



# SAW Components

Data Sheet B3501





**SAW Components**

**B3501**

**Low-Loss Filter for Mobile Communication**

**183,6 MHz**

**Data Sheet**



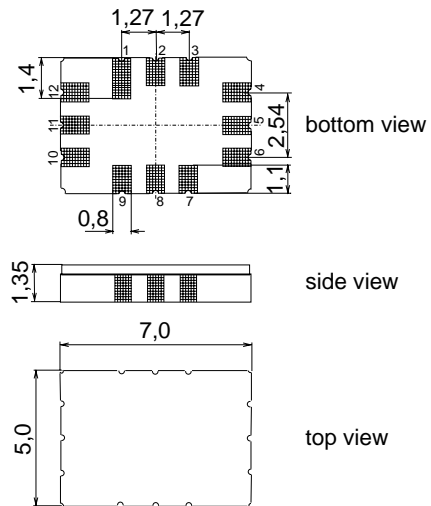
**Features**

- 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

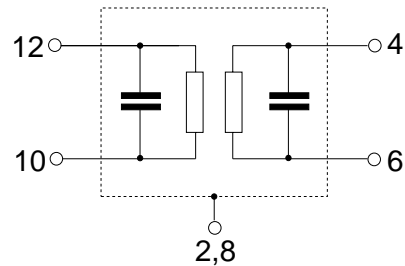
**SMD ceramic package QCC12E**



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



SAW Components

B3501

Low-Loss Filter for Mobile Communication

183,6 MHz

Data Sheet



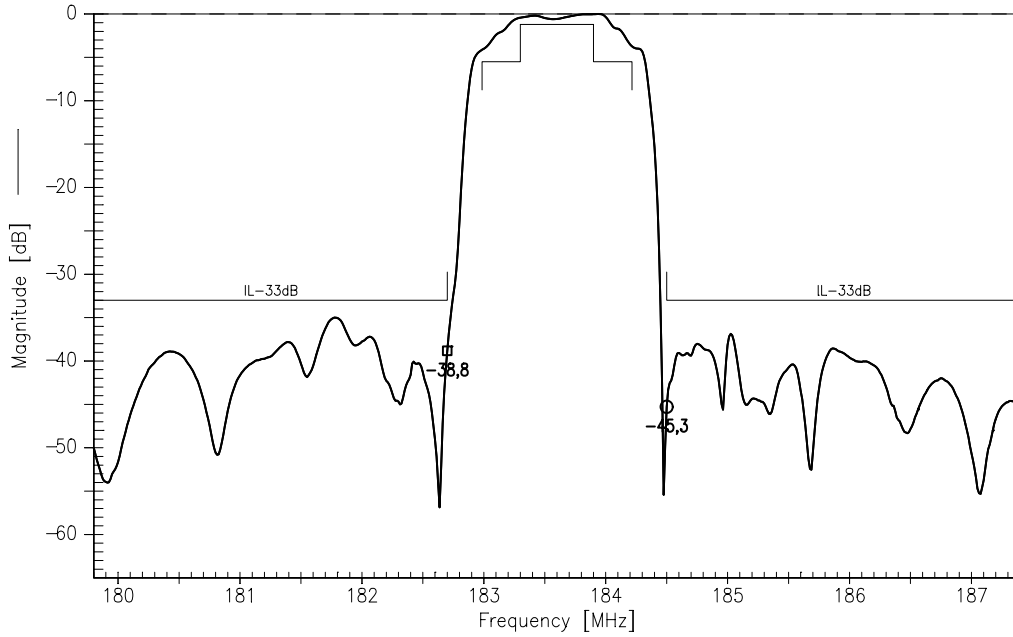
**Characteristics**

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

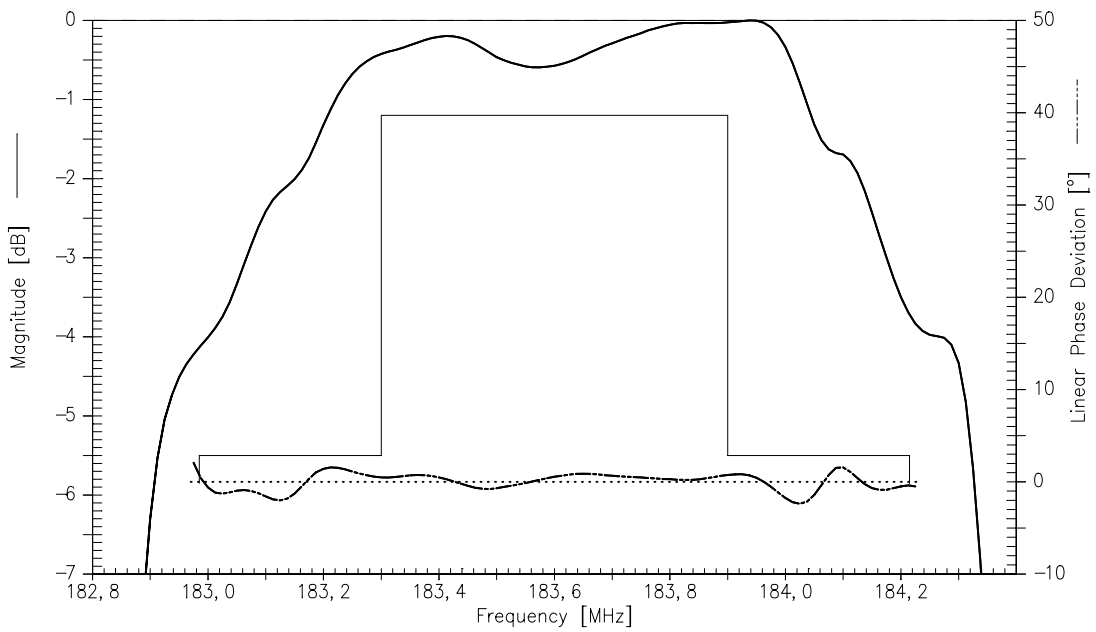
		min.	typ.	max.	
<b>Nominal frequency</b>	$f_N$	—	183,6	—	MHz
<b>Minimum insertion attenuation</b> (including loss in matching network without loss in balun)	$\alpha_{\min}$	—	8,1	9,5	dB
<b>Amplitude ripple</b>	$\Delta\alpha$				
$f_N - 0,3 \text{ MHz} \dots f_N + 0,3 \text{ MHz}$		—	0,6	1,2	dB
<b>Phase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



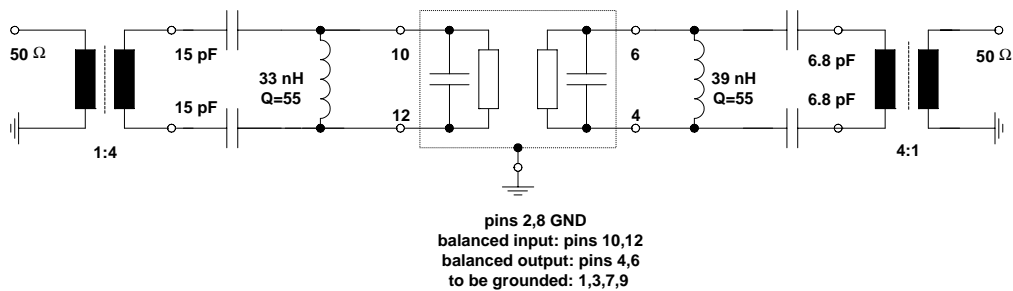
Normalized transfer function (measurement, passband):





**Test matching network**

(Element values depend on pcb layout)



**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW CE AE PD**

**P.O. Box 80 17 09, D-81617 München**

© EPCOS AG 2003. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.