



SAW Components

Preliminary Data LJ93B

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles the top of the EPCOS logo triangle. The background is dark and textured, with a faint map of the world visible.



SAW Components

LJ93B

Low-Loss Filter for Mobile Communication

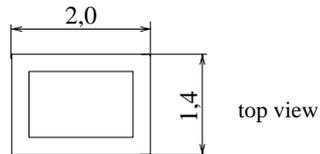
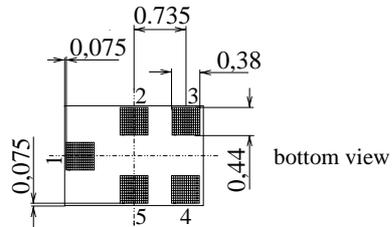
938,0 MHz

Preliminary Data

Features

- Low-loss RF filter for iDEN phone, receive path
- Low amplitude ripple
- Usable passband 6,0 MHz
- No matching network required for operation at 50 Ω
- Ceramic package for **Surface Mounted Technology (SMT)**

Chip sized SAW package QCS5C



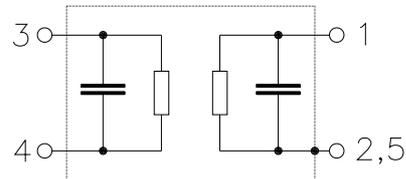
Dimensions in mm, approx. weight 0,009 g

Terminals

- Ni, gold-plated

Pin configuration

- 1 Input, unbalanced
- 4 Output, unbalanced
- 2, 5 Case ground
- 3 To be grounded



| Type | Ordering code | Marking and Package according to | Packing according to |
|-------|---------------|----------------------------------|----------------------|
| LJ93B | | C61157-A7-A111 | F61074-V8151-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} | 0 | V | |
| Source power (cw) | P_s | 0 | dBm | source impedance 50 Ω |



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Low-Loss Filter for Mobile Communication

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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. | |
|---|----------------|-------------|-------------|-------------|-------|
| Nominal frequency | f_N | — | 938,0 | — | MHz |
| Maximum insertion attenuation | α_{max} | — | 1,8 | 2,5 | dB |
| 935,0 ... 941,0 MHz | | | | | |
| Amplitude ripple (p-p) | $\Delta\alpha$ | — | 0,2 | 1,0 | dB |
| 935,0 ... 941,0 MHz | | | | | |
| Group delay ripple (p-p) | $\Delta\tau$ | — | 5 | 50 | ns |
| 935,0 ... 941,0 MHz | | | | | |
| Return loss (Input and Output) | | 12,0 | 17,0 | — | dB |
| 935,0 ... 941,0 MHz | | | | | |
| Attenuation | α | | | | dB |
| 0,100... 896,000MHz | | 27 | 53 | — | |
| 896,000... 902,000MHz | | 37 | 45 | — | |
| 989,825... 995,825MHz | | 27 | 62 | — | |
| 1044,650...1050,650MHz | | 37 | 60 | — | |
| 1154,300...1160,300MHz | | 47 | 56 | — | |
| 1160,300...3200,000MHz | | 27 | 38 | — | |
| Temperature coefficient of frequency | TC_f | — | - 36 | — | ppm/K |



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Characteristics

Operating temperature range: $T = -30$ to $+70$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

| | | min. | typ. | max. | |
|---|----------------|-------------|-------------|-------------|-------|
| Nominal frequency | f_N | — | 938,0 | — | MHz |
| Maximum insertion attenuation | α_{max} | — | 2,0 | 3,0 | dB |
| 935,0 ... 941,0 MHz | | | | | |
| Amplitude ripple (p-p) | $\Delta\alpha$ | — | 0,3 | 1,0 | dB |
| 935,0 ... 941,0 MHz | | | | | |
| Group delay ripple (p-p) | $\Delta\tau$ | — | 10 | 60 | ns |
| 935,0 ... 941,0 MHz | | | | | |
| Return loss (Input and Output) | | 12,0 | 15,0 | — | dB |
| 935,0 ... 941,0 MHz | | | | | |
| Attenuation | α | | | | dB |
| 0,100... 896,000MHz | | 27 | 53 | — | |
| 896,000... 902,000MHz | | 37 | 45 | — | |
| 989,825... 995,825MHz | | 27 | 62 | — | |
| 1044,650...1050,650MHz | | 37 | 60 | — | |
| 1154,300...1160,300MHz | | 47 | 56 | — | |
| 1160,300...3200,000MHz | | 27 | 38 | — | |
| Temperature coefficient of frequency | TC_f | — | - 36 | — | ppm/K |



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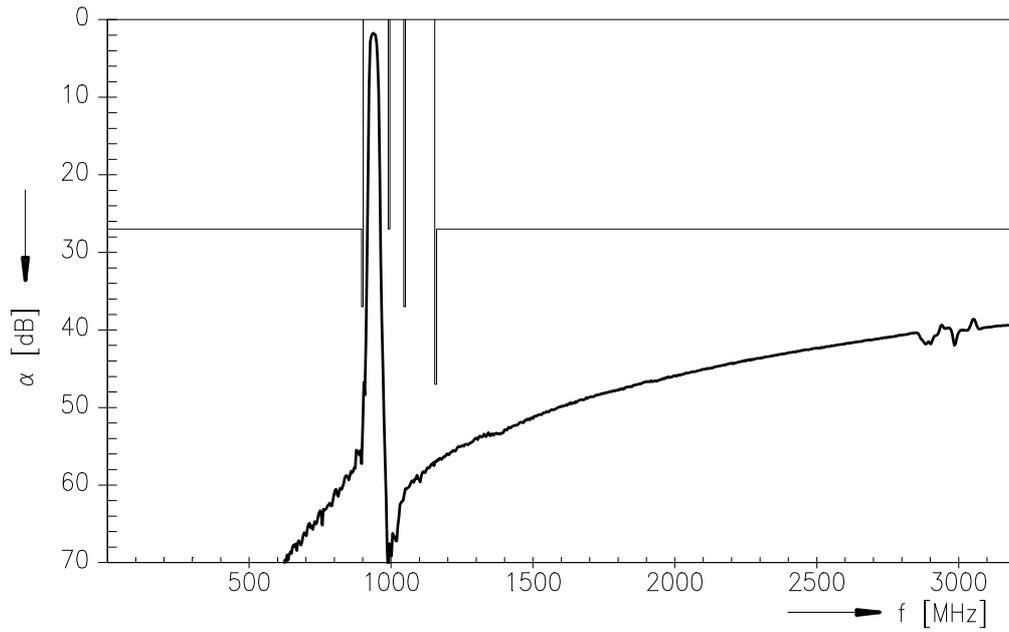
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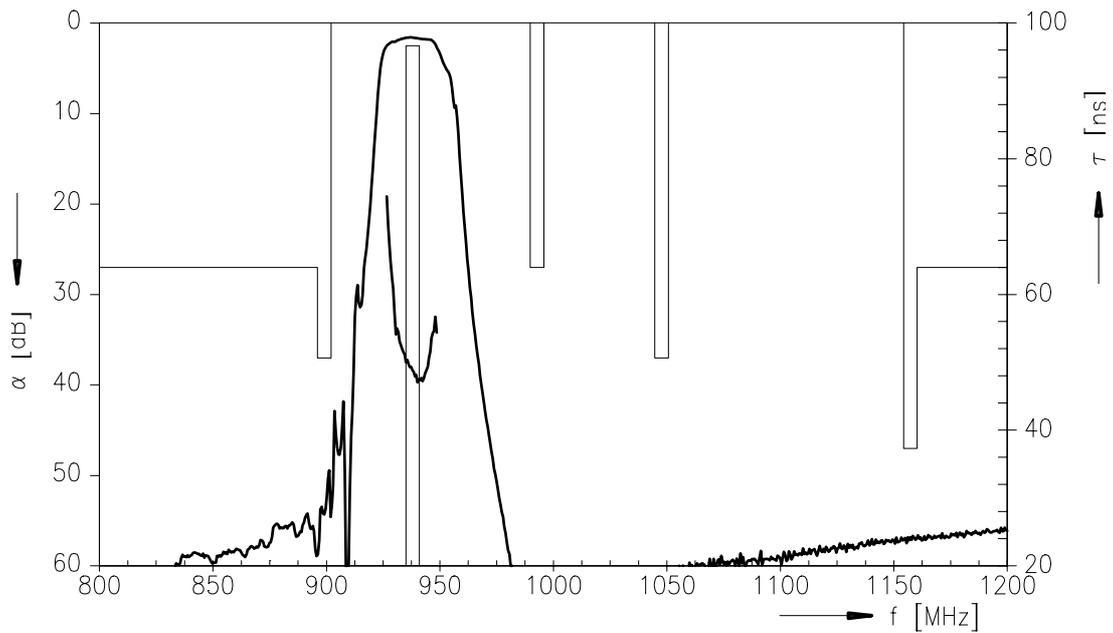
938,0 MHz

Preliminary Data

Transfer function



Transfer function (pass band)





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