

TMX S607

SAW BANDPASS FILTER - BASE STATION GSM – Rx-IF Specification

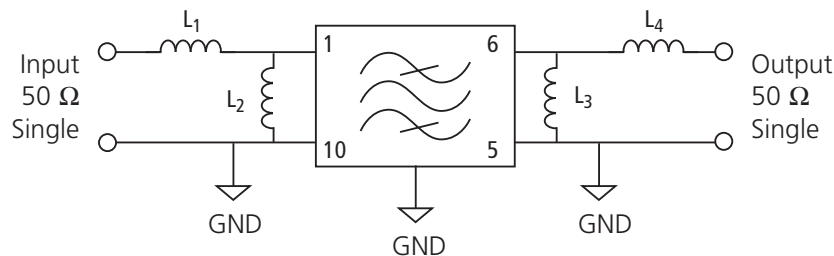
All performances include temperature variations

		Minimum	Typical	Maximum
Source impedance (single ended) ⁽¹⁾	Ω		50	
Load impedance (single ended) ⁽¹⁾	Ω		50	
Operating temperature range	°C	-5		+85
Center frequency F _c	MHz		167	
Bandwidth at -1.5 dB	MHz	0.15	0.27	
Template on the amplitude, reference is loss at F _c				
Bandwidth at -2 dB	MHz		0.30	0.42
Bandwidth at -20 dB	MHz		0.70	0.80
Bandwidth at -25 dB	MHz		0.95	1.20
Bandwidth at -35 dB	MHz		1.46	1.60
Ultimate rejection: (from 30 to 150 MHz and from 180 to 500 MHz)	dB	50 ⁽²⁾		
Insertion loss at F _c ⁽¹⁾	dB		6.0	8.0
Amplitude ripple within F _c ± 0.075 MHz	dB _{p-p}		0.7	1.5
Group delay variation within F _c ± 0.075 MHz	ns		250	500
Absolute group delay within F _c ± 0.075 MHz	μs		2.45	2.6
Input and output VSWR at F _c ⁽¹⁾	dB	10	15	
Package type & size		SMP 26		
Length x Width	mm ²		13 x 6.5	
Height	mm			1.8
Pin Out				
Input	1	Output	6	
Input return	10	Output return	5	
Case Ground	2, 3, 4, 7, 8, 9	To Be Grounded	2, 3, 4, 5, 7, 8, 9, 10	

Note: ⁽¹⁾ With Matching Network

⁽²⁾ Due to the Quartz material, some spurious may occur at 1.05*F_c, 1.6*F_c and 1.8*F_c at a level < 50 dB, to be confirmed after prototypes delivery

Matching Network for 50 Ω / 50 Ω Configuration



Temex Microsonics test fixture	Customer PC board
L ₁ = TBD (range of 133 nH) Q > 45	L ₁ = TBD (± 2%, Q > 45)
L ₂ = TBD (range of 169 nH) Q > 45	L ₂ = TBD (± 2%, Q > 45)
L ₃ = TBD (range of 50 nH) Q > 45	L ₃ = TBD (± 2%, Q > 45)
L ₄ = TBD (range of 119 nH) Q > 45	L ₄ = TBD (± 2%, Q > 45)

TBD: To Be Defined after prototypes delivery

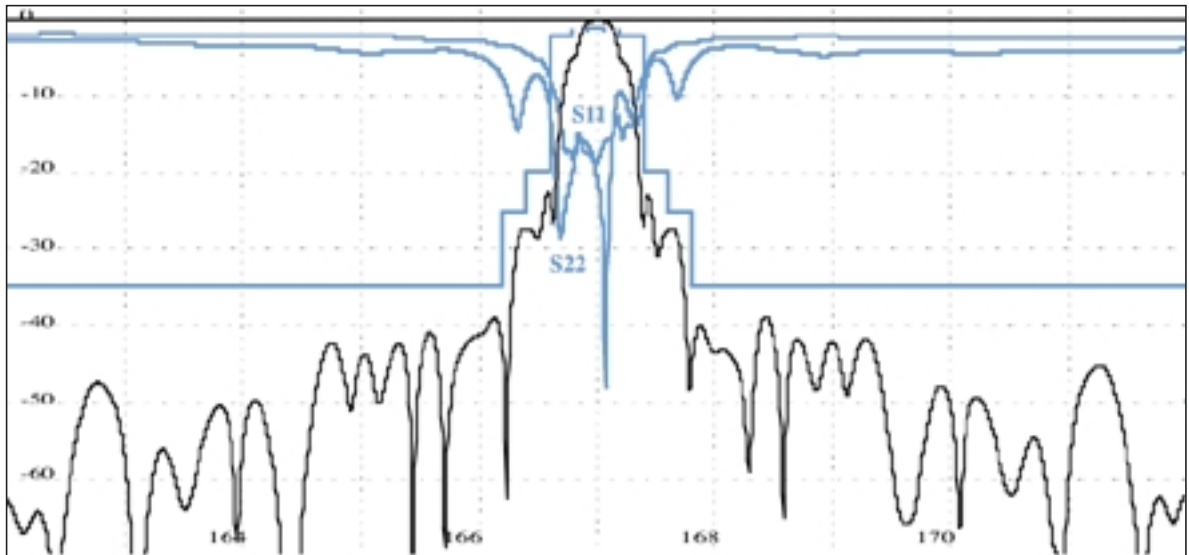
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Nominal S21 response

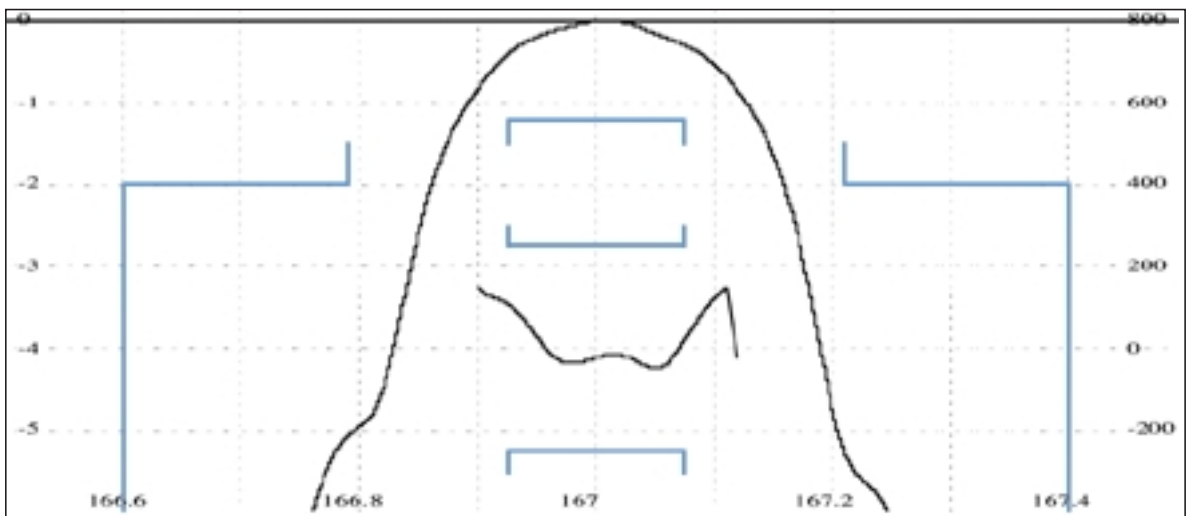
Plot bandwidth = 10 MHz
 Center frequency = 167 MHz
 Loss reference = 5.55 dB
 Delay reference = 2.45 μ s
 Phase reference = -122.82 deg

Scale frequency = 1 MHz/div
 Scale amplitude = 10 dB/div



Plot bandwidth = 1 MHz
 Center frequency = 167 MHz
 Loss reference = 5.55 dB
 Delay reference = 2.45 μ s
 Phase reference = -122.82 deg

Scale frequency = 0.1 MHz/div
 Scale amplitude = 1 dB/div
 Scale phase = 200 deg/div



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Package

All dimensions in mm

