



SAW Components

Data Sheet B7834





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B7834

Low-Loss Filter for Mobile Communication

1960,0 MHz

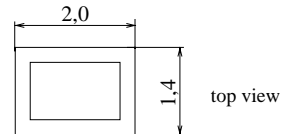
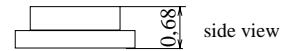
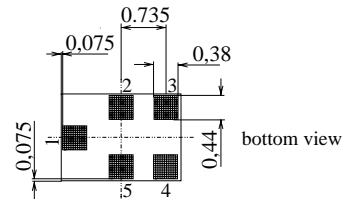
Data Sheet



Chip sized SAW package **QCS5C**

Features

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Usable passband 60 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50Ω to 100Ω
- Package for **Surface Mounted Technology (SMT)**



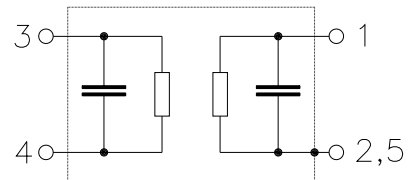
Dimensions in mm, approx. weight 0,007 g

Terminals

- Gold-plated Ni

Pin configuration

- 1 Input, unbalanced
- 2, 5 Input ground
- 3, 4 Output, balanced
- 2, 5 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7834	B39202-B7834-C710	C61157-A7-A111	F61074-V8151-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 40/+ 85	°C	Machine Model, 10 pulses
Storage temperature range	T_{stg}	- 40/+ 85	°C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	50*	V	
Input power	P_S	10	dBm	

* - acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses



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Characteristics

Operating temperature range: $T = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 100\ \Omega$ (balanced) || 22 nH

		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	α_{\max}	—	2,8	3,0	dB
1930,0 ... 1990,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,1	1,5	dB
1930,0 ... 1990,0 MHz					
Input VSWR		—	1,8	2,1	
1930,0 ... 1990,0 MHz					
Output VSWR		—	1,8	2,1	
1930,0 ... 1990,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-10	0	10	degree
1930,0 ... 1990,0 MHz					
Output amplitude balance (S_{31}/S_{21})		-1,5	0	1,5	dB
1930,0 ... 1990,0 MHz					
Attenuation	α				
10,0 ... 1000,0 MHz		40	58	—	dB
1000,0 ... 1850,0 MHz		30	35	—	dB
1850,0 ... 1910,0 MHz		18	20	—	dB
2040,0 ... 3980,0 MHz		25	28	—	dB
3980,0 ... 6000,0 MHz		35	60	—	dB



Data Sheet



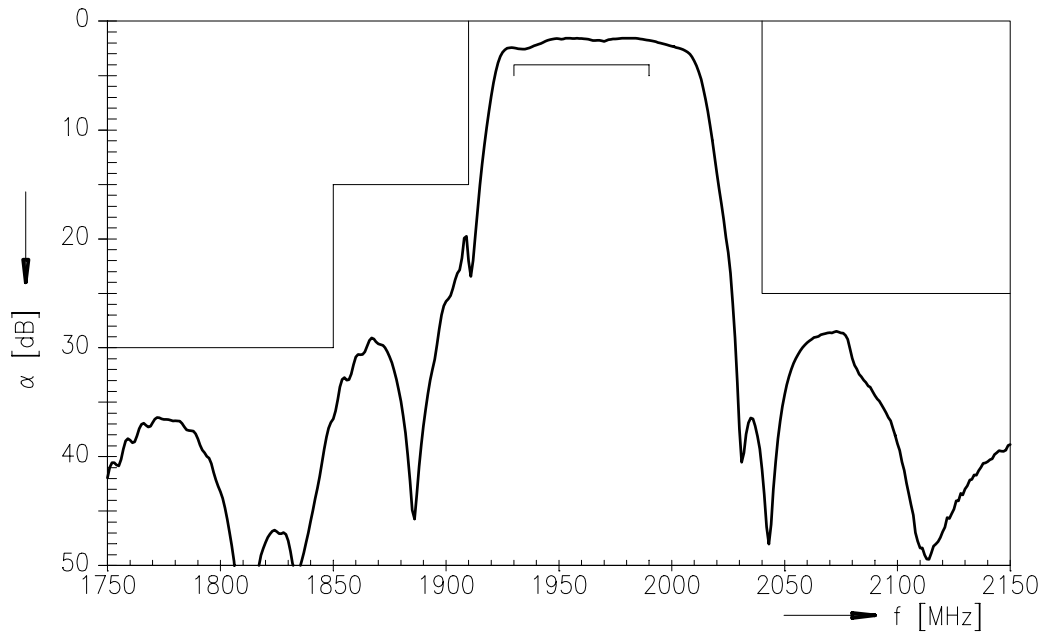
Characteristics

Operating temperature range: $T = -30$ to $+85$ °C
 Terminating source impedance: $Z_S = 50$ Ω
 Terminating load impedance: $Z_L = 100$ Ω (balanced) || 22 nH

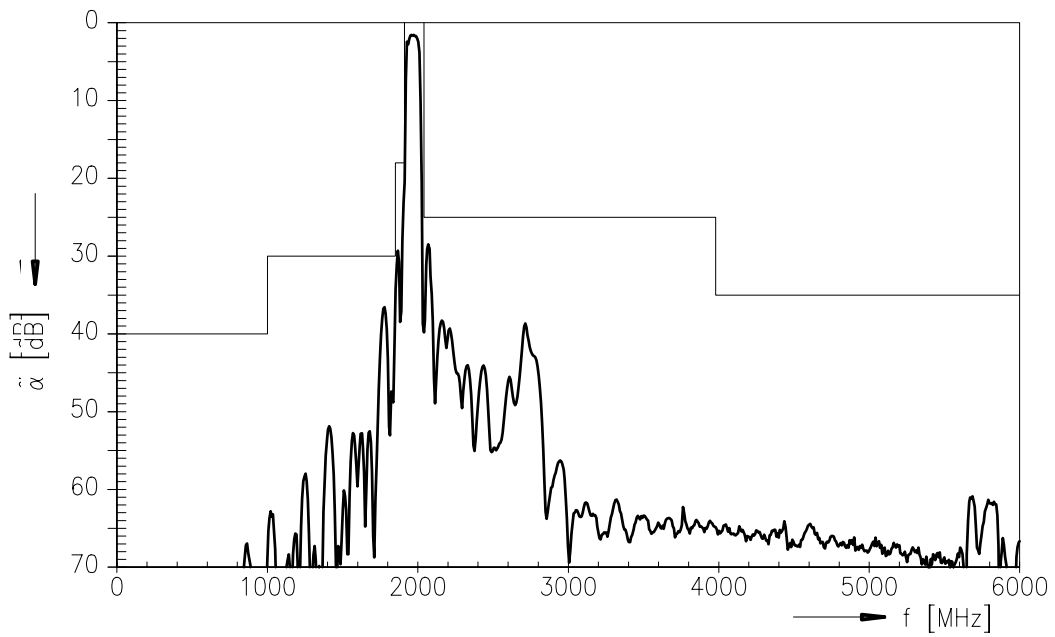
		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	α_{max}	—	2,8	4,0	dB
1930,0 ... 1990,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,1	2,5	dB
1930,0 ... 1990,0 MHz					
Input VSWR		—	1,8	2,2	
1930,0 ... 1990,0 MHz					
Output VSWR		—	1,8	2,2	
1930,0 ... 1990,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-10	0	10	degree
1930,0 ... 1990,0 MHz					
Output amplitude balance (S_{31}/S_{21})		-1,5	0	1,5	dB
1930,0 ... 1990,0 MHz					
Attenuation	α				
10,0 ... 1000,0 MHz		40	58	—	dB
1000,0 ... 1850,0 MHz		30	35	—	dB
1850,0 ... 1910,0 MHz		18	20	—	dB
2040,0 ... 3980,0 MHz		25	28	—	dB
3980,0 ... 6000,0 MHz		35	60	—	dB



Transfer function (measured at room temperature):



Transfer function (wideband, measured at room temperature):





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