



SAW Components

Data Sheet B7805

Data Sheet

A large, stylized, 3D-rendered graphic of the word "EPCOS" in a light gray, sans-serif font. The letters are slightly tilted and appear to be floating or emerging from a dark, textured background that resembles a globe or a complex circuit board. The overall effect is a high-tech, modern aesthetic.



SAW Components

B7805

Low-Loss Filter for Mobile Communication

1842,50 MHz

Data Sheet



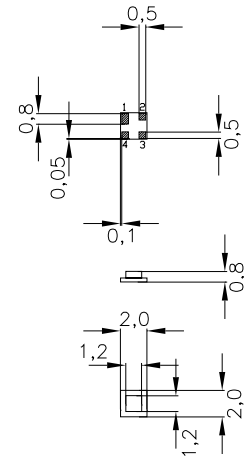
Chip sized SAW package

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

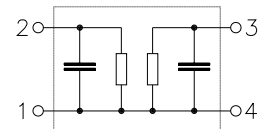
- Ni, gold-plated



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



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Low-Loss Filter for Mobile Communication		1842,50 MHz
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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.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}					
	1805,0 ... 1880,0	MHz	—	2,6	3,1	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1880,0	MHz	—	1,0	1,5	dB
Input VSWR						
	1805,0 ... 1880,0	MHz	—	1,8	2,0	
Output VSWR						
	1805,0 ... 1880,0	MHz	—	1,8	2,0	
Attenuation	α					
	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



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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.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}					
	1805,0 ... 1880,0	MHz	—	3,1	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1880,0	MHz	—	1,5	1,9	dB
Input VSWR						
	1805,0 ... 1880,0	MHz	—	1,9	2,1	
Output VSWR						
	1805,0 ... 1880,0	MHz	—	1,9	2,1	
Attenuation	α					
	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



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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.	
Center frequency	f_c		—	1842,5	—	MHz
Maximum insertion attenuation	α_{\max}					
	1805,0 ... 1880,0	MHz	—	3,3	3,7	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1805,0 ... 1880,0	MHz	—	1,7	2,1	dB
Input VSWR						
	1805,0 ... 1880,0	MHz	—	2,1	2,3	
Output VSWR						
	1805,0 ... 1880,0	MHz	—	2,1	2,3	
Attenuation	α					
	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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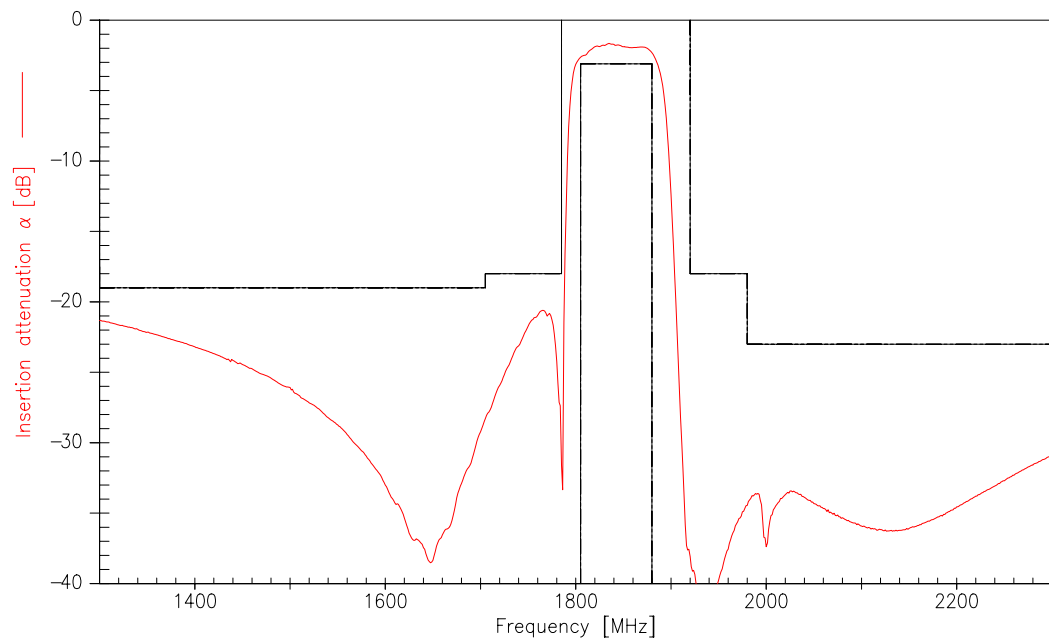
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1842,50 MHz

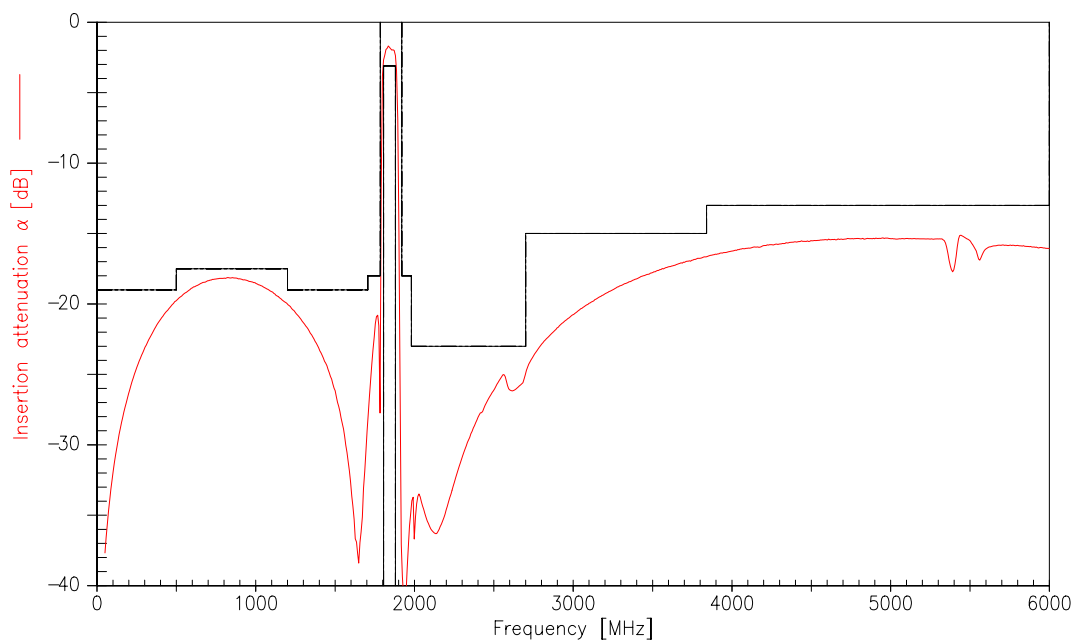
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Transfer function (spec for 25°C)



Transfer function (wideband)





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