



*Total Solution Provider in Saw Device*

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# SA07016AV

70.0 MHz IF SAW Filter  
16.18 MHz Bandwidth  
Revision 0: 10. FEB. 2009



- 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	-10	-	75
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

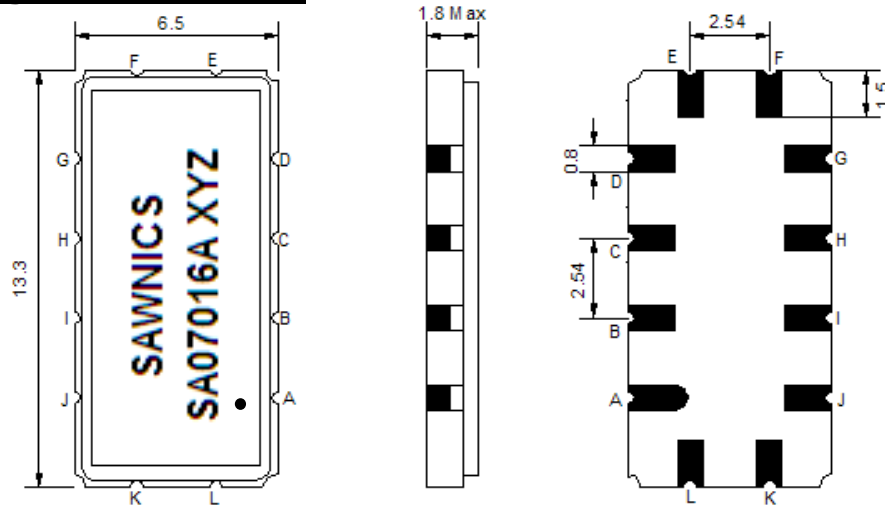
### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	70.00	-
Insertion Loss at Fo	dB	-	23.80	26.00
Group Delay Variation at Fo ± 7.48 MHz	nsec	-	30	60
Absolute Delay at Fo	usec	-	1.65	-
Passband Ripple Variation at Fo ± 7.48 MHz	dB	-	0.50	1.00
Bandwidth at -1dB	MHz	15.70	16.18	-
Bandwidth at -3dB	MHz	-	16.67	-
Bandwidth at -30dB	MHz	-	18.39	18.70
Bandwidth at -40dB	MHz	-	18.63	-
Ultimate Rejection	dB	45	49	-
Temperature Coefficient	ppm/°C	-	-72	-

**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.

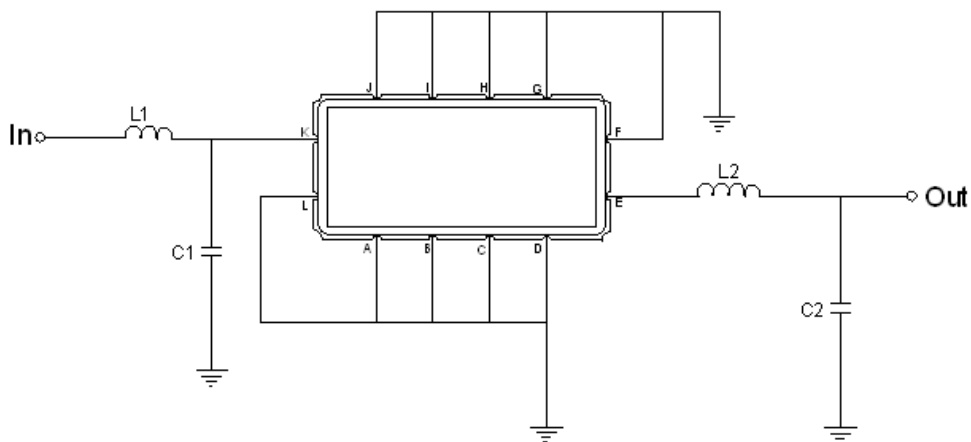
### Package Dimensions



- ① SAWNICS: Brand
- ② SA07016A: 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



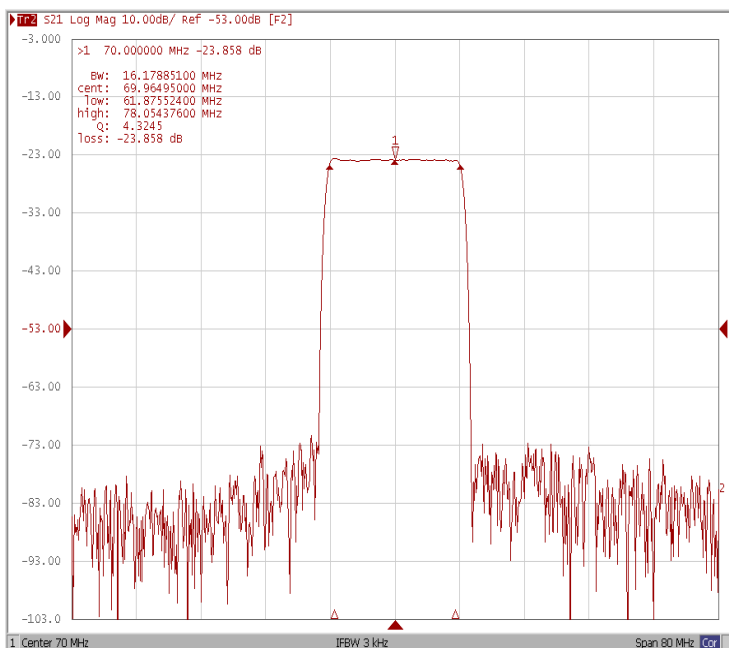
Test Fixture & Values	
Input	L1 = 180nH, C1=12pF
Output	L2 = 180nH, C2=10pF
Source/Load Impedance	50 Ω



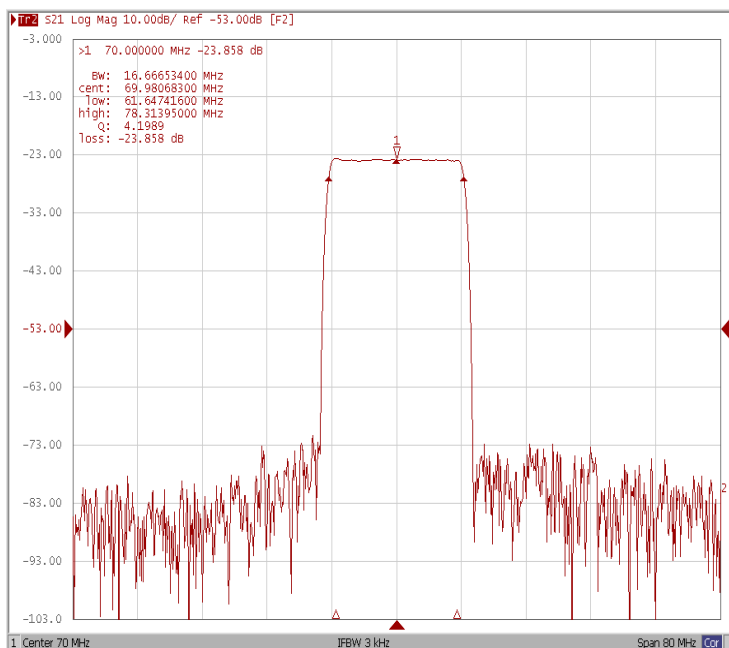
### Frequency Characteristics

#### Frequency Response

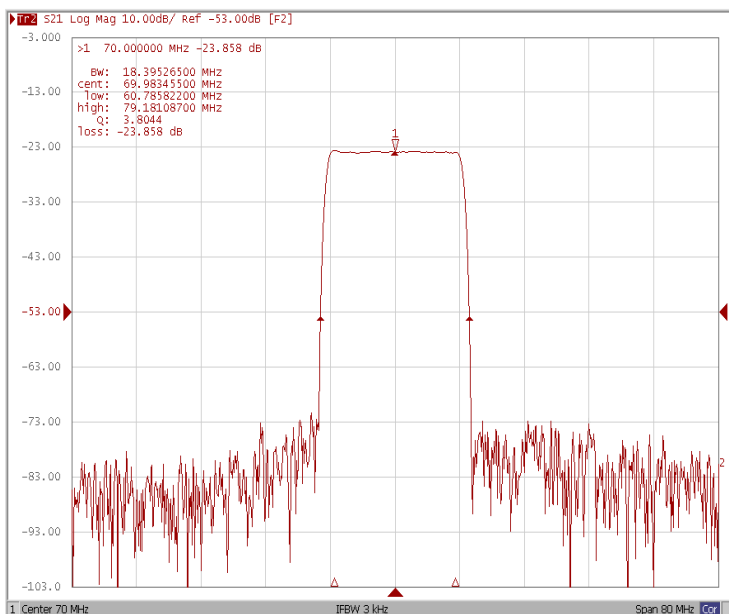
Bandwidth at -1.0 dB



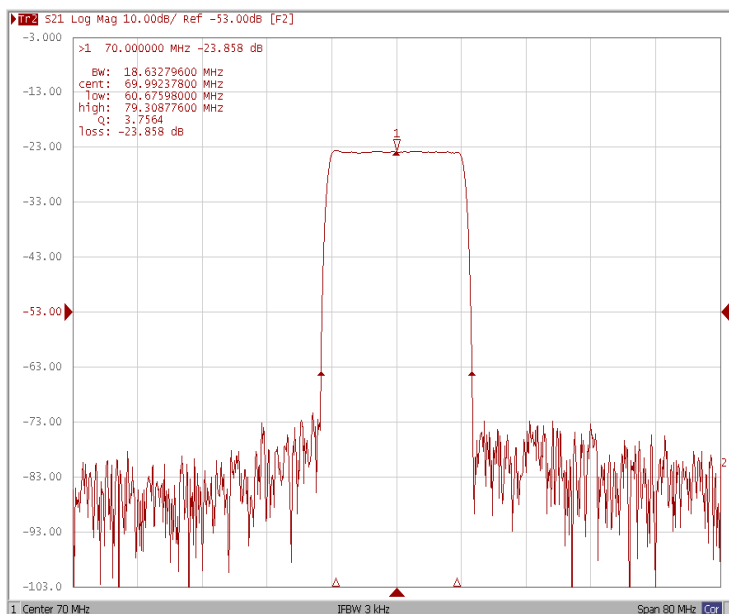
Bandwidth at -3.0 dB



Bandwidth at -30 dB



Bandwidth at -40 dB

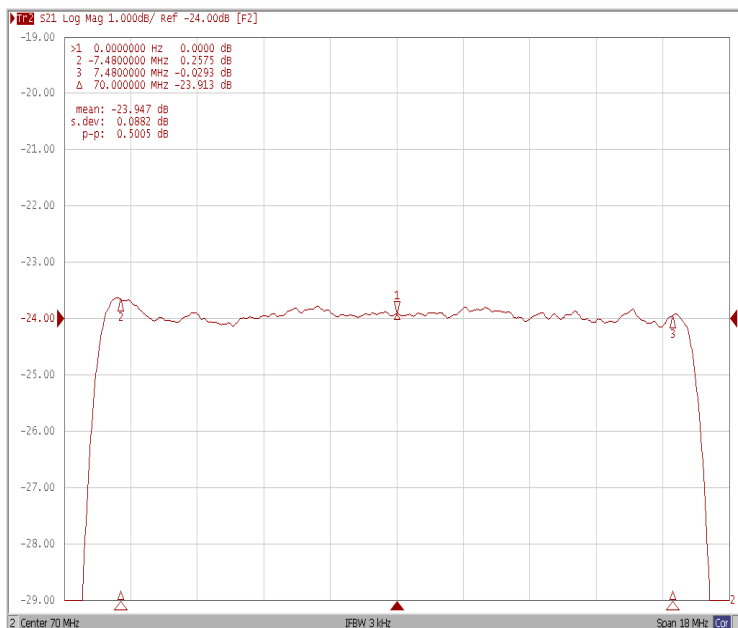




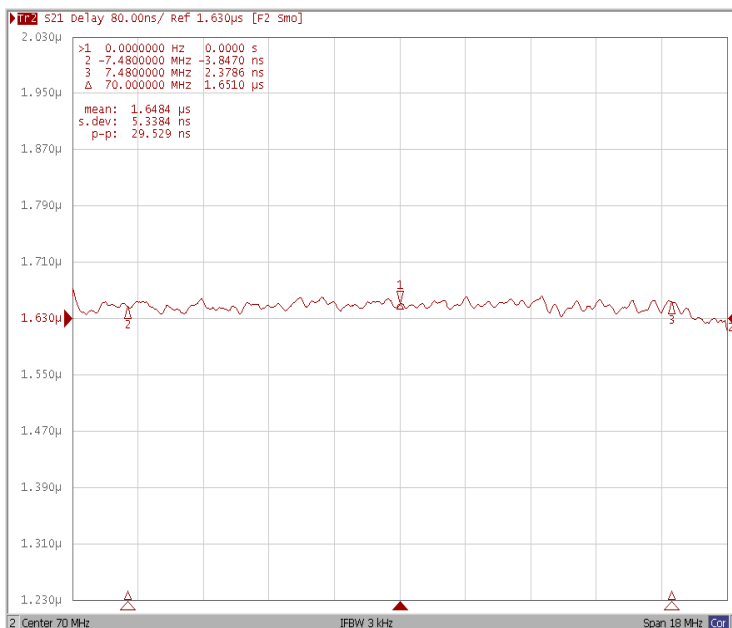
## Frequency Characteristics

### Frequency Response

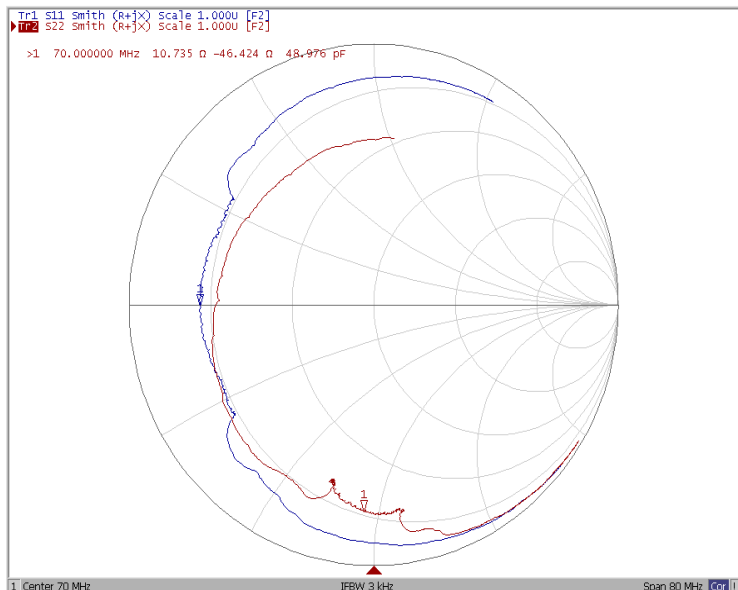
Ripple Variation Fo±7.48MHz



Group Delay Variation Fo±7.48MHz



Smith Chart



VSWR

