



SAW Components

Data Sheet B3858





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B3858

Low-Loss Filter

924,5 MHz

Data Sheet

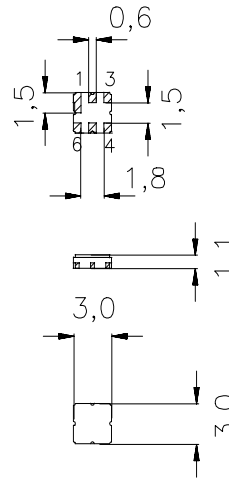
Ceramic package DCC6C

Features

- Low-loss RF filter for TETRA phone
- Usable bandwidth 5 MHz
- No matching required for operation at 50 Ω
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package

Terminals

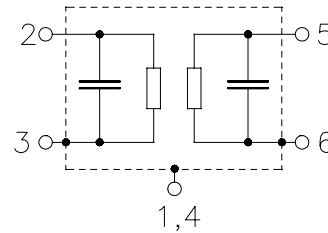
- Gold-plated



typ. Dimensions in mm, approx. weight 0,037 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 |
|-------|-------------------|----------------------------------|----------------------|
| B3858 | B39921-B3858-U410 | C61157-A7-A67 | F61074-V8088-Z000 |

Electrostatic Sensitive Device (ESD)

Maximum ratings

| | | | | |
|----------------------------|-----------|-----------|-----|-----------------------|
| Operable temperature range | T_A | -35 / +85 | °C | |
| Storage temperature range | T_{stg} | -40 / +85 | °C | |
| DC voltage | V_{DC} | 0 | V | |
| Source power (cw) | P_s | 6 | dBm | source impedance 50 Ω |


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Operating temperature range: $T_A = 25 \pm 10 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$

| | | min. | typ. | max. | |
|--|-----------------------|------|-------|------|-------|
| Nominal frequency | f_N | — | 924,5 | — | MHz |
| Maximum insertion attenuation 922,0 MHz ... 927,0 MHz | α_{\max} | — | 1,8 | 2,8 | dB |
| Amplitude ripple (p-p) 922,0 MHz ... 927,0 MHz | $\Delta\alpha$ | — | 0,3 | 1,0 | dB |
| Group delay ripple (p-p) 922,0 MHz ... 927,0 MHz | $\Delta\tau$ | — | 15 | 40 | ns |
| Return loss (Input and Output) 922,0 MHz ... 927,0 MHz | | 11,0 | 17,0 | — | dB |
| Absolute attenuation | α_{abs} | | | | |
| 0,1 MHz ... 895,0 MHz | | 12 | 34 | — | dB |
| 937,0 MHz ... 942,0 MHz | | 10 | 16 | — | dB |
| 942,0 MHz ... 947,0 MHz | | 14 | 27 | — | dB |
| 947,0 MHz ... 952,0 MHz | | 18 | 29 | — | dB |
| 952,0 MHz ... 2000,0 MHz | | 26 | 29 | — | dB |
| 2000,0 MHz ... 4000,0 MHz | | 15 | 26 | — | dB |
| Temperature coefficient of frequency | TC_f | — | -36 | — | ppm/K |



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Operating temperature range: $T_A = -30 \dots +75 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \text{ } \Omega$
 Terminating load impedance: $Z_L = 50 \text{ } \Omega$

| | | min. | typ. | max. | |
|--|-----------------------|------|-------|------|-------|
| Nominal frequency | f_N | — | 924,5 | — | MHz |
| Maximum insertion attenuation 922,0 MHz ... 927,0 MHz | α_{\max} | — | 2,0 | 3,4 | dB |
| Amplitude ripple (p-p) 922,0 MHz ... 927,0 MHz | $\Delta\alpha$ | — | 0,3 | 1,3 | dB |
| Group delay ripple (p-p) 922,0 MHz ... 927,0 MHz | $\Delta\tau$ | — | 20 | 40 | ns |
| Return loss (Input and Output) 922,0 MHz ... 927,0 MHz | | 11,0 | 17,0 | — | dB |
| Absolute attenuation | α_{abs} | | | | |
| 0,1 MHz ... 895,0 MHz | | 10 | 34 | — | dB |
| 937,0 MHz ... 942,0 MHz | | 8 | 14 | — | dB |
| 942,0 MHz ... 947,0 MHz | | 12 | 27 | — | dB |
| 947,0 MHz ... 952,0 MHz | | 15 | 29 | — | dB |
| 952,0 MHz ... 2000,0 MHz | | 26 | 29 | — | dB |
| 2000,0 MHz ... 4000,0 MHz | | 15 | 26 | — | dB |
| Temperature coefficient of frequency | TC_f | — | - 36 | — | ppm/K |



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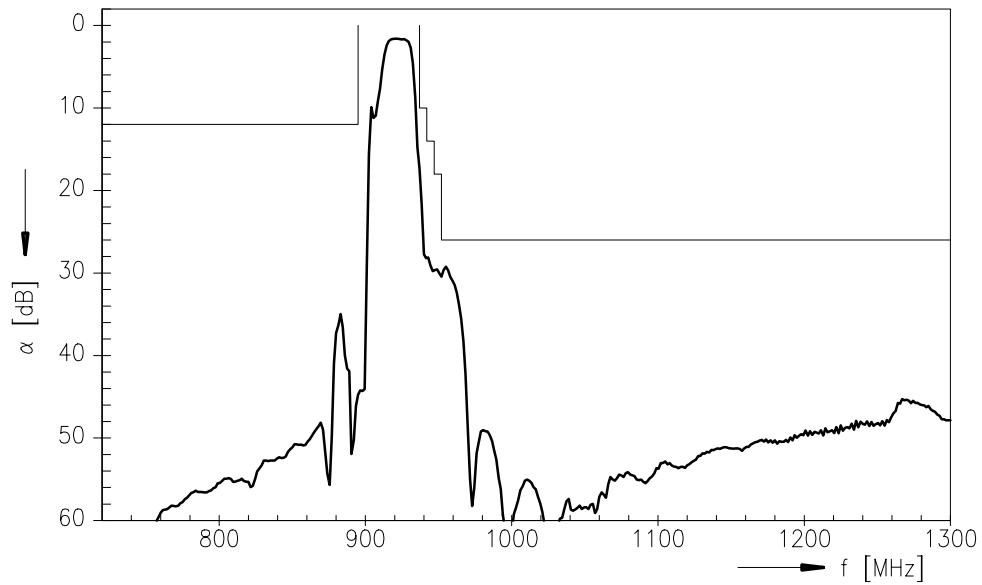
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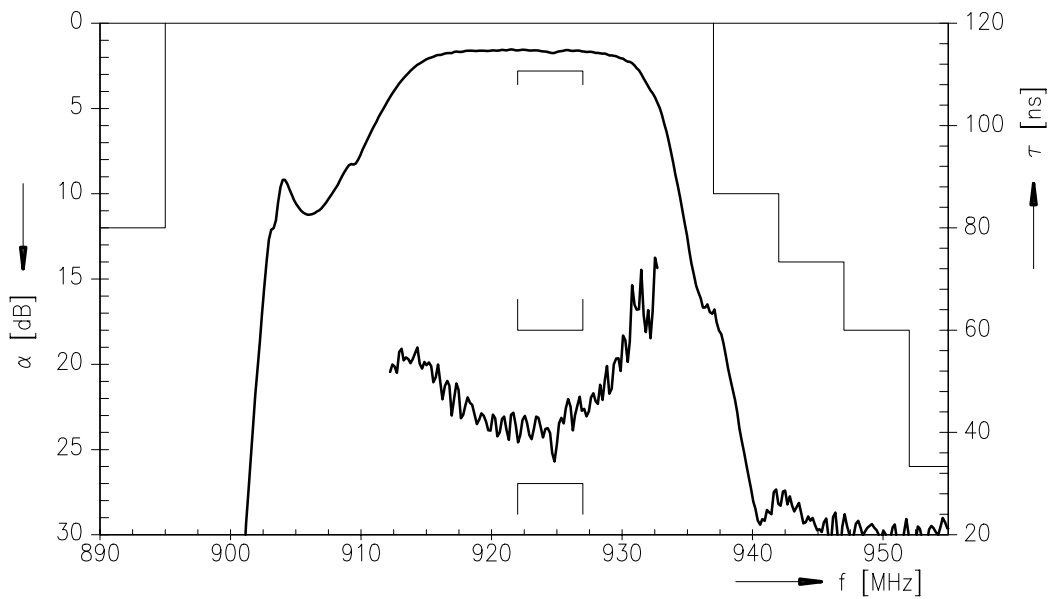
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Transfer function



Transfer function (pass band, $25 \pm 10 \text{ }^\circ\text{C}$)





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