

20.2 x 12.6 x 5.08 mm

3.3Vdc • HCMOS/ TTL COMPATIBLE FULL-SIZE AND HALF-SIZE DIP CRYSTAL CLOCK OSCILLATORS ACOL and ACHL

FEATURES:

- Tristate Enable/Disable option.
- HCMOS and TTL compatible.
- Low power
- Low voltage 3.3Vdc.
- Tight symmetry option.

APPLICATIONS:

- Clock signal sources for digital chips and microprocessors.
- Low power applications.

STANDARD SPECIFICATIONS

| PARAMETERS | SPECIFICATIONS |
|--|--|
| Package Type | ACOL (14 DIP) and ACHL (8 DIP) |
| Frequency Range (F ₀) | 32.768 kHz - 200 MHz |
| Operating Temperature (T _{OPR}) | 0°C to +70°C (See Options) |
| Storage Temperature (T _{STO}) | -55°C to +125°C |
| Frequency Stability (ΔF/ F ₀) | ±100ppm max. (See Options) |
| Supply Voltage (V _{dd}) | 3.3Vdc ±10% |
| Input Current (I _{dd}) | 20mA max. for F ≤ 20 MHz 25mA max. for F ≤ 70 MHz 50mA max. for F ≤ 200 MHz |
| Duty Cycle or Symmetry | 40 / 60% max. (typical 45/55%) (See Options) |
| Rise and Fall Times (T _R / T _F) | 10ns max. |
| Output Load | 5TTL or 15pF |
| Output Voltage | 0.9*V _{dd} min. (V _{OH}); 0.1*V _{dd} max. (V _{OL}) |
| Start-up Time (T _{OSC}) | 10ms max. |
| Tristate Function (V _{IH}) | "1" or Open: Oscillation ≥ 2.2V |
| (Option "-A" ONLY) (V _{IL}) | "0": Output disabled in high impedance (HiZ) < 0.8V |
| Output Disable / Enable Time | 100ns max. (for Option "-A" ONLY) |

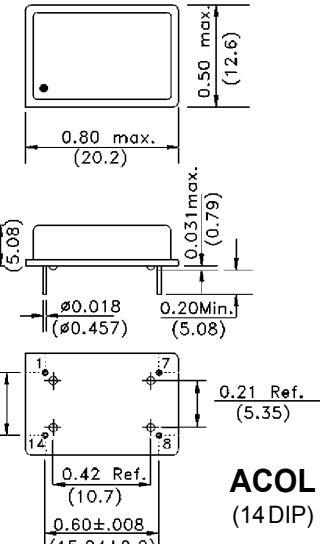
* Pin 1 has internal pull-up resistor which allows Pin 1 to be left floating (enable high) opt. A. Test circuit, waveforms, see appendix B. Recommended handling, see appendix F. Environmental and mechanical specifications, see appendix C. Group 1. Marking, see appendix G. Value added, see appendix D. Application notes, see appendix A.

ORDERING OPTIONS

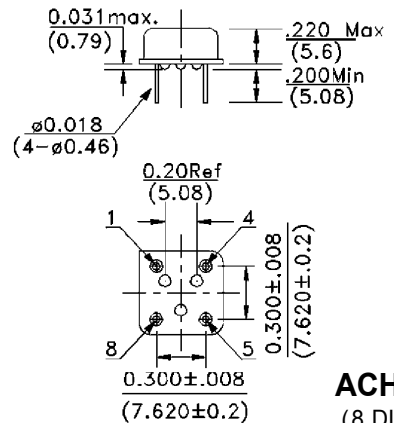
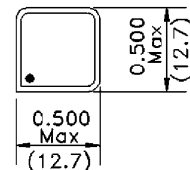
ACXL - Frequency - Temperature - Overall Frequency Stability - Duty Cycle - Tristate - Value Added - Packaging

| | | | | |
|-----------------------|-----------------------|---|-----------------------------|----------------------|
| O or H | -Y for ± 10 ppm max** | -S for 45/55% @ 1/2 V _{dd} | -G Gull Wing* | -T for Tape and reel |
| XX.XXXXX MHz or kHz | -J for ± 20 ppm max | -T for 47.5/52.5% @ 1/2 V _{dd} | -G2 Gull Wing * (ACHL Only) | -TY for Tray packing |
| | -R for ± 25 ppm max | -S1 for 45/55% @ 1.4 V _{dc} | -QXX (Trimmed Leads) * | |
| | -K for ± 30 ppm max | | | |
| | -H for ± 35 ppm max | | | |
| | -C for ± 50 ppm max | | | |
| | | - A for Tristate E/D | | |
| -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



Dimensions: Inches (mm)



| PIN # | PIN # | FUNCTION |
|-------|-------|-----------------|
| ACOL | ACHL | |
| 1 | 1 | NC or E/D |
| 7 | 4 | GND / Case |
| 8 | 5 | Output |
| 14 | 8 | V _{dd} |

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

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