EPCOS

SAW Components

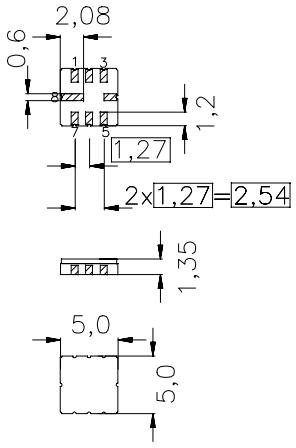
Data Sheet B3691

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)



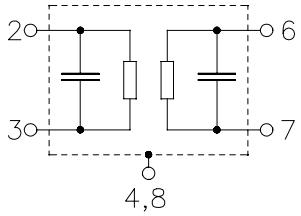
Terminals

- 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 **S**ensitive **D**evice (**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

Data Sheet

Characteristics

Operating temperature: T = +25 ˚C
Terminating source impedance: 50 Ω
Terminating load impedance: 50 Ω

		min.	typ.	max.	
Nominal frequency	f_N	—	420,0	—	MHz
Maximum insertion attenuation	α_{max}	—	2,0	2,3	dB
410,0 MHz ... 430,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$				
410,0 MHz ... 430,0 MHz		—	0,65	0,9	dB
Absolute attenuation	α_{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
Return loss (Input)					
410,0 MHz ... 415,0 MHz		8,0	9,0	—	dB
415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Return loss (Output)					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Temperature coefficient of frequency	TC_f	—	– 70	—	ppm/K

Data Sheet

Characteristics

Operating temperature: T = +5 ... +45 °C
Terminating source impedance: 50 Ω
Terminating load impedance: 50 Ω

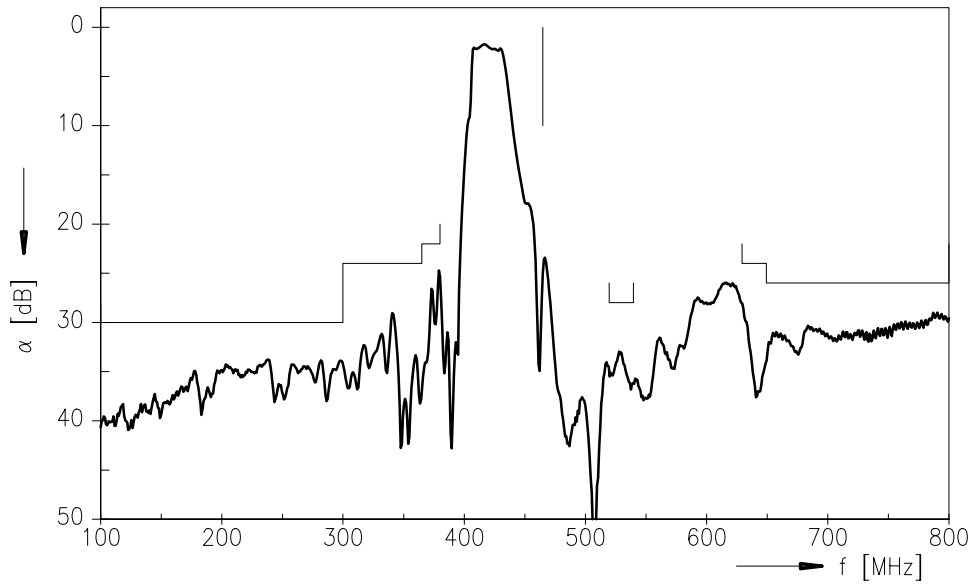
		min.	typ.	max.	
Nominal frequency	f_N	—	420,0	—	MHz
Maximum insertion attenuation	α_{max}	—	2,1	2,5	dB
410,0 MHz ... 430,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$				
410,0 MHz ... 430,0 MHz		—	0,65	1,0	dB
Absolute attenuation	α_{abs}				
0,1 MHz ... 300,0 MHz		30	35	—	dB
300,0 MHz ... 365,0 MHz		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
Return loss (Input)					
410,0 MHz ... 415,0 MHz		8,0	9,0	—	dB
415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Return loss (Output)					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Temperature coefficient of frequency	TC_f	—	– 70	—	ppm/K

Characteristics

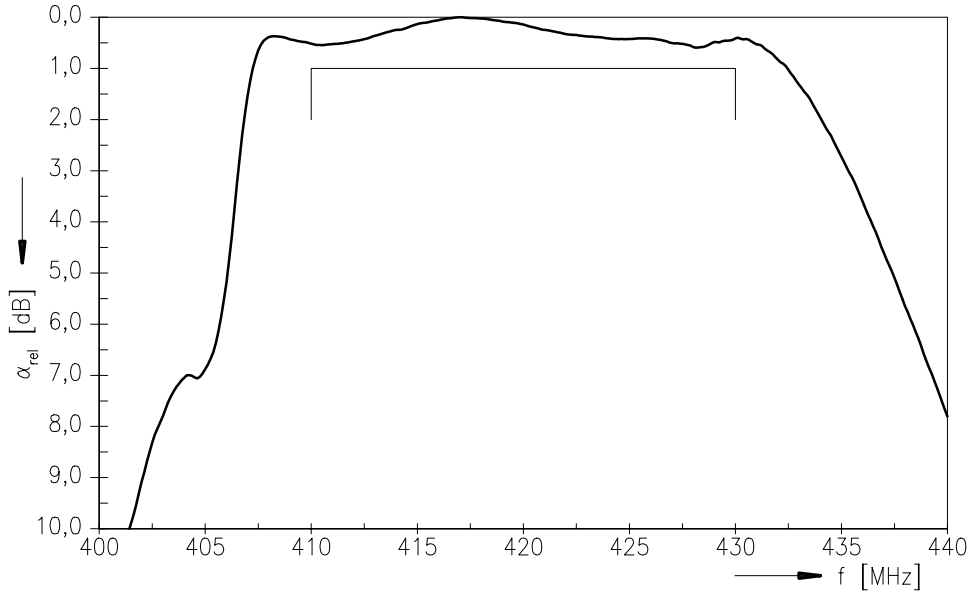
Operating temperature: T = -30 ... +80 °C
Terminating source impedance: 50 Ω
Terminating load impedance: 50 Ω

		min.	typ.	max.	
Nominal frequency	f_N	—	420,0	—	MHz
Maximum insertion attenuation	α_{max}	—	2,2	2,7	dB
410,0 MHz ... 430,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$				
410,0 MHz ... 430,0 MHz		—	0,7	1,0	dB
Absolute attenuation	α_{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
Return loss (Input)					
410,0 MHz ... 415,0 MHz		8,0	9,0	—	dB
415,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Return loss (Output)					
410,0 MHz ... 430,0 MHz		10,0	11,0	—	dB
Temperature coefficient of frequency	TC_f	—	– 70	—	ppm/K

Transfer function



Normalized Transfer function (pass band)



Published by EPCOS AG
Surface Acoustic Wave Components Division, OFW E NK
P.O. Box 80 17 09, D-81617 München

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.
Terms of delivery and rights to change design reserved.

For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our sales offices.