



# SAW Components

Data Sheet B7604 

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid pattern, overlaid with a large, stylized, and slightly blurred "EPCOS" logo. The logo is rendered in a light gray, almost white, color, giving it a three-dimensional appearance as if it's floating or attached to the globe. The background is dark and textured, with some light streaks and a sense of motion or depth.

EPCOS



## SAW Components

B7604

## Low-Loss Filter for Mobile Communication

902,5 MHz

### Data Sheet



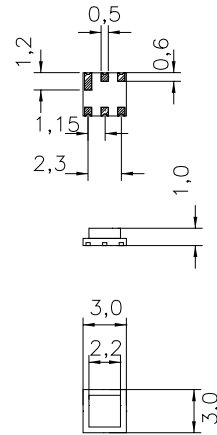
### Chip sized SAW package

#### Features

- Low-loss RF filter for mobile telephone GSM system, transmit path
- Low amplitude ripple
- Usable passband 25 MHz
- No matching network required for operation at 50  $\Omega$
- Ceramic package for Surface Mounted Technology (SMT)

#### Terminals

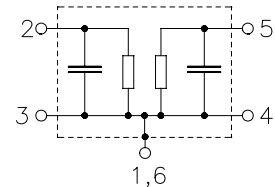
- Ni, gold-plated



Dimensions in mm, approx. weight 0,027g

#### Pin configuration

2	Input
3	Input - ground
5	Output
4	Output - ground
1,6	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B7604	B39901-B7604-A110	C61157-A7-A57	F61074-V8079-Z000

Electrostatic Sensitive Device (ESD)

#### Maximum ratings

Operable temperature range	$T$	- 30 / +75	$^{\circ}\text{C}$	source and load impedance 50 $\Omega$ peak power of GSM signal, duty cycle 1 : 8 continuous wave
Storage temperature range	$T_{\text{stg}}$	- 40 / + 85	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	3	V	
Input power max. 880...915 MHz	$P_{\text{IN}}$	10	dBm	
elsewhere		0	dBm	



# SAW Components

B7604

## Low-Loss Filter for Mobile Communication

902,5 MHz

### 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>	$f_C$	—	902,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
890,0 ... 915,0 MHz		—	2,4	3,2	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
890,0 ... 915,0 MHz		—	0,6	1,4	dB
<b>Input and Output VSWR</b>					
890,0 ... 915,0 MHz		—	1,8	2,0	
<b>Attenuation</b>	$\alpha$				
0,0 ... 845,0 MHz		45	52	—	dB
845,0 ... 870,0 MHz		30	40	—	dB
870,0 ... 880,0 MHz		6	12	—	dB
925,0 ... 935,0 MHz		8	13	—	dB
935,0 ... 980,0 MHz		23	27	—	dB
980,0 ... 990,0 MHz		40	50	—	dB
990,0 ... 1200,0 MHz		45	50	—	dB
1200,0 ... 3000,0 MHz		30	45	—	dB



## SAW Components

B7604

## Low-Loss Filter for Mobile Communication

902,5 MHz

### Data Sheet



### Characteristics

Operating temperature range:  $T = -20$  to  $+75$  °C  
Terminating source impedance:  $Z_S = 50 \Omega$   
Terminating load impedance:  $Z_L = 50 \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	902,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
890,0 ... 915,0 MHz		—	2,8	3,2	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
890,0 ... 915,0 MHz		—	1,0	1,4	dB
<b>Input and Output VSWR</b>					
890,0 ... 915,0 MHz		—	1,8	2,0	
<b>Attenuation</b>	$\alpha$				
0,0 ... 845,0 MHz		45	52	—	dB
845,0 ... 870,0 MHz		30	40	—	dB
925,0 ... 935,0 MHz		7	11	—	dB
935,0 ... 980,0 MHz		23	26	—	dB
980,0 ... 990,0 MHz		40	50	—	dB
990,0 ... 1200,0 MHz		45	50	—	dB
1200,0 ... 3000,0 MHz		30	45	—	dB



## SAW Components

B7604

## Low-Loss Filter for Mobile Communication

902,5 MHz

### Data Sheet



### Characteristics

Operating temperature range:  $T = -30$  to  $+70$  °C  
Terminating source impedance:  $Z_S = 50 \Omega$   
Terminating load impedance:  $Z_L = 50 \Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	902,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
890,0 ... 915,0 MHz		—	2,8	3,2	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
890,0 ... 915,0 MHz		—	1,0	1,4	dB
<b>Input and Output VSWR</b>					
890,0 ... 915,0 MHz		—	1,8	2,0	
<b>Attenuation</b>	$\alpha$				
0,0 ... 845,0 MHz		45	52	—	dB
845,0 ... 870,0 MHz		30	40	—	dB
925,0 ... 935,0 MHz		6	10	—	dB
935,0 ... 980,0 MHz		23	26	—	dB
980,0 ... 990,0 MHz		40	50	—	dB
990,0 ... 1200,0 MHz		45	50	—	dB
1200,0 ... 3000,0 MHz		30	45	—	dB



SAW Components

B7604

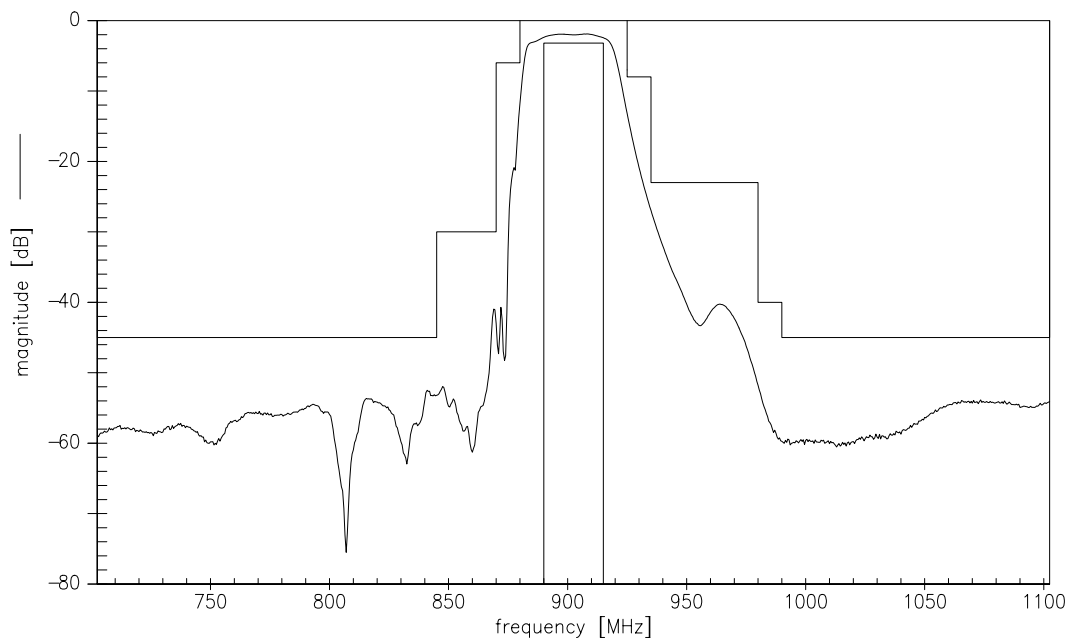
Low-Loss Filter for Mobile Communication

902,5 MHz

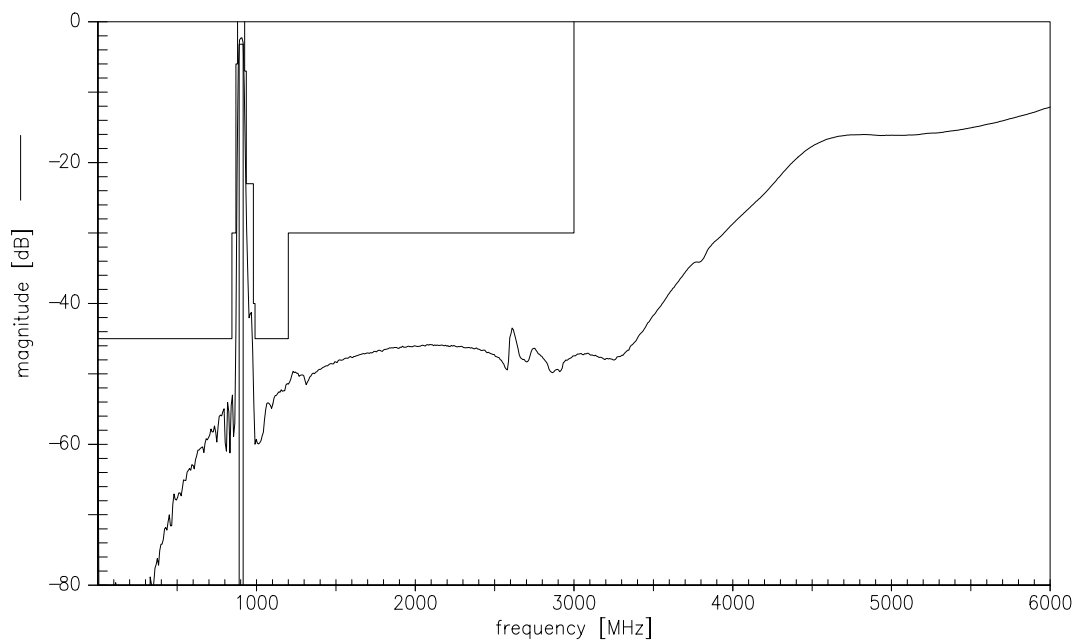
Data Sheet



**Transfer function** (specification drawn for +25C)



**Transfer function** (wideband)





<b>SAW Components</b>	<b>B7604</b>
<b>Low-Loss Filter for Mobile Communication</b>	<b>902,5 MHz</b>
<b>Data Sheet</b>	<b>SMD</b>

**Published by EPCOS AG**

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

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

© EPCOS AG 2000. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. 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.