



SAW Components

SAW filter

Short range devices

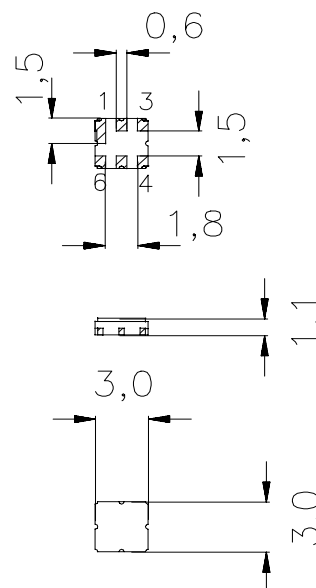
Series/type:	B3721
Ordering code:	B39431B3721U410
Date:	January 31, 2011
Version:	2.3

Application

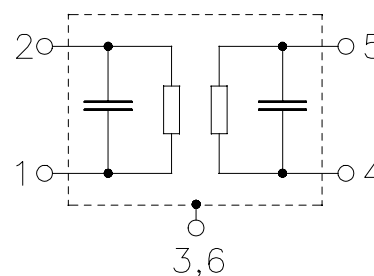
- Low-loss RF filter for remote control receivers
- No matching network required for operation at 50 Ω


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



Data sheet

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

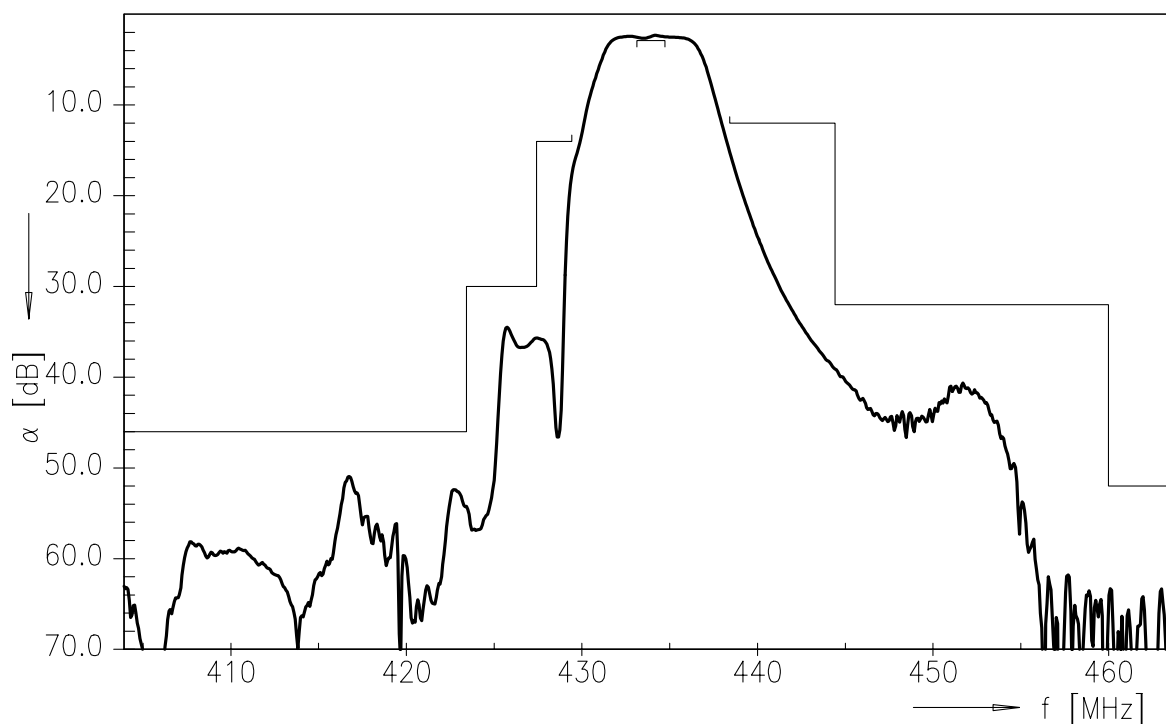
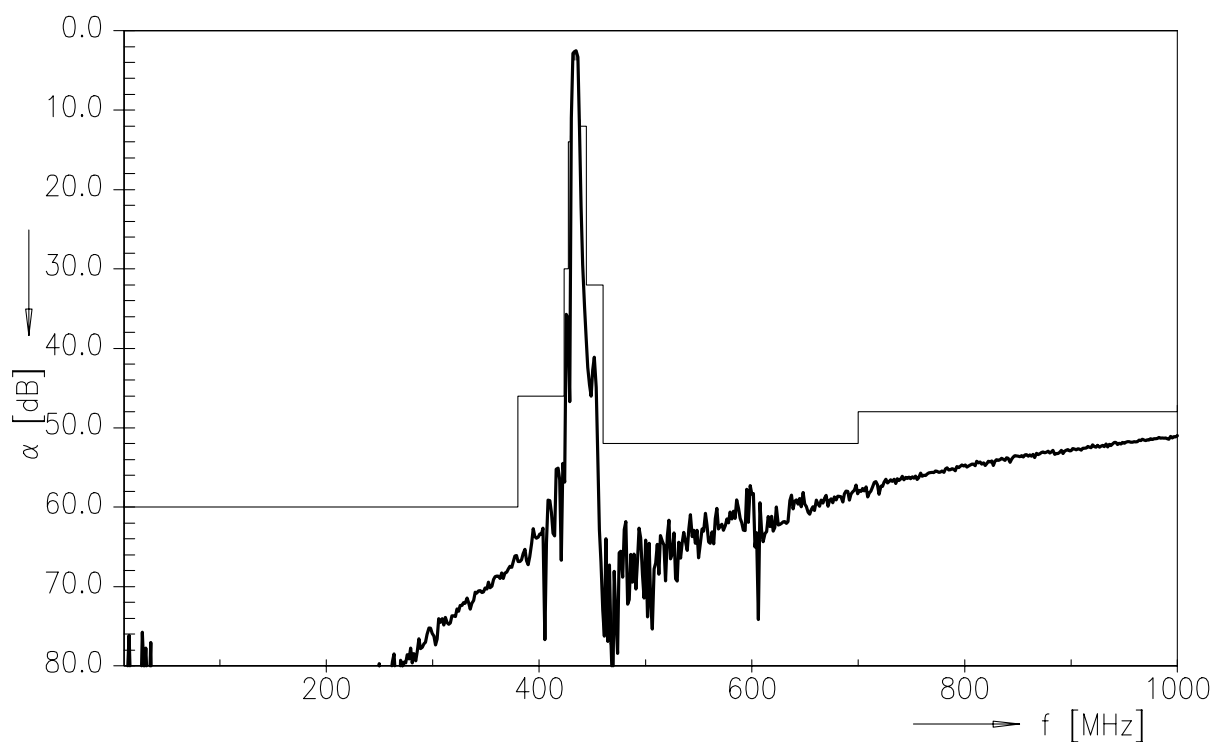
Characteristics

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}				
433.12 ... 434.72 MHz		—	2.6	2.9	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
433.12 ... 434.72 MHz		—	0.4	1.0	dB
Input VSWR					
433.12 ... 434.72 MHz		—	1.8	2.0	
Output VSWR					
433.12 ... 434.72 MHz		—	1.8	2.0	
Attenuation	α				
10.00 ... 380.00 MHz		60	65	—	dB
380.00 ... 423.42 MHz		46	51	—	dB
423.42 ... 427.42 MHz		30	34	—	dB
427.42 ... 429.42 MHz		7	17	—	dB
438.42 ... 444.42 MHz		6	16	—	dB
444.42 ... 460.00 MHz		32	37	—	dB
460.00 ... 700.00 MHz		52	58	—	dB
700.00 ... 1000.00 MHz		48	51	—	dB

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

Transfer function

Transfer function (wideband)


References

Type	B3721
Ordering code	B39431B3721U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B3721_NB.s2p, B3721_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."
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.

Published by EPCOS AG

Surface Acoustic Wave Components Division

P.O. Box 80 17 09, 81617 Munich, GERMANY

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