



*Total Solution Provider in Saw Device*

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# SA07007BD1

70.0 MHz IF SAW Filter  
7.62 MHz Bandwidth  
Revision 0: 16. Oct. 2008



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

### Maximum Ratings

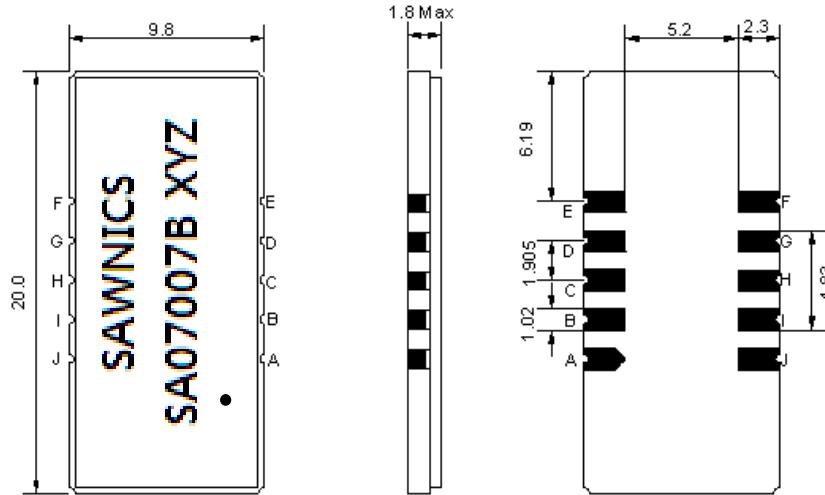
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-	25	-
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	D1			
Length x Width	mm <sup>2</sup>	-	20.0 x 9.8	-
Height	mm	-	-	1.8

### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	70.0	-
Insertion Loss at Fo	dB	-	26.6	28.5
Group Delay Variation	nsec	-	40	100
Absolute Delay at Fo	usec	-	3.18	-
Passband Ripple Variation	dB	-	0.75	1.0
Bandwidth at -1dB	MHz	7.50	7.62	-
Bandwidth at -10dB	MHz	-	8.26	8.32
Bandwidth at -20dB	MHz	-	8.57	-
Bandwidth at -40dB	MHz	-	8.90	-
Ultimate Rejection	dB	45	50	-
Temperature Coefficient	ppm/°C	-	-20	-

**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.

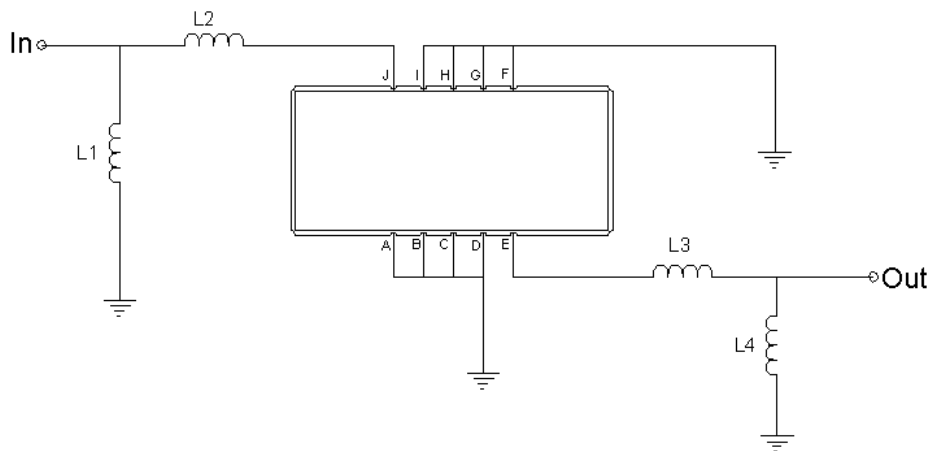
**Package Dimensions**



- ① SAWNICS: Brand
- ② SA07007B: 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**



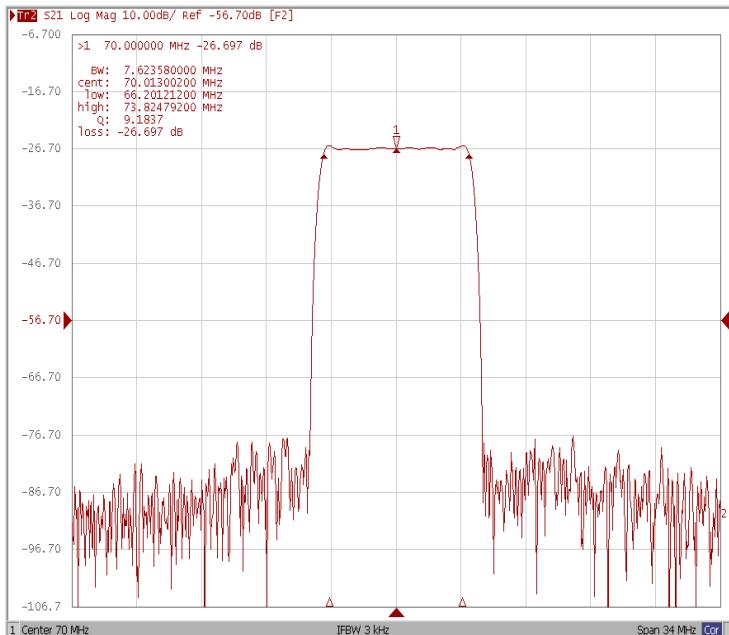
Test Fixture & Values	
Input	L1 = 82 nH, L2 = 82 nH
Output	L3 = 68 nH, L4 = 100 nH
Source/Load Impedance	50 Ω



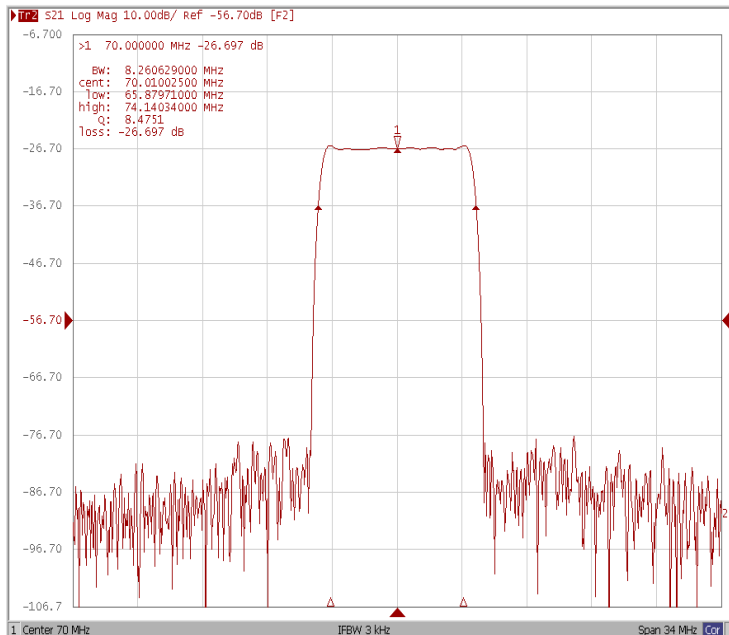
**Frequency Characteristics**

**Frequency Response**

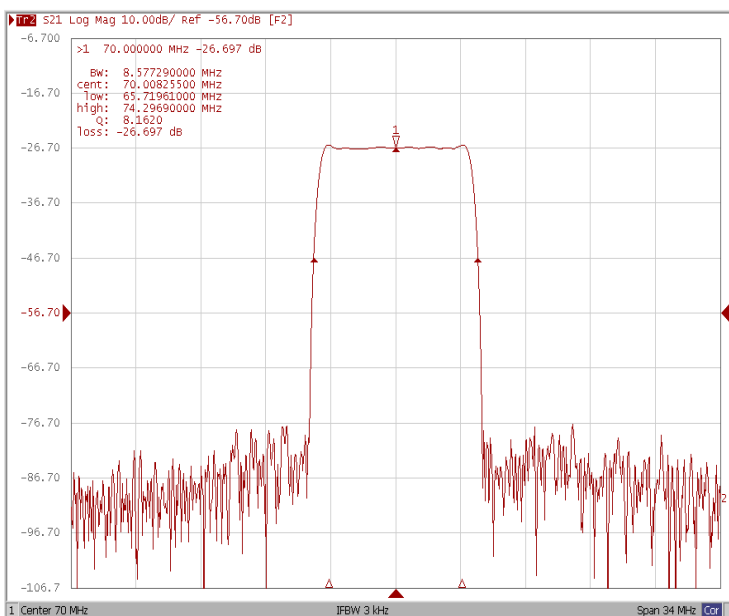
**Bandwidth at -1.0 dB**



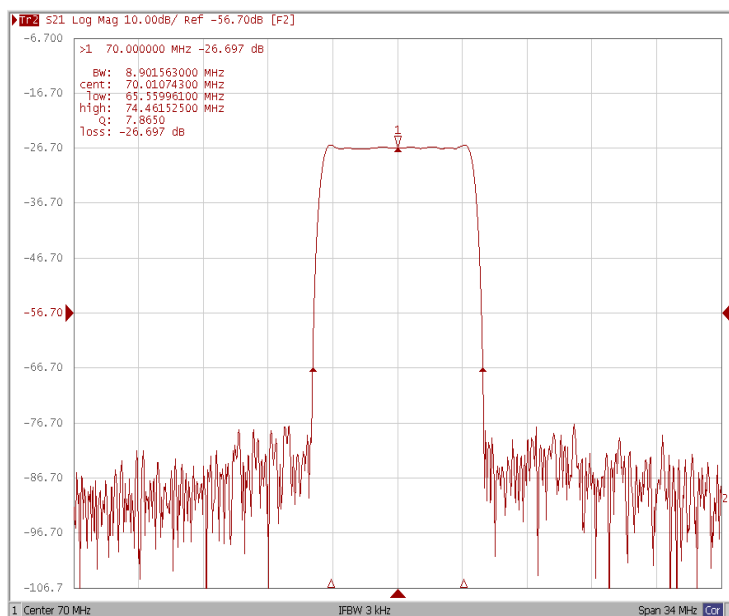
**Bandwidth at -10.0 dB**



**Bandwidth at -20.0 dB**



**Bandwidth at -40.0 dB**

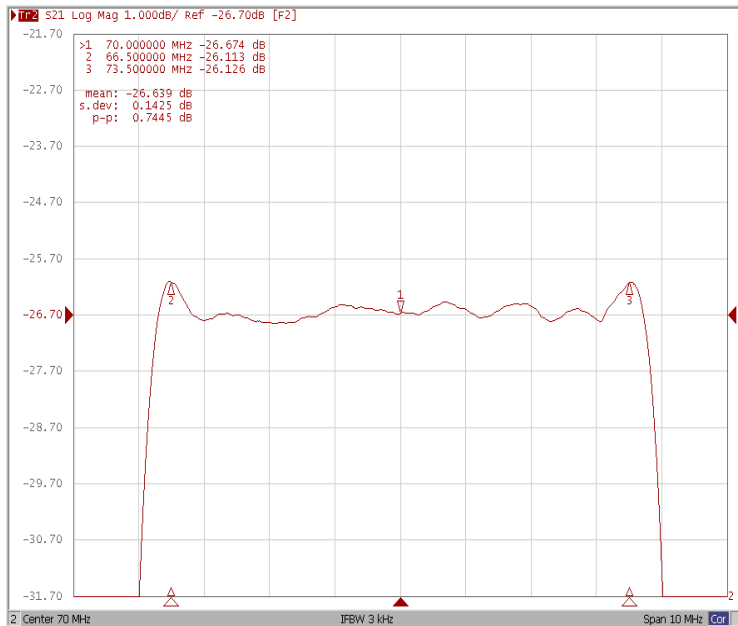




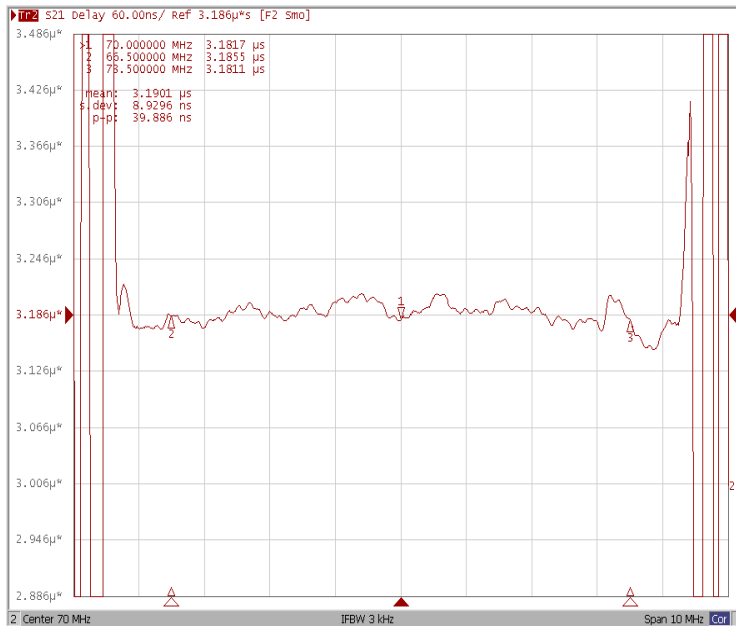
## Frequency Characteristics

### Frequency Response

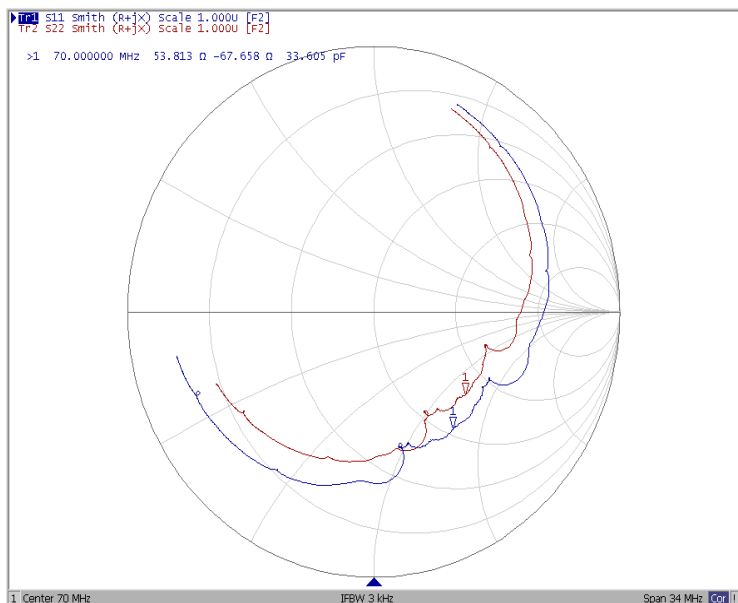
Ripple Variation Fo±3.50MHz



Group Delay Variation Fo±3.50MHz



Smith Chart



VSWR

