# IB462H

## ULTRA-MINIATURE BIPOLAR STEPPING MOTOR DRIVER


## FEATURES

- Very Low Cost
- Ultra Miniature (1.2 x 2.4 x 0.28 inches) (30 x 61 x 7.1 mm)
- Advanced Hybrid Design
- Full or Half Step
- High Input Voltage (+12 to +40 VDC)
- High Output Current (2A Per Phase)
- 20 kHz Chopping Rate
- Alternative to Chipsets

## DESCRIPTION

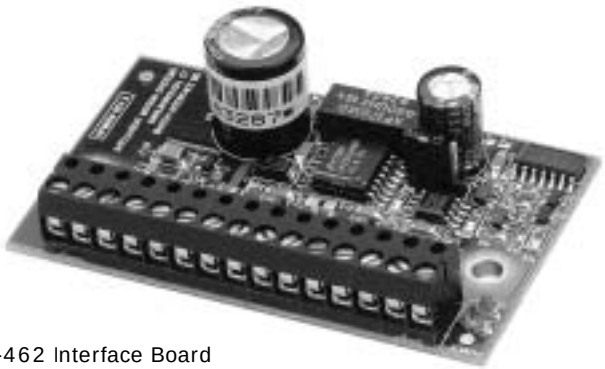
Based upon our popular IB462 Half / Full Step Driver, the IB462H is a low cost, high performance alternative to larger drives. The small size of the IB462H makes it ideal for system designs where space is at a premium without sacrificing performance as a result.

The IB462H operates between +12 and +40 VDC. This high voltage allows for greater speeds at higher torque. Combine this with 2A per phase of output current and 160 watts of power and you have a low cost alternative to chipsets, all contained in a package that minimizes expensive real estate!

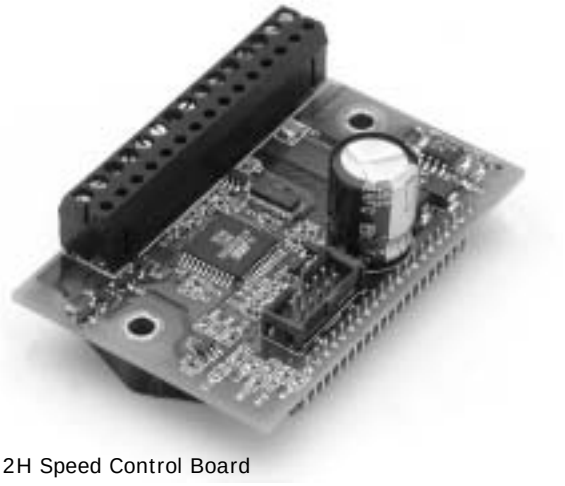
The IB462H is our smallest and lowest priced drive. It will reduce time to market, increase reliability, and it comes with a 2 year warranty. The IB462H represents affordable, state-of-the-art technology for the competitive edge needed in today's market.

## OPTIONS

The INT-462 is an optional plug-on interface board which can be used with the IB462H to facilitate testing, or in situations where panel mounting the IB462H is preferred. The INT-462 is much more than a simple pluggable interface. It adds a dynamic array of features to the IB462H that are found only on larger more expensive drives. Features such as a +5 VDC switching power supply, +5 to +40 VDC opto-isolated inputs which are internally limited to 8mA, automatic current reduction, over current and short circuit protection, input capacitor, and fault and power LEDs. Wiring is done through a 15 pin removable screw terminal.



INT-462 Interface Board



OSC-462H Speed Control Board

The OSC-462H analog speed control board is an option for adding low cost, intelligent velocity control to the IB462H driver. The OSC-462H is powered by a single +12 to +40 VDC power supply, which will also provide power for the IB462H. The control board features a digital oscillator for accurate velocity control with an output frequency of up to 60 kilohertz. The IB462H driver plugs easily into a 21 pin receptacle attached to the OSC-462H. This device allows for a simple, cost effective solution in applications requiring variable velocity control.

Also available is the new H-462H heat sink, which only adds 2.21 cubic inches (36.1 cubic cm) to the overall footprint of the IB462H.

## ELECTRICAL SPECIFICATIONS

Input Voltage (Motor) ..... +12 to +40 VDC
Input Voltage (Logic) ..... +5 VDC
Output Current (Per Phase) ..... 1.0 to 2.0 Amps
Step Clock Frequency (Max.) ..... 40 kHz

## ORDERING INFORMATION

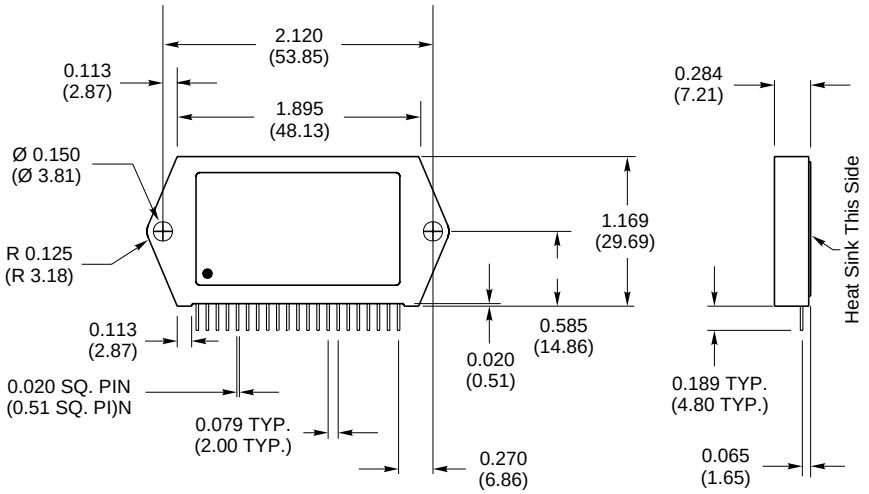
| Name | Part Number |
|---|---|
| Stepping Motor Driver (Includes Thermal Pad) | IB462H |
| Isolating Thermal Pad | TI–462H |
| Heatsink | H-462H |
| Interface Board | INT–462 |
| 21 Pin Right Angle Connector | HY462-CN021 |
| Analog Speed Control Board | OSC-462H |
| Mounting L-Bracket | MB-21 |
| Analog Speed Control Board Parameter Setup Cable | OSC-CC100-000 |
| Small End Screwdriver | SD1 |

## PIN ASSIGNMENTS

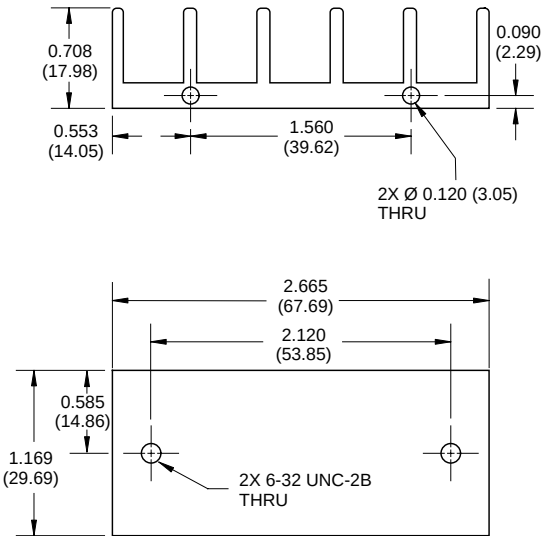
| PIN# | FUNCTION |
|---|---|
| 1 | Current Adjust |
| 2 | Reset |
| 3 | Half/Full Step |
| 4 | Step Clock |
| 5 | +5V Supply In |
| 6 | Direction |
| 7 | Enable |
| 8 | Sense B |
| 9, 10 | Phase B |
| 11, 12 | Phase B |
| 13, 14 | +12 to +40 VDC (+V) |
| 15, 16 | Power Ground |
| 17, 18 | Phase A |
| 19, 20 | Phase A |
| 21 | Sense A |

## MECHANICAL DRAWINGS

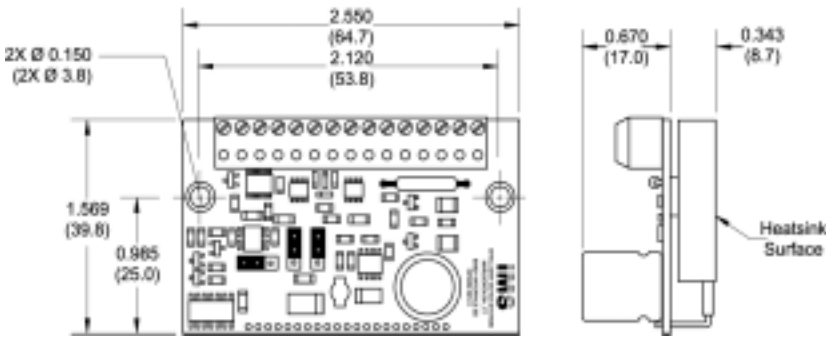
### IB462H DRIVER




### H-462H HEAT SINK




### INT-462 INTERFACE BOARD




Dimensions in Inches (mm)