

HCMOS/TTL COMPATIBLE HALF-SIZE DIP CRYSTAL CLOCK OSCILLATORS ACH



FEATURES:

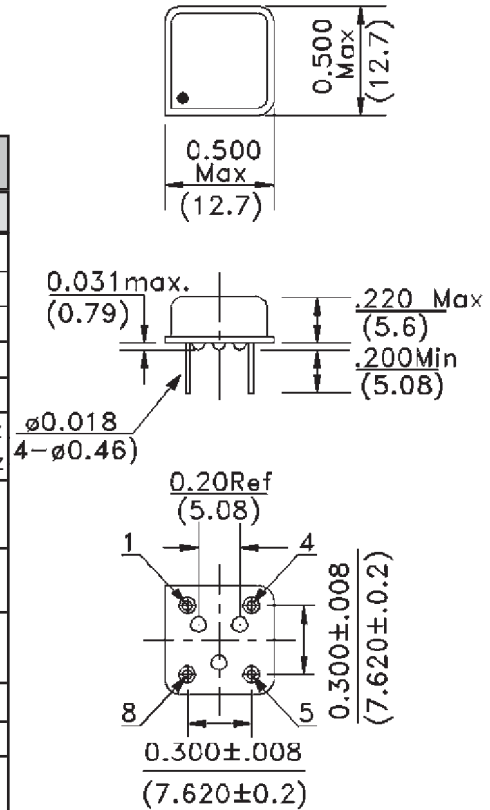
- Wide frequency range.
- Tight symmetry option.
- Fast Rise and Fall Times.
- HCMOS and TTL compatible.
- Tristate Enable / Disable Function.
- Anti-Static packaging tube.

APPLICATIONS:

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

STANDARD SPECIFICATIONS

PARAMETERS	SPECIFICATIONS
Frequency Range (F_0)	32.768 kHz - 160 MHz (**)
Operating Temperature (T_{OPR})	0°C to +70°C (See Options)
Storage Temperature (T_{STO})	-55°C to +125°C
Frequency Stability ($\Delta F / F_0$)	± 100 ppm max. (See Options)
Supply Voltage (V_{dd})	5 Vdc ± 10%
Input Current (I_{dd})	30 mA max. for $F < 24$ MHz 70 mA max. for $F < 80$ MHz 45 mA max. for $F < 50$ MHz 85 mA max. for $F \geq 80$ MHz
Duty Cycle or Symmetry	45/55% max. for $F < 50$ MHz @ $1/2 V_{dd}$ (See Options) 40/60% max. for $F \geq 50$ MHz @ $1/2 V_{dd}$ (See Options)
Rise and Fall Times (T_R / T_F)	10 ns max. for $F \leq 24$ MHz 5 ns max. for $F > 24$ MHz
Output Load	10TTL or 15 pF (50pF max.) for $F_0 < 80$ MHz 5TTL or 15 pF for (F_0) ≥ 80 MHz
Output Voltage	0.9 * V_{dd} min. (V_{OH}) 0.4 Vdc max. (V_{OL})
Start-up Time (T_{OSC})	10 ms max.
Tristate Function (Option "-A" ONLY)	"1" or Open: Oscillation $\geq 2.2V$ "0": Output disabled in high impedance (HiZ) $< 0.8V$
Output Disable/Enable Time	100 ns max. (for Option "- A" ONLY)



Dimensions: Inches (mm)

(*) Pin 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.

PIN NUMBER	FUNCTION
1	NC or Tristate E/D
4	GND / Case
5	Output
8	V_{dd}

ORDERING OPTIONS

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

XX.XXXX MHz or kHz	-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 Vdc -T1 for 47.5/52.5% @ 1.4 Vdc	50 pF load output drive	-G Gull Wing, p. 73. -G2 Gull Wing, p. 73. -QXX (Trimmed Leads) p. 73.
-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	(**) Standard Operating Temperature Only Frequency 50 MHz max.		- A for Tristate E/D	



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

29 Journey • Aliso Viejo, CA 92656 • USA
(949) 448-7070 • FAX: (949) 448-8484

E-MAIL: abinfo@abracon.com • INTERNET ADDRESS: www.abracon.com

