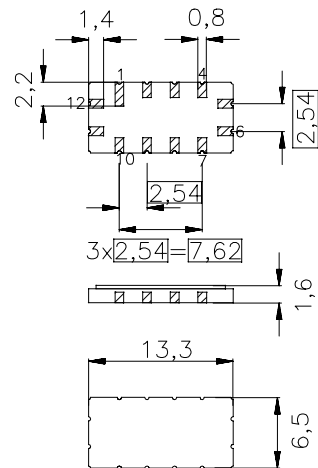# SAW Components

Data Sheet B3869

Ceramic package **QCC12**

## Features

- Low-loss IF-filter for CDMA base station
- Usable bandwidth 8 MHz
- Ceramic SMD package
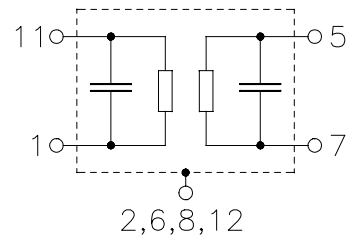
## Terminals

- Gold plated

Dimensions in mm, approx. weight 0,4 g

## Pin configuration

| | |
|---|---|
| 11 | Input |
| 1 | Input ground |
| 5 | Output |
| 7 | Output ground |
| 2, 3, 4, 6, 8, 9, 10, 12 | To be grounded |

| Type | Ordering code | Marking and Package according to | Packing according to |
|---|---|---|---|
| B3869 | B39151-B3869-Z510 | C61157-A7-A55 | F61074-V8163-Z000 |

**E**lectrostatic **S**ensitive **D**evice (**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 | |

Data Sheet

**Characteristics**

Operating temperature range:   $T$   = -40˚C ... 85˚C
Terminating source impedance:   $Z_S$ = 50 Ω and external matching network
Terminating load impedance:   $Z_L$ = 50 Ω and external matching network

| | | min. | typ. | max. | |
|---|---|---|---|---|---|
| **Nominal frequency** | $f_N$ | — | 150,0 | — | MHz |
| **Pass bandwidth** $\qquad\qquad$ $\alpha_{rel} \leq 1,0$ dB | $B_{1,0dB}$ | 8 | 9,3 | — | MHz |
| **Minimum insertion attenuation** (including matching network) | $\alpha_{min}$ | — | 10,8 | 13,0 | dB |
| **Pass band ripple** (p-p) $f_N - 4,0$ MHz ... $f_N + 4,0$ MHz | $\Delta\alpha$ | — | 0,45 | 0,75 | dB |
| **Average group delay** $f_N - 4,0$ MHz ... $f_N + 4,0$ MHz | $\tau$ | — | 0,9 | 1,8 | μs |
| **Group delay ripple** (p-p) $f_N - 4,00$ MHz... $f_N + 4,00$ MHz | $\Delta\tau$ | — | 45 | 150 | ns |
| **Phase ripple** (p-p) $f_N - 4,00$ MHz... $f_N + 4,00$ MHz | $\Delta\varphi$ | — | 4,5 | 7,0 | ˚ |
| **Relative attenuation** (relative to $\alpha_{min}$) $f_N \pm 7,125$ MHz ... $f_N \pm 100,0$ MHz | $\alpha_{rel}$ | 35 | 45 | — | dB |
| **VSWR** $f_N - 4,00$ MHz... $f_N + 4,00$ MHz | | — | 1.55:1 | 1.8:1 | dB |
| **Temperature coefficient of frequency** | $TC_f$ | — | − 18 | — | ppm/K |

**Data Sheet**

## Matching network

(Element values depend upon PCB layout)
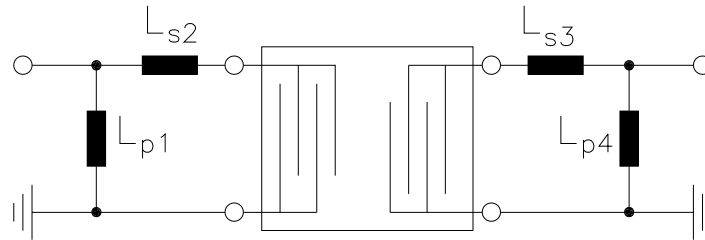


$L_{p1}$ = 22 nH

$L_{s2}$ = 47 nH

$L_{s3}$ = 39 nH

$L_{p4}$ = 27 nH

Data Sheet

### Transfer function
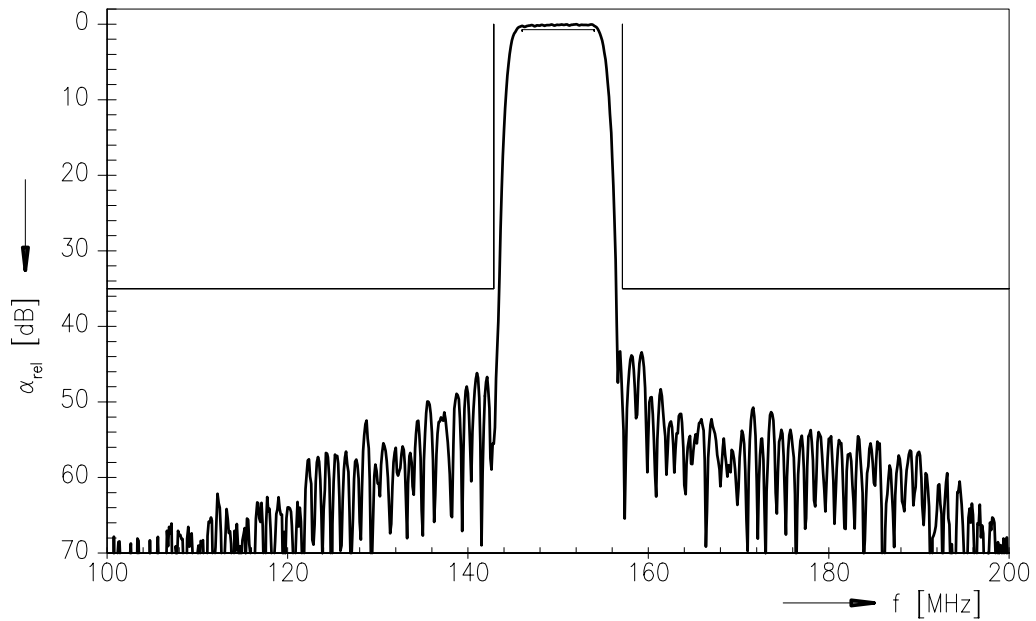


### Transfer function (pass band)
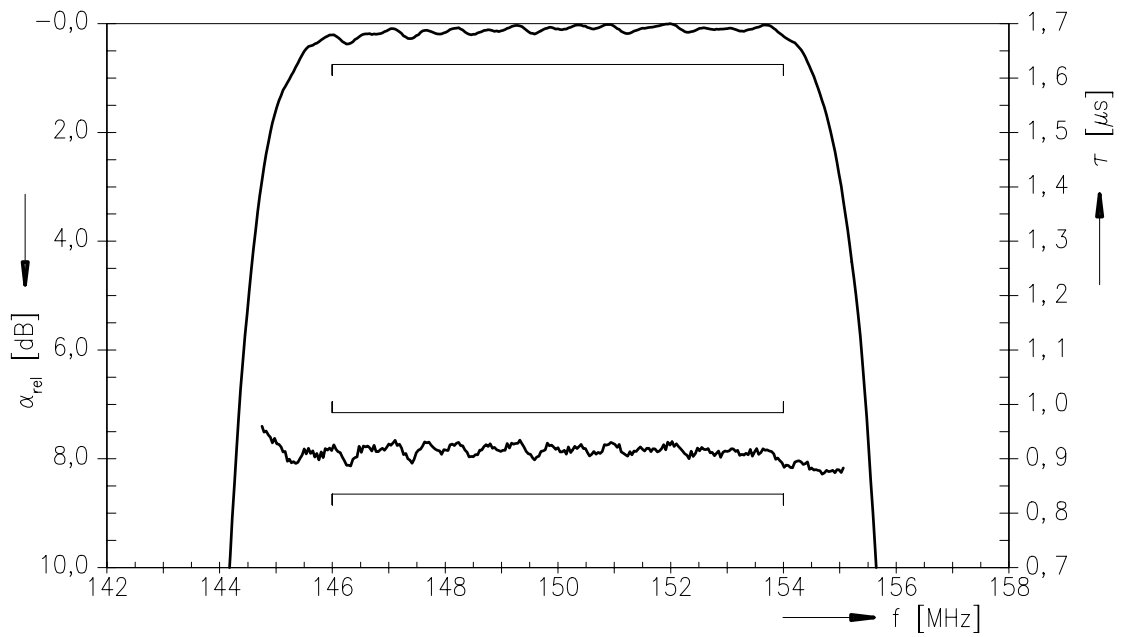
Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

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.