



SAW Components

SAW filter

Short range devices

| | |
|-----------------------|------------------------|
| Series/type: | B3721 |
| Ordering code: | B39431B3721U410 |
| Date: | March 25, 2009 |
| Version: | 2.2 |



SAW Components

B3721

SAW filter

433.92 MHz

Data sheet

SMD

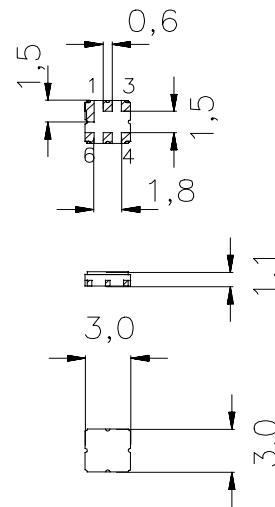
Application

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



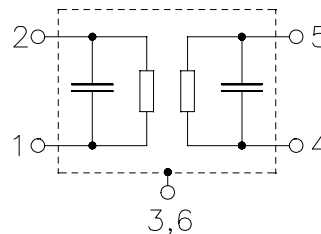
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- 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
- **Electrostatic 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: $T = 25\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

| | | min. | typ. | max. | |
|--------------------------------------|-----------------|------|--------|------|-----|
| Center frequency | f_C | — | 433.92 | — | MHz |
| Maximum insertion attenuation | α_{\max} | — | 2.6 | 2.9 | dB |
| 433.12 ... 434.72 MHz | | | | | |
| Amplitude ripple (p-p) | $\Delta\alpha$ | — | 0.4 | 0.8 | dB |
| 433.12 ... 434.72 MHz | | | | | |
| Input VSWR | | — | 1.8 | 2.0 | |
| 433.12 ... 434.72 MHz | | | | | |
| Output VSWR | | — | 1.8 | 2.0 | |
| 433.12 ... 434.72 MHz | | | | | |
| Attenuation | α | | | | dB |
| 10.00 ... 380.00 MHz | | 60 | 65 | — | |
| 380.00 ... 423.42 MHz | | 46 | 51 | — | |
| 423.42 ... 427.42 MHz | | 30 | 34 | — | |
| 427.42 ... 429.42 MHz | | 14 | 17 | — | |
| 438.42 ... 444.42 MHz | | 12 | 16 | — | |
| 444.42 ... 460.00 MHz | | 32 | 37 | — | |
| 460.00 ... 700.00 MHz | | 52 | 58 | — | |
| 700.00 ... 1000.00 MHz | | 48 | 51 | — | |



| | |
|-----------------------|-------------------|
| SAW Components | B3721 |
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Data sheet **SMD**

Characteristics

Temperature range for specification: $T = -40\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

| | | min. | typ. @ 25 °C | max. | |
|--------------------------------------|-----------------|-------------|-------------------------|-------------|-----|
| Center frequency | f_C | — | 433.92 | — | MHz |
| Maximum insertion attenuation | α_{\max} | — | 2.6 | 2.9 | dB |
| 433.12 ... 434.72 MHz | | | | | |
| Amplitude ripple (p-p) | $\Delta\alpha$ | — | 0.4 | 1.0 | dB |
| 433.12 ... 434.72 MHz | | | | | |
| Input VSWR | | — | 1.8 | 2.0 | |
| 433.12 ... 434.72 MHz | | | | | |
| Output VSWR | | — | 1.8 | 2.0 | |
| 433.12 ... 434.72 MHz | | | | | |
| Attenuation | α | | | | dB |
| 10.00 ... 380.00 MHz | | 60 | 65 | — | |
| 380.00 ... 423.42 MHz | | 46 | 51 | — | |
| 423.42 ... 427.42 MHz | | 30 | 34 | — | |
| 427.42 ... 429.42 MHz | | 7 | 17 | — | |
| 438.42 ... 444.42 MHz | | 6 | 16 | — | |
| 444.42 ... 460.00 MHz | | 32 | 37 | — | |
| 460.00 ... 700.00 MHz | | 52 | 58 | — | |
| 700.00 ... 1000.00 MHz | | 48 | 51 | — | |



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Data sheet



Maximum ratings

| | | | | |
|--|------------------|----------|-----|--------------------------------------|
| Operable temperature range | T | -45/+125 | °C | |
| Storage temperature range | T _{stg} | -45/+125 | °C | |
| DC voltage | V _{DC} | 6 | V | |
| Source power | P _S | 10 | dBm | source impedance 50 Ω |
| Source power 433.12 MHz to 434.72 MHz | P _S | 13 | dBm | duty cycle 1:10, -40 °C to +85 °C |



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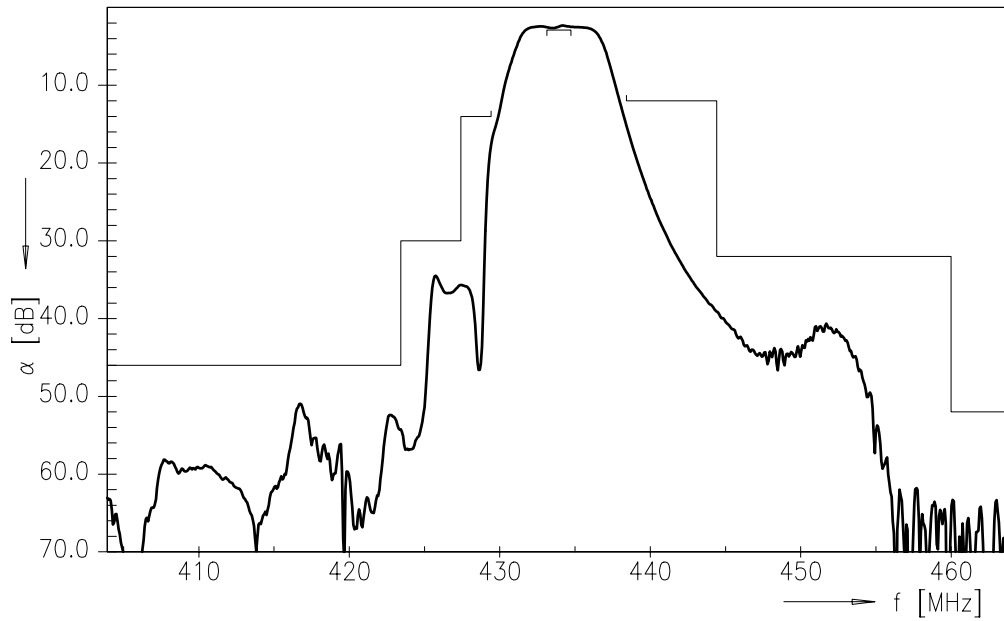
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433.92 MHz

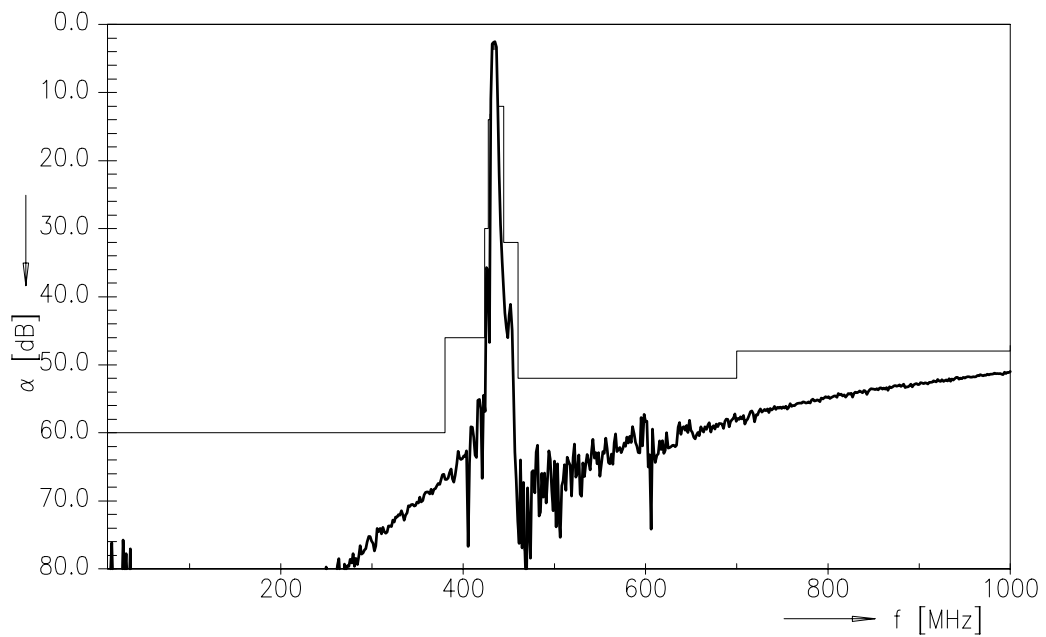
Data sheet



Transfer function



Transfer function (wideband)



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



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433.92 MHz

Data sheet



References

| | |
|---------------------|--|
| Type | B3721 |
| Ordering code | |
| Marking and package | C61157-A7-A67 |
| Packaging | F61074-V8168-Z000 |
| Date codes | L_1126 |
| S-parameters | B3721_SB.s2p B3721_WB.s2p |
| 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." |

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

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