



Total Solution Provider in Saw Device

SL12509AV

125.0 MHz IF SAW Filter
9.40 MHz Bandwidth
Revision 0: 30. May. 2008



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

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□ Electrical Characteristics

Maximum Ratings

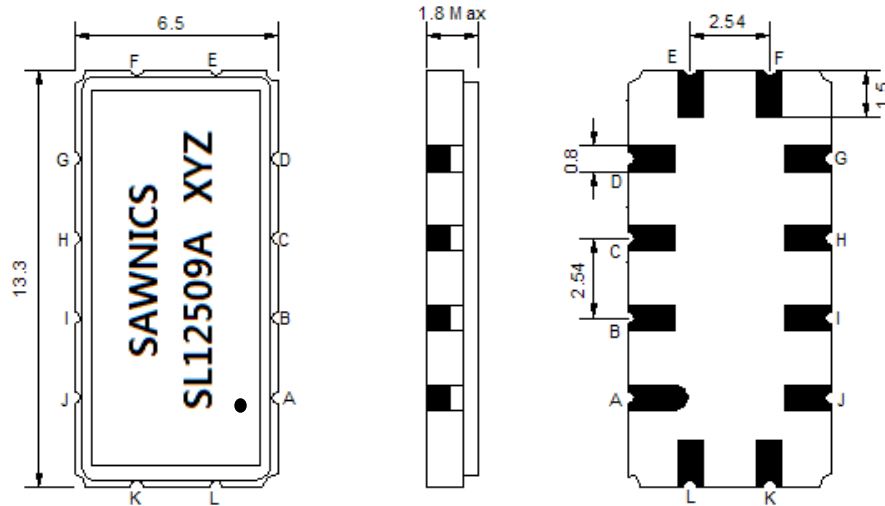
Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-20	-	70
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Load Impedance (single ended) ⁽¹⁾	Ω	-	50	-
Package type & size	V			
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	124.85	125.0	125.15
Insertion Loss at Fo	dB	-	17.3	19.0
Amplitude Ripple within fo ±3.8 MHz	dB _{p-p}	-	0.45	0.9
Group Delay Variation within fo ±3.8 MHz	nsec	-	25	60
Absolute Delay at Fo	μsec	-	0.85	-
Temperature Coefficient	ppm/°C	-	-18	-
Bandwidth at -1.0 dB	MHz	9.00	9.40	-
Bandwidth at -3.0 dB	MHz	-	10.10	-
Bandwidth at -40.0 dB	MHz	-	13.30	15.00
Relative Attenuation:				
Lower sidelobe	dB	-	48	-
Upper sidelobe	dB	-	48	-

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.

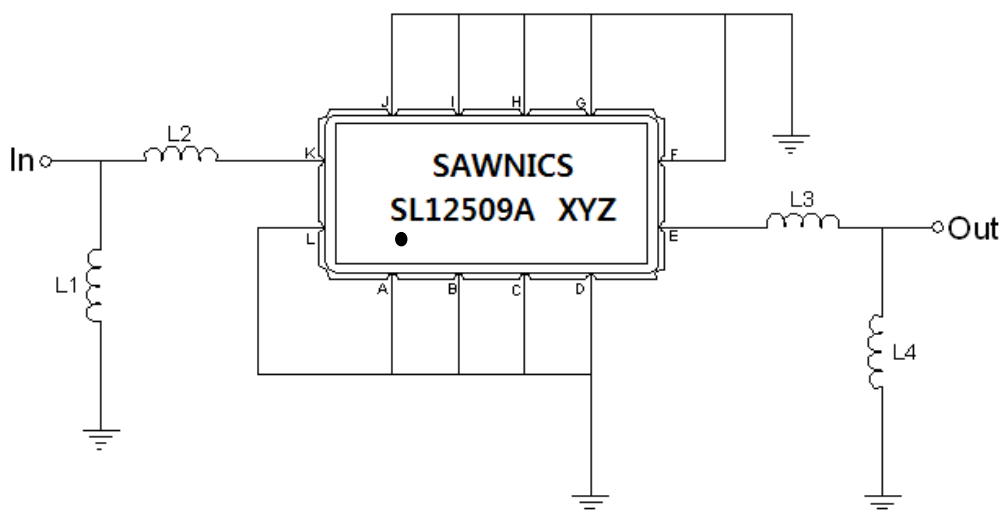
Package Dimensions



- ① SAWNICS: Brand
- ② SL12509A: 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

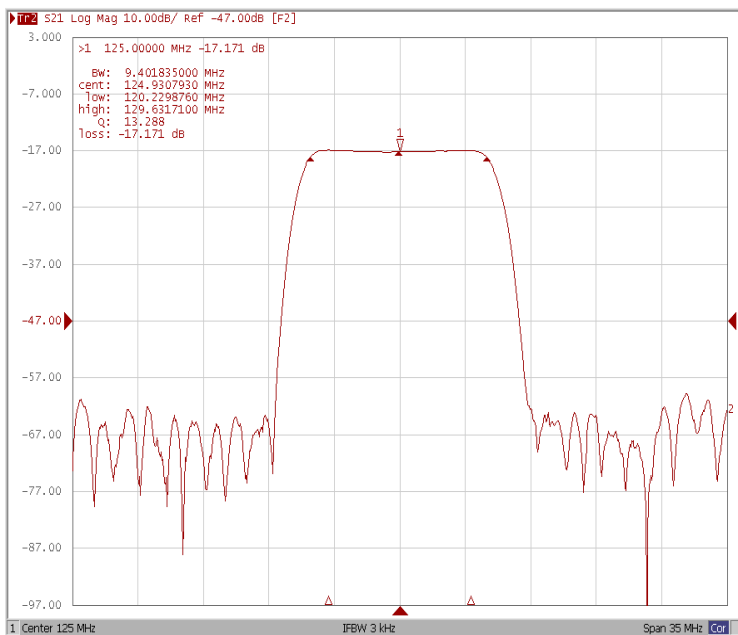


Test Fixture & Values	
Input	L1=56nH, L2=10nH
Output	L3=10nH, L4=47nH
Source/Load Impedance	50 Ω

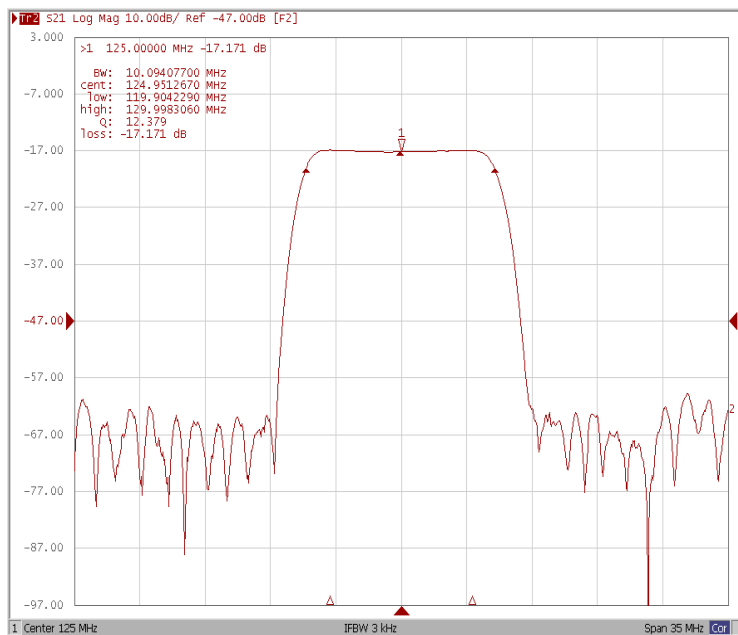
Frequency Characteristics

Frequency Response

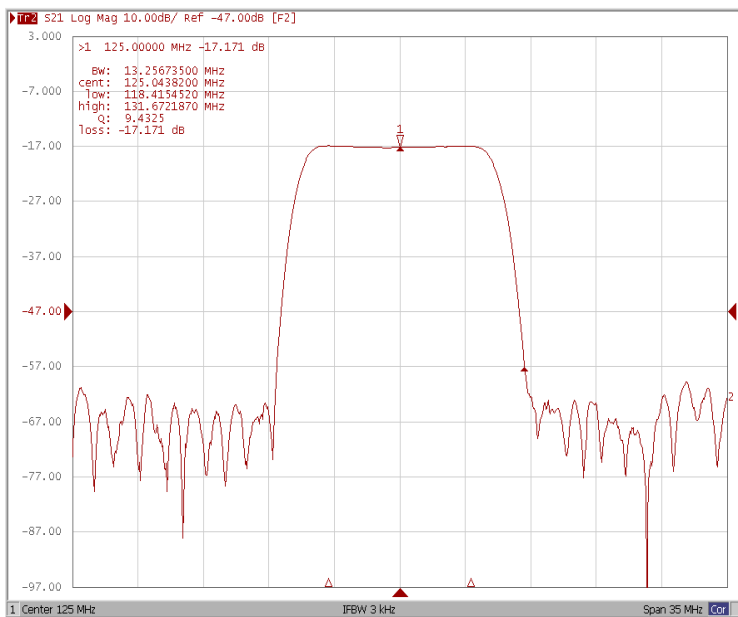
Bandwidth at -1.0 dB



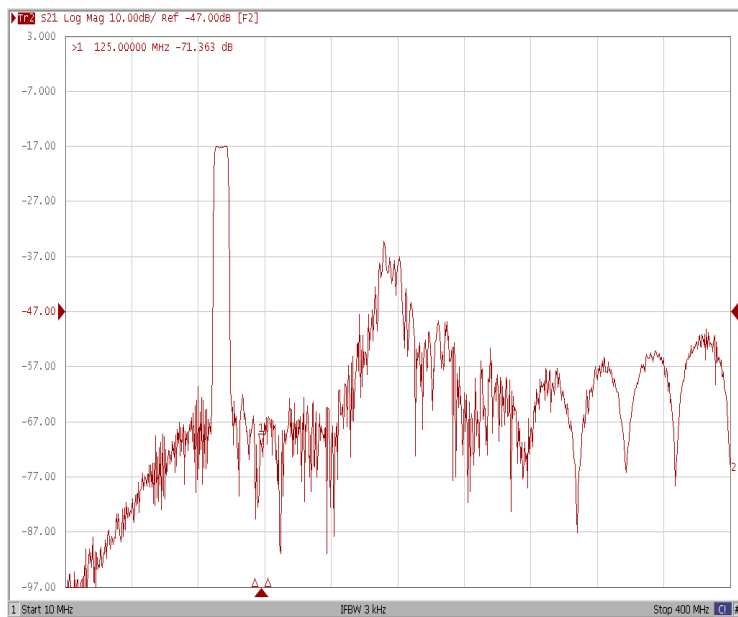
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



Wide-Band

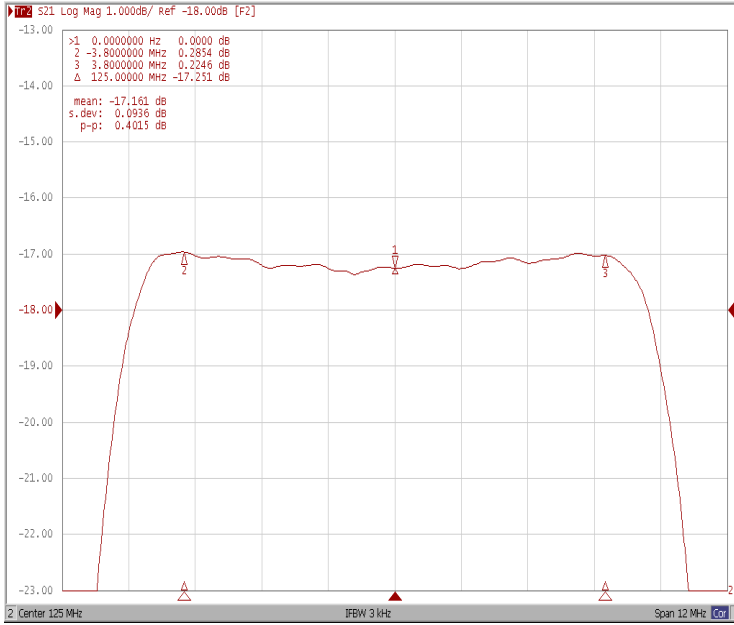




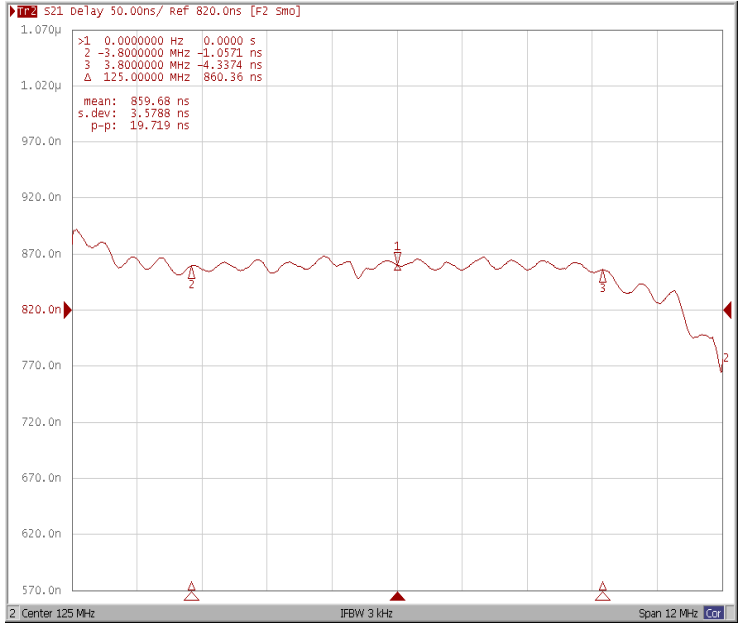
Frequency Characteristics

Frequency Response

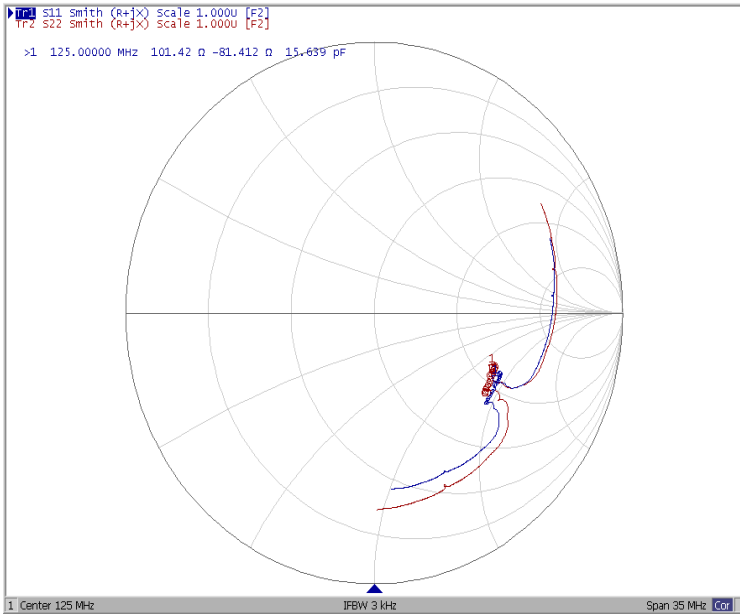
Ripple Variation Fo±3.8MHz



Group Delay Variation Fo±3.8MHz



Smith Chart



SWR

