



RF Filters for Cellular Phones

Series/Type: B7749

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39182B7749C910	B39182B9402K610	2007-09-21	2007-12-31	2008-03-31

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

SAW Components

B7749

Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



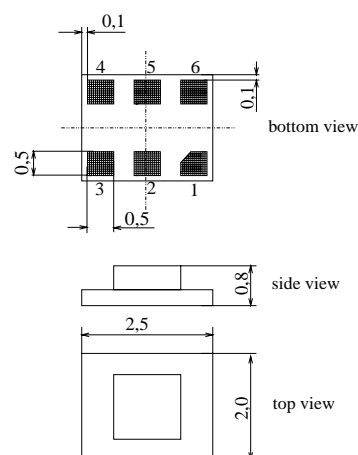
Chip sized SAW package **DCS6K**

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

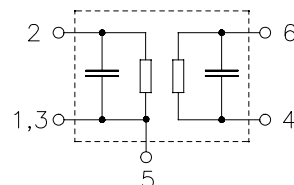
- Gold-plated Ni



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) || 18 nH

			min.	typ.	max.	
Center frequency	f_C		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\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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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

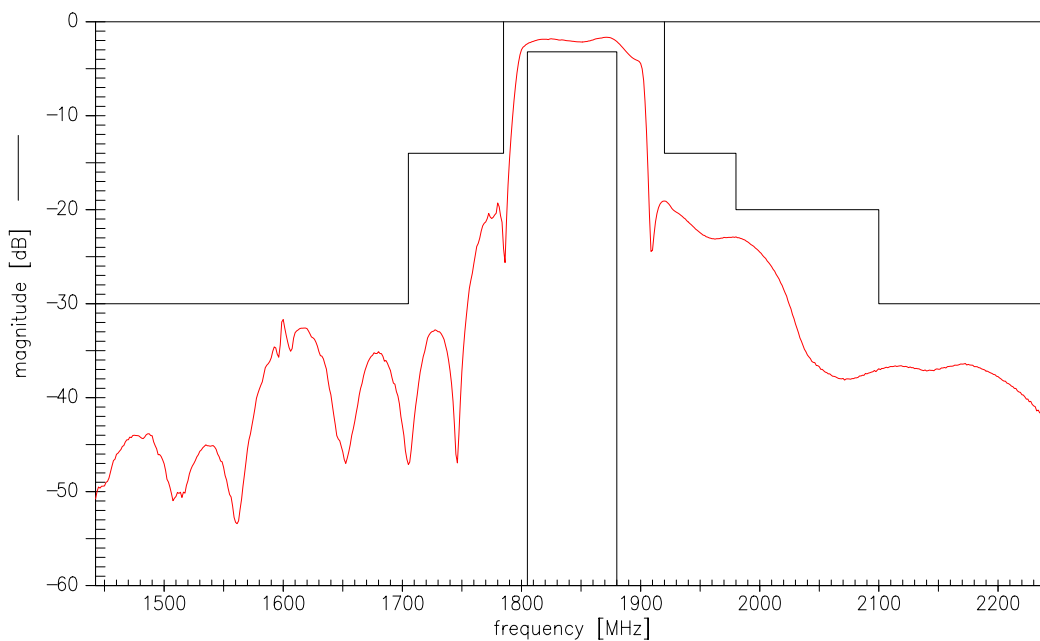
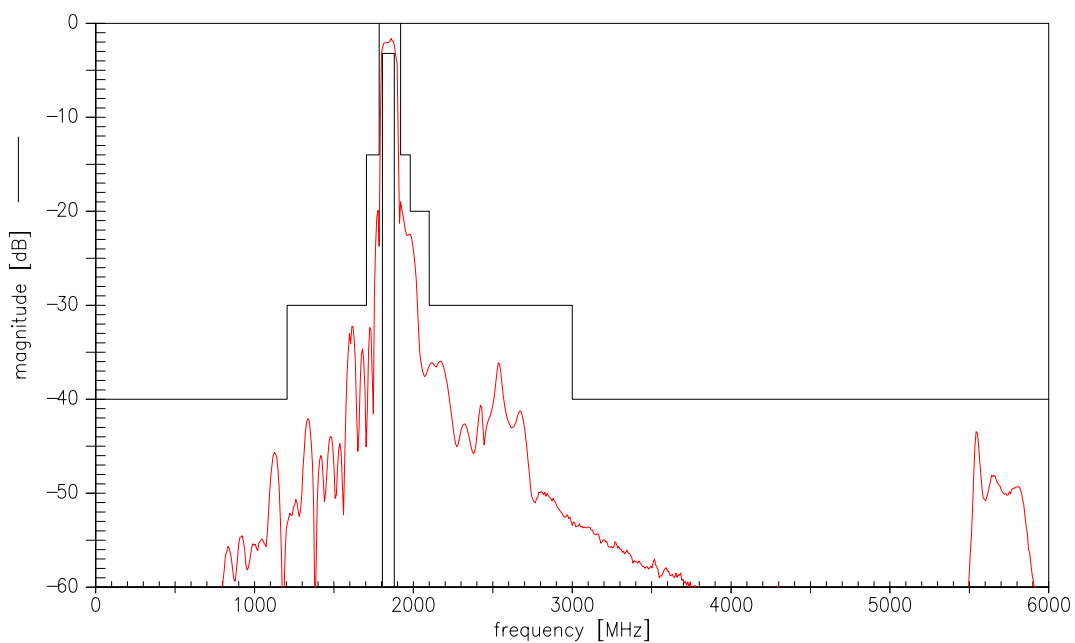
			min.	typ.	max.	
Center frequency	f_C		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}					
1805,0 ... 1880,0 MHz			—	3,0	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1805,0 ... 1880,0 MHz			—	1,5	2,0	dB
Input VSWR						
1805,0 ... 1880,0 MHz			—	2,3	2,5	
Output VSWR						
1805,0 ... 1880,0 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	α_{\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

Transfer function

Transfer function (wide band)


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