



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF70.0M-19A	70.0 MHz IF SAW Filter 19.83 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)



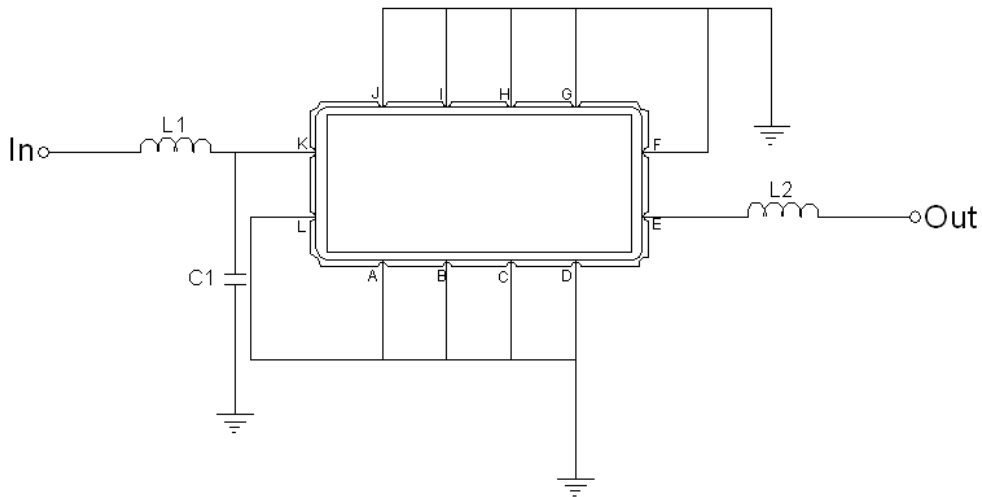


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=180 nH, C1=12pF
Output	L2=150 nH
Source/Load Impedance	50 Ω

**Maximum Ratings**

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-40	-	85
Storage Temperature Range	°C	-45	-	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.

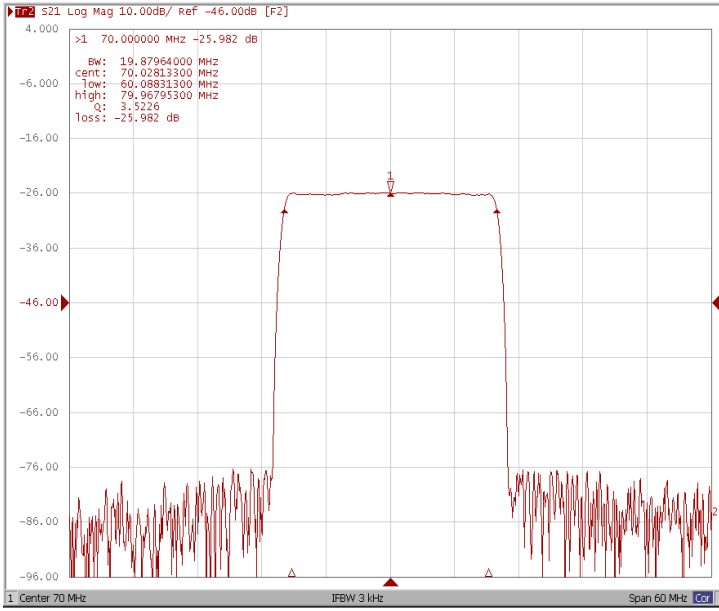
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	70.00	-
Insertion Loss at Fo	dB	-	26.0	28.0
Group Delay Variation (Fo±9.22MHz)	ns	-	20	50
Absolute Delay	us	-	1.61	-
Passband Ripple (Fo±9.22MHz)	dB	-	0.55	1.00
Bandwidth at -1dB	MHz	-	19.36	-
Bandwidth at -3dB	MHz	19.60	19.88	-
Bandwidth at -40dB	MHz	-	21.77	22.00
Ultimate Rejection	dB	45	50	-
Relative Attenuation Fo±10.8MHz	dB	20	33	-

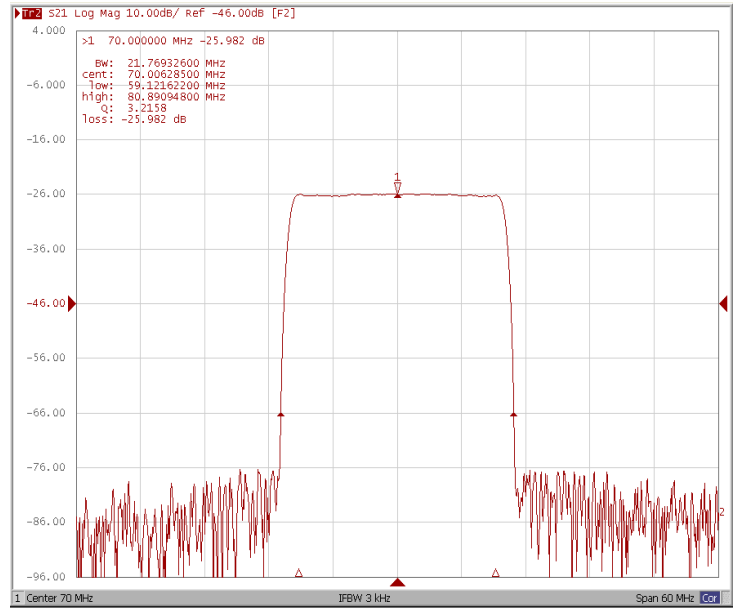


Frequency Response

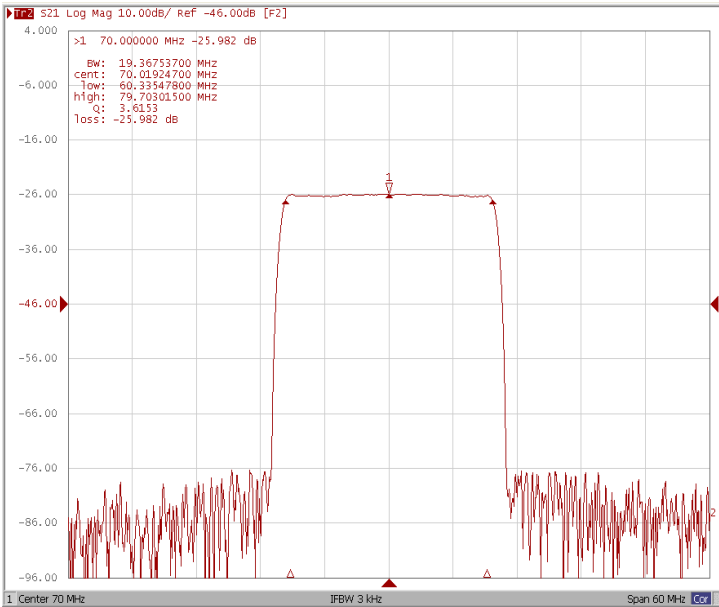
Bandwidth at -3.0 dB



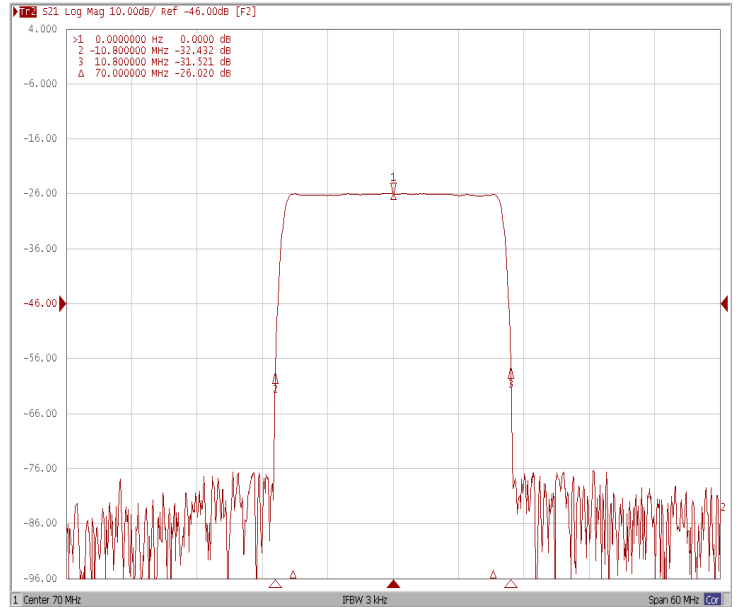
Bandwidth at -40.0 dB



Bandwidth at -1.0 dB

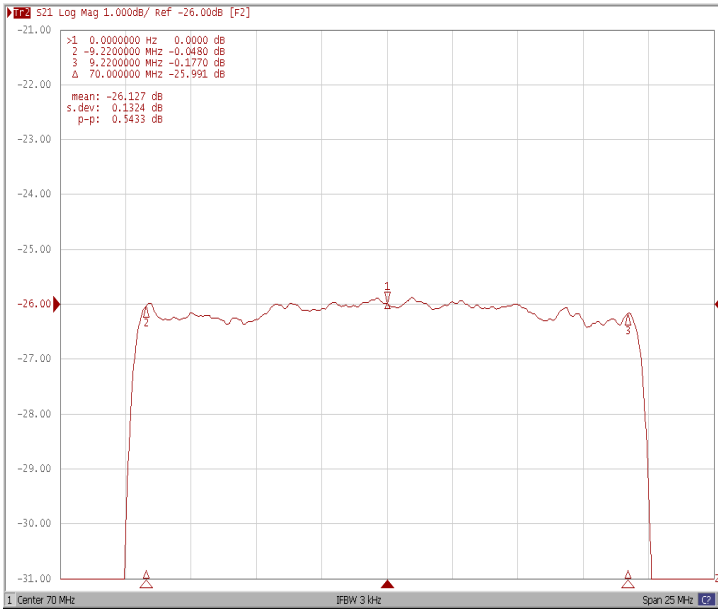


Relative Attenuation Fo±10.8MHz

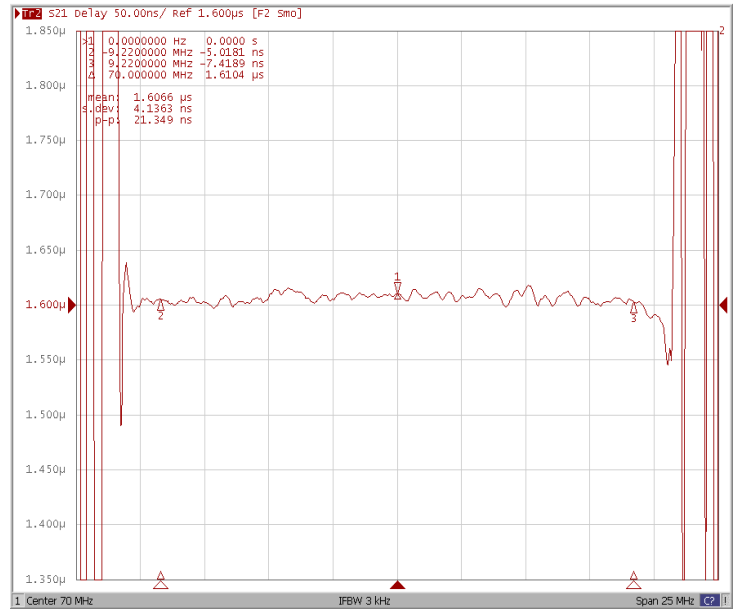




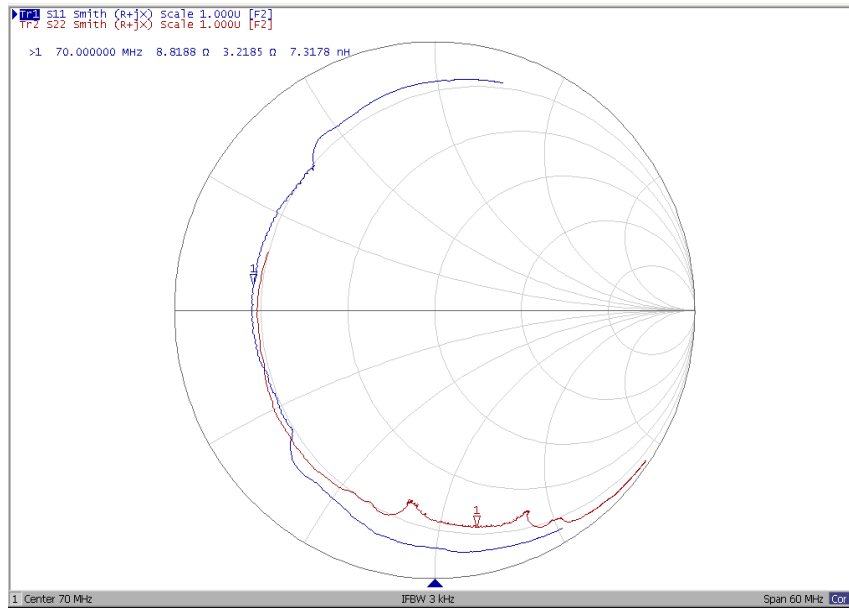
Ripple Variation



Group Delay Variation



Smith Chart





VSWR

