



SAW Components

Data Sheet B4166

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are in a bold, sans-serif font, appearing to be part of a larger, curved structure that resembles a stylized globe or a series of overlapping planes. The graphic is rendered in shades of gray and white, giving it a metallic or high-tech appearance.



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Low-Loss Filter for Mobile Communication

1842,50 MHz

Data Sheet



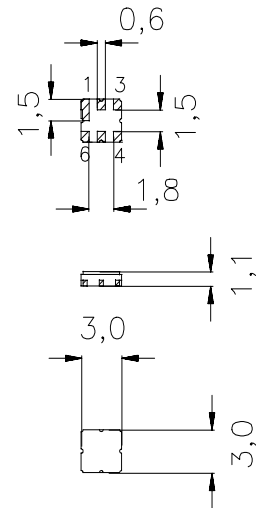
Ceramic package **DCC6C**

Features

- Low-loss RF filter for mobile telephone PCN system, receive path
- High selectivity
- Usable passband: 75 MHz
- No matching network required for operation at 50 Ω
- Ceramic Package for **Surface Mounted Technology (SMT)**

Terminals

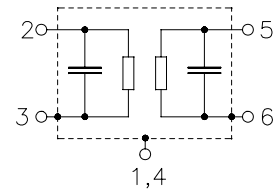
- Ni, gold-plated



Dimensions in mm, approx. weight 0,05 g

Pin configuration

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



| Type | Ordering code | Marking and Package according to | Packing according to |
|-------|-------------------|----------------------------------|----------------------|
| B4166 | B39182-B4166-U410 | C61157-A7-A67 | F61074-V8088-Z000 |

Electrostatic Sensitive Device (ESD)

Maximum ratings

| | | | | |
|----------------------------|------------------|-------------|--------------------|---------------------------------------------------|
| Operable temperature range | T | - 20 / + 80 | $^{\circ}\text{C}$ | |
| Storage temperature range | T_{stg} | - 40 / + 85 | $^{\circ}\text{C}$ | |
| DC voltage | V_{DC} | 5 | V | |
| Input power max. | P_{IN} | | | source/load impedance 50 Ω /50 Ω |
| 1710,0 ... 1785,0 MHz | | 13 | dBm | peak power of GSM signal duty cycle 1:8 |



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Characteristics

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

| | | | min. | typ. | max. | |
|--------------------------------------|-------------------|-----|------|--------|------|-----|
| Center frequency | f_c | | — | 1842,5 | — | MHz |
| Maximum insertion attenuation | α_{\max} | | | | | |
| | 1805,0 ... 1880,0 | MHz | — | 2,9 | 3,3 | dB |
| Amplitude ripple (p-p) | $\Delta\alpha$ | | | | | |
| | 1805,0 ... 1880,0 | MHz | — | 0,9 | 1,3 | dB |
| Input VSWR | | | | | | |
| | 1805,0 ... 1880,0 | MHz | — | 2,0 | 2,2 | dB |
| Output VSWR | | | | | | |
| | 1805,0 ... 1880,0 | MHz | — | 2,2 | 2,4 | dB |
| Attenuation | α | | | | | |
| | 10,0 ... 370,0 | MHz | 40,0 | 43,5 | — | dB |
| | 370,0 ... 1300,0 | MHz | 37,0 | 38,5 | — | dB |
| | 1300,0 ... 1705,0 | MHz | 30,0 | 36,0 | — | dB |
| | 1705,0 ... 1785,0 | MHz | 12,0 | 14,0 | — | dB |
| | 1920,0 ... 1980,0 | MHz | 12,0 | 25,0 | — | dB |
| | 1980,0 ... 2530,0 | MHz | 23,0 | 28,0 | — | dB |
| | 2530,0 ... 2680,0 | MHz | 31,0 | 35,0 | — | dB |
| | 2680,0 ... 3400,0 | MHz | 28,0 | 34,0 | — | dB |
| | 3400,0 ... 3975,0 | MHz | 24,0 | 30,0 | — | dB |
| | 3975,0 ... 4200,0 | MHz | 23,0 | 27,0 | — | dB |
| | 4200,0 ... 4920,0 | MHz | 15,0 | 19,0 | — | dB |
| | 4920,0 ... 5200,0 | MHz | 10,0 | 17,0 | — | dB |
| | 5200,0 ... 6000,0 | MHz | 5,0 | 11,0 | — | dB |



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Characteristics

Operating temperature range: $T = -20$ to $+80^{\circ}\text{C}$
Terminating source impedance: $Z_S = 50\ \Omega$
Terminating load impedance: $Z_L = 50\ \Omega$

| | | | min. | typ. | max. | |
|--------------------------------------|-------------------|-----|------|--------|------|-----|
| Center frequency | f_c | | — | 1842,5 | — | MHz |
| Maximum insertion attenuation | α_{\max} | | | | | |
| | 1805,0 ... 1880,0 | MHz | — | 3,2 | 3,9 | dB |
| Amplitude ripple (p-p) | $\Delta\alpha$ | | | | | |
| | 1805,0 ... 1880,0 | MHz | — | 1,2 | 1,9 | dB |
| Input VSWR | | | | | | |
| | 1805,0 ... 1880,0 | MHz | — | 2,1 | 2,3 | dB |
| Output VSWR | | | | | | |
| | 1805,0 ... 1880,0 | MHz | — | 2,3 | 2,5 | dB |
| Attenuation | α | | | | | |
| | 10,0 ... 370,0 | MHz | 40,0 | 43,5 | — | dB |
| | 370,0 ... 1300,0 | MHz | 37,0 | 38,5 | — | dB |
| | 1300,0 ... 1705,0 | MHz | 30,0 | 36,0 | — | dB |
| | 1705,0 ... 1785,0 | MHz | 10,0 | 13,0 | — | dB |
| | 1920,0 ... 1980,0 | MHz | 10,0 | 25,0 | — | dB |
| | 1980,0 ... 2530,0 | MHz | 23,0 | 28,0 | — | dB |
| | 2530,0 ... 2680,0 | MHz | 31,0 | 35,0 | — | dB |
| | 2680,0 ... 3400,0 | MHz | 28,0 | 34,0 | — | dB |
| | 3400,0 ... 3975,0 | MHz | 24,0 | 30,0 | — | dB |
| | 3975,0 ... 4200,0 | MHz | 23,0 | 27,0 | — | dB |
| | 4200,0 ... 4920,0 | MHz | 15,0 | 19,0 | — | dB |
| | 4920,0 ... 5200,0 | MHz | 10,0 | 17,0 | — | dB |
| | 5200,0 ... 6000,0 | MHz | 5,0 | 11,0 | — | dB |



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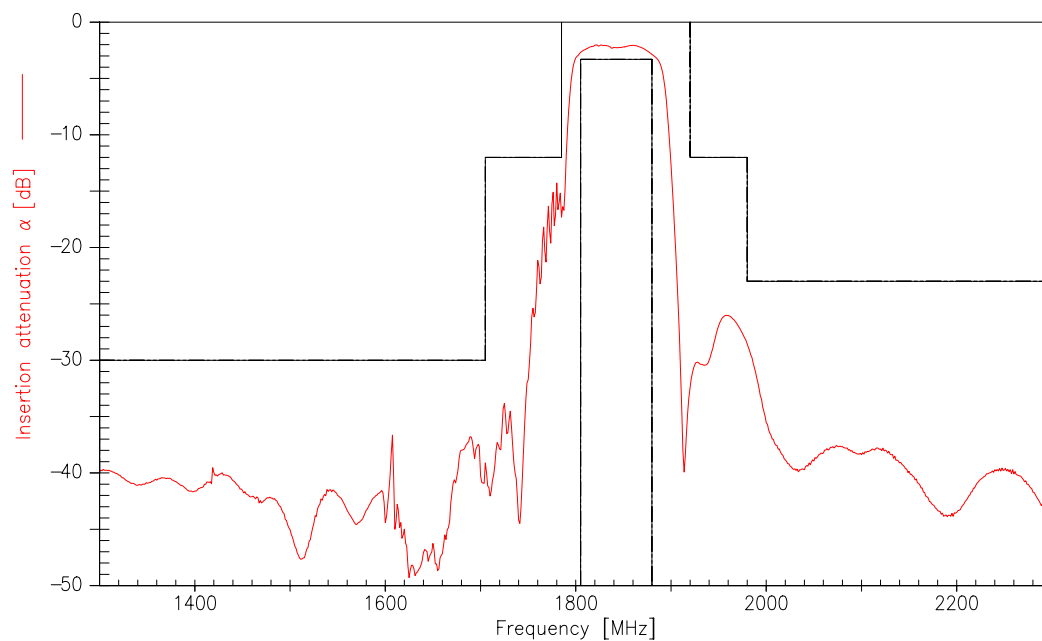
Low-Loss Filter for Mobile Communication

1842,50 MHz

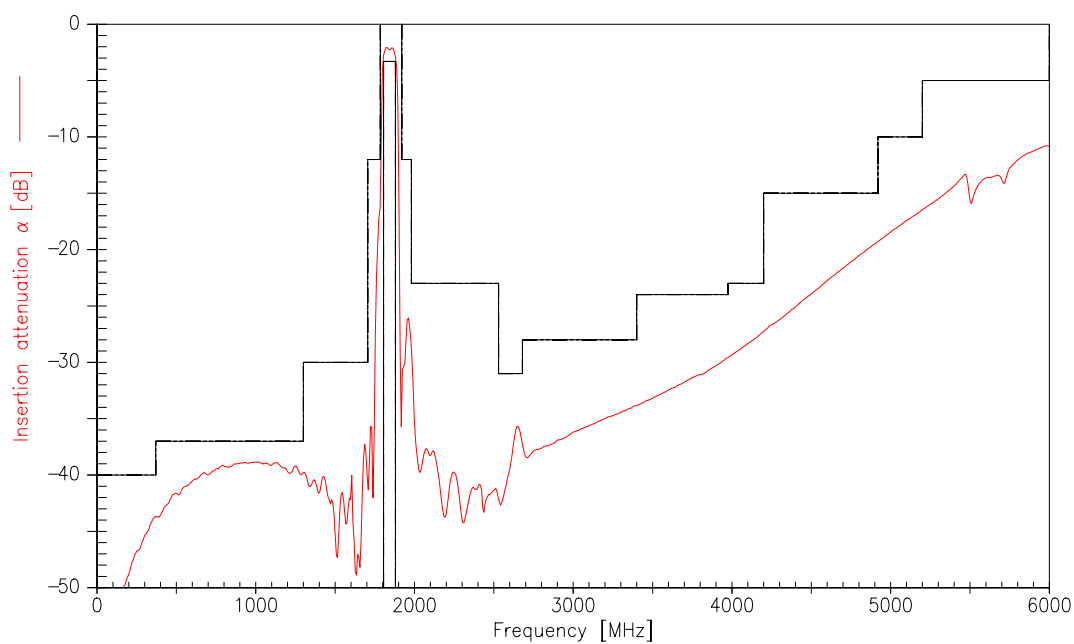
Data Sheet



Transfer function (spec for 25°C)



Transfer function (wideband)





| | |
|-------------------------------------------------|--------------------|
| SAW Components | B4166 |
| Low-Loss Filter for Mobile Communication | 1842,50 MHz |
| Data Sheet | SMD |

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