



Total Solution Provider in Saw Device

SL07016BT

70.0MHz IF SAW Filter

16.80 MHz Bandwidth

Revision 0: 27. December. 2010



-
- 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

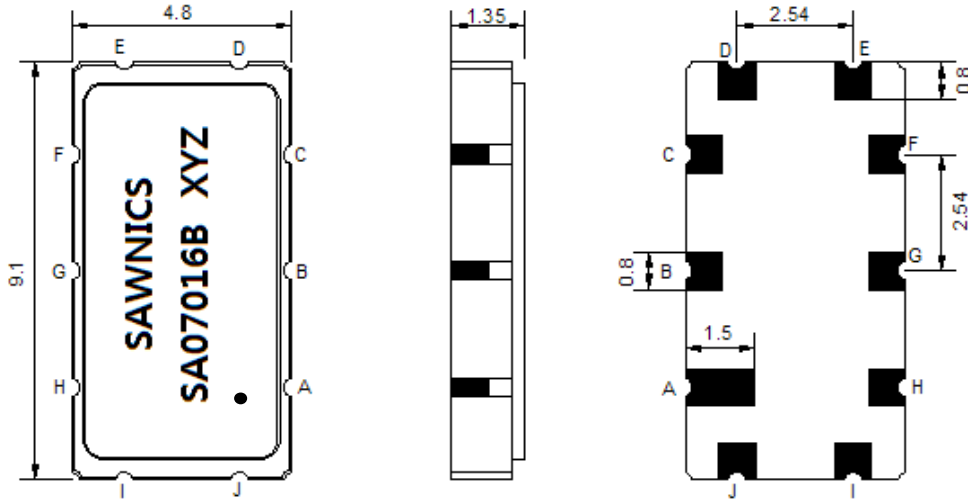
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-20	-	70
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	T			
Length x Width	mm ²	-	9.1 x 4.8	-
Height	mm	-	1.5	-

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	70.0	-
Insertion Loss at Fo	dB	-	13.5	15.0
Amplitude Ripple Variation at Fo ± 7.5 MHz	dB _{p-p}	-	0.35	0.80
Group Delay Variation at Fo ± 7.5 MHz	nsec	-	21	50
Absolute Delay at Fo	µsec	-	0.77	0.80
Temperature Coefficient	ppm/°C	-	-86	-
Bandwidth at -1.0 dB	MHz	16.60	16.83	-
Bandwidth at -3.0 dB	MHz	-	17.90	-
Bandwidth at -30.0 dB	MHz	-	21.75	22.00
Bandwidth at -40.0 dB	MHz	-	22.47	-
Relative Attenuation				
Lower Sidelobe	dB	40	46	-
Upper Sidelobe	dB	40	46	-

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.

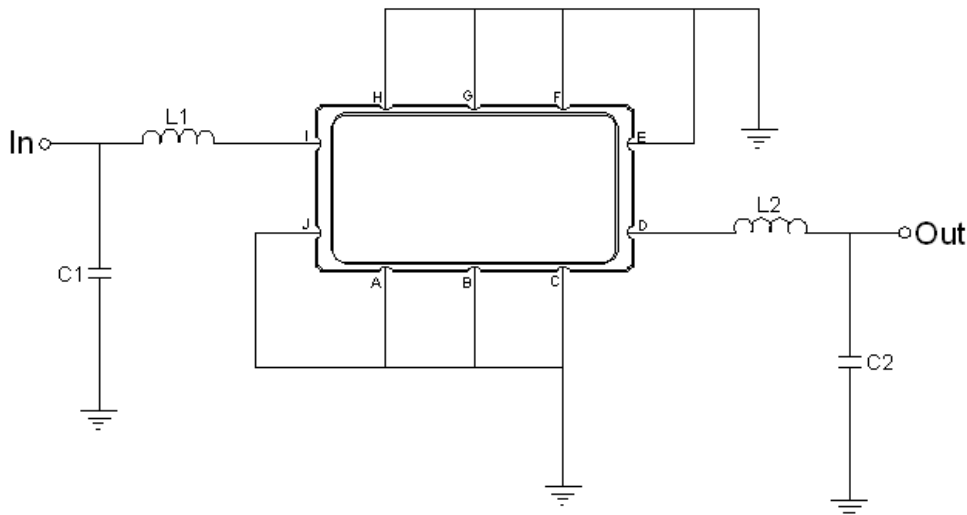
Package Dimensions



- ① SAWNICS: Brand
- ② SL07016B: Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z : Date Code (Date)
- : Index Dot

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

Testing Environment



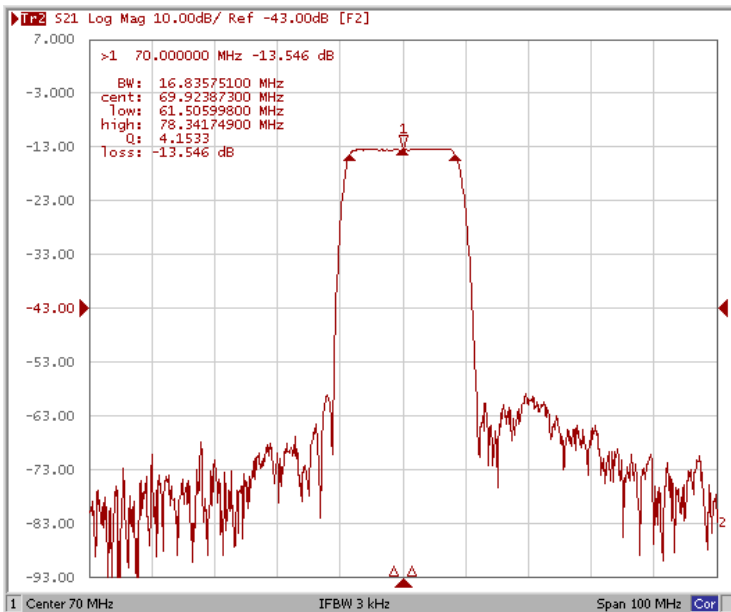
Test Fixture & Values	
Input	L1=180 nH , C1=20 pF
Output	L2=120 nH , C2=18 pF
Source/Load Impedance	50 Ω

□ Frequency Characteristics

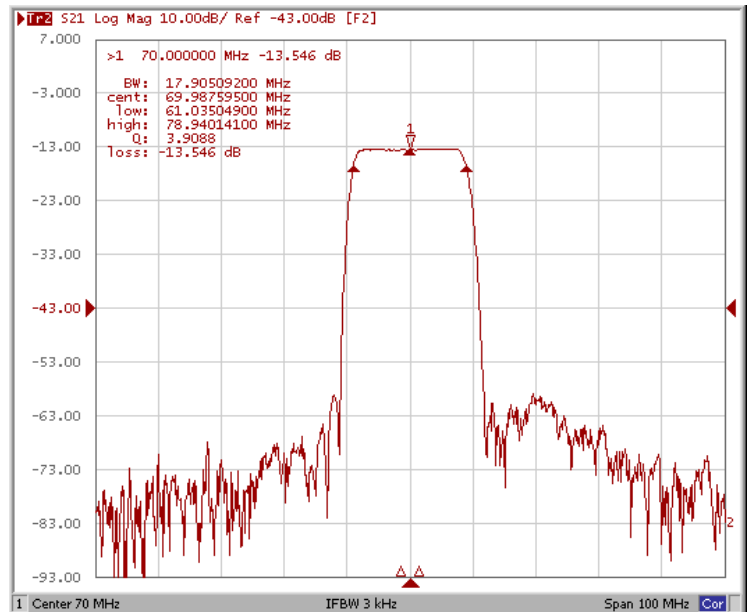
Frequency Response

Room Temperature : +25 °C

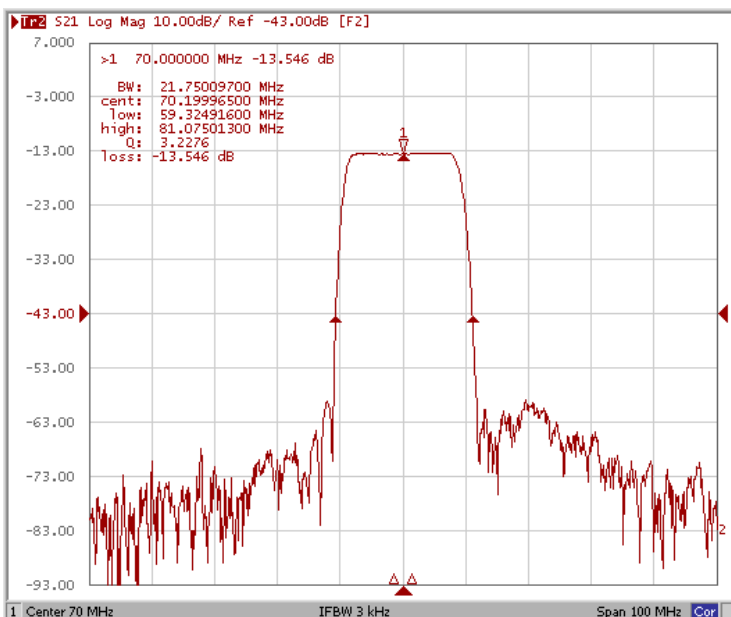
Bandwidth at -1.0 dB



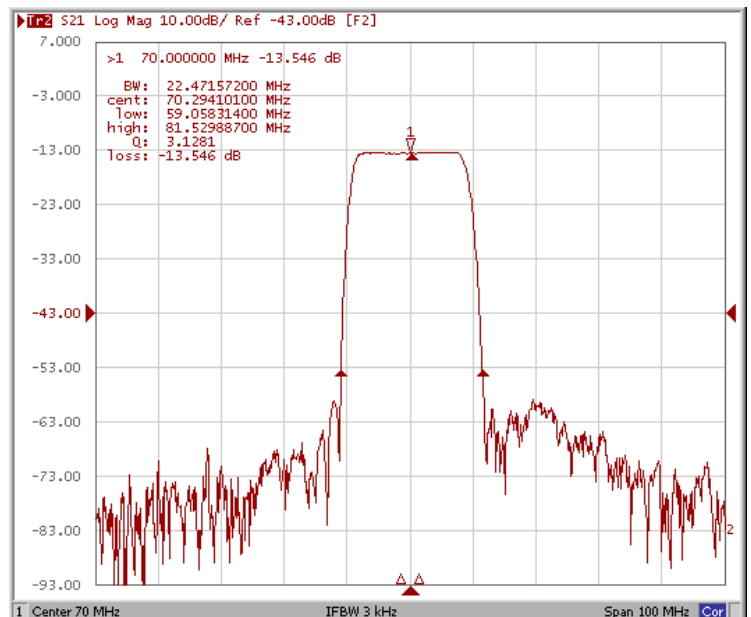
Bandwidth at -3.0 dB



Bandwidth at -30.0 dB



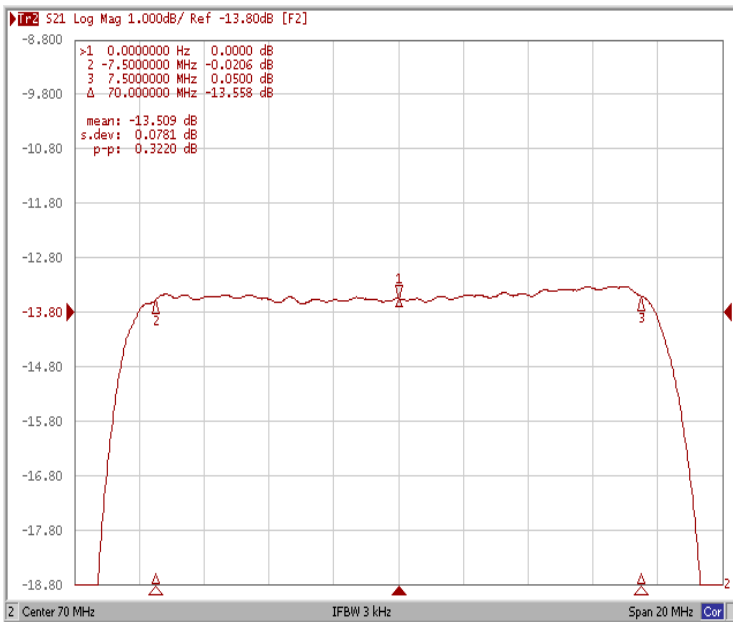
Bandwidth at -40.0 dB



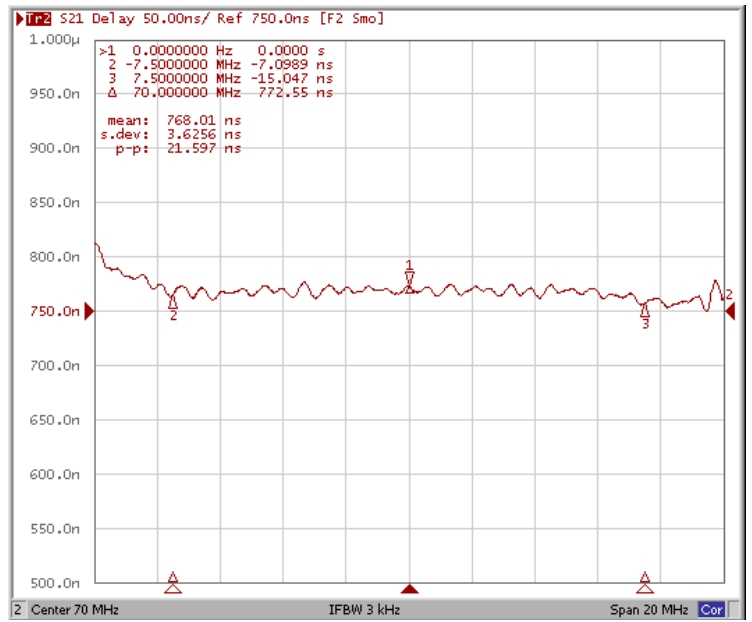
□ Frequency Characteristics

Frequency Response

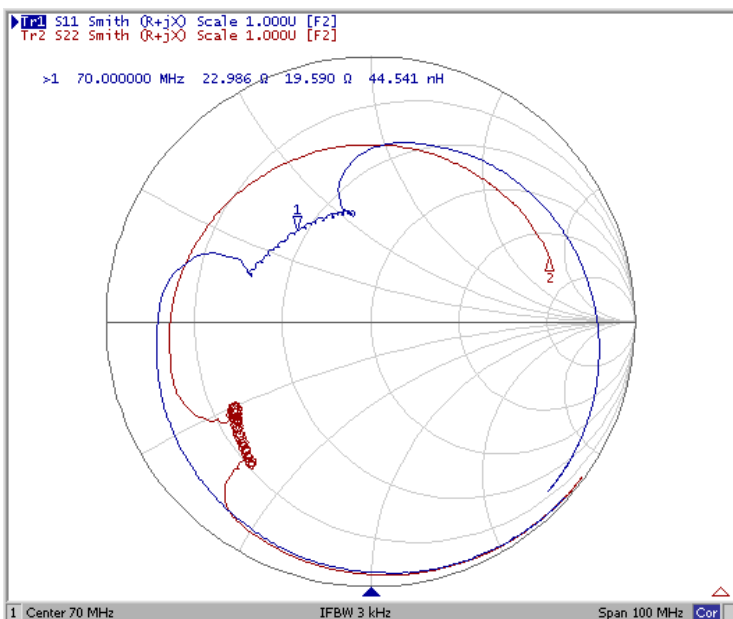
Ripple Variation $F_o \pm 7.5\text{MHz}$



Group Delay Variation $F_o \pm 7.5\text{MHz}$



Smith Chart



SWR

