EPCOS

# *SAW Components*

*Data Sheet B4149*

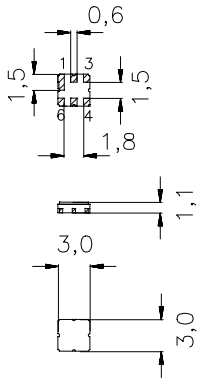
Ceramic package **DCC6D**

## Features

- Low-loss RF filter for mobile telephone PCN systems, receive path
- Low amplitude ripple
- Usable passband 75 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50Ω to 200Ω
- Package for **S**urface **M**ounted **T**echnology (**SMT**)
- Ceramic SMD package

## Terminals

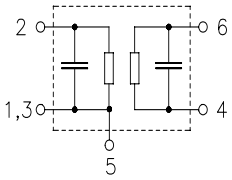
- Ni, gold-plated




Dimensions in mm, approx. weight 0,037 g

## Pin configuration

| | |
|---|---|
| 2 | Input, unbalanced |
| 4, 6 | Output, balanced |
| 1, 3 | Input ground |
| 1, 3, 5 | To be grounded |




| Type | Ordering code | Marking and Package according to | Packing according to |
|---|---|---|---|
| B4149 | B39182-B4149-U510 | C61157-A7-A68 | F61074-V8089-Z000 |

**E**lectrostatic **S**ensitive **D**evice (**ESD**)

## Maximum ratings

| | | | | |
|---|---|---|---|---|
| Operable temperature range | $T$ | – 20 / + 75 | ˚C | |
| Storage temperature range | $T_{stg}$ | – 40 / + 85 | ˚C | |
| DC voltage | $V_{DC}$ | 5 | V | |
| Input power max. | $P_{IN}$ | | | source/load impedance 50Ω/200Ω |
| 1710,0 ... 1785,0 MHz | | 5 | dBm | peak power of GSM signal duty cycle 1:8 |
| elsewhere | | 0 | dBm | |

## Characteristics

Operating Temperature Range: $T$ = +25 ± 2 °C
Terminating source impedance: $Z_S$ = 50Ω (unbalanced)
Terminating load impedance: $Z_L$ = 200Ω || 22 nH (balanced)

| | | min. | typ. | max. | |
|---|---|---|---|---|---|
| **Center frequency** | $f_C$ | — | 1842,5 | — | MHz |
| **Maximum insertion attenuation** | $\alpha_{max}$ | | | | |
| 1805,0 ... 1880,0 MHz | | — | 2,0 | 3,5 | dB |
| **Amplitude ripple** (p-p) | $\Delta\alpha$ | | | | |
| 1805,0 ... 1880,0 MHz | | — | 0,9 | 2,0 | dB |
| **Attenuation** | $\alpha$ | | | | |
| 0,0 ... 1000,0 MHz | | 40 | 50 | — | dB |
| 1000,0 ... 1550,0 MHz | | 30 | 40 | — | dB |
| 1550,0 ... 1705,0 MHz | | 25 | 28 | — | dB |
| 1705,0 ... 1785,0 MHz | | 12 | 18 | — | dB |
| 1920,0 ... 1980,0 MHz | | 12 | 17 | — | dB |
| 1980,0 ... 2010,0 MHz | | 18 | 22 | — | dB |
| 2010,0 ... 2500,0 MHz | | 20 | 26 | — | dB |
| 2500,0 ... 3840,0 MHz | | 25 | 35 | — | dB |
| 3840,0 ... 6000,0 MHz | | 20 | 32 | — | dB |

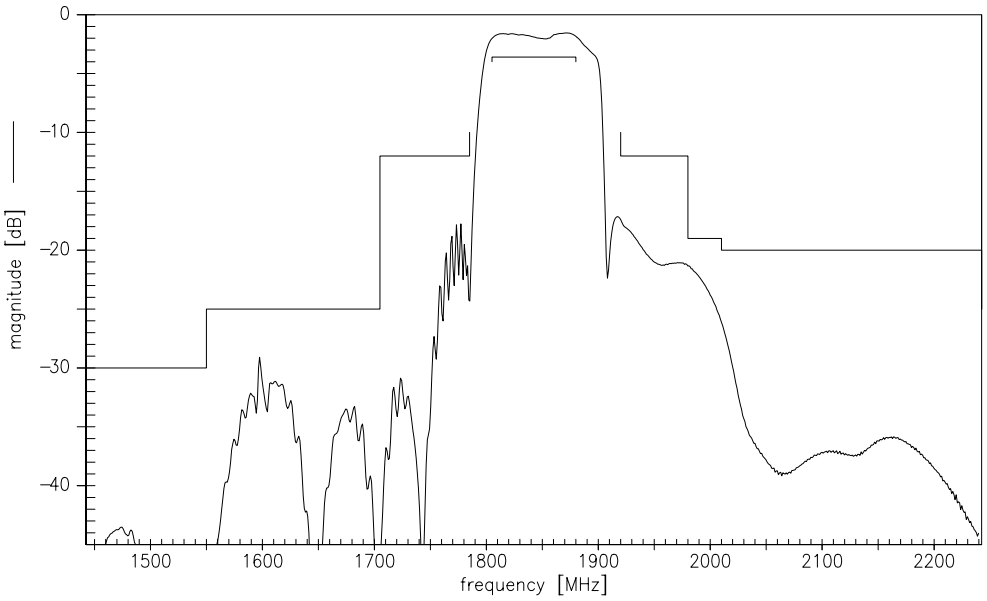
Data Sheet SMD

## Characteristics

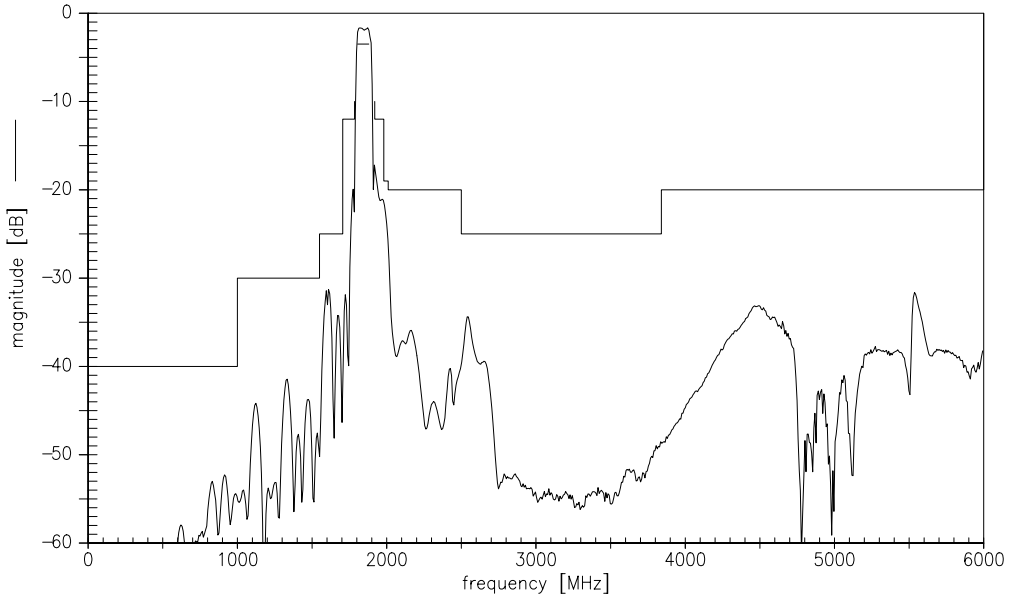
Operating Temperature Range: $T$ = -20 to +75°C
Terminating source impedance: $Z_S$ = 50Ω (unbalanced)
Terminating load impedance: $Z_L$ = 200Ω (balanced) || 22 nH

| | | min. | typ. | max. | |
|---|---|---|---|---|---|
| **Center frequency** | $f_C$ | — | 1842,5 | — | MHz |
| **Maximum insertion attenuation** | $\alpha_{max}$ | | | | |
| 1805,0 ... 1880,0 MHz | | — | 2,5 | 4,0 | dB |
| **Amplitude ripple** (p-p) | $\Delta\alpha$ | | | | |
| 1805,0 ... 1880,0 MHz | | — | 1,4 | 2,5 | dB |
| **Attenuation** | $\alpha$ | | | | |
| 0,0 ... 1000,0 MHz | | 40 | 50 | — | dB |
| 1000,0 ... 1550,0 MHz | | 30 | 40 | — | dB |
| 1550,0 ... 1705,0 MHz | | 25 | 28 | — | dB |
| 1705,0 ... 1785,0 MHz | | 10 | 15 | — | dB |
| 1920,0 ... 1980,0 MHz | | 10 | 17 | — | dB |
| 1980,0 ... 2010,0 MHz | | 18 | 22 | — | dB |
| 2010,0 ... 2500,0 MHz | | 20 | 26 | — | dB |
| 2500,0 ... 3840,0 MHz | | 25 | 35 | — | dB |
| 3840,0 ... 6000,0 MHz | | 20 | 32 | — | dB |

**Transfer function**




**Transfer function** (wide band)



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