

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

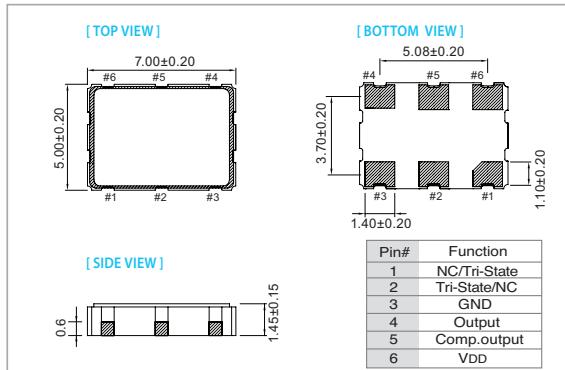
FEATURE

- Conforms to AEC-Q200
- Typical 7.0 x 5.0 x 1.45 mm hermetically sealed ceramic package.
- Very low jitter performance: typical 0.15 pS RMS from 12k-20MHz.
- Fundamental/3rd overtone crystal design.
- Output frequency up to 220 MHz.
- Operating temperature up to 125°C
- Tri-state enable/disable

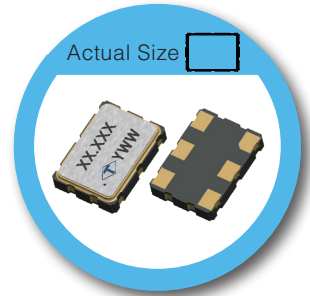
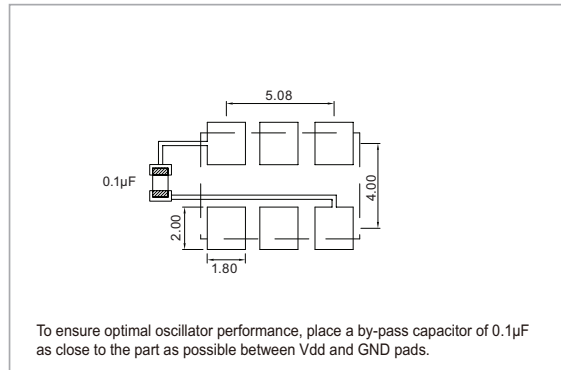
TYPICAL APPLICATION

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

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



RoHS Compliant

ELECTRICAL SPECIFICATION

Parameter	LVPECL				Unit
	3.3V		2.5V		
	Min.	Max.	Min.	Max.	
Supply Voltage Variation (V _{DD})	V _{DD} -10%	V _{DD} +10%	V _{DD} -5%	V _{DD} +5%	V
Frequency range	13.5	220	13.5	220	MHz
Standard frequency	100, 125, 156.25				MHz
Power current consumption:	-	55	-	55	mA
Output Level					
Output High	2.215	2.42	1.415	1.64	V
Output Low	1.49	1.68	0.69	1.88	V
Transition Time					
Rise Time	-	0.6	-	0.6	nSec
Fall Time	-	0.6	-	0.6	nSec
Duty Cycle	45	55	45	55	%
Start-up Time	-	10	-	10	mSec
Tri-State					
Output Enable	0.7 x V _{DD}	-	0.7 x V _{DD}	-	V
Output Disable	-	0.3 x V _{DD}	-	0.3 x V _{DD}	V
Stand by Current	-	10	-	10	µA
Output Loading	50 Ω, V _{DD} -2V				
Phase Noise					
@ VDD=3.3V					
offset 10kHz	Typ.: -143		Typ.: -145		dBc/Hz
offset 100kHz	Typ.: -151		Typ.: -154		dBc/Hz
offset 1MHz	Typ.: -155		Typ.: -155		dBc/Hz
RMS Phase Jitter					
Integrated 12KHz to 20MHz @3.3V					
13.5MHz ~ 80MHz	-	1	-	1	pSec
80MHz ~ 220MHz	-	0.3	-	0.3	pSec
Aging (@ 25°C, First Year)	±3		±3		ppm
Storage Temp. Range	-55	125	-55	125	°C

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