Transko

TL07013AV

RoHS Compliant

- **70.00 MHz IF SAW Filter / 13.96 MHz Bandwidth**
- **Revision 1: 19 Feb. 2009**

Electrical Characteristics

MAXIMUM RATING				
PARAMETERS DESCRIPTION	**UNIT**	**MINIMUM**	**TYPICAL**	**MAXIMUM**
Operating Temperature Range	°C	-40	-	85
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	69.5	70.00	70.5
Insertion Loss at Fo	dB	-	11.7	13.5
Group Delay Variation (Fo±5.75MHz)	nsec	-	26	80
Absolute Delay at Fo	usec	-	0.85	-
Passband Ripple Variation (Fo±5.75MHz)	dB	-	0.4	0.8
Phase Linearity (Fo±5.75MHz)	deg	-	3.7	50
Bandwidth at -1dB	MHz	13.60	13.96	-
Bandwidth at -3dB	MHz	14.40	14.75	-
Bandwidth at -40dB	MHz	-	18.30	19.80
Relative Attenuation:				
At 0.1 to 55.0 MHz	dB	50	55	-
At 55.0 to 60.0 MHz	dB	40	44	-
At 63.35 to 76.65 MHz	dB	-	1.0	3.0
At 80.0 to 85.0 MHz	dB	40	45	-
At 85.0 to 110.0 MHz	dB	50	52	-
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.

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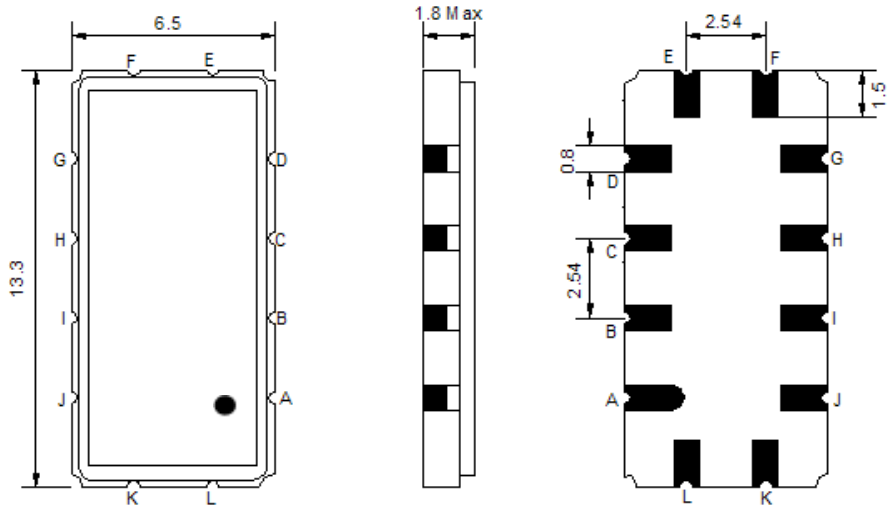
MAXIMUM RATING				
PARAMETERS DESCRIPTION	**UNIT**	**MINIMUM**	**TYPICAL**	**MAXIMUM**
Operating Temperature Range	°C	-	25	-
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended)(1)	Ω	-	50	-
Load Impedance (single ended)(1)	Ω	-	50	-
Package type & size	V			
Length x Width	mm²	-	13.3 x 6.5	-
Height	mm	-	-	1.8

ELECTRICAL SPECIFICATION				
PARAMETERS DESCRIPTION	**UNIT**	**MINIMUM**	**TYPICAL**	**MAXIMUM**
Center Frequency (Fo)	MHz	69.85	70.00	70.15
Insertion Loss at Fo	dB	-	11.7	12.7
Group Delay Variation (Fo±6.1MHz)	nsec	-	30	80
Absolute Delay at Fo	usec	-	0.85	-
Passband Ripple Variation (Fo±6.1MHz)	dB	-	0.4	0.6
Phase Linearity (Fo±6.1MHz)	deg	-	5.4	15
Bandwidth at -1dB	MHz	13.60	13.96	-
Bandwidth at -3dB	MHz	14.40	14.75	-
Bandwidth at -40dB	MHz	-	18.30	19.80
Relative Attenuation:				
At 0.1 to 55.0 MHz	dB	50	55	-
At 55.0 to 60.35 MHz	dB	40	44	-
At 63.0 to 77.0 MHz	dB	-	1.5	3.0
At 79.65 to 85.0 MHz	dB	40	45	-
At 85.0 to 110.0 MHz	dB	50	55	-
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.

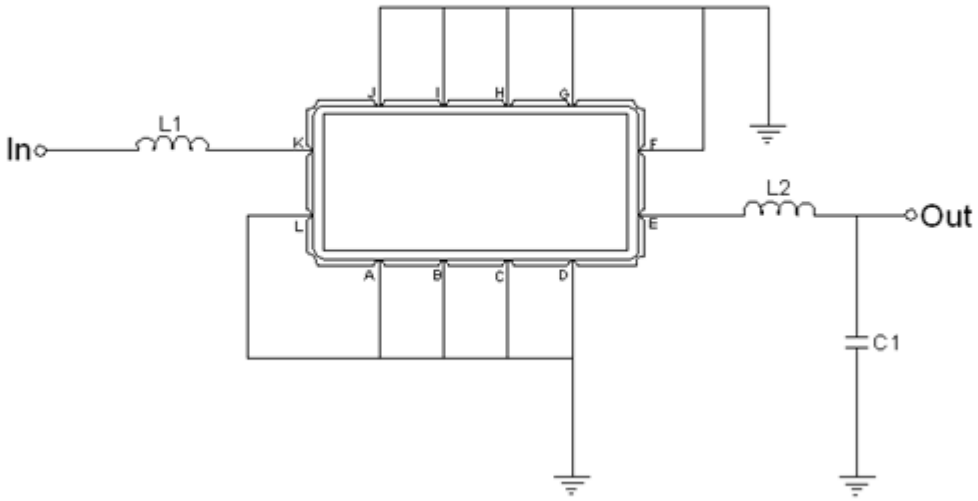
Package Dimensions



① TRANSKO: Brand
② TL07013A: 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

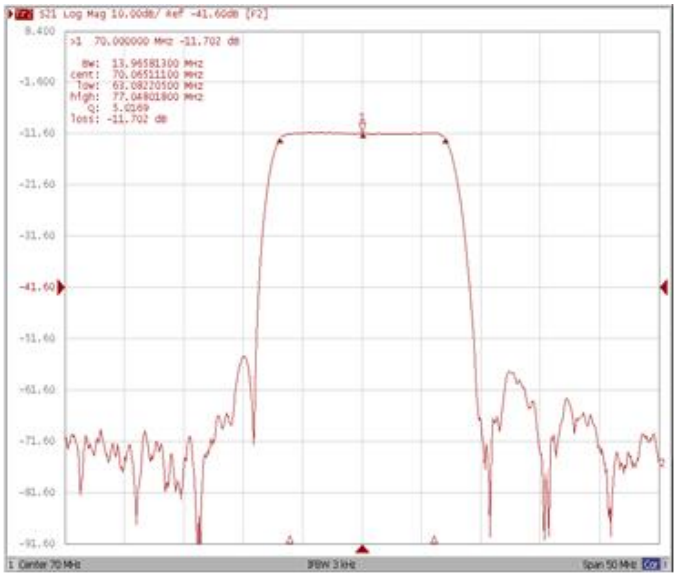


Test Fixture & Values	
Input	L1 = 82 nH
Output	L2 = 180 nH , C1 = 43 pF
Source/Load Impedance	50 Ω

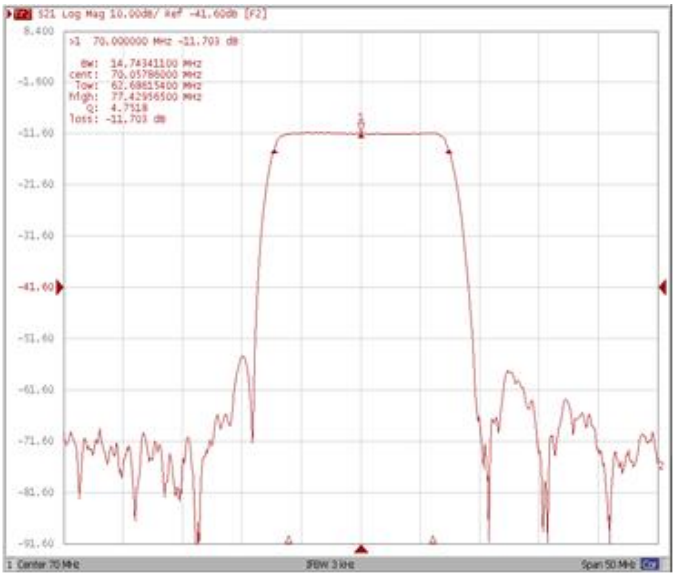
Frequency Characteristics

Frequency Response

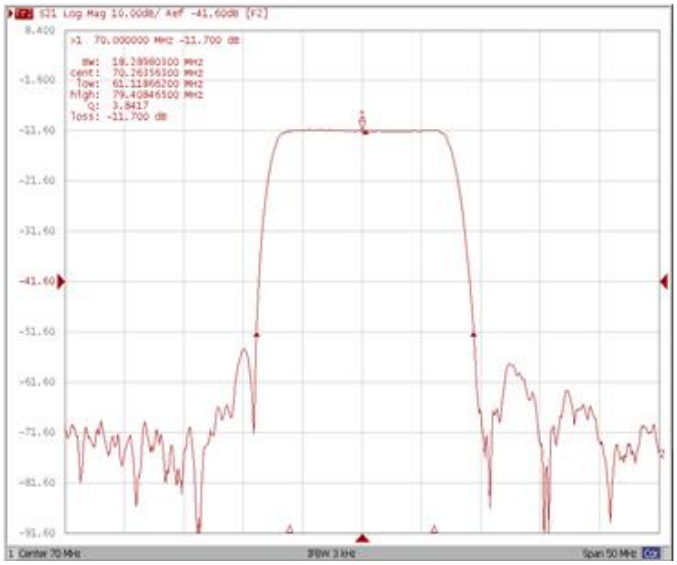
Bandwidth at –1.0 dB



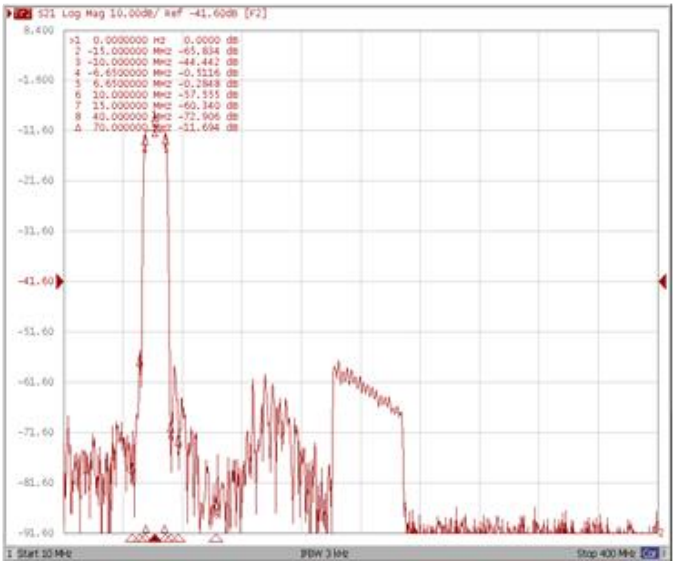
Bandwidth at –3.0 dB



Bandwidth at –40.0 dB

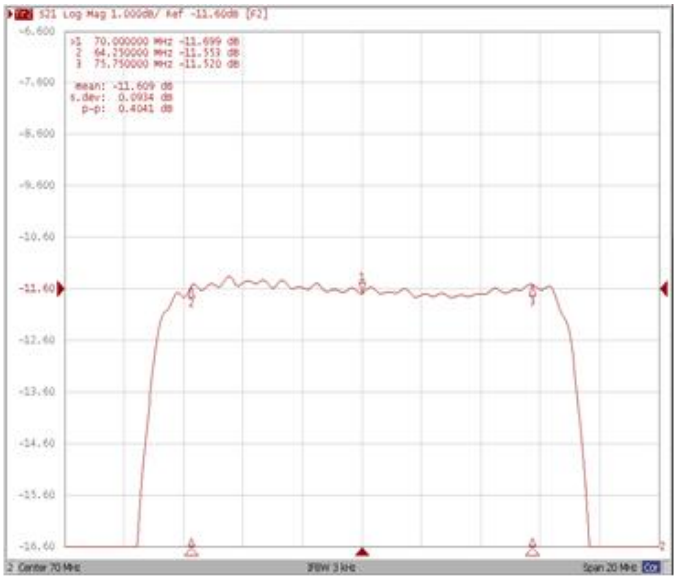


Wide Attenuation

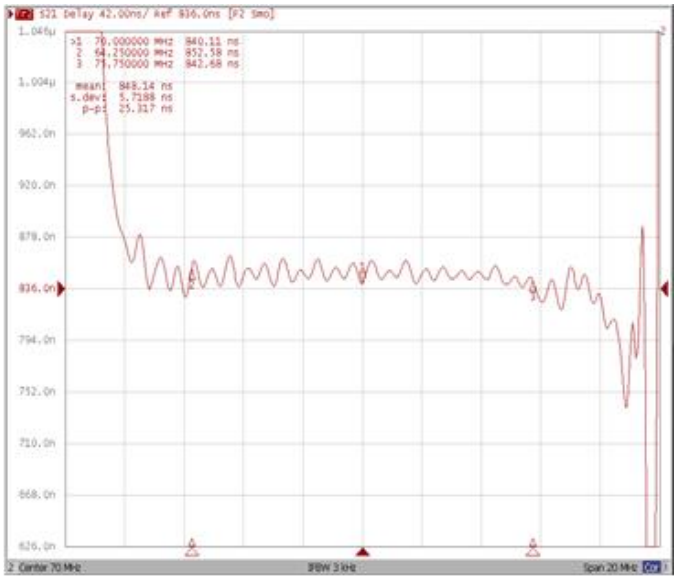


Frequency Response

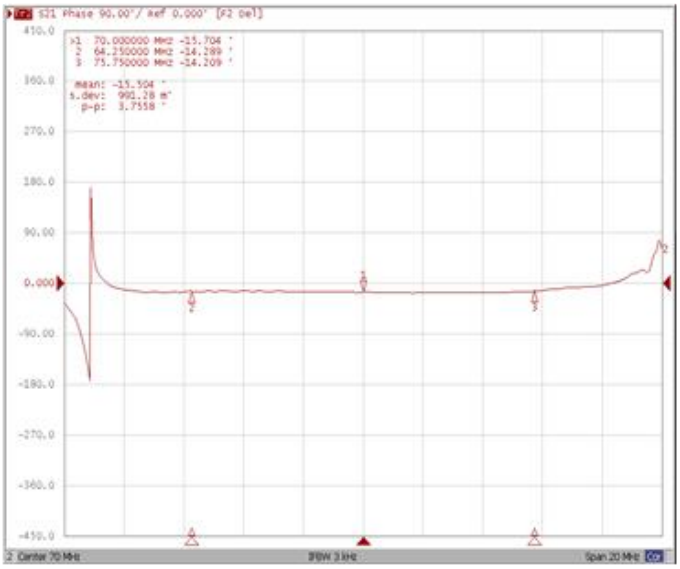
Ripple Variation Fo±5.75MHz



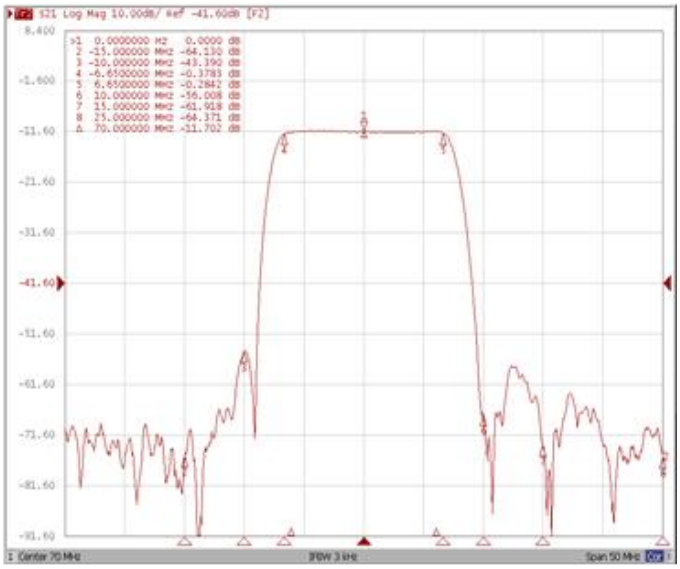
Group Delay Variation Fo±5.75MHz



Phase Linearity Fo±5.75MHz



Relative Attenuation



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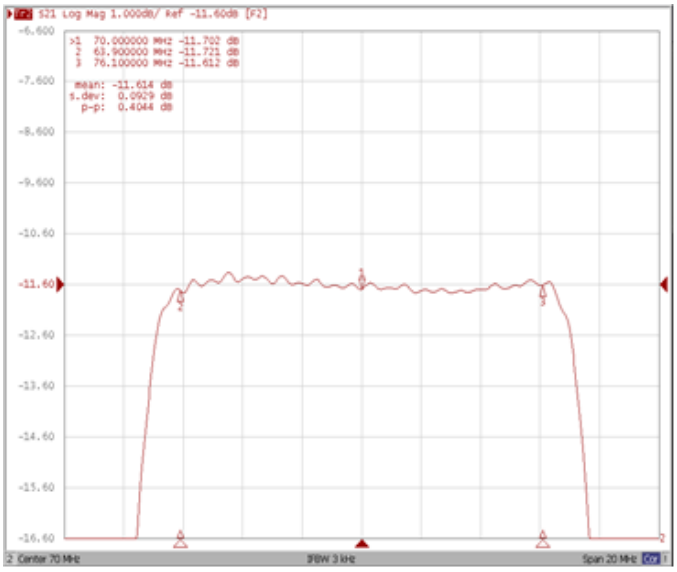
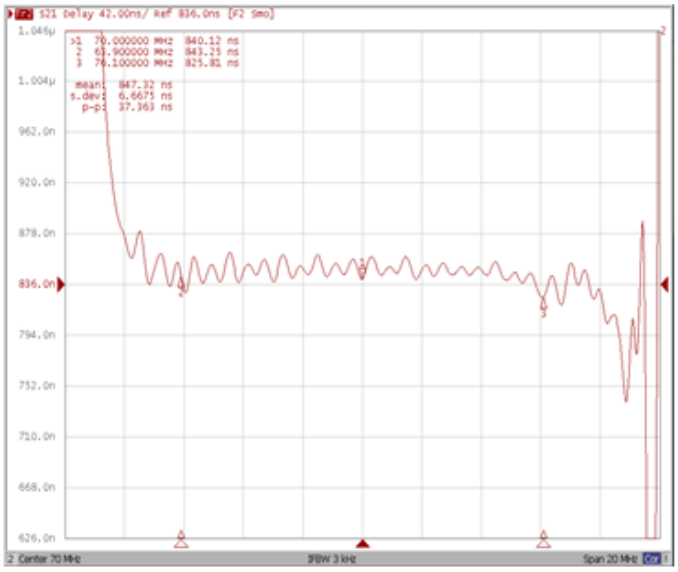
Frequency Response

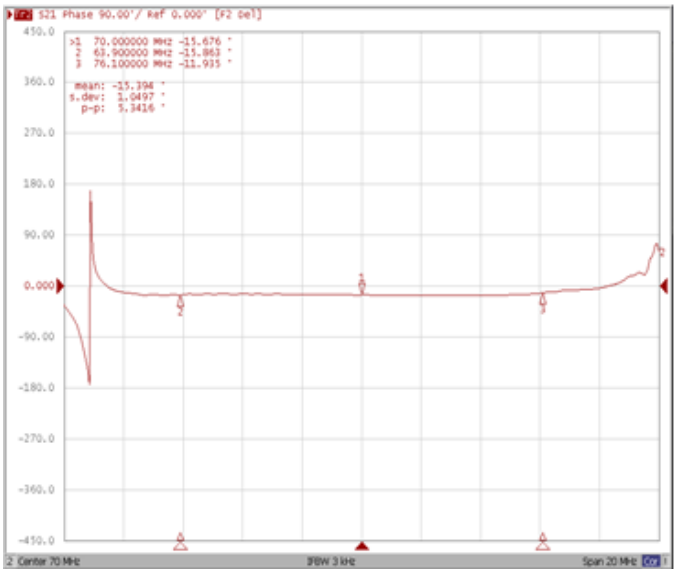
Ripple Variation Fo±6.1MHz



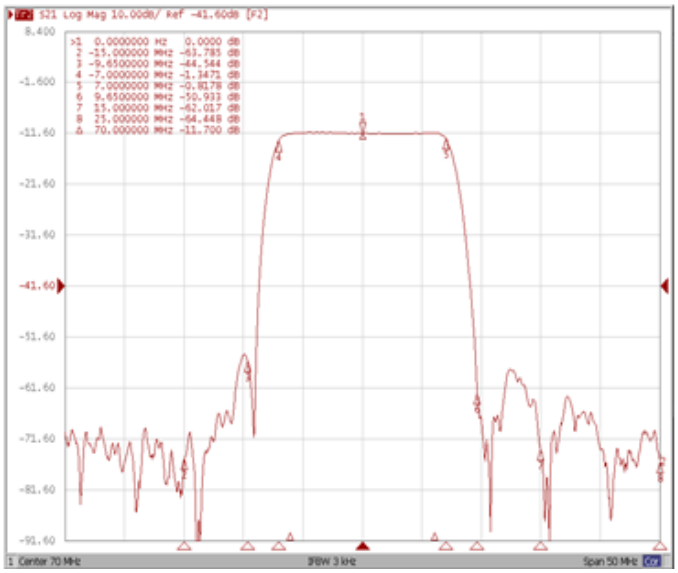
Group Delay Variation Fo±6.1MHz



Phase Linearity Fo±6.1MHz

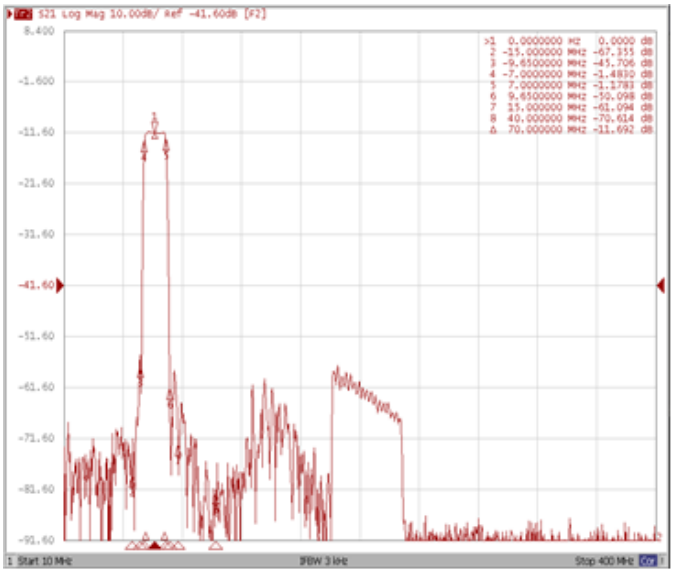


Relative Attenuation

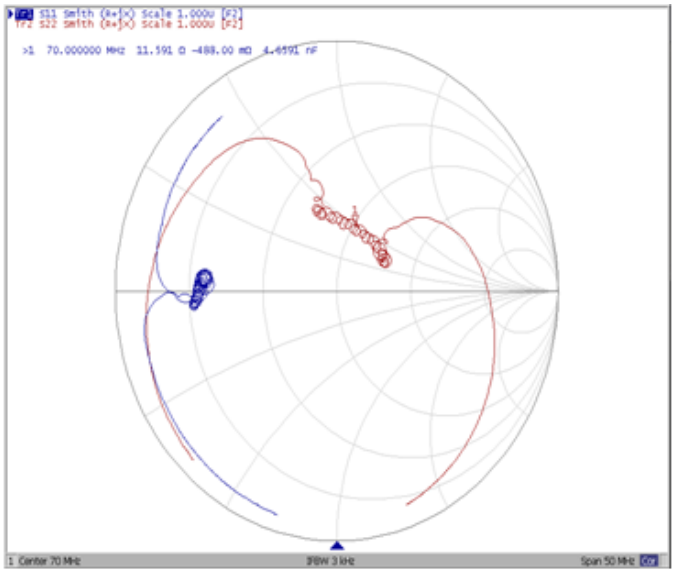


Frequency Response

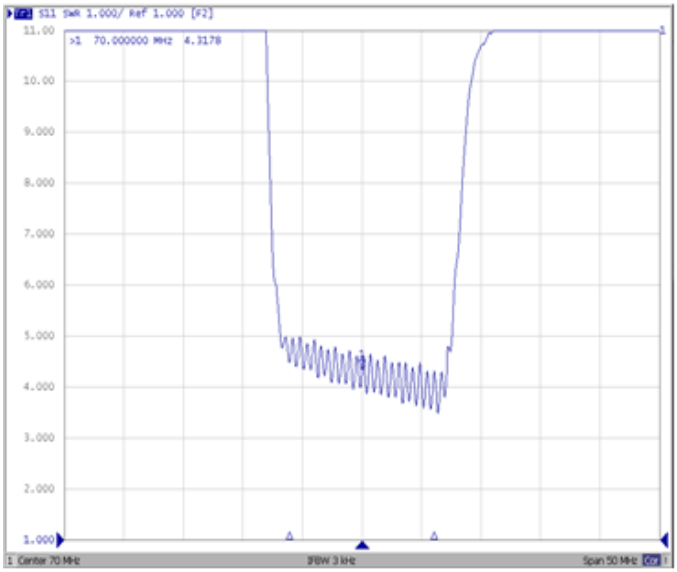
Wide Attenuation



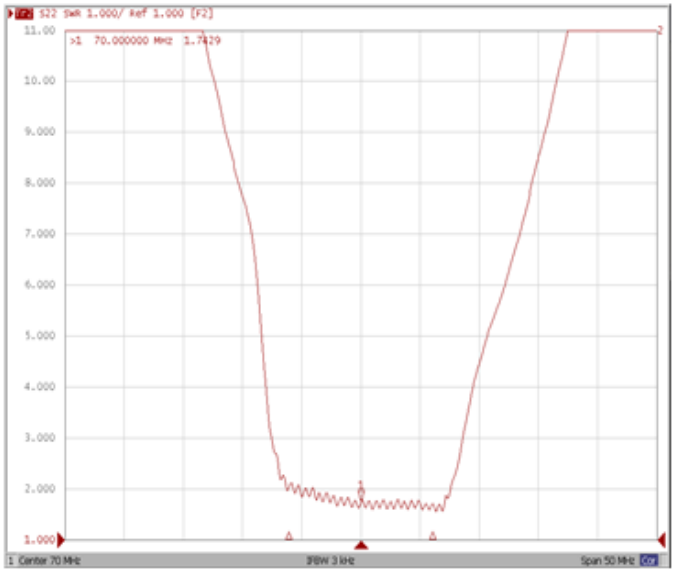
SMITH



VSWR S11



VSWR S22



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