

- 140.0 MHz IF SAW Filter / 6.40 MHz Bandwidth
- Revision 0: 03 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) ⁽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	139.85	140.00	140.15
Insertion Loss at Fo	dB	-	11.00	12.00
Group Delay Variation at Fo ± 2.50 MHz	nsec	-	73	150
Absolute Delay at Fo	usec	-	1.00	-
Passband Ripple Variation at Fo ± 2.50 MHz	dB	-	0.50	1.00
Bandwidth at -1dB	MHz	6.00	6.40	-
Bandwidth at -3dB	MHz	-	7.10	-
Bandwidth at -40dB	MHz	-	10.10	10.50
Ultimate Rejection	dB	40	47	-
Relative Attenuation:				
Fo ±5.40MHz	dB	45	55	-
Temperature Coefficient	ppm/°C	-	-86	-

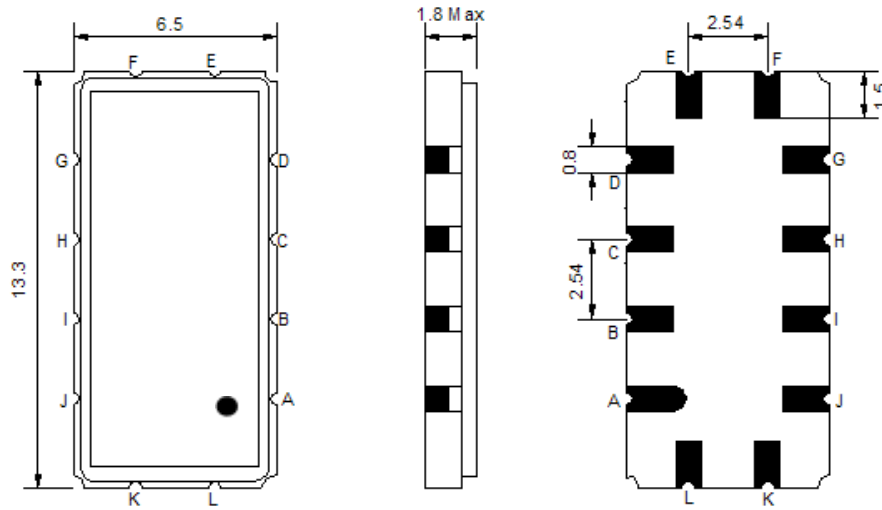
Notes : (1) With Matching Network (Ref. Testing Environment Circuit as shown below).
Those impedances could be modified with different impedance values and/or structures, if necessary.

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PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operating Temperature Range	°C	-40	-	55
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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	-	140.00	-
Insertion Loss at Fo	dB	-	11.30	12.00
Group Delay Variation at Fo ± 2.50 MHz	nsec	-	95	150
Absolute Delay at Fo	usec	-	1.00	-
Passband Ripple Variation at Fo ± 2.50 MHz	dB	-	1.10	-
Bandwidth at -1dB	MHz	6.00	6.40	-
Bandwidth at -3dB	MHz	-	7.10	-
Bandwidth at -40dB	MHz	-	10.10	10.50
Ultimate Rejection	dB	40	48	-
Relative Attenuation:				
Fo ±5.40MHz	dB	-	21	-
Temperature Coefficient	ppm/°C	-	-86	-

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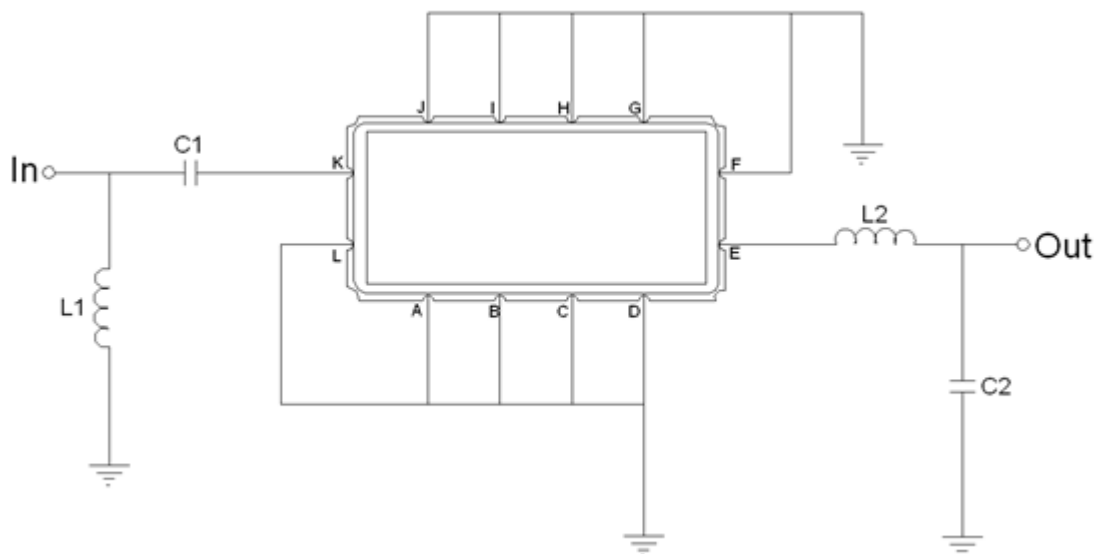
Package Dimensions



- ① **TRANSKO:** Brand
- ② **TL14006A:** 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



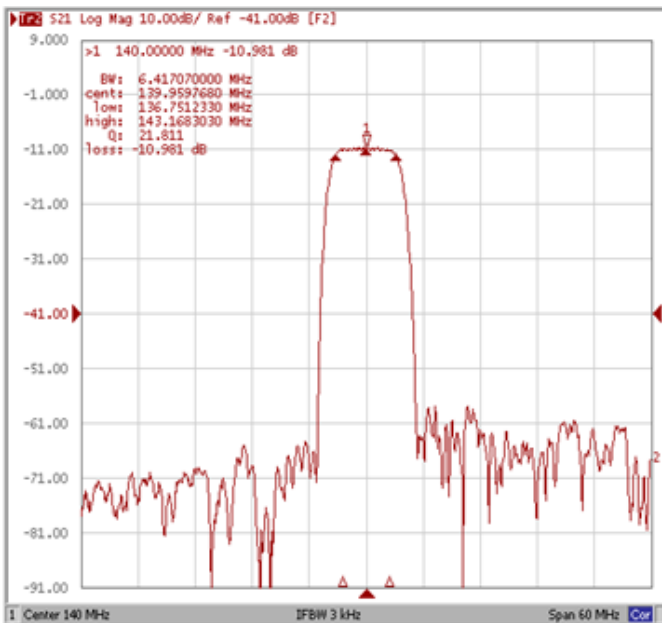
Test Fixture & Values	
Input	L1 = 22nH Q >40 , C1=82pF
Output	L2 = 8.2nH Q >40, C2=47pF
Source/Load Impedance	50 Ω

Frequency Characteristics

Frequency Response

Operating Temperature : +25 °C

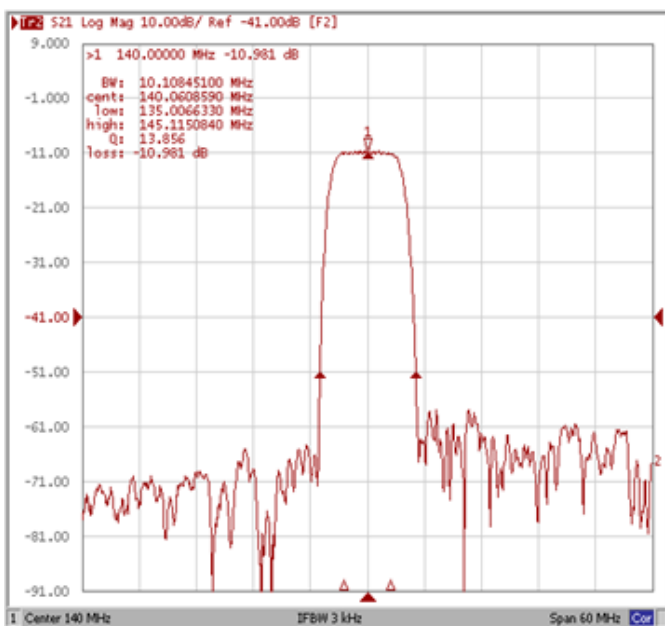
Bandwidth at -1.0 dB



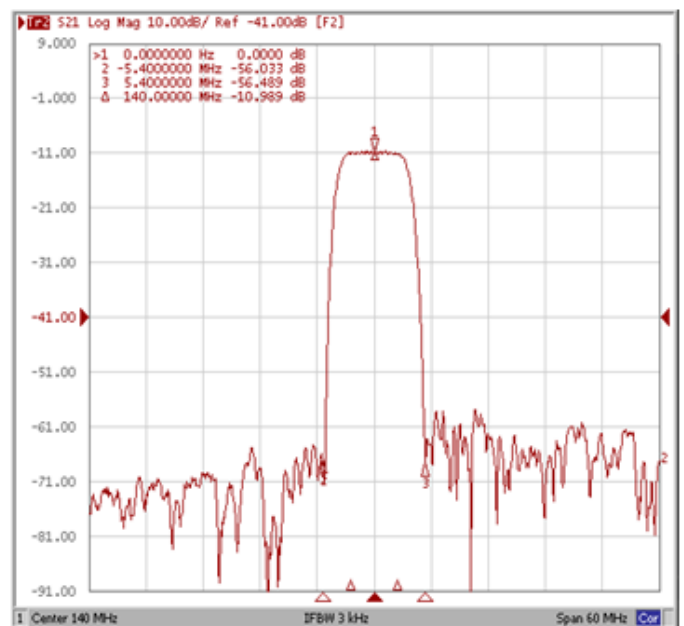
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

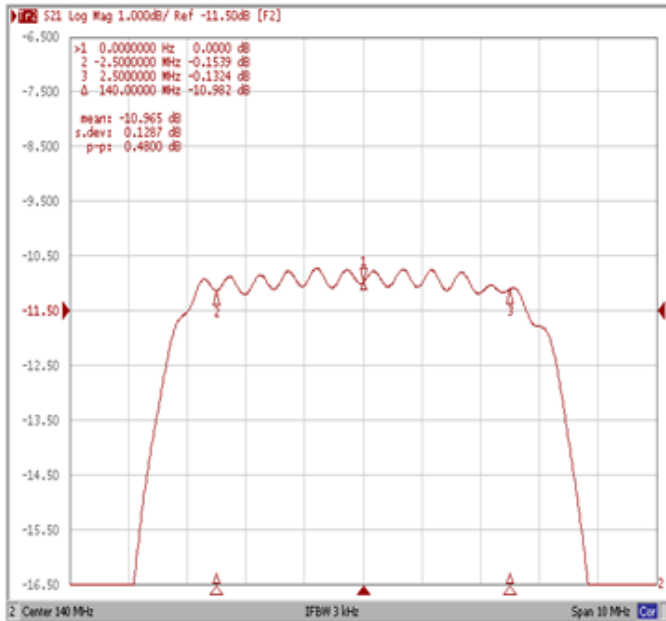


Relative Attenuation Fo±5.40MHz

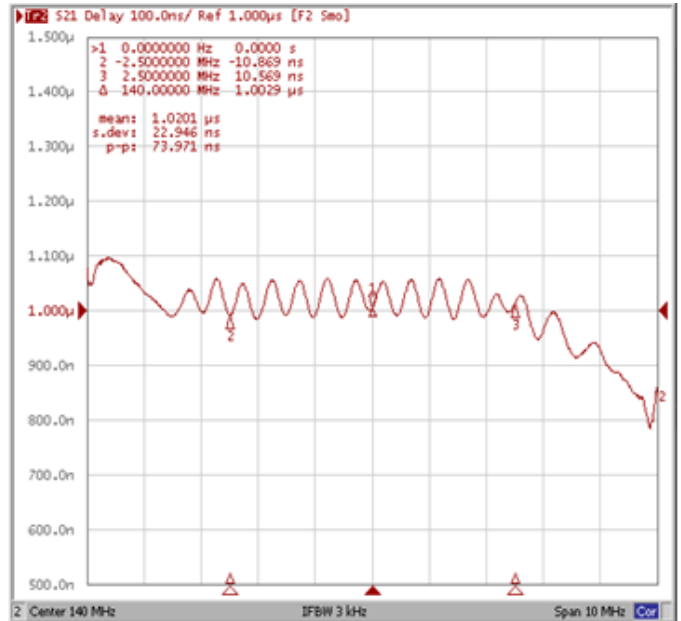


Frequency Response

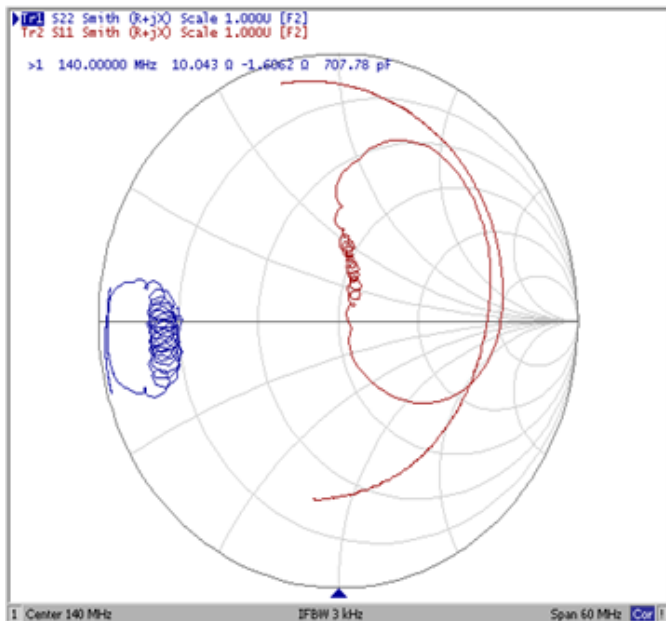
Ripple Variation Fo±2.50MHz



Group Delay Variation Fo±2.50MHz



Smith Chart



VSWR

