



Wireless Local Loop/Broadband Access Filters

Series/Type: **B4540**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39111B4540Z710		2001-05-25	2001-06-30	2001-09-30

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.



Withdrawn Products

The following products presented in this data sheet are being withdrawn:

B39111B4540Z710

Date of withdrawal: 25-MAY-01

Deadline for last orders: 30-JUN-01

Last shipments: 30-SEP-01

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of the sales offices are given on the Internet at www.epcos.com/sales.



SAW Components

Data Sheet B4540





SAW Components

B4540

Bandpass Filter for Mobile Communication

112,32 MHz

Data Sheet

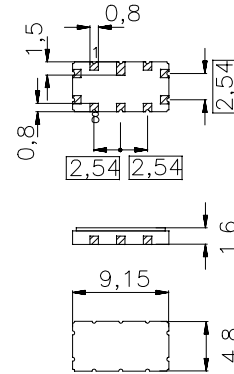
Ceramic package QCC10B

Features

- Bandpass IF filter for cordless telephone
- Channel selection in DECT system
- Ceramic package for **Surface Mounted Technology (SMT)**

Terminals

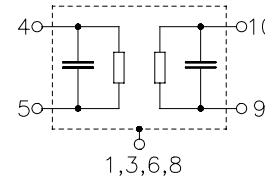
- Ni, gold-plated



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 Sensitive Device (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



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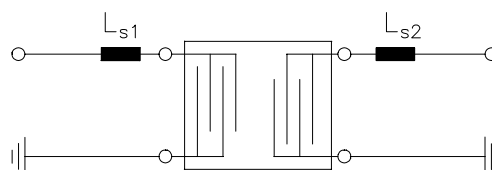
Characteristics

Operating temperature range: $T = -40$ to $+85$ °C
 Terminating source impedance: $Z_S = 1,1 \text{ k}\Omega \parallel 390 \text{ nH}$
 Terminating load impedance: $Z_L = 0,9 \text{ k}\Omega \parallel 340 \text{ nH}$

		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) $f_N - 700,0 \text{ kHz} \dots f_N + 700,0 \text{ kHz}$	$\Delta\tau$	—	100	150	ns
Relative attenuation (relative to α_N)	α_{rel}				
$f_N - 30,00 \text{ MHz} \dots f_N - 6,32 \text{ MHz}$		45	59	—	dB
$f_N - 6,32 \text{ MHz} \dots f_N - 4,00 \text{ MHz}$		40	53	—	dB
$f_N - 4,00 \text{ MHz} \dots f_N - 1,72 \text{ MHz}$		30	42	—	dB
$f_N + 1,72 \text{ MHz} \dots f_N + 4,00 \text{ MHz}$		30	41	—	dB
$f_N + 4,00 \text{ MHz} \dots f_N + 6,00 \text{ MHz}$		40	50	—	dB
$f_N + 6,00 \text{ MHz} \dots f_N + 8,00 \text{ MHz}$		35	41	—	dB
$f_N + 8,00 \text{ MHz} \dots f_N + 30,00 \text{ MHz}$		40	45	—	dB
$f_N + 17,28 \text{ MHz}$		45	57	—	dB
Impedance at f_N					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	3,9 \parallel 5,0	—	k Ω \parallel pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	3,3 \parallel 6,1	—	k Ω \parallel pF
Temperature coefficient of frequency ¹⁾	TC_f	—	- 0,03	—	ppm/K ²
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)

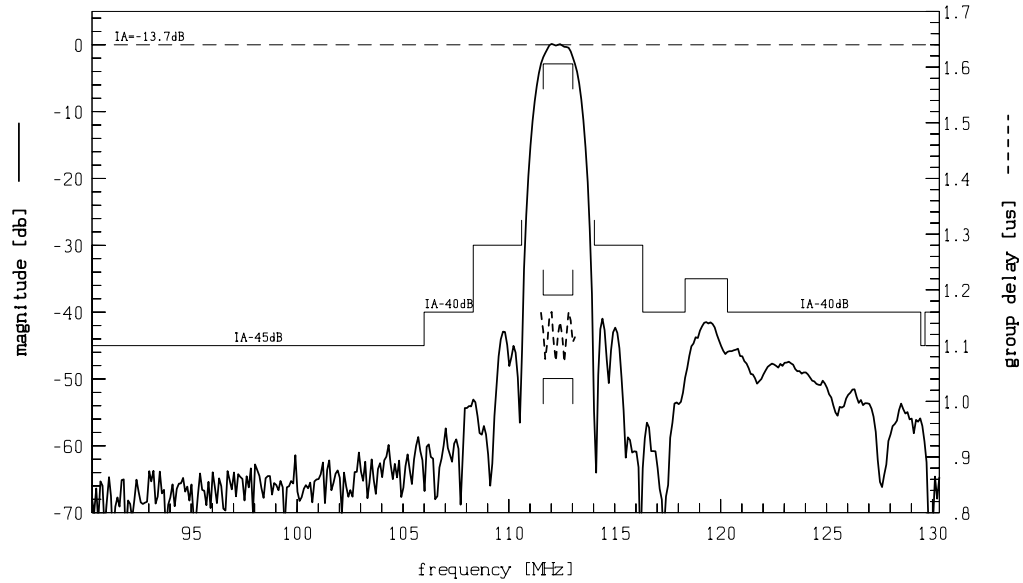


$L_{s1} = 330 \text{ nH}$
 $L_{s2} = 270 \text{ nH}$

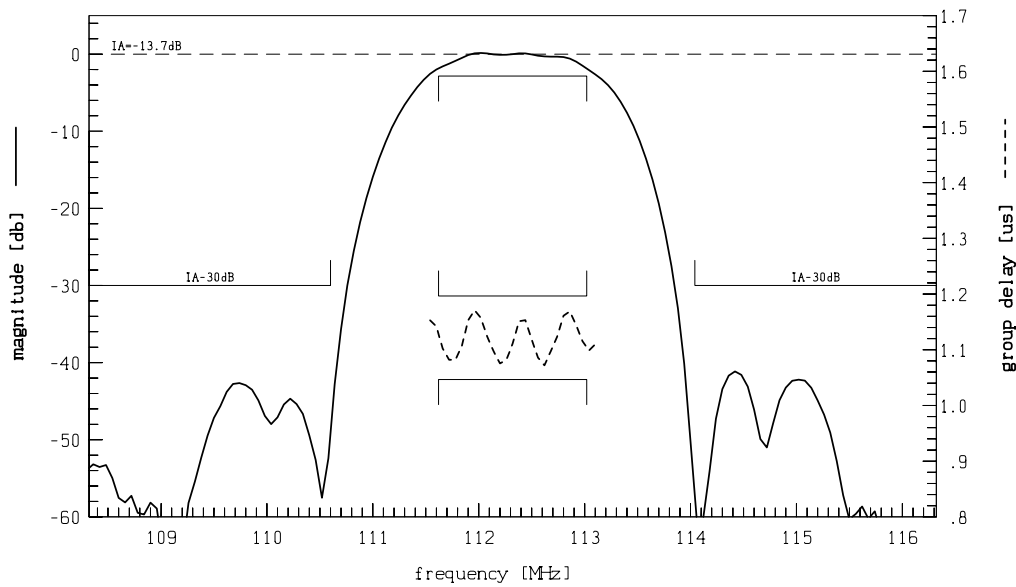


Data Sheet

Transfer function



Transfer function (pass band)





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For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

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