| OUTDUT  |
|---|
| OUTPUT  |
| Frequency<br>4 GHz                                |
| Level   |
|   |
| +13 dBm ±2 dB into 50 ohms STABILITY              |
|   |
| Aging   |
| 1 x 10 <sup>-6</sup> first year                   |
| after 30 days operating, typical                  |
| 5 x 10 <sup>-7</sup> second year, typical         |
| 3 x 10 <sup>-7</sup> per year thereafter, typical |
| Phase Noise L(f), typical                         |
| 100 Hz -96 dBc/Hz                                 |
| 1 KHz -123 dBc/Hz                                 |
| 10 KHz -140 dBc/Hz                                |
| 10 KHz -140 dBc/Hz<br>100 KHz -141 dBc/Hz         |
| Temperature Stability                             |
| ±5 x 10 <sup>-7</sup> , 0° to +50°C (Ref +25°C)   |
| Harmonics   |
| ≤ -25 dBc   |
| Sub-Harmonics                                     |
| ≤ -60 dBc   |
| Spurious  |
| ≤ -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                                     |
| ≤ 14.0 Watts for 5 minutes                        |
| Total Power                                       |
| ≤ 10.5 Watts at +25°C                             |
| Supply Voltage                                    |
| +15 VDC ±5%                                       |
|   |
|   |

| ADJUSTMENT                     |  |
|--------------------------------|--|
| Mechanical Tuning              |  |
| ±4 x 10 <sup>-6</sup>          |  |
| Electrical Tuning              |  |
| ±5 x 10 <sup>-7</sup> , ±5 VDC |  |
| Negative slope                 |  |

## CRYSTAL

Type

100 MHz SC-cut (x40)

## OTHER Label

Use conventional label with the following information: 501-25399 (Current Rev.) 4 GHz 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

| REV | DATE     | REVISION RECORD | DWN | AUTH |
|-----|----------|-----------------|-----|------|
| -   | 01-26-12 | Initial Release | PAC |      |
|     |          |                 |     |      |
|     |          |                 |     |      |
|     |          |                 |     |      |
|     |          |                 |     |      |

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



