



REV A January 2011


Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF70.0M-14A	70.0 MHz IF SAW Filter 14.37 MHz Bandwidth

Specification Contents

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

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)



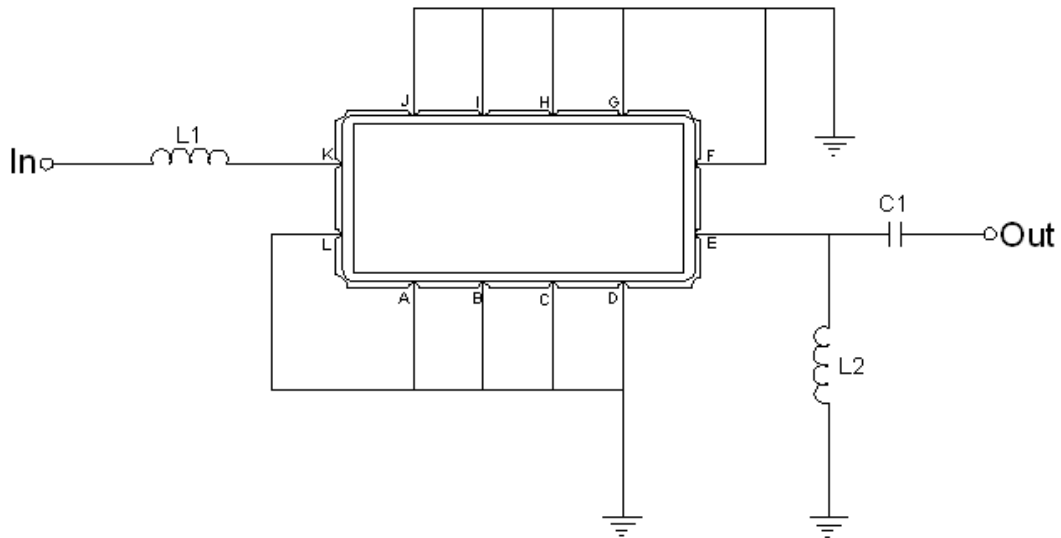


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1 = 180 nH
Output	L2 = 220 nH, C2 = 50 pF
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.

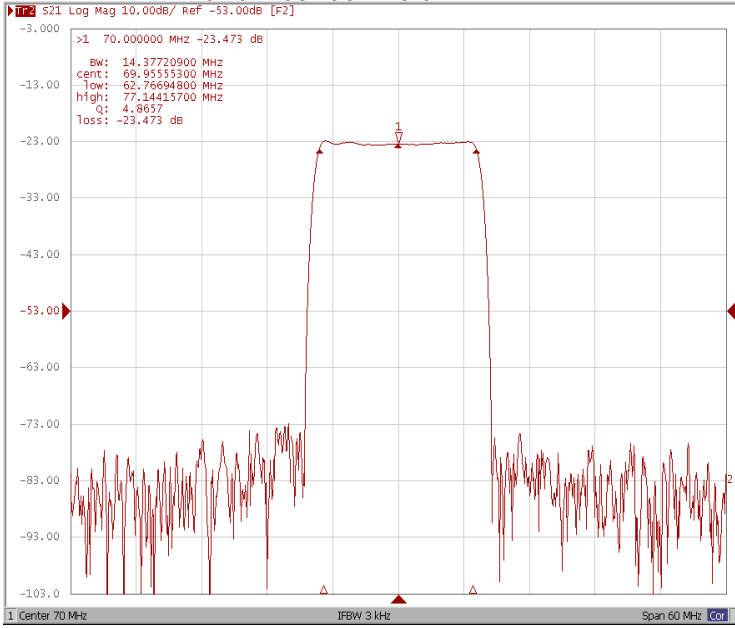
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.92	70.00	70.08
Insertion Loss at Fo	dB	-	23.5	25.0
Group Delay Variation	nsec	-	35	70
Absolute Delay at Fo	usec	-	1.62	-
Passband Ripple Variation	dB	-	0.75	1.0
Bandwidth at -1dB	MHz	-	14.37	-
Bandwidth at -3dB	MHz	14.70	14.82	-
Bandwidth at -40dB	MHz	-	16.82	16.90
Ultimate Rejection	dB	45	50	-
Temperature Coefficient	ppm/°C	-	-72	-

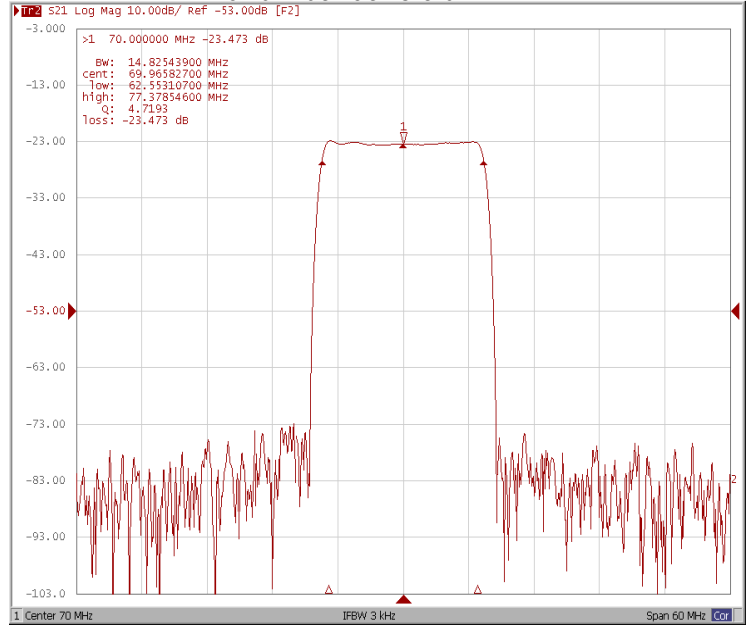


Frequency Response

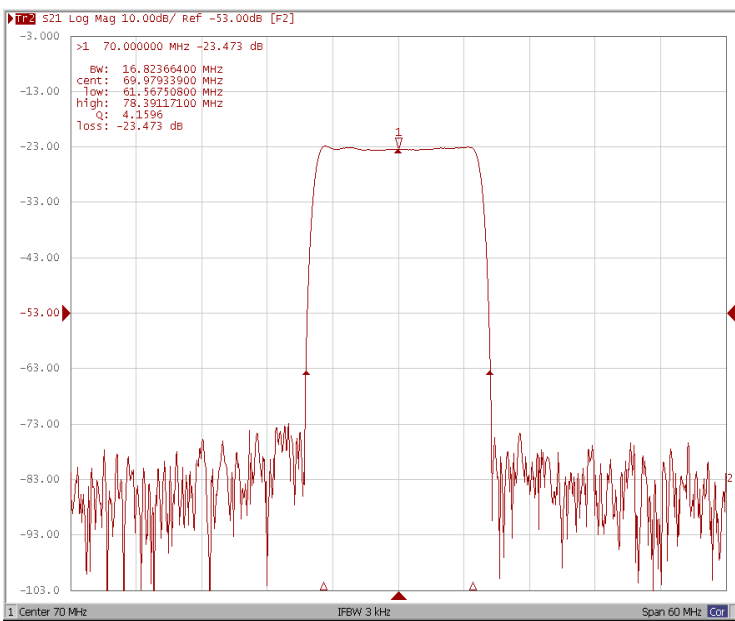
Bandwidth at -1.0 dB



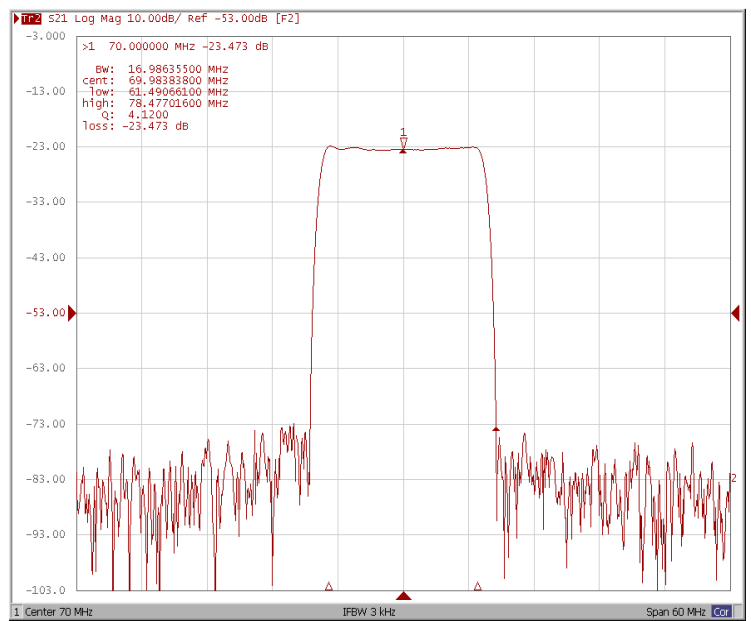
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

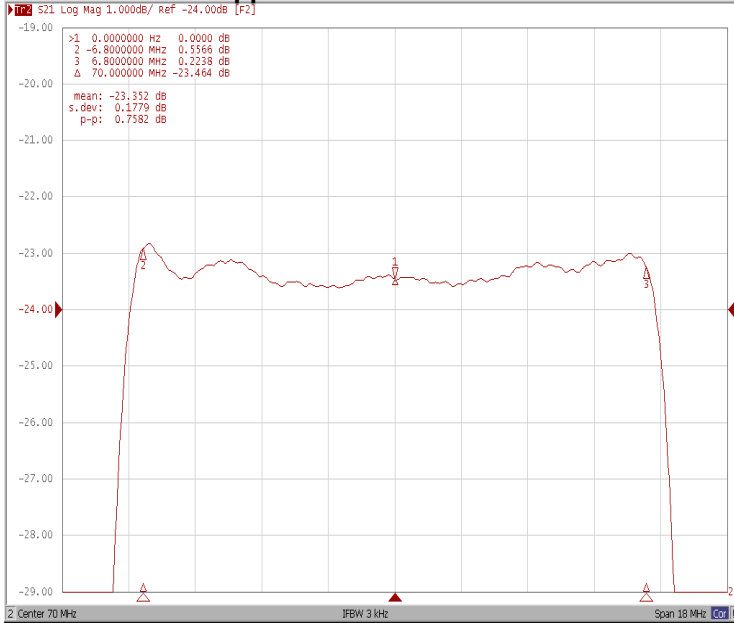


Bandwidth at -50.0 dB

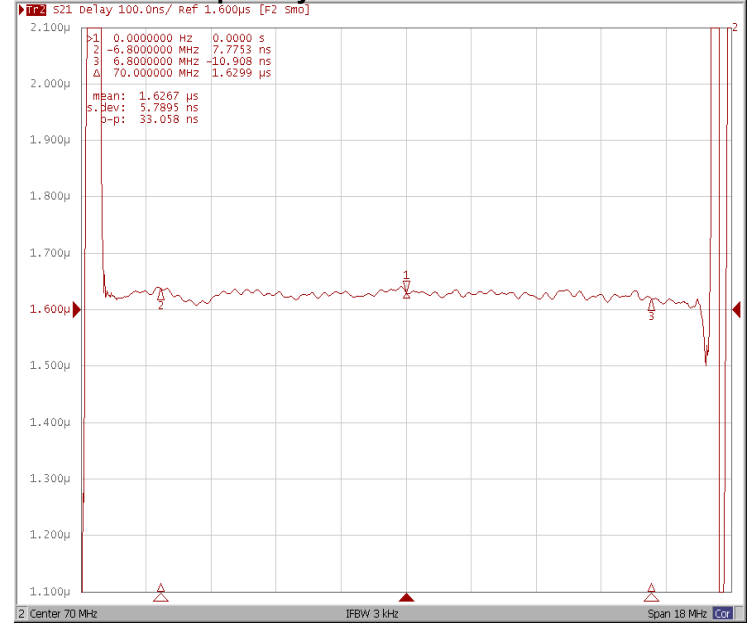




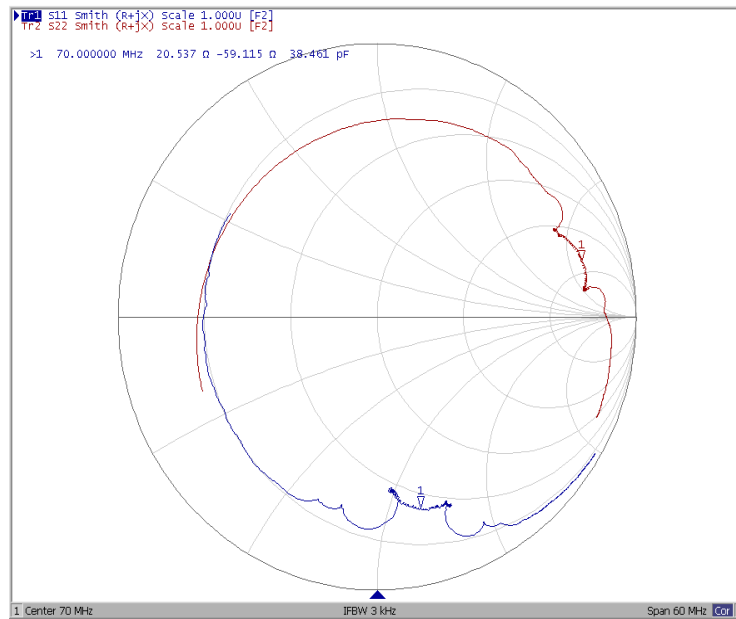
Ripple Variation Fo±6.8MHz



Group Delay Variation Fo±6.8MHz



Smith Chart





VSWR

