Filters for Industrial Applications

Series/Type: B4812

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39251B4812Z710		2007-09-21	2007-12-31	2008-03-31

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.

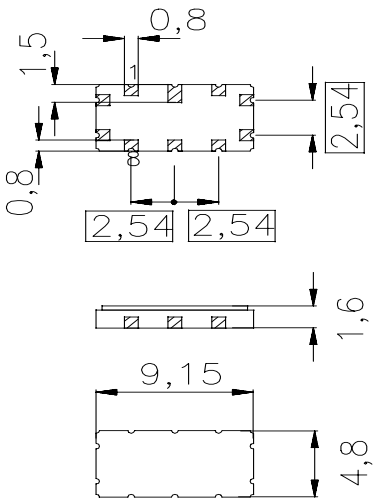
Ceramic package **QCC10B**

Features

- Low-loss IF filter for mobile telephone
- Channel selection in GSM systems
- Hermetically sealed ceramic SMD package
- Balanced and unbalanced operation possible

Terminals

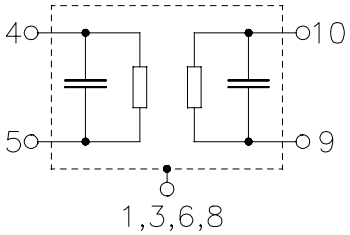
- Gold-plated Ni



Dimensions in mm, approx. weight 0,23 g

Pin configuration

4	Input
5	Input ground or balanced input
9	Output
10	Output ground or balanced output
1, 3, 6, 8	Case – ground
2, 7	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B4812	B39251-B4812-Z710	C61157-A7-A49	F61074-V8127-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	– 25/+ 85	˚C
Storage temperature range	T_{stg}	– 25/+ 85	˚C
DC voltage	V_{DC}	0	V
Source power	P_s	10	dBm

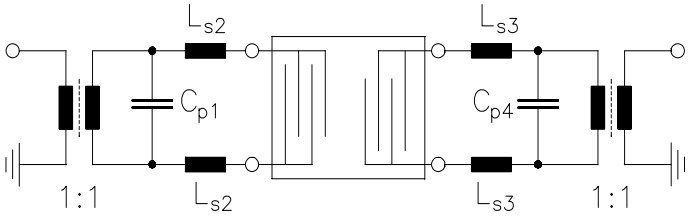
Characteristics

Reference temperature: T = 25 °C
Terminating source impedance: Z_S = 700 Ohm || -2,6 pF
Terminating load impedance: Z_L = 700 Ohm || -2,6 pF

		min.	typ.	max.	
Nominal frequency	f_N	—	246,01	—	MHz
Minimum insertion attenuation (including loss in matching coils)	α_{min}	2,0	3,2	5,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
f_N - 67,5 kHz ... f_N + 67,5 kHz		—	0,6	2,0	dB
f_N - 80,0 kHz ... f_N + 80,0 kHz		—	0,7	3,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
f_N - 50,0 kHz ... f_N + 50,0 kHz		—	0,5	1,5	µs
f_N - 80,0 kHz ... f_N + 80,0 kHz		—	1,2	3,0	µs
Relative attenuation (relative to α_{min})	α_{rel}				
f_N - 25,00 MHz ... f_N - 3,00 MHz		50	60	—	dB
f_N - 3,00 MHz ... f_N - 1,60 MHz		48	60	—	dB
f_N - 1,60 MHz ... f_N - 0,60 MHz		38	50	—	dB
f_N - 0,60 MHz ... f_N - 0,40 MHz		28	40	—	dB
f_N - 0,40 MHz ... f_N - 0,20 MHz		8	14	—	dB
f_N + 0,20 MHz ... f_N + 0,40 MHz		8	14	—	dB
f_N + 0,40 MHz ... f_N + 0,60 MHz		28	40	—	dB
f_N + 0,60 MHz ... f_N + 1,60 MHz		38	50	—	dB
f_N + 1,60 MHz ... f_N + 3,00 MHz		48	60	—	dB
f_N + 3,00 MHz ... f_N + 25,00 MHz		50	60	—	dB
Impedance at f_N					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	700 || 2,6	—	Ω || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	700 || 2,6	—	Ω || pF
Temperature coefficient of frequency [1]	TC_f	—	– 0,036	—	ppm/K²
Frequency inversion point	T_0	—	25	—	°C

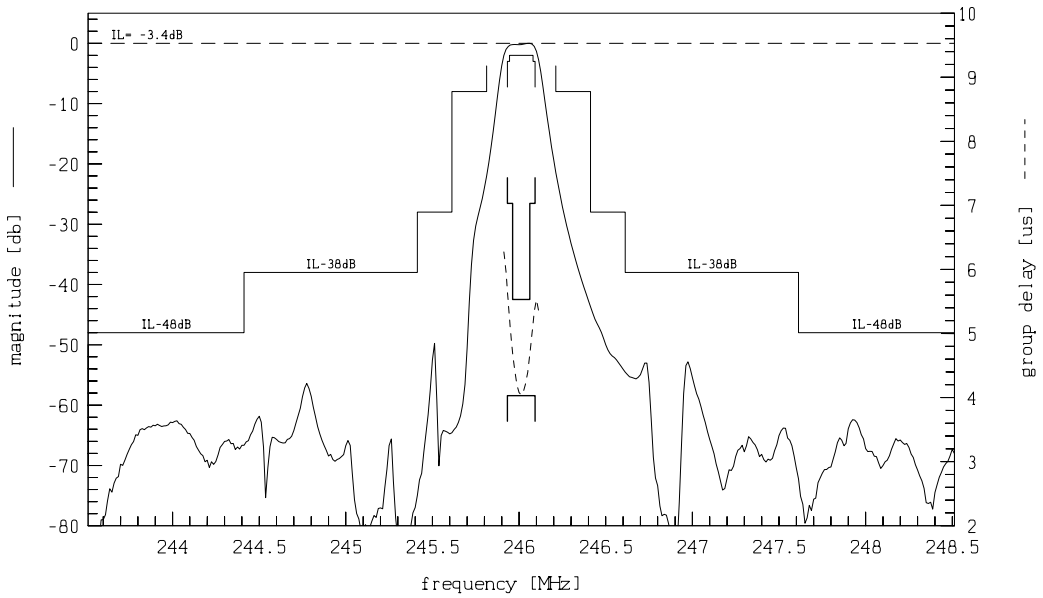
[1] Temperature dependence of f_c: $f_c(T) = f_c(T_0)(1 + TC_f(T - T_0)^2)$

Test matching network to 50 Ω (element values depend on PCB layout):

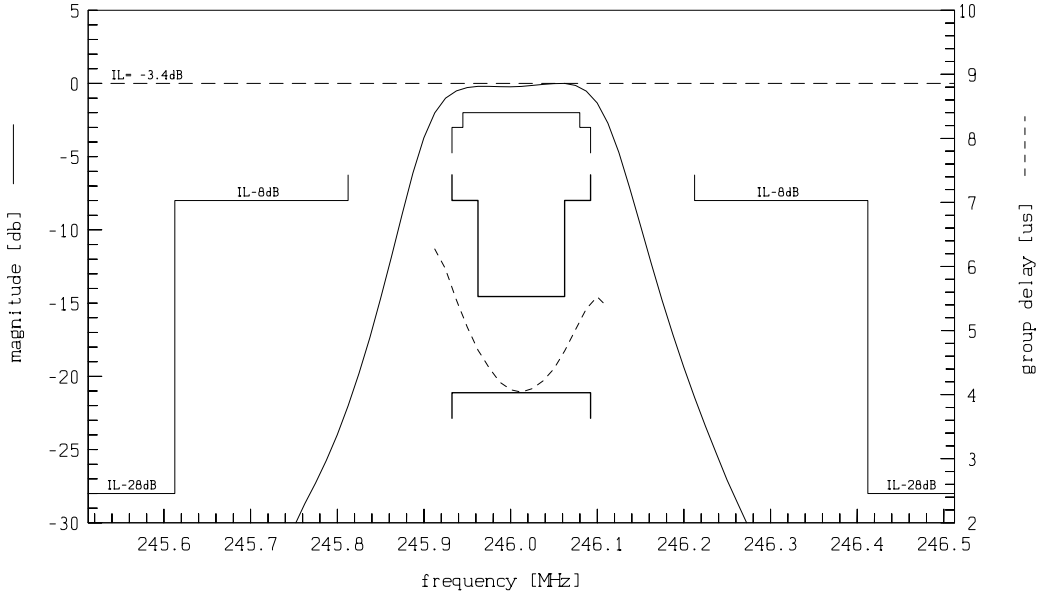


C_{p1} = 1,8 pF
L_{s2} = 56 nH
L_{s3} = 56 nH
C_{p4} = 1,8 pF

Transfer function:



Transfer function (pass band):



Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC WT
P.O. Box 80 17 09, 81617 Munich, GERMANY

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.