



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





# *SAW Components*

*Data Sheet R771*

Data Sheet

A large, stylized, 3D-rendered graphic of the EPCOS logo. The letters "EPCOS" are rendered in a white, glowing, sans-serif font, appearing to be part of a larger, curved structure that resembles the top of the EPCOS logo triangle. The background is dark and textured, with a faint map of the world visible.



**SAW Components**

**R 771**

**Resonator**

**314,875 / 315,125 MHz**

**Data Sheet**

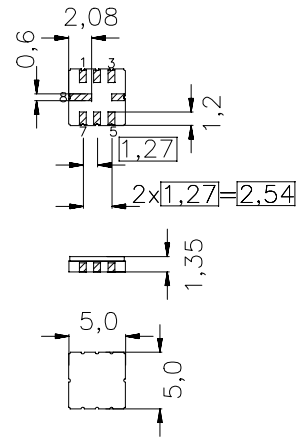
Ceramic package **QCC8C**

**Features**

- 1-port resonator (2 Resonators in 1 housing)
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators
- Protection layer: Protec

**Terminals**

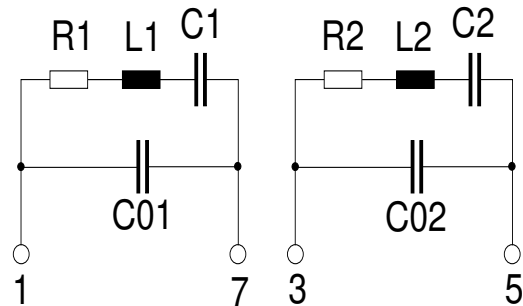
- Ni, gold plated



Dimensions in mm, approx. weight 0,1 g

**Pin configuration**

- |     |               |
|-----|---------------|
| 1   | Input Reso 1  |
| 3   | Input Reso 2  |
| 7   | Output Reso 1 |
| 5   | Output Reso 2 |
| 4,8 | Ground (case) |
| 2,6 | float         |



Type	Ordering code	Marking and Package according to	Packing according to
R 771	B39311-R 771-U310	C61157-A7-A56	F61074-V8169-Z000

Electrostatic Sensitive Device (ESD)

**Maximum ratings**

Operable temperature range	$T_A$	-45/+120	°C	between any terminals
Storage temperature range	$T_{stg}$	-45/+120	°C	
DC voltage	$V_{DC}$	12	V	
Source power	$P_s$	0	dBm	



**SAW Components**

**R 771**

**Resonator**

**314,875 / 315,125 MHz**

**Data Sheet**

**Characteristics Resonator 1**

Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating Load impedance:  $Z_L = 50\ \Omega$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency Resonator 1<sup>1)</sup></b>	$f_c$	314,825	314,875	314,925	MHz
<b>Frequency offset Resonator 2 to Resonator 1</b>	$f_{\text{offset}}$	200,0	250,0	300,0	KHz
<b>Minimum insertion attenuation</b>	$\alpha_{\text{min}}$	—	1,3	1,6	dB
Unloaded quality factor	$Q_U$	9600	13200	—	
<b>Ageing of <math>f_c</math></b>		—	—	$\pm 50$	ppm
<b>Equivalent circuit elements</b>					
Motional capacitance	$C_1$	—	2,39	—	fF
Motional inductance	$L_1$	—	106,94	—	$\mu\text{H}$
Motional resistance	$R_1$	—	16	22	$\Omega$
Parallel capacitance <sup>2)</sup>	$C_{01}$	—	3,1	—	pF
<b>Temperature coefficient of frequency<sup>3)</sup></b>	$TC_f$	—	- 0,03	—	ppm/K <sup>2</sup>
<b>Turnover temperature</b>	$T_0$	0	—	30	$^{\circ}\text{C}$

- 1) Center frequency is defined as the maximum of the real part of the admittance.
- 2) If used in two port configuration (pin 1-input, pin 7-output)  $C_0$  is reduced by approx. 0,3 pF.
- 3) Temperature dependence of  $f_c$ :  $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$


**SAW Components**
**R 771**
**Resonator**
**314,875 / 315,125 MHz**
**Data Sheet**
**Characteristics Resonator 2**

Reference temperature:  $T_A = 25\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating Load impedance:  $Z_L = 50\ \Omega$

		<b>min.</b>	<b>typ.</b>	<b>max.</b>	
<b>Center frequency Resonator 2<sup>1)</sup></b>	$f_c$	315,075	315,125	315,175	MHz
<b>Frequency offset Resonator 2 to Resonator 1</b>	$f_{\text{offset}}$	200,0	250,0	300,0	KHz
<b>Minimum insertion attenuation</b>	$\alpha_{\text{min}}$	—	1,3	1,6	dB
Unloaded quality factor	$Q_U$	9600	13200	—	
<b>Ageing of <math>f_c</math></b>		—	—	$\pm 50$	ppm
<b>Equivalent circuit elements</b>					
Motional capacitance	$C_2$	—	2,38	—	fF
Motional inductance	$L_2$	—	107,32	—	$\mu\text{H}$
Motional resistance	$R_2$	—	16	22	$\Omega$
Parallel capacitance <sup>2)</sup>	$C_{02}$	—	3,1	—	pF
<b>Temperature coefficient of frequency<sup>3)</sup></b>	$TC_f$	—	-0,03	—	ppm/K <sup>2</sup>
<b>Turnover temperature</b>	$T_0$	0	—	30	$^{\circ}\text{C}$

1) Center frequency is defined as the maximum of the real part of the admittance.

2) If used in two port configuration (pin 3-input, pin 5-output)  $C_0$  is reduced by approx. 0,3 pF.

3) Temperature dependence of  $f_c$ :  $f_c(T_A) = f_c(T_0)(1 + TC_f(T_A - T_0)^2)$



**SAW Components**

**R 771**

**Resonator**

**314,875 / 315,125 MHz**

**Data Sheet**

**Published by EPCOS AG**

**Surface Acoustic Wave Components Division, SAW CE AE PD**

**P.O. Box 80 17 09, D-81617 München**

© EPCOS AG 2004. All Rights Reserved. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

The information contained in this brochure describes the type of component and shall not be considered as guaranteed characteristics. Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.