The more functionality included in next generation notebooks, the less space will remain for DRAM itself. Therefore notebook designers are looking for DIMMs with smaller form factors but the same densities as SO-DIMMs, which are predominantly used in notebooks.

The solution is called Micro-DIMM, a memory module with ~50% higher bit density which requires ~35% less board-space than the SO-DIMM at the same memory density. This is achieved by using a slim mezzanine connector which is directly attached to the DIMM.

With the Micro-DIMM, even new applications like ultra-mobile PCs and extremely slim and compact notebook designs are enabled. These very small form-factor applications are widely expected to penetrate the market in the next years due to the mobility trend.

All of Qimonda’s state-of-the-art DDR2 memory solutions are designed to ensure the best possible user experience under Microsoft Vista operating systems.

**Advantages**
- Power Saving Trench Technology
- Delivers highest memory density of all modules on smallest space
- 30% DIMM size reduction
- 35% space on board reduction compared to SO-DIMM
- JEDEC compliant
- Mezzanine connector

**Availability DDR2 Modules**
- 512 MB
- 1 GB

**DDR2 Micro-DIMM – the smallest available module today**

**SO-DIMM with socket**
- 26 x 63.6 = 1.654 mm²

**Micro-DIMM with mezzanine connector**
- 24.4 x 54 = 1.318 mm²
### DDR2 Micro-DIMMs for Notebooks

<table>
<thead>
<tr>
<th>Module density</th>
<th>Organization</th>
<th>Generation</th>
<th>Component organization</th>
<th># of ranks on module</th>
<th>Module speed</th>
<th>Sales description</th>
<th>Ordering code</th>
<th>Prod. Green</th>
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<tbody>
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<td>512 M T11</td>
<td>64 M x 64</td>
<td>2</td>
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### Nomenclature DDR2 Micro-DIMM

- **Part number extension**
  - Component die revision indicator
  - Speed
    - 2.5 = PC2-6400 6-6-6 DDR2-800
    - 25F = PC2-6400 5-5-5 DDR2-800
    - 3 = PC2-5300 4-4-4 DDR2-667
    - 3S = PC2-5300 5-5-5 DDR2-667
    - 3.7 = PC2-4200 4-4-4 DDR2-533
    - 5 = PC3200 3-3-3 DDR2-400
  - Module family
    - M = Micro-DIMM
  - Package type
    - G = Lead-containing
    - H = Lead-free (RoHS*-compliant)
  - Designator
    - Product variations
      - Number of memory ranks
        - 0 = One Memory Module rank
        - 2 = Two Memory Module ranks
        - 4 = Four Memory Module ranks
      - Data sheet defined
      - Memory density per DQ
        - 64 = 512 MB
        - 128 = 1 GB
      - Power supply
        - T = 1.8 V
      - Data width
        - 64 = x 64 (Non-ECC)
        - 72 = x 72 (ECC)
  - Prefix
    - HYS = Standard prefix for SDRAM-based Memory Modules
  - *RoHS = Restriction of Hazardous Substances

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Please note

The information in this document is subject to change without notice.
The information herein describes certain components and shall not be considered as guarantee of characteristics.