EPCOS

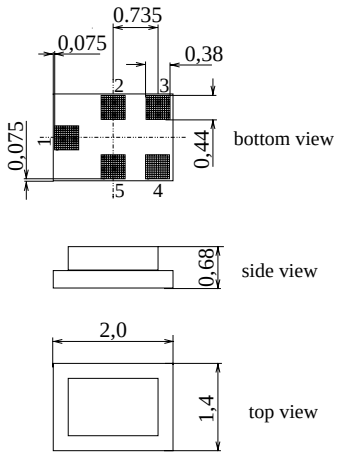
SAW Components

Data Sheet B7834

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



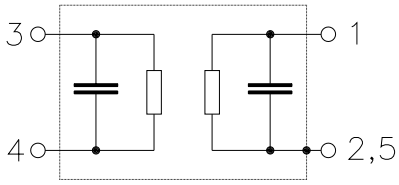
Terminals

- 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 **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	
ESD voltage	V_{ESD}	50*	V	Machine Model, 10 pulses
Input power	P_S	10	dBm	

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

Characteristics

Operating temperature range: T = 25 °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}				
1930,0 ... 1990,0 MHz		—	2,8	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1930,0 ... 1990,0 MHz		—	1,1	1,5	dB
Input VSWR					
1930,0 ... 1990,0 MHz		—	1,8	2,1	
Output VSWR					
1930,0 ... 1990,0 MHz		—	1,8	2,1	
Output phase balance ($\phi(S_{31})-\phi(S_{21})+180°$)					
1930,0 ... 1990,0 MHz		-10	0	10	degree
Output amplitude balance ($\lvert S_{31}/S_{21}\rvert$)					
1930,0 ... 1990,0 MHz		-1,5	0	1,5	dB
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

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}				
1930,0 ... 1990,0 MHz		—	2,8	4,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1930,0 ... 1990,0 MHz		—	1,1	2,5	dB
Input VSWR					
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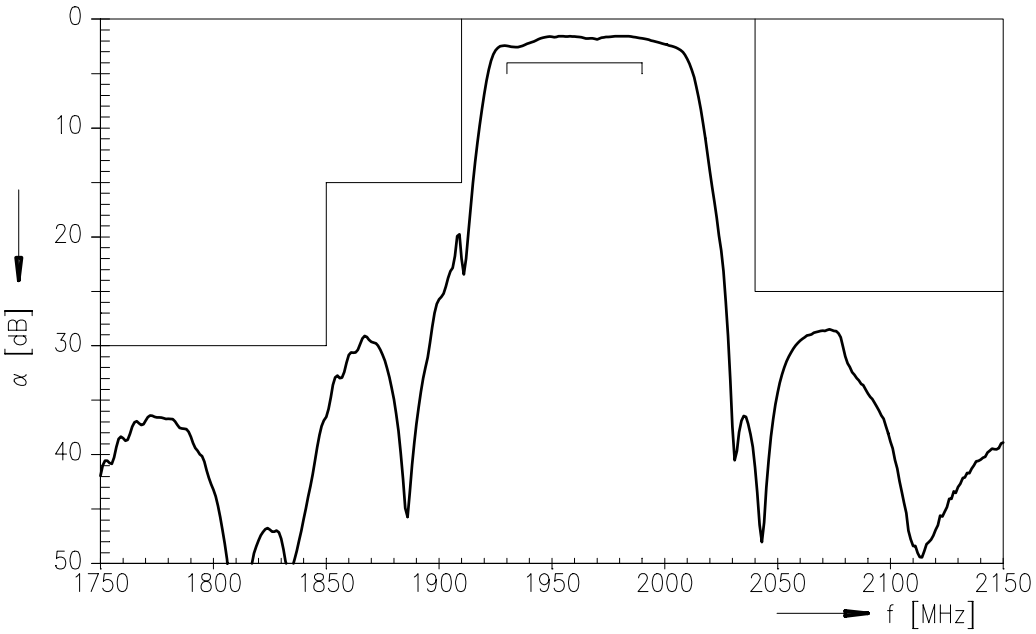
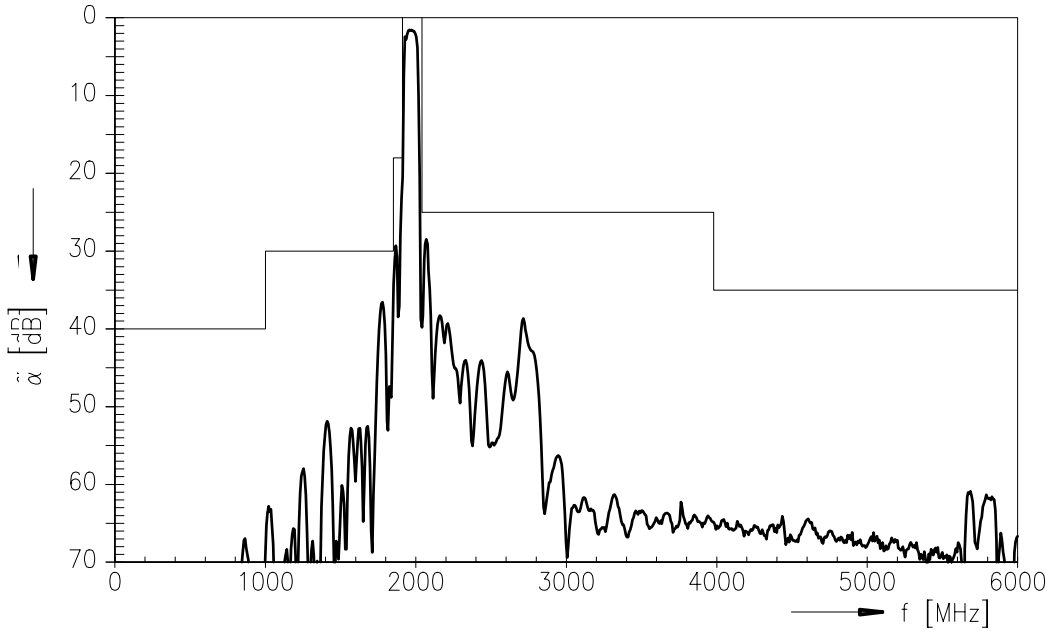
10,0 ... 1000,0 MHz		40	58	—	dB
1000,0 ... 1850,0 MHz		30	35	—	dB
1850,0 ... 1910,0 MHz		18	20	—	dB
2040,0 ... 3980,0 MHz		25	28	—	dB
3980,0 ... 6000,0 MHz		35	60	—	dB

Transfer function (measured at room temperature):



Transfer function (wideband, measured at room temperature):



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