

Oven Controlled Crystal Oscillators (OCXO's)

OC-160 Series (CO-730C)



Description:

The OC-160 Series offers low aging and excellent stability options with quick warm-up performance with a standard European CO-08 footprint.

Features:

- Frequencies: 5, 10, 12.8, 13, 16.384, 19.44, 20, 20.48 MHz
- European CO-08 Package
- Excellent Temperature Stability
- Superior Aging Characteristics
- Very Fast Warm-up

Performance Characteristics

Parameter	Characteristics
Standard Frequencies:	5, 10, 12.8, 13, 16.384, 19.44, 20, 20.48 MHz, Available 1 MHz to 80 MHz
Package Size:	35.3 x 26.9 x 19.4 mm (1.4" x 1.06" x 0.76")
Supply Voltage:	A: 15 Vdc $\pm 5\%$ B: 12 Vdc $\pm 5\%$ C: 5 Vdc $\pm 5\%$
Input Power:	<6W turn-on (-20°C/70°C); <2.5W steady-state @ +25°C (-20°C/70°C)
Output Type:	A: HCMOS K: Sinewave (>+10 dBm into 50 ohm) J: Sinewave (>+7 dBm into 50 ohm) L: Sinewave (>+13 dBm into 50 ohm)
Output Level (HCMOS):	"0" <0.5V, "1" >4.5V (HCMOS)
Rise/Fall Time t_r/t_f (HCMOS):	<10 ns (10% - 90%) (HCMOS)
Symmetry (Duty/Cycle, HCMOS):	50/50 $\pm 10\%$ (@50% level) (HCMOS)
Harmonics/subs:	-20 dBc (reduced level sinewave, for optional output)
Spurious:	-70 dBc (for sinewave output)
Temperature Stability:	B-308: $\pm 3 \times 10^{-8}$ over 0/50°C B-109: $\pm 1 \times 10^{-9}$ over 0/50°C D-508: $\pm 5 \times 10^{-8}$ over -20/70°C D-509: $\pm 5 \times 10^{-9}$ over -20/70°C F-107: $\pm 1 \times 10^{-7}$ over -40/85°C F-108: $\pm 1 \times 10^{-8}$ over -40/85°C <i>Note: Tighter stability options are available, contact factory.</i>
Aging:	A: 1×10^{-8} /day, 2×10^{-6} /year B: 3×10^{-9} /day, 1×10^{-6} /year C: 1×10^{-9} /day, 3×10^{-7} /year D: 5×10^{-10} /day, 1×10^{-7} /year
Short Term Stability (Allan Deviation):	5×10^{-11} /second (with aging A or B); 5×10^{-12} /second (with aging C or D)
Phase Noise (Typical @ 10 MHz):	With Aging: A or B Aging: C or D 10 Hz -100 dBc/Hz -120 dBc/Hz 100 Hz -135 dBc/Hz -140 dBc/Hz 1 kHz -145 dBc/Hz -145 dBc/Hz 10 kHz -150 dBc/Hz -150 dBc/Hz 50 kHz -150 dBc/Hz -150 dBc/Hz
Frequency vs. Supply:	2×10^{-9} per % change in supply (with Aging A or B) 5×10^{-10} per % change in supply (with Aging C or D)
Warm-up (Restabilization): (Frequency relative to two hours after turn-on following 24 hours off time at +25°C with a maximum ambient of <70°C)	With Aging: A or B Aging: C or D 1×10^{-6} : 6 minutes 1×10^{-6} : 2 minutes 1×10^{-7} : 8 minutes 1×10^{-7} : 2.5 minutes 3×10^{-8} : 10 minutes 3×10^{-8} : 3 minutes 3×10^{-8} : 30 minutes 1×10^{-8} : 4 minutes
Electrical Frequency Adjust:	10×10^{-6} typical range (with Aging A or B) 2×10^{-6} typical range (with Aging C or D)
Mechanical Configuration:	Pins for PCB mounting

OC-160 Series (CO-734C/738CS)

PIN NUMBERS ARE FOR REFERENCE ONLY. THEY DO NOT APPEAR ON THE UNIT.

19.30 max (.76)

2.79 min (.11)

.635 (.025)

5 Places

Dia (.031)

STANDOFFS (4 PLACES)

36.07 max (1.42)

25.400 (1.000)

27.18 max (1.07)

17.780 (.700)

.787

1 2 3 4 5

mm (in.)

Pin	Function
1	Electrical Frequency Adjustment
2	N/C or Reference Voltage Output
3	Supply (+)
4	Output
5	GND

Ordering Information

