



SAW Components

SAW Rx Filter

Business Radio

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



Data Sheet



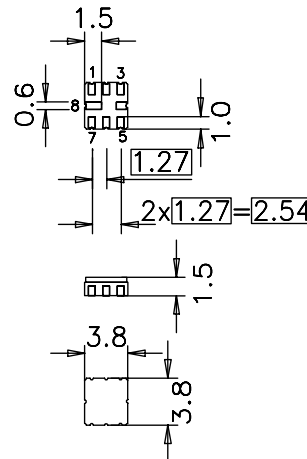
Application

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



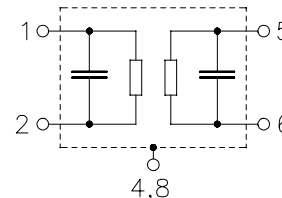
Features

- Package size 3.8 x 3.8 x 1.5 mm³
- 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

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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.	
Center frequency	f_C	—	460.0	—	MHz
Maximum insertion attenuation	α_{max}	—	2.0	3.2 ¹⁾	dB
450.0 ... 470.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.7	2.4 ²⁾	dB
450.0 ... 470.0 MHz					
Input return loss		10.0	14.5	—	dB
450.0 ... 470.0 MHz					
Output return loss		10.0	17.5	—	dB
450.0 ... 470.0 MHz					
Attenuation	α				
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
Temperature coefficient of frequency	TC_f	—	-70	—	ppm/K

¹⁾ 2.2 dB at 25 °C.

²⁾ 1.4 dB at 25 °C.



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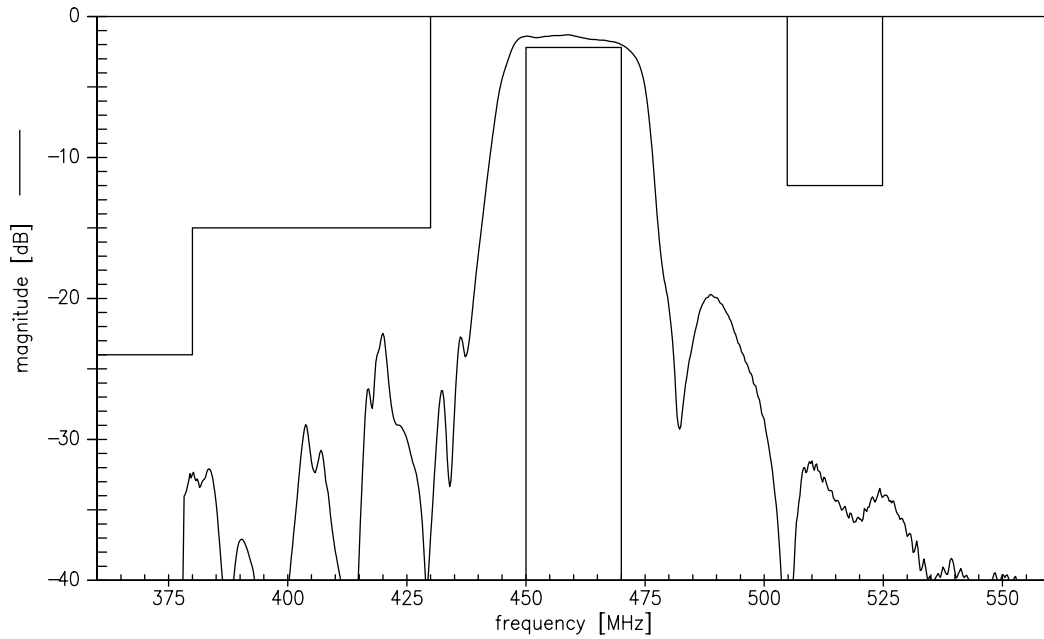
Maximum ratings

Operable temperature range	T	-40 / +85	°C	
Storage temperature range	T _{stg}	-40 / +85	°C	
DC voltage	V _{DC}	5	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	machine model, 10 pulses
Input Power at 450.0 ... 470.0 MHz	P _{IN}	10	dBm	continuous wave

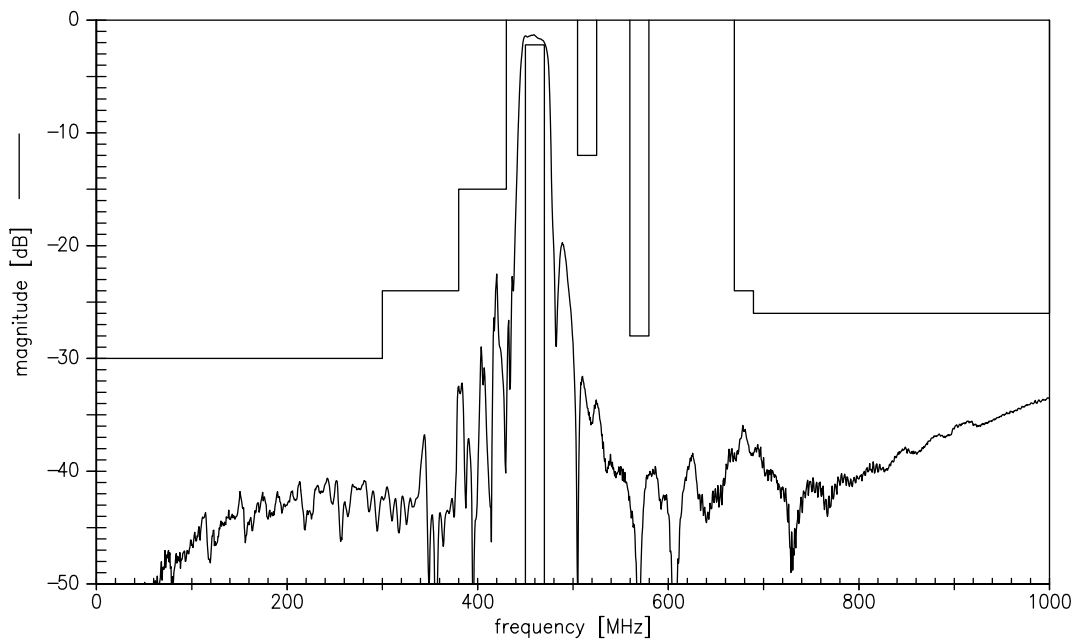
¹⁾ acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.



Transfer function (narrowband)



Transfer function (wideband)



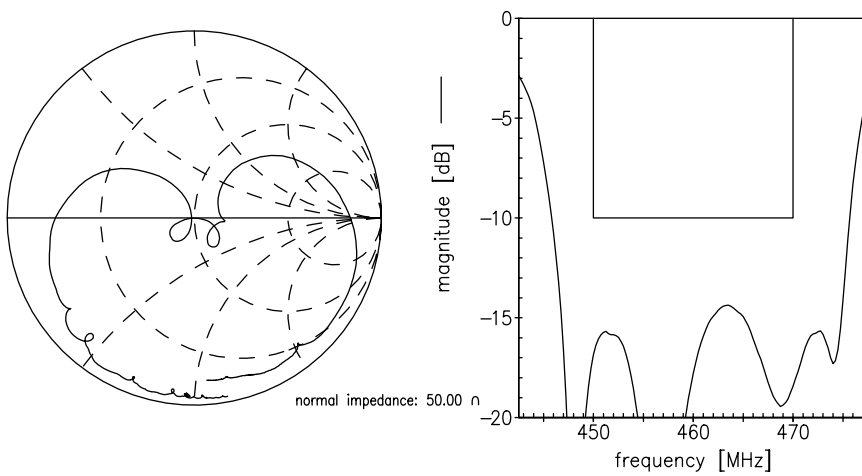


Data Sheet

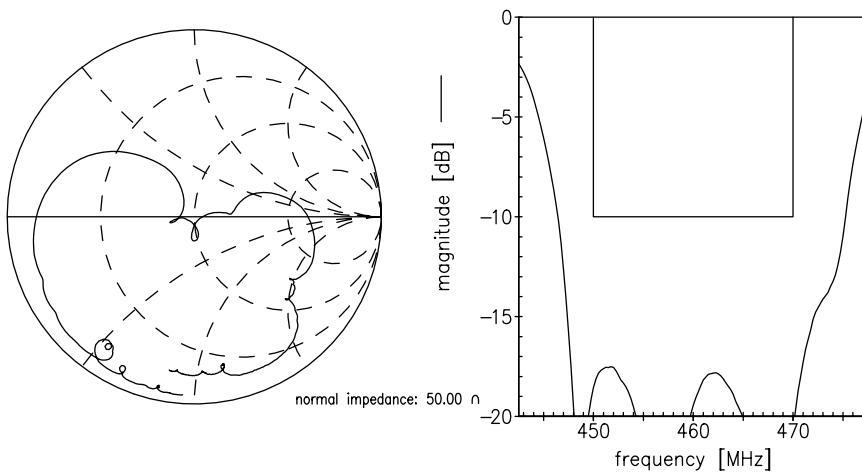


Smith chart

S₁₁ function



S₂₂ function





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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 .

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