



*Total Solution Provider in Saw Device*

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# SL17501AS

175.00 MHz IF SAW Filter  
0.96MHz Bandwidth  
Revision 0: 04. April. 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	-40	-	+85
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	S			
Length x Width	mm <sup>2</sup>	-	7.0 x 5.0	-
Height	mm	-	-	1.7

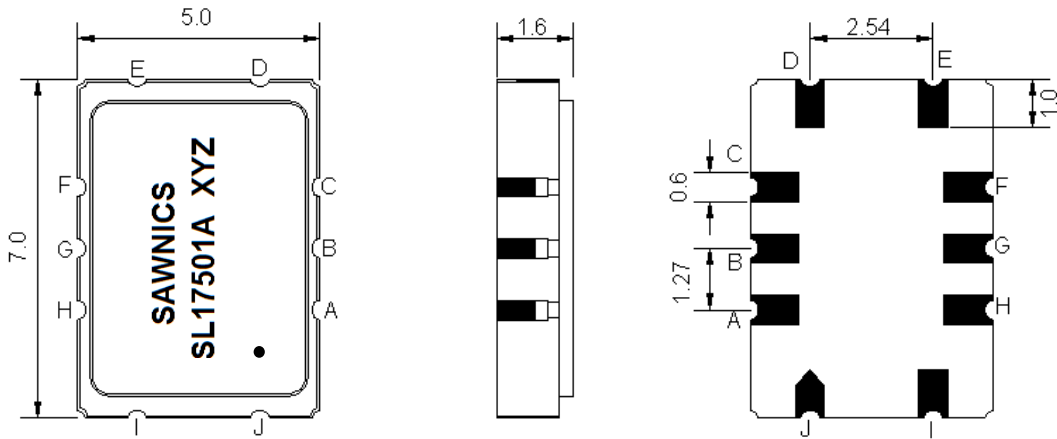
### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	175.00	-
Insertion Loss at Fo	dB	-	8.5	10.5
Group Delay Variation (Fo±0.2MHz)	nsec	-	55	300
Absolute Delay at Fo	usec	-	0.75	1.30
Amplitude Ripple variation (Fo +/-0.2MHz)	dB	-	0.30	1.50
Bandwidth at -1dB	MHz	0.90	0.96	-
Bandwidth at -2.5dB	MHz	-	1.32	-
Bandwidth at -3dB	MHz	-	1.42	-
Bandwidth at -5dB	MHz	-	1.70	-
Bandwidth at -30dB	MHz	-	3.25	-
Bandwidth at -40dB	MHz	-	3.55	3.95
Ultimate rejection (up to 1GHz)	dB	40	50	-
Temperature Coefficient	ppm/°C	-	-0.03	-

**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.

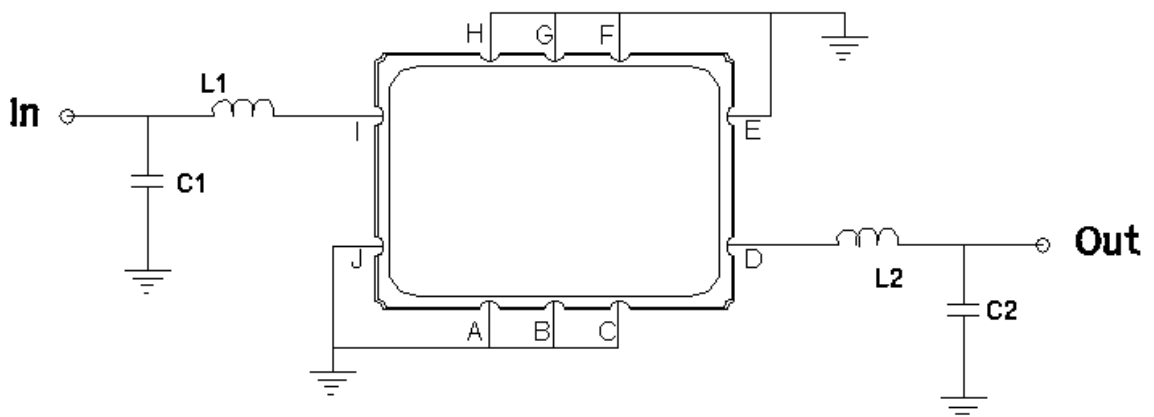
### Package Dimensions



- ① SAWNICS: Brand
- ② SL17501A: Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z : Date Code (Date)
- : Index Dot

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

### Testing Environment



Test Fixture & Values	
Input	L1 = 120 nH Q >40, C1 = 30 pF
Output	L2 = 100+27 nH Q >40, C2 = 36 pF
Source/Load Impedance	50 Ω

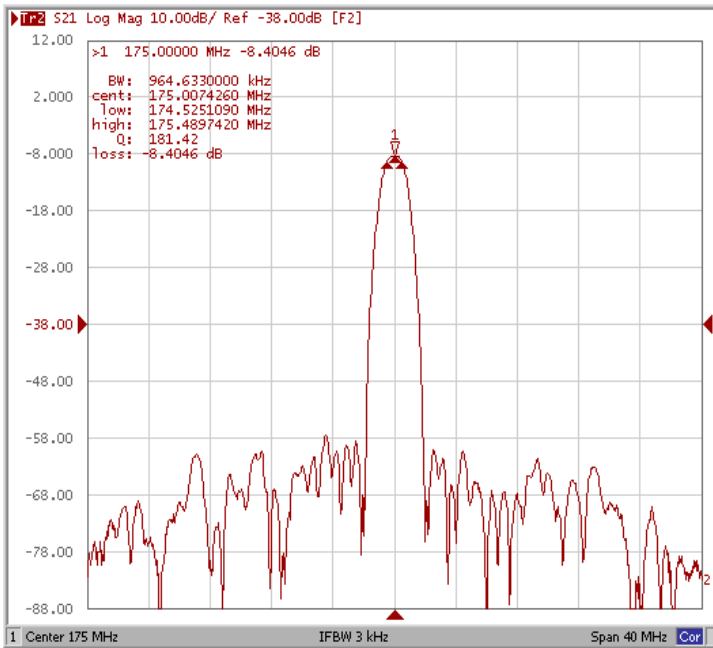


## Frequency Characteristics

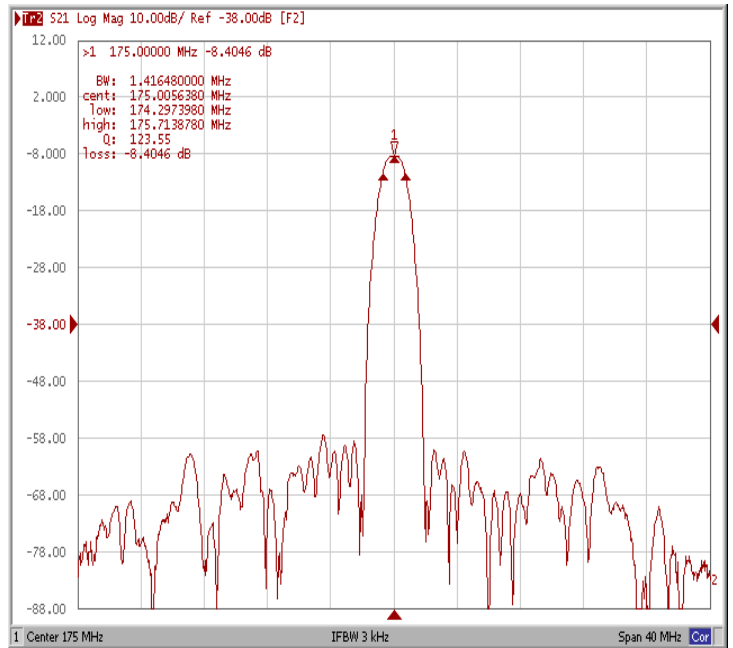
### Frequency Response

\*Room Temp. 25 degree

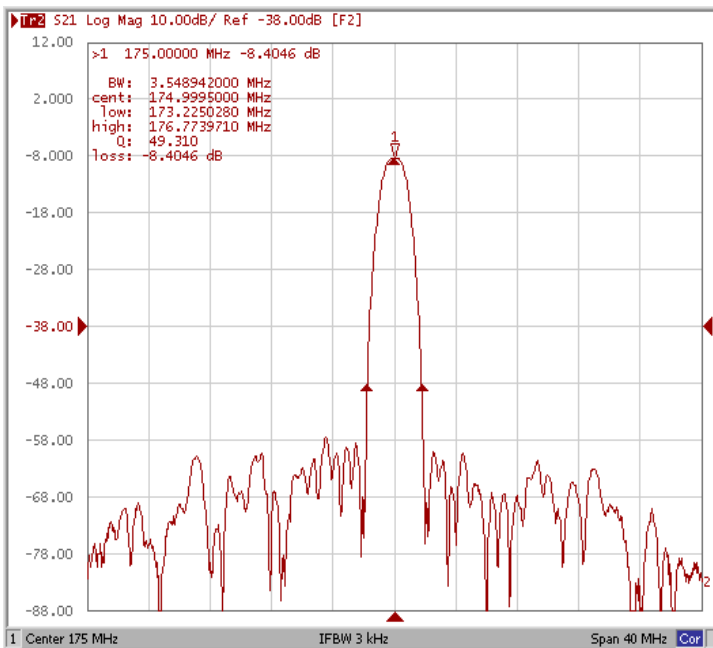
Bandwidth at -1.0 dB



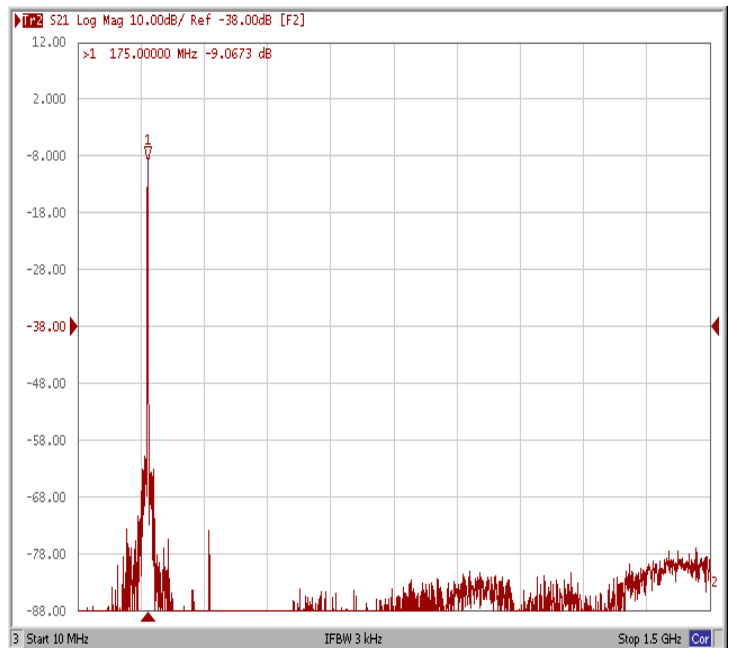
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Ultimate rejection (up to 1GHz)

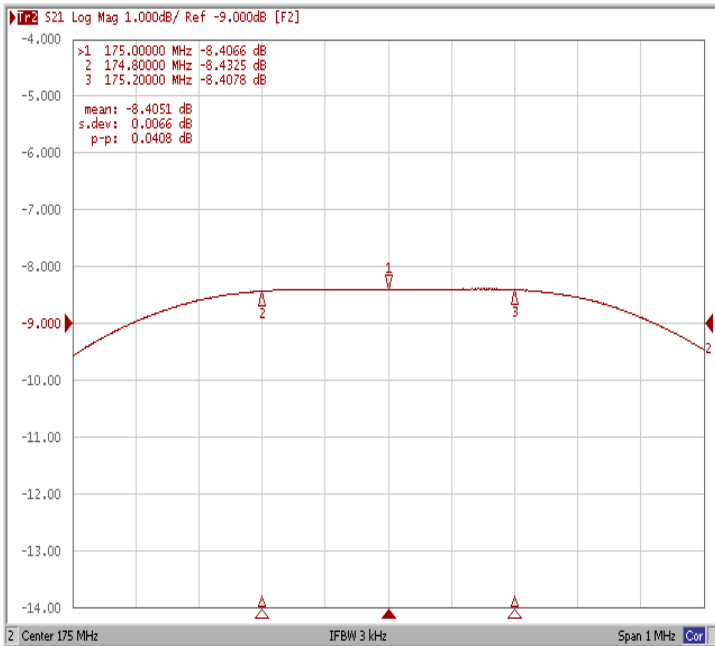




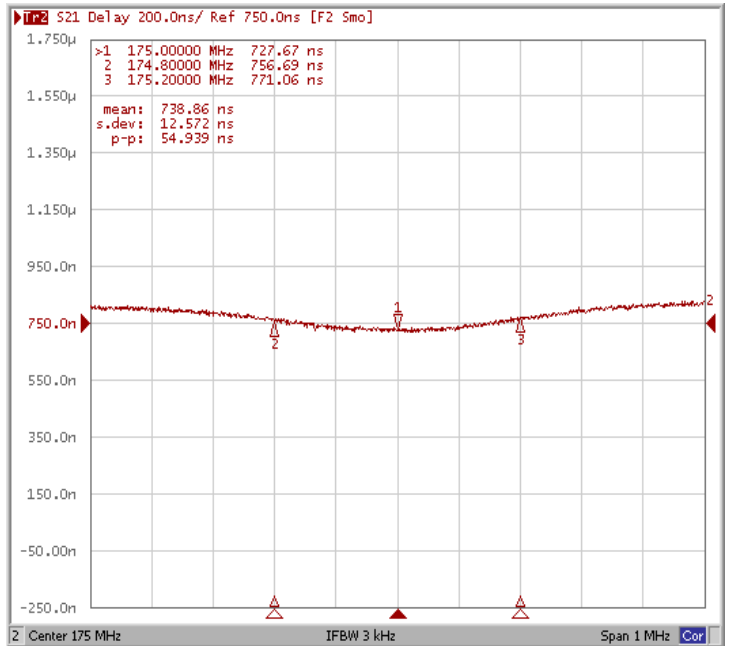
### Frequency Characteristics

#### Frequency Response

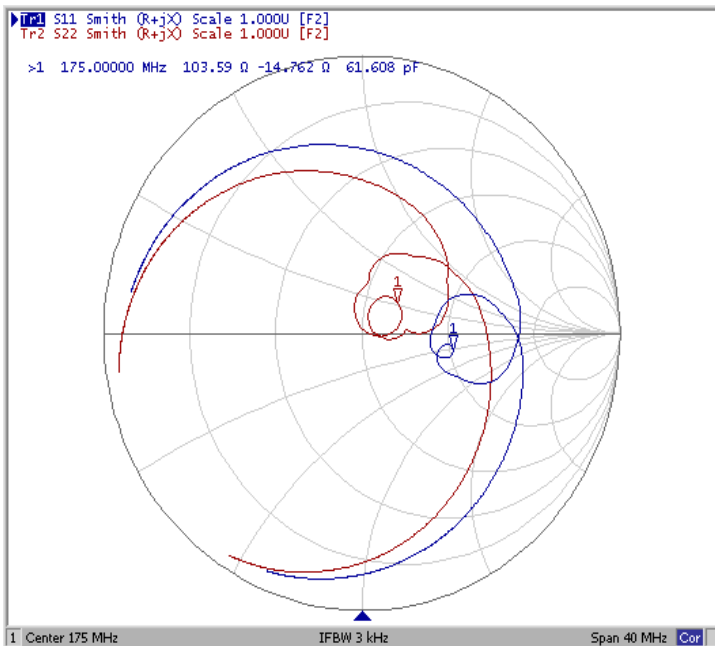
Ripple Variation Fo±0.2MHz



Group Delay Variation Fo±0.2MHz



Smith Chart



VSWR

