EPCOS

SAW Components

Data Sheet B7822



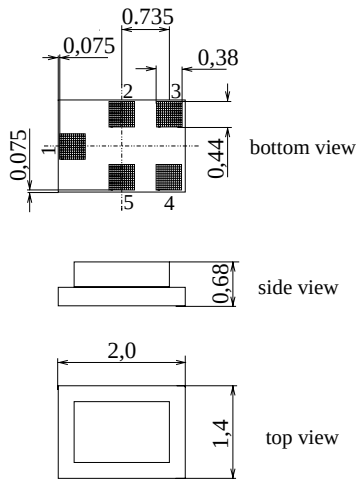
Chip sized SAW package

Features

- Low-loss RF filter for mobile telephone PCN systems, receive path
- High selectivity up to 6 GHz
- Low amplitude ripple
- Usable passband 75 MHz
- Suitable for GPRS class 1 to 12
- Package for **S**urface **M**ount **T**echnology (**SMT**)

Terminals

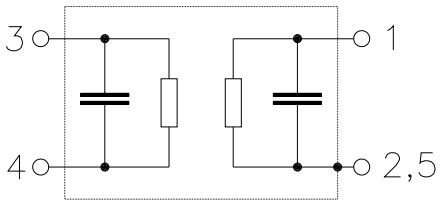
- Gold-plated Ni



Dimensions in mm, approx. weight 0,007 g

Pin configuration

1	Input, unbalanced
4	Output, unbalanced
2,5	Case ground
3	to be grounded



Type	Ordering code	Marking and Package according to	Packing according to
B7822	B39182-B7822-C710	C61157-A7-A111	F61074-V8151-Z000

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

Maximum ratings

Operable temperature range	T	– 10 / + 80	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	3	V	
ESD voltage	V_{ESD}	50	V	
Input power at				
GSM850, GSM900	P_{IN}	15	dBm	peak power of GSM signal
GSM1800, GSM1900	P_{IN}	12	dBm	duty cycle 4:8
Tx bands				

Characteristics

Operating Temperature Range: T = +25 ± 2 °C
Terminating source impedance: Z_S = 50Ω (unbalanced)
Terminating load impedance: Z_L = 50Ω (unbalanced)

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ... 1880,0 MHz		—	2,3	2,8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	0,8	1,5	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,3	
Output VSWR					
1805,0 ...1880,0 MHz		—	2,0	2,2	
Attenuation	α				
0,0 ... 1480,0 MHz		30	34	—	dB
1480,0 ... 1765,0 MHz		22	27	—	dB
1765,0 ... 1785,0 MHz		14	16	—	dB
1920,0 ... 1980,0 MHz		18	23	—	dB
1980,0 ... 2400,0 MHz		25	28	—	dB
2400,0 ... 2500,0 MHz		30	37	—	dB
2500,0 ... 3610,0 MHz		25	32	—	dB
3610,0 ... 3760,0 MHz		35	44	—	dB
3760,0 ... 6000,0 MHz		25	39	—	dB

Characteristics

Operating Temperature Range: T = -10 to +80˚C
Terminating source impedance: Z_S = 50Ω (unbalanced)
Terminating load impedance: Z_L = 50Ω (unbalanced)

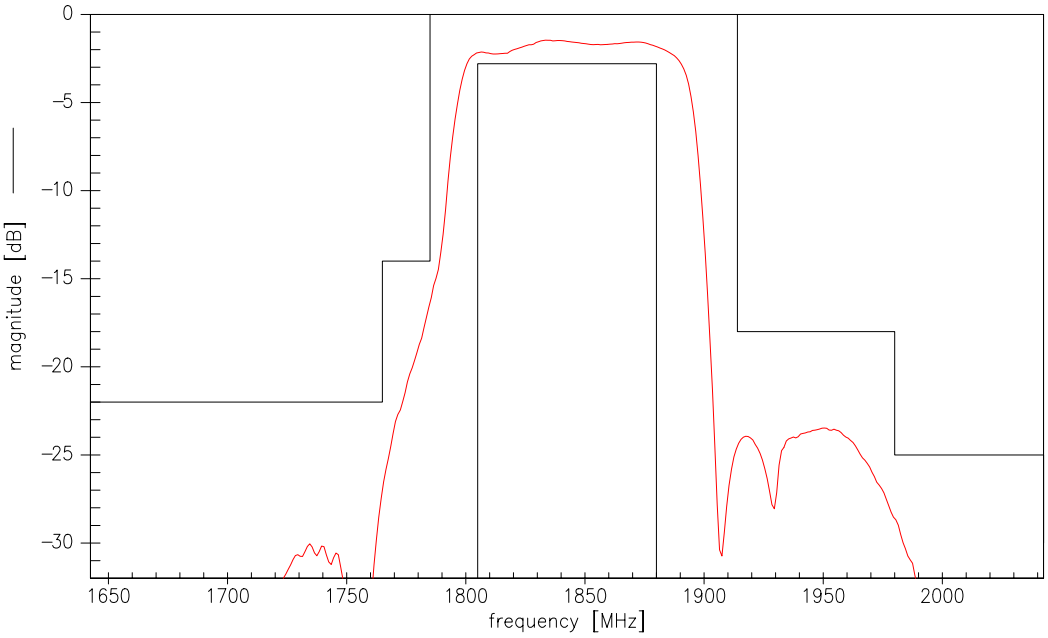
		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ... 1880,0 MHz		—	2,4	3,1	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	0,9	1,8	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,3	
Output VSWR					
1805,0 ...1880,0 MHz		—	2,0	2,2	
Attenuation	α				
0,0 ... 1480,0 MHz		30	34	—	dB
1480,0 ... 1765,0 MHz		21	25	—	dB
1765,0 ... 1785,0 MHz		11	14	—	dB
1920,0 ... 1980,0 MHz		18	23	—	dB
1980,0 ... 2400,0 MHz		24	27	—	dB
2400,0 ... 2500,0 MHz		30	37	—	dB
2500,0 ... 3610,0 MHz		25	32	—	dB
3610,0 ... 3760,0 MHz		35	44	—	dB
3760,0 ... 6000,0 MHz		25	39	—	dB

Characteristics

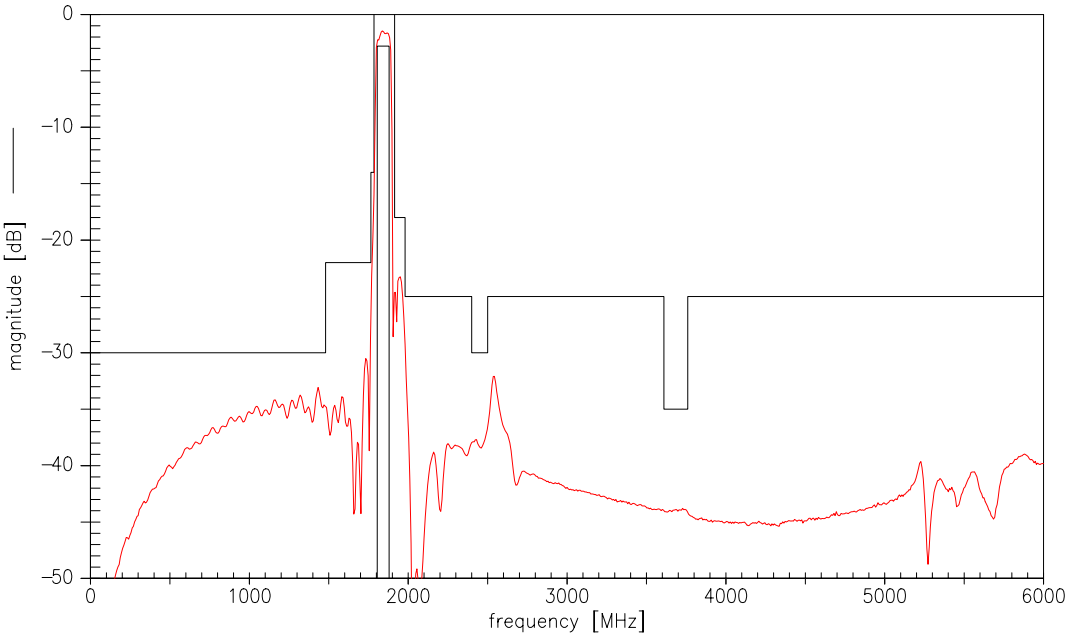
Operating Temperature Range: T = -20 to +85˚C
Terminating source impedance: Z_S = 50Ω (unbalanced)
Terminating load impedance: Z_L = 50Ω (unbalanced)

		min.	typ.	max.	
Center frequency	f_C	—	1842,5	—	MHz
Maximum insertion attenuation	α_{max}				
1805,0 ... 1880,0 MHz		—	2,7	3,4	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1805,0 ... 1880,0 MHz		—	1,2	2,1	dB
Input VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,3	
Output VSWR					
1805,0 ...1880,0 MHz		—	2,1	2,4	
Attenuation	α				
0,0 ... 1480,0 MHz		30	34	—	dB
1480,0 ... 1765,0 MHz		21	25	—	dB
1765,0 ... 1785,0 MHz		10	13	—	dB
1920,0 ... 1980,0 MHz		18	23	—	dB
1980,0 ... 2400,0 MHz		24	27	—	dB
2400,0 ... 2500,0 MHz		30	37	—	dB
2500,0 ... 3610,0 MHz		25	32	—	dB
3610,0 ... 3760,0 MHz		35	44	—	dB
3760,0 ... 6000,0 MHz		25	39	—	dB

Transfer function (spec for 25˚C)



Transfer function (wideband)



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