REVISION RECORD REV DATE DWN AUTH 04-19-11 Initial Release PAC -INPUT А 08-28-12 Drawing: Bandwidth PAC Packaging Frequency Nickel-plated machined 10 MHz, ±1 x 10⁻⁷ aluminum housing Level Mounting +7 dBm ±5 dB into 50 ohms Tapped holes on sides, 16 places OUTPUT Through holes, 4 places Frequency Threaded inserts on base, 4 places 16 X .060-80 Ø0.0930 Dia. Tapped Holes Mounting Holes POWER REQUIREMENTS 2.50 80 MHz Supply Voltage Level - 1.750 0 ~ 1.665 +13 dBm ±2 dB into 50 ohms +15 VDC ±5% - 1.490 STABILITY Warm-Up Power - 1.250 -0 - 1.200 ≤ 8 Watts at start-up for 5 minutes Output Phase Noise L(f) - 1.010 (Free-Running) at +25° C -130 dBc/Hz 100 Hz **Total Power** 1 kHz -158 dBc/Hz ≤ 5 Watts at steady state +25°C 10 kHz -176 dBc/Hz ADJUSTMENT 3.50 - 0.000 -0.000 100 kHz -176 dBc/Hz Loop BW Aging Target Bandwidth: < 5 Hz $\pm 1 \times 10^{-6}$ per year after 30 days Type 2 Loop CRYSTAL operating, typical Type **Temperature Stability** - 1.010 80 MHz SC-cut $\pm 5 \times 10^{-7}$ free-running from 0 to $\pm 50^{\circ}$ C, -0 - 1.200 -1.250 OTHER (Ref. +25°C) -1.490 **Test Data** _~ 1.665 Phase Lock Alarm 1.750 Output Level 90 T TTL 4 X 2-56 Phase Noise (free-running) Threaded Inserts Locked: +3.5 VDC to +5.2 VDC (Hi) Temperature Stability (free-running) - 0.218 - 0.443 - 0.800 Out-of-Lock: +0.8 VDC max (Lo) · 1.165 0.800 0.385 0.000 -1.165 0.240 0.000 0.240 Harmonics, PLL Products, Spurious Phase Lock Voltage Monitor Voltage monitor pin supplied -0.400-0.300CONN Function ł. Harmonics $\odot \odot$ - 0.160 Phase Lock Voltage $\mathbf{O}_{\mathbf{0}}$ øν 0.80 - 0.000 ≤-30 dBc RF Out **RF** Signal Out - 0.160 +V Supply Voltage Sub-Harmonics RE OUT 1 AI M - 0.300 - 0.400 Alarm GND Ground, Case ≤-50 dBc REF INPUT Reference Signal In PLL Divider Products ≤-60 dBc Spurious ≤-70 dBc, excluding power supply line related spurs Wenzel Associates, Inc. W MECHANICAL Austin. Texas Dimensions Title: 2.5 x 3.5 x 0.8" Premium 80 MHz-SC Phase Lock Crystal Oscillator Connectors P/N· Date: Drawn: Ref: Rev: SMA(f)'s and solder pins on side ULN 501-23915 08-28-12 Α Feed-thru terminals for lock alarm, Tolerances: 0.XXX Dec: 0.XX Dec: FSCM: supply and phase lock voltage monitor (except as noted) Page 1 of 1 62821 ±0.030" ±0.010" Dimensions are in inches