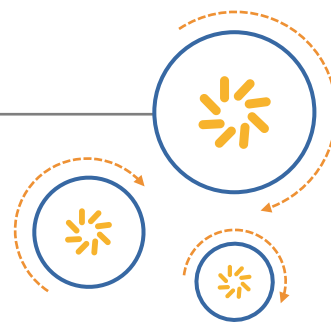


RF360 Europe GmbH

A Qualcomm – TDK Joint Venture



## SAW Components

### SAW resonator

Short range devices

Series/type:	R2906
Ordering code:	B39921R2906H110
Date:	January 27, 2010
Version:	2.5

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# SAW Components

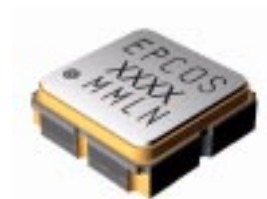
## SAW resonator

Short range devices

<b>Series/type:</b>	<b>R2906</b>
<b>Ordering code:</b>	<b>B39921R2906H110</b>
<b>Date:</b>	<b>January 27, 2010</b>
<b>Version:</b>	<b>2.5</b>

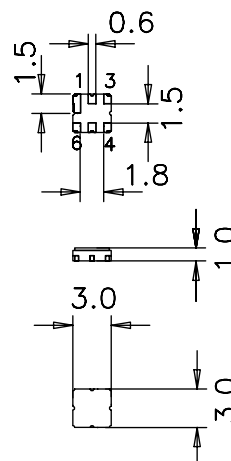
### Application

- 2-port resonator
- nominal 180° - phase at resonance
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators



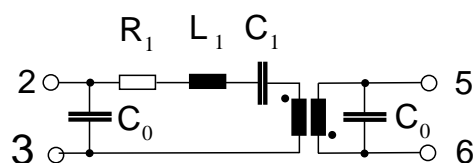
### Features

- Package size 3.0 x 3.0 x 1.0 mm<sup>3</sup>
- Package code DCC6E
- 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
- 3 Input (Ground)
- 5 Output
- 6 Output (Ground)
- 1,4 Ground (case)



**SAW Components**
**R2906**
**SAW resonator**
**915.00 MHz**
**Data sheet**

**Characteristics**

Reference temperature:  $T_A = 25\text{ }^{\circ}\text{C}$   
Terminating source impedance:  $Z_S = 50\text{ }\Omega$   
Terminating load impedance:  $Z_L = 50\text{ }\Omega$

		min.	typ.	max.	
<b>Center frequency</b>	$f_C$	914.75	915.00	915.25	MHz
<b>Minimum insertion attenuation</b>	$\alpha_{\min}$	—	7.5	8.5	dB
Phase at $f_C$	$\varphi$	—	124	—	$^{\circ}$ el.
Loaded quality factor	$Q_L$	2500	2900	—	
Unloaded quality factor	$Q_U$	4200	4700	—	
<b>Ageing of <math>f_C</math></b>		—	—	−50/+50	ppm
<b>Equivalent circuit elements</b>					
Motional capacitance	$C_1$	—	0.311	—	fF
Motional inductance	$L_1$	—	97.15	—	$\mu\text{H}$
Motional resistance	$R_1$	—	109	—	$\Omega$
Parallel capacitance	$C_0$	—	1.8	—	pF
<b>Temperature coefficient of frequency<sup>1)</sup></b>	$TC_f$	—	−0.032	—	ppm/K <sup>2</sup>
<b>Turnover temperature</b>	$T_0$	30	—	60	$^{\circ}\text{C}$

<sup>1)</sup> Temperature dependence of  $f_C$ :  $f_C(T_A) = f_C(T_0) (1 + TC_f (T_A - T_0)^2)$

**Maximum ratings**

Operable temperature range	$T$	−45/+125	$^{\circ}\text{C}$	
Storage temperature range	$T_{\text{stg}}$	−45/+125	$^{\circ}\text{C}$	
DC voltage	$V_{\text{DC}}$	12	V	
Source power	$P_S$	0	dBm	

<b>SAW Components</b>	<b>R2906</b>
<b>SAW resonator</b>	<b>915.00 MHz</b>

Data sheet



## References

<b>Type</b>	R2906
<b>Ordering code</b>	B39921R2906H110
<b>Marking and package</b>	C61157-A7-A143
<b>Packaging</b>	F61074-V8168-Z000
<b>Date codes</b>	L_1126
<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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