EPCOS

SAW Components

Data Sheet B7840



Data Sheet

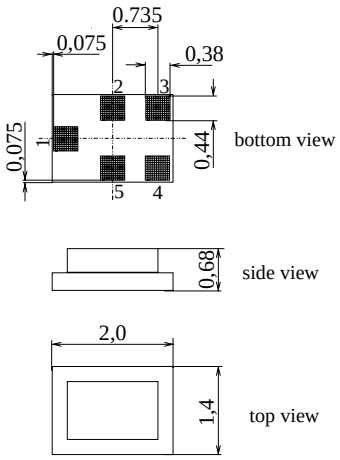
Chip **S**ized **S**AW **P**ackage

Features

- Low loss RF filter for GPS receivers
- Unbalanced to balanced operation
- Low amplitude ripple
- Impedance transformation from 50 Ω to 100 Ω
- Package for **S**urface **M**ounted **T**echnology **(SMT)**

Terminals

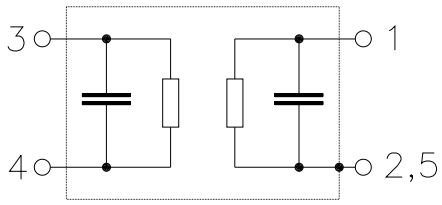
- Ni, gold-plated



Dimensions 2,0x1,4 mm², approx. weight 0,007 g

Pin configuration

1	Input, unbalanced
3, 4	Output, balanced
2, 5	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B7840	B39162-B7840-C710	C61157-A7-A82	F61074-V8151-Z000

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

Maximum ratings

Operable temperature range	T	– 40/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	3	V	
Source power	P_s	10	dBm	824...1525, 1710...2500 MHz
source 50 Ω, load 100 Ω		5		elsewhere

Data Sheet

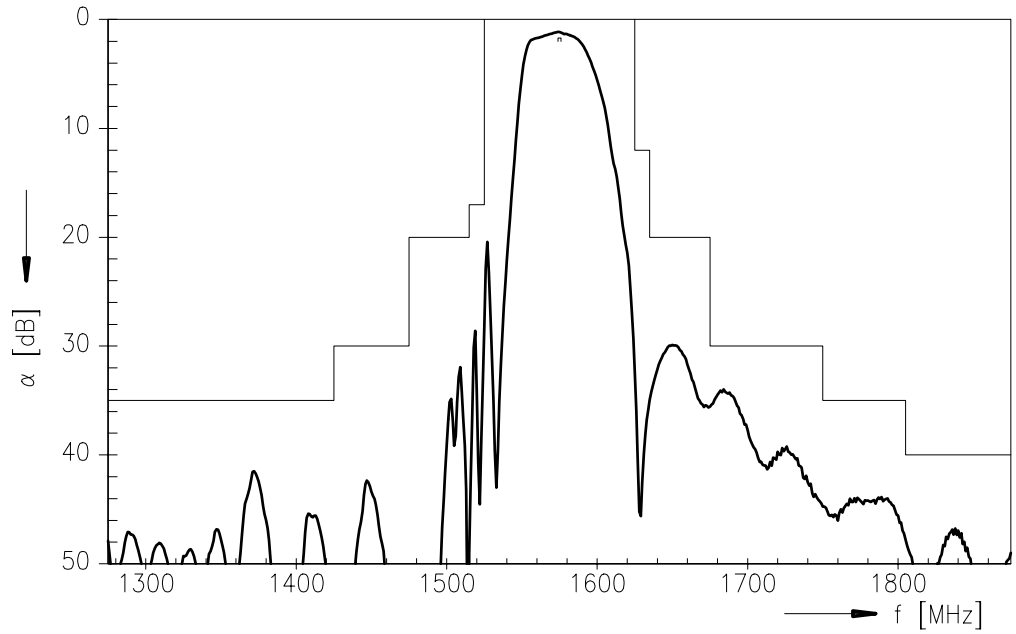
Characteristics

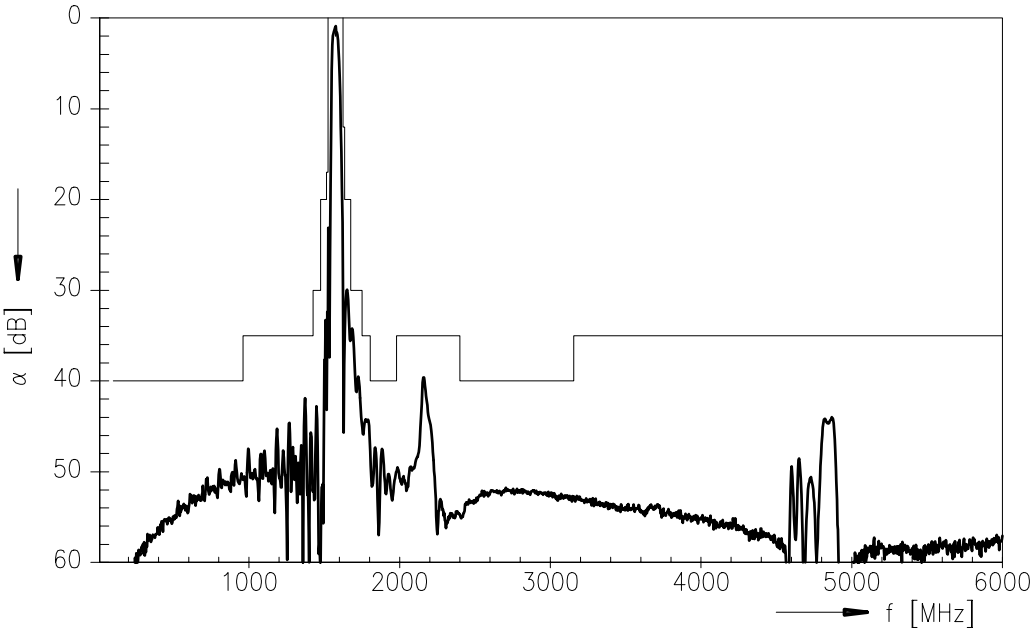
Operating temperature range: T_A = -30 ... +85 °C
Terminating source impedance: Z_S = 50 Ω unbal.
Terminating load impedance: Z_L = 100 Ω bal.

		min.	typ.	max.	
Nominal frequency	f_N	—	1575,42	—	MHz
Maximum insertion attenuation	α_{max}				
1574,42MHz ... 1576,42MHz*)		—	1,2	1,6	dB
1574,42MHz ... 1576,42 MHz		—	1,2	1,7	dB
Amplitude ripple in passband (p-p)	$\Delta\alpha$				
1574,42MHz ... 1576,42 MHz		—	0,1	0,3	dB
Output phase balance ($\phi(S_{31})-\phi(S_{21})+180°$)					
1574,42MHz ... 1576,42 MHz		-10	6	10	°
Output amplitude balance ($\lvert S_{31}/S_{21}\rvert$)					
1574,42MHz ... 1576,42 MHz		-1,0	0,2	1,0	dB
Return loss					
1574,42 ...1576,42 MHz		11,0	21	—	dB
VSWR					
1574,42 ...1576,42 MHz		—	1,2	1,8	
Absolute attenuation	α_{rel}				
100,0 MHz ... 960,0 MHz		40	48	—	dB
960,0 MHz ... 1425,0 MHz		35	42	—	dB
1425,0 MHz ... 1475,0 MHz		30	42	—	dB
1475,0 MHz ... 1515,0 MHz		20	32	—	dB
1515,0 MHz ... 1525,0 MHz		17	27	—	dB
1625,0 MHz ... 1635,0 MHz		12	30	—	dB
1635,0 MHz ... 1675,0 MHz		20	30	—	dB
1675,0 MHz ... 1750,0 MHz		30	34	—	dB
1750,0 MHz ... 1805,0 MHz		35	44	—	dB
1805,0 MHz ... 1980,0 MHz		40	47	—	dB
1980,0 MHz ... 2400,0 MHz		35	39	—	dB
2400,0 MHz ... 3155,0 MHz		40	52	—	dB
3155,0 MHz ... 6000,0 MHz		35	44	—	dB

*) T_A= +25 °C

Transfer function





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