



## **SAW Components**

### **SAW RF low loss filter**

Digital radio

<b>Series/type:</b>	<b>B8762</b>
<b>Ordering code:</b>	<b>B39232-B8762-K610</b>
<b>Date:</b>	<b>July 10, 2008</b>
<b>Version:</b>	<b>2.0</b>

Data sheet



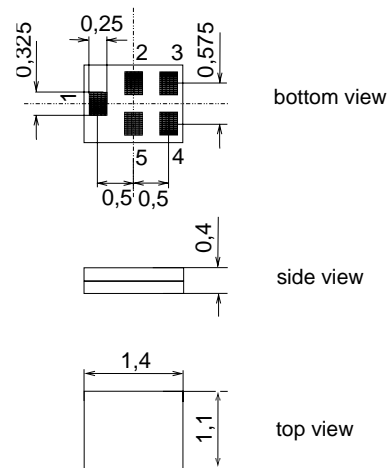
Application

- Low-loss RF filter for digital radio
- Unbalanced to unbalanced operation
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 12.5 MHz
- No matching network required



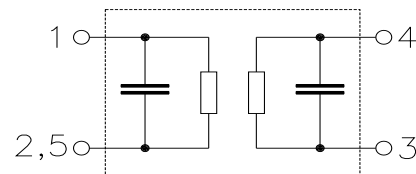
Features

- Package size 1.4 x 1.1 x 0.4 mm<sup>3</sup>
- Maximum height of 0.45 mm
- Package code QCS5F
- RoHS compatible
- Approximate weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 1 Input unbalanced
- 4 Output unbalanced
- 2,3,5 To be grounded





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B8762

SAW RF low loss filter

2338.755 MHz

Data sheet



**Characteristics**

Temperature range for specification: T = +25 °C  
 Terminating source impedance: Z<sub>S</sub> = 50 Ω  
 Terminating load impedance: Z<sub>L</sub> = 50 Ω

		min.	typ. @ 25 °C	max.	
<b>Nominal frequency</b>	f <sub>N</sub>	—	2338.755	—	MHz
<b>Maximum insertion attenuation</b>	α <sub>max</sub>				
2332.5 ... 2345.0 MHz		—	1.9	2.5	dB
<b>Amplitude ripple (p-p)</b>	Δα				
2332.5 ... 2345.0 MHz		—	0.2	0.8	dB
<b>Input return loss</b>		10	13	—	dB
<b>Output return loss</b>		10	13	—	dB
<b>Attenuation</b>	α				
88.0 ... 108.0 MHz		50	54	—	dB
880.0 ... 960.0 MHz		35	38	—	dB
1710.0 ... 1990.0 MHz		32	37	—	dB
2305.0 MHz		—	12	—	dB
2310.0 MHz		—	9	—	dB
2315.0 MHz		—	11	—	dB
2320.0 MHz		—	5	—	dB
2450.0 MHz		23	29	—	dB
3060.0 MHz		30	38	—	dB
<b>Group delay ripple (p-p)</b>					
2332.5 ... 2345.0 MHz		—	5	10	ns



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**Characteristics**

Temperature range for specification:  $T = -20\text{ °C to }+85\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
<b>Nominal frequency</b>	$f_N$	—	2338.755	—	MHz
<b>Maximum insertion attenuation</b> 2332.5 ... 2345.0 MHz	$\alpha_{max}$	—	1.9	3.5	dB
<b>Amplitude ripple (p-p)</b> 2332.5 ... 2345.0 MHz	$\Delta\alpha$	—	0.2	1.6	dB
<b>Input return loss</b>		10	13	—	dB
<b>Output return loss</b>		9	13	—	dB
<b>Attenuation</b>	$\alpha$				
88.0 ... 108.0 MHz		50	54	—	dB
880.0 ... 960.0 MHz		35	38	—	dB
1710.0 ... 1990.0 MHz		32	37	—	dB
2305.0 MHz		—	12	—	dB
2310.0 MHz		—	9	—	dB
2315.0 MHz		—	11	—	dB
2320.0 MHz		—	5	—	dB
2450.0 MHz		23	29	—	dB
3060.0 MHz		30	38	—	dB
<b>Group delay ripple (p-p)</b> 2332.5 ... 2345.0 MHz		—	5	15	ns

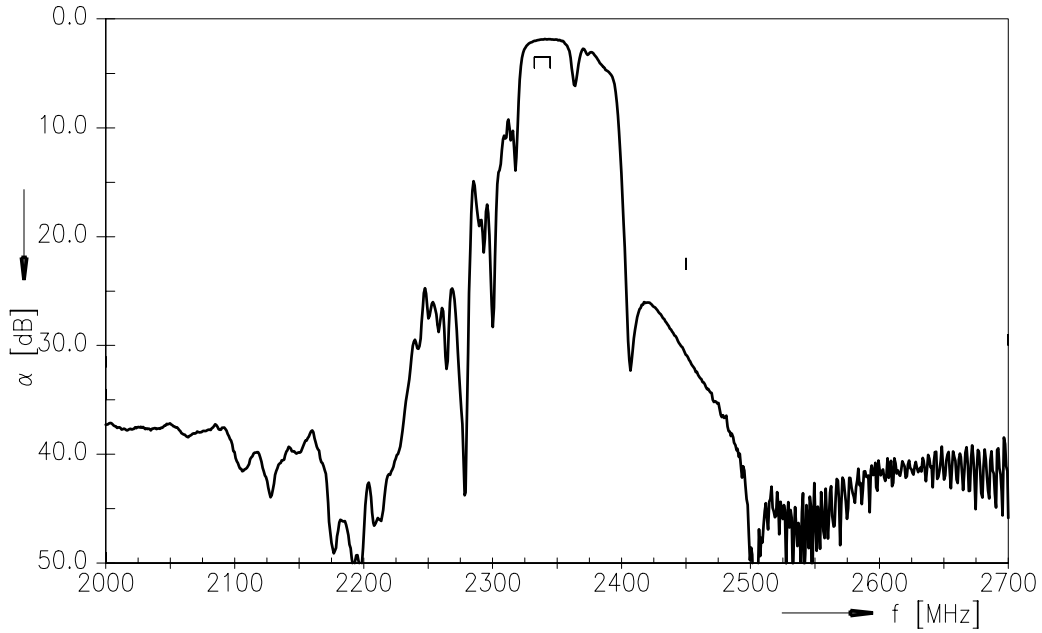
**Maximum ratings**

Operable temperature range	T	-30/+85	°C	
Storage temperature range	T <sub>stg</sub>	-40/+85	°C	
DC voltage	V <sub>DC</sub>	5	V	
ESD voltage	V <sub>ESD</sub>	50 <sup>1)</sup>	V	machine model, 1 pulse
Input power at 2332.5 MHz...2345.0 MHz	P <sub>IN</sub>	10	dBm	source impedance 50 Ω

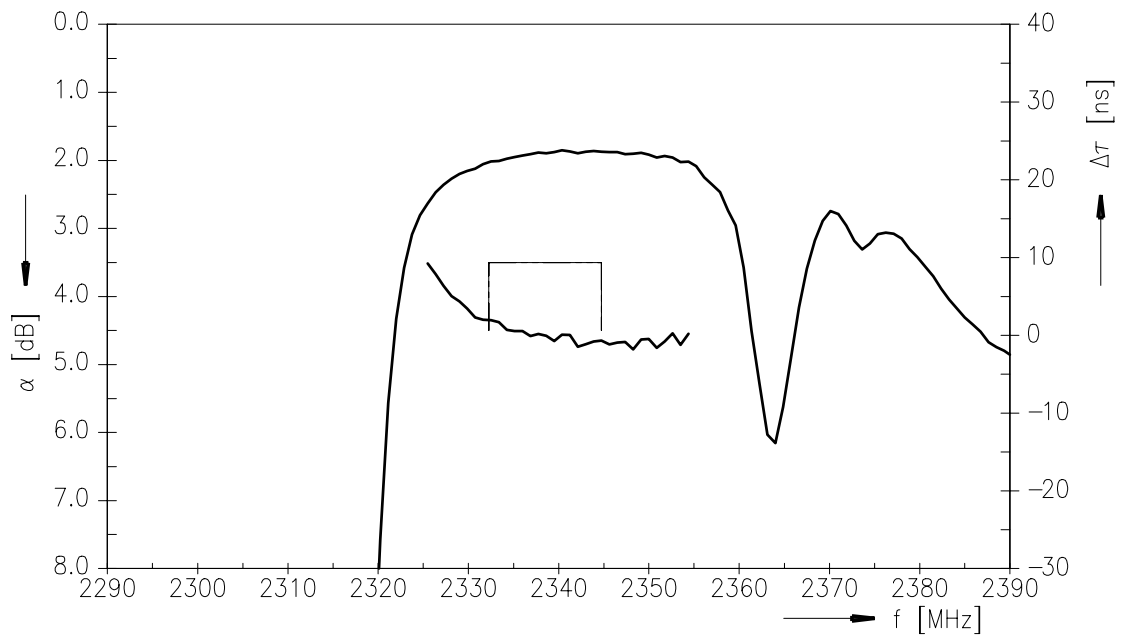
<sup>1)</sup> according to JESD22-A115A (machine model), 1 negative & 1 positive pulse.



Transfer function



Transfer function (passband)





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B8762

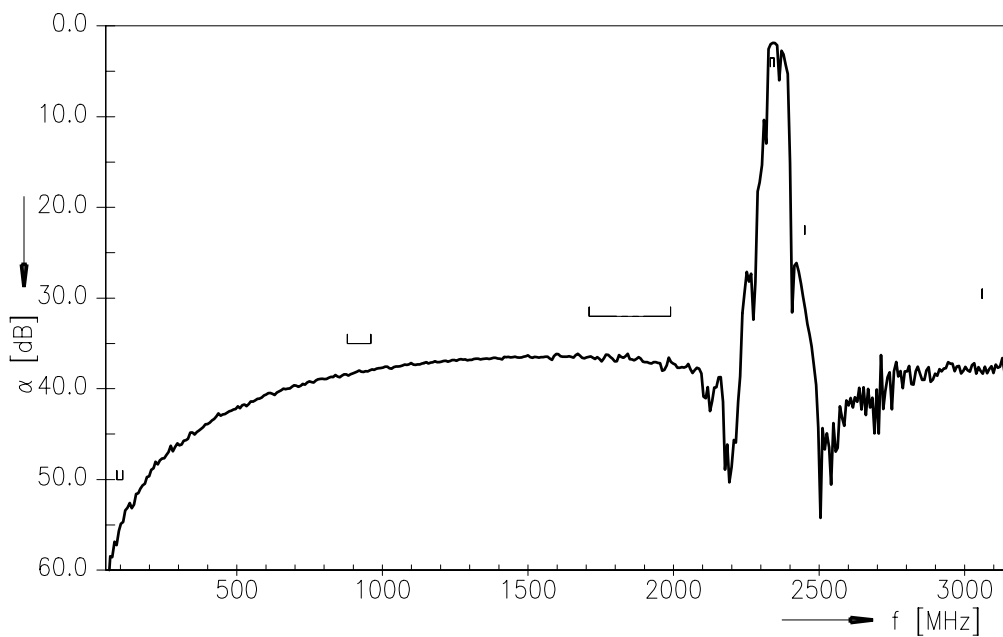
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Transfer function (wide band)





**SAW Components** **B8762**

**SAW RF low loss filter** **2338.755 MHz**

Data sheet



## References

<b>Type</b>	B8762
<b>Ordering code</b>	B39232-B8762-K610
<b>Marking and package</b>	C61157-A8-A1
<b>Packaging</b>	F61074-V8212-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B8762_NB.s2p B8762_WB.s2p See file header for port/pin assignment table.
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."
<b>Moldability</b>	Before using in overmolding environment, please contact your EPCOS sales office.

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