



# SAW Components

Data Sheet B3683





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B3683

Low-Loss Filter

382,5 MHz

Data Sheet

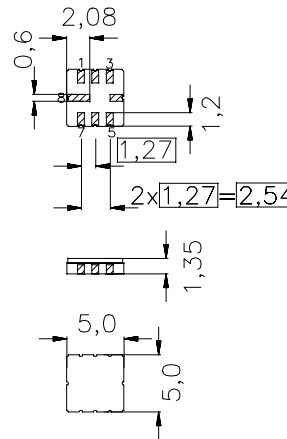
Ceramic package QCC8C

**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**

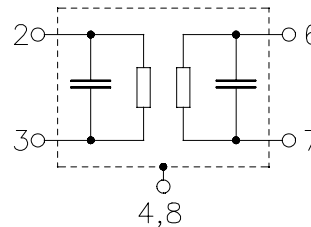
- Gold-plated



typ. Dimensions in mm, approx. weight 0,10 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
B3683	B39381-B3683-U310	C61157-A7-A56	F61074-V8070-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T_A$	-25 / +75	°C	source impedance 50 Ω
Storage temperature range	$T_{stg}$	-40 / +85	°C	
DC voltage	$V_{DC}$	0	V	
Source power	$P_s$	10	dBm	


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**Characteristics**

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

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	382,5	—	MHz
<b>Maximum insertion attenuation</b> 380,0 MHz ... 385,0 MHz	$\alpha_{\max}$	—	3,3	3,7	dB
<b>Amplitude ripple (p-p)</b> 380,0 MHz ... 385,0 MHz	$\Delta\alpha$	—	0,8	1,4	dB
<b>Return loss (Input and Output)</b> 380,0 MHz ... 385,0 MHz		11,0	12,5	—	dB
<b>Group delay</b> 380,0 MHz ... 385,0 MHz	$\tau$	—	140	180	ns
<b>Deviation from lin. phase (in 1 MHz bandwidth)</b> 380,0 MHz ... 385,0 MHz	$\Delta\varphi$	—	0,9	5	$^\circ$
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
45,0 MHz ... 81,5 MHz		40	70	—	dB
217,0 MHz ... 295,0 MHz		40	55	—	dB
298,5 MHz ... 340,0 MHz		20	45	—	dB
390,0 MHz ... 395,0 MHz		30	34	—	dB
402,5 MHz ... 470,0 MHz		30	42	—	dB
470,0 MHz ... 1015,0 MHz		40	45	—	dB
1015,0 MHz ... 2000,0 MHz		20	45	—	dB
2000,0 MHz ... 4000,0 MHz		5	10	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-36	—	ppm/K



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**Characteristics**

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

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Nominal frequency</b>	$f_N$	—	382,5	—	MHz
<b>Maximum insertion attenuation</b> 380,0 MHz ... 385,0 MHz	$\alpha_{\max}$	—	3,5	4,0	dB
<b>Amplitude ripple (p-p)</b> 380,0 MHz ... 385,0 MHz	$\Delta\alpha$	—	1,1	2,0	dB
<b>Return loss (Input and Output)</b> 380,0 MHz ... 385,0 MHz		11,0	12,5	—	dB
<b>Group delay</b> 380,0 MHz ... 385,0 MHz	$\tau$	—	140	180	ns
<b>Deviation from lin. phase (in 1 MHz bandwidth)</b> $\Delta\varphi$ 380,0 MHz ... 385,0 MHz		—	1,1	5	$^\circ$
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-36	—	ppm/K



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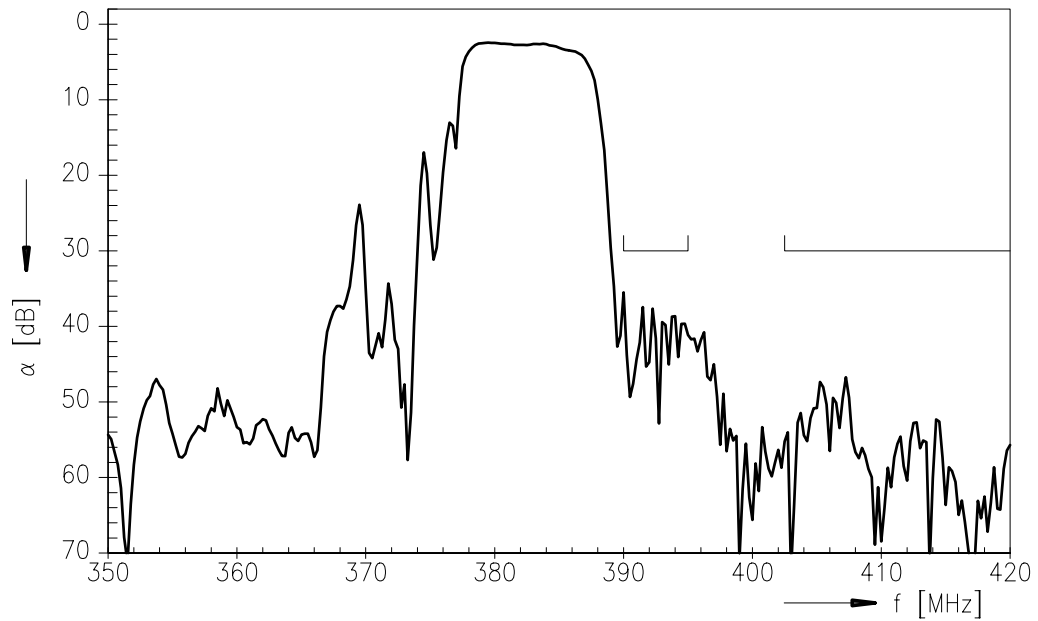
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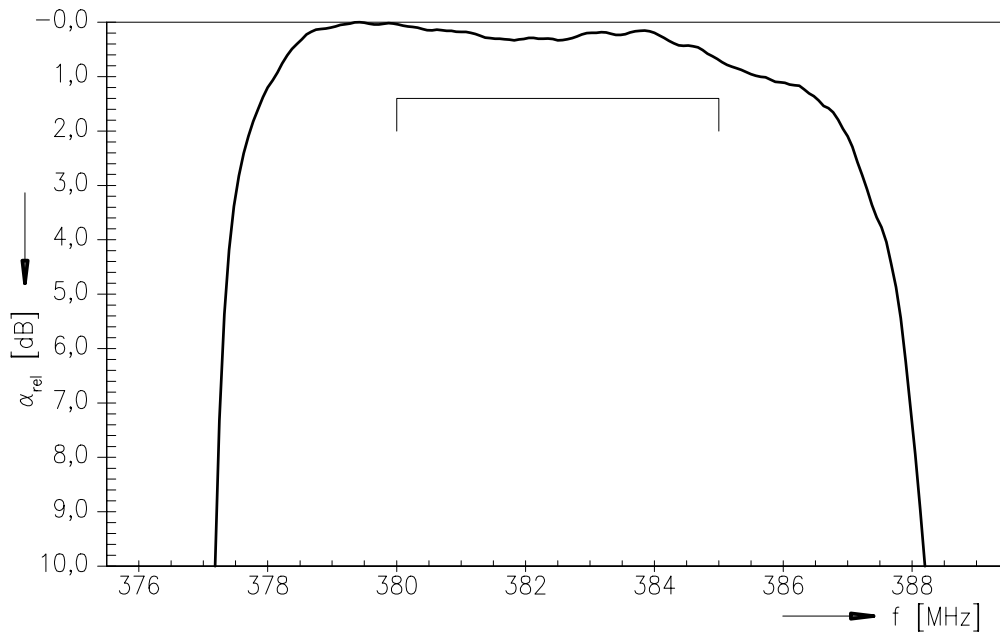
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Transfer function



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





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