



REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL140.0M-20A	40.0 MHz IF SAW Filter 20.80 MHz Bandwidth

### Specification Contents

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

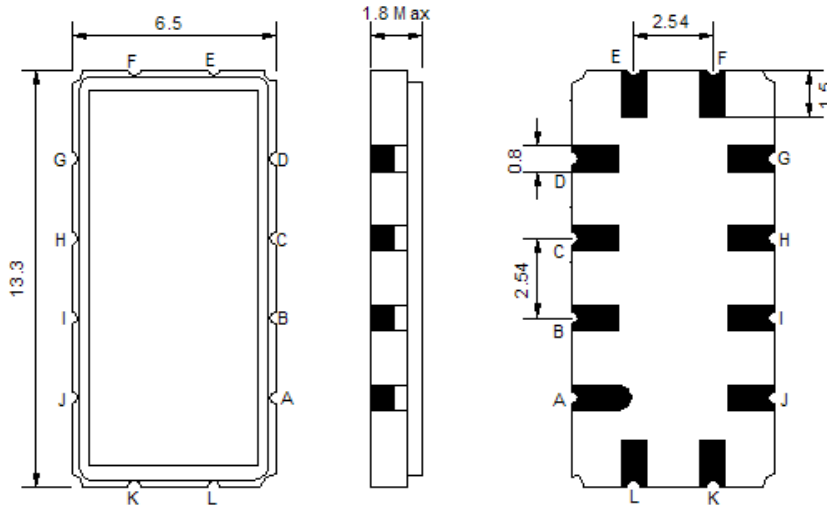
### Notes

- 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)



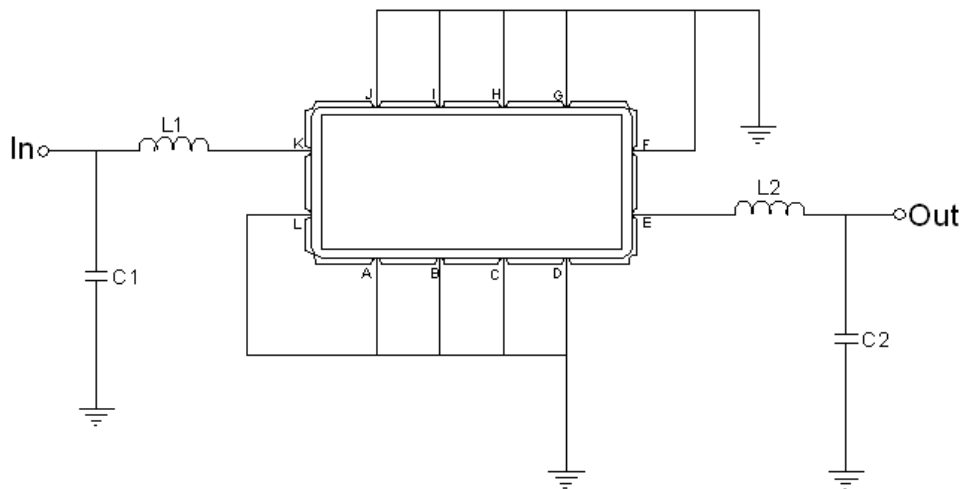


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1 = 68 nH, C1 = 27 pF
Output	L2 = 68 nH, C2 = 27 pF
Source/Load Impedance	50 Ω

**Maximum Ratings**

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-20	-	70
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.

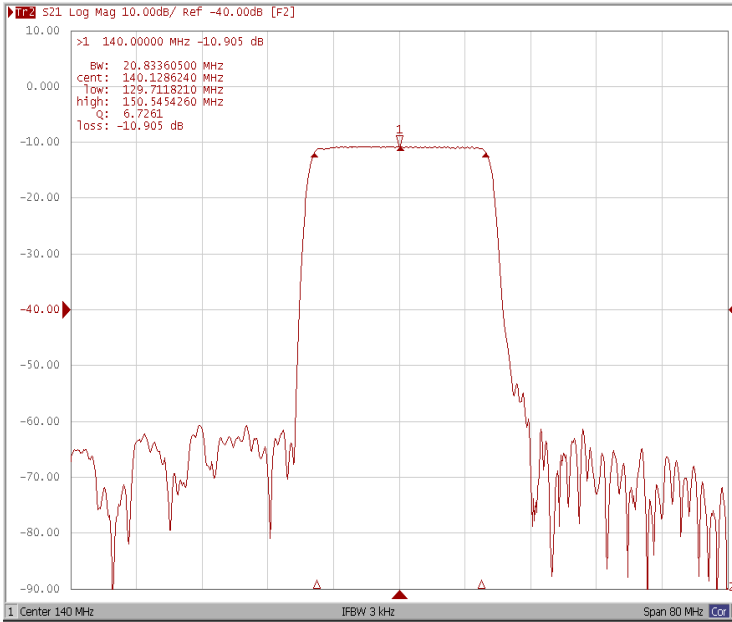
**Electrical Specification**

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	139.80	140.00	140.20
Insertion Loss at Fo	dB	-	11.0	12.5
Group Delay Variation	nsec	-	40	80
Absolute Delay at Fo	usec	-	0.88	-
Passband Ripple Variation	dB	-	0.60	1.0
Bandwidth at -1dB	MHz	20.60	20.80	-
Bandwidth at -3dB	MHz	-	21.75	-
Bandwidth at -35dB	MHz	-	25.50	-
Bandwidth at -40dB	MHz	-	26.05	26.60
Ultimate Rejection	dB	-	50	-
Temperature Coefficient	ppm/°C	-	-86	-

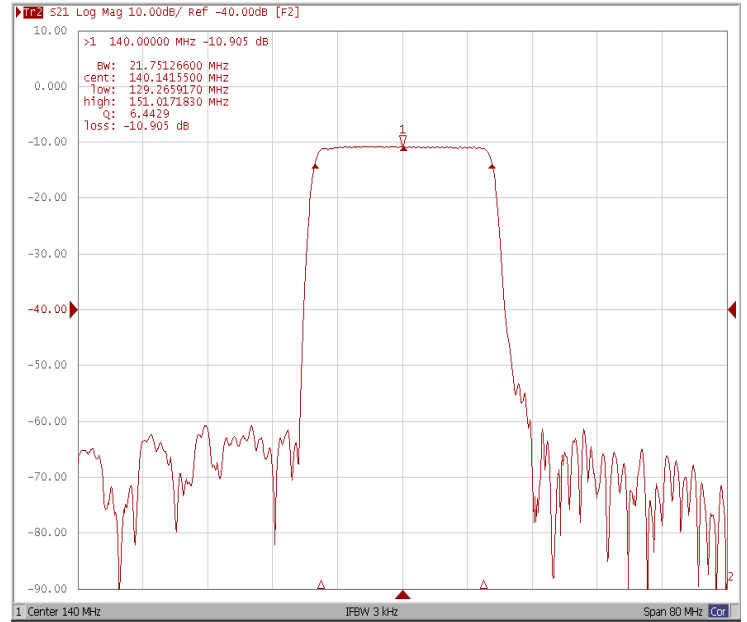


### Frequency Response

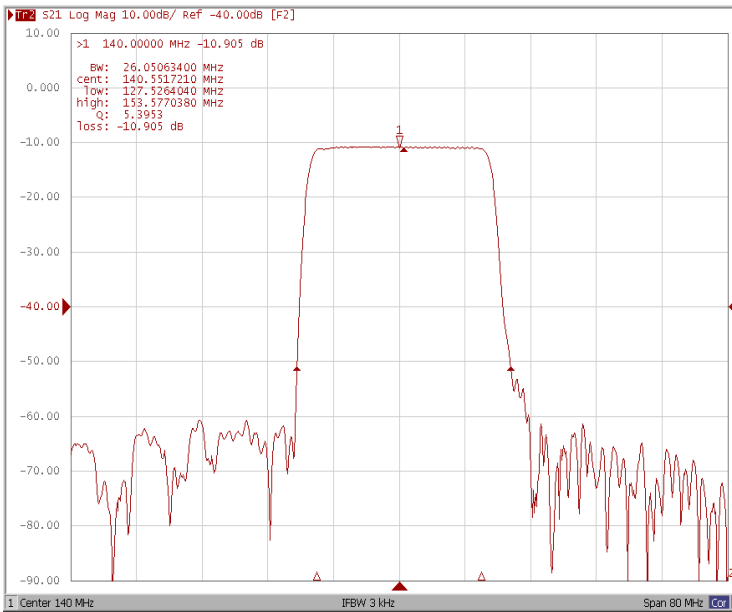
#### Bandwidth at -1.0 dB



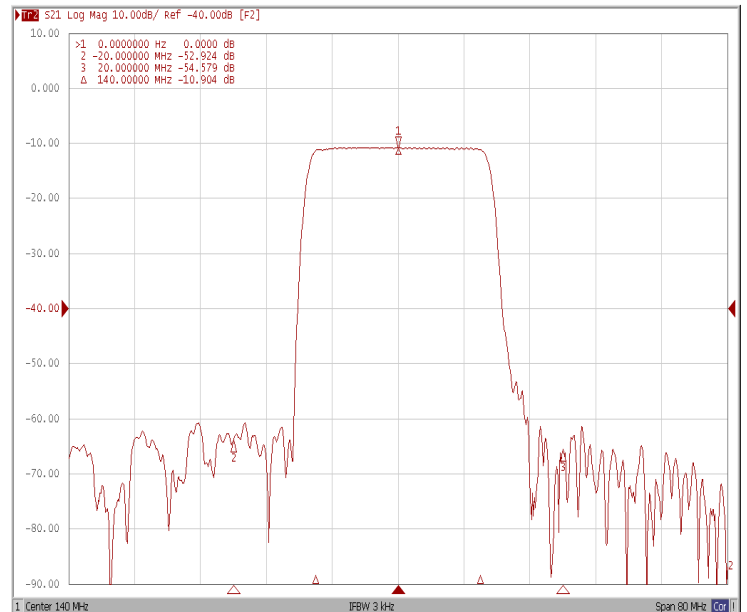
#### Bandwidth at -3.0 dB



#### Bandwidth at -40.0 dB

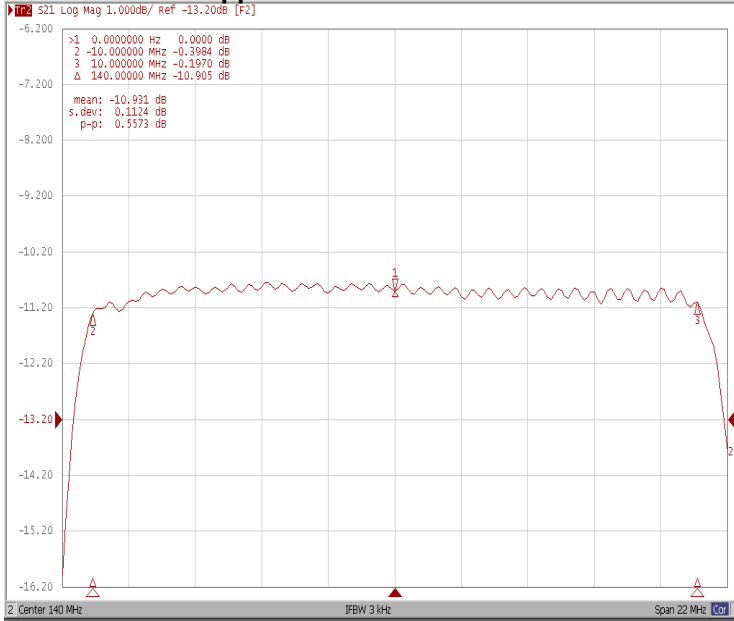


#### Attenuation Fo±20.0MHz

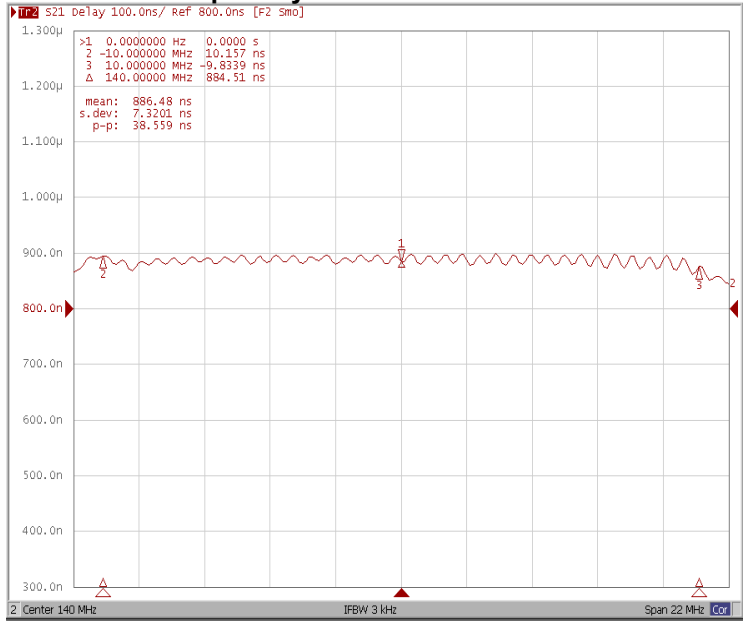




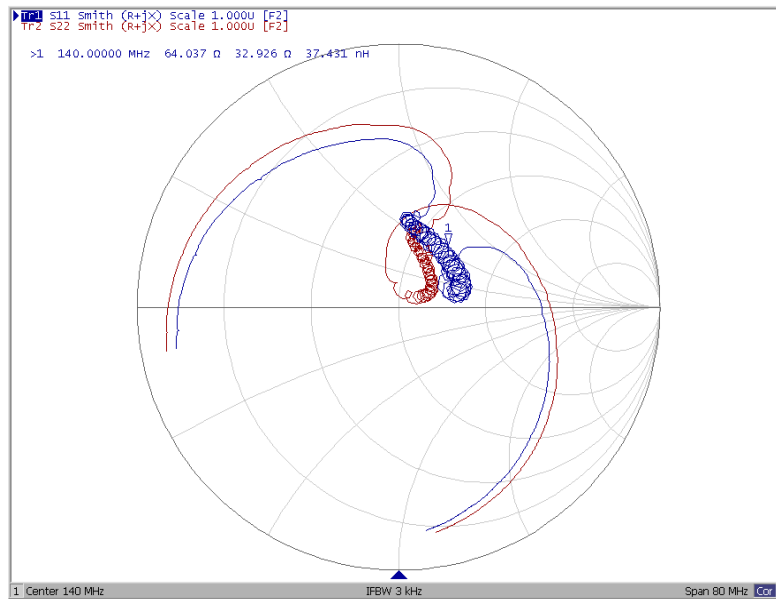
### Ripple Variation Fo±10.0MHz



### Group Delay Variation Fo±10.0MHz



### Smith Chart





## VSWR

