

ULTRA LOW PROFILE MINIATURE SURFACE MOUNTABLE CRYSTAL OSCILLATORS

CXO Series
1.25 MHz to 70.0 MHz

FEATURES

- Designed for surface mount applications using infrared, vapor phase, wave soldering, or epoxy mounting techniques.
- TTL and CMOS compatible.
- Low power consumption.
- Optional output enable.
- Low EMI emission.
- High shock resistance.
- Full military testing available.

DESCRIPTION

Statek surface-mountable CXO oscillator consist of a TTL and CMOS compatible hybrid circuit and a Statek miniature quartz crystal in an ultra-low profile ceramic leadless chip carrier. They are compatible with conventional vapor phase reflow, wave solder, and infrared processing techniques, and offer small size high shock resistance, and excellent long-term stability.

APPLICATIONS

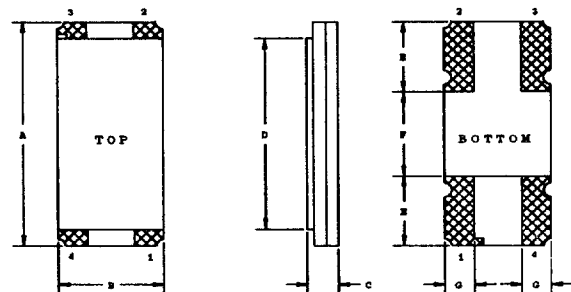
COMMERCIAL, COMPUTER & COMMUNICATIONS

- General purpose clock oscillator.
- Credit card size, pocket size (palm size), and lap top computers (PCMCIA Application).
- High speed modem signal generator.

MILITARY & AEROSPACE

- Airborne hybrid computer.
- High speed modem signal generator.

PACKAGE DIMENSIONS



	MIN.	TYP.	MAX.
A	0.395	0.400	0.405
B	0.175	0.180	0.190
C	0.050	0.053	0.055
D		0.340	
E		0.125	
F		0.150	
G		0.050	



STATEK CORPORATION, 512 NORTH MAIN, Orange, California 92668 (714) 639-7810 FAX (714) 997-1256
 STATEK EUROPE, 155 Mildmay Road, Chelmsford, Essex CM2 0DU, England +44 245 352297 FAX +44 245 252275
 A TECHNICORP COMPANY

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SPECIFICATIONS

Specifications are typical at 25°C unless otherwise noted. Specifications are subject to change without notice.

Supply Voltage	3-5V
Calibration Tolerance**	A: $\pm 0.01\%$ B: $\pm 0.1\%$ C: $\pm 1.0\%$
Frequency Stability**	-40°C to +85°C ± 100 ppm -55°C to -125°C ± 200 ppm
Supply Current	25 mA MAX for 50 MHz 20 mA MAX for 40 MHz 16 mA MAX for 30 MHz 12 mA MAX for 24 MHz
CMOS Load	VOL 0.1 VCC VOH 0.9 VCC
Start-up Time Typical	5 ms MAX.
Rise/Fall Time	3 nsec. TYP., 6 nsec. MAX.
Duty Cycle	40% MIN., 60% MAX.
Aging, first year	10 ppm MAX.
Shock, survival***	1,500g MIN., 1ms, 1/2 sine
Vibration, survival	20g rms 10-2000 Hz random
Operating Temp.	Commercial -10°C to +70°C Industrial -40°C to +85°C Military -55°C to +125°C
Storage Temp	-55°C to +125°C

* Tighter tolerances available.

** Does not include calibration tolerances.

*** High shock version available.

Note: All parameters are measured at ambient temperature with a 10 M Ω /10pF scope probe, with supply voltage at 5V.

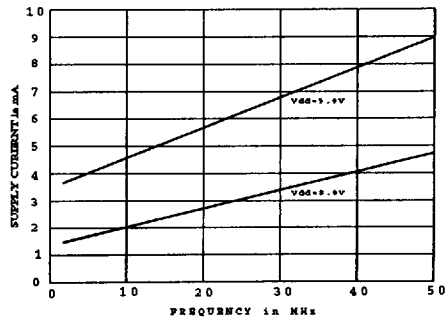
PIN CONNECTIONS

1. Output Enable
2. Ground
3. Output
4. Vdd

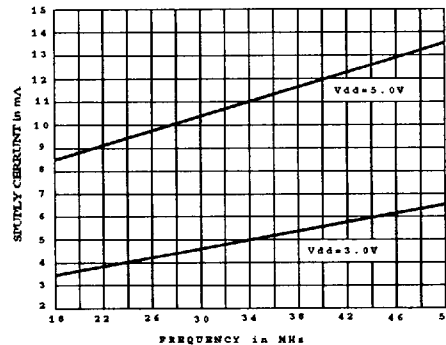
Note:

- A) CXO-8-E-32.0 MHz A/M
8 LS TTL loads
Output is high when not enable
I_{dd} = 200 μ A when not enable
- B) CXOA-2-E 24.0 MHz A/I
2 LS TTL loads
Output is low when not enable
I_{dd} = 200 μ A when not enable
- C) CXO-10-T-40.0 MHz A/I
10 LS TTL loads
Output is Tri-State when not enabled
I_{dd} = 200 μ A when not enable

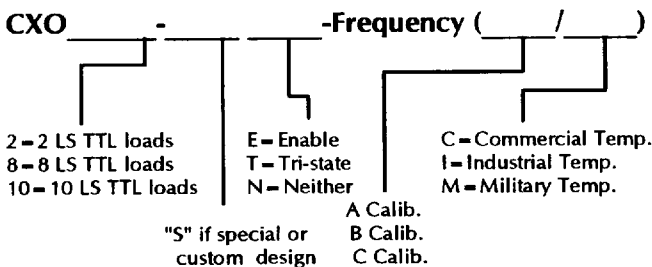
CXO-2 CURRENT CONSUMPTION



CXO-8 CURRENT CONSUMPTION



HOW TO ORDER CXO SURFACE MOUNT CRYSTAL OSCILLATORS



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