



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL70.0M-20A	70.0MHz IF SAW Filter 19.5 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)



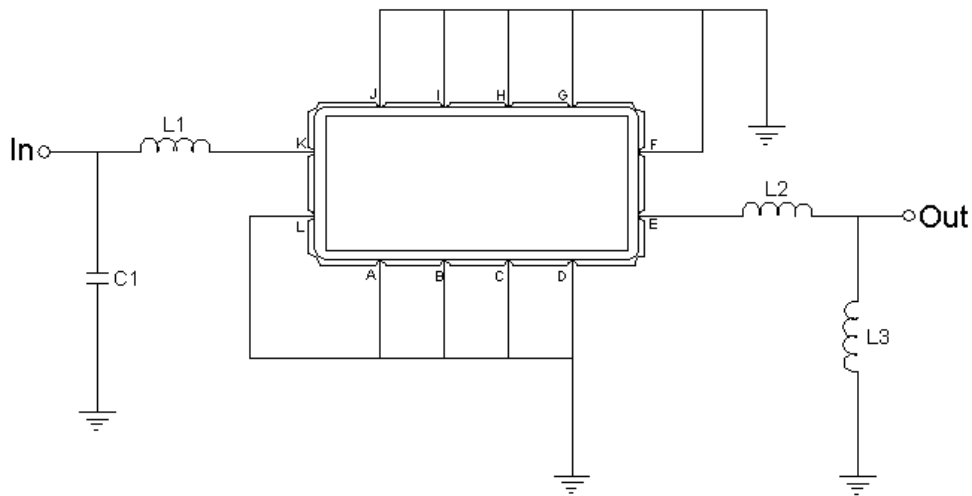


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=150 nH, C1=20pF Q > 35
Output	L2=100 nH, L3=270nH Q > 35
Source/Load Impedance	50 Ω



Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-	25	-
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.

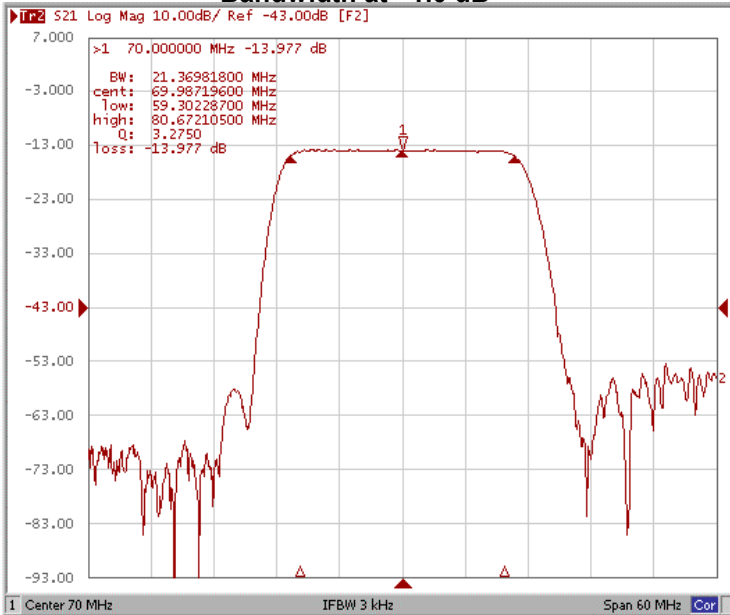
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	70.0	-
Insertion Loss at Fo	dB	-	13.9	15.0
Amplitude Ripple Variation at Fo ± 9.75 MHz	dB _{p-p}	-	0.35	0.6
Group Delay Variation at Fo ± 9.75 MHz	nsec	-	28	45
Absolute Delay at Fo	μsec	-	0.68	-
Temperature Coefficient	ppm/°C	-	-86	-
Bandwidth at -1.0 dB	MHz	20.8	21.3	-
Bandwidth at -25.0 dB	MHz	-	27.7	28.5
Bandwidth at -40.0 dB	MHz	-	29.7	-
Relative Attenuation				
Lower Sidelobe	dB	40	45	-
Upper Sidelobe	dB	38	42	-

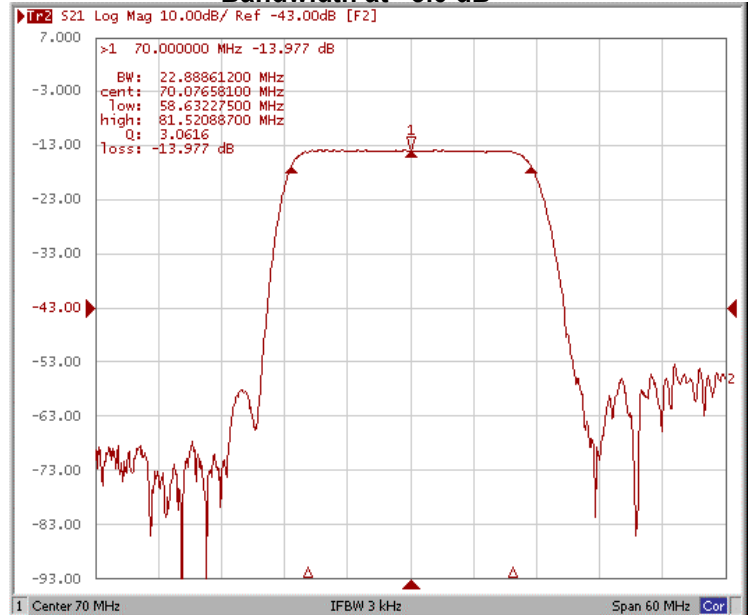


Frequency Response

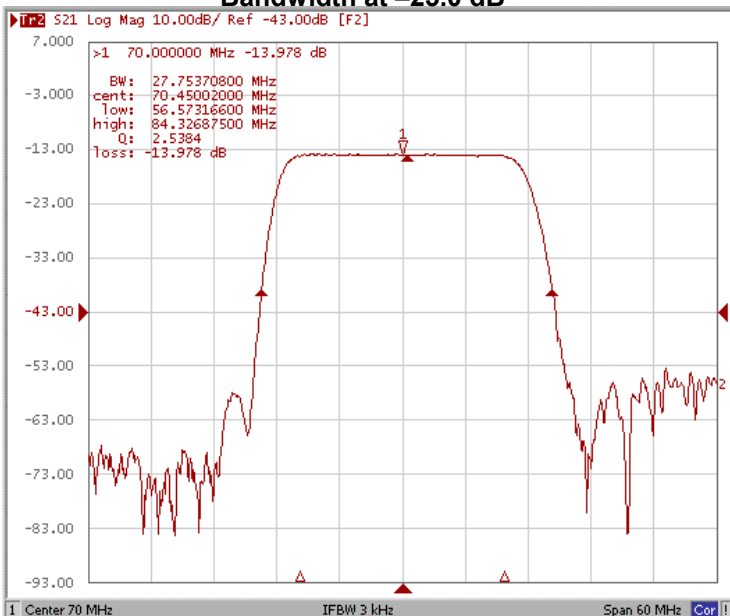
Bandwidth at -1.0 dB



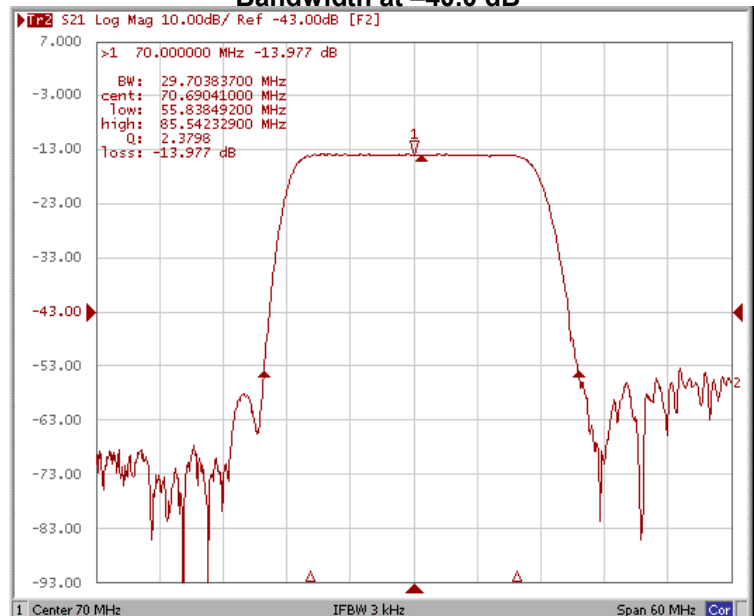
Bandwidth at -3.0 dB



Bandwidth at -25.0 dB

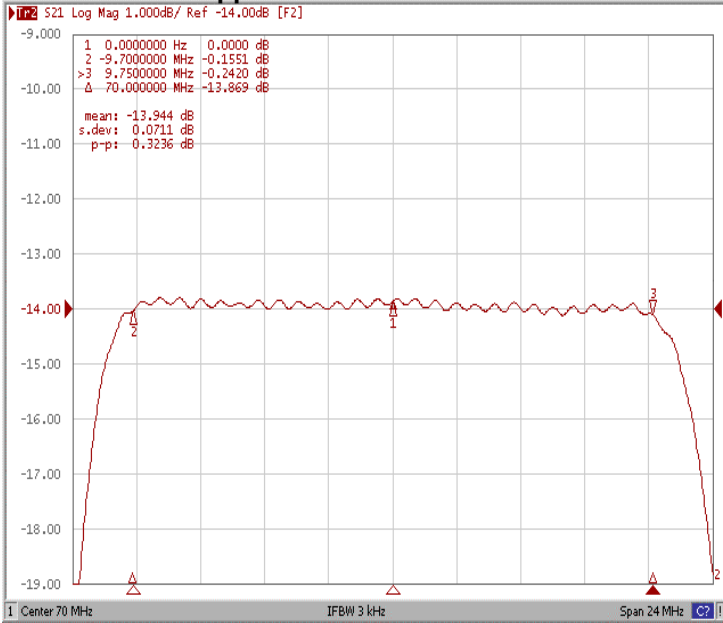


Bandwidth at -40.0 dB

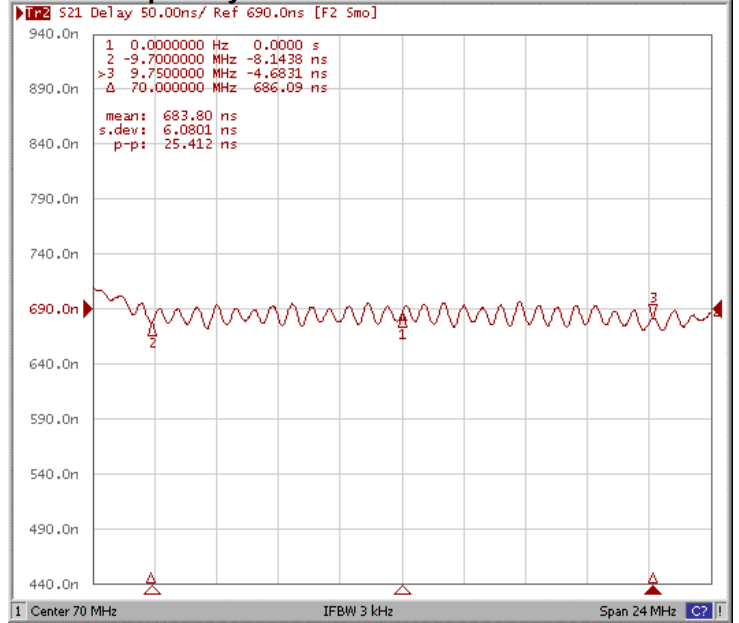




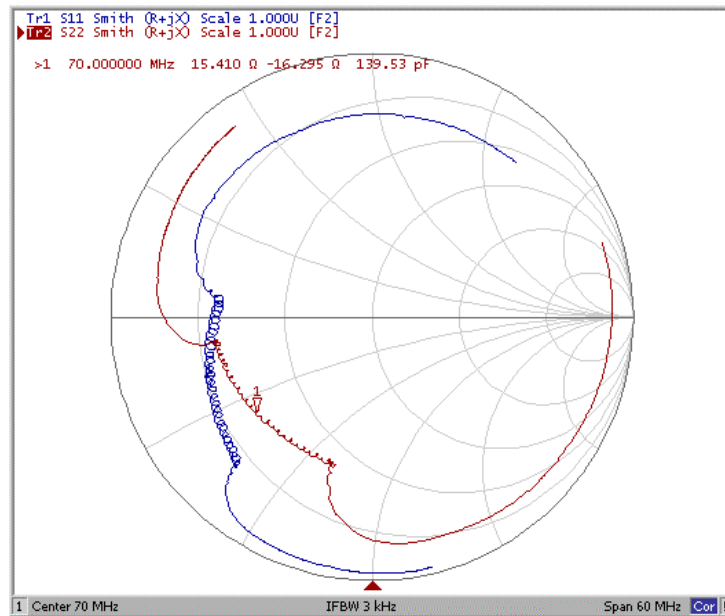
Ripple Variation Fo±9.75MHz



Group Delay Variation Fo±9.75MHz



Smith Chart





VSWR

