



*Total Solution Provider in Saw Device*

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# SF-029503-D40

295.0MHz IF SAW Filter  
18.65MHz Bandwidth  
Revision 0: 19. October. 2012



- Electrical Characteristics
  - Package Dimensions
  - Testing Environment
  - Frequency Characteristics
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## □ Electrical Characteristics

### Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-	+25	-
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	-	-	-
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	D40			
Length x Width	mm <sup>2</sup>	-	20.0 x 12.6	-
Height	mm	-	-	5.05

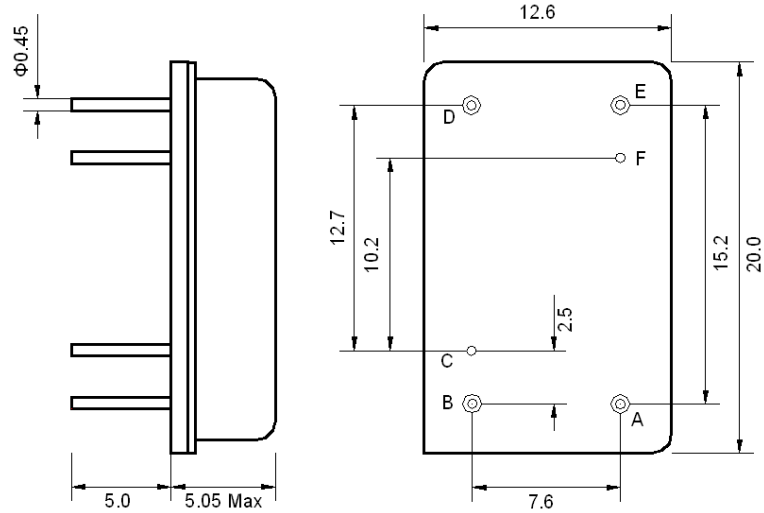
### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	295.0	-
Insertion Loss at Fo	dB	-	28.7	30.5
Amplitude Ripple Variation (Fo±9.0MHz)	dB <sub>p-p</sub>	-	0.70	1.20
Group Delay Variation (Fo±9.0MHz)	nsec	-	41	80
Absolute Delay at Fo	µsec	-	2.23	-
Bandwidth at -1.0 dB	MHz	18.55	18.65	-
Bandwidth at -3.0 dB	MHz	-	19.00	-
Bandwidth at -20.0 dB	MHz	-	19.90	-
Bandwidth at -45.0 dB	MHz	-	20.36	20.50
Ultimate Rejection	dB	50	55	-
Temperature Coefficient	ppm/°C	-	-18	-

**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).

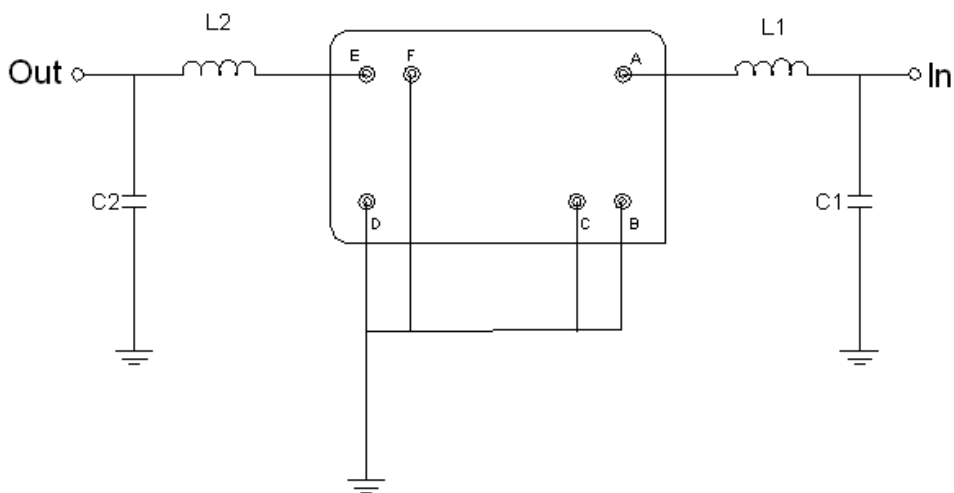
Those impedances could be modified with different impedance values and/or structures, if necessary.

**Package Dimensions**



Pin Description	
B, C, D, F	Ground
A	Input
E	Output

**Testing Environment**



Test Fixture & Values	
Input	L1= 10 nH, C1=18 pF
Output	L2= 10 nH, C2=18 pF
Source/Load Impedance	50 Ω

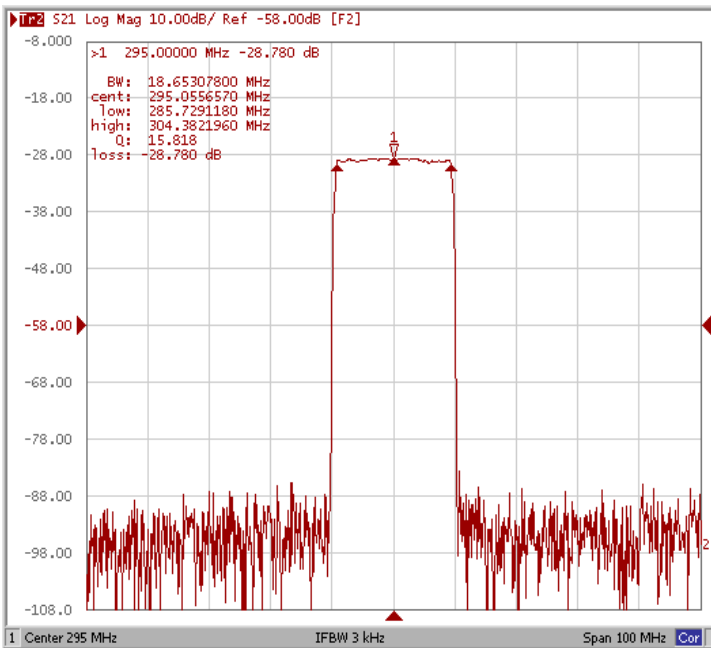


## □ Frequency Characteristics

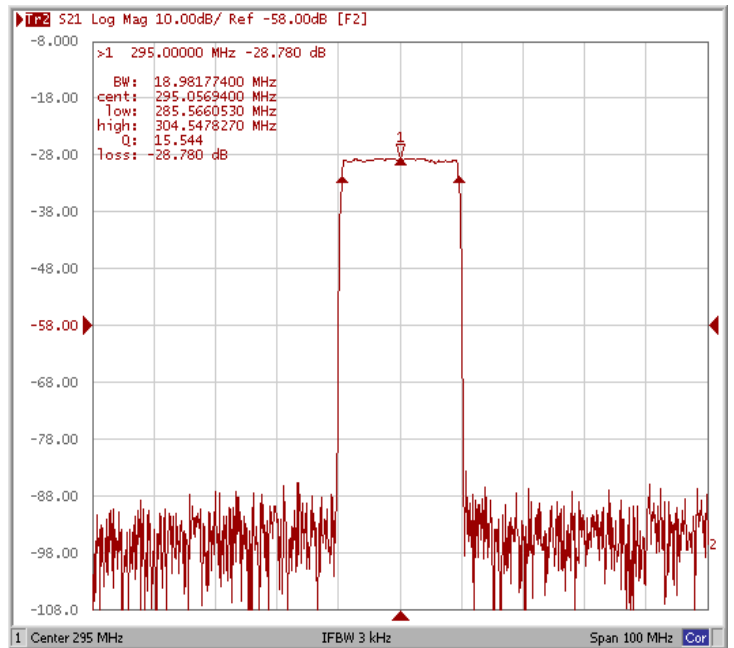
### Frequency Response

\*Room Temp. 25 degree

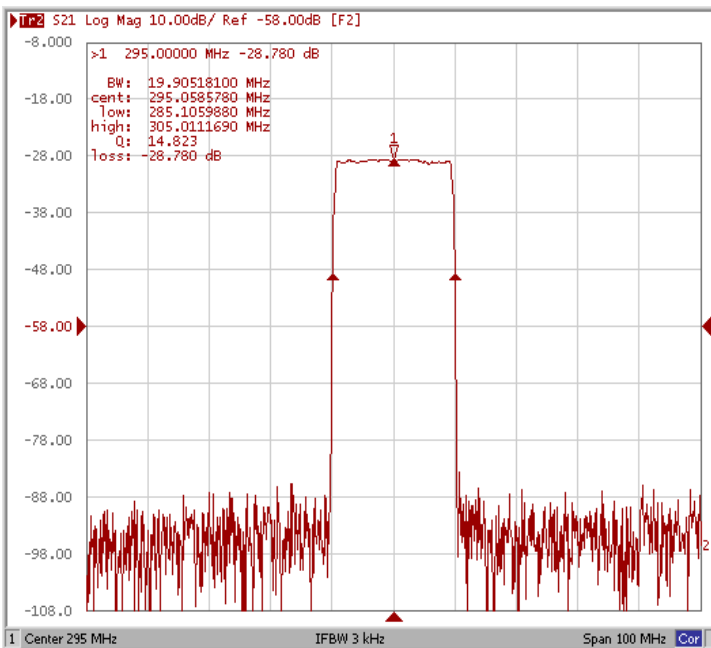
Bandwidth at -1.0 dB



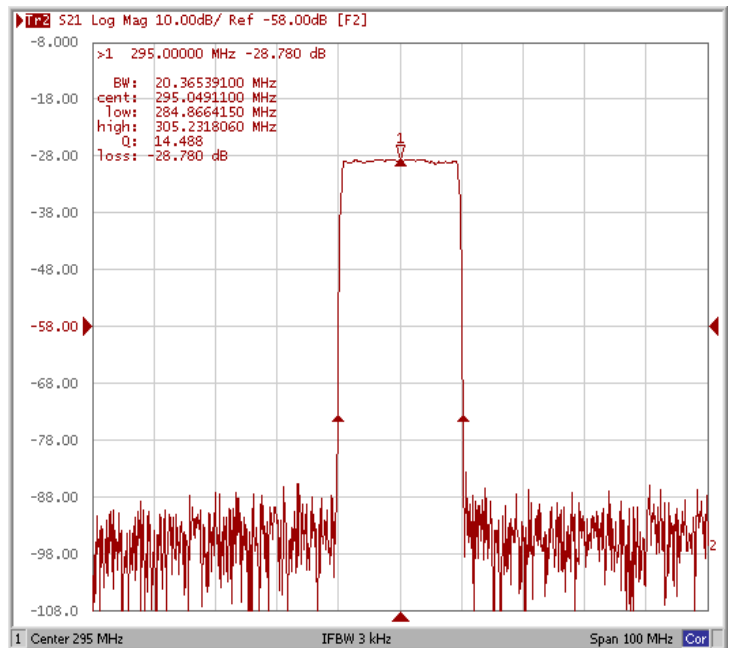
Bandwidth at -3.0 dB



Bandwidth at -20.0 dB



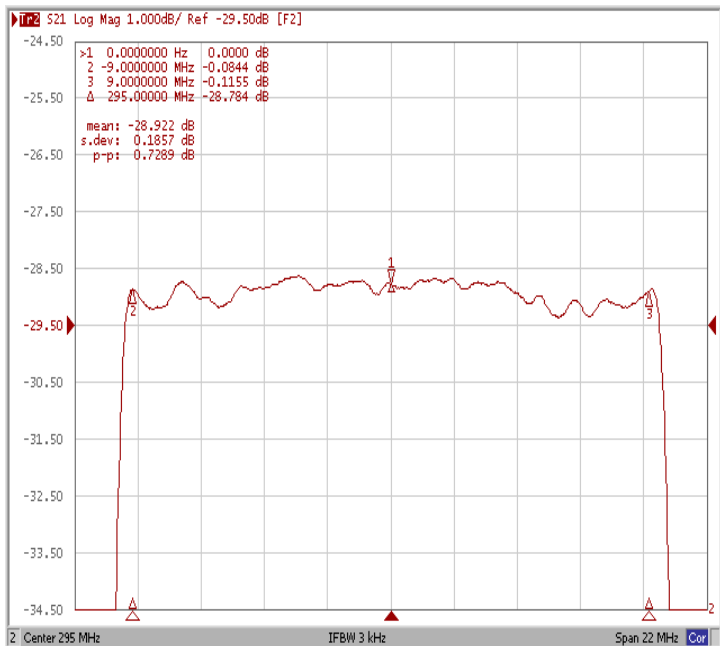
Bandwidth at -45.0 dB



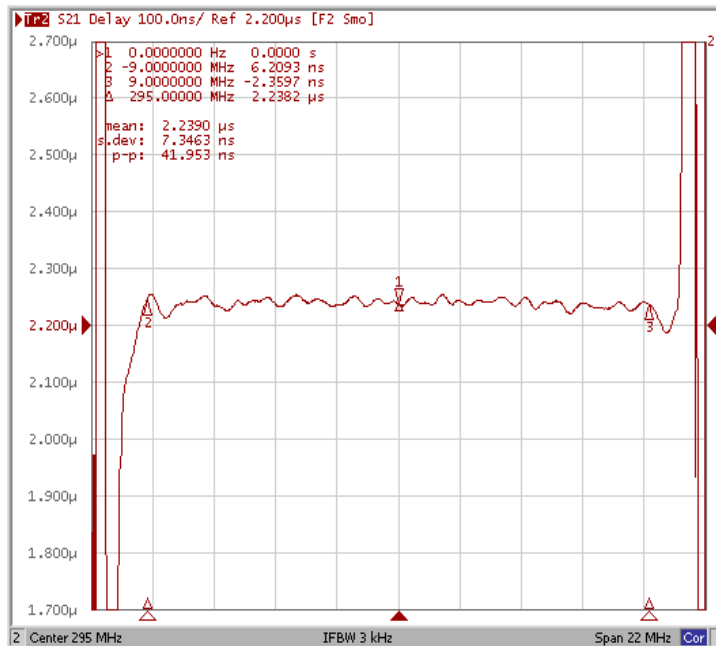
### Frequency Characteristics

#### Frequency Response

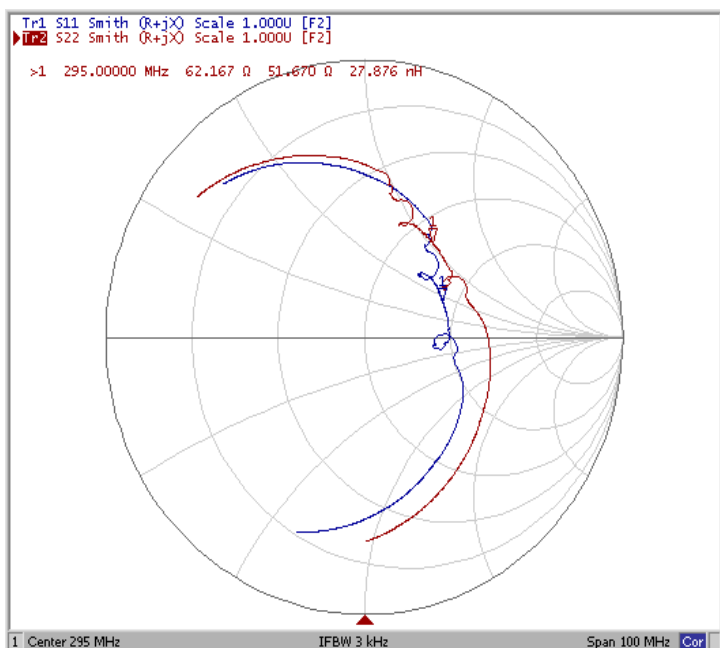
Ripple Variation at  $F_o \pm 9.0$  MHz



Group Delay Variation at  $F_o \pm 9.0$  MHz



Smith Chart



VSWR

