EPCOS

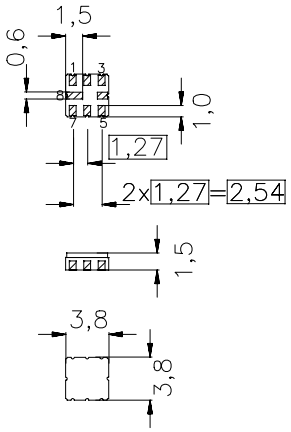
SAW Components

Data Sheet B1603

SMD ceramic package **QCC8B**

Features

- Low loss RF filter for up down conversion
- Usable passband 8 MHz
- No matching network required for operation at 200 Ω
- Balanced to balanced operation
- Ceramic package for **S**urface **M**ounted **T**echnology **(SMT)**



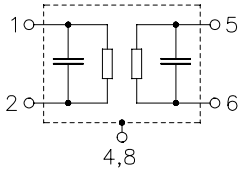
Dimensions in mm, approx. weight 0,07 g

Terminals

- Ni, gold-plated

Pin configuration

1	Input
2	Input
5	Output
6	Output
3,7	To be grounded
4,8	Case - ground



Type	Ordering code	Marking and package according to	Packing according to
B1603	B39122-B1603-Z810	C61157-A7-A46	F61074-V8167-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	0	dBm	source impedance 200 Ω

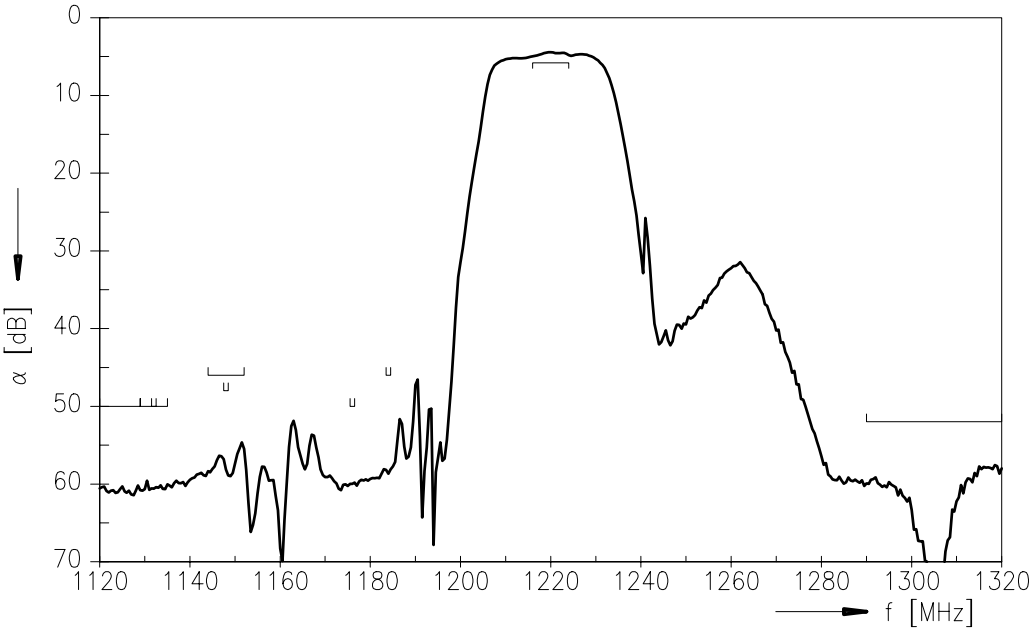
Data Sheet SMD

Characteristics

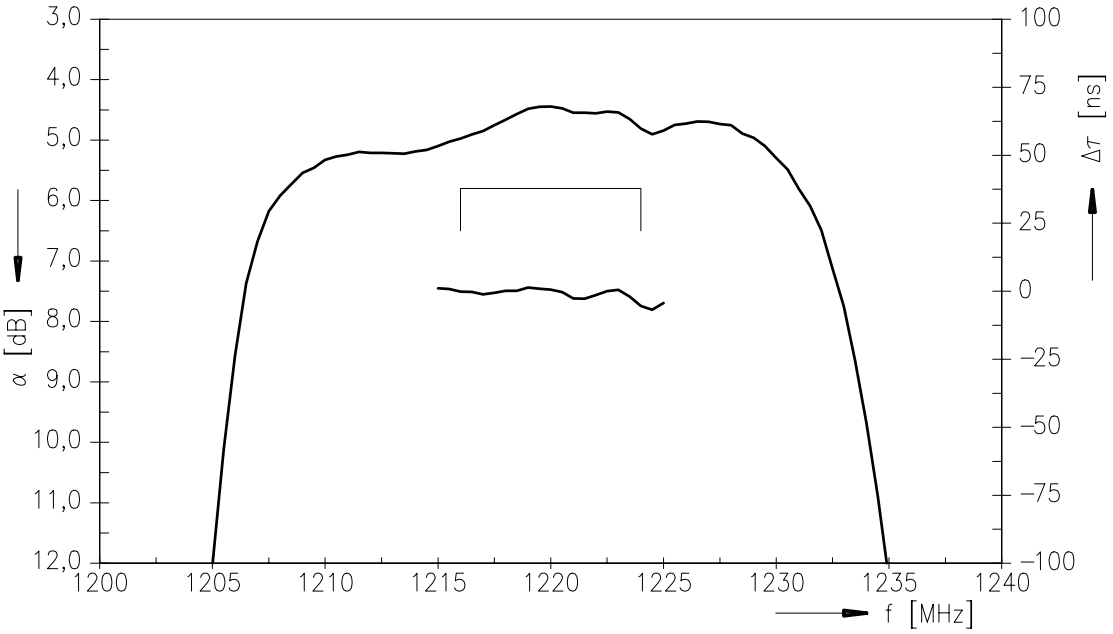
Operating temperature range: T = -40˚C ... +85˚C
Terminating source impedance: Z_S = 200 Ω
Terminating load impedance: Z_L = 200 Ω

		min.	typ.	max.	
Center frequency	f_c	—	1220,0	—	MHz
Maximum insertion attenuation	α_{max}				
1216,00 ...1224,00 MHz		3,5	4,7	5,8	dB
Amplitude ripple in passband (p-p)	$\Delta\alpha$				
1216,00 ...1224,00 MHz		—	0,8	1,5	dB
Attenuation	α				
500,00 ...f_C–91,00 MHz		50,0	60,0	—	dB
f_C–91,00 ...f_C–85,00 MHz		50,0	60,0	—	dB
f_C–76,00 ...f_C–68,00 MHz		46,0	55,0	—	dB
f_C–88,00 MHz		50,0	60,0	—	dB
f_C–72,00 MHz		48,0	58,0	—	dB
f_C–44,00 MHz		50,0	60,0	—	dB
f_C–36,00 MHz		46,0	52,0	—	dB
f_C+70,00 ...2000,00 MHz		50,0	55,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
Aperture 500 kHz 1216,00 ...1224,00 MHz		—	15	—	ns

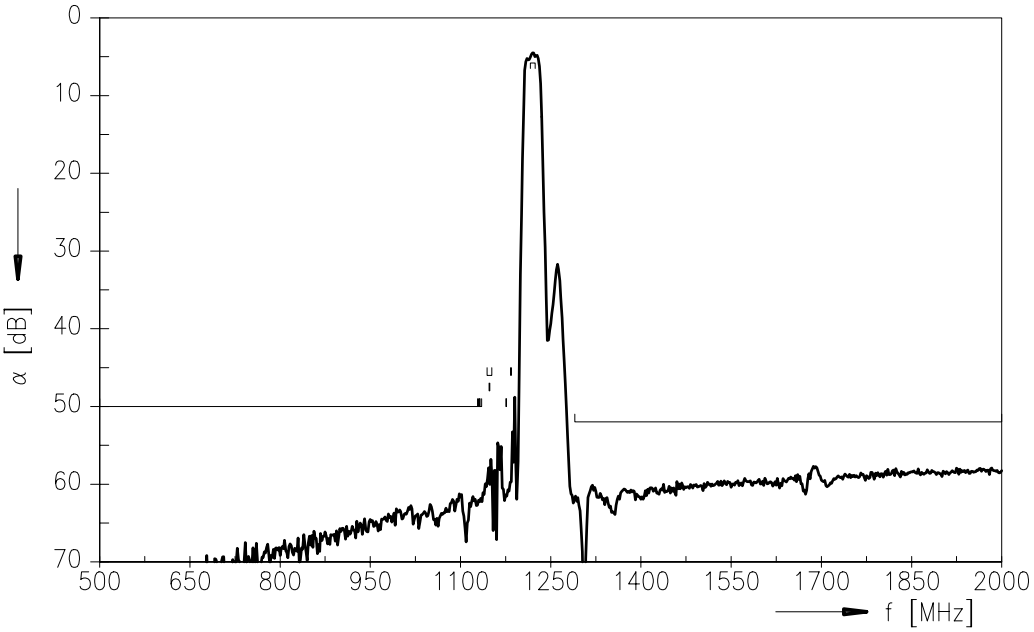
Transfer function

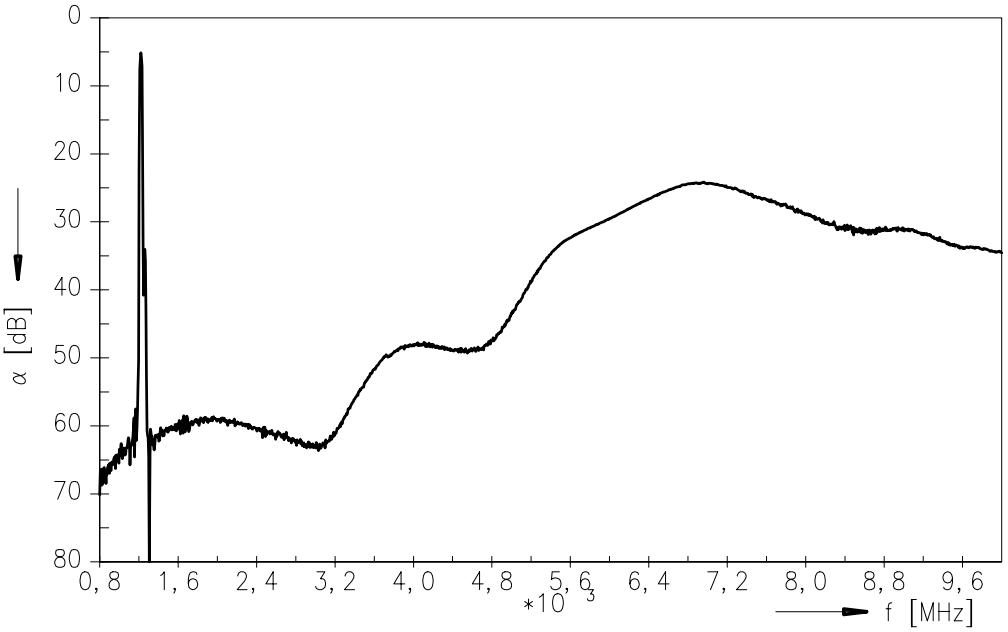


Transfer function (passband)



Transfer function (wideband)



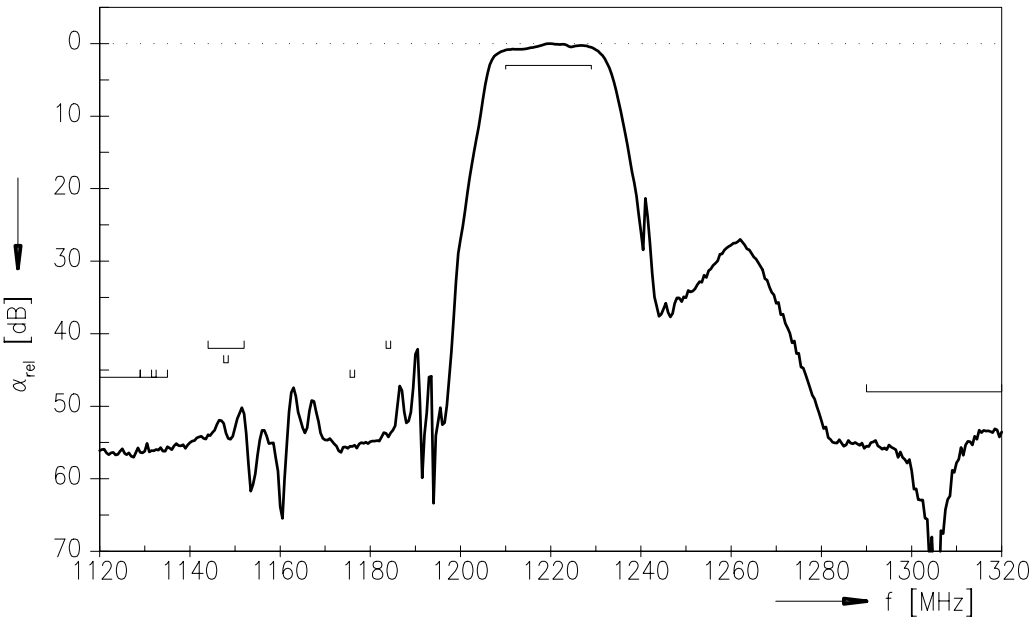


Characteristics

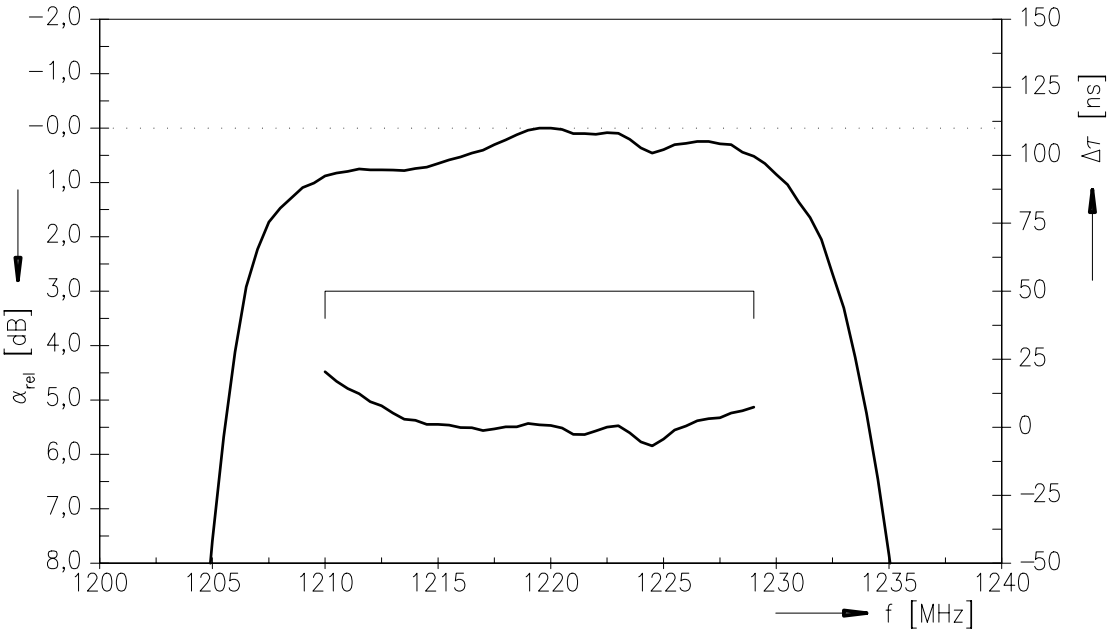
Operating temperature range: T = 20˚C ... 70˚C
Terminating source impedance: Z_S = 200 Ω
Terminating load impedance: Z_L = 200 Ω

		min.	typ.	max.	
Center frequency	f_c	—	1220,0	—	MHz
Minimum insertion attenuation	α_{min}				
1210,00 ...1229,00 MHz		3,5	4,5	5,8	dB
Amplitude ripple in passband (p-p)	$\Delta\alpha$				
1210,00 ...1229,00 MHz		—	1,0	3,0	dB
Relative attenuation (relative to α_{min})	α_{rel}				
500,00 ...f_C–91,00 MHz		46,0	56,0	—	dB
f_C–91,00 ...f_C–85,00 MHz		46,0	56,0	—	dB
f_C–76,00 ...f_C–68,00 MHz		42,0	51,0	—	dB
f_C–88,00 MHz		46,0	56,0	—	dB
f_C–72,00 MHz		44,0	54,0	—	dB
f_C–44,00 MHz		46,0	56,0	—	dB
f_C–36,00 MHz		42,0	48,0	—	dB
f_C+70,00 ...2000,00 MHz		46,0	51,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
Aperture 500 kHz 1210,00 ...1229,00 MHz		—	40	—	ns

Transfer function



Transfer function (passband)



Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW CE MM PD
P.O. Box 80 17 09, 81617 Munich, GERMANY

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This brochure replaces the previous edition.

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