

SAW Components

Data Sheet B3671

Data Sheet

EPCOS



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Low-Loss Filter

204,0 MHz

Data Sheet

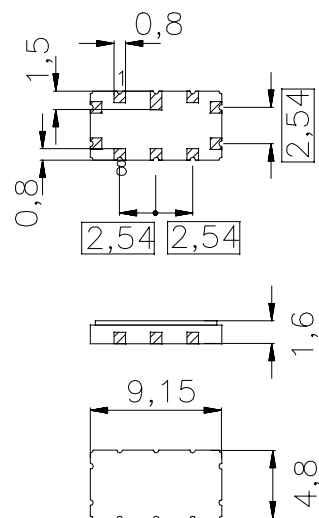
Features

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

Terminals

- Gold plated

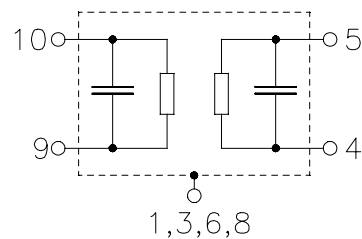
Ceramic package QCC10B



Dimensions in mm, approx. weight 0,2 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3671	B39201-B3671-Z710	C61157-A7-A49	F61074-V8035-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					
$\alpha_{\text{rel}} \leq 1,0 \text{ dB}$	$B_{1\text{dB}}$	—	720	—	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}				
$f_N - 10,0 \text{ MHz} \dots f_N - 3,8 \text{ MHz}$		45	50	—	dB
$f_N - 3,8 \text{ MHz} \dots f_N - 3,2 \text{ MHz}$		44	46	—	dB
$f_N - 3,2 \text{ MHz} \dots f_N - 2,5 \text{ MHz}$		45	50	—	dB
$f_N + 2,5 \text{ MHz} \dots f_N + 2,6 \text{ MHz}$		44	46	—	dB
$f_N + 2,6 \text{ MHz} \dots f_N + 3,5 \text{ MHz}$		45	50	—	dB
$f_N + 3,5 \text{ MHz} \dots f_N + 4,5 \text{ MHz}$		43	45	—	dB
$f_N + 4,5 \text{ MHz} \dots f_N + 10,0 \text{ MHz}$		45	50	—	dB
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,036	—	ppm/K ²
Turnover temperature	T_0	—	35	—	$^{\circ}\text{C}$

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



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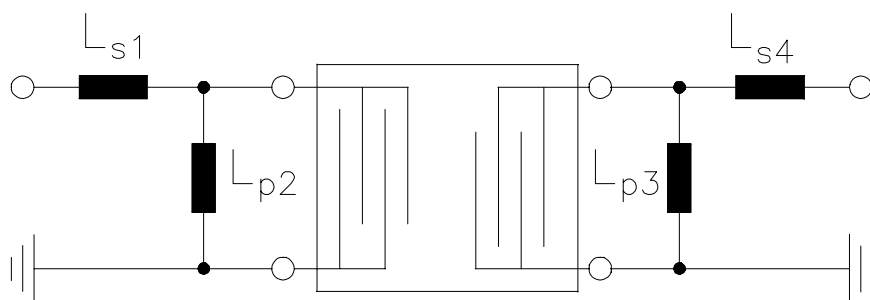
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Matching network to 50 Ω (Element values depend on PCB layout)



$$L_{s1} = 120 \text{ nH}$$

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

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

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



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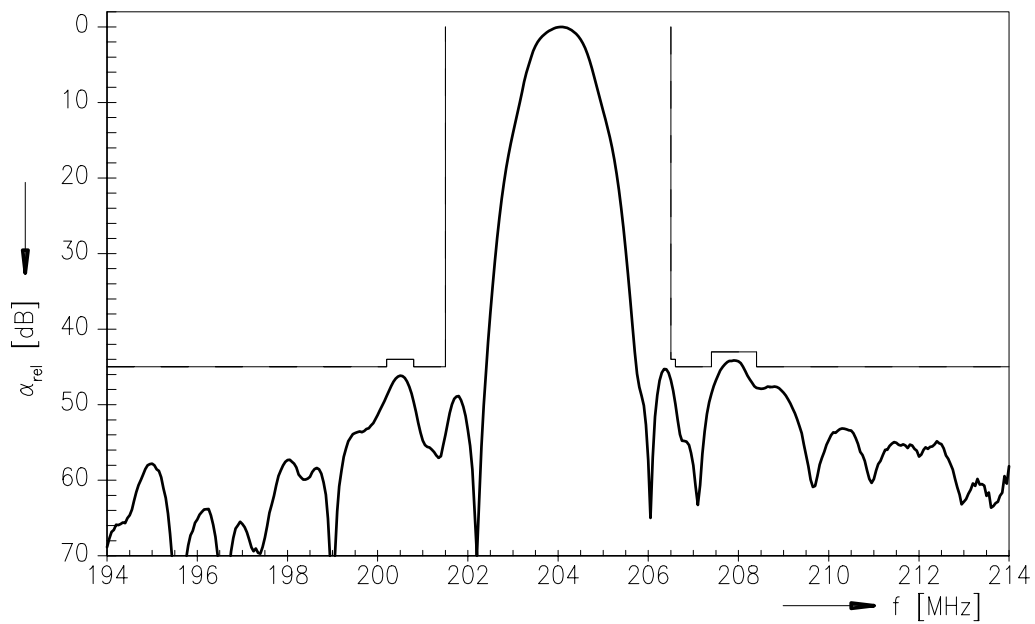
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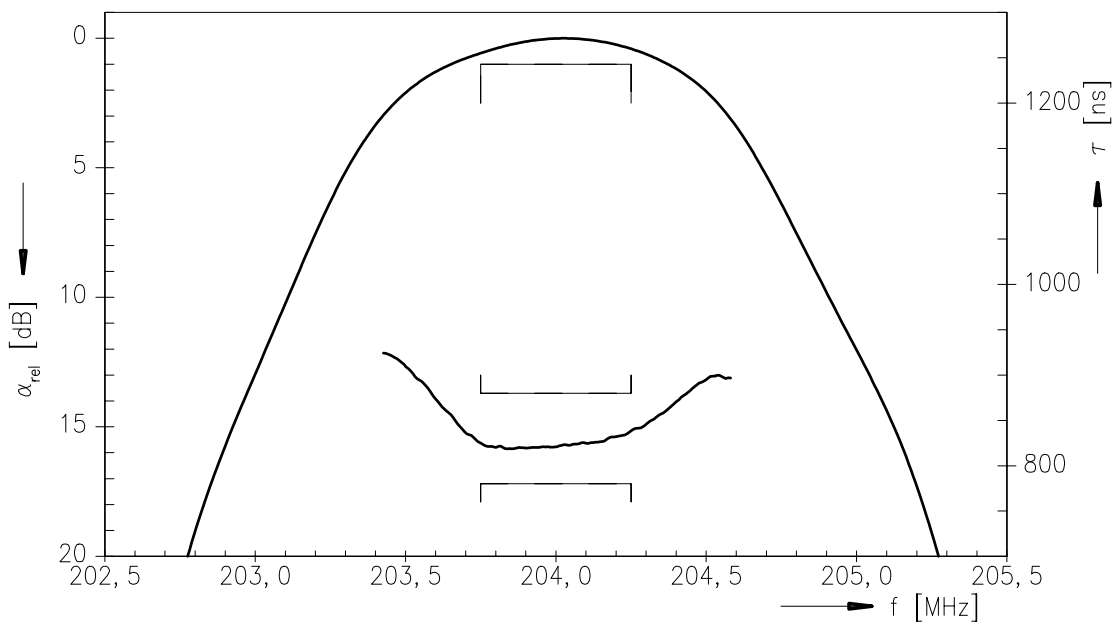
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Normalized frequency response



Normalized frequency response (pass band)





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