



# SAW Components

Data Sheet B7748





**SAW Components**

**B7748**

**Low-Loss Filter for Mobile Communication**

**836,5 MHz**

**Data Sheet**



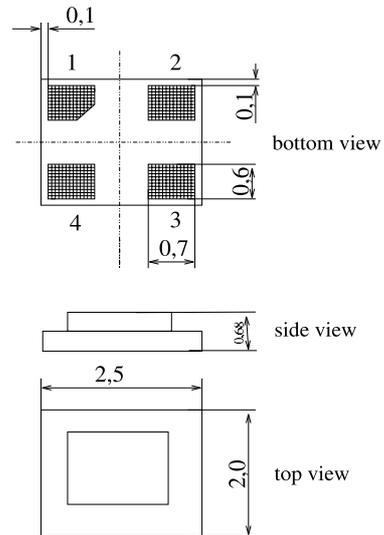
Chip sized SAW package **DCS4E**

**Features**

- Low-loss RF filter for cell system, transmit path
- High counterband suppression
- Usable passband 25 MHz
- Unbalanced/unbalanced operation
- Package size: 2 mm x 2.5 mm (4 pin, diagonal pinning)

**Terminals**

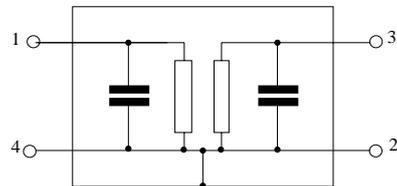
- Ni, gold-plated



Dimensions in mm, approx weight 0,012g

**Pin configuration**

- |     |        |
|-----|--------|
| 1   | Input  |
| 3   | Output |
| 2,4 | Ground |



| Type  | Ordering code     | Marking and Package according to | Packing according to |
|-------|-------------------|----------------------------------|----------------------|
| B7748 | B39841-B7748-E510 | C61157-A7-A121                   | F61074-V8153-Z000    |

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

|                            |           |             |     |                              |
|----------------------------|-----------|-------------|-----|------------------------------|
| Operable temperature range | $T$       | - 30 / + 85 | °C  |                              |
| Storage temperature range  | $T_{stg}$ | - 40 / + 85 | °C  |                              |
| DC voltage                 | $V_{DC}$  | 3           | V   |                              |
| ESD voltage                | $V_{ESD}$ | 50          | V   |                              |
| Source power               | $P_s$     | 16          | dBm | source impedance 50 $\Omega$ |



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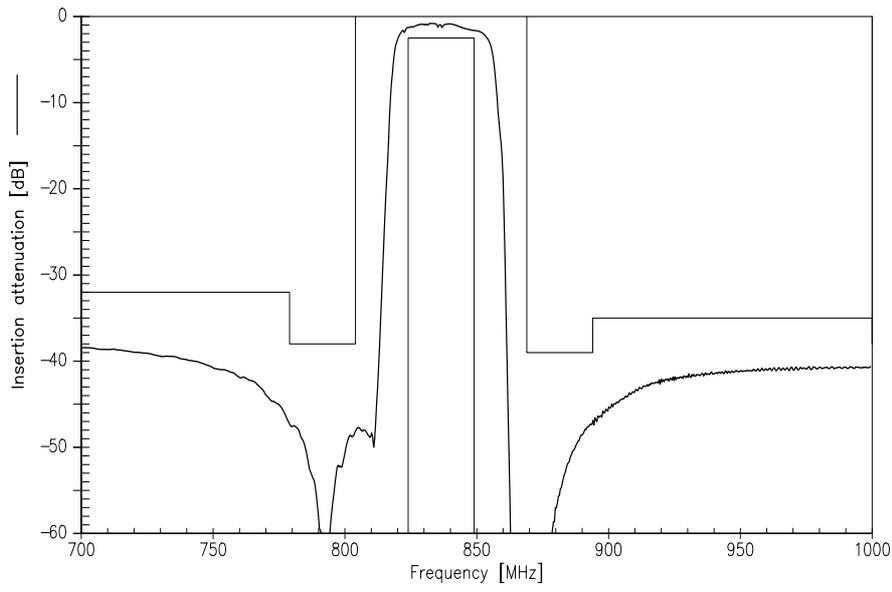
Characteristics

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega$   
 Terminating load impedance:  $Z_L = 50 \Omega$

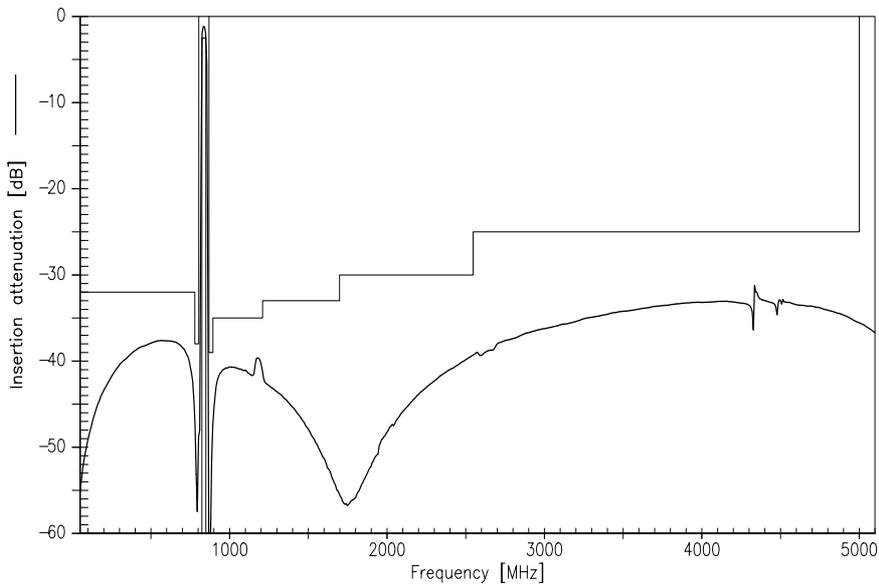
|                                      |                       | min. | typ.  | max. |     |
|--------------------------------------|-----------------------|------|-------|------|-----|
| <b>Center frequency</b>              | $f_C$                 | —    | 836,5 | —    | MHz |
| <b>Maximum insertion attenuation</b> | $\alpha_{max}$        |      |       |      |     |
|                                      | 824,0 ... 849,0 MHz   | —    | 2,0   | 2,5  | dB  |
| <b>Ripple</b>                        | p-p                   |      |       |      |     |
|                                      | 824,0 ... 849,0 MHz   | —    | 1,3   | 1,7  | dB  |
| <b>Input return loss @ 50 Ohm</b>    |                       |      |       |      |     |
|                                      | 824,0 ... 849,0 MHz   | 11   | 12    | ---  | dB  |
| <b>Output return loss @ 50 Ohm</b>   |                       |      |       |      |     |
|                                      | 824,0 ... 849,0 MHz   | 11   | 12    | ---  | dB  |
| <b>Attenuation</b>                   | $\alpha$              |      |       |      |     |
|                                      | 0,0 ... 779,0 MHz     | 32   | 37    | —    | dB  |
|                                      | 779,0 ... 804,0 MHz   | 38   | 45    | —    | dB  |
|                                      | 869,0 ... 894,0 MHz   | 39   | 46    | —    | dB  |
|                                      | 894,0 ... 1029,0 MHz  | 35   | 40    | —    | dB  |
|                                      | 1029,0 ... 1209,0 MHz | 35   | 39    | —    | dB  |
|                                      | 1209,0 ... 1306,0 MHz | 33   | 39    | —    | dB  |
|                                      | 1306,0 ... 1698,0 MHz | 33   | 43    | —    | dB  |
|                                      | 1698,0 ... 2547,0 MHz | 30   | 38    | —    | dB  |
|                                      | 2547,0 ... 5000,0 MHz | 25   | 30    | —    | dB  |



Transfer function:



Transfer function (wide band):





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