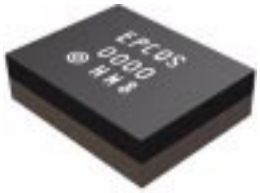
SAW Components

SAW GPS + GLONASS Filter

Series/type:	**B9482**
Ordering code:	**B39162B9482P810**
Date:	February 16, 2015
Version:	2.3

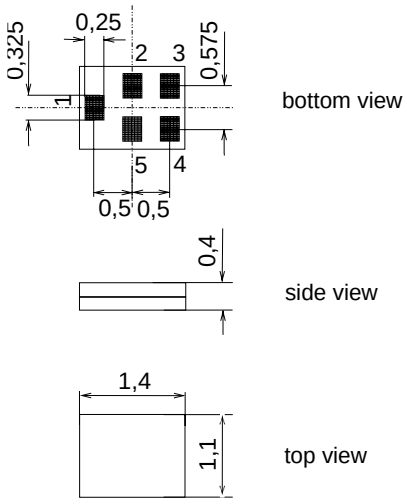
Application

- Low-loss RF GPS + GLONASS filter
- Simultaneous usage of GPS band and GLONASS band
- Usable passbands: 2.0 MHz for GPS and 8.34 MHz for GLONASS
- Unbalanced to unbalanced operation
- Very low insertion attenuation
- High out of band selectivity
- Low amplitude ripple
- Filter impedance 50 Ω
- No matching network required for operation at 50 Ω
- Input & Output can be exchanged, B9482 is bidirectional type.



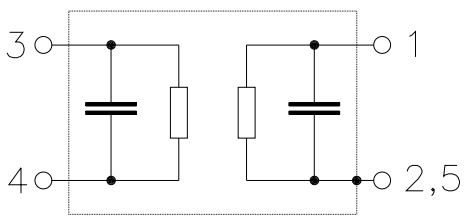
Features

- Package size 1.4 x1.1 x 0.4 mm³
- RoHS compatible
- Approximate weight 0.003 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitive **L**evel 3



Pin configuration

- 1 Output/Input unbalanced
- 4 Input/Output unbalanced
- 2,3,5 To be grounded



Characteristics of Filter

Temperature range for specification: T = –30 ˚C to +85˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C	—	1590.16	—	MHz
Maximum insertion attenuation	α_{max}				
1574.42 ... 1576.42 MHz		—	0.85	1.4	dB
1597.55 ... 1605.89 MHz		—	1.4	2.0	dB
VSWR (Input)					
1574.42 ... 1576.42 MHz		—	1.2	2.0	
1597.55 ... 1605.89 MHz		—	1.6	2.0	
VSWR (Output)					
1574.42 ... 1576.42 MHz		—	1.2	2.0	
1597.55 ... 1605.89 MHz		—	1.7	2.1	
Group delay ripple[1)]					
1597.55 ... 1605.89 MHz		—	5	12	ns
Attenuation	α				
1.0 ... 960.0 MHz		40	48	—	dB
1427.0 ... 1463.0 MHz		35	42	—	dB
1710.0 ... 1785.0 MHz		39	40	—	dB
1850.0 ... 1910.0 MHz		36	40	—	dB
1920.0 ... 1980.0 MHz		40	45	—	dB
2401.0 ... 2483.0 MHz		40	55	—	dB
2500.0 ... 2570.0 MHz		35	53	—	dB
4900.0 ... 5850.0 MHz		25	31	—	dB

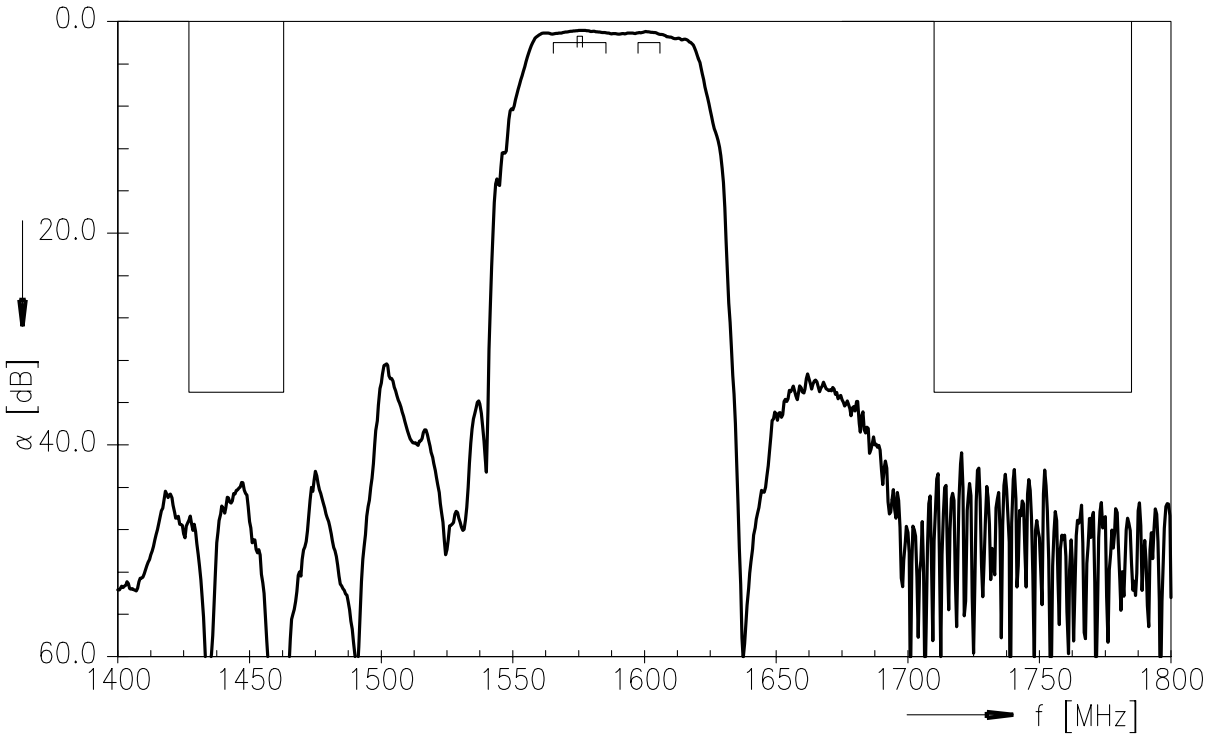
1) Measured with aperture 2 MHz.

Maximum ratings of Filter

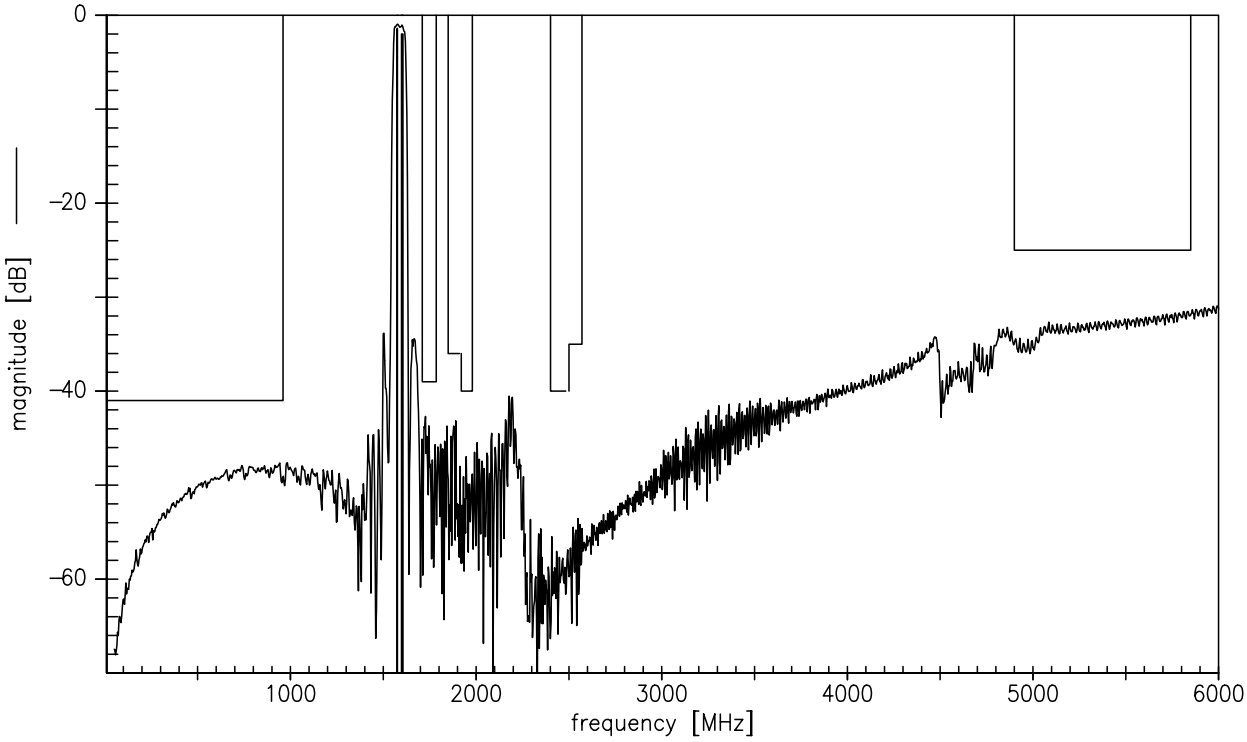
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5[1)]	V	
ESD voltage	V_{ESD}	50[2)]	V	Machine Model
		300[3)]	V	Human Body Model
		600[4)]	V	Charged Device Model
Input power at				source/load impedance 50Ω/50Ω
915 MHz	P_{IN}	23[5)]	dBm	1/8 duty cycle
1453 MHz	P_{IN}	15	dBm	cw
1710MHz	P_{IN}	15	dBm	cw

1) 168h Damp Heat Steady State acc. to IEC 60068-2-67 Cy.
2) acc. to JESD22-A115B (MM - Machine Model), 10 negative and 10 positive pulses.
3) acc. to JESD22-A114F (HBM - Human Body Model) , 1 negative & 1 positive pulses.
4) acc. to JESD22-C101C (CDM - Field Induced Charged Device Model) , 3 negative & 3 positive pulses.
5) >5000 h at Ta = 50˚C .

Transfer function (passband)

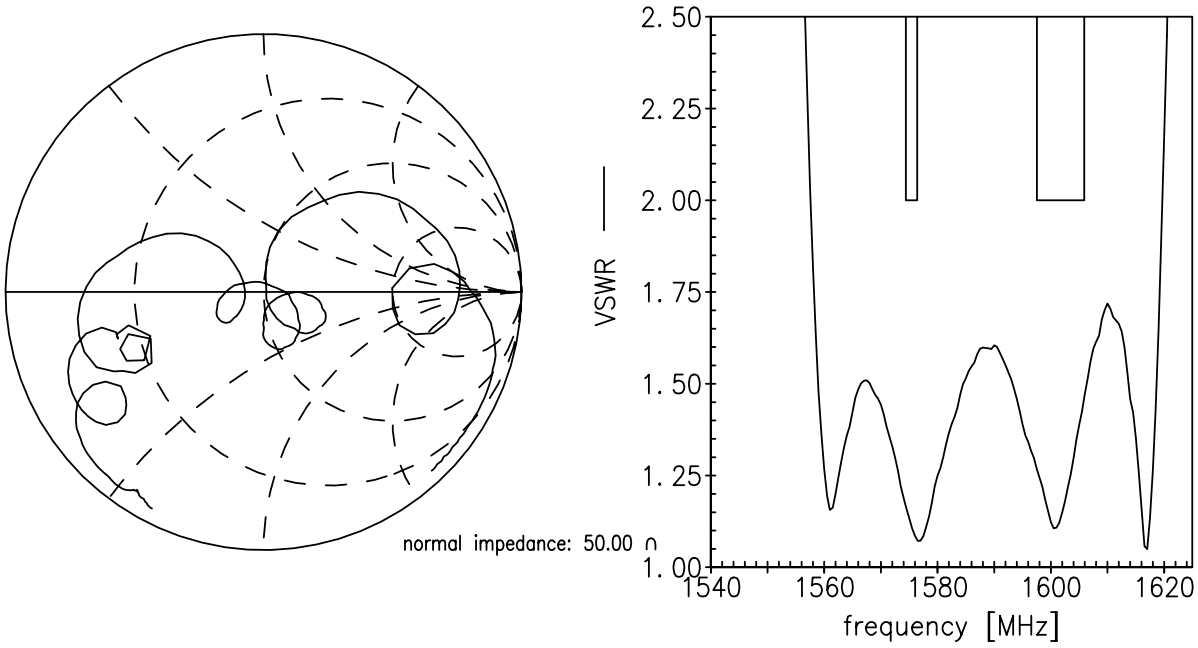


Transfer function (wideband)

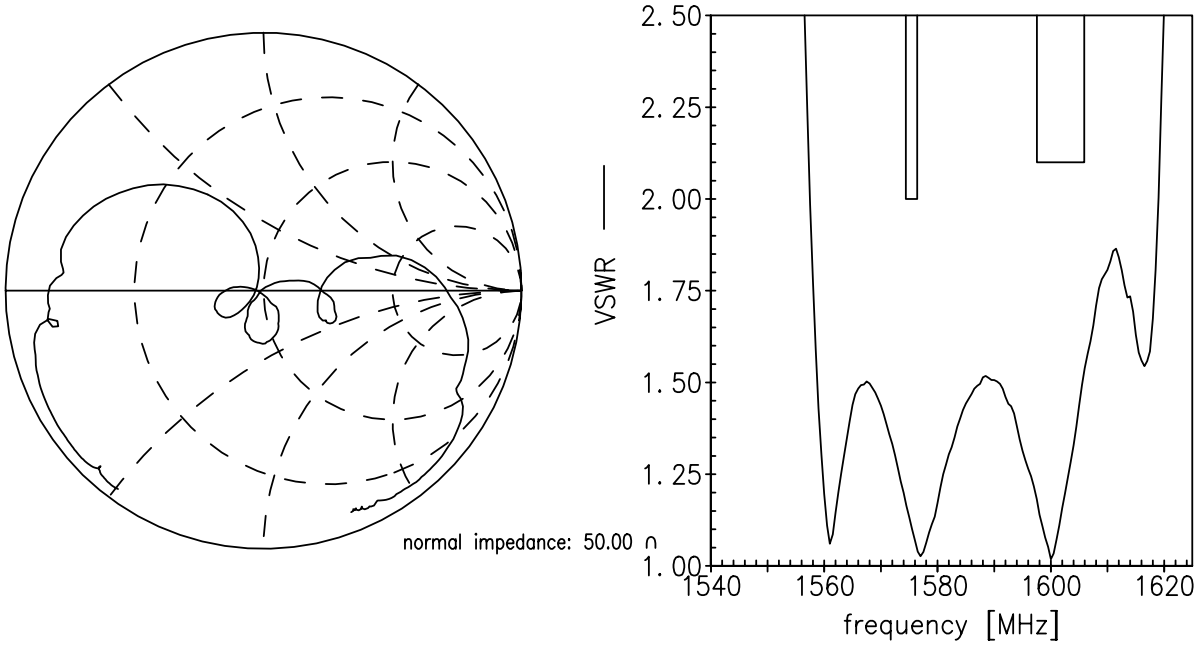


Smith chart / VSWR

Input (pin4)



Output (pin1)



Type	B9482
Ordering code	B39162-B9482-P810
Marking and package	C61157-A8-A14
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B9482_NB.s2p, B9482_WB.s2p see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8th, 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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