



FEATURE

The SMK20130CAI is from the world's first ASIC -based OCXO product family and utilizes Rakon's patented Mercury™ ASIC technology. It delivers

Features

20.5*13.0*8.5mm

Frequency stability over temperature as low as ± 10 ppb over -20 to 70° C

Low power consumption

High reliability

Specification for electrical appliances



Parameter	5.0V		3.3V		Unit
	MIN	MAX	MIN	MAX	
Supply Voltage (VDD) 5%	4.75	5.25	3.135	3.465	V
Frequency Range	5	50	5	50	MHz
Standard Frequency	10, 12.8, 19.2, 19.44, 20, 24.576, 25, 26, 32.768, 30.72, 40, 48.88				
Frequency Tolerance*	± 10 - ± 100		± 10 - ± 100		ppb
Vs Load ($\pm 10\%$) change	± 10		± 10		ppb
Vs Aging	± 10		± 10		
Input power	800~1000		800~1000		mW
	350~400		350~400		mW
Output Level (CMOS)					
Output voltage level high (VOH)	10% Vcc		10% Vcc		V
Output voltage level high (VOL)	90% Vcc		90% Vcc		
Duty cycle	45	55	45	55	%
Rise and fall times	4		4		ns
Port input impedance	80		80		kΩ
Modulation bandwidth	3.5		3.55		kHz
Slope	8		8		ppm/V
Phase Noise					
10Hz	-95		-95		dBc/Hz
100Hz	-125		-125		
1KHz	-145		-145		
10KHz	-155		-155		
Start Time	2		2		mSec
Operating temperature range	-40	85	-40	85	° C

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10.00MHz SMK2013OCAI ocxo ssp phase noise

Frequency Range	Temp Range	Stability	Output Waveform	Supply Current
5.00 to 50.000MHz	(0 to 50° C)	±0.30ppm	HCMOS	/
	(-20 to 70° C)	±0.30ppm		/
	(-30 to 75° C)	±0.30ppm		/
	(-40 to 85° C)	±0.30ppm		/

Environmental Parameters

Storage Temperature Range: - 50 to 90° C

Frequency stability over temperature in still air

Shock: IEC 60068-2-27, Test Ea: 1500G acceleration for 6ms, 3 shocks in each of 3 mutually perpendicular planes

Vibration: IEC 60068-2-6, Test Fc, Procedure B4: 10Hz-60Hz, 1.5mm displacement, 60-2000Hz at 98.1m/s², 30mins in 3 mutually perpendicular planes at 1 oct/min

Solderability: MIL-STD-202, Method 208, Category 3

Frequency*

Model*

Reference Voltage + Frequency Adjustment Options*

Output

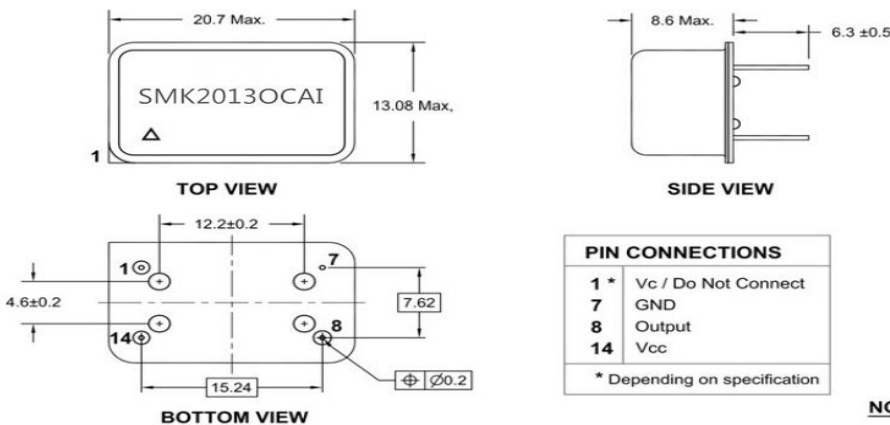
Frequency Stability (over operating temperature range)*

Operating Temperature Range*

Supply Voltage

(*minimum required)

DIMENSION (mm)



NOTE: Outline unit is mm