

- 317.50 MHz IF SAW Filter / 18.85 MHz Bandwidth
- Revision 0: October 2013

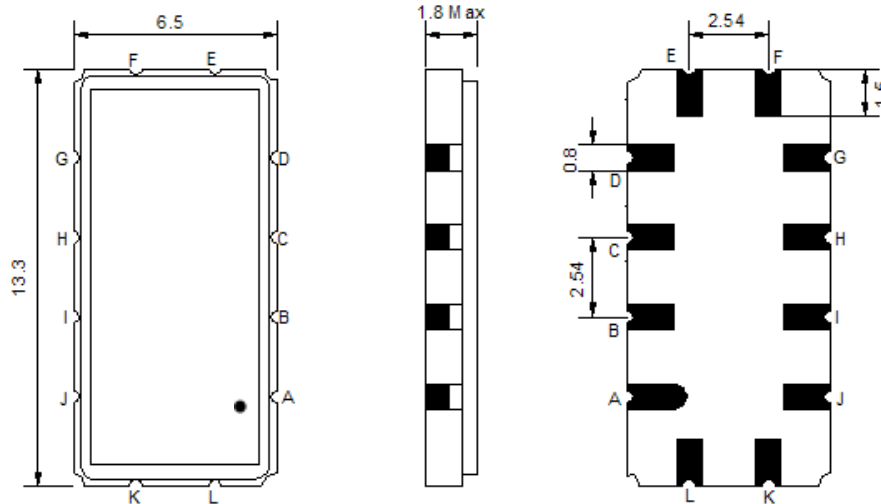
## Electrical Characteristics

MAXIMUM RATING				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operation Temperature Range	°C	-5	-	+70
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	-	-	-
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	S90			
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	-	317.50	-
Insertion Loss at Fo	dB	-	31.0	32.5
Group Delay Variation at Fo ± 9.0 MHz	nsec	-	40	80
Absolute Delay at Fo	usec	-	2.00	-
Passband Ripple Variation at Fo ± 9.0 MHz	dB	-	0.65	1.3
Bandwidth at -1dB	MHz	18.70	18.85	-
Bandwidth at -3dB	MHz	-	19.32	-
Bandwidth at -30dB	MHz	-	20.94	21.00
Bandwidth at -40dB	MHz	-	21.23	-
Ultimate Rejection	dB	42	48	-
Temperature Coefficient	ppm/°C	-	-18	-

**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.

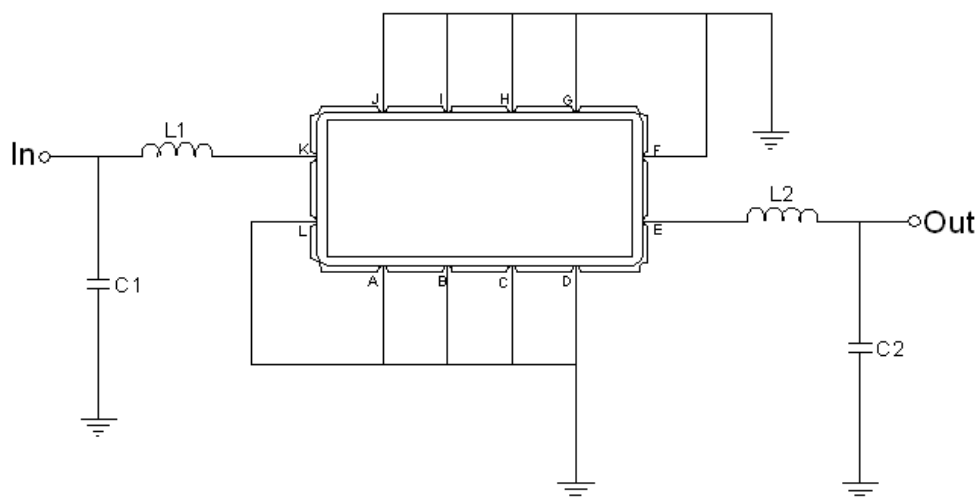
## Package Dimensions



- ① **TRANSKO: Brand**
- ② **TF-031701: 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



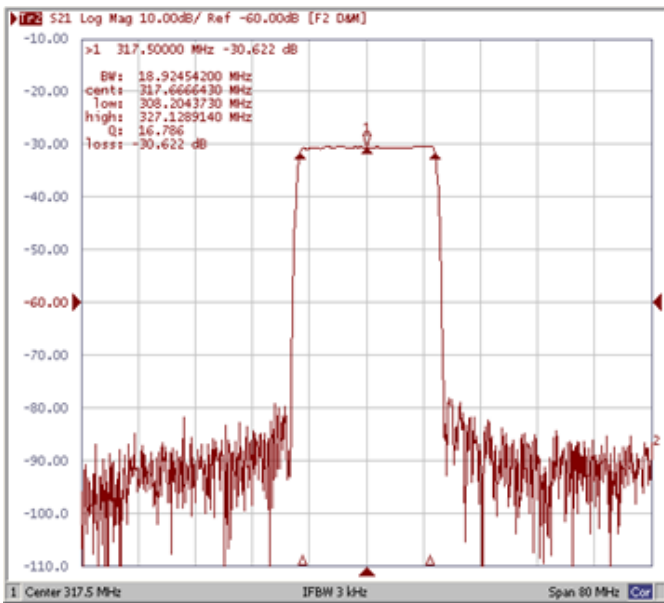
Test Fixture & Values	
Input	L1 = 8.2nH, C1=20pF
Output	L2 = 8.2nH, C2=20pF
Source/Load Impedance	50 Ω

## Frequency Characteristics

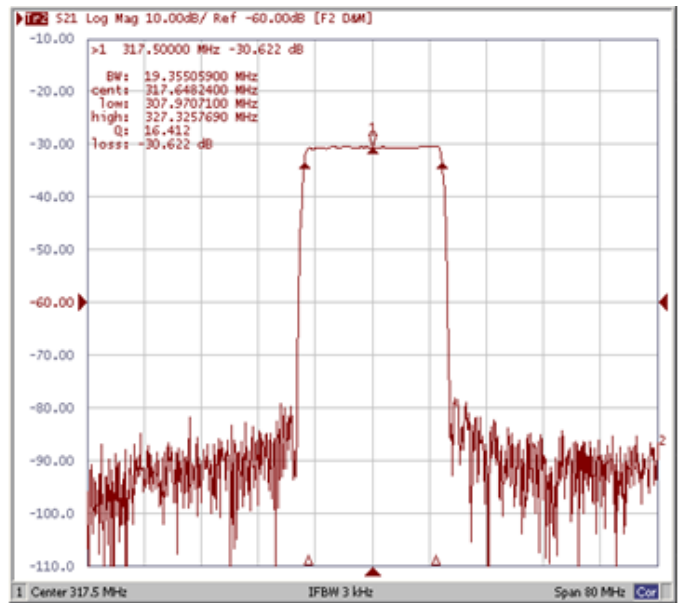
### Frequency Response

Operating Temperature: +25°C

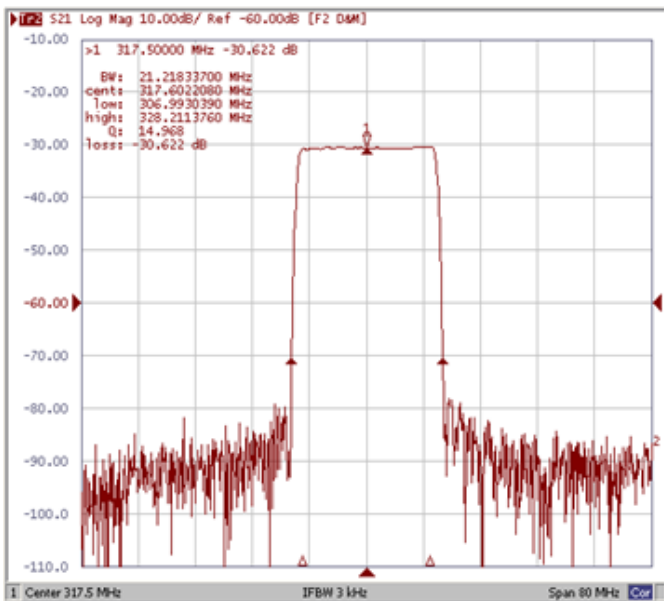
#### Bandwidth at -1.0 dB



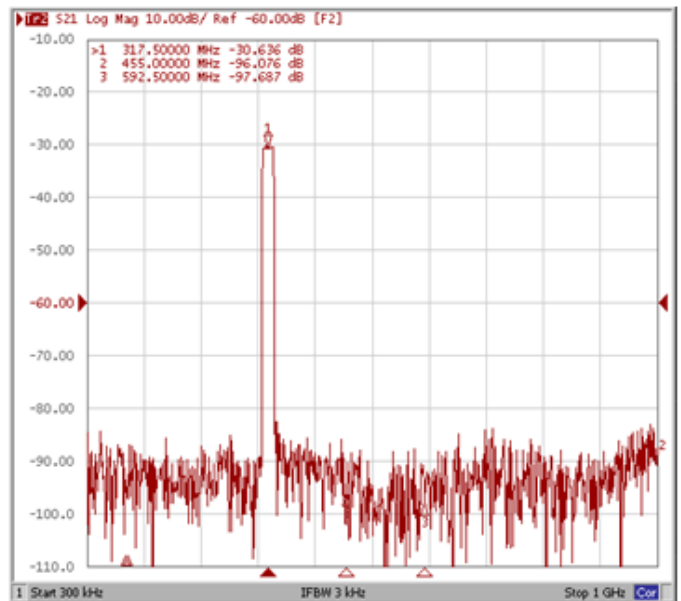
#### Bandwidth at -3.0 dB



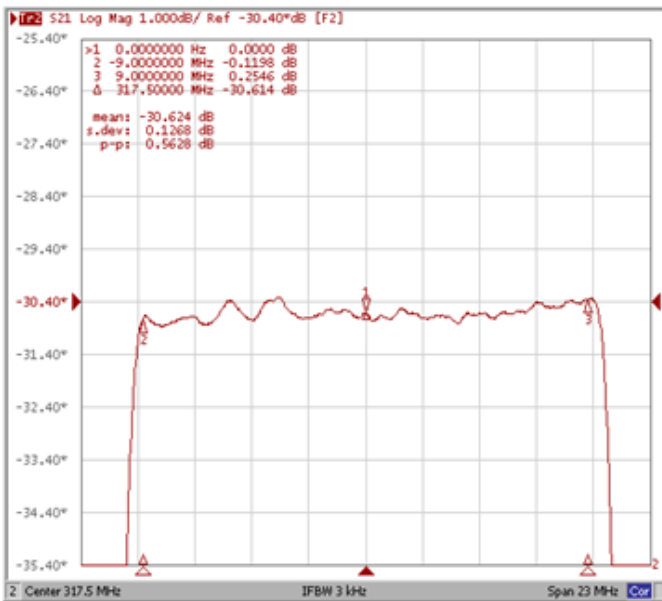
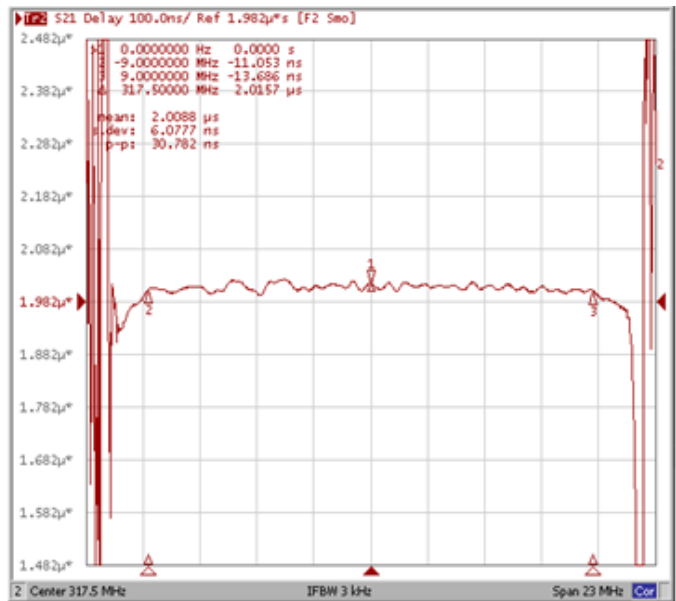
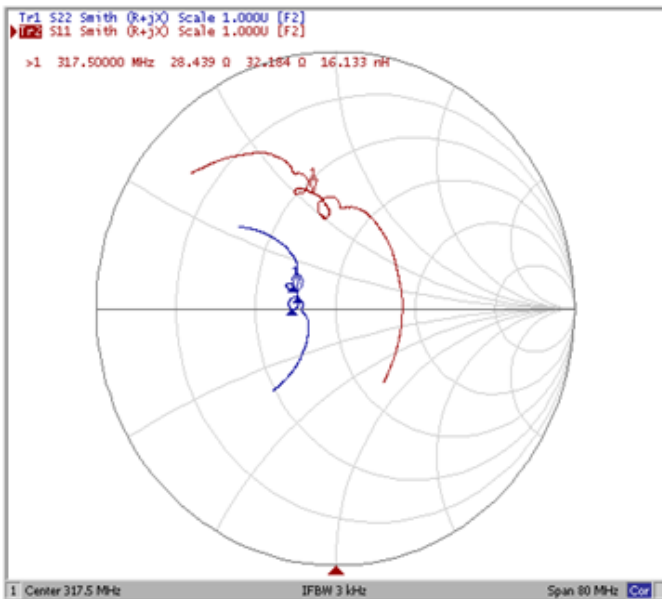
#### Bandwidth at -30.0 dB



#### Bandwidth at -40.0 dB



**Frequency Response**

**Ripple Variation  $F_0 \pm 9.0\text{MHz}$** 

**Group Delay Variation  $F_0 \pm 9.0\text{MHz}$** 

**Smith Chart**

**VSWR**
