



Total Solution Provider in Saw Device

SL16013AD1

160.0MHz IF SAW Filter
14.87MHz Bandwidth
Revision 0 : 25. Nov. 2008



- 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

□ Electrical Characteristics

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	0	-	50
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	D1			
Length x Width	mm ²	-	20.0 x 9.8	-
Height	mm	-	-	1.8

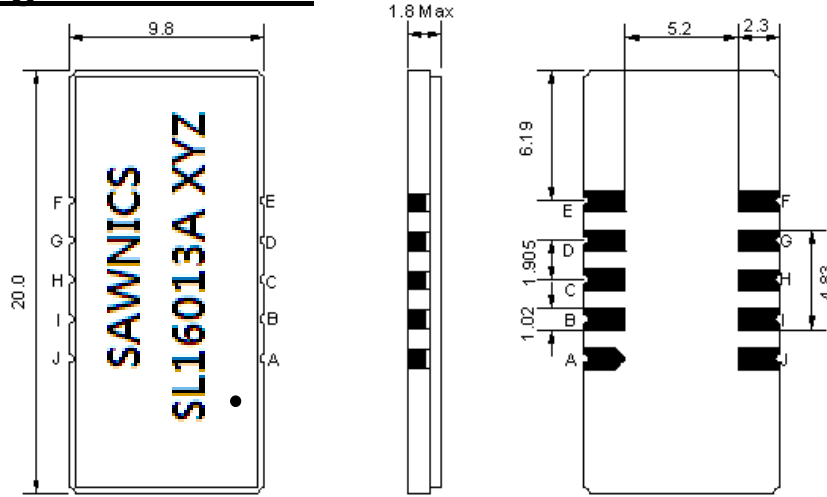
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	160.0	-
Insertion Loss at Fo	dB	-	21.4	23.0
Group Delay Variation (Fo±6.925 MHz)	nsec	-	45	80
Absolute Delay	µsec	-	1.46	-
Passband Ripple (Fo±6.925 MHz)	dB	-	0.55	0.9
Bandwidth at -1.0 dB	MHz	13.85	14.87	-
Bandwidth at -3.0 dB	MHz	-	15.5	-
Bandwidth at -40.0 dB	MHz	-	17.7	18.2
Relative Attenuation				
Lower Sidelobe	dB	40	45	-
Upper Sidelobe	dB	40	45	-
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.

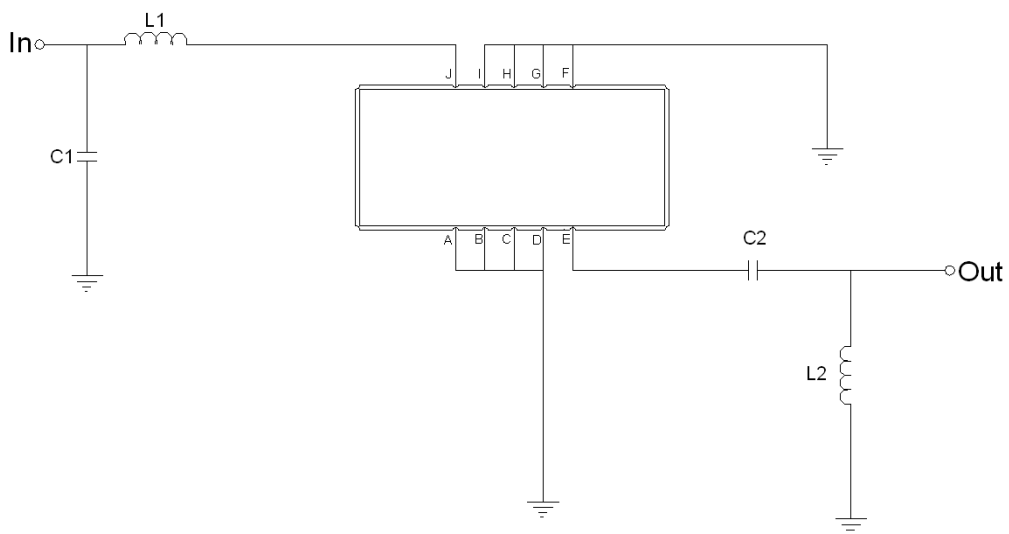
Package Dimensions



- ① SAWNICS: Brand
- ② SL16013A: 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	Ground
J	Input
E	Output

Testing Environment



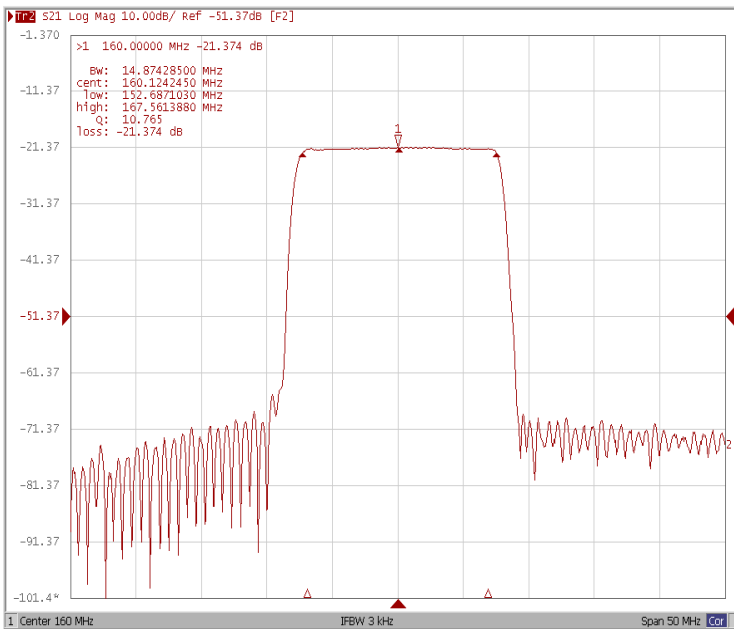
Test Fixture & Values	
Input	L1=22nH, C1=51pF
Output	L2=18nH, C2=120pF
Source/Load Impedance	50 Ω



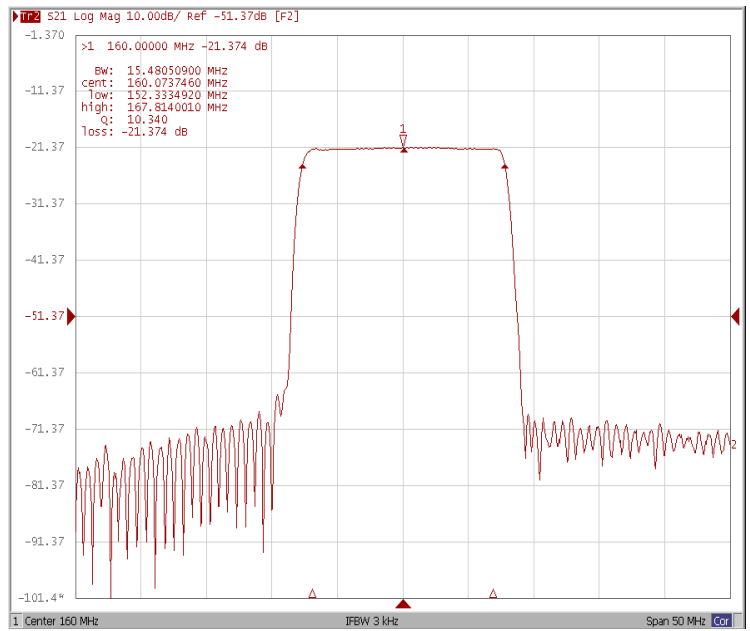
Frequency Characteristics

Frequency Response

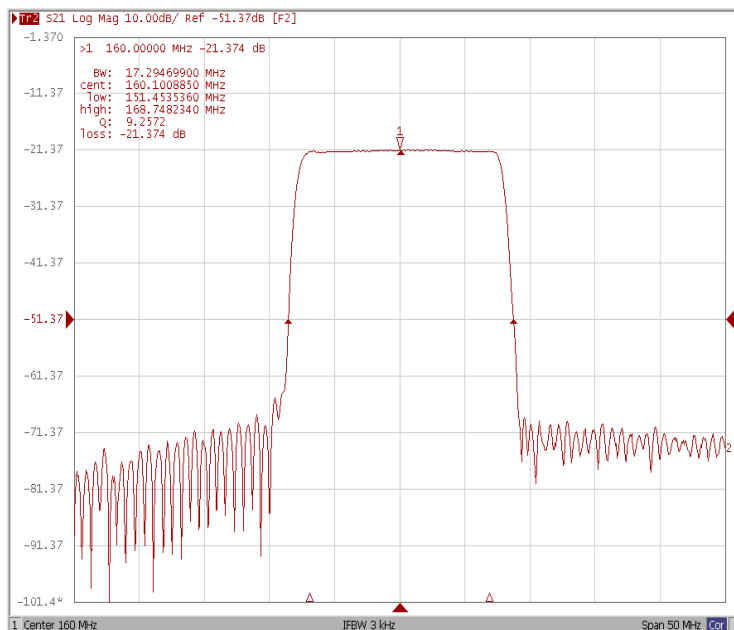
Bandwidth at -1.0 dB



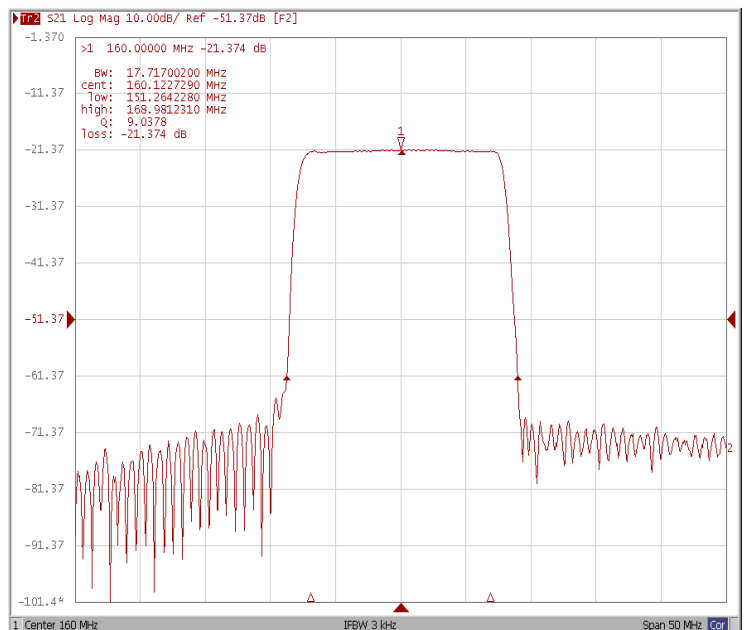
Bandwidth at -3.0 dB



Bandwidth at -30.0dB



Bandwidth at -40.0dB

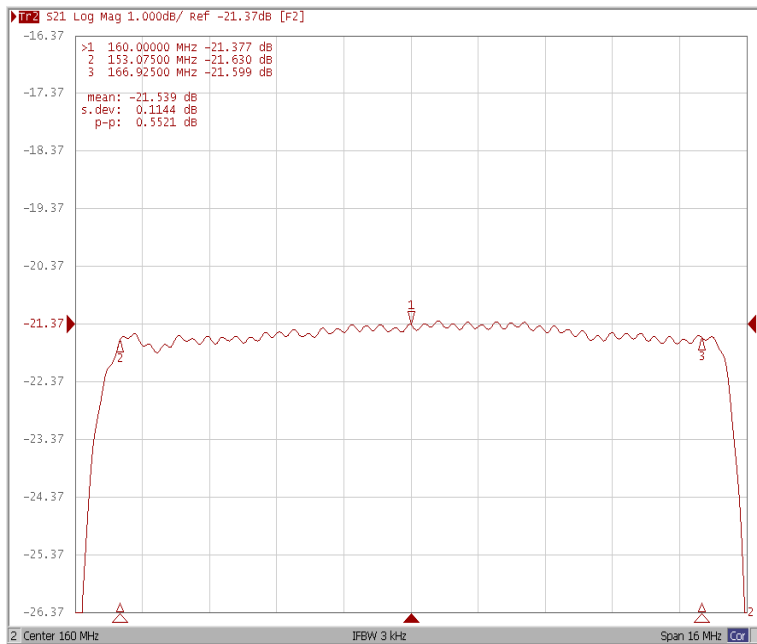




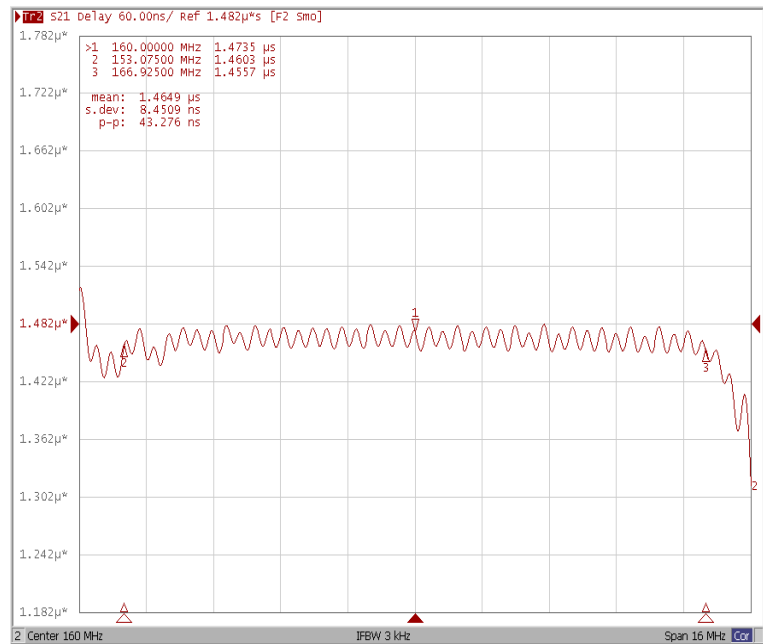
Frequency Characteristics

Frequency Response

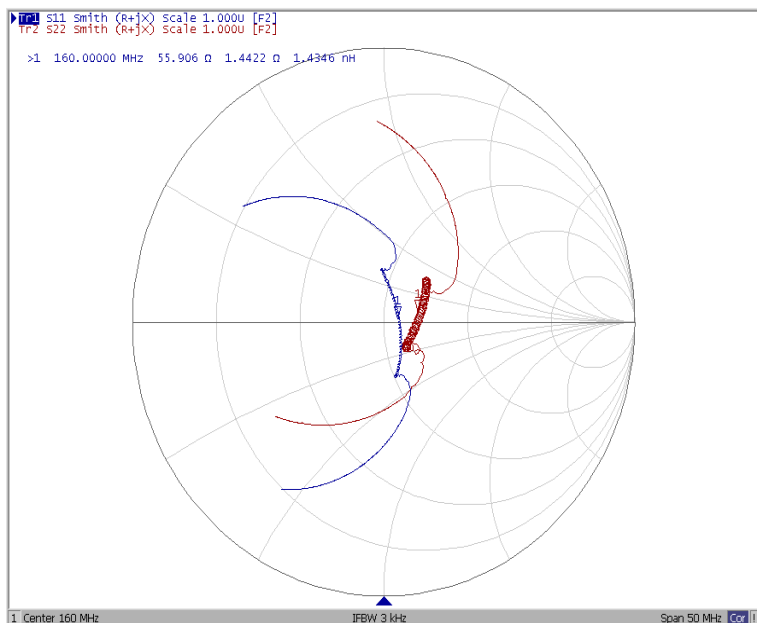
Ripple Variation (Fo±6.925 MHz)



Group Delay Variation (Fo±6.925 MHz)



Smith Chart



VSWR

