



SAW Components

Data Sheet B7741

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid pattern. Overlaid on the globe is a large, stylized, 3D-looking "EPCOS" logo in a light gray color. The logo is tilted and appears to be floating or emerging from the globe. The background is dark and textured.



SAW Components

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Low-Loss Filter for Mobile Communication

1960,0 MHz

Data Sheet



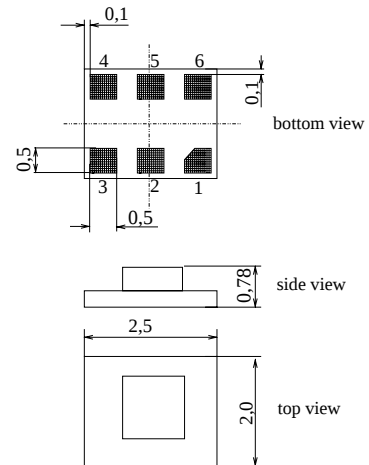
Chip sized SAW package **DCS6K**

Features

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Low amplitude ripple
- Usable passband 60 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 200 Ω
- Suitable for GPRS class 1 to 12
- Package for **Surface Mounted Technology (SMT)**

Terminals

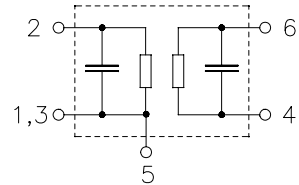
- Gold-plated Ni



Dimensions in mm, approx. weight 0,012 g

Pin configuration

- 2 Input, unbalanced
- 1, 3 Input ground
- 4, 6 Output, balanced
- 1, 3, 5 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7741	B39202-B7741-C911	C61157-A7-A110	F61074-V8153-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operating temperature range	T	- 30/+ 85	$^{\circ}\text{C}$	
Storage temperature range	T_{stg}	- 40/+ 85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	50	V	
Input power at				
GSM850, GSM900	P_{IN}	15	dBm	peak power of GSM signal, duty cycle 4:8
GSM1800,GSM1900	P_{IN}	12	dBm	
Tx bands				



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Characteristics

Operating temperature range: $T = 25^{\circ}\text{C} \pm 2^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 200\ \Omega$ (balanced) $\parallel 27\ \text{nH}$

		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	2,6	3,1	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	2,0	
1930,0 ... 1990,0 MHz					
Output VSWR		—	1,7	2,2	
1930,0 ... 1990,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$)		-10	-6 / +6	10	degree
1930,0 ... 1990,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-1,2	-0,9 / +0,9	1,2	dB
1930,0 ... 1990,0 MHz					
Attenuation	α				
10,0 ... 1000,0 MHz		45	55	—	dB
1000,0 ... 1830,0 MHz		33	35	—	dB
1830,0 ... 1910,0 MHz		14	18	—	dB
2010,0 ... 2070,0 MHz		14	23	—	dB
2070,0 ... 2100,0 MHz		23	32	—	dB
2100,0 ... 3000,0 MHz		30	32	—	dB
3000,0 ... 6000,0 MHz		40	55	—	dB



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Characteristics

Operating temperature range: $T = -20$ to $+80$ °C
Terminating source impedance: $Z_S = 50 \Omega$
Terminating load impedance: $Z_L = 200 \Omega$ (balanced) || 27 nH

		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	2,9	3,5	dB
1930,0 ... 1990,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,1	1,7	dB
1930,0 ... 1990,0 MHz					
Input VSWR		—	1,7	2,0	
1930,0 ... 1990,0 MHz					
Output VSWR		—	1,7	2,2	
1930,0 ... 1990,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-10	-6 / +7	10	degree
1930,0 ... 1990,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-1,2	-0,9 / +1,2	1,5	dB
1930,0 ... 1990,0 MHz					
Attenuation	α				
10,0 ... 1000,0 MHz		45	55	—	dB
1000,0 ... 1830,0 MHz		33	35	—	dB
1830,0 ... 1910,0 MHz		10	17	—	dB
2010,0 ... 2070,0 MHz		9	18	—	dB
2070,0 ... 2100,0 MHz		23	32	—	dB
2100,0 ... 3000,0 MHz		30	32	—	dB
3000,0 ... 6000,0 MHz		40	55	—	dB



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Characteristics

Operating temperature range: $T = -30$ to $+85$ °C
Terminating source impedance: $Z_S = 50 \Omega$
Terminating load impedance: $Z_L = 200 \Omega$ (balanced) || 27 nH

		min.	typ.	max.	
Center frequency	f_C	—	1960,0	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	3,0	3,7	dB
1930,0 ... 1990,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,2	1,9	dB
1930,0 ... 1990,0 MHz					
Input VSWR		—	1,7	2,0	
1930,0 ... 1990,0 MHz					
Output VSWR		—	1,7	2,2	
1930,0 ... 1990,0 MHz					
Output phase balance ($\phi(S_{31}) - \phi(S_{21}) + 180^\circ$)		-10	-6 / +7	10	degree
1930,0 ... 1990,0 MHz					
Output amplitude balance ($ S_{31}/S_{21} $)		-1,2	-0,9 / +1,2	1,5	dB
1930,0 ... 1990,0 MHz					
Attenuation	α				
10,0 ... 1000,0 MHz		45	55	—	dB
1000,0 ... 1830,0 MHz		33	35	—	dB
1830,0 ... 1910,0 MHz		10	17	—	dB
2010,0 ... 2070,0 MHz		8	17	—	dB
2070,0 ... 2100,0 MHz		23	32	—	dB
2100,0 ... 3000,0 MHz		30	32	—	dB
3000,0 ... 6000,0 MHz		40	55	—	dB



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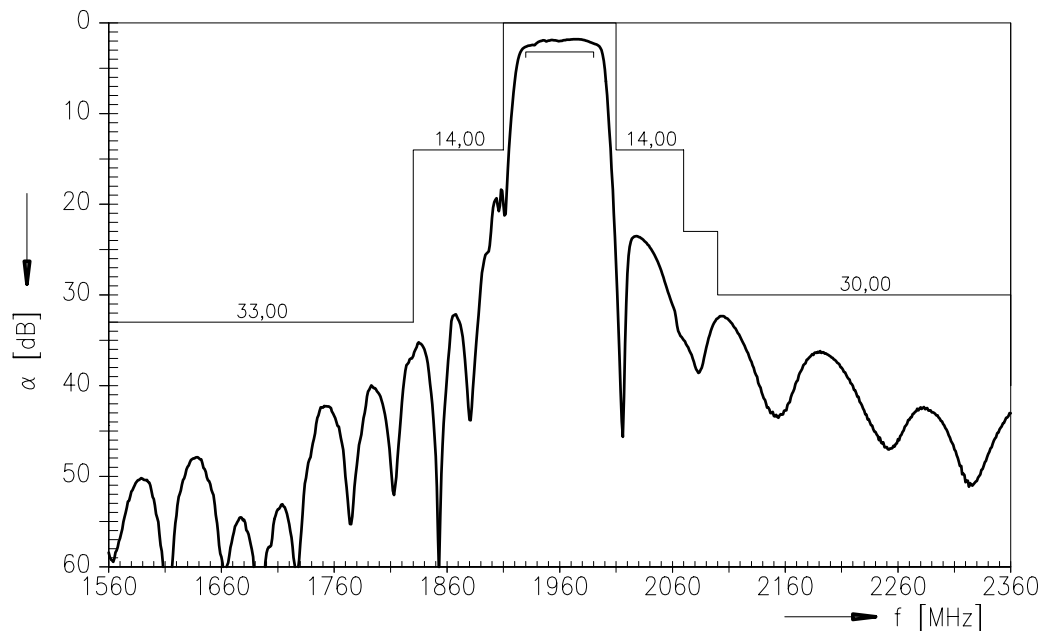
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1960,0 MHz

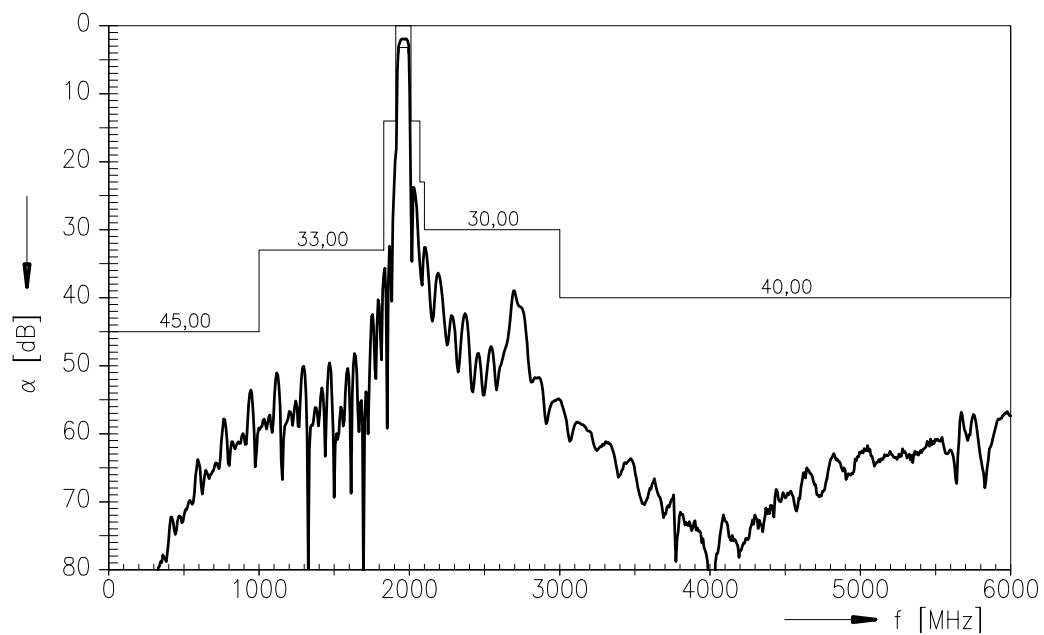
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Transfer function (specification for $T = +25\text{ }^{\circ}\text{C}$):



Transfer function (wide band):





SAW Components	B7741
Low-Loss Filter for Mobile Communication	1960,0 MHz
Data Sheet	SMD

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