

HCMOS/TTL COMPATIBLE FULL-SIZE DIP CRYSTAL CLOCK OSCILLATORS ACO



FEATURES:

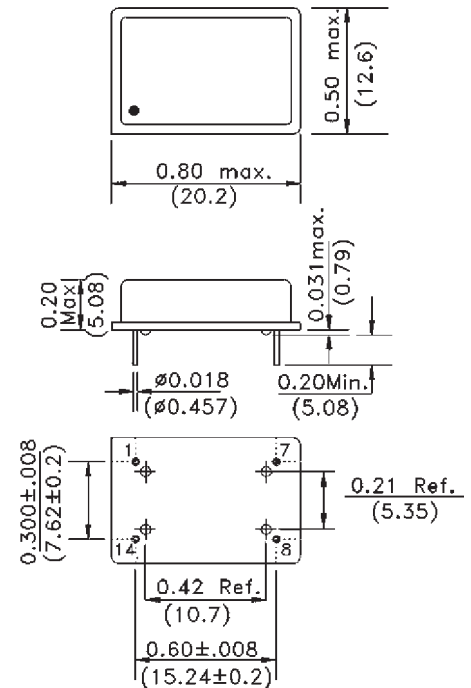
- Wide Frequency Range.
- Tight Symmetry Option.
- Fast Rise and Fall Times.
- HCMOS and TTL Compatible.
- Tristate Enable/Disable Options.
- Anti-Static Packaging Tube.

APPLICATIONS:

- Provide clock signals for microprocessors and digital circuits.
- High Output drive capability applications.

STANDARD SPECIFICATIONS

PARAMETERS	SPECIFICATIONS	
Frequency Range (F _O)	500 Hz - 200 MHz (**)	
Operating Temperature (T _{OPR})	0°C to +70°C	
Storage Temperature (T _{STO})	-55°C to +125°C	
Frequency Stability (ΔF/F _O)	± 100 ppm max. (See Options)	
Supply Voltage (V _{dd})	5 Vdc ± 10%	
Input Current (I _{dd})	30 mA max. for F < 24 MHz 45 mA max. for F < 50 MHz	70 mA max. for F < 80 MHz 85 mA max. for F ≥ 80 MHz
Duty Cycle or Symmetry	45/55% max. for F < 50 MHz @ 1/2 V _{dd} (See Options) 40/60% max. for F ≥ 50 MHz @ 1/2 V _{dd} (See Options)	
Rise and Fall Times (T _R / T _F)	10 ns max. for F ≤ 24 MHz 5 ns max. for F > 24 MHz	
Output Load	10TTL or 15 pF (50pF max.) for F _O < 80 MHz 5TTL or 15 pF for (F _O) ≥ 80 MHz	
Output Voltage	0.9 * V _{dd} min. (V _{OH}) 0.4 V _{dc} max. (V _{OL})	
Start-up Time (T _{OSC})	10 ms max.	
Tristate Function (V _{IH}) (Option -A Only) (V _{IL})	"1" or Open: Oscillation ≥ 2.2V "0": Output disabled in high impedance (HiZ) < 0.8V	
Output Disable / Enable Time	100 ns max. (for Option "- A" ONLY)	



Dimensions: Inches (mm)

PIN NUMBER	FUNCTION
1	NC or Tristate E/D
7	GND / Case
8	Output
14	V _{dd}

(*) Pin 1 has internal pull-up resistor which allows Pin 1 to be left floating (enable high) Option A

(**) Higher Frequencies available

For test circuit, waveforms, please see page 67.

Environmental and mechanical specifications on page 68, Group 1. Marking, see page 79.

ORDERING OPTIONS

ACO - Frequency - Temperature - Overall Frequency Stability - Duty Cycle - Tristate - 50 - Value Added

XX.XXXX MHz or kHz
-D for -10°C to +60°C
-E for -20°C to +70°C
-F for -30°C to +70°C
-N for -30°C to +85°C
-L for -40°C to +85°C

-Y for ± 10 ppm max**
-J for ± 20 ppm max
-R for ± 25 ppm max
-K for ± 30 ppm max
-H for ± 35 ppm max
-C for ± 50 ppm max

-S for 45/55% @ 1/2 V _{dd}
-T for 47.5/52.5% @ 1/2 V _{dd}
-S1 for 45/55% @ 1.4 V _{dc}
-T1 for 47.5/52.5% @ 1.4 V _{dc}

50 pF load output drive

-G Gull Wing, p. 73.
-QXX (Trimmed Leads) p. 73.

- A for Tristate E/D

(**) Standard Operating Temperature Only
Frequency 50 MHz max



NOTE: Left blank if standard • All specifications and markings subject to change without notice

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