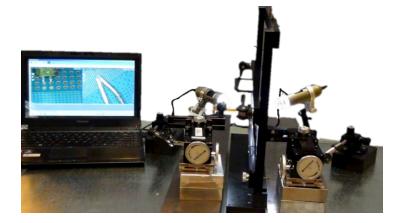
## DATASHEET

# **Vertical Probing System**





## **Features**

- Probe compatibility: DVT40 and Wafer probes
- Differential and Single-Ended probes
- Upgrades Horizontal to a Vertical Probe System
- Fits on most lab tables or carts
- High Quality Steel Components
- Configure Single or Dual Probe Systems
- Easily store components to free up lab space

To construct a vertical probe station, choose from the four Vertical Test Fixtures described below, the one with the dimensions that best fit the range of test board sizes to be probed on both sides.

The **DVT-FP250** probe positioner is recommended for positioning the probe because it can probe both vertical and horizontal boards. The high-speed XYZ position controls quickly move the probe to the test pads to reduce test time.

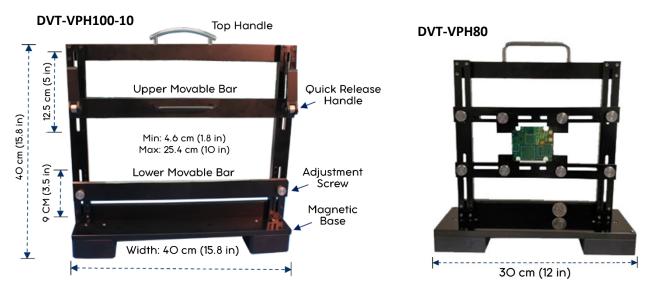
We use high-resolution cameras connected to multi-axis lockable arms to position the camera image showing where the probe tips need to be placed. Select the **DVT-CS-3** camera system with a two-axis lockable arm for boards up to 5 in (12.7 cm) tall or use the **DVT-CS-1** camera system for boards up to 12 in (30.48 cm) tall. The DVT-CS-1 has a longer four-axis control arm to best view probing locations with awkward probing angles.

Use the DVT-FP100-NN Magnetic Blocks and DVT-PB100-24 Probe Bridge to raise the probe and camera systems to probe taller vertically mounted test boards.

## **Vertical Test Fixtures**

## DVT-VPH100 and DVT-VPH80

The **DVT-VPH100** holds a printed circuit board (PCB) vertically for double-sided probing applications. Its upper bar has a quick release mechanism that allows a user to easily mount and dismount a PCB from the holder. By loosening the adjustment screws, the lower bar can move up and down in 9 small steps (1 cm (.39 in)/step) to set the PCB in the appropriate height for ease of testing. It is available in two sizes, the DVT-VPH100-10 (for PCBs up to 10 inches (25.4 cm) wide) and the DVT-VPH100-18 (for PCBs up to 18 inches (45.72 cm) wide).





The **DVT-VPH80** is designed to accommodate small PCBs by holding the PCB/module at all four corners. It can securely hold PCBs/modules as small as .9 x .98 in (2.3 x 2.5 cm) and as thin as .078 in (2 mm).

#### DVT-VPH100-10 Specifications

| Size       | (WHD) 15.8x15.8x4 in (40x40x10 cm)  |
|------------|-------------------------------------|
| Weight     | 18.3 lbs (8.3 Kg)                   |
| Base       | Steel with magnets at bottom        |
| Board size | Height: 1.8 to 10 in (4.6 to 25 cm) |
|            | Width: Unlimited                    |

#### DVT-VPH100-18 Specifications

| Size       | (WHD) 15.8x23.8x4 in (40x60x10 cm) |
|------------|------------------------------------|
| Weight     | 18.3 lbs (8.3 Kg)                  |
| Base       | Steel with magnets at bottom       |
| Board size | Height: 2 to 18 in (5.1 to 46 cm)  |
|            | Width: Unlimited                   |

#### **DVT-VPH80** Specifications

| Size       | (WHD) 12x12.5x4 in (30x32x10 cm)   |
|------------|--|
| Weight     | 11.4 lbs (5.2 Kg)  |
| Base       | Steel with magnets at bottom   |
| Board size | Height: 1 to 7.5 in (2.5 to 19 cm)<br>Width: .9 to 6.1 in (2.3 to 15.5 cm) |
|            | Width: .9 to 6.1 in (2.3 to 15.5 cm)                                       |



#### DVT-PHA01

The DVT-PHA01 Adjustable Test Fixture is used to hold device packages or PCBs with sizes ranging from .19 to 1.96 in (5 to 50 mm) while probing. Place the PCB within the DVT-PHA01 fixture and then install the fixture in any of the vertical or horizontal test fixtures for added capability to test large and small PCBs.

DVT-PHA01 installed in the DVT-VPH100-10 fixture

## DVT-BP100-24 Probe Bridge



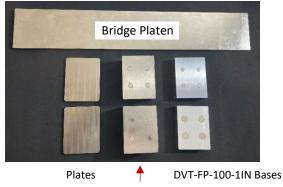
## **DB-PB100-24 Probe Bridge Contents**

 $1 - 24 \times 4 \times .25$  inch DVT-PB100-24 Bridge Platen 2 - 4 x 3 x 2 inch DVT-FP100-2IN Magnetic Bases 2 - 4 x 3 x 1 inch DVT-FP100-1IN Magnetic Bases 2 - 4.3 x 3.3 x 0.2 inch Plates

The DVT-PB100-24 Probe Bridge extends a probe's reach into the board to be probed and is useful for probing boards larger than 5x5 inches ( $12.7 \times 12.7$  cm).

Place a Probe Bridge on one end of the test board, and as necessary, place another on the long side of the board to probe into anywhere on a large test board.

The Probe Bridge comes with two 1-inch (2.54 cm) and two 2inch (5.08 cm) stackable steel magnetic blocks for a total height of 3 inches (7.62 cm). Place the probe and the camera positioners on top of the bridge as needed. Push a test board mounted to our DVT-SM Holders under the bridge until the probe tips line up with the test pads to be probed.



DVT-FP100-2IN Bases



The challenge of probing vertical boards is placing the probe positioner so the probes can reach up to probe the test pads on the highest points on the board. The DVT-FP250 with its arm in the vertical position can reach to probe up to 5 in (12.7 cm), but this may sometimes be insufficient. The probing location can be several inches longer than the probe arm and the camera system must be raised to view the same location where the probe is to be placed.

To raise the probe and camera positioners place them on the 24 x 4 inch DVT-PB100-24 probe bridge, then place the bridge at the base of the vertical fixture containing the test board.

The Probe Bridge containing the camera and probe positioners can be raised to the required probing height by placing one or more stackable Magnetic Bases under each end of the probe bridge.

To probe the board from the side, place a DVT-PB100-24 probe bridge vertically next to the vertical test fixture.

To secure it vertically on the table, sandwich the probe bridge between two 2" magnetic blocks that securely make contact with the lab table. Carefully attach the DVT-250 probe positioner to the vertical mounted probe bridge using its quick release magnetic base switch. Use DVT-FP100-XX Magnetic Bases as needed to raise individual camera or probe positioners.

The system can be upgraded to accommodate different size boards and the individual components can be stored in a locked cabinet to free desk space.

## **DVT-FP100-NN Magnetic Bases**



 DVT-FP100-1IN
 DVT-FP100-1.5IN
 DVT-FP100-2IN

 1 in (2.54 cm) thick
 1.5 in (3.8 cm) thick
 2 in (5 cm) thick

Use one or more stackable Magnetic Steel Blocks to place under any of the Probe or Camera Positioners to raise the probing height of the instrument, so the probe clears the top of the test board, or to raise the position of the camera.