



SAW Components

Data Sheet B7743

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a bold, sans-serif font, appearing to be part of a curved, metallic-looking structure. The background is dark and textured, suggesting a globe or a complex circuit board layout.



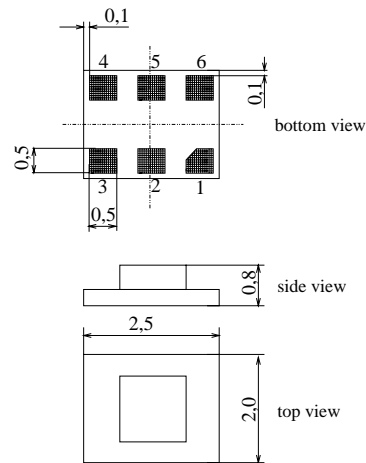
Chip Sized SAW Package DCS6P

Features

- Low-loss RF filter for mobile telephone PCS systems, receive path
- High selectivity
- Low amplitude ripple
- Usable passband 60 MHz
- Unbalanced to balanced operation
- No external matching required
- Package for **Surface Mounted Technology (SMT)**

Terminals

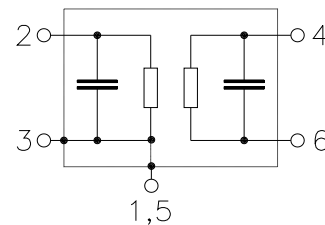
- Gold-plated Ni



Dimensions in mm, approx. weight 0,013 g

Pin configuration

- 2 Input
- 4, 6 Balanced output
- 1, 3, 5 To be grounded



| Type | Ordering code | Marking and Package according to | Packing according to |
|-------|-------------------|----------------------------------|----------------------|
| B7743 | B39202-B7743-E410 | C61157-A7-A101 | 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} | 5 | V | |
| ESD voltage | V_{ESD} | 50 | V | |
| Input power max. | | | | |
| 880 ... 915 MHz | P_{IN} | 13 | dBm | source and load impedance 50 Ω peak power of GSM signal, duty cycle 2 : 8 |
| 1710 ... 1785 MHz | | 13 | dBm | |
| 1850 ... 1910 MHz | | 13 | dBm | |
| elsewhere | | 0 | dBm | continuous wave |



Data Sheet



Characteristics

Operating Temperature Range: $T = 25^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50\ \Omega$ (balanced)

| | | min. | typ. | max. | |
|--|-----------------|------|--------|------|-----|
| Center frequency | f_C | — | 1960,0 | — | MHz |
| Maximum insertion attenuation | α_{\max} | — | 2,0 | 2,5* | dB |
| 1930,0 ... 1990,0 MHz | | | | | |
| Amplitude ripple (p-p) | $\Delta\alpha$ | — | 0,5 | 1,0 | dB |
| 1930,0 ... 1990,0 MHz | | | | | |
| Input VSWR | | — | 1,9 | 2,1 | |
| 1930,0 ... 1990,0 MHz | | | | | |
| Output VSWR | | — | 1,9 | 2,1 | |
| 1930,0 ... 1990,0 MHz | | | | | |
| Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$) | | -15 | — | 10 | ° |
| 1930,0 ... 1990,0 MHz | | | | | |
| Output amplitude balance (S_{31}/S_{21}) | | -2,0 | — | 3,0 | dB |
| 1930,0 ... 1990,0 MHz | | | | | |
| Attenuation | α | | | | |
| 0,0 ... 1830,0 MHz | | 25 | 28 | — | dB |
| 1830,0 ... 1910,0 MHz | | 14 | 15 | — | dB |
| 2020,0 ... 2060,0 MHz | | 17 | 18 | — | dB |
| 2060,0 ... 2200,0 MHz | | 27 | 29 | — | dB |
| 2200,0 ... 2260,0 MHz | | 35 | 38 | — | dB |
| 2260,0 ... 4390,0 MHz | | 25 | 28 | — | dB |
| 4390,0 ... 6000,0 MHz | | 18 | 25 | — | dB |

* the insertion attenuation includes also pcb losses of typ. 0,2dB



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Low-Loss Filter for Mobile Communication

1960,0 MHz

Data Sheet



Characteristics

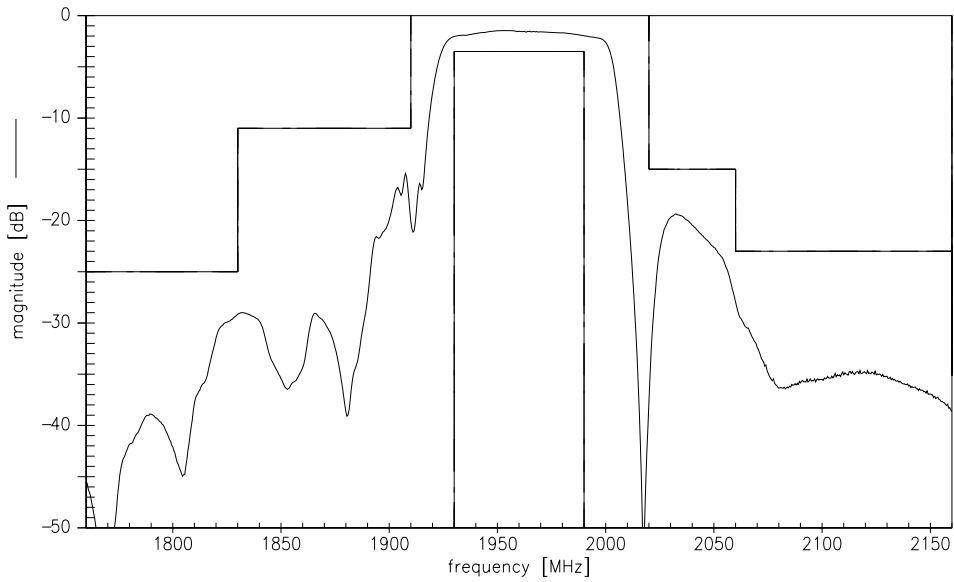
Operating Temperature Range: $T = -30$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50\ \Omega$ (balanced)

| | | min. | typ. | max. | |
|--|-----------------------|------|--------|------|------------|
| Center frequency | f_C | — | 1960,0 | — | MHz |
| Maximum insertion attenuation | α_{\max} | | | | |
| | 1930,0 ... 1990,0 MHz | — | 2,3 | 3,5* | dB |
| Amplitude ripple (p-p) | $\Delta\alpha$ | | | | |
| | 1930,0 ... 1990,0 MHz | — | 1,0 | 1,6 | dB |
| Input VSWR | | | | | |
| | 1930,0 ... 1990,0 MHz | — | 1,9 | 2,1 | |
| Output VSWR | | | | | |
| | 1930,0 ... 1990,0 MHz | — | 1,9 | 2,1 | |
| Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$) | | | | | |
| | 1930,0 ... 1990,0 MHz | -15 | — | 10 | $^{\circ}$ |
| Output amplitude balance (S_{31}/S_{21}) | | | | | |
| | 1930,0 ... 1990,0 MHz | -2,0 | — | 3,0 | dB |
| Attenuation | α | | | | |
| | 0,0 ... 1830,0 MHz | 25 | 28 | — | dB |
| | 1830,0 ... 1910,0 MHz | 11 | 12 | — | dB |
| | 2020,0 ... 2060,0 MHz | 15 | 18 | — | dB |
| | 2060,0 ... 2200,0 MHz | 23 | 26 | — | dB |
| | 2200,0 ... 2260,0 MHz | 35 | 38 | — | dB |
| | 2260,0 ... 4390,0 MHz | 25 | 28 | — | dB |
| | 4390,0 ... 6000,0 MHz | 18 | 25 | — | dB |

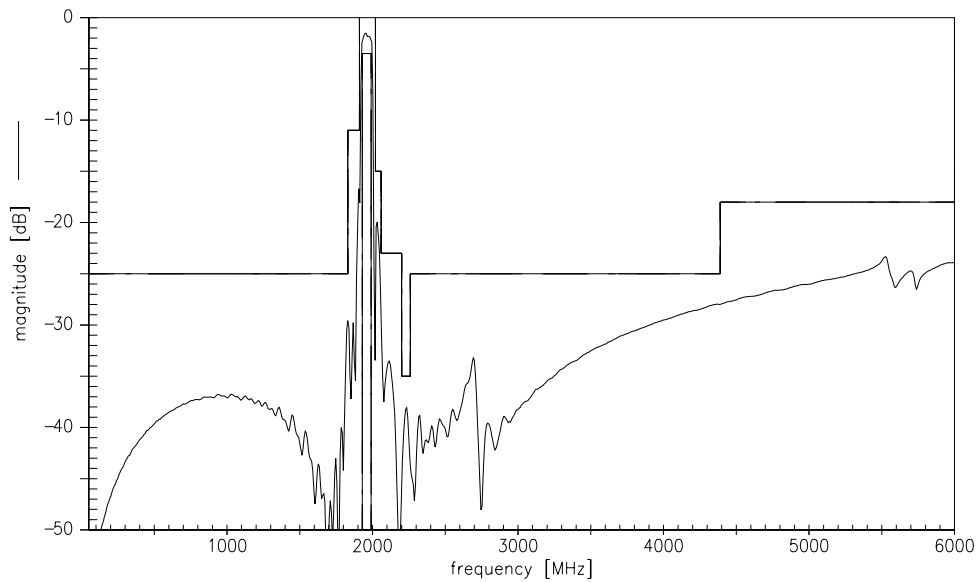
* the insertion attenuation includes also pcb losses of typ. 0,2dB



Transfer function (narrow band)



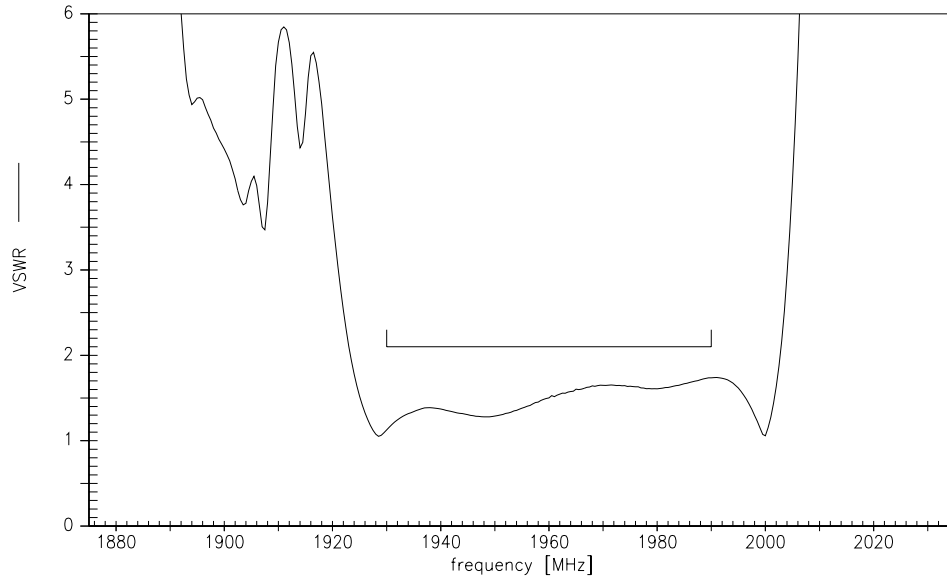
Transfer function (wide band)



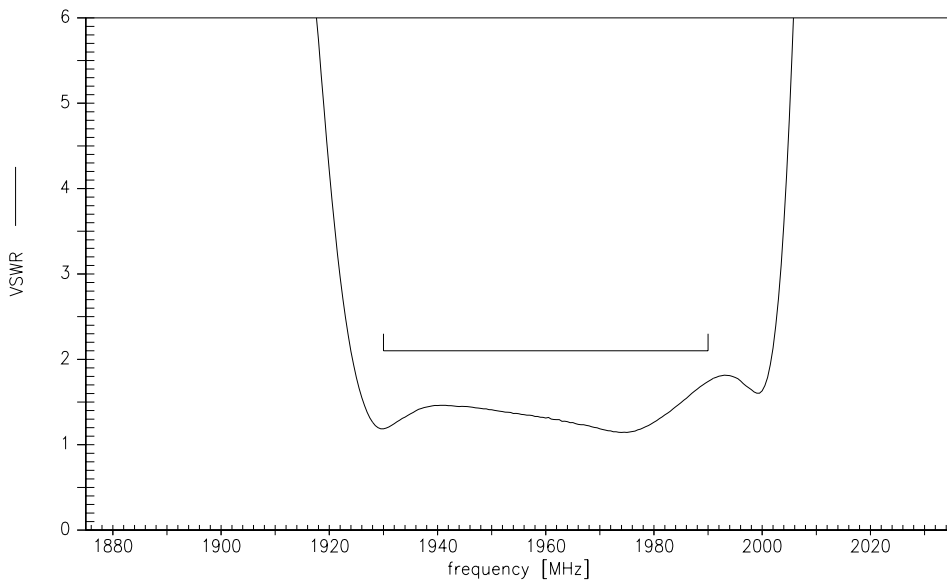


VSWR (narrow band)

Input



Output





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Low-Loss Filter for Mobile Communication

1960,0 MHz

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