

SERIES LV71, LV72, AND LV73 TTL / HCMOS / ACMOS

● FEATURES

- STANDARD 14 PIN DIP PACKAGE
- TOLERANCE AND STABILITY TO ± 10 PPM
- CUSTOM SPECIFICATIONS

● SPECIFICATIONS

FREQUENCY RANGE	1.00 MHz TO 100.00 MHz
FREQUENCY STABILITY OVER TEMPERATURE RANGE (REF. TO 25°C)	
OPERATING TEMPERATURE RANGE	0 TO +50 (NARROW) 0 TO +70 (STANDARD) -40 TO +85 (EXTENDED) AT VCC = +2.5 VDC VCC = +5.0 VDC AND STANDARD LOAD
STORAGE TEMPERATURE RANGE	-40 TO +85
OUTPUT WAVEFORM OPTIONS	TTL, HCMOS, AND ACMOS (SEE TABLE 2)
SUPPLY VOLTAGE	+5 VDC $\pm 5\%$ (3.3 VDC AVAILABLE)
SUPPLY CURRENT	
ABSOLUTE PULLING RANGE (APR)	± 50 PPM TO 100 PPM MIN OVER CONTROL VOLTAGE RANGE AT VCC = +5.0 V AND STANDARD LOAD AT 25
NOMINAL CONTROL VOLTAGE (VC)	+2.5 VDC
SETTABILITY AT V_{fo} T	+2.5 VDC ± 0.5 VDC
CONTROL VOLTAGE RANGE	+0.5 TO +4.5 VDC
LINEARITY	$\pm 10\%$ MAX OF BEST STRAIGHT LINE FIT
SYMMETRY	NORMAL: 40/60% TIGHT: 45/55% (OPTION)
SLOPE	POSITIVE
MODULATION FREQUENCY BANDWIDTH	10 KHz (-3dB) MIN
INPUT IMPEDANCE	10 KOHM MIN
ABSOLUTE VOLTAGE RANGE	-0.5 TO +7.0 VDC FOR VCC (NON DESTRUCTIVE)
PHASE NOISE (TYPICAL)	SEE GRAPH OF PHASE NOISE CHARACTERISTICS

+V_{fo} IS THE CONTROL VOLTAGE AT WHICH THE OUTPUT FREQUENCY IS EQUAL TO THE NOMINAL FREQUENCY (F_o) AT +25 °C 1C

++ABSOLUTE PULLING RANGE (APR) IS THE MINIMUM GUARANTEED FREQUENCY SHIFT FROM F_o OVER VARIATIONS IN

+++TEMPERATURE, AGING, POWER SUPPLY, AND LOAD.

● PART NUMBERING SYSTEM

SERIES		OUTPUT (TABLE2)			CODE (TABLE1)		FREQUENCY	
LV7		1	TTL		A THROUGH M		IN MHz	
		2	HCMOS					
		3	ACMOS					

EXAMPLE:

LV710D-16.384

TTL OUTPUT, ± 20 PPM OVER 0 TO +50

MINIMUM APR ± 75 PPM

16.384 MHz

● MECHANICAL CHARACTERISTICS

MECHANICAL SHOCK	IEC-68-2-27 TEST EA. 30g FOR 18 ms HALFSINE
VIBRATION	IEC 68-2-6 (TEST FC) 0.35mm. 5g , 10-2 kHz. 6 CYCLE AXIS
THERMAL SHOCK	IEC 68-2-14 (TEST NA).30min IN EACH TEMPERATURE EXTREME
SEAL	IEC 68-2-17 (TEST QC)
SOLDERING HEAT	IEC-68-2-20A
MECHANICAL	14 PIN DIP, LEADED.PER OUTLINE DRAWING

● OUTPUT AND LOAD CHARACTERISTICS

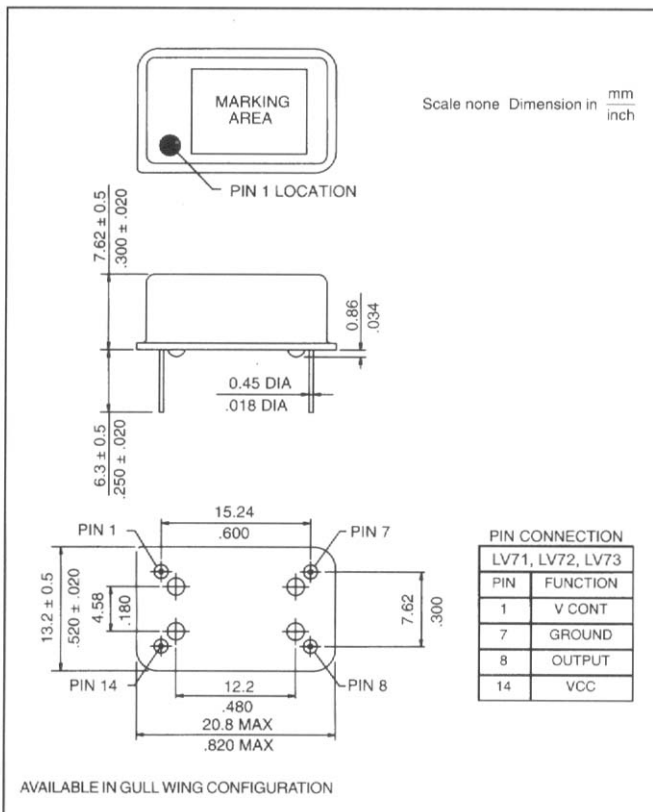
TABLE 2	
TTL-3GATES (LV71)	TTL/HCMOS COMPATIBLE SYMMETRY:40/60% TO 60/40% AT +1.4 VDC VOH : +2.4 VDC MIN RISE/FALL TIME : 10ns WITH STANDARD LOAD (20% TO 80%)
HCMOS-15 pF (LV72)	TTL/HCMOS COMPATIBLE SYMMETRY:40/60% TO 60/40% AT 50% LEVEL VOH: +4.5 VDC MIN VOL: +0.5 VDC MAX RISE/FALL TIME: 5 ns WITH STANDARD LOAD (20% TO 80%)
ACMOS-30 pF (LV73)	ACMOS TO DRIVE 3 GATES AT TTL LEVELS SYMMETRY: 40/60% TO 60/40% AT 50% LEVEL VOH: +4.5 VDC MIN VOL: +0.5 VDC MAX RISE/FALL TIME: 5 ns WITH 30pF LOAD (20% TO 80%)

● TEMPERATURE RANCE DESIGNATIONS

TABLE1

CODE	TEMPERATURE RANGE	TEMPERATURE STABILITY	APR(MIN)
A	0 TO +50	±10PPM	± 50 PPM
B	0 TO +50	±15 PPM	± 50 PPM
C	0 TO +50	±15 PPM	± 50 PPM
D	0 TO +50	±20 PPM	± 75 PPM
E	0 TO +50	±25 PPM	± 75 PPM
F	0 TO +70	±35 PPM	± 100 PPM
G	0 TO +70	±10 PPM	± 50 PPM
H	0 TO +70	±20 PPM	± 50 PPM
I	0 TO +70	±20 PPM	± 50 PPM
J	0 TO +70	±25 PPM	± 50 PPM
K	0 TO +70	±35 PPM	± 75 PPM
L	0 TO +70	±50 PPM	± 100 PPM
M	-40 TO +85	±20 PPM	± 50 PPM
N	-40 TO +85	±30 PPM	± 50 PPM
O	-40 TO +85	±25 PPM	± 75 PPM
P	-40 TO +85	±35 PPM	± 75 PPM
Q	-40 TO +85	±50 PPM	± 100 PPM

● OUTLINE DRAWING



● PHASE NOISE CHARACTERISTICS

