



Total Solution Provider in Saw Device

SL15337AV

153.6 MHz IF SAW Filter
37.85 MHz Bandwidth
Revision 0: 19. Mar. 2010



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

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Electrical Characteristics

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-10	-	+80
Operable Temperature Range	°C	-30	-	+85
Storage Temperature Range	°C	-30	-	+85
Maximum Input Power	dBm	-	-	5
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

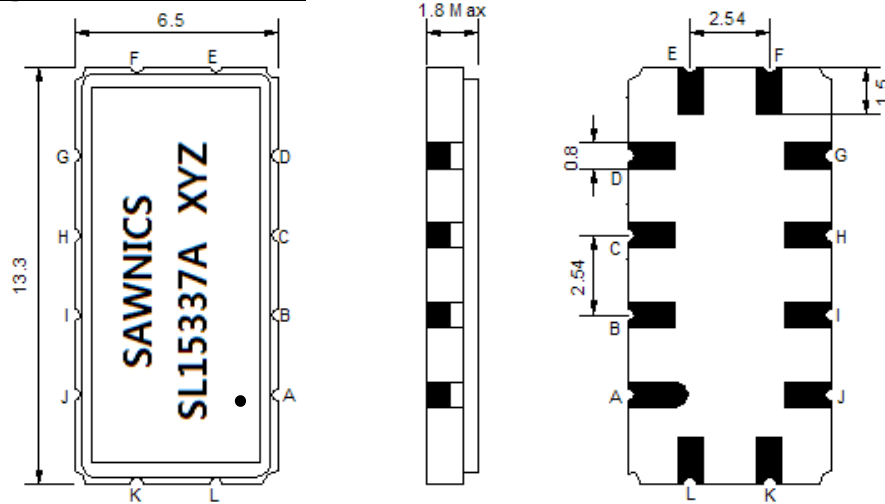
Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	153.40	153.60	153.80
Insertion Loss at Fo	dB	-	12.3	15.00
Group Delay Variation at Fo ± 16.00 MHz	nsec	-	22	60
Absolute Delay at Fo	usec	-	0.35	0.50
Passband Ripple Variation at Fo ± 16.00 MHz	dB	-	0.40	1.00
Phase ripple <rms> (Fo +/-16MHz)	deg	-	1.2	1.5
Phase ripple <p-p> (Fo +/-16MHz)	deg	-	5.5	10
Bandwidth at -1dB	MHz	36.00	37.85	-
Bandwidth at -40dB	MHz	-	53.65	56.00
Relative Attenuation				
70MHz ~ 115MHz	dB	40	52	-
115MHz ~ 125MHz	dB	40	50	-
275MHz ~ 350MHz	dB	40	50	-
400MHz ~ 1000MHz	dB	40	50	-
1000MHz ~ 2000MHz	dB	40	55	-
Input / Output Return loss	dB	-	6.2 / 5.1	-
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.

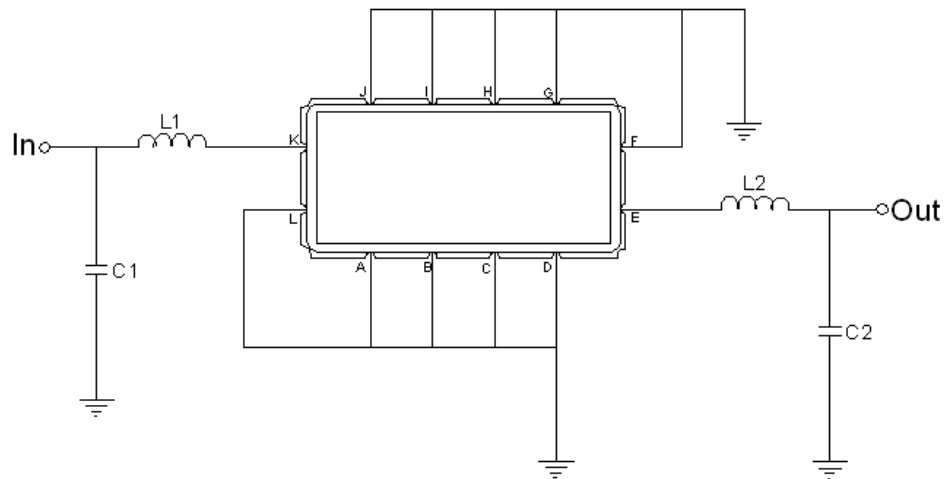
Package Dimensions



- ① SAWNICS: Brand
- ② SL15337A: 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



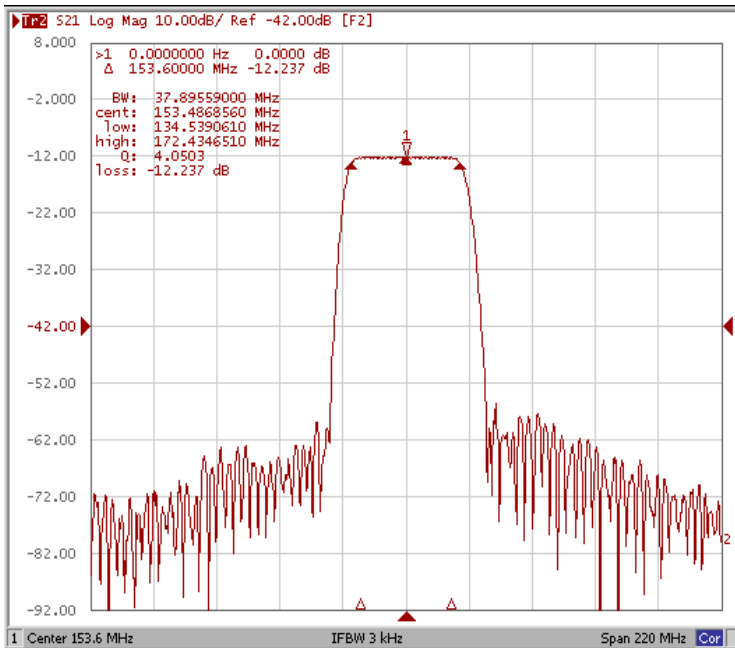
Test Fixture & Values	
Input	L1 = 82 nH, C1 = 12 pF
Output	L2 = 68 nH, C2 = 15 pF
Source/Load Impedance	50 Ω



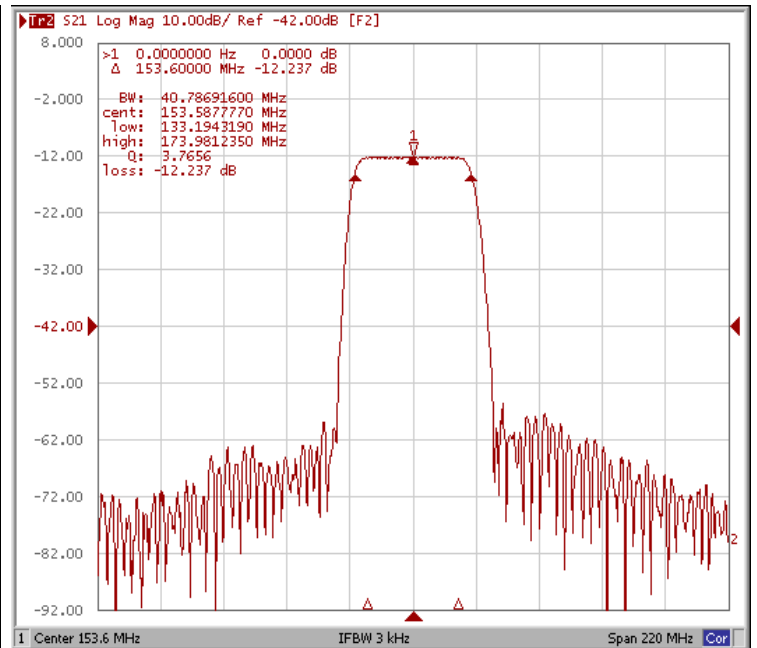
Frequency Characteristics

Frequency Response

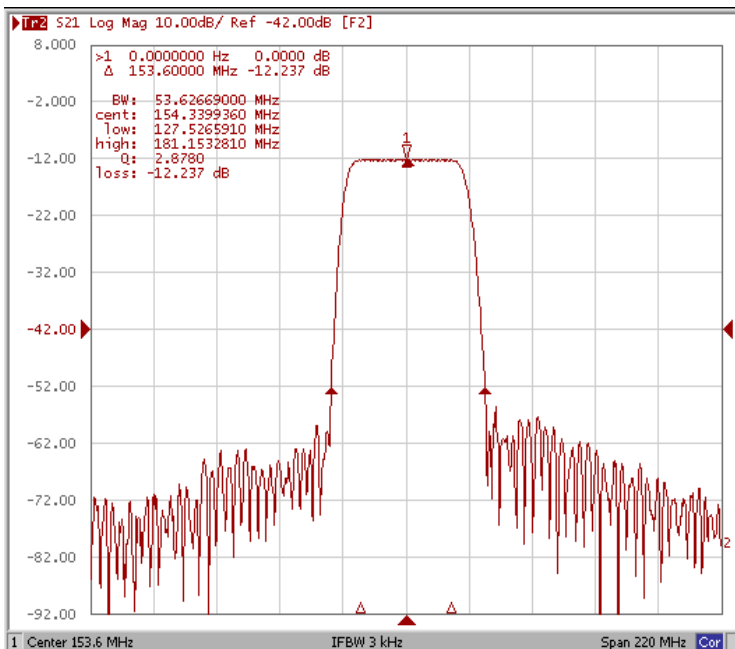
Bandwidth at -1.0 dB



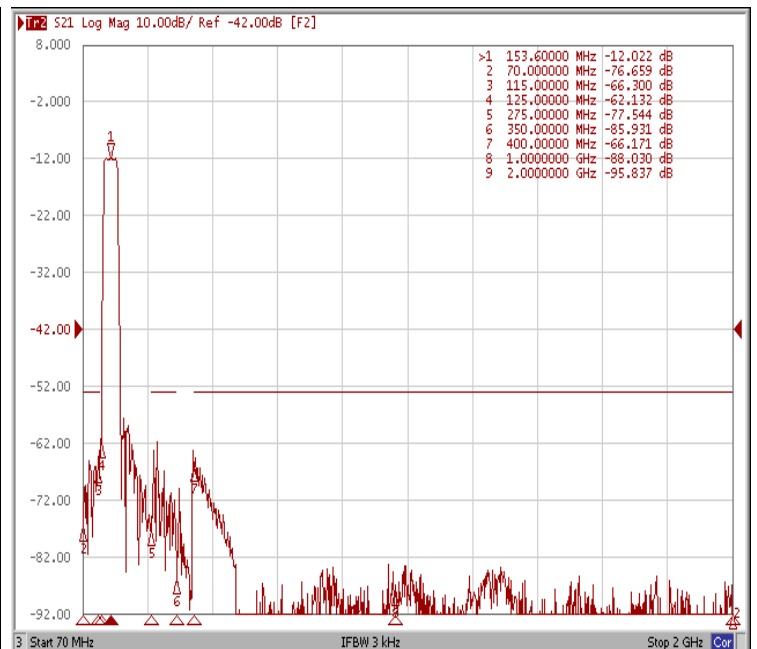
Bandwidth at -3.0 dB



Bandwidth at -40 dB



Relative Attenuation

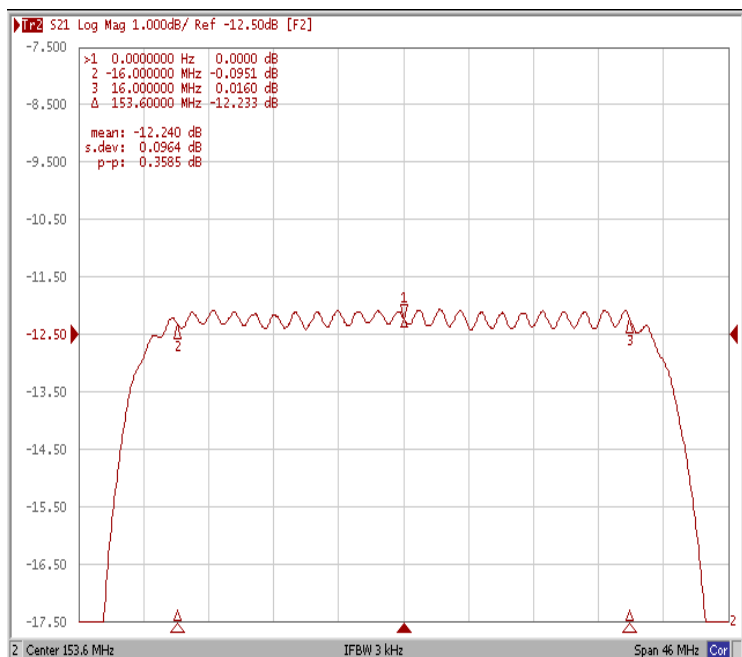




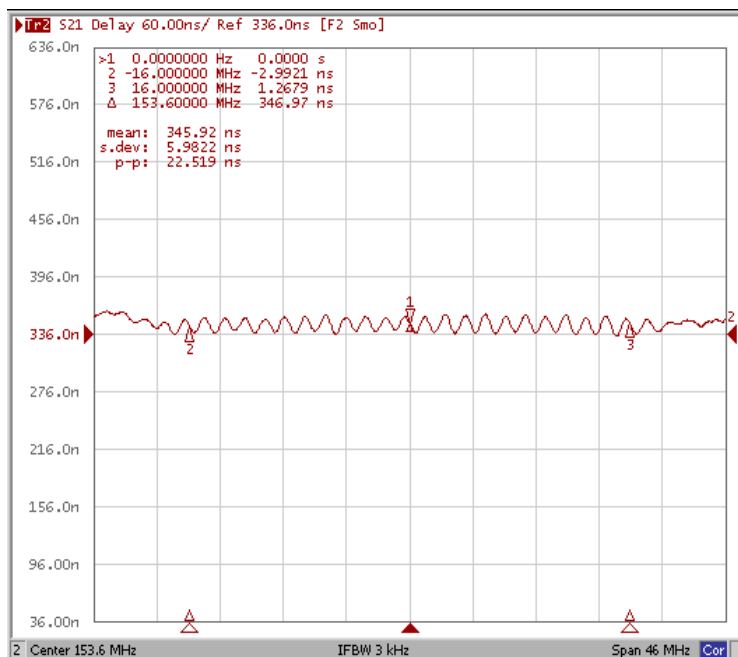
Frequency Characteristics

Frequency Response

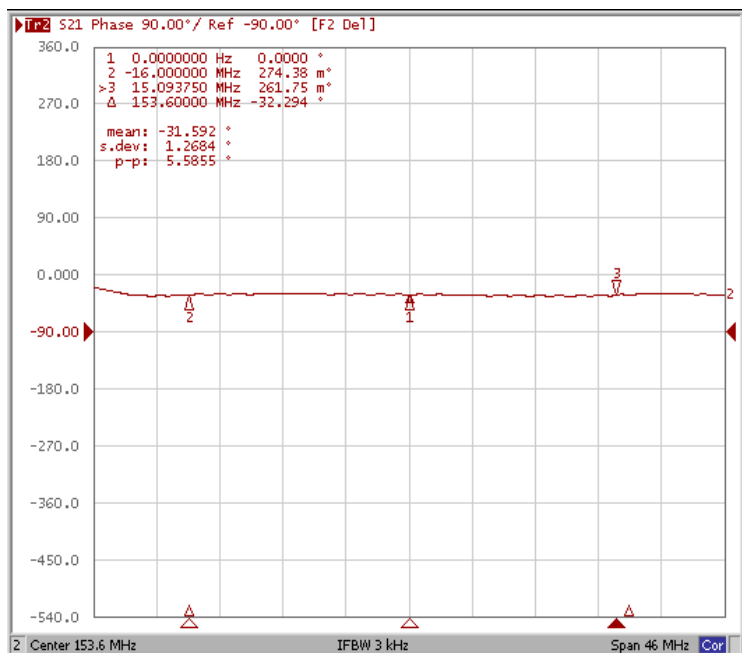
Ripple Variation Fo±16.00MHz



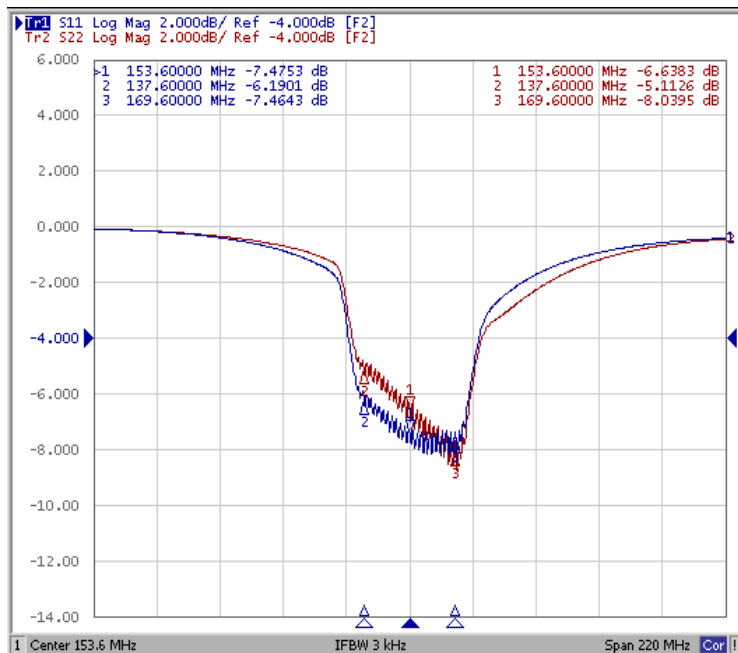
Group Delay Variation Fo±16.00MHz



Phase ripple Fo±16.00MHz



Return loss

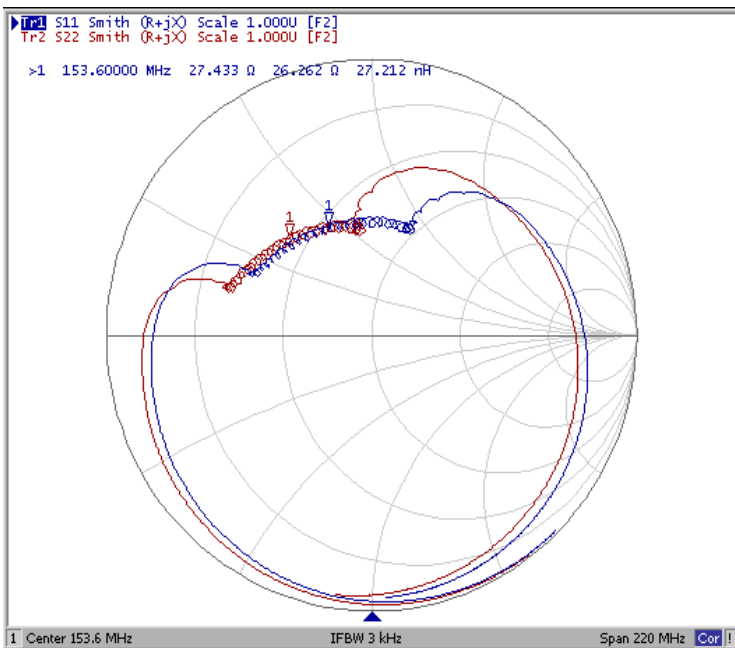




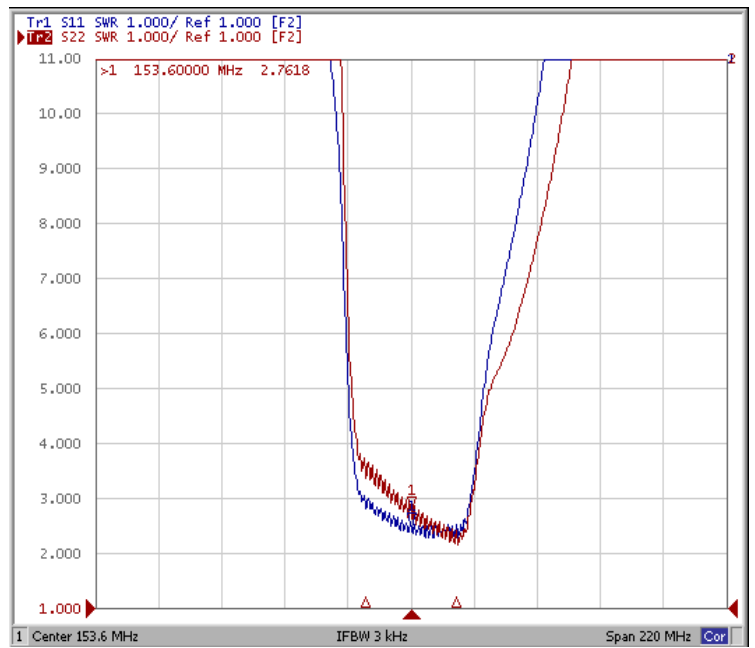
□ Frequency Characteristics

Frequency Response

Smith Chart



VSWR



□ Electrical Characteristics

Maximum Ratings

Parameters Description	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-10	-	+80
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Storage Temperature Range	°C	-30	-	+85
Maximum Input Power	dBm	-	-	5
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

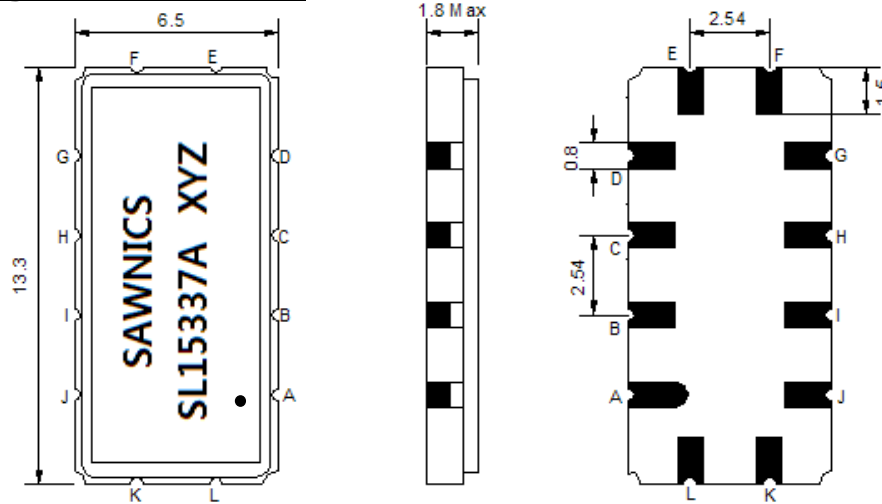
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275MHz ~ 350MHz	dB	40	50	-
400MHz ~ 1000MHz	dB	40	50	-
1000MHz ~ 2000MHz	dB	40	55	-
Input / Output Return loss	dB	6.0	6.8 / 6.7	-
Temperature Coefficient	ppm/°C	-	-86	-

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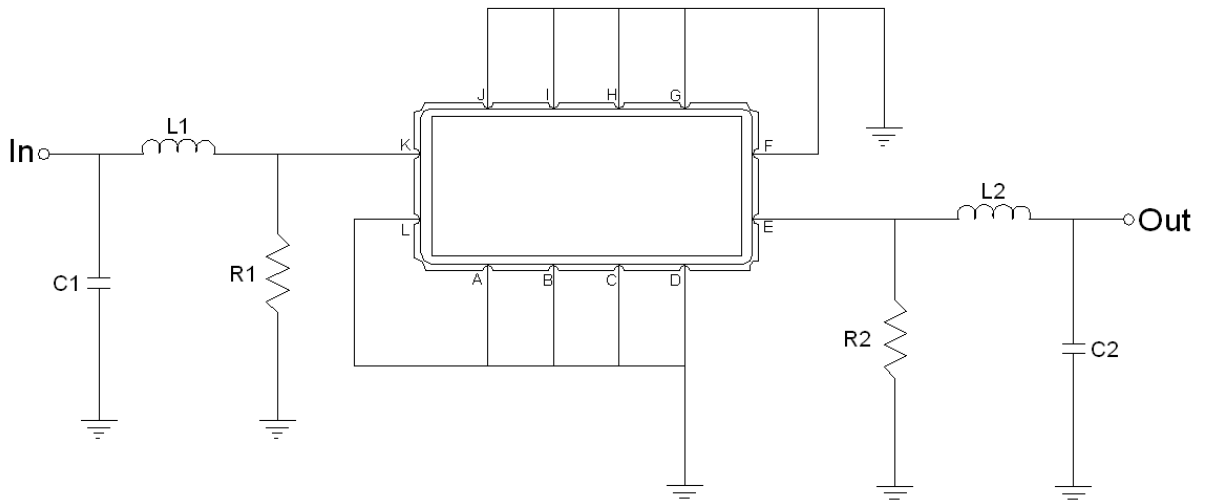
Package Dimensions



- ① SAWNICS: Brand
- ② SL15337A: 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 = 82 nH, C1 = 13 pF, R1 = 2 K Ω
Output	L2 = 68 nH, C2 = 13 pF, R2 = 680 Ω
Source/Load Impedance	50 Ω

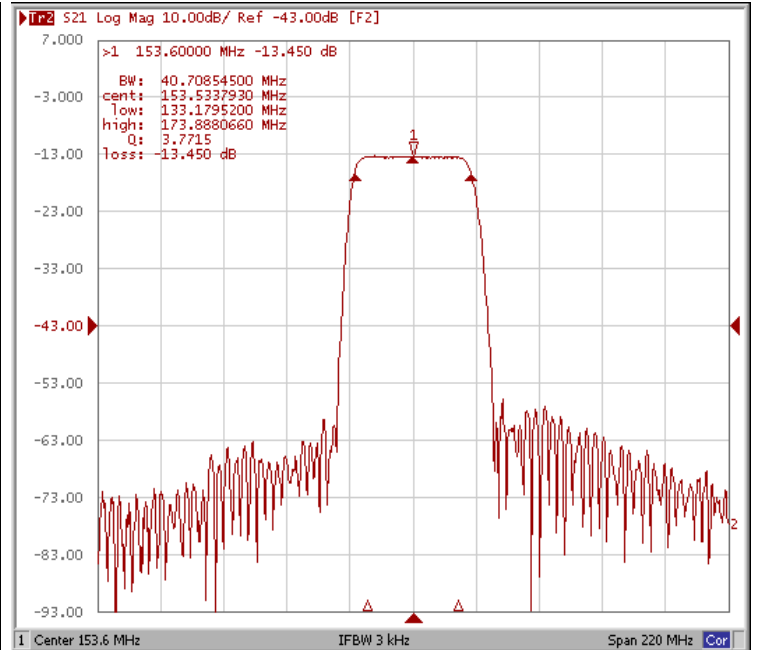
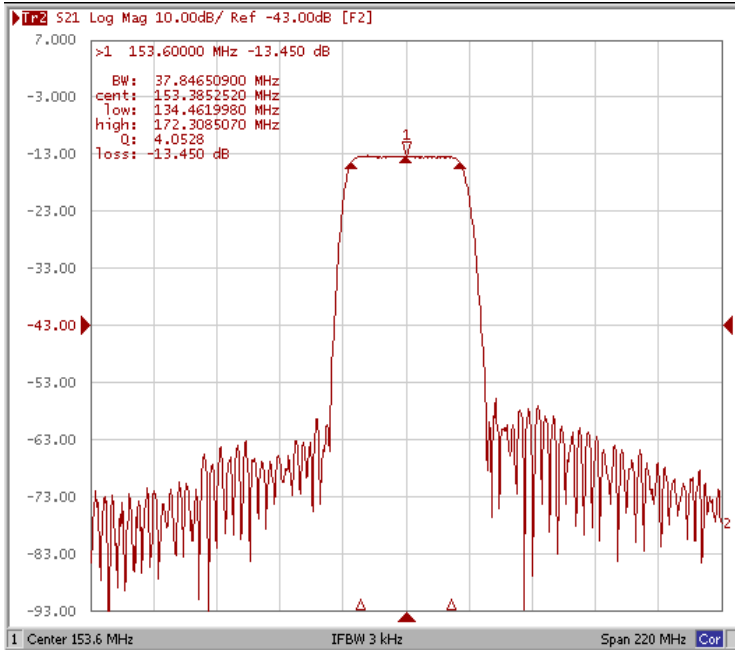


Frequency Characteristics

Frequency Response

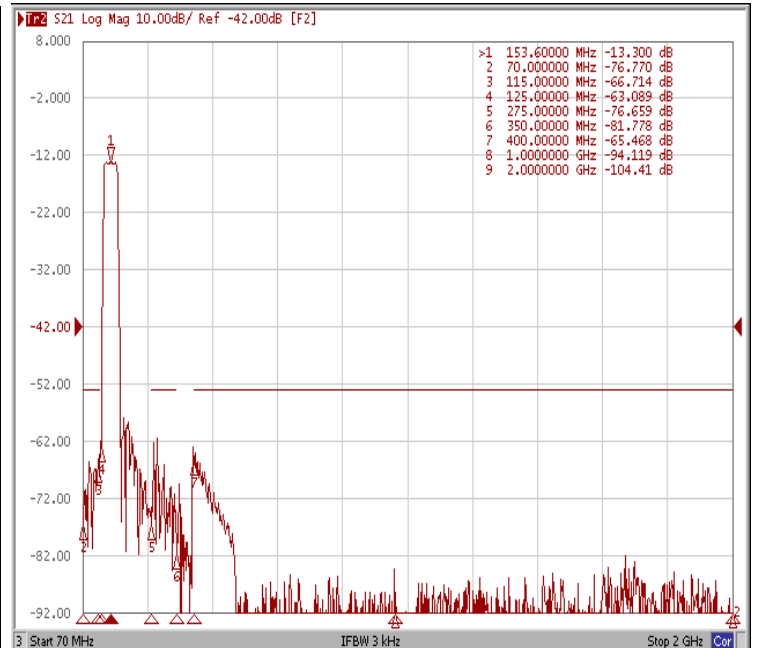
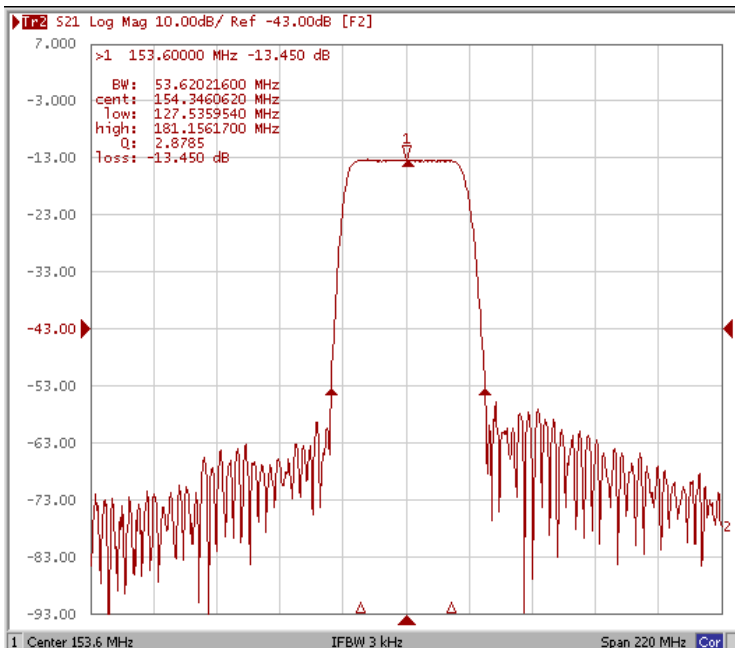
Bandwidth at -1.0 dB

Bandwidth at -3.0 dB



Bandwidth at -40 dB

Relative Attenuation

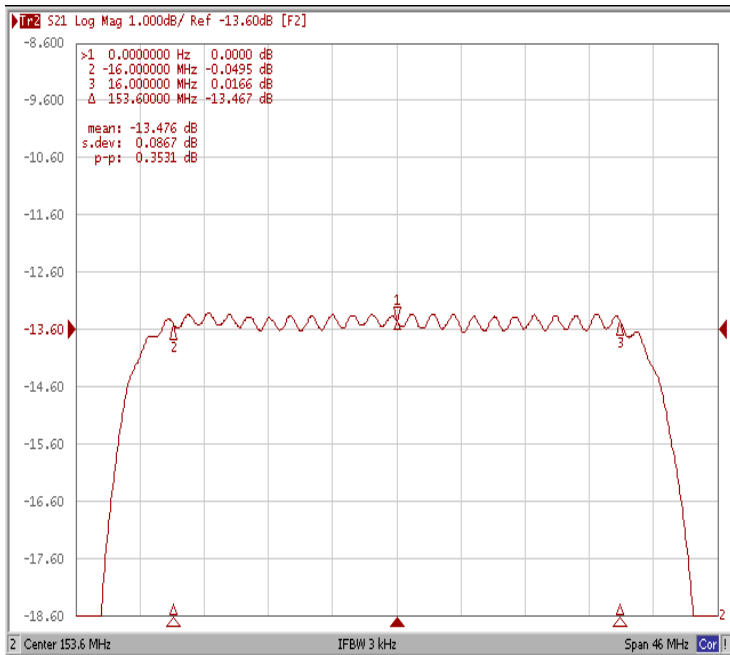




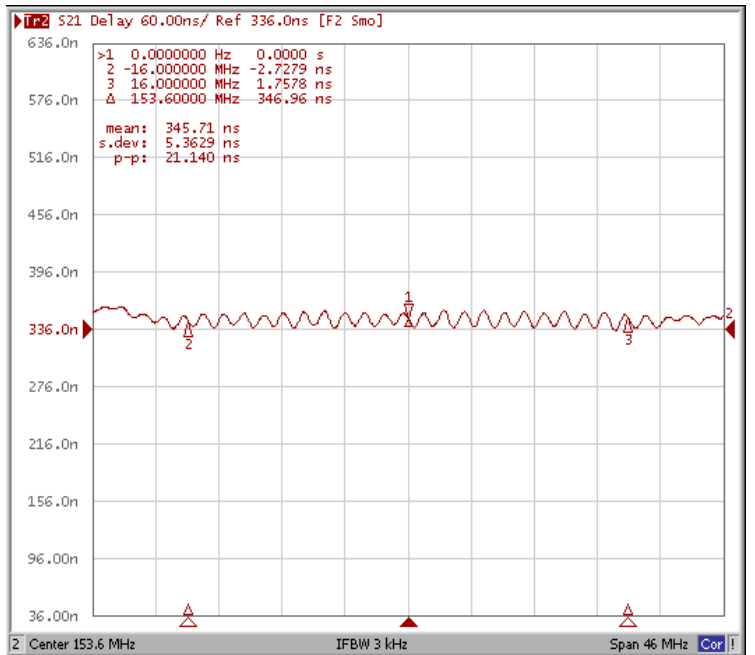
Frequency Characteristics

Frequency Response

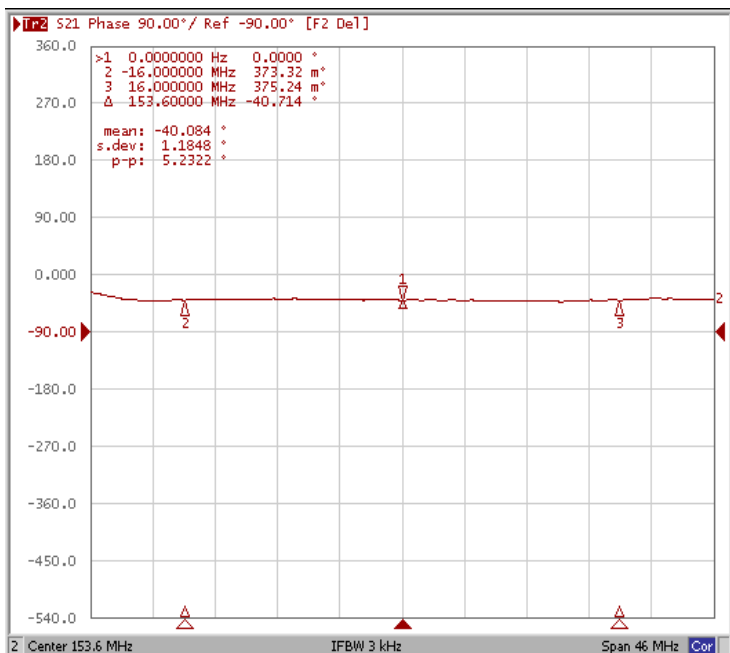
Ripple Variation Fo±16.00MHz



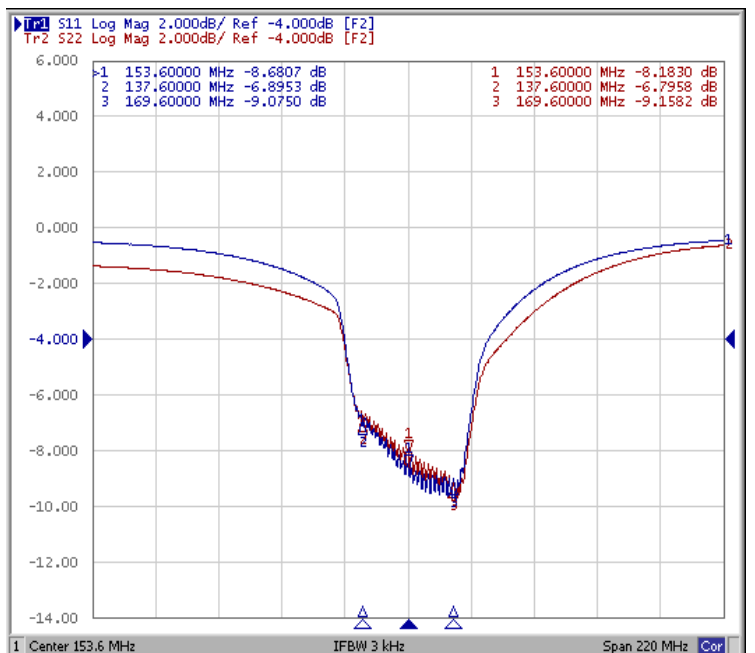
Group Delay Variation Fo±16.00MHz



Phase ripple Fo±16.00MHz



Return loss

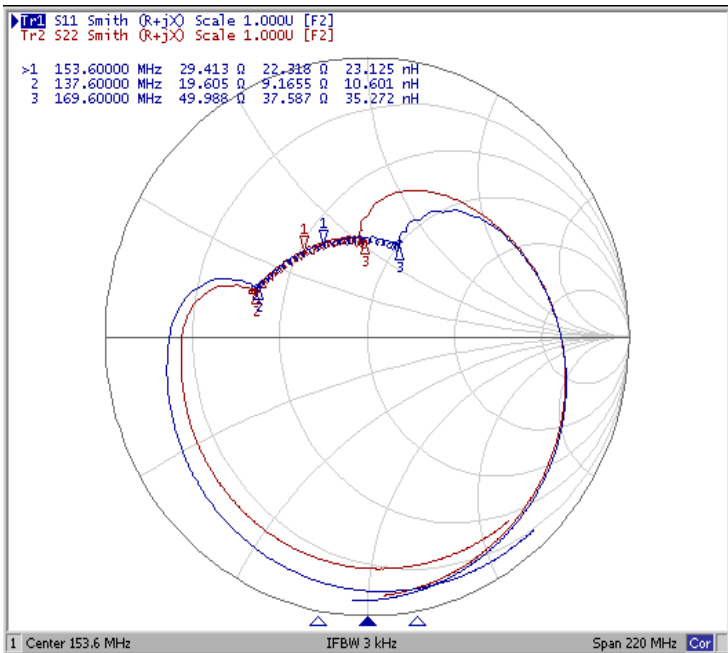




□ Frequency Characteristics

Frequency Response

Smith Chart



VSWR

