

Features

- Frequency Range up to 3.5 GHz
- Compatible to Murata MQE-series
- Low Profile, 1.9 mm
- Low Power Consumption

Applications

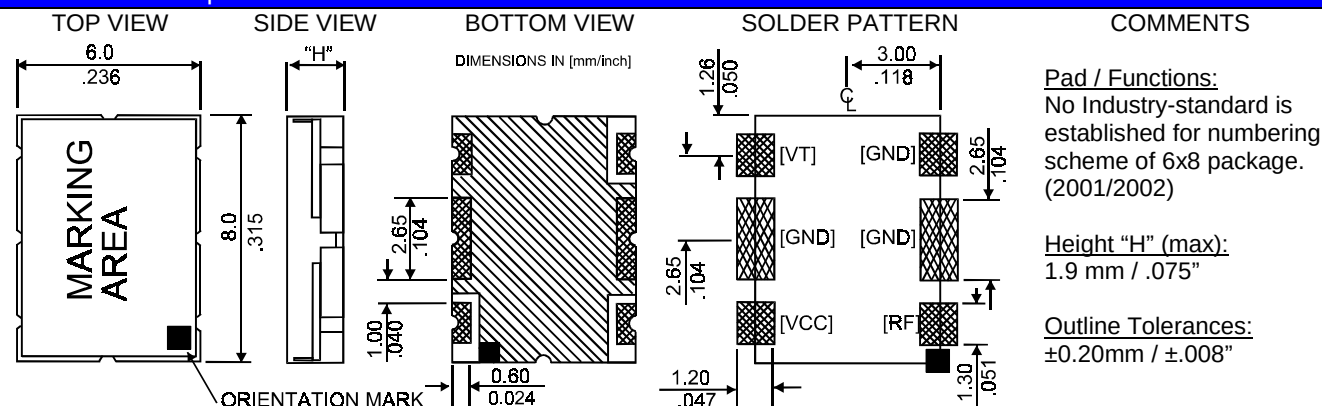
- Wireless Networks
- Cordless Phones
- Telecommunications
- Navigation

Description

The RQS-series is ideally suited for cost-sensitive applications. With its small dimensions and low power consumption, the RQS-series meets the requirements of portable and wireless applications. A high degree of process-automation ensures consistent performance at high volume and lowest cost.



Mechanical Specification



Electrical Specification

PARAMETER	COMMENTS, EXAMPLES	SYMBOL	MIN	TYP	MAX	UNIT
Max Frequency	Currently available in RQS-package	f _o			2500	MHz
Tuning Ratio	Ratio of upper-to-lower freq (2 = "Octave-VCO")	f-up : f-low		1.1	2.0	-
Tuning Voltage	Range is typ. 2V for battery-operated applications	V _t	0~2	0~5		V
Supply Voltage	Mobile devices typ. operated at 2.7V and up	V _{cc}	2.7	3.3		V
Supply Current	Dependent on Frequency and Output Power	I _{cc}	6	15	25	mA
Output Power	Output Power Tolerance is typically ±3dB	P _{out}	-3	0	+5	dBm
Harmonic Suppression	Dependent on Tuning Range and Frequency	a(2f _o)		-10		dBc
Pushing	Dependent on Freq, Tuning R., typ 0.5%~1% f _o	df/dV _{cc}	2	5	10	MHz/V
Pulling	Dependent on Freq, Output Power and Circuit.	df/dZ _L	2	5	10	MHz

General Specification

- Load Impedance is 50 Ohms.
- Operating temperature range is typically -40°C...+85°C.
- The package is non-hermetic. Substrate is glass-reinforced laminate, the cover is folded nickel-silver.
- Bypass-capacitors (ceramic) from Vcc to Ground are recommended: 1nF||100pF.
- Customized specifications may deviate from this General Specification.
- Phase-noise performance depends on the individual specification. Phase Noise is strongly dependent on (a) frequency (b) supply voltage and (c) tuning range.
- The phase noise graph (to right) shows the characteristic of two typical RQS-VCOs at 0dBm output power, ±1% tuning range and 3.3V / 2.8V supply voltage.

Phase Noise Examples

