The Compass Test Station is purpose built for the build, maintenance and test of blade or epoxy cantilever probe cards.

COMPASS FEATURES

- Fast turnaround of probe card repair.
- Control probe card resources.
- Align, planarize, and replace probes.
- Simulate probe card use by using exercising function.
- Resistivity measurement capability.
- Assemble & Replace blade needles.
- Wide range of product enhancing accessories.
- Robust mechanical design.

Leader In ProbeAbility
IN HOUSE PROBE CARD SUPPORT

PROBE CARD MAINTENANCE MADE EASY

The Compass is a high precision tool for the build, repair and test of blade-style probe cards.

Productivity-boosting Compass technology enables operators to assemble blades to the card, align the probes to the pads, planarize, “exercise” the card to duplicate production test, clean the probe tips and accurately check the resistance of each probe.

Card assembly on the Compass is accomplished after aligning the card in the holder. Probe card depth is set with a barrel micrometer and a probe is located onto the device pad using gripper arm XYZ controls. Device contact is registered on Compass by an eyepiece LED and/or an optional audible tone. The rapid pneumatic chuck drop and power lock feature on the freely rotating basket enable fast and accurate assembly of all remaining probes.

Compass gripper arm assembly is easily removed on completion of probe assembly for ease of planarization. The Compass chuck allows rapid adjustments to planarity and permits the operator to obtain instant readback of card planarity.

COMPASS TECHNOLOGY ENABLES OPERATORS TO ASSEMBLE BLADES TO THE PROBE CARD, ALIGN THE PROBES, PLANARIZE, ”EXERCISE”, CLEAN THE PROBE TIPS AND CHECK RESISTANCE.

✔ Barrel micrometer for setting depth of probe tips.
✔ Adjustable overdrive to accurately check probe alignment and scrub mark position.
✔ 6 inch chuck with 2 inch XY stage movement and 20° theta rotation
✔ LED Light box invert option for planarizing or resistance checking
## COMPASS SPECIFICATIONS

### Chuck Assembly
- 6” diameter, gold plated, vacuum wafer chuck.
- Chromed hardened steel planarizer chuck with ceramic rear for tip cleaning.
- 2” XY travel, 0.5” travel and 20°theta.

### Probe Card Holder
- Probe card holder is situated on a 360° infinite rotational carousel. This is locked in place during the build/alignment process by air-actuated friction brakes. Various probe card holders are available for the Compass.
- See list of probe card holders below.

<table>
<thead>
<tr>
<th>P/N</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>5-000-1178</td>
<td>Open top PCH (requires set of 2 clamps)</td>
</tr>
<tr>
<td>5-000-1169</td>
<td>Clamps for 4.5” card</td>
</tr>
<tr>
<td>5-000-1171</td>
<td>Clamps for 6” card</td>
</tr>
<tr>
<td>5-000-1210</td>
<td>10” universal PCH for 4.5” to 10” wide cards.</td>
</tr>
<tr>
<td>5-000-1233</td>
<td>12” universal PCH for 4.5” to 12” wide cards.</td>
</tr>
<tr>
<td>5-000-1248</td>
<td>16” universal PCH. (Does not rotate)</td>
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</tbody>
</table>

### Light Box
- Standard light box comes with 144 lights with LED display of chuck Z motion in 0.0001” increments, actuated by first probe contact.
- Contact resistance go/no go test with 0.01 to 9.99 Ω capacity accurate to ± 3 % and ±.03 Ω. 288 position dual light box is available.
- Dual light box available allowing 288 probes to be planarized using LED read out.

### Light Box Specifications
- 110 VAC 60 Hz or 220 VAC 50/60 Hz system, 200 VA.
- Vacuum 0.5 cfm @20”Hg (min)
- Filtered compressed air 40-90 psi.

### Dimensions
- Weight 130 lb (59 kg)
- Length 28” (711 mm)
- Width 18” (457 mm)
- Height 25” (635 mm)

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