EPCOS

SAW Components

Data Sheet B3886

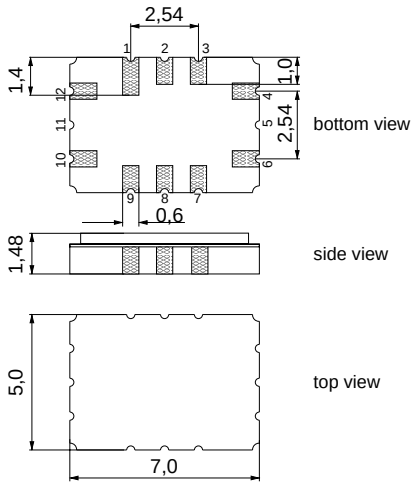
Ceramic package **QCC12C**

Features

- Low-loss IF filter
- Temperature stable
- Ceramic SMD package
- Balanced and unbalanced operation possible

Terminals

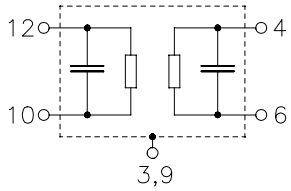
- Gold plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3886	B39121-B3886-H310	C61157-A7-A95	F61074-V8170-Z000

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

Maximum ratings

Operable temperature range	T	–25 / +105	˚C	
Storage temperature range	T_{stg}	–25 / +105	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

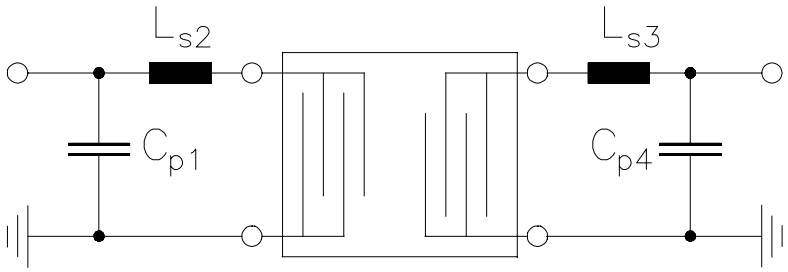
Characteristics

Operating temperature range: T = -25˚C to +85˚C
Terminating source impedance: Z_S = 75 Ω and matching network
Terminating load impedance: Z_L = 75 Ω and matching network

		min.	typ.	max.	
Center frequency	f_C	120,50	121,00	121,5	MHz
Minimum insertion attenuation (including loss in matching elements)	α_{min}	—	10,2	11,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
f_C - 750 kHz ... f_C + 750 kHz		—	0,5	1,2	dB
Passband width					
$\alpha_{rel} \leq 1{,}0$ dB	$B_{1,0dB}$	—	2,6	—	MHz
$\alpha_{rel} \leq 3{,}0$ dB	$B_{3,0dB}$	2,6	3,5	—	MHz
$\alpha_{rel} \leq 35{,}0$ dB	B_{35dB}	—	7,0	8,0	MHz
Relative attenuation (relative to α_{min})	α_{rel}				
5,0 MHz ... 81,0 MHz		45	60	—	dB
81,0 MHz ... 117,0 MHz		35	45	—	dB
125,0 MHz ... 151,0 MHz		35	45	—	dB
151,0 MHz ... 862,0 MHz		45	60	—	dB
Impedance at f_C					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	263 ‖ 28	—	Ω || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	263 ‖ 23	—	Ω || pF
VSWR (Input and Output) $f_c \pm 750$ kHz		—	1,8	—	
Temperature coefficient of frequency	TC_f	—	– 18	—	ppm/K

Matching network to 75 Ω

(Element values depend upon PCB layout)



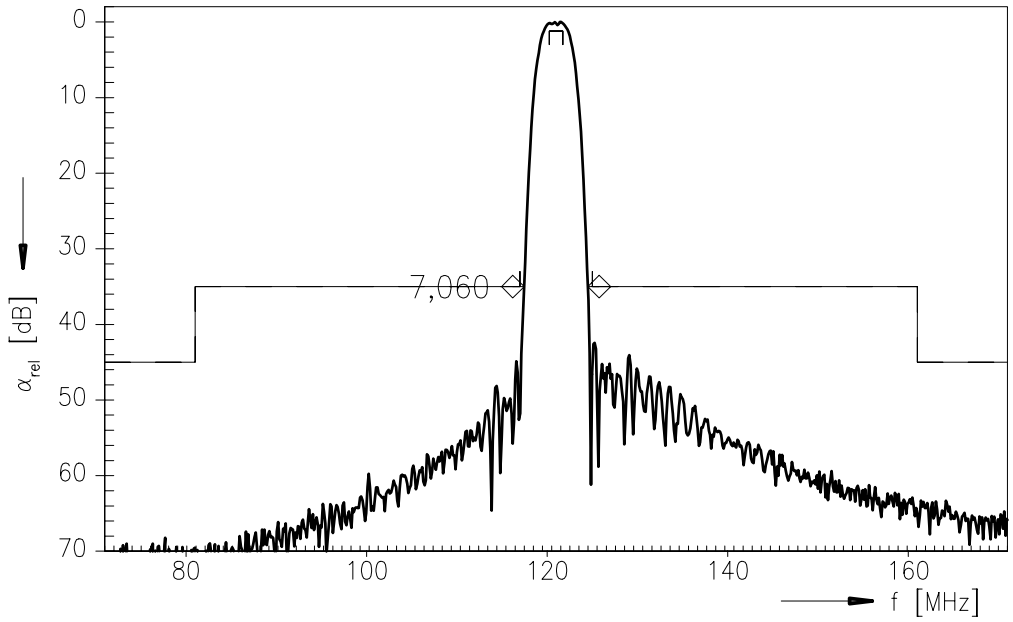
C_{p1} = 47 pF

L_{s2} = 82 nH

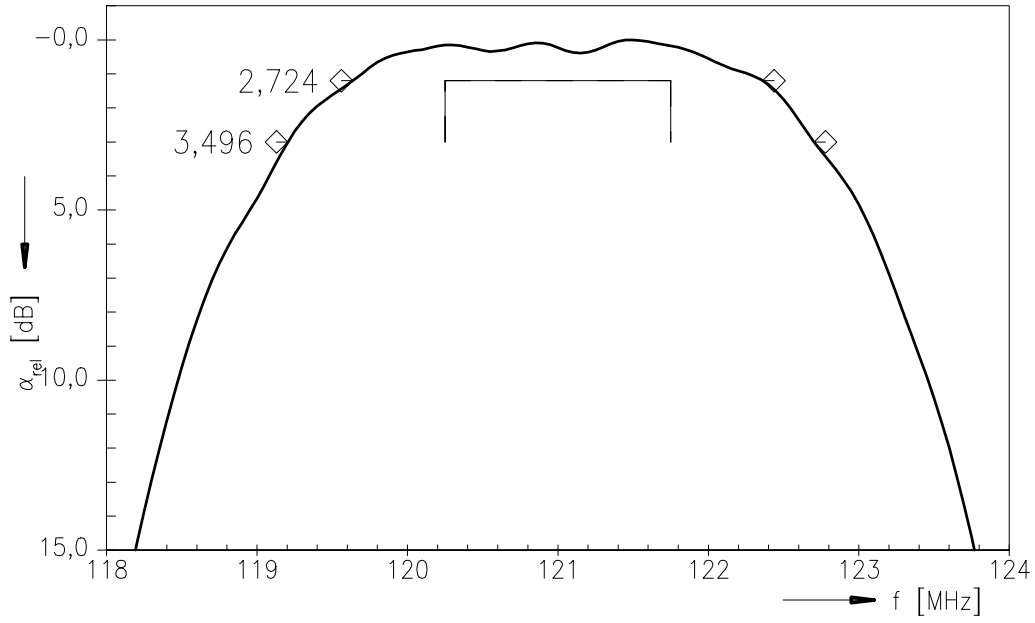
L_{s3} = 100 nH

C_{p4} = 33 pF

Transfer function:



Transfer function (pass band):



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