



# SAW Components

Data Sheet B7802

Data Sheet

A large, stylized, and somewhat abstract graphic of the EPCOS logo. The letters "EPCOS" are rendered in a bold, sans-serif font, appearing to be part of a larger, curved structure that resembles a globe or a stylized wave. The graphic is in grayscale and has a high-contrast, almost glowing appearance.



## SAW Components

B7802

## Low-Loss Filter for Mobile Communication

1880,00 MHz

### Data Sheet



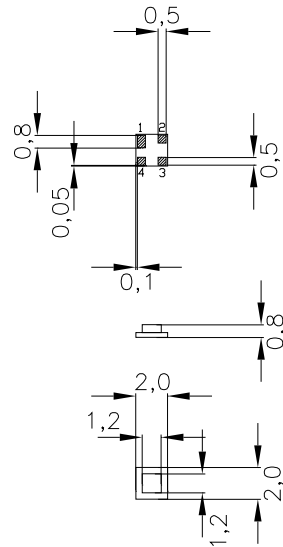
### Chip sized SAW package DCS4A

#### Features

- Low-loss RF filter for mobile telephone PCS system, transmit path
- Usable passband 60 MHz
- No matching network required for operation at 50  $\Omega$
- Package for **Surface Mounted Technology (SMT)**

#### Terminals

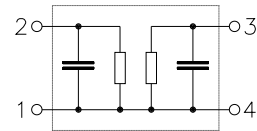
- Ni, gold-plated



Dimensions in mm, approx. weight 0,01g

#### Pin configuration

|   |                 |
|---|-----------------|
| 2 | Input           |
| 1 | Input - ground  |
| 3 | Output          |
| 4 | Output - ground |



| Type  | Ordering code     | Marking and Package according to | Packing according to |
|-------|-------------------|----------------------------------|----------------------|
| B7802 | B39192-B7802-A510 | C61157-A7-A63                    | F61074-V8154-Z000    |

Electrostatic Sensitive Device (ESD)

#### Maximum ratings

|                            |                  |             |                    |  |
|----------------------------|------------------|-------------|--------------------|--|
| Operable temperature range | $T$              | - 40 / + 85 | $^{\circ}\text{C}$ | source and impedance 50 $\Omega$<br>peak power of GSM signal,<br>duty cycle 1:3<br>CDMA signal |
| Storage temperature range  | $T_{\text{stg}}$ | - 40 / + 85 | $^{\circ}\text{C}$ |  |
| DC voltage                 | $V_{\text{DC}}$  | 0           | V                  |  |
| Input power max.           | $P_{\text{IN}}$  | 10          | dBm                |  |
|                            |                  | 8           | dBm                |  |



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### Characteristics

Operating temperature range:  $T = +25 \pm 2 \text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$

|                                      |                       |  | min. | typ.    | max. |     |
|--------------------------------------|-----------------------|--|------|---------|------|-----|
| <b>Center frequency</b>              | $f_C$                 |  | —    | 1880,00 | —    | MHz |
| <b>Maximum insertion attenuation</b> | $\alpha_{\max}$       |  |      |         |      |     |
|                                      | 1850,0 ... 1910,0 MHz |  | —    | 3,0     | 3,6  | dB  |
| <b>Amplitude ripple (p-p)</b>        | $\Delta\alpha$        |  |      |         |      |     |
|                                      | 1850,0 ... 1910,0 MHz |  | —    | 1,5     | 2,1  | dB  |
| <b>IVSWR</b>                         |                       |  |      |         |      |     |
|                                      | 1850,0 ... 1910,0 MHz |  | —    | 2,0     | 2,2  |     |
| <b>Attenuation</b>                   | $\alpha$              |  |      |         |      |     |
|                                      | 10,0 ... 950,0 MHz    |  | 15,0 | 17,0    | —    | dB  |
|                                      | 950,0 ... 1050,0 MHz  |  | 14,0 | 15,0    | —    | dB  |
|                                      | 1050,0 ... 1580,0 MHz |  | 16,0 | 18,0    | —    | dB  |
|                                      | 1580,0 ... 1720,0 MHz |  | 25,0 | 28,0    | —    | dB  |
|                                      | 1720,0 ... 1780,0 MHz |  | 21,0 | 23,0    | —    | dB  |
|                                      | 1780,0 ... 1800,0 MHz |  | 18,0 | 20,5    | —    | dB  |
|                                      | 1800,0 ... 1830,0 MHz |  | 10,0 | 20,0    | —    | dB  |
|                                      | 1930,0 ... 1990,0 MHz |  | 15,0 | 24,0    | —    | dB  |
|                                      | 1990,0 ... 2400,0 MHz |  | 25,0 | 28,0    | —    | dB  |
|                                      | 2400,0 ... 2800,0 MHz |  | 20,0 | 24,0    | —    | dB  |
|                                      | 2800,0 ... 3500,0 MHz |  | 15,0 | 18,0    | —    | dB  |
|                                      | 3500,0 ... 6000,0 MHz |  | 13,0 | 15,0    | —    | dB  |



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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>              | $f_C$           |  | —    | 1880,00 | —    | MHz |
| <b>Maximum insertion attenuation</b> | $\alpha_{\max}$ |  |      |         |      |     |
| 1850,0 ... 1910,0 MHz                |                 |  | —    | 3,2     | 4,3  | dB  |
| <b>Amplitude ripple (p-p)</b>        | $\Delta\alpha$  |  |      |         |      |     |
| 1850,0 ... 1910,0 MHz                |                 |  | —    | 1,8     | 2,8  | dB  |
| <b>IVSWR</b>                         |                 |  |      |         |      |     |
| 1850,0 ... 1910,0 MHz                |                 |  | —    | 2,0     | 2,2  |     |
| <b>Attenuation</b>                   | $\alpha$        |  |      |         |      |     |
| 10,0 ... 950,0 MHz                   |                 |  | 15,0 | 17,0    | —    | dB  |
| 950,0 ... 1050,0 MHz                 |                 |  | 14,0 | 15,0    | —    | dB  |
| 1050,0 ... 1580,0 MHz                |                 |  | 16,0 | 18,0    | —    | dB  |
| 1580,0 ... 1720,0 MHz                |                 |  | 25,0 | 28,0    | —    | dB  |
| 1720,0 ... 1780,0 MHz                |                 |  | 21,0 | 23,0    | —    | dB  |
| 1780,0 ... 1800,0 MHz                |                 |  | 18,0 | 20,5    | —    | dB  |
| 1800,0 ... 1830,0 MHz                |                 |  | 6,0  | 16,0    | —    | dB  |
| 1930,0 ... 1990,0 MHz                |                 |  | 10,0 | 19,0    | —    | dB  |
| 1990,0 ... 2400,0 MHz                |                 |  | 25,0 | 28,0    | —    | dB  |
| 2400,0 ... 2800,0 MHz                |                 |  | 20,0 | 24,0    | —    | dB  |
| 2800,0 ... 3500,0 MHz                |                 |  | 15,0 | 18,0    | —    | dB  |
| 3500,0 ... 6000,0 MHz                |                 |  | 13,0 | 15,0    | —    | dB  |



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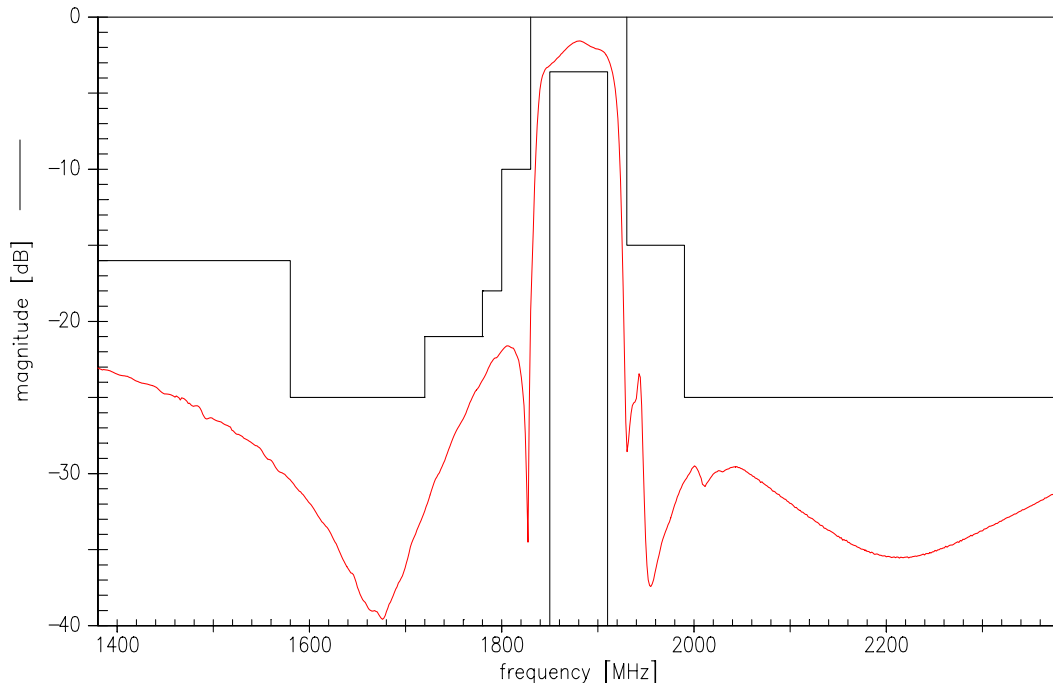
Low-Loss Filter for Mobile Communication

1880,00 MHz

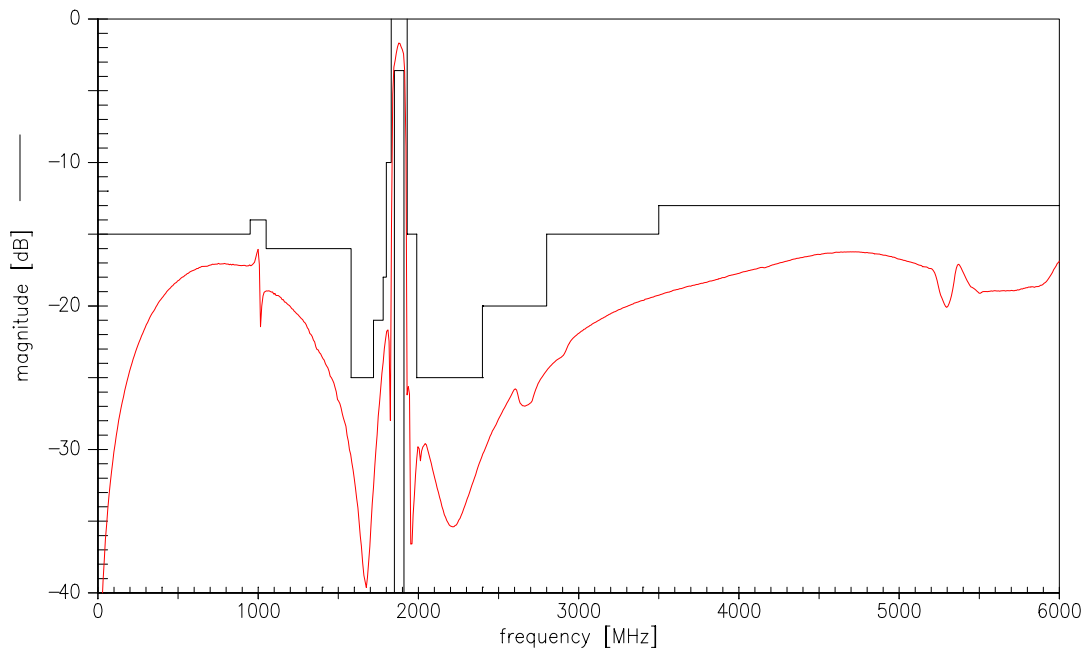
Data Sheet



Transfer function (narrowband with 25° C spec)



Transfer function (wideband)





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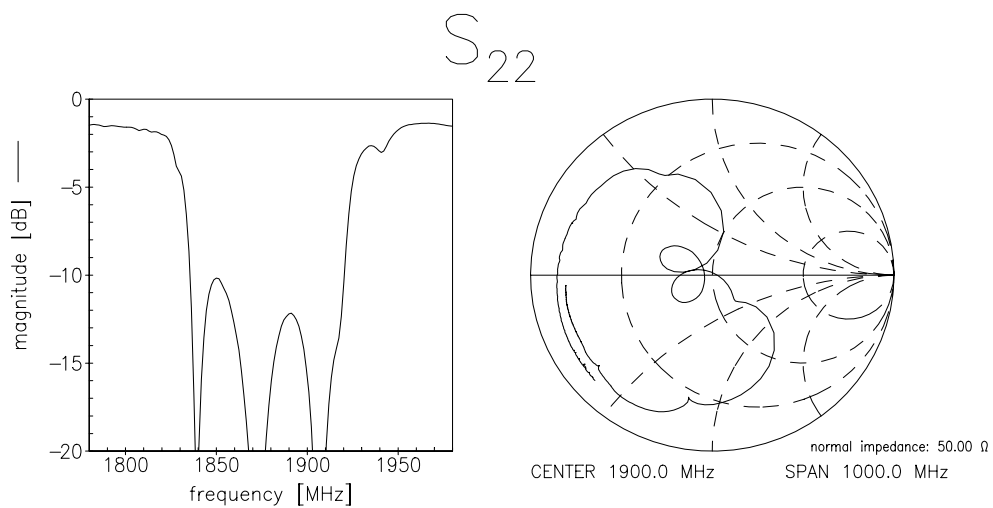
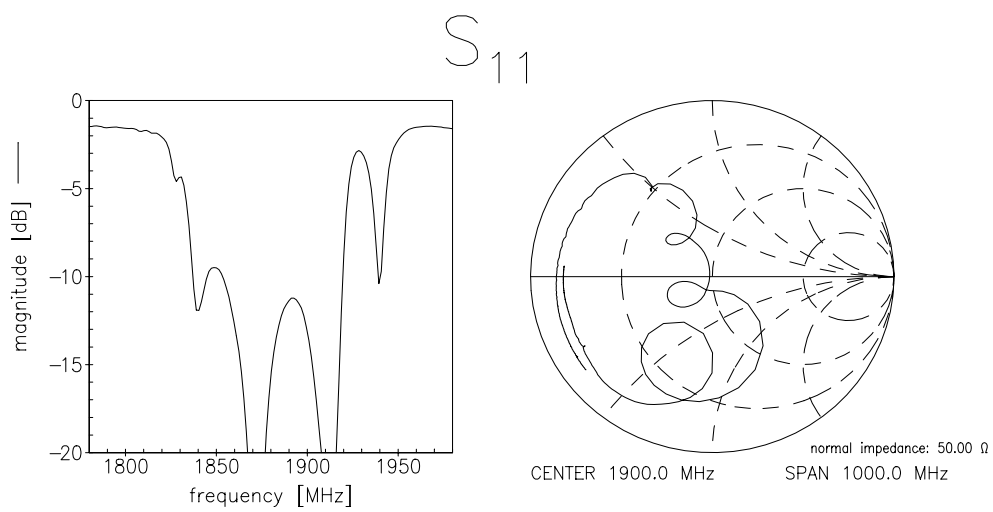
Low-Loss Filter for Mobile Communication

1880,00 MHz

Data Sheet



Matching (measurement)





|   |                    |
|---|--------------------|
| <b>SAW Components</b>                           | <b>B7802</b>       |
| <b>Low-Loss Filter for Mobile Communication</b> | <b>1880,00 MHz</b> |
| <b>Data Sheet</b>                               | <b>SMD</b>         |

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