

- 70.00 MHz IF SAW Filter / 6.10 MHz Bandwidth
- Revision 0: 15 Feb. 2012

## Electrical Characteristics

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) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	V			
Length x Width	mm <sup>2</sup>	-	13.3 x 6.5	-
Height	mm	-	-	1.8

ELECTRICAL SPECIFICATION				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Center Frequency (Fo)	MHz	-	70.00	-
Insertion Loss at Fo	dB	-	9.00	10.5
Group Delay Variation at Fo ± 2.50 MHz	nsec	-	81	150
Absolute Delay at Fo	usec	-	0.90	-
Passband Ripple Variation at Fo ± 2.50 MHz	dB	-	0.60	1.00
Bandwidth at -1dB	MHz	5.70	6.10	-
Bandwidth at -3dB	MHz	-	6.90	-
Bandwidth at -40dB	MHz	-	10.25	10.60
Ultimate Rejection	dB	40	45	-
Relative Attenuation:				
Fo ±5.40MHz	dB	40	41	-
Temperature Coefficient	ppm/°C	-	-86	-

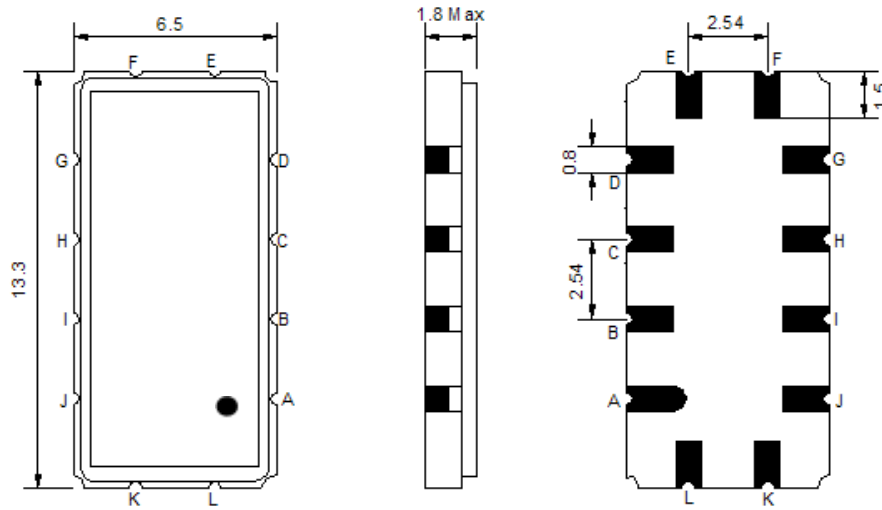
**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).  
Those impedances could be modified with different impedance values and/or structures, if necessary.

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PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
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Maximum DC Voltage	V	-	-	10
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Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	V			
Length x Width	mm <sup>2</sup>	-	13.3 x 6.5	-
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ELECTRICAL SPECIFICATION				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Center Frequency (Fo)	MHz	-	70.00	-
Insertion Loss at Fo	dB	-	9.70	12.00
Group Delay Variation at Fo ± 2.50 MHz	nsec	-	91	150
Absolute Delay at Fo	usec	-	0.94	-
Passband Ripple Variation at Fo ± 2.50 MHz	dB	-	0.85	-
Bandwidth at -1dB	MHz	5.70	6.10	-
Bandwidth at -3dB	MHz	-	6.90	-
Bandwidth at -40dB	MHz	-	10.25	10.60
Ultimate Rejection	dB	40	45	-
Relative Attenuation:				
Fo ±5.40MHz	dB	-	28	-
Temperature Coefficient	ppm/°C	-	-86	-

**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).  
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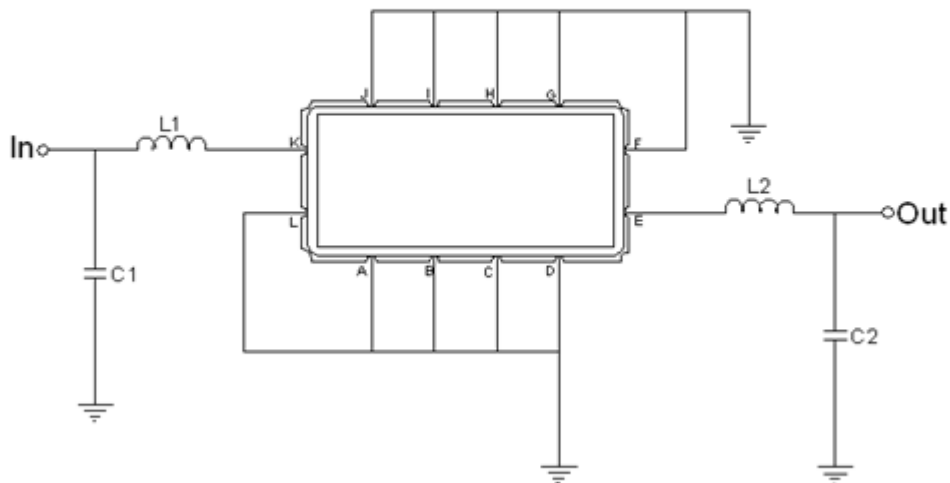
## Package Dimensions



- ① **TRANSKO:** Brand
- ② **TL07005A:** 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

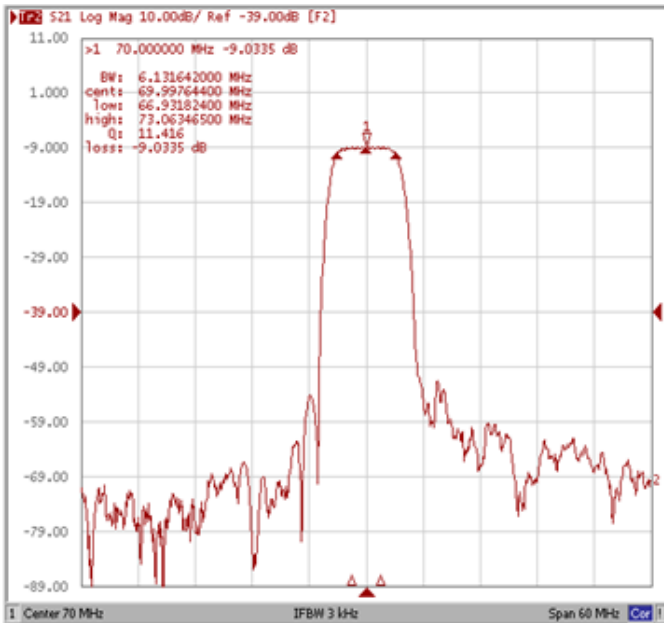


Test Fixture & Values	
<b>Input</b>	L1 = 180nH Q >40, C1=30pF
<b>Output</b>	L2 = 100nH Q >40, C2=27pF
<b>Source/Load Impedance</b>	50 Ω

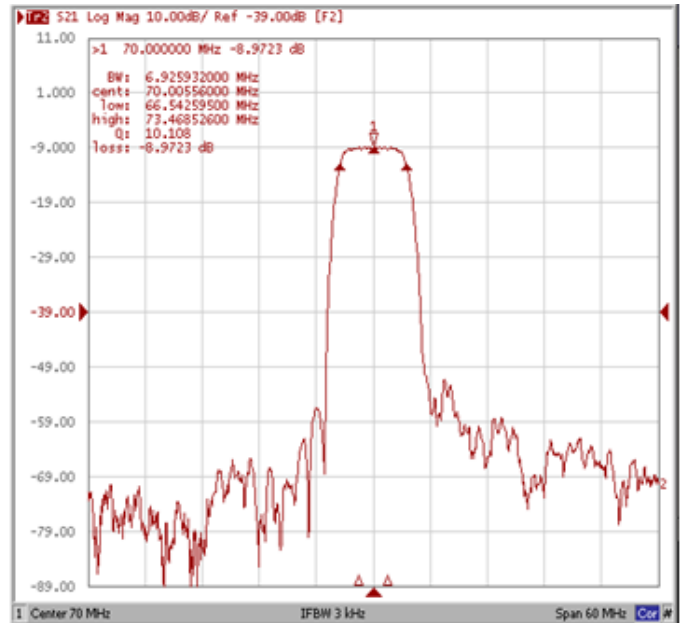
## Frequency Characteristics

### Frequency Response

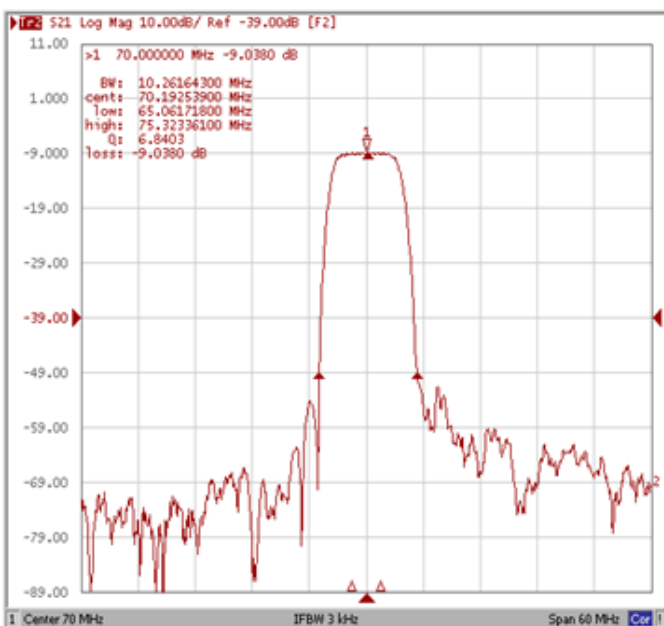
**Bandwidth at -1.0 dB**



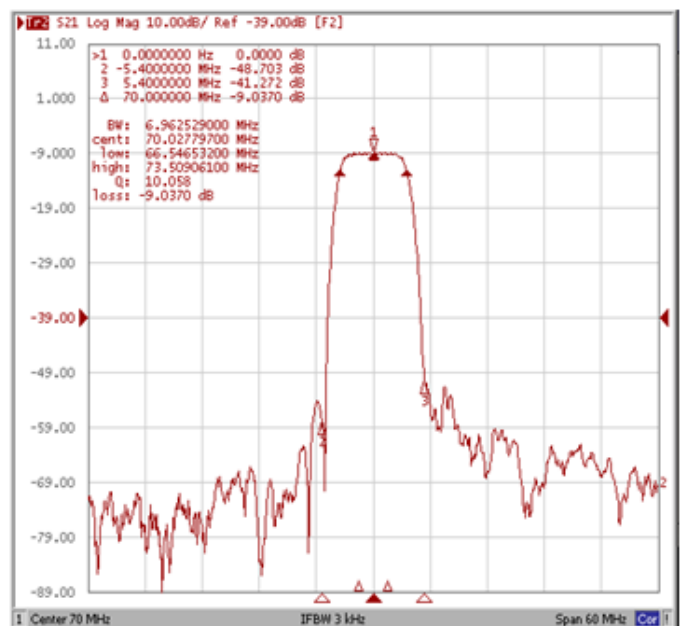
**Bandwidth at -3.0 dB**



**Bandwidth at -40.0 dB**

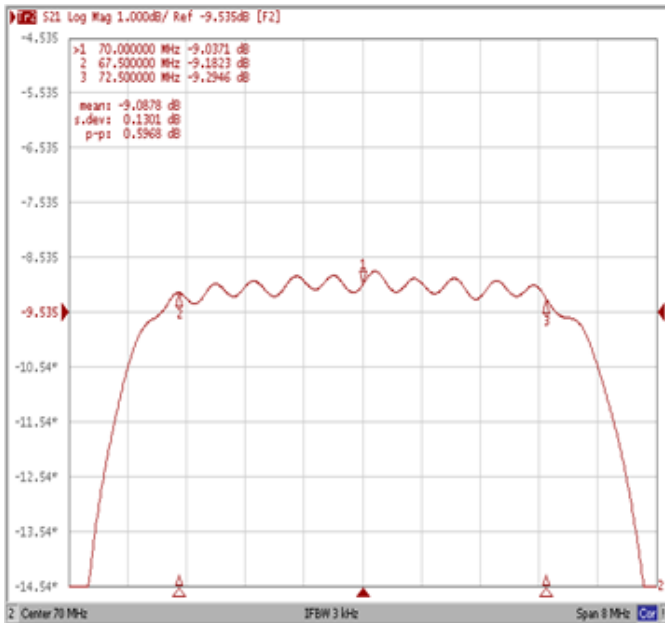


**Relative Attenuation Fo±5.40MHz**

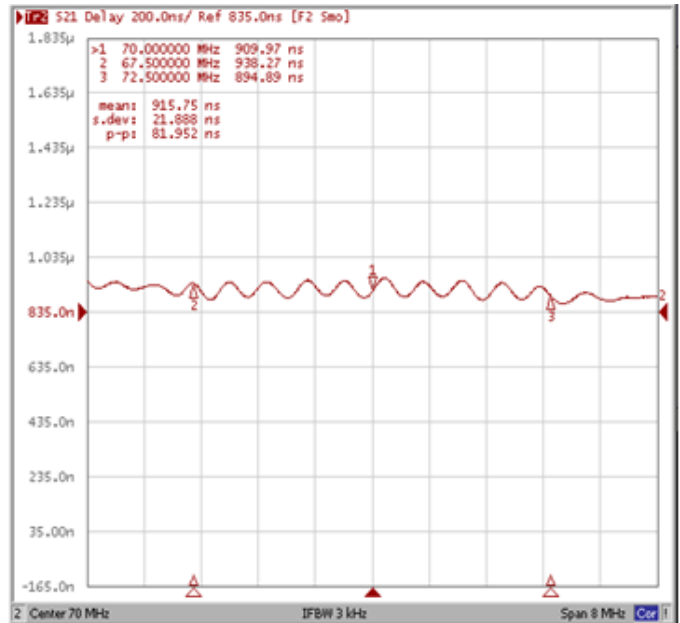


## Frequency Response

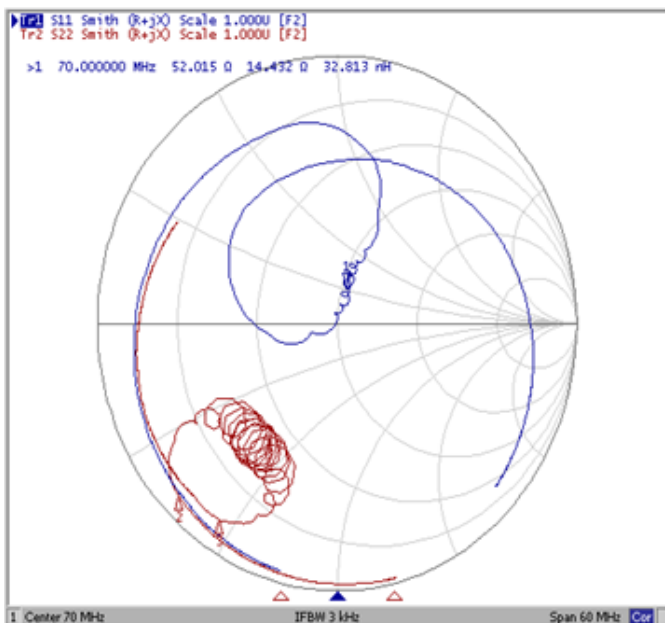
**Ripple Variation Fo±2.50MHz**



**Group Delay Variation Fo±2.50MHz**



**Smith Chart**



**VSWR**

