TMX R409
SAW BANDPASS FILTER - CDMA Rx-IF
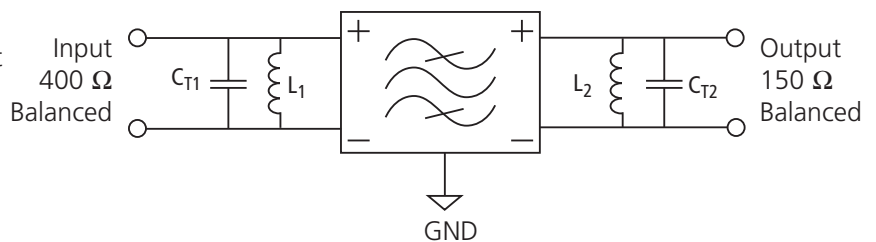### *Specification*

All performances include temperature variations		Minimum	Typical	Maximum
Source impedance (Balanced)[1]	Ω		400	
Load impedance (Balanced)[1]	Ω		150	
Operating temperature range	°C	−30		+85
Center frequency F_C	MHz		183.6	
Template on the amplitude, reference is loss at F_C				
Bandwidth at −5.0 dB	MHz	±0.63	±0.70	
Bandwidth at −33.0 dB	MHz		±0.84	±0.9
Out of band rejection:				
From 10 MHz to 168.6 MHz	dB	50	55	
From 168.6 MHz to 174.6 MHz	dB	40	45	
From 174.6 MHz to 182.7 MHz	dB	33	36	
From 184.5 MHz to 192.6 MHz	dB	33	37	
From 192.6 MHz to 198.6 MHz	dB	40	45	
From 198.6 MHz to 283.6 MHz	dB	50	55	
Attenuation at F_C −0.9 MHz	dB	33	36	
Attenuation at F_C +0.9 MHz	dB	35	37	
Attenuation at F_C −1.25 MHz	dB	33	36	
Attenuation at F_C +1.25 MHz	dB	35	37	
Attenuation at F_C ± 1.7 MHz	dB	35	40	
Attenuation at F_C ± 2.05 MHz	dB	35	45	
Phase linearity within F_C ± 0.63 MHz	°rms		1.4	2.8
Amplitude ripple within F_C ± 0.3 MHz	dB		0.6	1.2
Insertion loss at F_C	dB		9.7	11.0
Package type & size		SMP 35		
Length x width	mm²		7.0 x 5.0	
Height	mm		1.2	1.35

Pin Out

Input (+)	10	Output (+)	5
Input (−)	1	Ouput (−)	6
Case Ground	2, 4, 7, 9	To Be Grounded	2, 3, 4, 7, 8, 9

Note:

[1] Input and Output impedances can be modified if needed. Recommended matching circuit is available on request

Matching network for 400 Ω / 150 Ω configuration

Temex Microsonics test fixture	**Customer PC Board**
L_1 = 47 nH Q > 45 / L_2 = 27 nH Q > 45	L_1 = TBD Q > 45 / L_2 = TBD Q > 45

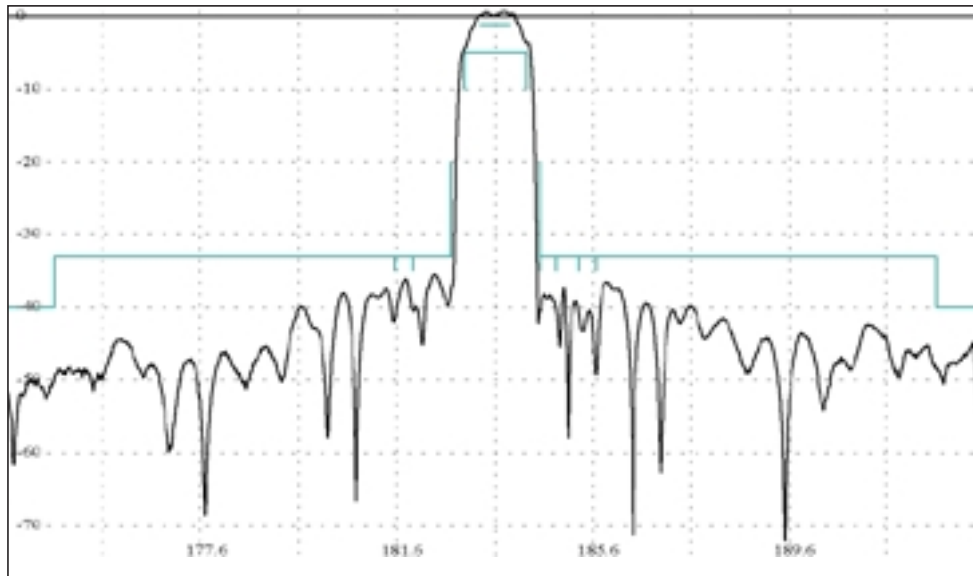C_{T1}, C_{T2} = Tuning capacitors for Inductors (L_1 / L_2) adjustment

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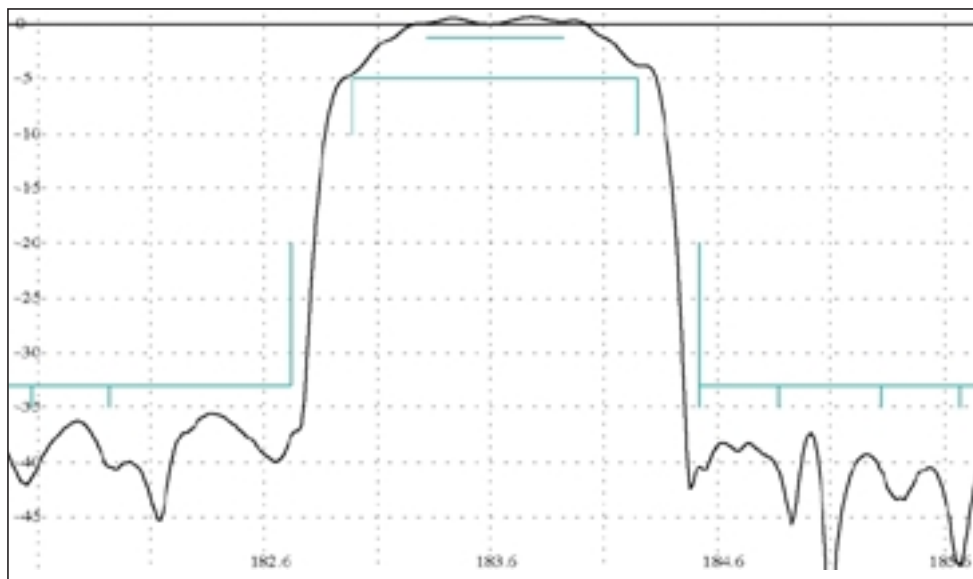## SAW BANDPASS FILTER - CDMA Rx-IF
Typical response

Center frequency = 183.6 MHz
Loss reference = 09.69 dB
Delay reference = 1.43 µs
Phase reference = −154.23 deg

Scale frequency = 2 MHz/div
Scale amplitude = 10 dB/div

Center frequency = 183.6 MHz
Loss reference = 09.69 dB
Delay reference = 1.43 µs
Phase reference = −154.23 deg
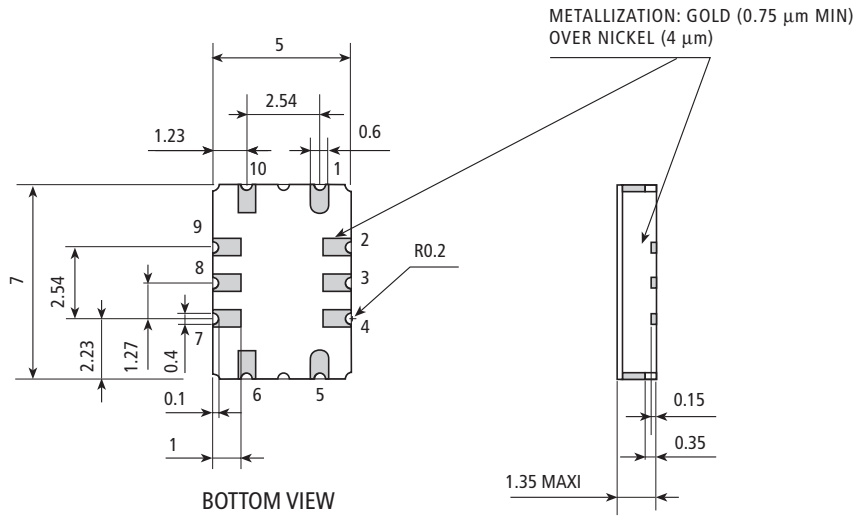
Scale frequency = 0.5 MHz/div
Scale amplitude = 5 dB/div

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Package

All dimensions in mm

METALLIZATION: GOLD (0.75 µm MIN)
OVER NICKEL (4 µm)

5

2.54

1.23   0.6

10   1

9

7   2   R0.2

2.54   8   3

7

2.23   1.27   0.4   4

0.1   6   5

1

BOTTOM VIEW

0.15

0.35

1.35 MAXI

	A	0.1mm/25.4mm
General Tolerance		±0.2mm