Transko

TL12509BV

RoHS Compliant

- **125.0 MHz IF SAW Filter / 9.60 MHz Bandwidth**
- **Revision 0: 17 Jul. 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)(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	-	125.0	-
Insertion Loss at Fo	dB	-	20.6	22.0
Amplitude Ripple within fo ±3.8 MHz	dB_{p-p}	-	0.45	0.9
Group Delay Variation within fo ±3.8 MHz	nsec	-	40	70
Absolute Delay at Fo	µsec	-	0.88	-
Temperature Coefficient	ppm/°C	-	-18	-
Bandwidth at –1.0 dB	MHz	9.00	9.60	-
Bandwidth at –3.0 dB	MHz	-	10.30	-
Bandwidth at –40.0 dB	MHz	-	13.08	14.00
Relative Attenuation:				
Lower sidelobe	dB	45	48	-
Upper sidelobe	dB	45	48	-

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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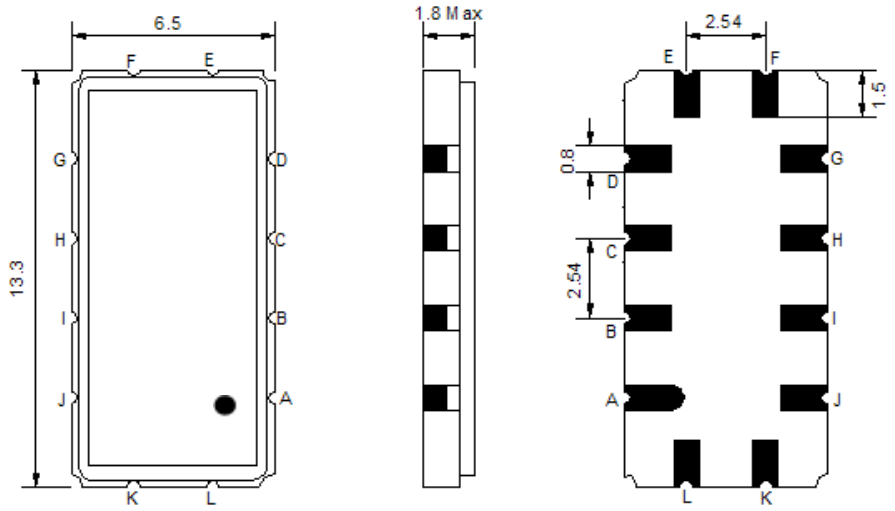
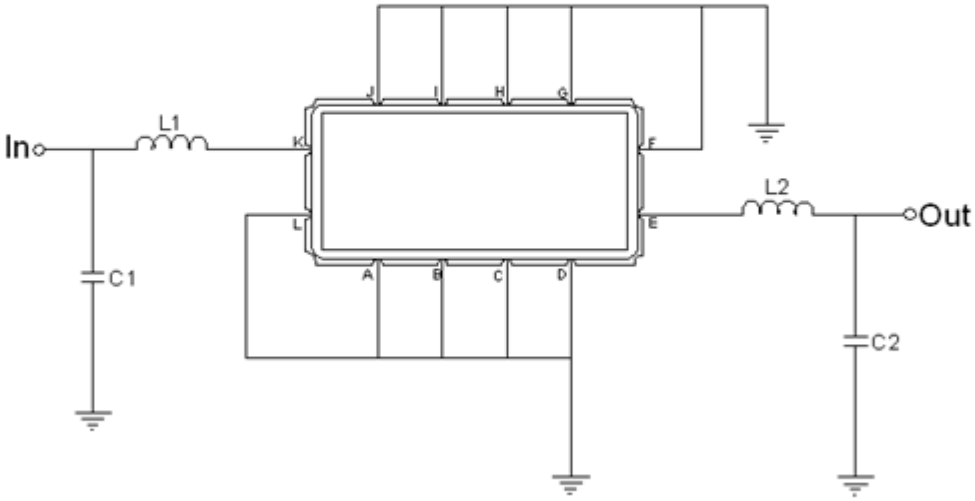
Package Dimensions



① TRANSKO: Brand
② TL12509B: 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=56nH, C1=43pF
Output	L2=47nH, C2=43pF
Source/Load Impedance	50 Ω

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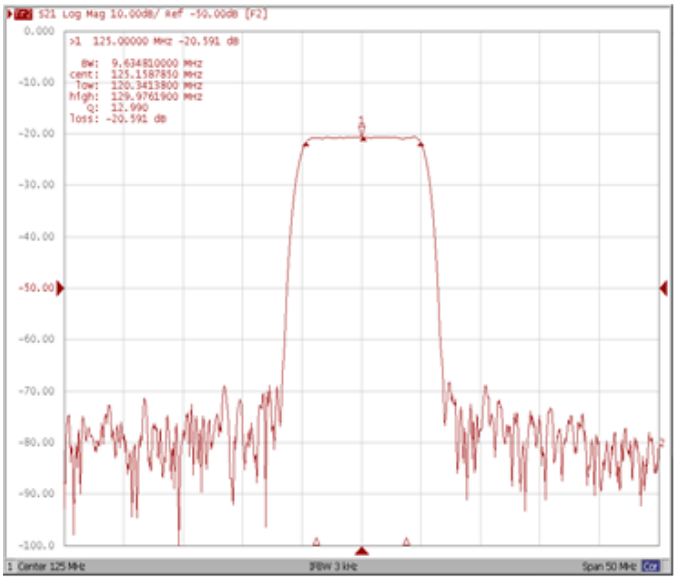
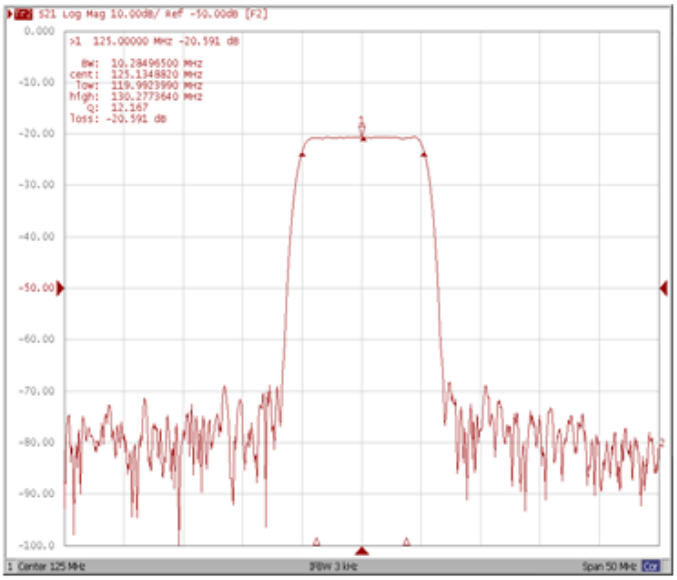
Frequency Characteristics

Frequency Response

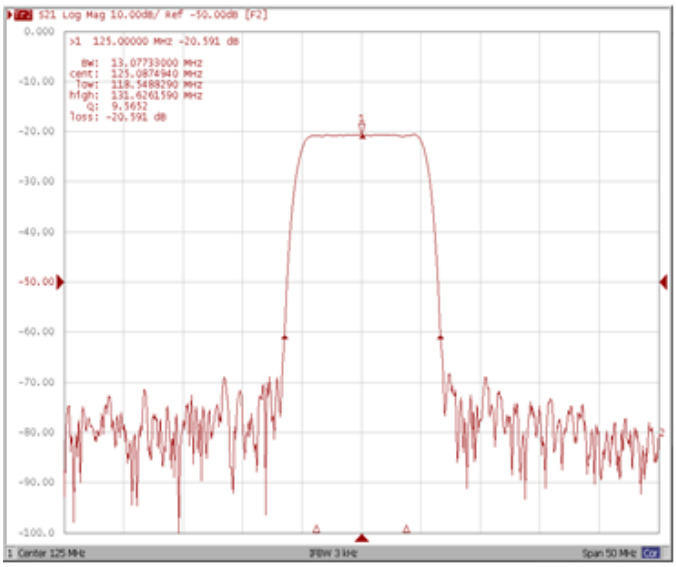
Bandwidth at –1.0 dB



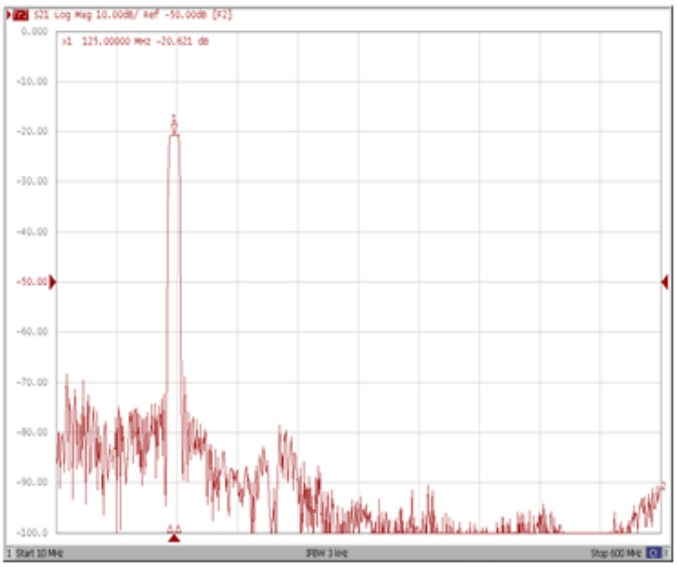
Bandwidth at –3.0 dB



Bandwidth at –40.0 dB

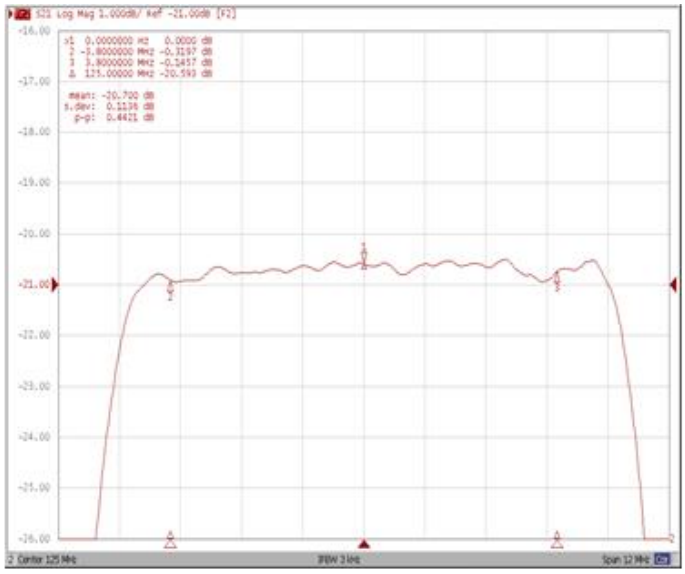


Wide-Band

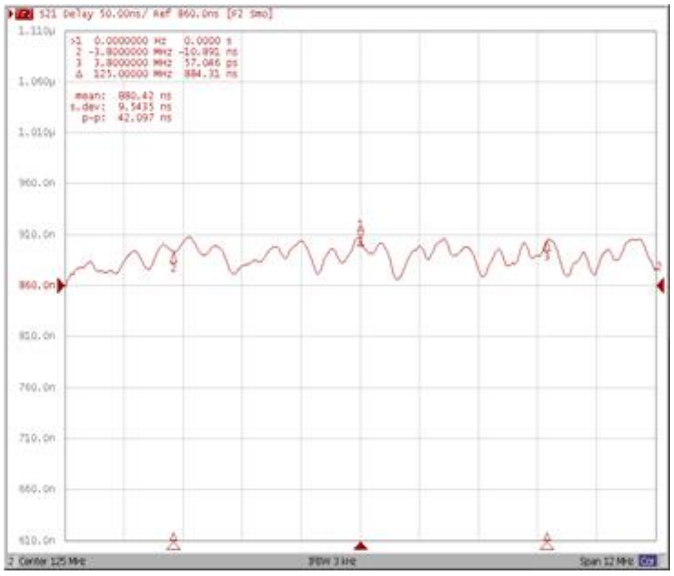


Frequency Response

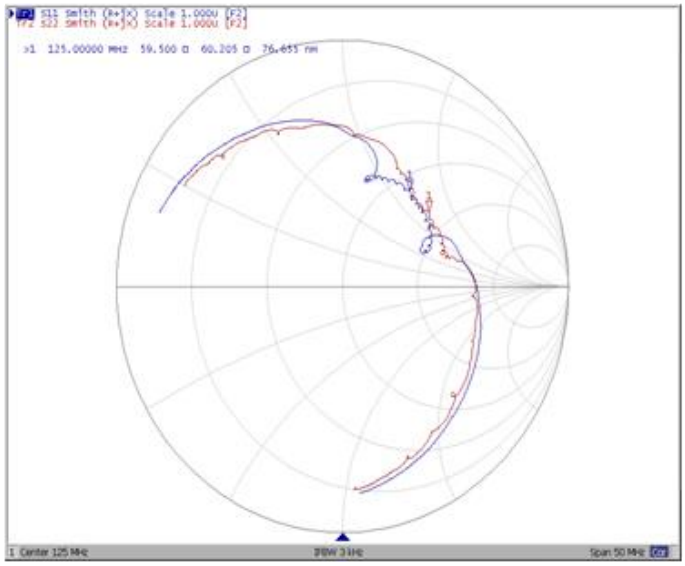
Ripple Variation Fo±3.8MHz



Group Delay Variation Fo±3.8MHz



Smith Chart



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