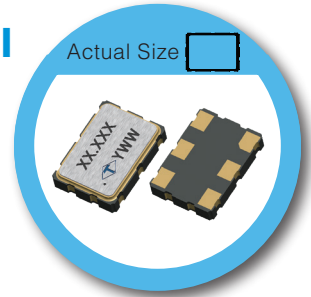


OT Type 7.0 x 5.0 mm SMD LVPECL/LVDS Crystal Oscillator

FEATURE

- Typical 7.0 x 5.0 x 1.45 mm hermetically sealed ceramic package.
- Very low jitter performance: typical 0.3 pS RMS from 12k-20MHz.
- Fundamental/3rd overtone crystal design.
- Output frequency up to 320 MHz.
- Operating temperature up to 125°C
- Tri-state enable/disable

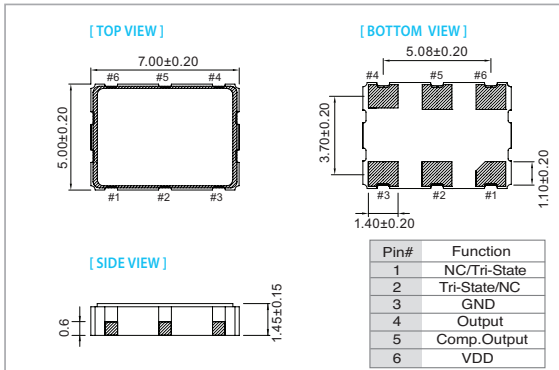


RoHS Compliant

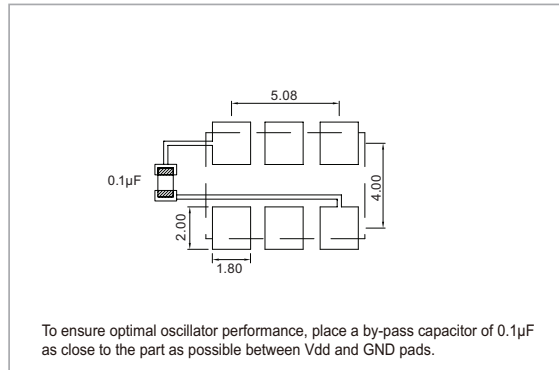
TYPICAL APPLICATION

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

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	320	10	320	10	320	10	320	MHz	
Standard Frequency	77.76, 106.25, 125, 155.52, 156.25, 187.5, 212.5, 312.5									
Supply Current	10 MHz ≤ F _o < 160 MHz	—	75	—	75	—	50	—	50	mA
	160 MHz ≤ F _o < 250 MHz	—	100	—	100	—	50	—	50	
	250 MHz ≤ F _o ≤ 320 MHz	—	100	—	100	—	65	—	65	
Output Level	Output High	2.275	—	1.475	—	1.6	—	1.6	—	V
	Output Low	—	1.68	—	0.88	0.9	—	0.9	—	
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)	2.31	—	1.75	—	2.31	—	1.75	—	V
	Disable (Low voltage or GND)	—	0.99	—	0.75	—	0.99	—	0.75	
RMS Phase Jitter (Integrated 12 KHz ~ 20 MHz)										
	F _o < 80 MHz	—	1	—	1	—	1	—	1	pSec
	80 MHz ≤ F _o < 125 MHz	—	0.5	—	0.5	—	0.5	—	0.5	
	125 MHz ≤ F _o < 170 MHz	—	0.3	—	0.3	—	0.3	—	0.3	
	170 MHz ≤ F _o < 200 MHz	—	0.5	—	0.5	—	0.5	—	0.5	
	200 MHz ≤ F _o	—	0.3	—	0.3	—	0.3	—	0.3	
Phase Noise @ 156.25 MHz	100Hz	-100	—	-100	—	-100	—	-100	—	dBc/Hz
	1 kHz	-130	—	-130	—	-130	—	-130	—	
	10 kHz	-145	—	-145	—	-145	—	-145	—	
Aging (@ 25°C 1st year)		—	±3	—	±3	—	±3	—	±3	ppm
Storage Temp. Range		-55	125	-55	125	-55	125	-55	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.

Specifications subject to change without notice.