



SAW Components

Data Sheet B4218

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid pattern. Overlaid on the globe is the word "EPCOS" in a large, bold, sans-serif font, which is slightly tilted and appears to be part of a larger, repeating pattern.



SAW Components

B4218

Low-Loss Filter for Mobile Communication

1865,0 & 1895,0 MHz

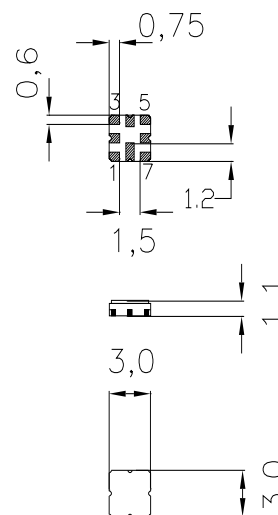
Data Sheet



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)



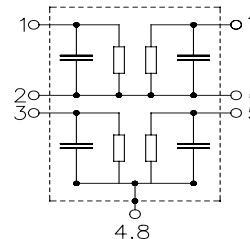
Terminals

- Ni, gold-plated

Dimensions in mm, approx. weight 0,037 g

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	$^{\circ}\text{C}$	source and load impedance 50 Ω continuous wave
Storage temperature range	T_{stg}	- 40 /+ 85	$^{\circ}\text{C}$	
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: $Z_S = 50 \Omega$

Terminating load impedance: $Z_L = 50 \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1865,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$					
	1850,0 ... 1880,0	MHz	—	1,8	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1850,0 ... 1880,0	MHz	—	0,7	1,4	dB
Input return loss						
	1850,0 ... 1880,0	MHz	9,0	10,0	—	dB
Output return loss						
	1850,0 ... 1880,0	MHz	9,0	10,0	—	dB
Attenuation	α					
	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
Rx band suppression	α					
	1930,0 ... 1960,0	MHz	38,0	45,0	—	dB
LO suppression	α					
	2113,0 ... 2174,0	MHz	32,0	35,0	—	dB



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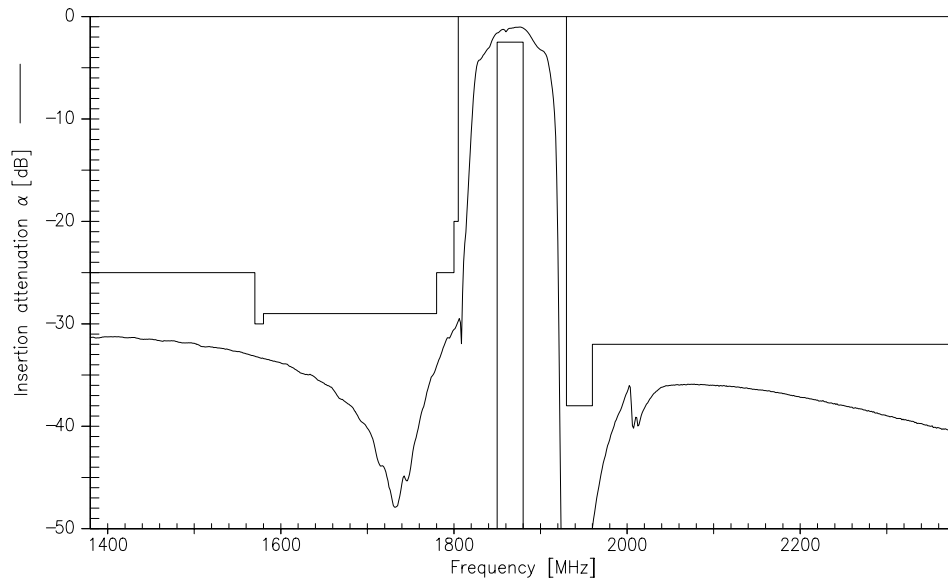


Characteristics of Tx-filter 2

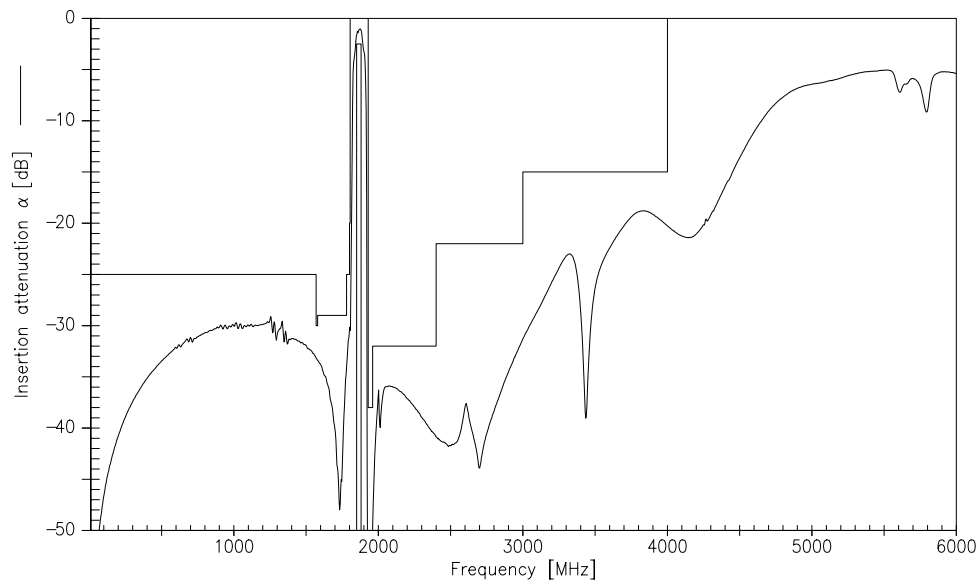
Operating temperature range: $T = -30$ to $+85$ °C
Terminating source impedance: $Z_S = 50 \Omega$
Terminating load impedance: $Z_L = 50 \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1895,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$					
	1880,0 ...1910,0 MHz		—	1,8	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1880,0 ...1910,0 MHz		—	0,7	1,4	dB
Input return loss						
	1880,0 ...1910,0 MHz		9,0	10,0	—	dB
Output return loss						
	1880,0 ...1910,0 MHz		9,0	10,0	—	dB
Attenuation	α					
	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
Rx band suppression	α					
	1960,0 ...1990,0 MHz		38,0	45,0	—	dB
LO suppression	α					
	2113,0 ...2174,0 MHz		32,0	35,0	—	dB

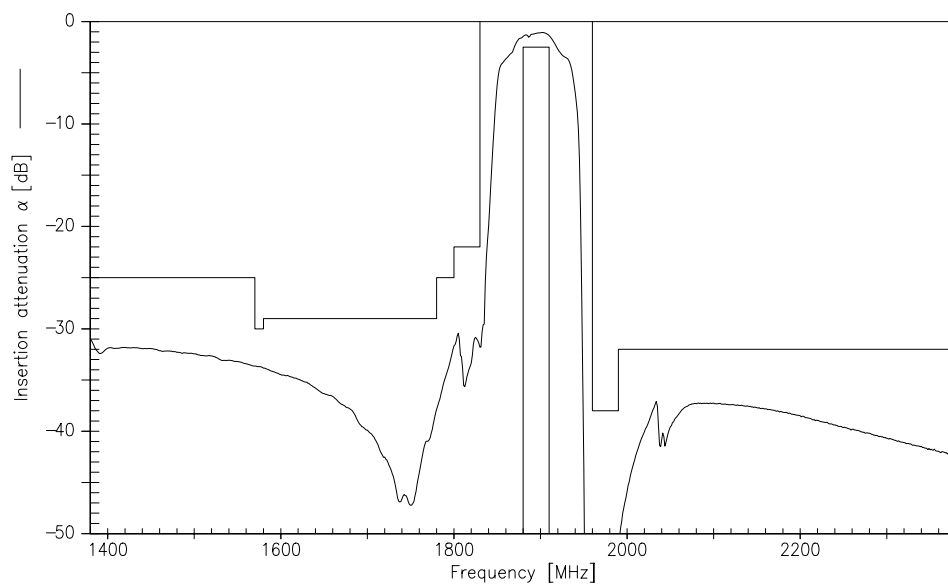
Transfer function Tx-filter 1



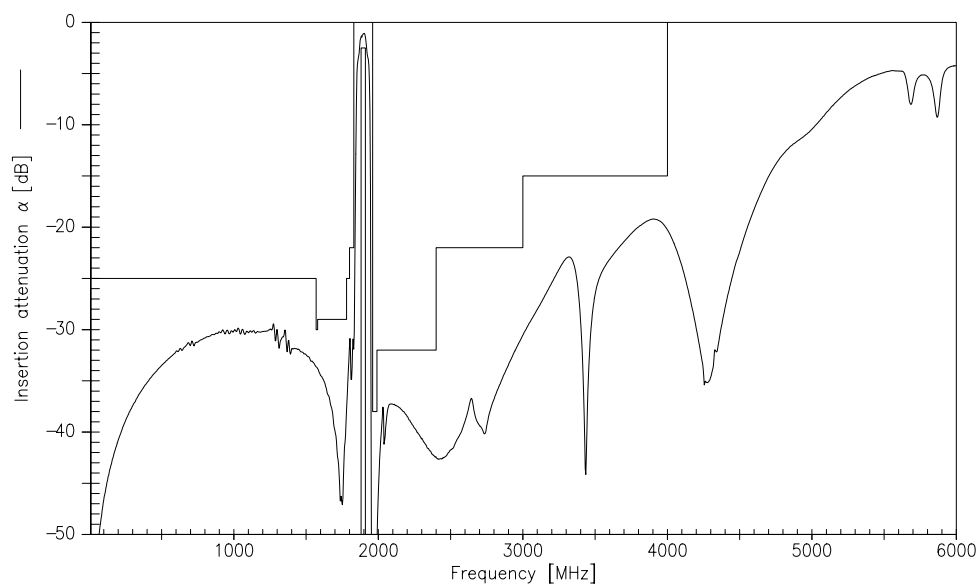
Transfer function Tx-filter 1(wideband)



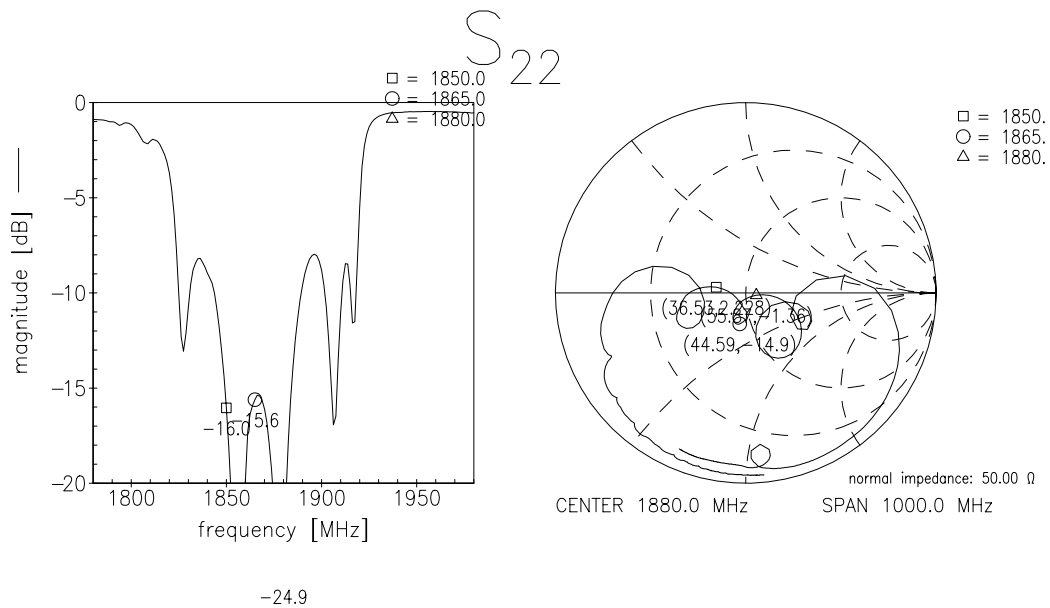
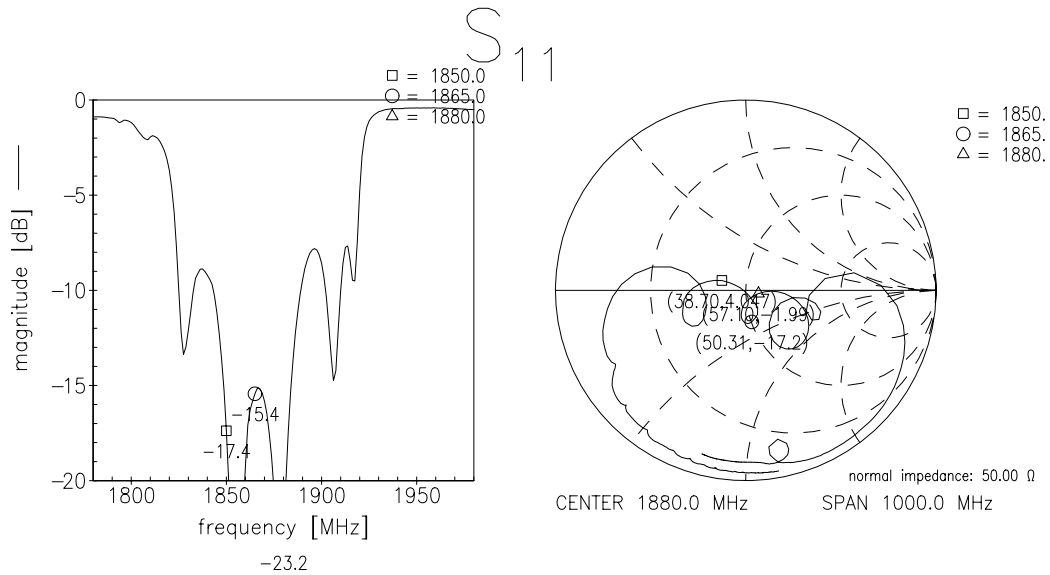
Transfer function Tx-filter 2



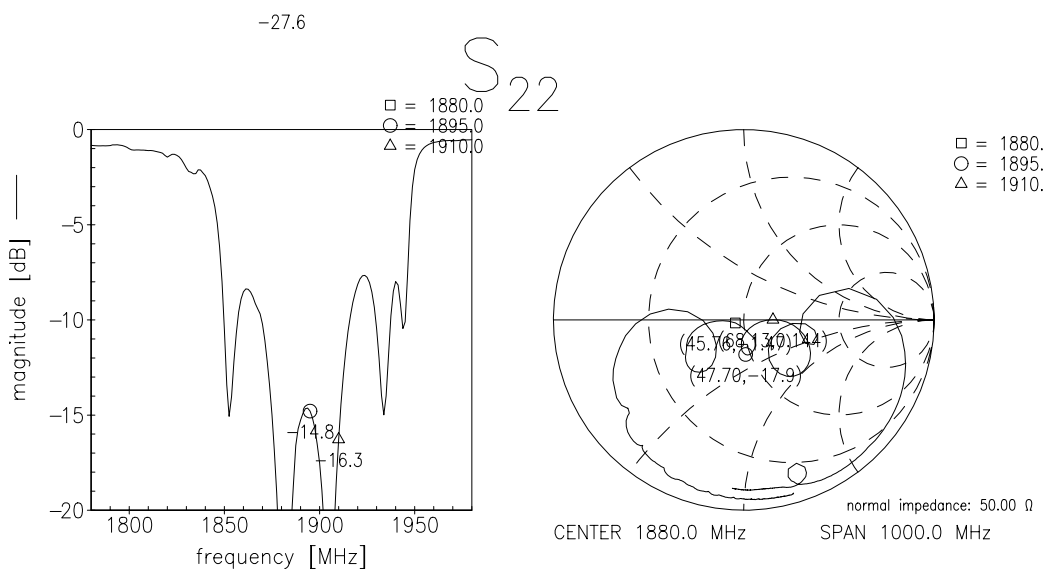
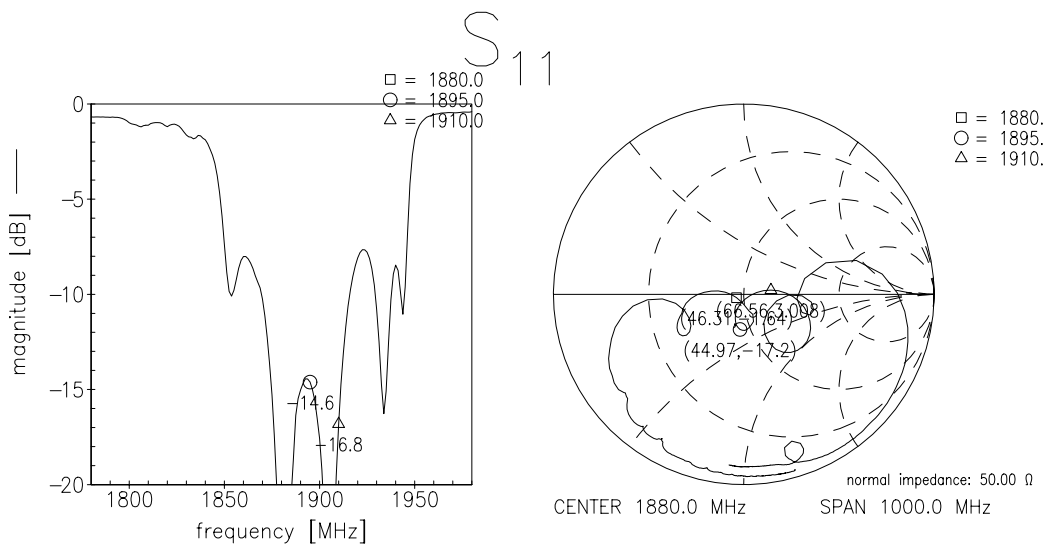
Transfer function Tx-filter 2(wideband)



Reflection functions of Tx-filter 1



Reflection functions of Tx-filter 2





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