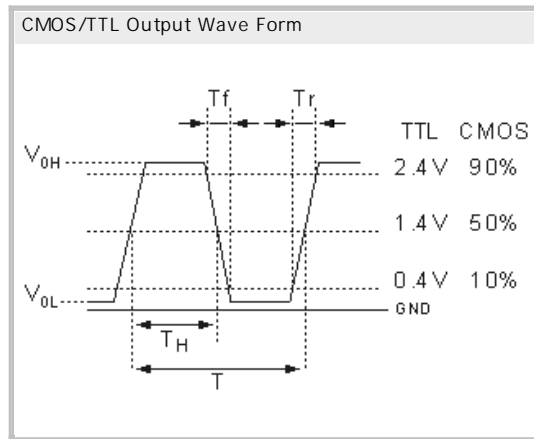
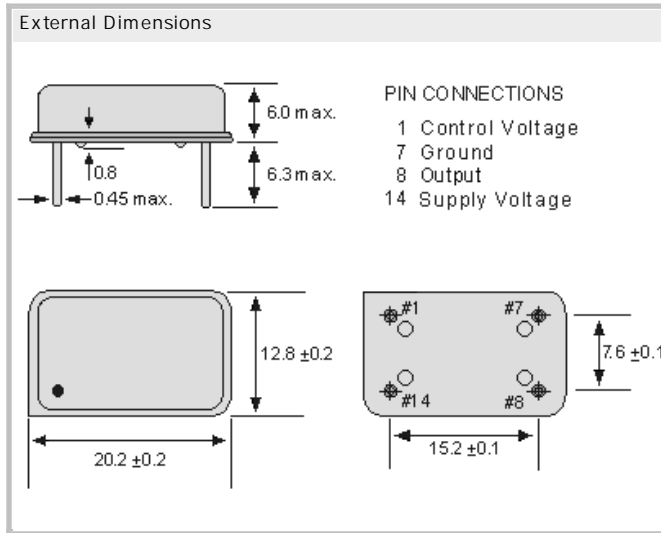


VCXO-12T3.3 DIL 14 3.3V  
Voltage Controlled Crystal Oscillator

- Output Wave Form CMOS/TTL
- packed in antistatic tubes
- RoHS conform; Lead-free product
- Vibration: MIL-STD-202F method 204, 35G, 50 to 2000 Hz
- Shock: MIL-STD-202F method 213B, test cond. E, 1000GG 1/2 sine wave
- Available in many standard and special frequencies



## Specifications

Holder Type:	VCXO-12T3.3 3.3V (Voltage code is " 3.3 " )
Frequency Range:	1.0 MHz to 50.0 MHz ( Fun. frequency crystal used )
Initial Freq. Accuracy (at 25 °C):	To tune to the nominal frequency with Vc = 1.65V ± 0.2V
Frequency Stability at 25°C:	± 25ppm (typ.) , ± 50ppm, ± 100ppm
Frequency Deviation:	± 100 ppm (typ.) , ± 80ppm (min.) ± 200 ppm (max.)
Operating Temperature Range:	-10°C to +70°C / -40°C to 85°C, Storage Temp. -50°C to +105°C
Power Supply Voltage (Vdd):	+ 3.3V DC ± 10%
Maximum Supply Current:	10 mA typical, 20 mA max.
Output Load:	2 TTL gates max. / CMOS 15pF (typ.)
Output "1" Level (VOH):	2.4V (min.) TTL / 2.97V (min.) CMOS
Output "0" Level (VOL):	0.4V (max.) TTL / 0.33V (max.) CMOS
Output Symmetry (Duty Cycle):	40/60% (45/55% optional)
Tri-state Function (optional):	Tri-state Enable High. No connection or Vdd- 0.5Vmin.is applied to a Tri-state pid to enable output. Ground+ 0.5Vmax. to disable output (high impedance).
Modulation Bandwidth (at -3 dB):	10KHz min, Vcontrol at 1.65V or at 2.5V
Voltage Control:	1.65V DC Center / 0.3V to 3.0V Range
Linearity:	6% typical; 10% max.
Rise/Fall Time TTL:	6ns (max.) 4ns (typ.) Measured between 0.4V and 2.4V
Rise/Fall Time CMOS:	6ns (max.) 4ns (typ.) Measured between 20% and 80% Vdd of the wave form (CL = 15pF)
Integrated Phase Jitter:	1 ps max. (12 kHz to 20 MHz)
Phase Noise (27MHz at 3.3V):	-40dBc/Hz at 10Hz offset -147dBc/Hz at 10kHz offset -104dBc/Hz at 100Hz offset -152dBc/Hz at 100kHz offset -132dBc/Hz at 1kHz offset -150dBc/Hz at 1MHz offset
Start Up Time:	10 ms (max.), 5ms (typ.)
Aging:	± 3 ppm per year (max.)
Input Impedance:	1 M Ohm typical
Reflow Condition:	10 sec. max. at 260°C

### GERMANY:

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