

# OW-M Type

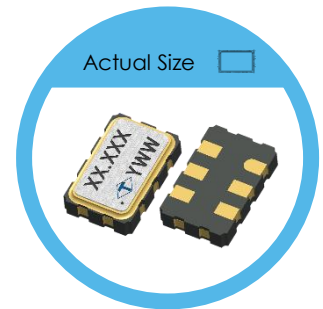
## 5.0 x 3.2 mm SMD CMOS Output Crystal Oscillator

### FEATURES

- Industry Standard 5.0 x 3.2 x 1.25mm Hermetically Sealed Ceramic Package
- Ultra Low Jitter Performance: Typical 0.6pS RMS from 12kHz - 20MHz

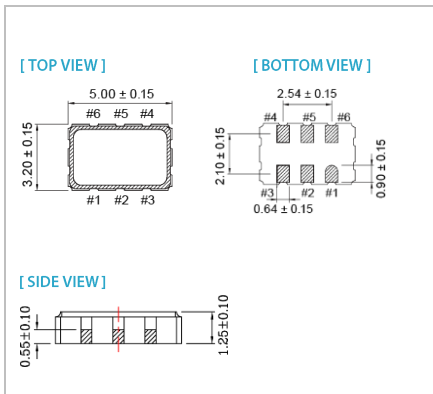
### TYPICAL APPLICATION

- High-Speed Gigabit Ethernet, Fiber Channel, Storage Area Network, SONET
- Enterprise Servers SAS/SATA
- Microprocessors/DSP/FPGA
- Broadband Access, Smart Grid

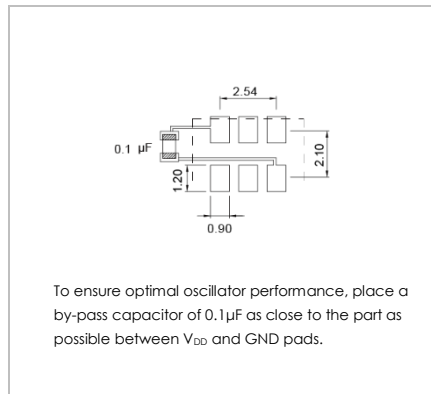


RoHS Compliant

### DIMENSION (mm)



### SOLDER PAD LAYOUT (mm)



### PIN FUNCTION (mm)

PIN#	FUNCTION
1	Tri-State/NC
2	NC/Tri-State
3	GND
4	Output
5	Comp. Output
6	V <sub>DD</sub>

### ELECTRICAL SPECIFICATION

Parameter	CMOS				Unit	Test Condition
	3.3V		2.5V			
	Min.	Max.	Min.	Max.		
Supply Voltage Variation (V <sub>DD</sub> )	V <sub>DD</sub> - 5%	V <sub>DD</sub> + 5%	V <sub>DD</sub> - 5%	V <sub>DD</sub> + 5%	V	
Frequency Range	10	250	10	250	MHz	
Standard Frequency	106.25, 125, 133.33, 150, 155.52, 156.25, 187.5, 212.5				MHz	
Supply Current	10MHz ≤ Fo ≤ 250MHz	-	30	-	30	mA
Output Level	Output High (Logic"1")	2.97	-	2.25	-	V
	Output Low (Logic"0")	-	0.33	-	0.25	V
Transition Time+	Rise / Fall Time	-	1.5	-	1.5	nSec
Startup Time		-	10	-	10	mSec
Tri-State (Input to Pin 2 or Pin 1)	Enable (High Voltage or Floating)	2.31	-	1.75	-	V
	Disable (Low Voltage or GND)	-	0.99	-	0.75	V
RMS Phase Jitter Integrated 12 kHz~20 MHz	AT Integer Mode	-	1.0	-	1.0	pSec
Phase Noise @156.25MHz	100Hz offset	-	-75	-	-75	dBc/Hz
	1kHz offset	-	-105	-	-105	dBc/Hz
	10kHz offset	-	-120	-	-120	dBc/Hz
Aging (@ 25°C, First Year)		-	±3	-	±3	ppm
Storage Temp. Range		-55	125	-55	125	°C

+Transition times are measured between 20% and 80% of V<sub>DD</sub>

### FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm	ppm	
		±25	±50
-10 ~ +60		○	○
-20 ~ +70		○	○
-40 ~ +85		△	○
-40 ~ +105		X	△

○: Available    △: Conditional    x: Not Available  
 Inclusive of calibration @ 25 °C ,operating temperature range,input Voltage variation,load variation,aging (1<sup>st</sup> year),shock,and vibration

Note: not all combination of options are available. Other specifications may be available upon request.

Specifications subject to change without notice.