



# SAW Components

Data Sheet B9067





**SAW Components**

**B9067**

**Low-Loss Filter for Mobile Communication**

**1950,0 MHz**

**Data Sheet**



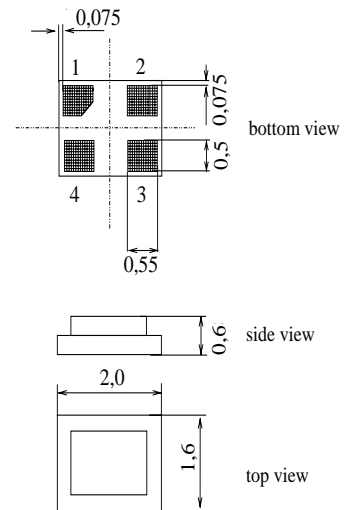
Chip sized SAW package DCS4G

**Features**

- Low-loss RF filter for W-CDMA mobile telephone system, transmit path
- High stopband attenuation
- Usable passband 60 MHz
- Unbalanced/unbalanced operation
- Package size: 2 mm x 1.6 mm (4 pin, diagonal pinning)
- High power durability
- RoHS compatible

**Terminals**

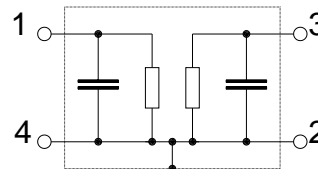
- Ni, gold-plated



Dimensions in mm, approx weight 0,007g

**Pin configuration**

- |     |        |
|-----|--------|
| 1   | Input  |
| 3   | Output |
| 2,4 | Ground |



Type	Ordering code	Marking and Package according to	Packing according to
B9067	B39202-B9067-E913	C61157-A7-A105	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 40/+ 85	°C	Machine Model, 10 pulses source impedance 50 Ω
Storage temperature range	$T_{stg}$	- 40/+ 85	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}$	100*	V	
Input power	$P_S$	30	dBm	

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



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Characteristics

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

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1950,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$				
	1920,0 ... 1980,0 MHz	—	1,9	2,2	dB
<b>Ripple</b>	p-p				
	1920,0 ... 1980,0 MHz	—	0,8	1,1	dB
<b>Input VSWR</b>					
	1920,0 ... 1980,0 MHz	—	1,9	2,3	
<b>Output VSWR</b>					
	1920,0 ... 1980,0 MHz	—	1,9	2,3	
<b>Attenuation</b>	$\alpha$				
	0,0 ... 1575,0 MHz	30	35	—	dB
	1575,0 ... 1805,0 MHz	35	39	—	dB
	1805,0 ... 1880,0 MHz	25	32	—	dB
	2025,0 ... 2050,0 MHz	35	44	—	dB
	2110,0 ... 2170,0 MHz	45	50	—	dB
	2300,0 ... 2490,0 MHz	40	46	—	dB
	2490,0 ... 2740,0 MHz	35	41	—	dB
	2740,0 ... 3960,0 MHz	25	31	—	dB
	3960,0 ... 5000,0 MHz	20	25	—	dB
	5000,0 ... 6000,0 MHz	18	23	—	dB



Data Sheet



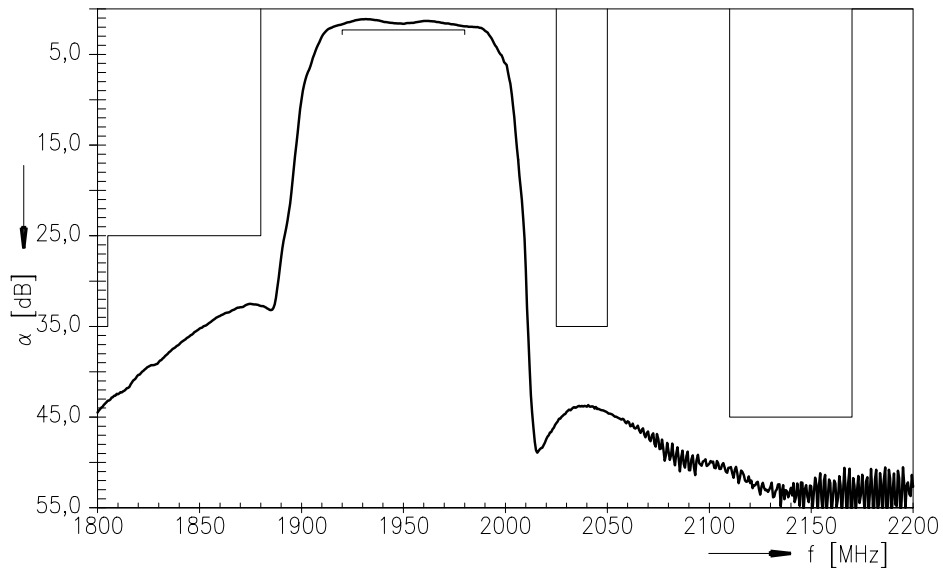
Characteristics

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega$   
 Terminating load impedance:  $Z_L = 50 \Omega$

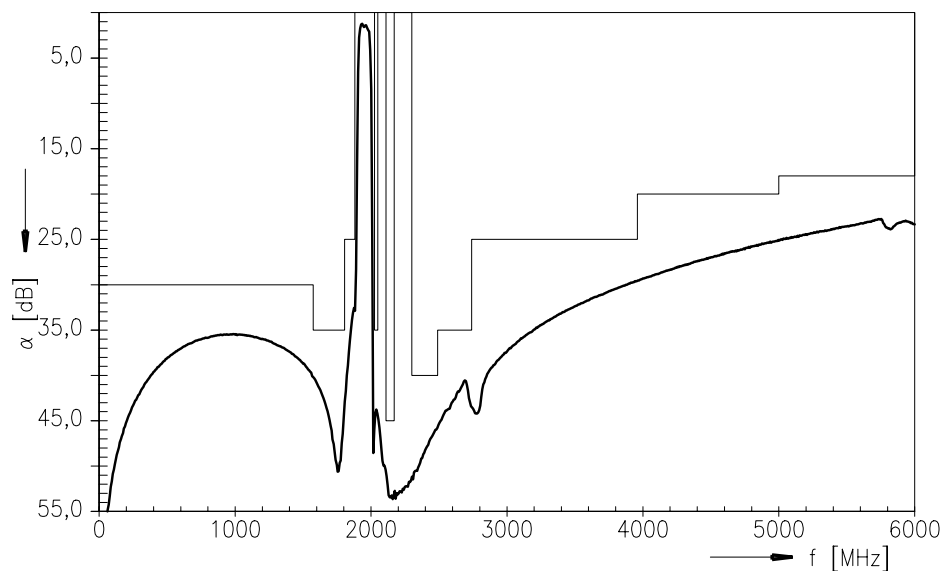
		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1950,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	1,9	2,3	dB
	1920,0 ... 1980,0 MHz				
<b>Ripple</b>	p-p	—	0,8	1,2	dB
	1920,0 ... 1980,0 MHz				
<b>Input VSWR</b>		—	1,9	2,3	
	1920,0 ... 1980,0 MHz				
<b>Output VSWR</b>		—	1,9	2,3	
	1920,0 ... 1980,0 MHz				
<b>Attenuation</b>	$\alpha$				
	0,0 ... 1575,0 MHz	30	35	—	dB
	1575,0 ... 1805,0 MHz	35	39	—	dB
	1805,0 ... 1880,0 MHz	25	32	—	dB
	2025,0 ... 2050,0 MHz	35	44	—	dB
	2110,0 ... 2170,0 MHz	45	50	—	dB
	2300,0 ... 2490,0 MHz	40	46	—	dB
	2490,0 ... 2740,0 MHz	35	41	—	dB
	2740,0 ... 3960,0 MHz	25	31	—	dB
	3960,0 ... 5000,0 MHz	20	25	—	dB
	5000,0 ... 6000,0 MHz	18	23	—	dB



Transfer function (measured at room temperature):



Transfer function (wideband, measured at room temperature):





Data Sheet



Characteristics with Matching Network

Operating temperature range:  $T = +25\text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega \parallel 12\ \text{nH}$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1950,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\text{max}}$	—	1,7	2,0	dB
	1920,0 ... 1980,0 MHz				
<b>Ripple</b>	p-p	—	0,6	0,9	dB
	1920,0 ... 1980,0 MHz				
<b>Input VSWR</b>		—	1,4	1,8	
	1920,0 ... 1980,0 MHz				
<b>Output VSWR</b>		—	1,5	1,9	
	1920,0 ... 1980,0 MHz				
<b>Attenuation</b>	$\alpha$				
	0,0 ... 1575,0 MHz	30	34	—	dB
	1575,0 ... 1805,0 MHz	35	38	—	dB
	1805,0 ... 1880,0 MHz	25	32	—	dB
	2025,0 ... 2050,0 MHz	35	43	—	dB
	2110,0 ... 2170,0 MHz	45	49	—	dB
	2300,0 ... 2490,0 MHz	40	45	—	dB
	2490,0 ... 2740,0 MHz	35	40	—	dB
	2740,0 ... 3960,0 MHz	25	31	—	dB
	3960,0 ... 5000,0 MHz	20	25	—	dB
	5000,0 ... 6000,0 MHz	18	23	—	dB



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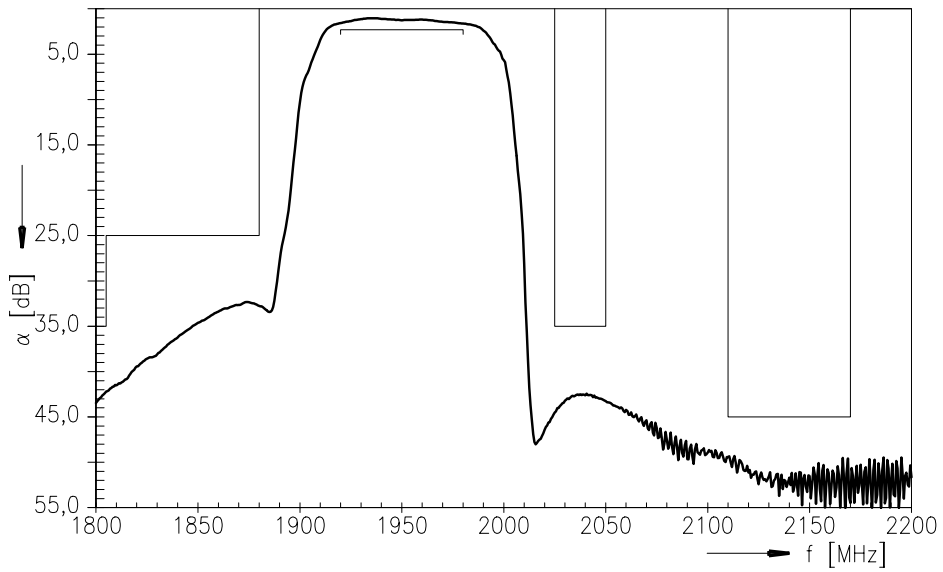
Characteristics with Matching Network

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega \parallel 12$  nH  
 Terminating load impedance:  $Z_L = 50 \Omega$

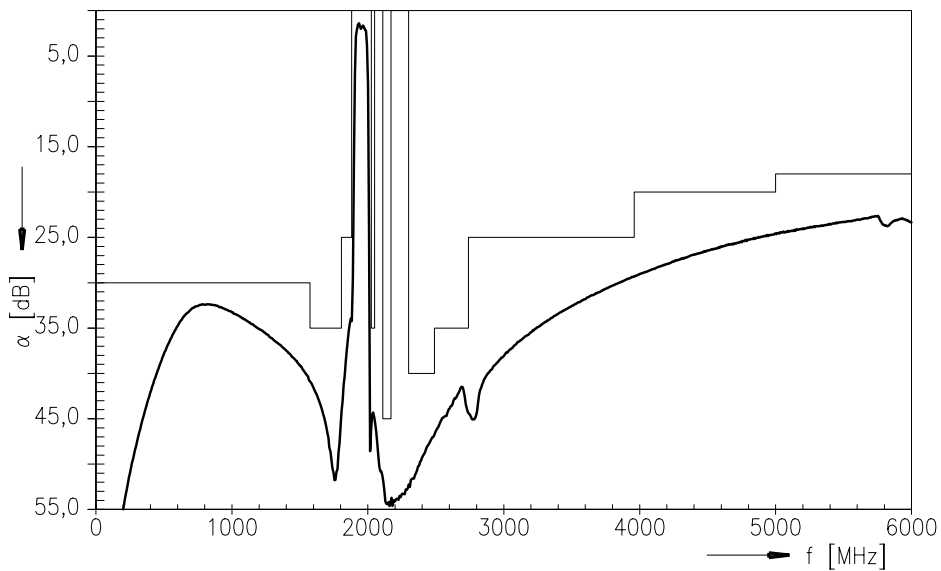
		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1950,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	1,7	2,3	dB
	1920,0 ... 1980,0 MHz				
<b>Ripple</b>	p-p	—	0,6	1,2	dB
	1920,0 ... 1980,0 MHz				
<b>Input VSWR</b>		—	1,4	1,8	
	1920,0 ... 1980,0 MHz				
<b>Output VSWR</b>		—	1,5	1,9	
	1920,0 ... 1980,0 MHz				
<b>Attenuation</b>	$\alpha$				
	0,0 ... 1575,0 MHz	30	34	—	dB
	1575,0 ... 1805,0 MHz	35	38	—	dB
	1805,0 ... 1880,0 MHz	25	32	—	dB
	2025,0 ... 2050,0 MHz	35	43	—	dB
	2110,0 ... 2170,0 MHz	45	49	—	dB
	2300,0 ... 2490,0 MHz	40	45	—	dB
	2490,0 ... 2740,0 MHz	35	40	—	dB
	2740,0 ... 3960,0 MHz	25	31	—	dB
	3960,0 ... 5000,0 MHz	20	25	—	dB
	5000,0 ... 6000,0 MHz	18	23	—	dB



Transfer function with matching network (measured at room temperature):



Transfer function with matching network (wideband, measured at room temperature):







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