



SAW Components

SAW GPS + GLONASS Filter

| | |
|-----------------------|------------------------|
| Series/type: | B9482 |
| Ordering code: | B39162B9482P810 |
| Date: | March 14, 2011 |
| Version: | 2.1 |

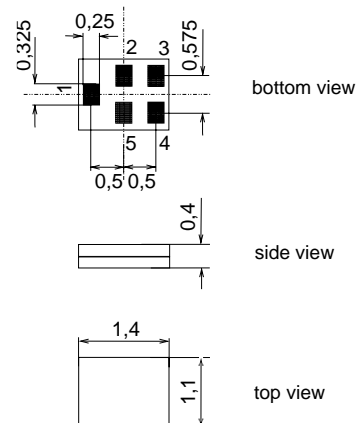
Data Sheet

Application

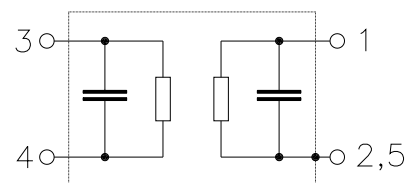
- Low-loss RF GPS + GLONASS filter
- Simultaneous usage of GPS band and GLONASS band
- Usable passbands: 2.0 MHz for GPS and 8.34 MHz for GLONASS
- Unbalanced to unbalanced operation
- Very low insertion attenuation
- High out of band selectivity
- Low amplitude ripple
- Filter impedance 50 Ω
- No matching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


Features

- Package size 1.4 x 1.1 x 0.4 mm³
- RoHS compatible
- Approximate weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**


Pin configuration

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



Data Sheet

Characteristics of Filter

Temperature range for specification: $T = -30\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

| | | B9482 | | | |
|--|-----------------|--------------|-------------------------|-------------|-----|
| | | 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 ripple¹⁾ | | | | | |
| 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 | | 35 | 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.

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1590.16 MHz
Data Sheet

Maximum ratings of Filter

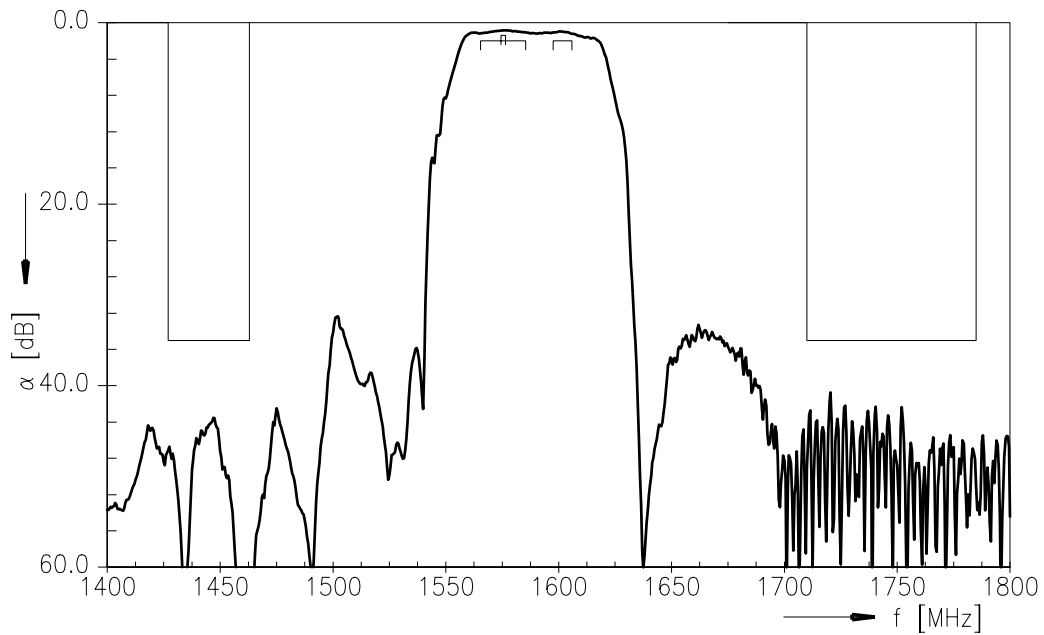
| | | | | |
|----------------------------|------------------|------------------|-----|-------------------------------|
| Operable temperature range | T | -30/+85 | °C | |
| Storage temperature range | T _{stg} | -40/+85 | °C | |
| DC voltage | V _{DC} | 3 | V | |
| ESD voltage | V _{ESD} | 50 ¹⁾ | V | machine model |
| Input power at | | | | source/load impedance 50Ω/50Ω |
| 915 MHz | P _{IN} | 23 ²⁾ | dBm | 1/8 duty cycle |
| 1453 MHz | P _{IN} | 15 | dBm | cw |
| 1710MHz | P _{IN} | 15 | dBm | cw |

¹⁾ acc. to JESD22-A115A (machine model).

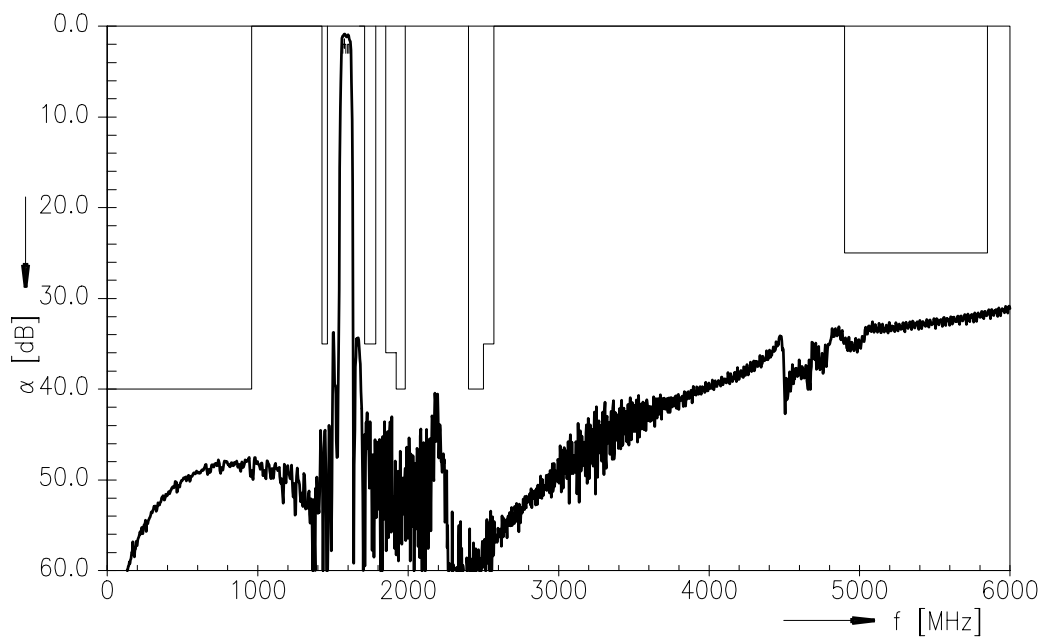
²⁾ >5000 h at Ta = 50°C .



Transfer function (passband)



Transfer function (wideband)

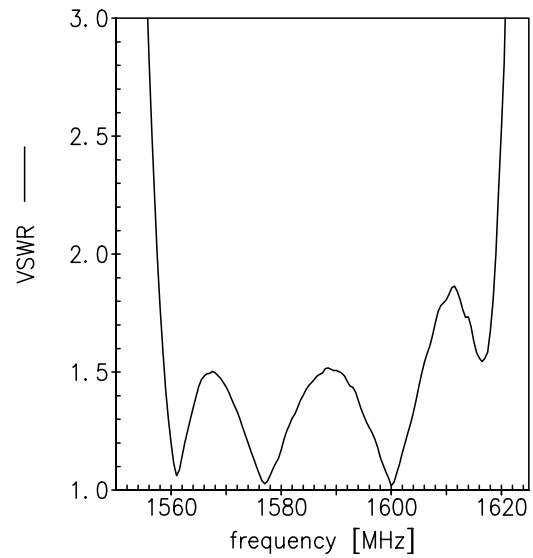
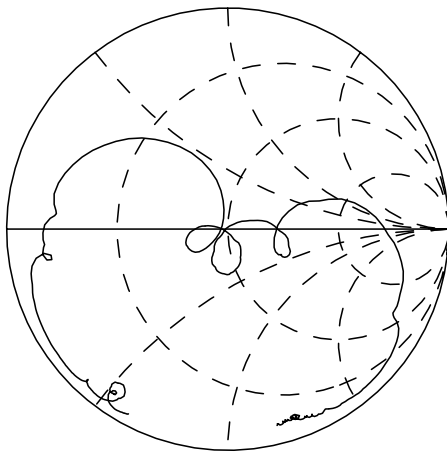


Data Sheet

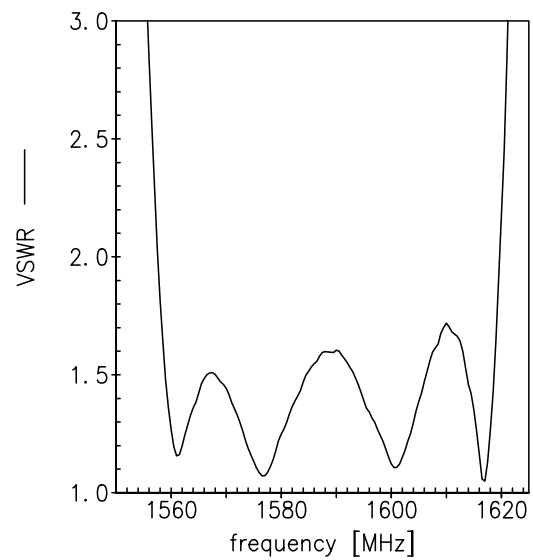
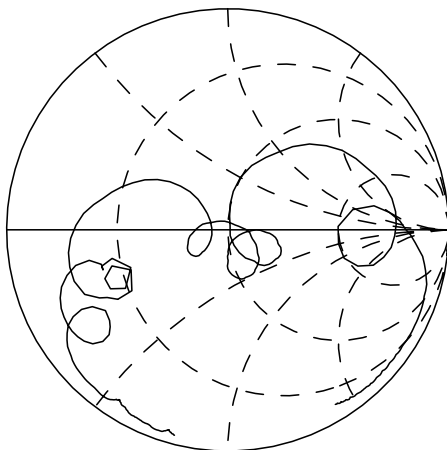


Smith chart / VSWR

Output (pin1)



Input (pin4)



| | |
|---------------------------------|--------------------|
| SAW Components | B9482 |
| SAW GPS + GLONASS Filter | 1590.16 MHz |

Data Sheet



| | |
|----------------------------|--|
| 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 | defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment." |
| 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 further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com.

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