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# *SAW Components*

*Data Sheet B4131*

Data Sheet

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



SAW Components

B4131

Low-Loss Filter for Mobile Communication

942,5 MHz

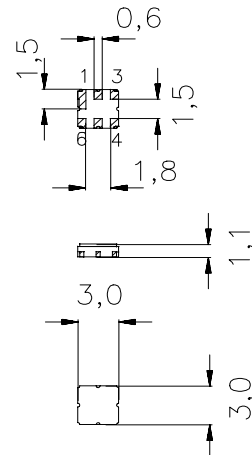
Data Sheet



Ceramic package **DCC6C**

**Features**

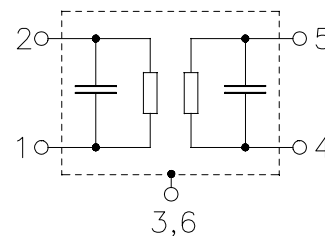
- Low-loss RF filter for EGSM mobile telephone system, receive path
- Low amplitude ripple
- Usable passband 35 MHz
- Ceramic package for **Surface Mounted Technology (SMT)**
- Terminals
- Ni, gold-plated



Dimensions in mm, approx. weight 0,037 g

**Pin configuration**

- 2 Input
- 1 Input ground
- 5 Output
- 4 Output ground
- 1, 3, 4, 6 To be grounded
- 1, 3, 4, 6 Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B4131	B39941-B4131-U410	C61157-A7-A67	F61074-V8088-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 30 / +85	°C	
Storage temperature range	$T_{stg}$	- 40 / + 85	°C	
DC voltage	$V_{DC}$	3	V	
Input power max. 880...915 MHz	$P_{IN}$	5	dBm	source and load impedance 50 $\Omega$ peak power of GSM signal, duty cycle 1 : 8 continuous wave
1710...1785 MHz		5	dBm	
elsewhere		0	dBm	



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**Characteristics**

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

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
925,0 ... 960,0 MHz		—	3,2	4,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,4	2,5	dB
<b>Attenuation</b>	$\alpha$				
0,0 ... 800,0 MHz		50	60	—	dB
800,0 ... 880,0 MHz		40	52	—	dB
880,0 ... 905,0 MHz		35	40	—	dB
905,0 ... 915,0 MHz		20	28	—	dB
980,0 ... 1005,0 MHz		23	25	—	dB
1005,0 ... 1025,0 MHz		30	42	—	dB
1025,0 ... 1760,0 MHz		40	50	—	dB
1760,0 ... 2500,0 MHz		30	40	—	dB
2500,0 ... 3120,0 MHz		20	27	—	dB
3120,0 ... 4000,0 MHz		18	25	—	dB
4000,0 ... 6000,0 MHz		—	10	—	dB
<b>Input reflection coefficient @1842,5 MHz</b>					
	Phase	-150	-140	-130	°



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942,5 MHz

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**Characteristics**

Operating temperature range:  $T = -10$  to  $+80$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega$   
 Terminating load impedance:  $Z_L = 50 \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	3,6	4,5	dB
925,0 ... 960,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1,8	2,5	dB
925,0 ... 960,0 MHz					
<b>Attenuation</b>	$\alpha$				
0,0 ... 800,0 MHz		50	60	—	dB
800,0 ... 880,0 MHz		40	52	—	dB
880,0 ... 905,0 MHz		35	40	—	dB
905,0 ... 915,0 MHz		20	28	—	dB
980,0 ... 1005,0 MHz		20	23	—	dB 1)
980,0 ... 1005,0 MHz		23	25	—	dB 2)
980,0 ... 982,0 MHz		20	23	—	dB
982,0 ... 1005,0 MHz		23	27	—	dB
1005,0 ... 1025,0 MHz		30	42	—	dB
1025,0 ... 1760,0 MHz		40	50	—	dB
1760,0 ... 2500,0 MHz		30	40	—	dB
2500,0 ... 3120,0 MHz		20	27	—	dB
3120,0 ... 4000,0 MHz		18	25	—	dB
4000,0 ... 6000,0 MHz		—	10	—	dB
<b>Input reflection coefficient @1842,5 MHz</b>					
	Phase	-150	-140	-130	°

1) specification valid for  $T < 25$  °C

2) specification valid for  $T \geq 25$  °C



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Low-Loss Filter for Mobile Communication

942,5 MHz

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**Characteristics**

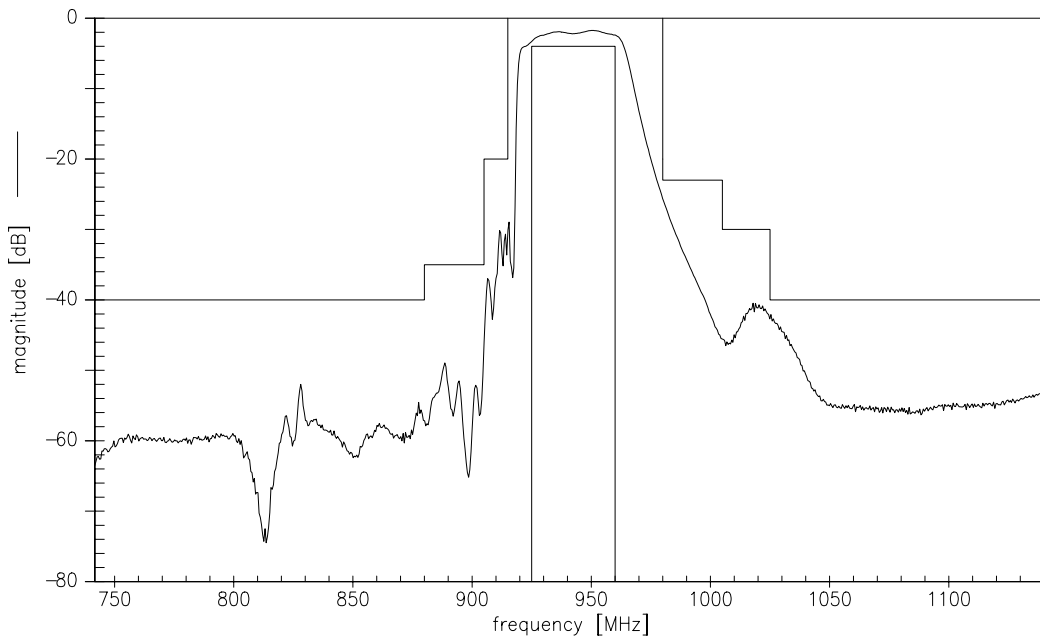
Operating temperature range:  $T = -30$  to  $+80$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega$   
 Terminating load impedance:  $Z_L = 50 \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	3,8	4,5	dB
925,0 ... 960,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	2,1	2,8	dB
925,0 ... 960,0 MHz					
<b>Attenuation</b>	$\alpha$				
0,0 ... 800,0 MHz		50	60	—	dB
800,0 ... 880,0 MHz		40	52	—	dB
880,0 ... 905,0 MHz		35	40	—	dB
905,0 ... 915,0 MHz		15	28	—	dB
980,0 ... 1005,0 MHz		20	23	—	dB 1)
980,0 ... 1005,0 MHz		23	25	—	dB 2)
980,0 ... 982,0 MHz		20	23	—	dB
982,0 ... 1005,0 MHz		23	27	—	dB
1005,0 ... 1025,0 MHz		30	42	—	dB
1025,0 ... 1760,0 MHz		40	50	—	dB
1760,0 ... 2500,0 MHz		30	40	—	dB
2500,0 ... 3120,0 MHz		20	27	—	dB
3120,0 ... 4000,0 MHz		18	25	—	dB
4000,0 ... 6000,0 MHz		—	10	—	dB
<b>Input reflection coefficient @1842,5 MHz</b>					
	Phase	-150	-140	-130	°

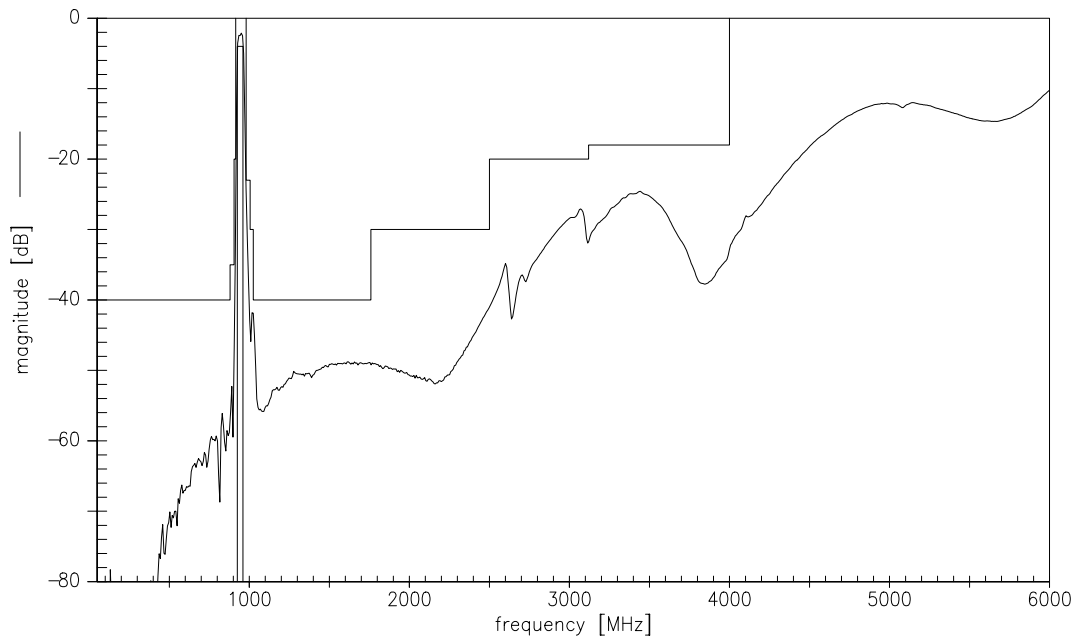
1) specification valid for  $T < 25$  °C  
 2) specification valid for  $T \geq 25$  °C



Transfer function (drawn specification for +25 C)



Transfer function (wideband)





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