

HCMOS/TTL WIDE TEMPERATURE CLOCK OSCILLATORS IN 14 PIN DIP - XO14W Series

FEATURES

- Tight Frequency Stability over Extended Operating Temperature Range / COTS
- Very Low Phase Jitter with Fundamental or 3rd Overtone Crystal Design
- Tri-state Output Available, Hermetically Sealed, Industry Standard Lead Spacing
- Thru-hole PCB Applications in Environments Exposed to Temperature Extremes (-55°C to 125°C)

SPECIFICATIONS

Frequency Range 1 MHz to 80 MHz

Input Voltage (Vcc) $A = +5 \text{ VDC} \pm 10\%$; $B = +3.3 \text{ VDC} \pm 10\%$

Input Current 40 mA Maximum, depending on frequency and output load

Storage Temperature -55°C to 125°C

Overall Frequency Stability 100E = ±100 ppm/-55°C to 125°C, available for frequency range: 3.6864MHz-40MHz

 $100I = \pm 100 \text{ ppm/}-55^{\circ}\text{C}$ to 105°C ; $50I = \pm 50 \text{ ppm/}-55^{\circ}\text{C}$ to 105°C

Operating Temperature Range $I = -55^{\circ}C$ to $105^{\circ}C$; $E = -55^{\circ}C$ to $125^{\circ}C$

Electric Option (Symmetry) 0 = No tristate 60/40%; 2 = No tristate 55/45%

1 = Tristate 60/40%; 3 = Tristate 55/45%, not available for -55 to 125°C Temp range

Output Load HCMOS: Drive up to 50 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 Start-up time 10 ms Maximum

Phase Jitter 1 ps Maximum at 1Sigma for fj > 1 kHz
Aging 3 ppm First year; 1 ppm/year after first year

Tristate Function Input (Pin 1) High (> 2.2V) or open: Output (Pin 8) active

Input (Pin 1) Low (< 0.8V): Output disabled in high impedance

Enable Time 100 ns Maximum

Typical Part Number XO14W-Frequency-Vcc-Freq. Stability-Temperature Range-Tristate/Duty cycle

P/N Example XO14W-16M000-A100E0: HCMOS/TTL clock in 14-pin DIP metal package, 16MHz, +5 VDC, ±100 ppm/-55°C to 125°C, Non tristate, Duty cycle: 60/40

Serialized temperature test data available at additional cost

OUTLINE DRAWING

Notes

