## OUTPUT

Frequency
20 MHz
Level
$+13 \mathrm{dBm} \pm 2 \mathrm{~dB}$ into 50 ohms
EXTERNAL REFERENCE INPUT

## Frequency

10 MHz
Level
$0 \mathrm{dBm} \pm 3 \mathrm{~dB}$ into 50 ohms
STABILITY
Aging
$5 \times 10^{-10}$ /day after 30 days operating
$5 \times 10^{-8} /$ year, second year, typical

Phase Noise L(f), unlocked

$$
\begin{array}{cc}
10 \mathrm{~Hz} & -115 \mathrm{dBc} \\
100 \mathrm{~Hz} & -140 \mathrm{dBc} \\
1 \mathrm{KHz} & -160 \mathrm{dBc}
\end{array}
$$

## Temperature Stability

$\pm 5 \times 10^{-8}, 0^{\circ}$ to $+50^{\circ} \mathrm{C}\left(\right.$ Ref $\left.+25^{\circ} \mathrm{C}\right)$, unlocked
Frequency Accuracy
$\pm 5 \times 10^{-8}$ at time of shipment $\left(+25^{\circ} \mathrm{C}\right)$
Type 2 Loop Characteristics
Target BW: $\leq 1 \mathrm{~Hz}$
$<5$ minute to within $\pm 1 \times 10^{-9}$ of input
MECHANICAL
Dimensions
$2.375^{\prime \prime} \times 2.750^{\prime \prime} \times 1.1^{\prime \prime}$ housing with bracket, mounting holes, Diam. 0.125"
Connectors
SMA Output, SMA Input,
Feedthru capacitors
Packaging
Solder sealed steel can
POWER REQUIREMENTS

## Warm-Up Power

<6 Watts for 5 minutes
Total Power
$<4$ Watts at $+25^{\circ} \mathrm{C}$
Supply Voltage
+12 VDC

## ADJUSTMENT

Mechanical, for Frequency Accuracy
$\pm 5 \times 10^{-7}$, typical
CRYSTAL
Type
20 MHz SC-cut

## STATUS BITS

## External Reference Loss

TTL, Low = loss of reference
Oscillator will "self " center when reference is lost.
Out-of-Lock Alarm
TTL, Low = Locked

| REV | DATE | REVISION RECORD | DWN | AUTH |
| :---: | :---: | :---: | :---: | :---: |
| - | $12-08-16$ | Draft | Liz | AR |
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Wenzel Associates, Inc.
Austin, Texas
20 MHz-SC Phase Locked Crystal Oscillator

| $\begin{aligned} & \text { PN: } \\ & 501-30529 \end{aligned}$ | Rev: Da <br> -  | Date: $12-08-16$ | Drawn: | Ref: $500-14118$ |
| :---: | :---: | :---: | :---: | :---: |
| Tolerances: (except as noted) Dimensions are in inches | $\begin{aligned} & 0 . x x \text { Dec: } \\ & \pm 0.030 " \end{aligned}$ | $"$ $0 . x X x$ Dec: <br> $\pm 0.010 "$ | $\begin{aligned} & \text { FSCM: } \\ & 62821 \end{aligned}$ | Page 1 of 1 |

