



PRODUCT SPECIFICATION

REV A January 2011

Oscilent Controlled Document

Ordering Code / Part Number	Product Description
813-IF79.9M-20B	79.9 MHz IF SAW Filter 20.25 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)



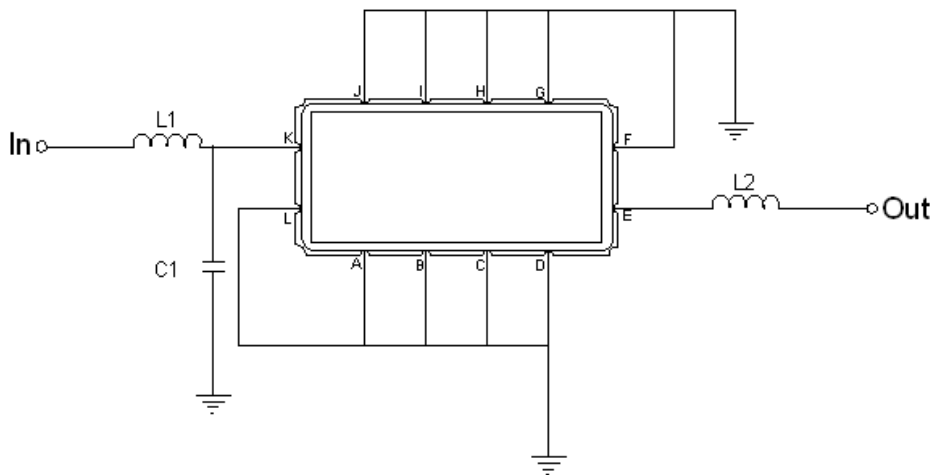


Mechanical Dimensions (mm)



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

Test Circuit



Test Fixture & Values	
Input	L1=150 nH, C1=10 pF
Output	L2=100nH
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.

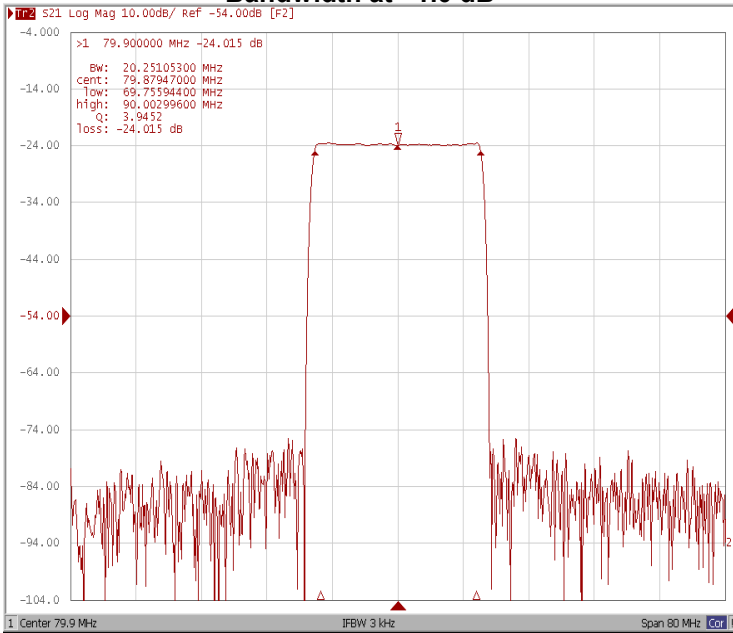
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	79.80	79.90	80.00
Insertion Loss at Fo	dB	-	24.0	25.5
Temperature Coefficient	ppm/°C	-	-72	-
Amplitude Ripple within fo ±9.65 MHz	dB _{p-p}	-	0.55	1.00
Group Delay Variation within fo ±9.65 MHz	nsec	-	25	50
Absolute Delay at Fo	µsec	-	1.60	-
Bandwidth at -1.0 dB	MHz	20.10	20.25	-
Bandwidth at -3.0 dB	MHz	-	20.60	-
Bandwidth at -40.0 dB	MHz	-	22.20	22.40
Ultimate Rejection	dB	45	50	-

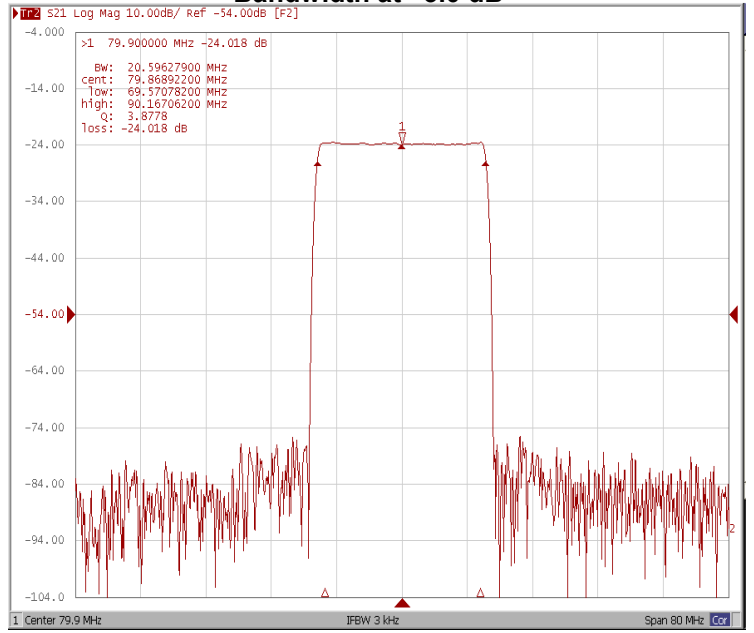


Frequency Response

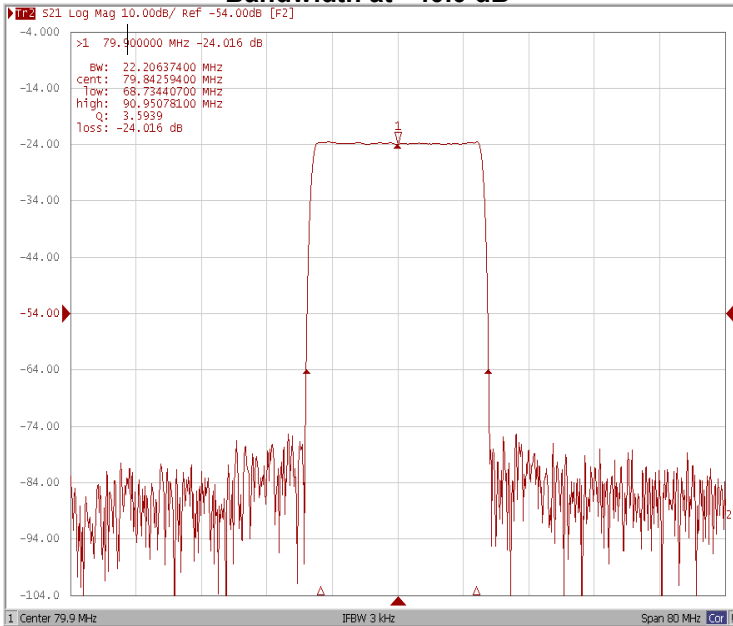
Bandwidth at -1.0 dB



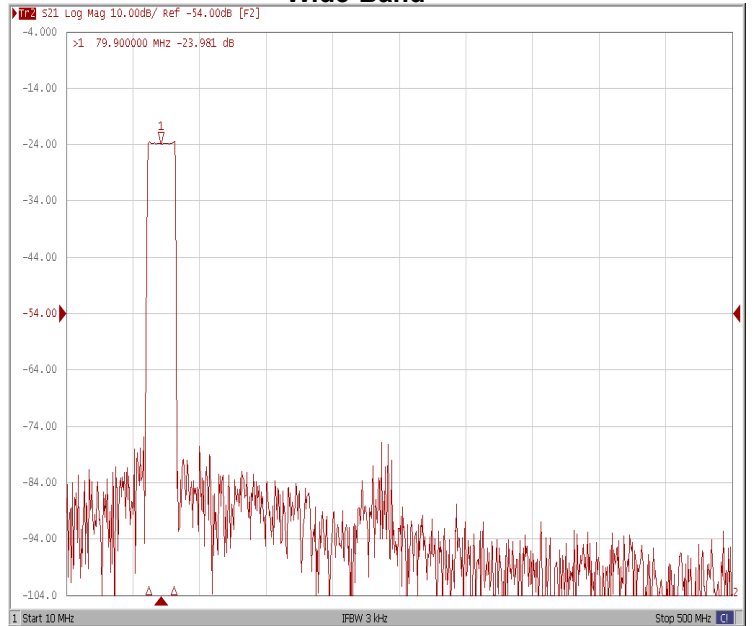
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

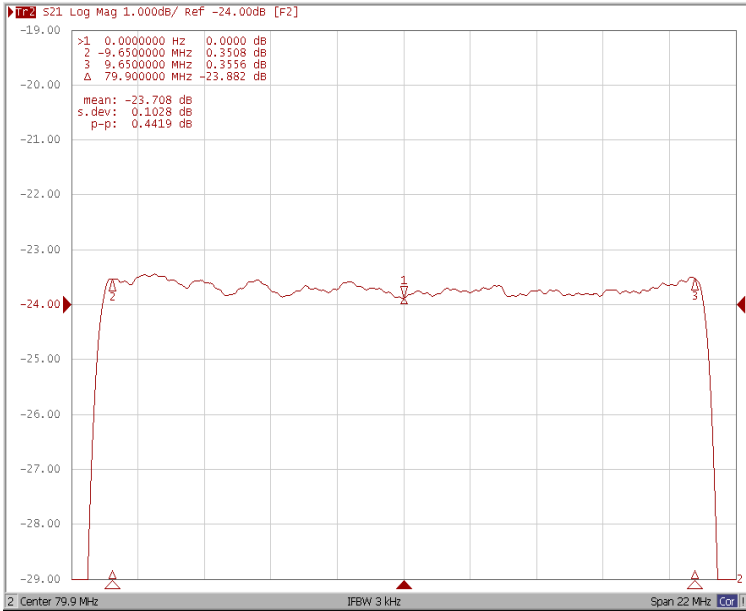


Wide-Band

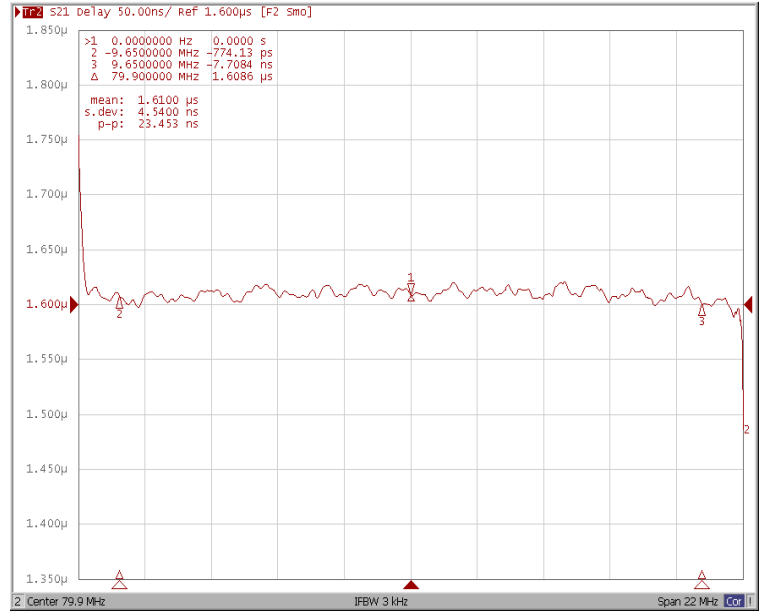




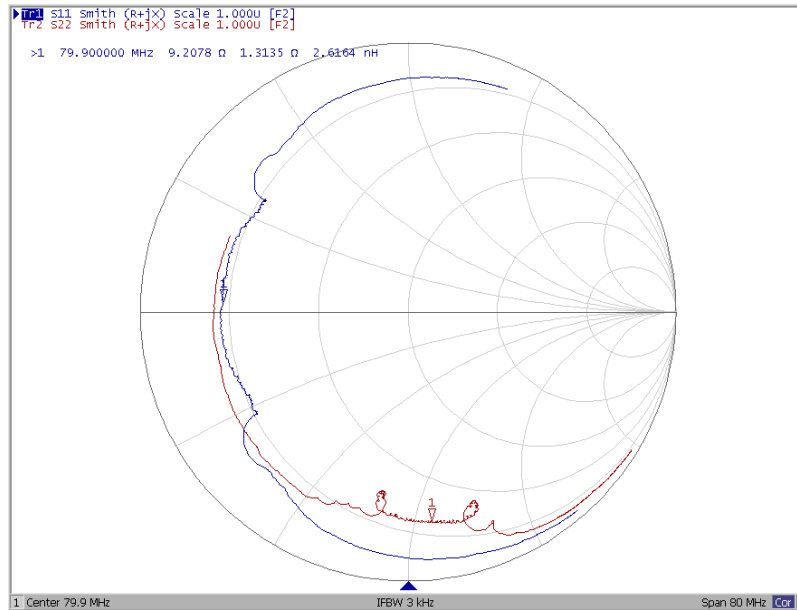
Ripple Variation Fo±9.65MHz



Group Delay Variation Fo±9.65MHz



Smith Chart





VSWR

