



# A Perfect Match for Matchless Performance

Micron® Multichip Packages

## Form Factor, Speed, Power. Choose All That Apply.

Form factor, speed, power—your mobile customers want all three. With Micron's MCPs, you can respond to customers' ever-increasing demands without compromising leading-edge performance. Mix and match devices, configurations, and package options and find the just-right combination of low power, high reliability, and overall robustness.

### Small Form Factor

This is in for wireless and handheld consumer products. And your customers want ever-thinner and ever-sleeker designs for all their handheld electronics. Make your designs match with fully tested, stackable, chip-scale packaging solutions—available in Mobile LPDRAM, Mobile LPDRAM/NAND, and Mobile LPDRAM/NAND/e-MMC™ combinations.

### Speed

Thin is nothing without performance and speed to match. No need to compromise because our industry-standard NAND Flash offers high-performance features, including a READ CACHE function that can be used to stream more than 30 MB/s, and our Mobile LPDRAM achieves data transfer rates of 400 Mb/s and delivers clock speeds of up to 200 MHz.

### Low Power

Who wants a battery that can't hold a charge? Dramatically reduce power consumption and worry no more. Our Mobile LPDRAM devices with inherently low self refresh current are excellent battery-life extenders.

## 4 Reasons Why Micron's MCPs Are a Perfect Match

### 1. Technical Support

Streamline time-to-market with experienced, market-specialized design support.

### 2. Custom Software Support

Design with confidence knowing that we've anticipated the technical challenges and collaborated with chipset vendors and operation system engineers to solve them.

### 3. Compact Footprint

Enable ever-smaller and sleeker product designs with small footprints and low heights.

### 4. Broad Portfolio

Maximize feature set and functionality with Micron's comprehensive MCP portfolio.



## NAND/Mobile LPDDR MCP

| NAND Density | Bus Width | Mobile LPDDR Density | Secondary Bus Width | RoHS | Voltage   | Package              | Clock Rate  | Temp Range     |
|--------------|-----------|----------------------|---------------------|------|-----------|----------------------|-------------|----------------|
| 1Gb          | x16       | 512Mb                | x32                 | Yes  | 1.7V–1.9V | 152-ball VFBGA       | 133–166 MHz | –40°C to +85°C |
| 2Gb          | x16       | 1Gb                  | x32                 | Yes  | 1.7V–1.9V | 152-, 168-ball VFBGA | 133–166 MHz | –40°C to +85°C |
| 2Gb          | x16       | 2Gb                  | x32                 | Yes  | 1.7V–1.9V | 168-ball VFBGA       | 133–166 MHz | –40°C to +85°C |
| 4Gb          | x16       | 2Gb                  | x32                 | Yes  | 1.7V–1.9V | 152-, 168-ball VFBGA | 133–166 MHz | –40°C to +85°C |

## Mobile LPDDR2 PoP

| Density | Bus Width | RoHS | Voltage | Clock Rate  | Package                  | Temp Range     |
|---------|-----------|------|---------|-------------|--------------------------|----------------|
| 1Gb     | x32       | Yes  | 1.2V    | 333–533 MHz | 168-ball PoP             | –40°C to +85°C |
| 2Gb     | x32, x64  | Yes  | 1.2V    | 333–400 MHz | 168-, 216-, 240-ball PoP | –40°C to +85°C |
| 4Gb     | x64       | Yes  | 1.2V    | 333–400 MHz | 168-, 216-, 240-ball PoP | –40°C to +85°C |
| 8Gb     | x64       | Yes  | 1.2V    | 333–400 MHz | 216-, 240-ball PoP       | –40°C to +85°C |

## Mobile LPDDR PoP

| Density | Bus Width | RoHS | Voltage | Clock Rate  | Package                  | Temp Range     |
|---------|-----------|------|---------|-------------|--------------------------|----------------|
| 512Mb   | x32       | Yes  | 1.8V    | 167 MHz     | 152-ball PoP             | –40°C to +85°C |
| 1Gb     | x32       | Yes  | 1.8V    | 167–200 MHz | 152-, 168-ball PoP       | –40°C to +85°C |
| 2Gb     | x32       | Yes  | 1.8V    | 167–200 MHz | 152-, 168-ball PoP       | –40°C to +85°C |
| 4Gb     | x32       | Yes  | 1.8V    | 167–200 MHz | 152-, 168-, 240-ball PoP | –40°C to +85°C |
| 8Gb     | x32       | Yes  | 1.8V    | 167–200 MHz | 152-, 168-, 240-ball PoP | –40°C to +85°C |

## Get More from TI-OMAP Processors or Beagle Boards—with Micron MCPs

Our high-performance MCPs are validated by TI and Beagle Board and are optimized to work with OMAP35x application processors and Beagle Boards. So, if your designs use those products, our memory will help them perform to their fullest potential.

## Contact Us

Whether you're trying to minimize power consumption, maximize board space, increase speed, or do everything at once, Micron's MCPs can drive your design no matter the application. Get more information on our Web site at [www.micron.com/products/mcps](http://www.micron.com/products/mcps).

[micron.com](http://micron.com)

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