



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The following products presented in this data sheet are being withdrawn.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

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# SAW Components

B3684

## Low-Loss Filter

387,5 MHz

### Data Sheet

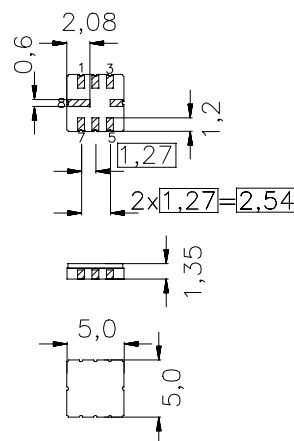
#### Ceramic package QCC8C

#### Features

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

#### Terminals

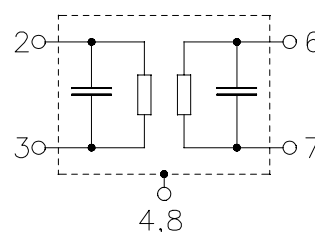
- Gold-plated



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	$T_{\text{stg}}$	- 40/+ 85	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	0	V	
Source power	$P_{\text{s}}$	10	dBm	source impedance 50 $\Omega$

**SAW Components**
**B3684**
**Low-Loss Filter**
**387,5 MHz**
**Data Sheet**
**Characteristics**

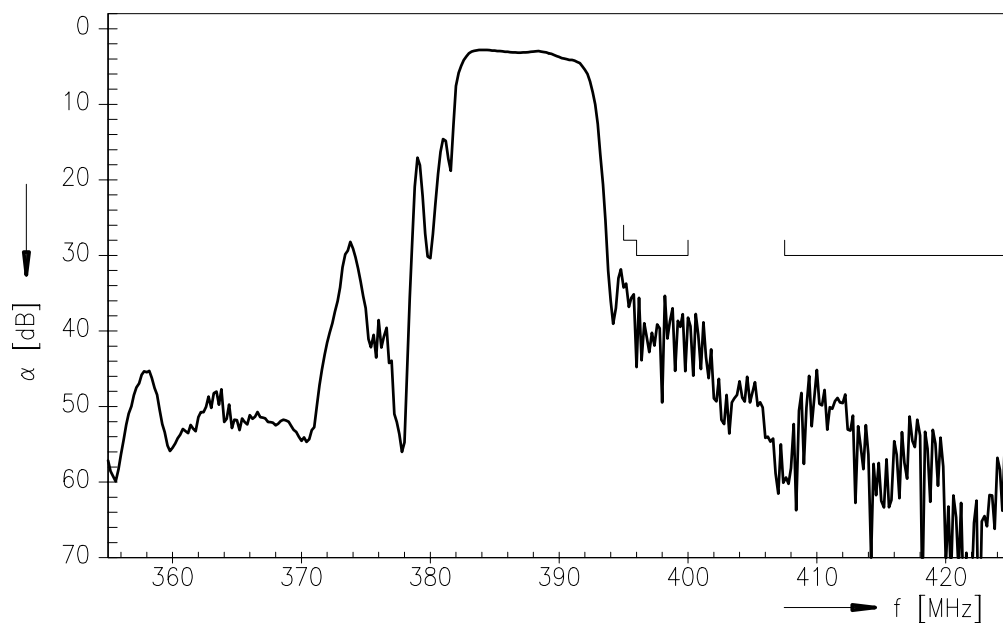
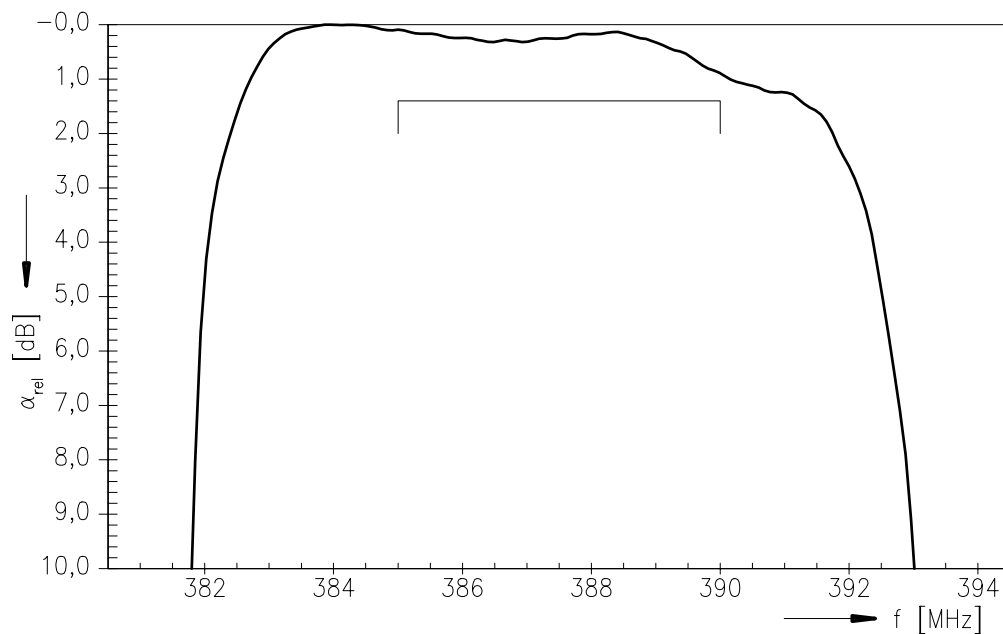
Operating temperature:  $T = +15 \dots +35 \text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	387,5	—	MHz
<b>Maximum insertion attenuation</b> 385,0 MHz ... 390,0 MHz	$\alpha_{\max}$	—	3,2	3,5	dB
<b>Amplitude ripple (p-p)</b> 385,0 MHz ... 390,0 MHz	$\Delta\alpha$	—	0,9	1,4	dB
<b>Return loss (Input and Output)</b> 385,0 MHz ... 390,0 MHz		11,0	12,5	—	dB
<b>Group delay</b> 385,0 MHz ... 390,0 MHz	$\tau$	—	140	180	ns
<b>Deviation from lin. phase (in 1 MHz bandwidth)</b> 385,0 MHz ... 390,0 MHz	$\Delta\phi$	—	0,9	5	$^{\circ}$
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
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
<b>Temperature coefficient of frequency</b>	$TC_f$	—	– 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.	
<b>Nominal frequency</b>	$f_N$	—	387,5	—	MHz
<b>Maximum insertion attenuation</b> 385,0 MHz ... 390,0 MHz	$\alpha_{\max}$	—	3,5	4,0	dB
<b>Amplitude ripple (p-p)</b> 385,0 MHz ... 390,0 MHz	$\Delta\alpha$	—	1,1	2,0	dB
<b>Return loss (Input and Output)</b> 385,0 MHz ... 390,0 MHz		11,0	12,5	—	dB
<b>Group delay</b> 385,0 MHz ... 390,0 MHz	$\tau$	—	140	180	ns
<b>Deviation from lin. phase (in 1 MHz bandwidth)</b> $\Delta\varphi$ 385,0 MHz ... 390,0 MHz		—	1,3	5	$^{\circ}$
<b>Temperature coefficient of frequency</b>	$TC_f$	—	- 36	—	ppm/K

**Data Sheet**
**Transfer function**

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


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