



# SAW Components

Data Sheet B3501





**SAW Components**

**B3501**

**Low-Loss Filter for Mobile Communication**

**183,6 MHz**

**Data Sheet**



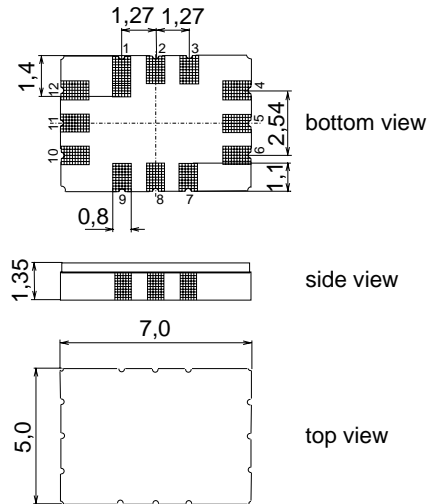
**Features**

- 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

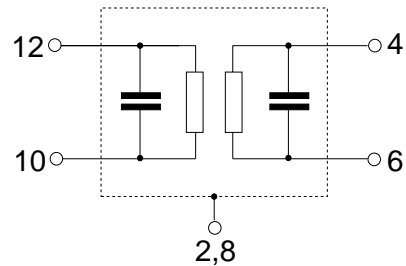
**SMD ceramic package QCC12E**



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
B3501	B39181-B3501-H810	C61157-A7-A103	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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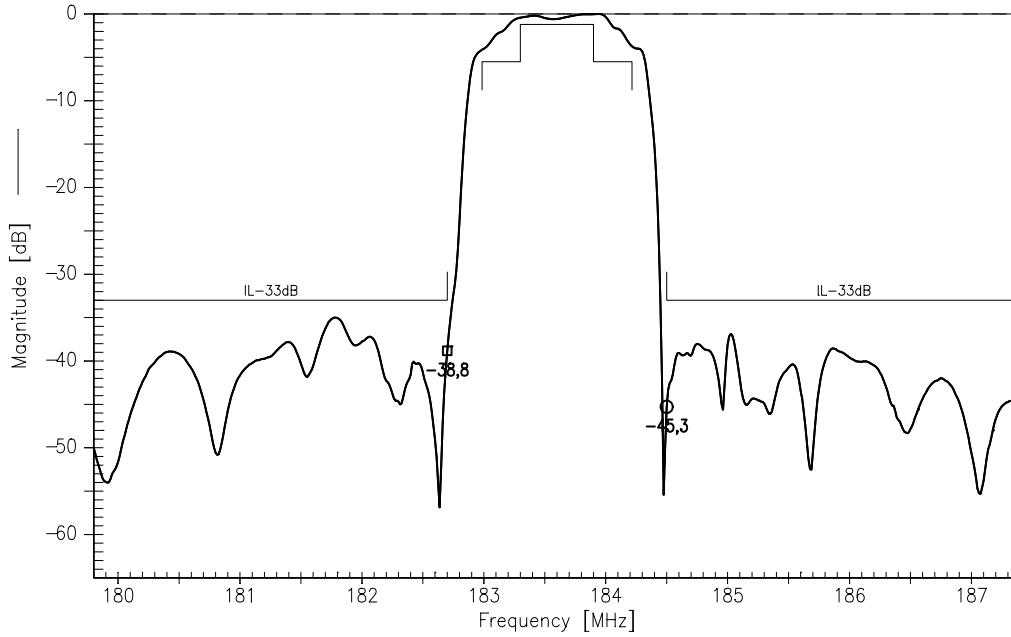
**Characteristics**

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:  $Z_L = 675\Omega \parallel 54\text{nH}$

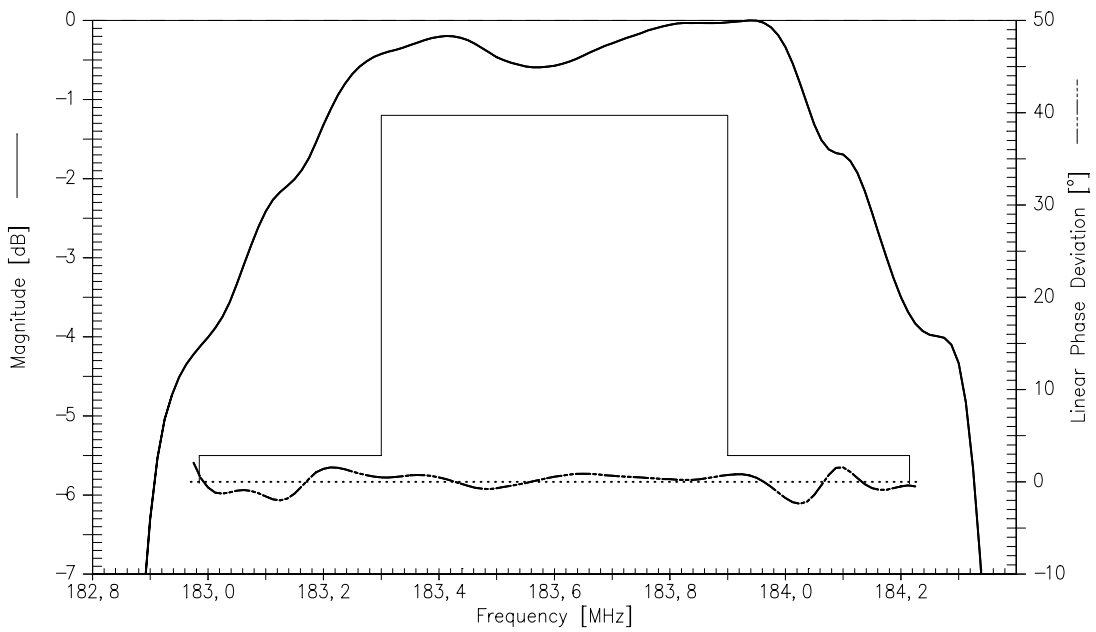
		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	183,6	—	MHz
<b>Minimum insertion attenuation</b> (including loss in matching network without loss in balun)	$\alpha_{\min}$	—	8,1	9,5	dB
<b>Amplitude ripple</b>	$\Delta\alpha$				
$f_N - 0,3 \text{ MHz} \dots f_N + 0,3 \text{ MHz}$		—	0,6	1,2	dB
<b>Phase linearity (rms deviation)</b>					
$f_N - 0,615\text{MHz} \dots f_N + 0,615 \text{ MHz}$		—	1,3	2,8	°
<b>Relative attenuation (relative to <math>\alpha_{\min}</math>)</b>	$\alpha_{\text{rel}}$				
$f_N \pm 0,615\text{MHz}$		—	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):



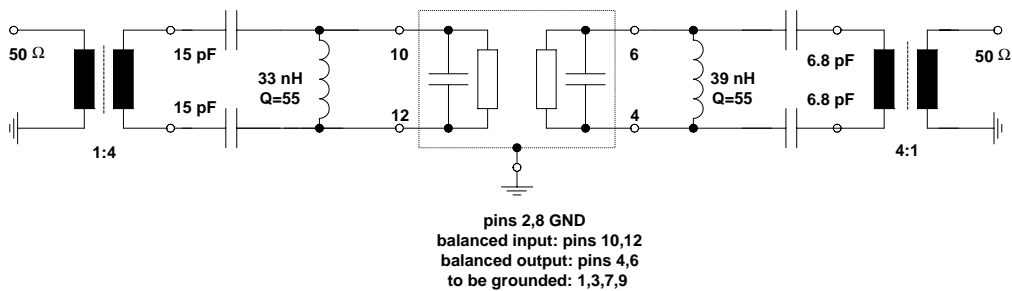
Normalized transfer function (measurement, passband):





**Test matching network**

(Element values depend on pcb layout)



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