HCMOS/TTL COMPATIBLE HIGH STABILITY TRI-STATE VCXO IN 14 PIN DIP - VC14HT Series

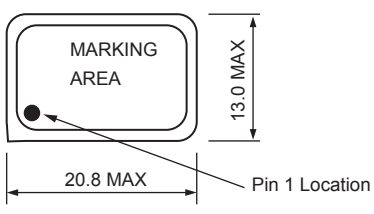
FEATURES

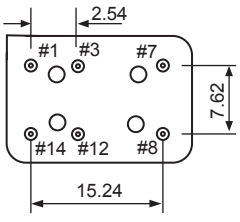
- Wide Frequency Pulling Range, 5 VDC or 3.3 VDC Option
- Very Low Phase Jitter with Fundamental Crystal Design
- Commercial or Industrial Temperature Range, Industry Standard Lead Spacing
- Sealed UM-1 Crystal Inside for High Stability: ±10 ppm / -10°C to 60°C is available

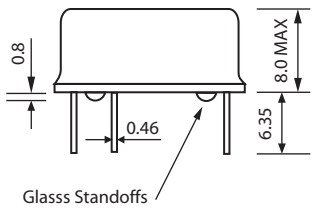
SPECIFICATIONS

Frequency Range	1 MHz to 100 MHz
Input Voltage (Vcc)	A = +5 VDC ± 5%; B = +3.3 VDC ± 5%
Input Current	40 mA Maximum, depending on frequency and output load
Control Voltage (Vc)	+2.5V ± 2.0V for 5.0V part; +1.65V ± 1.5V for 3.3V part
Storage Temperature	-55°C to 125°C
Frequency Stability / APR (Min)	A = ±50 / ±50 ppm; B = ±25 / ±50 ppm; C = ±50 / ±100 ppm; D = ±10 / ±50 ppm
Temperature Range	A = 0°C to 70°C; B = -40°C to 85°C; C = -10°C to 60°C
Standard Stability / Pullability	BA = ±25 ppm / 0°C to 70°C, Absolute pull range (APR): ±50 ppm Minimum
Duty Cycle	1 = Tristate 60/40% symmetry; 3 = Tristate 55/45% symmetry
Output Load	HCMOS: drive up to 15 pF load; TTL: drive up to 10 TTL gates
Logic "1" / Logic "0" Level	0.9Vcc Minimum / 0.1Vcc Maximum
Rise/Fall Time (Tr/Tf)	10 ns Maximum at 20% to 80% Vp-p
Start-up time	10 ms Maximum
Phase Jitter	1 ps Maximum at 1Sigma for fj > 1 kHz
Modulation Bandwidth	10 kHz Minimum at -3 dB
Linearity / Slope	±10% Maximum of best straight line fit / Positive
Input Impedance	10 kOhms Minimum
Setability at Fnom, 25°C	+2.5V ±0.5V for 5.0V part; +1.65V ±0.4V for 3.3V part
Tristate Function	Input (Pin 3) High (> 2.5V) or open: Output (Pin 8) active
	Input (Pin 3) Low (< 0.5V): Output disabled in high impedance
Enable/Disable Time	100 ns Maximum
Typical Part Number	VC14HT-Frequency-Vcc-Freq. Stability/Pullability-Temperature Range-Duty cycle
P/N Example	VC14HT-27M000-BAA3: HCMOS/TTL compatible tristate VCXO in 20.8x13x5 mm
	14-pin DIP metal package, 27 MHz, +3.3 VDC, ±50 ppm / 0°C to 70°C,
	APR: ±50 ppm Minimum, Duty cycle: 55/45

OUTLINE DRAWING







Pin Connections

#1: Voltage control #3: Tristate control

#7: Ground #8: Output

#12: N/C #14: Vcc

Available in Gull Wing Configuration

All dimensions are typical unless otherwise specified

Dimensions in Millimeters