EPCOS

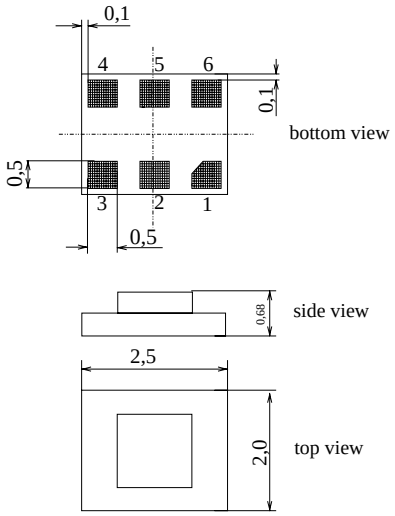
# *SAW Components*

*Data Sheet B7766*

Chip Sized Saw Package DCS6K

### Features

- Low-loss RF filter for bluetooth
- Usable passband 83,5 MHz
- Unbalanced to balanced operation
- Impedance transformation
- Package for **S**urface **M**ounted **T**echnology (**SMT**)



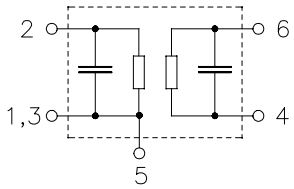

### Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,010g

### Pin configuration

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




| Type | Ordering code | Marking and Package according to | Packing according to |
|---|---|---|---|
| B7766 | B39242-B7766-C911 | C61157-A7-A123 | F61074-V8153-Z000 |

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

### Maximum ratings

| | | | | |
|---|---|---|---|---|
| Operable temperature range | $T$ | – 40 /+ 85 | ˚C | |
| Storage temperature range | $T_{stg}$ | – 40 /+ 85 | ˚C | |
| DC voltage | $V_{DC}$ | 3,5 | V | |
| ESD voltage | $V_{ESD}$ | 50* | V | Machine Model, 10 pulses |
| Input power max. | | | | |
| 2400...2483,5 MHz | $P_{IN}$ | 8 | dBm | source/load impedance 50Ω / 120Ω c.w. |
| 824...849, 880...915 MHz | | 25 | | |
| 1710..1785, 1850..1910 MHz | | 23 | | |

* - acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses

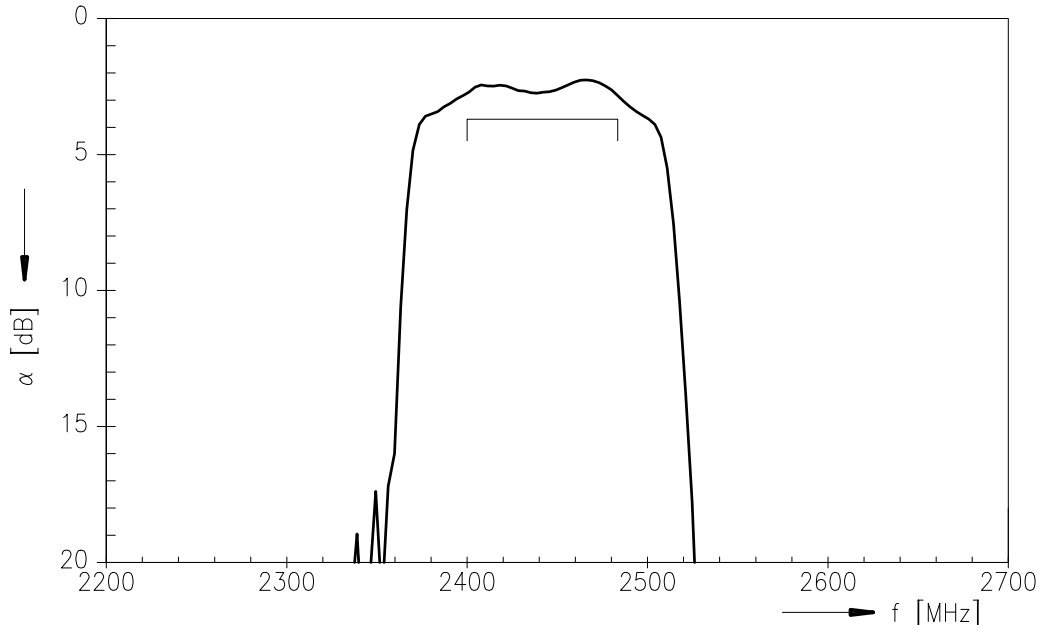
**Characteristics (matching for a chipset impedance of** 120 Ω || 0,6pF**)**

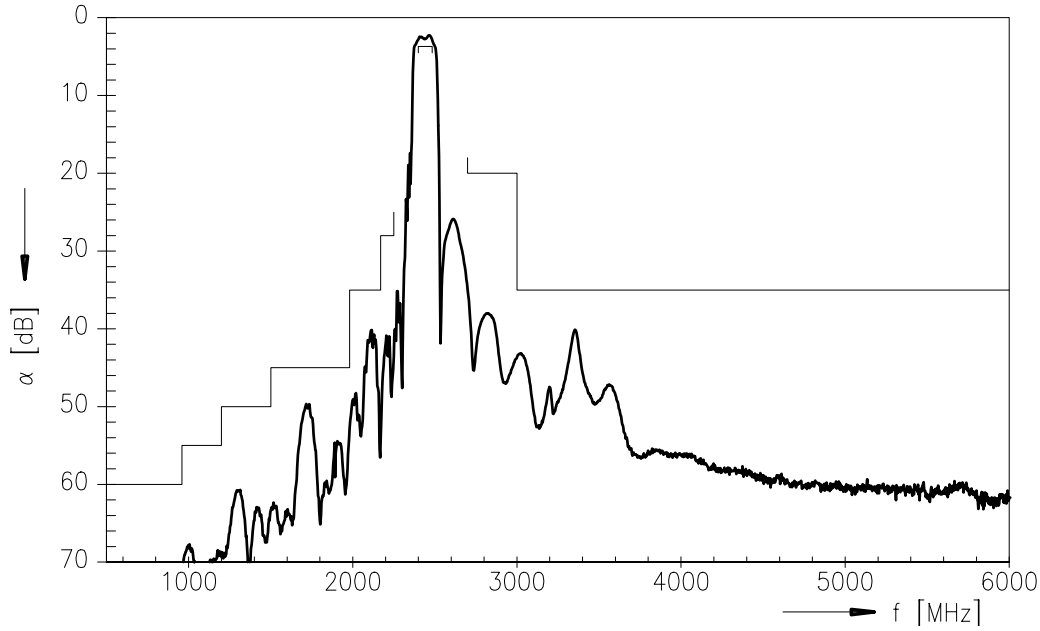
Operating temperature range: $T$ = -40 to + 85 °C
Terminating source impedance: $Z_S$ = 50Ω || 8,2nH
Terminating load impedance: $Z_L$ = (120Ω || 0,6pF) || 3,9nH *)

| | | min. | typ. | max. | |
|---|---|---|---|---|---|
| **Center frequency** | $f_c$ | — | 2441,75 | — | MHz |
| **Maximum insertion attenuation** | $\alpha_{max}$ | | | | |
| 2400,0 ... 2483,5 MHz | | — | 3,0 | 3,7 | dB |
| **Return loss** | | | | | |
| 2400,0 ... 2483,5 MHz | | — | 9,0 | — | dB |
| **Amplitude ripple** (p-p) | $\Delta\alpha$ | | | | |
| 2400,0 ... 2483,5 MHz | | — | 1,0 | 2,0 | dB |
| **Attenuation** | $\alpha$ | | | | |
| 500,0 ... 960,0 MHz | | 60 | 70 | — | dB |
| 960,0 ... 1200,0 MHz | | 55 | 68 | — | dB |
| 1200,0 ... 1501,0 MHz | | 50 | 61 | — | dB |
| 1501,0 ... 1980,0 MHz | | 45 | 50 | — | dB |
| 1980,0 ... 2170,0 MHz | | 35 | 39 | — | dB |
| 2170,0 ... 2250,0 MHz | | 28 | 40 | — | dB |
| 2700,0 ... 3000,0 MHz | | 20 | 34 | — | dB |
| 3000,0 ... 4000,0 MHz | | 35 | 40 | — | dB |
| 4000,0 ... 6000,0 MHz | | 35 | 56 | — | dB |

*) equals 120Ω || 8,2nH

**Transfer function**



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