

#### PRODUCT HIGHLIGHTS<sup>1</sup>

- Speeds start at 2133 MT/s and faster data rates are expected to be available as DDR4 technology matures
- Increase bandwidth by up to 32%
- Reduce power consumption by up to 40%
- Faster burst access speeds for improved sequential data throughput
- Optimized for next generation processors and platforms
- Available in four channel kits up to 64GB
- Limited lifetime warranty<sup>2</sup>

## Crucial® DDR4 Desktop Memory

**More speed. More bandwidth. More efficient.  
The future of memory is here.**

In the ever-changing world of technology, any component more than half a decade old is usually in need of an update. At seven years old and counting, that's exactly the state DDR3 memory is in: computers can only do so much with it.

Since the introduction of DDR3 memory technology in 2007, processors have doubled in capability, SSDs have revolutionized throughput, and graphics cards have drastically increased frame rates, leaving memory as a limiting factor. With Crucial DDR4 Desktop Memory, crush the DDR3 memory bottleneck and unlock a new standard of performance.

### 2x the Speed



Load applications faster and run demanding programs without lag. Crucial DDR4 memory debuts at 2133 MT/s – more than 30% faster than DDR3 memory technology.<sup>1</sup> Even better, as DDR4 technology matures, speeds are projected to hit 3200 MT/s – twice what was possible on standard DDR3 memory.

### 2x the Bandwidth



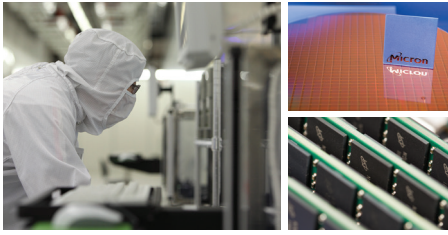
Effortlessly multitask between apps, and empower your system to fire on all cylinders. Crucial DDR4 increases memory bandwidth by over 30%, allowing your system to handle more data at once. As DDR4 technology matures, bandwidths are expected to achieve up to 25.6 GB/s – twice that of standard DDR3. To maximize bandwidth, Crucial DDR4 memory is optimized for next-gen platforms that support four channel memory.

### 40% More Energy Efficient



Get better performance – using less power. Operating at just 1.2V compared to 1.5V for standard DDR3 memory, Crucial DDR4 consumes 20% less voltage than standard DDR3 technology. Crucial DDR4 modules also contain other efficiency features, for an overall power reduction of up to 40%.

## Micron® Quality — A Higher Level of Reliability



As a brand of Micron, one of the largest memory manufacturers in the world, Crucial DDR4 memory represents the future of computer performance. From the original DDR technology to DDR4, we've engineered the memory technologies that have powered the world's computers for 35 years and counting. When you choose Crucial DDR4 memory, you're choosing memory that's backed by a limited lifetime warranty<sup>2</sup> and designed for the world's leading systems. Don't settle for anything less.

### Crucial DDR4 Desktop Memory Modules



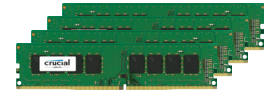
PART NUMBER	DENSITY	SPEED	LATENCY	VOLTAGE	BANDWIDTH	UPC
CT4G4DFS8213	4GB	DDR4-2133	CL15	1.2V	PC4-17000	649528768421
CT4G4DFS824A	4GB	DDR4-2400	CL17	1.2V	PC4-19200	649528769817
CT8G4DFD8213	8GB	DDR4-2133	CL15	1.2V	PC4-17000	649528768452
CT8G4DFD824A	8GB	DDR4-2400	CL17	1.2V	PC4-19200	649528769848
CT16G4DFD8213	16GB	DDR4-2133	CL15	1.2V	PC4-17000	649528773456
CT16G4DFD824A	16GB	DDR4-2400	CL17	1.2V	PC4-19200	649528773500

### Crucial DDR4 Desktop Memory Dual Channel Kits



PART NUMBER	DENSITY	SPEED	LATENCY	VOLTAGE	BANDWIDTH	UPC
CT2K4G4DFS8213	8GB Kit (2x4GB)	DDR4-2133	CL15	1.2V	PC4-17000	649528768438
CT2K4G4DFS824A	8GB Kit (2x4GB)	DDR4-2400	CL17	1.2V	PC4-19200	649528769824
CT2K8G4DFD8213	16GB Kit (2x 8GB)	DDR4-2133	CL15	1.2V	PC4-17000	649528768469
CT2K8G4DFD824A	16GB Kit (2x8GB)	DDR4-2400	CL17	1.2V	PC4-19200	649528769855
CT2K16G4DFD8213	32GB Kit (2x16GB)	DDR4-2133	CL15	1.2V	PC4-17000	649528773463
CT2K16G4DFD824A	32GB Kit (2x16GB)	DDR4-2400	CL17	1.2V	PC4-19200	649528773517

### Crucial DDR4 Desktop Memory Four Channel Kits



PART NUMBER	DENSITY	SPEED	LATENCY	VOLTAGE	BANDWIDTH	UPC
CT4K4G4DFS8213	16GB Kit (4x4GB)	DDR4-2133	CL15	1.2V	PC4-17000	649528768445
CT4K4G4DFS824A	16GB Kit (4x4GB)	DDR4-2400	CL17	1.2V	PC4-19200	649528769831
CT4K8G4DFD8213	32GB Kit (4x 8GB)	DDR4-2133	CL15	1.2V	PC4-17000	649528768476
CT4K8G4DFD824A	32GB Kit (4x8GB)	DDR4-2400	CL17	1.2V	PC4-19200	649528769862
CT4K16G4DFD8213	64GB Kit (4x16GB)	DDR4-2133	CL15	1.2V	PC4-17000	649528773487
CT4K16G4DFD824A	64GB Kit (4x16GB)	DDR4-2400	CL15	1.2V	PC4-19200	649528773531

<sup>1</sup>Product performance and efficiency improvements are noted as comparisons between standard DDR3 and DDR4 memory technology. As of May 2014, standard DDR3 memory achieved speeds of 1600 MT/s and operated at 1.5V, compared to DDR4-2133, which will operate at 1.2V. When voltage reductions and all other energy-saving DDR4 features are factored in, DDR4 modules are projected to consume up to 40% less power.

<sup>2</sup>Limited lifetime warranty valid everywhere except Germany, where warranty is valid for ten years from date of purchase.

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