

- 320.00MHz IF SAW Filter / 19.60 MHz Bandwidth
- Revision 0: 05 Jun. 2012

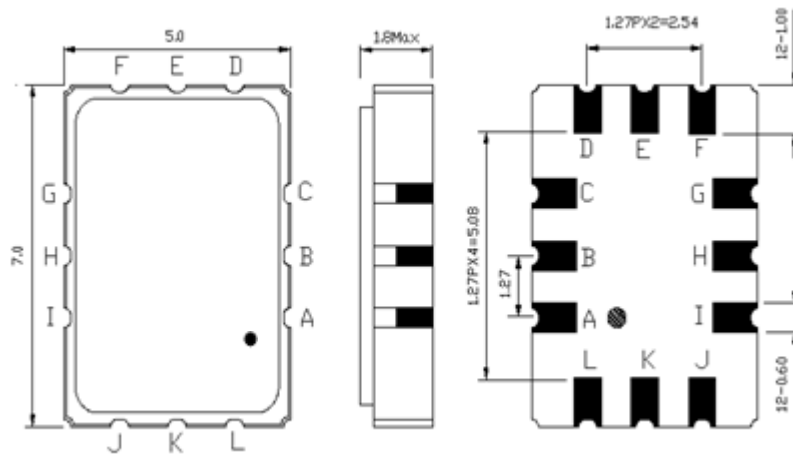
## Electrical Characteristics

MAXIMUM RATING				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operation Temperature Range	°C	-20	-	85
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	5
Source Impedance (Single-ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (Single-ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	S1			
Length x Width	mm <sup>2</sup>	-	7.0 x 5.0	-
Height	mm	-	-	1.8

ELECTRICAL SPECIFICATION				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Center Frequency (Fo)	MHz	-	320.00	-
Insertion Loss at Fo	dB	-	11.5	14.0
Amplitude Ripple at Fo ± 8.75MHz	dB <sub>p-p</sub>	-	0.6	1.0
Group Delay Variation at Fo ± 8.75MHz	nsec	-	46	80
Absolute Delay at Fo	µsec	-	0.55	0.65
Bandwidth at -1.0 dB	MHz	19.00	19.60	-
Bandwidth at -40.0 dB	MHz	-	27.85	29.00
Relative Attenuation:				
Fo ± 16.0MHz	dB	40	50	-
Fo ± 20.0MHz	dB	45	55	-
Fo ± 40.0MHz	dB	45	55	-
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

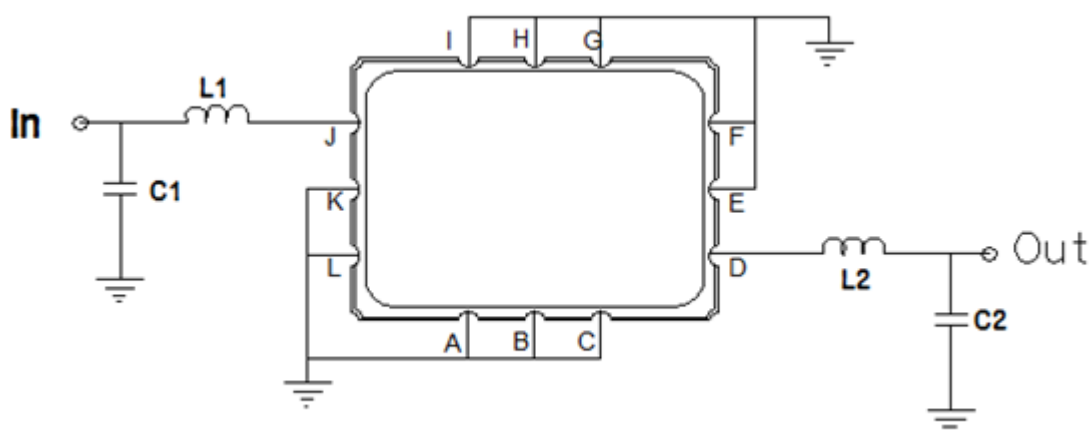


- ① TRANSKO: Brand
- ② TL32019A: Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z: Date Code (Date)
- : Index Dot

### Pin Description

Pin Description	
A, B, C, E, F, G, H, I, K, L	Ground
J	Input
D	Output

## Testing Environment



### Test Fixture & Values

Input	L1=18 nH, C1=24pF
Output	L2=18 nH, C2=27pF
Source/Load Impedance	50 Ω

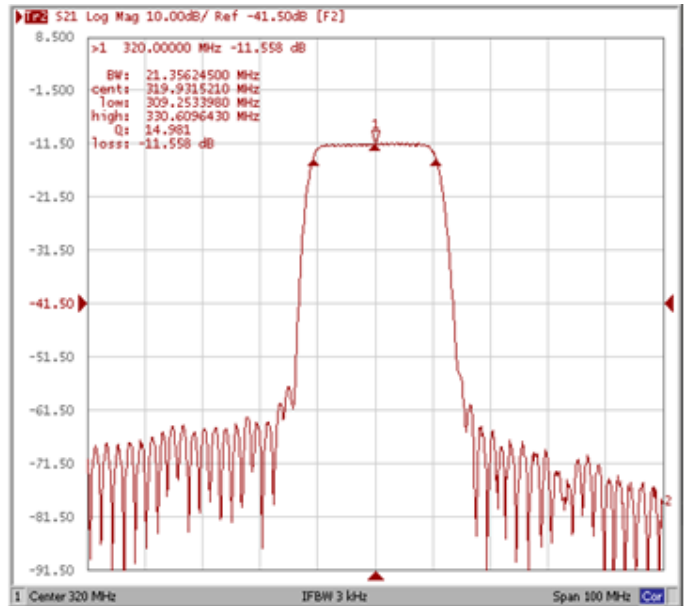
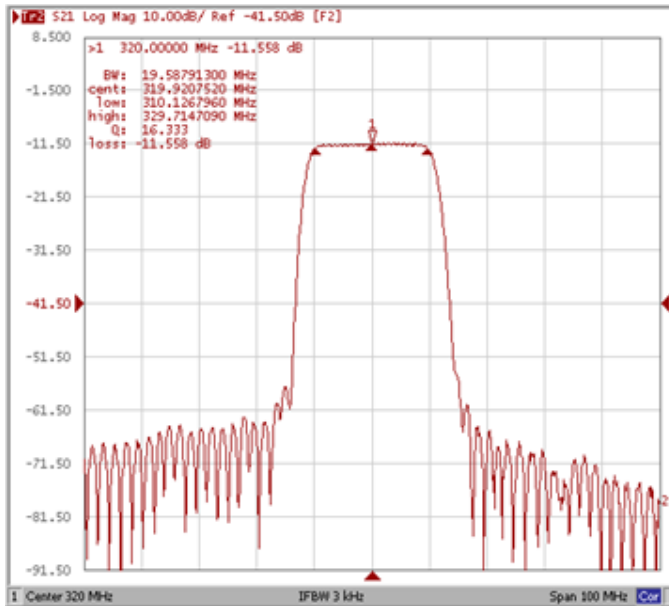
## Frequency Characteristics

### Frequency Response

Operating Temperature : +25 °C

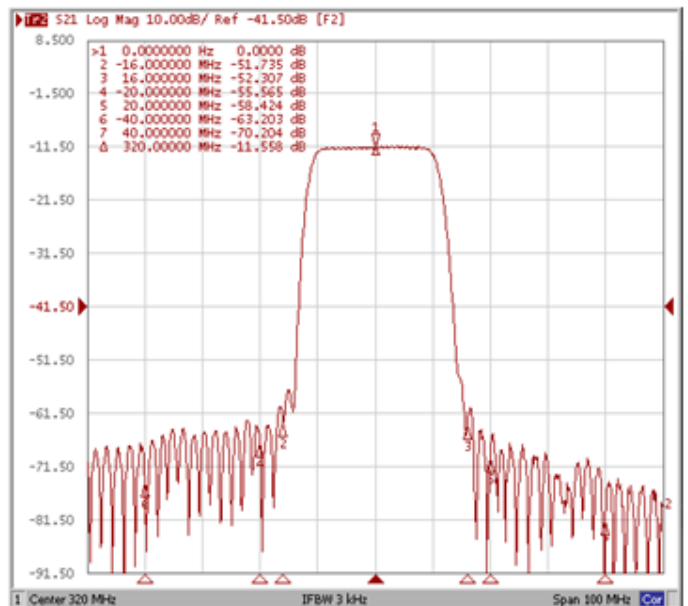
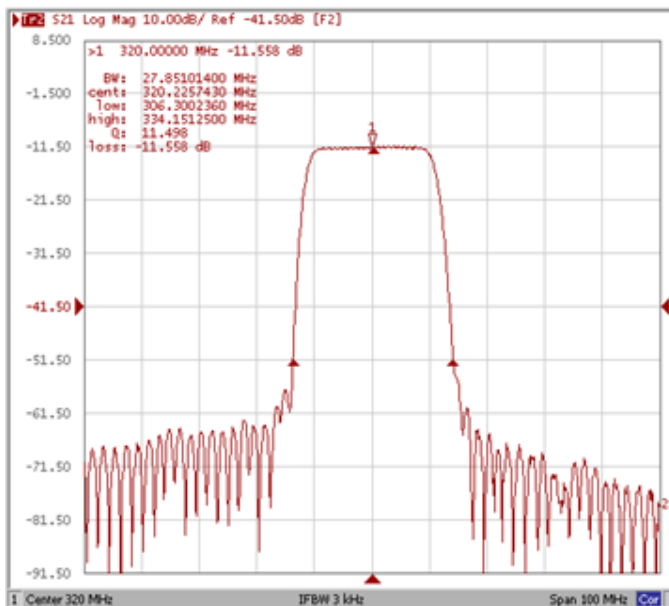
#### Bandwidth at -1.0 dB

#### Bandwidth at -3.0 dB



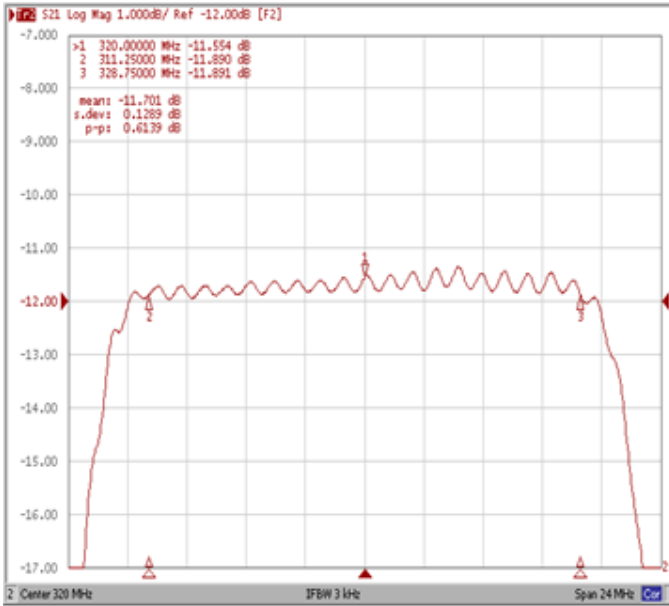
#### Bandwidth at -40.0 dB

#### Attenuation

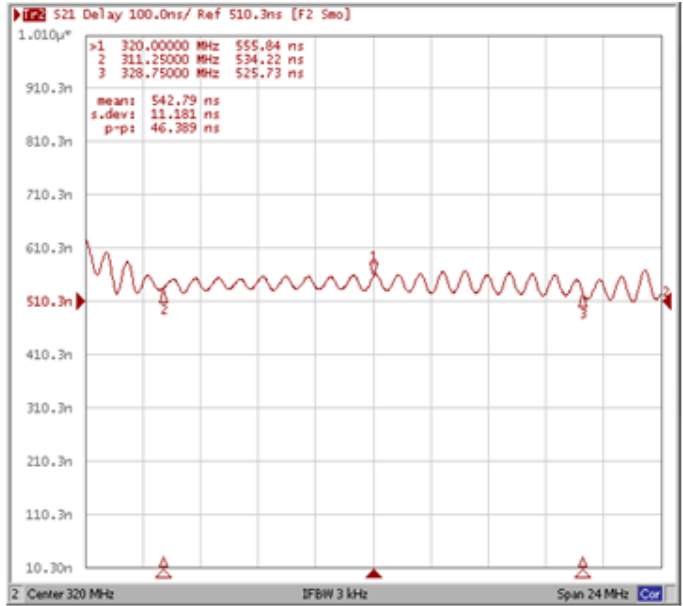


## Frequency Response

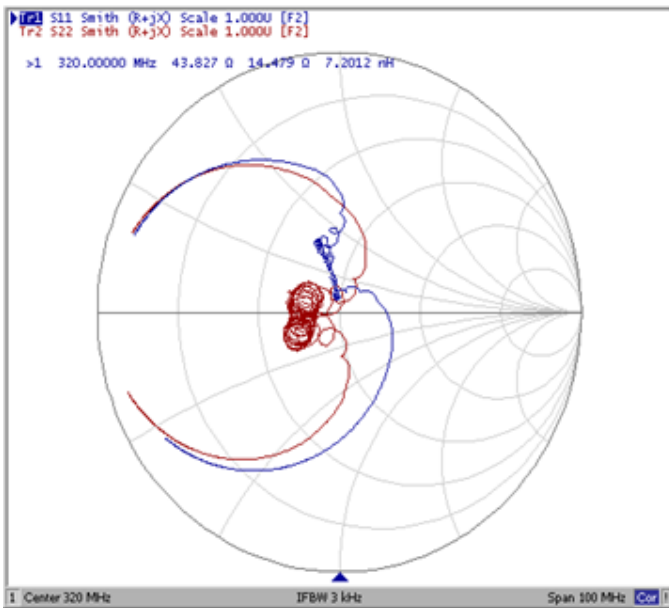
**Ripple Variation at Fo ±8.75MHz**



**Group Delay Variation at Fo ±8.75MHz**



**Smith Chart**



**VSWR**

