

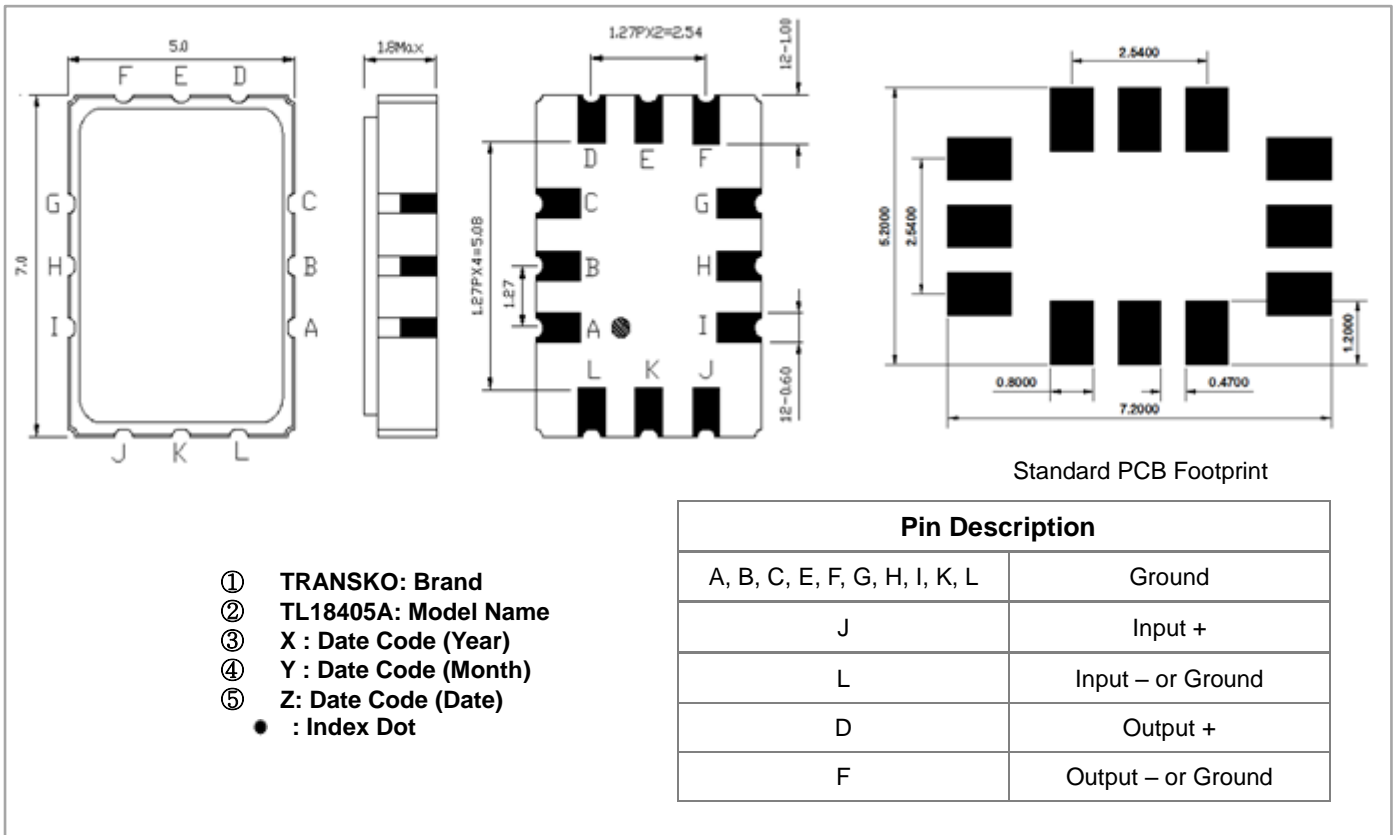
- 184.0 MHz IF SAW Filter / 6.70 MHz Bandwidth
- Revision 0: 27 Feb. 2012

## Electrical Characteristics

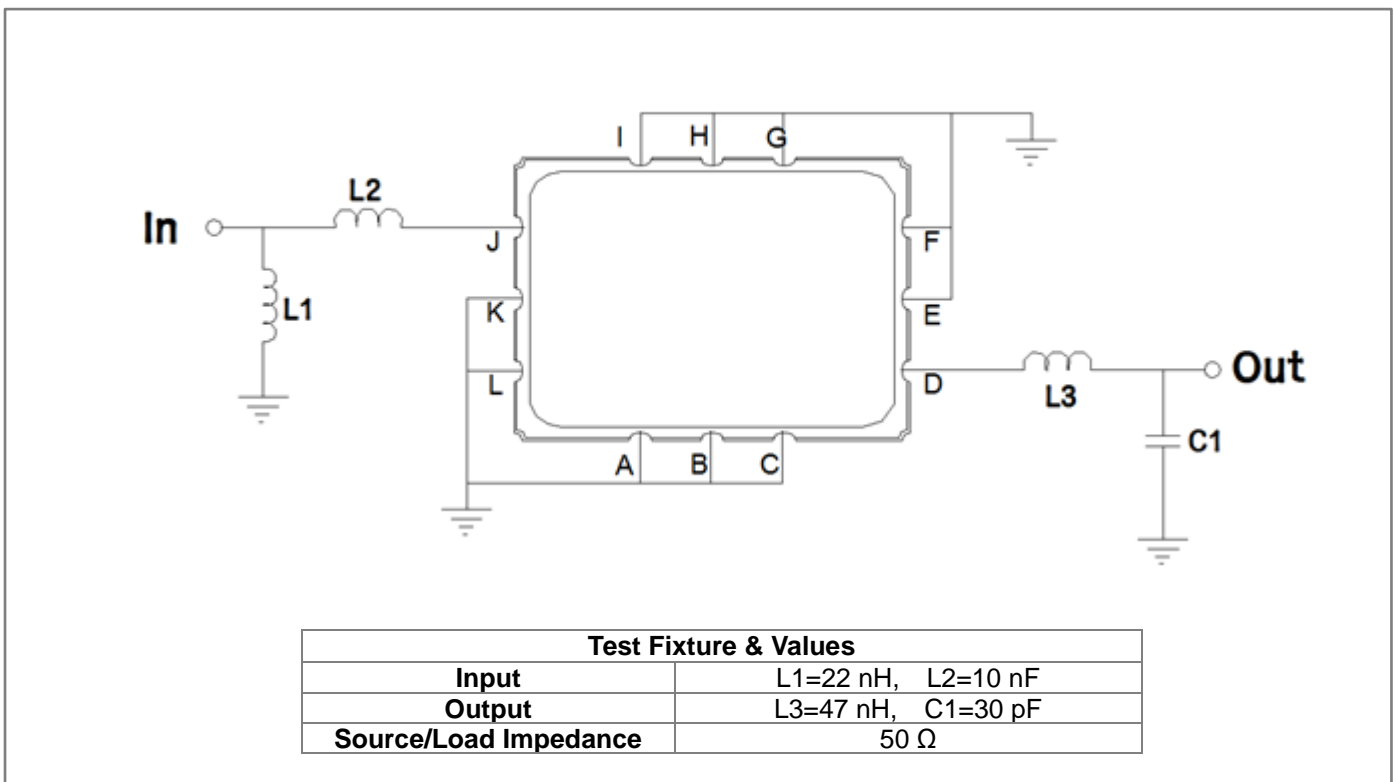
D A T A				TYP. VALUE				TOLERANCE / LIMIT			
Insertion loss				$a_e$	9.70	dB		max.	12.0		dB
(reference level)											
Nominal frequency				$f_N$	-				184.0		MHz
Centre frequency				$f_C$	184	MHz			-		
Passband				PB	-			$f_N$	$\pm$ 2.75		MHz
Pass band ripple				p-p	0.5	dB		max.	1		dB
Amplitude ripple over any 200kHz of the PB				p-p	0.25	dB		max.	0.4		dB
Bandwidth				BW							
1	dB				6.70	dB		min.	6.0		MHz
40	dB				11.60	dB		max.	12		MHz
Relative attenuation				$a_{rel}$							
$f_N$			...	$f_N$	$\pm$ 2.75	MHz		0.5	dB		max. 1 dB
$f_N$	-	92	MHz	...	$f_N$	-	62	MHz	55	dB min. 50 dB	
$f_N$	-	62	MHz	...	$f_N$	-	6	MHz	50	dB min. 40 dB	
$f_N$	+	6	MHz	...	$f_N$	+	58	MHz	43	dB min. 40 dB	
Group delay					0.73	us		max.	1		us
Group delay ripple within PB				p-p	36	ns		max.	60		ns
Group delay ripple over any 200kHz of the PB				p-p	25	ns		max.	40		ns
Return loss					14	dB		min.	9		dB
Input power level					-			max.	18		dBm
Operating temperature range				OTR	-			$+ 25$		$^{\circ}\text{C}$	
Storage temperature range					-			$- 40$		$^{\circ}\text{C} \dots + 85$	
Temperature coefficient of frequency				TCf **	-18	ppm/K			-		

D A T A										TYP. VALUE		TOLERANCE / LIMIT			
<b>Insertion loss</b> (reference level)										$a_e$	11.8	dB	max.	12.0	dB
<b>Nominal frequency</b>										$f_N$	-			184.0	MHz
<b>Centre frequency</b>										$f_C$	184	MHz		-	
<b>Passband</b>										PB	-		$f_N \pm$	2.75	MHz
<b>Pass band ripple</b>										p-p	0.6	dB	max.	1	dB
<b>Amplitude ripple over any 200kHz of the PB</b>										p-p	0.25	dB	max.	0.4	dB
<b>Bandwidth</b>										BW					
1	dB									6.70	dB	min.	6.0	MHz	
40	dB									11.60	dB	max.	12	MHz	
<b>Relative attenuation</b>										$a_{rel}$					
$f_N$				...	$f_N$	$\pm$	2.75	MHz		0.6	dB	max.	1	dB	
$f_N$	-	92	MHz	...	$f_N$	-	62	MHz		55	dB	min.	50	dB	
$f_N$	-	62	MHz	...	$f_N$	-	6	MHz		43	dB	min.	40	dB	
$f_N$	+	6	MHz	...	$f_N$	+	58	MHz		36	dB	min.	35	dB	
$f_N$	+	58	MHz	...	$f_N$	+	98	MHz		55	dB	min.	50	dB	
<b>Group delay</b>											0.73	us	max.	1	us
<b>Group delay ripple within PB</b>										p-p	40	ns	max.	60	ns
<b>Group delay ripple over any 200kHz of the PB</b>										p-p	25	ns	max.	40	ns
<b>Return loss</b>											14	dB	min.	9	dB
<b>Input power level</b>											-		max.	18	dBm
<b>Operating temperature range</b>										OTR	-			- 40 °C ... + 85 °C	
<b>Storage temperature range</b>											-			- 40 °C ... + 85 °C	
<b>Temperature coefficient of frequency</b>										TCf **	-18	ppm/K		-	

## Package Dimensions



## Testing Environment



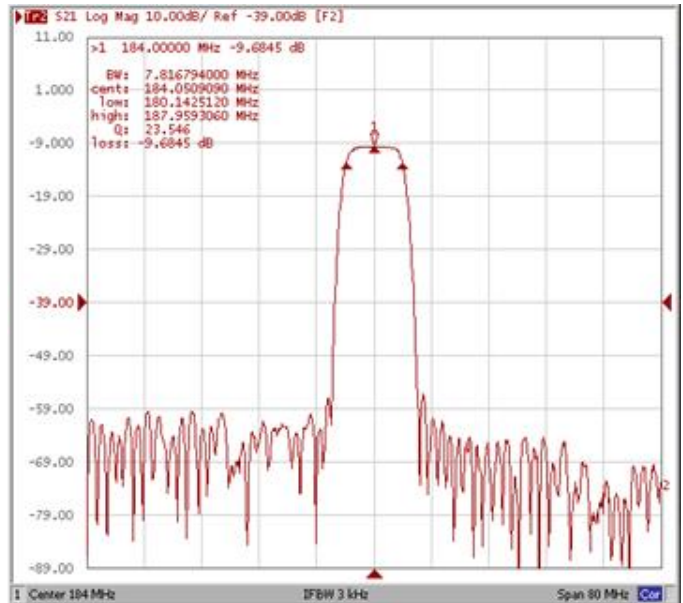
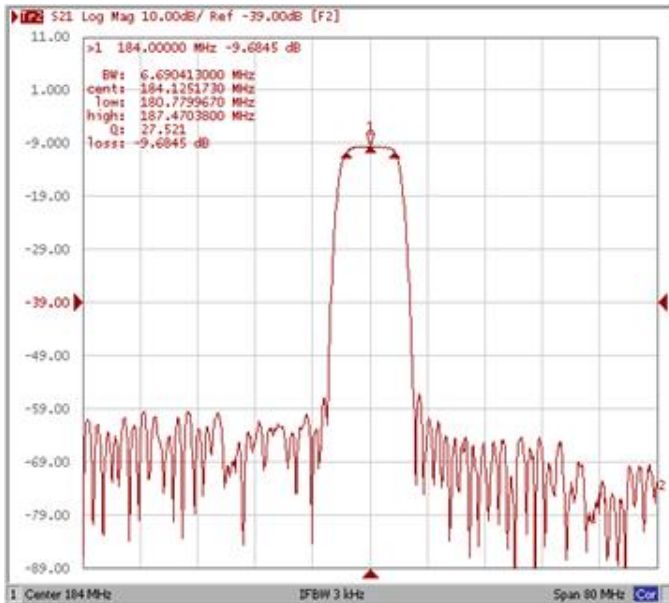
## Frequency Characteristics

**Frequency Response**

Operating Temperature : +25 °C

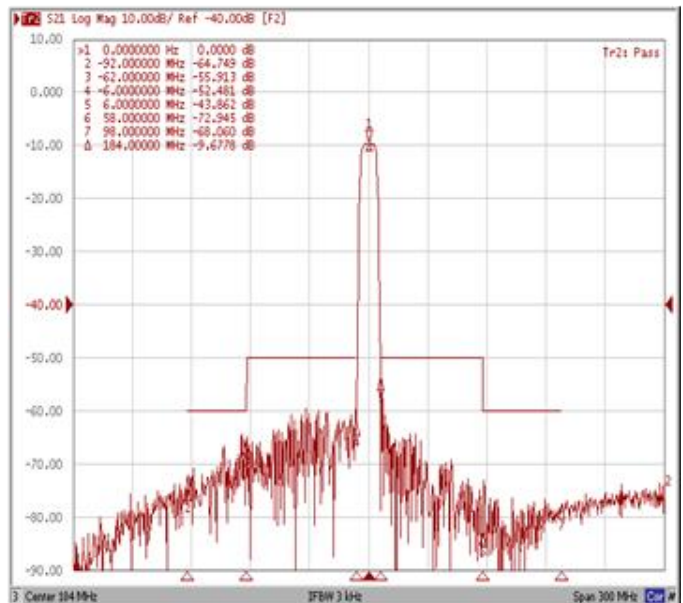
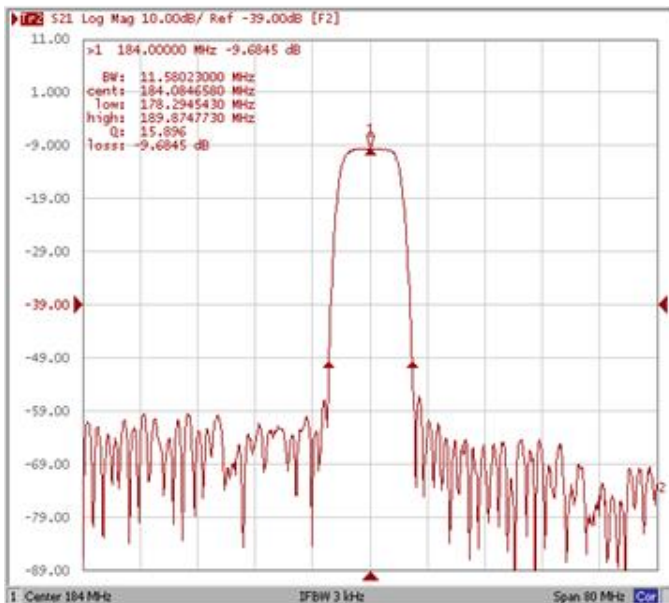
**Bandwidth at -1.0 dB**

**Bandwidth at -3.0 dB**



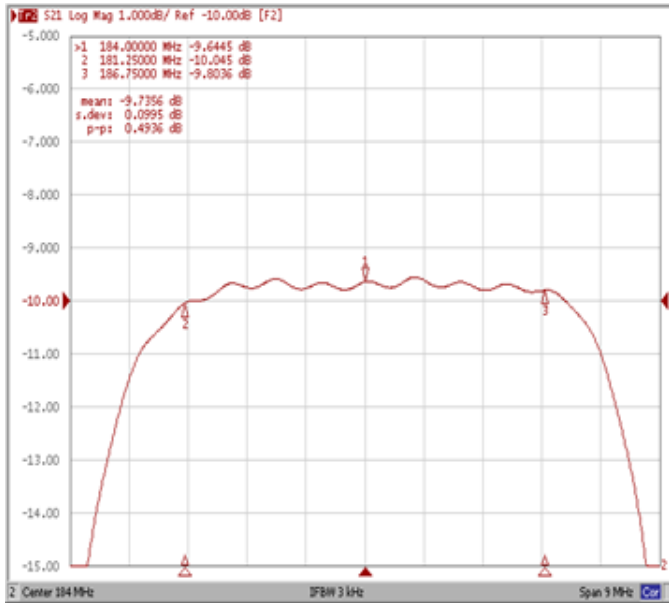
**Bandwidth at -40.0 dB**

**Relative Attenuation**

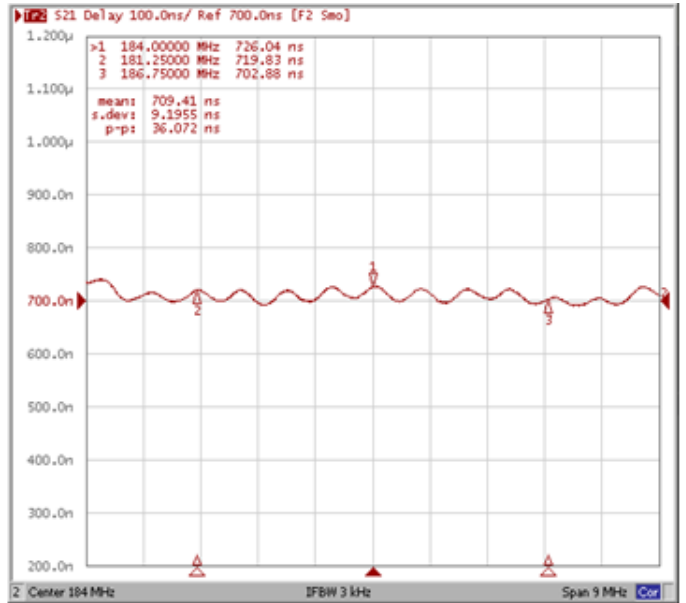


## Frequency Response

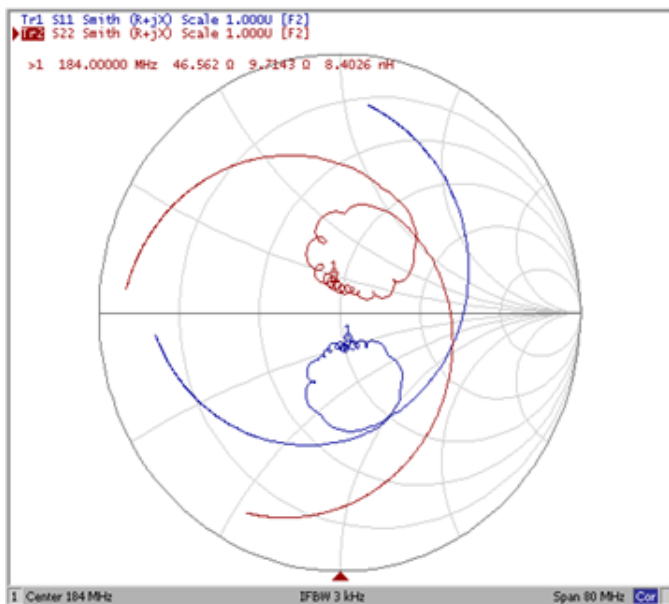
### Ripple Variation at Fo $\pm 2.75$ MHz



### Group delay Variation at Fo $\pm 2.75$ MHz



### Smith Chart



### Return Loss

