



# SAW Components

Data Sheet B9006





**SAW Components**

**B9006**

**Low-Loss Filter for Mobile Communication**

**881,5 MHz**

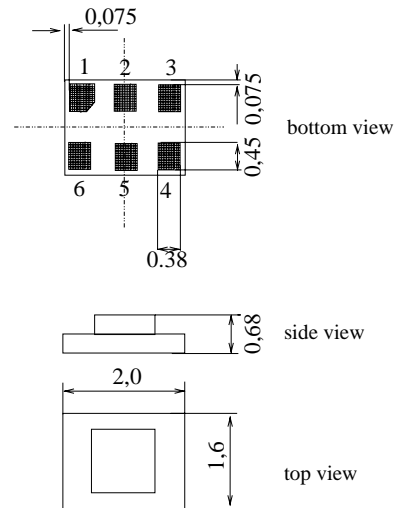
**Data Sheet**



**Chip sized SAW package DCS6Q**

**Features**

- Low-loss RF filter for mobile telephone GSM850/AMPS system, receive path
- Usable passband 25 MHz
- Unbalanced to balanced operation
- Impedance transformation from 50 Ω to 200 Ω
- Suitable for GPRS class 1 to12
- Ceramic package for **Surface Mounted Technology (SMT)**



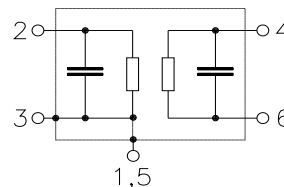
**Terminals**

- Ni, gold-plated

Dimensions in mm, approx. weight 0,006g

**Pin configuration**

- 2 Unbalanced input
- 4, 6 Balanced output
- 1, 3, 5 To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B9006	B39881-B9006-E710	C61157-Z7-C208	F61074-V8152-Z000

**Electrostatic Sensitive Device (ESD)**

**Maximum ratings**

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



SAW Components

B9006

Low-Loss Filter for Mobile Communication

881,5 MHz

Data Sheet



**Characteristics**

Operating temperature range:  $T = -30$  to  $+85$  °C  
 Terminating source impedance:  $Z_S = 50 \Omega$  (unbalanced)  
 Terminating load impedance:  $Z_L = 200 \Omega$  (balanced)

		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	2,4	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
	869,0 ... 894,0 MHz	—	0,6	1,1	dB
<b>Input return loss</b>					
	869,0 ... 894,0 MHz	12,0	13,0	—	dB
<b>Output return loss</b>					
	869,0 ... 894,0 MHz	12,0	14,0	—	dB
<b>Output phase balance (<math>\phi(S_{31}) - \phi(S_{21}) + 180^\circ</math>)</b>					
	869,0 ... 894,0 MHz	-10	0	10	degree
<b>Output amplitude balance (<math> S_{31}/S_{21} </math>)</b>					
	869,0 ... 894,0 MHz	-1,0	0	1,0	dB
<b>Attenuation</b>	$\alpha$				
	0,0 ... 824,0 MHz	45	68	—	dB
	824,0 ... 849,0 MHz	40	44	—	dB
	914,0 ... 950,0 MHz	20	25	—	dB
	950,0 ... 6000,0 MHz	40	60	—	dB



SAW Components

B9006

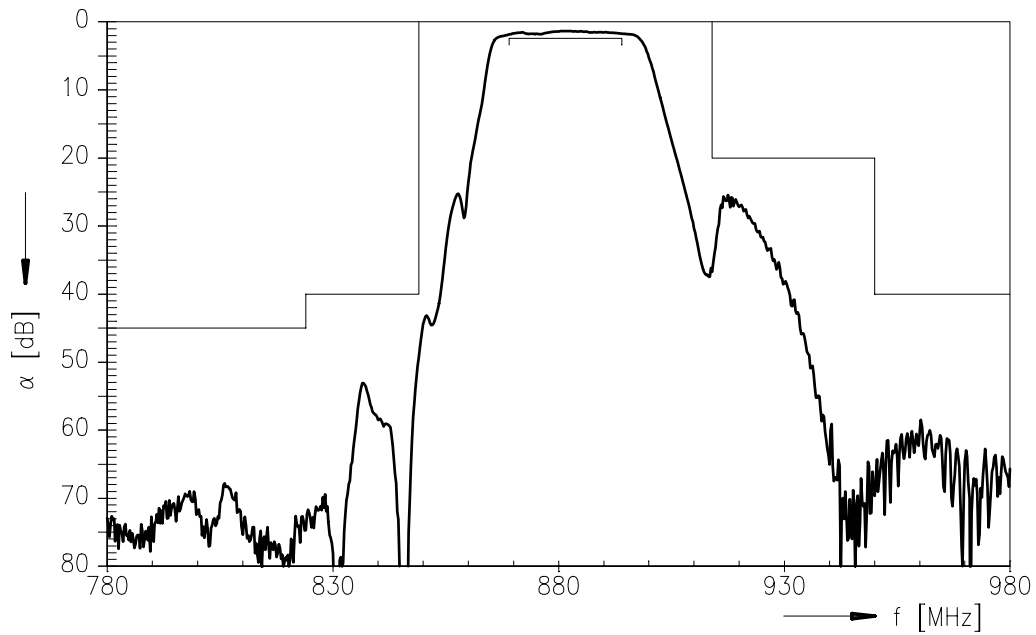
Low-Loss Filter for Mobile Communication

881,5 MHz

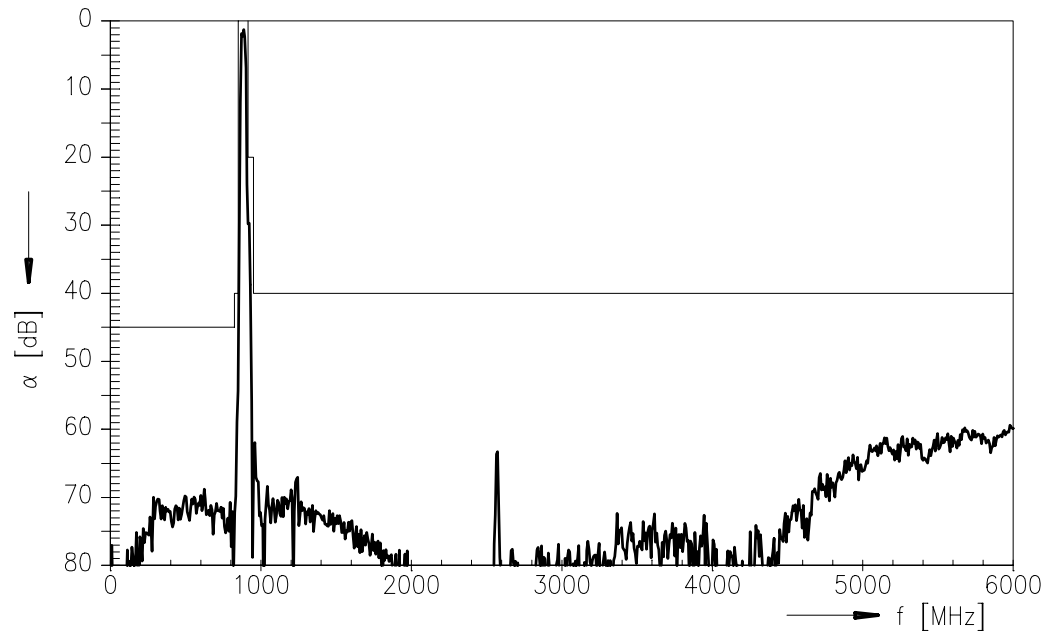
Data Sheet



Transfer function (narrowband; 50  $\Omega$  to 200  $\Omega$  operation)



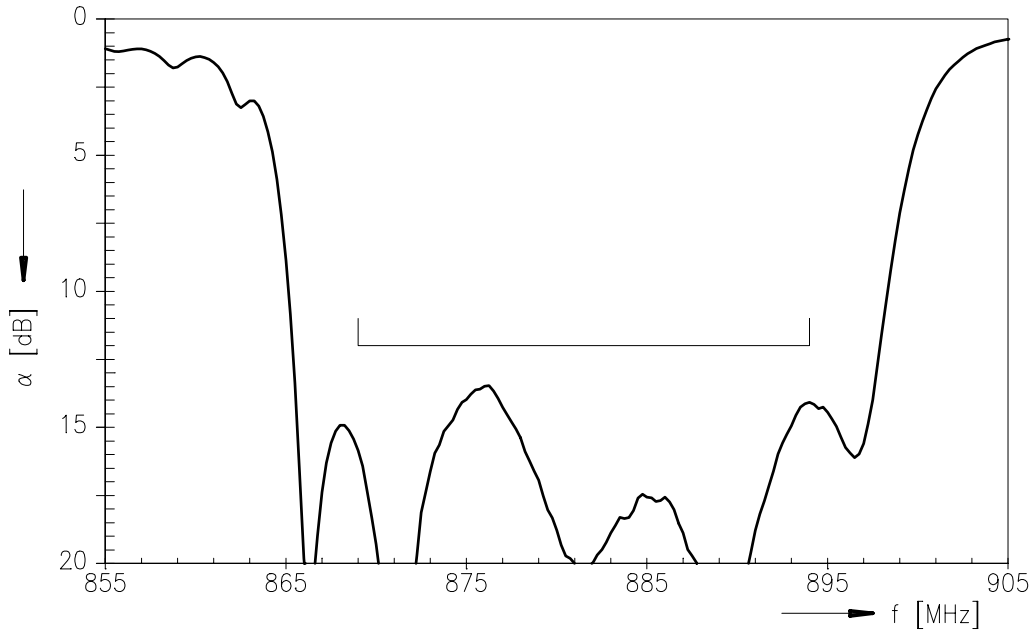
Transfer function (wideband; 50  $\Omega$  to 200  $\Omega$  operation)



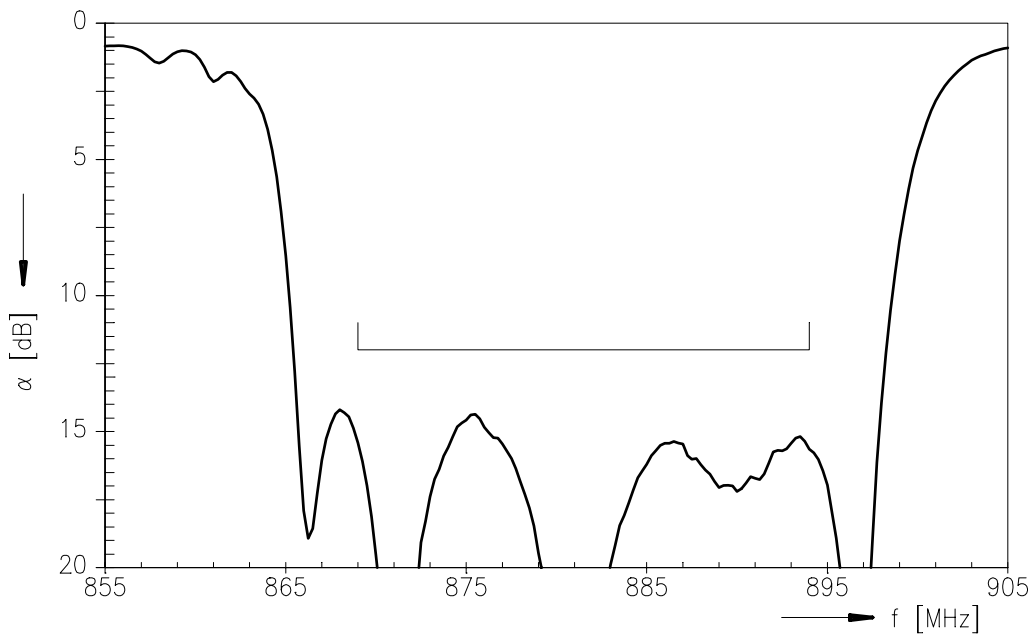


Matching (measurement; 50  $\Omega$  to 200  $\Omega$  operation)

Input return loss



Output return loss





**SAW Components**

**B9006**

**Low-Loss Filter for Mobile Communication**

**881,5 MHz**

Data Sheet



**Published by EPCOS AG**

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

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

© EPCOS AG 2002. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.