



SAW Components

Data Sheet B3646

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a bright, circular highlight in the center of each, giving them a three-dimensional appearance. They are set against a dark, textured background that includes faint, glowing patterns resembling a globe and circuitry. The overall effect is high-tech and futuristic.

Data Sheet

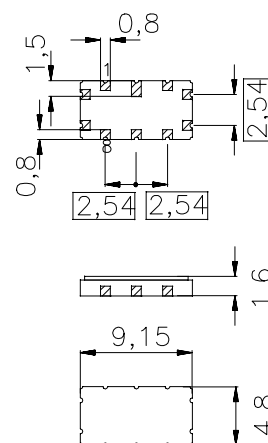
Ceramic package **QCC10B**

Features

- Low-loss wideband IF filter
- No matching required for operation at 50 Ω
- Package for Surface Mounted Technology (SMT)

Terminals

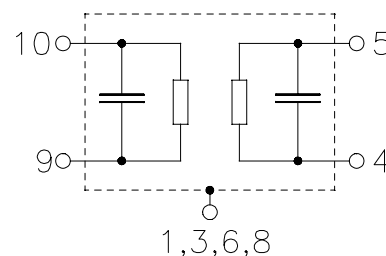
- Gold-plated



Dimensions in mm, approx. weight 0,2 g

Pin configuration

10	Input
9	Input ground
5	Output
4	Output ground
2, 7	Ground
1, 3, 6, 8	Case – ground



Type	Ordering code	Marking and Package according to	Packing according to
B3646	B39211-B3646-Z710	C61157-A7-A49	F61074-V8172-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	$-25/+85$	$^{\circ}\text{C}$	
Storage temperature range	T_{stg}	$-40/+125$	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Source power	P_{s}	10	dBm	



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Low-Loss Filter	208,0 MHz

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Characteristics

Operating temperature:	$T_A = -10 \dots +85 \text{ } ^\circ\text{C}$
Terminating source impedance:	$Z_S = 50 \text{ } \Omega$
Terminating load impedance:	$Z_L = 50 \text{ } \Omega$

		min.	typ.	max.	
Nominal frequency	f_N	—	208,0	—	MHz
Maximum insertion attenuation	$f_N \pm 400 \text{ kHz}$ $\alpha_{\max}$	1,5	2,0	3,5	dB
Passband width	$\alpha_{\text{rel}} \leq 1,0 \text{ dB}$ $B_{1,0\text{dB}}$	—	5,08	—	MHz
Amplitude ripple (p-p)	$f_N \pm 100 \text{ kHz}$ $\Delta\alpha$	—	0,03	0,2	dB
Amplitude ripple (p-p)	$f_N \pm 400 \text{ kHz}$ $\Delta\alpha$	—	0,1	1,0	dB
Absolute group delay (at f_N)	τ	—	120	300	ns
Group delay ripple (p-p)	$f_N \pm 400 \text{ kHz}$ $\Delta\tau$	—	8	30	ns
Relative attenuation (relative to $\alpha_{\max}$)	α_{rel}				
10,0 MHz ... $f_N - 33,0 \text{ MHz}$		38,0	50,0	—	dB
$f_N - 33,0 \text{ MHz}$... $f_N - 23,0 \text{ MHz}$		44,0	50,0	—	dB
$f_N - 23,0 \text{ MHz}$... $f_N - 14,0 \text{ MHz}$		30,0	40,0	—	dB
$f_N - 14,0 \text{ MHz}$... $f_N - 0,4 \text{ MHz}$		0,0	2,0	—	dB
$f_N + 0,4 \text{ MHz}$... $f_N + 14,0 \text{ MHz}$		0,0	2,0	—	dB
$f_N + 14,0 \text{ MHz}$... $f_N + 28,0 \text{ MHz}$		5,0	35,0	—	dB
$f_N + 28,0 \text{ MHz}$... 450,0 MHz		12,0	45,0	—	dB
Input IP3 (Third order intercept point)¹⁾		45,0	—	—	dBm
VSWR	$f_N \pm 400 \text{ kHz}$	—	1,5:1	2,0:1	
Temperature coefficient of frequency	TC_f	—	-70	—	ppm/K

1) With two 10 dbm fundamental signals at 180 MHz and 208 MHz applied the third order intermodulation product at the output at 236 MHz will have less than -64 dBm.



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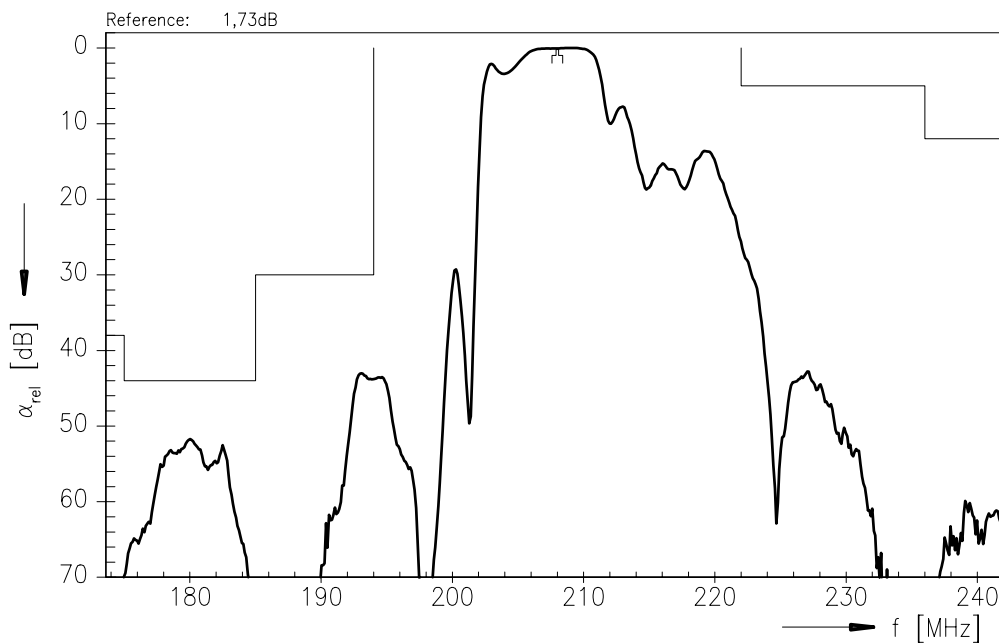
B3646

Low-Loss Filter

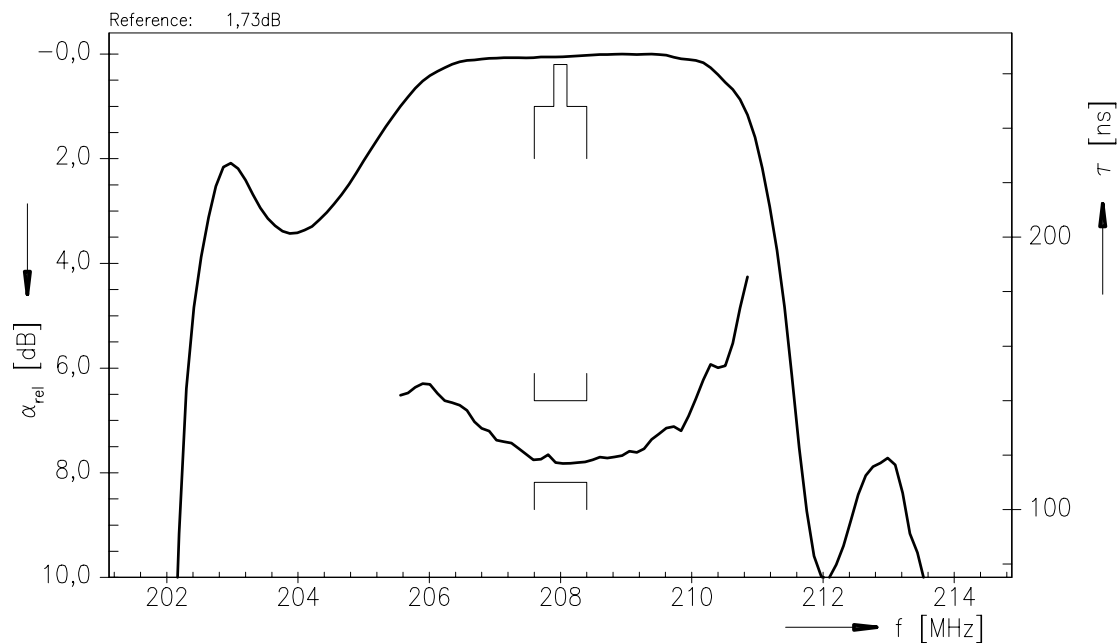
208,0 MHz

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Transfer function



Transfer function (pass band)





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Low-Loss Filter	208,0 MHz

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