



# SAW filters for mobile communications

## Series/Type: **B4218**

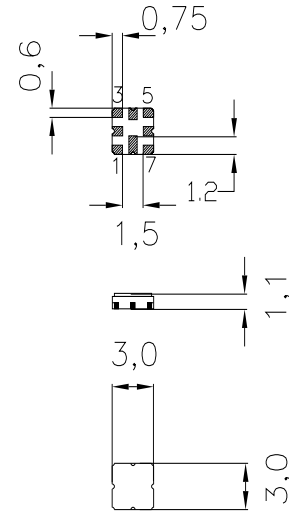
The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39192B4218U810		2009-07-31	2009-11-30	2010-02-28

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).


 Ceramic package **QCC8D**
**Features**

- Low-loss 2-in-1 RF filter for mobile telephone PCS systems, transmit path
- Device with two integrated Tx-filter
- Usable passband of Tx-filter 1 30 MHz
- Usable passband of Tx-filter 2 30 MHz
- No matching network required for operation at 50 Ω
- Package for **Surface Mounted Technology (SMT)**



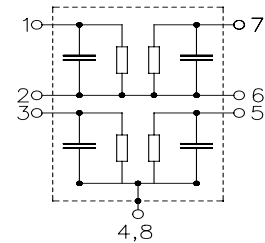
Dimensions in mm, approx. weight 0,037 g

**Terminals**

- Ni, gold-plated

**Pin configuration**

- |     |                             |
|-----|-----------------------------|
| 1   | Input Tx-filter 1           |
| 7   | Output Tx-filter 1          |
| 2,6 | To be grounded              |
| 3   | Input Tx-filter 2           |
| 5   | Output Tx-filter 2          |
| 4,8 | Case-ground, to be grounded |



Type	Ordering code	Marking and Package according to	Packing according to
B4218	B39192-B4218-U810	C61157-A7-A72	F61074-V8101-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 40 /+ 85	°C	source and load impedance 50 Ω continuous wave
Storage temperature range	$T_{stg}$	- 40 /+ 85	°C	
DC voltage	$V_{DC}$	3	V	
Input power max.				
1850...1910 MHz	$P_{IN}$	10	dBm	


**Characteristics of Tx-filter 1**

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50$  Ω  
 Terminating load impedance:  $Z_L = 50$  Ω

			min.	typ.	max.	
<b>Center frequency</b>	$f_c$		—	1865,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
		1850,0 ... 1880,0 MHz	—	1,8	2,5	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
		1850,0 ... 1880,0 MHz	—	0,7	1,4	dB
<b>Input return loss</b>						
		1850,0 ... 1880,0 MHz	9,0	10,0	—	dB
<b>Output return loss</b>						
		1850,0 ... 1880,0 MHz	9,0	10,0	—	dB
<b>Attenuation</b>	$\alpha$					
		10,0 ... 1570,0 MHz	25,0	29,0	—	dB
		1570,0 ... 1580,0 MHz	30,0	32,0	—	dB
		1580,0 ... 1780,0 MHz	29,0	32,0	—	dB
		1780,0 ... 1800,0 MHz	25,0	30,0	—	dB
		1800,0 ... 1805,0 MHz	20,0	26,0	—	dB
		1930,0 ... 1960,0 MHz	38,0	45,0	—	dB
		1960,0 ... 2400,0 MHz	32,0	35,0	—	dB
		2400,0 ... 3000,0 MHz	22,0	32,0	—	dB
		3000,0 ... 4000,0 MHz	15,0	19,0	—	dB
		5550,0 ... 5640,0 MHz	0,0	5,0	—	dB
<b>Rx band suppression</b>	$\alpha$					
		1930,0 ... 1960,0 MHz	38,0	45,0	—	dB
<b>LO suppression</b>	$\alpha$					
		2113,0 ... 2174,0 MHz	32,0	35,0	—	dB

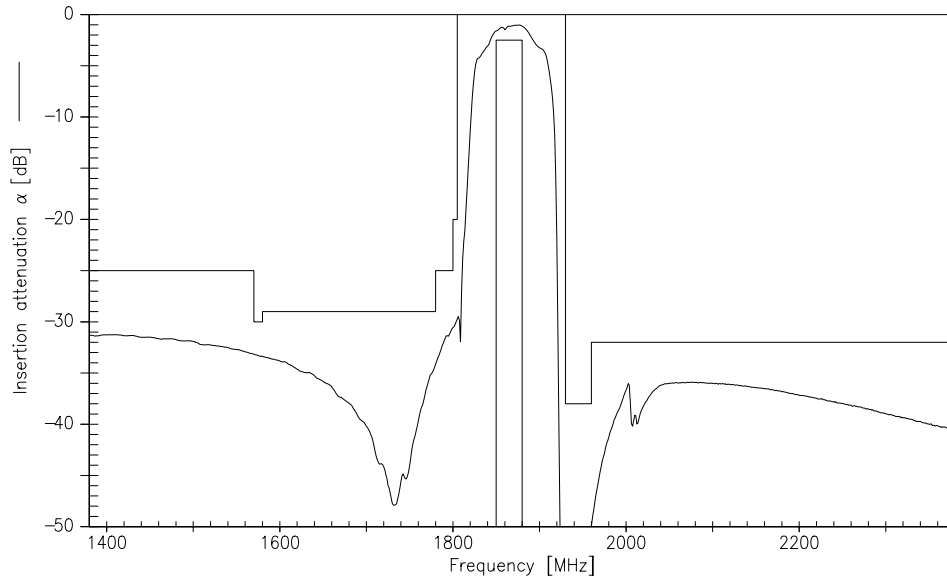

**Characteristics of Tx-filter 2**

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega$   
 Terminating load impedance:  $Z_L = 50 \Omega$

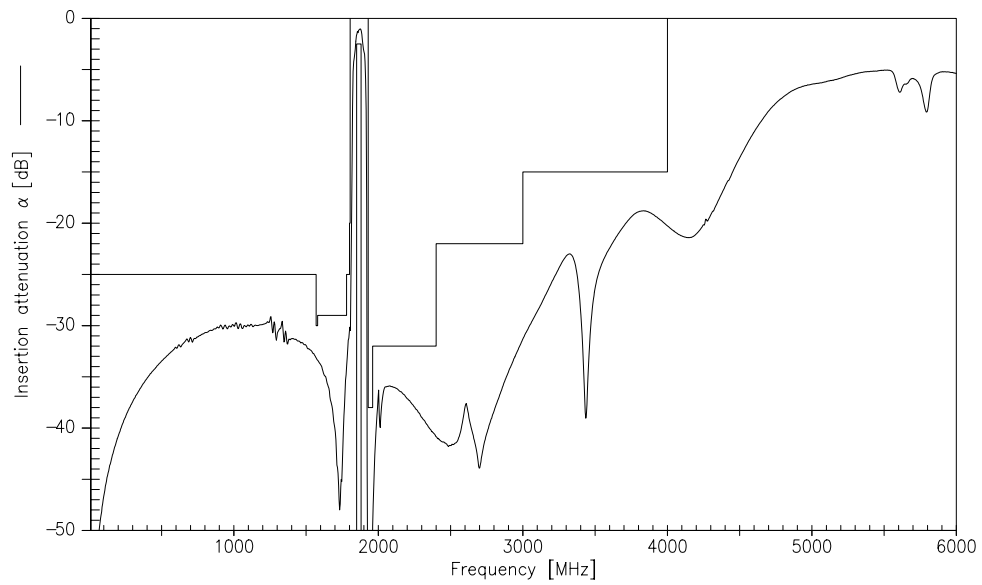
				min.	typ.	max.	
<b>Center frequency</b>		$f_c$		—	1895,0	—	MHz
<b>Maximum insertion attenuation</b>	1880,0 ... 1910,0	MHz	$\alpha_{max}$	—	1,8	2,5	dB
<b>Amplitude ripple (p-p)</b>	1880,0 ... 1910,0	MHz	$\Delta\alpha$	—	0,7	1,4	dB
<b>Input return loss</b>	1880,0 ... 1910,0	MHz		9,0	10,0	—	dB
<b>Output return loss</b>	1880,0 ... 1910,0	MHz		9,0	10,0	—	dB
<b>Attenuation</b>			$\alpha$				
	10,0 ... 1570,0	MHz		25,0	29,0	—	dB
	1570,0 ... 1580,0	MHz		30,0	32,0	—	dB
	1580,0 ... 1780,0	MHz		29,0	32,0	—	dB
	1780,0 ... 1800,0	MHz		25,0	30,0	—	dB
	1800,0 ... 1830,0	MHz		22,0	29,0	—	dB
	1960,0 ... 1990,0	MHz		38,0	45,0	—	dB
	1990,0 ... 2400,0	MHz		32,0	35,0	—	dB
	2400,0 ... 3000,0	MHz		22,0	30,0	—	dB
	3000,0 ... 4000,0	MHz		15,0	19,0	—	dB
	5640,0 ... 5730,0	MHz		0,0	5,0	—	dB
<b>Rx band suppression</b>	1960,0 ... 1990,0	MHz	$\alpha$	38,0	45,0	—	dB
<b>LO suppression</b>	2113,0 ... 2174,0	MHz	$\alpha$	32,0	35,0	—	dB



Transfer function Tx-filter 1

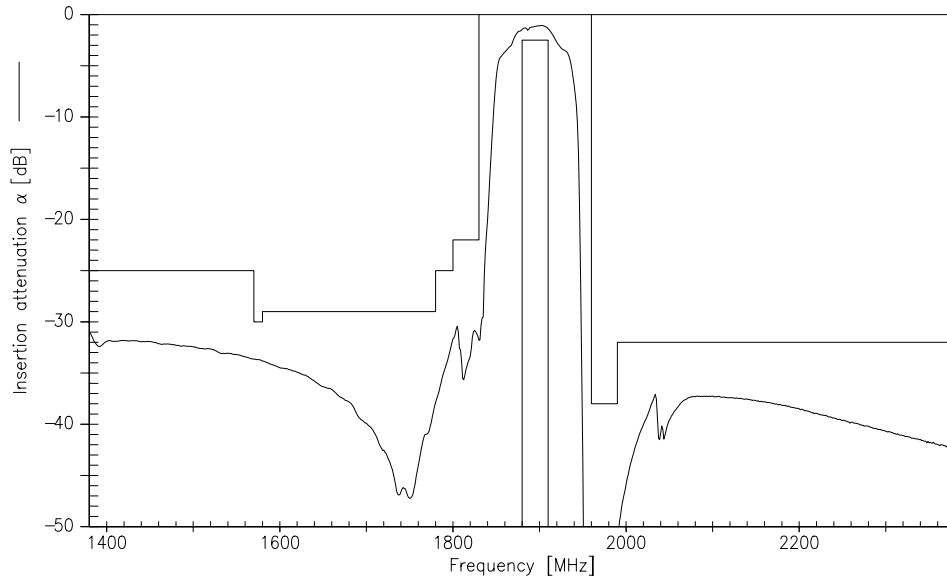


Transfer function Tx-filter 1(wideband)

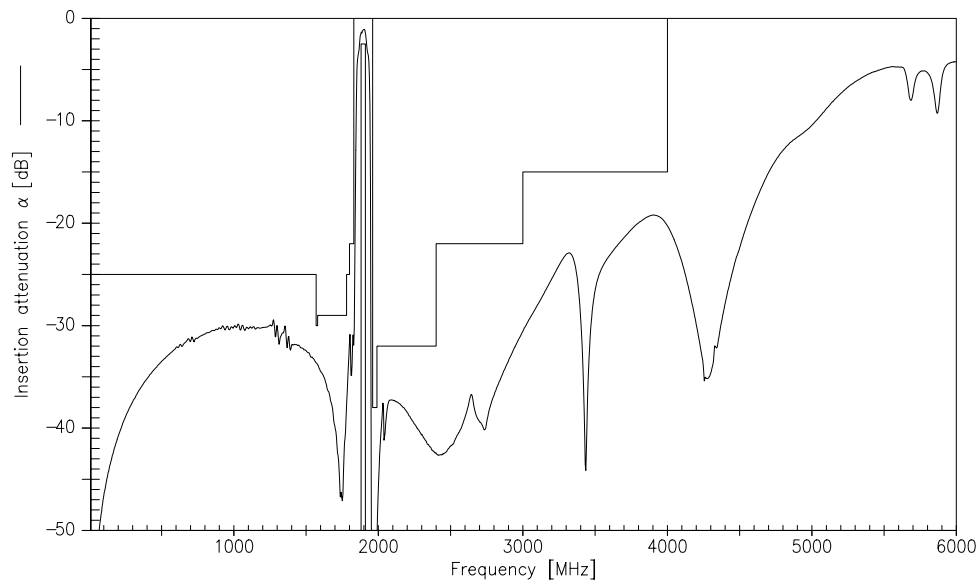




Transfer function Tx-filter 2

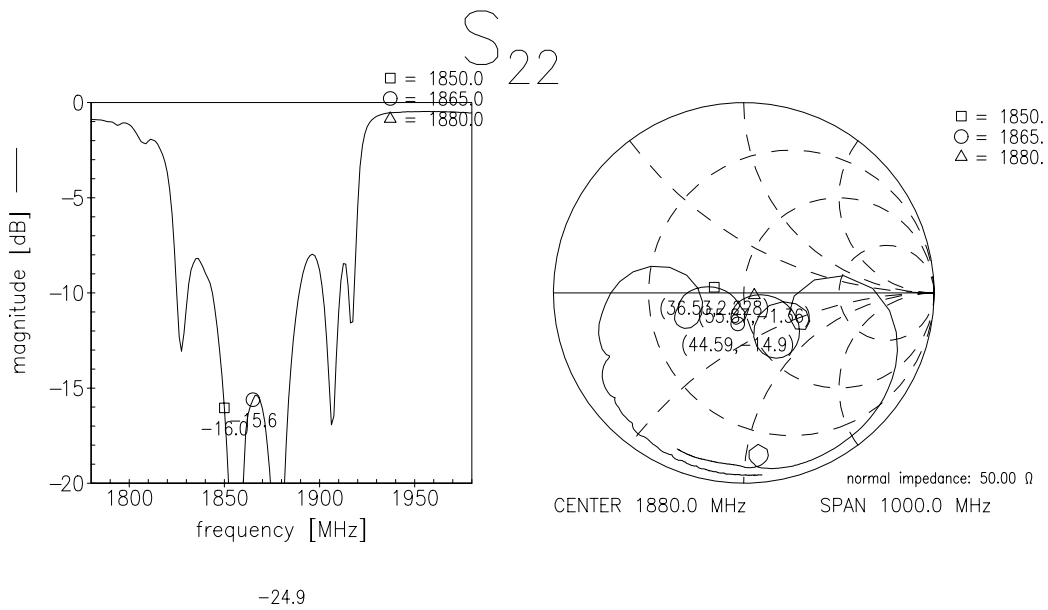
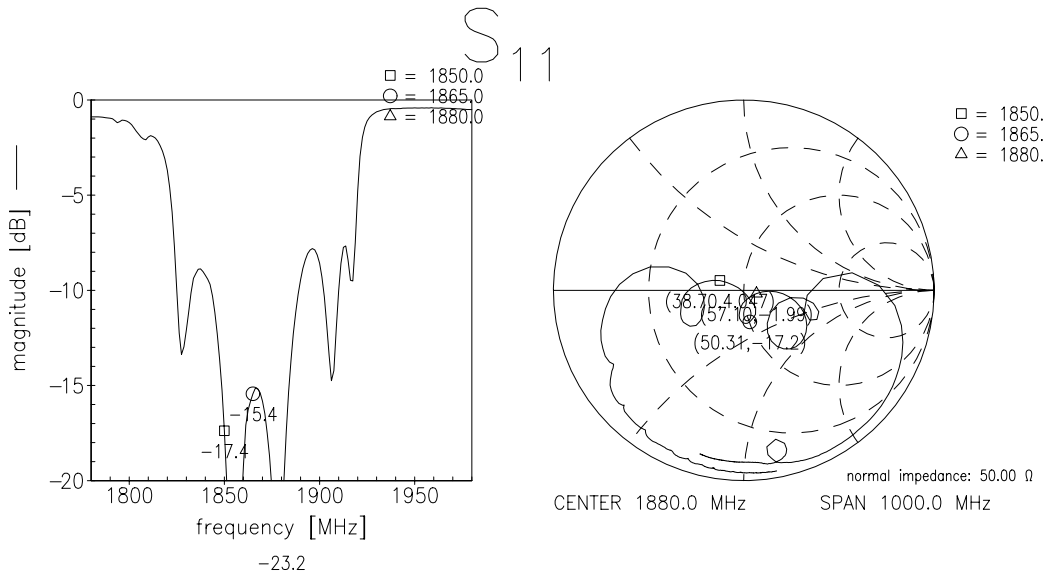


Transfer function Tx-filter 2(wideband)



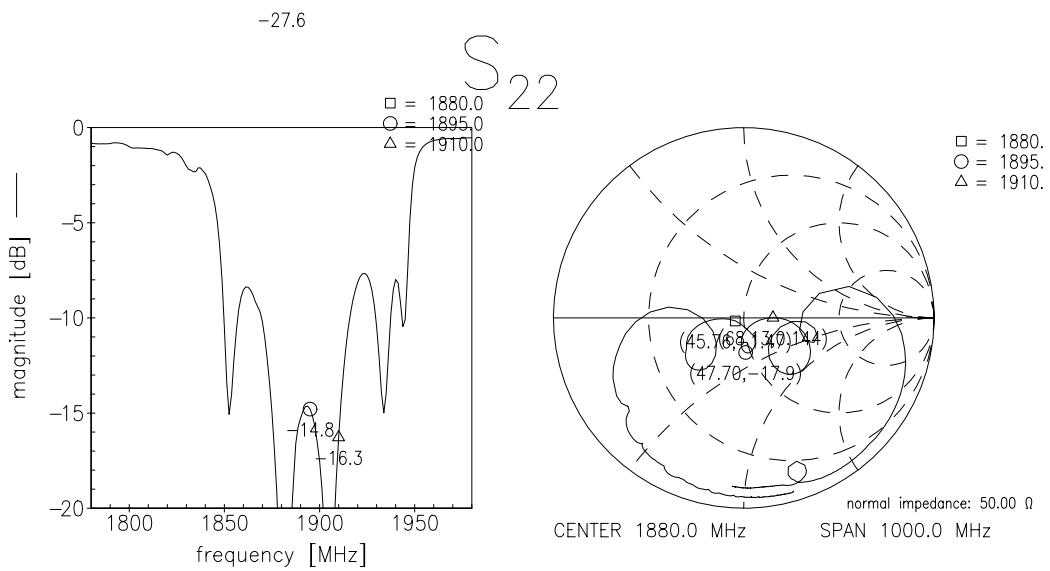
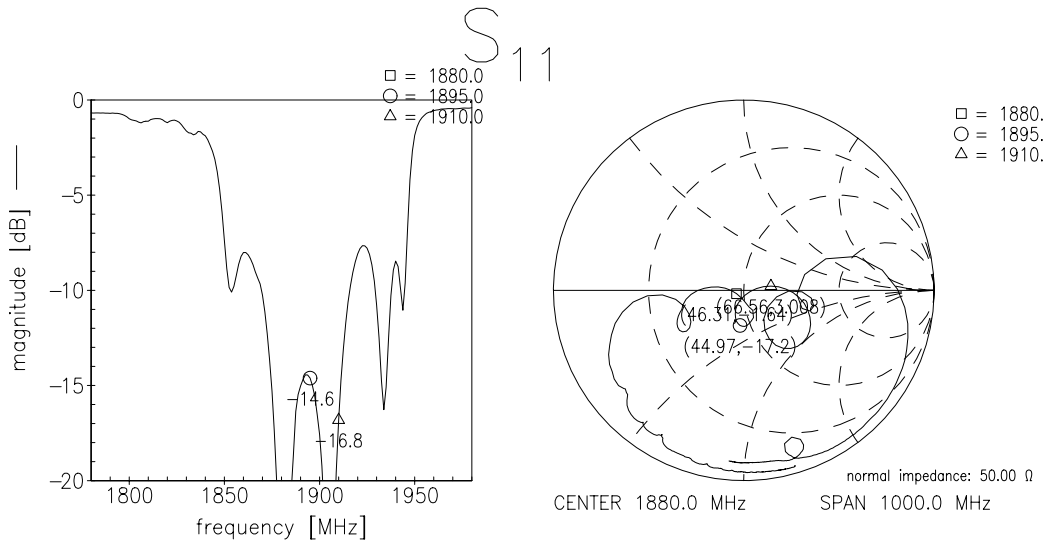


**Reflection functions of Tx-filter 1**





**Reflection functions of Tx-filter 2**





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