



<b>FREQUENCY STABILITY</b>	
FREQUENCY STABILITY OVERALL INCLUDED LONG TERM AGING 15 YEARS: <math>< \pm 4.6 \text{ ppm}</math>	
HOLD-OVER STABILITY DURING 24 HOURS INCLUDING LOAD, SUPPLY VOLTAGE AND TEMPERATURE VARIATION: <math>< \pm 0.28 \text{ ppm}</math> (0.56 ppm p-to-p)	
<b>POWER SUPPLY</b>	
SUPPLY INPUT:	$V_{cc} = 3.3 \text{ V} \pm 0.2 \text{ V}^*$
INPUT CURRENT:	<math>< 110 \text{ mA}</math> @ +30 °C*
INPUT CURRENT:	<math>< 160 \text{ mA}</math> @ -20 °C*
<b>FREQUENCY CONTROL RANGE</b>	
CONTROL VOLTAGE:	Not applicable, pin 1 must be connected to ground (see note 2)
INTERNAL CALIBRATION:	<math>< \pm 1 \text{ ppm}^*</math>
<b>OUTPUT</b>	
OUTPUT SIGNAL:	HC-MOS compatible
SYMMETRY:	45 (min.) / 55 (max.) % @ $V_{cc} / 2$ *
RISE AND FALL TIME:	$t_r < 7 \text{ ns}$ $t_f < 7 \text{ ns}^*$
LEVEL „0“ AND „1“:	<math>< 0.4 \text{ V}</math> $> V_{cc} - 0.5 \text{ V}</math>$
FAN OUT (LOAD):	10 LS or 47pF max.
<b>ENVIRONMENT</b>	
OPERABLE TEMP. RANGE:	-40 to +85 °C
STORAGE TEMP. RANGE:	-65 to +125 °C
VIBRATION:	10 to 2000 Hz / 10 g
SHOCK:	2000 g, 0.3 ms, 1/2 sine
PACKAGE:	DIL 14, 4 pins, GND to case
PACKAGE HEIGHT:	8 mm (see packaging info)
<b>WARM-UP</b>	
$\Delta F/F$ :	within spec after 30s @ 0 °C*
CURRENT:	<math>< 250 \text{ mA}</math> during 30s
<b>MISCELLANEOUS</b>	
SHORT TERM STABILITY:	<math>< 5 \text{ E-10}</math> 0.1 s to 30 s Typical 5 E-11 @ 1 s
PHASE NOISE (BW = 1Hz): (typical, @ 10MHz in static conditions)	1 Hz : -70 dBc / Hz 10 Hz : -100 dBc / Hz 100 Hz : -130 dBc / Hz 1 kHz : -140 dBc / Hz
* Customer's specification on request	

<b>NOTE 1</b>	
	<b>OCXOWST-D</b>
TEMP. RANGE *	0 to +70 °C
	<b>OCXOWST-C</b>
TEMP. RANGE *	-40 to +85 °C

<b>NOTE 2</b>	
On request:	
Possibility of frequency adjustment with control voltage.	

<b>MARKING EXAMPLE</b>			
		Type	Spec No.
OCXOWST-C		Frequency	Date Code
12.800 MHz	01.25	O (PIN 1)	Piece No.
O	12		

<b>ORDERING INFORMATION EXAMPLE</b>			
O C X O W S T - C 12.8 MHz x x x			
Oscillator Type	OCXO = Oven Controlled Crystal Oscillator	Oscillator output frequency	N° of customer spec.
Oscillator Version	W = low power voltage 3.3V ST = Stratum 3 application		
Temperature Range	C = -40 to +85 °C D = 0 to +70 °C		

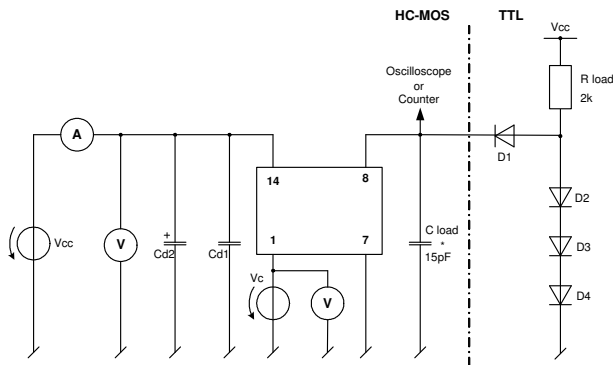
<b>STANDARD FREQUENCIES (MHz)</b>			
12.8000	16.3840	19.4400	20.0000

DATE:	June 2003	Revision No.: 2
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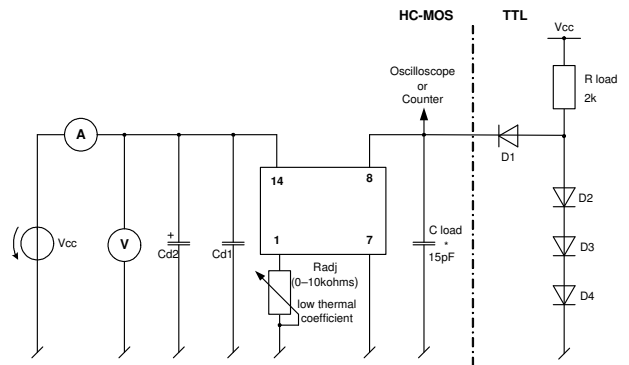
In accordance with our policy of continuous development and improvement, we reserve the right to modify the design or the specifications of our products without prior notice.

**Application and Test Circuit:**

Adjustment with voltage

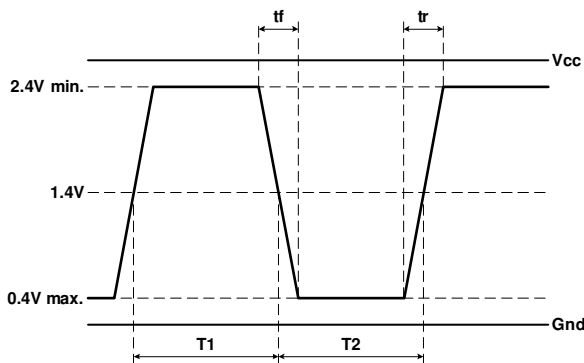


Adjustment with resistor

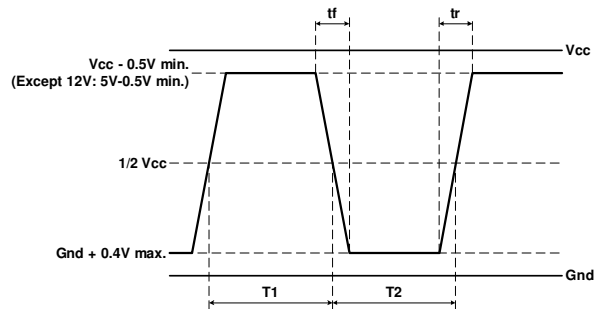


**Waveform Output:**

Waveshape TTL



Waveshape HC-MOS



$$Duty Cycle = 100 \times \frac{T1}{T1 + T2} [\%]$$

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