TIPS Probe Refresher TPR–HD "Heavy Duty"
Probe Tip Shape Control
&
"Doubling Probecard Lifetime"

High Pin Count Vertical Probe Cards

Power Probes

Cantilever Probes
New Model TPR–HD "Heavy Duty":

- "Heavy Duty" design with granite stage for high pincount cards – up to 400 N reshaping force
- "contact-less" probe tip sensor. A high precision – low force mechanical sensor detects the probe tips
- process log and probe card log capability
- fully network capable
- process options:
  - Vertical probe cards: cleaning, reshaping, flattening – tip diameter control
  - Cantilever cards: cleaning, reshaping, flattening – tip diameter control
- ESD protected and clean room safe machine table with protection cover to reduce machine noise and full safety featured.

**Features:**

- Cantilever and Vertical probe cards: probe pitch from 30 µm, tip diameter from 10 microns, probe materials: W, WRe, CuBe, Pali ney alloys, Rhodium alloys
- cleaning/reshaping for vertical probe cards
- reshaping method based on specifically formulated abrasive reshaping and lapping pads
- highly polished probe surfaces after reshaping (surface roughness < 0.3 microns)
- very good contact resistance after reshaping
- maintains probecard alignment integrity, no realignment due to reshaping process necessary
- fully automatic, no specific operator skills required
- short process times: 1 to 60 minutes

**Probe Card Analyzer Test Results**

<table>
<thead>
<tr>
<th>Tip Diameter</th>
<th>S0944B-03.12</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>probe number</td>
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<tr>
<td>diameter [µm]</td>
<td></td>
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<tr>
<td>before reshaping</td>
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<tr>
<td>after reshaping</td>
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<tr>
<td>Contact Resistance (Cres)</td>
<td>S0944B-03.12</td>
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<tr>
<td>probe number</td>
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<tr>
<td>Cres [Ohm]</td>
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<tr>
<td>after reshaping</td>
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Tip diameter: reduced  
Contact resistance: good!