

TMX U507

SAW BandPASS Filter – BASE STATION GSM – IF
Tentative Specification (Rev-2)

■ Technical overview	P01
■ Matching Network Configuration	P01
■ Nominal Response (Measurement)	P02
■ Package Drawing	P03

TMX U507

SAW BandPASS Filter - BASE STATION GSM - IF Tentative Specification (Rev-2)

May 16th, 2005

Operating temperature range : [-0°C; +70°C]

Electrical Parameters	Unit	Minimum	Typical	Maximum
Source Impedance (balanced)	Ω	-	200 ⁽¹⁾	-
Load Impedance (balanced)	Ω	-	200 ⁽¹⁾	-
Center Frequency fo	MHz	-	71	-
Bandwidth at -1 dB ⁽²⁾	kHz	± 125 ⁽³⁾	366	-
Template on the amplitude, reference is insertion loss at fo				
from fo ± 300 kHz to fo ± 500 kHz	dB	14	17	-
from fo ± 500 kHz to fo ± 700 kHz	dB	30	35	-
from fo - 700 kHz to fo - 3.5 MHz	dB	39	41	-
from fo + 700 kHz to fo + 3 MHz	dB	39	42	-
At fo ± 800 kHz	dB	39	45	-
from fo + 3 MHz to fo + 35 MHz	dB	43	50	-
from fo - 3.5 MHz to fo - 35 MHz	dB	43	50	-
from 100 MHz to 500 MHz	dB	43	-	-
Insertion Loss at fo	dB	-	6.01	8.0 ⁽³⁾
Amplitude Variation over fo ± 125 kHz ⁽⁴⁾	dB _{p-p}	-	0.2	± 1.0
Group Delay Variation over fo ± 125 kHz	μ s _{p-p}	-	0.74	1.5
Absolute Group Delay at fo	μ s	-	2.1	-
IM3 level ⁽⁵⁾	dBm	-	-	-95 ⁽⁶⁾
Maximum Input Power	dBm	-	-	10
Package type & size				
Length x Width	mm ²	-	13.3 x 6.5	-
Height	mm	-	1.6	1.8
Pin Out				
Input	1, 10	Output	5, 6	
Case Ground	2, 3, 4, 7, 8, 9	To Be Grounded	2, 3, 4, 7, 8, 9	

Notes :

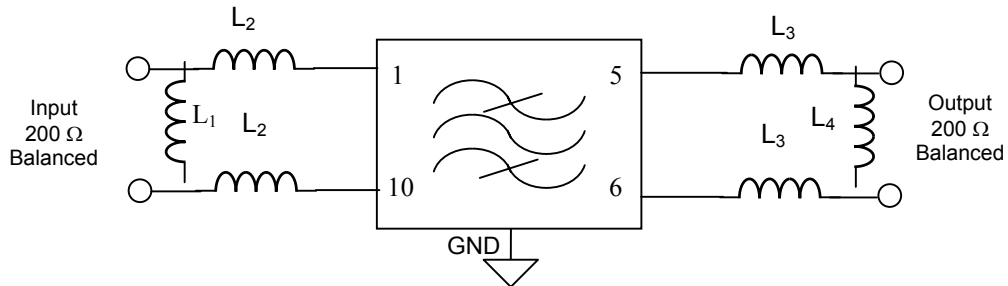
- (1) With external matching networks.
- (2) Reference is loss at fo
- (3) With matching inductors at ± 2 % tolerance.
- (4) The amplitude variation is defined as the maximum level – minimum level over the given bandwidth
- (5) Input level -14 dBm. Signal at ± 800 kHz and ± 1.6 MHz.
- (6) To Be Confirmed on preseries.

TMX U507

SAW BandPASS Filter - BASE STATION GSM - IF
Tentative Specification (Rev-2)

May 16th, 2005

MATCHING NETWORK FOR 200 Ω BALANCED CONFIGURATION



Temex Test Fixture	Customer PC Board
L ₁ = 202 nH, Q > 35 L ₂ = 120 nH, Q > 35	L ₁ , L ₂ = TBD ± 2% ; Q > 50
L ₃ = 68 nH, Q > 35 L ₄ = 130 nH, Q > 35	L ₃ , L ₄ = TBD ± 2% ; Q > 50
TBD = To Be Defined after prototypes delivery	

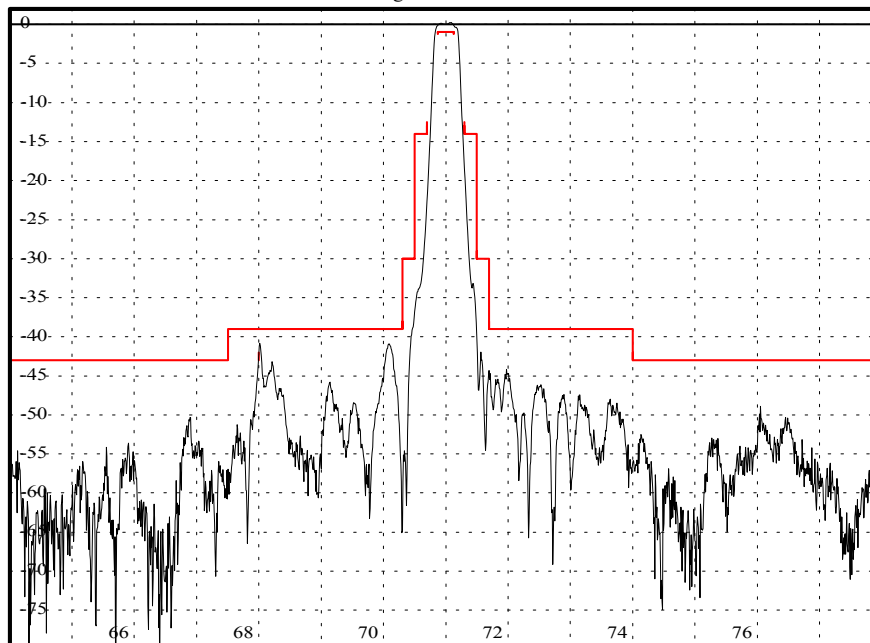
NOMINAL S21 RESPONSE (MEASUREMENT)

References

CENTER FREQUENCY = 71 MHz
LOSS REFERENCE = 7 dB
DELAY REFERENCE = 2.15 μs
PHASE REFERENCE = 30 deg

Scales

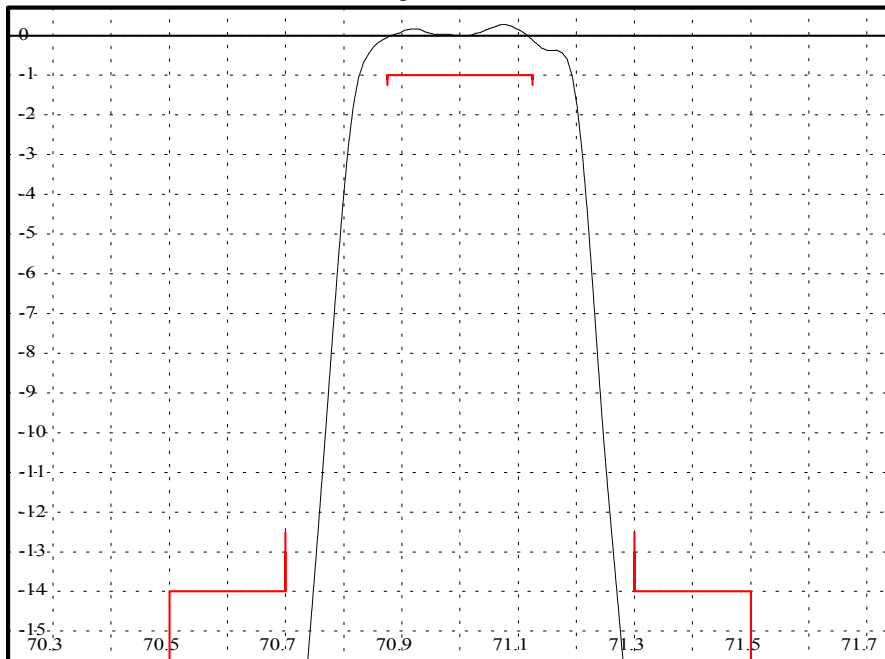
SCALE_FREQUENCY = 1 MHz/div
SCALE_AMPLITUDE = 5 dB/div



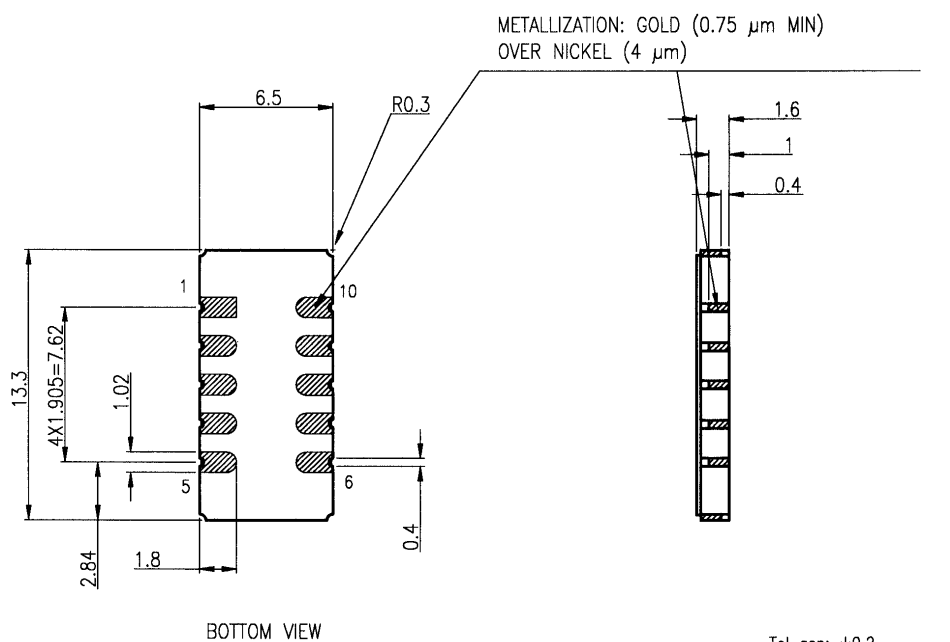
TMX U507

SAW BandPASS Filter - BASE STATION GSM - IF
 Tentative Specification (Rev-2)

May 16th, 2005



PACKAGE DRAWING



Tol gen: ± 0.2
 ALL DIMENSIONS IN mm