



# SAW Components

Data Sheet B7805





**SAW Components**

**B7805**

**Low-Loss Filter for Mobile Communication**

**1842,50 MHz**

**Data Sheet**



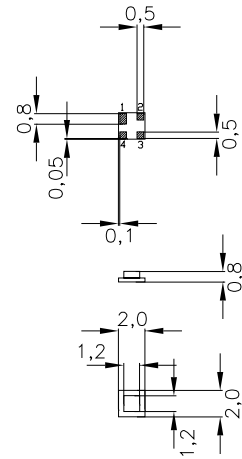
Chip sized SAW package

**Features**

- Low-loss RF filter for mobile telephone PCN systems, receive path
- High selectivity
- Usable passband 75 MHz
- No matching network required for operation at 50 Ω
- Ceramic package for **Surface Mounted Technology (SMT)**

**Terminals**

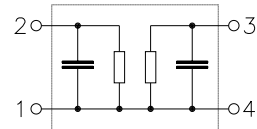
- Ni, gold-plated



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
B7805	B39182-B7805-A510	C61157-A7-A63	F61074-V8099-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T$	- 30/+ 80	°C	source and load impedance 50 Ω peak power of GSM signal, duty cycle 1 : 8 continuous wave
Storage temperature range	$T_{stg}$	- 40/+ 85	°C	
DC voltage	$V_{DC}$	3	V	
Input power max. 1710 ... 1785 MHz	$P_{IN}$	15	dBm	
elsewhere		0	dBm	



**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>	$f_c$		—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$		—	2,6	3,1	dB
		1805,0 ... 1880,0 MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$		—	1,0	1,5	dB
		1805,0 ... 1880,0 MHz				
<b>Input VSWR</b>			—	1,8	2,0	
		1805,0 ... 1880,0 MHz				
<b>Output VSWR</b>			—	1,8	2,0	
		1805,0 ... 1880,0 MHz				
<b>Attenuation</b>	$\alpha$					
		10,0 ... 500,0 MHz	19,0	20,0	—	dB
		500,0 ... 1200,0 MHz	17,5	18,5	—	dB
		1200,0 ... 1705,0 MHz	19,0	20,0	—	dB
		1705,0 ... 1785,0 MHz	18,0	21,0	—	dB
		1920,0 ... 1980,0 MHz	18,0	30,0	—	dB
		1980,0 ... 2700,0 MHz	23,0	26,0	—	dB
		2700,0 ... 3840,0 MHz	15,0	17,0	—	dB
		3840,0 ... 6000,0 MHz	13,0	16,0	—	dB



**Characteristics**

Operating temperature range:  $T = -10$  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>	$f_c$		—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$		—	3,1	3,5	dB
		1805,0 ... 1880,0 MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$		—	1,5	1,9	dB
		1805,0 ... 1880,0 MHz				
<b>Input VSWR</b>			—	1,9	2,1	
		1805,0 ... 1880,0 MHz				
<b>Output VSWR</b>			—	1,9	2,1	
		1805,0 ... 1880,0 MHz				
<b>Attenuation</b>	$\alpha$					
		10,0 ... 500,0 MHz	19,0	20,0	—	dB
		500,0 ... 1200,0 MHz	17,5	18,5	—	dB
		1200,0 ... 1705,0 MHz	19,0	20,0	—	dB
		1705,0 ... 1785,0 MHz	10,0	16,0	—	dB
		1920,0 ... 1980,0 MHz	10,0	25,0	—	dB
		1980,0 ... 2700,0 MHz	23,0	26,0	—	dB
		2700,0 ... 3840,0 MHz	15,0	17,0	—	dB
		3840,0 ... 6000,0 MHz	13,0	16,0	—	dB



**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>	$f_c$		—	1842,5	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$		—	3,3	3,7	dB
		1805,0 ... 1880,0 MHz				
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$		—	1,7	2,1	dB
		1805,0 ... 1880,0 MHz				
<b>Input VSWR</b>			—	2,1	2,3	
		1805,0 ... 1880,0 MHz				
<b>Output VSWR</b>			—	2,1	2,3	
		1805,0 ... 1880,0 MHz				
<b>Attenuation</b>	$\alpha$					
		10,0 ... 500,0 MHz	19,0	20,0	—	dB
		500,0 ... 1200,0 MHz	17,5	18,5	—	dB
		1200,0 ... 1705,0 MHz	19,0	20,0	—	dB
		1705,0 ... 1785,0 MHz	8,0	14,0	—	dB
		1920,0 ... 1980,0 MHz	10,0	25,0	—	dB
		1980,0 ... 2700,0 MHz	23,0	26,0	—	dB
		2700,0 ... 3840,0 MHz	15,0	17,0	—	dB
		3840,0 ... 6000,0 MHz	13,0	16,0	—	dB



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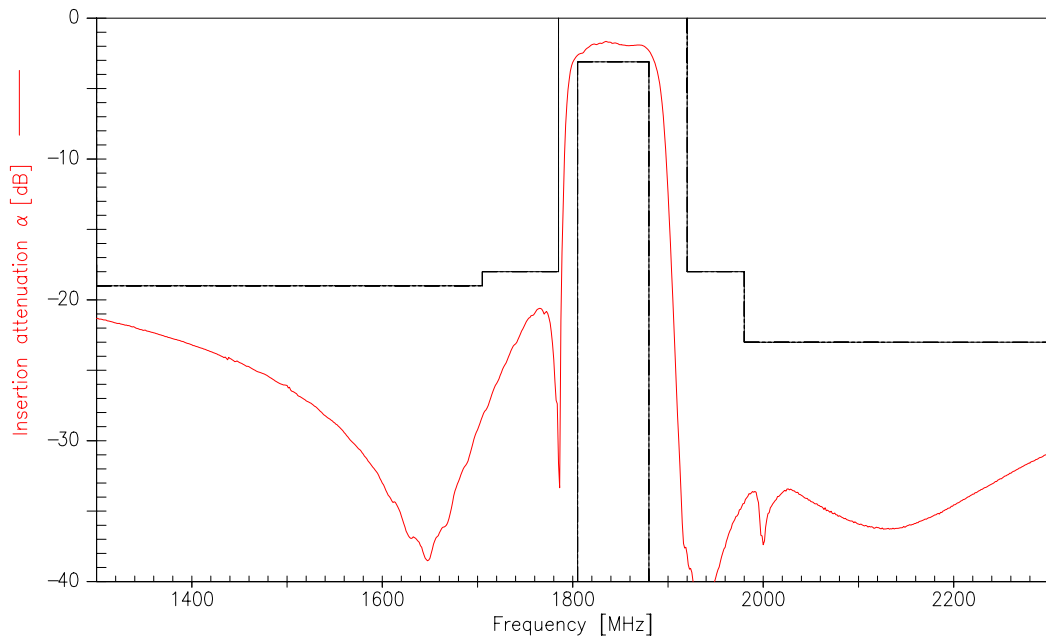
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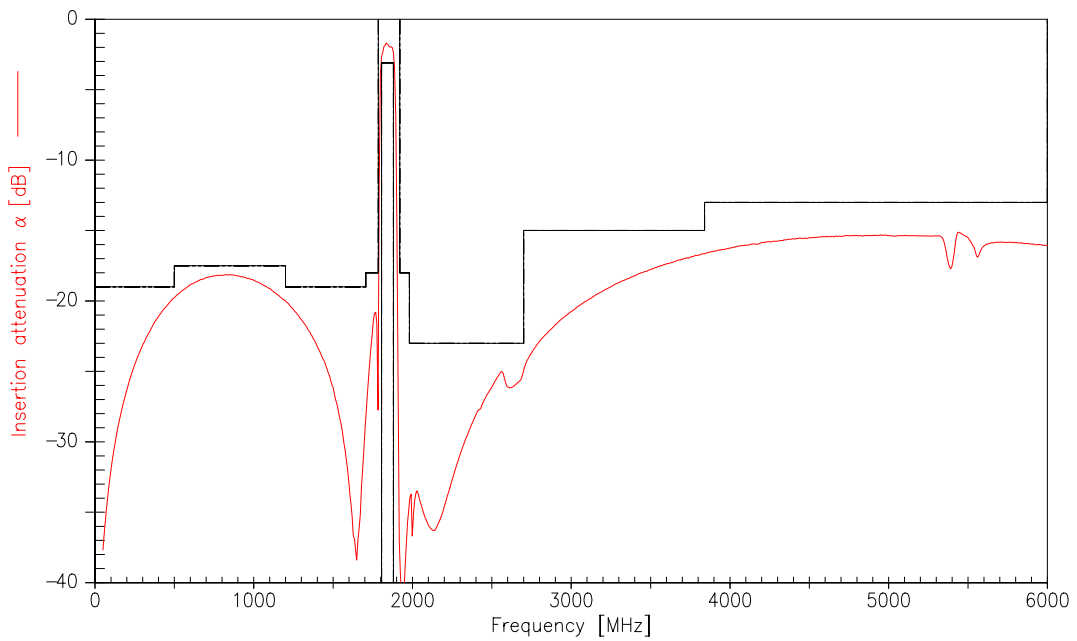
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Transfer function (spec for 25°C)



Transfer function (wideband)





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