SaRonix

Crystal Clock Oscillator

5V, True TTL

Technical Data

NCT Series

ACTUAL SIZE

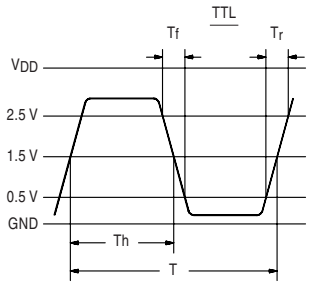
Description

A crystal controlled, hybrid oscillator circuit that produces a true TTL output characteristic at frequencies between 500 kHz and 66.6667 MHz. The device is mounted in a 14-pin DIP-compatible, all metal hermetic package. Physically and functionally interchangeable with all major manufacturers' devices.

Applications & Features

- Ideal for high performance RISC and CISC based products
- True TTL level for low EMI
- Broad frequency range to 66.6667 MHz

Output Waveform



SYMMETRY = $\frac{Th}{T}$ x 100(%)

Frequency Range:	500 kHz to 66.6667 MHz	
Frequency Stability:	±25, ±50 or ±100 ppm over all conditions: calibration tolerance, operating temperature, input voltage change, load change, aging, shock and vibration.	
Temperature Range:		
Operating:	0°C to +70°C or -40 to +85°C(limited frequencies)	
Storage:	-55°C to +125°C	
Supply Voltage:	+5 VDC ±10%	
Supply Current:	Max @ 25°C	Max over Temperature
500 kHz to 20 MHz:	30mA	40mA
20+ to 66.6667 MHz:	65mA	70mA
TTL Output:		
Symmetry:	40/60% max @ 1.5 VDC level	
Rise & Fall Times:	8ns max: 500 kHz to 25 MHz 6ns max: 25+ to 66.6667 MHz	
0 Level:	0.5V max	
1 Level:	2.5V min	
Load:	1 to 10 TTL gates (1.6mA per gate)	
Mechanical:		
Shock:	MIL-STD-883, Method 2002, Condition B	
Solderability:	MIL-STD-883, Method 2003	
Terminal Strength:	MIL-STD-883, Method 2004, Condition B2	
Vibration:	MIL-STD-883, Method 2007, Condition A	
Solvent Resistance:	MIL-STD-202, Method 215	
Resistance to Soldering Heat:	MIL-STD-202, Method 210, Condition A, B or C	
Environmental:		
Gross Leak Test:	MIL-STD-883, Method 1014, Condition C	
Fine Leak Test:	MIL-STD-883, Method 1014, Condition A	
Thermal Shock:	MIL-STD-883, Method 1011, Condition A	
Moisture Resistance:	MIL-STD-883, Method 1004	

Part Numbering Guide:

NCT 0 50 C - 4.0000

Type

Temperature Range
0 = 0 to +70°C
2 = -40 to +85°C (only available at certain frequencies, please contact SaRonix)

Frequency Category
40 = 500 kHz to 4.0 MHz
50 = 4.0+ to 20.0 MHz
70 = 20.0+ to 66.6667 MHz

Stability Tolerance:
A = ±25 ppm
B = ±50 ppm
C = ±100 ppm

Frequency

DS-129 REV E

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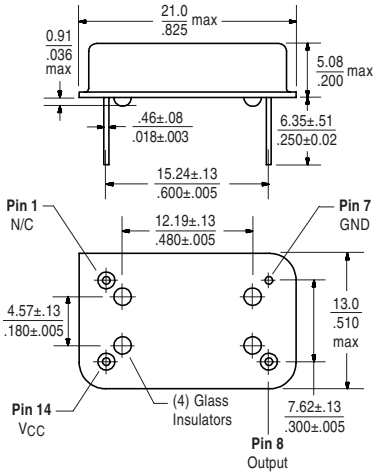
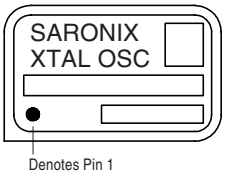
Package Details



Standard Marking Format *

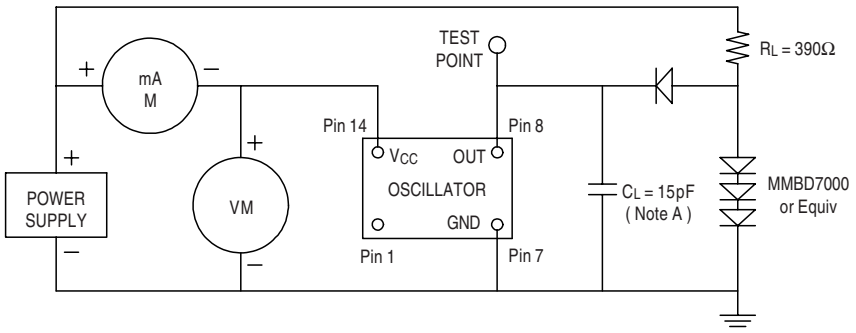
Includes Date Code, Frequency & Part Number



* Exact locations of items may vary

Scale: None (Dimensions in $\frac{mm}{inches}$)

Test Circuit



NOTE A: C_L Includes probe and fixture capacitance

All specifications are subject to change without notice.

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