



# SAW filters for mobile communications

## Series/Type: B7834

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39202B7834C710	B39202B9419K610	2009-06-19	2009-12-31	2010-03-31

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at [www.epcos.com/sales](http://www.epcos.com/sales).



**SAW Components**

**B7834**

**Low-Loss Filter for Mobile Communication**

**1960,0 MHz**

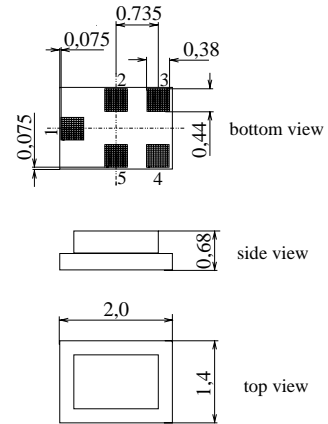
Data Sheet



Chip sized SAW package **QCS5C**

**Features**

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Usable passband 60 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50Ω to 100Ω
- Package for **Surface Mounted Technology (SMT)**



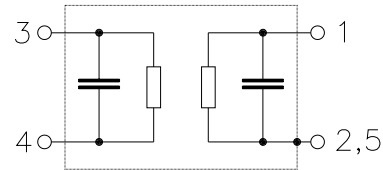
**Terminals**

- Gold-plated Ni

Dimensions in mm, approx. weight 0,007 g

**Pin configuration**

- 1 Input, unbalanced
- 2, 5 Input ground
- 3, 4 Output, balanced
- 2, 5 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7834	B39202-B7834-C710	C61157-A7-A111	F61074-V8151-Z000

**Electrostatic Sensitive Device (ESD)**

**Maximum ratings**

Operable temperature range	$T$	- 40/+ 85	°C	Machine Model, 10 pulses
Storage temperature range	$T_{stg}$	- 40/+ 85	°C	
DC voltage	$V_{DC}$	3	V	
ESD voltage	$V_{ESD}$	50*	V	
Input power	$P_S$	10	dBm	

\* - acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses



SAW Components

B7834

Low-Loss Filter for Mobile Communication

1960,0 MHz

Data Sheet



**Characteristics**

Operating temperature range:  $T = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 100\ \Omega$  (balanced) || 22 nH

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2,8	3,0	dB
1930,0 ... 1990,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1,1	1,5	dB
1930,0 ... 1990,0 MHz					
<b>Input VSWR</b>		—	1,8	2,1	
1930,0 ... 1990,0 MHz					
<b>Output VSWR</b>		—	1,8	2,1	
1930,0 ... 1990,0 MHz					
<b>Output phase balance</b> ( $\phi(S_{31}) - \phi(S_{21}) + 180^\circ$ )		-10	0	10	degree
1930,0 ... 1990,0 MHz					
<b>Output amplitude balance</b> ( $ S_{31}/S_{21} $ )		-1,5	0	1,5	dB
1930,0 ... 1990,0 MHz					
<b>Attenuation</b>	$\alpha$				
10,0 ... 1000,0 MHz		40	58	—	dB
1000,0 ... 1850,0 MHz		30	35	—	dB
1850,0 ... 1910,0 MHz		18	20	—	dB
2040,0 ... 3980,0 MHz		25	28	—	dB
3980,0 ... 6000,0 MHz		35	60	—	dB



SAW Components

B7834

Low-Loss Filter for Mobile Communication

1960,0 MHz

Data Sheet



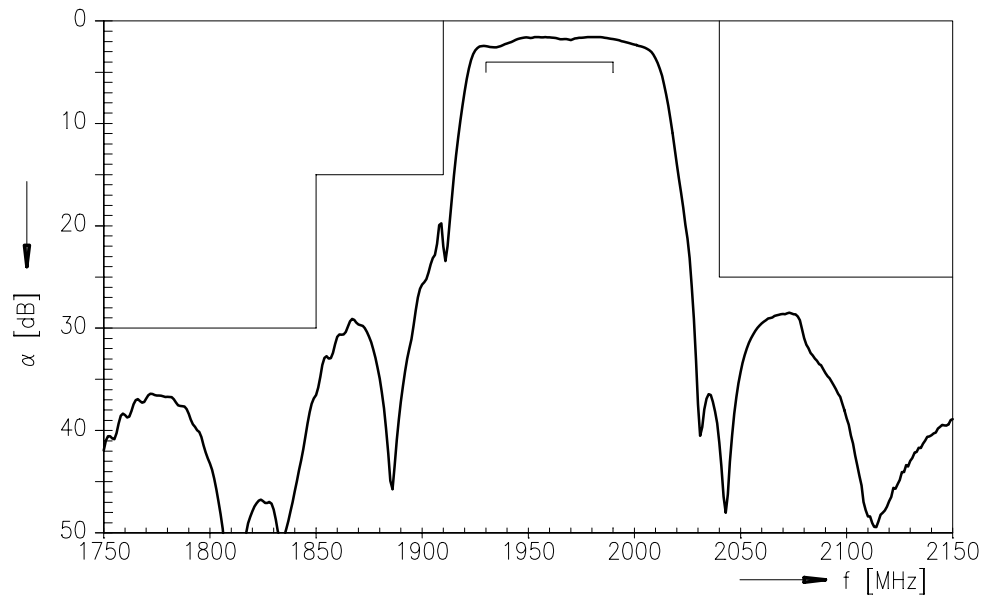
**Characteristics**

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega$   
 Terminating load impedance:  $Z_L = 100 \Omega$  (balanced) || 22 nH

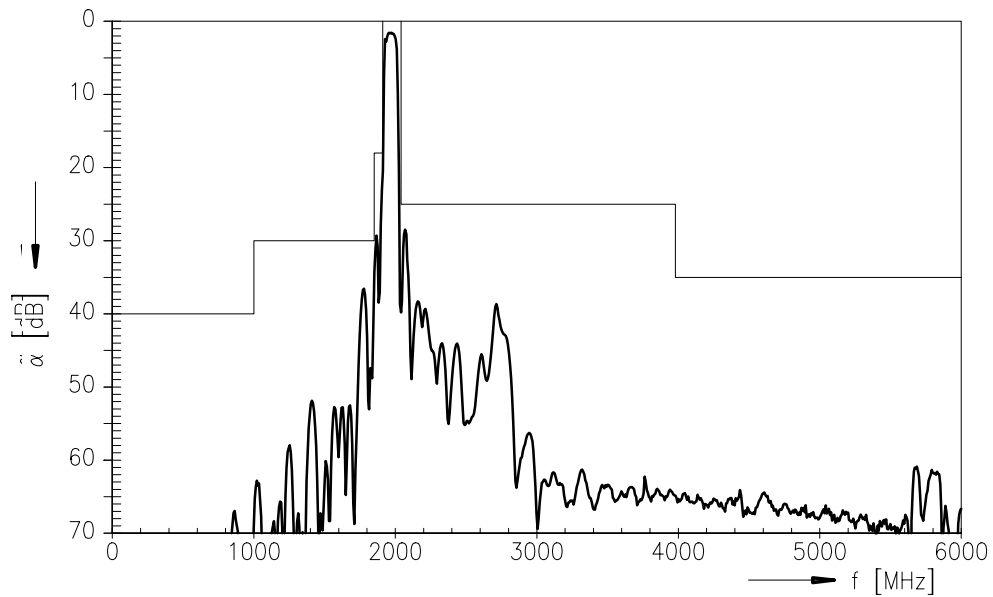
		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2,8	4,0	dB
1930,0 ... 1990,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1,1	2,5	dB
1930,0 ... 1990,0 MHz					
<b>Input VSWR</b>		—	1,8	2,2	
1930,0 ... 1990,0 MHz					
<b>Output VSWR</b>		—	1,8	2,2	
1930,0 ... 1990,0 MHz					
<b>Output phase balance</b> ( $\phi(S_{31}) - \phi(S_{21}) + 180^\circ$ )		-10	0	10	degree
1930,0 ... 1990,0 MHz					
<b>Output amplitude balance</b> ( $ S_{31}/S_{21} $ )		-1,5	0	1,5	dB
1930,0 ... 1990,0 MHz					
<b>Attenuation</b>	$\alpha$				
10,0 ... 1000,0 MHz		40	58	—	dB
1000,0 ... 1850,0 MHz		30	35	—	dB
1850,0 ... 1910,0 MHz		18	20	—	dB
2040,0 ... 3980,0 MHz		25	28	—	dB
3980,0 ... 6000,0 MHz		35	60	—	dB



Transfer function (measured at room temperature):



Transfer function (wideband, measured at room temperature):





**SAW Components**

**B7834**

**Low-Loss Filter for Mobile Communication**

**1960,0 MHz**

Data Sheet



**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW MC WT**

**P.O. Box 80 17 09, 81617 Munich, GERMANY**

© EPCOS AG 2004. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

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.