



## Tx IF Filters for Cellular Phones

**Series/Type:**        **B4911**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39161B4911Z810		2004-05-19	2004-09-30	2004-12-31

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).



## Withdrawn Products

The following products presented in this data sheet are being withdrawn:

B39161B4911Z810

Date of withdrawal: 19-MAY-04

Deadline for last orders: 30-SEP-04

Last shipments: 31-DEC-04

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



# SAW Components

Datasheet B4911

Data Sheet



Datasheet



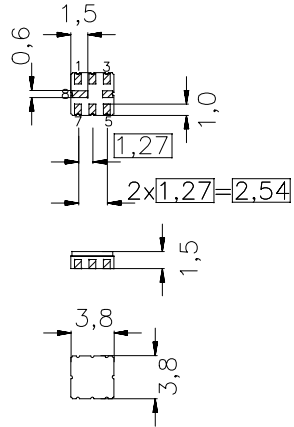
Ceramic package **QCC8B**

**Features**

- Low-loss Tx filter
- Hermetically sealed ceramic SMD package

**Terminals**

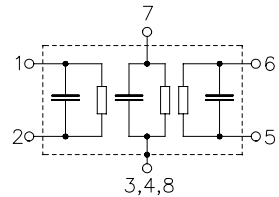
- Ni, gold-plated



Dimensions in mm, approx. weight 0,8 g

**Pin configuration**

- |       |                                  |                                  |
|-------|----------------------------------|----------------------------------|
| 1     | Input                            | Input                            |
| 2     | Input ground or balanced input   | Input ground or balanced input   |
| 3     | To Be Grounded                   | To Be Grounded                   |
| 4,7,8 | To Be Grounded                   | To Be Grounded                   |
| 5     | Output                           | Output                           |
| 6     | Output ground or balanced output | Output ground or balanced output |



Type	Ordering code	Marking and Package according to	Packing according to
B4911	B39161-B4911-Z810	C61157-A7-A46	F61074-V8037-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T_A$	- 40/+ 85	°C	between any terminals source impedance 50Ω
Storage temperature range	$T_{stg}$	- 40/+ 85	°C	
DC voltage	$V_{DC}$	0	V	
Source power	$P_s$	10	dBm	



### Characteristics

Operating temperature range:	$T = -30\text{ }^{\circ}\text{C} \dots +85\text{ }^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 200\ \Omega \parallel 2300\ \text{nH}$
Terminating load impedance:	$Z_L = 230\ \Omega \parallel 870\ \text{nH}$

		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	155,52	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	3,0	5,0	dB
	155,505 ... 155,535 MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0,4	1,0	dB
	155,505 ... 155,535 MHz				
<b>Group delay</b>	$\Delta\tau$	—	200	500	ns
	155,505 ... 155,535 MHz				
<b>Input/output return loss</b>		10	15	—	dB
	155,505 ... 155,535 MHz				
<b>Attenuation</b>	$\alpha$				dB
	0,0 ... 135,52 MHz	40	50	—	
	175,52 ... 500,0 MHz	40	46	—	

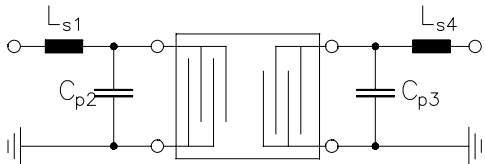
## Matching Network to 50Ω

$$L_{s1} = 82 \text{ nH}$$

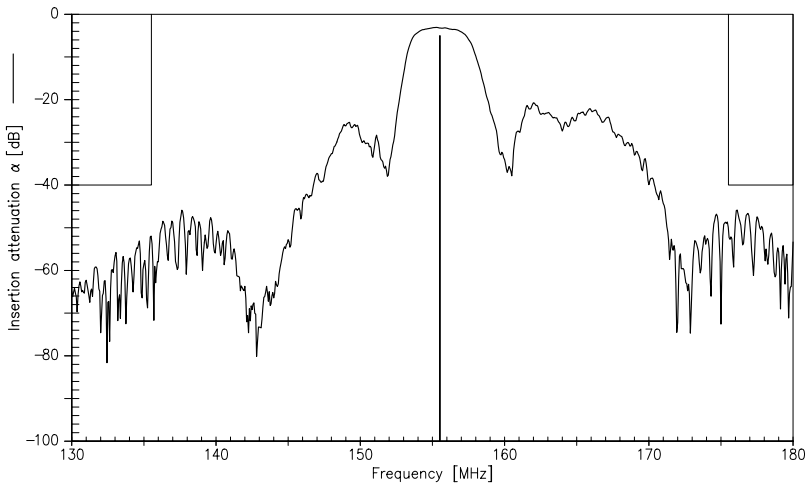
$$C_{p2} = 6,8 \text{ pF}$$

$$C_{p3} = 5,6 \text{ pF}$$

$$L_{s4} = 120 \text{ nH}$$



## Frequency response



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

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