

OA Type

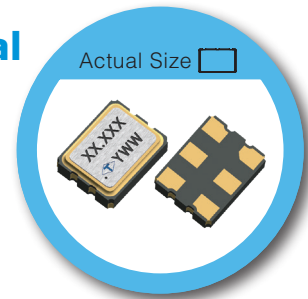
3.2 x 2.5 mm SMD LVPECL/LVDS Crystal Oscillator

FEATURE

- Industry Standard 3.2 x 2.5 x 0.9 hermetically sealed ceramic package.
- Very low jitter performance: typical 0.1 pS RMS from 12 kHz - 20 MHz.
- Fundamental/3rd overtone crystal design.
- Output frequency up to 250 MHz.
- Tri-state enable/disable
- Up to 125°C operating temperature range.

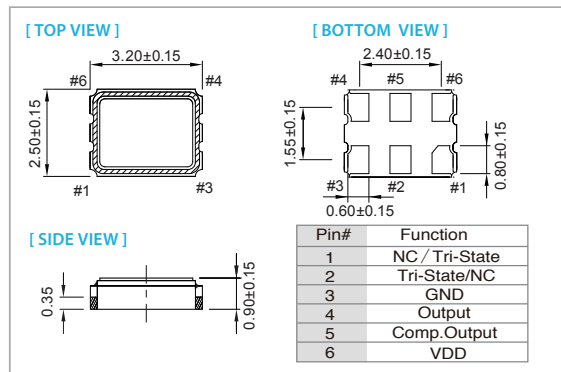
TYPICAL APPLICATION

- 10Gbit Ethernet, Fiber Channel, Storage Area Network, SONET
- Enterprise Servers, Reference clocks for ADC and DAC
- Telecom

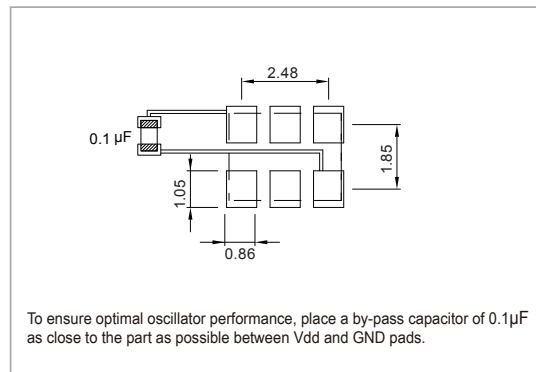


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



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.	
Supply Voltage Variation (V_{DD})	VDD-5%	VDD+5%	VDD-5%	VDD+5%	VDD-5%	VDD+5%	VDD-5%	VDD+5%	V
Frequency Range	10	250	10	250	10	250	10	250	MHz
Standard Frequency	25, 106.25, 125, 156.25, 161.1328, 212.5								MHz
Supply Current	10 MHz ≤ F _o < 160 MHz		160 MHz ≤ F _o < 250 MHz		10 MHz ≤ F _o < 160 MHz		160 MHz ≤ F _o < 250 MHz		mA
Output Level	Output High		Output Low		Output High		Output Low		V
Transition Time: Rise/Fall Time⁺	1.0		1.0		1.0		1.0		nSec
Start Time	10		10		10		10		mSec
Tri-State(Input to Pin 2 or Pin 1)	Enable (High voltage or floating)		Disable (Low voltage or GND)		Enable (High voltage or floating)		Disable (Low voltage or GND)		V
RMS Phase Jitter (Integrated 12 KHz ~ 20 MHz)	F _o < 80 MHz		80 MHz ≤ F _o < 125 MHz		125 MHz ≤ F _o < 170 MHz		170 MHz ≤ F _o < 200 MHz		pSec
Phase Noise@ 156.25 MHz	100 Hz		1 kHz		100 Hz		1 kHz		dBc/Hz
Aging (@ 25°C 1st year)	±3		±3		±3		±3		ppm
Storage Temp. Range	-55 to 125		-55 to 125		-55 to 125		-55 to 125		°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

+ Transition times are measured between 20% and 80% of V_{DD}.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	
	±25	±50
-10 ~ +60	○	○
-20 ~ +70	○	○
-40 ~ +85	△	○
-40 ~ +125	×	○

* ○ : Available △: Conditional X: Not available

* Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration

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