



SAW filters for infrastructure systems

Series/Type: B5211

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39141B5211Z510		2012-01-13	2012-12-31	2013-03-30

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.



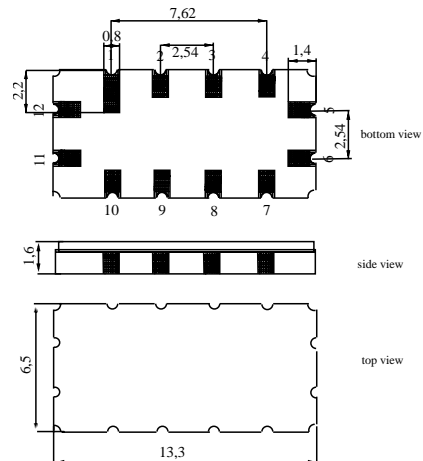
Application

- Low-loss IF filter for RadioLink
- Usable passband 17.6 MHz



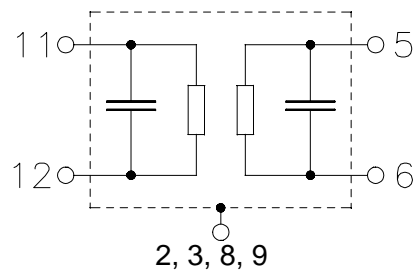
Features

- Package size 13.3 x 6.5 x 1.6 mm³
- Package code QCC12
- RoHS compatible
- Approximate weight 0.44 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

- 11 Input
- 12 Input ground
- 5 Output
- 6 Output ground
- 1, 4, 7, 10 To be grounded
- 2, 3, 8, 9 Case ground





SAW Components

B5211

SAW IF filter

140 MHz

Data Sheet



Characteristics

Temperature range for specification: $T = -5\text{ °C to }+80\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$ and matching network
 Terminating load impedance: $Z_L = 50\ \Omega$ and matching network

		min.	typ. @ 25 °C	max.	
Nominal frequency	f_N	—	140	—	MHz
Minimum insertion attenuation (including matching network)	α_{\min}	—	8.7	10	dB
Passband width					
	$\alpha_{\text{rel}} \leq 3.0\text{ dB}$ $B_{3.0\text{dB}}$	22	24.7	—	MHz
	$\alpha_{\text{rel}} \leq 40.0\text{ dB}$ $B_{40\text{dB}}$	—	32	60	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
	$f_N \pm 8.8\text{ MHz}$	—	0.6	1.0	dB
	$f_N \pm 11.0\text{ MHz}$	—	1.0	3.0	dB
Group delay ripple (p-p)	$\Delta\tau$				
	$f_N \pm 8.8\text{ MHz}$	—	35	160	ns
Relative attenuation (relative to α_{\min})	α_{rel}				
	$f_N - 130.0\text{ MHz} \dots f_N - 30.0\text{ MHz}$	40	47	—	dB
	$f_N + 30.0\text{ MHz} \dots f_N + 370.0\text{ MHz}$	40	46	—	dB
Temperature coefficient of frequency	TC_f	—	-87	—	ppm/K

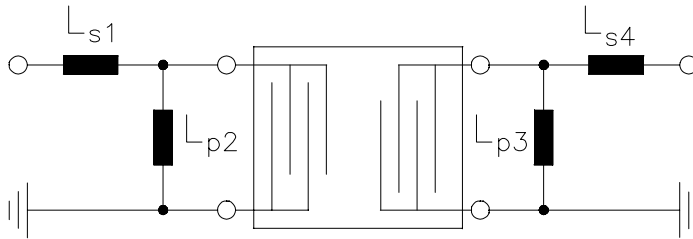


Data Sheet



Matching network to 50 Ω

(Element values depend upon PCB layout)



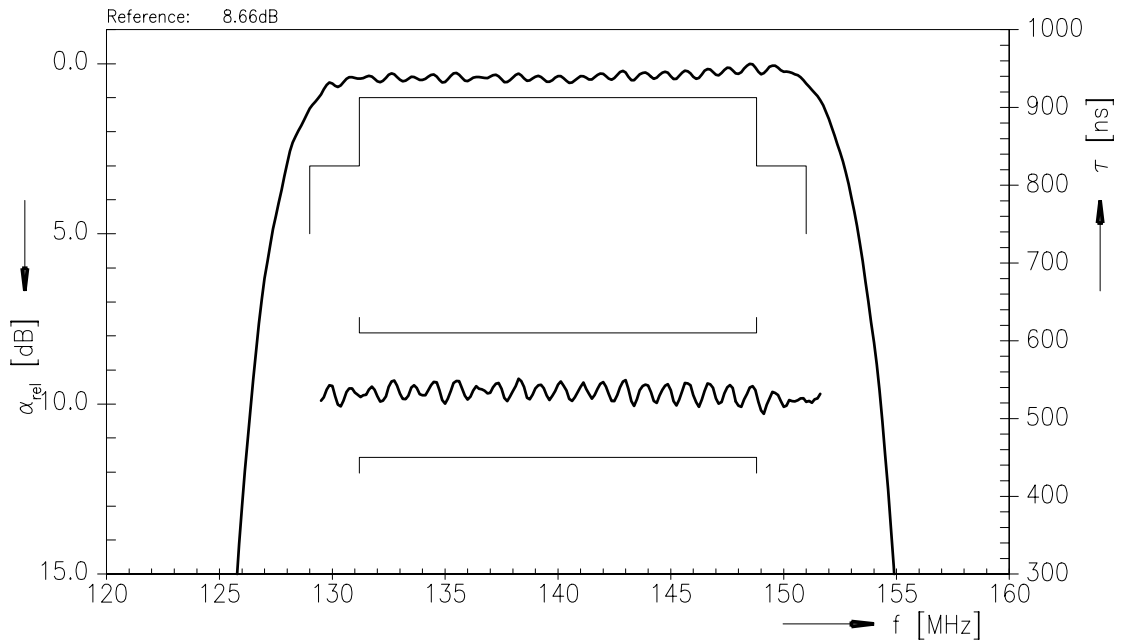
- $L_{s1} = 56 \text{ nH}$
- $L_{p2} = 39 \text{ nH}$
- $L_{p3} = 47 \text{ nH}$
- $L_{s4} = 47 \text{ nH}$

Maximum ratings

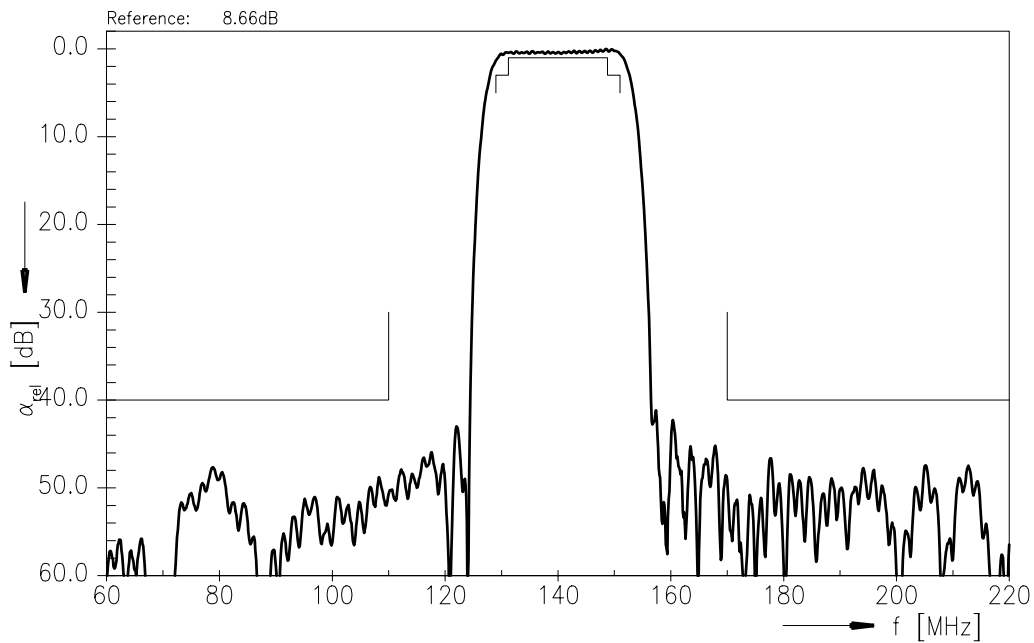
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
Input Power	P _{IN}	10	dBm	



Transfer function (S21, Narrowband)



Transfer function (S21, Wideband)





SAW Components	B5211
SAW IF filter	140 MHz

Data Sheet



References

Type	B5211
Ordering code	B39141B5211Z510
Marking and package	C61157-A7-A55
Packaging	F61074-V8163-Z000
Date codes	L_1126
S-parameters	B5211_NB.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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