EPCOS

SAW Components

Data Sheet B5006

Data Sheet

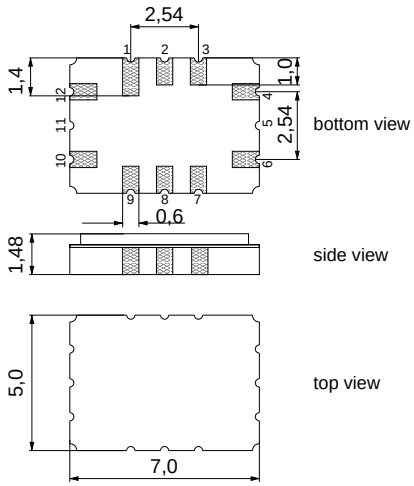
Ceramic package **QCC12C**

Features

- Low-loss IF filter for W-CDMA base station
- High near-by selectivity
- Temperature stable
- Balanced or unbalanced operation possible
- Ceramic SMD package

Terminals

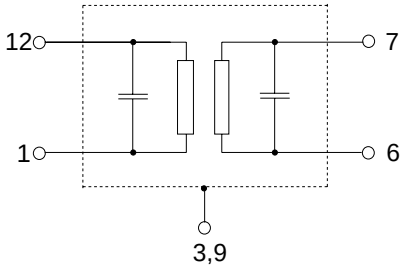
- Gold plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B5006	B39191-B5006-H310	C61157-A7-A95	F61074-V8170-Z000

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

Maximum ratings

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

Characteristics

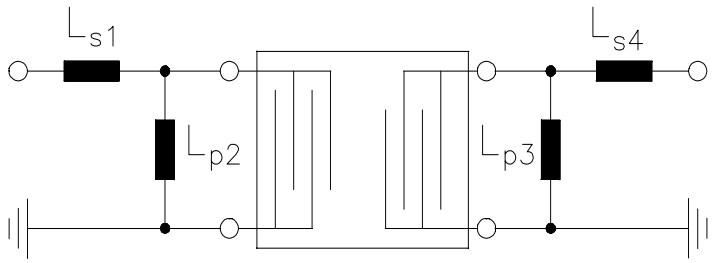
Operating temperature range: T_A = -10 ... +85 °C
Terminating source impedance: Z_S = 50 Ω and matching network
Terminating load impedance: Z_L = 50 Ω and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	190,0	—	MHz
Minimum insertion attenuation	α_{min}	—	10,9	12,0	dB
Passband width					
$\alpha_{rel} \leq 1$ dB	$B_{1,0dB}$	3,84	4,1	—	MHz
$\alpha_{rel} \leq 30$ dB	B_{30dB}	—	6,4	—	MHz
Amplitude ripple (p-p)	$\Delta\alpha$				
$f_N \pm 1{,}92$ MHz		—	0,5	1,0	dB
Phase ripple (rms)	$\Delta\varphi$				
$f_N \pm 1{,}92$ MHz		—	0,8	—	° rms
Error vector magnitude	*EVM*				
$f_N \pm 1{,}92$ MHz		—	2,0	—	%
Adjacent channel suppression	*ACS*				
$f_N \pm 3{,}08$ MHz ... $f_N \pm 6{,}92$ MHz		—	35	—	dB
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N \pm 5$ MHz ... $f_N \pm$ 100 MHz		40	48	—	dB
Temperature coefficient of frequency[1]	TC_f	—	–0,036	—	ppm/K²
Turnover temperature	T_0	—	20	—	°C

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

Matching network to 50 Ω

(element values depend on PCB layout)



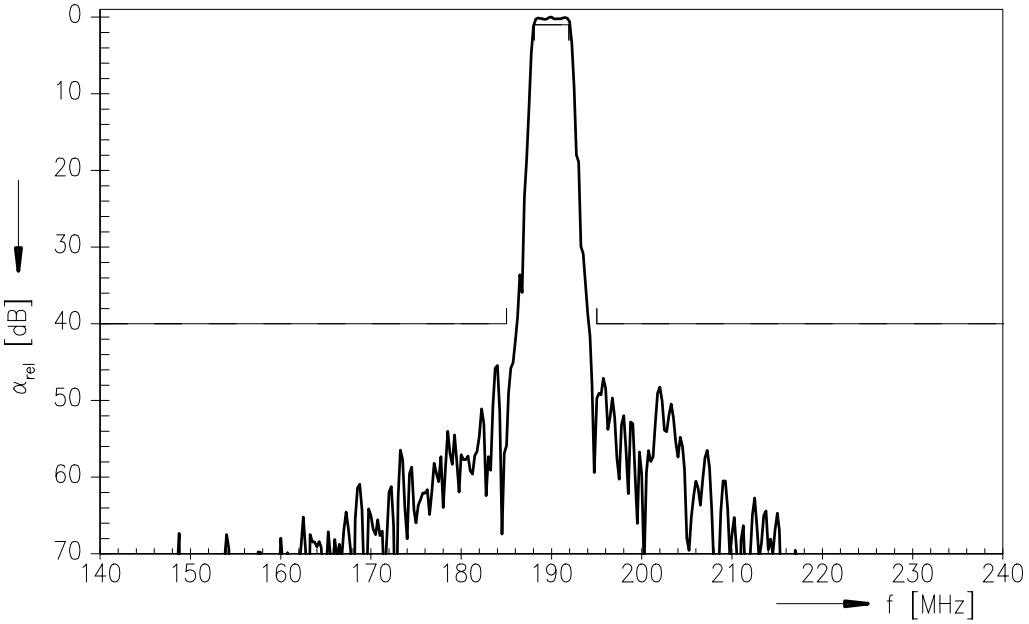
L_{s1} = 47 nH + 220 nH

L_{p2} = 150 nH

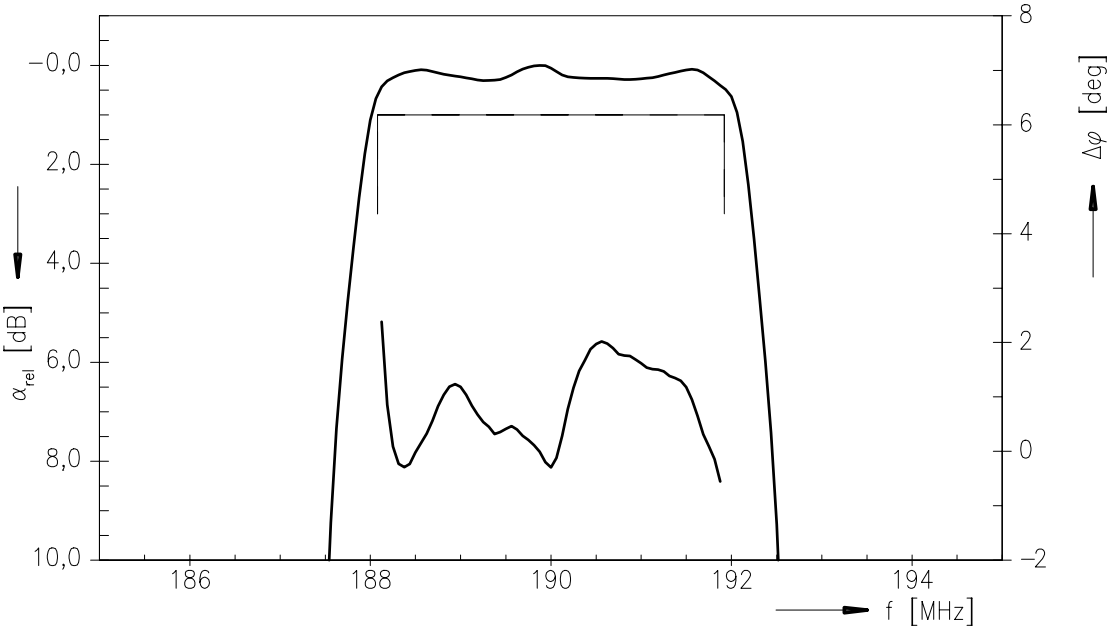
L_{p3} = 150 nH

L_{s4} = 330 nH + 68 nH

Transfer function



Transfer function (pass band)



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