



# SAW Components

Data Sheet B3691





**SAW Components**

**B3691**

**Low-Loss Filter**

**420,0 MHz**

**Data Sheet**

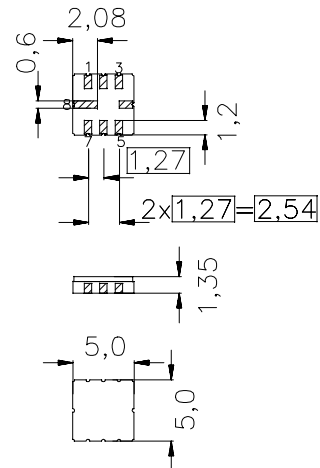
Ceramic SMD package QCC8C

**Features**

- Low-loss filter for TETRA
- Usable bandwidth 20 MHz
- No matching required for operation at 50 Ω
- Package for Surface Mounted Technology (SMT)

**Terminals**

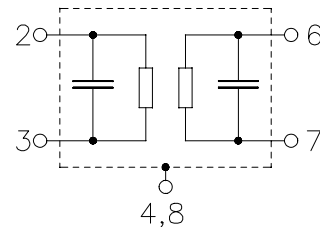
- Gold plated



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
B3691	B39421-B3691-U310	C61157-A7-A56	F61074-V8070-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	-40/ +85	°C
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:  $T = +25\text{ °C}$   
 Terminating source impedance:  $50\ \Omega$   
 Terminating load impedance:  $50\ \Omega$

		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	420,0	—	MHz
<b>Maximum insertion attenuation</b> 410,0 MHz ... 430,0 MHz	$\alpha_{\max}$	—	2,0	2,3	dB
<b>Amplitude ripple (p-p)</b> 410,0 MHz ... 430,0 MHz	$\Delta\alpha$	—	0,65	0,9	dB
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
0,1 MHz ... 300,0 MHz		30	35	—	dB
300,0 MHz ... 365,0 MHz		24	30	—	dB
365,0 MHz ... 380,0 MHz		22	24,5	—	dB
464,825 MHz		10	23	—	dB
519,65 MHz ... 539,65 MHz		28	32	—	dB
629,3 MHz ... 649,3 MHz		24	28	—	dB
649,3 MHz ... 1000,0 MHz		26	30	—	dB
<b>Return loss (Input)</b>					
410,0 MHz ... 415,0 MHz		8,0	9,0	—	dB
415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
<b>Return loss (Output)</b>					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	-70	—	ppm/K



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Operating temperature:  $T = +5 \dots +45 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $50 \text{ } \Omega$   
 Terminating load impedance:  $50 \text{ } \Omega$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Nominal frequency</b>	$f_N$	—	420,0	—	MHz
<b>Maximum insertion attenuation</b> 410,0 MHz ... 430,0 MHz	$\alpha_{\max}$	—	2,1	2,5	dB
<b>Amplitude ripple (p-p)</b> 410,0 MHz ... 430,0 MHz	$\Delta\alpha$	—	0,65	1,0	dB
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
0,1 MHz ... 300,0 MHz		30	35	—	dB
300,0 MHz ... 365,0 MHz		24	30	—	dB
365,0 MHz ... 380,0 MHz		22	24,5	—	dB
464,825 MHz		10	23	—	dB
519,65 MHz ... 539,65 MHz		28	32	—	dB
629,3 MHz ... 649,3 MHz		24	28	—	dB
649,3 MHz ... 1000,0 MHz		26	30	—	dB
<b>Return loss (Input)</b>					
410,0 MHz ... 415,0 MHz		8,0	9,0	—	dB
415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
<b>Return loss (Output)</b>					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	- 70	—	ppm/K



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**Characteristics**

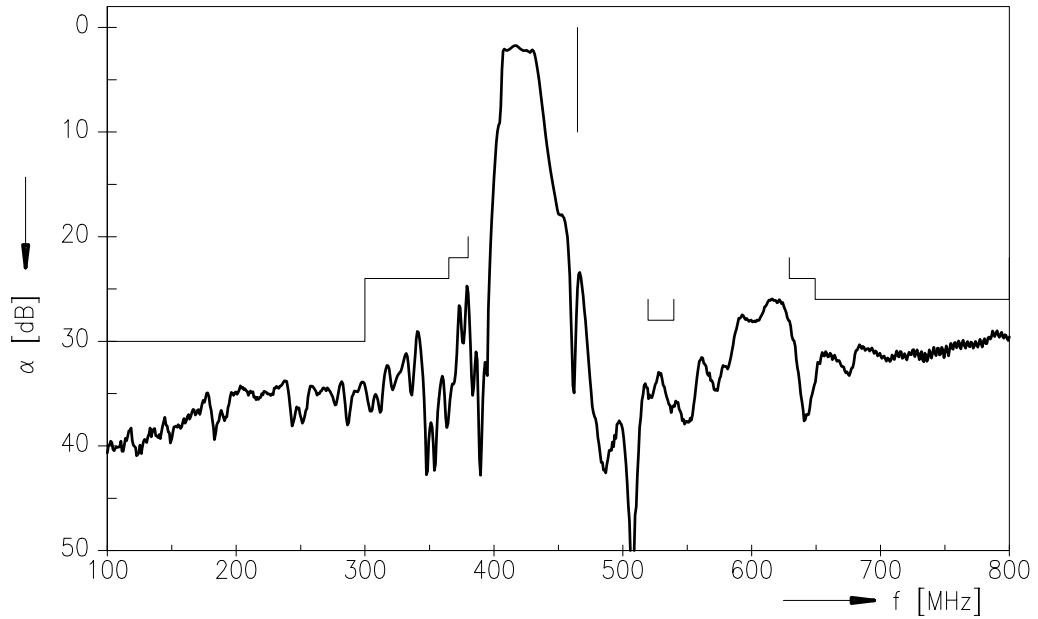
Operating temperature:  $T = -30 \dots +80 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $50 \text{ } \Omega$   
 Terminating load impedance:  $50 \text{ } \Omega$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Nominal frequency</b>	$f_N$	—	420,0	—	MHz
<b>Maximum insertion attenuation</b> 410,0 MHz ... 430,0 MHz	$\alpha_{\max}$	—	2,2	2,7	dB
<b>Amplitude ripple (p-p)</b> 410,0 MHz ... 430,0 MHz	$\Delta\alpha$	—	0,7	1,0	dB
<b>Absolute attenuation</b>	$\alpha_{\text{abs}}$				
0,1 MHz ... 300,0 MHz		30	35	—	dB
300,0 MHz ... 365,0 MHz		24	30	—	dB
365,0 MHz ... 380,0 MHz		22	24,5	—	dB
464,825 MHz		10	23	—	dB
519,65 MHz ... 539,65 MHz		28	32	—	dB
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415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
<b>Return loss (Output)</b>					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
<b>Temperature coefficient of frequency</b>	$TC_f$	—	- 70	—	ppm/K

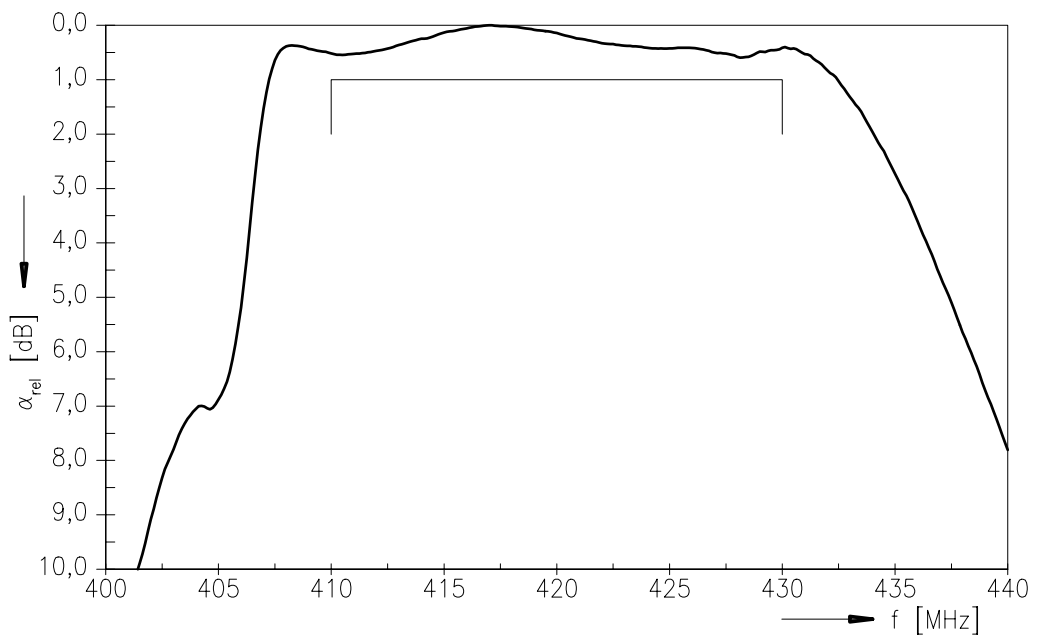


Data Sheet

Transfer function



Normalized Transfer function (pass band)





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