



# SAW Components

Data Sheet B4127





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**B4127**

**Low-Loss Filter for Mobile Communication**

**942,50 MHz**

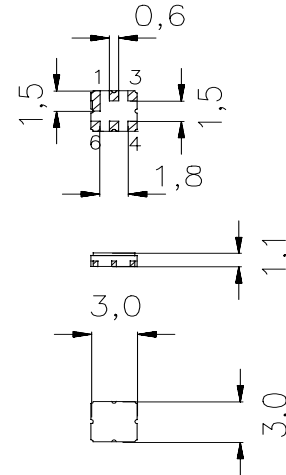
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Ceramic package **DCC6C**

**Features**

- Low-loss RF filter for mobile telephone EGSM system, receive path
- Low amplitude ripple
- Usable passband 35 MHz
- No matching network required for operation at 50 Ω
- Ceramic package for **Surface Mounted Technology (SMT)**
- RoHS Compliant



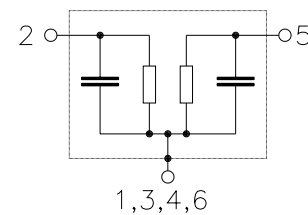
Dimensions in mm, approx. weight 0,037 g

**Terminals**

- Ni, gold-plated

**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
B4127	B39941-B4127-U410	C61157-A7-A67	F61074-V8168-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 40 / + 85	°C	
Storage temperature range	$T_{stg}$	- 40 / + 85	°C	
DC voltage	$V_{DC}$	0	V	
ESD voltage	$V_{ESD}$	100	V	Machine Model, 10 pulses <sup>1)</sup>
Input power max				
890...915 MHz		16	dBm	source and load impedance 50 Ω
1710...1785 MHz	$P_{IN}$	13	dBm	peak power of GSM signal, duty cycle 2 : 8
elsewhere		5	dBm	continuous wave

1) acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses



**Characteristics**

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

		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	942,50	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\text{max}}$				
	925,0 ... 960,0 MHz	—	2,2	2,7	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
	925,0 ... 960,0 MHz	—	0,7	1,2	dB
<b>Input VSWR</b>					
	925,0 ... 960,0 MHz	—	2,3	2,5	
<b>Output VSWR</b>					
	925,0 ... 960,0 MHz	—	2,3	2,5	
<b>Attenuation</b>	$\alpha$				
	0,0 ... 880,0 MHz	18,0	19,5	—	dB
	880,0 ... 905,0 MHz	18,0	25,0	—	dB
	905,0 ... 915,0 MHz	15,0	21,0	—	dB
	980,0 ... 1005,0 MHz	20,0	25,5	—	dB
	1005,0 ... 1375,0 MHz	18,0	21,0	—	dB
	1375,0 ... 1410,0 MHz	20,0	21,5	—	dB
	1410,0 ... 1645,0 MHz	20,0	22,5	—	dB
	1645,0 ... 3000,0 MHz	20,0	22,5	—	dB
	3000,0 ... 4008,0 MHz	8,0	14,0	—	dB
<b>Output reflection coefficient @942,5 MHz</b>					
	Phase	-95	-83	-71	°



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**Characteristics**

Operating temperature range:  $T = -20$  to  $+75^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

			min.	typ.	max.	
<b>Center frequency</b>	$f_c$		—	942,50	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
	925,0 ... 960,0 MHz		—	2,3	3,2	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
	925,0 ... 960,0 MHz		—	0,8	1,7	dB
<b>Input VSWR</b>						
	925,0 ... 960,0 MHz		—	2,3	2,5	
<b>Output VSWR</b>						
	925,0 ... 960,0 MHz		—	2,3	2,5	
<b>Attenuation</b>	$\alpha$					
	0,0 ... 880,0 MHz		18,0	19,5	—	dB
	880,0 ... 905,0 MHz		18,0	25,0	—	dB
	905,0 ... 915,0 MHz		10,0	18,0	—	dB
	980,0 ... 1005,0 MHz		20,0	24,0	—	dB
	1005,0 ... 1375,0 MHz		18,0	21,0	—	dB
	1375,0 ... 1410,0 MHz		20,0	21,5	—	dB
	1410,0 ... 1645,0 MHz		20,0	22,0	—	dB
	1645,0 ... 3000,0 MHz		20,0	22,0	—	dB
	3000,0 ... 4008,0 MHz		8,0	14,0	—	dB



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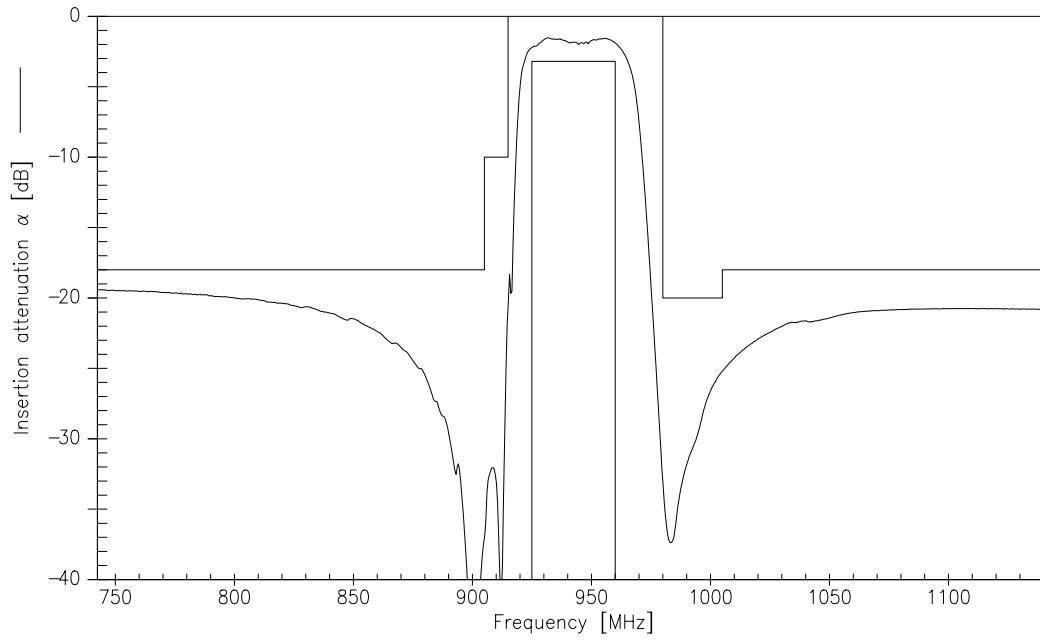
Operating temperature range:  $T = -30$  to  $+85^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	942,50	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
	925,0 ... 960,0 MHz	—	2,3	3,6	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
	925,0 ... 960,0 MHz	—	0,8	2,1	dB
<b>Input VSWR</b>					
	925,0 ... 960,0 MHz	—	2,3	2,5	
<b>Output VSWR</b>					
	925,0 ... 960,0 MHz	—	2,3	2,5	
<b>Attenuation</b>	$\alpha$				
	0,0 ... 880,0 MHz	18,0	19,5	—	dB
	880,0 ... 905,0 MHz	18,0	25,0	—	dB
	905,0 ... 915,0 MHz	9,0	18,0	—	dB
	980,0 ... 1005,0 MHz	20,0	24,0	—	dB
	1005,0 ... 1375,0 MHz	18,0	21,0	—	dB
	1375,0 ... 1410,0 MHz	20,0	21,5	—	dB
	1410,0 ... 1645,0 MHz	20,0	22,0	—	dB
	1645,0 ... 3000,0 MHz	20,0	22,0	—	dB
	3000,0 ... 4008,0 MHz	8,0	14,0	—	dB

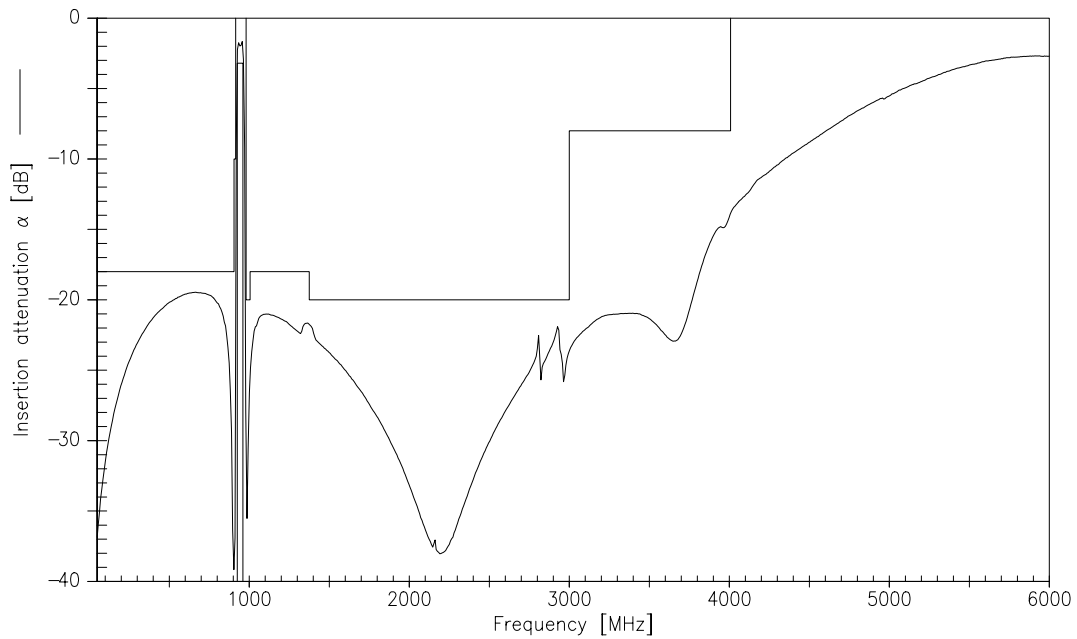
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Transfer function (narrowband)



Transfer function (wideband)





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