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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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SAW Components

Data Sheet B3804

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles a stylized globe or a series of overlapping planes. The background is dark and textured.



SAW Components

B3804

Low-Loss Filter

170,2 MHz

Data Sheet

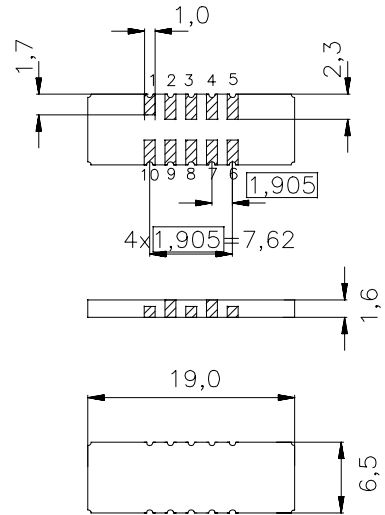
Features

- Low-loss IF filter for GSM base station
- Temperature stable
- Ceramic SMD package

Terminals

- Gold plated

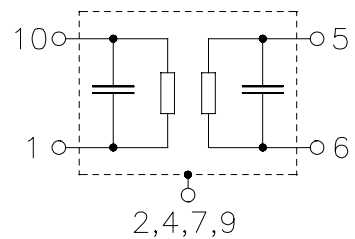
Ceramic package DCC18



Dimensions in mm, approx. weight 0,8 g

Pin configuration

- | | |
|------------|----------------------------------|
| 10 | Input or balanced input |
| 1 | Input ground or balanced input |
| 5 | Output or balanced output |
| 6 | Output ground or balanced output |
| 3, 8 | Ground |
| 2, 4, 7, 9 | Case ground |



Type	Ordering code	Marking and Package according to	Packing according to
B3804	B39171-B3804-U210	C61157-A7-A54	F61074-V8081-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	-40 / +85	°C
Storage temperature range	T_{stg}	-40 / +85	°C
DC voltage	V_{DC}	0	V
Source power	P_s	10	dBm


SAW Components
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Characteristics

 Operating temperature range: $T = -10 \dots 85 \text{ }^\circ\text{C}$

 Terminating source impedance: $Z_S = 50 \text{ } \Omega$ unbalanced or $200 \text{ } \Omega$ balanced and matching network

 Terminating load impedance: $Z_L = 50 \text{ } \Omega$ unbalanced or $200 \text{ } \Omega$ balanced and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	170,2	—	MHz
Minimum insertion attenuation	α_{\min}	—	6,5	7,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	$f_N \pm 135 \text{ kHz}$	—	0,35	0,7	dB
Group delay ripple (p-p)	$\Delta\tau$				
	$f_N \pm 135 \text{ kHz}$	—	0,35	0,7	μs
Relative attenuation (relative to α_{\min})	α_{rel}				
	$f_N \pm 0,35 \text{ MHz} \dots f_N \pm 0,6 \text{ MHz}$	7	11	—	dB
	$f_N \pm 0,6 \text{ MHz} \dots f_N \pm 0,8 \text{ MHz}$	24	30	—	dB
	$f_N \pm 0,8 \text{ MHz} \dots f_N \pm 1,6 \text{ MHz}$	40	45	—	dB
	$f_N \pm 1,6 \text{ MHz} \dots f_N \pm 20,0 \text{ MHz}$	43	50	—	dB
	$f_N \pm 20,0 \text{ MHz} \dots f_N \pm 35,0 \text{ MHz}$	50	55	—	dB
	$f_N \pm 35,0 \text{ MHz} \dots f_N \pm 75,0 \text{ MHz}$	45	60	—	dB
	$f_N + 23,5 \text{ MHz} \dots f_N + 23,7 \text{ MHz}$	55	60	—	dB
	$f_N + 75,0 \text{ MHz} \dots f_N + 2,0 \text{ GHz}$	40	60	—	dB
VSWR (Input and output)	$f_N \pm 135 \text{ kHz}$	—	1,5	2,0	
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,036	—	ppm/K ²
Turnover temperature	T_0	—	45	—	$^\circ\text{C}$

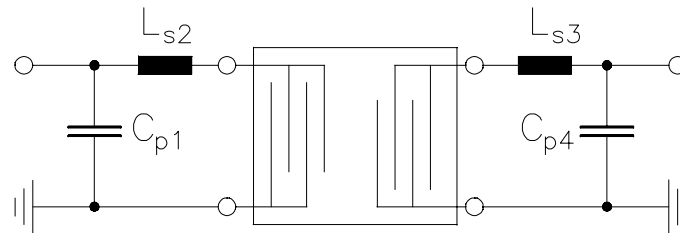
¹⁾ Temperature dependance of f_c : $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$



Data Sheet

Matching network to 50 Ω unbalanced

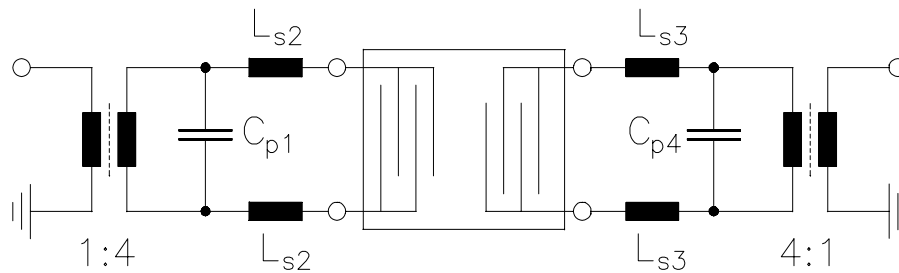
(Element values depend upon PCB layout)



- $C_{p1} = 36,3 \text{ pF}$
- $L_{s2} = 39,0 \text{ nH}$
- $L_{s3} = 39,0 \text{ nH}$
- $C_{p4} = 36,3 \text{ pF}$

Matching network to 200 Ω balanced

(Element values depend upon PCB layout)

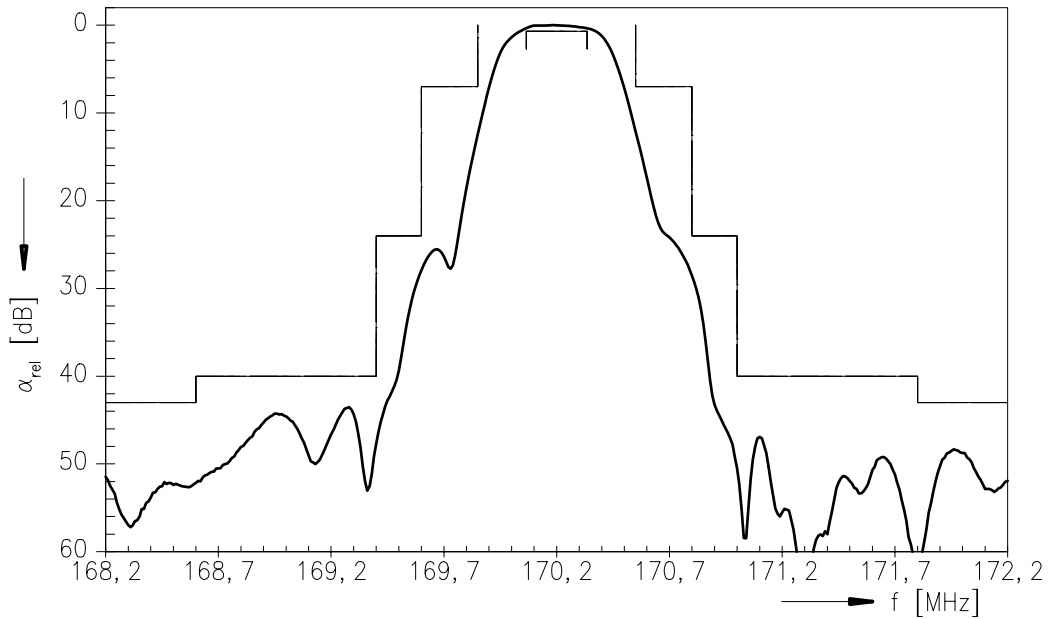


- $C_{p1} = 17,7 \text{ pF}$
- $L_{s2} = 27,0 \text{ nH}$
- $L_{s3} = 27,0 \text{ nH}$
- $C_{p4} = 17,7 \text{ pF}$

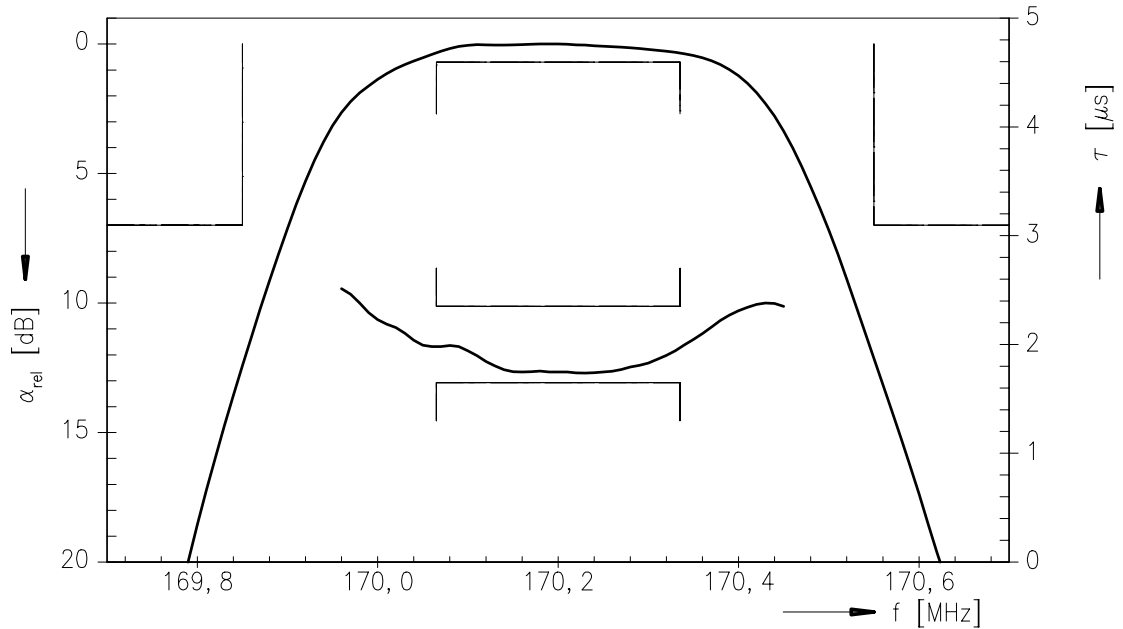


Data Sheet

Normalized frequency response



Normalized frequency response (passband)





SAW Components

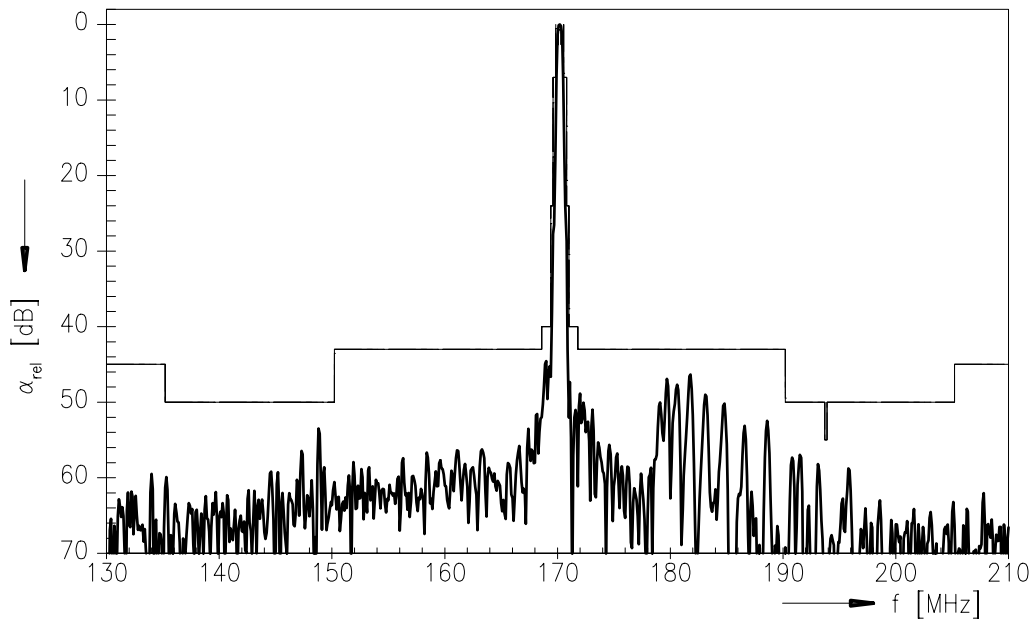
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Transfer function





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