



# SAW Components

Data Sheet B9031





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**B9031**

**Low-Loss Filter for Mobile Communication**

**1950,0 MHz**

**Data Sheet**



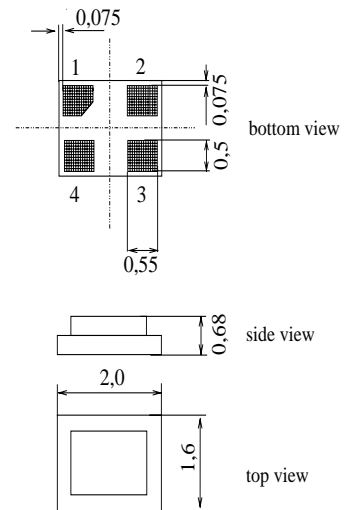
Chip sized SAW package DCS4G

**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)

**Terminals**

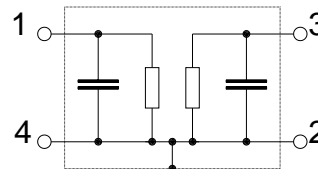
- Ni, gold-plated



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
B9031	B39202-B9031-E910	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	$V_{ESD}$	50*	V	
Input power	$P_S$	10	dBm	

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



Data Sheet



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>	$\alpha_{max}$	—	1,8	2,2	dB
	1920,0 ... 1980,0 MHz				
<b>Ripple</b>	p-p	—	0,8	1,1	dB
	1920,0 ... 1980,0 MHz				
<b>Input VSWR</b>		—	1,7	2,1	
	1920,0 ... 1980,0 MHz				
<b>Output VSWR</b>		—	1,7	2,1	
	1920,0 ... 1980,0 MHz				
<b>Attenuation</b>	$\alpha$				
	0,0 ... 1670,0 MHz	26	31	—	dB
	1670,0 ... 1720,0 MHz	29	34	—	dB
	1720,0 ... 1750,0 MHz	30	36	—	dB
	1750,0 ... 1880,0 MHz	31	35	—	dB
	2025,0 ... 2050,0 MHz	35	46	—	dB
	2110,0 ... 2170,0 MHz	35	39	—	dB
	2300,0 ... 2490,0 MHz	34	38	—	dB
	2490,0 ... 2740,0 MHz	35	40	—	dB
	2740,0 ... 3960,0 MHz	30	36	—	dB
	3960,0 ... 6000,0 MHz	20	28	—	dB



Data Sheet



Characteristics

Operating temperature range:  $T = -20$  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>	$\alpha_{max}$				
	1920,0 ... 1980,0 MHz	—	1,8	2,5	dB
<b>Ripple</b>	p-p				
	1920,0 ... 1980,0 MHz	—	0,8	1,4	dB
<b>Input VSWR</b>					
	1920,0 ... 1980,0 MHz	—	1,7	2,2	
<b>Output VSWR</b>					
	1920,0 ... 1980,0 MHz	—	1,7	2,2	
<b>Attenuation</b>	$\alpha$				
	0,0 ... 1670,0 MHz	26	31	—	dB
	1670,0 ... 1720,0 MHz	29	34	—	dB
	1720,0 ... 1750,0 MHz	30	36	—	dB
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	2300,0 ... 2490,0 MHz	34	38	—	dB
	2490,0 ... 2740,0 MHz	35	40	—	dB
	2740,0 ... 3960,0 MHz	30	36	—	dB
	3960,0 ... 6000,0 MHz	20	28	—	dB



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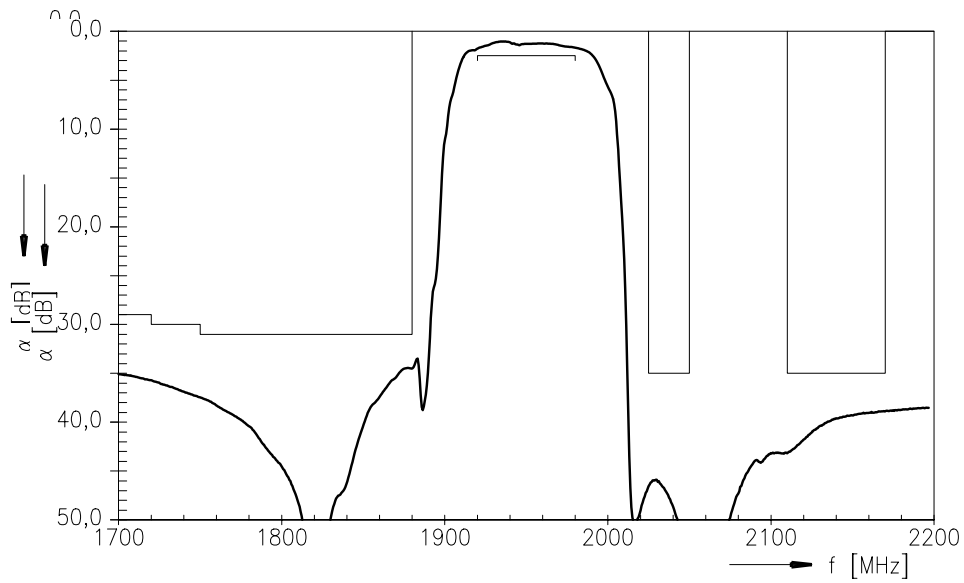
Characteristics

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

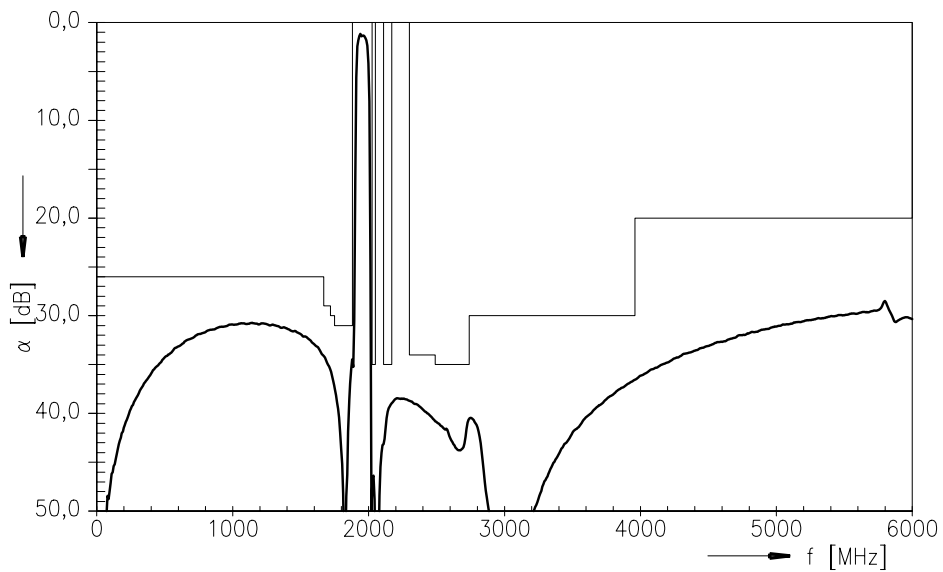
		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	1950,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	1,8	2,7	dB
	1920,0 ... 1980,0 MHz				
<b>Ripple</b>	p-p	—	0,8	1,6	dB
	1920,0 ... 1980,0 MHz				
<b>Input VSWR</b>		—	1,7	2,2	
	1920,0 ... 1980,0 MHz				
<b>Output VSWR</b>		—	1,7	2,2	
	1920,0 ... 1980,0 MHz				
<b>Attenuation</b>	$\alpha$				
	0,0 ... 1670,0 MHz	26	31	—	dB
	1670,0 ... 1720,0 MHz	29	34	—	dB
	1720,0 ... 1750,0 MHz	30	36	—	dB
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	2025,0 ... 2050,0 MHz	35	46	—	dB
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	2300,0 ... 2490,0 MHz	34	38	—	dB
	2490,0 ... 2740,0 MHz	35	40	—	dB
	2740,0 ... 3960,0 MHz	30	36	—	dB
	3960,0 ... 6000,0 MHz	20	28	—	dB



Transfer function (measured at room temperature):



Transfer function (wideband, measured at room temperature):





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