OUTPUT
Frequency
  640 MHz
Level
  +13 dBm $\pm$2 dB into 50 ohms
STABILITY
Aging
  1×10^{-6} first year
  after 30 days operating, typical
  5×10^{-7} second year, typical
  3×10^{-7} per year thereafter, typical
Phase Noise L(f), typical
  100 Hz   -112 dBc/Hz
  1 KHz   -137 dBc/Hz
  10 KHz   -153 dBc/Hz
  100 KHz   -154 dBc/Hz
Temperature Stability
  $\pm 5 \times 10^{-7}$, 0° to +50°C (Ref +25°C)
Harmonics
  $\leq$ -25 dBc
Sub-Harmonics
  $\leq$ -60 dBc
Spurious
  $\leq$ -80 dBc, excluding power
  supply line related spurs
MECHANICAL
Dimensions
  3.21 x 4 x 1"
Connectors
  SMA(f) and solder pins
Packaging
  Nickel-plated machined
  aluminum housing – J2
Mounting
  Threaded inserts on base,
  #2-56, 6 places
POWER REQUIREMENTS
Warm-Up Power
  $\leq$ 9.5 Watts for 5 minutes
Total Power
  $\leq$ 6 Watts at +25°C
Supply Voltage
  +15 VDC $\pm$5%

ADJUSTMENT
Mechanical Tuning
  $\pm 4 \times 10^{-6}$
Electrical Tuning
  $\pm 5 \times 10^{-7}$, $\pm$5 VDC
  Negative slope
CRYSTAL
Type
  80 MHz SC-cut (x8)
OTHER
Label
  Use conventional label with the
  following information:
  501-25391 (Current Rev.)
  640 MHz MXO-FR
  +15 VDC
  Serial # - Date Code
  (Mark connectors with function)
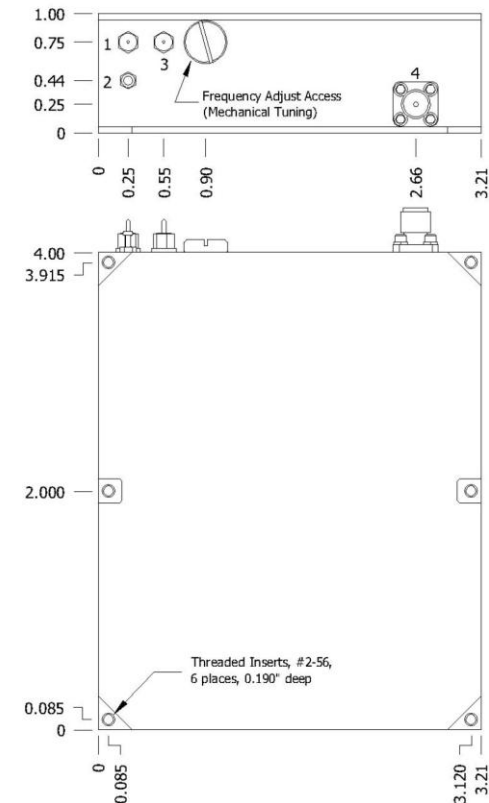**Test Data**
  Output Level
  Phase Noise
  Temperature Stability
  Harmonics, Subs, Spurious
  Power – Warm-up and Total
  Tuning – MT and ET

J2 MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
3	Electrical Tuning
4	RF Output

Frequency Adjust Access (Mechanical Tuning)

Threaded Inserts, #2-56, 6 places, 0.190" deep

Wenzel Associates, Inc.
Austin, Texas

Title:
640 MHz Multiplied Crystal Oscillator (MXO-FR)

P/N: **501-25391**	Rev: **-**	Date: **01-25-12**	Drawn:	Ref:

Tolerances: (except as noted) Dimensions are in inches	0.XX Dec: $\pm$0.030"	0.XXX Dec: $\pm$0.010"	FSCM: 62821	Page 1 of 1