



RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

## SAW Components

### SAW Rx Filter

Business Radio

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

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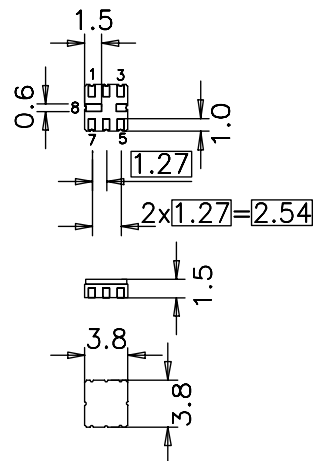
**Data Sheet**

**Application**

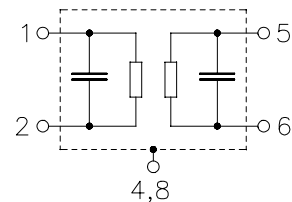
- Low-loss filter for Business Radio
- Usable passband 20 MHz
- Unbalanced to unbalanced operation
- No matching required
- Filter impedance 50 Ω

**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



**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.

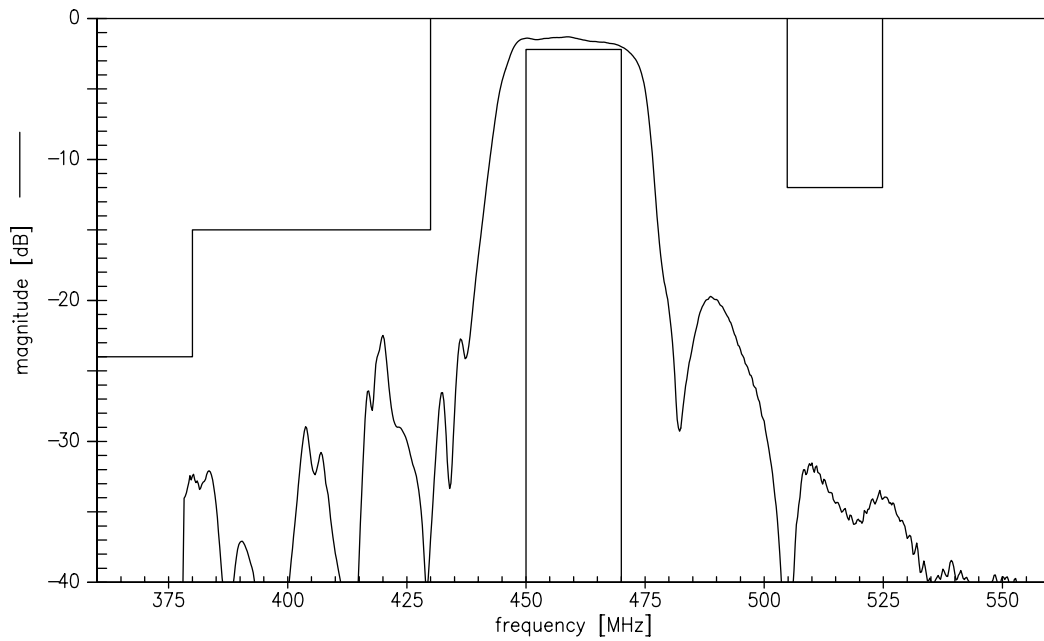

**Maximum ratings**

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

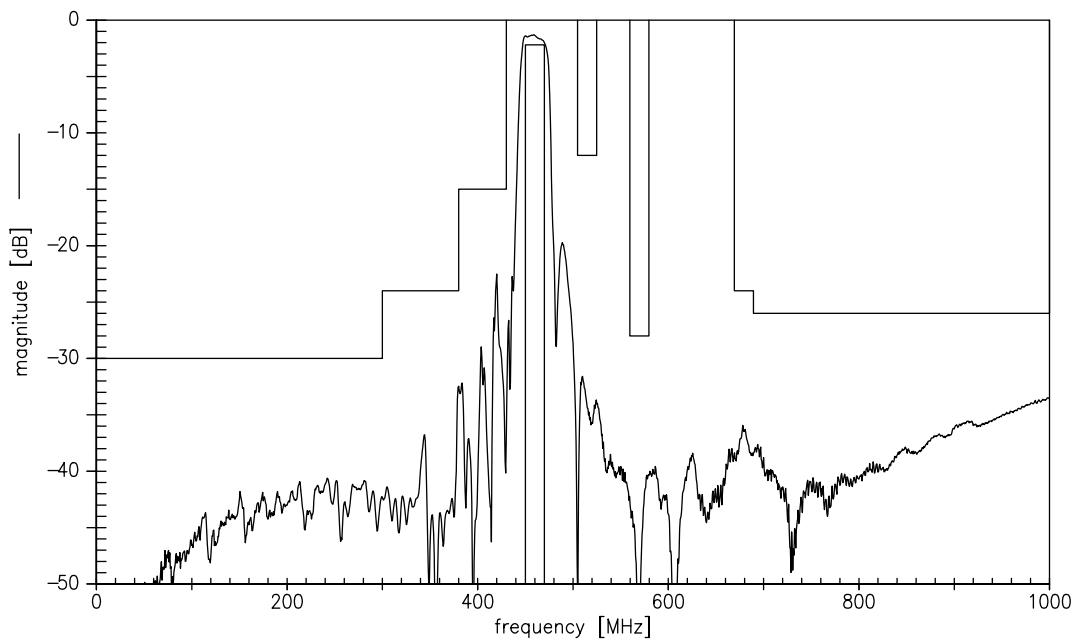
<sup>1)</sup> acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



Transfer function (narrowband)



Transfer function (wideband)

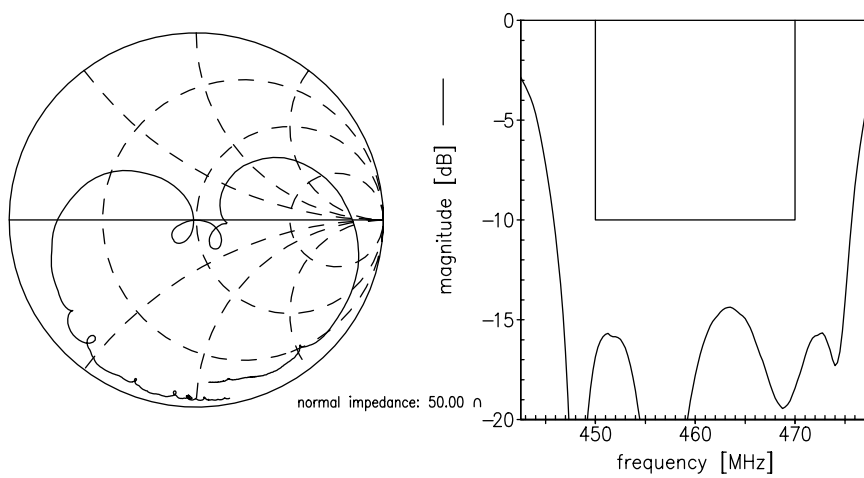


Data Sheet

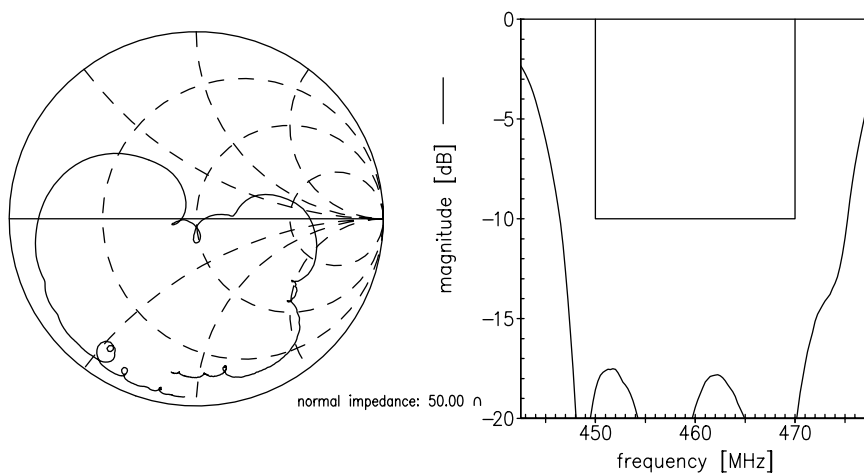


Smith chart

S<sub>11</sub> function



S<sub>22</sub> function





**SAW Components**

**B5058**

**SAW Rx Filter**

**460.0 MHz**

Data Sheet



**References**

<b>Type</b>	B5058
<b>Ordering code</b>	B39461B5058Z810
<b>Marking and package</b>	C61157-A7-A46
<b>Packaging</b>	F61074-V8167-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B5058_NB.s2p B5058_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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