

## OUTPUT

### Frequency

8 GHz

### Level

+13 dBm  $\pm 2$  dB into 50 ohms

## STABILITY

### Aging

$1 \times 10^{-6}$  first year  
after 30 days operating, typical  
 $5 \times 10^{-7}$  second year, typical  
 $3 \times 10^{-7}$  per year thereafter, typical

### Phase Noise L(f), typical

10 Hz -57 dBc/Hz  
100 Hz -88 dBc/Hz  
1 KHz -115 dBc/Hz  
10 KHz -132 dBc/Hz  
100 KHz -133 dBc/Hz  
1 MHz -150 dBc/Hz  
10 MHz -152 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

4.16 x 4 x 1"

### Connectors

SMA(f) and solder pins

### Packaging

Nickel-plated machined  
aluminum housing – J3

### Mounting

Threaded inserts on base,  
#2-56, 6 places

## POWER REQUIREMENTS

### Warm-Up Power

$\leq 13$  Watts for 5 minutes

### Total Power

$\leq 10$  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

100 MHz SC-cut (x80)

## OTHER

### Label

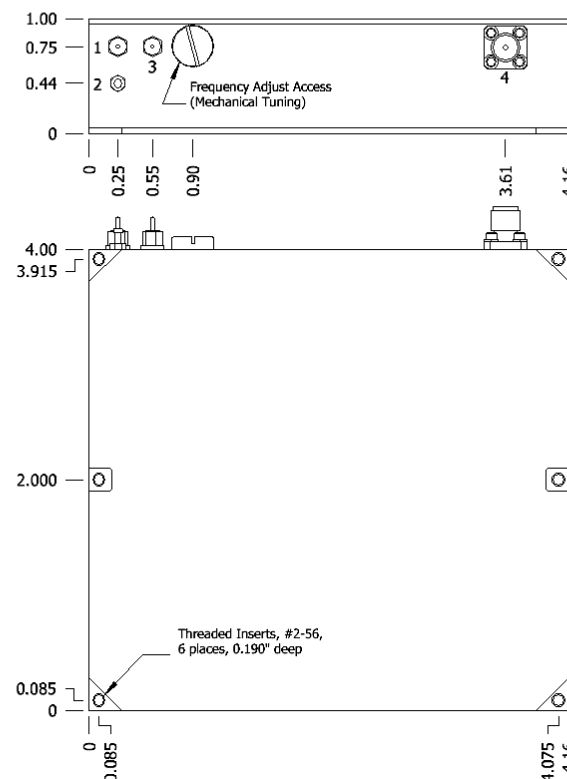
Use conventional label with the  
following information:  
501-30596 (Current Rev.)  
8 GHz GQMXO-FR  
+15 VDC  
Serial # - Date Code  
(Mark connectors with function)

### Test Data

Output Level  
Phase Noise  
Temperature Stability  
Harmonics, Subs, Spurious  
Power – Warm-up and Total  
Tuning – MT and ET

REV	DATE	REVISION RECORD	DWN	AUTH
-	01-18-17	Initial Release	PAC	

J3 MXO Connections	
Connector	Function
1	Supply Voltage
2	Ground, Case
3	Electrical Tuning
4	RF Output



**Wenzel Associates, Inc.**

Austin, Texas

Title:

**8 GHz Golden-Q Multiplied  
Crystal Oscillator (GQMXO-FR)**

P/N:

**501-30596**

Rev:

-

Date:

**01-18-17**

Drawn:

Ref:

28134

Tolerances:  
(except as noted)  
Dimensions are in inches

0.XX Dec:

$\pm 0.030$ "

0.XXX Dec:

$\pm 0.010$ "

FSCM:

62821

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