

# Leader in Server Memory Interface Chipsets

## DDR4 PRODUCTS:

### Register

- Used in both RDIMM and LRDIMM
- Paired with 4DB0232 for LRDIMM
- 32-bit 1:2 command/address register
- 1.2V Vdd operation
- Supports up to 4 packages ranks and 8 logical ranks with native 3DS support
- Advanced I/O enable control
- Support at-speed BCOM bus for data buffer control
- Automatic impedance calibration
- New DDR4 power saving protocols
- Command/ Address Parity Checking
- Control register RCW readback
- 1MHz I<sup>2</sup>C bus

### DATA BUFFER

- Paired with 4RCD023 for LRDIMM
- Dual 4-bit bidirectional data registers with differential data strobes
- 1.2V Vdd operation
- Automatic impedance calibration
- BCOM Parity Checking
- Control register BCW readback

### Temp Sensor + EEPROM

- Used in UDIMM, RDIMM, LRDIMM
- Temperature accuracy up to  $\pm 0.5^{\circ}\text{C}$
- 512 byte EEPROM for vendor info
- 1MHz I<sup>2</sup>C bus

### BENEFITS

- All devices are JEDEC<sup>®</sup> compliant and meet stringent requirements for reliability and application compliance
- Up to 35% DDR4 power savings compared to DDR3
- Enables Terabyte DIMM memories
- Parity and CRC for improved data error recovery
- Improved debug and system margining

### For more information visit:

[idt.com/DDR4](http://idt.com/DDR4)

[idt.com/DDR3](http://idt.com/DDR3)

[idt.com/TempSensor](http://idt.com/TempSensor)



With the industry's largest product portfolio, IDT is the only company that can provide complete DDR4 and DDR3 chipset solutions for Enterprise Server memory modules.

IDT's DDR4 Registered Clock Driver, Data Buffer and Temp Sensor make up the industry's first complete chipset for DDR4 registered dual in-line memory modules (RDIMMs) and load reduced dual inline memory modules (LRDIMMs). With DDR4 data rates climbing to 3.2Gb/s and higher, the clear advantages afforded by RDIMM and LRDIMM as a speed-scalable memory technology are expected to drive adoption across a broad array of memory-intensive computing and storage applications.

Through flexible I/O control, timing and voltage calibration, and control register programmability, the IDT DDR4 Registered Clock Driver (4RCD023) and Data Buffer (4DB0232) enable faster data rates at higher densities on all JEDEC<sup>®</sup> defined DDR4 LRDIMM and RDIMM topologies. DIMM topology configuration and DRAM information is stored in IDT's Temperature Sensor EEPROM (TSE2004).

With a deep knowledge of memory interface chipsets based on successful chipset introductions for all DDR generations, IDT's devices will provide reliable performance for your application.

### Applications

Applications requiring deeper memory at higher data rates and lowest power including enterprise servers, data centers, workstations, storage devices, and communications.