

## Voltage Controlled Oscillator, 6.0-12.0GHz 0dBm Output Power, 15Volts DC Voltage, Surface Mount Package

### Features:

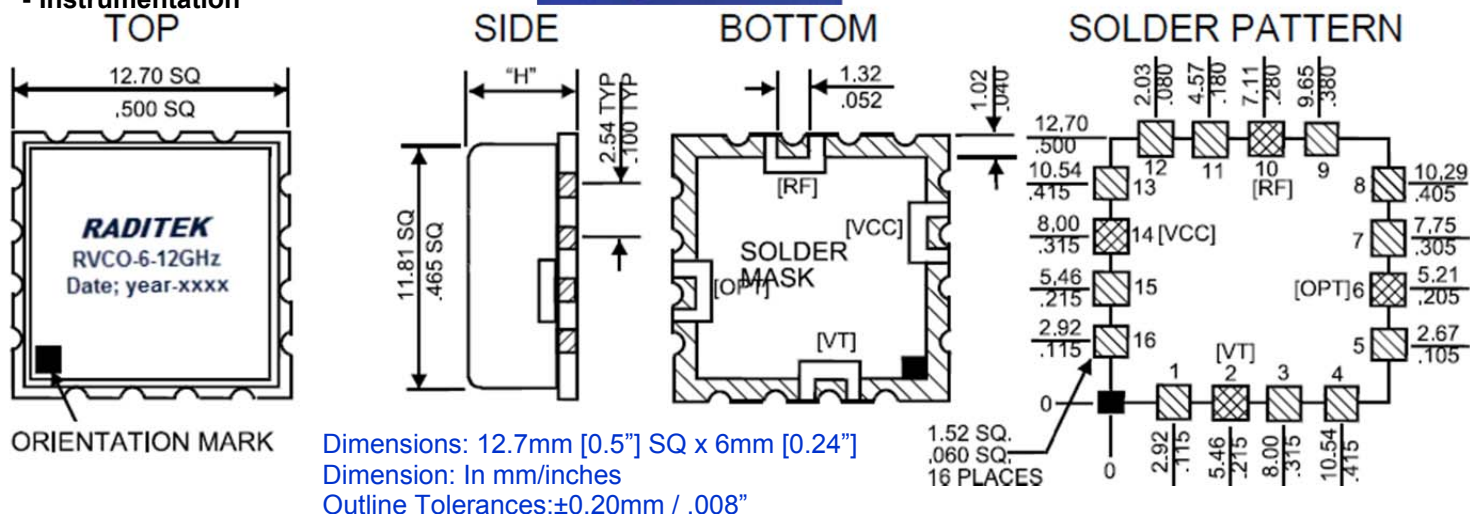
- Frequency up to 12.0 GHz
- Micro-strip Line Topologic
- Low Phase Noise
- Custom options available

### Applications

- Telecommunications
- High Performance Radio
- Base Stations
- Instrumentation



Pad #	Functions
2	Tuning Voltage
6	Optional
10	RF-Output
14	Supply Voltage
1,3,4,7,8,9,11,12,13,15 & 16	Ground



RVCO-6.0-12.0-0dBm-15V-S-r24 is a VCO designed to meet the requirements for a variety of applications. The unit main characteristics are High Frequency Band, Low Noise and Linear Tuning. Components are selected for high-Q and tight tolerances

It is developed and manufactured in its ISO9000 certified facility. RF-simulation (CAE), automated test-equipment (Agilent VCO/PLL-Analyzer) and statistical process control (SPC) are integral part of R&D and manufacturing – which ensures minimal process variances and a high degree of repeatability.

### Order Examples: RVCO-6.0-12.0-15V-S-r24

**Description:** (Voltage Controlled Oscillator, 6.0-12.0GHz, (-10 to 0) dBm Output Power, 15Volts DC Voltage, Surface Mount Package)

Electrical Specification						
PARAMETER	COMMENTS, EXAMPLES	SYMBOL	MIN	TYP	MAX	UNIT
Frequency Range	Currently available in 0.5 SQ inch-package	fo	6000		12000	MHz
Tuning Voltage		Vt		0~5	0~15	V
Supply Voltage	Typical Voltage 5V, Stationary up to 12V	Vcc		5	12	V
Supply Current	Dependent on Frequency and Output Power	Icc		150		mA
Output Power	Output Power Tolerance is typ. ±5dBm	Pout	-10	-5	0	dBm
Harmonic Suppression	Dependent on Tuning Range and Freq	a(2fo)		-10		dBc
Sub-harmonic Suppression	Dependent on Tuning Range and Freq	a(fo/2)		-20		dBc
Pushing	Dependent on Freq, Tuning R.	df/dVcc		3.0		MHz/V
Pulling	Dependent on Freq, Output Power and Circuit	df/dZL		2.5		MHz

RVCO-6.0-12.0-15V-S-r24

Specifications may be subject to change

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1. Load Impedance is 50  $\Omega$ .
2. Operating temperature range is typically 0°C...+85°C.
3. The package is non-hermetic. Substrate is glass-reinforced laminate; the cover is folded nickel-silver.
4. Bypass-capacitors (ceramic) from Vcc to Ground are recommended: 1nF||50pF.
5. Customized specifications may deviate from this General Specification.
6. Phase-noise performance depends on the individual specification. Phase Noise is strongly dependent on (a) frequency (b) supply voltage and (c) tuning range.
7. The phase noise graph (to right) shows the typical characteristic.
8. The sample was measured at 5V supply and have -2dBm output power.

### Ultra-Low Phase Noise-VCO 6500 MHz $\pm$ 1%

