



SAW Components

Data Sheet B3892

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a blue glow and are positioned diagonally across the frame. In the background, there is a faint, stylized globe with circuitry patterns, suggesting a global network or technological theme. The overall color scheme is dark with blue and white highlights.



SAW Components

B3892

Low-Loss Filter

248,6 MHz

Data Sheet

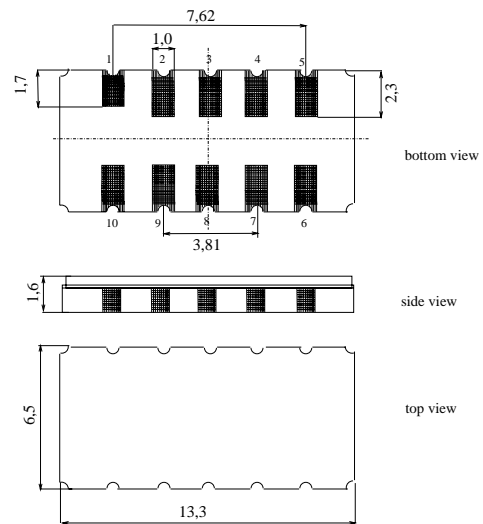
Ceramic package DCC12A

Features

- Low-loss IF filter for GSM-EDGE base station
- Temperature stable
- Balanced or unbalanced operation possible
- Ceramic SMD package

Terminals

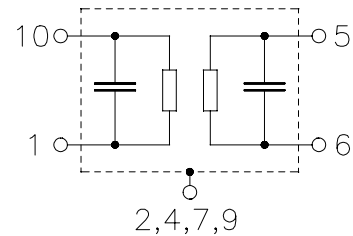
- Gold plated



Dimensions in mm, approx. weight 0,4 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3892	B39251-B3892-H510	C61157-A7-A94	F61074-V8163-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	-30 / +80	°C	
Storage temperature range	T_{stg}	-40 / +85	°C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	
Source power	P_s	20	dBm	$t \leq 100$ hours



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Characteristics

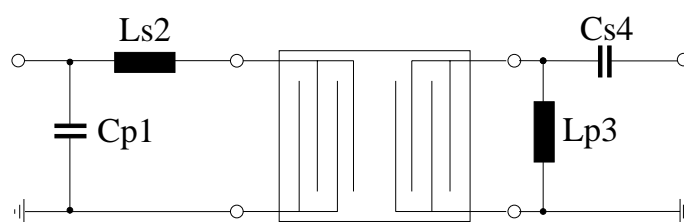
Operating temperature:	$T = -5\text{ °C to }75\text{ °C}$
Terminating source impedance:	$Z_S = 50\ \Omega$ and matching network
Terminating load impedance:	$Z_L = 50\ \Omega$ and matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	248,6	—	MHz
Minimum insertion attenuation (including losses in matching network)	α_{\min}	—	4,7	6,0	dB
Passband width					
	$\alpha_{\text{rel}} \leq 3,0\text{ dB}$	$B_{3,0\text{dB}}$	—	430	— kHz
Amplitude ripple (p-p)					
	$f_N \pm 100,0\text{ kHz}$	$\Delta\alpha$	—	0,5	1,0 dB
Group delay ripple (p-p)					
	$f_N \pm 100,0\text{ kHz}$	$\Delta\tau$	—	0,6	0,7 μs
Relative attenuation (relative to α_{\min})	α_{rel}				
$f_N \pm 0,33\text{ MHz}$... $f_N \pm 0,60\text{ MHz}$		12	15	—	dB
$f_N \pm 0,60\text{ MHz}$... $f_N \pm 0,80\text{ MHz}$		25	37	—	dB
$f_N \pm 0,80\text{ MHz}$... $f_N \pm 1,60\text{ MHz}$		45	50	—	dB
10,0 MHz ... $f_N - 29,20\text{ MHz}$		55	70	—	dB
$f_N - 29,20\text{ MHz}$... $f_N - 1,60\text{ MHz}$		48	55	—	dB
$f_N + 1,60\text{ MHz}$... $f_N + 100,0\text{ MHz}$		48	60	—	dB
@ $f_N + 22,80\text{ MHz}$		55	60	—	dB
@ $f_N + 52,00\text{ MHz}$		55	65	—	dB
@ $f_N + 74,80\text{ MHz}$		55	65	—	dB
@ $f_N + 104,0\text{ MHz}$		55	65	—	dB
@ $f_N + 126,8\text{ MHz}$		55	65	—	dB
Temperature coefficient of frequency ¹⁾	TC_f	—	-0,036	—	ppm/K ²
Frequency inversion point	T_0	—	35	—	°C

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

**SAW Components****B3892****Low-Loss Filter****248,6 MHz****Data Sheet****Matching network to 50Ω**

(Element values depend upon PCB layout)



$$C_{p1} = 16 \text{ pF}$$

$$L_{s2} = 39 \text{ nH}$$

$$L_{p3} = 15 \text{ nH}$$

$$C_{s4} = 15 \text{ pF}$$



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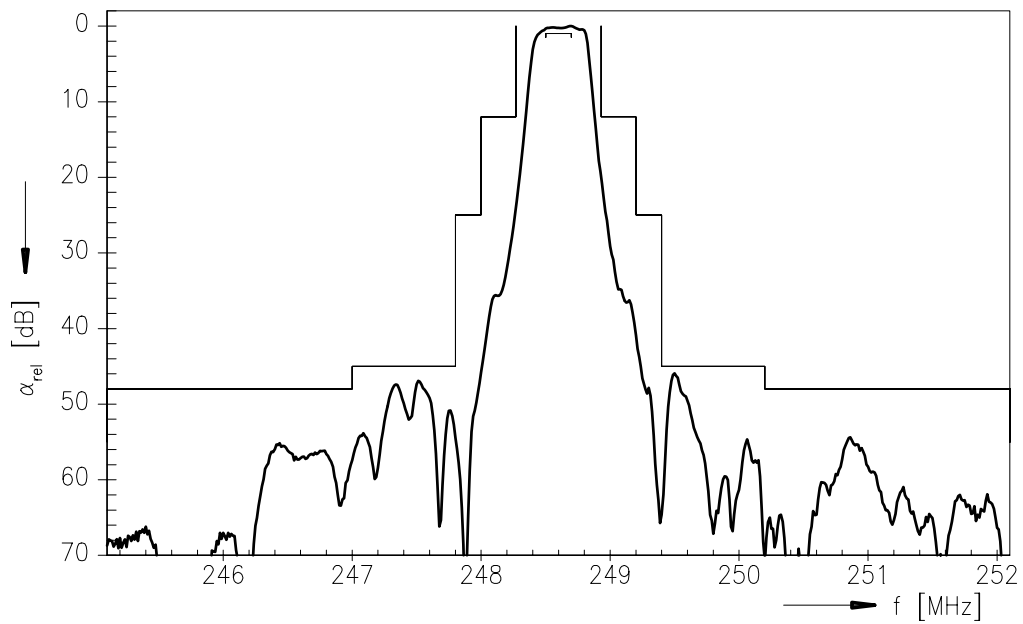
B3892

Low-Loss Filter

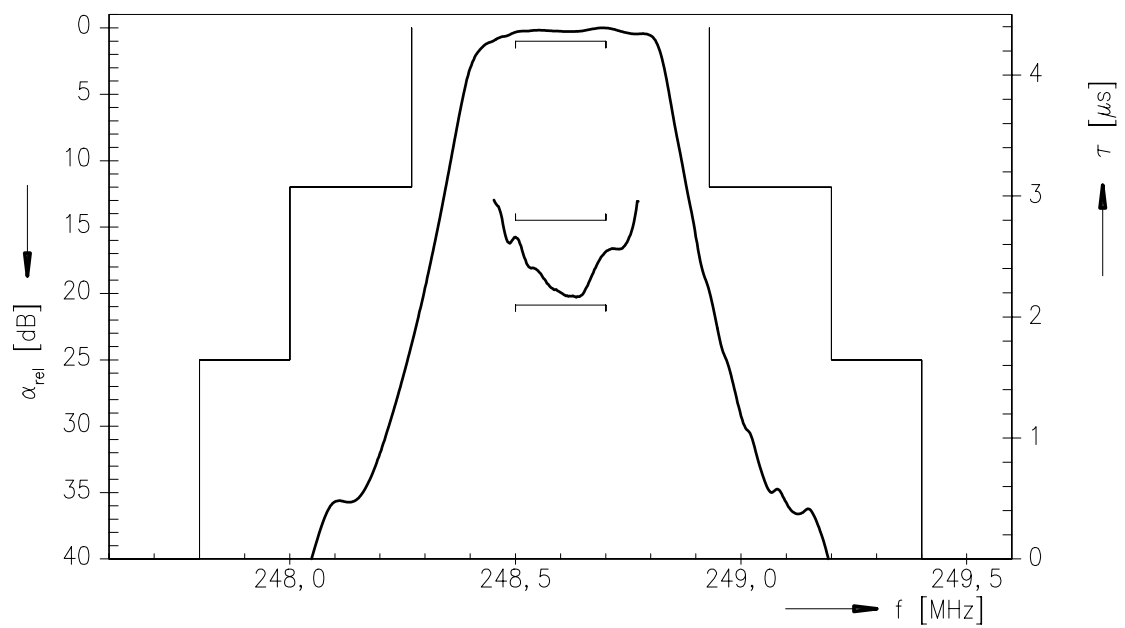
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Normalized transfer function:



Normalized transfer function (pass band):





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