

LOW POWER CRYSTAL OSCILLATORS

LXO-AT Series
500 kHz to 40 MHz

FEATURES

- Low power consumption
- Low aging
- CMOS LS-TTL compatible
- Low-profile, hermetically sealed package
- Full military testing available
- Output Enable (Tri-State) optional

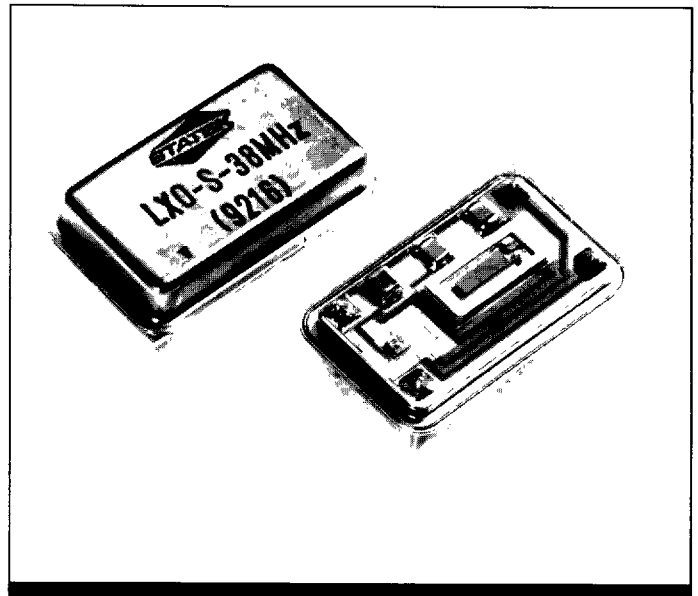
SPECIFICATIONS

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

Supply Voltage	5V ±10%
Calibration Tolerance:*	A: ±100 ppm B: ±300 ppm C: ±500 ppm
Frequency Stability**	-40° to +85°C ±100 ppm -55° to +125°C ±200 ppm
Supply Current	See Figure 1
Output Drive	3.2 mA (2 LS TTL load) VOL 0.4V MAX. VOH 2.4V MIN.
Start-up Time	5 ms MAX.
Rise/Fall Time	6 ns TYP., 10 ns MAX.
Duty Cycle	40% MIN., 60% MAX.
Aging, first year	10 ppm MAX.
Shock, survival	1000g, 1msec, ½ sine
Vibration, survival	10g rms 10-2000 Hz random
Operating Temp.	-10° to +70°C Commercial -40° to +85°C Industrial -55° to +125°C Military
Storage Temp.	-55° to +125°C

* Tighter tolerances available.

** Does not include calibration tolerance.



DESCRIPTION

The LXO-AT Series has the highest accuracy and stability of all Statek oscillators. The design consists of a CMOS-compatible hybrid circuit packaged in a hermetically-sealed metal DIP.

Permanent, precision turning of the AT crystal after it is connected to the oscillator circuit allows for very tight calibration tolerances and eliminates the need for a tuning capacitor, a major source of long-term frequency drift.



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HOW TO ORDER LXO-AT CRYSTAL OSCILLATORS

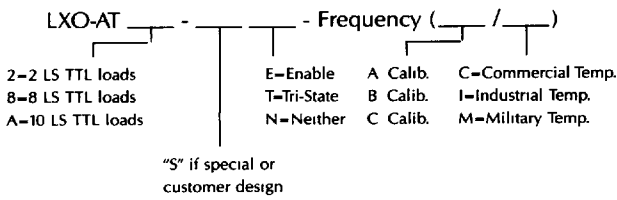


FIGURE 1. Typical Current Consumption

LXO-AT CURRENT CONSUMPTION

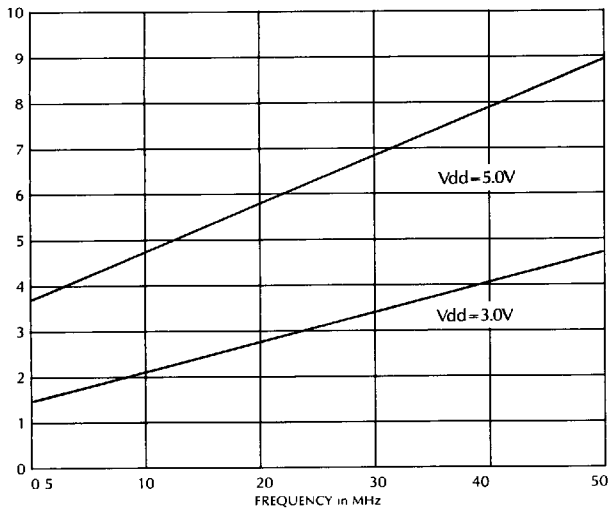


FIGURE 2. Timing Diagram

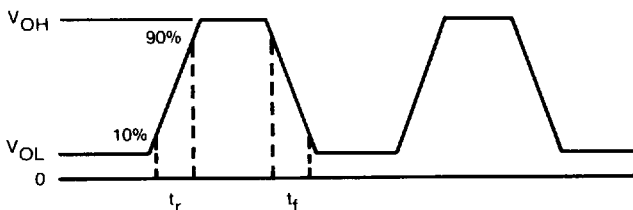
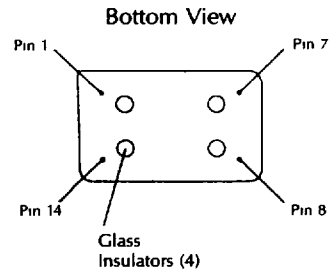
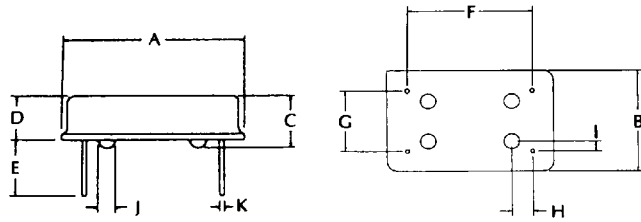


FIGURE 3. Package Dimensions



DIM	INCHES	MM
A	0.810 MAX.	20.57 MAX.
B	0.510 MAX.	12.95 MAX.
C	0.225 MAX.	5.72 MAX.
D	0.200 MAX.	5.08 MAX.
E	0.150 MIN.	3.81 MIN.
F	0.600 ± 0.005	15.24 ± 0.127
G	0.300 ± 0.005	7.62 ± 0.127
H	0.090 TYP.	2.25 TYP.
I	0.045 TYP.	1.14 TYP.
J	0.070 TYP.	1.78 TYP.
K	0.018 ± 0.002	0.48 ± 0.030

Pin	Connection
1	NC
7	GND
8	OUTPUT
14	VDD



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