EPCOS

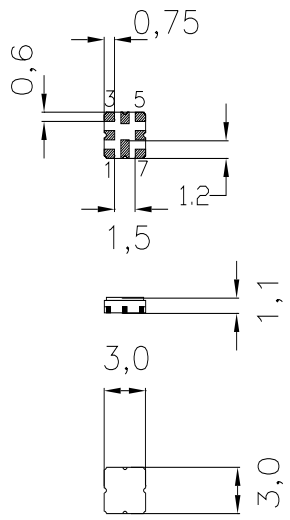
SAW Components

Data Sheet B4218

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 **S**urface **M**ounted **T**echnology (**SMT**)



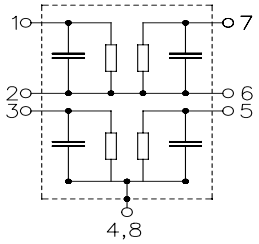
Dimensions in mm, approx. weight 0,037 g

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 **S**ensitive **D**evice (**ESD**)

Maximum ratings

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

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

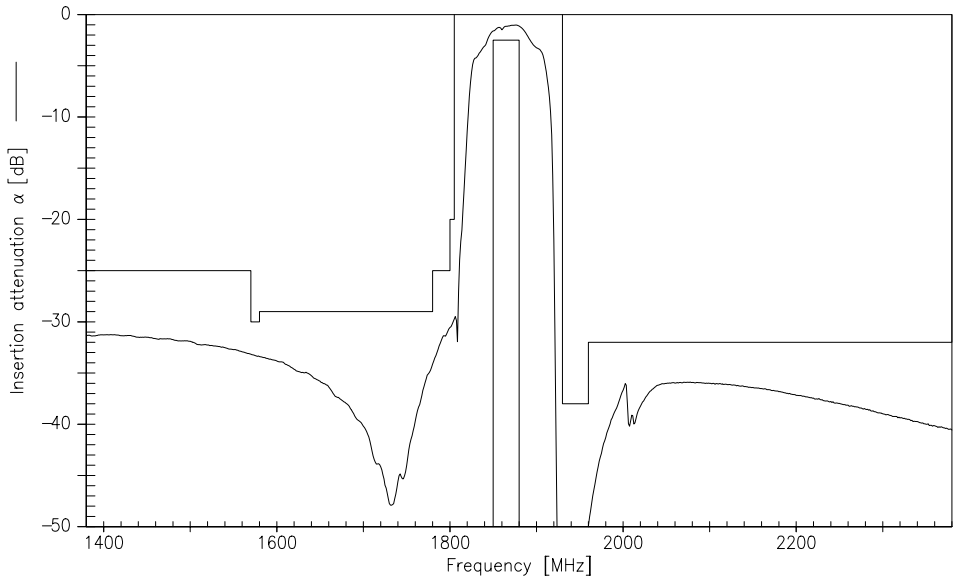
			min.	typ.	max.	
Center frequency	f_c		—	1865,0	—	MHz
Maximum insertion attenuation	α_{max}					
1850,0 ...1880,0	MHz		—	1,8	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1850,0 ...1880,0	MHz		—	0,7	1,4	dB
Input return loss						
1850,0 ...1880,0	MHz		9,0	10,0	—	dB
Output return loss						
1850,0 ...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

Characteristics of Tx-filter 2

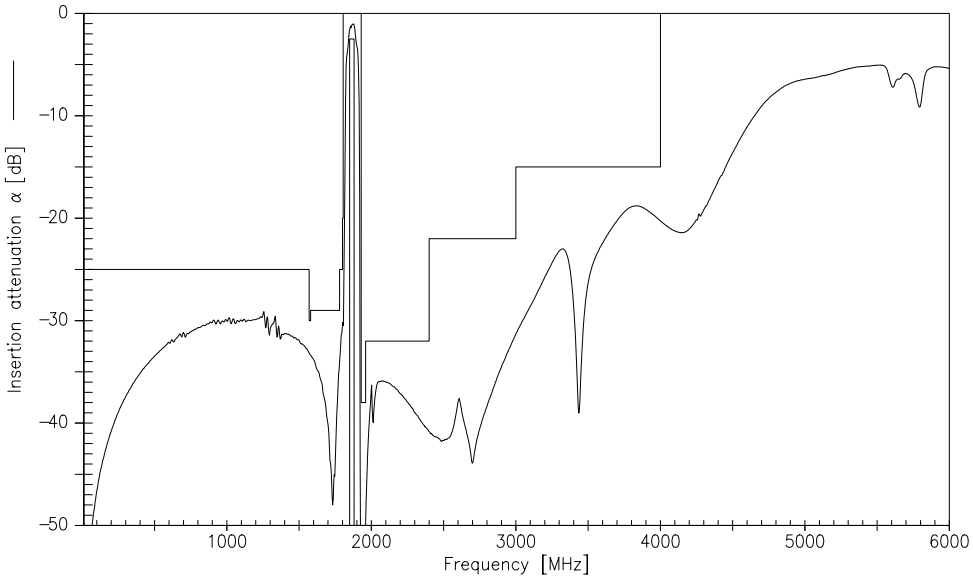
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

				min.	typ.	max.	
Center frequency			f_c	—	1895,0	—	MHz
Maximum insertion attenuation			α_{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

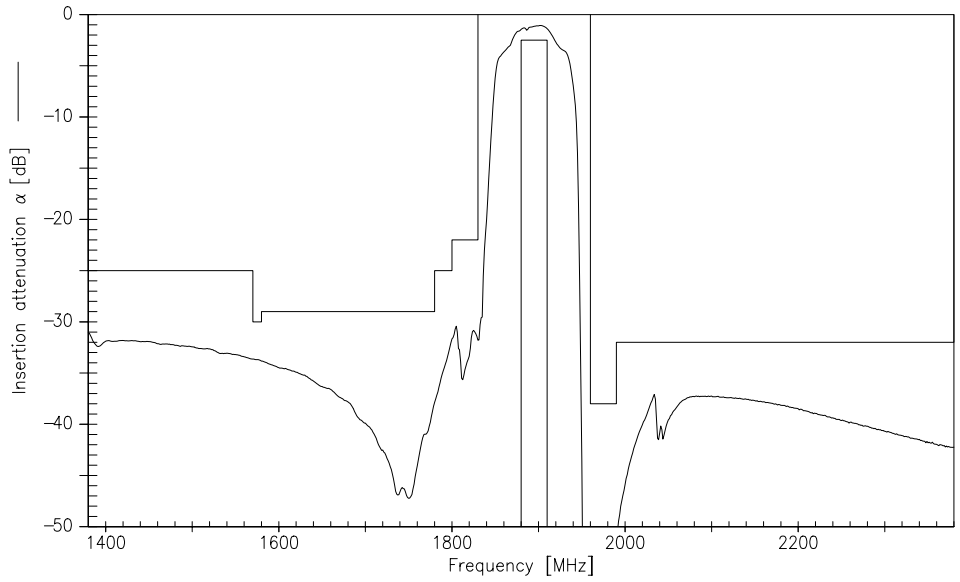
Transfer function Tx-filter 1



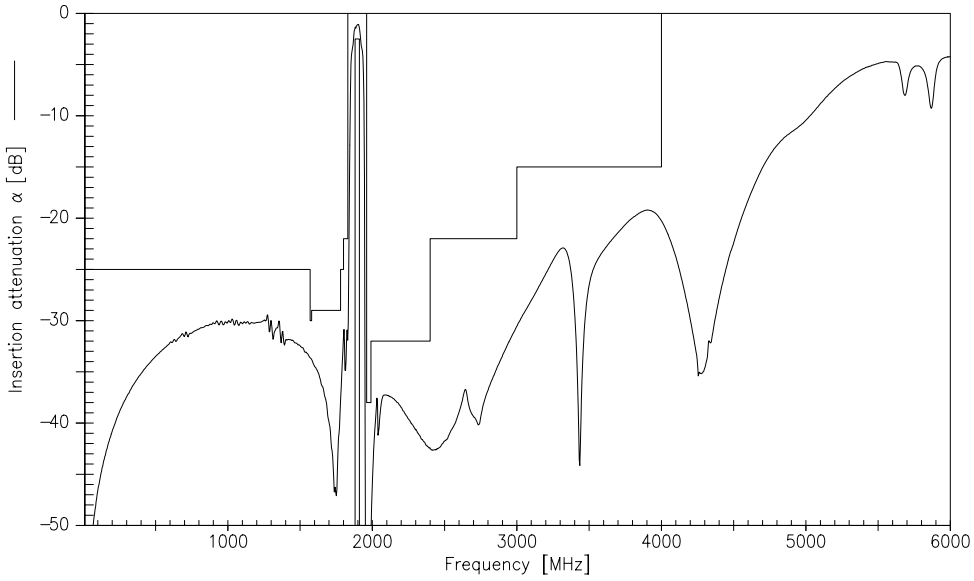
Transfer function Tx-filter 1(wideband)



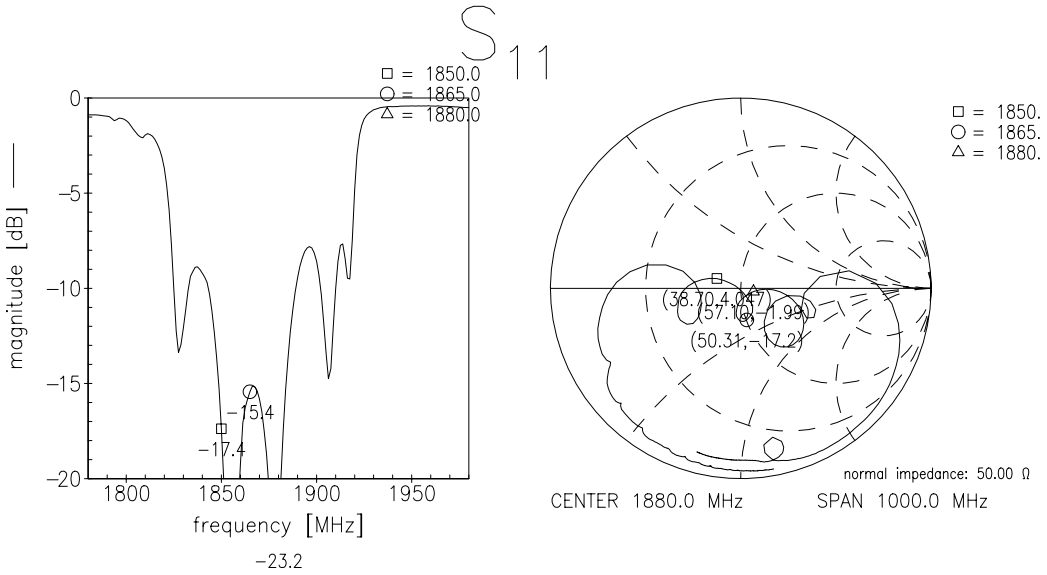
Transfer function Tx-filter 2

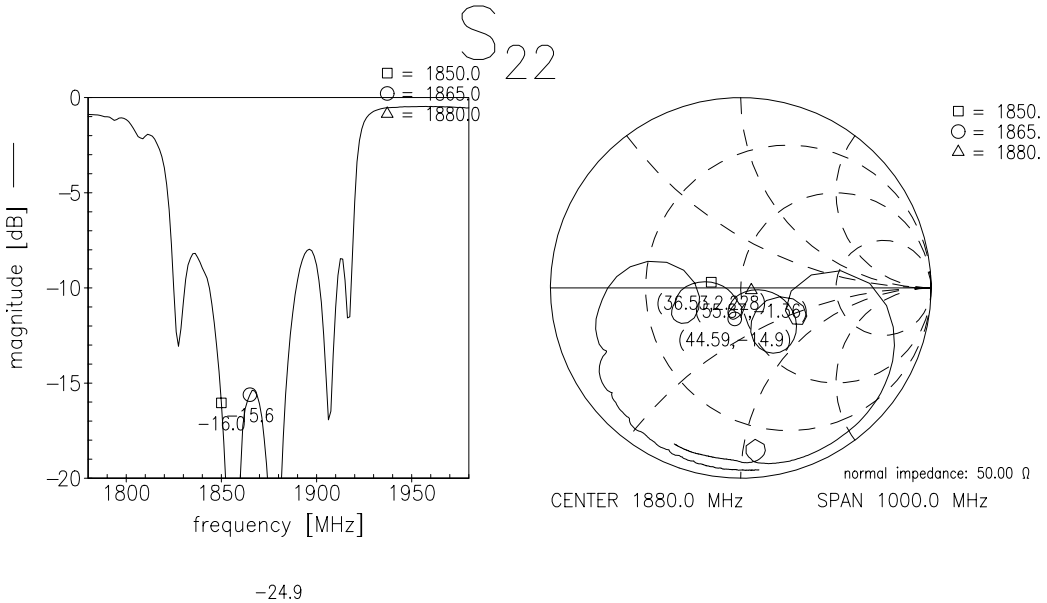


Transfer function Tx-filter 2(wideband)

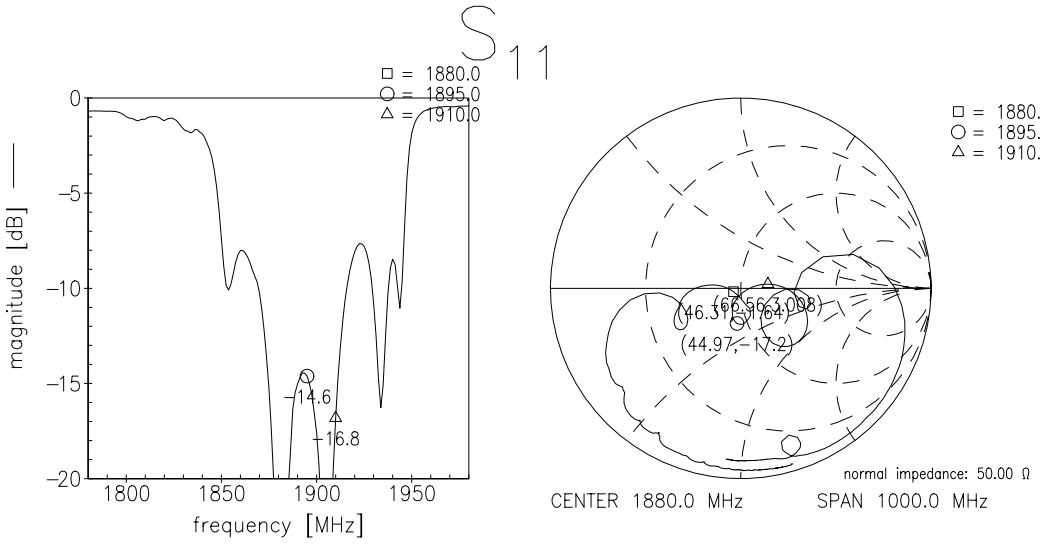


Reflection functions of Tx-filter 1

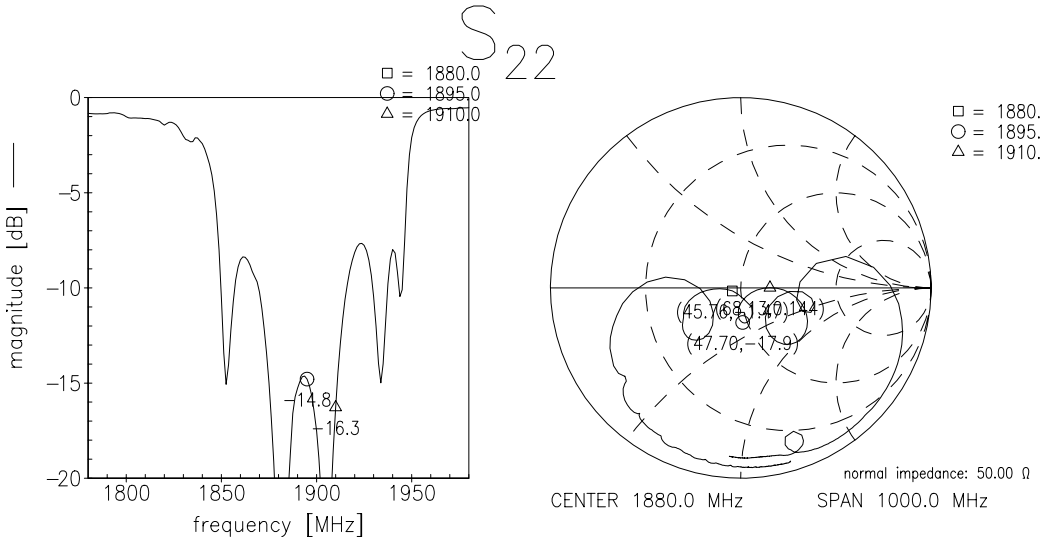




Reflection functions of Tx-filter 2



−27.6



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This brochure replaces the previous edition.

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