

# SAW Components

Data Sheet B4127

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# SAW Components B4127 Low-Loss Filter for Mobile Communication 942,50 MHz

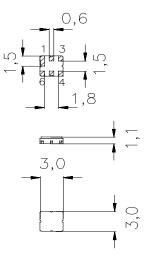
**Data Sheet** 



#### Ceramic package DCC6C

#### **Features**

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



#### **Terminals**

Ni, gold-plated

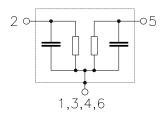
Dimensions in mm, approx. weight 0,037 g

#### Pin configuration

1 Input - ground

5 Output

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



Туре	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	Τ	<b>- 40 / + 85</b>	°C	
Storage temperature range	$T_{stg}$	<b>- 40 / + 85</b>	°C	
DC voltage	$V_{DC}$	0	V	
ESD voltage	$V_{ESD}$	100	V	Machine Model, 10 pulses <sup>1)</sup>
Input power max				
890915 MHz		16	dBm	source and load impedance 50 $\Omega$
17101785 MHz	$P_{IN}$	13	dBm	peak power of GSM signal,
				duty cycle 2:8
elsewhere		5	dBm	continuous wave
		-		·

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



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**Low-Loss Filter for Mobile Communication** 

SMD

**Characteristics** 

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 $\begin{array}{lll} \mbox{Operating temperature range:} & T = 25 \pm 2^{\circ} \mbox{C} \\ \mbox{Terminating source impedance:} & Z_{\mbox{S}} = 50 \ \Omega \\ \mbox{Terminating load impedance:} & Z_{\mbox{L}} = 50 \ \Omega \end{array}$ 

		min.	typ.	max.	
Center frequency	f <sub>c</sub>	_	942,50	_	MHz
Maximum insertion attenuation 925,0 960,0 M	α <sub>max</sub> Hz		2,2	2,7	dB
323,0 300,0 W	1 12		۷,۷	2,1	ub
Amplitude ripple (p-p)	$\Delta \alpha$				
925,0 960,0 M	Hz	_	0,7	1,2	dB
Innut VOMD					
Input VSWR 925,0 960,0 M	Hz	_	2,3	2,5	
020,0 000,0	1 12		2,0	2,0	
Output VSWR					
925,0 960,0 M	Hz	_	2,3	2,5	
Attenuation	α				
	Hz	18,0	19,5	_	dB
•	Hz	18,0	25,0	_	dB
905,0 915,0 M	Hz	15,0	21,0	_	dB
980,01005,0 M	Hz	20,0	25,5	_	dB
1005,01375,0 M	Hz	18,0	21,0	_	dB
1375,01410,0 M	Hz	20,0	21,5	_	dB
1410,01645,0 M	Hz	20,0	22,5	_	dB
1645,03000,0 M	Hz	20,0	22,5	_	dB
3000,04008,0 M	Hz	8,0	14,0	_	dB
Output reflection coefficient @042.5 MHz					
Output reflection coefficient @942,5 MHz	ase	-95	-83	-71	۰



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**Characteristics** 

Operating temperature range:  $T = -20 \text{ to } +75^{\circ}\text{C}$ 

 $\begin{array}{ll} Z_{\rm S} &= 50~\Omega \\ Z_{\rm L} &= 50~\Omega \end{array}$ Terminating source impedance: Terminating load impedance:

		min.	typ.	max.	
Center frequency	f <sub>c</sub>	_	942,50	_	MHz
Maximum insertion attenuation 925,0 960,0 MI	α <sub>max</sub> Hz	_	2,3	3,2	dB
<b>Amplitude ripple</b> (p-p) 925,0 960,0 MI	Δα Hz	_	0,8	1,7	dB
Input VSWR 925,0 960,0 MI	Hz	_	2,3	2,5	
Output VSWR 925,0 960,0 MI	Hz	_	2,3	2,5	
Attenuation	α				
0,0 880,0 MI	Hz	18,0	19,5	_	dB
,	Hz	18,0	25,0	_	dB
905,0 915,0 MI	Hz	10,0	18,0	_	dB
,-	Hz	20,0	24,0	_	dB
•	Hz	18,0	21,0	_	dB
1375,01410,0 MI		20,0	21,5	_	dB
1410,01645,0 MI		20,0	22,0	_	dB
1645,03000,0 MI		20,0	22,0	_	dB
3000,04008,0 MI	Hz	8,0	14,0	_	dB



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**Characteristics** 

Operating temperature range:  $T = -30 \text{ to } +85^{\circ}\text{C}$ 

Terminating source impedance:  $Z_{\rm S} = 50~\Omega$ Terminating load impedance:  $Z_{\rm L} = 50~\Omega$ 

		min.	typ.	max.	
Center frequency	f <sub>c</sub>	_	942,50	_	MHz
Maximum insertion attenuation 925,0 960,0 MR	α <sub>max</sub> Hz	_	2,3	3,6	dB
<b>Amplitude ripple</b> (p-p) 925,0 960,0 MR	Δα Hz	_	0,8	2,1	dB
Input VSWR 925,0 960,0 MR	Нz	_	2,3	2,5	
Output VSWR 925,0 960,0 MH	Нz	_	2,3	2,5	
Attenuation	α				
0,0 880,0 MI		18,0	19,5	_	dB
880,0 905,0 Mi	Ηz	18,0	25,0	_	dB
905,0 915,0 Mi	Ηz	9,0	18,0	_	dB
980,01005,0 Mi	Ηz	20,0	24,0	_	dB
1005,01375,0 Mi		18,0	21,0	_	dB
1375,01410,0 Mi		20,0	21,5	_	dB
1410,01645,0 Mi		20,0	22,0	_	dB
1645,03000,0 Mi		20,0	22,0	_	dB
3000,04008,0 Mi	Ηz	8,0	14,0	_	dB



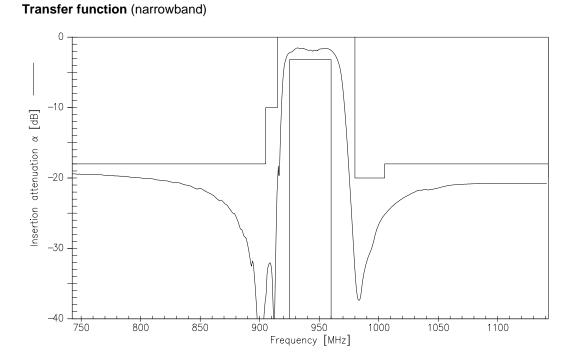
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SMD

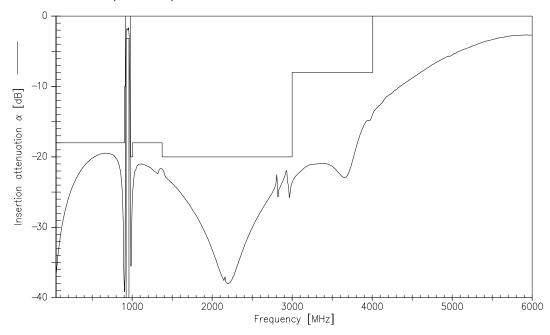
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### Transfer function (wideband)





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