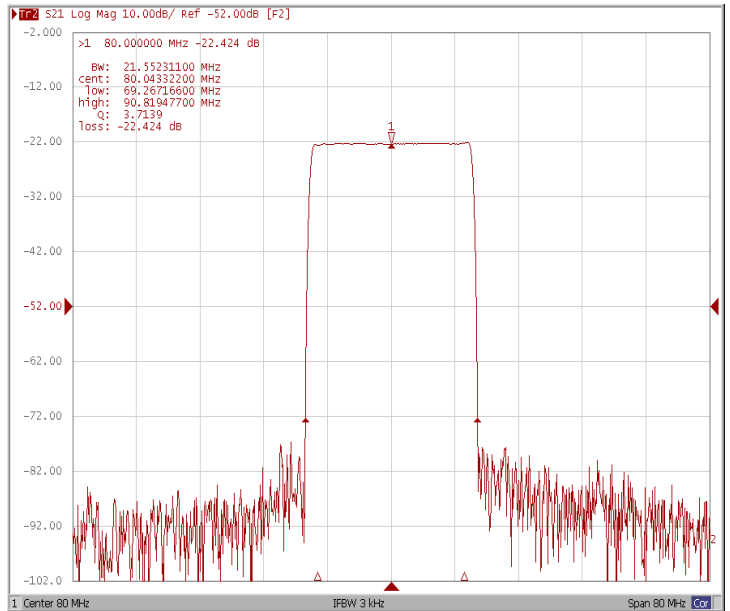
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

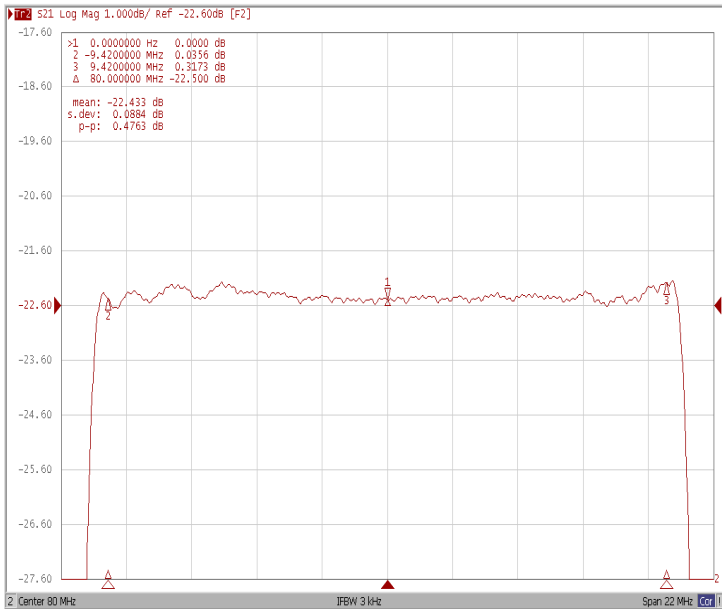


Bandwidth at -50.0 dB

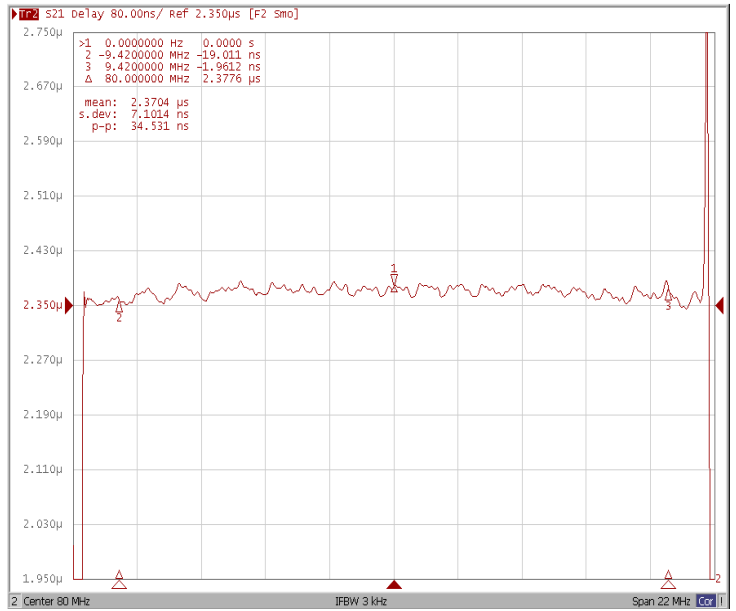




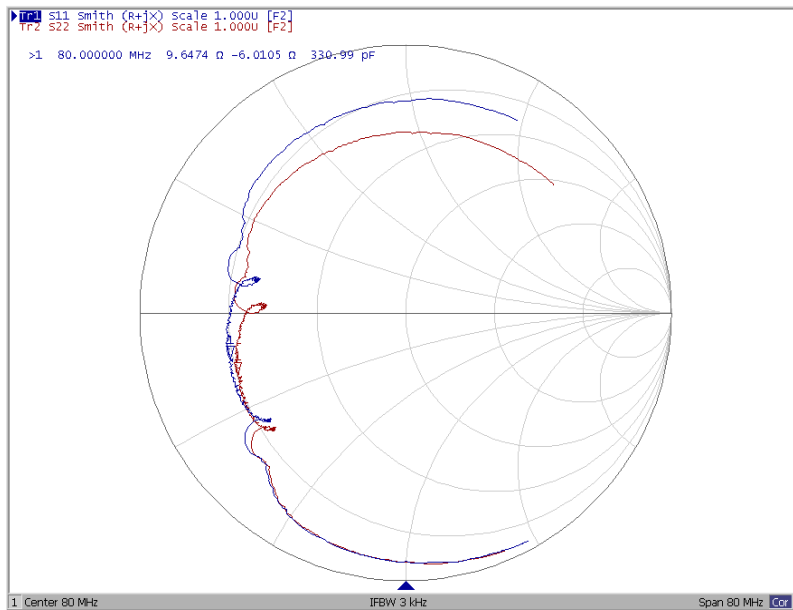
Ripple Variation Fo±9.42Hz



Group Delay Variation Fo±9.42MHz



Smith Chart





VSWR

