EPCOS

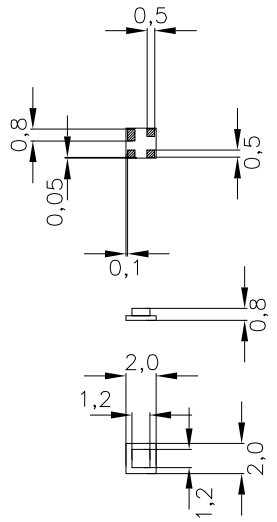
SAW Components

Data Sheet B7812

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 **S**urface **M**ounted **T**echnology (**SMT**)



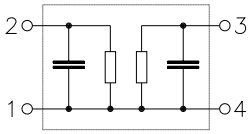
Dimensions in mm, approx. weight 0,01 g

Terminals

- Ni, gold-plated

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 **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	– 20/+ 80	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Input power max.				source and load impedance 50 Ω
1710 ... 1785 MHz	P_{IN}	5	dBm	peak power of GSM signal, duty cycle 2 : 8
elsewhere		0	dBm	continuous wave

Characteristics

Operating temperature range: T = 25 +- 2˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency		f_c	—	1747,5	—	MHz
Maximum insertion attenuation		α_{max}				
1710,0 ...1785,0	MHz		—	2,6	3,0	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
1710,0 ...1785,0	MHz		—	1,2	1,6	dB
Input VSWR						
1710,0 ...1785,0	MHz		—	2,0	2,2	
Output VSWR						
1710,0 ...1785,0	MHz		—	2,0	2,2	
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

Characteristics

Operating temperature range: T = -10 to +80˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

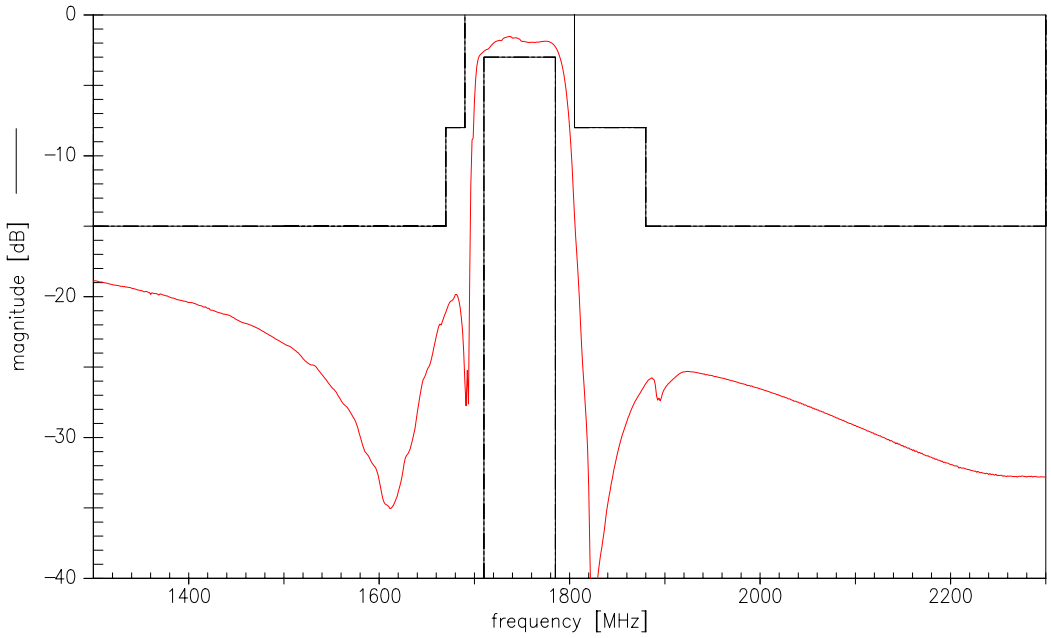
			min.	typ.	max.	
Center frequency		f_c	—	1747,5	—	MHz
Maximum insertion attenuation		α_{max}				
	1710,0 ...1785,0 MHz		—	3,0	3,5	dB
Amplitude ripple (p-p)		$\Delta\alpha$				
	1710,0 ...1785,0 MHz		—	1,6	2,1	dB
Input VSWR						
	1710,0 ...1785,0 MHz		—	2,2	2,4	
Output VSWR						
	1710,0 ...1785,0 MHz		—	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

Characteristics

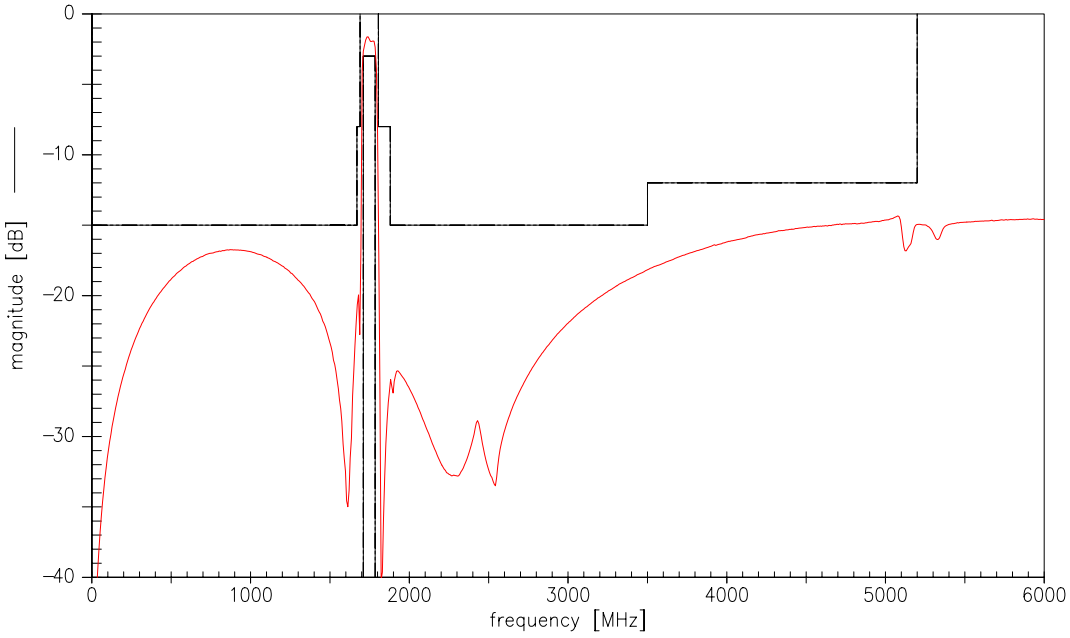
Operating temperature range: T = -20 to +70˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			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

Transfer function (spec for 25°C)



Transfer function (wideband)



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This brochure replaces the previous edition.

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