

- 70.00 MHz IF SAW Filter / 12.25 MHz Bandwidth
- Revision 0: 05 Mar. 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

Operating Temperature: +25 °C

ELECTRICAL SPECIFICATION				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Center Frequency (Fo)	MHz	-	70.00	-
Insertion Loss at Fo	dB	-	10.80	11.50
Group Delay Variation at Fo ± 5.00 MHz	nsec	-	30	70
Absolute Delay at Fo	usec	-	0.97	-
Passband Ripple Variation at Fo ± 5.00 MHz	dB	-	0.30	1.00
Bandwidth at -1dB	MHz	11.90	12.25	-
Bandwidth at -3dB	MHz	-	13.00	-
Bandwidth at -40dB	MHz	-	16.10	16.60
Ultimate Rejection	dB	40	48	-
Relative Attenuation:				
Fo ±8.70MHz	dB	40	50	-
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.

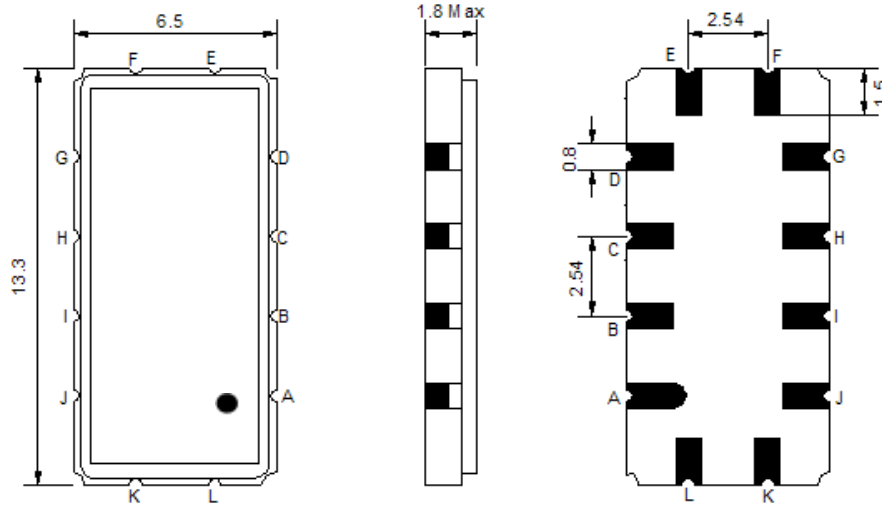
MAXIMUM RATING				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operating Temperature Range	°C	-40	-	55
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	V			
Length x Width	mm <sup>2</sup>	-	13.3 x 6.5	-
Height	mm	-	-	1.8

Operating Temperature : -40°C ~ +55 °C

ELECTRICAL SPECIFICATION				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Center Frequency (Fo)	MHz	-	70.00	-
Insertion Loss at Fo	dB	-	11.10	12.00
Group Delay Variation at Fo ± 5.00 MHz	nsec	-	42	70
Absolute Delay at Fo	usec	-	0.97	-
Passband Ripple Variation at Fo ± 5.00 MHz	dB	-	0.30	1.00
Bandwidth at -1dB	MHz	11.90	12.25	-
Bandwidth at -3dB	MHz	-	13.00	-
Bandwidth at -40dB	MHz	-	16.10	16.60
Ultimate Rejection	dB	40	48	-
Relative Attenuation:				
Fo ±8.70MHz	dB	40	46	-
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.

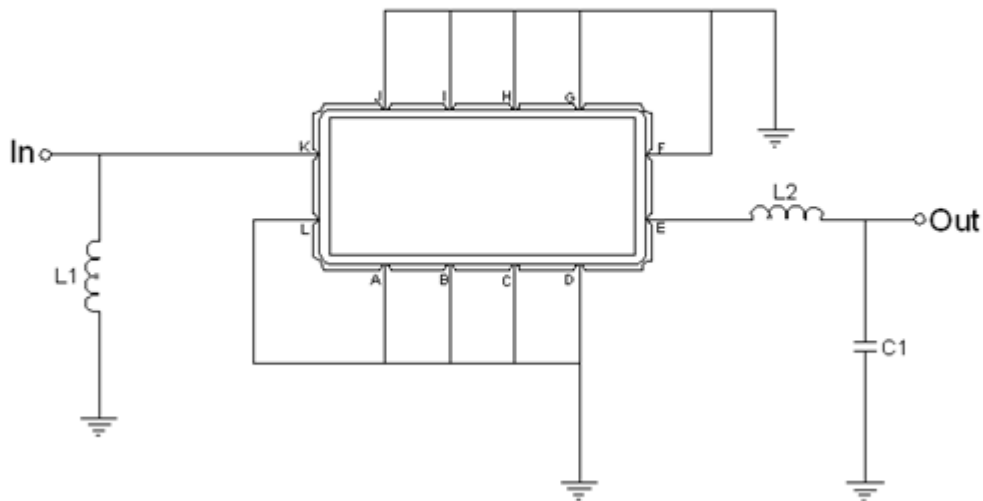
## Package Dimensions



- ① **TRANSKO:** Brand
- ② **TL07012B:** 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



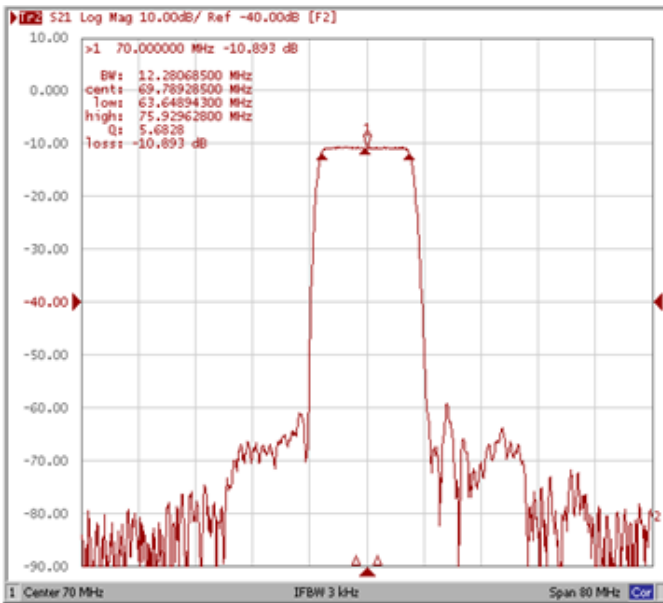
Test Fixture & Values	
Input	L1 = 100nH
Output	L2 = 120nH , C1=39pF
Source/Load Impedance	50 Ω

## Frequency Characteristics

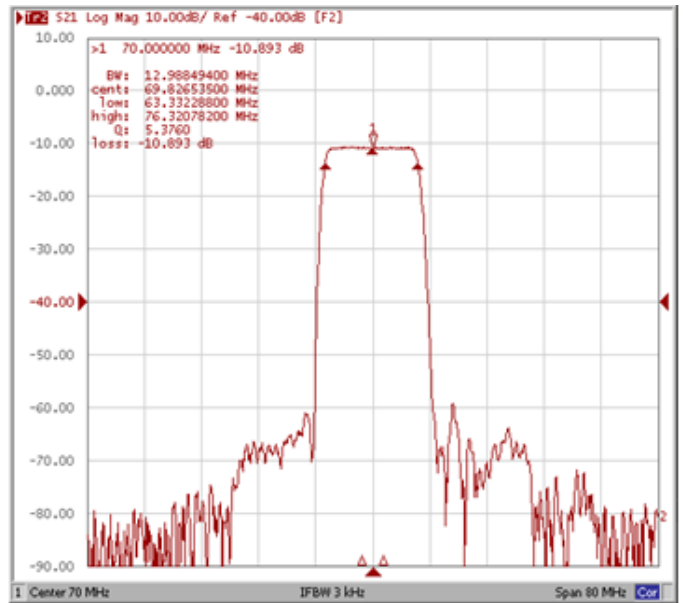
### Frequency Response

Operating Temperature : +25 °C

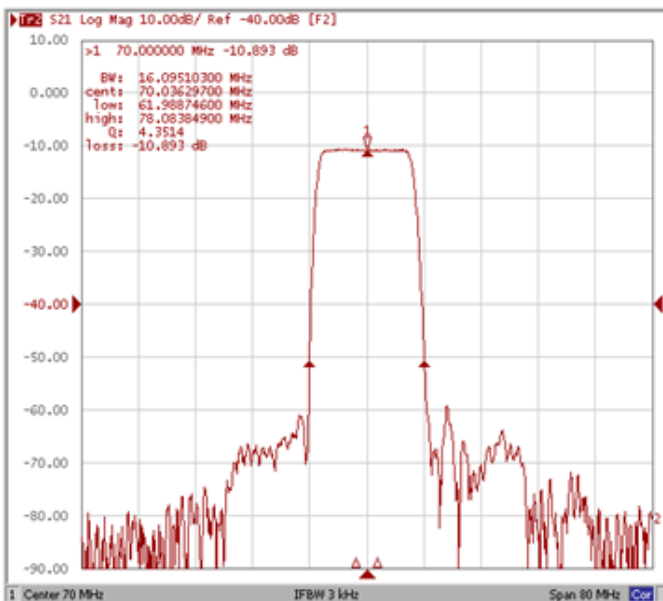
**Bandwidth at -1.0 dB**



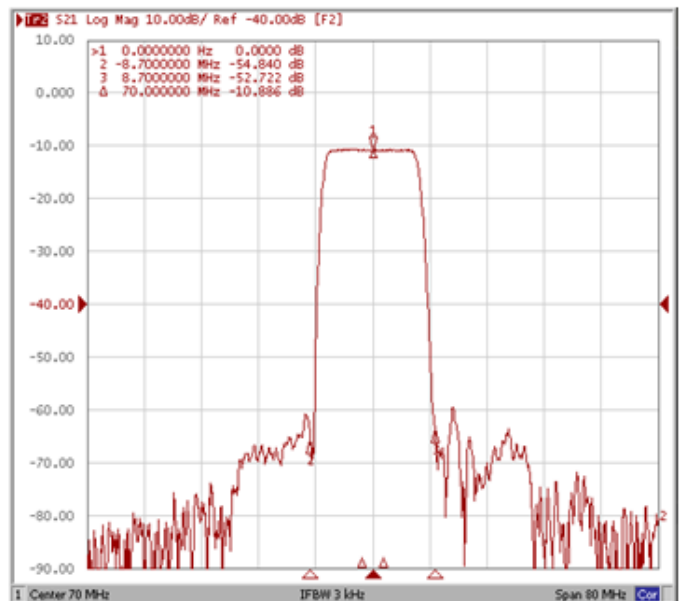
**Bandwidth at -3.0 dB**



**Bandwidth at -40.0 dB**

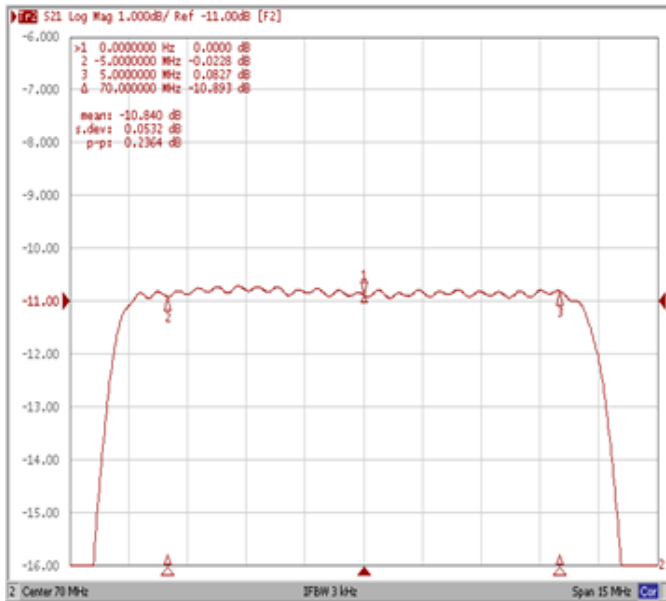


**Relative Attenuation Fo±8.70MHz**

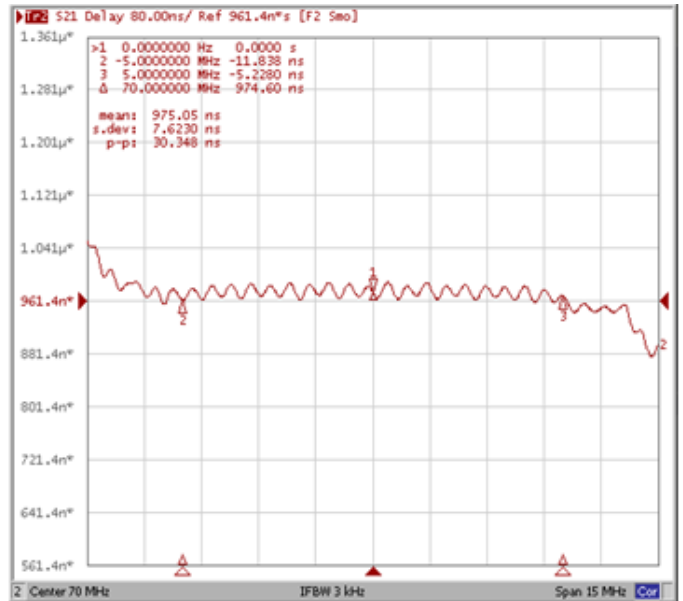


## Frequency Response

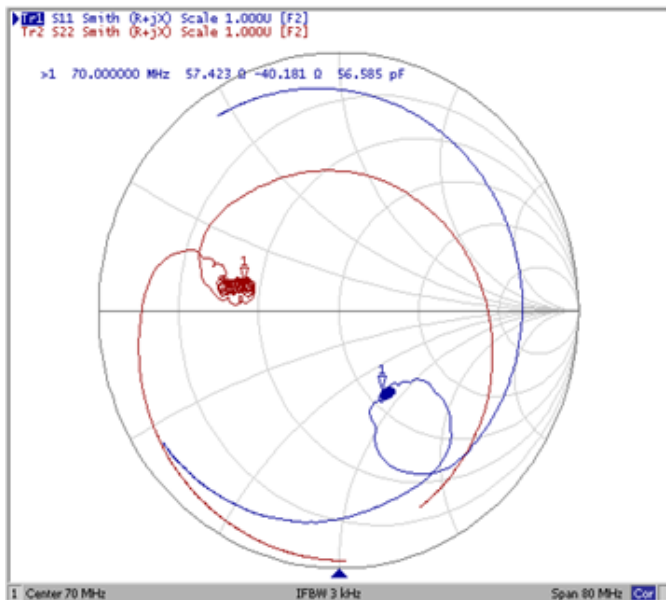
**Ripple Variation Fo±5.00MHz**



**Group Delay Variation Fo±5.00MHz**



**Smith Chart**



**VSWR**

