EPCOS

SAW Components

Data Sheet B3895

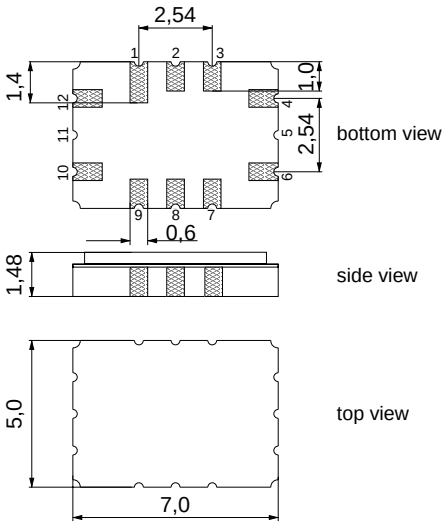
Ceramic package **QCC12C**

Features

- Low-loss IF filter for S-CDMA applications
- 500 kHz usable bandwidth
- Temperature stable
- Ceramic SMD package

Terminals

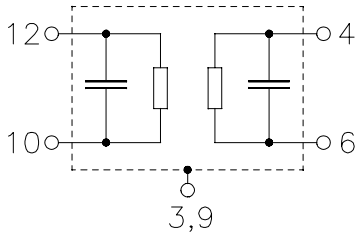
- Gold plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

12	Input
10	Input ground
6	Output
4	Output ground
1, 2, 7, 8	Ground
3, 9	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B3895	B39201-B3895-H310	C61157-A7-A95	F61074-V8170-Z000

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

Maximum ratings

Operable temperature range	T	–40 / +80	˚C	
Storage temperature range	T_{stg}	–40 / +85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_S	0	dBm	

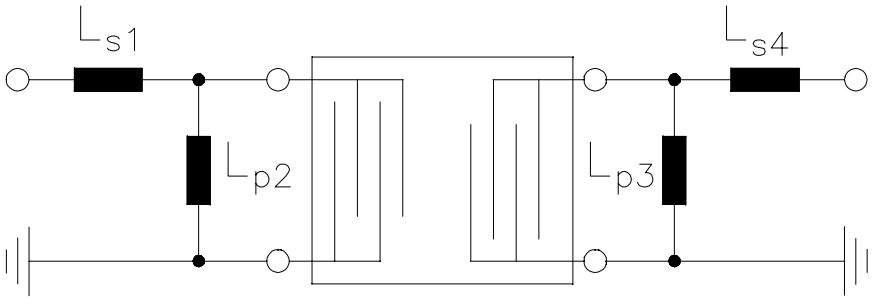
Characteristics

Operating temperature range: T = 0 .. 70 °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	—	204,0	—	MHz
Minimum insertion attenuation	α_{min}	—	9,0	10,0	dB
Pass bandwidth					
α_{rel} ≤ 1,0 dB	B_{1dB}	—	700	—	kHz
α_{rel} ≤ 3,0 dB	B_{3dB}	—	1150	—	kHz
Amplitude ripple (p-p)	Δα				
f_N ± 250 kHz		—	0,5	1,0	dB
Absolute group delay	τ				
@ f_N		—	0,8	—	µs
Group delay ripple (p-p)	Δτ				
f_N ± 250 kHz		—	30	100	ns
Relative attenuation (relative to α_{min})	α_{rel}				
f_N – 10,0 MHz ... f_N – 2,0 MHz		45	48	—	dB
f_N + 2,0 MHz ... f_N + 3,5 MHz		45	50	—	dB
f_N + 3,5 MHz ... f_N + 4,5 MHz		44	46	—	dB
f_N + 4,5 MHz ... f_N + 10,0 MHz		45	48	—	dB
Temperature coefficient of frequency [1]	TC_f	—	–0,036	—	ppm/K²
Turnover temperature	T_0	—	35	—	°C

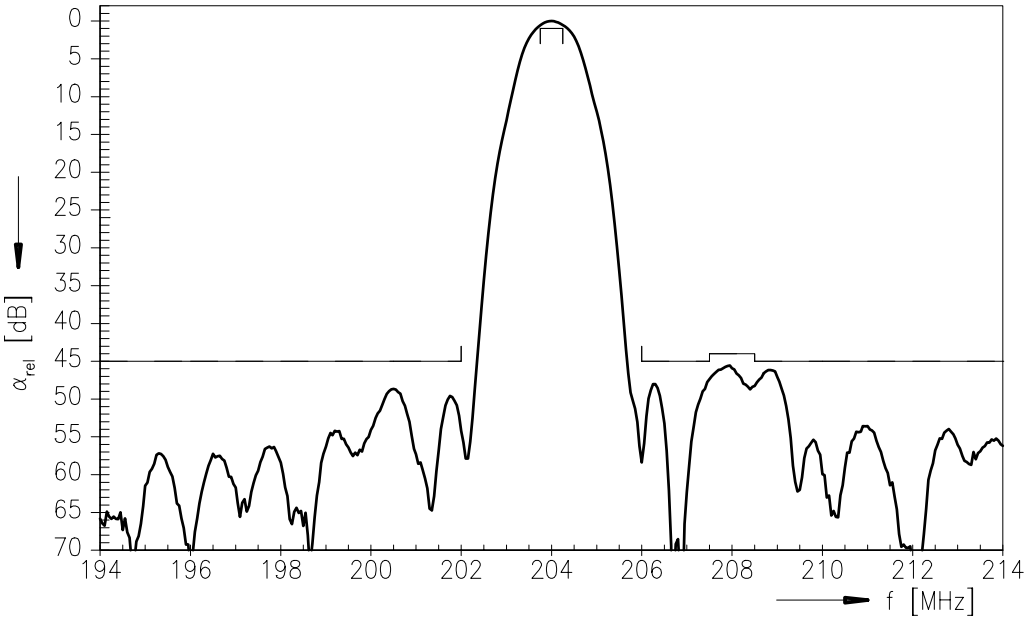
[1] Temperature dependance of f_c: $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

Matching network to 50 Ω (Element values depend on PCB layout)

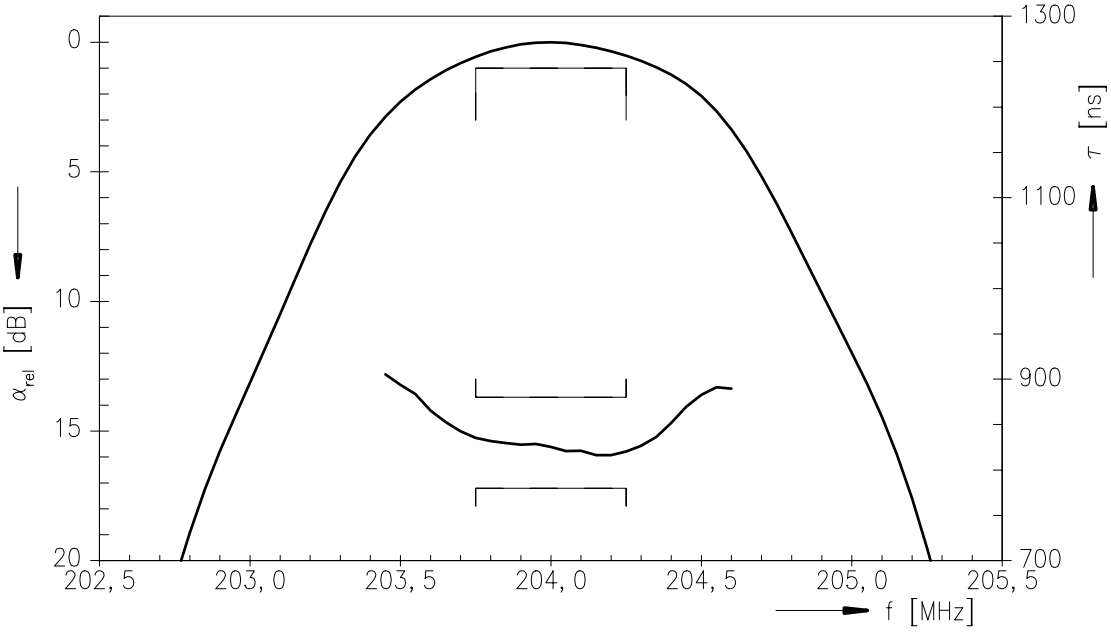


L_{s1} = 150 nH
L_{p2} = 120 nH
L_{p3} = 150 nH
L_{s4} = 100 nH

Normalized frequency response



Normalized frequency response (pass band)



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