



*Total Solution Provider in Saw Device*

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# SL20112AS

201.0 MHz IF SAW Filter  
12.95 MHz Bandwidth  
Revision 0: 26. Nov. 2008



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

### Maximum Ratings

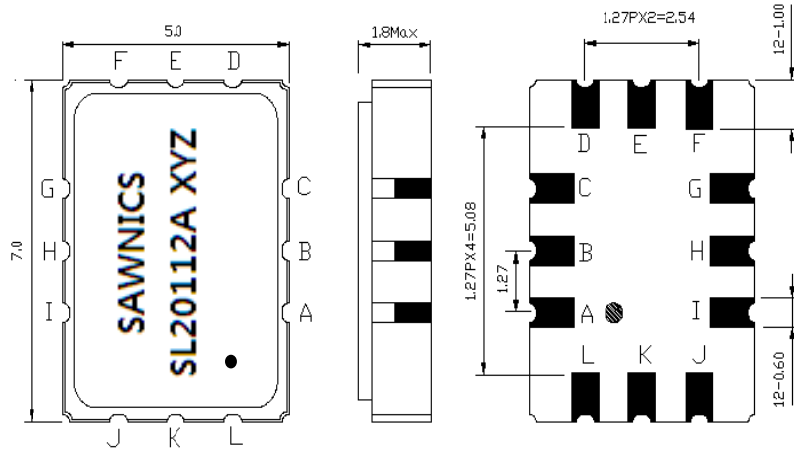
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-40	-	80
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	S1			
Length x Width	mm <sup>2</sup>	-	7.0 x 5.0	-
Height	mm	-	-	1.8

### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	201.0	-
Insertion Loss at Fo	dB	-	15.7	18.0
Amplitude Ripple Variation at Fo ± 4.5 MHz	dB <sub>p-p</sub>	-	0.7	1.2
Group Delay Variation at Fo ± 4.5 MHz	nsec	-	20	35
Absolute Delay at Fo	µsec	-	0.57	-
Temperature Coefficient	ppm/°C	-	-86	-
Bandwidth at -1.0 dB	MHz	11.00	12.95	-
Bandwidth at -3.0 dB	MHz	-	14.15	-
Bandwidth at -40.0 dB	MHz	-	19.75	22.0
Ultimate Rejection	-	-	40	-

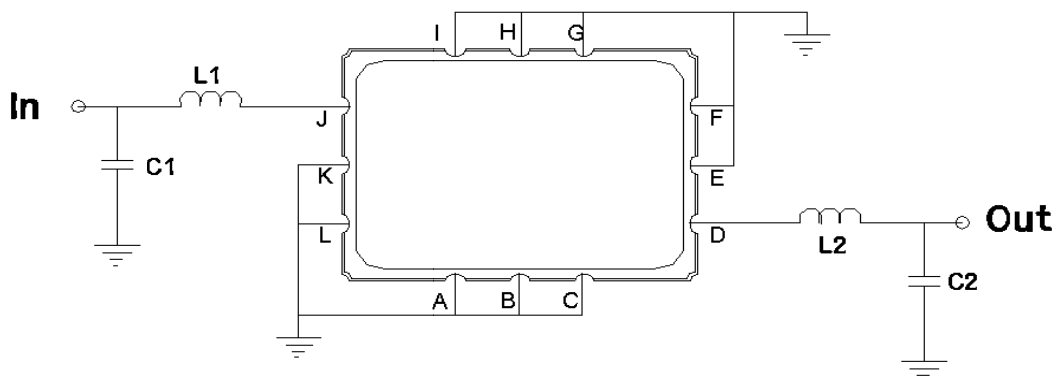
**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).  
Those impedances could be modified with different impedance values and/or structures, if necessary.

### Package Dimensions



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

### Testing Environment

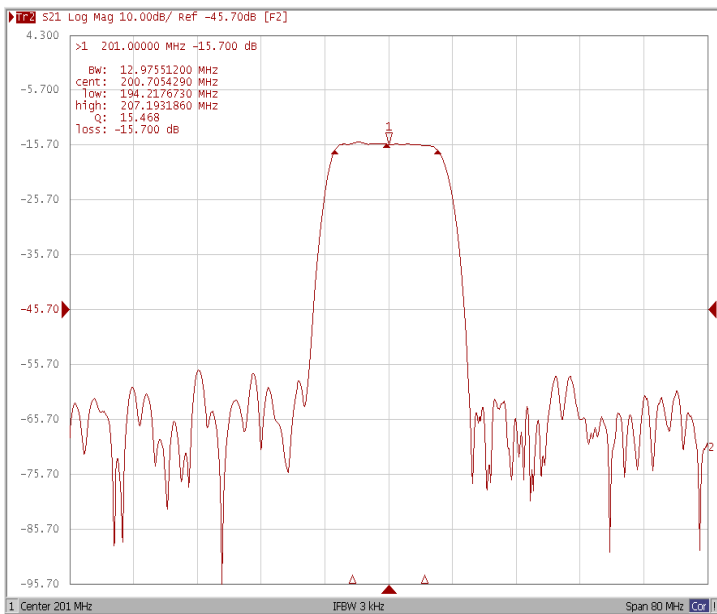


Test Fixture & Values	
Input	L1=27 nH , C1=11 pF
Output	L2=33 nH , C2=11 pF
Source/Load Impedance	50 Ω

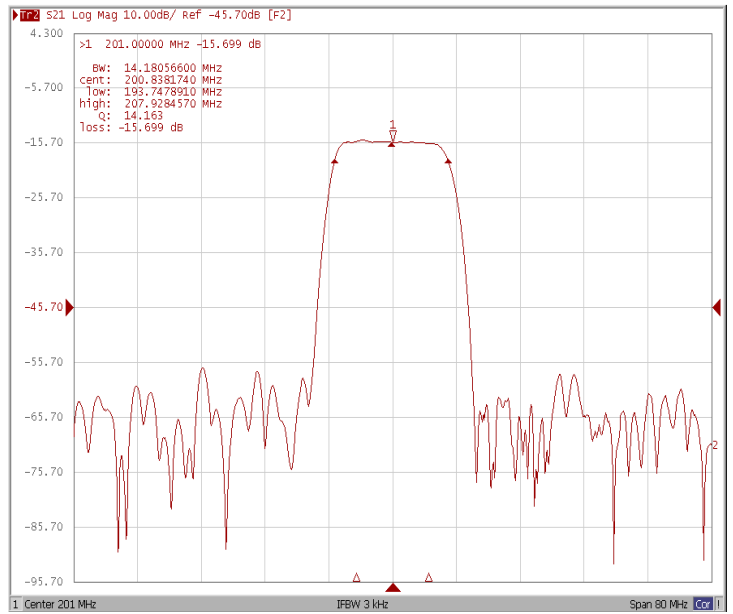
### □ Frequency Characteristics

#### Frequency Response

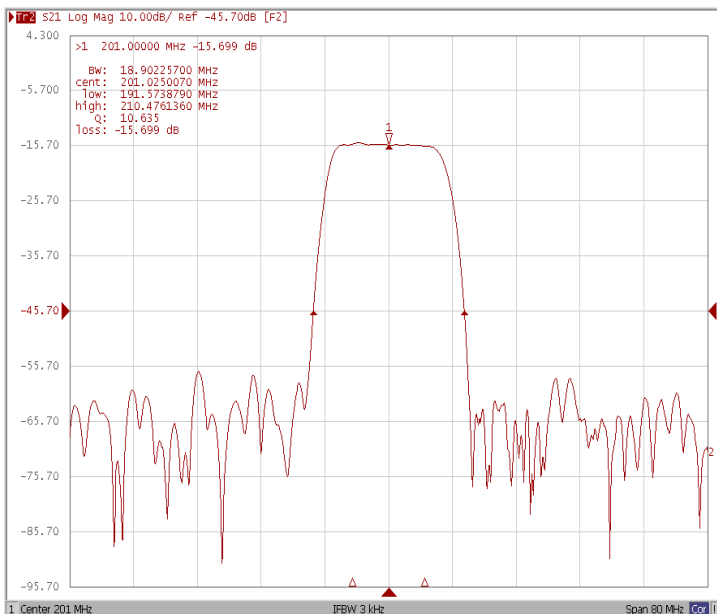
**Bandwidth at -1.0 dB**



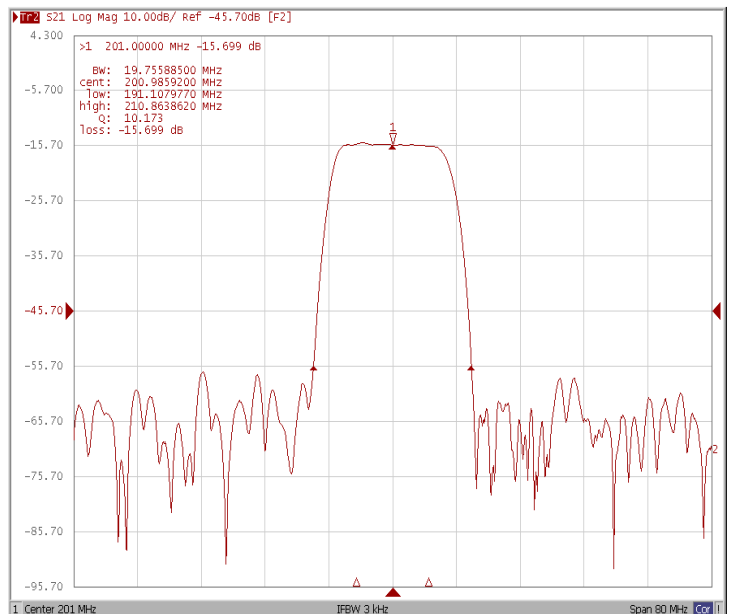
**Bandwidth at -3.0 dB**



**Bandwidth at -30.0 dB**



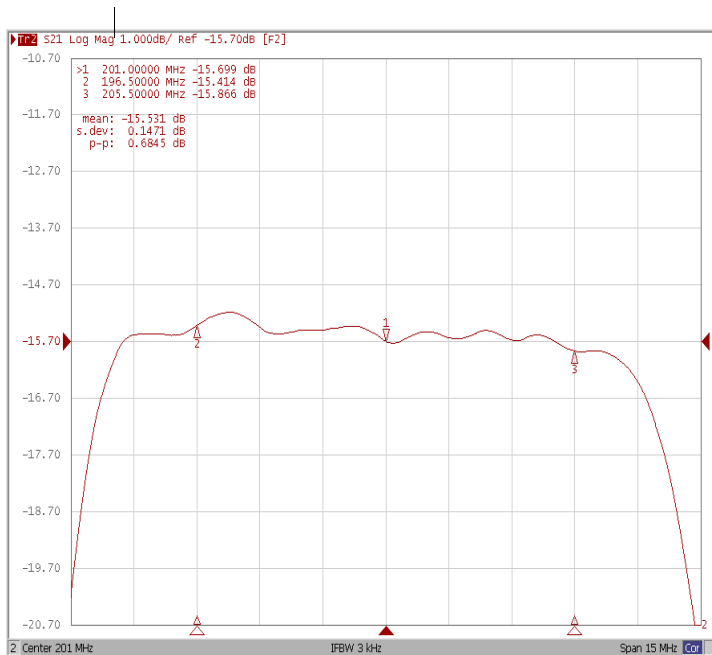
**Bandwidth at -40.0 dB**



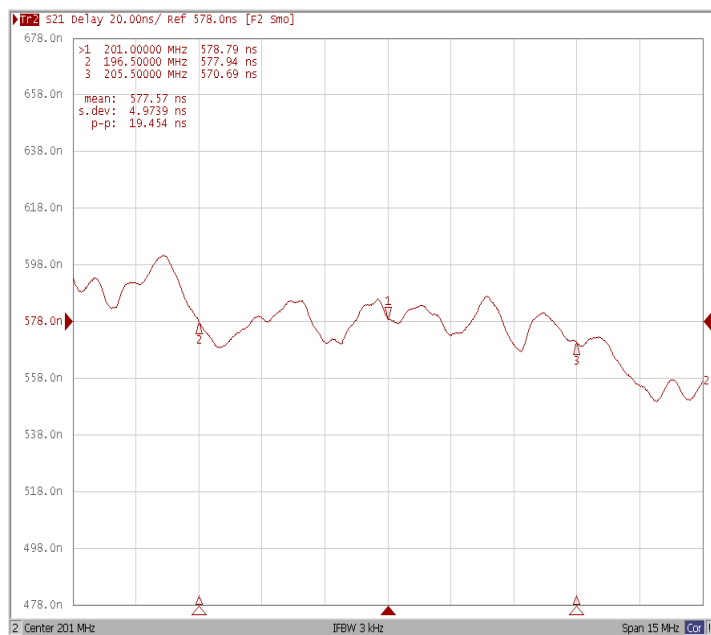
### Frequency Characteristics

#### Frequency Response

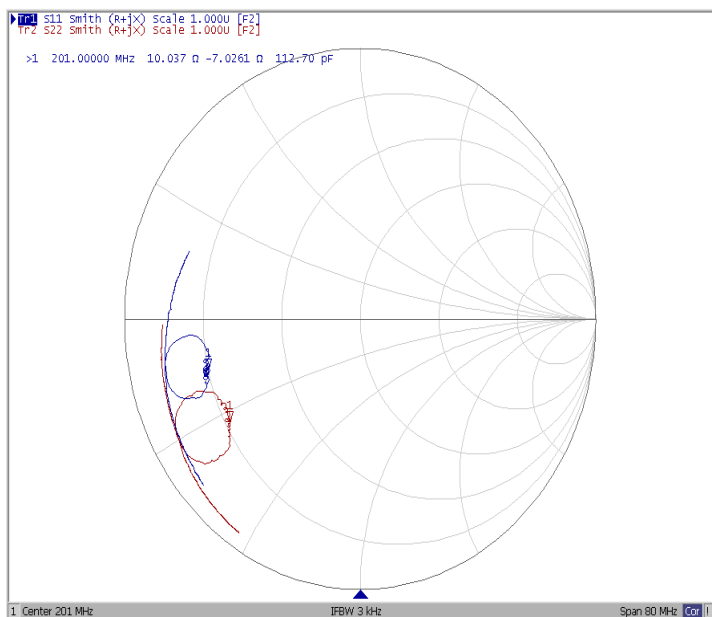
Ripple Variation  $F_o \pm 4.5\text{MHz}$



Group Delay Variation  $F_o \pm 4.5\text{MHz}$



Smith Chart



VSWR

