The PM8 is the ideal solution for precise analytical probing applications up to 200 mm including device and wafer characterization, failure analysis (FA), RF, mm-wave, sub-THz, optoelectronic-engineering and MEMS. The PM8 is designed specifically to provide a highly stable, ergonomic and flexible probing platform.

The innovative fine-glide chuck stage offers a unique simplicity and accuracy by combining free-moving coarse movement and micrometer fine movement. The granite plate can easily withstand any thermal or mechanical influences and therefore ensures complete system stability during testing. This outstanding rigidity of the PM8 makes it ideal for all RF and mm-wave applications up to 500 GHz. These RF tests are supported by the WinCal XE™ calibration software, including LRRM, LRM+, NIST-style TRL and hybrid calibration methods.

The unique movable microscope bridge provides an easy and ergonomic coarse and fine adjustment of the system of up to 200 mm which can be adjusted with just one hand. This makes the PM8 the ideal solution for all FA tasks and wafer-level reliability tests.

Ergonomically, the PM8 was designed with the operator in mind. All controls are located to provide comfortable, effortless control.

The PM8 can be outfitted with a number of accessories and upgrades. These include laser cutters, remote-controlled manual positioners for FA applications, chucks with special designs for calibration substrates and burnishing pads for high frequency applications. Probe cards can easily be used for testing, and packaged parts can be tested with minimum setup adjustment.

**FEATURES / BENEFITS**

<table>
<thead>
<tr>
<th>Flexibility</th>
<th>Ideal for FA, WLR, RF, mm-wave, sub-THz and MEMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extensive accessories available, such as laser cutters and a wide range of equipment for RF test</td>
</tr>
<tr>
<td></td>
<td>Works with probe cards and/or packaged parts</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stability</th>
<th>Fine-glide chuck stage on highly stable granite base</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ideal for submicron probing</td>
</tr>
<tr>
<td></td>
<td>Active platen cooling for thermal stability</td>
</tr>
<tr>
<td></td>
<td>Massive, web-cast frame</td>
</tr>
<tr>
<td></td>
<td>Superior vibration attenuation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ease of use</th>
<th>Comfortable and ergonomic operation through low-profile design</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Straightforward layout of controls</td>
</tr>
<tr>
<td></td>
<td>Rapid, independent X-Y chuck stage movement</td>
</tr>
<tr>
<td></td>
<td>Uniquely simple microscope</td>
</tr>
</tbody>
</table>

**PM8**

200 mm Manual Probe System

** DATA SHEET **
**SPECIFICATIONS**

**Chuck Stage**
- X-Y travel (coarse) 200 mm x 200 mm
- X-Y travel (fine) 10 mm x 10 mm
- X-Y resolution < 1 µm
- Z load stroke 10 mm
- Theta travel ± 9º

**Probe Platen Drive**
- Z travel 45 mm
- Contact / separation stroke 0.4 mm
- Repeatability < 1 µm
- Rigidity vertical / horizontal < 5 µm / 10 N

**Manual Microscope Stage**
- Travel range 200 mm x 200 mm
- Resolution 88 mm / rev. (coarse), 0.25 mm / rev. (fine)
- Access lift Manual, tilt back

**Programmable Microscope Stage**
- Travel range 50 mm x 50 mm
- Resolution 0.25 µm
- Access lift Pneumatic

**Utilities**
- Power 115 / 230 V, 50 / 60 Hz
- Vacuum -0.8 bar
- Compressed air 4 bar

*Data, design and specification depend on individual process conditions and can vary according to equipment configurations. Not all specifications may be valid simultaneously.

**PHYSICAL DIMENSIONS**

<table>
<thead>
<tr>
<th>Weight</th>
<th>110 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions [mm]</td>
<td></td>
</tr>
</tbody>
</table>
### ORDERING INFORMATION - RF PACKAGE

<table>
<thead>
<tr>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPS200RF</td>
<td>SMART 200 mm RF manual station package up to 67 GHz</td>
</tr>
<tr>
<td>EPS-ACC-200RF-4P</td>
<td>4-port option for EPS200RF package including two RPP305 positioners and two N/S RF arms</td>
</tr>
<tr>
<td>EPS-ACC-TV</td>
<td>Analog TV option for EPS packages containing C-mount</td>
</tr>
</tbody>
</table>

**APPLICATIONS**

- MEMS testing on PM8 with pressure chuck.
- Differential RF measurements with the Dual [Z] Probe®.
- Failure analysis with an optional laser cutter.

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