



## **SAW Components**

### **SAW Rx Filter**

Business Radio

<b>Series/type:</b>	<b>B5058</b>
<b>Ordering code:</b>	<b>B39461B5058Z810</b>
<b>Date:</b>	<b>March 22, 2007</b>
<b>Version:</b>	<b>2.0</b>



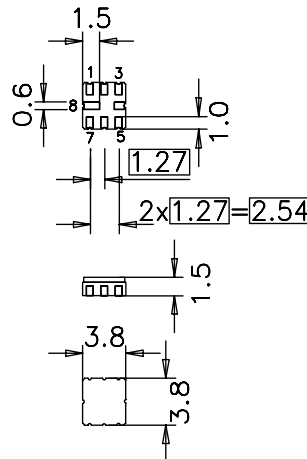
**Application**

- Low-loss filter for Business Radio
- Usable passband 20 MHz
- Unbalanced to unbalanced operation
- No matching required
- Filter impedance 50 Ω



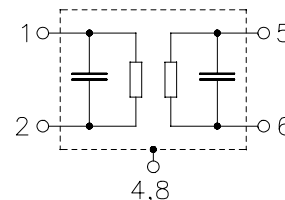
**Features**

- Package size 3.8 x 3.8 x 1.5 mm<sup>3</sup>
- Package code QCC8B
- Approx. weight 0.07 g
- Ceramic package for **Surface Mount Technology (SMT)**
- RoHS compliant
- Ni, gold-plated
- **Electrostatic Sensitive Device (ESD)**



**Pin configuration**

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





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**460.0 MHz**

**Data Sheet**



**Characteristics**

Temperature range for specification:  $T = -30$  to  $+60^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	460.0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2.0	3.2 <sup>1)</sup>	dB
450.0 ... 470.0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0.7	2.4 <sup>2)</sup>	dB
450.0 ... 470.0 MHz					
<b>Input return loss</b>		10.0	14.5	—	dB
450.0 ... 470.0 MHz					
<b>Output return loss</b>		10.0	17.5	—	dB
450.0 ... 470.0 MHz					
<b>Attenuation</b>	$\alpha$				
0.1 ... 300.0 MHz		30	42	—	dB
300.0 ... 380.0 MHz		24	34	—	dB
380.0 ... 430.0 MHz		15	23	—	dB
504.825... 524.825MHz		12	32	—	dB
559.65 ... 579.65 MHz		28	41	—	dB
669.3 ... 689.3 MHz		24	37	—	dB
689.3 ... 1000.0 MHz		26	34	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-70	—	ppm/K

<sup>1)</sup> 2.2 dB at 25 °C.

<sup>2)</sup> 1.4 dB at 25 °C.



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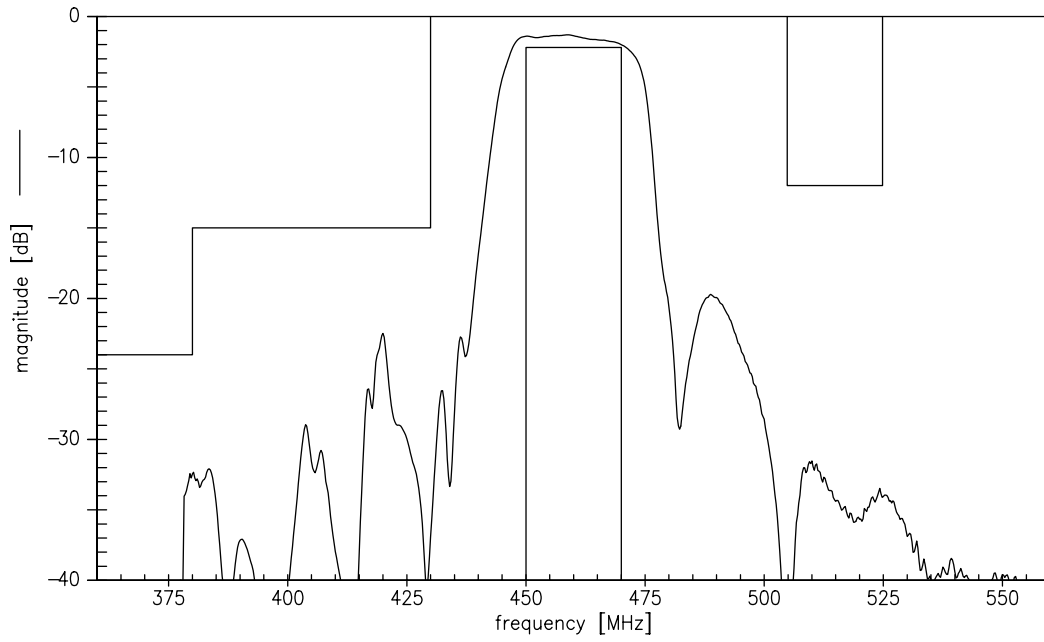
### Maximum ratings

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, 10 pulses
Input Power at 450.0 ... 470.0 MHz	P <sub>IN</sub>	10	dBm	continuous wave

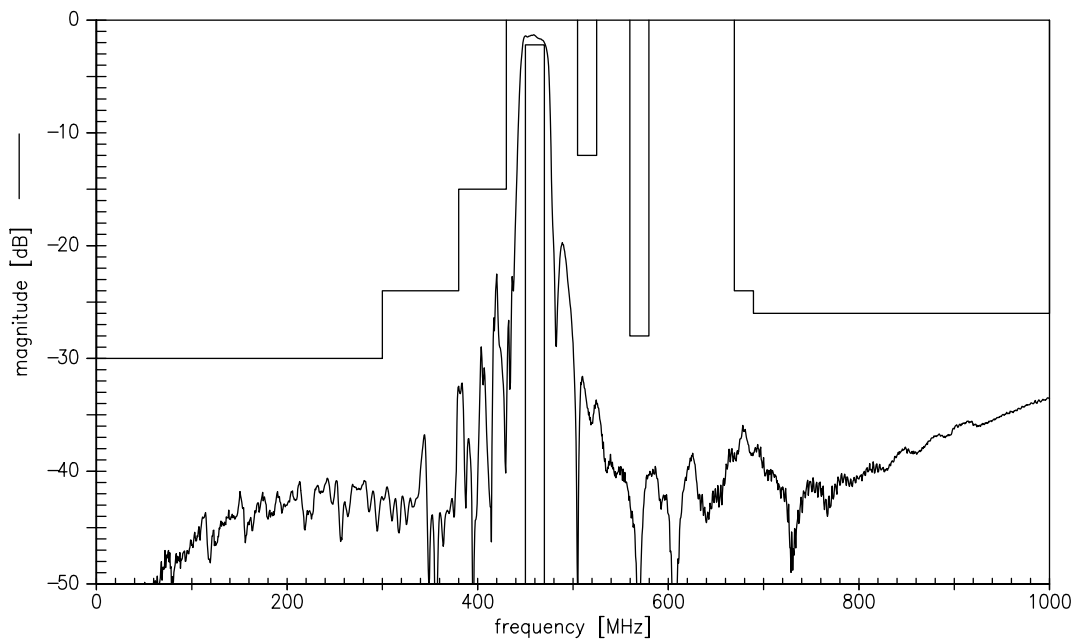
<sup>1)</sup> acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



Transfer function (narrowband)



Transfer function (wideband)



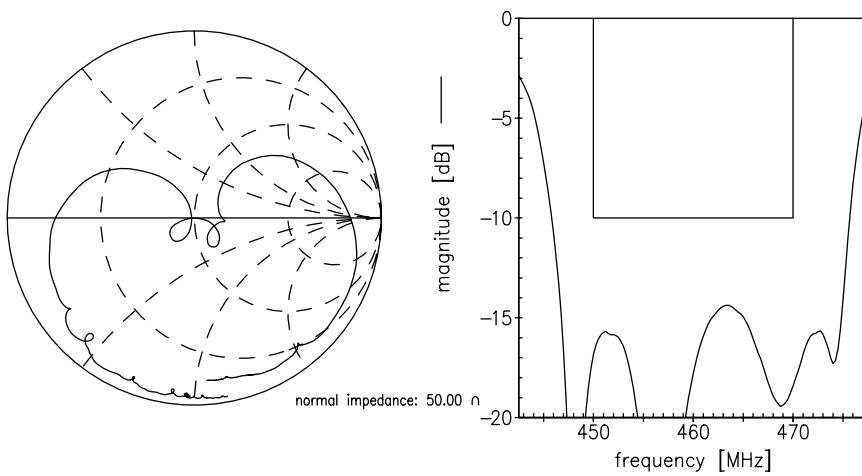


Data Sheet

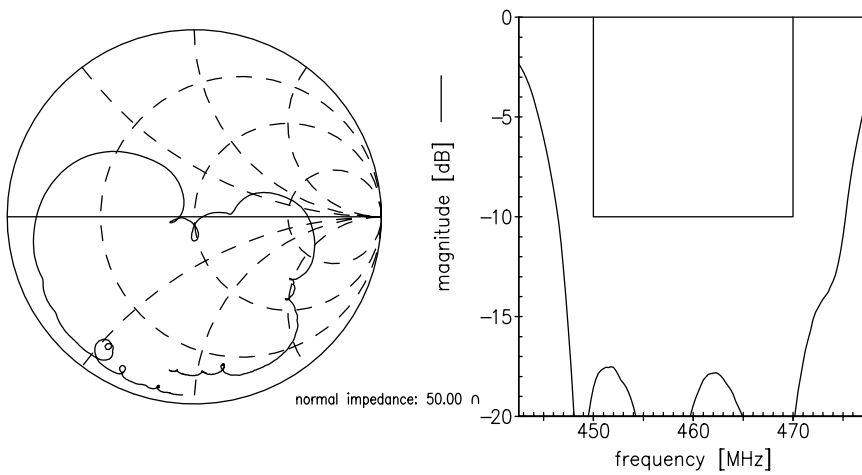


Smith chart

S<sub>11</sub> function



S<sub>22</sub> function





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Data Sheet



## References

Type	B5058
Ordering code	B39461B5058Z810
Marking and package	C61157-A7-A46
Packaging	F61074-V8167-Z000
Date codes	L_1126
S-parameters	B5058_NB.s2p B5058_WB.s2p
Soldering profile	S_6001
RoHS compatible	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."

For further information please contact your local EPCOS sales office or visit our webpage at [www.epcos.com](http://www.epcos.com).

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7 March 22, 2007



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