

- 190.00 MHz IF SAW Filter / 5.60 MHz Bandwidth
- Revision 0: January 2014

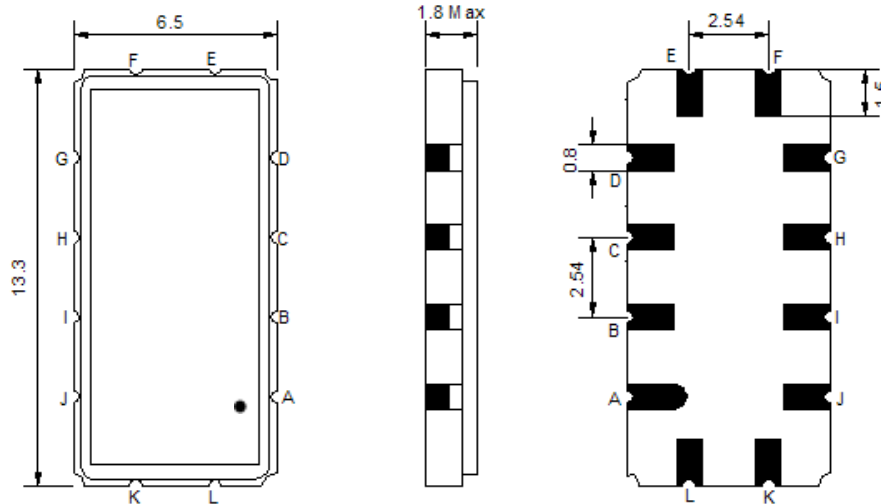
Electrical Characteristics

MAXIMUM RATING				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operation Temperature Range	°C	-	+25	-
Storage Temperature Range	°C	-45	-	+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	S90			
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	-	190.00	-
Insertion Loss at Fo	dB	-	11.5	13.0
Group Delay Variation at Fo ± 2.0 MHz	nsec	-	35	80
Absolute Delay at Fo	usec	-	1.06	-
Passband Ripple Variation at Fo ± 2.0 MHz	dB _{p-p}	-	0.35	1.0
Bandwidth at -1dB	MHz	5.1	5.6	-
Bandwidth at -3dB	MHz	-	6.3	-
Bandwidth at -40dB	MHz	-	8.95	9.30
Ultimate Rejection	dB	40	48	-
Relative Attenuation				
Fo - 4.6 MHz	dB	-	42	-
Fo + 4.6 MHz	dB	-	50	-
Temperature Coefficient	ppm/°C	-	-20	-

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.

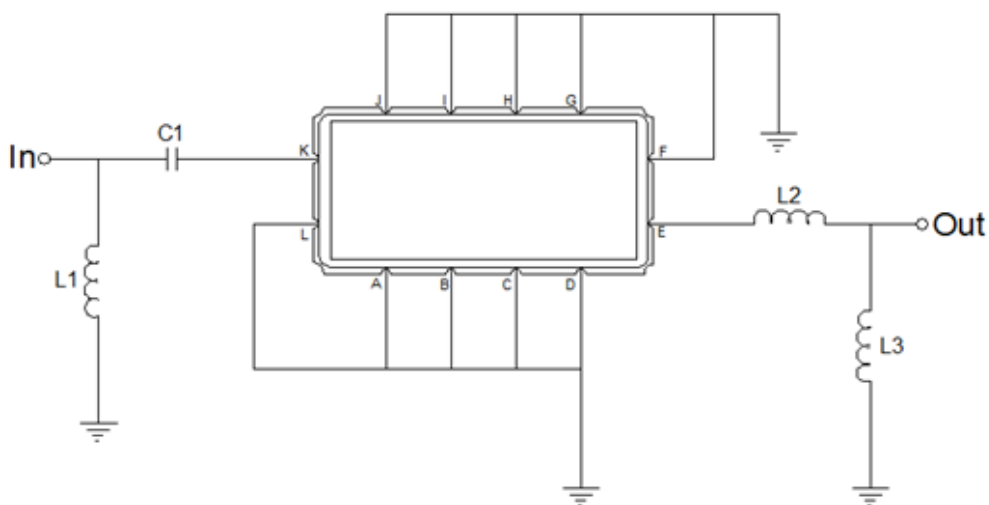
Package Dimensions



- ① **TRANSKO:** Brand
- ② **TF-019007:** 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



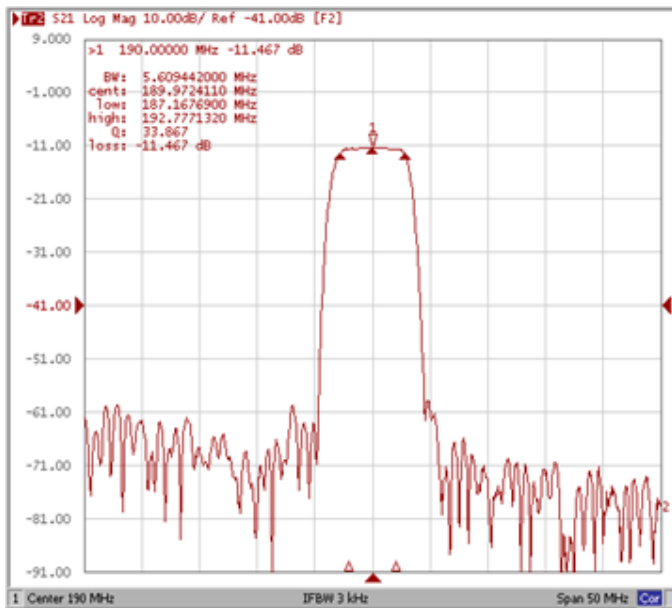
Test Fixture & Values	
Input	L1 = 22nH, C1 = 220pF
Output	L2 = 3.9nH, L3 = 27nH
Source/Load Impedance	50 Ω

Frequency Characteristics

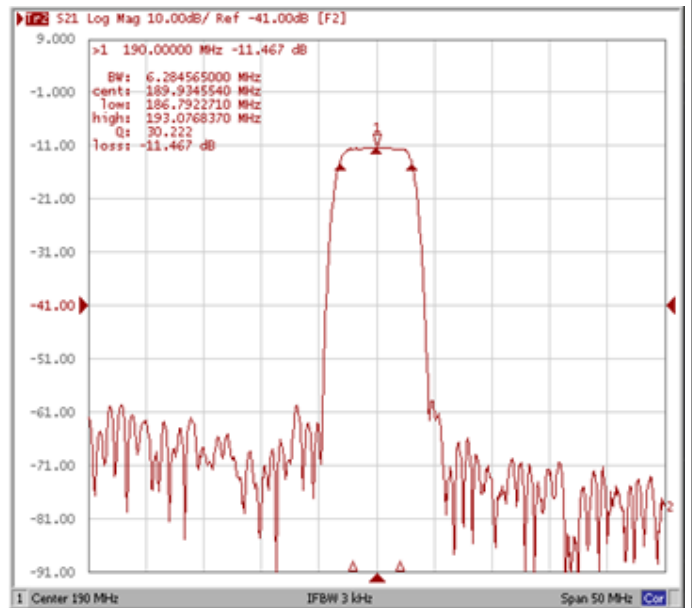
Frequency Response

Operating Temperature: +25°C

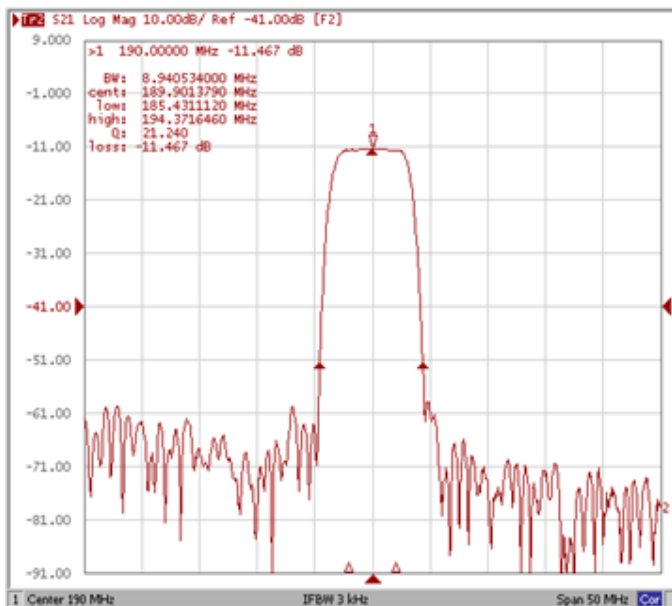
Bandwidth at -1.0 dB



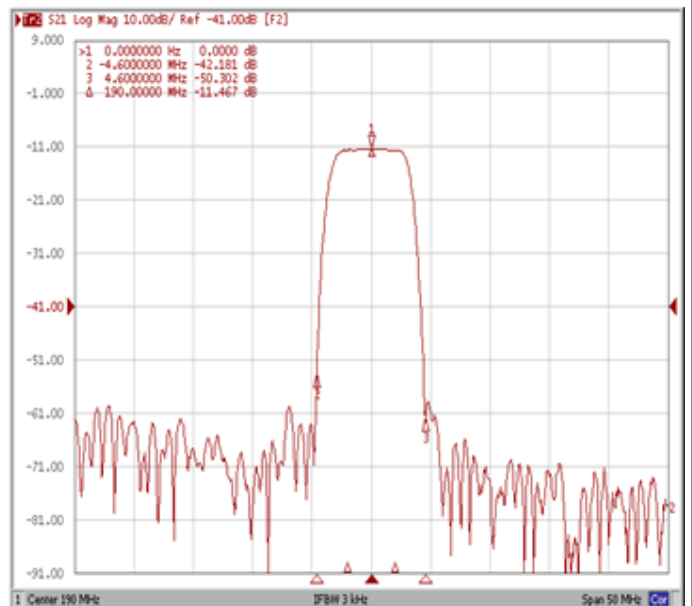
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB

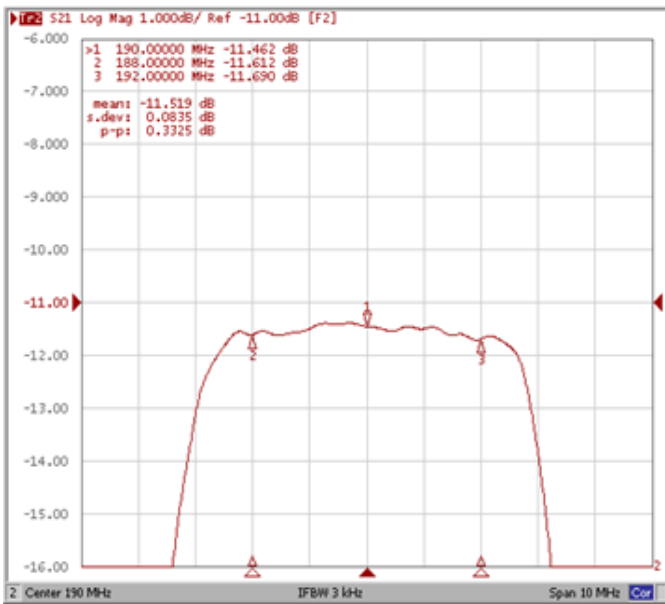


Relative Attenuation Fo ±4.6 MHz

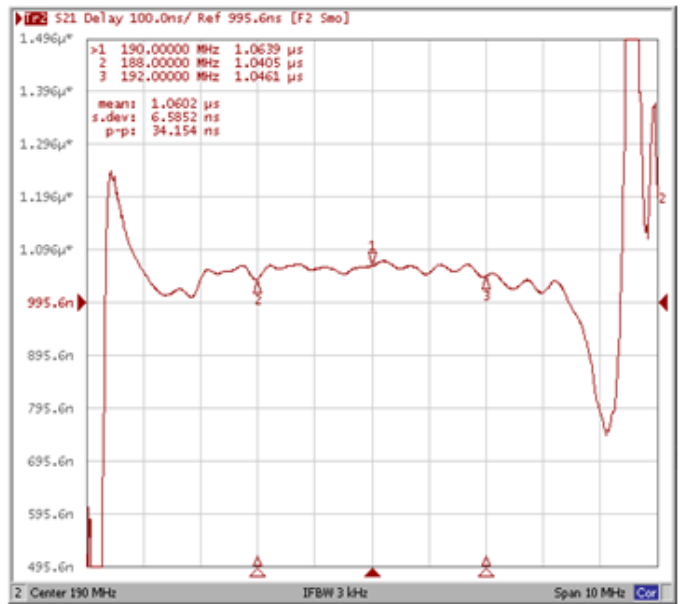


Frequency Response

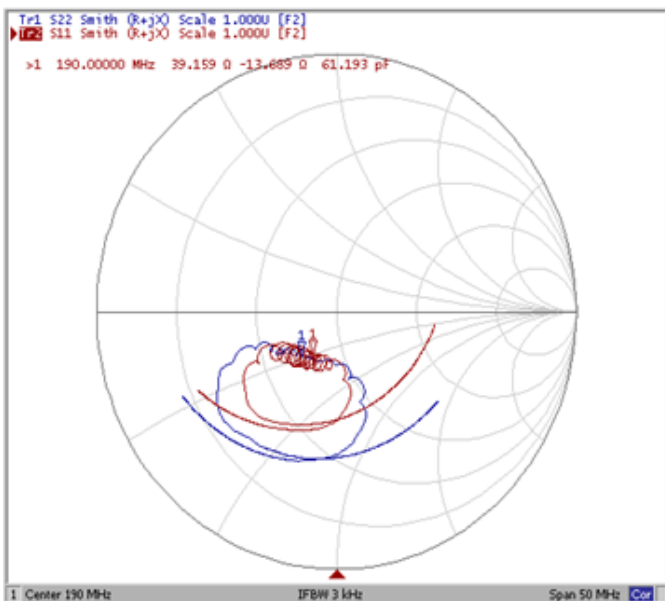
Ripple Variation Fo±2.0MHz



Group Delay Variation Fo±2.0MHz



Smith Chart



VSWR

