

- 90.0 MHz IF SAW Filter / 29.17 MHz Bandwidth
- Revision 0: 19 Nov. 2008

## Electrical Characteristics

MAXIMUM RATING				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operating Temperature Range	°C	-20		70
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	89.85	90.0	90.15
Insertion Loss at Fo	dB	-	13.40	15.00
Passband Ripple (fo ±13.5 MHz)	dB <sub>p-p</sub>	-	0.3	0.9
Group Delay Variation (fo ±13.5 MHz)	nsec	-	30	50
Absolute Delay at Fo	µsec	-	0.92	-
Bandwidth at -1.0 dB	MHz	28.00	29.17	-
Bandwidth at -3.0 dB	MHz	-	30.15	-
Bandwidth at -40.0 dB	MHz	-	34.35	35.00
Ultimate Rejection Level	dB	40	47	-
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.

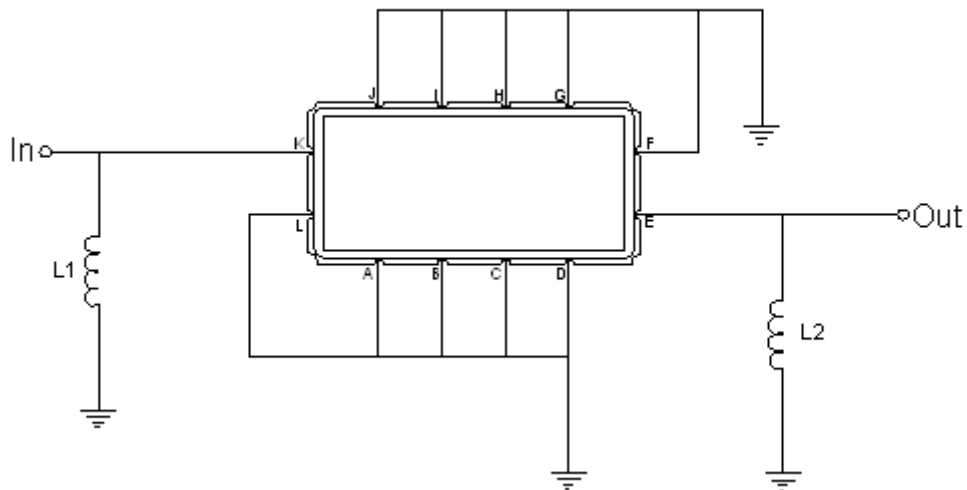
## Package Dimensions



- ① **TRANSKO:** Brand
- ② **TL09029A:** 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

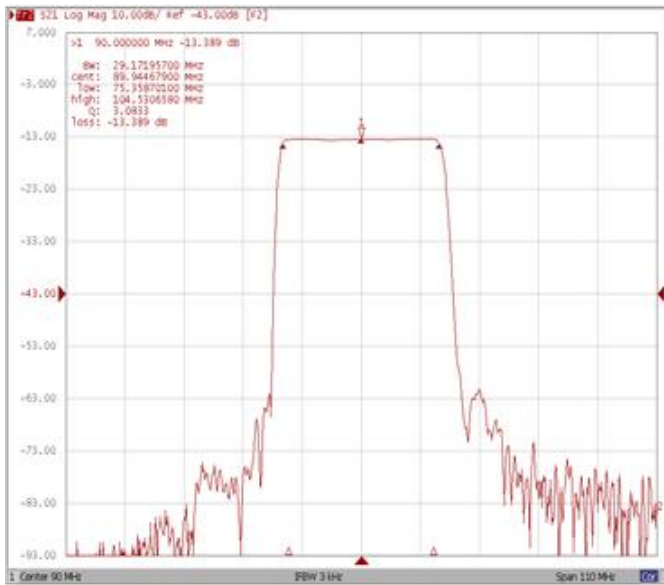


Test Fixture & Values	
Input	L1=68 nH
Output	L2=56nH
Source/Load Impedance	50 Ω

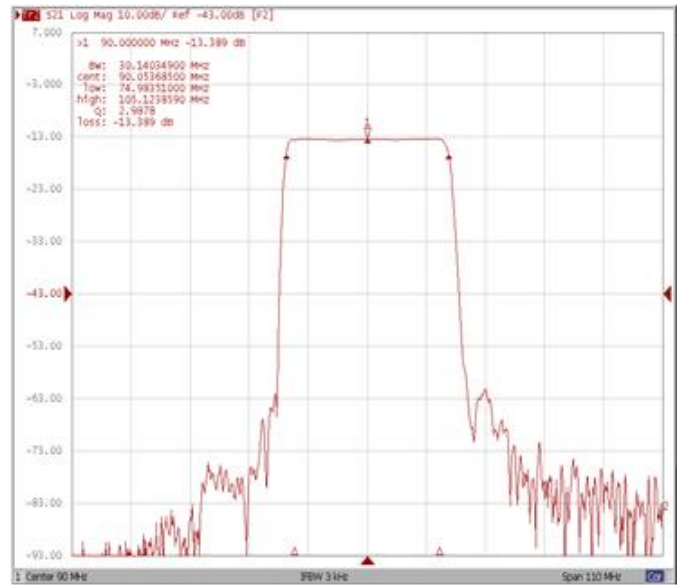
## Frequency Characteristics

### Frequency Response

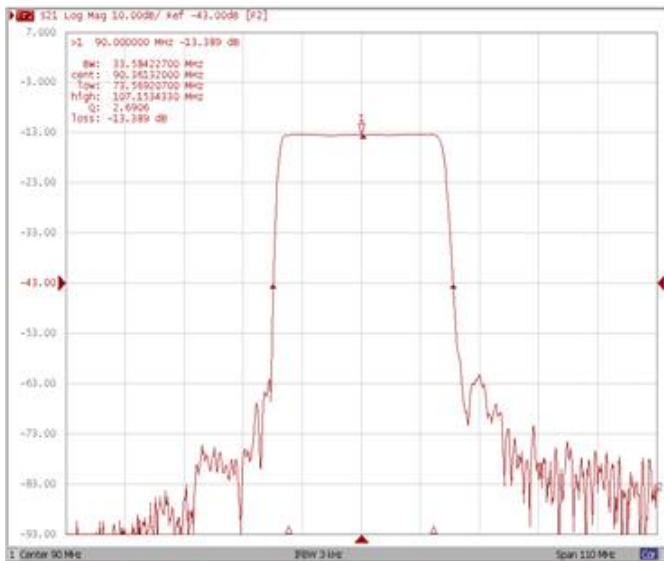
**Bandwidth at -1.0 dB**



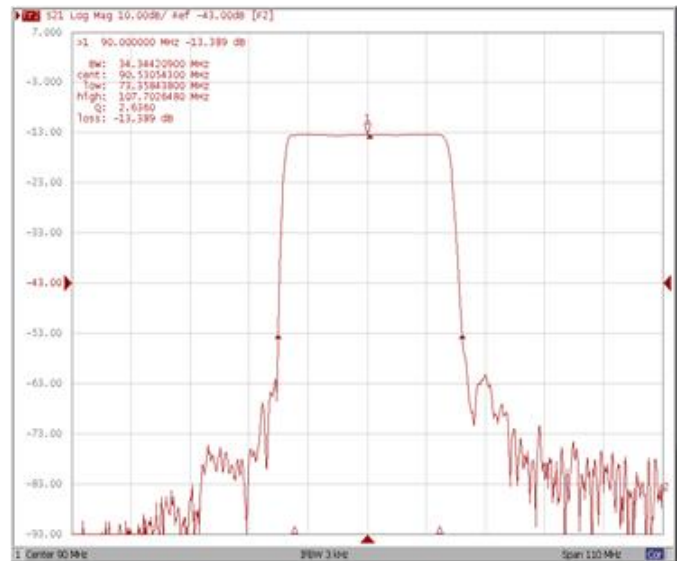
**Bandwidth at -3.0 dB**



**Bandwidth at -30.0 dB**

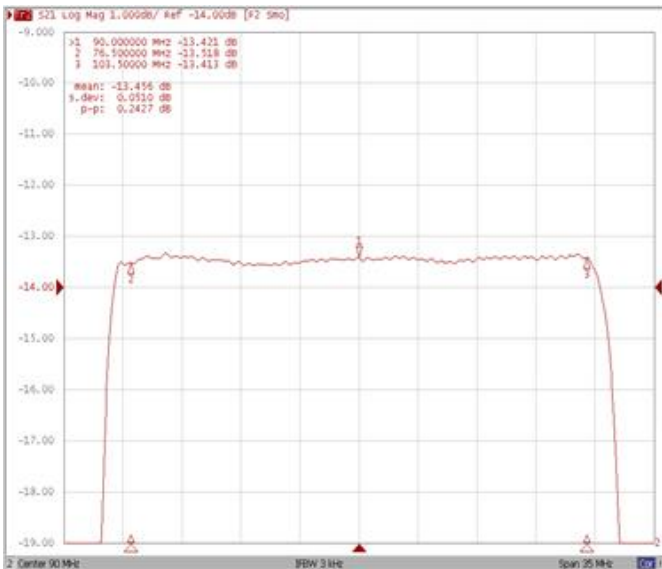


**Bandwidth at -40.0 dB**

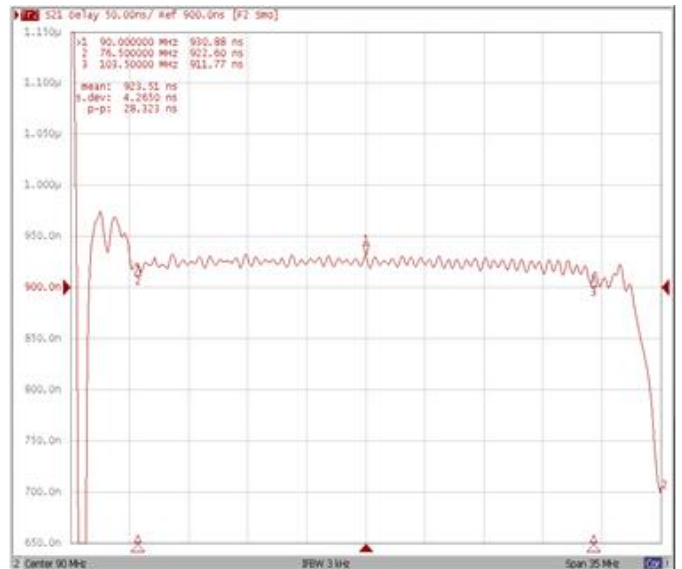


**Frequency Response**

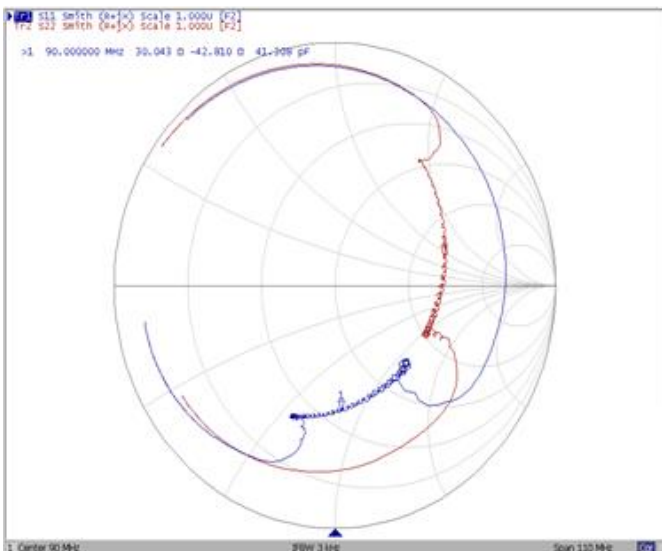
**Ripple Variation Fo±13.5MHz**



**Group Delay Variation Fo±13.5MHz**



**Smith Chart**



**VSWR**

