TMX R770
SAW BANDPASS FILTER - BASE STATION WCDMA
Specification
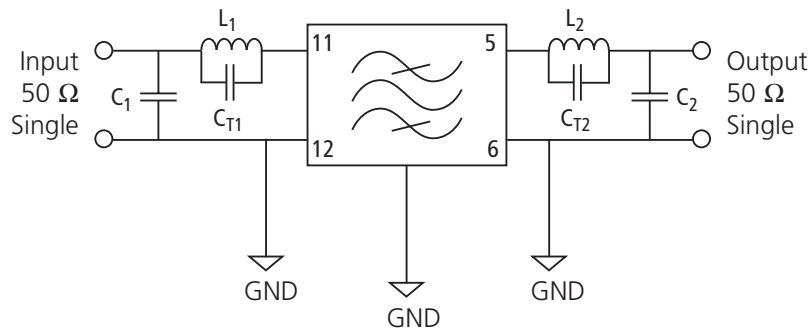
All performances include temperature variations

		Minimum	Typical	Maximum
Source impedance (single ended)[1]	Ω	-	50	-
Load impedance (single ended)[1]	Ω	-	50	-
Operating temperature range	°C	−10	-	+50
Center frequency F_C	MHz	-	380	-
Bandwidth at −1 dB	MHz	4.0	4.4	-
Template on the amplitude, reference is insertion loss at F_C				
Attenuation at $F_C \pm 2.5$ MHz	dB	3	-	-
Attenuation at $F_C \pm 3.0$ MHz	dB	10	-	-
Attenuation at $F_C \pm 3.5$ MHz	dB	20	-	-
Attenuation at $F_C \pm 4.0$ MHz	dB	38	-	-
Attenuation at $F_C \pm 6.0$ MHz	dB	42	-	-
Insertion loss at F_C[1]	dB	-	14.6	15.5
Amplitude ripple within $F_C \pm 2.0$ MHz	dB_{p-p}	-	0.8	1.0
Phase linearity within $F_C \pm 2.0$ MHz	deg_{p-p}	-	6.0	-
Group delay variation within $F_C \pm 2.0$ MHz	ns_{p-p}	-	100	200
Average group delay within $F_C \pm 2.0$ MHz	µs	-	1.46	-
Package type & size			SMP 23	
Length x Width	mm²	-	13.3 x 6.5	-
Height	mm	-	1.6	1.8

Pin Out			
Input	11	Output	5
Input return	12	Ouput return	6
Case Ground	1, 2, 3, 4, 7, 8, 9, 10	To Be Grounded	1, 2, 3, 4, 6, 7, 8, 9, 10, 12

Note:
[1] With Matching Network

Matching Network for 50 Ω / 50 Ω Configuration

Temex Microsonics test fixture	Customer PC board
L_1 = 33 nH, Q > 45, C_1 = 15 pF	L_1 = TBD, Q > 45, C_1 = TBD
L_2 = 33 nH, Q > 45, C_2 = 15 pF	L_2 = TBD, Q > 45, C_2 = TBD

TBD = To Be Defined after prototypes delivery
C_{T1}, C_{T2} = Tuning capacitors for inductors (L_1, L_2) adjustement, range of 0.2 pF
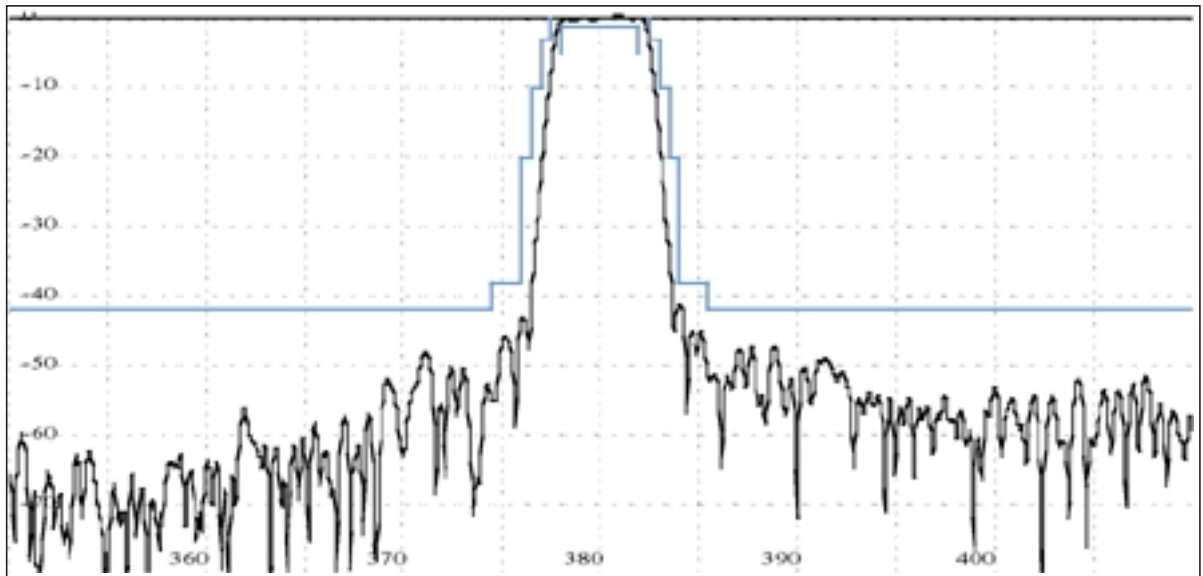
TMX R770
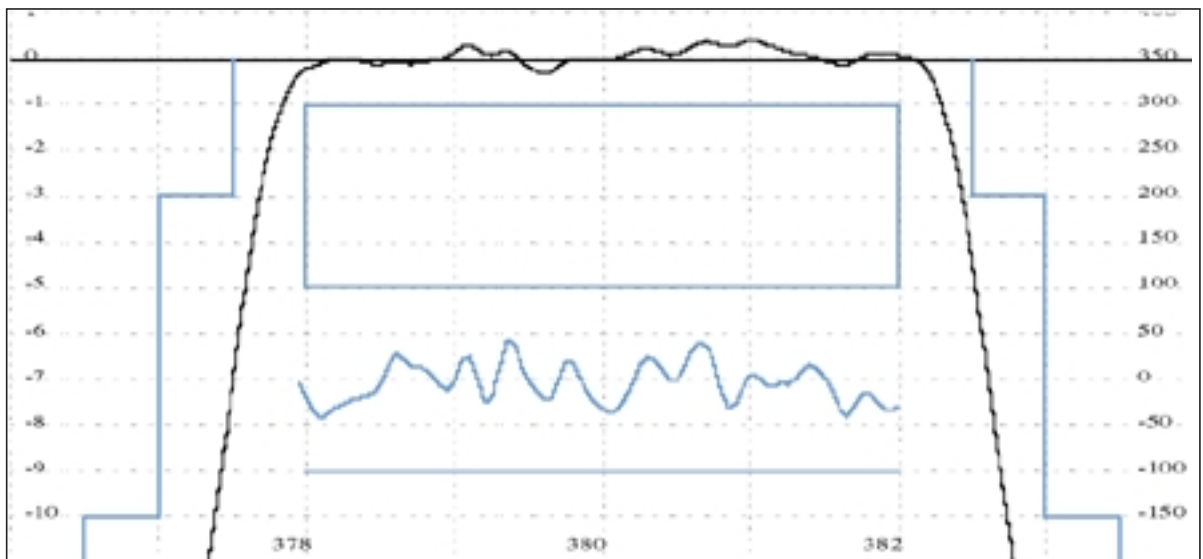## SAW BANDPASS FILTER - BASE STATION WCDMA
Typical S21 response

Center frequency = 380 MHz

Loss reference = 14.56 dB

Delay reference = 01.46 μs

Phase reference = −72.14 deg

Scale frequency = 5 MHz/div

Scale amplitude = 10 dB/div

Center frequency = 380 MHz

Loss reference = 14.56 dB

Delay reference = 01.46 μs

Phase reference = −72.14 deg

Scale frequency = 1 MHz/div

Scale amplitude = 1 dB/div

Scale TPG = 50 ns/div

2

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Package

All dimensions in mm

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

6.5

2.54

1.98

R0.3

1.6

1

0.4

11   12

10

1

2.2

13.3

8 X 1.27 = 10.16

0.8

7

4

R0.1

6   5

0.4

1.57

1.4

BOTTOM VIEW

▱	A	0.1mm/25.4mm
General Tolerance		±0.2mm