



## **SAW Components**

### **SAW Rx filter**

TETRA

<b>Series/type:</b>	<b>B5052</b>
<b>Ordering code:</b>	<b>B39471B5052Z810</b>
<b>Date:</b>	<b>March 14, 2008</b>
<b>Version:</b>	<b>2.0</b>



Data sheet



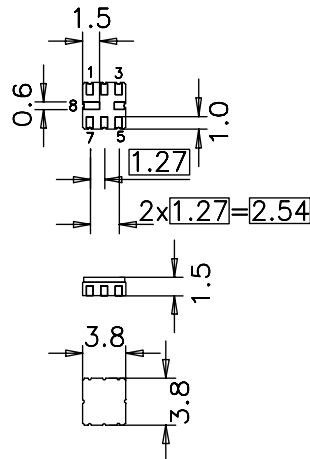
**Application**

- Low-loss IF filter for base station TETRA systems, receive path (Rx)
- Unbalanced to unbalanced or unbalanced to balanced operation
- Low amplitude ripple
- No external matching required
- Usable passband 10 MHz



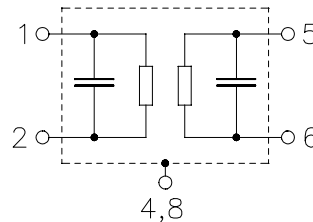
**Features**

- Package size 3.8 x 3.8 x 1.35 mm<sup>3</sup>
- Package code QCC8B
- RoHS compatible
- Approximate weight 0.07 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**



**Pin configuration**

- 5 Input
- 1 Output / Output balanced
- 2 Output ground / Output balanced
- 3,6,7 To be grounded
- 4,8 Case ground





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**B5052**

**SAW Rx filter**

**465.00 MHz**

Data sheet



**Characteristics**

Temperature range for specification: T = -30 °C to +70 °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>Center frequency</b>	f <sub>C</sub>	—	465.00	—	MHz
<b>Maximum insertion attenuation</b>	α <sub>max</sub>				
460.0 ... 470.0 MHz		—	2.3	3.0 <sup>1)</sup>	dB
<b>Amplitude ripple (p-p)</b>	Δα				
460.0 ... 470.0 MHz		—	0.9	2.0 <sup>2)</sup>	dB
<b>Return Loss (VSWR)</b>					
460.0 ... 470.0 MHz		—	2.0	2.2	
<b>Attenuation</b>	α				
50.0 ... 82.0 MHz		31	73	—	dB
82.0 ... 352.0 MHz		27	54	—	dB
352.0 ... 455.0 MHz		10	17	—	dB
478.0 ... 500.0 MHz		10	21	—	dB
500.0 ... 622.0 MHz		27	50	—	dB
622.0 ... 633.0 MHz		45	47	—	dB
633.0 ... 1001.0 MHz		19	36	—	dB
1001.0 ... 1542.0 MHz		26	31	—	dB
1542.0 ... 1736.0 MHz		34	37	—	dB
1736.0 ... 2100.0 MHz		24	27	—	dB

<sup>1)</sup> 2.5dB max at +15°C to +35°

<sup>2)</sup> 1.5dB max at +15°C to +35°



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### Maximum ratings

Operable temperature range	T	-40/+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>	100 <sup>1)</sup>	V	machine model, 1 pulse
Input power at 460.0 ... 470.0MHz	P <sub>IN</sub>	15	dBm	Continuous Wave

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



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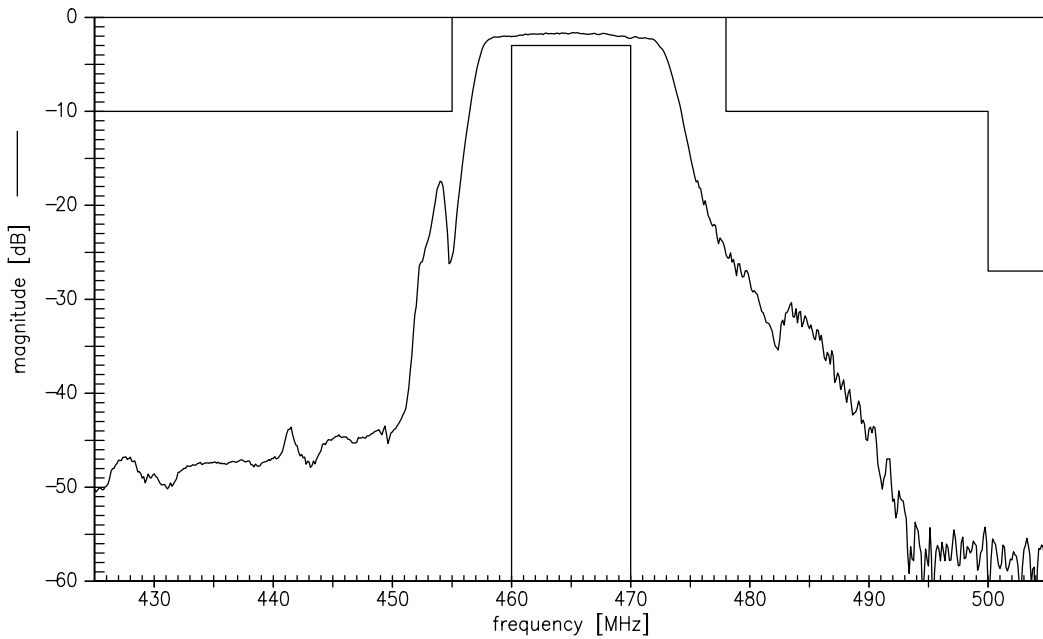
SAW Rx filter

465.00 MHz

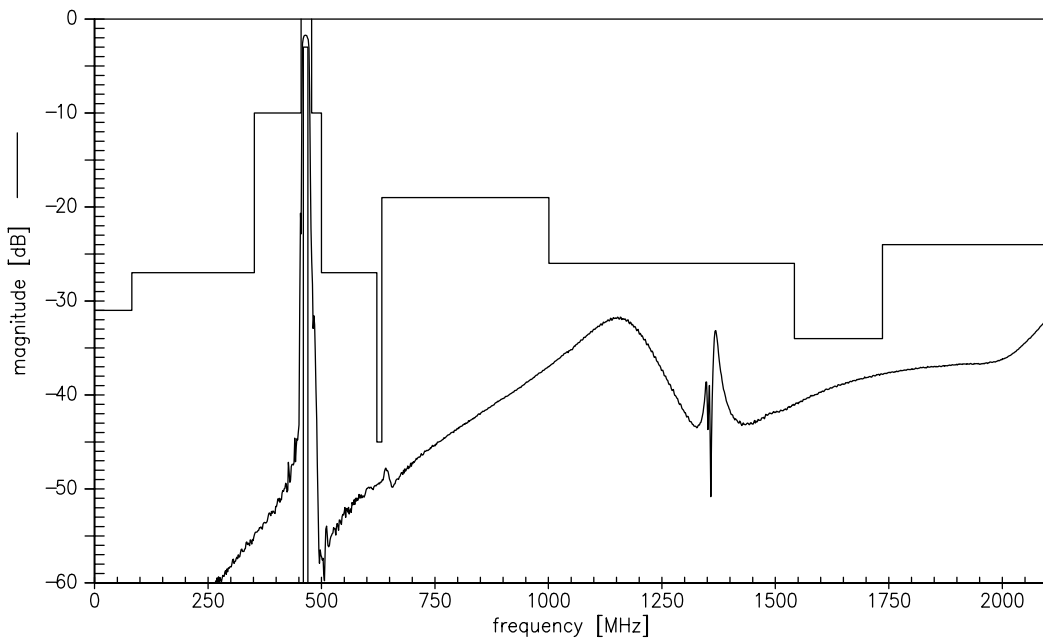
Data sheet



Transfer function



Transfer function (wideband)



Please read *cautions and warnings* and *important notes* at the end of this document.

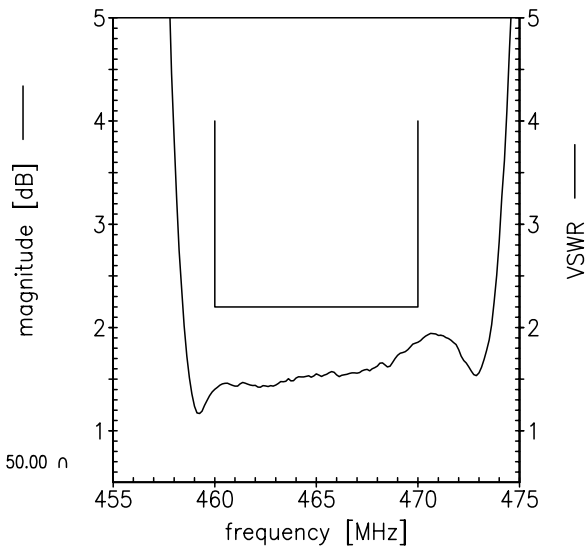
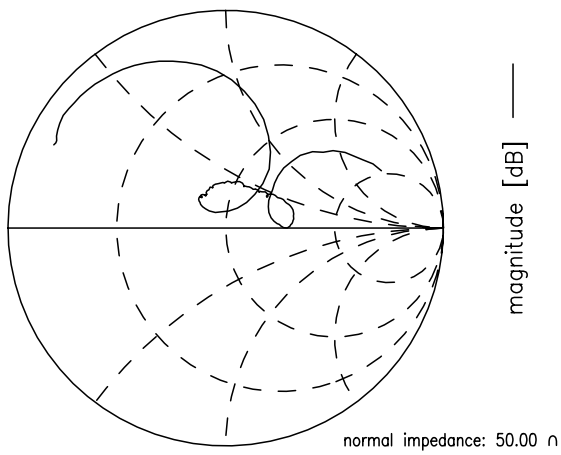


Data sheet

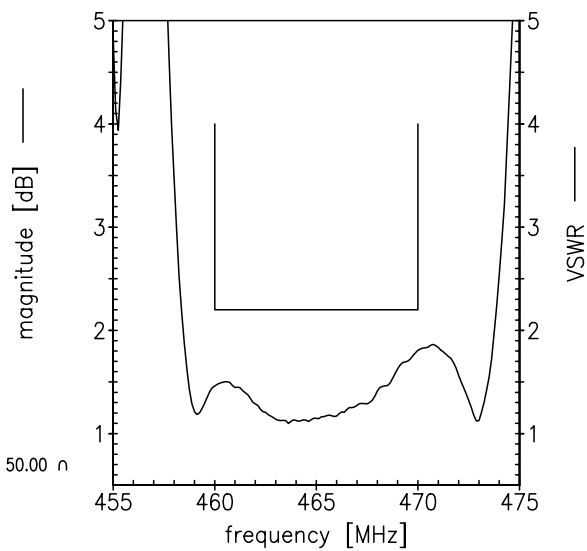
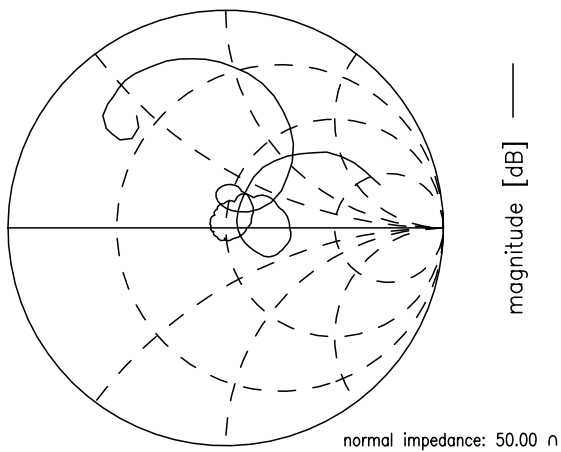


Smith charts

S<sub>11</sub> function



S<sub>22</sub> function





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<b>SAW Rx filter</b>	<b>465.00 MHz</b>
Data sheet	

## References

<b>Type</b>	B5052
<b>Ordering code</b>	B39471B5052Z810
<b>Marking and package</b>	C61157-A7-A46
<b>Packaging</b>	F61074-V8167-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B5052_NB.s2p B5052_WB.s2p
<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."

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**Published by EPCOS AG**  
**Surface Acoustic Wave Components Division**  
**P.O. Box 80 17 09, 81617 Munich, GERMANY**

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