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T-Cube™ apt™ USB Controller Hub (Page 1 of 2)



TCH002
Mounted Vertically with an
AP90 Bracket
 All T-Cubes Sold Separately

Do More in Less Space with the T-Cube™ Controller Hub

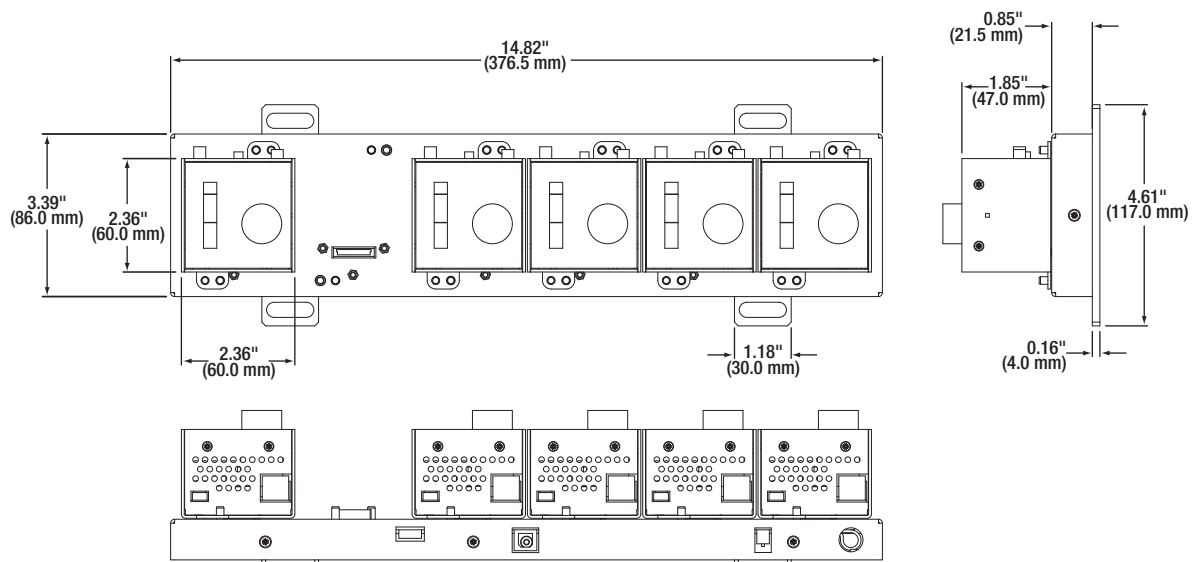
The TCH002 T-Cube Controller Hub is designed to significantly reduce the number of cables required to automate multiple devices and to support large scale implementation of the T-Cube family of device drivers. The power and USB connectivity for each T-Cube is provided by the hub, which eliminates the need for each T-Cube to have individual power and USB cables.

In addition, the T-Cube controller hub provides a compact mounting surface for up to six standard or three doublewide footprint T-Cubes. The hub itself can be secured to an optical table either horizontally or vertically using the AP90 bracket (see page 119). Each hub must be connected to its own power supply (included). Furthermore, the fully compliant, powered USB 2.0 circuit in each hub allows multiple hubs to be connected in series so that only a single USB cable needs to be connected to the controlling PC when computer control of the T-Cubes is desired.

Mix and match any combination of T-Cube™ Controllers to build your own custom, multichannel driver arrangement in an extremely compact footprint.

Features

- Compact USB 2.0 Platform
- Provides Power and USB Connectivity to T-Cubes
- Compatible with All T-Cubes
- Horizontal or Vertical Mounting to Optical Tables
- Reduced Cable Management – Single USB Communication and Power Cable
- USB Input/Output for Connecting Multiple Controller Hubs Together
- Six T-Cube Ports
- Standard Footprint T-Cubes Require One Port
- Doublewide Footprint T-Cubes Require Two Ports



Please refer to our website for complete models and drawings.

T-Cube™ apt™ USB Controller Hub (Page 2 of 2)

The controller hub circuitry provides a number of internal, flexible, digital and analog interconnect lines for deterministic multi-cube synchronized operation. This feature is particularly advantageous when operating the Piezo Controller (TPZ001, see pages 636 – 637) and Strain Gauge Reader (TSG001, see pages 638 – 639) T-Cubes together on a controller hub. Similarly, the NanoTrak™ controller (see pages 646 – 647) and piezo controllers (see pages 636 – 645) can be operated together in closed-loop mode on the hub to facilitate auto-alignment applications. They can be configured to operate as a coupled pair allowing closed-loop control of the wide number of piezo actuators available from Thorlabs. The controller hub also provides a rigid mechanical mounting platform for carrying the T-Cubes.

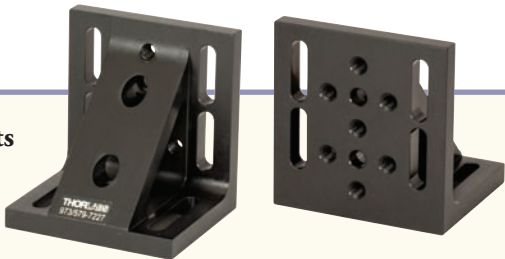
Imperial and metric mounting holes incorporated into the hub allow for a variety of mounting orientations. In this way, the controller hub can be mounted flat to the table surface (much like the individual T-Cubes), edge mounted, or vertically mounted to allow vertical stacking of up to 6 T-Cube™ controllers, thereby reducing the optical table footprint to an absolute minimum. One AP90 Right-Angle Bracket is needed to mount the hub vertically or two brackets are needed to edge mount.

Specifications

- **USB Hub:** Fully USB2.0 Compliant
- **Enclosure:** Rigid, Slim-Profile Baseplate Construction
- **T-Cube™ Bays:** Six
- **Table Mounting**
 - Orientation: Horizontal, Edge, or Vertical Using Thorlabs' AP90 Brackets
 - Universal Metric (M6 x 1.0) or Imperial (1/4"-20) Design
- **Input Power Requirements**
 - PSU: 100 - 250 VAC, 47 - 63 Hz
 - Hub Unit: +15 V (6 A), -15 V (1 A), +5 V (5 A)
- **Housing Dimensions (W x D x H):**
14.82" x 3.39" x 0.85"
(376.5 mm x 86 mm x 21.50 mm)
- **Weight:** 20 oz (575 g)

Vertical and Edge Mounting Brackets
for the T-Cube Controller Hub

- Rigid One-Piece Construction
- Parallel and Perpendicular to within 0.002" (0.05 mm)



AP90
Right-Angle Mounting Brackets
Front and Back Shown
T-Cube Hub Sold Separately



TCH002 T-Cube Hub
shown with Four T-Cubes

ITEM #	\$	£	€	RMB	DESCRIPTION
TCH002	\$ 726.90	£ 523.37	€ 632.40	¥ 5,793.39	T-Cube™ Controller Hub and Power Supply Unit
AP90	\$ 74.20	£ 53.42	€ 64.55	¥ 591.37	Precision Right-Angle Plate
AP90/M	\$ 74.20	£ 53.42	€ 64.55	¥ 591.37	Precision Right-Angle Plate, Metric