



# SAW Components

Data Sheet B9022





**SAW Components**

**B9022**

**Low-Loss Filter for Mobile Communication**

**881,5 MHz**

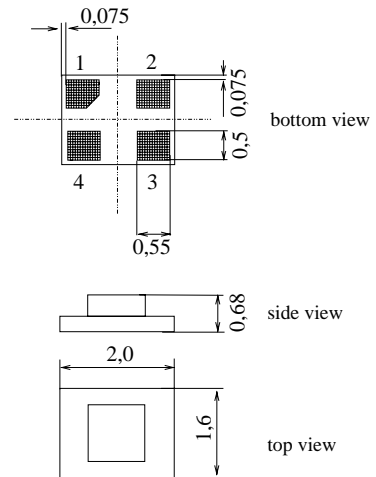
**Data Sheet**



**Features**

- Low-loss RF filter for mobile telephone Cellular systems, receive path
- Usable passband 25 MHz
- Unbalanced operation
- Impedance 50 Ω input and output
- Suitable for GPRS Class 1 to 12
- Ceramic Package for **Surface Mounted Technology (SMT)**

**Chip sized SAW package DCS4F**



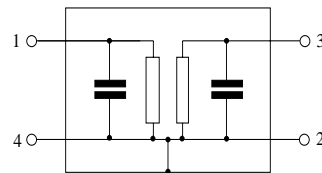
**Terminals**

- Ni, gold-plated

Dimensions in mm, approx. weight 0,007 g

**Pin configuration**

- 1 Input, unbalanced
- 3 Output, unbalanced
- 2,4 Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B9022	B39881-B9022-E610	C61157-A7-A113	F61074-V8152-Z000

**Electrostatic Sensitive Device (ESD)**

**Maximum ratings**

Operable temperature range	$T$	- 30 / + 85	°C	machine model, 10 pulses peak power of GSM signal, duty cycle 4:8
Storage temperature range	$T_{stg}$	- 40 / + 85	°C	
DC voltage	$V_{DC}$	5	V	
ESD voltage	$V_{ESD}^*$	100*	V	
Input power at GSM850, GSM900 GSM1800 and GSM1900 Tx bands	$P_{IN}$	15	dBm	

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



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**Characteristics**

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

			min.	typ.	max.	
<b>Center frequency</b>	$f_c$		—	881,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$					
		869,0 ... 894,0 MHz	—	1,9	2,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
		869,0 ... 894,0 MHz	—	0,6	0,7	dB
<b>Input VSWR</b>						
		869,0 ... 894,0 MHz	—	1,7	2,0	
<b>Output VSWR</b>						
		869,0 ... 894,0 MHz	—	1,7	2,0	
<b>Attenuation</b>	$\alpha$					
		0,0 ... 780,0 MHz	50	54	—	dB
		780,0 ... 840,0 MHz	42	50	—	dB
		840,0 ... 849,0 MHz	39	39	—	dB
		914,0 ... 950,0 MHz	28	30	—	dB
		950,0 ... 1500,0 MHz	45	52	—	dB
		1500,0 ... 2200,0 MHz	40	45	—	dB
		2200,0 ... 3000,0 MHz	33	38	—	dB
		3000,0 ... 4000,0 MHz	28	32	—	dB
		4000,0 ... 6000,0 MHz	15	21	—	dB



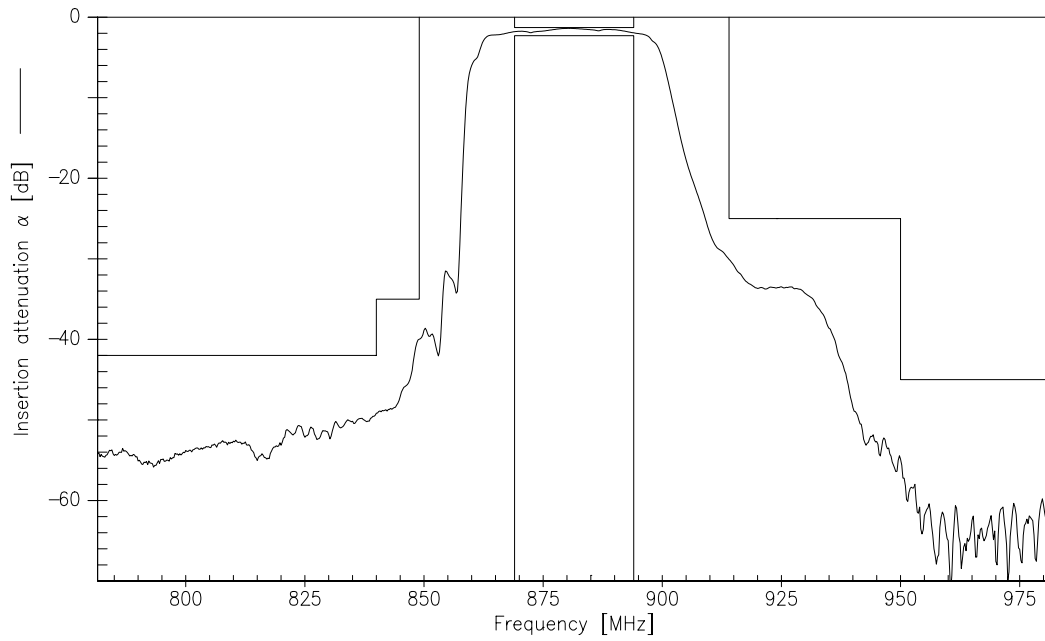
**Characteristics**

Operating temperature:  $T = -30 \dots +85 \text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50 \text{ } \Omega$   
 Terminating load impedance:  $Z_L = 50 \text{ } \Omega$

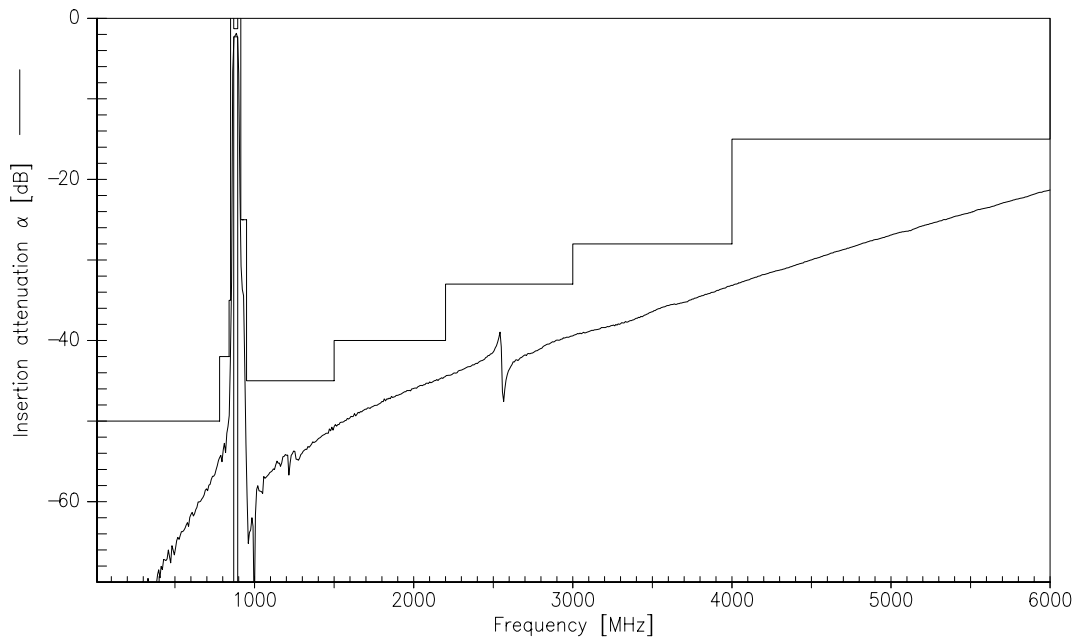
		min.	typ.	max.	
<b>Center frequency</b>	$f_c$	—	881,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$				
869,0 ... 894,0 MHz		—	2,0	2,3	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
869,0 ... 894,0 MHz		—	0,7	1,0	dB
<b>Input VSWR</b>					
869,0 ... 894,0 MHz		—	1,7	2,0	
<b>Output VSWR</b>					
869,0 ... 894,0 MHz		—	1,7	2,0	
<b>Attenuation</b>	$\alpha$				
0,0 ... 780,0 MHz		50	54	—	dB
780,0 ... 840,0 MHz		42	50	—	dB
840,0 ... 849,0 MHz		35	39	—	dB
914,0 ... 950,0 MHz		25	28	—	dB
950,0 ... 1500,0 MHz		45	52	—	dB
1500,0 ... 2200,0 MHz		40	45	—	dB
2200,0 ... 3000,0 MHz		33	38	—	dB
3000,0 ... 4000,0 MHz		28	32	—	dB
4000,0 ... 6000,0 MHz		15	21	—	dB



**Transfer function (narrow band)**



**Transfer function (wideband)**





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**Published by EPCOS AG**

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

**P.O. Box 80 17 09, D-81617 München**

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