



SAW Components

Data Sheet B7834

Data Sheet

An abstract graphic featuring the word "EPCOS" in large, glowing, 3D letters. The letters are white with a blue glow and are positioned diagonally across the frame. In the background, there is a faint, stylized globe and some circuitry patterns, all in a dark, monochromatic color scheme.



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Low-Loss Filter for Mobile Communication

1960,0 MHz

Data Sheet



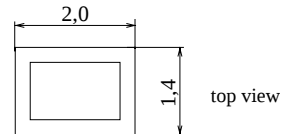
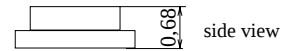
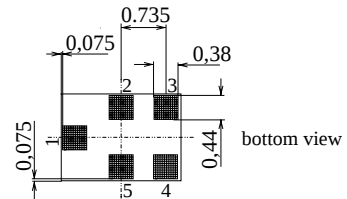
Chip sized SAW package **QCS5C**

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)**

Terminals

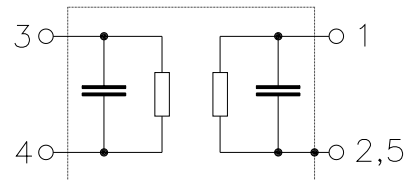
- Gold-plated Ni



Dimensions in mm, approx. weight 0,007 g

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

		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	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



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Characteristics

Operating temperature range: $T = -30$ to $+85$ °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	$\alpha_{\max}$	—	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
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2040,0 ... 3980,0 MHz		25	28	—	dB
3980,0 ... 6000,0 MHz		35	60	—	dB



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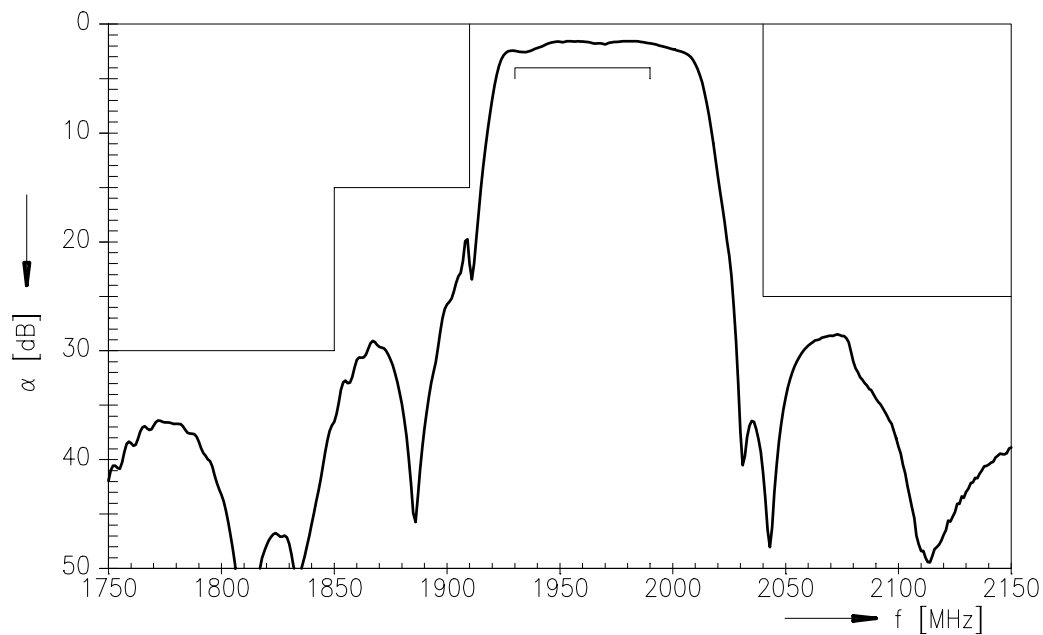
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1960,0 MHz

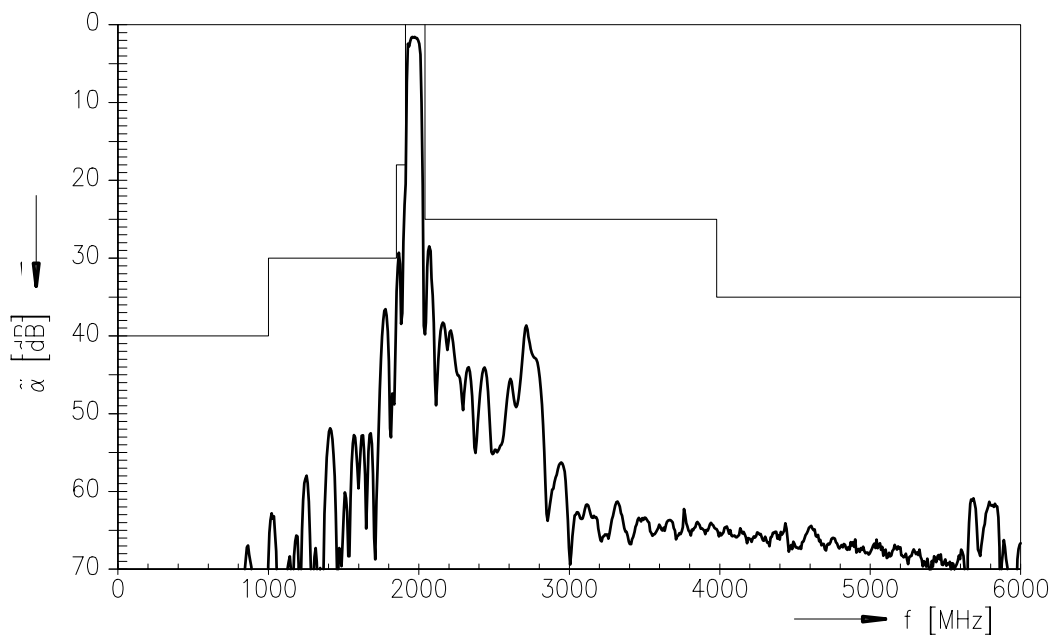
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Transfer function (measured at room temperature):



Transfer function (wideband, measured at room temperature):





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