



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The following products presented in this data sheet are being withdrawn.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



SAW Components

B7744

Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



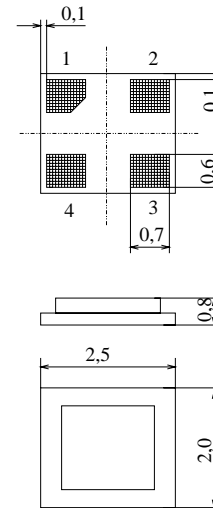
Ceramic package DCS4D

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

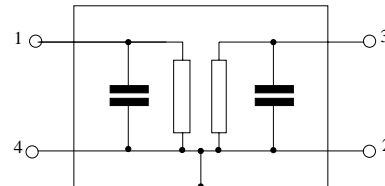
- Gold-plated Ni



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	



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Characteristics

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

			min.	typ.	max.	
Center frequency	f_C		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}					
	1805,0 ... 1880,0 MHz		—	2,4	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1880,0 MHz		—	0,9	1,7	dB
Input VSWR						
	1805,0 ... 1880,0 MHz		—	1,9	2,2	
Output VSWR						
	1805,0 ... 1880,0 MHz		—	1,9	2,2	
Attenuation	α					
	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



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Characteristics

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

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}				
	1805,0 ... 1880,0 MHz	—	2,4	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	1805,0 ... 1880,0 MHz	—	0,9	1,9	dB
Input VSWR					
	1805,0 ... 1880,0 MHz	—	1,9	2,2	
Output VSWR					
	1805,0 ... 1880,0 MHz	—	1,9	2,2	
Attenuation	α				
	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



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Characteristics

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

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}				
	1805,0 ... 1880,0 MHz	—	2,4	3,2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
	1805,0 ... 1880,0 MHz	—	0,9	1,9	dB
Input VSWR					
	1805,0 ... 1880,0 MHz	—	1,9	2,2	
Output VSWR					
	1805,0 ... 1880,0 MHz	—	1,9	2,2	
Attenuation	α				
	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



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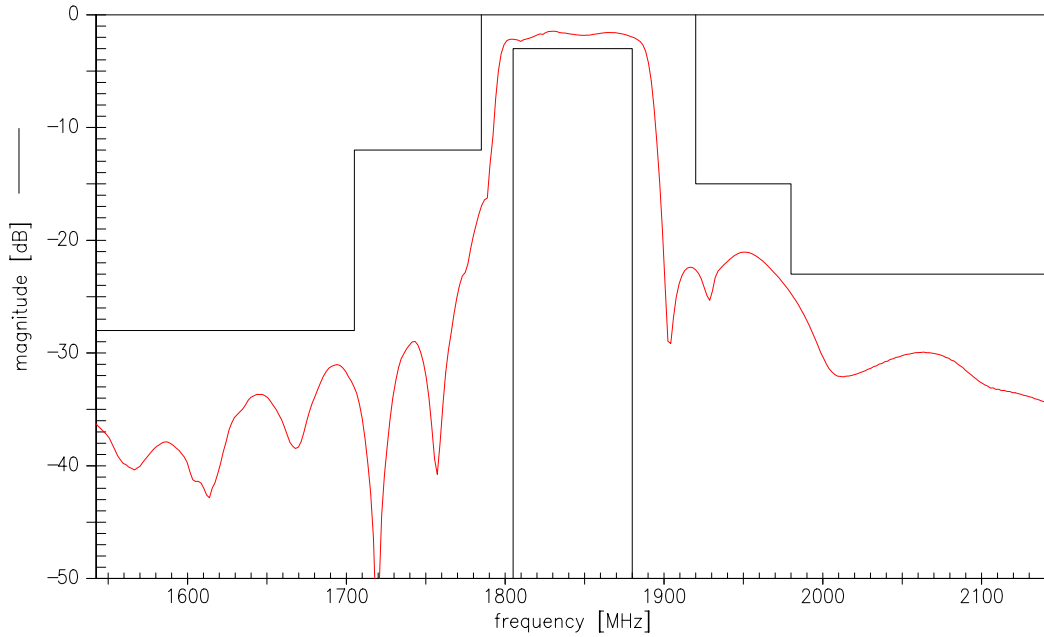
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1842,5 MHz

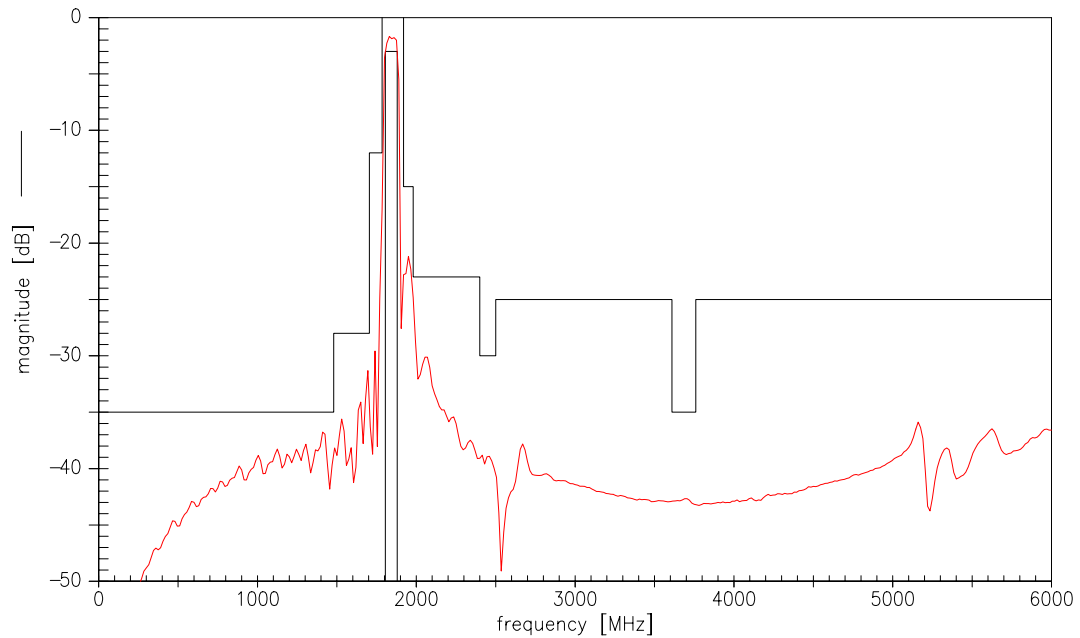
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Transfer function (spec for 25° C)



Transfer function (wideband)





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Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC WT

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