



SAW Components

Data Sheet B4149

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are in a bold, sans-serif font, appearing to be part of a larger, curved structure that resembles a stylized globe or a series of overlapping planes. The graphic is rendered in a light gray color against a dark, textured background.



SAW Components	B4149
Low-Loss Filter for Mobile Communication	1842,5 MHz
Data Sheet	SMD

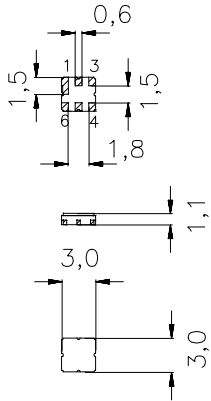
Ceramic package **DCC6D**

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
- Package for **Surface Mounted Technology (SMT)**
- Ceramic SMD package

Terminals

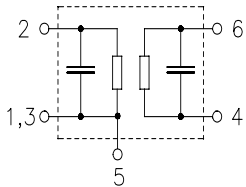
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

Pin configuration

2	Input, unbalanced
4, 6	Output, balanced
1, 3	Input ground
1, 3, 5	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B4149	B39182-B4149-U510	C61157-A7-A68	F61074-V8089-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 20 / + 75	°C	
Storage temperature range	T_{stg}	- 40 / + 85	°C	
DC voltage	V_{DC}	5	V	
Input power max.	P_{IN}			source/load impedance 50Ω/200Ω
1710,0 ... 1785,0 MHz		5	dBm	peak power of GSM signal duty cycle 1:8
elsewhere		0	dBm	



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Characteristics

Operating Temperature Range:	$T = +25 \pm 2 \text{ }^{\circ}\text{C}$
Terminating source impedance:	$Z_S = 50\Omega$ (unbalanced)
Terminating load impedance:	$Z_L = 200\Omega \parallel 22 \text{ nH}$ (balanced)

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}				
1805,0 ... 1880,0 MHz		—	2,0	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	0,9	2,0	dB
Attenuation	α				
0,0 ... 1000,0 MHz		40	50	—	dB
1000,0 ... 1550,0 MHz		30	40	—	dB
1550,0 ... 1705,0 MHz		25	28	—	dB
1705,0 ... 1785,0 MHz		12	18	—	dB
1920,0 ... 1980,0 MHz		12	17	—	dB
1980,0 ... 2010,0 MHz		18	22	—	dB
2010,0 ... 2500,0 MHz		20	26	—	dB
2500,0 ... 3840,0 MHz		25	35	—	dB
3840,0 ... 6000,0 MHz		20	32	—	dB



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Low-Loss Filter for Mobile Communication

1842,5 MHz

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Characteristics

Operating Temperature Range:

$T = -20$ to $+75^{\circ}\text{C}$

Terminating source impedance:

$Z_S = 50\Omega$ (unbalanced)

Terminating load impedance:

$Z_L = 200\Omega$ (balanced) || 22 nH

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}	—	2,5	4,0	dB
	1805,0 ... 1880,0 MHz				
Amplitude ripple (p-p)	$\Delta\alpha$	—	1,4	2,5	dB
	1805,0 ... 1880,0 MHz				
Attenuation	α				
	0,0 ... 1000,0 MHz	40	50	—	dB
	1000,0 ... 1550,0 MHz	30	40	—	dB
	1550,0 ... 1705,0 MHz	25	28	—	dB
	1705,0 ... 1785,0 MHz	10	15	—	dB
	1920,0 ... 1980,0 MHz	10	17	—	dB
	1980,0 ... 2010,0 MHz	18	22	—	dB
	2010,0 ... 2500,0 MHz	20	26	—	dB
	2500,0 ... 3840,0 MHz	25	35	—	dB
	3840,0 ... 6000,0 MHz	20	32	—	dB



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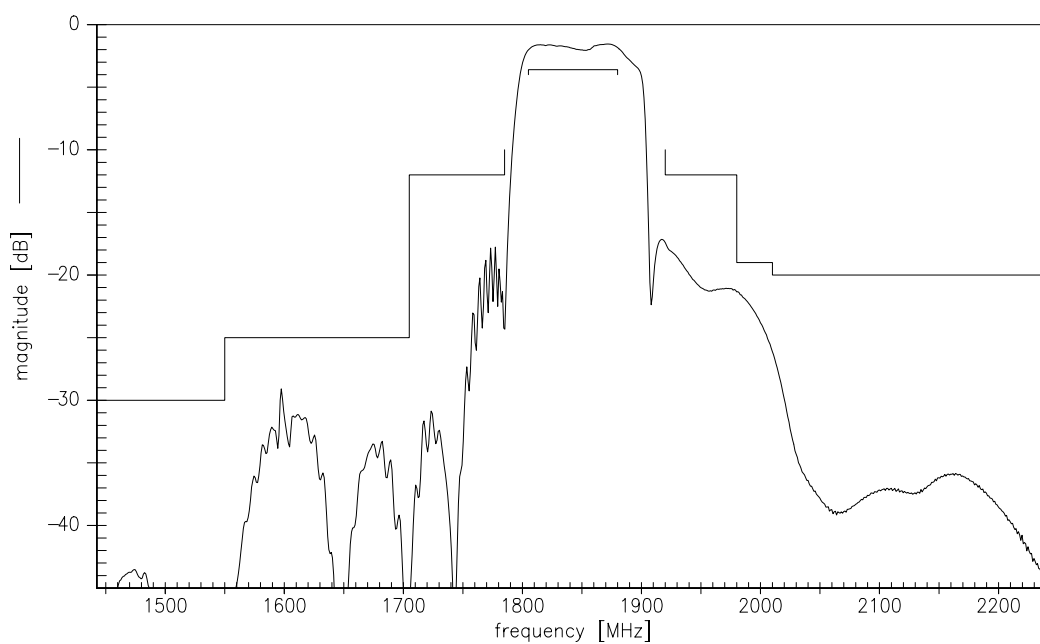
Low-Loss Filter for Mobile Communication

1842,5 MHz

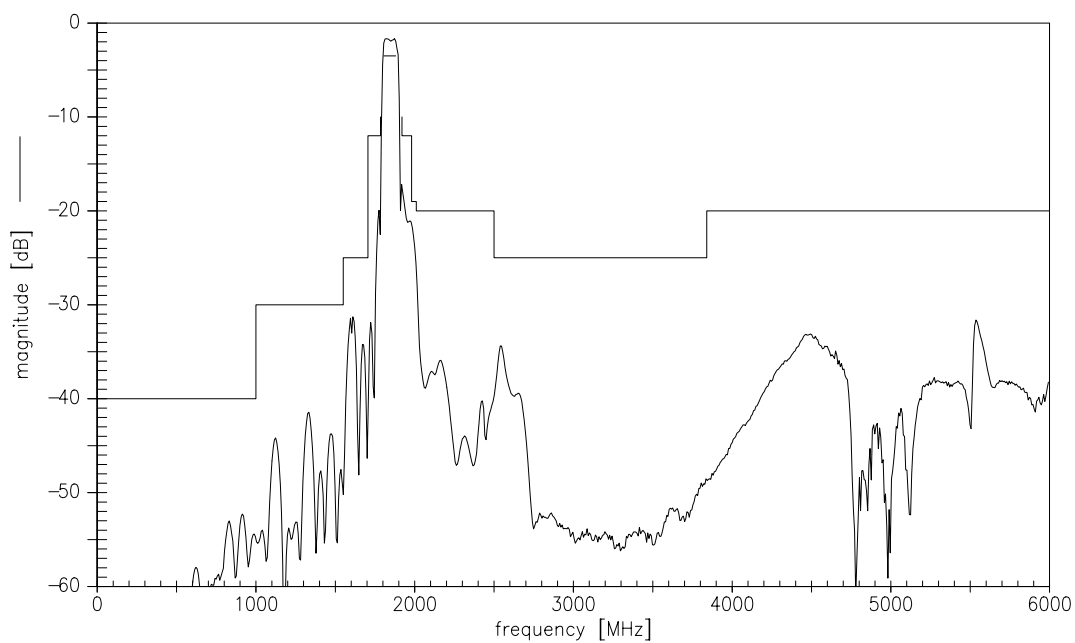
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Transfer function



Transfer function (wide band)





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