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CO-447 HCMOS, ACMOS and FCT Clock Oscillators
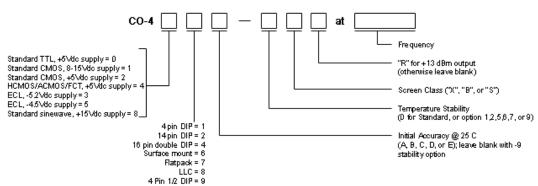
Features:

- 1 Hz to 175 MHz Frequency Range
- Low Profile 14 Pin Flatpack
- HCMOS/ACMOS/FCT/ACT Compatible
- Tri-state Output Available
- Available with 3.3 Vdc input below 20 MHz

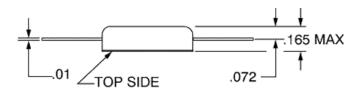| SPECIFICATIONS	
Series	**CO-447:** Flatpack
Frequency	1 Hz-175 MHz
Supply	5 Vdc ± 5% (Available with 3.3 Vdc input below 20 Mhz)
Accuracy **(Maximum Error at 25°C)**	**CO-447A** ±50 ppm **CO-447C** ±25 ppm **CO-447D** ±15 ppm **CO-447B** ±10 ppm **CO-447E** ±1 ppm* *Settability via external capacitor: (<60 MHz only; except 449E ≤20 MHz)
Temperature Stability 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.	**STANDARD:** 0°C to +70°C: ±25 ppm Option **1**: -55°C to +85°C: ±50 ppm Option **2**: -55°C to +125°C: ±50 ppm Option **5**: 0°C to +50°C: ±5 ppm Option **6**: 0°C to +50°C: ±10 ppm Option **7**: -55°C to +125°C: ±100 ppm *Option **9**: -55°C to +200°C: ±300 ppm (Option 9: N/A in CO-448 or above 20 MHz in CO-440 Series) *Specified stability includes initial accuracy: do not specify A,B,C,D or E accuracy.
Aging Rate **(typical after 30 days)**	3 ppm first year 2 ppm/year thereafter

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How to Order Hybrid XO's - CO-400 Series
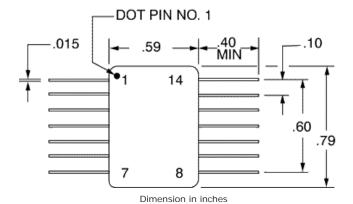(Note: Not all combinations possible. See above for appropriate options.)

CO-4 ☐ ☐ ☐ — ☐ ☐ ☐ at [   ]

Frequency

"R" for +13 dBm output
(otherwise leave blank)

Screen Class ("X", "B", or "S")

Temperature Stability
(0 for Standard, or option 1,2,5,6,7, or 9)

Initial Accuracy @ 25 C
(A, B, C, D, or E); leave blank with -9
stability option

Standard TTL, +5\Vdc supply = 0
Standard CMOS, 8-15\Vdc supply = 1
Standard CMOS, +5\Vdc supply = 2
HCMOS/ACMOS/FCT, +5\Vdc supply = 4
ECL, -5.2\Vdc supply = 3
ECL, -4.5\Vdc supply = 5
Standard sinewave, +15\Vdc supply = 8

4 pin DIP = 1
14 pin DIP = 2
16 pin double DIP = 4
Surface mount = 6
Flatpack = 7
LLC = 8
4 Pin 1/2 DIP = 9

SCREEN TESTING OF ABOVE MODELS					
		Standard	Options		
SCREEN TEST	MIL-STD-883 METHOD	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. Has major cost impact.
Seal Test (Gross and Fine)	1014, Cond A2	X	X	X	
Temperature Cycling (Thermal Shock)	1010, Cond B		X	X	
Burn-in, operating 160 hours @125°C	—		X	X	
Acceleration (5000g in Y_1 axis)	2001, Cond A			X	

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.165 MAX

.01   TOP SIDE   .072

DOT PIN NO. 1

.015   .59   .40 MIN   .10

1   14

.60   .79

7   8

Dimension in inches

Pinouts

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

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