



# SAW Components

Data Sheet B4181

Data Sheet

An abstract, grayscale graphic featuring a large, stylized, and slightly blurred "EPCOS" logo. The logo is set against a background of curved, overlapping bands and a faint world map, creating a sense of global connectivity and technological sophistication.



## SAW Components

B4181

## Low-Loss Filter for Mobile Communication

897,5 MHz

### Data Sheet



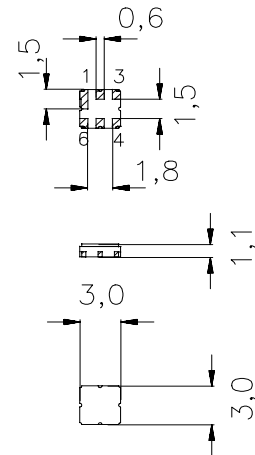
Ceramic package **DCC6C**

### Features

- Low-loss RF filter for mobile telephone EGSM system, transmit path
- Low amplitude ripple
- Usable passband 35 MHz
- No matching network required for operation at 50  $\Omega$
- Ceramic Package for Surface Mounted Technology (SMT)

### Terminals

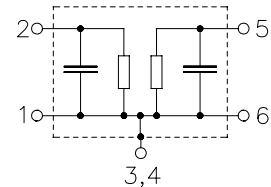
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

### Pin configuration

- 2 Input  
5 Output  
1,3,4,6 to be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B4181	B39901-B4181-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

### Maximum ratings

Operable temperature range	$T$	- 20 / +80	$^{\circ}\text{C}$	source and load impedance 50 $\Omega$ peak power of GSM signal, duty cycle 1 : 8 continuous wave
Storage temperature range	$T_{\text{stg}}$	- 40 / +85	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	3	V	
ESD voltage	$V_{\text{ESD}}$	50	V	
Input power max.	$P_{\text{IN}}$	15	dBm	
880...915 MHz				
elsewhere		5	dBm	



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<b>Low-Loss Filter for Mobile Communication</b>	<b>897,5 MHz</b>
<b>Data Sheet</b>	<b>SMD</b>

### Characteristics

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

			min.	typ.	max.	
<b>Center frequency</b>	$f_c$		—	897,50	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
	880,0 ... 915,0 MHz		—	1,8	2,2	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
	880,0 ... 915,0 MHz		—	1,1	1,5	dB
<b>Input VSWR</b>						
	880,0 ... 915,0 MHz		—	2,0	2,2	
<b>Output VSWR</b>						
	880,0 ... 915,0 MHz		—	2,0	2,2	
<b>Attenuation</b>	$\alpha$					
	0,0 ... 840,0 MHz		17	20		dB
	840,0 ... 860,0 MHz		17	29		dB
	860,0 ... 870,0 MHz		10	18		dB
	925,0 ... 935,0 MHz		4,5	12		dB
	935,0 ... 1850,0 MHz		20	22		dB
	1850,0 ... 3660,0 MHz		7	12		dB



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#### Characteristics

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

			min.	typ.	max.	
<b>Center frequency</b>	$f_c$		—	897,50	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
	880,0 ... 915,0 MHz		—	2,1	2,4	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
	880,0 ... 915,0 MHz		—	1,4	1,7	dB
<b>Input VSWR</b>						
	880,0 ... 915,0 MHz		—	2,0	2,2	
<b>Output VSWR</b>						
	880,0 ... 915,0 MHz		—	2,0	2,2	
<b>Attenuation</b>	$\alpha$					
	0,0 ... 840,0 MHz		17	20		dB
	840,0 ... 860,0 MHz		17	29		dB
	860,0 ... 870,0 MHz		10	18		dB
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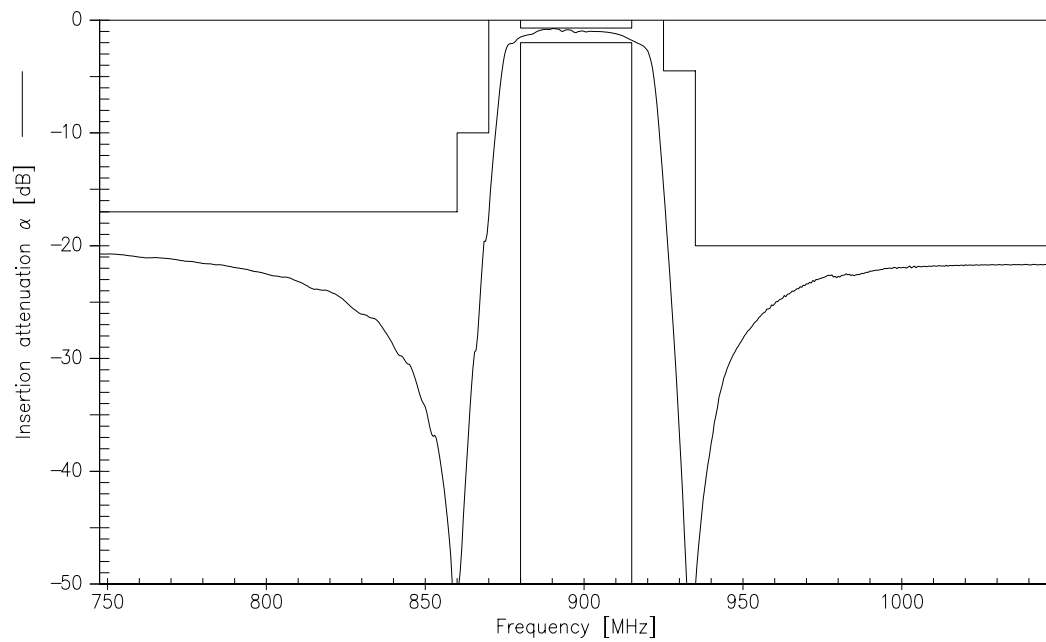
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897,5 MHz

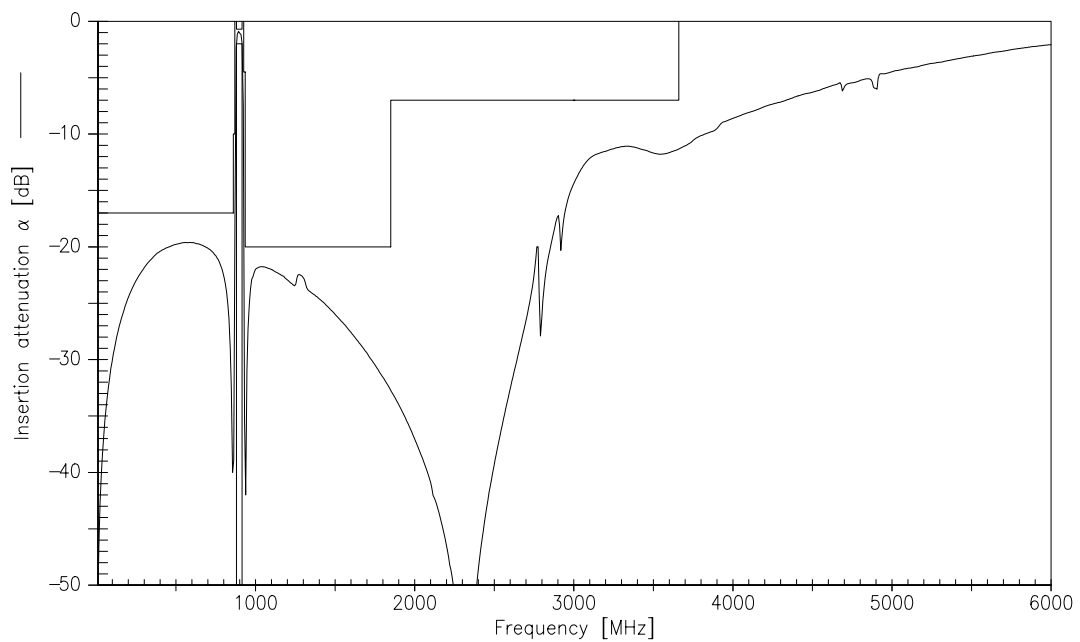
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### Transfer function at 25 °C



### Transfer function (wideband)





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