

## EXTERNAL REFERENCE INPUT

### Input Frequency

10 MHz

### Input Level

+7 dBm  $\pm$ 6 dB into 50 ohms

## OUTPUT

### Output Frequency

128 MHz

### Output Level

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

## STABILITY, free running

### Aging (typical)

$1 \times 10^{-6}$  per year after 30 days operating

$5 \times 10^{-7}$  per year, second year

$3 \times 10^{-7}$  per year, thereafter

## Phase Noise L(f)

10 Hz -87 dBc/Hz

100 Hz -117 dBc/Hz

1 kHz -148 dBc/Hz

10 kHz -173 dBc/Hz

100 kHz -174 dBc/Hz

## Temperature Stability

$\pm 2 \times 10^{-7}$ , 0° to +50°C (Ref +25°C)

## SPECTRAL PURITY

### Harmonics

-30 dBc

## PLL Divider Products

-50 dBc

## Non-Harmonic Spurious

-70 dBc

## MECHANICAL

### Packaging

Nickel-Plated Machined Aluminum Case

Single Output

### Dimensions

2.5" x 3.5" x 0.8"

### Connectors

RF Input/Output: SMA(f)

Power, Monitoring: Feed-Thru Solder Pins

GND: Ground Turret

## POWER REQUIREMENTS

### Supply Voltage

+15 VDC  $\pm$ 5%

### Warm-Up Power

$\leq 8$  Watts for 5 minutes at +25°C

### Total Power

$\leq 5$  Watts at +25°C

## ADJUSTMENT

### Loop BW

Target Bandwidth:  $\leq 60$  Hz

Type 2 Loop

## CRYSTAL

### Type

128 MHz SC-cut

## PHASE LOCK STATUS

### Phase Lock Alarm (ALM)

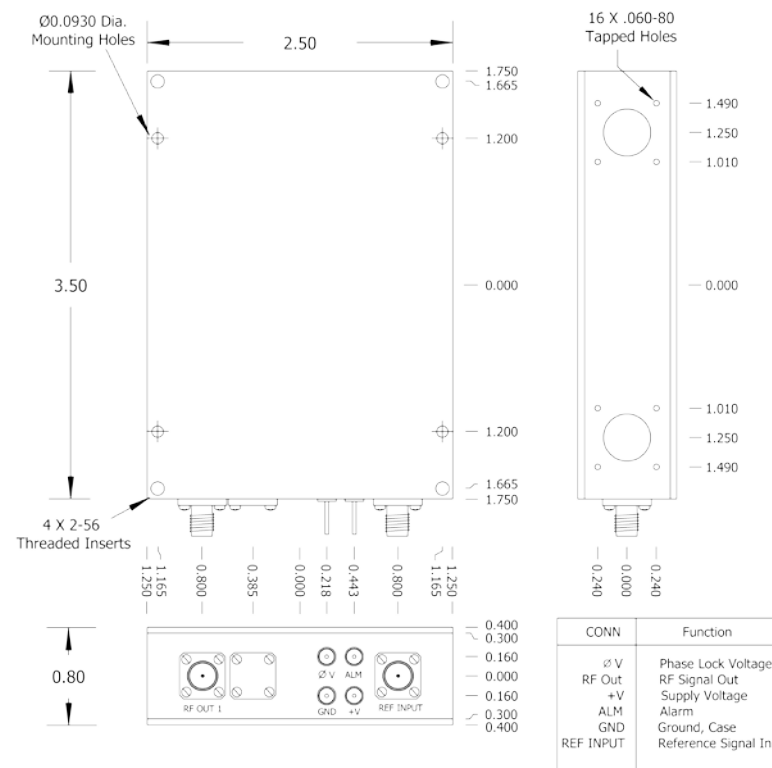
Locked: +3.5 VDC to +5.2 VDC (Hi)

Out-of-Lock: +0.8 VDC max (Lo)

### Phase Voltage Monitor ( $\Phi$ V)

Electrical tuning monitor pin provided

| REV | DATE     | REVISION RECORD | DWN | AUTH |
|-----|----------|-----------------|-----|------|
| -   | 02-04-15 | Initial Release | CB  |      |
|     |          |                 |     |      |
|     |          |                 |     |      |
|     |          |                 |     |      |



## Wenzel Associates, Inc.

Austin, Texas

Title:

**128 MHz-SC Phase Lock Crystal Oscillator ULN  
(LBW=60 Hz)**

P/N:

**501-28752**

Rev:

**-**

Date:

**02-04-15**

Drawn:

Ref:

ULN

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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