

RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

## **SAW** Components

SAW resonator

Short range devices

Series/type:R2906Ordering code:B39921R2906H110

Date:January 27, 2010Version:2.5

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# **SAW Components**

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# **公TDK**

#### SAW Components SAW resonator

### 915.00 MHz

R2906

**Data sheet** 

#### Application

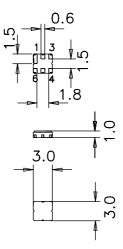
- 2-port resonator
- nominal 180°- phase at resonance
- Provides reliable, fundamental mode, quartz frequency stabilization i.e. in transmitters or local oscillators

SMD



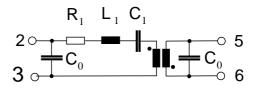
#### Features

- 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
- Electrostactic Sensitive Device (ESD)



#### **Pin configuration**

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



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

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# **☆TDK**

SAW Components					R2906
SAW resonator				91	5.00 MHz
Data sheet	SM				
Characteristics					
Reference temperature: Terminating source impedance: Terminating load impedance:	$\begin{array}{l} T_{A} &= 25 \ ^{\circ}C \\ Z_{S} &= 50 \ \Omega \\ Z_{L} &= 50 \ \Omega \end{array}$				
		min.	typ.	max.	
Center frequency	f <sub>C</sub>	914.75	915.00	915.25	MHz
Minimum insertion attenuation	$lpha_{min}$	_	7.5	8.5	dB
Phase at f <sub>c</sub>	φ	_	124	_	°el.
Loaded quality factor	$Q_L$	2500	2900	_	
Unloaded quality factor	QU	4200	4700	—	
Ageing of f <sub>C</sub>				-50/+50	ppm
Equivalent circuit elements					
Motional capacitance	C <sub>1</sub>	_	0.311	_	fF
Motional inductance	L <sub>1</sub>	_	97.15	_	μH
Motional resistance	R <sub>1</sub>	—	109	_	Ω
Parallel capacitance	C <sub>0</sub>	_	1.8	_	pF
Temperature coefficient of frequency <sup>1)</sup>	TC <sub>f</sub>		-0.032		ppm/K <sup>2</sup>
Turnover temperature	T <sub>0</sub>	30		60	°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	Т	-45/+125	°C
Storage temperature range	T <sub>stg</sub>	-45/+125	°C
DC voltage	V <sub>DC</sub>	12	V
Source power	$P_S$	0	dBm

# **公TDK**

SAW Components **SAW** resonator

R2906 915.00 MHz

Data sheet

SMD

#### References

Туре	R2906
Ordering code	B39921R2906H110
Marking and package	C61157-A7-A143
Packaging	F61074-V8168-Z000
Date codes	L_1126
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 maxi- mum concentration values for certain hazardous substances in electrical and electronic equipment."

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