



# *SAW Components*

*Data Sheet B1618*

Data Sheet

An abstract, grayscale background graphic featuring a globe with a grid of latitude and longitude lines. Overlaid on the globe is a large, stylized, 3D-effect word "EPCOS" in a light gray color. The word is tilted and appears to be floating or attached to the globe's surface. The overall image has a dark, moody atmosphere with soft lighting effects.



## SAW Components

B1618

## RF Filter For Dual Conversion

1216,00 MHz



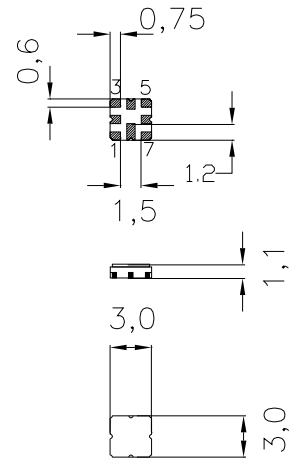
SMD package **QCC8D**

### Features

- Low loss RF filter for dual conversion
- Usable passband 8 MHz
- No matching network required for operation at 200  $\Omega$
- Balanced to balanced operation
- Low group delay ripple
- Ceramic package for **Surface Mounted Technology (SMT)**

### Terminals

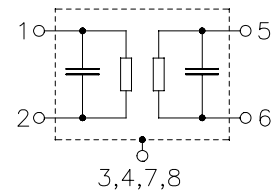
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

### Pin configuration

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



| Type  | Ordering code     | Marking       | Packing according to |
|-------|-------------------|---------------|----------------------|
| B1618 | B39122-B1618-U810 | C61157-A7-A72 | F61074-V8168-Z000    |

Electrostatic **S**ensitive **D**evice (**ESD**)

### Maximum ratings

|                            |                  |         |                    |                                        |
|----------------------------|------------------|---------|--------------------|----------------------------------------|
| Operable temperature range | $T$              | -40/+85 | $^{\circ}\text{C}$ | source and load impedance 200 $\Omega$ |
| Storage temperature range  | $T_{\text{stg}}$ | -40/+85 | $^{\circ}\text{C}$ |                                        |
| DC voltage                 | $V_{\text{DC}}$  | 0       | V                  |                                        |
| Source power               | $P_{\text{S}}$   | 0       | dBm                |                                        |



# SAW Components

B1618

## RF Filter For Dual Conversion

1216,00 MHz



### Characteristics

Operating temperature range:  $T = 35\text{ °C to }75\text{ °C}$   
Terminating source impedance:  $Z_S = 200\ \Omega$   
Terminating load impedance:  $Z_L = 200\ \Omega$

|                                                    |                   | min. | typ.    | max. |     |
|----------------------------------------------------|-------------------|------|---------|------|-----|
| <b>Nominal frequency</b>                           | $f_N$             | —    | 1216,00 | —    | MHz |
| <b>Maximum insertion attenuation</b>               | $\alpha_{\max}$   |      |         |      |     |
| 1212,00 ... 1220,00 MHz                            |                   | —    | 3,2     | 4,2  | dB  |
| <b>Amplitude ripple in passband (p-p)</b>          | $\Delta\alpha$    |      |         |      |     |
| 1212,00 ... 1220,00 MHz                            |                   | —    | 0,7     | 1,2  | dB  |
| <b>Amplitude ripple in any 6 MHz channel (p-p)</b> | $\Delta\alpha$    |      |         |      |     |
| 1212,00 ... 1220,00 MHz                            |                   | —    | 0,7     | 1,2  | dB  |
| <b>Pass bandwidth</b>                              |                   |      |         |      |     |
| $\alpha_{\text{rel}} \leq 3\text{ dB}$             | $B_{3\text{dB}}$  | 12,1 | 17,3    | —    | MHz |
| $\alpha_{\text{rel}} \leq 12\text{ dB}$            | $B_{12\text{dB}}$ | 16,6 | 21,8    | —    | MHz |
| <b>Attenuation</b>                                 | $\alpha$          |      |         |      |     |
| 500,00 ... $f_N - 91,00$ MHz                       |                   | 56,0 | 60,0    | —    | dB  |
| $f_N - 91,00$ ... $f_N - 85,00$ MHz                |                   | 56,0 | 60,0    | —    | dB  |
| $f_N - 76,00$ ... $f_N - 68,00$ MHz                |                   | 55,0 | 59,0    | —    | dB  |
| $f_N - 88,00$ MHz                                  |                   | 56,0 | 60,0    | —    | dB  |
| $f_N - 72,00$ MHz                                  |                   | 55,0 | 59,0    | —    | dB  |
| $f_N - 44,00$ MHz                                  |                   | 50,0 | 57,0    | —    | dB  |
| $f_N - 36,00$ MHz                                  |                   | 46,0 | 50,0    | —    | dB  |
| $f_N + 40,00$ ... 2000,00 MHz                      |                   | 54,0 | 60,0    | —    | dB  |
| <b>Group delay ripple (p-p)</b>                    |                   |      |         |      |     |
| 1212,00 ... 1220,00 MHz                            |                   | —    | 15      | —    | ns  |



SAW Components

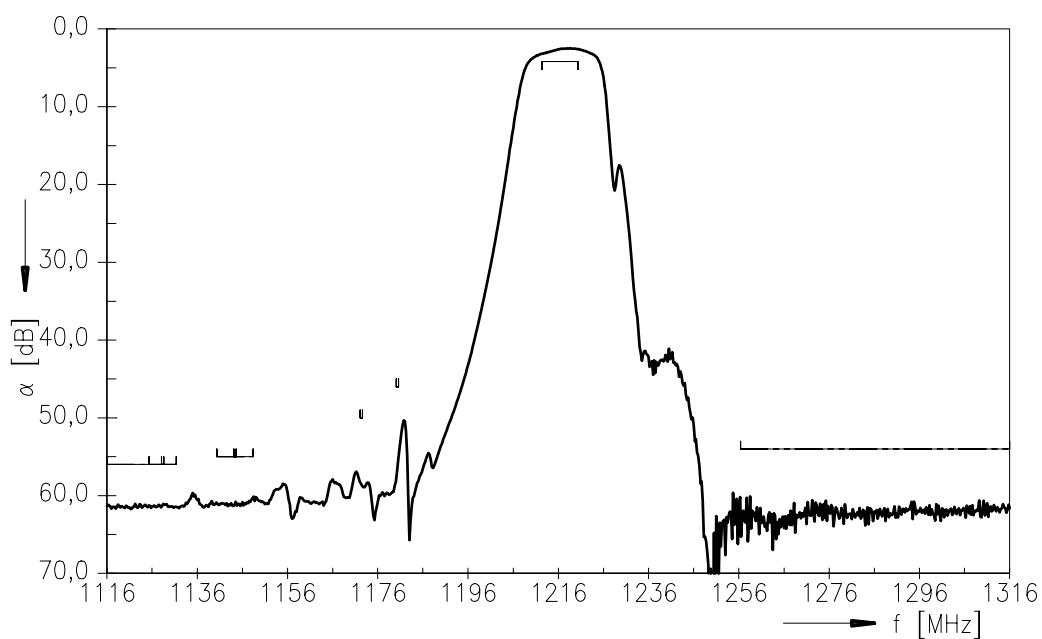
B1618

RF Filter For Dual Conversion

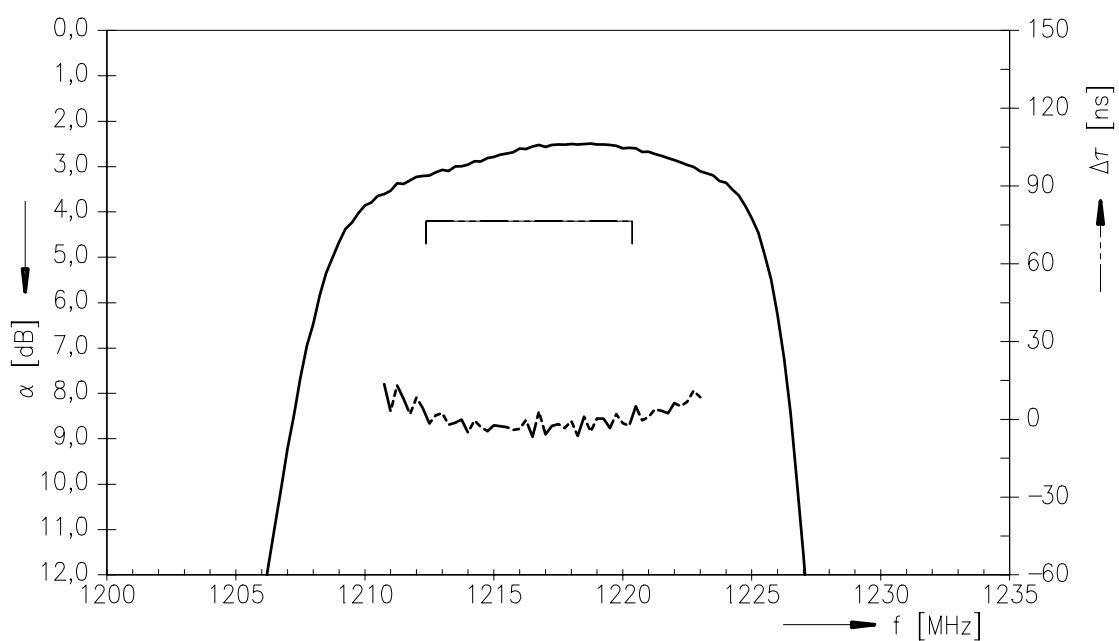
1216,00 MHz



### Transfer function



### Transfer function (passband)





SAW Components

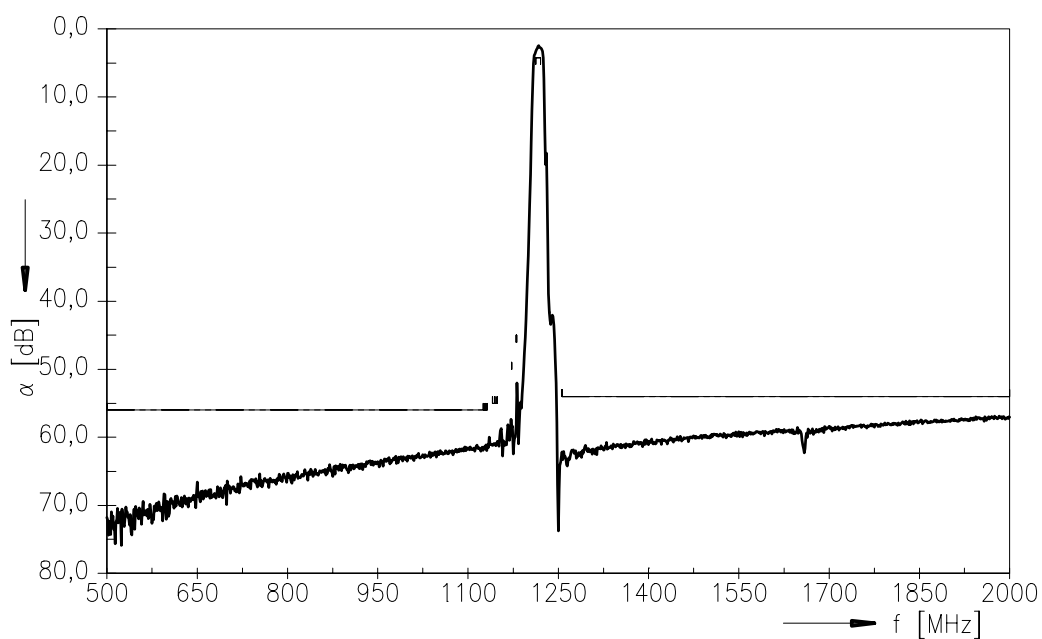
B1618

RF Filter For Dual Conversion

1216,00 MHz



Transfer function (wideband)





**SAW Components**

**B1618**

**RF Filter For Dual Conversion**

**1216,00 MHz**



**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW MC PD 2**

**P.O. Box 80 17 09, 81617 Munich, GERMANY**

© EPCOS AG 2004. Reproduction, publication and dissemination of this data sheet, enclosures hereto and the information contained therein without EPCOS' prior express consent is prohibited.

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.