Samsung Exynos Processor

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Exynos 9820

- 64 Bit octa-core ARM-Based Processor
- Size of 8nm
  - Presented by Hwasung Rhee
- Supports up to 12 GB of memory
- System-on-Chips
- Used for the Samsung Galaxy s10 models
- Last model to use DUV
CPU (Central Processing Unit)

- 2 Exynos M4 (Cheetah)
  - 2.73 GHz
  - Enhanced memory access capability
- 2 Cortex-A75
  - 2.31 GHz
  - Three instructions in parallel per clock cycle
- 4 Cortex-A55
  - 1.95 GHz
  - Response time for touchscreen

NPU (Neural Processing Unit)
<table>
<thead>
<tr>
<th>Feature</th>
<th>Improvement</th>
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<tbody>
<tr>
<td>AI functions</td>
<td>Seven times faster</td>
</tr>
<tr>
<td>Single core performance</td>
<td>Improves by 20 percent</td>
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<tr>
<td>Multi-Core performance</td>
<td>Boosts by 15 percent</td>
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<tr>
<td>Power efficiency</td>
<td>Boost by 40 percent</td>
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</tbody>
</table>

**Sources**

Questions?