

Product Search

## CO-446 HCMOS, ACMOS and FCT Clock Oscillators

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### Features:

- Frequency range: 1 Hz to 175 MHz
- Supply: 5 V
- Available with 3.3 V input below 20 MHz
- Output: HCMOS/ACMOS/FCT/ACT Compatible
- Package: Low Profile Surface Mount Dip
- Extended temp range: -55°C to 125°C
- Tri-state Output Available

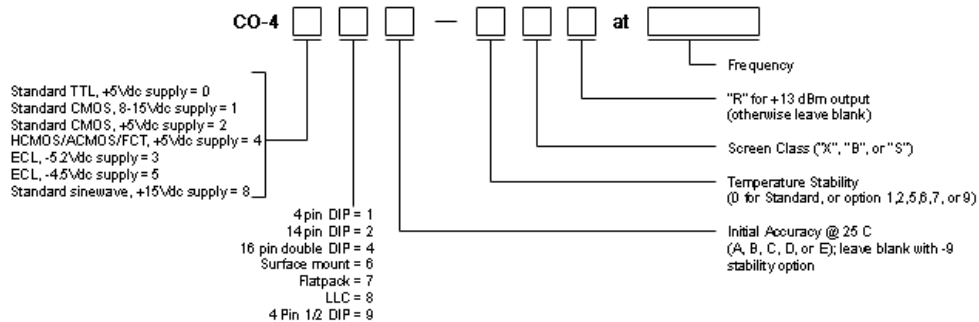
### SPECIFICATIONS

|   |  |
|---|--|
| <b>Series</b>   | <b>CO-446:</b> Surface Mount   |
| <b>Frequency</b>  | 1 Hz-175 MHz   |
| <b>Supply</b>   | 5 Vdc ± 5%<br>(Available with 3.3 Vdc input below 20 Mhz)  |
| <b>Accuracy<br/>(Maximum Error at 25°C)</b>   | <b>CO-446A</b> ±50 ppm<br><b>CO-446C</b> ±25 ppm<br><b>CO-446D</b> ±15 ppm<br><b>CO-446B</b> ±10 ppm<br><b>CO-446E</b> ±1 ppm*<br><small>*Settability via external capacitor; (&lt;60 MHz only; except 449E &lt;20 MHz)</small>  |
| <b>Temperature Stability</b><br><small>Improved accuracy/stability available on some models. For example, for ±7 ppm over 0°C to +50°C and for ±10ppm over 0°C to +70°C. Improvement is also available over wider temperature ranges. Please contact factory.</small> | <b>STANDARD:</b> 0°C to +70°C: ±25 ppm<br>Option <b>1:</b> -55°C to +85°C: ±50 ppm<br>Option <b>2:</b> -55°C to +125°C: ±50 ppm<br>Option <b>5:</b> 0°C to +50°C: ±5 ppm<br>Option <b>6:</b> 0°C to +50°C: ±10 ppm<br>Option <b>7:</b> -55°C to +125°C: ±100 ppm<br>*Option <b>9:</b> -55°C to +200°C: ±300 ppm<br><small>(Option 9: N/A in CO-448 or above 20 MHz in CO-440 Series)<br/>*Specified stability includes initial accuracy; do not specify A,B,C,D or E accuracy.</small> |
| <b>Aging Rate<br/>(typical after 30 days)</b>   | 3 ppm first year<br>2 ppm/year thereafter  |

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### How to Order Hybrid XO's - CO-400 Series

(Note: Not all combinations possible. See above for appropriate options.)



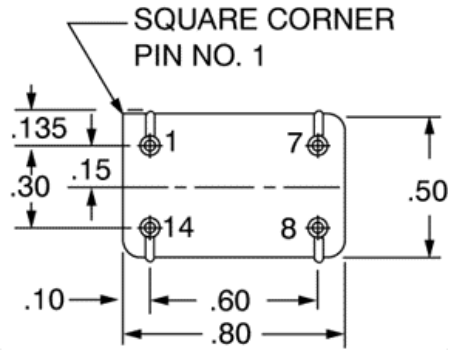
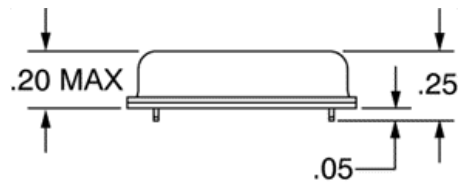
### SCREEN TESTING OF ABOVE MODELS

| SCREEN TEST                         | MIL-STD-883 METHOD | Standard | Options |         |  |
|-------------------------------------|--------------------|----------|---------|---------|--|
|                                     |                    | CLASS X  | CLASS D | CLASS B | CLASS S  |
| Stabilization Bake (150°C)          | —                  | X        | X       | X       | Class S screen test requirements include 24 hour additional bake-out, 80 hour additional burn-in, thermal shock, PIND test and radiographic inspection in addition to Class B Screening. |
| Seal Test (Gross and Fine)          | 1014, Cond A2      | X        | X       | X       |  |
| Temperature Cycling (Thermal Shock) | 1010, Cond B       |          | X       | X       |  |

|  |              |  |   |   |                        |
|--|--------------|--|---|---|------------------------|
| Burn-in, operating<br>160 hours @125°C         | -            |  | X | X | Has major cost impact. |
| Acceleration<br>(5000g in Y <sub>1</sub> axis) | 2001, Cond A |  |   | X |                        |

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CO-446



Dimension in inches

Pinouts

| Pin   | Function      |
|-------|---------------|
| 1     | *N/C          |
| 7     | OV, case, gnd |
| 8     | Output        |
| 14    | Supply +      |
| Other | N/C           |

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