

# TMX S142

## SAW BANDPASS FILTER - ISM – RF

### Preliminary Specification

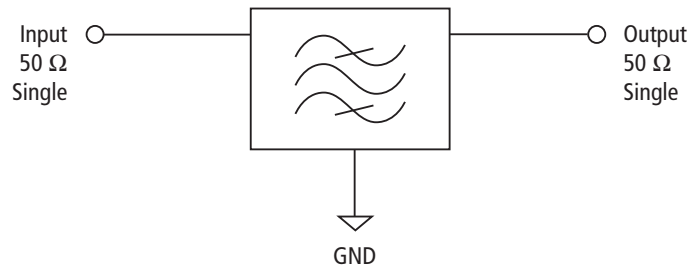
Operating temperature range [-10°C; +60°C]

		Minimum	Typical	Maximum
Source impedance (single ended)	Ω		50 <sup>(2)</sup>	
Load impedance (single ended)	Ω		50 <sup>(2)</sup>	
Center frequency $f_c$	MHz		869	
Absolute attenuation				
300 kHz to 856.4 MHz	dB	40	41	
856.4 MHz to 858.5 MHz	dB	20	40	
879 MHz to 883 MHz	dB	20	33	
883 MHz to 1200 MHz	dB	45	50	
1200 MHz to 2000 MHz	dB	35	40	
Maximum insertion loss in 868 MHz-870 MHz	dB		2.2	3.0
Amplitude variation in 868 MHz-870 MHz <sup>(3)</sup>	dB		0.2	0.8
Input VSWR in 868 MHz-870 MHz at 21°C			1.4: 1	2.0: 1
Output VSWR in 868 MHz-870 MHz at 21°C			1.4: 1	2.0: 1
Power capacity in 868 MHz-870 MHz	dBm			17
Package type & size				
Length x Width	mm <sup>2</sup>		3.8 x 3.8	
Height	mm		1.3	1.35
Pin Out				
Input	2	Output	5	
Case Ground	1, 3, 4, 6	To Be Grounded	1, 3, 4, 6	

**Note:**

- (1) Typical values are nominal performances at room temperature
- (2) No external matching circuit is required
- (3) The amplitude variation is defined as the maximum level – minimum level over the given bandwidth

**50 Ω / 50 Ω configuration**



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Operating Temperature range : [-40°C; +85°C]

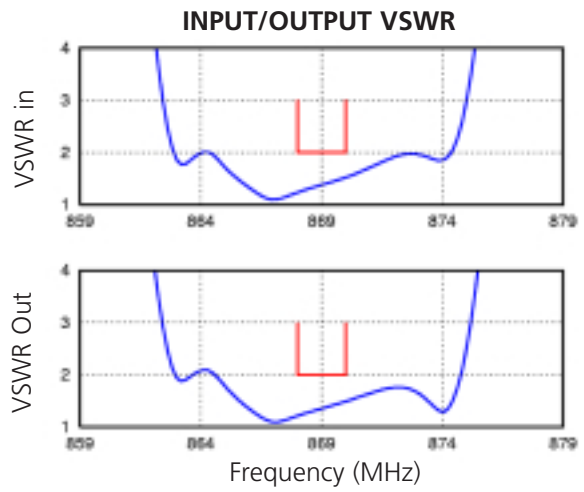
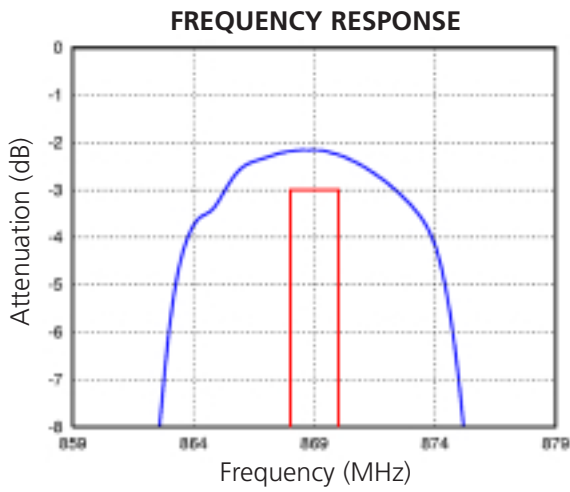
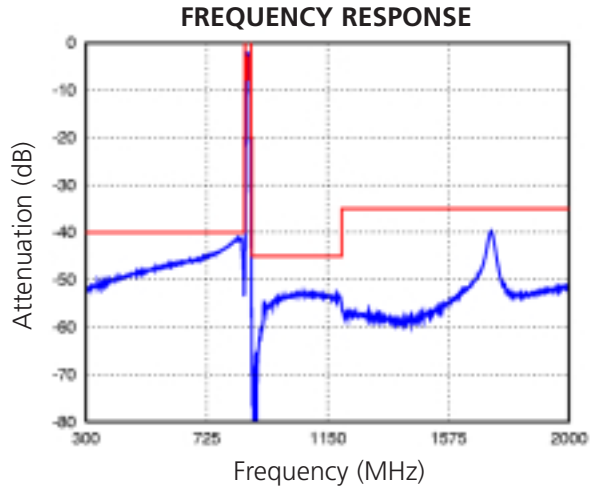
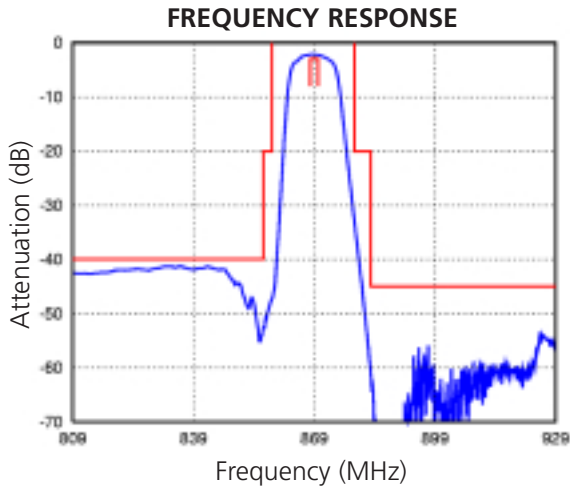
		Minimum	Typical	Maximum
Source Impedance (single ended)	$\Omega$		50 <sup>(2)</sup>	
Load Impedance (single ended)	$\Omega$		50 <sup>(2)</sup>	
Center Frequency $f_c$	MHz		869	+85
Absolute Attenuation				
300 kHz to 856.4 MHz	dB	40	41	
856.4 MHz to 858.5 MHz	dB	20	40	
879 MHz to 883 MHz	dB	9	33	
883 MHz to 1200 MHz	dB	30	50	
1200 MHz to 2000 MHz	dB	35	40	
Maximum Insertion Loss in 868 MHz-870 MHz	dB		2.2	4.5
Amplitude Variation in 868 MHz-870 MHz <sup>(3)</sup>	dB		0.2	0.8
Input VSWR in 868 MHz-870 MHz at 21°C			1.4: 1	2.0: 1
Output VSWR in 868 MHz-870 MHz at 21°C			1.4: 1	2.0: 1
Power capacity in 868 MHz-870 MHz	dBm			17
Package type & size				
Length x Width	mm <sup>2</sup>		3.8 x 3.8	
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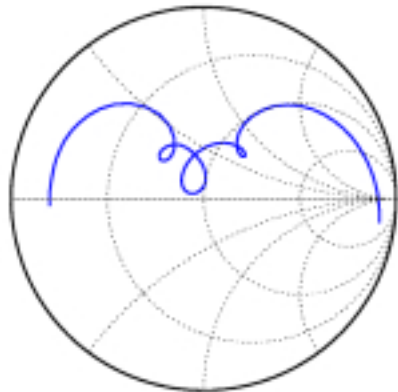
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### Preliminary Specification

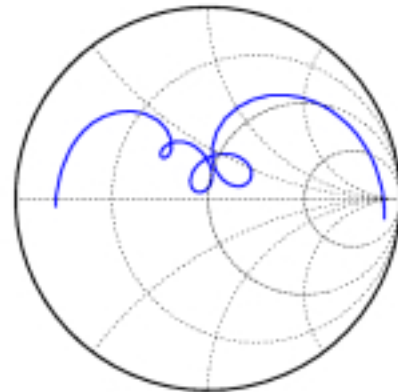
The template indicated is linked to the specification over [-40; +85°C] temperature range



INPUT SMITH CHART



OUTPUT SMITH CHART

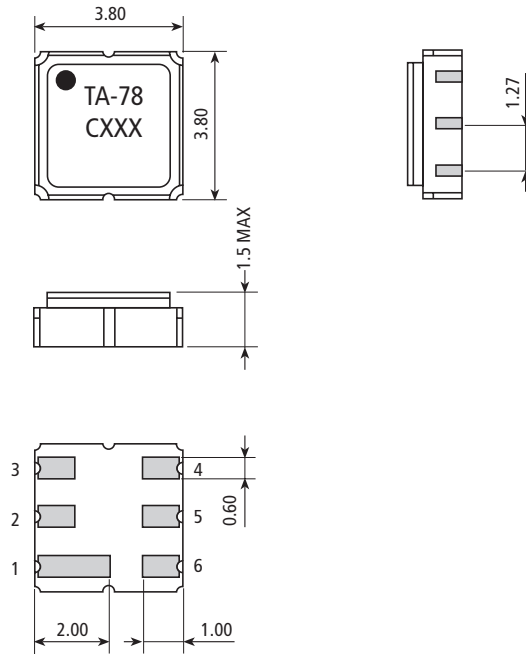


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## SAW BANDPASS FILTER - ISM – RF

### Package

All dimensions are in mm



	A	0.1mm/25.4mm
General Tolerance	±0.2mm	