



# SAW Components

Preliminary Data B7801

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 planes that create a sense of depth and motion. The overall effect is a dynamic and modern representation of the company's branding.



## SAW Components

B7801

## Low-Loss Filter for Mobile Communication

1960,00 MHz

### Preliminary Data



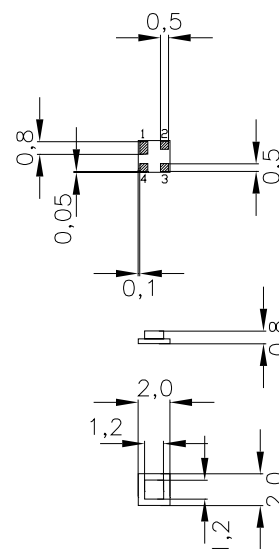
#### Features

- Low-loss RF filter for mobile telephone PCS systems, receive path
- Usable passband 60 MHz
- No matching network required for operation at 50  $\Omega$
- Ceramic package for **Surface Mounted** technology (**SMT**)

#### Terminals

- Ni, gold-plated

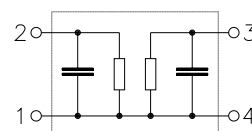
Chip sized



Dimensions in mm, approx. weight 0,01 g

#### Pin configuration

- |   |                 |
|---|-----------------|
| 2 | Input           |
| 1 | Input - ground  |
| 3 | Output          |
| 4 | Output - ground |



Type	Ordering code	Marking and Package according to	Packing according to
B7801		C61157-A7-A63	F61074-V8099-Z000

Electrostatic Sensitive Device (ESD)

#### Maximum ratings

Operable temperature range	$T$	- 30/+ 80	$^{\circ}\text{C}$	source and load impedance 50 $\Omega$ peak power of GSM signal, duty cycle 1 : 8 CDMA signal
Storage temperature range	$T_{\text{stg}}$	- 40/+ 85	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	0	V	
Input power max.	$P_{\text{IN}}$	5	dBm	
		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:  $Z_L = 50 \Omega$

			min.	typ.	max.	
<b>Center frequency</b>	$f_c$		—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
	1930,0 ... 1990,0 MHz		—	3,1	3,7	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
	1930,0 ... 1990,0 MHz		—	1,2	1,8	dB
<b>Input VSWR</b>						
	1930,0 ... 1990,0 MHz		—	1,7	2,0	
<b>Output VSWR</b>						
	1930,0 ... 1990,0 MHz		—	1,7	2,0	
<b>Attenuation</b>	$\alpha$					
	10,0 ... 1500,0 MHz		19,0	21,0	—	dB
	1500,0 ... 1830,0 MHz		23,0	27,0	—	dB
	1830,0 ... 1910,0 MHz		17,0	22,0	—	dB
	2030,0 ... 2070,0 MHz		15,0	28,0	—	dB
	2070,0 ... 2800,0 MHz		21,0	23,0	—	dB
	3000,0 ... 6000,0 MHz		16,0	18,0	—	dB



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#### Characteristics

Operating temperature range:  $T = -30$  to  $+80^{\circ}\text{C}$   
Terminating source impedance:  $Z_S = 50\ \Omega$   
Terminating load impedance:  $Z_L = 50\ \Omega$

			min.	typ.	max.	
<b>Center frequency</b>	$f_c$		—	1960,0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$					
	1930,0 ... 1990,0 MHz		—	3,6	4,0	dB
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$					
	1930,0 ... 1990,0 MHz		—	1,8	2,2	dB
<b>Input VSWR</b>						
	1930,0 ... 1990,0 MHz		—	1,7	2,0	
<b>Output VSWR</b>						
	1930,0 ... 1990,0 MHz		—	1,7	2,0	
<b>Attenuation</b>	$\alpha$					
	10,0 ... 1500,0 MHz		18,0	20,0	—	dB
	1500,0 ... 1830,0 MHz		23,0	27,0	—	dB
	1830,0 ... 1910,0 MHz		10,0	19,0	—	dB
	2030,0 ... 2070,0 MHz		15,0	28,0	—	dB
	2070,0 ... 2800,0 MHz		21,0	23,0	—	dB
	3000,0 ... 6000,0 MHz		16,0	18,0	—	dB



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B7801

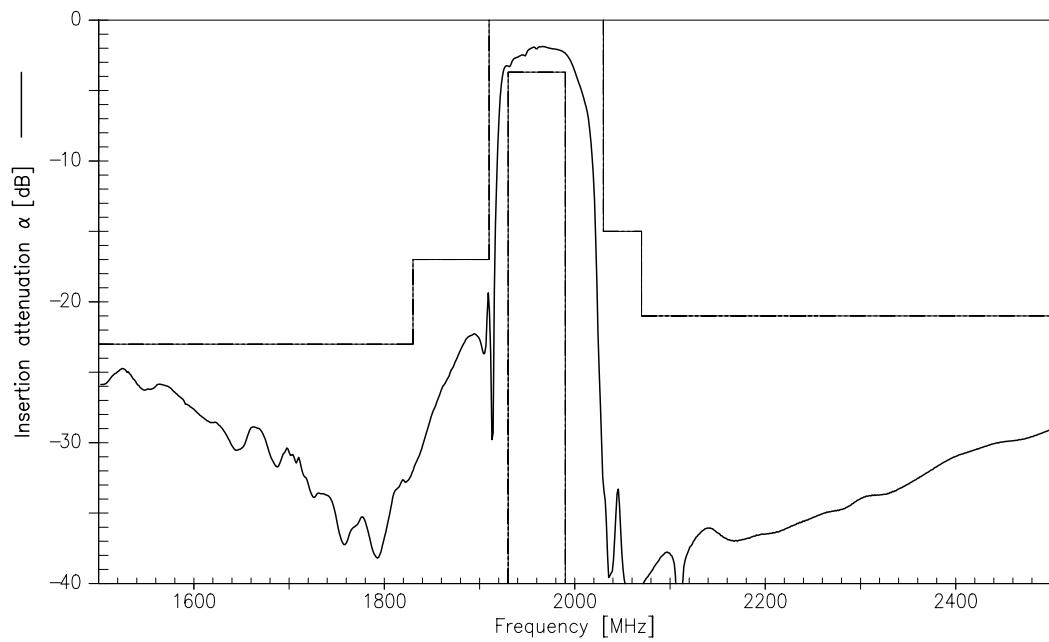
Low-Loss Filter for Mobile Communication

1960,00 MHz

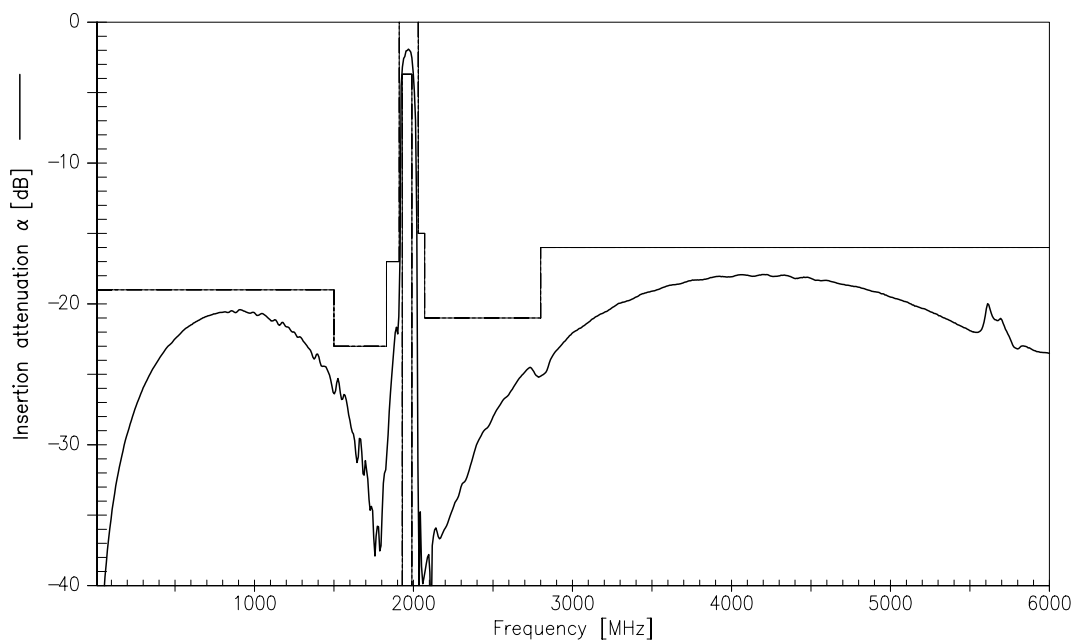
Preliminary Data



Transfer Function(25°C spec)



Transfer function (wideband)





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Low-Loss Filter for Mobile Communication

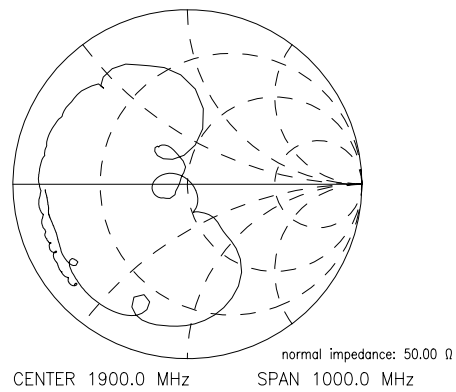
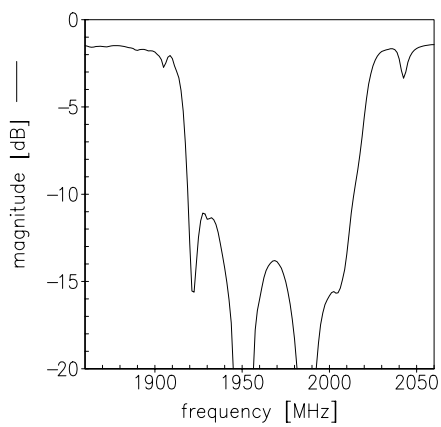
1960,00 MHz

Preliminary Data

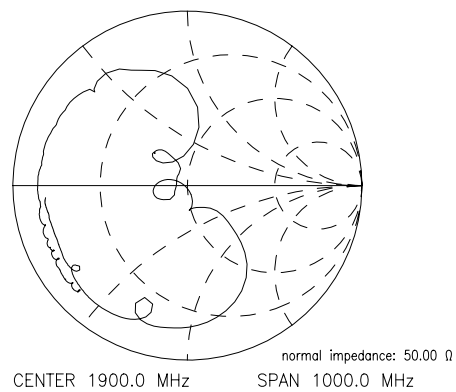
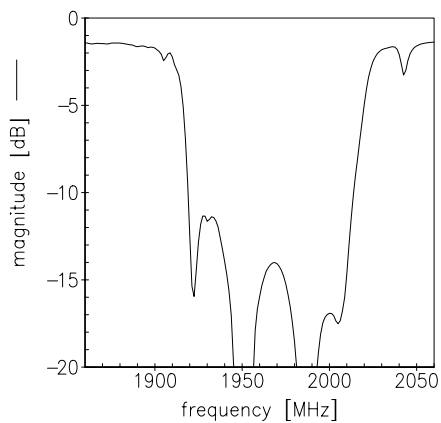


Reflection functions

$S_{11}$



$S_{22}$





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<b>Low-Loss Filter for Mobile Communication</b>	<b>1960,00 MHz</b>
<b>Preliminary Data</b>	<b>SMD</b>

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