SAW Components

SAW Rx Filter

Business Radio

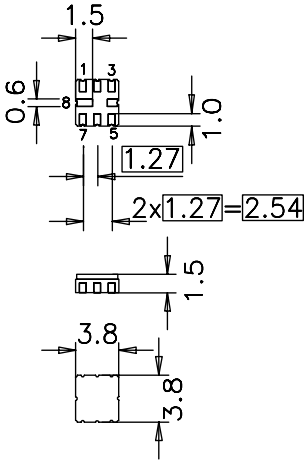
Series/type:	**B5058**
Ordering code:	**B39461B5058Z810**
Date:	March 22, 2007
Version:	2.0

Application

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

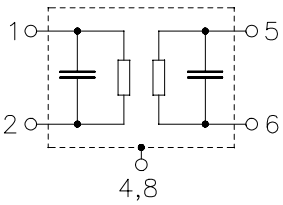
Features

- Package size 3.8 x 3.8 x 1.5 mm³
- Package code QCC8B
- Approx. weight 0.07 g
- Ceramic package for **S**urface **M**ount **T**echnology (**SMT**)
- RoHS compliant
- Ni, gold-plated
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)



Pin configuration

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



Data Sheet SMD

Characteristics

Temperature range for specification: T = -30 to +60˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	460.0	—	MHz
Maximum insertion attenuation	α_{max}				
450.0 ... 470.0 MHz		—	2.0	3.2 [1]	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
450.0 ... 470.0 MHz		—	0.7	2.4 [2]	dB
Input return loss					
450.0 ... 470.0 MHz		10.0	14.5	—	dB
Output return loss					
450.0 ... 470.0 MHz		10.0	17.5	—	dB
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

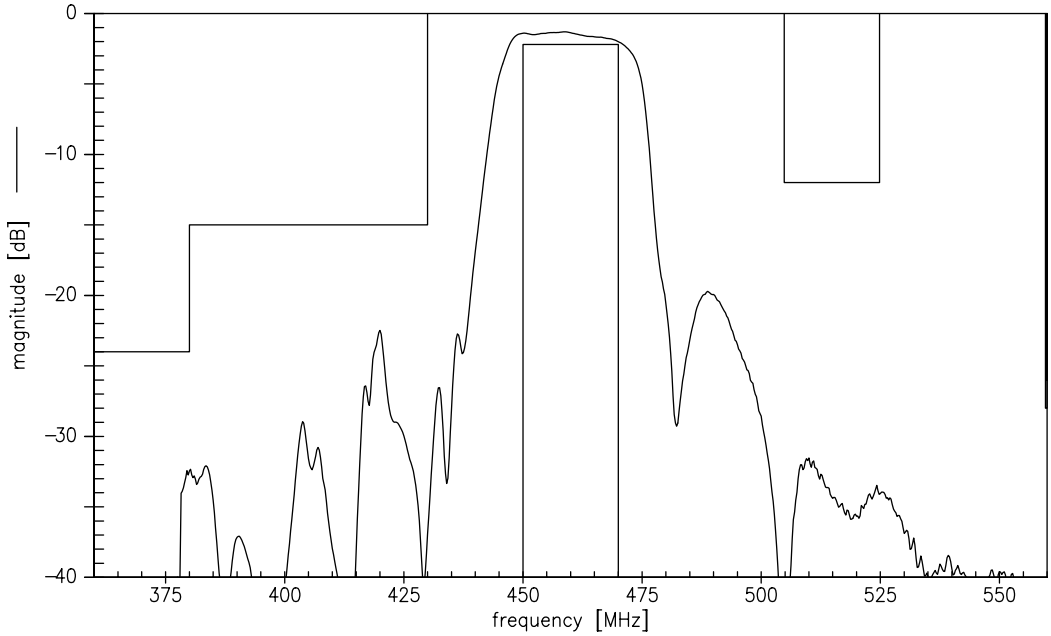
[1] 2.2 dB at 25 ˚C.
[2] 1.4 dB at 25 ˚C.

Maximum ratings

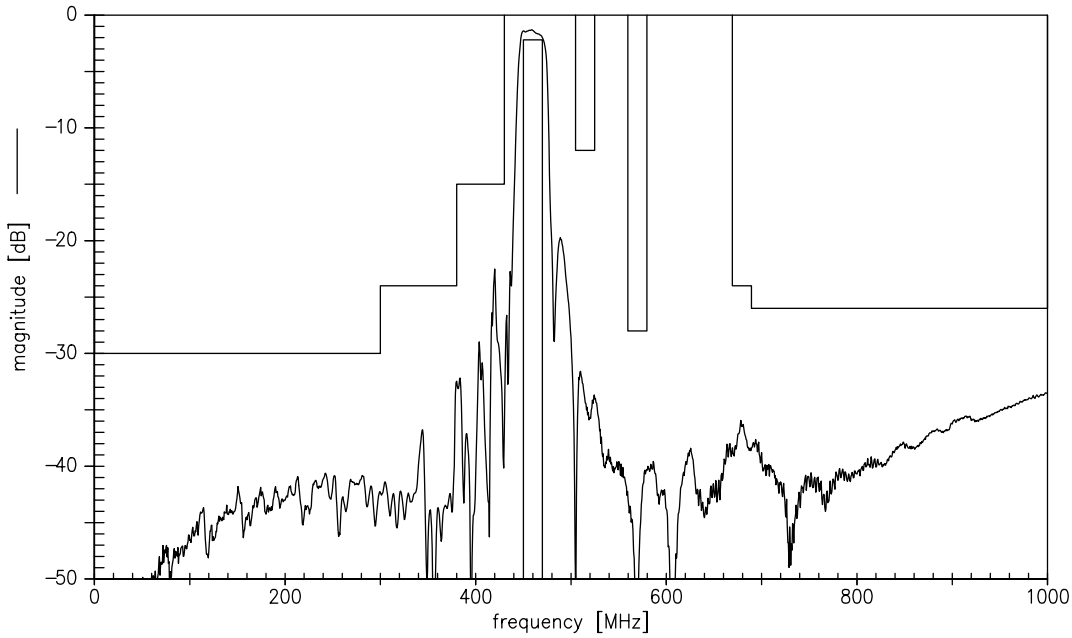
Operable temperature range	T	-40 / +85	˚C	
Storage temperature range	T_{stg}	-40 / +85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100 [1)]	V	machine model, 10 pulses
Input Power at 450.0 ... 470.0 MHz	P_{IN}	10	dBm	continuous wave

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

Transfer function (narrowband)

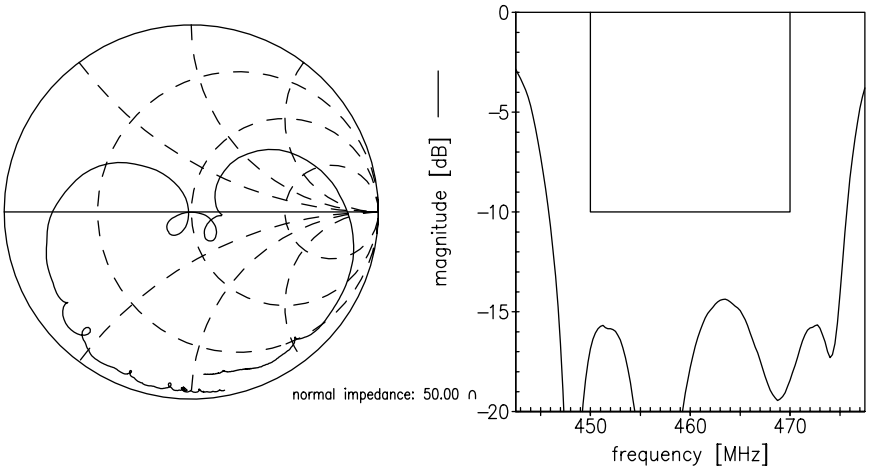


Transfer function (wideband)

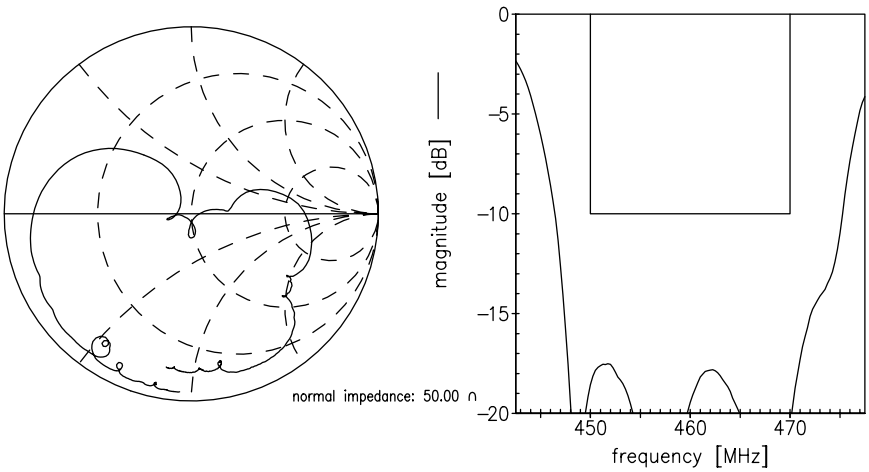


Smith chart

S_{11} function



S_{22} function



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."

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