Wireless Local Loop/Broadband Access Filters

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39111B4540Z710		2006-12-01	2007-02-28	2007-05-31

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.

EPCOS

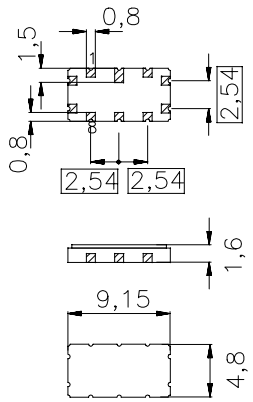
SAW Components

Data Sheet B4540

Ceramic package **QCC10B**

Features

- Bandpass IF filter for cordless telephone
- Channel selection in DECT system
- Ceramic package for **S**urface **M**ounted **T**echnology **(SMT)**



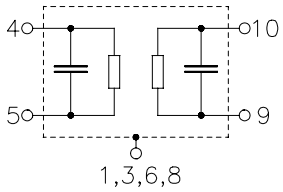
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,23 g

Pin configuration

10	Input
9	Input ground or balanced input
5	Output
4	Output ground or balanced output
1,3,6,8	Case - ground
2,7	Not connected



Type	Ordering code	Marking and Package according to	Packing according to
B4540	B39111-B4540-Z710	C61157-A7-A49	F61074-V8035-Z000

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

Maximum ratings

Operable temperature range	T	– 40/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	source impedance 50 Ω

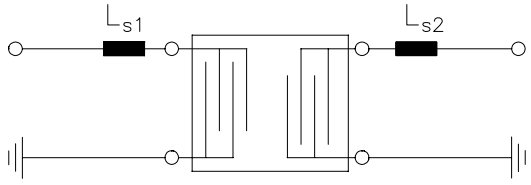
Characteristics

Operating temperature range: T = -40 to + 85 °C
Terminating source impedance: Z_S = 1,1 kΩ || 390 nH
Terminating load impedance: Z_L = 0,9 kΩ || 340 nH

		min.	typ.	max.	
Nominal frequency	f_N	—	112,32	—	MHz
Insertion attenuation at f_N (including losses in matching network) Reference level for the following data	α_N	—	13,5	15,0	dB
Pass bandwidth	B_{3dB}	—	1,6	—	MHz
Group delay ripple (p-p)	$\Delta\tau$				
f_N -700,0 kHz .. f_N+700,0 kHz		—	100	150	ns
Relative attenuation (relative to α_N)	α_{rel}				
f_N – 30,00 MHz ... f_N – 6,32 MHz		45	59	—	dB
f_N – 6,32 MHz ... f_N – 4,00 MHz		40	53	—	dB
f_N – 4,00 MHz ... f_N – 1,72 MHz		30	42	—	dB
f_N + 1,72 MHz ... f_N + 4,00 MHz		30	41	—	dB
f_N + 4,00 MHz ... f_N + 6,00 MHz		40	50	—	dB
f_N + 6,00 MHz ... f_N + 8,00 MHz		35	41	—	dB
f_N + 8,00 MHz ... f_N + 30,00 MHz		40	45	—	dB
f_N + 17,28 MHz		45	57	—	dB
Impedance at f_N					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	3,9 || 5,0	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	3,3 || 6,1	—	kΩ || pF
Temperature coefficient of frequency [1]	TC_f	—	– 0,03	—	ppm/K²
Turnover temperature	T_0	—	30	—	°C

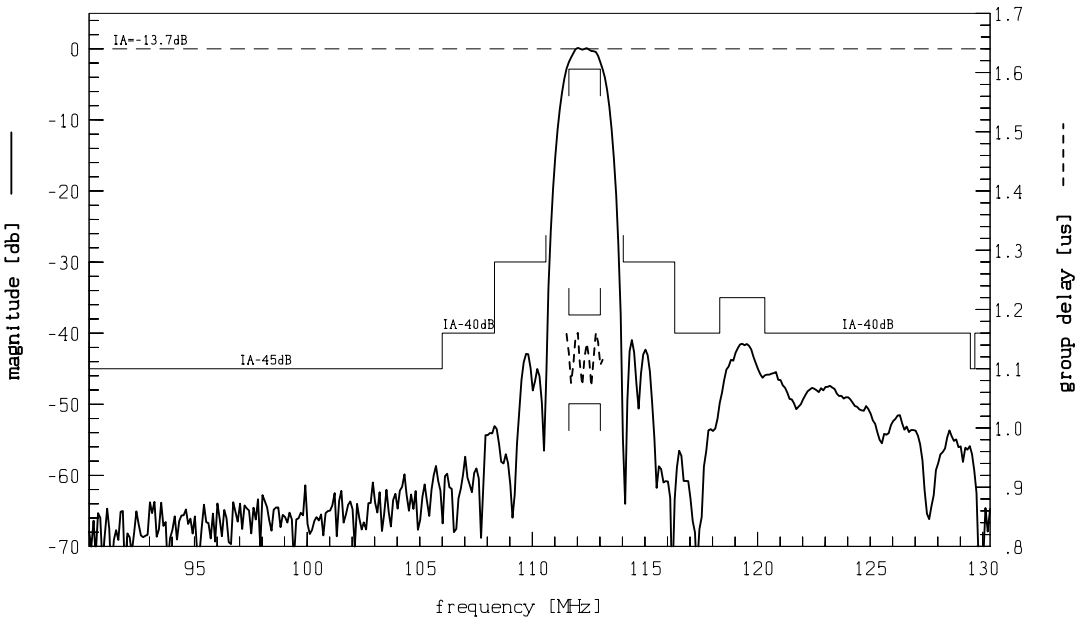
[1] Temperature dependance of f_c: $f_c(T) = f_c(T_0)(1 + TC_f(T - T_0)^2)$

Matching network to 50 Ω (element values depend on pcb layout)

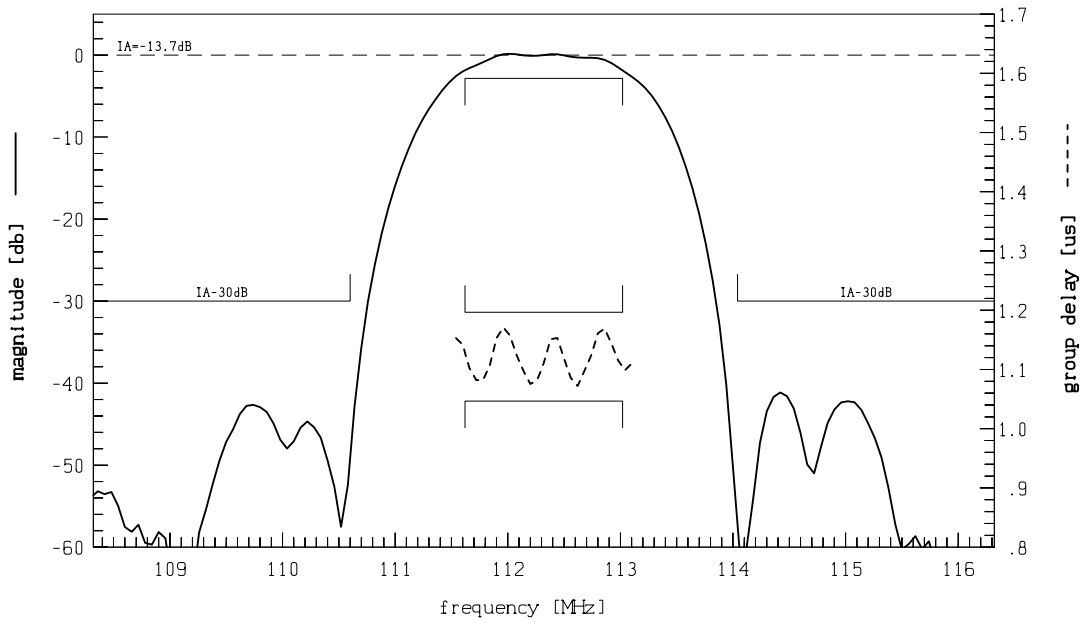


L_{s1} = 330 nH
L_{s2} = 270 nH

Transfer function



Transfer function (pass band)



Published by EPCOS AG
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