



Total Solution Provider in Saw Device

SL14710BV

147.0MHz IF SAW Filter

9.5 MHz Bandwidth

Revision 0: 2. January. 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

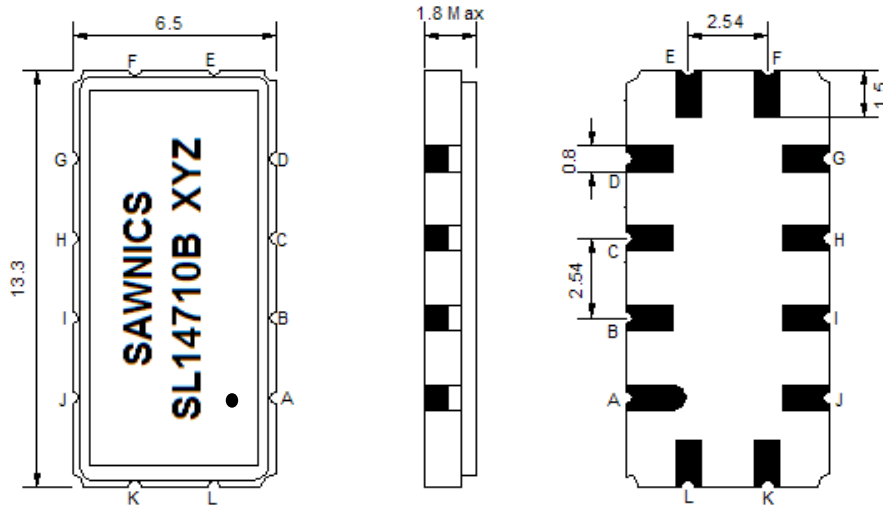
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	0	-	80
Storage Temperature Range	°C	-40	-	55
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	V			
Length x Width	mm ²	-	13.3 x 6.5	-
Height	mm	-	-	1.8

Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	146.8	147.0	147.2
Insertion Loss at Fo	dB	-	8.2	11.0
Amplitude Ripple Variation at Fo ± 4.75 MHz	dB _{p-p}	-	0.6	1.0
Group Delay Variation at Fo ± 4.75 MHz	nsec	-	60	100
Absolute Delay at Fo	µsec	-	0.91	-
Temperature Coefficient	ppm/°C	-	-89	-
Bandwidth at -1.0 dB	MHz	9.6	10.5	-
Bandwidth at -3.0 dB	MHz	10.6	11.4	-
Bandwidth at -35.0 dB	MHz	-	15.2	16.0
Relative Attenuation				
Lower Sidelobe	dB	45	50	-
Upper Sidelobe	dB	45	50	-

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.

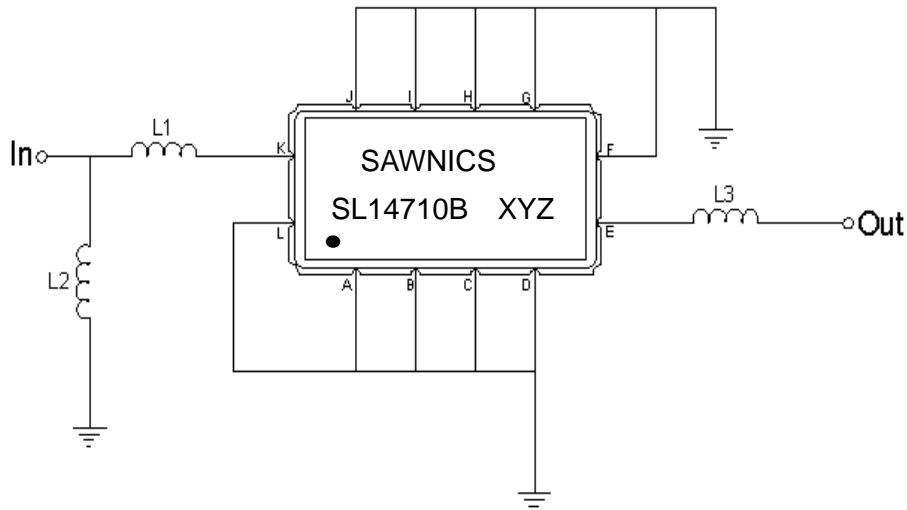
Package Dimensions



- ① SAWNICS: Brand
- ② SL14710B: 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

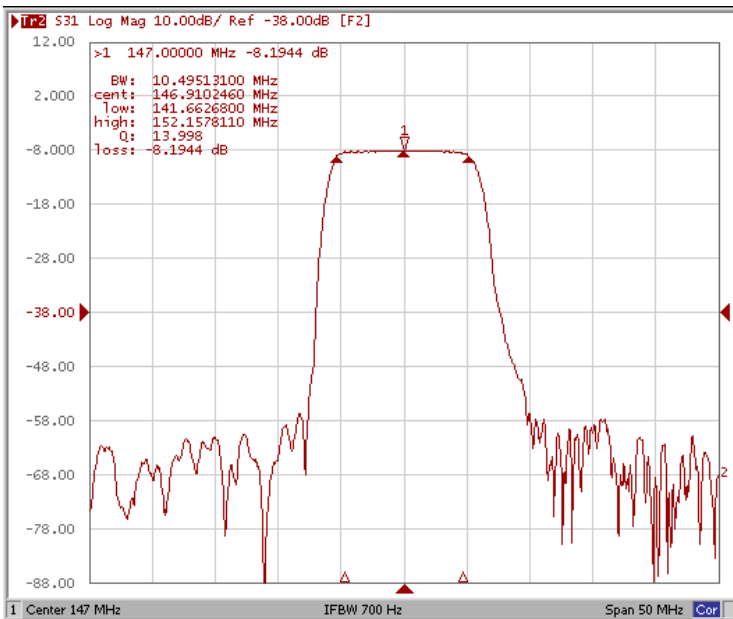


Test Fixture & Values	
Input	L1=8.2 nH , L2=47 nH
Output	L3=22 nH
Source/Load Impedance	50 Ω

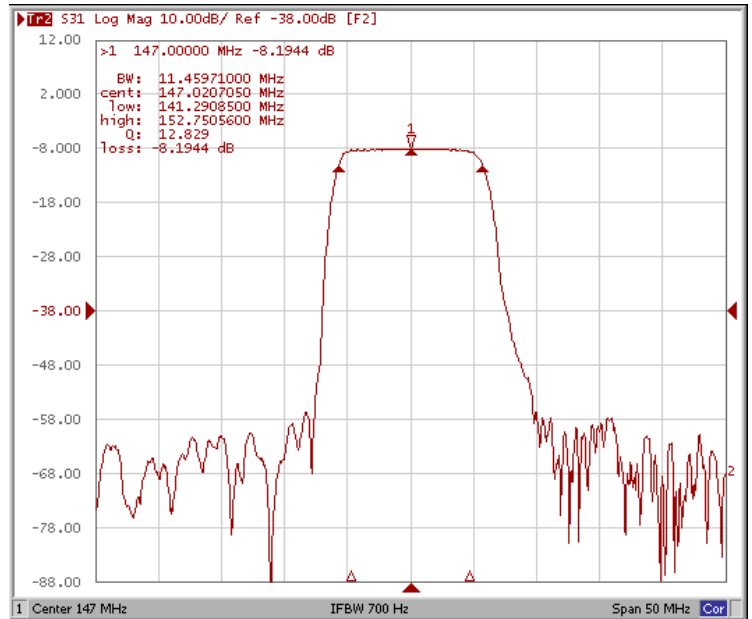
□ Frequency Characteristics

Frequency Response

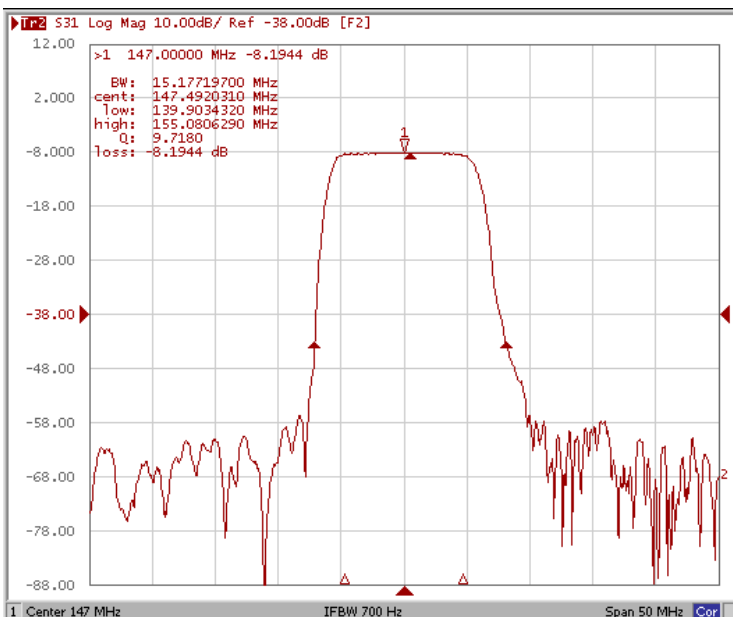
Bandwidth at -1.0 dB



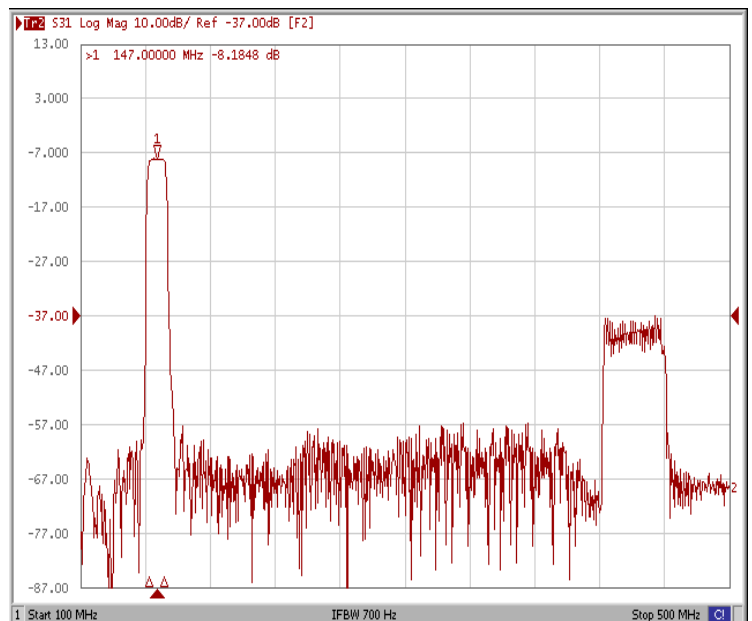
Bandwidth at -3.0 dB



Bandwidth at -35.0 dB



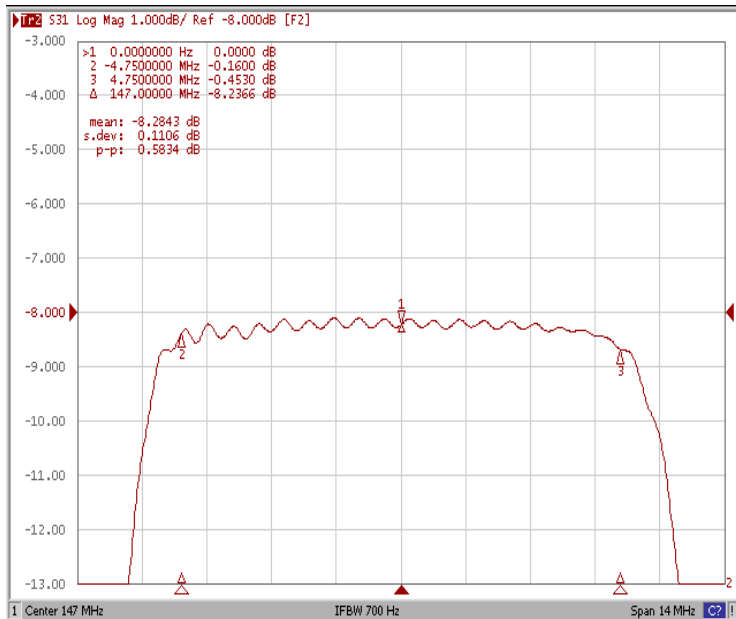
Wide-Band



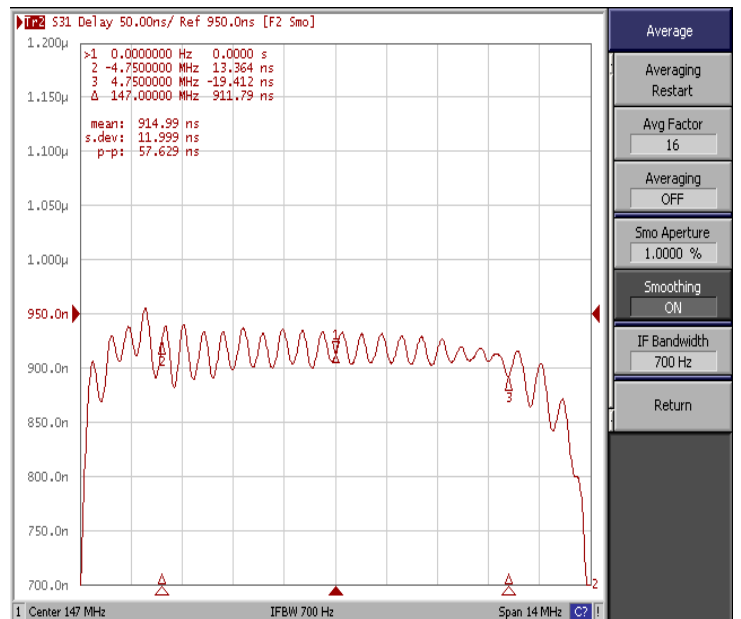
Frequency Characteristics

Frequency Response

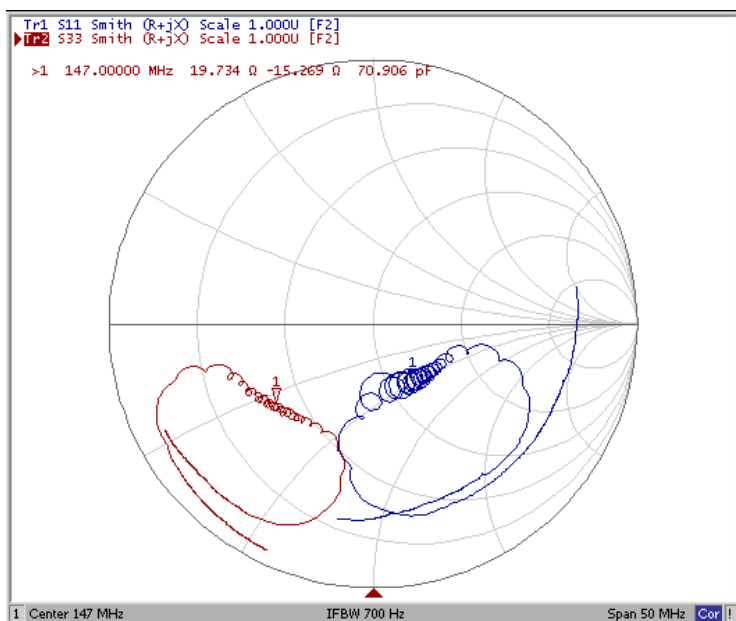
Ripple Variation $F_o \pm 4.75\text{MHz}$



Group Delay Variation $F_o \pm 4.75\text{MHz}$



Smith Chart



SWR

