EPCOS

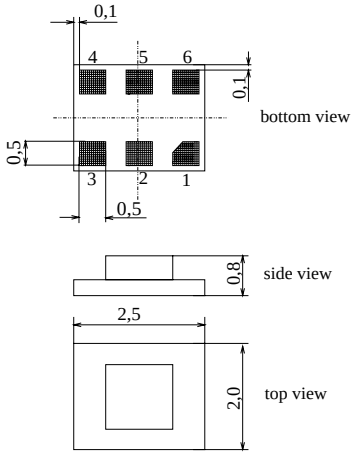
SAW Components

Data Sheet B7749

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



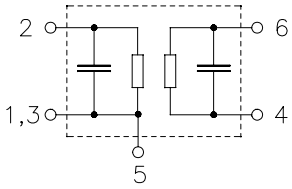
Terminals

- 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 **S**ensitive **D**evice (**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				

Characteristics

Operating temperature range: T = 25°C ± 2 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 200 Ω (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

Characteristics

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

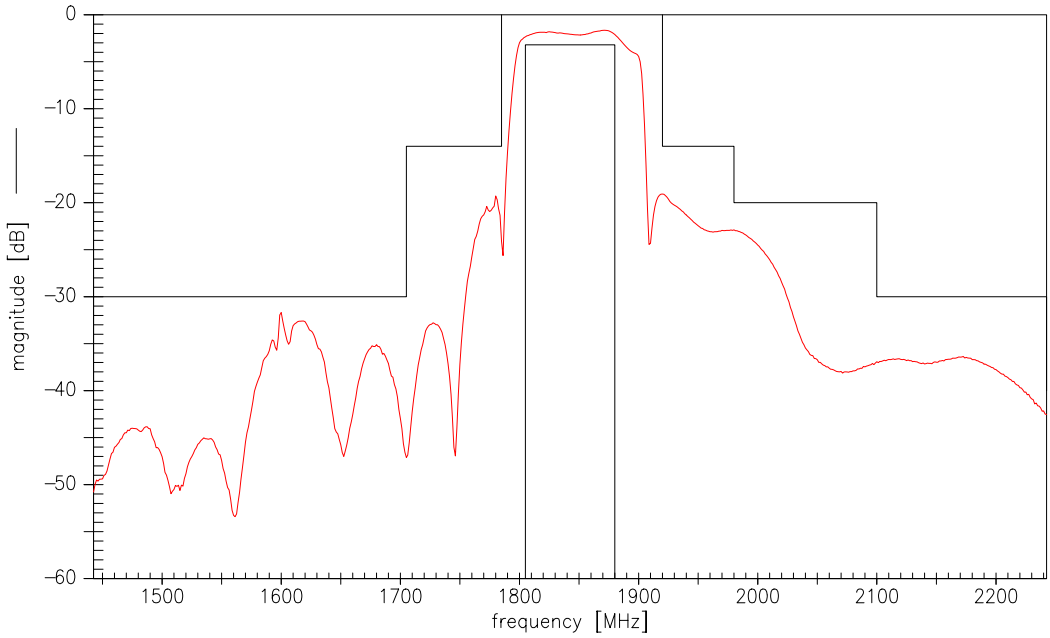
		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ... 1880,0 MHz		—	3,0	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	1,5	2,0	dB
Input VSWR					
1805,0 ... 1880,0 MHz		—	2,3	2,5	
Output VSWR					
1805,0 ... 1880,0 MHz		—	2,0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

Characteristics

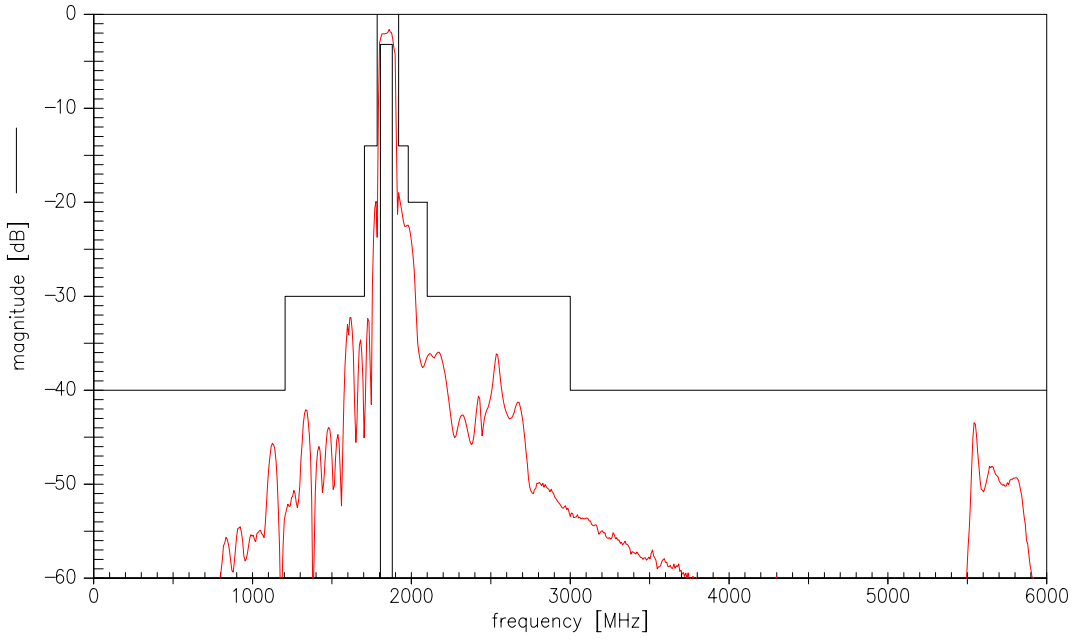
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 200 Ω (balanced) || 18 nH

		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)



Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC WT
P.O. Box 80 17 09, D-81617 München

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This brochure replaces the previous edition.

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