



SAW Components

Data Sheet B4133





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Low-Loss Filter for Mobile Communication

1842,5 MHz

Data Sheet



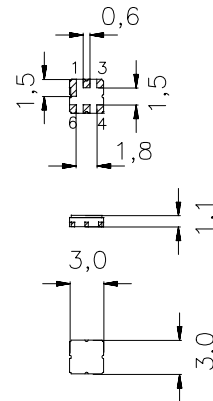
Ceramic package **DCC6D**

Features

- Low-loss RF filter for mobile telephone PCN systems, receive path
- Low amplitude ripple
- Usable passband 75 MHz
- Unbalanced to balanced operation
- Package for **S**urface **M**ounted **T**echnology (**SMT**)
- Ceramic SMD package

Terminals

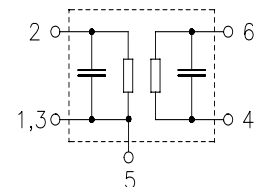
- Ni, gold-plated



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
B4133	B39182-B4133-U510	C61157-A7-A68	F61074-V8089-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 10 / + 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/50Ω
1710,0 ... 1785,0 MHz		5	dBm	peak power of GSM signal duty cycle 1:8
elsewhere		0	dBm	



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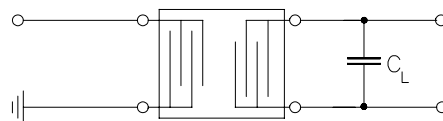


Characteristics

Operating Temperature Range: $T = +25 \pm 2^\circ\text{C}$
 Terminating source impedance: $Z_S = 50 \Omega$ (unbalanced)
 Terminating load impedance: $Z_L = 50 \Omega \parallel 1 \text{ pF}$ (balanced)

			min.	typ.	max.	
Center frequency	f_C		—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}	1805,0 ... 1880,0 MHz	—	3,1	3,8	dB
Amplitude ripple (p-p)	$\Delta\alpha$	1805,0 ... 1880,0 MHz	—	0,8	1,8	dB
Attenuation	α	0,0 ... 1160,0 MHz	37	42	—	dB
		1160,0 ... 1430,0 MHz	30	45	—	dB
		1430,0 ... 1705,0 MHz	20	24	—	dB
		1705,0 ... 1785,0 MHz	10	12	—	dB
		1920,0 ... 1980,0 MHz	10	13	—	dB
		1980,0 ... 2100,0 MHz	20	23	—	dB
		2100,0 ... 6000,0 MHz	20	28	—	dB

Matching network to 50 Ω load with $C_L = 1 \text{ pF}$





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Characteristics

Operating Temperature Range:

$$T = -10 \text{ to } +75^\circ \text{ C}$$

Terminating source impedance:

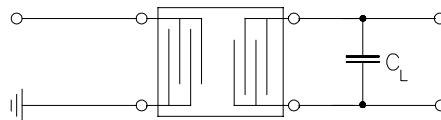
$$Z_S = 50 \Omega \text{ (unbalanced)}$$

Terminating load impedance:

$$Z_L = 50 \Omega \parallel 1 \text{ pF (balanced)}$$

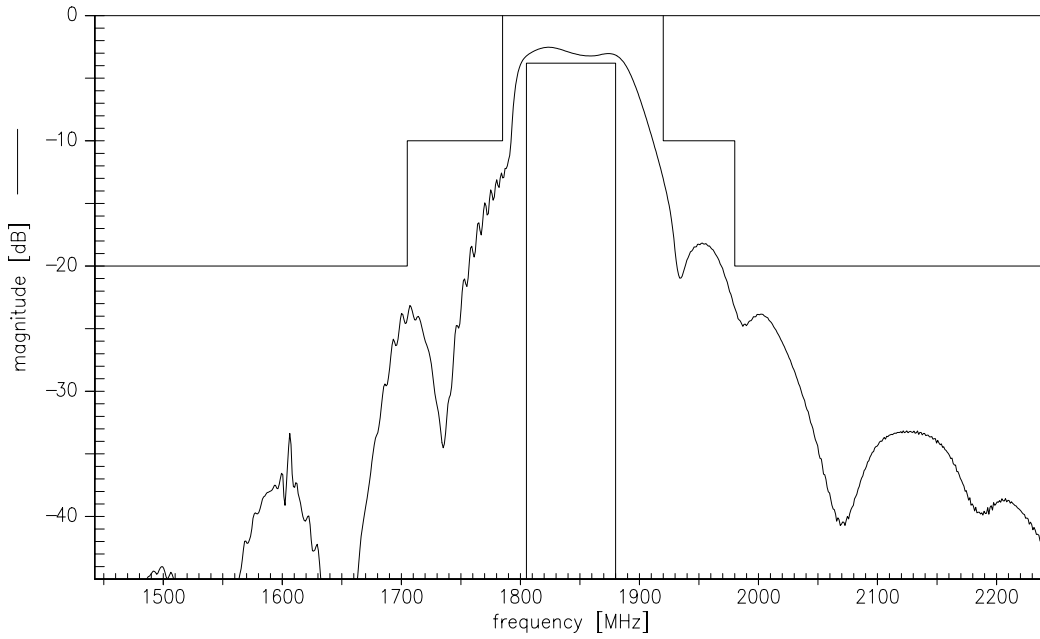
		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}	—	3,2	4,3	dB
1805,0 ... 1880,0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0,9	2,3	dB
1805,0 ... 1880,0 MHz					
Attenuation	α				dB
0,0 ... 1160,0 MHz		37	42	—	
1160,0 ... 1430,0 MHz		30	45	—	
1430,0 ... 1705,0 MHz		20	24	—	
1705,0 ... 1785,0 MHz		9	12	—	
1920,0 ... 1980,0 MHz		9	12	—	
1980,0 ... 2100,0 MHz		20	23	—	
2100,0 ... 6000,0 MHz		20	28	—	

Matching network to 50 Ω load with $C_L = 1 \text{ pF}$

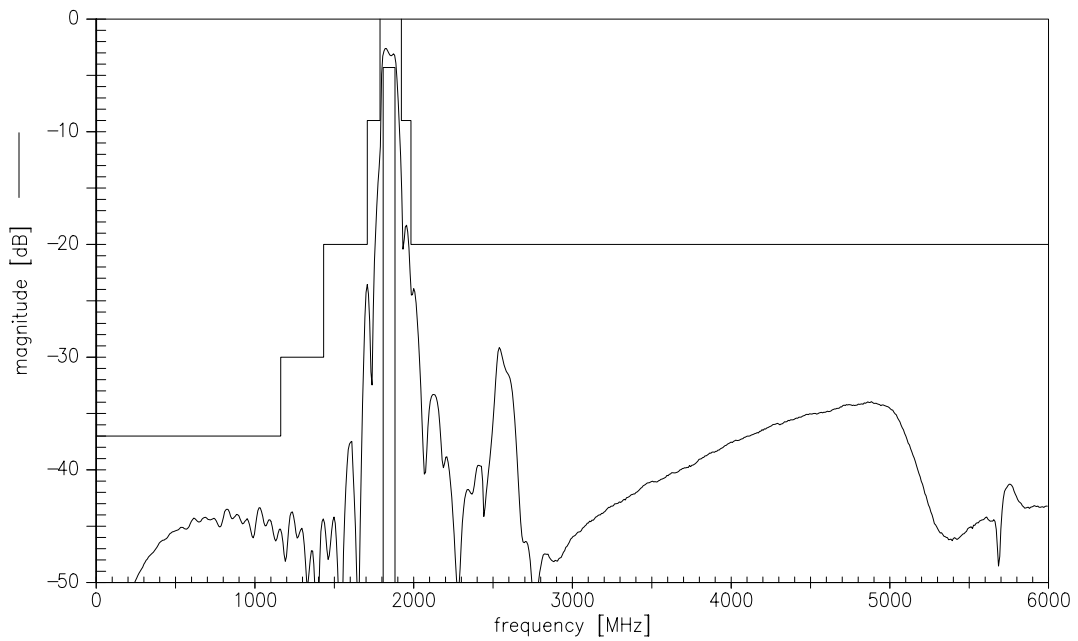




Transfer function



Transfer function (wide band)





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