



# SAW Components

Data Sheet B4127





## SAW Components

B4127

## Low-Loss Filter for Mobile Communication

942,50 MHz

### Data Sheet



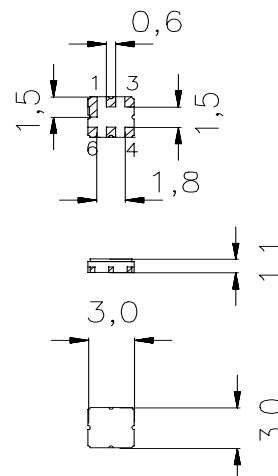
Ceramic package **DCC6C**

### 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  $\Omega$
- Ceramic package for **Surface Mounted Technology (SMT)**
- RoHS Compliant

### Terminals

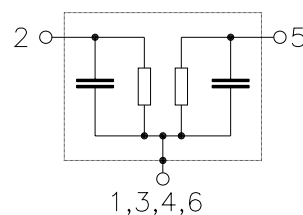
- Ni, gold-plated



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

Electrostatic **S**ensitive **D**evice (ESD)

### Maximum ratings

Operable temperature range	$T$	- 40 / + 85	$^{\circ}\text{C}$	
Storage temperature range	$T_{\text{stg}}$	- 40 / + 85	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	0	V	
ESD voltage	$V_{\text{ESD}}$	100	V	Machine Model, 10 pulses <sup>1)</sup>
Input power max				
890...915 MHz		16	dBm	source and load impedance 50 $\Omega$
1710...1785 MHz	$P_{\text{IN}}$	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



# SAW Components

B4127

## Low-Loss Filter for Mobile Communication

942,50 MHz

### Data Sheet



#### 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>	$\alpha_{\max}$				
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	°



# SAW Components

B4127

## Low-Loss Filter for Mobile Communication

942,50 MHz

### Data Sheet



#### 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



# SAW Components

B4127

## Low-Loss Filter for Mobile Communication

942,50 MHz

### Data Sheet



#### Characteristics

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

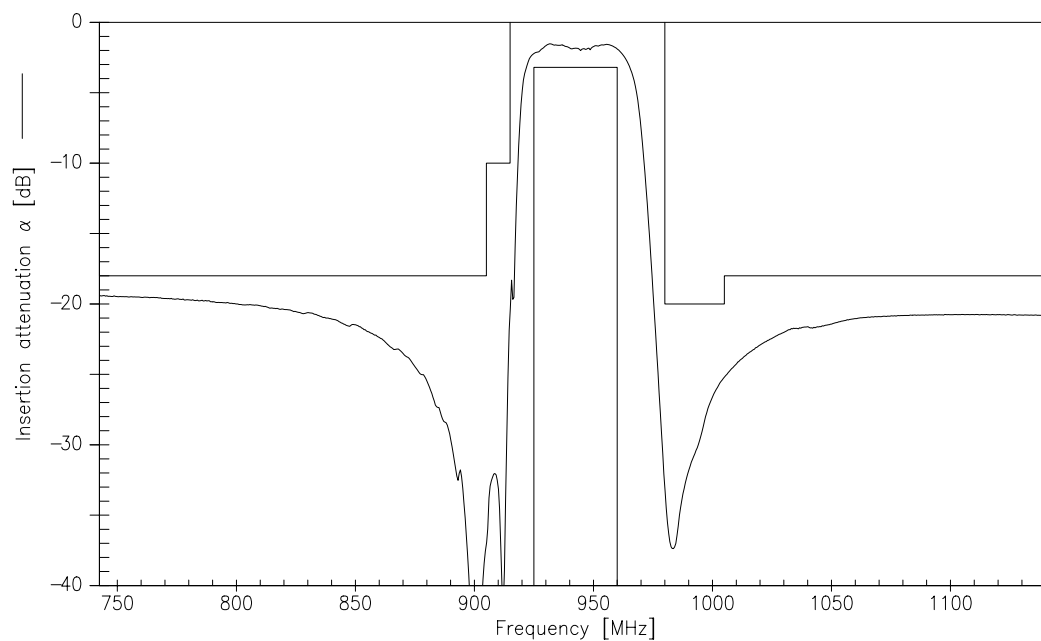
		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	942,50	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2,3	3,6	dB
	925,0 ... 960,0 MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0,8	2,1	dB
	925,0 ... 960,0 MHz				
<b>Input VSWR</b>		—	2,3	2,5	
	925,0 ... 960,0 MHz				
<b>Output VSWR</b>		—	2,3	2,5	
	925,0 ... 960,0 MHz				
<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



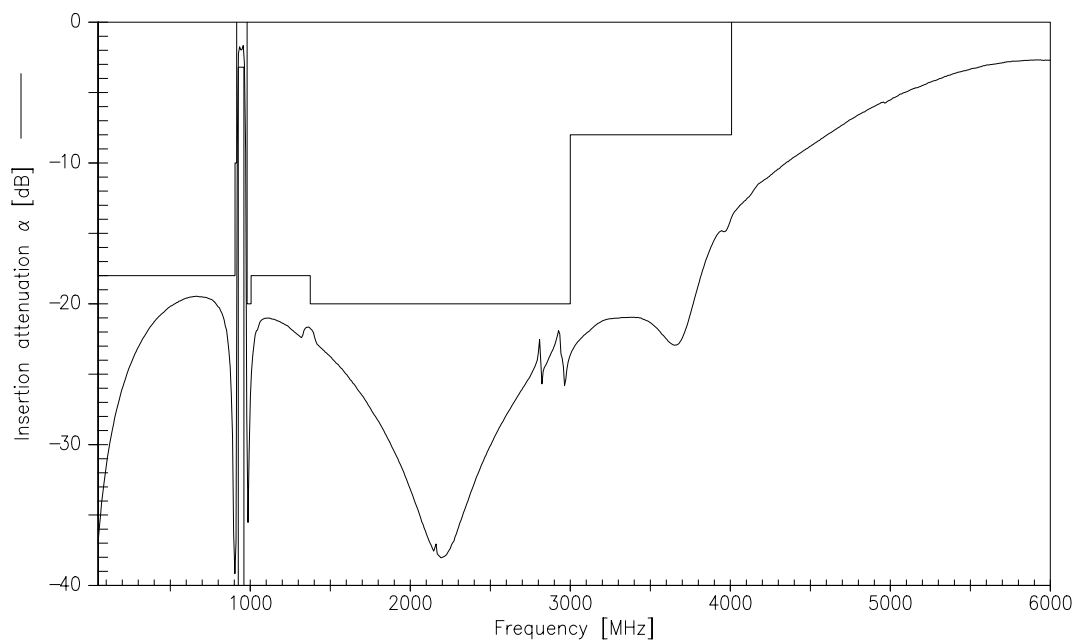
Data Sheet



Transfer function (narrowband)



Transfer function (wideband)





**SAW Components**

**B4127**

**Low-Loss Filter for Mobile Communication**

**942,50 MHz**

**Data Sheet**



**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW COM WT PD**

**P.O. Box 80 17 09, D-81617 München**

© EPCOS AG 2005. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices