



# SAW Components

Data Sheet B9026





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**B9026**

**Low-Loss Filter for Mobile Communication**

**1950,0 MHz**

Data Sheet



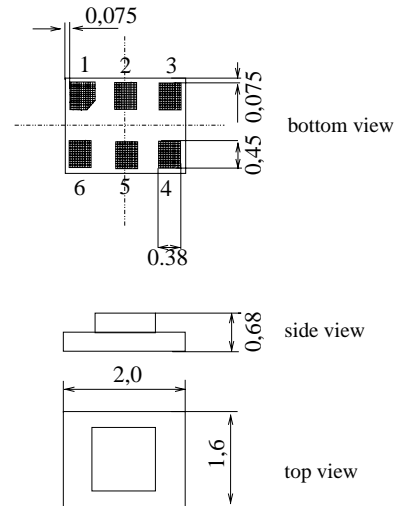
Chip sized SAW package **DCS6T**

**Features**

- Low-loss RF filter for mobile telephone W-CDMA system, transmit path
- Low amplitude ripple
- Usable passband 60 MHz
- Balanced to unbalanced operation
- Impedance transformation from 200 Ω to 50 Ω
- Package for **Surface Mounted Technology (SMT)**
- Pb-free

**Terminals**

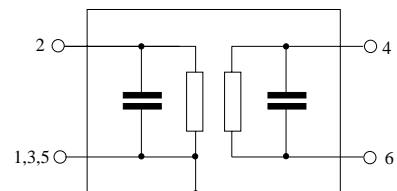
- Gold-plated Ni



Dimensions in mm, approx. weight 0,006 g

**Pin configuration**

- 4, 6            Input, balanced
- 2                Output, unbalanced
- 1, 3, 5        To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B9026	B39202-B9026-K310	C61157-A7-A128	F61074-V8152-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 30/+ 85	°C	Machine Model, 10 pulses continuous wave
Storage temperature range	$T_{stg}$	- 40/+ 85	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}$	50*	V	
Input power	$P_{IN}$	10	dBm	

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



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**Characteristics**

Operating temperature range:  $T = +25^{\circ}\text{C}$   
 Terminating source impedance:  $Z_S = 200\ \Omega$  (balanced) || 33 nH  
 Terminating load impedance:  $Z_L = 50\ \Omega$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>	$f_C$	—	1950,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\text{max}}$	—	2,6	3,0	dB
1920,0 ... 1980,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0,8	1,1	dB
1920,0 ... 1980,0 MHz					
<b>Amplitude ripple per 5MHz channel (p-p)</b>	$\Delta\alpha_{5\text{MHz}}$	—	0,25	0,5	dB
1920,0 ... 1980,0 MHz					
<b>Input VSWR</b>		—	1,8	2,0	
1920,0 ... 1980,0 MHz					
<b>Output VSWR</b>		—	1,8	2,0	
1920,0 ... 1980,0 MHz					
<b>Input amplitude balance (<math> S_{31}/S_{21} </math>)</b>		-1,0	0	1,0	dB
1920,0 ... 1980,0 MHz					
<b>Input phase balance (<math>\phi(S_{31})-\phi(S_{21})+180^{\circ}</math>)</b>		-10	0	10	degree
1920,0 ... 1980,0 MHz					
<b>Attenuation</b>	$\alpha$				
50,0 ... 1000,0 MHz		45	55	—	
1000,0 ... 1795,0 MHz		40	44	—	dB
1795,0 ... 1805,0 MHz		30	44	—	
1805,0 ... 1880,0 MHz		30	36	—	dB
2110,0 ... 2170,0 MHz		35	41	—	
2170,0 ... 2800,0 MHz		35	42	—	dB
2800,0 ... 6000,0 MHz		40	50	—	



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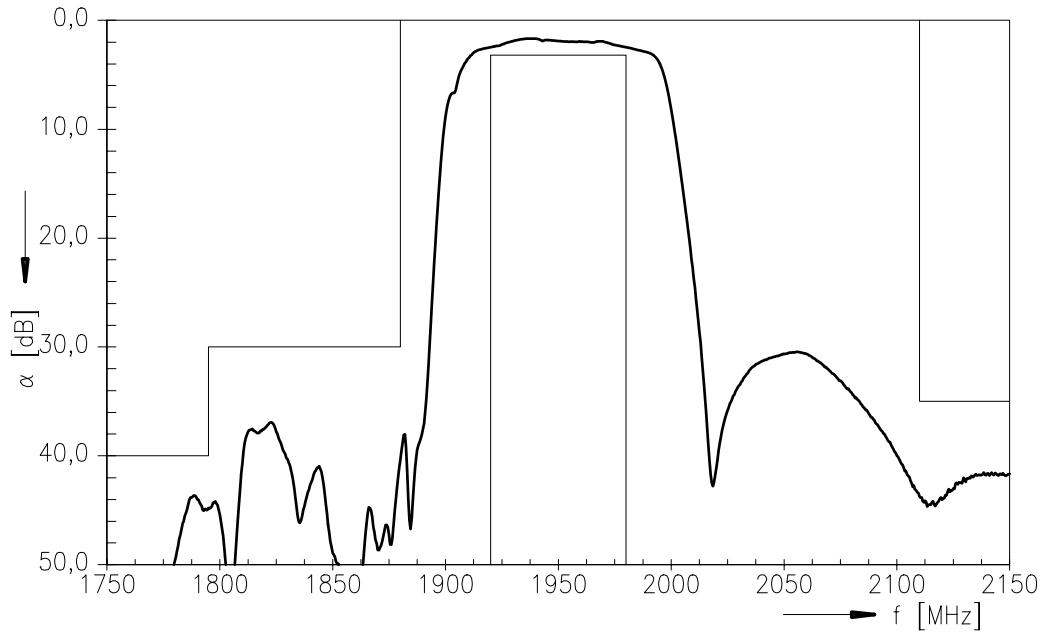
**Characteristics**

Operating temperature range:  $T = -20$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 200 \Omega$  (balanced) || 33 nH  
 Terminating load impedance:  $Z_L = 50 \Omega$

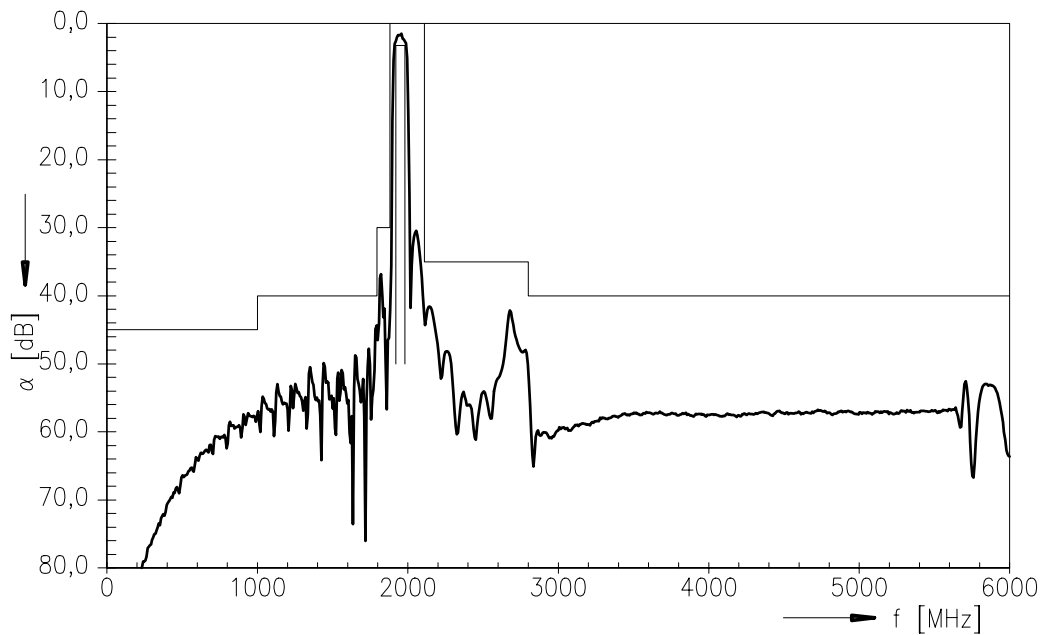
		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency</b>	$f_C$	—	1950,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2,7	3,2	dB
1920,0 ... 1980,0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	1,0	1,2	dB
1920,0 ... 1980,0 MHz					
<b>Amplitude ripple per 5MHz channel (p-p)</b>	$\Delta\alpha_{5MHz}$	—	0,3	0,5	dB
1920,0 ... 1980,0 MHz					
<b>Input VSWR</b>		—	1,8	2,0	
1920,0 ... 1980,0 MHz					
<b>Output VSWR</b>		—	1,8	2,0	
1920,0 ... 1980,0 MHz					
<b>Input amplitude balance (<math> S_{31}/S_{21} </math>)</b>		-1,0	0	1,0	dB
1920,0 ... 1980,0 MHz					
<b>Input phase balance (<math>\phi(S_{31})-\phi(S_{21})+180^\circ</math>)</b>		-10	0	10	degree
1920,0 ... 1980,0 MHz					
<b>Attenuation</b>	$\alpha$				
50,0 ... 1000,0 MHz		45	55	—	
1000,0 ... 1795,0 MHz		40	44	—	dB
1795,0 ... 1805,0 MHz		30	44	—	
1805,0 ... 1880,0 MHz		30	33	—	dB
2110,0 ... 2170,0 MHz		35	40	—	
2170,0 ... 2800,0 MHz		35	43	—	dB
2800,0 ... 6000,0 MHz		40	50	—	



Transfer function (narrow band):

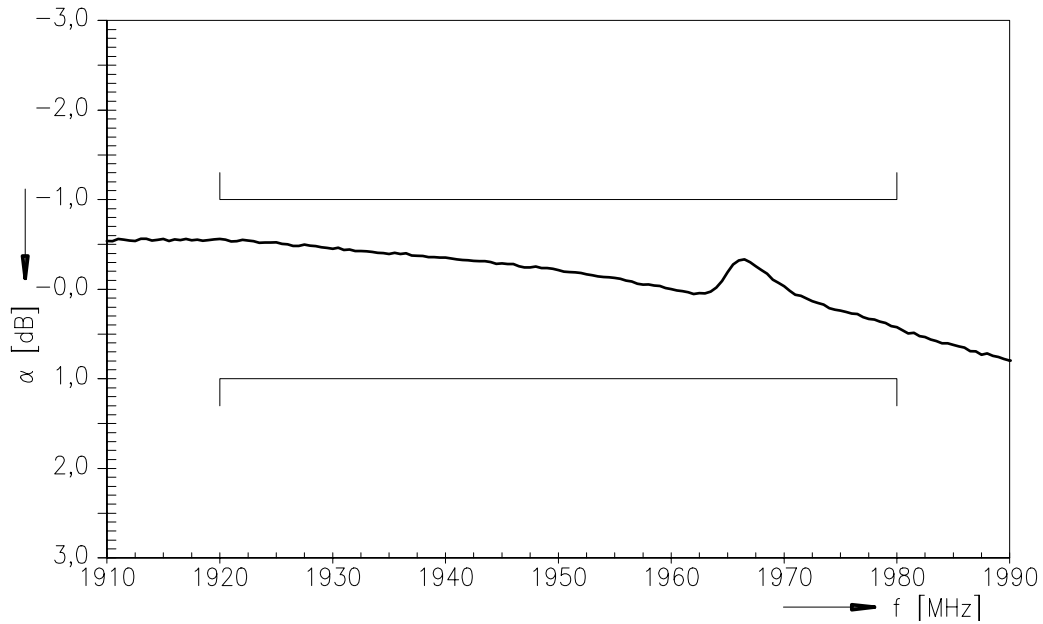


Transfer function (wide band):

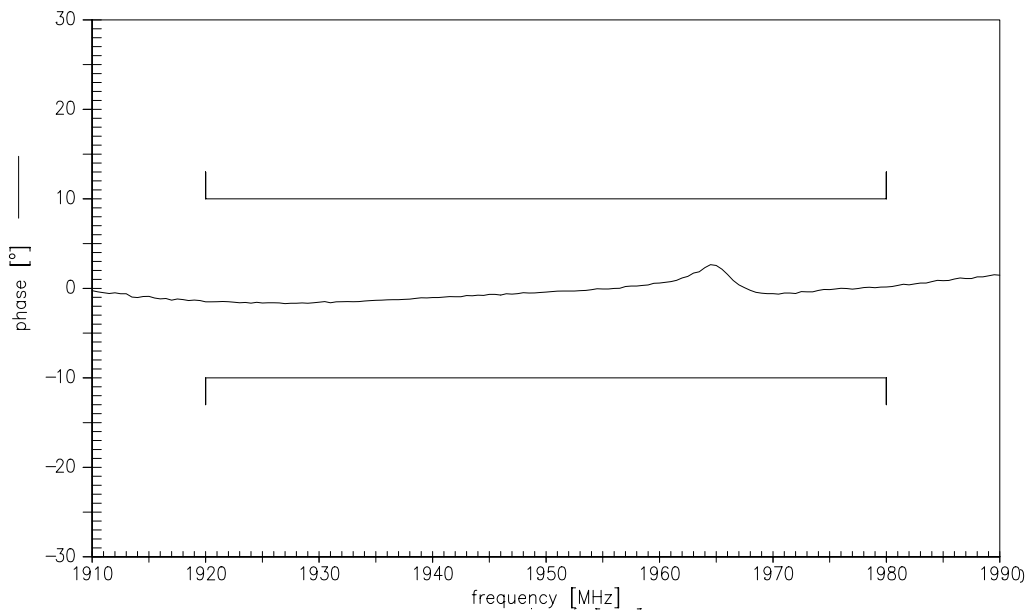




Input amplitude balance ( $|S_{31}/S_{21}|$ ):



Input phase balance ( $\phi(S_{31}) - \phi(S_{21}) + 180^\circ$ ):





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**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW MC WT**

**P.O. Box 80 17 09, 81617 Munich, GERMANY**

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