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The following products presented in this data sheet are being withdrawn.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

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
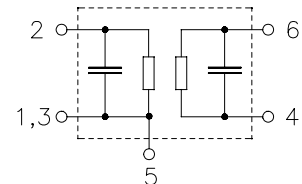- Package for **S**urface **M**ounted **T**echnology (**SMT**)

Terminals

- Gold-plated Ni

bottom view

side view

top view
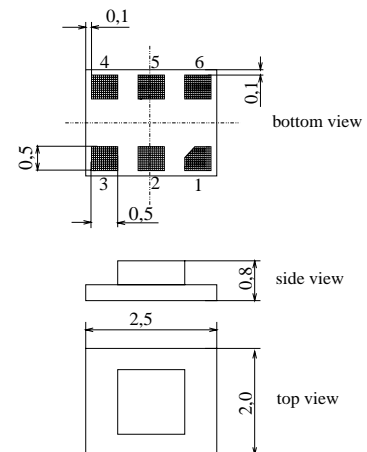
Dimensions in mm, approx. weight 0,012 g

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				

SAW Components	**B7749**
Low-Loss Filter for Mobile Communication	**1842,5 MHz**

Data Sheet　　　　　　　　　SMD

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

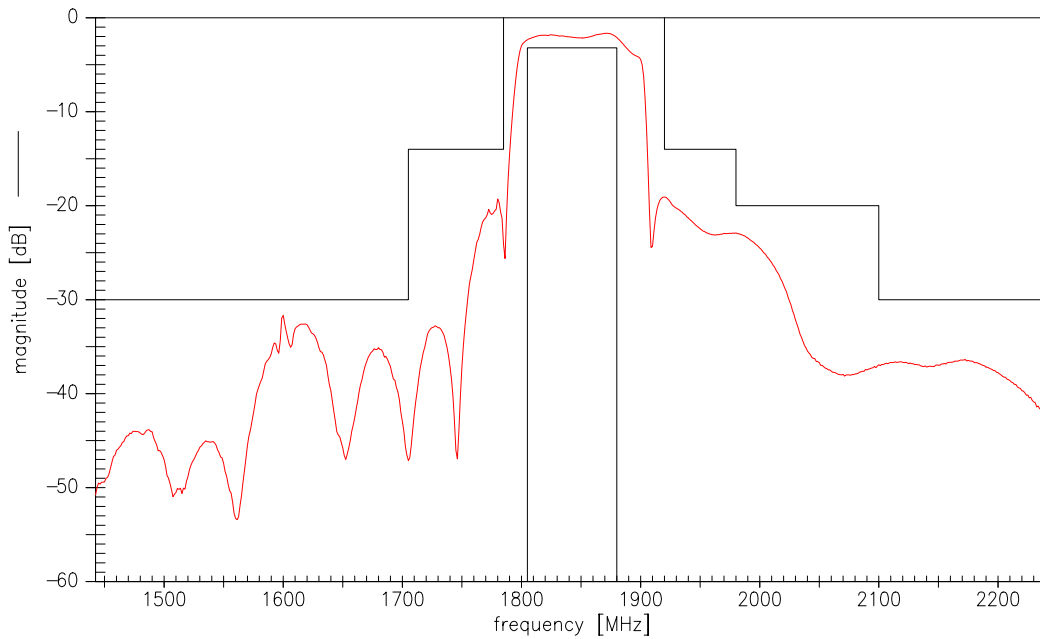| SAW Components	B7749
Low-Loss Filter for Mobile Communication	**1842,5 MHz**

Data Sheet   ⊑Mⅅ

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

SAW Components	B7749
Low-Loss Filter for Mobile Communication	**1842,5 MHz**

Data Sheet   SMD

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)
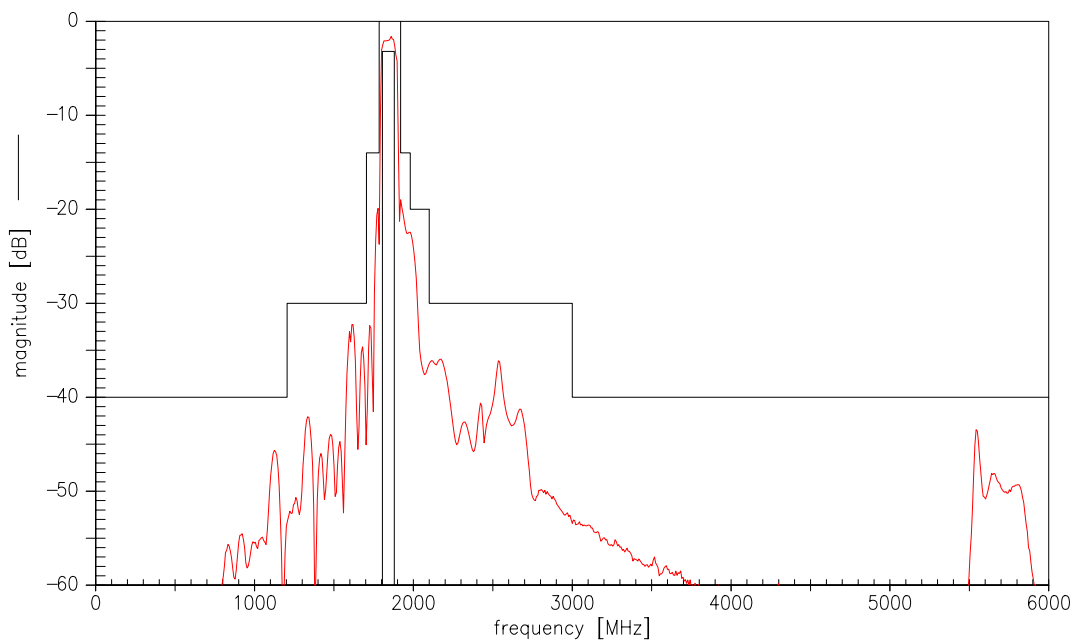
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