



SAW Components

Data Sheet B7812

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 technological sophistication.



SAW Components

B7812

Low-Loss Filter for Mobile Communication

1747,50 MHz

Data Sheet



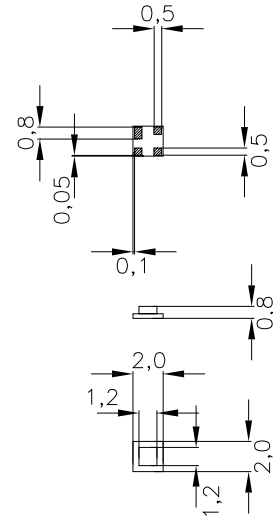
Chip sized SAW package

Features

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

Terminals

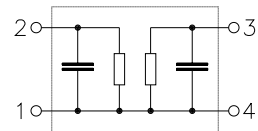
- Ni, gold-plated



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
B7812	B39172-B7812-A510	C61157-A7-A63	F61074-V8099-Z000

Electrostatic Sensitive Device (ESD)

Maximum ratings

Operable temperature range	T	- 20/+ 80	$^{\circ}\text{C}$	source and load impedance 50 Ω peak power of GSM signal, duty cycle 2 : 8 continuous wave
Storage temperature range	T_{stg}	- 40/+ 85	$^{\circ}\text{C}$	
DC voltage	V_{DC}	0	V	
Input power max. 1710 ... 1785 MHz	P_{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: $Z_L = 50 \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1747,5	—	MHz
Maximum insertion attenuation	α_{\max}		—	2,6	3,0	dB
	1710,0 ... 1785,0	MHz				
Amplitude ripple (p-p)	$\Delta\alpha$		—	1,2	1,6	dB
	1710,0 ... 1785,0	MHz				
Input VSWR			—	2,0	2,2	
	1710,0 ... 1785,0	MHz				
Output VSWR			—	2,0	2,2	
	1710,0 ... 1785,0	MHz				
Attenuation	α					
	10,0 ... 1670,0	MHz	15,0	17,0	—	dB
	1670,0 ... 1690,0	MHz	8,0	17,0	—	dB
	1805,0 ... 1880,0	MHz	8,0	12,0	—	dB
	1880,0 ... 3500,0	MHz	15,0	15,0	—	dB
	3500,0 ... 5200,0	MHz	12,0	14,0	—	dB



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Terminating load impedance: $Z_L = 50\ \Omega$

			min.	typ.	max.	
Center frequency	f_c		—	1747,5	—	MHz
Maximum insertion attenuation	α_{\max}					
	1710,0 ... 1785,0	MHz	—	3,0	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
	1710,0 ... 1785,0	MHz	—	1,6	2,1	dB
Input VSWR						
	1710,0 ... 1785,0	MHz	—	2,2	2,4	
Output VSWR						
	1710,0 ... 1785,0	MHz	—	2,2	2,4	
Attenuation	α					
	10,0 ... 1670,0	MHz	15,0	17,0	—	dB
	1670,0 ... 1690,0	MHz	6,0	15,0	—	dB
	1805,0 ... 1880,0	MHz	6,0	10,0	—	dB
	1880,0 ... 3500,0	MHz	15,0	15,0	—	dB
	3500,0 ... 5200,0	MHz	12,0	14,0	—	dB



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	1880,0 ... 3500,0 MHz		15,0	15,0	—	dB
	3500,0 ... 5200,0 MHz		12,0	14,0	—	dB



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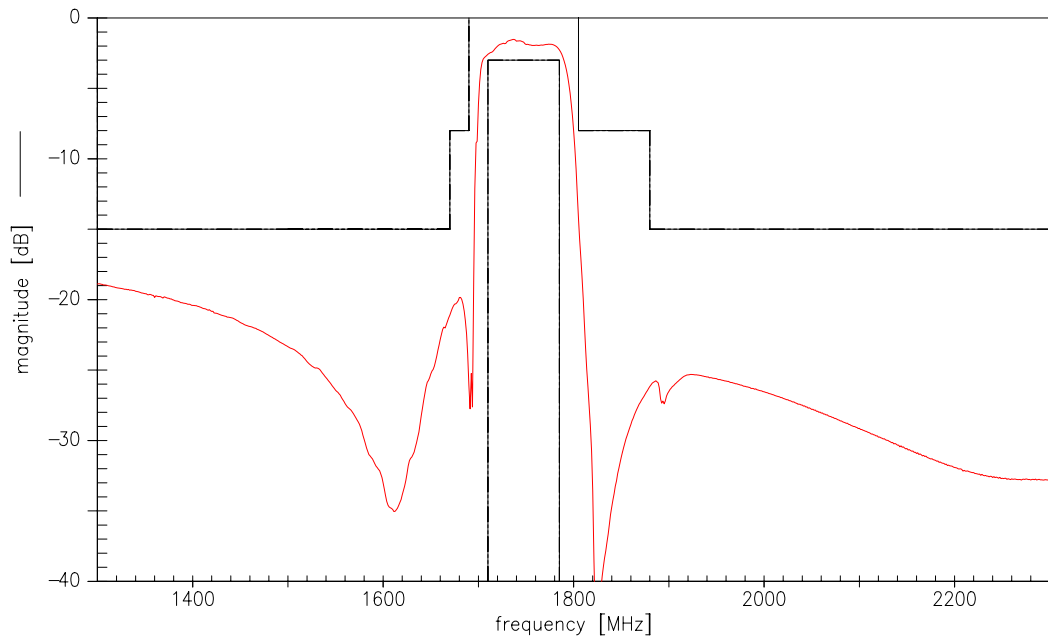
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1747,50 MHz

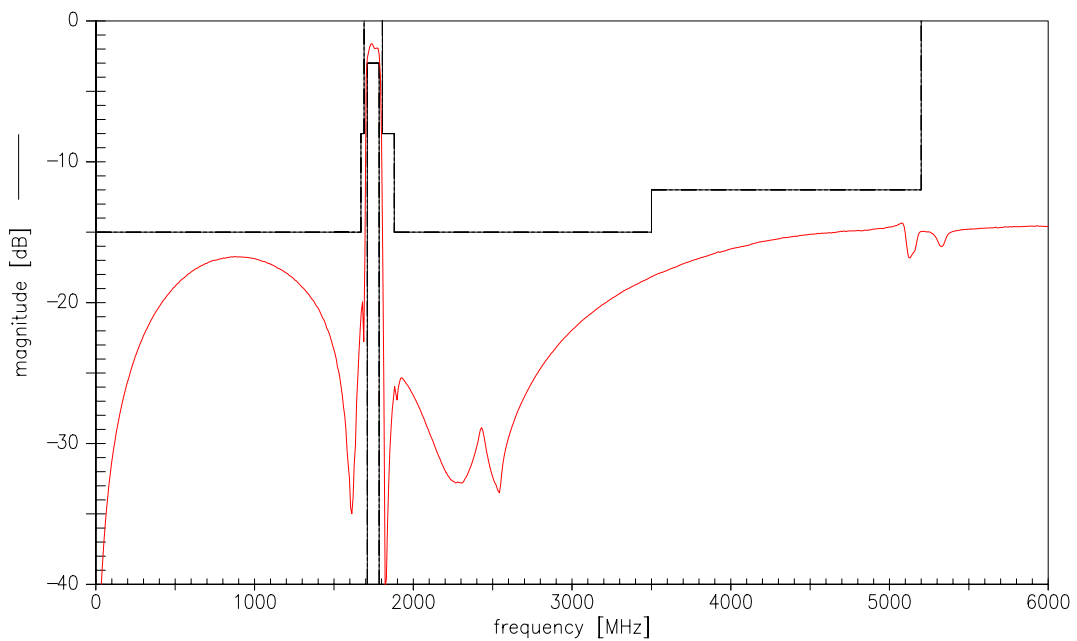
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Transfer function (spec for 25°C)



Transfer function (wideband)





SAW Components	B7812
Low-Loss Filter for Mobile Communication	1747,50 MHz
Data Sheet	SMD

Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC WT

P.O. Box 80 17 09, D-81617 München

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