CLV0700E

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VOLTAGE CONTROLLED OSCILLATOR Rev B2

Frequency Range: 680 - 720 MHz • Frequency Range: 680 - 720 MHz • Tuning Voltage: 0.5-4.5 Vdc • MINI-14S-L - Style Package APPLICATIONS • VSAT Modems • Basestation • Digital Radios	PHA (F) (J) (J) (J) (J) (J) (J) (J) (J) (J) (J	SE NOISE (1 Hz	10К
PERFORMANCE SPECIFICATIONS		VALUE	UNITS
Oscillation Frequency Range		680 - 720	MHz
Phase Noise @ 10 kHz offset (1 Hz BW, typ.)		-110	dBc/Hz
Harmonic Suppression (2nd, typ.)		-10	dBc
Tuning Voltage		0.5-4.5	Vdc
Tuning Sensitivity (avg.)		29	MHz/V
Power Output		2.25±2.25	dBm
Load Impedance		50	Ω
Input Capacitance (max.)		100	pF
Pushing		<1	MHz/V
Pulling (14 dB Return Loss, Any Phase)		<1	MHz
Operating Temperature Range		-40 to 85	°C
Package Style		MINI-14S-L	
POWER SUPPLY REQUIREMENTS			
Supply Voltage (Vcc, nom.)		5	Vdc
Supply Current (Icc, typ.)		19	mA
All specifications are typical unless otherwise noted and subject to change without notice.			
APPLICATION NOTES			
AN-100/1 : Mounting and Grounding of VCOs			

AN-100/1 : Mounting and Grounding of VCOs

• AN-102 : Proper Output Loading of VCOs

• AN-107 : How to Solder Z-COMM VCOs

NOTES:

LOW COST - HIGH PERFORMANCE VOLTAGE CONTROLLED OSCILLATOR

PAGE 2 **TUNING CURVE, typ.** 770 750 FREQUENCY (MHz) 730 710 □ 85 °C 690 °C 670 25 °C -40 650 630 610 590 1.5 2 2.5 3 0 0.5 1 3.5 4 4.5 **TUNING VOLTAGE (Vdc) POWER CURVE**, typ. POWER OUTPUT (dBm) 6 5 4 з °C 2 25 1 0 -1 635 654 671 687 702 716 730 744 758 611 **FREQUENCY (MHz)** PHYSICAL DIMENSIONS TYPICAL OF ALL PADS -SEE NOTE 3 MINI-14S-L 415-0063 REV. D (DRAWING NOT TO SCALE) .065 NOTES NOTES: THE INSIDE RADIUS OF ALL 14 HALF HOLES AT THE PERIMETER OF THE BOARD ARE PLATED TO PROVIDE A SURFACE FOR THE ATTACHMENT OF THE VCO TO A PCB IN 11 LOCATIONS, WITH 3 PARS BEING USED FOR ELECTRONBECHANICAL 14 SOLDER LOCATIONS RECHARDEN IASOLDER LOCATIONS RECHARDEN INDIANY BE SOLDERED TO THE SHIELD S BASE METAL IS COLD ROLLED STEEL THE GROUND PLANE IS GROUND AND ATTACHES DA GROUND PLANE IS GROUND AND ATTACHES TO A GROUND PLANE IS GROUND AND ATTACHES TO A GROUND PLANE IS GROUND AND ATTACHES TO A GROUND PLANE IS GROUND AND ATTACHES THE BOARD AS WELL AS THE SHIELD BY PTH. UNLESS OTHERWISE NOTED ALL DIMENSIONS 1. Ī 1 .052 026 .114 0.220 0.320 0.420 -0.475 TABS RANGE: 2. SEE NOTE 5. (4 PLACES) . U P2 0.500 0.475 3. 0.415 0.415 -P1=VT P2=RF OUT P3=Vcc 4. UNLESS OTHERWISE NOTED ALL DIMENSIONS ARE IN INCHES. 5. UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS FOLLOWS: ē -0.315 0.315 P3 800 465 0.215 -0.215 TOLERANCES .XXX= ± .010 BOTTOM VIEW SEE DETAIL 'A' .130 0.090 0.090 - .070 TYP .034 _____ 0.025 ati dat .150 TYP 0.025 0.200 0.285 0.385 0.500 GROUND PLANE SOLDER PLATED

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