



INDUSTRIAL ONLY

Memory & Storage Solutions

What's New

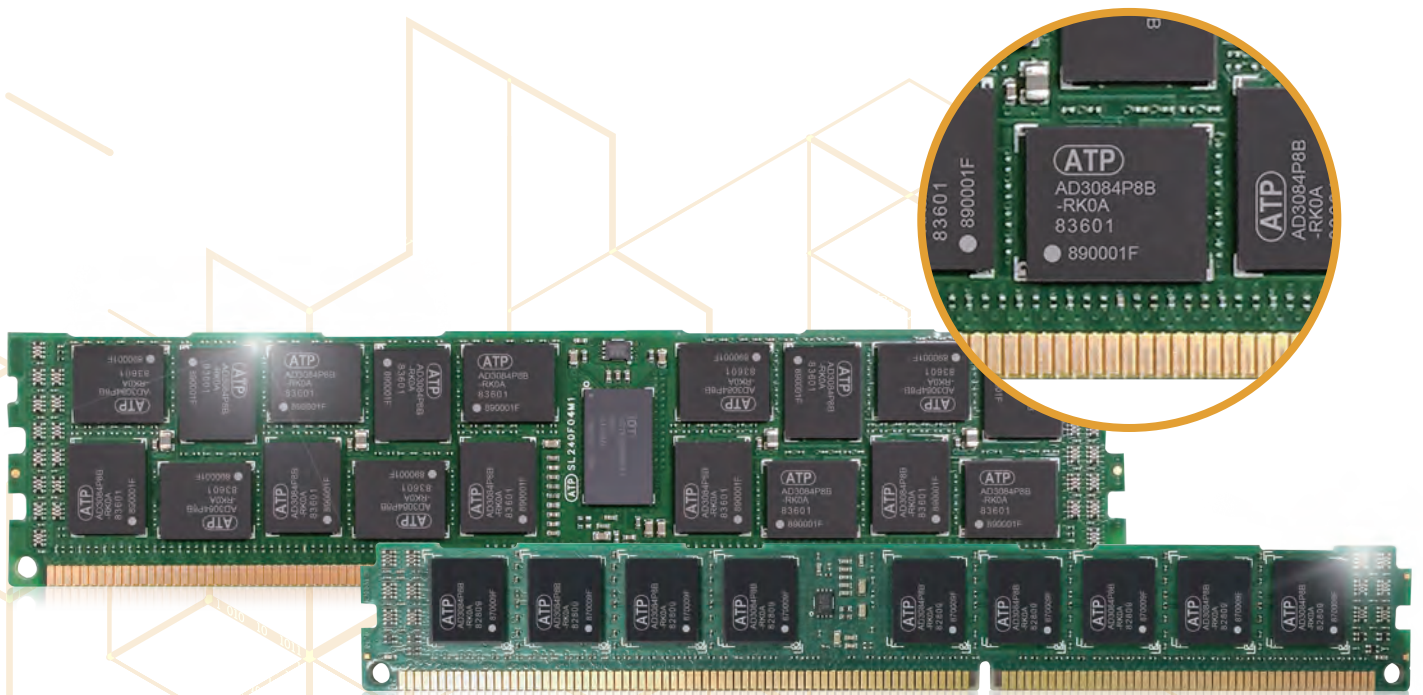
ATP Reaffirms Commitment to Long-Term DDR3 Legacy Memory Module Supply with ATP DDR3 8 Gbit components

As the DRAM market makes a steady migration to DDR4 memory, several key manufacturers have already announced end-of-life (EOL) production of DDR3 modules based on high density DDR3 8 Gbit components including EOL notice of the components. However, a sizable number of customers in the networking and embedded industries are still unable to shift to the latest generation and continue to use legacy systems requiring specific DDR3 memory such as VLP RDIMMs or high-density SO-DIMMs. To avert a supply shortage that could adversely affect these customers' business operations, ATP has decided to provide its own DDR3 8 Gbit components for these modules.

ATP-Built from IC to Module

ATP's own-built DDR3 modules consist of meticulously characterized and tested high-quality integrated circuits (ICs). The components are manufactured according to ATP's exacting standards using 2x nm manufacturing process technology and are tested via an extensive component test program to improve the overall memory module performance.

ATP DDR3 8 Gbit components are free from row hammer effects, thus preventing any disastrous random bit flips caused by the electrical charge of cells leaking to adjacent cells and successively writing data to them. At module level, ATP implements 100% test during burn-in (TDBI) into the production flow to guarantee the high quality module.





ATP DDR3 Configurations

A typical monolithic DDR3 DRAM chip has a density of 4 Gigabits (Gb). To pack 8 Gb in a monolithic DRAM die, manufacturers employ a die-stacking method called dual-die package (DDP), which combines two bare memory dies within a single chip package. Each die has a separate set of control lines where each memory die is separately selectable, and the processor treats the chip as two components despite being in the same package.

ATP DDR3 components are available in monolithic 8 Gb one-chip select (1CS) or as DDP two-chip select (2CS) for a variety of memory modules based on this technology.

With ATP's own-built DDR3 modules, the company reaffirms its commitment to continue supporting legacy memory requirements to maximize customers' infrastructure investments.

| DDR3 DIMM | | | | | | | | |
|---------------|-------------|-----|-------|-------|---------------|----------------|------------|--------------------|
| Capacity (GB) | Form Factor | ECC | Org | Ranks | Component Org | Component Qty. | Technology | Speed up to (MT/s) |
| 32 | LRDIMM | Yes | 4Gx72 | 4 | 1Gx4x2R | 36/72 Die | DDP | 1600 |
| 32 | RDIMM | Yes | 4Gx72 | 4 | 1Gx4x2R | 36/72 Die | DDP | 1333 |
| 16 | VLP RDIMM | Yes | 2Gx72 | 2 | 1Gx4x2R | 18/36 Die | DDP | 1600 |
| 16 | UDIMM | Yes | 2Gx72 | 2 | 1Gx8 | 18 | Mono | 1600 |
| 16 | UDIMM | No | 2Gx64 | 2 | 1Gx8 | 16 | Mono | 1600 |

| DDR3 SO-DIMM | | | | | | | | |
|---------------|-------------|-----|-------|-------|---------------|----------------|------------|--------------------|
| Capacity (GB) | Form Factor | ECC | Org | Ranks | Component Org | Component Qty. | Technology | Speed up to (MT/s) |
| 16 | SO-DIMM ECC | Yes | 2Gx72 | 2 | 1Gx8 | 18 | Mono | 1600 |
| 16 | SO-DIMM | No | 2Gx64 | 2 | 1Gx8 | 16 | Mono | 1600 |

| DDR3 Mini-DIMM | | | | | | | | |
|----------------|----------------|-----|-------|-------|---------------|----------------|------------|--------------------|
| Capacity (GB) | Form Factor | ECC | Org | Ranks | Component Org | Component Qty. | Technology | Speed up to (MT/s) |
| 16 | Mini-RDIMM | Yes | 2Gx72 | 2 | 1Gx8 | 18 | Mono | 1600 |
| 16 | Mini-UDIMM | Yes | 2Gx72 | 2 | 1Gx8 | 18 | Mono | 1600 |
| 8 | VLP Mini-UDIMM | Yes | 1Gx72 | 2 | 512Mx8x2R | 9/18 Die | DDP | 1600 |
| 8 | VLP Mini-RDIMM | Yes | 1Gx72 | 2 | 512Mx8x2R | 9/18 Die | DDP | 1600 |

ATP Global Footprint

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