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The following products presented in this data sheet are being withdrawn.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



Low-Loss Filter for Mobile Communication

1865,0 & 1895,0 MHz

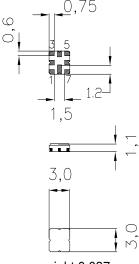
Data Sheet



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)



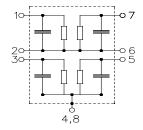
Terminals

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



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

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range Storage temperature range DC voltage Input power max. 18501910 MHz	T T_{stg} V_{DC} P_{IN}	- 40 /+ 85 - 40 /+ 85 3	°C °C V dBm	source and load impedance 50 Ω continuous wave



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Characteristics of Tx-filter 1

Operating temperature range: T = -30 to +85 °C

Terminating source impedance: $Z_{\rm S} = 50~\Omega$ Terminating load impedance: $Z_{\rm L} = 50~\Omega$

				min.	typ.	max.	
Center frequency			f _C	_	1865,0	_	MHz
Maximum insertion attenuation		α_{max}					
1850,0 .	1880,0	MHz	max	_	1,8	2,5	dB
Amplitude ripple (p-p)			Δα				
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				
,	1570,0	MHz		25,0	29,0	_	dB
1570,0 .		MHz		30,0	32,0	_	dB
1580,0 .	*	MHz		29,0	32,0	_	dB
1780,0 .	-	MHz		25,0	30,0	_	dB
1800,0 .	-	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: $Z_{\rm S}=50~\Omega$ Terminating load impedance: $Z_{\rm L}=50~\Omega$

				min.	typ.	max.	
Center frequency			$f_{\rm C}$		1895,0		MHz
Maniana in a salian alta a salian							
Maximum insertion attenuat	1910,0	MHz	α_{max}		1,8	2,5	dB
1000,0					.,0	_,0	
Amplitude ripple (p-p)			$\Delta \alpha$				
1880,0	1910,0	MHz			0,7	1,4	dB
Input return loss							
	1910,0	MHz		9,0	10,0		dB
1000,0	1010,0	1411 12		0,0	10,0		u.b
Output return loss							
1880,0	1910,0	MHz		9,0	10,0		dB
Attenuation			01				
	1570,0	MHz	α	25,0	29,0	_	dB
· ·	1580,0	MHz		30,0	32,0		dB
· ·	1780,0			29,0	32,0		dB
-	1800,0	MHz		25,0	30,0		dB
	1830,0	MHz		22,0	29,0		dB
· ·	1990,0	MHz		38,0	45,0	_	dB
· ·	2400,0	MHz		32,0	35,0		dB
2400,0	,	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				
-	1990,0	MHz		38,0	45,0	_	dB
LO suppression	2174,0	MHz	α	32,0	35,0		dB
2113,0	∠1/4,0	IVI⊓Z		3∠,0	35,0	_	ub



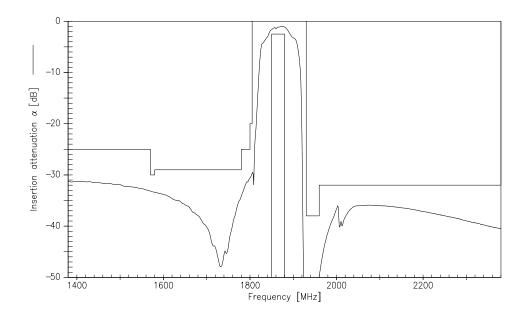
SAW Components

Low-Loss Filter for Mobile Communication

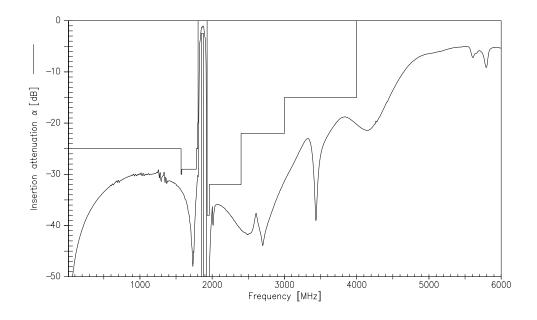
1865,0 & 1895,0 MHz

Data Sheet

Transfer function Tx-filter 1



Transfer function Tx-filter 1(wideband)

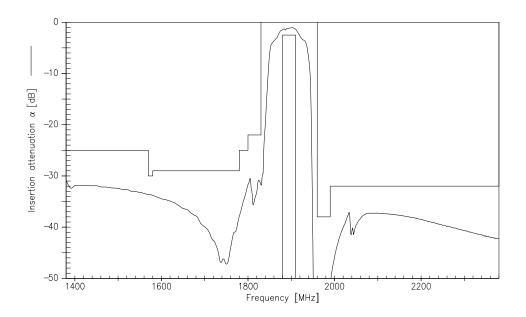




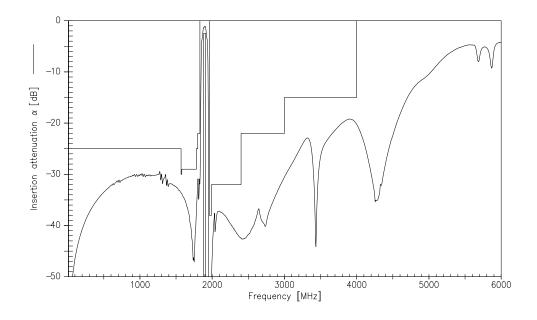
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Data Sheet

Transfer function Tx-filter 2



Transfer function Tx-filter 2(wideband)





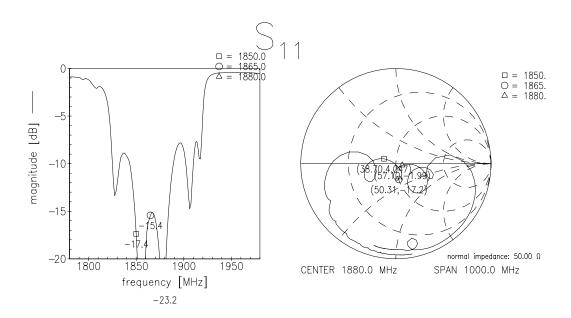
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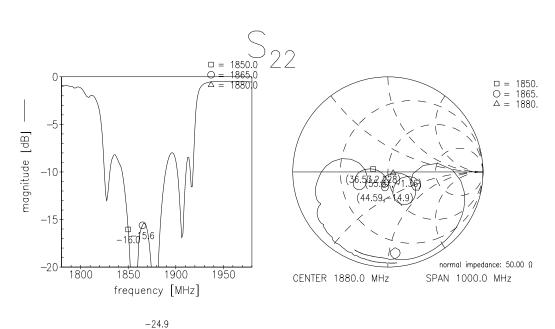
Low-Loss Filter for Mobile Communication

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Data Sheet

Reflection functions of Tx-filter 1







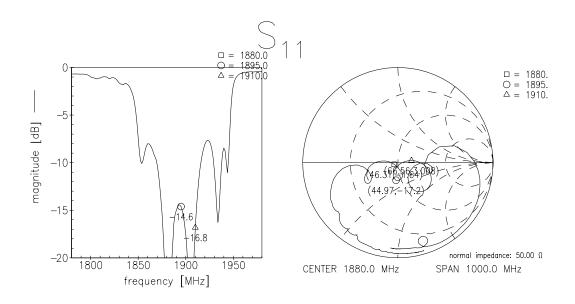
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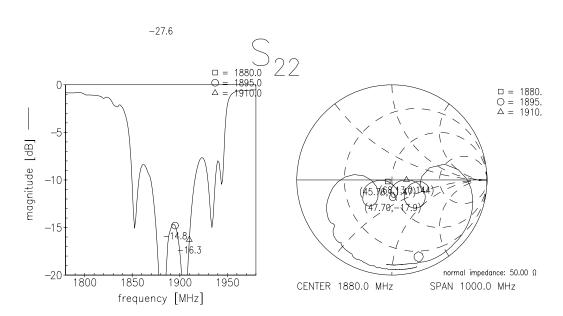
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Reflection functions of Tx-filter 2







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Published by EPCOS AG Surface Acoustic Wave Components Division, SAW MC WT P.O. Box 80 17 09, D-81617 München

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