



SAW Components

Data Sheet B4131

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid pattern, overlaid with a large, stylized, and slightly blurred "EPCOS" logo. The logo is tilted and appears to be part of a larger, layered design.



SAW Components

B4131

Low-Loss Filter for Mobile Communication

942,5 MHz

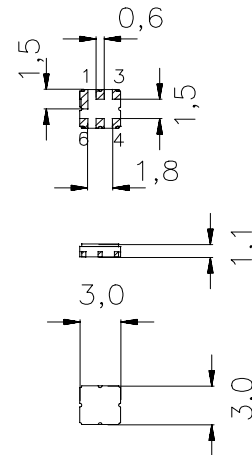
Data Sheet



Ceramic package **DCC6C**

Features

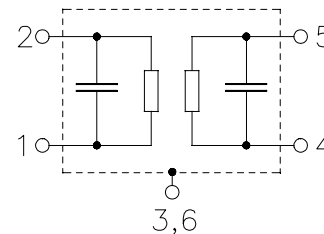
- Low-loss RF filter for EGSM mobile telephone system, receive path
- Low amplitude ripple
- Usable passband 35 MHz
- Ceramic package for **Surface Mounted Technology (SMT)**
- Terminals
- Ni, gold-plated



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 1710...1785 MHz elsewhere	P_{IN}	5 5 0	dBm dBm dBm	source and load impedance 50 Ω peak power of GSM signal, duty cycle 1 : 8 continuous wave



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Characteristics

Operating temperature range: $T = +25\text{ }^{\circ}\text{C}$

Terminating source impedance: $Z_S = 50\text{ }\Omega$

Terminating load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ.	max.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
925,0 ... 960,0 MHz		—	3,2	4,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,4	2,5	dB
Attenuation	α				
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
Input reflection coefficient @1842,5 MHz					
Phase		-150	-140	-130	°



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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.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
925,0 ... 960,0 MHz		—	3,6	4,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,8	2,5	dB
Attenuation	α				
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
Input reflection coefficient @1842,5 MHz					
Phase		-150	-140	-130	$^{\circ}$

1) specification valid for $T < 25^{\circ}\text{C}$

2) specification valid for $T \geq 25^{\circ}\text{C}$



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Low-Loss Filter for Mobile Communication

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Characteristics

Operating temperature range: $T = -30$ 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.	
Center frequency	f_C	—	942,5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$				
925,0 ... 960,0 MHz		—	3,8	4,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	2,1	2,8	dB
Attenuation	α				
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
Input reflection coefficient @1842,5 MHz					
Phase		-150	-140	-130	$^{\circ}$

1) specification valid for $T < 25^{\circ}\text{C}$

2) specification valid for $T \geq 25^{\circ}\text{C}$



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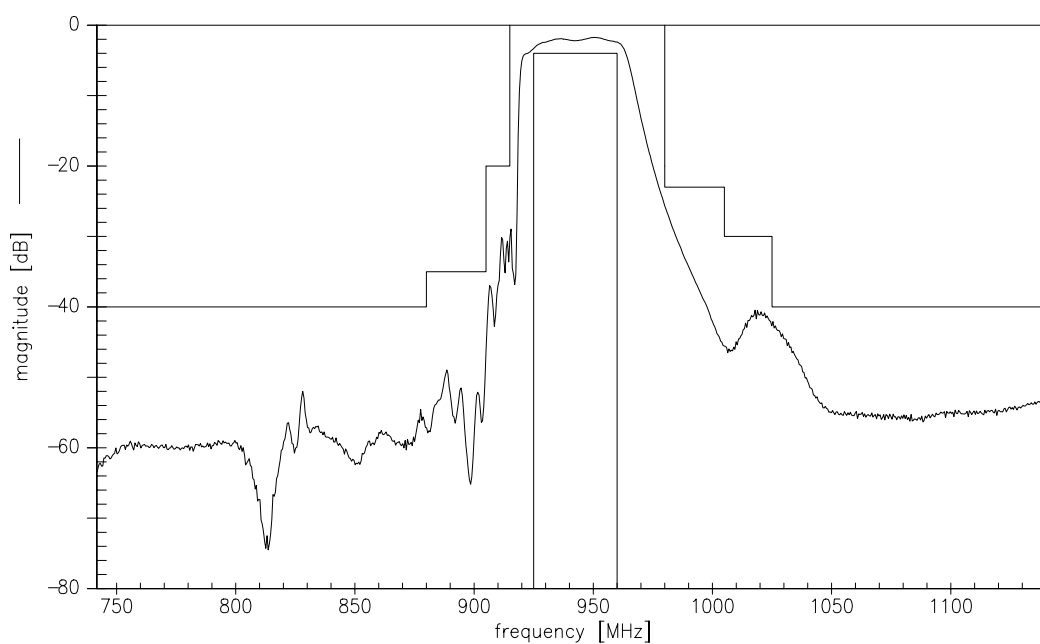
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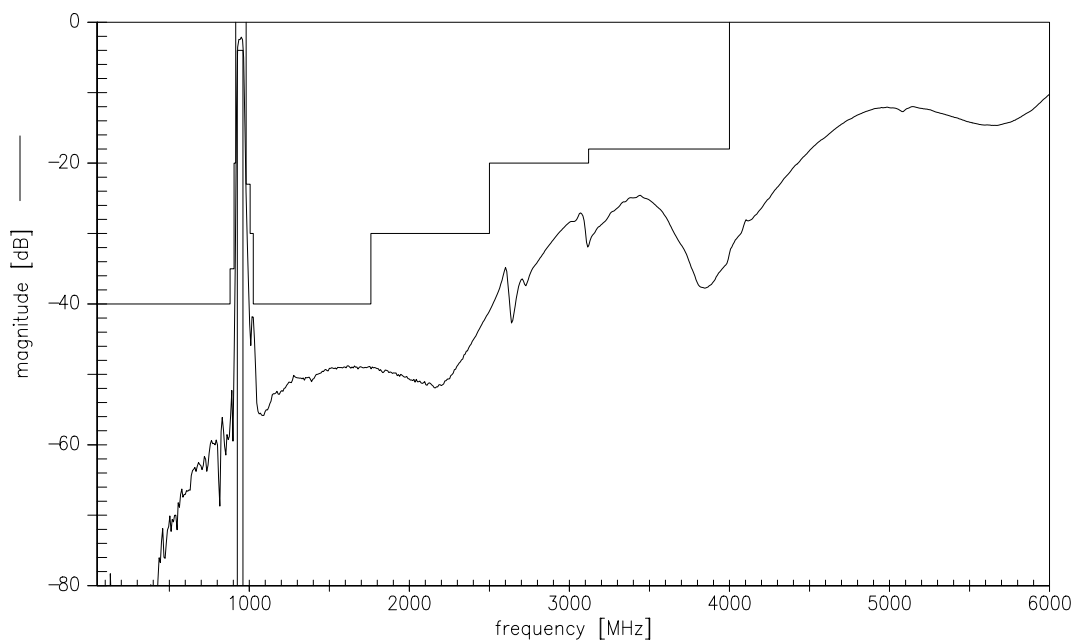
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Transfer function (drawn specification for +25 C)



Transfer function (wideband)





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