

# CVXO-014S & 014 Models

8 & 14 Pin Dip, 5V, HCMOS/TTL

Lead Free  
RoHS  
Compliant

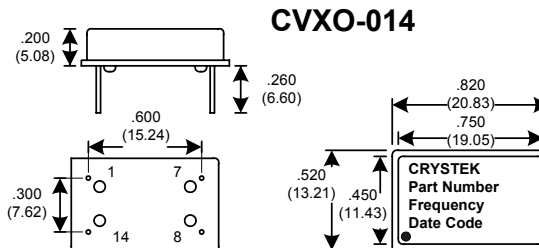
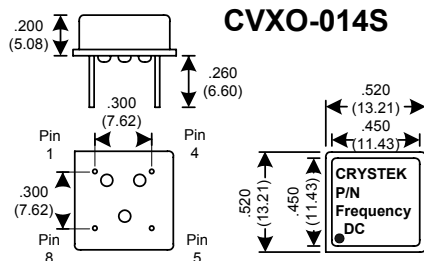
## Voltage Controlled Crystal Oscillator



Designed to meet today's  
requirements for  
economical solutions.

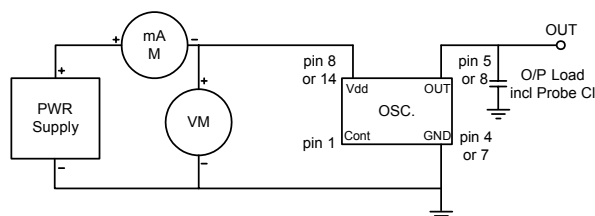
**\*\*Custom Designs Available**

**Frequency Range:** 1MHz to 200MHz  
**Frequency Stability:**  $\pm 10\text{ppm}$  to  $\pm 100\text{ppm}$   
**Temperature Range:** See Table 1  
**Storage:**  $-55^{\circ}\text{C}$  to  $120^{\circ}\text{C}$   
**Input Voltage:**  $5\text{V} \pm 0.5\text{V}$   
**Control Voltage:**  $2.5\text{V} \pm 2.0\text{V}$   
**Input Current:** 100mA Max @ 200MHz  
**Output:** HCMOS/TTL  
     Symmetry: 40/60% Max @ 50% Vdd  
             (Option Y) 45/55% Max  
     Rise/Fall Time: 4ns Typ, 10ns Max  
     Control Range: See Table 2  
                     (50ppm Min, 150ppm Max Std.)  
     Output Voltage: "0" = 10% Vdd Max  
                     "1" = 90% Vdd Min  
     Load: 15pF/10TTL Max  
     Linearity:  $\pm 10\%$  Max  
**Aging:** <3ppm 1st/yr, 1ppm every year thereafter



Dimensions inches (mm)

All dimensions are Max unless otherwise specified.



| Operating Temperature | Freq. Stability ( $\pm$ ppm) |
|-----------------------|------------------------------|
| A 0°C to 50°C         | 10 20 25 50 100              |
| B -10°C to 60°C       | 10 20 25 50 100              |
| C 0°C to 70°C         | 10 20 25 50 100              |
| D -10°C to 70°C       | 20 25 50 100                 |
| E -20°C to 70°C       | 25 50 100                    |
| F -30°C to 60°C       | 25 50 100                    |
| G -40°C to 85°C       | 25 50 100                    |

Table 1

| CONTROL RANGE OPTIONS         |
|-------------------------------|
| A 20ppm Typ, 30ppm Max        |
| B 30ppm Min                   |
| C 50ppm Min                   |
| D 100ppm Min                  |
| E 150ppm Min                  |
| F 200ppm Min                  |
| G (STD) 50ppm Min, 150ppm Max |
| H 150ppm Min, 250ppm Max      |
| I 200ppm Min, 300ppm Max      |

Table 2

### Crystek Part Number Guide for 8 pin

**CVXO-014S A A Y - 25 - 44.768**

| #1              | #2       | #3                            | #4                              | #5                                    | #6                                          | #7                                         |
|-----------------|----------|-------------------------------|---------------------------------|---------------------------------------|---------------------------------------------|--------------------------------------------|
| #1 Crystek VCXO | #2 Model | #3 Temp. Range: (see table 1) | #4 Control Range: (see table 2) | #5 Symmetry: (Blank = 40/60, Y=45/55) | #6 Stability: (see table 1, Blank = 100ppm) | #7 Frequency in MHz: 3 or 6 decimal places |

Example:

CVXO-014SAAY-25-25.000 = 5.0V VCXO, 0/50°C,  $\pm 30\text{ppm}$  Max Pull, 45/55, 25ppm, 25.000 MHz  
 CVXO-014SED-19.660800 = 5.0V VCXO, -20/70,  $\pm 100\text{ppm}$  Min Pull, 40/60, 100ppm, 19.660800 MHz

### Crystek Part Number Guide for 14 pin

**CVXO-014 A A Y - 25 - 44.768**

| #1              | #2       | #3                            | #4                              | #5                                    | #6                                          | #7                                         |
|-----------------|----------|-------------------------------|---------------------------------|---------------------------------------|---------------------------------------------|--------------------------------------------|
| #1 Crystek VCXO | #2 Model | #3 Temp. Range: (see table 1) | #4 Control Range: (see table 2) | #5 Symmetry: (Blank = 40/60, Y=45/55) | #6 Stability: (see table 1, Blank = 100ppm) | #7 Frequency in MHz: 3 or 6 decimal places |

Example:

CVXO-014AAY-25-25.000 = 5.0V VCXO, 0/50°C,  $\pm 30\text{ppm}$  Max Pull, 45/55, 25ppm, 25.000 MHz  
 CVXO-014ED-19.660800 = 5.0V VCXO, -20/70,  $\pm 100\text{ppm}$  Min Pull, 40/60, 100ppm, 19.660800 MHz

Specifications subject to change without notice.

TD-02077 Rev.C



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