



Oscilent Corporation

# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL70.0M-42A	70.0MHz IF SAW Filter 42.2MHz Bandwidth

## Specification Contents

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

## Notes

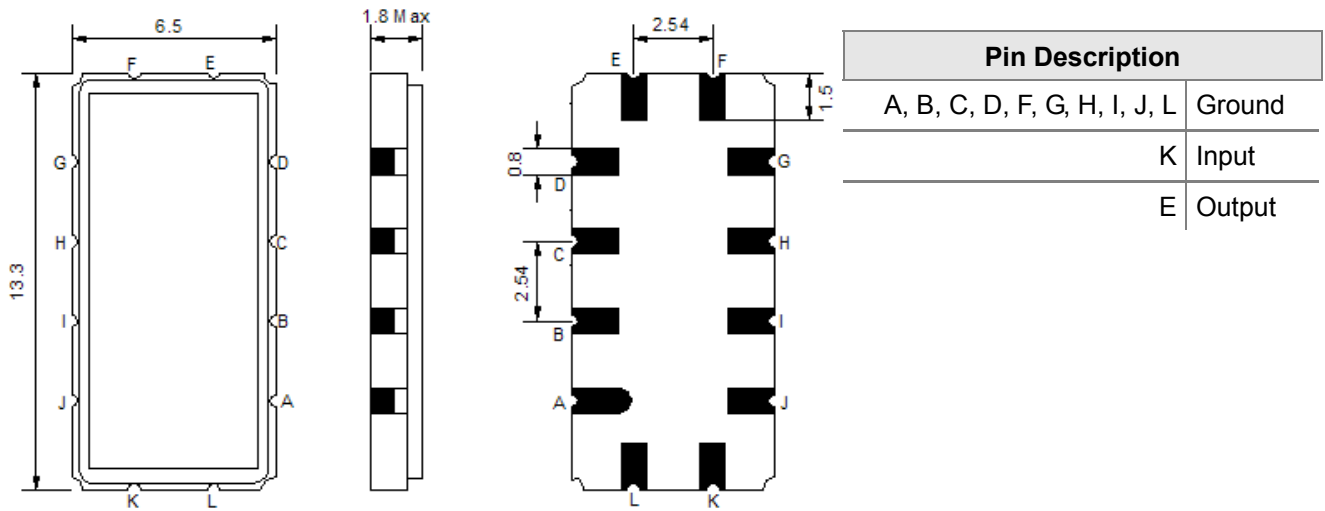
- o Electrostatic Sensitive Device (ESD) 
- o Avoid excessive ultrasonic exposure
- o Solderability compatible with JEDEC J-STD-020C Pb-free process, 260°C peak reflow temperature
- o This product complies with EU directive 2002/95/EC (RoHS compliance)



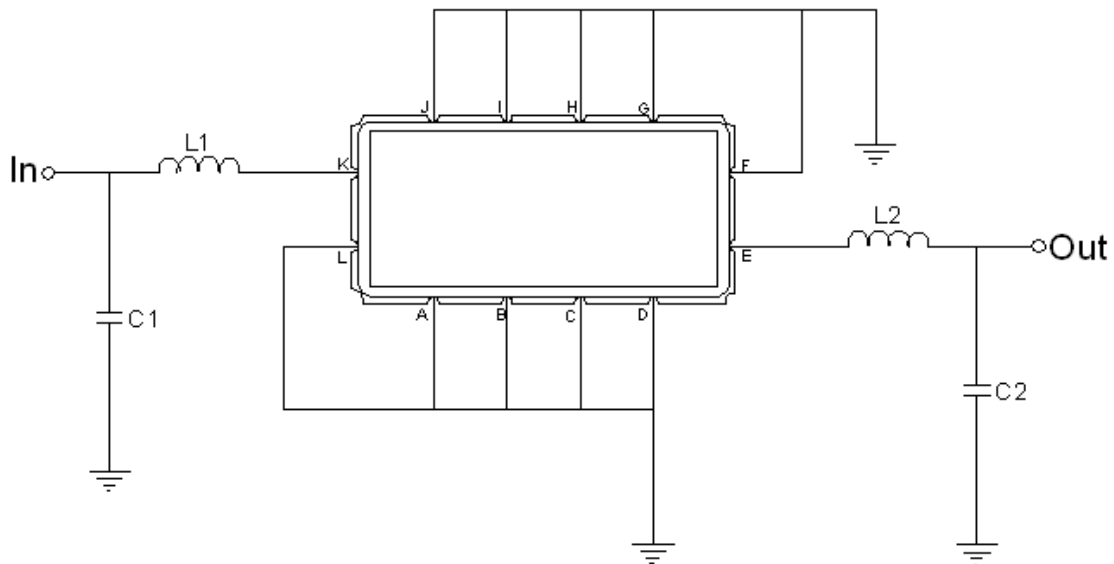
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## Mechanical Dimensions (mm)



## Test Circuit



Test Fixture & Values	
Input	L1=150nH, C1=22pF
Output	L2=100nH, C2=24pF
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) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	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.

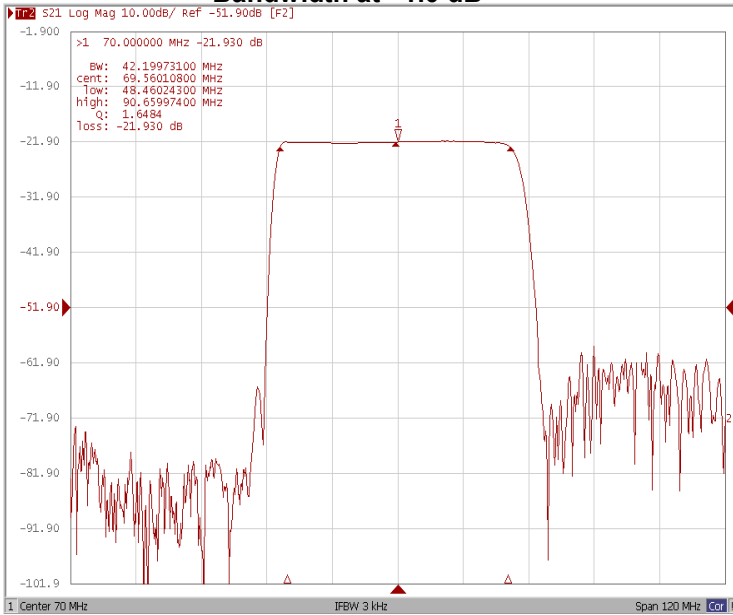
**Electrical Specification**

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	70.0	-
Insertion Loss at Fo	dB	-	21.9	23.0
Temperature Coefficient	ppm/°C	-	-86	-
Amplitude Ripple within fo ±20.0 MHz	dB <sub>p-p</sub>	-	0.66	1.00
Group Delay Variation within fo ±20.0 MHz	nsec	-	10	30
Absolute Delay at Fo	µsec	-	0.95	-
Bandwidth at -1.0 dB	MHz	40.00	42.20	-
Bandwidth at -3.0 dB	MHz	43.00	43.85	-
Bandwidth at -40.0 dB	MHz	-	50.00	50.80
Relative Attenuation				
0MHz ~ 45.35MHz	dB	40	45	-
97.05MHz ~ 120MHz	dB	30	35	-

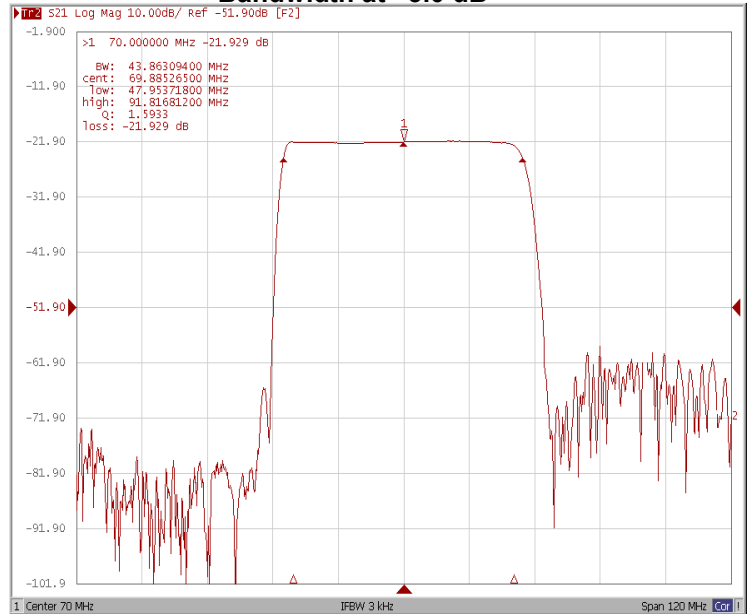


## Frequency Response

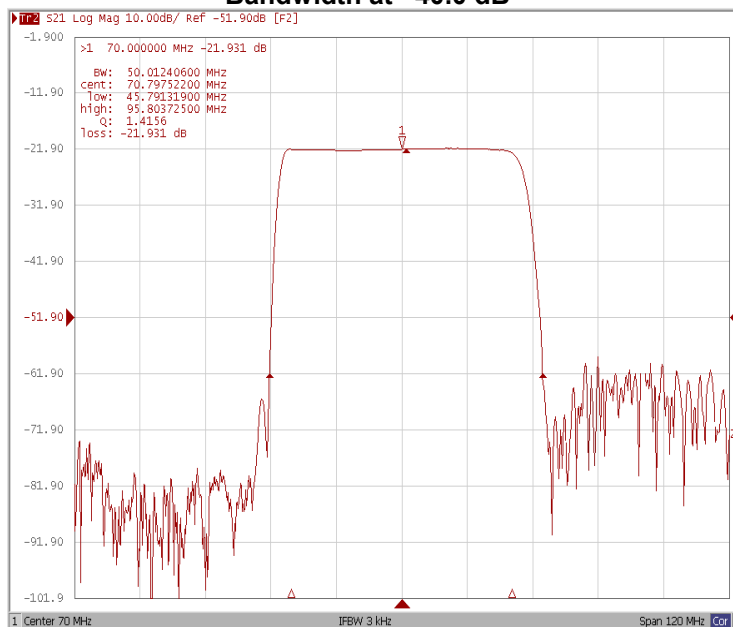
**Bandwidth at -1.0 dB**



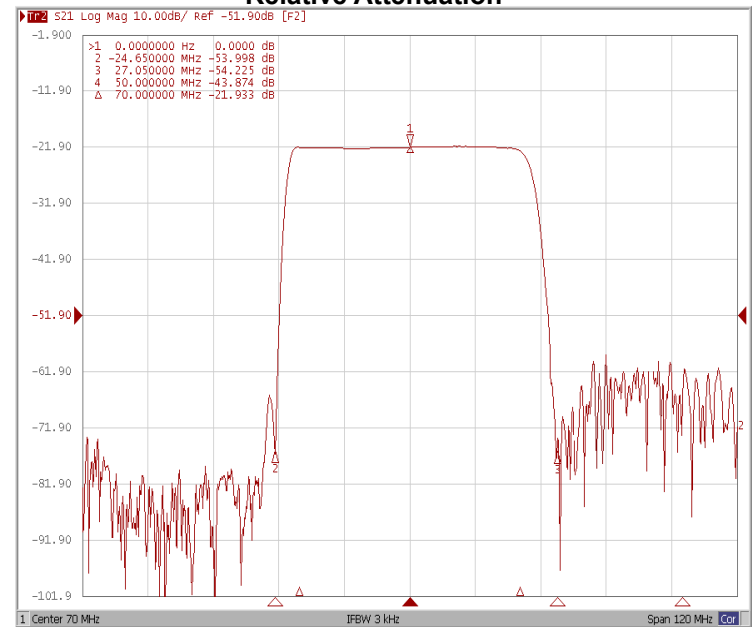
**Bandwidth at -3.0 dB**



**Bandwidth at -40.0 dB**

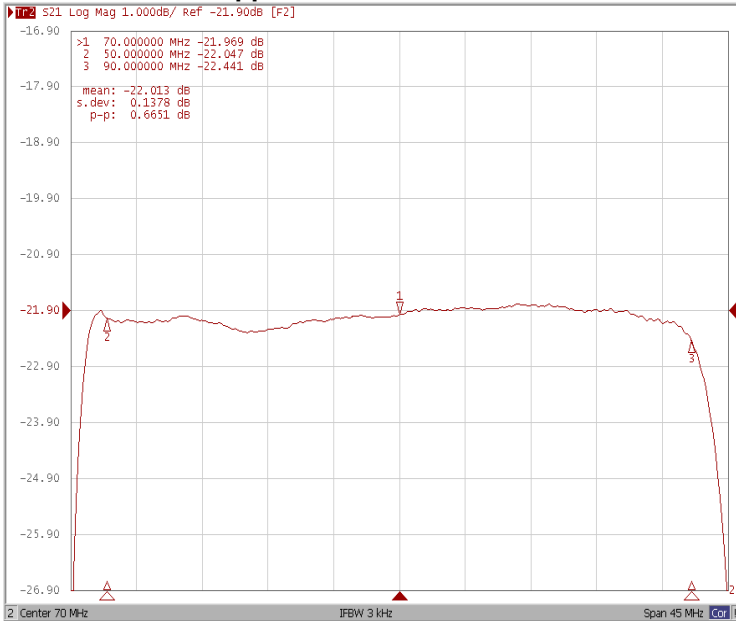


**Relative Attenuation**





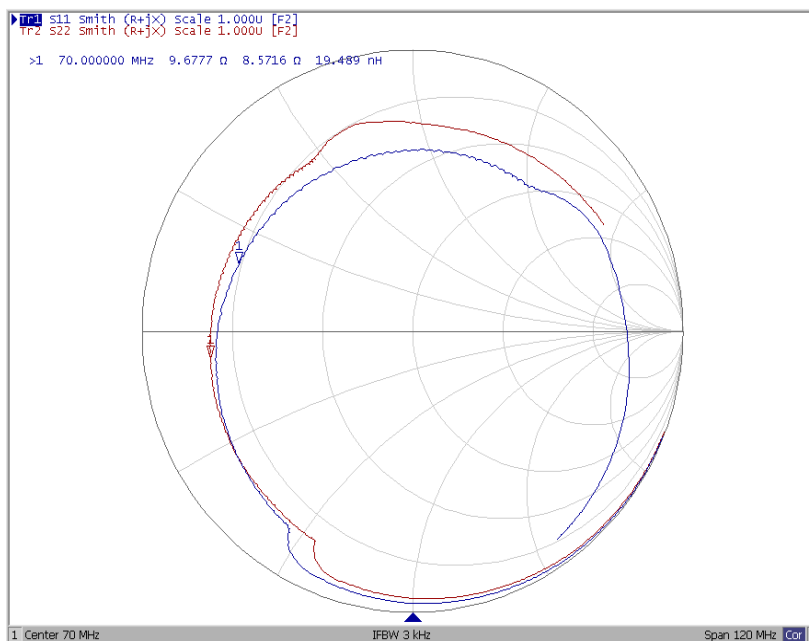
### Ripple Variation Fo±20.0MHz



### Group Delay Variation Fo±20.0MHz



### Smith Chart





### VSWR

