



*Total Solution Provider in Saw Device*

---

# SA09102AV

91.25MHz IF SAW Filter  
2.08MHz Bandwidth  
Revision 0: 19. DEC. 2007



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

**SAWNICS Inc.**

---

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

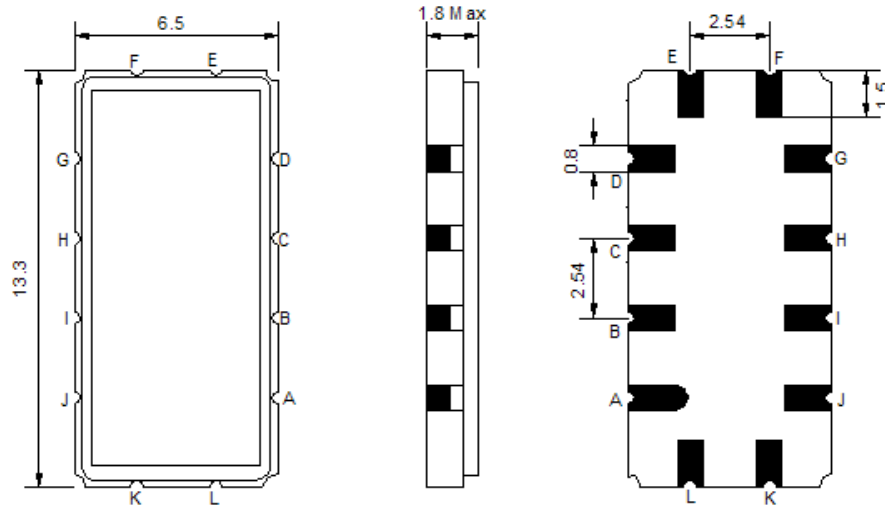
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	0	-	60
Storage Temperature Range	°C	-20	-	70
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package 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	-	91.25	-
Insertion Loss at Fo	dB	-	20.3	22.5
Group Delay Variation (Fo±0.75MHz)	ns	-	52	100
Absolute Delay	us	-	1.80	-
Temperature Coefficient	ppm/°C		-0.03	
Passband Ripple (Fo±0.75MHz)	dB	-	0.17	1.00
Bandwidth at -1dB	MHz	1.5	2.08	-
Bandwidth at -30dB	MHz	-	3.42	-
Bandwidth at -45dB	MHz	-	3.60	5.5
Ultimate Rejection	dB	-	45	-
Relative Attenuation Fo±1.75MHz/ Fo±2.75MHz	dB	-	32 / 55	-

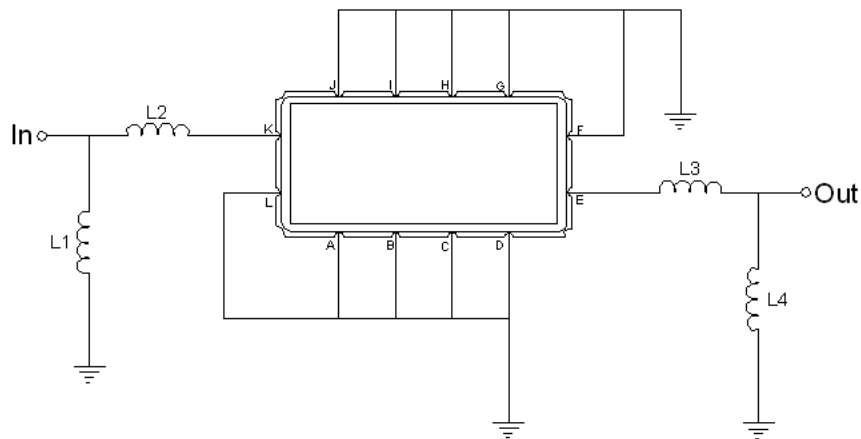
**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).  
Those impedances could be modified with different impedance values and/or structures, if necessary.

**Package Dimensions**



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

**Testing Environment**

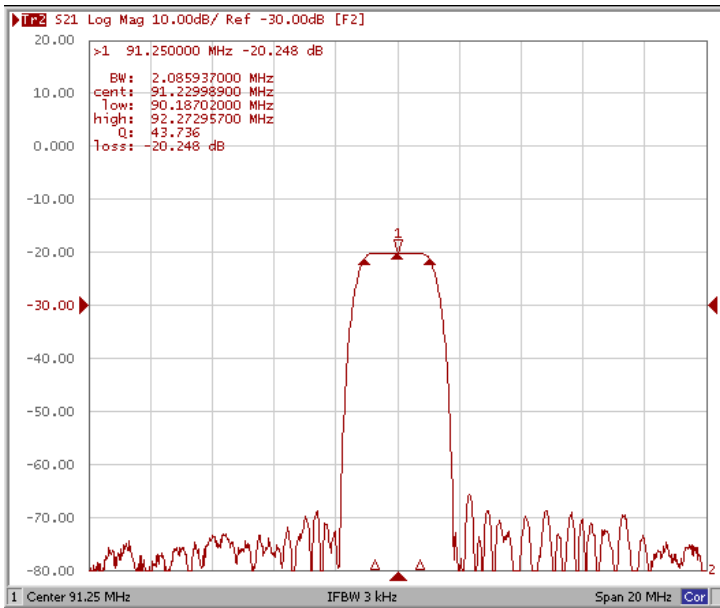


Test Fixture & Values	
Input	L1=82nH, L2=150nH
Output	L3=120nH, L4=68nH
Source/Load Impedance	50 Ω

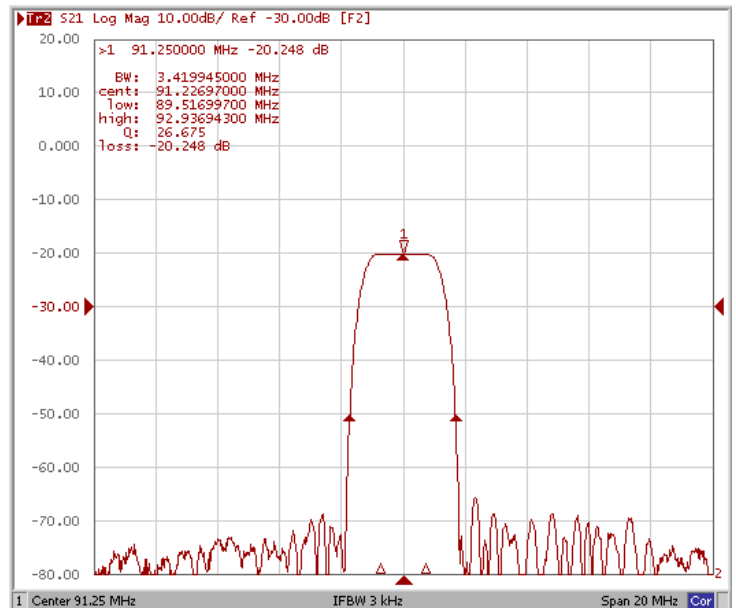
### Frequency Characteristics

#### Frequency Response

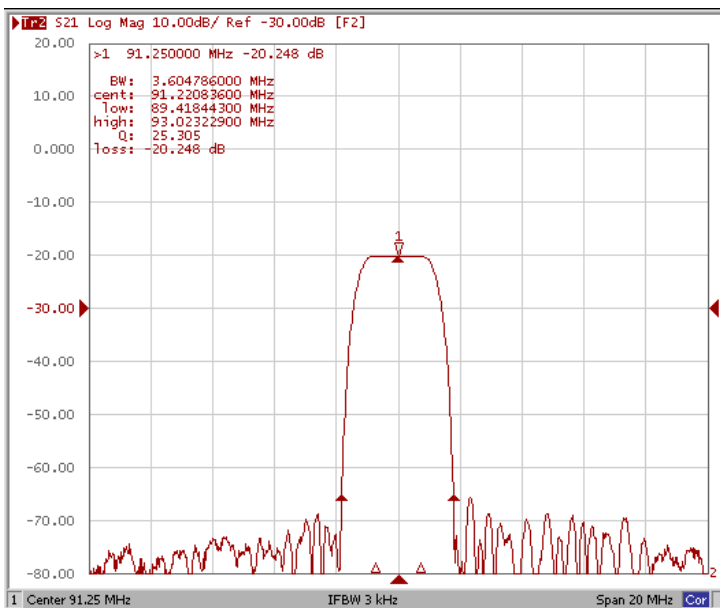
**Bandwidth at -1.0 dB**



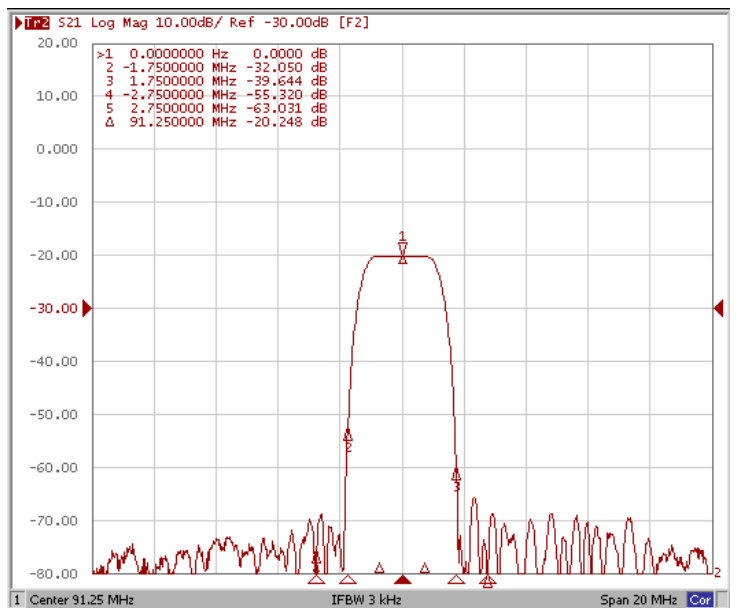
**Bandwidth at -30.0 dB**



**Bandwidth at -45.0 dB**



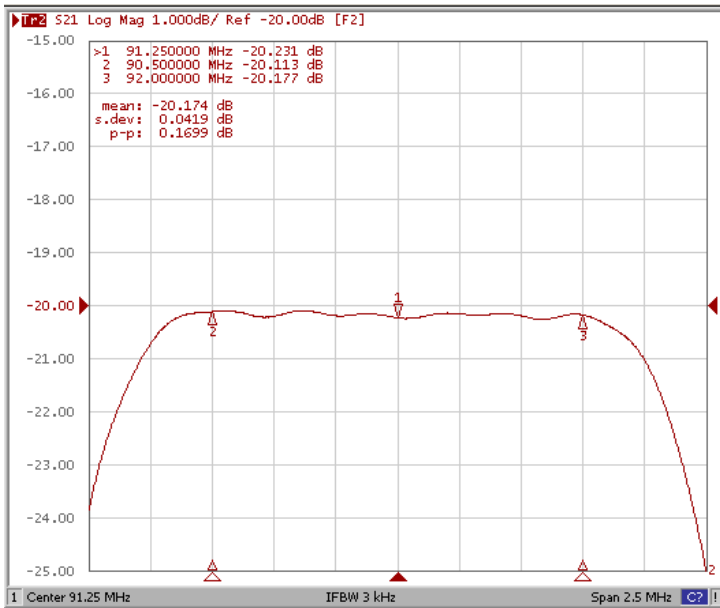
**Relative Attenuation Fo±1.75MHz/ Fo±2.75MHz**



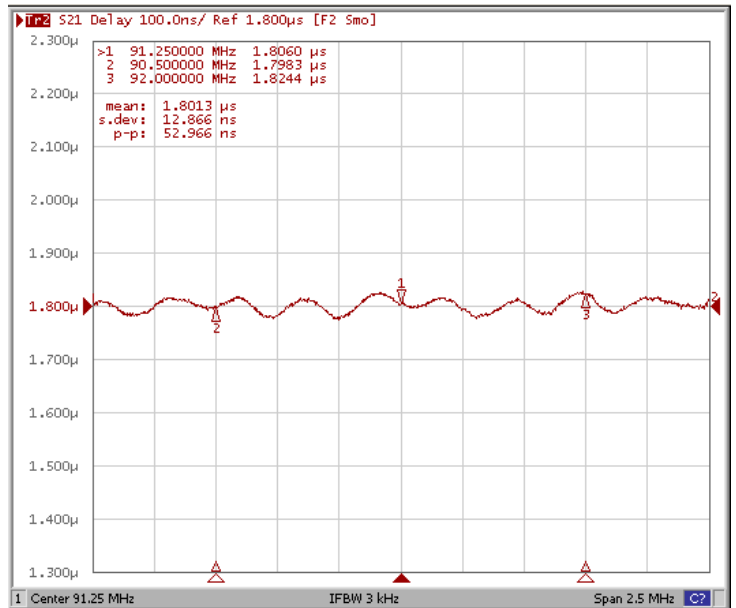
### Frequency Characteristics

#### Frequency Response

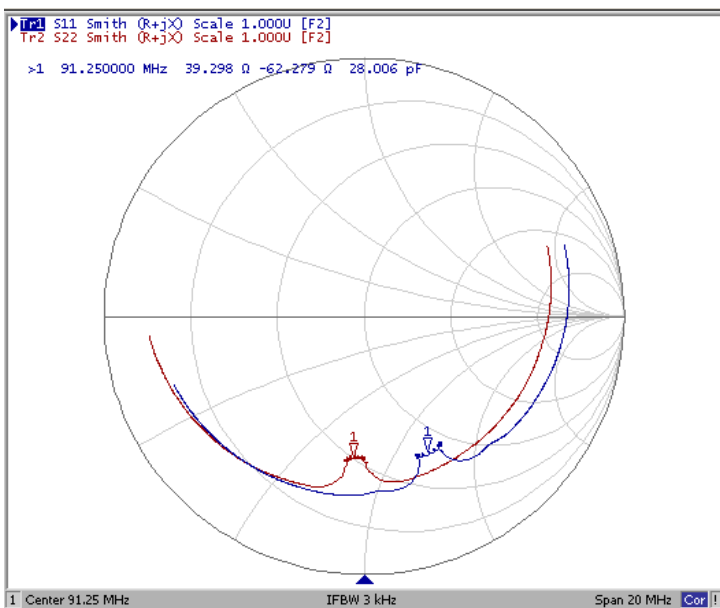
Ripple Variation  $F_o \pm 0.75$



Group Delay Variation  $F_o \pm 0.75$



Smith Chart



VSWR

