



## **SAW Components**

### **SAW filter**

Short range devices

<b>Series/type:</b>	<b>B3710</b>
<b>Ordering code:</b>	<b>B39431B3710U410</b>
<b>Date:</b>	<b>July 21, 2009</b>
<b>Version:</b>	<b>2.3</b>



SAW Components

B3710

SAW filter

433.92 MHz

Data sheet



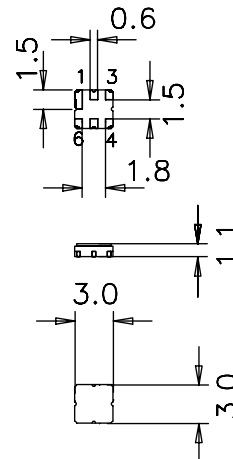
### Application

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



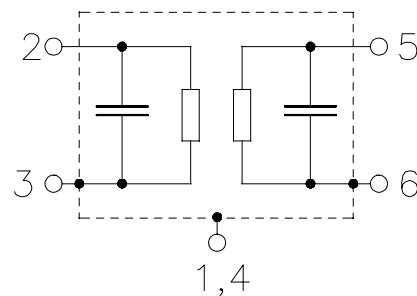
### Features

- 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
- **Electrostatic Sensitive Device (ESD)**



### Pin configuration

- 2 Input
- 5 Output
- 1,3,4,6 Ground (case)



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



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**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.	
<b>Center frequency</b>	$f_C$	—	433.92	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{max}$	—	2.0	2.7	dB
433.00 ... 434.71 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0.5	1.3	dB
433.00 ... 434.71 MHz					
<b>Attenuation</b>	$\alpha$				dB
10.00 ... 380.00 MHz		55	60	—	
380.00 ... 413.50 MHz		49	53	—	
413.50 ... 424.00 MHz		40	48	—	
443.75 ... 454.00 MHz		25	33	—	
454.00 ... 470.00 MHz		35	44	—	
470.00 ... 650.00 MHz		48	55	—	
650.00 ... 1000.00 MHz		40	50	—	



<b>SAW Components</b>	<b>B3710</b>
<b>SAW filter</b>	<b>433.92 MHz</b>

Data sheet



**Characteristics**

Temperature range for specification: T = -45 °C to +105 °C  
 Terminating source impedance: Z<sub>S</sub> = 50Ω  
 Terminating load impedance: Z<sub>L</sub> = 50Ω

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	f <sub>C</sub>	—	433.92	—	MHz
<b>Maximum insertion attenuation</b> 433.00 ... 434.71 MHz	α <sub>max</sub>	—	2.0	3.1	dB
<b>Amplitude ripple (p-p)</b> 433.00 ... 434.71 MHz	Δα	—	0.5	1.7	dB
<b>Attenuation</b>	α				
10.00 ... 380.00 MHz		55	60	—	dB
380.00 ... 413.50 MHz		49	53	—	dB
413.50 ... 424.00 MHz		37	48	—	dB
443.75 ... 454.00 MHz		25	33	—	dB
454.00 ... 470.00 MHz		35	44	—	dB
470.00 ... 650.00 MHz		48	55	—	dB
650.00 ... 1000.00 MHz		40	50	—	dB

s

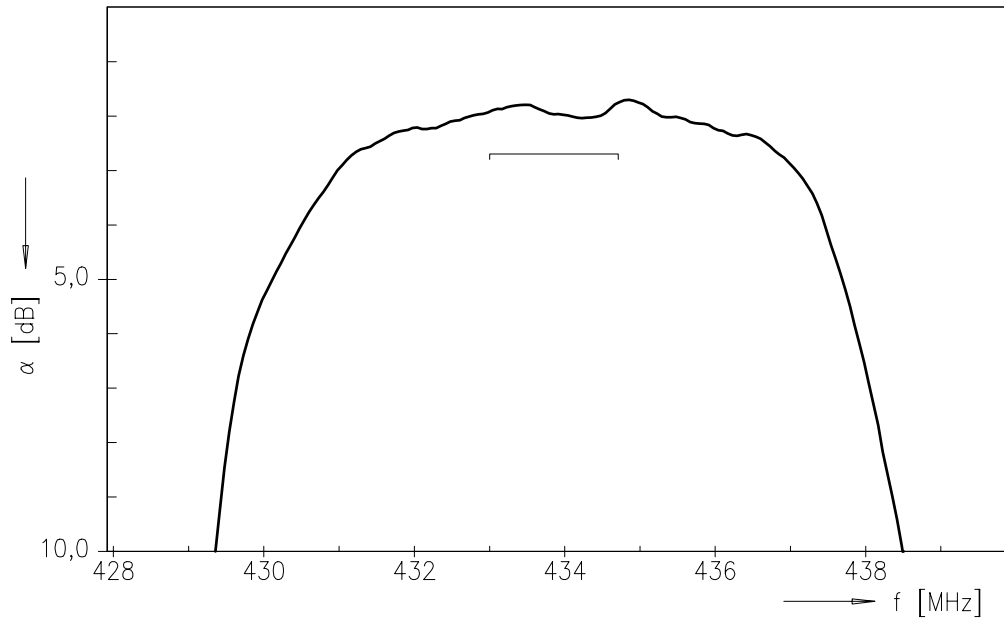
**Maximum ratings**

Operable temperature range	T	-45/+125	°C	
Storage temperature range	T <sub>stg</sub>	-45/+125	°C	
DC voltage	V <sub>DC</sub>	0	V	
Source power	P <sub>S</sub>	10	dBm	source impedance 50 Ω
Source power	P <sub>S</sub>	13	dBm	1000 hours, duty cycle 1:10, -40 °C to +85 °C

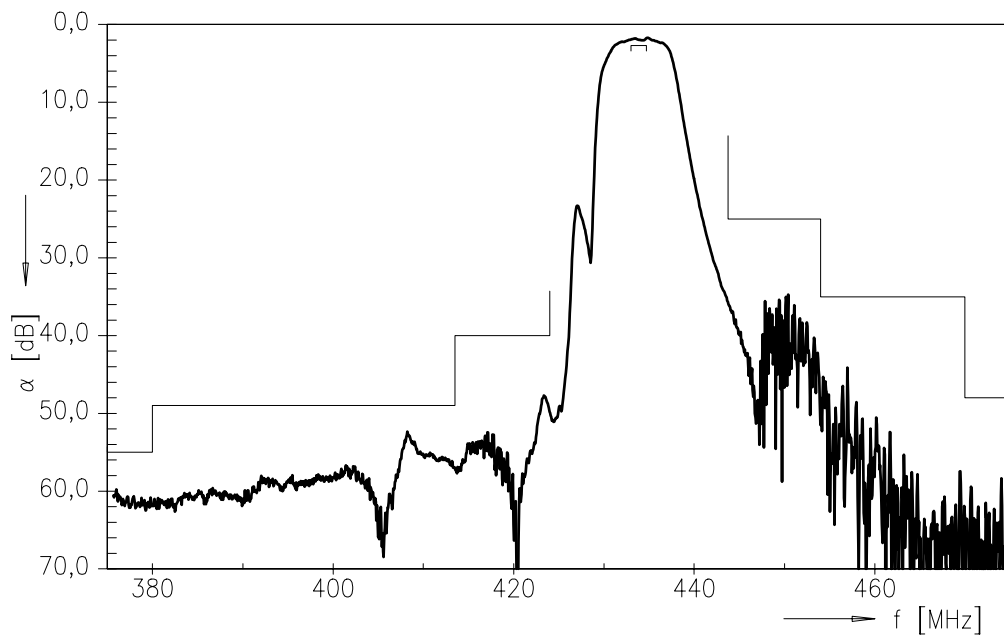
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Transfer function



Transfer function (wideband)





<b>SAW Components</b>	<b>B3710</b>
<b>SAW filter</b>	<b>433.92 MHz</b>
Data sheet	

## References

<b>Type</b>	B3710
<b>Ordering code</b>	B39431B3710U410
<b>Marking and package</b>	C61157-A7-A67
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B3710_SB.s2p B3710_WB.s2p
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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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