



SAW Components

Data Sheet B3665





SAW Components

B3665

Low-Loss Filter

380,00 MHz

Data Sheet

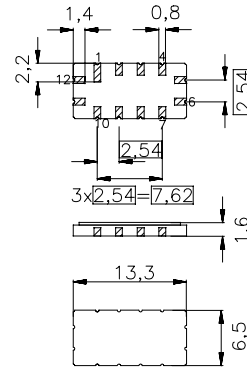
Ceramic package QCC12

Features

- IF filter for WCDMA
- Low insertion loss
- Ceramic SMD package
- Temperature stable

Terminals

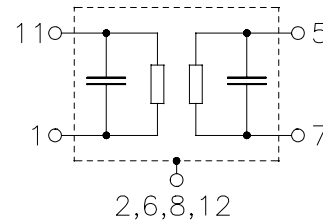
- Gold plated



Dimensions in mm, appr. weight 0,4 g

Pin configuration

- | | |
|-------------|----------------|
| 11 | Input |
| 1 | Input ground |
| 5 | Output |
| 7 | Output ground |
| 2, 6, 8, 12 | Case ground |
| 3 | To be grounded |
| 4, 9, 10 | Not connected |



Type	Ordering code	Marking and Package according to	Packing according to
B3665	B39381-B3665-Z510	C61157-A7-A55	F61074-V8026-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T_A	-40 / +85	°C
Storage temperature range	T_{stg}	-40 / +85	°C
DC voltage	V_{DC}	0	V
Source power	P_s	10	dBm

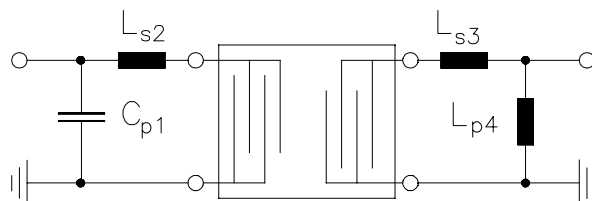

SAW Components
B3665
Low-Loss Filter
380,00 MHz
Data Sheet
Characteristics

Operating temperature:	$T_A = -10 \dots +85 \text{ °C}$
Terminating source impedance:	$Z_S = 50 \text{ } \Omega$ and matching network
Terminating load impedance:	$Z_L = 50 \text{ } \Omega$ and matching network
Group delay aperture:	50 kHz

		min.	typ.	max.		
Nominal frequency	f_N	—	380,00	—	MHz	
Minimum insertion attenuation (including matching network)	α_{\min}	15,0	16,0	17,0	dB	
Passband width						
	$\alpha_{\text{rel}} \leq 1 \text{ dB}$	$B_{1\text{dB}}$	4,2	4,5	—	MHz
	$\alpha_{\text{rel}} \leq 3 \text{ dB}$	$B_{3\text{dB}}$	5,0	5,2	—	MHz
	$\alpha_{\text{rel}} \leq 10 \text{ dB}$	$B_{10\text{dB}}$	—	6,3	6,5	MHz
	$\alpha_{\text{rel}} \leq 30 \text{ dB}$	$B_{30\text{dB}}$	—	7,8	8,0	MHz
Amplitude ripple (p-p)	$\Delta\alpha$					
	$f_N \pm 2,05 \text{ MHz}$	—	0,6	1,0	dB	
Phase ripple (p-p)	$\Delta\varphi$					
	$f_N \pm 2,05 \text{ MHz}$	—	2,5	4	°	
Group delay ripple (p-p)	$\Delta\tau$					
	$f_N \pm 2,05 \text{ MHz}$	—	50	100	ns	
Absolute group delay mean value within $f_N \pm 2,05 \text{ MHz}$ at 25 °C 1)	τ	938	943	948	ns	
Relative attenuation (relative to α_{\min})	α_{rel}					
	346 MHz ... 350 MHz	50	60	—	dB	
	362 MHz ... 366 MHz	55	60	—	dB	
	$f_N \pm 3,5 \text{ MHz}$... $f_N \pm 4,5 \text{ MHz}$	10	15	—	dB	
	$f_N \pm 4,5 \text{ MHz}$... $f_N \pm 5,5 \text{ MHz}$	30	35	—	dB	
	$f_N \pm 5,5 \text{ MHz}$... $f_N \pm 50,00 \text{ MHz}$	40	45	—	dB	
Temperature coefficient of frequency 2)	TC_f	—	- 0,036	—	ppm/K ²	
Turnover temperature	T_0	—	25	—	°C	

1) At other temperatures the variation from filter to filter is also restricted to +/- 5 ns.

2) Temperature dependence of f_c : $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$

Data Sheet
Matching network to 50 Ω (element values depend on pcb layout)


$$C_{p1} = 27 \text{ pF}$$

$$L_{s2} = 33 \text{ nH}$$

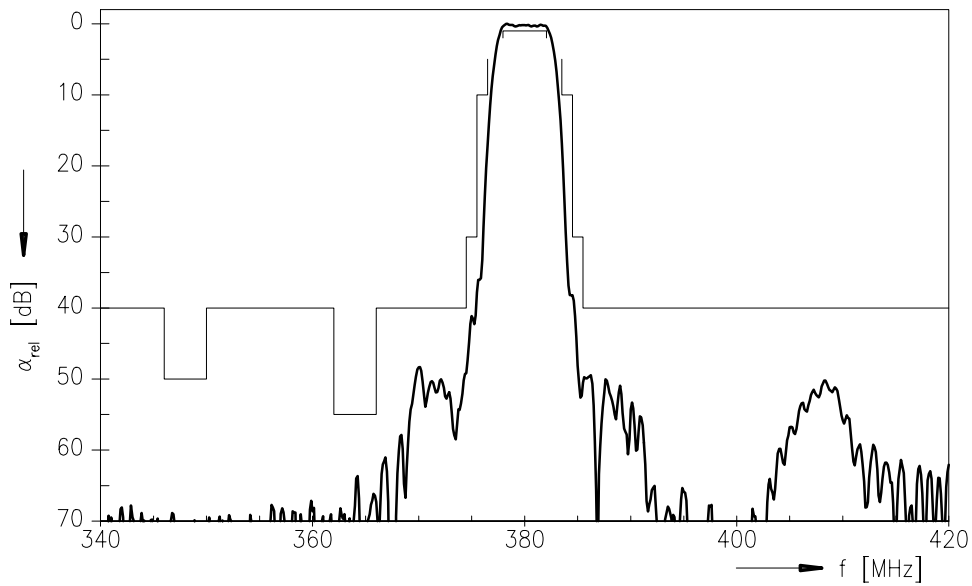
$$L_{s3} = 10 \text{ nH}$$

$$L_{p4} = 22 \text{ nH}$$

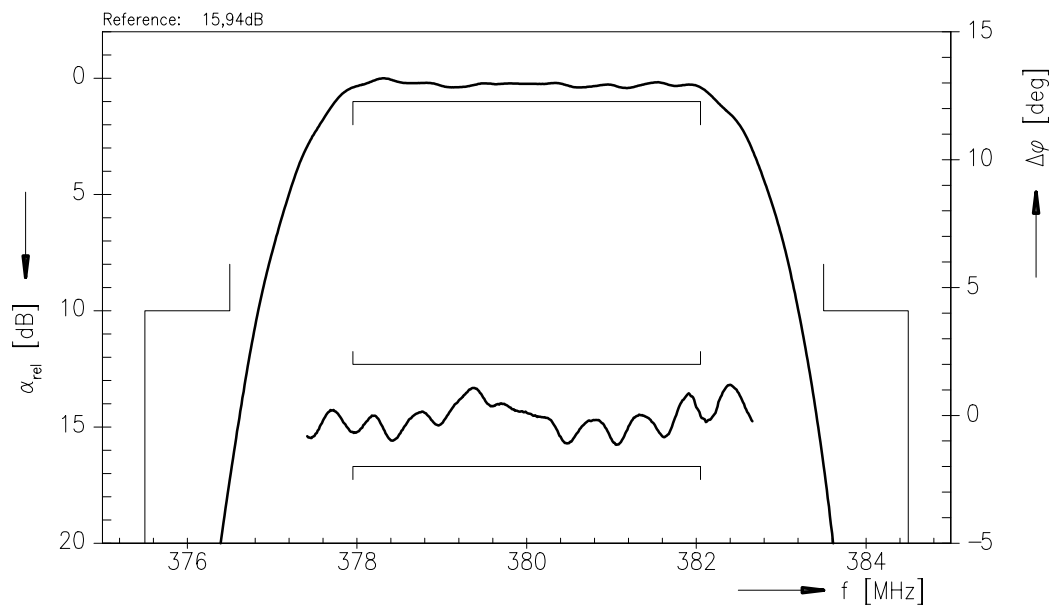


Data Sheet

Transfer function



Transfer function (pass band)





SAW Components

B3665

Low-Loss Filter

380,00 MHz

Data Sheet

Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC IS PD

P.O. Box 80 17 09, D-81617 München

© EPCOS AG 1999. All Rights Reserved.

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.