BOARD:

PINOUT:

Chain 1 – Chain 2
1: Kelvin probe +
2: Kelvin probe PCB (middle con.)
3: Kelvin probe die (middle con.)
4: Kelvin probe die (corner con.)
5: Kelvin probe PCB (corner con.)
6: Kelvin probe –

1 – 6: complete daisy chain
5 – 7: bottom edge contacts
7 – 8: right edge contacts
8 – 9: top edge contacts
9 – 5: left edge contacts
TECHNICAL DATA:

- Fits into the DDC Multiplexer Hardware, which offers automated measurement, analysis and protociling with the DDC Multiplexer Software
- carries up to 24 FC475 dies on top or bottom side
- 4 Kelvin sensing structures for 4-point probe contact resistance measurement per die
- the FC475 dummy component with two nested daisy chains allows
  - easy measurement of short cuts between adjacent contacts
  - advanced reliability tests with voltage applied between adjacent pads
- different types of fiducial marks for automated placement
- top side allows different flip chip technologies
- bottom side allows wire bonding

TECHNICAL INFORMATION:

<table>
<thead>
<tr>
<th>die pitch</th>
<th>22mm x 20mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>fiducials</td>
<td>4 x 2 global fiducials: circular (d=1mm) and cross (w=1mm)</td>
</tr>
<tr>
<td></td>
<td>4 circular fiducials per die on top (d=500µm)</td>
</tr>
<tr>
<td></td>
<td>2 circular (d=500µm), 8 cross (w=300µm) fiducials per die on bottom</td>
</tr>
<tr>
<td>pad layout top side[^1]</td>
<td>72 pads with 250µm pitch and minimum width of 75µm.</td>
</tr>
<tr>
<td>pad layout bottom side[^1]</td>
<td>72 pads 100µm x 300µm with 300µm pitch for wire bonding</td>
</tr>
<tr>
<td>pad metal</td>
<td>Chemical gold (ENIG)</td>
</tr>
<tr>
<td>normal uses</td>
<td>High throughput die and flip chip placing from wafer feeder, automatic wire bonding, encapsulation and underfill processes. Reliability tests with voltage applied between adjacent pads.</td>
</tr>
<tr>
<td>typical technologies</td>
<td>wire bonding</td>
</tr>
<tr>
<td></td>
<td>stud-bump bonding</td>
</tr>
<tr>
<td></td>
<td>solder flip chip</td>
</tr>
<tr>
<td></td>
<td>anisotropic conductive adhesive flip chip (ACA / ESC5)</td>
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<tr>
<td></td>
<td>isotropic conductive adhesive flip chip (ICA)</td>
</tr>
</tbody>
</table>

contact
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[^1]: The pad dimensions may vary between orders. Pad dimensions will increase in next revision. Specifications subject to change without notice.

All specified dimensions are approximate.