



*Total Solution Provider in Saw Device*

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# SL12022AV

120.0MHz IF SAW Filter  
19.5 MHz Bandwidth  
Revision 0: 16. January. 2008

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- Electrical Characteristics
  - Package Dimensions
  - Testing Environment
  - Frequency Characteristics
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**SAWNICS Inc.**

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460 Cheonheung-ri, Seonggeo-eup, Cheonan-si, Chungcheongnam-do, 330-836 / Korea.  
Tel: +82 41 550 9372 / Fax: +82 41 550 9399 / [www.sawnics.com](http://www.sawnics.com)

## □ Electrical Characteristics

### Maximum Ratings

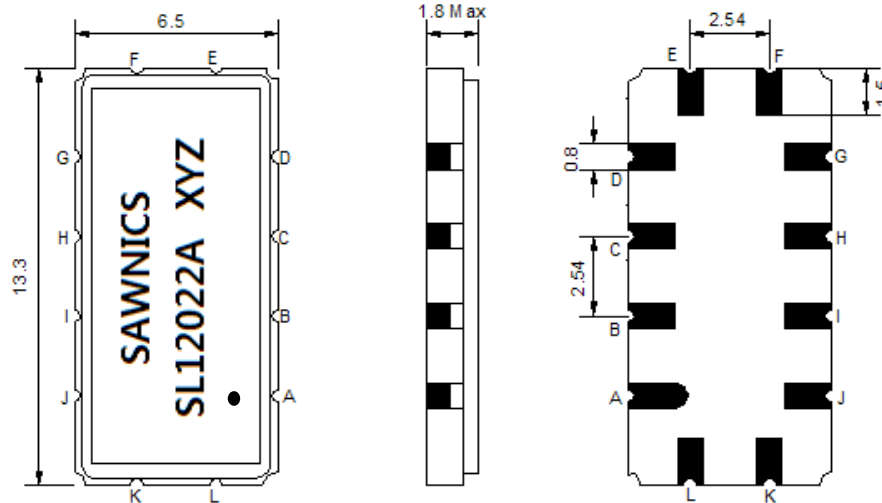
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-	25	-
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	V			
Length x Width	mm <sup>2</sup>	-	13.3 x 6.5	-
Height	mm	-	-	1.8

### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	120.0	-
Insertion Loss at Fo	dB	-	11.6	13.5
Amplitude Ripple Variation at Fo ± 9.75 MHz	dB <sub>p-p</sub>	-	0.3	0.6
Group Delay Variation at Fo ± 9.75 MHz	nsec	-	28	45
Absolute Delay at Fo	µsec	-	0.71	-
Temperature Coefficient	ppm/°C	-	-86	-
Bandwidth at -1.0 dB	MHz	21.5	22.0	-
Bandwidth at -25.0 dB	MHz	-	27.1	28.0
Bandwidth at -40.0 dB	MHz	-	28.4	-
<b>Relative Attenuation</b>				
Lower Sidelobe	dB	40	45	-
Upper Sidelobe	dB	40	45	-

**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.

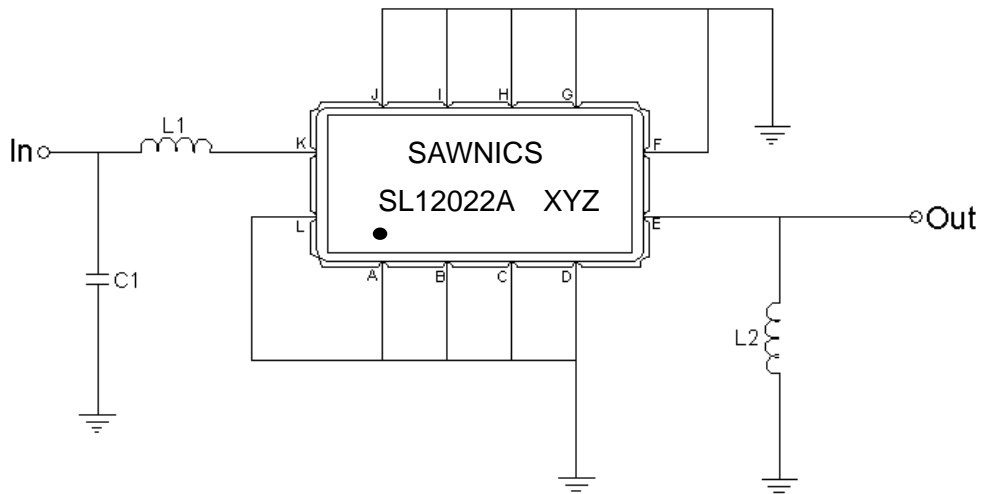
### Package Dimensions



- ① SAWNICS: Brand
- ② SL12022A: Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z : Date Code (Date)
- : Index Dot

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

### Testing Environment

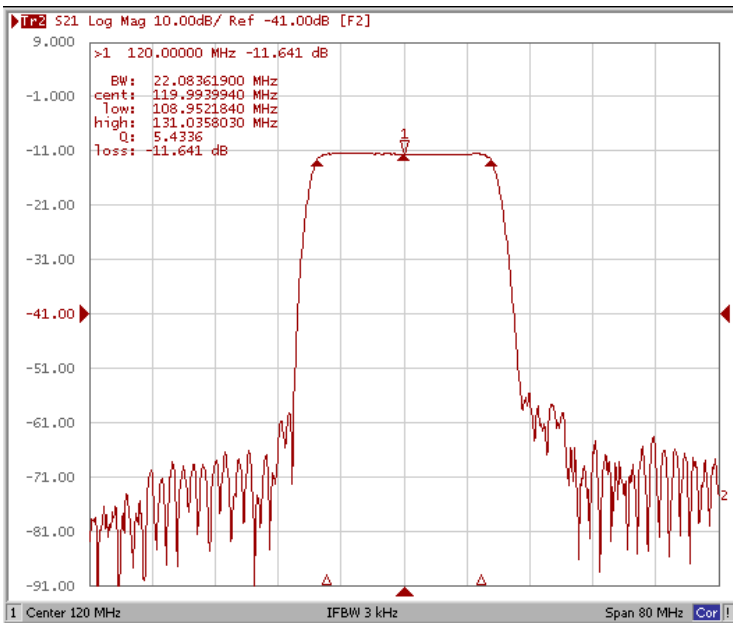


Test Fixture & Values	
Input	L1=56 nH, C1=18pF Q>35
Output	L2=56 nH Q>35
Source/Load Impedance	50 Ω

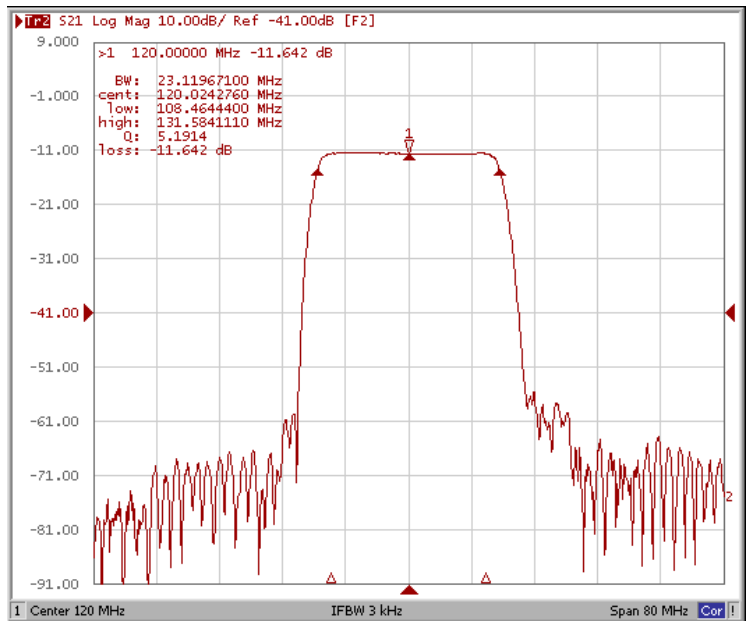
### □ Frequency Characteristics

#### Frequency Response

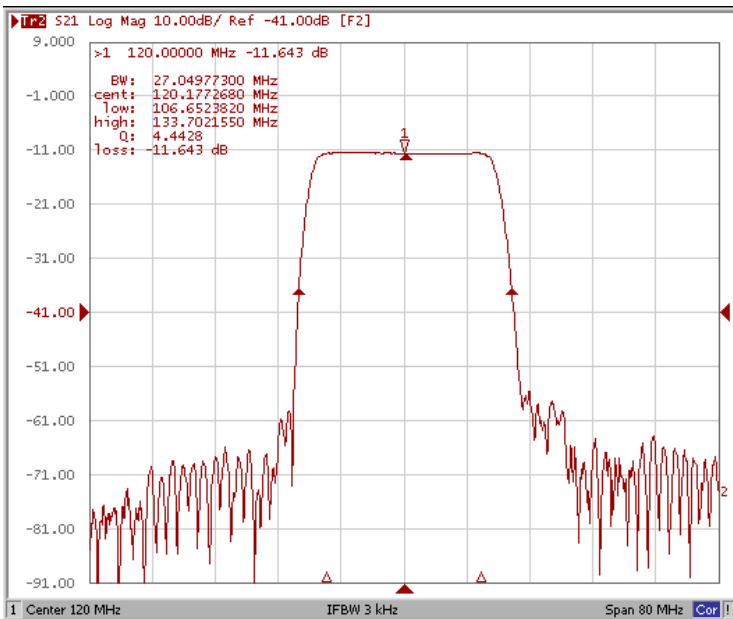
Bandwidth at -1.0 dB



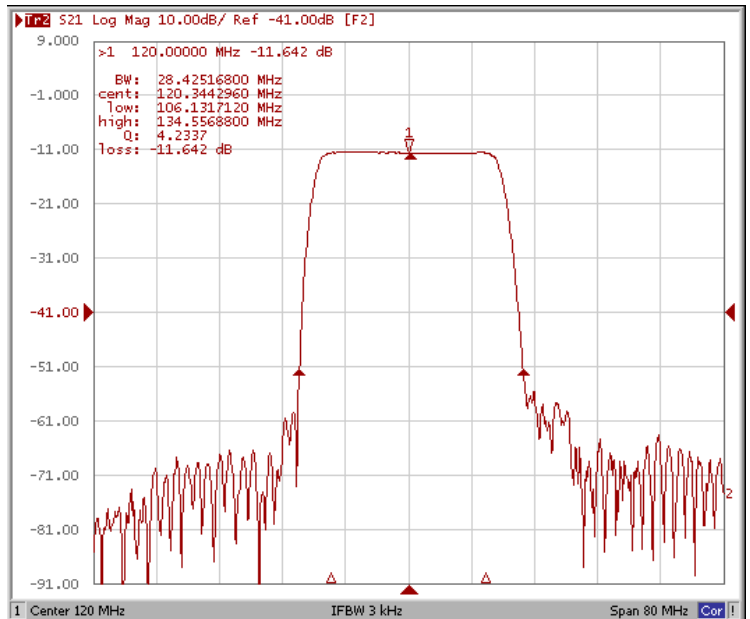
Bandwidth at -3.0 dB



Bandwidth at -25.0 dB



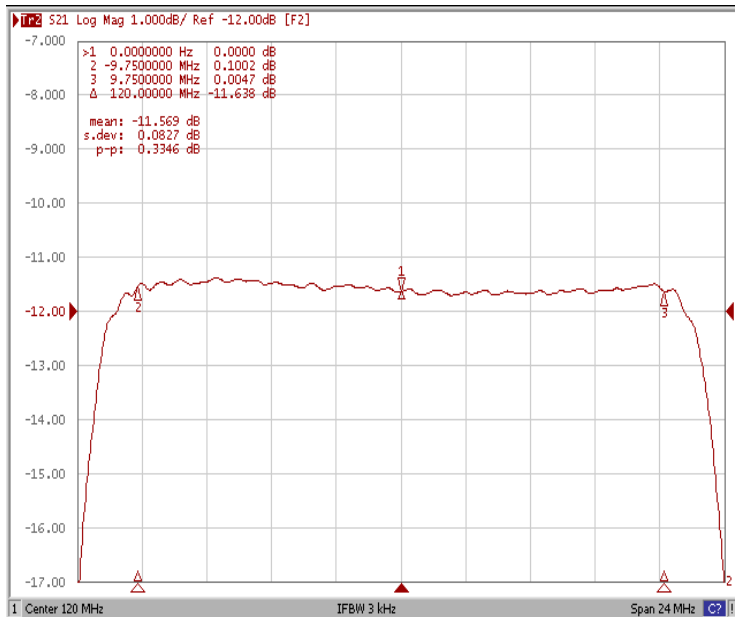
Bandwidth at -40.0 dB



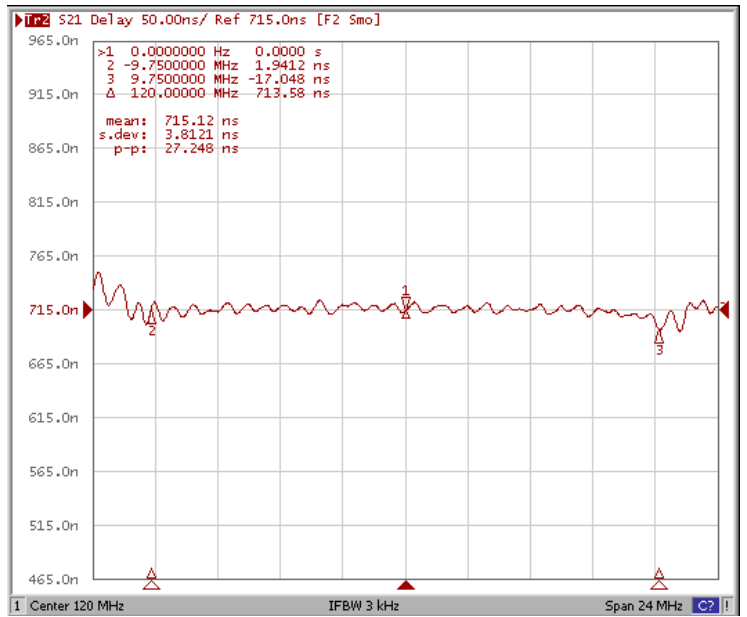
### Frequency Characteristics

#### Frequency Response

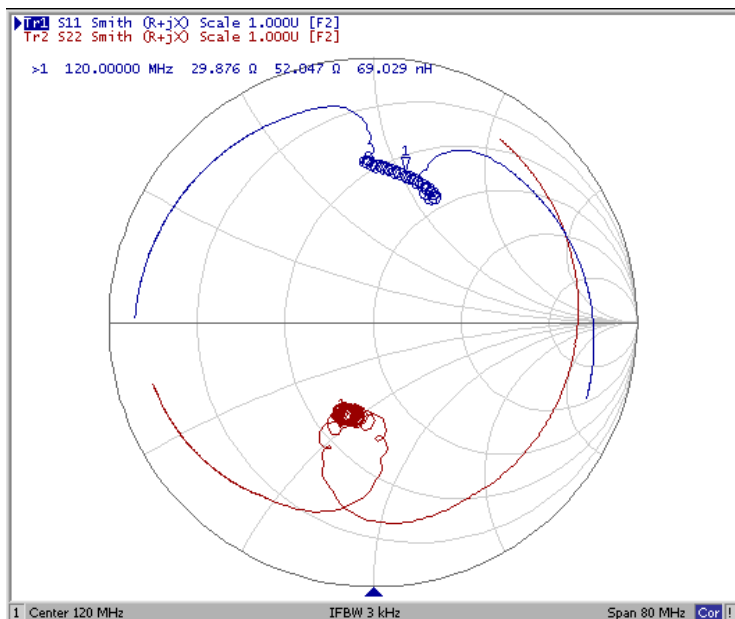
Ripple Variation  $F_o \pm 9.75\text{MHz}$



Group Delay Variation  $F_o \pm 9.75\text{MHz}$



Smith Chart



SWR

