



# OT-M Type 7.0 x 5.0 mm SMD LVPECL/LVDS Crystal Oscillator

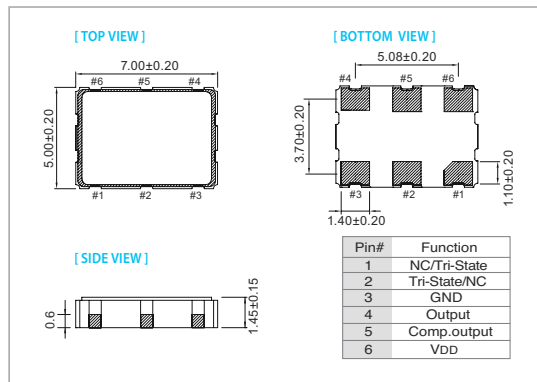
## FEATURE

- Typical 7.0 x 5.0 x 1.45 hermetically sealed ceramic package
- Very low phase jitter : 0.6 ps, typ. RMS
- Any frequency between 10 MHz and 1500 MHz.
- Tri-state enable/disable
- Fast deliver

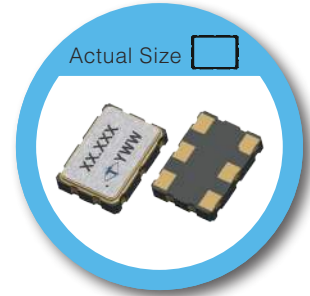
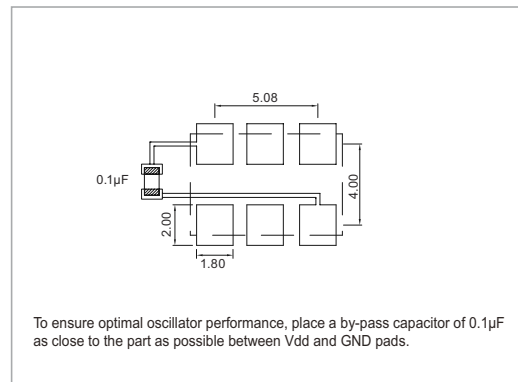
## TYPICAL APPLICATION

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

## DIMENSION (mm)



## SOLDER PAD LAYOUT (mm)



**RoHS Compliant**

## ELECTRICAL SPECIFICATION

Parameter	LVPECL				LVDS				unit
	3.3 V		2.5 V		3.3 V		2.5 V		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
<b>Supply Voltage Variation (V<sub>DD</sub>)</b>	V <sub>DD</sub> -5%	V <sub>DD</sub> +5%	V <sub>DD</sub> -5%	V <sub>DD</sub> +5%	V <sub>DD</sub> -5%	V <sub>DD</sub> +5%	V <sub>DD</sub> -5%	V <sub>DD</sub> +5%	V
<b>Frequency Range</b>	10	1500	10	1500	10	1500	10	1500	MHz
<b>Standard Frequency</b>	106.25, 125, 133.33, 150, 155.52, 156.25, 187.5, 212.5, 312.5, 622.08								
<b>Supply Current</b> 10 MHz ≤ F <sub>o</sub> ≤ 1500 MHz	-	50	-	50	-	50	-	50	mA
<b>Output Level</b> Output High Output Low	2.275	-	1.475	-	-	1.6	-	1.6	V
<b>Transition Time: Rise/Fall Time<sup>+</sup></b>	-	1.0	-	1.0	-	1.0	-	1.0	nSec
<b>Start Time</b>	-	10	-	10	-	10	-	10	mSec
<b>Tri-State(Input to Pin 2 or Pin 1)</b> Enable (High voltage or floating) Disable (Low voltage or GND)	2.31	-	1.75	-	2.31	-	1.75	-	V
<b>RMS Phase Jitter (Integrated 12 KHz ~ 20 MHz) (At Integer Mode)</b>	-	1.2	-	1.2	-	1.2	-	1.2	pSec
<b>Phase Noise @ 156.25 MHz</b> 100Hz 1 kHz 10 kHz	-94	-94	-94	-94	-94	-94	-112	-112	dBc/Hz
<b>Aging (@ 25°C 1st year)</b>	-	±3	-	±3	-	±3	-	±3	
<b>Storage Temp. Range</b>	-55	125	-55	125	-55	125	-55	125	

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

## FREQ. STABILITY vs. TEMP. RANGE

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

\* ○: 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.**