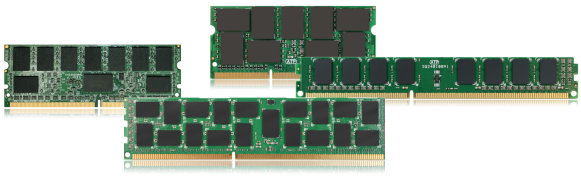
# ATP DDR3 DRAM Solutions

## Intense Performance for Intense Workloads



Operating at 1.5V (normal) and 1.35V (low voltage) and with a transfer speed of up to 1866 MT/s, ATP DDR3 modules deliver better performance while consuming significantly less power than DDR2 memory.

ATP DDR3 modules are supported by the Intel® Core™ i7 Series, the AMD AM3 Phenom™ processor, and the latest AMD Embedded Enterprise Chipsets. DDR3 modules are not pin-compatible with the prior-generation modules and have alignment notches preventing them from being inserted into incompatible slots.

ATP offers DDR3 SDRAMs in a wide range of form factors and features including SO-DIMM and Mini-DIMM with low profile, very low profile (VLP) and ultra-low profile (ULP) options.

In addition to standard offerings, ATP's DDR3 product line has enhanced reliability options such as conformal coating for protection against dust, chemicals, extreme temperatures and corrosion. The 30µ" thickness of the gold finger plating ensures better durability and signal transmission quality.

### Key Features

- Density: 1 GB to 32 GB
- Chipkill support
- Fly-by command/address/control bus with on-DIMM termination
- Higher bandwidth performance, effectively up to 1866 MT/s
- Better performance at low power; 1.5V (Normal) and 1.35V (Low Voltage)

### Applications

- The Internet of Things (IoT)
- Networking systems
- Telecommunication
- Gaming
- Healthcare
- Industrial PCs
- Micro servers




### Specifications

| DDR3 | | | | | | | |
|---|---|---|---|---|---|---|---|
| **DIMM Type** | RDIMM | ECC UDIMM | Non-ECC UDIMM | ECC SO-DIMM | Non-ECC SO-DIMM | Mini-RDIMM | Mini-UDIMM |
| **Density** | 1 GB to 32 GB | 1 GB to 16 GB | 1 GB to 16 GB | 1 GB to 16 GB | 1 GB to 16 GB | 1 GB to 16 GB | 1 GB to 16 GB |
| **Speed up to (MT/s)** | 1866 | 1866 | 1866 | 1866 | 1866 | 1600 | 1600 |
| **PCB Height*** | Low profile / VLP / ULP | Low profile / VLP / ULP | Low profile / VLP / ULP | Low Profile | Low Profile | Low profile / VLP / ULP | Low profile / VLP / ULP |
| **Operating Temperature** | 0°C to 85°C / -40°C to 95°C | 0°C to 85°C / -40°C to 95°C | 0°C to 85°C / -40°C to 95°C | 0°C to 85°C / -40°C to 95°C | 0°C to 85°C / -40°C to 95°C | 0°C to 85°C / -40°C to 95°C | 0°C to 85°C / -40°C to 95°C |

* VLP: 0.74", ULP: below 0.74"

| DDR3 8Gbit Component | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Form Factor** | RDIMM | VLP RDIMM | UDIMM | UDIMM ECC | ULP UDIMM ECC | SO-DIMM | SO-DIMM ECC |
| **ECC** | Yes | Yes | No | Yes | Yes | No | Yes |
| **Density** | 32 GB | 16 GB | 16 GB | 16 GB | 16 GB | 16 GB | 16 GB |
| **Org** | 4G x 72 | 2G x 72 | 2G x 64 | 2G x 72 | 2G x 72 | 2G x 64 | 2G x 72 |
| **Ranks** | 4 | 2 | 2 | 2 | 2 | 2 | 2 |
| **Component Org** | 1G x 4 x 2R | 1G x 4 x 2R | 1G x 8 | 1G x 8 | 1G x 8 | 1G x 8 | 1G x 8 |
| **Component Qty.** | 36 / 72 Die | 18 / 36 Die | 16 | 18 | 18 | 16 | 18 |
| **Speed up to (MT/s)** | 1333 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| **Technology** | DDP | DDP | Mono | Mono | Mono | Mono | Mono |

To learn more about this product, contact your ATP Representative.

## ATP Global Footprint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