



# PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-SL320.0M-44A	320MHz IF SAW Filter 43.40MHz 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)



Oscilent Corporation  
Telephone: 1.949.252.0522  
Fax: 1.949.252.0522  
Email: sales@oscilent.com

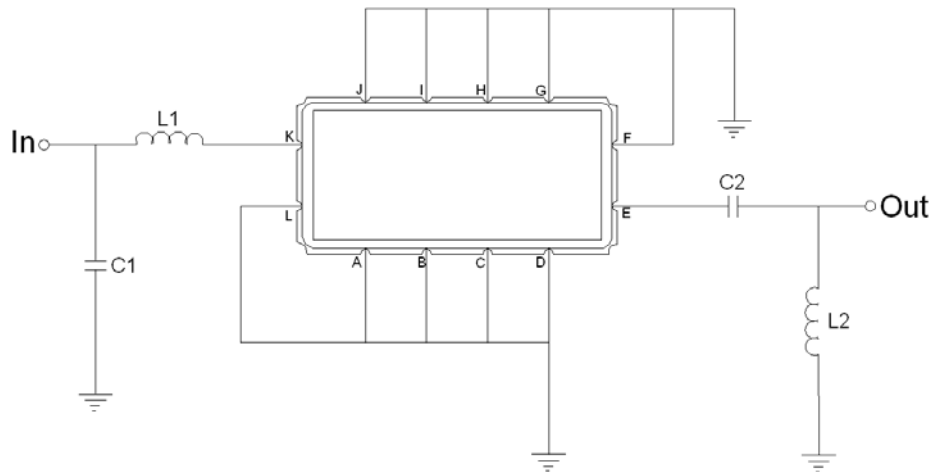


## Mechanical Dimensions (mm)



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

## Test Circuit



Test Fixture & Values	
Input	L1=15nH, C1=18pF
Output	L2=22nH, 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.

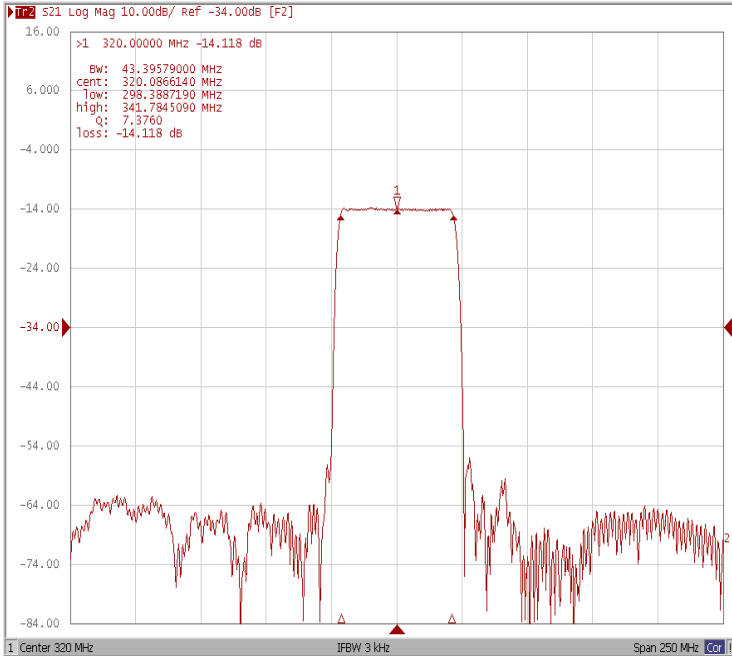
## Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	320.0	-
Insertion Loss at Fo	dB	-	14.5	17.0
Amplitude Ripple within fo ±20.0 MHz	dB <sub>p-p</sub>	-	0.52	1.00
Group Delay Variation within fo ±20.0 MHz	nsec	-	35	60
Absolute Delay at Fo	μsec	-	0.6	-
Bandwidth at -1.0 dB	MHz	42.00	43.40	-
Bandwidth at -20.0 dB	MHz	-	48.62	-
Bandwidth at -40.0 dB	MHz	-	50.60	51.50
Ultimate Rejection	dB	40	43	-
Temperature Coefficient	ppm/°C	-	-86	-

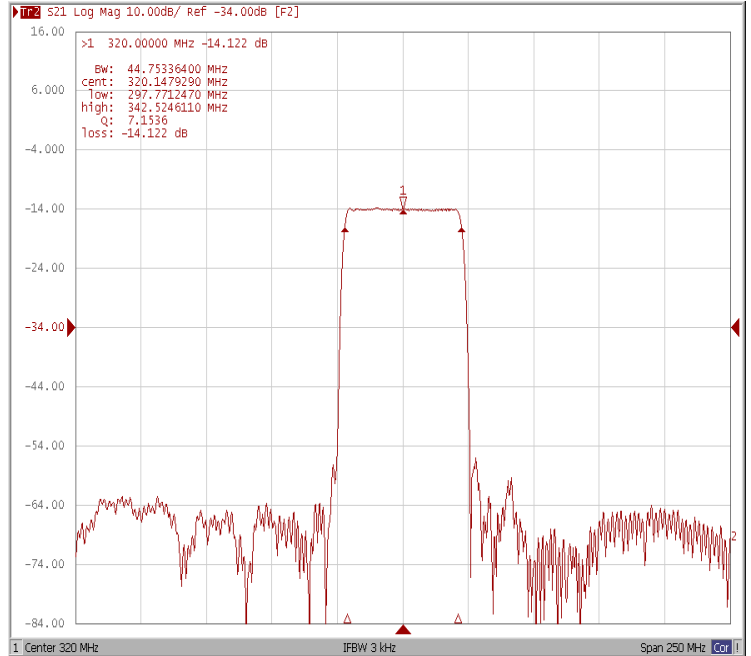


### Frequency Response

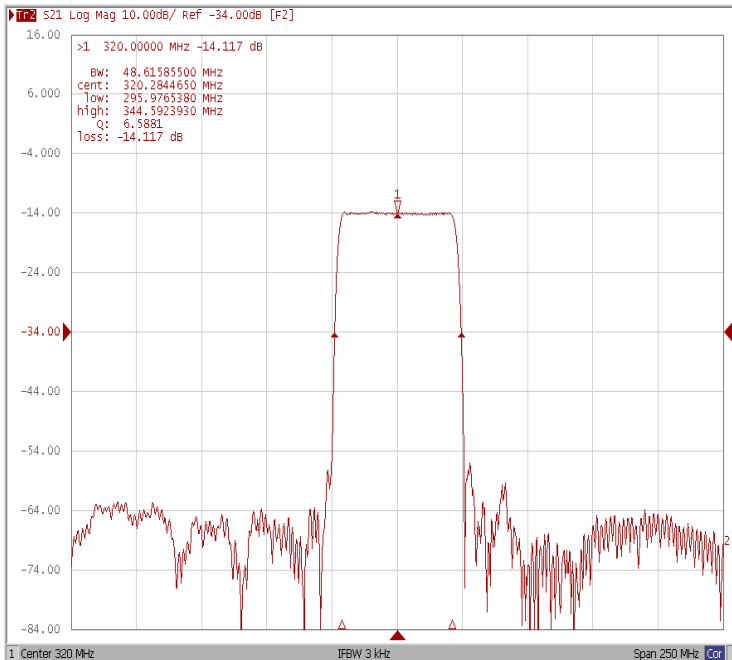
#### Bandwidth at -1.0 dB



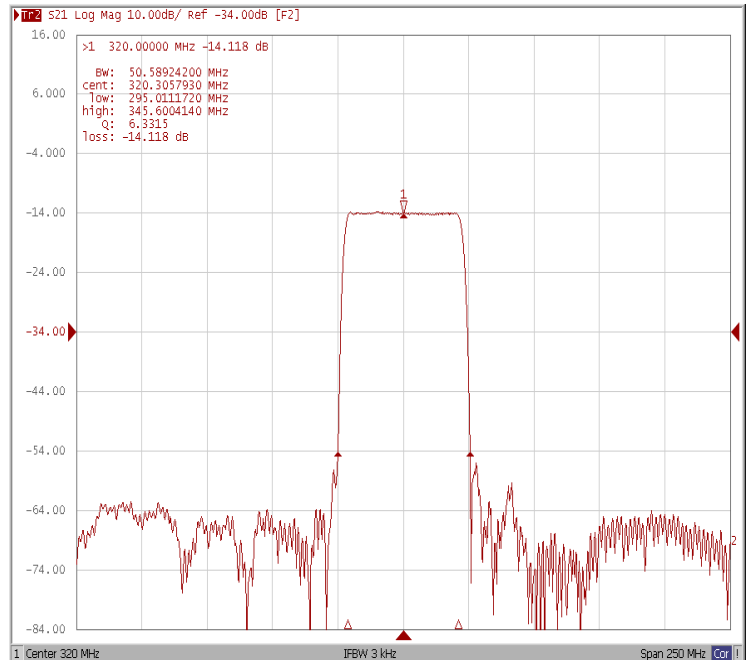
#### Bandwidth at -3.0 dB



#### Bandwidth at -20.0 dB

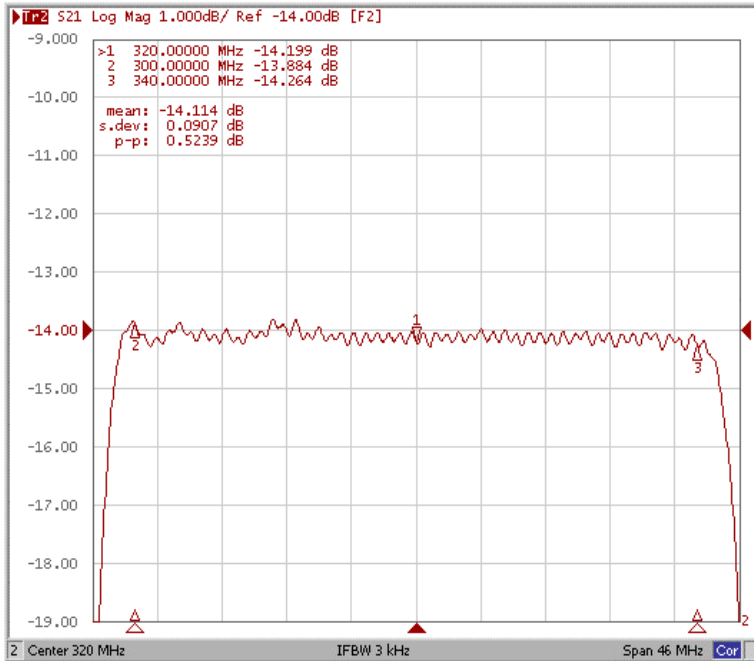


#### Bandwidth at -40.0 dB

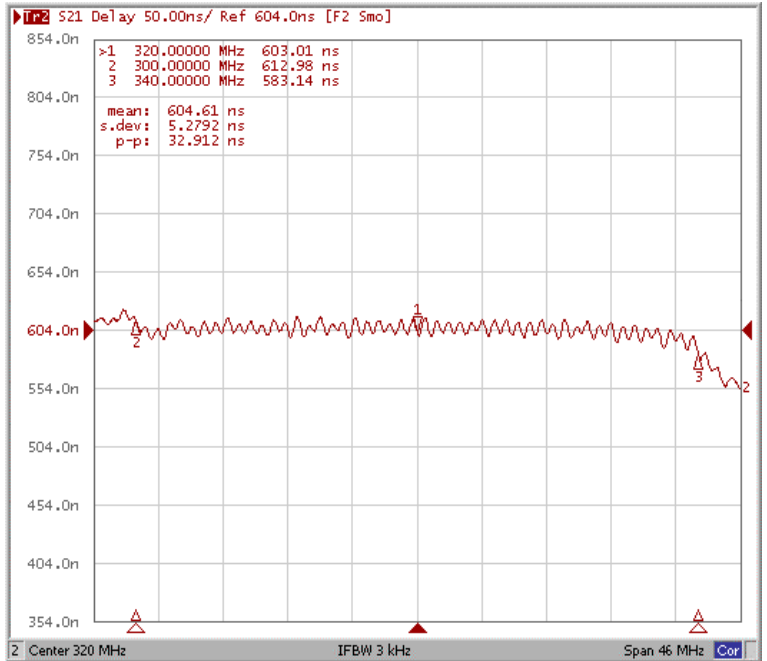




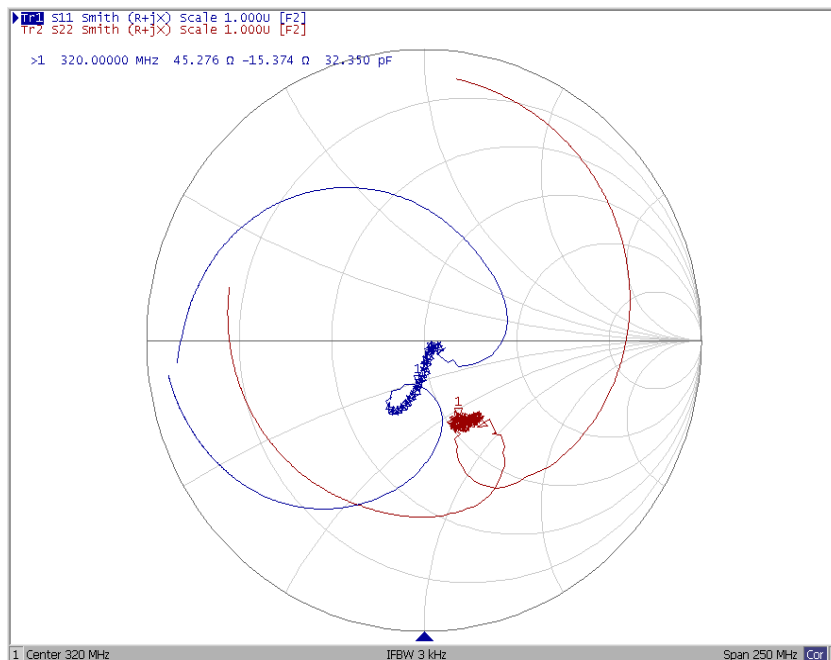
### Ripple Variation $F_o \pm 20.0\text{MHz}$



### Group Delay Variation $F_o \pm 20.0\text{MHz}$



### Smith Chart





## VSWR

