



# SAW Components

Data Sheet B7604 

Data Sheet

An abstract, grayscale graphic featuring a globe with a grid of latitude and longitude lines. Overlaid on the globe is a large, stylized, 3D-effect word "EPCOS" in a light gray color. The word is tilted and appears to be floating or emerging from the globe's surface. The background is dark and textured with some circular, wave-like patterns.

EPCOS



## SAW Components

B7604

## Low-Loss Filter for Mobile Communication

902,5 MHz

### Data Sheet



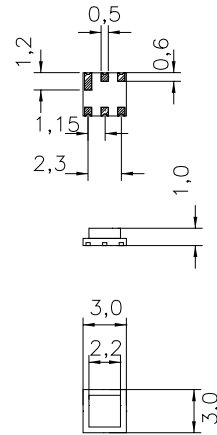
### Chip sized SAW package

#### 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

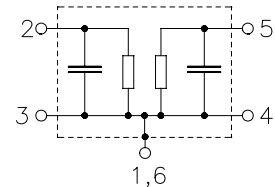
- Ni, gold-plated



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	



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#### Characteristics

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

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	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



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#### 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



<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>

### Characteristics

Operating temperature range:  $T = -30$  to  $+70\text{ }^{\circ}\text{C}$   
Terminating source impedance:  $Z_S = 50\text{ }\Omega$   
Terminating load impedance:  $Z_L = 50\text{ }\Omega$

			min.	typ.	max.	
<b>Center frequency</b>	$f_C$		—	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



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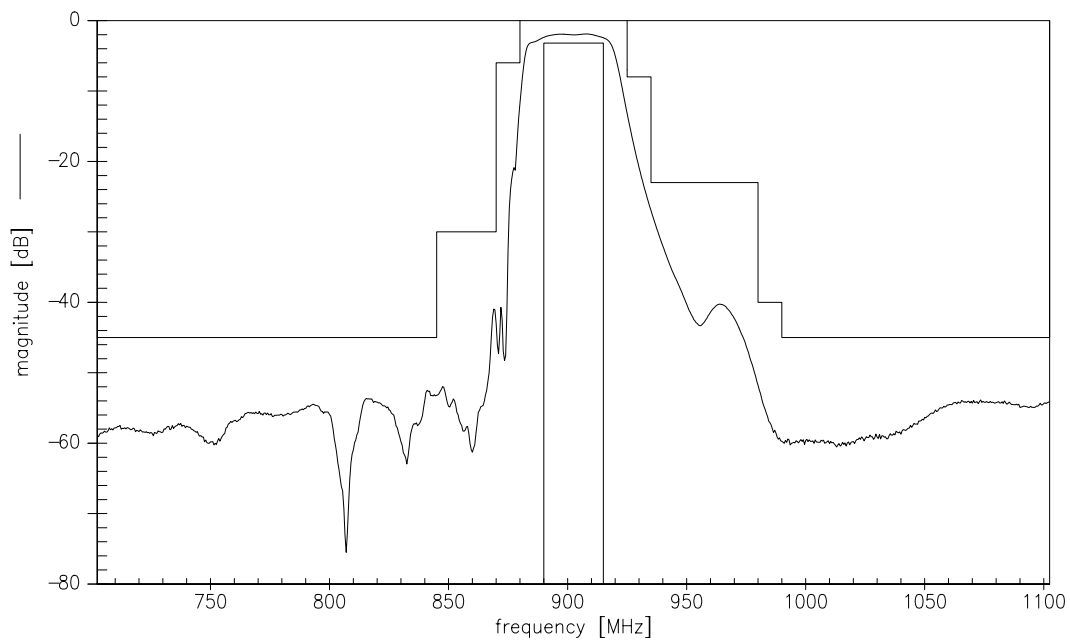
Low-Loss Filter for Mobile Communication

902,5 MHz

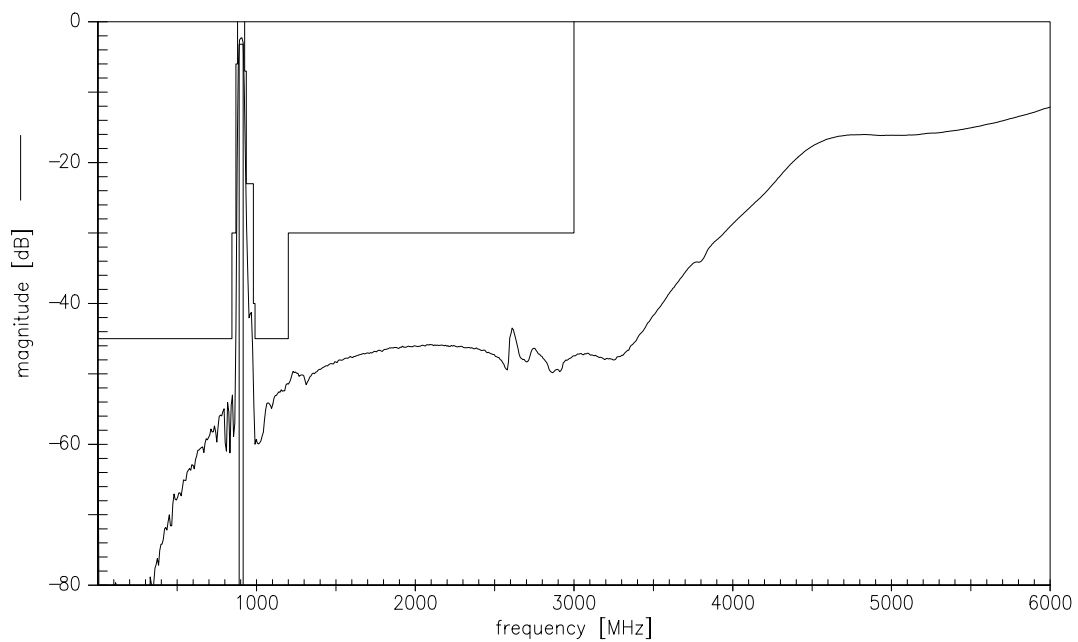
Data Sheet



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



**Transfer function (wideband)**





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