

# **SAW Components**

SAW RF filter

Short range device

Series/type: B3718

Ordering code: B39921B3718U410

Date: January 14, 2009

Version: 2.2

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SAW Components B3718
SAW RF filter 916.00 MHz

**Data sheet** 



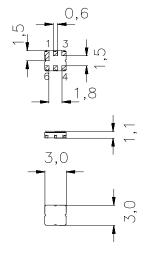
#### **Application**

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



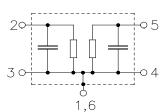
#### **Features**

- 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

- 2 Input
- 5 Output
- 1,3,4,6 Ground



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



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Characteristics

Reference temperature: Terminating source impedance:  $50\,\Omega$ Terminating load impedance:  $50\,\Omega$ 

|  |                       | min.     | typ.     | max.     |          |
|--|-----------------------|----------|----------|----------|----------|
| Center frequency                                   | f <sub>C</sub>        |          | 916.00   | _        | MHz      |
| Maximum insertion attenuation<br>914.25 917.75 MHz | $\alpha_{\text{max}}$ | _        | 2.4      | 3.0      | dB       |
| <b>Amplitude ripple</b> (p-p) 914.25 917.75 MHz    | Δα                    | _        | 0.5      | 1.2      | dB       |
| Attenuation 10.00 897.00 MHz 897.00 903.00 MHz     | α                     | 36<br>24 | 40<br>27 | <u> </u> | dB<br>dB |
| 930.00 937.00 MHz<br>937.00 1200.00 MHz            |                       | 27<br>42 | 34<br>46 |          | dB<br>dB |



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Characteristics

Temperature range for specification:  $T = -40 \,^{\circ}\text{C}$  to +85  $^{\circ}\text{C}$ 

Terminating source impedance:  $Z_S = 50 \Omega$ Terminating load impedance:  $Z_L = 50 \Omega$ 

|                | min.                             | typ.   | max.  |   |
|----------------|----------------------------------|--|---|---|
|                |                                  | @ 25 °C  |   |   |
| $f_C$          | _                                | 916.00   | _   | MHz   |
| $\alpha_{max}$ |                                  |  |   |   |
|                | _                                | 2.4  | 3.4   | dB  |
| Δα             |                                  |  |   |   |
|                | _                                | 0.5  | 1.6   | dB  |
| α              |                                  |  |   |   |
|                | 36                               | 40   | _   | dB  |
|                | 24                               | 27   | _   | dB  |
|                | 26                               | 34   | _   | dB  |
|                | 42                               | 46   | _   | dB  |
|                | $lpha_{	ext{max}}$ $\Delta lpha$ | $f_{C}$ — $\alpha_{max}$ — $\Delta \alpha$ — $\alpha$ 36 24 26 | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ |



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## **Maximum ratings**

| Operable temperature range               | T         | -45/+125 | °C  |                                       |
|--|-----------|----------|-----|---------------------------------------|
| Storage temperature range                | $T_{stg}$ | -45/+125 | °C  |                                       |
| DC voltage                               | $V_{DC}$  | 0        | V   |                                       |
| Source power                             | $P_S$     | 13       | dBm | source impedance 50 $\Omega$          |
| Source power<br>914.25 MHz to 917.75 MHz | $P_S$     | 16       | dBm | duty cycle 1:10,<br>-40 °C to +85 °C  |
| Source power<br>914.25 MHz to 917.75 MHz | $P_S$     | 20       | dBm | duty cycle 1:100,<br>-40 °C to +85 °C |



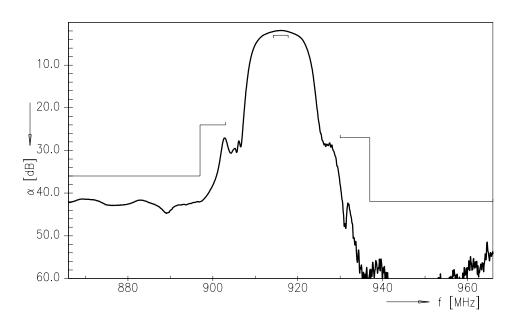
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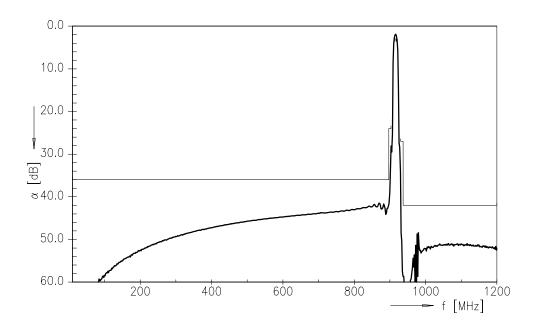
916.00 MHz

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## **Transfer function**



# Transfer function (wideband)



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

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|----------------|-----|------------|
| SAW RF filter  |     | 916.00 MHz |
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#### References

| Туре                | B3718  |
|---------------------|--|
| Ordering code       | B39921B3718U410  |
| Marking and package | C61157-A7-A67  |
| Packaging           | F61074-V8168-Z000  |
| Date codes          | L_1126   |
| S-parameters        | B3718_NB.s2p B3718_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." |

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