SA07014AV

70.0 MHz IF SAW Filter
14.37 MHz Bandwidth
Revision 0: 22. May. 2008

RoHS compliance
Pb free

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

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❒ Electrical Characteristics

Maximum Ratings

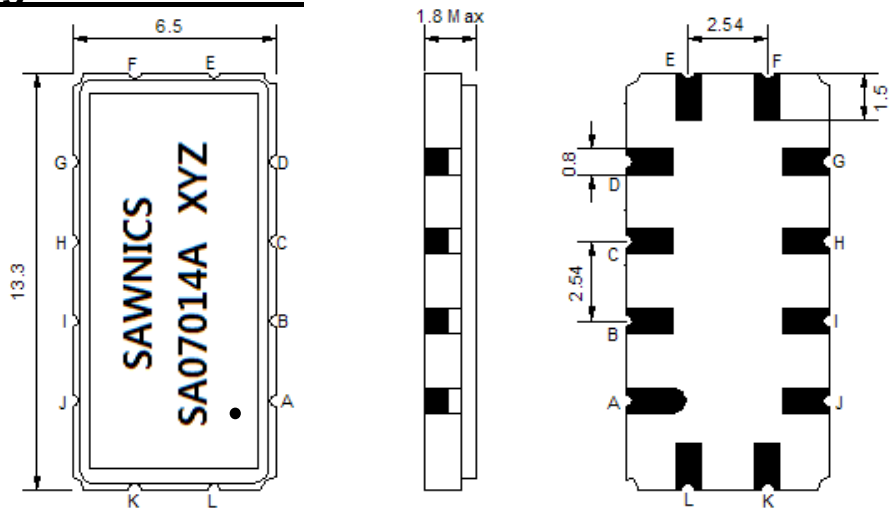
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-	25	-
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended)(1)	Ω	-	50	-
Load Impedance (single ended)(1)	Ω	-	50	-
Package type & size	V			
Length x Width	mm²	-	13.3 x 6.5	-
Height	mm	-	-	1.8

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	69.92	70.00	70.08
Insertion Loss at Fo	dB	-	23.5	25.0
Group Delay Variation	nsec	-	35	70
Absolute Delay at Fo	usec	-	1.62	-
Passband Ripple Variation	dB	-	0.75	1.0
Bandwidth at -1dB	MHz	-	14.37	-
Bandwidth at -3dB	MHz	14.70	14.82	-
Bandwidth at -40dB	MHz	-	16.82	16.90
Ultimate Rejection	dB	45	50	-
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.

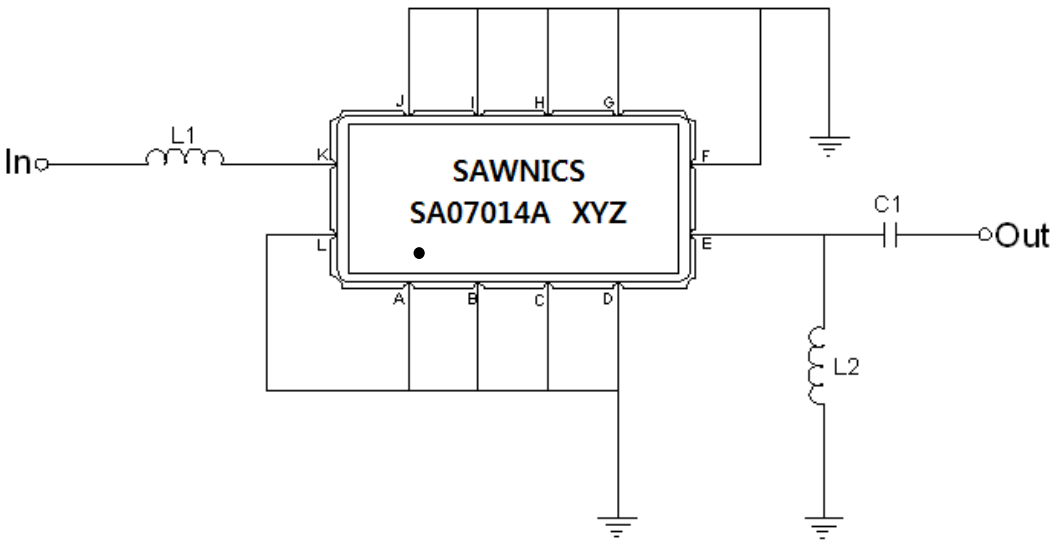
❒ Package Dimensions



① SAWNICS: Brand
② SA07014A: 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

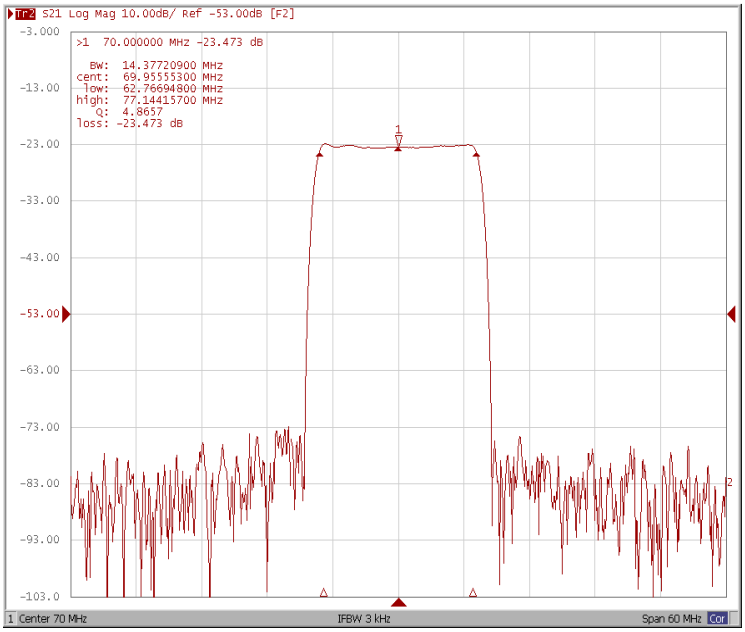


Test Fixture & Values	
Input	L1 = 180 nH
Output	L2 = 220 nH , C2 = 50 pF
Source/Load Impedance	50 Ω

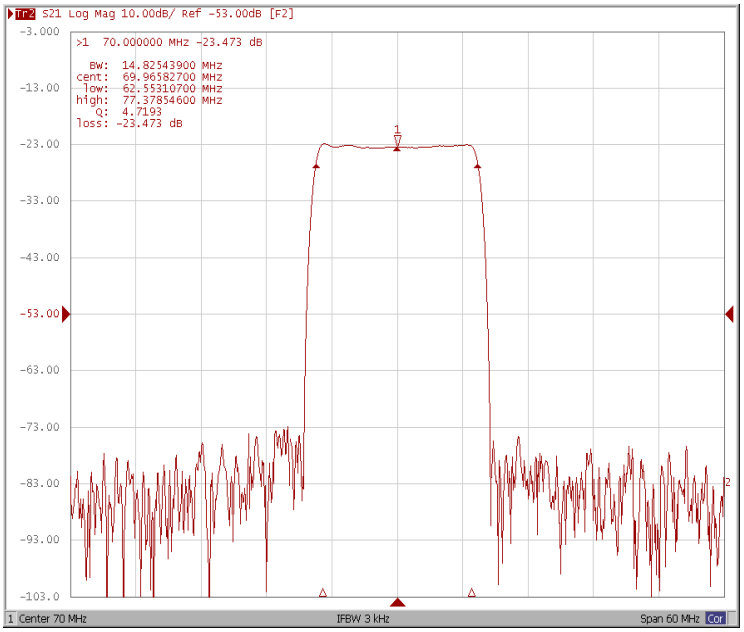
❒ Frequency Characteristics

Frequency Response

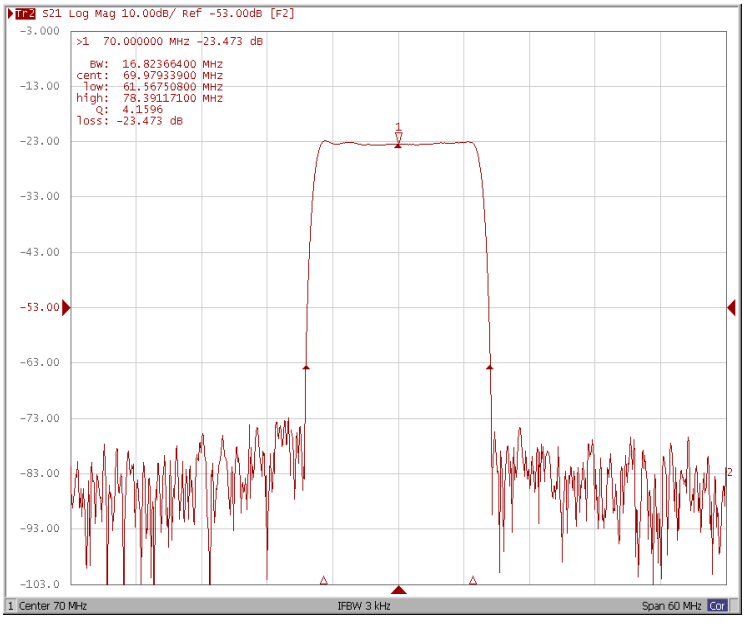
Bandwidth at –1.0 dB



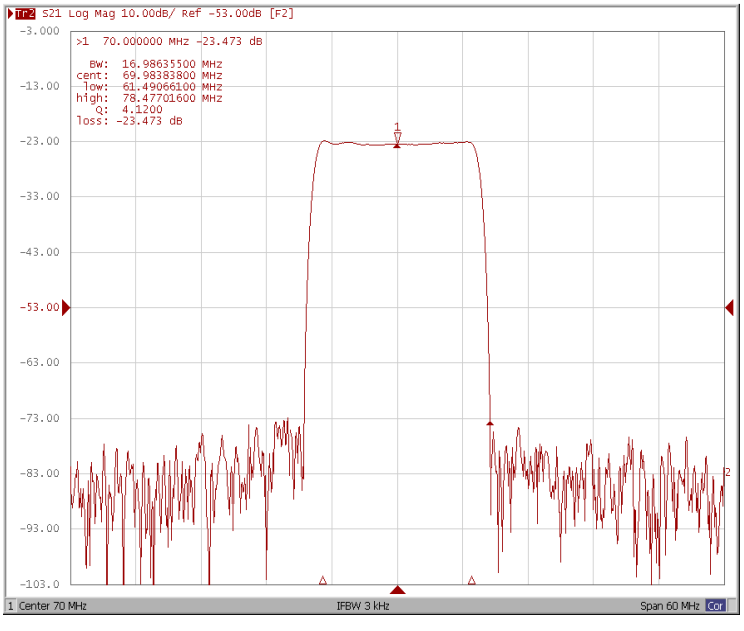
Bandwidth at –3.0 dB



Bandwidth at –40.0 dB



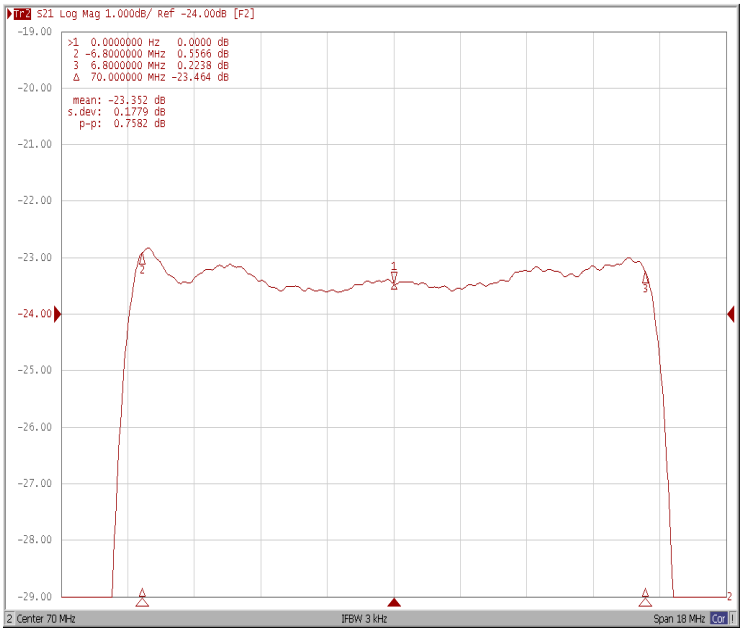
Bandwidth at –50.0 dB



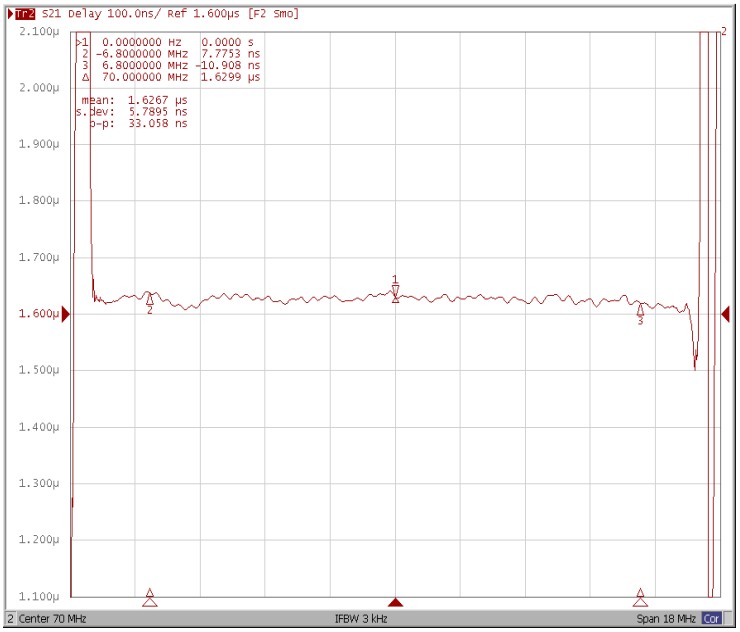
❒ Frequency Characteristics

Frequency Response

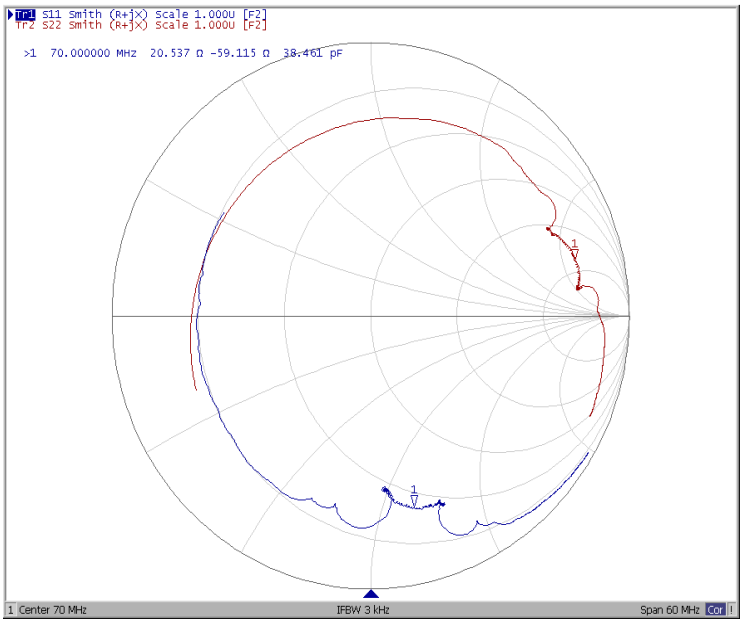
Ripple Variation Fo±6.8MHz



Group Delay Variation Fo±6.8MHz



Smith Chart



SWR