



SAW Components

Data Sheet B4540

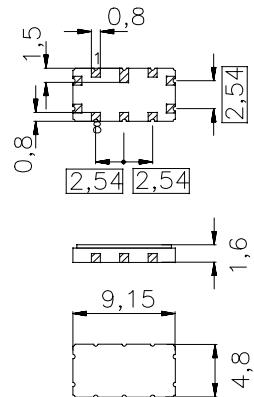
Data Sheet

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

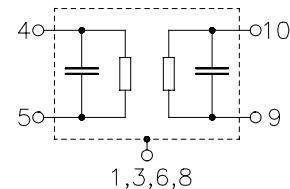
- Ni, gold-plated



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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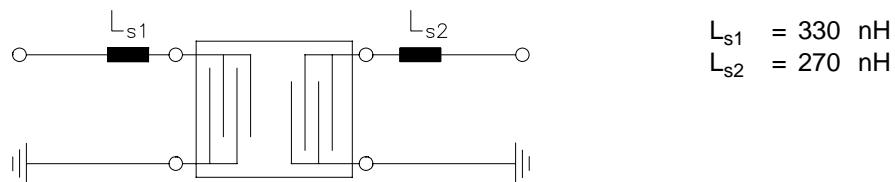
Characteristics

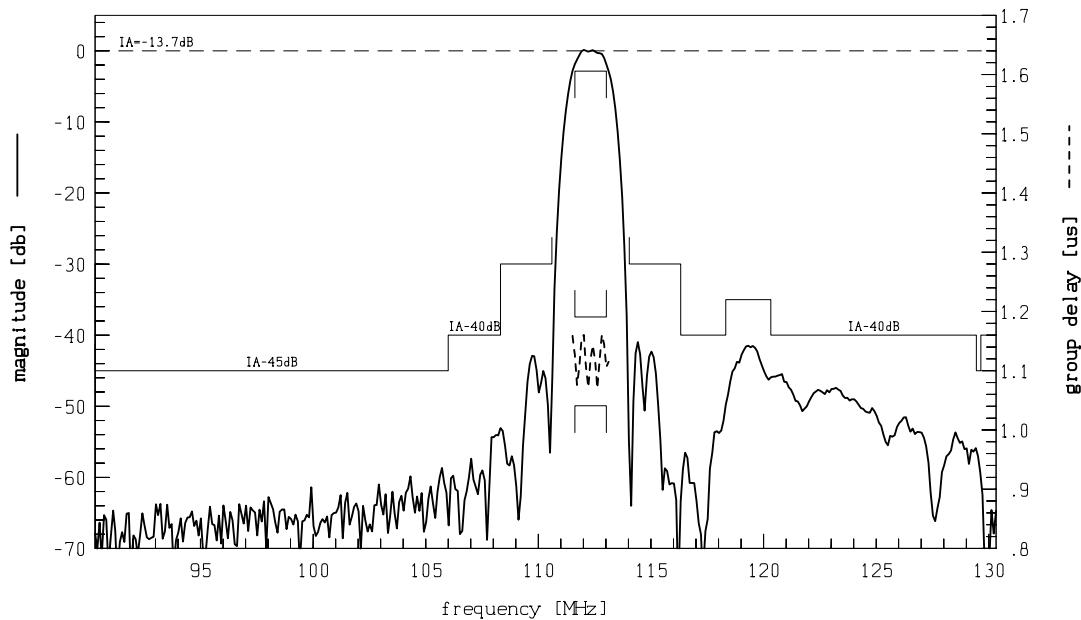
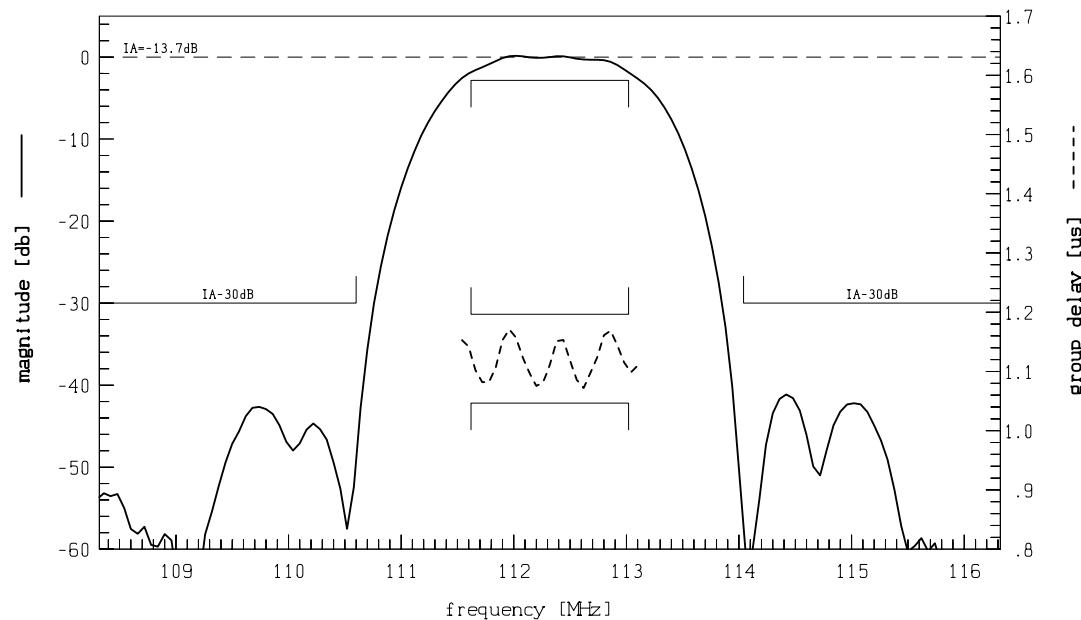
Operating temperature range: $T = -40$ to $+85$ °C
 Terminating source impedance: $Z_S = 1,1$ kΩ || 390 nH
 Terminating load impedance: $Z_L = 0,9$ kΩ || 340 nH

		min.	typ.	max.	
Nominal frequency	f_N	—	112,32	—	MHz
Insertion attenuation at f_N (including losses in matching network)	α_N	—	13,5	15,0	dB
Reference level for the following data					
Pass bandwidth	B_{3dB}	—	1,6	—	MHz
Group delay ripple (p-p) $f_N - 700,0$ kHz .. $f_N + 700,0$ kHz	$\Delta\tau$	—	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: $Z_{IN} = R_{IN} C_{IN}$	—	3,9 5,0	—	—	kΩ pF
Output: $Z_{OUT} = R_{OUT} C_{OUT}$	—	3,3 6,1	—	—	kΩ 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)



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Transfer function

Transfer function (pass band)




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