



# RF Filters for Cellular Phones

## Series/Type: B7744

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39182B7744C810	B39182B7822C710	2007-09-21	2007-12-31	2008-03-31

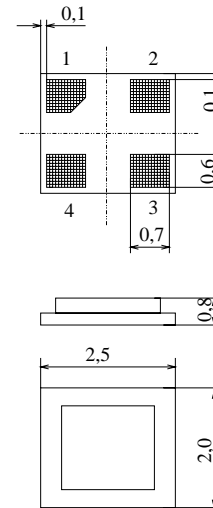
For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at [www.epcos.com/sales](http://www.epcos.com/sales).


 Ceramic package **DCS4D**
**Features**

- Low-loss RF filter for mobile telephone PCN systems, receive path
- Low amplitude ripple
- Usable passband 75 MHz
- No matching network required for operation at 50 Ω
- Suitable for GPRS class 1 to 12
- Package for **S**urface **M**ounted **T**echnology (**SMT**)

**Terminals**

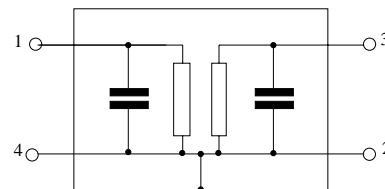
- Gold-plated Ni



Dimensions in mm, approx. weight 0,012 g

**Pin configuration**

- |      |                |
|------|----------------|
| 1    | Input          |
| 3    | Output         |
| 2, 4 | To be grounded |



Type	Ordering code	Marking and Package according to	Packing according to
B7744	B39182-B7744-C810	C61157-A7-A89	F61074-V8153-Z000

**Electrostatic Sensitive Device (ESD)**

Operable temperature range	$T$	- 10 / + 80	°C	peak power of GSM signal duty cycle 4:8
Storage temperature range	$T_{stg}$	- 40 / + 85	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}$	50	V	
Input power at GSM850, GSM900	$P_{IN}$	15	dBm	
GSM1800, GSM1900 Tx bands	$P_{IN}$	12	dBm	

**Data Sheet**

**Characteristics**

Operating Temperature Range:  $T = +25 \pm 2^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

				<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>		$f_C$		—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>	1805,0 ... 1880,0	MHz	$\alpha_{\max}$	—	2,4	3,0	dB
<b>Amplitude ripple (p-p)</b>	1805,0 ... 1880,0	MHz	$\Delta\alpha$	—	0,9	1,7	dB
<b>Input VSWR</b>	1805,0 ... 1880,0	MHz		—	1,9	2,2	
<b>Output VSWR</b>	1805,0 ... 1880,0	MHz		—	1,9	2,2	
<b>Attenuation</b>			$\alpha$				
	0,0 ... 1480,0	MHz		35	37	—	dB
	1480,0 ... 1705,0	MHz		28	32	—	dB
	1705,0 ... 1785,0	MHz		12	16	—	dB
	1920,0 ... 1980,0	MHz		15	21	—	dB
	1980,0 ... 2400,0	MHz		23	25	—	dB
	2400,0 ... 2500,0	MHz		30	37	—	dB
	2500,0 ... 3610,0	MHz		25	36	—	dB
	3610,0 ... 3760,0	MHz		35	40	—	dB
	3760,0 ... 6000,0	MHz		25	34	—	dB

**Data Sheet**

**Characteristics**

Operating Temperature Range:  $T = -10$  to  $+80^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

				<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>		$f_C$		—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>	1805,0 ... 1880,0	MHz	$\alpha_{\max}$	—	2,4	3,2	dB
<b>Amplitude ripple (p-p)</b>	1805,0 ... 1880,0	MHz	$\Delta\alpha$	—	0,9	1,9	dB
<b>Input VSWR</b>	1805,0 ... 1880,0	MHz		—	1,9	2,2	
<b>Output VSWR</b>	1805,0 ... 1880,0	MHz		—	1,9	2,2	
<b>Attenuation</b>			$\alpha$				
	0,0 ... 1480,0	MHz		35	37	—	dB
	1480,0 ... 1705,0	MHz		28	32	—	dB
	1705,0 ... 1785,0	MHz		11	15	—	dB
	1920,0 ... 1980,0	MHz		15	21	—	dB
	1980,0 ... 2400,0	MHz		22	24	—	dB
	2400,0 ... 2500,0	MHz		30	37	—	dB
	2500,0 ... 3610,0	MHz		25	36	—	dB
	3610,0 ... 3760,0	MHz		35	40	—	dB
	3760,0 ... 6000,0	MHz		25	34	—	dB

**Data Sheet**

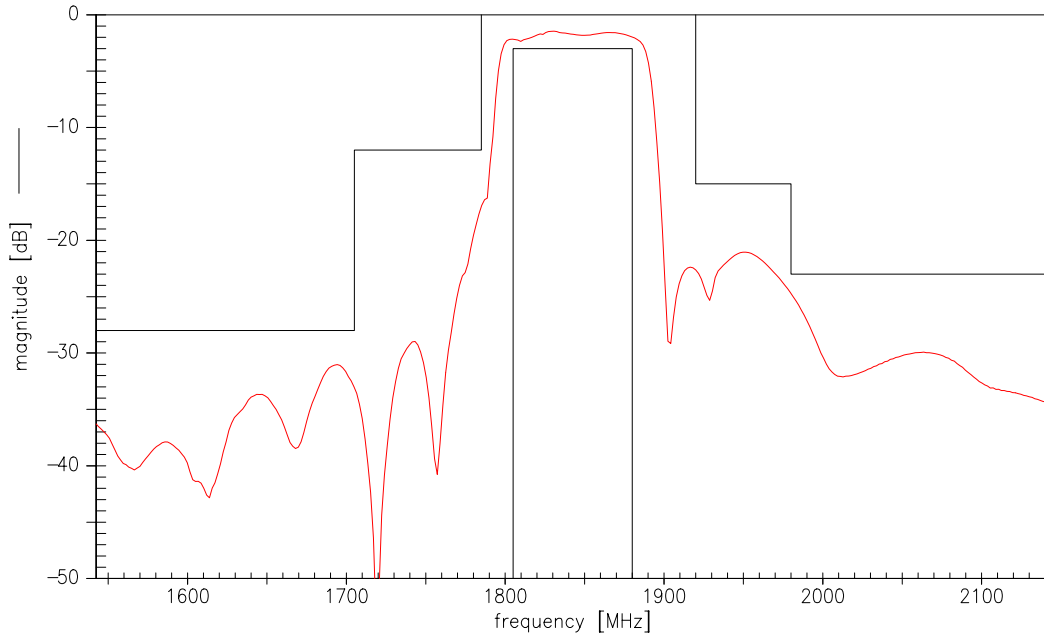
**Characteristics**

Operating Temperature Range:  $T = -30$  to  $+85^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

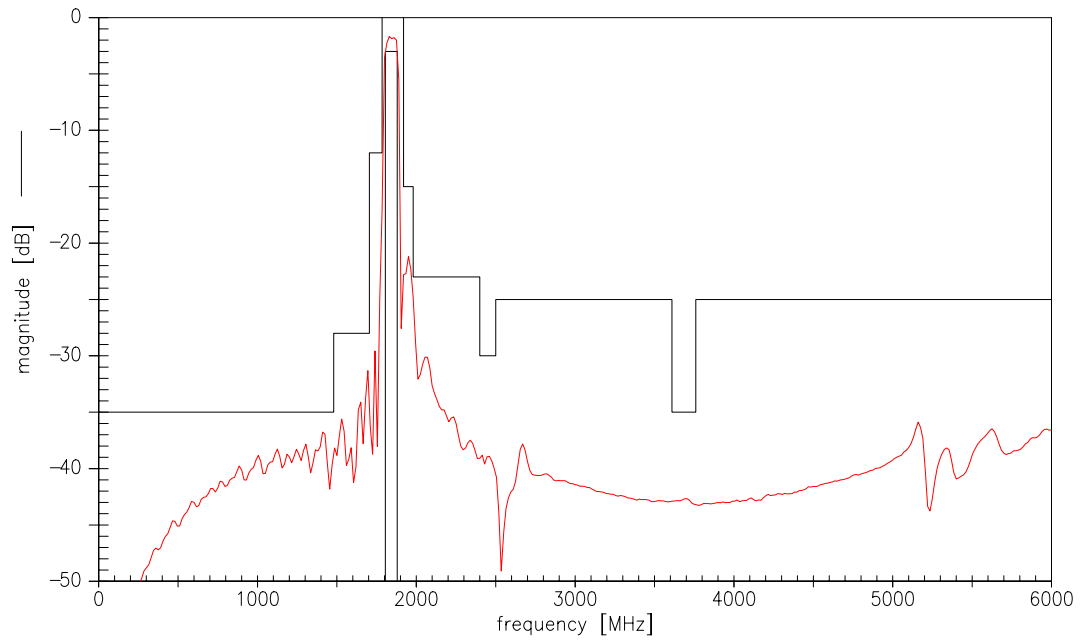
				<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>		$f_C$		—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>	1805,0 ... 1880,0		$\alpha_{\max}$	—	2,4	3,2	dB
		MHz					
<b>Amplitude ripple (p-p)</b>	1805,0 ... 1880,0		$\Delta\alpha$	—	0,9	1,9	dB
		MHz					
<b>Input VSWR</b>	1805,0 ... 1880,0			—	1,9	2,2	
		MHz					
<b>Output VSWR</b>	1805,0 ... 1880,0			—	1,9	2,2	
		MHz					
<b>Attenuation</b>			$\alpha$				
	0,0 ... 1480,0	MHz		35	37	—	dB
	1480,0 ... 1705,0	MHz		28	32	—	dB
	1705,0 ... 1785,0	MHz		10	15	—	dB
	1920,0 ... 1980,0	MHz		15	21	—	dB
	1980,0 ... 2400,0	MHz		22	24	—	dB
	2400,0 ... 2500,0	MHz		30	37	—	dB
	2500,0 ... 3610,0	MHz		25	36	—	dB
	3610,0 ... 3760,0	MHz		35	40	—	dB
	3760,0 ... 6000,0	MHz		25	34	—	dB



Transfer function (spec for 25°C)



Transfer function (wideband)



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