



SAW Components

Data Sheet B4955





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Low-Loss Filter for Mobile Communication

183,6 MHz

Data Sheet



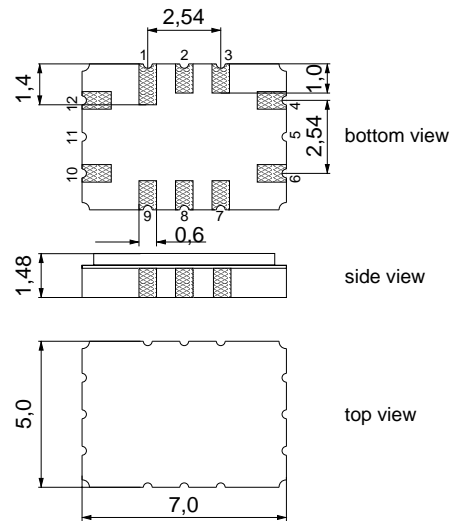
Features

- IF filter for mobile telephone
- Channel selection in CDMA systems
- Balanced or unbalanced
- High rejection, very small size
- Low amplitude ripple
- Package for **Surface Mounted Technology (SMT)**
- Filter surface passivated

Terminals

- Ni, gold plated

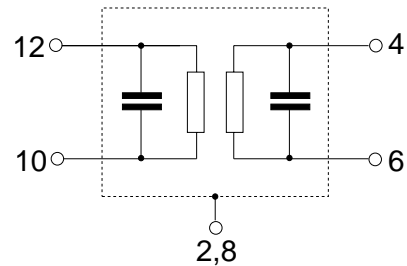
SMD ceramic package **QCC12C**



Dimensions in mm, approx. weight 0,25 g

Pin configuration

- 12 Input
- 10 Balanced input or ground
- 6 Output
- 4 Balanced output or ground
- 1, 2, 3, 7, 8, 9 To be grounded



| Type | Ordering code | Marking and Package according to | Packing according to |
|-------|-------------------|----------------------------------|----------------------|
| B4955 | B39181-B4955-H310 | C61157-A7-A95 | F61074-V8170-Z000 |

Electrostatic Sensitive Device (ESD)

Maximum ratings

| | | | | |
|----------------------------|-----------|-----------|-----|--|
| Operable temperature range | T | - 40/+ 85 | °C | |
| Storage temperature range | T_{stg} | - 40/+ 85 | °C | |
| DC voltage | V_{DC} | 0 | V | |
| Source power | P_s | 10 | dBm | |



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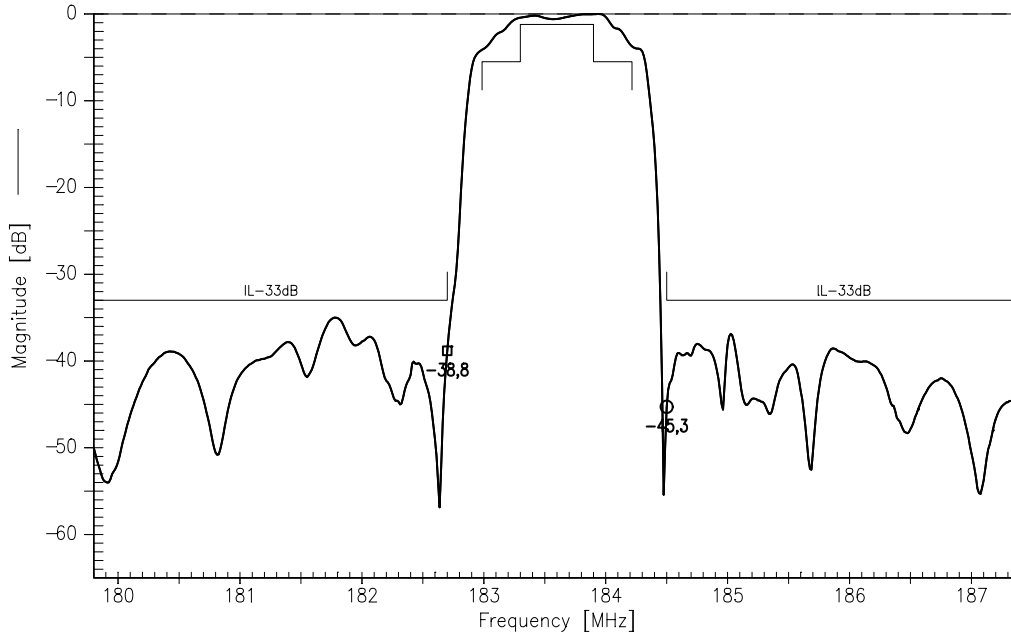
Characteristics

Specified temperature range: $T = -30^{\circ}\text{C} \dots +85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 300\Omega \parallel 44\text{nH}$
 Terminating load impedance: $Z_L = 675\Omega \parallel 54\text{nH}$

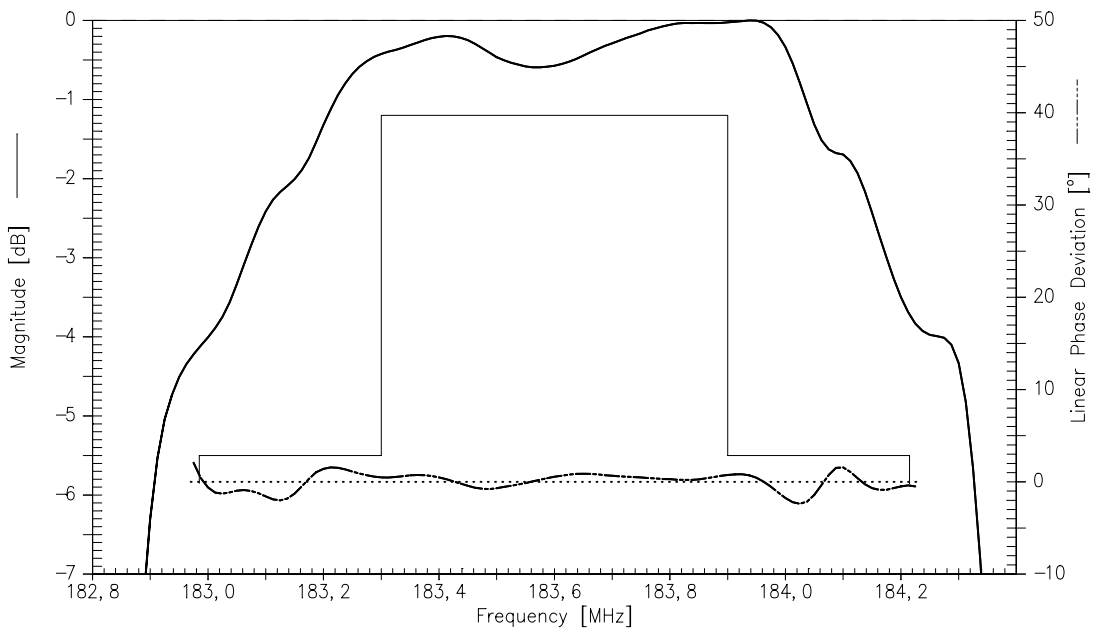
| | | min. | typ. | max. | |
|--|-----------------------|------|-------|------|-----|
| Nominal frequency | f_N | — | 183,6 | — | MHz |
| Minimum insertion attenuation (including loss in matching network without loss in balun) | α_{\min} | — | 8,1 | 9,5 | dB |
| Amplitude ripple | $\Delta\alpha$ | | | | |
| $f_N - 0,3 \text{ MHz} \dots f_N + 0,3 \text{ MHz}$ | | — | 0,6 | 1,2 | dB |
| Phase linearity (rms deviation) | | | | | |
| $f_N - 0,615\text{MHz} \dots f_N + 0,615 \text{ MHz}$ | | — | 1,3 | 2,8 | ° |
| Relative attenuation (relative to α_{\min}) | α_{rel} | | | | |
| $f_N \pm 0,615\text{MHz}$ | | — | 4,0 | 5,5 | dB |
| $f_N - 0,9 \text{ MHz}$ | | 33 | 39 | — | dB |
| $f_N + 0,9 \text{ MHz}$ | | 33 | 45 | — | dB |
| $f_N - 1,25 \text{ MHz}$ | | 33 | 44 | — | dB |
| $f_N + 1,25 \text{ MHz}$ | | 33 | 39 | — | dB |
| $f_N - 1,7 \text{ MHz}$ | | 33 | 37 | — | dB |
| $f_N + 1,7 \text{ MHz}$ | | 33 | 43 | — | dB |
| $f_N \pm 2,05 \text{ MHz}$ | | 33 | 42 | — | dB |
| $f_N - 9,0 \text{ MHz} \dots f_N - 1,25 \text{ MHz}$ | | 33 | 35 | — | dB |
| $f_N + 1,25 \text{ MHz} \dots f_N + 9,0 \text{ MHz}$ | | 33 | 37 | — | dB |



Normalized transfer function (measurement):



Normalized transfer function (measurement, passband):





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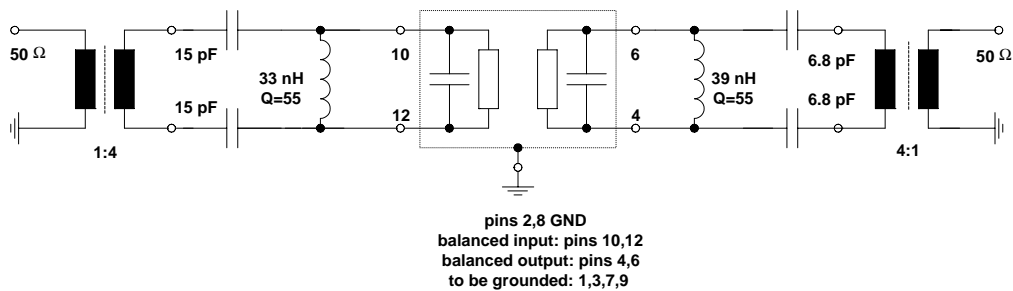
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Test matching network

(Element values depend on pcb layout)



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