



SAW Components

Data Sheet B7823





SAW Components

B7823

Low-Loss Filter for Mobile Communication

1960,0 MHz

Preliminary Data



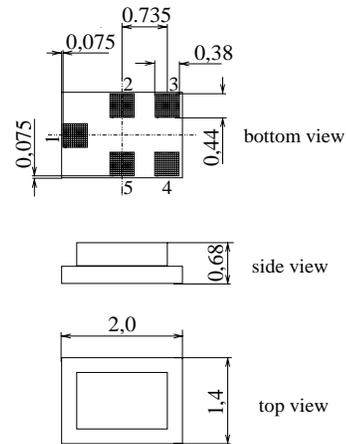
Chip sized SAW package QCS5C

Features

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Low amplitude ripple
- Usable passband 60 MHz
- Unbalanced to unbalanced operation
- Package for **Surface Mount Technology (SMT)**

Terminals

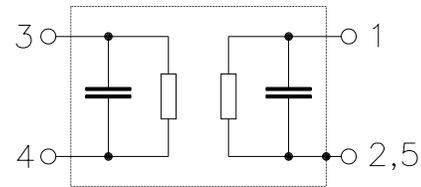
- Ni, gold-plated



Dimensions in mm, approx. weight 0,007 g

Pin configuration

- | | |
|-----|--------------------|
| 1 | Input, unbalanced |
| 4 | Output, unbalanced |
| 2,5 | Case ground |
| 3 | to be grounded |



Type	Ordering code	Marking and Package according to	Packing according to
B7823	B39202-B7823-C710	C61157-A7-A111	F61074-V8151-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30 / + 85	°C	peak power of GSM signal, duty cycle 4:8
Storage temperature range	T_{stg}	- 40 / + 85	°C	
Input Power at				
GSM850, GSM900	P_{IN}	15	dBm	
GSM1800, GSM1900	P_{IN}	12	dBm	
Tx bands				



Preliminary Data



Characteristics

Operating Temperature Range: $T = +25 \pm 2 \text{ }^\circ\text{C}$
 Terminating source impedance: $Z_S = 50\Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50\Omega$ (unbalanced)

		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}	—	2,3	2,8	dB
	1930,0 ... 1990,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,8	1,3	dB
	1930,0 ... 1990,0 MHz				
Input VSWR		—	1,7	1,9	
	1930,0 ... 1990,0 MHz				
Output VSWR		—	1,8	2,0	
	1930,0 ... 1990,0 MHz				
Attenuation	α				
	0,0 ... 1500,0 MHz	35	42	—	dB
	1500,0 ... 1700,0 MHz	30	38	—	dB
	1700,0 ... 1850,0 MHz	25	30	—	dB
	1850,0 ... 1890,0 MHz	22	25	—	dB
	1890,0 ... 1910,0 MHz	13	16	—	dB
	2010,0 ... 2070,0 MHz	13	16	—	dB
	2070,0 ... 2090,0 MHz	20	24	—	dB
	2090,0 ... 2200,0 MHz	25	28	—	dB
	2200,0 ... 2400,0 MHz	25	32	—	dB
	2400,0 ... 2500,0 MHz	30	35	—	dB
	2500,0 ... 3600,0 MHz	30	35	—	dB
	3600,0 ... 4000,0 MHz	30	38	—	dB
	4000,0 ... 6000,0 MHz	25	35	—	dB



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Characteristics

Operating Temperature Range: $T = -10$ to $+80^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50\Omega$ (unbalanced)

			min.	typ.	max.	
Center frequency	f_C		—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}		—	2,3	3,0	dB
		1930,0 ... 1990,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$		—	0,8	1,5	dB
		1930,0 ... 1990,0 MHz				
Input VSWR			—	1,7	1,9	
		1930,0 ... 1990,0 MHz				
Output VSWR			—	1,8	2,0	
		1930,0 ... 1990,0 MHz				
Attenuation	α					
		0,0 ... 1500,0 MHz	35	42	—	dB
		1500,0 ... 1700,0 MHz	30	38	—	dB
		1700,0 ... 1850,0 MHz	25	30	—	dB
		1850,0 ... 1890,0 MHz	20	24	—	dB
		1890,0 ... 1910,0 MHz	9	13	—	dB
		2010,0 ... 2070,0 MHz	9	13	—	dB
		2070,0 ... 2090,0 MHz	18	23	—	dB
		2090,0 ... 2200,0 MHz	25	28	—	dB
		2200,0 ... 2400,0 MHz	25	32	—	dB
		2400,0 ... 2500,0 MHz	30	35	—	dB
		2500,0 ... 3600,0 MHz	30	35	—	dB
		3600,0 ... 4000,0 MHz	30	38	—	dB
		4000,0 ... 6000,0 MHz	25	35	—	dB



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Characteristics

Operating Temperature Range: $T = -30$ to $+85^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50\Omega$ (unbalanced)

				min.	typ.	max.	
Center frequency		f_C		—	1960,0	—	MHz
Maximum insertion attenuation		α_{\max}		—	2,6	3,3	dB
	1930,0 ... 1990,0	MHz					
Amplitude ripple (p-p)		$\Delta\alpha$		—	1,1	1,8	dB
	1930,0 ... 1990,0	MHz					
Input VSWR				—	1,9	2,1	
	1930,0 ... 1990,0	MHz					
Output VSWR				—	2,0	2,2	
	1930,0 ... 1990,0	MHz					
Attenuation		α					
	0,0 ... 1500,0	MHz		35	42	—	dB
	1500,0 ... 1700,0	MHz		30	38	—	dB
	1700,0 ... 1850,0	MHz		25	30	—	dB
	1850,0 ... 1890,0	MHz		20	24	—	dB
	1890,0 ... 1910,0	MHz		8	12	—	dB
	2010,0 ... 2070,0	MHz		6*	10*	—	dB
	2070,0 ... 2090,0	MHz		18	23	—	dB
	2090,0 ... 2200,0	MHz		25	28	—	dB
	2200,0 ... 2400,0	MHz		25	32	—	dB
	2400,0 ... 2500,0	MHz		30	35	—	dB
	2500,0 ... 3600,0	MHz		30	35	—	dB
	3600,0 ... 4000,0	MHz		30	38	—	dB
	4000,0 ... 6000,0	MHz		25	35	—	dB

* 7dB (min.) (11dB typ.) for $T = -20$ to $+85^{\circ}\text{C}$



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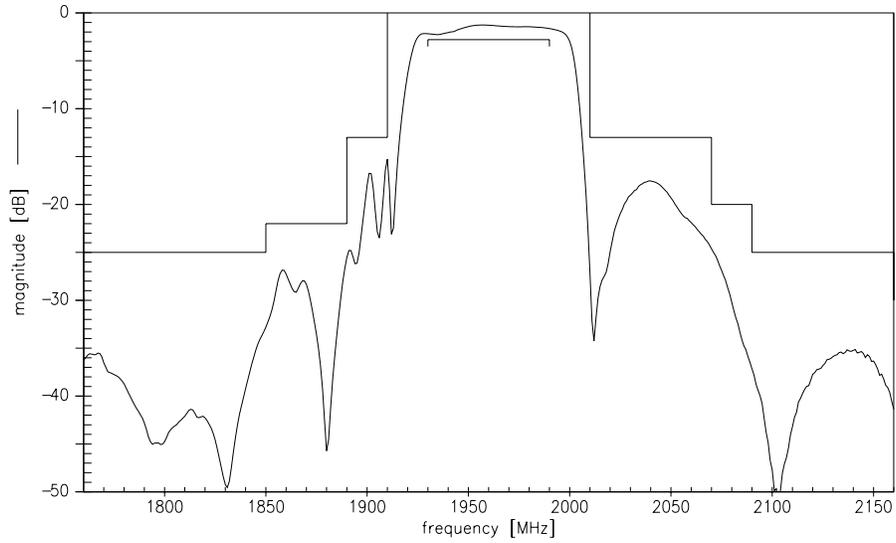
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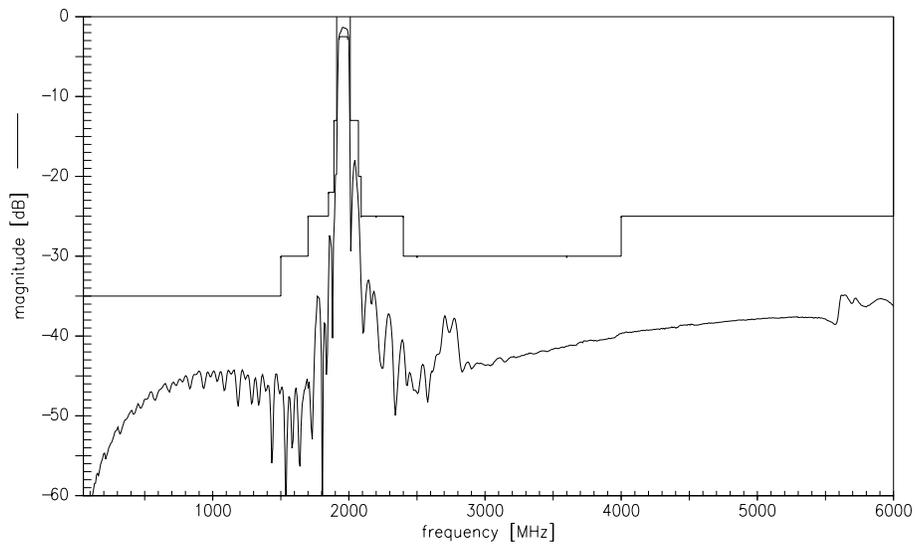
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Transfer function (spec for 25° C)



Transfer function (wideband)





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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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