



SAW Components

Data Sheet B3684

Data Sheet

An abstract, grayscale graphic featuring a large, stylized, and slightly blurred "EPCOS" logo. The logo is set against a background of curved, overlapping bands and a faint world map, creating a sense of global connectivity and technology.



SAW Components

B3684

Low-Loss Filter

387,5 MHz

Data Sheet

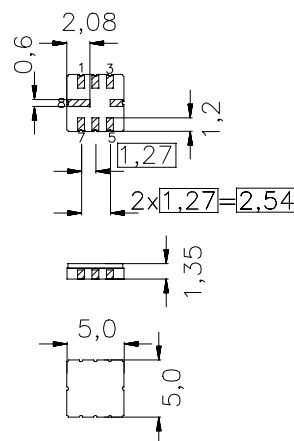
Ceramic package QCC8C

Features

- Low-loss filter (WBN) for Trunked Radio
- Usable bandwidth 5 MHz
- No matching required for operation at 50 Ω
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package

Terminals

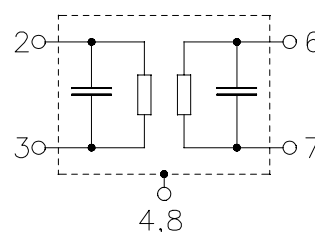
- Gold-plated



Dimensions in mm, approx. weight 0,1 g

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B3684	B39391-B3684-U310	C61157-A7-A56	F61064-V8070-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 25/+ 75	$^{\circ}\text{C}$	
Storage temperature range	T_{stg}	- 40/+ 85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Source power	P_{s}	10	dBm	source impedance 50 Ω



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Characteristics

Operating temperature: $T = +15 \dots +35 \text{ }^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50 \text{ } \Omega$
Terminating load impedance: $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	387,5	—	MHz
Maximum insertion attenuation 385,0 MHz ... 390,0 MHz	α_{\max}	—	3,2	3,5	dB
Amplitude ripple (p-p) 385,0 MHz ... 390,0 MHz	$\Delta\alpha$	—	0,9	1,4	dB
Return loss (Input and Output) 385,0 MHz ... 390,0 MHz		11,0	12,5	—	dB
Group delay 385,0 MHz ... 390,0 MHz	τ	—	140	180	ns
Deviation from lin. phase (in 1 MHz bandwidth) 385,0 MHz ... 390,0 MHz	$\Delta\varphi$	—	0,9	5	$^{\circ}$
Absolute attenuation	α_{abs}				
45,0 MHz ... 81,5 MHz		40	70	—	dB
222,0 MHz ... 300,0 MHz		40	60	—	dB
303,5 MHz ... 345,0 MHz		20	45	—	dB
395,0 MHz ... 396,0 MHz		28	30	—	dB
396,0 MHz ... 400,0 MHz		30	32	—	dB
407,5 MHz ... 475,0 MHz		30	40	—	dB
475,0 MHz ... 1025,0 MHz		40	45	—	dB
1025,0 MHz ... 2000,0 MHz		20	30	—	dB
2000,0 MHz ... 4000,0 MHz		15	17	—	dB
Temperature coefficient of frequency	TC_f	—	– 36	—	ppm/K



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Characteristics

Operating temperature:	$T = -25 \dots +75 \text{ }^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50 \text{ } \Omega$
Terminating load impedance:	$Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	387,5	—	MHz
Maximum insertion attenuation 385,0 MHz ... 390,0 MHz	α_{\max}	—	3,5	4,0	dB
Amplitude ripple (p-p) 385,0 MHz ... 390,0 MHz	$\Delta\alpha$	—	1,1	2,0	dB
Return loss (Input and Output) 385,0 MHz ... 390,0 MHz		11,0	12,5	—	dB
Group delay 385,0 MHz ... 390,0 MHz	τ	—	140	180	ns
Deviation from lin. phase (in 1 MHz bandwidth) $\Delta\varphi$ 385,0 MHz ... 390,0 MHz		—	1,3	5	$^{\circ}$
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K



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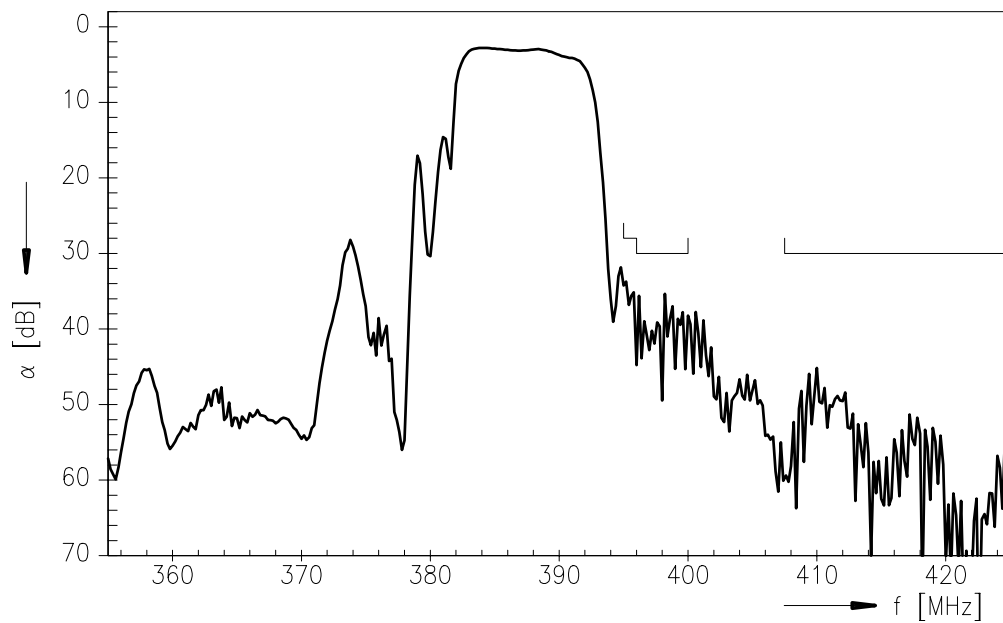
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Low-Loss Filter

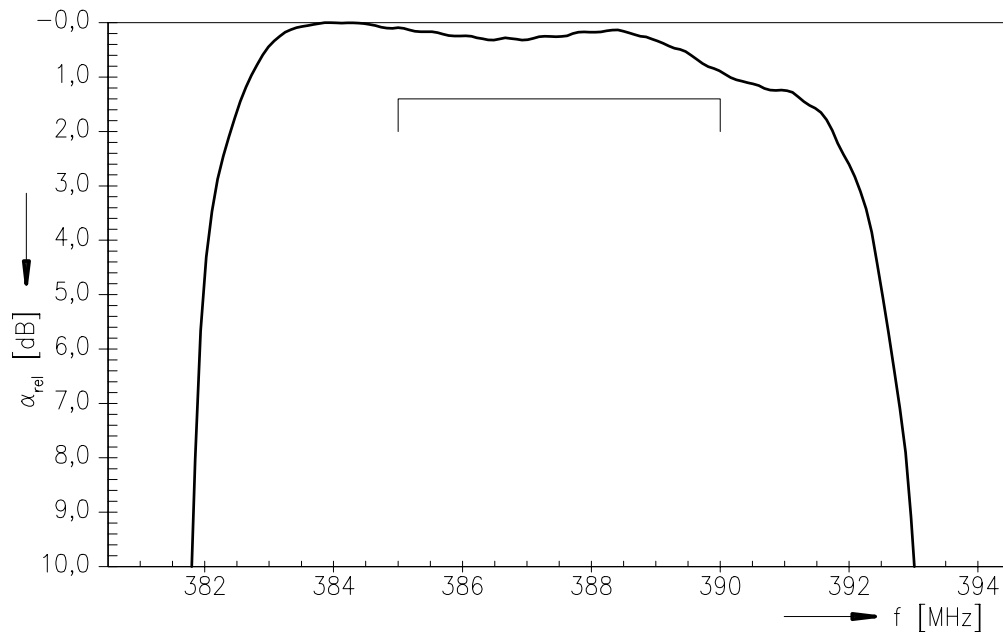
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Transfer function



Transfer function (pass band; +15 °C ... +35 °C)





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