

# **SAW Components**

SAW filter Short range devices

Series/type: Ordering code: B3714 B39311B3714U410

Date: Version: January 17, 2008 2.2

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| SAW Components |     | B3714      |
|----------------|-----|------------|
| SAW filter     |     | 314.35 MHz |
| Data sheet     | SMD |            |

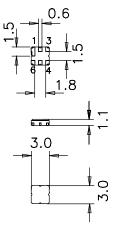
### Application

- Low-loss RF filter for remote control receivers
- No matching network required for operation at 50  $\Omega$



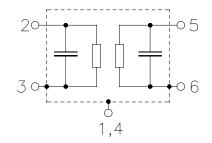
#### Features

- Package size 3.0 x 3.0 x 1.1 mm<sup>3</sup>
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Package for Surface Mount Technology (SMT)
- Ni, gold-plated terminals
- Lead free soldering compatible with J STD20C
- Passivation layer Elpas
- AEC-Q200 qualified component family
- Electrostactic Sensitive Device (ESD)



# Pin configuration<sup>1)</sup>

| ■ 2      | Input  |
|----------|--------|
| <b>5</b> | Output |
| 1,3,4,6  | Ground |



 The recommended pin configuration usually offers best suppression of electrical crosstalk. The filter characteristics refer to this configuration.

Please read *cautions and warnings and important notes* at the end of this document.

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| SAW Components   |                  |  |                                  |                   | B3714                            |
|--|------------------|--|----------------------------------|-------------------|----------------------------------|
| SAW filter   |                  |  |                                  | 31                | 4.35 MHz                         |
| Data sheet   | ≡M               |  |                                  |                   |                                  |
| Characteristics  |                  |  |                                  |                   |                                  |
| Operating temperature range:T= $-45$ °C to $+85$ °CTerminating source impedance: $Z_S = 50 \Omega$ Terminating load impedance: $Z_L = 50 \Omega$                                     |                  |  |                                  |                   |                                  |
|  |                  | min.   | typ.<br>@ 25 °C                  | max.              |                                  |
| Center frequency f   | C                | _  | 314.35                           |                   | MHz                              |
| Maximum insertion attenuation 314.05 314.65 MHz  | α <sub>max</sub> | _  | 1.9                              | 2.5 <sup>1)</sup> | dB                               |
| Amplitude ripple<br>314.05 314.65 MHz  |                  | _  | 0.4                              | 1.2 <sup>2)</sup> | dB                               |
| Relative attenuation (relative to α <sub>max</sub> ) c   270.00  286.00 MHz   292.65  293.25 MHz   303.35  303.95 MHz   324.75  325.35 MHz   335.45  336.05 MHz   357.50  358.70 MHz | x <sub>rel</sub> | 55<br>53<br>48 <sup>3)</sup><br>28<br>50<br>50 | 59<br>58<br>56<br>35<br>56<br>55 | <br><br>          | dB<br>dB<br>dB<br>dB<br>dB<br>dB |

<sup>1)</sup> T = -45°C to +105°C : 2.9 dB

<sup>2)</sup> T =  $-45^{\circ}$ C to  $+105^{\circ}$ C : 1.6 dB

<sup>3)</sup> T =  $-45^{\circ}$ C to  $+105^{\circ}$ C : 46 dB

# **Maximum ratings**

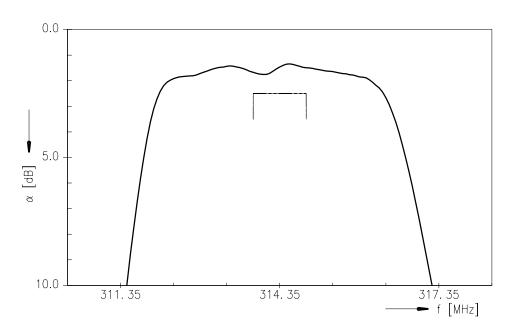
| Operable temperature range | Т                | -45/+125 | °C  |                              |
|----------------------------|------------------|----------|-----|------------------------------|
| Storage temperature range  | T <sub>stg</sub> | -45/+125 | °C  |                              |
| DC voltage                 | V <sub>DC</sub>  | 6        | V   |                              |
| Source power               | Ps               | 10       | dBm | source impedance 50 $\Omega$ |

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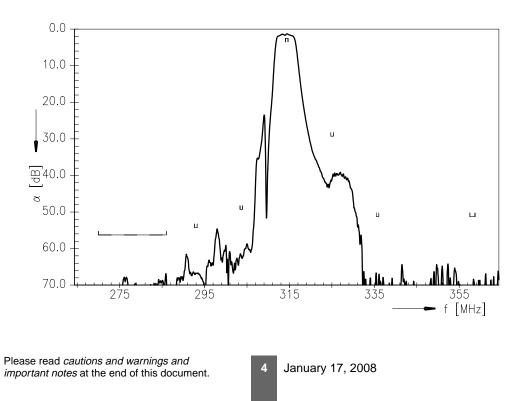
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**Transfer function** 



Transfer function (wideband)





| SAW Components | B3714      |
|----------------|------------|
| SAW filter     | 314.35 MHz |
| Data sheet     |            |

#### References

| Туре                | B3714   |
|---------------------|---|
| Ordering code       | B39311B3714U410   |
| Marking and package | C61157-A7-A67   |
| Packaging           | F61074-V8168-Z000   |
| Date codes          | L_1126  |
| S-parameters        | B3714_NB.s2p  |
| Soldering profile   | S_6001  |
| RoHS compatible     | defined as compatible with the following documents:<br>"DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT<br>AND OF THE COUNCIL of 27 January 2003 on the restriction<br>of the use of certain hazardous substances in electrical and<br>electronic equipment. 2005/618/EC from April 18th, 2005,<br>amending Directive 2002/95/EC of the European Parliament<br>and of the Council for the purposes of establishing the maxi-<br>mum concentration values for certain hazardous substances in<br>electrical and electronic equipment." |

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Surface Acoustic Wave Components Division P.O. Box 80 17 09, 81617 Munich, GERMANY

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