



# SAW Components

Data Sheet B7611

Data Sheet

An abstract, grayscale graphic featuring a large, stylized, and slightly blurred "EPCOS" logo. The logo is set against a background of curved, overlapping bands and a faint world map, creating a sense of global connectivity and technology.



## SAW Components

B7611

## Low-Loss Filter for Mobile Communication

942,5 MHz

### Data Sheet



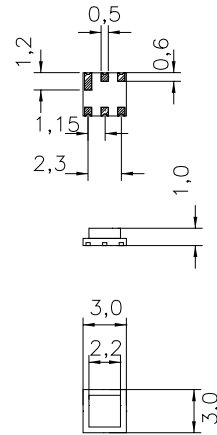
### Chip sized SAW package

#### Features

- Low-loss RF filter for mobile telephone EGSM systems, receive path
- Low amplitude ripple
- Usable passband 35 MHz
- Unbalanced to balanced Operation
- Ceramic package for **Surface Mounted Technology (SMT)**

#### Terminals

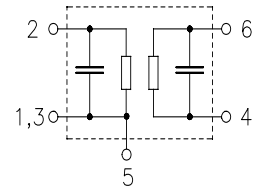
- Ni, gold-plated



Dimensions in mm, approx. weight 0,027g

#### Pin configuration

- |         |                   |
|---------|-------------------|
| 2       | Input, unbalanced |
| 4, 6    | Balanced Outputs  |
| 1, 3, 5 | To be grounded    |
| 1, 3, 5 | Case ground       |



Type	Ordering code	Marking and Package according to	Packing according to
B7611	B39941-B7611-A310	C61157-A7-A59	F61074-V8084-Z000

Electrostatic Sensitive Device (ESD)

#### Maximum ratings

Operable temperature range	$T$	$-20 / +75$	$^{\circ}\text{C}$	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	$P_{\text{IN}}$	5	dBm	
elsewhere		0	dBm	



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### Characteristics

Operating temperature range:	$T = 25 \pm 2^\circ \text{C}$
Terminating source impedance:	$Z_S = 50 \Omega$
Terminating load impedance:	$Z_L = 50 \Omega$ (balanced)

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
925,0 ... 960,0 MHz		—	2,9	4,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,0	2,2	dB
<b>Input VSWR</b>					
925,0 ... 960,0 MHz		—	2,1	2,3	
<b>Output VSWR</b>					
925,0 ... 960,0 MHz		—	2,0	2,2	
<b>Output phase balance</b> ( $\phi(S_{31}) - \phi(S_{21}) + 180^\circ$ )					
925,0 ... 960,0 MHz		170	—	190	degree
<b>Output amplitude balance</b> ( $ S_{31}/S_{21} $ )					
925,0 ... 960,0 MHz		-1,0	0	1,0	dB
<b>Output reflection coefficient @942,5 MHz</b>					
Phase		-42	-22	-2	°
<b>Attenuation</b>	$\alpha$				
0,0 ... 500,0 MHz		60	71	—	dB
500,0 ... 850,0 MHz		50	55	—	dB
850,0 ... 880,0 MHz		40	52	—	dB
880,0 ... 905,0 MHz		28	45	—	dB
905,0 ... 915,0 MHz		18	27	—	dB
980,0 ... 1050,0 MHz		22	28	—	dB
1050,0 ... 1410,0 MHz		45	50	—	dB
1410,0 ... 2000,0 MHz		40	45	—	dB
2000,0 ... 3000,0 MHz		30	35	—	dB
3000,0 ... 6000,0 MHz		15	20	—	dB



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Terminating source impedance:	$Z_S = 50\ \Omega$
Terminating load impedance:	$Z_L = 50\ \Omega$ (balanced)

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	—	942,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$				
925,0 ... 960,0 MHz		—	3,2	4,5	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$				
925,0 ... 960,0 MHz		—	1,2	2,7	dB
<b>Input VSWR</b>					
925,0 ... 960,0 MHz		—	2,1	2,3	
<b>Output VSWR</b>					
925,0 ... 960,0 MHz		—	2,0	2,2	
<b>Output phase balance</b> ( $\phi(S_{31}) - \phi(S_{21}) + 180^{\circ}$ )					
925,0 ... 960,0 MHz		170	—	190	degree
<b>Output amplitude balance</b> ( $ S_{31}/S_{21} $ )					
925,0 ... 960,0 MHz		-1,0	0	1,0	dB
<b>Attenuation</b>	$\alpha$				
0,0 ... 500,0 MHz		60	71	—	dB
500,0 ... 850,0 MHz		50	55	—	dB
850,0 ... 880,0 MHz		40	52	—	dB
880,0 ... 905,0 MHz		28	40	—	dB
905,0 ... 915,0 MHz		18	22	—	dB
980,0 ... 1050,0 MHz		20	26	—	dB
1050,0 ... 1410,0 MHz		45	50	—	dB
1410,0 ... 2000,0 MHz		40	45	—	dB
2000,0 ... 3000,0 MHz		30	35	—	dB
3000,0 ... 6000,0 MHz		15	20	—	dB



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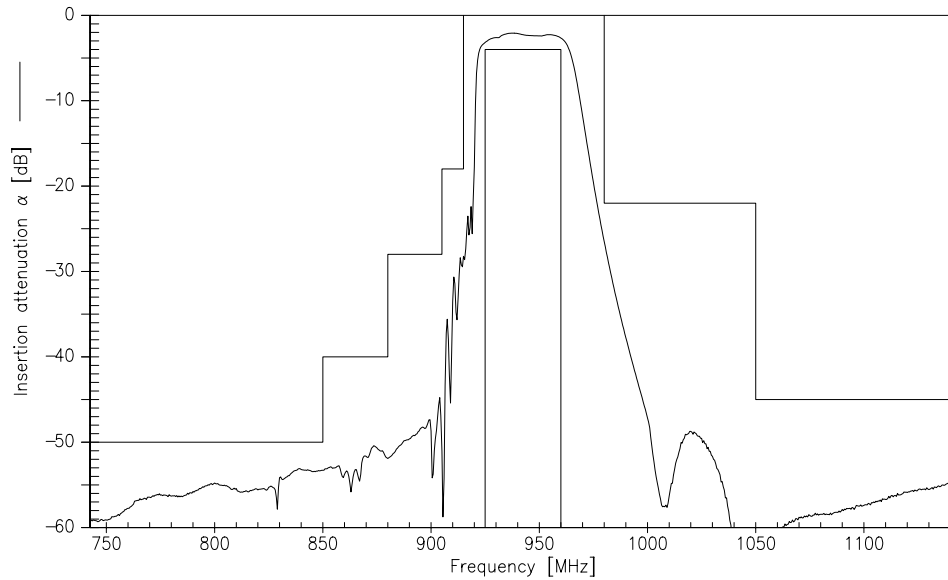
Low-Loss Filter for Mobile Communication

942,5 MHz

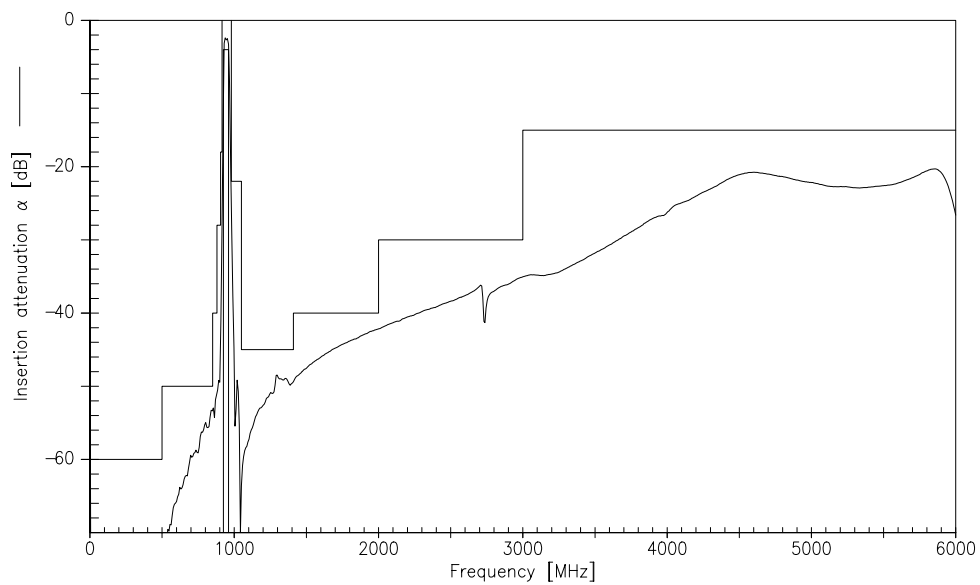
Data Sheet



Transfer function



Transfer function (wide band)





<b>SAW Components</b>	<b>B7611</b>
<b>Low-Loss Filter for Mobile Communication</b>	<b>942,5 MHz</b>
<b>Data Sheet</b>	<b>SMD</b>

**Published by EPCOS AG**  
**Surface Acoustic Wave Components Division, OFW E MF**  
**P.O. Box 80 17 09, D-81617 München**

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