



SAW Filters for Infrastructure Systems

Series/Type: **B3684**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39391B3684U310		2008-02-07	2008-07-31	2008-10-31

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.



SAW Components

B3684

Low-Loss Filter

387,5 MHz

Data Sheet

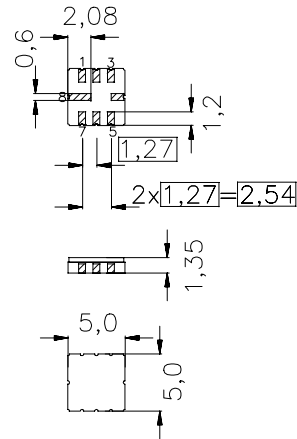
Ceramic package QCC8C

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

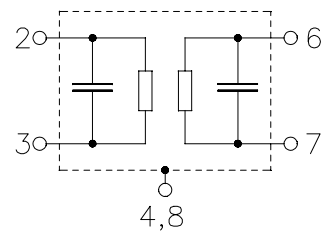
- Gold-plated



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	°C	
Storage temperature range	T_{stg}	- 40/+ 85	°C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	source impedance 50 Ω


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Low-Loss Filter
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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



SAW Components

B3684

Low-Loss Filter

387,5 MHz

Data Sheet

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) $\Delta\phi$ 385,0 MHz ... 390,0 MHz		—	1,3	5	$^\circ$
Temperature coefficient of frequency	TC_f	—	- 36	—	ppm/K



SAW Components

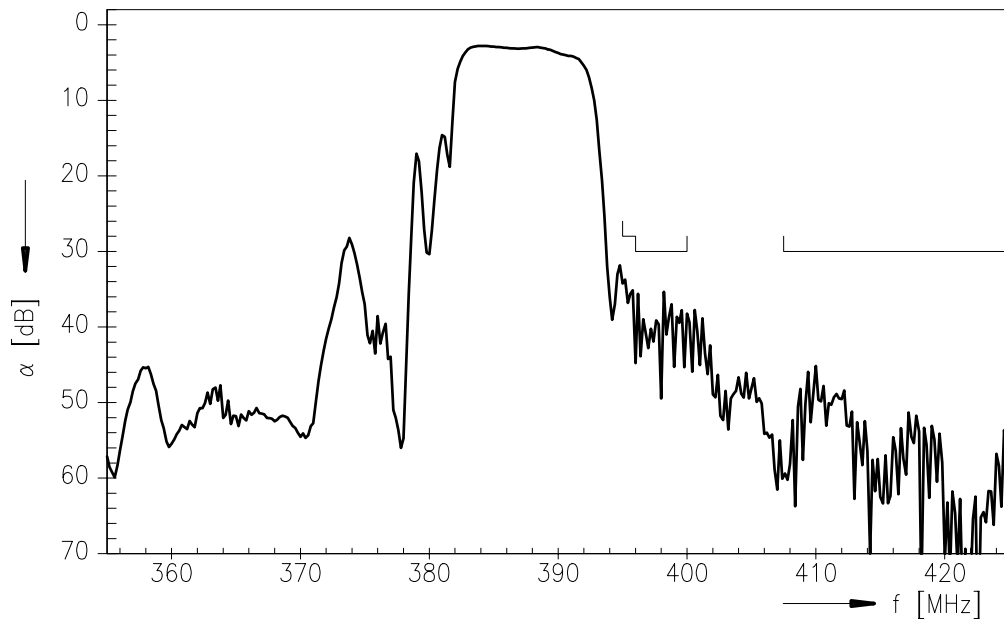
B3684

Low-Loss Filter

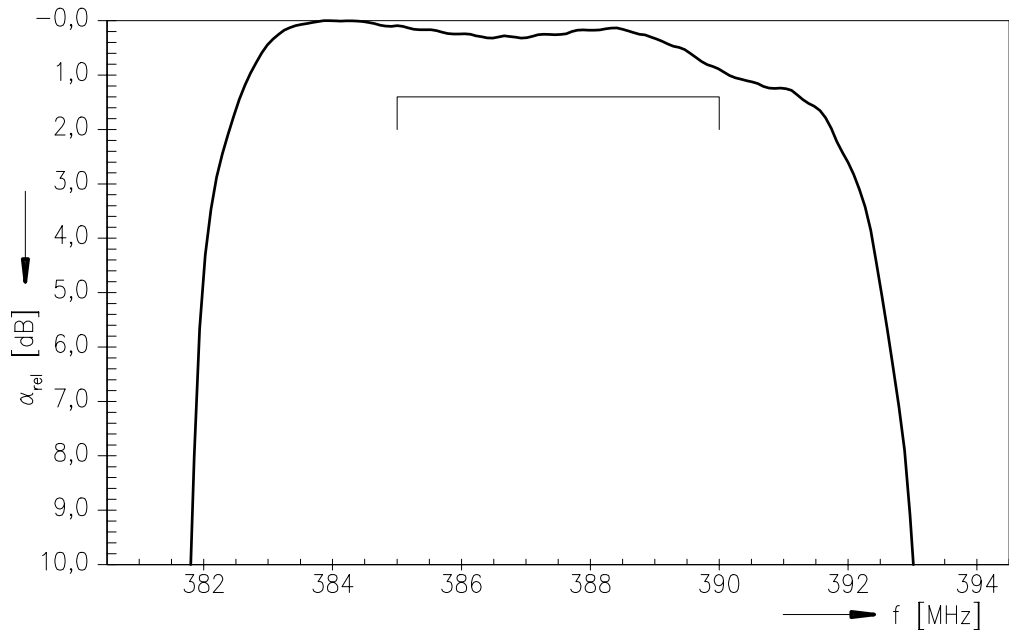
387,5 MHz

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Transfer function



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





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387,5 MHz

Data Sheet

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