



Total Solution Provider in Saw Device

SF-016001-S90

160.00 MHz IF SAW Filter

20.80 MHz Bandwidth

Revision 1: 16. January. 2013



- 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	-45	-	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	S90			
Length x Width	mm ²	-	13.3 x 6.5	-
Height	mm	-	-	1.8

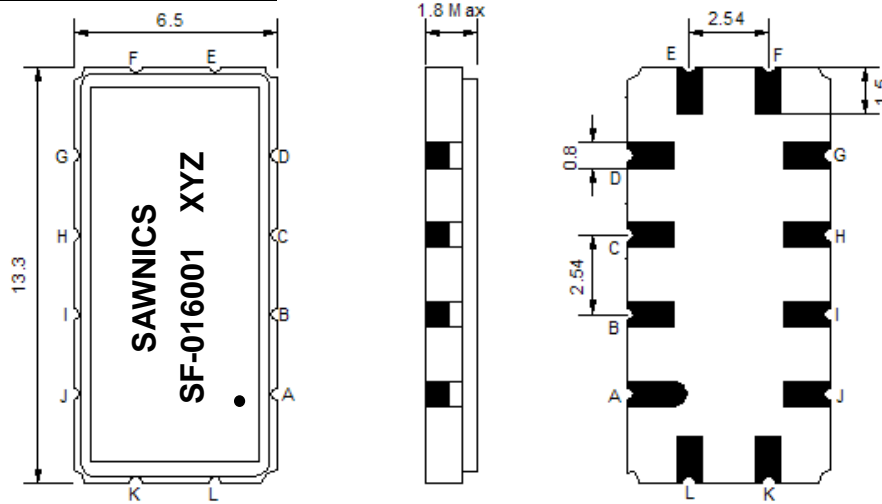
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	160.00	-
Insertion Loss at Fo	dB	-	12.50	15.00
Group Delay Variation at Fo ± 9.5 MHz	nsec	-	50	100
Absolute Delay at Fo	usec	-	0.93	1.20
Passband Ripple Variation at Fo ± 9.5 MHz	dB _{p-p}	-	0.5	1.0
Bandwidth at -1dB	MHz	20.40	20.80	-
Bandwidth at -3dB	MHz	-	21.60	-
Bandwidth at -40dB	MHz	-	25.15	25.60
Ultimate Rejection	dB	37	42	-
Relative Attenuation				
Fo ± 13.0 MHz	dB	40	45	-
Temperature Coefficient	ppm/°C	-	-86	-

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.

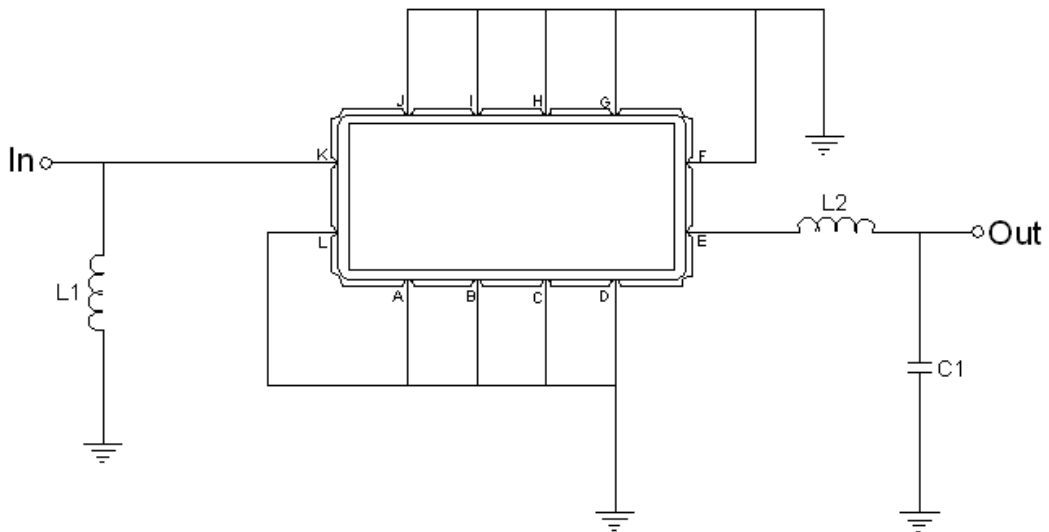
Package Dimensions



- ① SAWNICS: Brand
- ② SF-016001: 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 = 27nH,
Output	L2 = 56nH, C1= 27pF
Source/Load Impedance	50 Ω

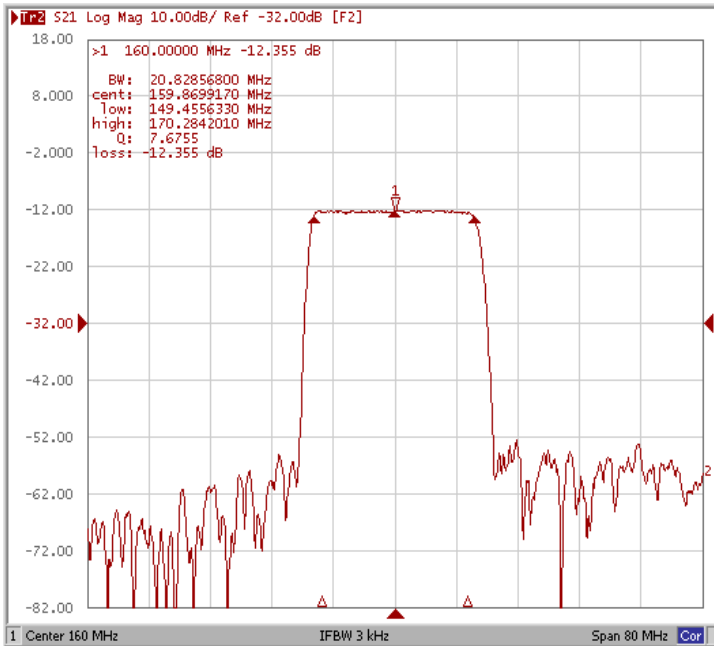


□ Frequency Characteristics

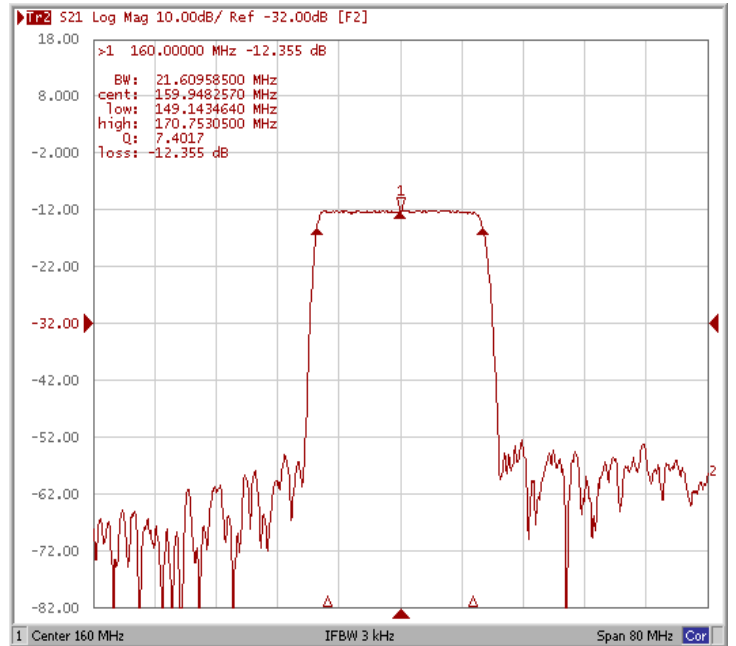
Frequency Response

Operating Temperature : +25 °C

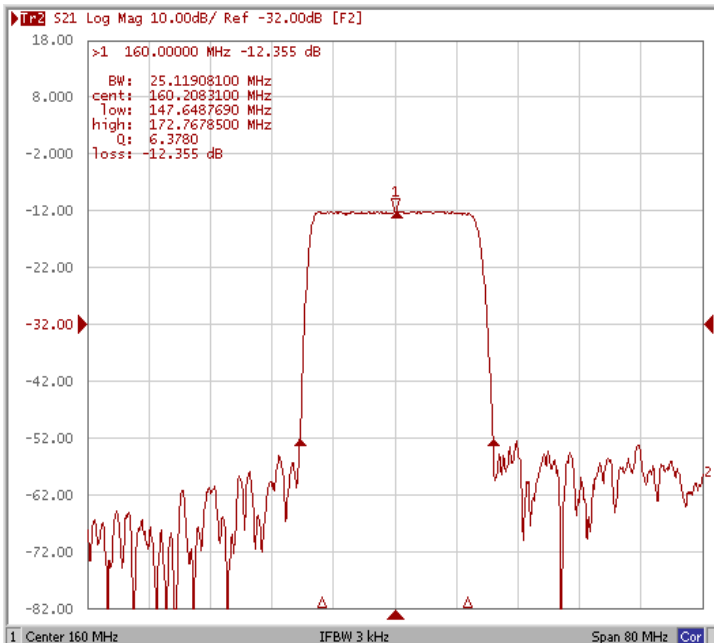
Bandwidth at -1.0 dB



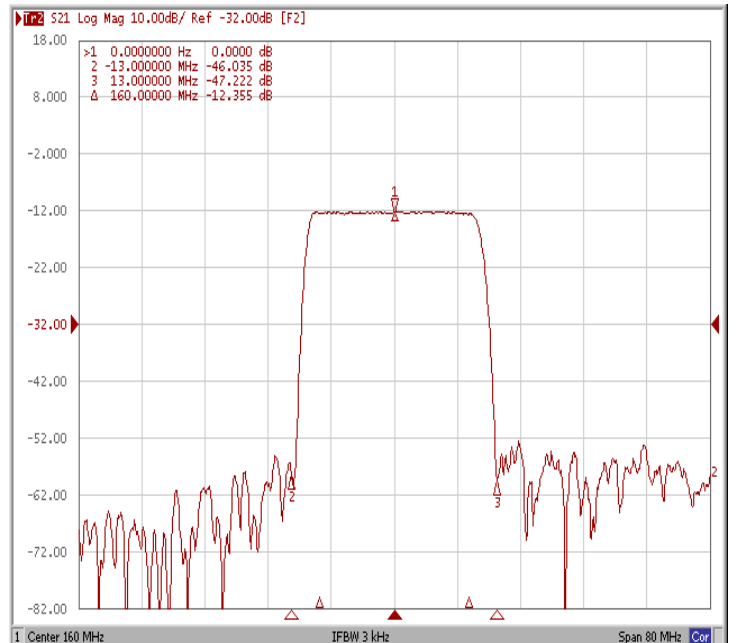
Bandwidth at -3.0 dB



Bandwidth at -40 dB



Relative Attenuation $F_0 \pm 13.0$ MHz

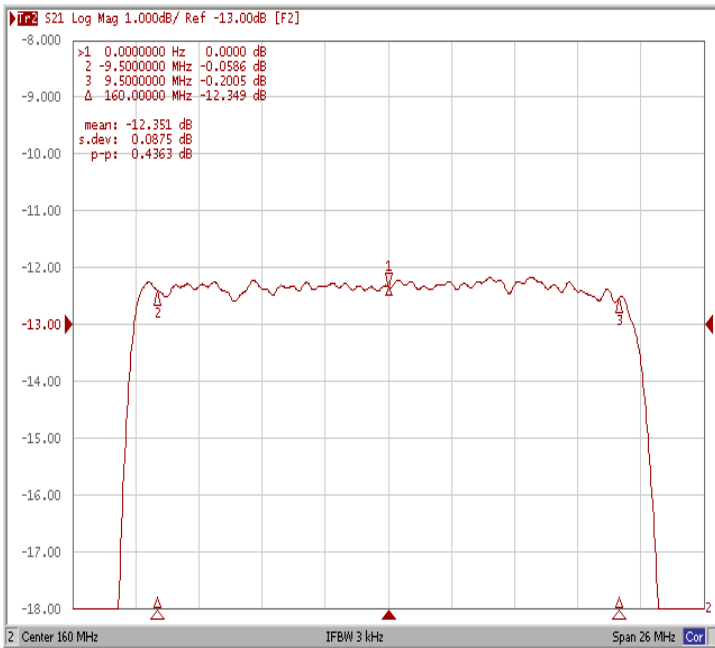




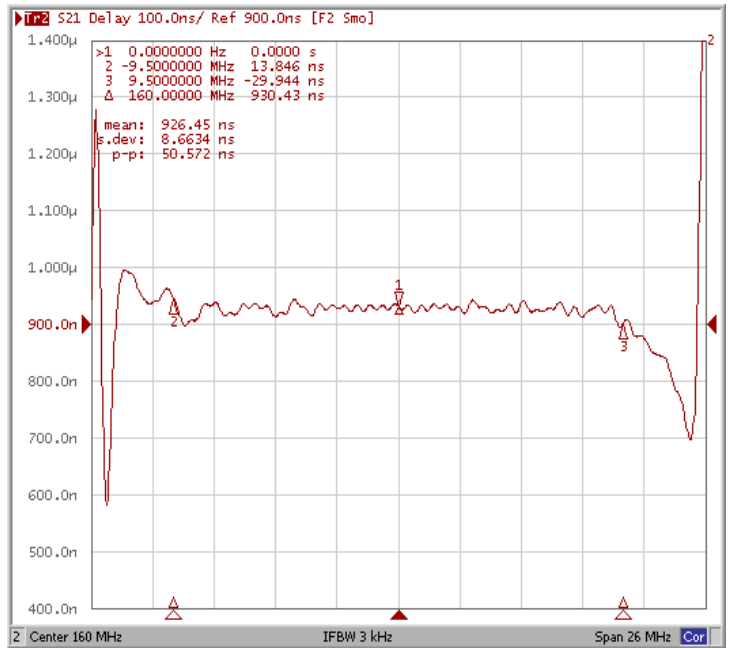
Frequency Characteristics

Frequency Response

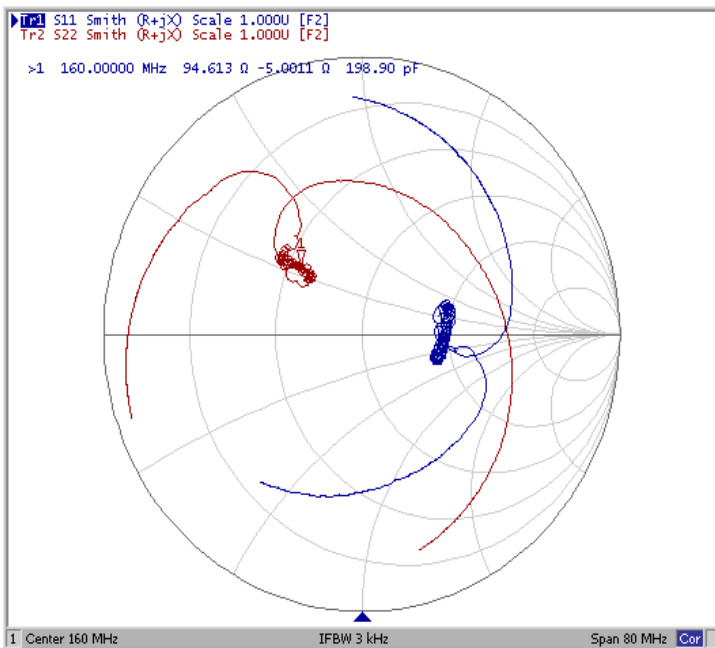
Ripple Variation Fo±9.5MHz



Group Delay Variation Fo±9.5MHz



Smith Chart



VSWR

