



# SAW Components

Data Sheet B4149





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Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



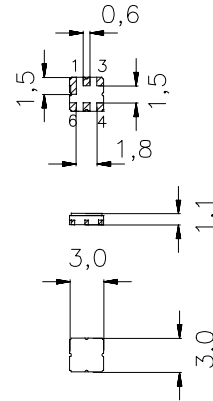
Ceramic package **DCC6D**

**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 **S**urface **M**ounted **T**echnology (**SMT**)
- Ceramic SMD package

**Terminals**

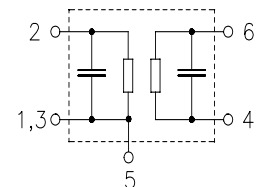
- Ni, gold-plated



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)

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>	$f_C$	—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2,0	3,5	dB
1805,0 ... 1880,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0,9	2,0	dB
1805,0 ... 1880,0 MHz					
<b>Attenuation</b>	$\alpha$				
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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**Characteristics**

Operating Temperature Range:

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

Terminating source impedance:

$Z_S = 50\Omega$  (unbalanced)

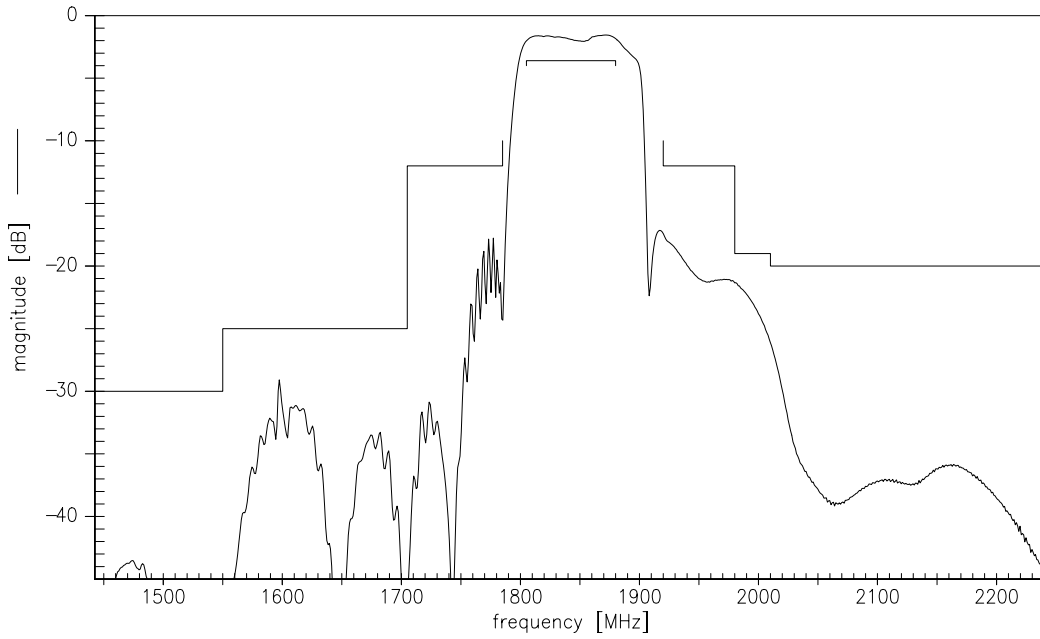
Terminating load impedance:

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

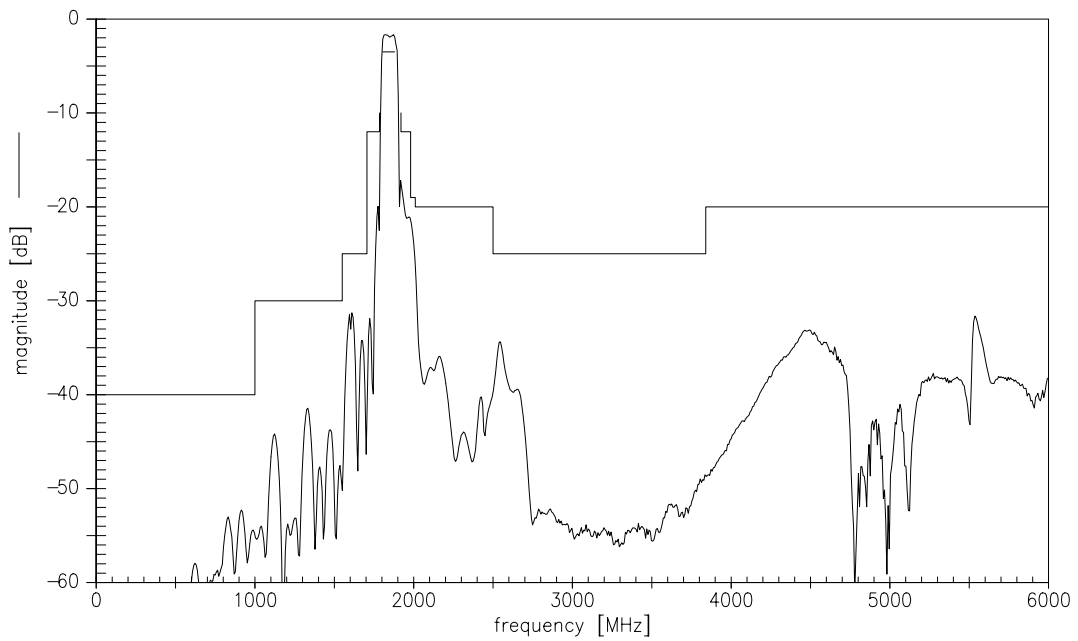
		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
1805,0 ... 1880,0	MHz	—	2,5	4,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
1805,0 ... 1880,0	MHz	—	1,4	2,5	dB
<b>Attenuation</b>	$\alpha$				
0,0 ... 1000,0	MHz	40	50	—	dB
1000,0 ... 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



Transfer function



Transfer function (wide band)





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