## imall

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





# SAW Components

Data Sheet B3501





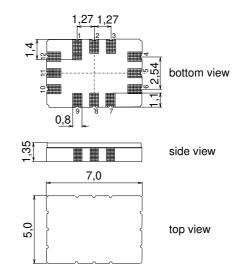
| SAW Components                           | B3501 |           |
|--|-------|-----------|
| Low-Loss Filter for Mobile Communication |       | 183,6 MHz |
| Data Sheet                               | SMD   |           |

#### 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 QCC12E

Dimensions in mm, approx. weight 0,25 g

| Pin configurat   | ion                       |                                       |
|------------------|---------------------------|---------------------------------------|
| 12               | Input                     |                                       |
| 10               | Balanced input or ground  |                                       |
| 6                | Output                    |                                       |
| 4                | Balanced output or ground |                                       |
| 1, 2, 3, 7, 8, 9 | To be grounded            | · · · · · · · · · · · · · · · · · · · |
|                  |                           | $\bigcup_{i=1}^{n}$                   |
|                  |                           | 2,8                                   |

| Туре  | Ordering code     | Marking and Package | Packing           |
|-------|-------------------|---------------------|-------------------|
|       |                   | according to        | according to      |
| B3501 | B39181-B3501-H810 | C61157-A7-A103      | F61074-V8170-Z000 |

Electrostatic Sensitive Device (ESD)

#### **Maximum ratings**

| Operable temperature range | Т                | - 40/+ 85 | °C  |
|----------------------------|------------------|-----------|-----|
| Storage temperature range  | T <sub>stg</sub> | - 40/+ 85 | °C  |
| DC voltage                 | V <sub>DC</sub>  | 0         | V   |
| Source power               | Ps               | 10        | dBm |



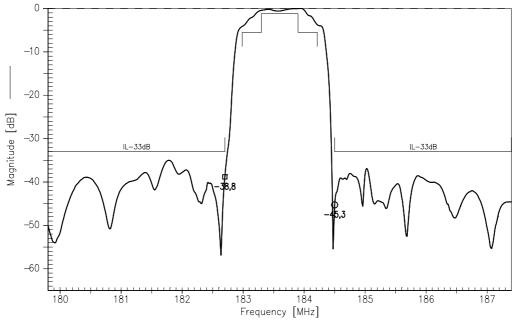


| SAW Components  |  |  |      | B3501  |  |
|---|--|--|------|--|--|
| Low-Loss Filter for Mobile Communication  |  |  |      | 183,6 MHz  |  |
| Data Sheet  |  |  |      |  |  |
| Characteristics   |  |  |      |  |  |
| Specified temperature range: $T = -30^{\circ}$ C +85 °CTerminating source impedance: $Z_{\rm S} = 300\Omega \parallel 44$ nHTerminating load impedance: $Z_{\rm L} = 675\Omega \parallel 54$ nH |  |  |      |  |  |
|   | min.   | typ.   | max. |  |  |
| Nominal frequency f <sub>N</sub>  | -  | 183,6  |      | MHz  |  |
|   | _  | 8,1  | 9,5  | dB   |  |
| Amplitude ripple $\Delta \alpha$ $f_{\rm N} - 0.3$ MHz $f_{\rm N} + 0.3$ MHz  | _  | 0,6  | 1,2  | dB   |  |
| <b>Phase linearity</b> (rms deviation)<br>$f_{\rm N} - 0,615$ MHz $f_{\rm N} + 0,615$ MHz   | _  | 1,3  | 2,8  | •  |  |
| Relative attenuation (relative to $\alpha_{min}$ ) $\alpha_{rel}$<br>$f_{N} \pm 0,615 MHz$  | _  | 4,0  | 5,5  | dB   |  |
| $\begin{array}{llllllllllllllllllllllllllllllllllll$  | 33<br>33<br>33<br>33<br>33<br>33<br>33<br>33<br>33<br>33<br>33 | 39<br>45<br>44<br>39<br>37<br>43<br>42<br>35<br>37 |      | dB<br>dB<br>dB<br>dB<br>dB<br>dB<br>dB<br>dB<br>dB |  |

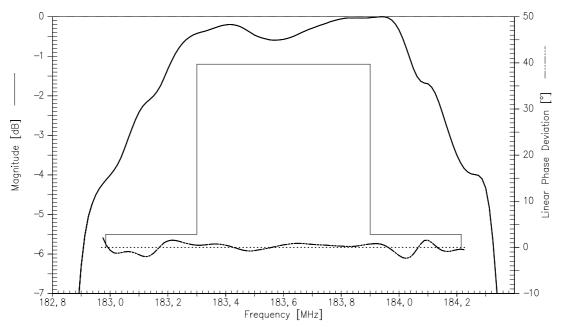




Normalized transfer function (measurement):



#### Normalized transfer function (measurement, passband):



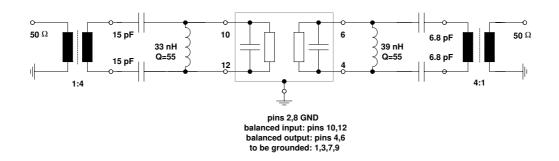
4



| SAW Components                           | B3501 |           |  |
|--|-------|-----------|--|
| Low-Loss Filter for Mobile Communication |       | 183,6 MHz |  |
| Data Sheet                               | SMD   |           |  |

#### Test matching network

(Element values depend on pcb layout)



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