This specification defines the operating characteristics of an ovenized crystal oscillator. Long term stability is assured through use of premium components.

<table>
<thead>
<tr>
<th>REV.</th>
<th>DESCRIPTION OF REVISION</th>
<th>REQ. BY</th>
<th>DWN. BY</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Updated form, 2.5. was $\pm 5 \times 10^{-10}$, 4.3.a. was $\pm 4$ mV, 6.1.a. was $+2.4$ VDC, 6.2.a. was $+0.4$ VDC</td>
<td>ADB</td>
<td>TST</td>
<td>10-30-92</td>
</tr>
<tr>
<td>B</td>
<td>5.3.a. was $&lt; 2.4$ Watts (1.8 Watts typical) 5.3.b. was $&lt; 4.6$ Watts (3.5 Watts typical)</td>
<td>BTB</td>
<td>TST</td>
<td>04-29-94</td>
</tr>
</tbody>
</table>
1. OUTPUT
1.1. Frequency 10.000 MHz
1.2. Wave form Sine wave
1.3. Level 2 Vp-p ±10% into 50 Ω
1.4. Load 50 Ω ±5%
1.5. Harmonics < -25 dBC
1.6. Spurious < -60 dBC

2. STABILITY
2.1. Ambient < ±5x10⁻⁹ from -30°C to +60°C (referenced to +25°C)
2.2. Aging
   a. Daily
      i. After 30 days < ±1x10⁻⁹
      ii. After 90 days < ±5x10⁻¹⁰
   b. Yearly < ±1.5x10⁻⁷
   c. 10 years < ±4x10⁻⁷
2.3. Voltage < ±5x10⁻¹⁰/±2% change
2.4. Short term < 1x10⁻¹⁰/second root Allan variance
2.5. Load < ±1x10⁻⁹/±5% change
2.6. Warm-up @ -30°C referenced to frequency @ 5 hours
   a. 30 minutes < ±5x10⁻⁸
   b. 60 minutes < ±1x10⁻⁸
2.7. Phase noise
   a. @ 10 Hz < -105 dBC
   b. @ 100 Hz < -125 dBC
   c. @ 1 kHz < -140 dBC

3. ELECTRICAL FREQUENCY ADJUSTMENT
3.1. Range > ±0.45 PPM
   < ±1.2 PPM (At time of shipment)
   (Referenced to nominal frequency)
3.2. Control 0 VDC to Vref (0 VDC to +8 VDC) or
   a 10 kΩ potentiometer connected between pins 2 and 4 with wiper connected to pin 3.
3.3. Slope Positive
3.4. Center Vref/2 ±10% of Vref
   (+4 VDC to +0.8 VDC)
   (Nominal frequency at time of shipment)
4. REFERENCE VOLTAGE
   4.1. Voltage +8 VDC ±5%
   4.2. Current < 1 mA
   4.3. Stability
       a. Ambient < ±10 mV
          (Over temperature range in 2.1.)
       b. Input voltage < ±1 mV/2%

5. INPUT POWER
   5.1. Voltage +13 VDC ±2 VDC
   5.2. Current < 800 mA @ turn on
   5.3. Steady state
       a. @ +25°C < 2.8 Watts
       b. @ -30°C < 6 Watts

6. OVEN MONITOR
   6.1. Oven at temperature
       a. Voltage > +3.5 VDC
   6.2. Oven not at temperature
       a. Voltage < +1 VDC

7. ENVIRONMENTAL
   7.1. Humidity MIL-STD-202F, Method 103B,
        Test Condition A
        (95% R.H. @ +40°C,
         non-condensing, 240 hours)
   7.2. Storage temperature -40°C to +85°C
   7.3. Vibration (non-operating) MIL-STD-202F method 201A
        (0.06" Double amplitude,
         10 to 55 Hz)
   7.4. Shock (non-operating) MIL-STD-202F method 214
        test condition J
        (30 g’s, 11 ms, Half-sine)

8. MECHANICAL
   8.1. Applicable series OCXO 134 series
   8.2. Model number OCXO 134-10
   8.3. Outline drawing 125-396