

- 109.90 MHz IF SAW Filter / 29.45 MHz Bandwidth
- Revision 0: 28 Feb. 2013

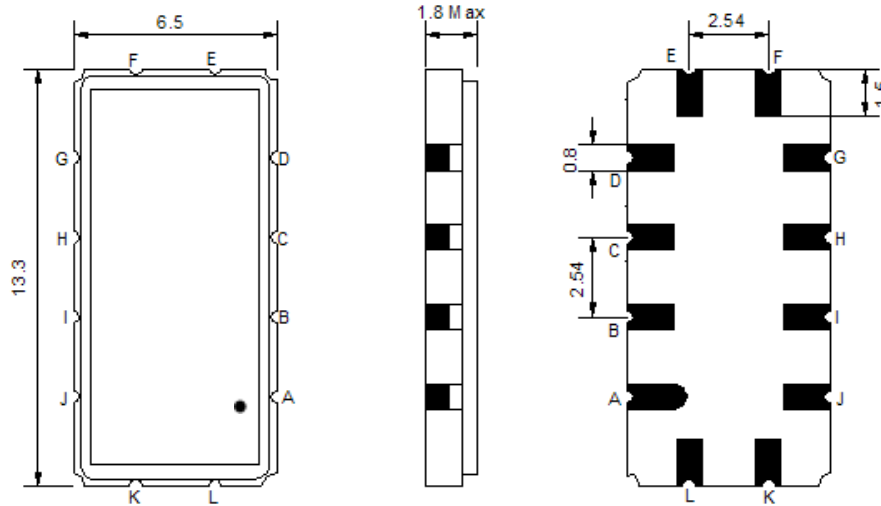
### Electrical Characteristics

MAXIMUM RATING				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operation 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	S90			
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	-	109.90	-
Insertion Loss at Fo	dB	-	21.50	24.00
Group Delay Variation (Fo±14.32MHz)	nsec	-	32	70
Absolute Delay	usec	-	1.63	-
Passband Ripple (Fo±14.32MHz)	dB	-	0.6	1.0
Bandwidth at -1dB	MHz	29.20	29.45	-
Bandwidth at -3dB	MHz	-	29.92	-
Bandwidth at -40dB	MHz	-	31.85	32.05
Ultimate Rejection	dB	47	52	-
Temperature coefficient	ppm/°C	-	-72	-

**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.

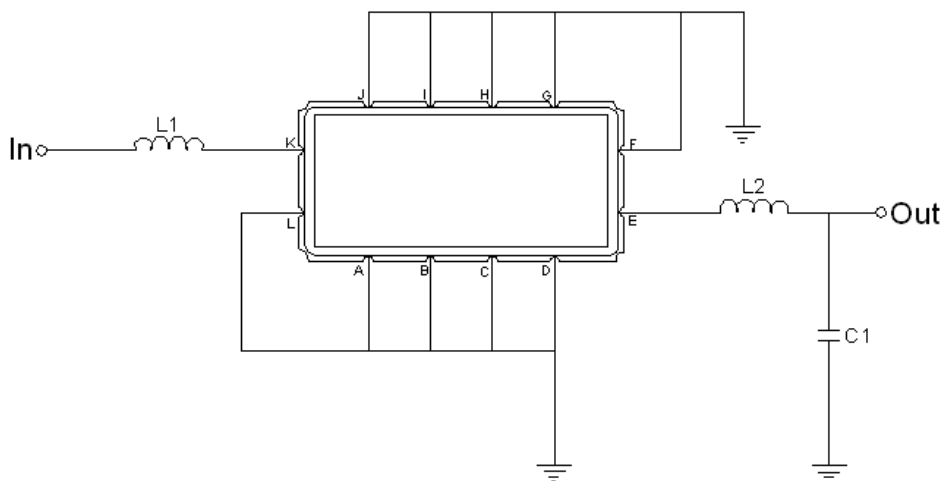
## Package Dimensions



- ① **TRANSKO:** Brand
- ② **TF-010901:** 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



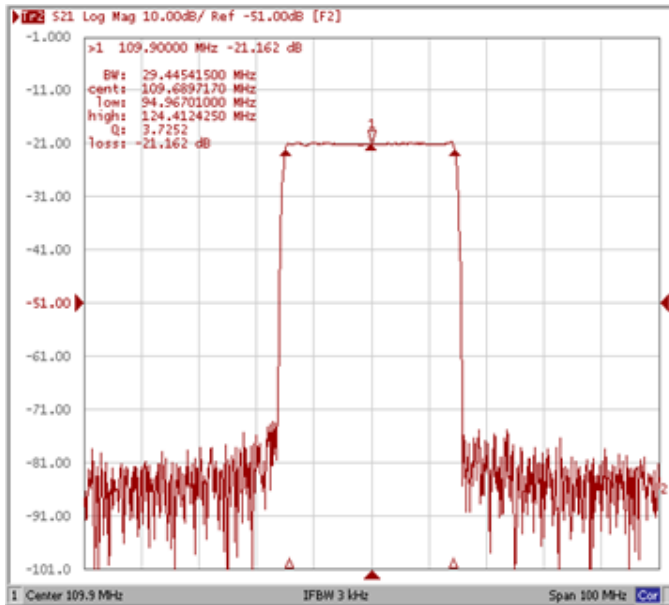
Test Fixture & Values	
Input	L1 = 100 nH
Output	L2 = 100 nH, C1 = 8 pF
Source/Load Impedance	50 $\Omega$

## Frequency Characteristics

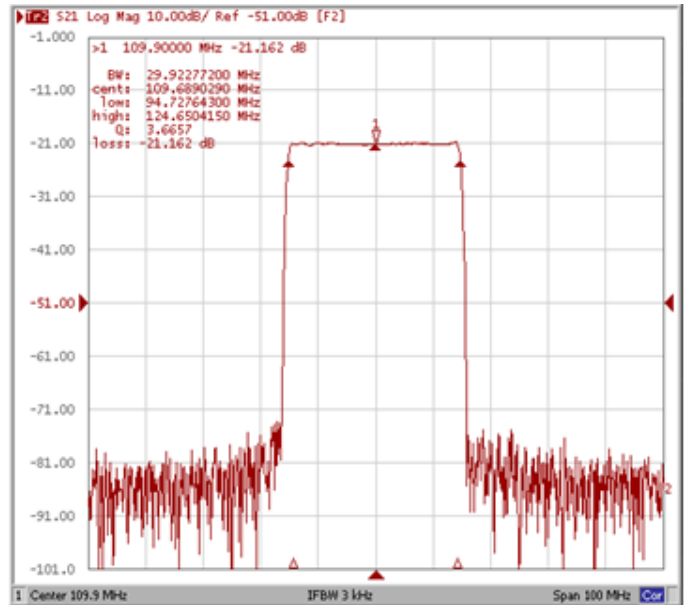
### Frequency Response

Operating Temperature: +25°C

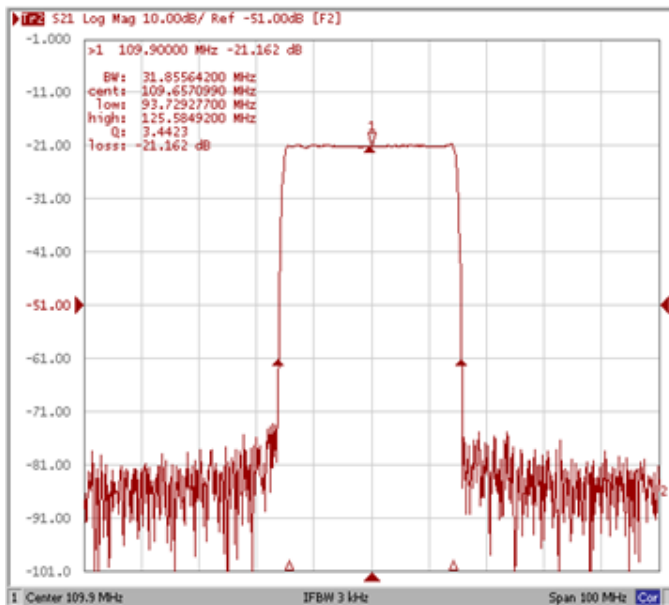
#### Bandwidth at -1.0 dB



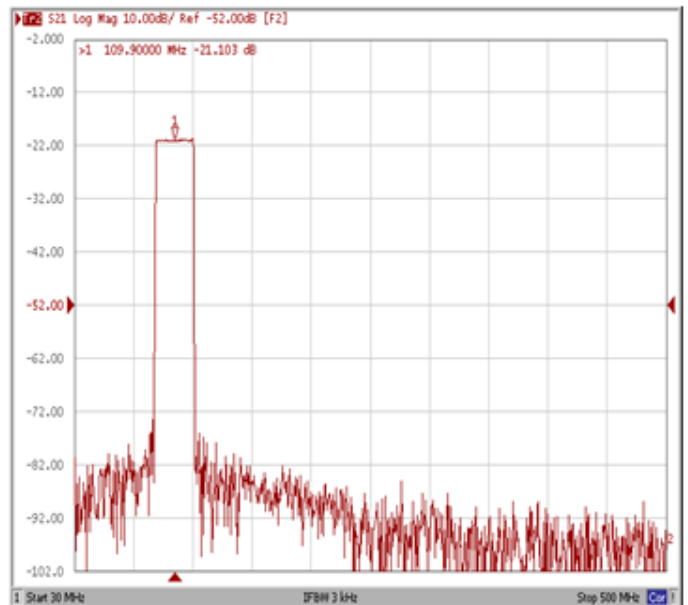
#### Bandwidth at -3.0 dB



#### Bandwidth at -40.0 dB

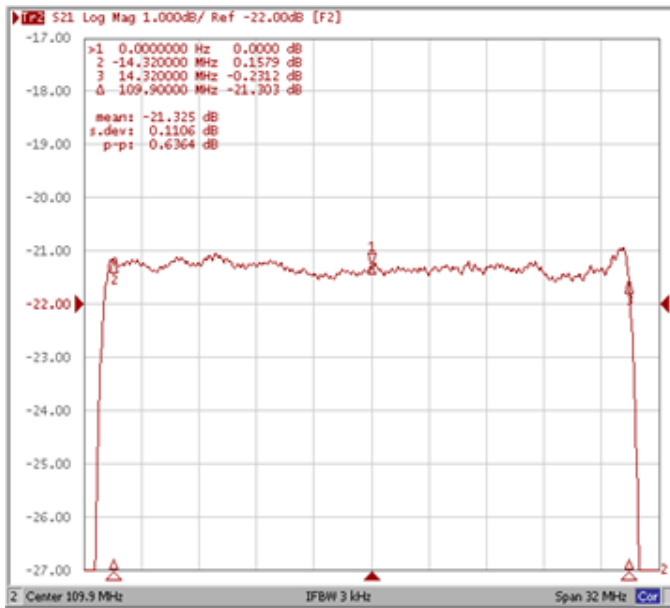


#### Wide Band

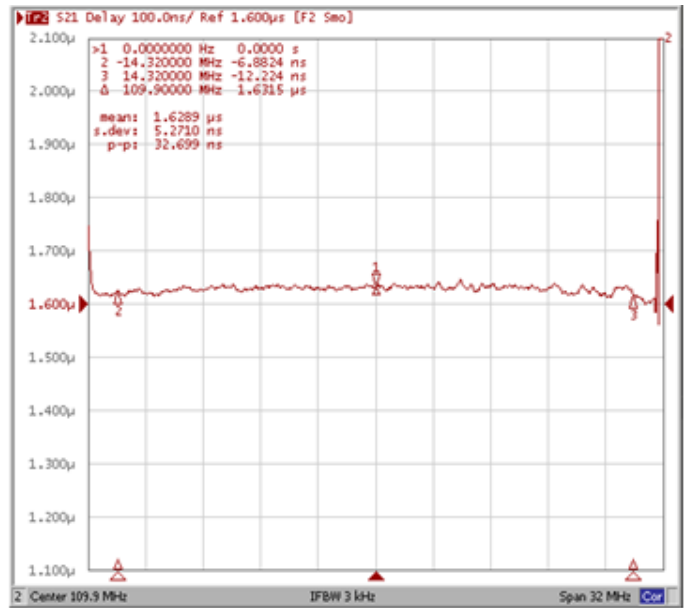


**Frequency Response**

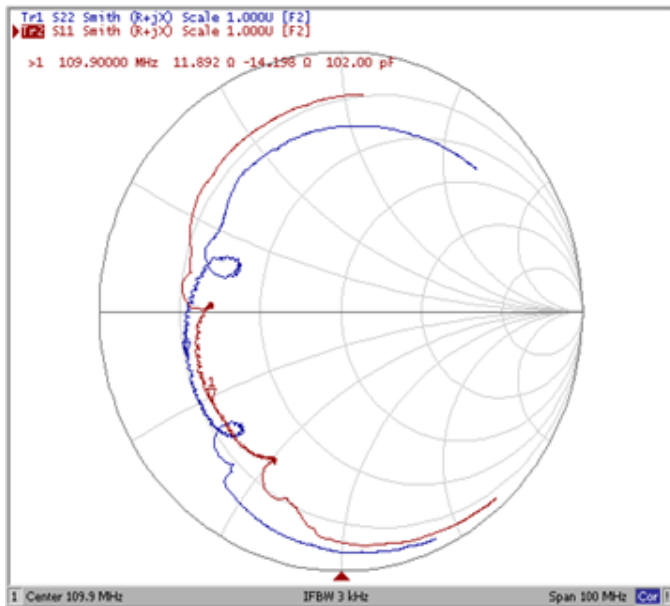
**Ripple Variation Fo±14.32MHz**



**Group Delay Variation Fo±14.32MHz**



**Smith Chart**



**VSWR**

