



SAW Components

Data Sheet B3895





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B3895

Low-Loss Filter

204,0 MHz

Data Sheet

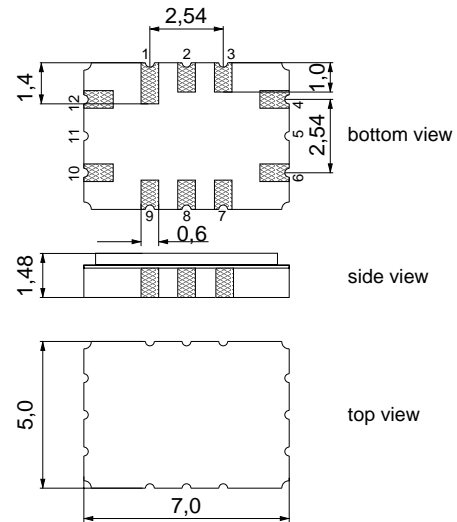
Ceramic package QCC12C

Features

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

Terminals

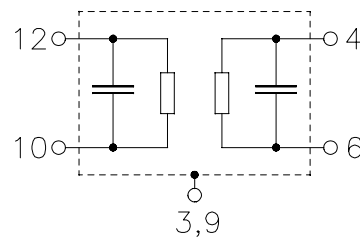
- Gold plated



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 Sensitive Device (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	


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Characteristics

Operating temperature range:

 $T = 0 \dots 70 \text{ }^\circ\text{C}$

Terminating source impedance:

 $Z_S = 50 \text{ } \Omega$ and matching network

Terminating load impedance:

 $Z_L = 50 \text{ } \Omega$ and matching network

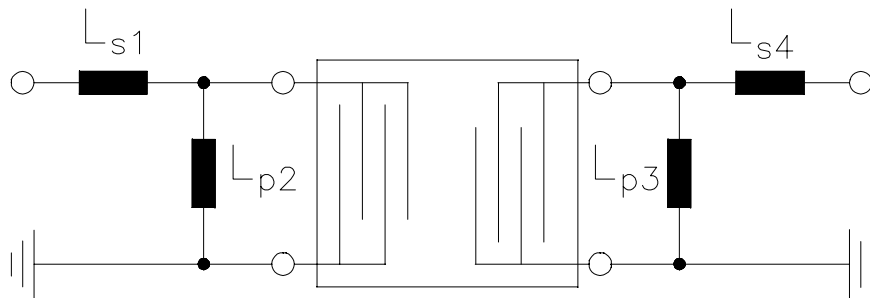
		min.	typ.	max.	
Nominal frequency	f_N	—	204,0	—	MHz
Minimum insertion attenuation	α_{\min}	—	9,0	10,0	dB
Pass bandwidth					
	$\alpha_{\text{rel}} \leq 1,0 \text{ dB}$	$B_{1\text{dB}}$	700	—	kHz
	$\alpha_{\text{rel}} \leq 3,0 \text{ dB}$	$B_{3\text{dB}}$	1150	—	kHz
Amplitude ripple (p-p)	$\Delta\alpha$				
	$f_N \pm 250 \text{ kHz}$	—	0,5	1,0	dB
Absolute group delay	τ				
	@ f_N	—	0,8	—	μs
Group delay ripple (p-p)	$\Delta\tau$				
	$f_N \pm 250 \text{ kHz}$	—	30	100	ns
Relative attenuation (relative to α_{\min})	α_{rel}				
	$f_N - 10,0 \text{ MHz} \dots f_N - 2,0 \text{ MHz}$	45	48	—	dB
	$f_N + 2,0 \text{ MHz} \dots f_N + 3,5 \text{ MHz}$	45	50	—	dB
	$f_N + 3,5 \text{ MHz} \dots f_N + 4,5 \text{ MHz}$	44	46	—	dB
	$f_N + 4,5 \text{ MHz} \dots f_N + 10,0 \text{ MHz}$	45	48	—	dB
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,036	—	ppm/K ²
Turnover temperature	T_0	—	35	—	$^\circ\text{C}$

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



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



$$L_{s1} = 150 \text{ nH}$$

$$L_{p2} = 120 \text{ nH}$$

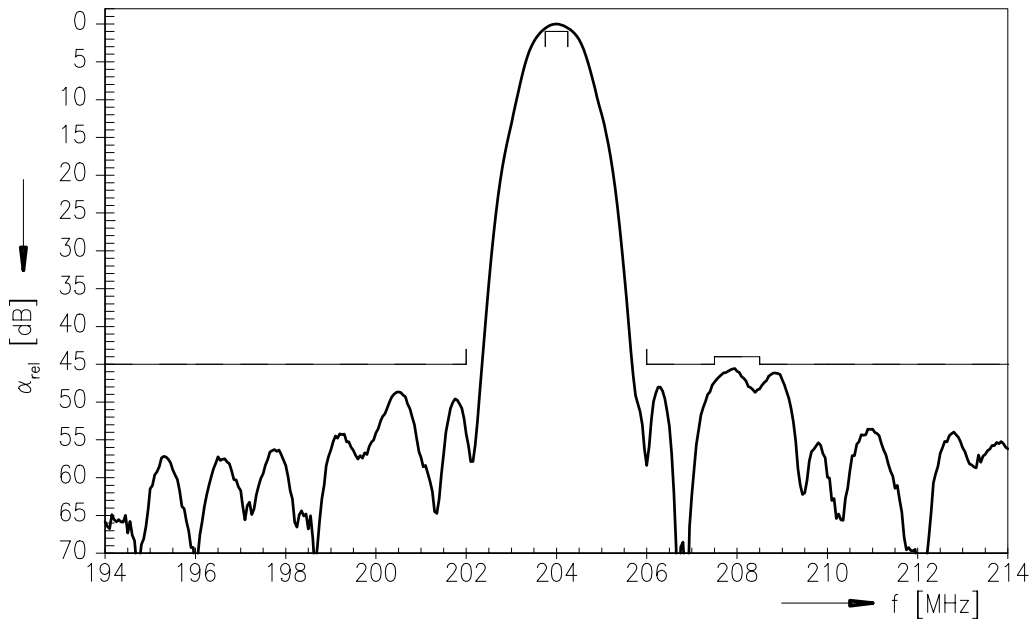
$$L_{p3} = 150 \text{ nH}$$

$$L_{s4} = 100 \text{ nH}$$

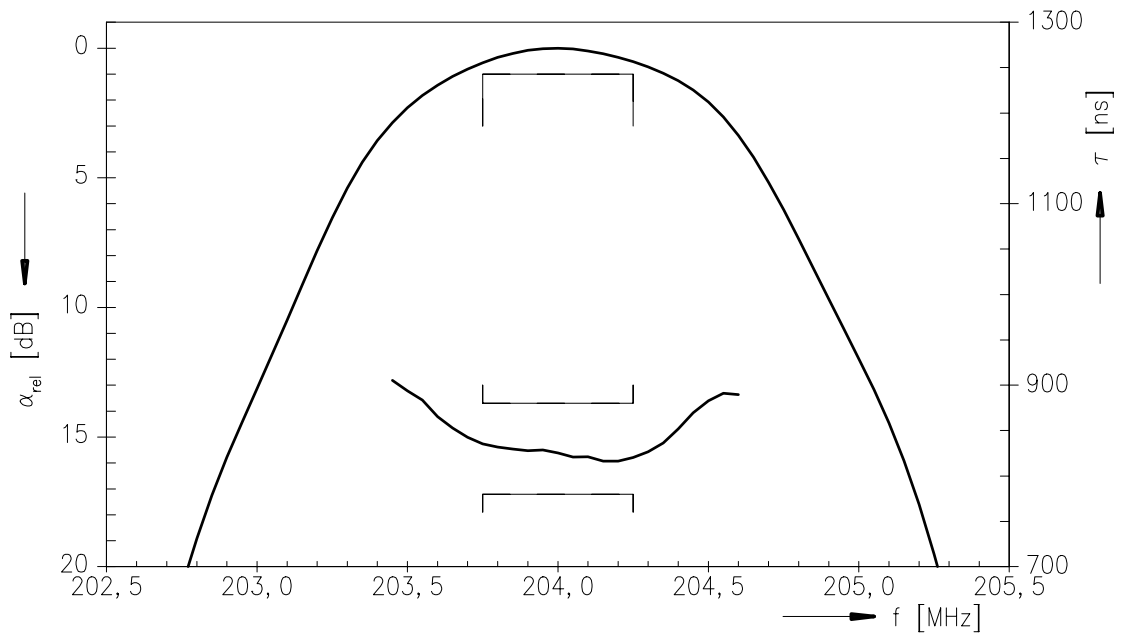


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Normalized frequency response



Normalized frequency response (pass band)





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