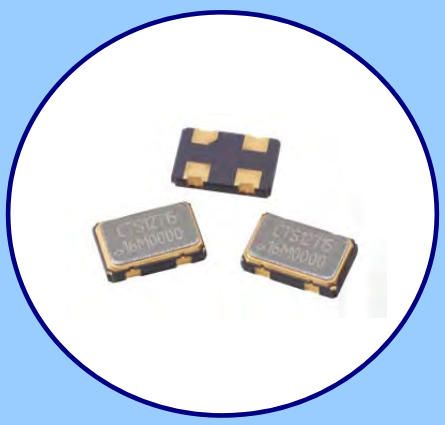
Model 636

HCMOS/TTL Clock Oscillator

FEATURES

- **Standard 5.0mm x 3.2mm 4-Pad Surface Mount Package**
- **HCMOS/TTL Compatible Output**
- **Fundamental and 3rd Overtone Crystal Designs**
- Frequency Range 1 – 160MHz
- Frequency Stability ±50ppm Standard, ±25ppm and ±20ppm Available
- Operating Voltages +1.8Vdc, +2.5Vdc, +3.3Vdc or +5.0Vdc
- Operating Temperature to -40°C to +85°C
- Output Enable Standard
- Tape & Reel Packaging Standard, EIA-418
- **RoHS/Green Compliant [6/6]**



APPLICATIONS

Model 636 is ideal for applications; such as digital video, networking equipment, broadband access, Ethernet/Gigabit Ethernet, microprocessors/DSP/FPGA, storage area networks, computers and peripherals, cameras and other portable devices to name a few.

ORDERING INFORMATION

636 □ □ □ □ □ □ M □ □ □ □ □

SUPPLY VOLTAGE
M = +1.8V
N = +2.5Vdc
L = +3.3Vdc
S = +5.0Vdc

FREQUENCY STABILITY
6 = ± 20 ppm [1]
5 = ± 25 ppm
3 = ± 50 ppm [std]
2 = ± 100 ppm [2]

FREQUENCY IN MHz
M - indicates MHz and decimal point. [3]

OPERATING TEMPERATURE RANGE
C = -20°C to +70°C [standard]
I = -40°C to +85°C

1] Consult factory for 6I Stability/Temperature availability.

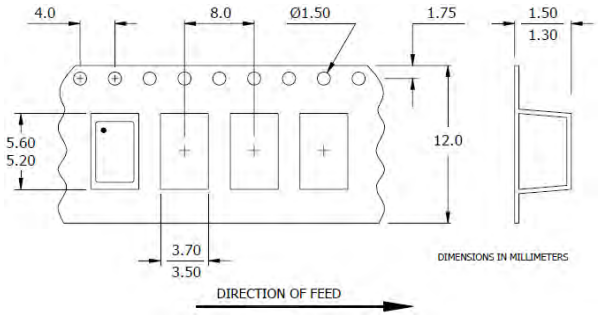
2] -40°C to +85°C Only.

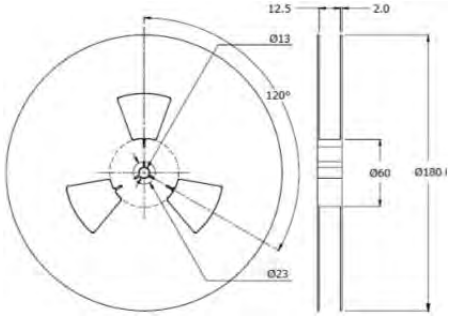
3] Frequency is recorded with three leading significant digits before the 'M' and 5 significant digits after the 'M' (including zeros).
[Ex. 3.579545 MHz, code as 003M57954; 14.31818 MHz, code as 014M31818; 125 MHz, code as 125M00000]

Not all performance combinations and frequencies may be available.
Contact your local CTS Representative or CTS Customer Service for availability.

PACKAGING INFORMATION [Reference]

Factory may package reels in quantities of 1k pcs. or 3k pcs. Reel size is 180mm. 12mm tape width.





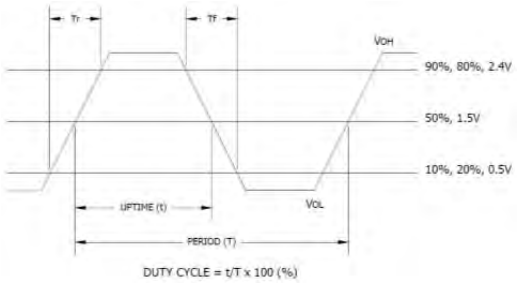
CTS ELECTRONIC COMPONENTS

Model 636
5.0mm x 3.2mm Low Cost HCMOS/TTL Clock Oscillator

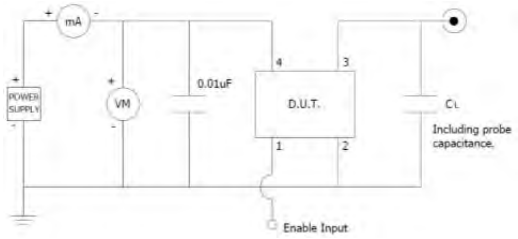
ELECTRICAL CHARACTERISTICS

	PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
ELECTRICAL PARAMETERS	Enable Function						
	Enable Input Voltage						
	Model 636M	V_{IH}	Pin 1 Logic '1', Output Enabled	1.26	-	-	V
	Model 636N		Pin 1 Logic '1', Output Enabled	1.75	-	-	
	Model 636L		Pin 1 Logic '1', Output Enabled	2.0	-	-	
	Model 636S		Pin 1 Logic '1', Output Enabled	4.0	-	-	
	Disable Input Voltage						
	Model 636M,636N,636L	V_{IL}	Pin 1 Logic '0', Output Disabled	-	-	0.3	
	Model 636S		Pin 1 Logic '0', Output Disabled	-	-	0.8	
	Enable Time (M,N,L,S)	T_{PLZ}	Pin 1 Logic '1'	-	-	10	ms
	Standby Current	I_{ST}	Pin 1 Logic '0', Output Disabled	-	-	10	µA

LVCMOS OUTPUT WAVEFORM



TEST CIRCUIT, CMOS LOAD

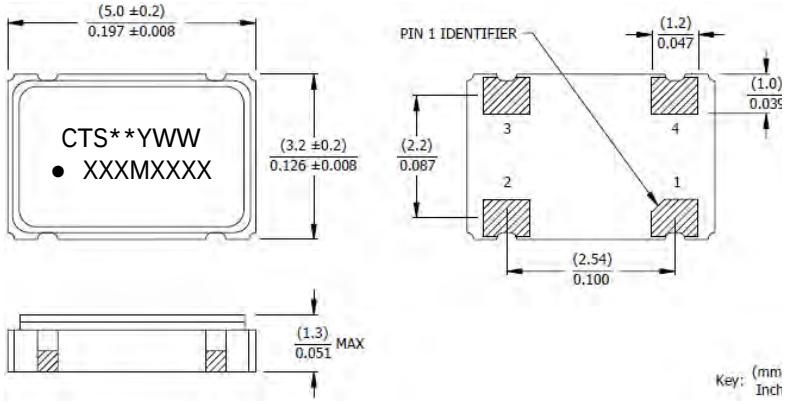


ENABLE TRUTH TABLE

PIN 1	PIN 3
Logic '1'	Output
Open	Output
Logic '0'	High Imp.

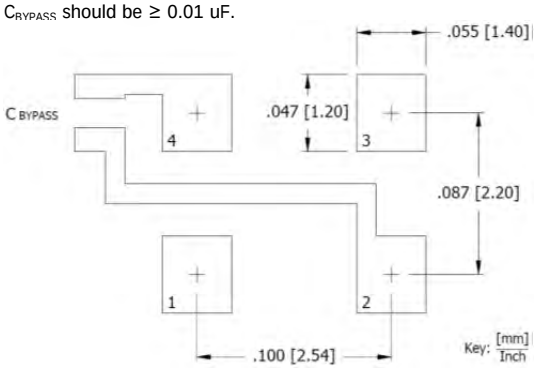
MECHANICAL SPECIFICATIONS

PACKAGE DRAWING



SUGGESTED SOLDER PAD GEOMETRY

C_{BYPASS} should be ≥ 0.01 uF.



MARKING INFORMATION

1. ** - Manufacturing Site Code.
2. YWW – Date code, Y – year, WW – week.
3. XXXMXXXX – Frequency is marked with only leading significant digits before the 'M' and 4 digits after the 'M' [including zeros].
   Ex. XXMXXXX [62M5000]
   XXXMXXXX [155M5200]

NOTES

1. JEDEC termination code (e4). Barrier-plating is nickel [Ni] with gold [Au] flash plate.
2. Reflow conditions per JEDEC J-STD-020, +260°C maximum, 20 seconds.
3. MSL = 1.

D.U.T. PIN ASSIGNMENTS

PIN	SYMBOL	DESCRIPTION
1	EOH	Enable
2	GND	Circuit & Package Ground
3	Output	RF Output
4	V_{CC}	Supply Voltage