

# WX Series Low Frequency Crystal

February 2016

- The Pletronics' WX Series is a cylindrical watch crystal.
- 32.768 KHz only
- XY Cut Crystal
- Available in 2 sizes - WX:3x8mm, WX26:2x6mm

**Pletronics Inc. certifies this device is in accordance with the RoHS (2011/65/EC) and WEEE (2002/96/EC) directives.**

Pletronics Inc. guarantees the device does not contain the following:  
Cadmium, Hexavalent Chromium, Mercury, PBB's, PBDE's  
Weight of the Device: 0.042 grams  
Moisture Sensitivity Level: 1 As defined in J-STD-020C  
Second Level Interconnect code: e3



### Part Number:

WX26	-32.768K	6pF	SMD	-xxx	
					Internal code or blank
					Only WX26 available in SMD
					WX26 available @ 6.0pF & 12.5pF load WX available @ 12.5pF load
					Nominal Frequency in KHz
					Model Number: WX: 3x8mm WX26: 2x6mm

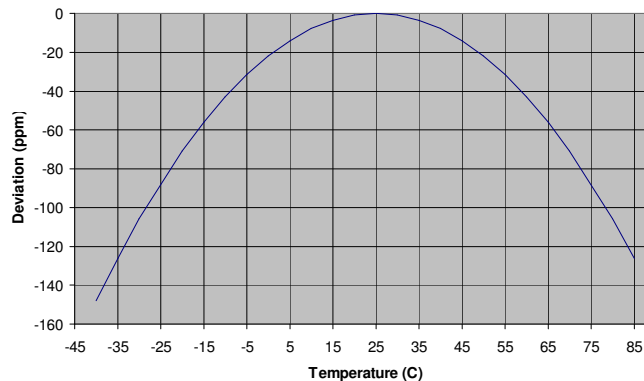
### Reliability: Environmental Compliance

Parameter	Condition
Mechanical Shock	MIL-STD-883 Method 2002, Condition A
Vibration	MIL-STD-883 Method 2007, Condition A
Solderability	MIL-STD-883 Method 2003
Thermal Shock	MIL-STD-883 Method 1011, Condition A

## Electrical Specification:

Item	Min	Max	Unit	Condition
Frequency	32.768		kHz	
Calibration Frequency Tolerance	-20	+20	ppm	at +25°C, (+/- 30 ppm @6.0 pF Load)
Equivalent Series Resistance	--	40K	Ohms	
Drive Level	--	1.0	uW	
Turn Over Temperature	20	30	°C	Nominal is 25°C
Temperature Coefficient	-0.034		ppm/°C <sup>2</sup>	typical
Q Factor	30000	--	Q	
Load Capacitance	12.5		pF	Standard (see options in part # table)
Shunt Capacitance	1.7		pF	Pin to Pin Capacitance, Max
Aging (for first year)	-3	+3	ppm/Yr	at 25°C ± 3°C
Crystal Cut	XY Cut			
Operating Temperature Range for thru hole models	-10	+60	°C	
Operating Temperature Range For WX26-32.768K-SMD	-40	+85	°C	(30 ppm Std)
Storage Temperature Range	-55	+125	°C	
Shock Resistance	-5	+5	ppm	
Vibration Resistance	-5	+5	ppm	
Reflow Resistance	-10	+10	ppm	

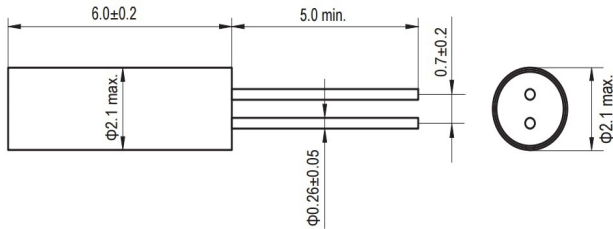
## XY Crystal Frequency versus Temperature Typical Performance:



**Mechanical:**

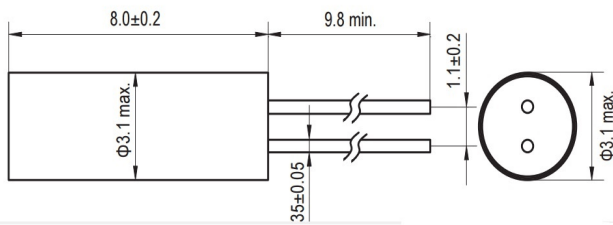
WX26:

**2.0x6.0 mm**

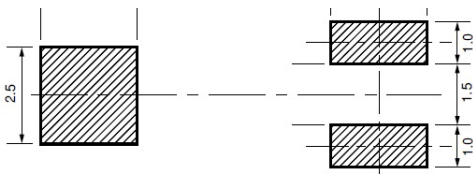
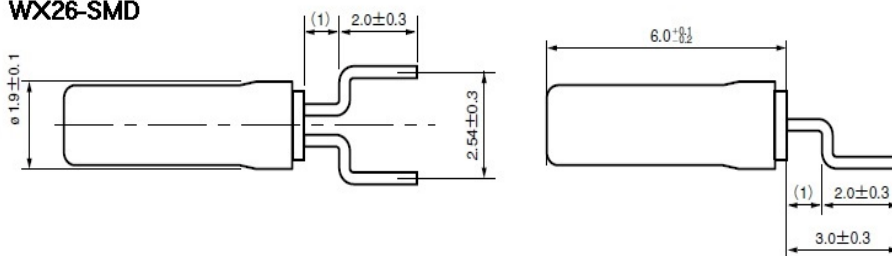


WX:

**3.0x8.0 mm**



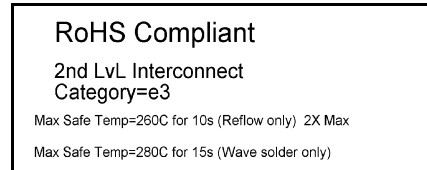
**WX26-SMD**



## Package Labeling

Label is 1" x 2.6" (25.4mm x 66.7mm)  
Font is Courier New  
Bar code is 39-Full ASCII

Label is 1" x 2.6" (25.4mm x 66.7mm)  
Font is Arial



## Part Marking:

- Marking consists of an internal manufacturing date code
- Orientation of marking may be mixed on the tape
- Traceability of part's specification is lost once removed from reel

## Layout and application information

- Trace lengths to the crystal should be kept as short as possible.
- The crystal connections are sensitive to noise.

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**Contacting Pletronics Inc.**

Pletronics Inc.  
19013 36<sup>th</sup> Ave. W, Suite H  
Lynnwood, WA 98036-5761 USA

Tel: 425-776-1880  
Fax: 425-776-2760  
E-mail: [ple-sales@pletronics.com](mailto:ple-sales@pletronics.com)  
URL: [www.pletronics.com](http://www.pletronics.com)

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