



SAW Components

Data Sheet B7749

Data Sheet

EPCOS



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Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



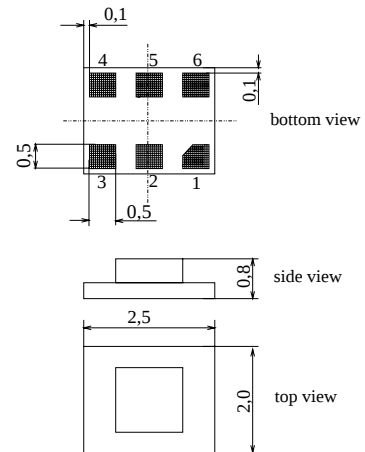
Chip sized SAW package **DCS6K**

Features

- Low-loss RF filter for mobile telephone PCN systems, receive path
- Low amplitude ripple
- Usable passband 75 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50Ω to 200Ω
- Suitable for GPRS class 1 to 12
- Package for **Surface Mounted Technology (SMT)**

Terminals

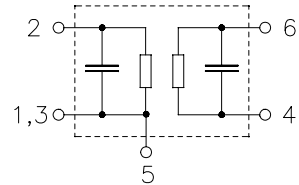
- Gold-plated Ni



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
B7749	B39182-B7749-C910	C61157-A1-A97	F61074-V8153-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 30 / + 85	°C	
Storage temperature range	T_{stg}	- 40 / + 85	°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
GSM1800, GSM1900	P_{IN}	12	dBm	duty cycle 4:8
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) $\parallel 18\ \text{nH}$

			min.	typ.	max.	
Center frequency	f_C		—	1842,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$					
	1805,0 ... 1880,0 MHz		—	2,7	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1880,0 MHz		—	1,2	1,7	dB
Input VSWR						
	1805,0 ... 1880,0 MHz		—	2,3	2,5	
Output VSWR						
	1805,0 ... 1880,0 MHz		—	2,0	2,2	
Diff. to common mode suppression	S_{sc12}					
	1805,0 ... 1880,0 MHz		—	22	—	dB
	855,0 ... 995,0 MHz		—	28	—	dB
	1710,0 ... 1990,0 MHz		—	22	—	dB
	3420,0 ... 3980,0 MHz		—	34	—	dB
Attenuation	α					
	0,0 ... 1205,0 MHz		40	43	—	dB
	1205,0 ... 1705,0 MHz		30	32	—	dB
	1705,0 ... 1785,0 MHz		14	16	—	dB
	1920,0 ... 1980,0 MHz		14	19	—	dB
	1980,0 ... 2100,0 MHz		20	23	—	dB
	2100,0 ... 3000,0 MHz		30	36	—	dB
	3000,0 ... 6000,0 MHz		40	44	—	dB



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Characteristics

Operating temperature range: $T = -10$ to $+80$ °C
Terminating source impedance: $Z_S = 50 \Omega$
Terminating load impedance: $Z_L = 200 \Omega$ (balanced) || 18 nH

			min.	typ.	max.	
Center frequency	f_C		—	1842,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$					
	1805,0 ... 1880,0 MHz		—	3,0	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1880,0 MHz		—	1,5	2,0	dB
Input VSWR						
	1805,0 ... 1880,0 MHz		—	2,3	2,5	
Output VSWR						
	1805,0 ... 1880,0 MHz		—	2,0	2,2	
Diff. to common mode suppression	S_{sc12}					
	1805,0 ... 1880,0 MHz		—	22	—	dB
	855,0 ... 995,0 MHz		—	28	—	dB
	1710,0 ... 1990,0 MHz		—	22	—	dB
	3420,0 ... 3980,0 MHz		—	34	—	dB
Attenuation	α					
	0,0 ... 1205,0 MHz		40	43	—	dB
	1205,0 ... 1705,0 MHz		30	32	—	dB
	1705,0 ... 1785,0 MHz		10	12	—	dB
	1920,0 ... 1980,0 MHz		10	19	—	dB
	1980,0 ... 2100,0 MHz		20	23	—	dB
	2100,0 ... 3000,0 MHz		30	36	—	dB
	3000,0 ... 6000,0 MHz		40	44	—	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) || 18 nH

			min.	typ.	max.	
Center frequency	f_C		—	1842,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$					
	1805,0 ... 1880,0 MHz		—	3,5	4,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1880,0 MHz		—	2,0	2,5	dB
Input VSWR						
	1805,0 ... 1880,0 MHz		—	2,4	2,6	
Output VSWR						
	1805,0 ... 1880,0 MHz		—	2,1	2,3	
Diff. to common mode suppression	S_{sc12}					
	1805,0 ... 1880,0 MHz		—	22	—	dB
	855,0 ... 995,0 MHz		—	28	—	dB
	1710,0 ... 1990,0 MHz		—	22	—	dB
	3420,0 ... 3980,0 MHz		—	34	—	dB
Attenuation	α					
	0,0 ... 1205,0 MHz		40	43	—	dB
	1205,0 ... 1705,0 MHz		30	32	—	dB
	1705,0 ... 1785,0 MHz		9	11	—	dB
	1920,0 ... 1980,0 MHz		10	19	—	dB
	1980,0 ... 2100,0 MHz		20	23	—	dB
	2100,0 ... 3000,0 MHz		30	36	—	dB
	3000,0 ... 6000,0 MHz		40	44	—	dB



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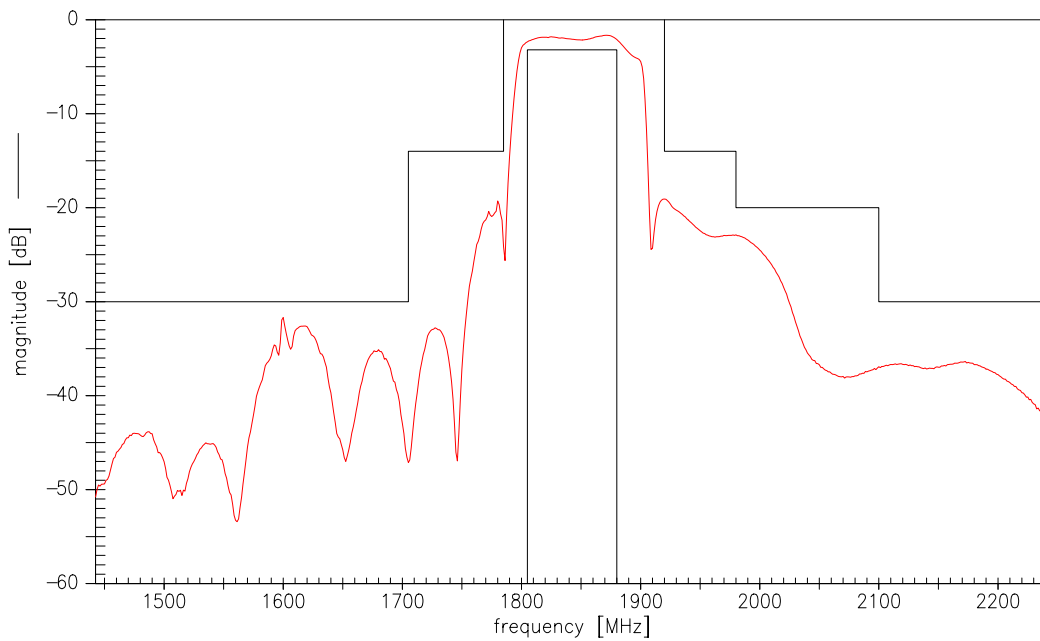
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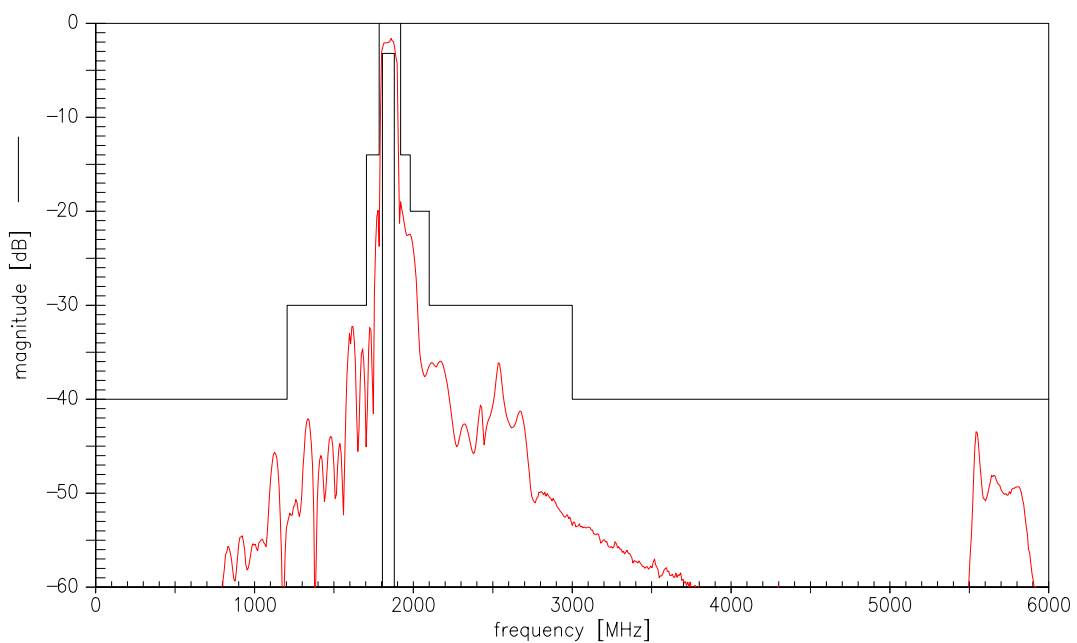
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Transfer function



Transfer function (wide band)





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