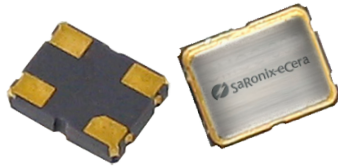


# 3.3V CMOS 32.768kHz



2.0 x 1.6mm Ceramic SMD

### Product Features

- 32.768 kHz
- 3.3V CMOS compatible logic levels
- Low power standby mode ( $< 10\mu\text{A}$ )
- Low power active mode ( $< 80\mu\text{A}$ )
- Designed for standard reflow and washing techniques
- Pb-free and RoHS/Green compliant

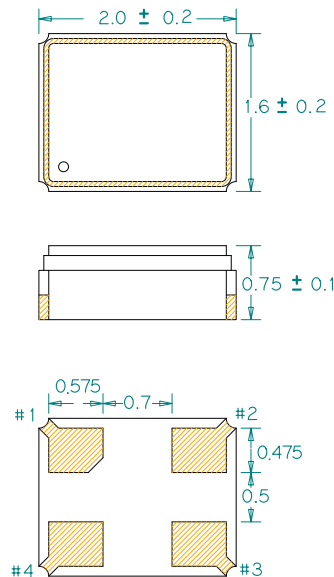
### Product Description

The KM Series real time clock oscillator achieves superb stability over a broad range of operating conditions. The output clock signal is compatible with LVCMOS/LVTTL logic levels. The device, available on tape and reel, is contained in a 2.0 x 1.6mm surface-mount ceramic package.

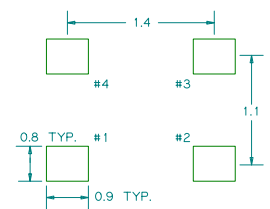
### Applications

- Real-Time Clock Oscillator
- Standby clock source

### Package: (Scale: none. Dimensions are in mm)



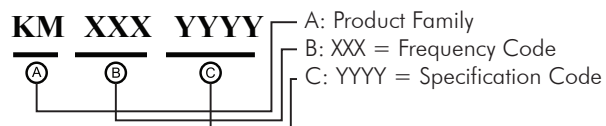
### Recommended Land Pattern:



### Pin Functions:

Pin	Function
1	OE
2	Ground
3	Clock Output
4	V <sub>DD</sub>

### Part Ordering Information:



Following the above format, SaRonix-eCera part numbers will be assigned upon confirmation of exact customer requirements.

**Electrical Performance**

Parameter	Min.	Typ.	Max.	Units	Notes
Output Frequency		32.768		kHz	As specified
Supply Voltage	+2.97	+3.3	+3.63	V	
Supply Current, Output Enabled		60	80	$\mu$ A	
Supply Current, Standby Mode			10	$\mu$ A	Output Hi-Z
Frequency Stability			$\pm 20$ to $\pm 50$	ppm	See Note 1 below
Operating Temperature Range	-20		+70	$^{\circ}$ C	As specified
	-40		+85		As specified
Output Logic 0, $V_{OL}$			$0.1 V_{DD}$	V	
Output Logic 1, $V_{OH}$	$0.9 V_{DD}$			V	
Output Load			15	pF	See Note 2 below
Duty Cycle	45		55	%	measured 50% of $V_{DD}$
Rise and Fall Time			15	ns	measured 10/90% of $V_{DD}$

**Notes:**

- As specified. Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance ( $25^{\circ}$ C), aging (1 year at  $25^{\circ}$ C average effective ambient temperature), shock and vibration.
- For specifications other than those listed, please contact sales.

**Output Enable / Disable Function**

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	$0.7 V_{DD}$			V	or open
Input Voltage (pin 1), Output Disable (low power standby)			$0.3 V_{DD}$	V	Output is Hi-Z
Internal Pullup Resistance		470		k $\Omega$	
Output Disable Delay			100	ns	
Output Enable Delay			2	ms	

**Absolute Maximum Ratings**

Parameter	Min.	Typ.	Max.	Units	Notes
Storage Temperature	-55		+125	$^{\circ}$ C	

For the latest product information visit: <http://www.pericom.com/products/crystals-and-crystal-oscillators/xo/?part=KM+3.3>

For test circuit go to: [http://www.pericom.com/pdf/sre/tc\\_cmos2.pdf](http://www.pericom.com/pdf/sre/tc_cmos2.pdf)

For soldering reflow profile and reliability test ratings go to: <http://www.pericom.com/pdf/sre/reflow.pdf>

For tape and reel information go to: [http://www.pericom.com/pdf/sre/tr\\_2016\\_xo.pdf](http://www.pericom.com/pdf/sre/tr_2016_xo.pdf)