



# SAW Components

Data Sheet B9005





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**B9005**

## Low Loss Filter for Mobile Communication

**2140,0 MHz**

### Data Sheet



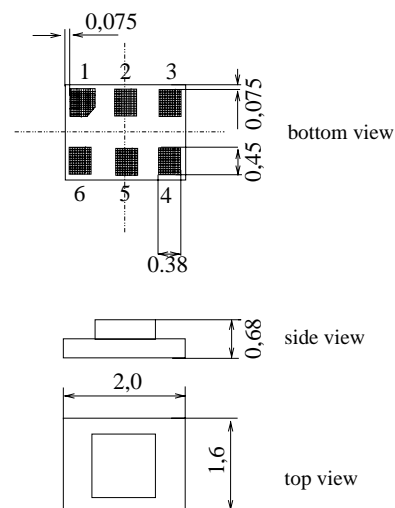
Chip sized SAW package **DCS6R**

#### Features

- Low-loss RF filter for W-CDMA mobile telephone system, receive path
- Balanced to balanced operation
- Usable passband 60 MHz

#### Terminals

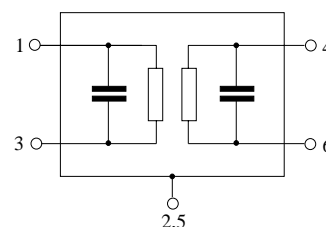
- Ni, gold-plated



Dimensions in mm, approx. weight 0,007g

#### Pin configuration

- |      |                 |
|------|-----------------|
| 1, 3 | Balanced input  |
| 4, 6 | Balanced output |
| 2, 5 | Case ground     |



Type	Ordering code	Marking and Package according to	Packing according to
B9005	B39212-B9005-E810	C61157-A7-A114	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)

#### Maximum ratings

Operable temperature range	$T$	- 30/+ 85	°C	Machine Model, 10 pulses
Storage temperature range	$T_{stg}$	- 40/+ 85	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}$	50*	V	
Input power max at				peak power of GSM signal, duty cycle 4:8
GSM850, GSM900	$P_S$	15	dBm	
GSM1800, GSM1900	$P_S$	12	dBm	
Tx bands				

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


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**Characteristics**

Reference temperature:  $T = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 100\ \Omega$   
 Terminating load impedance:  $Z_L = 100\ \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	2140,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2,0	2,2	dB
	2110,0 ... 2170,0 MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0,7	0,9	dB
	2110,0 ... 2170,0 MHz				
<b>Amplitude ripple per 5 MHz channel (p-p)</b>	$\Delta\alpha_{5\text{MHz}}$	—	0,3	0,4	dB/5MHz
	2110,0 ... 2170,0 MHz				
<b>Output phase balance (<math>\phi(S_{\text{out}2}) - \phi(S_{\text{out}1}) + 180^\circ</math>)</b>		-10	0 / 3	10	°
	2110,0 MHz ... 2170,0 MHz				
<b>Output amplitude balance (<math> S_{\text{out}2}/S_{\text{out}1} </math>)</b>		-1,0	0 / 0,3	1,0	dB
	2110,0 MHz ... 2170,0 MHz				
<b>Input VSWR</b>	$VSWR_{IN}$	—	1,8	2,1	
	2110,0 ... 2170,0 MHz				
<b>Output VSWR</b>	$VSWR_{OUT}$	—	1,8	2,1	
	2110,0 ... 2170,0 MHz				
<b>Attenuation</b>	$\alpha_{\min}$				
	0,3 ... 1920,0 MHz	25	29	—	dB
	1920,0 ... 1980,0 MHz	30	33	—	dB
	1980,0 ... 2075,0 MHz	14	28	—	dB
	2400,0 ... 6000,0 MHz	20	26	—	dB


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**Characteristics**

Reference temperature:  $T = -10 \dots 85 \text{ }^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 100 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 100 \text{ } \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	2140,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	2,0	2,6	dB
2110,0 ... 2170,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0,7	1,0	dB
2110,0 ... 2170,0 MHz					
<b>Amplitude ripple per 5 MHz channel (p-p)</b>	$\Delta\alpha_{5\text{MHz}}$	—	0,4	0,5	dB/5MHz
2110,0 ... 2170,0 MHz					
<b>Output phase balance (<math>\phi(S_{\text{out}2}) - \phi(S_{\text{out}1}) + 180^{\circ}</math>)</b>		-10	0 / 3	10	$^{\circ}$
2110,0 MHz ... 2170,0 MHz					
<b>Output amplitude balance (<math> S_{\text{out}2}/S_{\text{out}1} </math>)</b>		-1,0	0 / 0,3	1,0	dB
2110,0 MHz ... 2170,0 MHz					
<b>Input VSWR</b>	$VSWR_{IN}$	—	1,8	2,1	
2110,0 ... 2170,0 MHz					
<b>Output VSWR</b>	$VSWR_{OUT}$	—	1,8	2,1	
2110,0 ... 2170,0 MHz					
<b>Attenuation</b>	$\alpha_{\min}$	25	29	—	dB
0,3 ... 1920,0 MHz		30	33	—	dB
1920,0 ... 1980,0 MHz		13	28	—	dB
1980,0 ... 2075,0 MHz		20	26	—	dB
2400,0 ... 6000,0 MHz					



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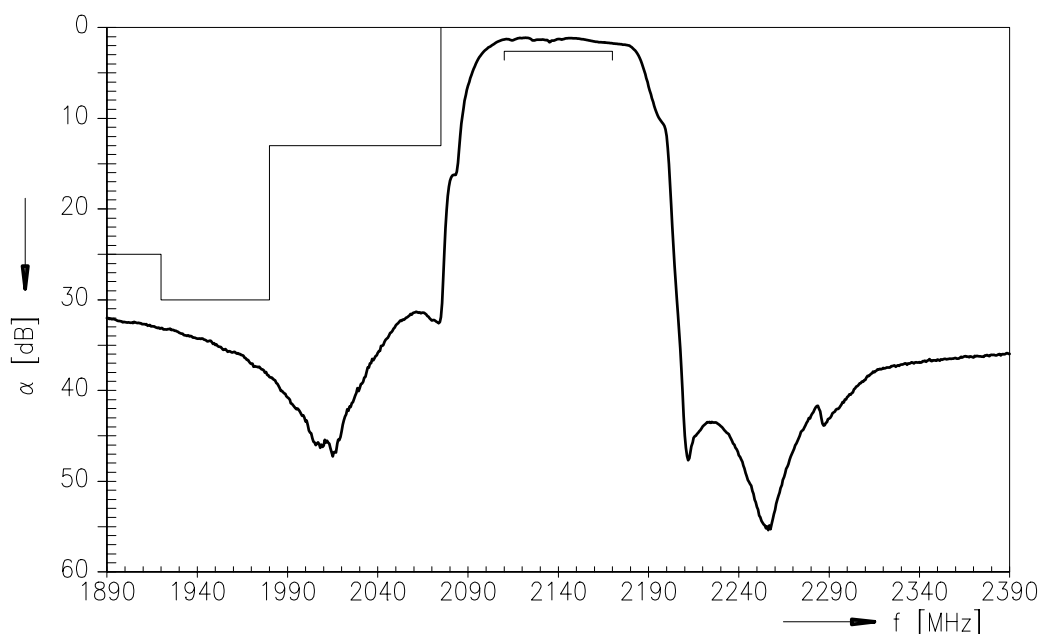
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**2140,0 MHz**

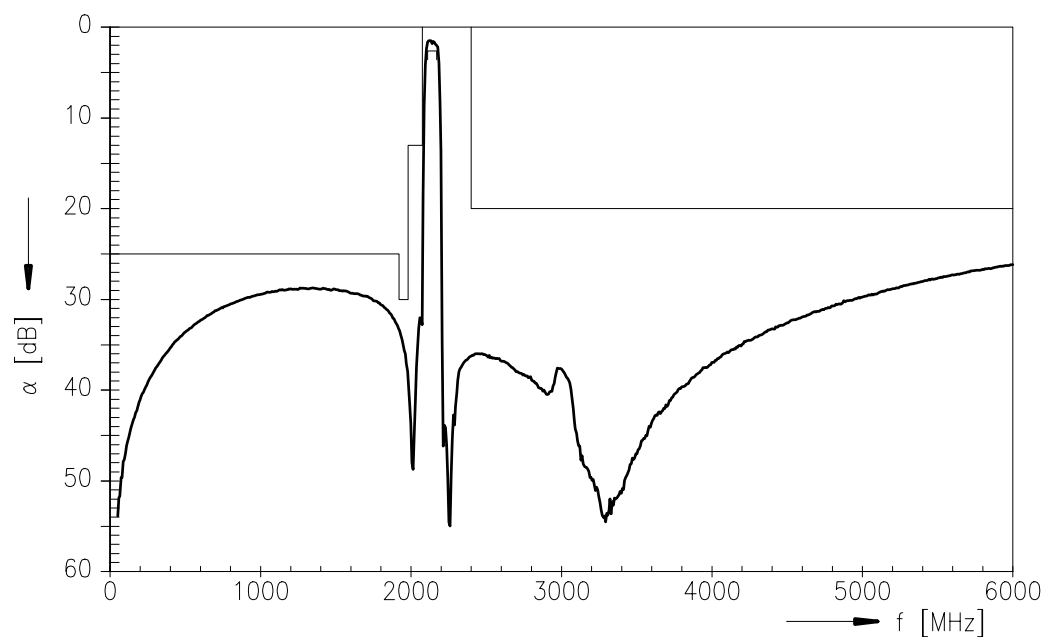
**Data Sheet**



**Transfer function:**



**Transfer function (wideband):**





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<b>Low Loss Filter for Mobile Communication</b>	<b>2140,0 MHz</b>
<b>Data Sheet</b>	<b>SMD</b>

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