

PRODUCT BRIEF | MCP

PARALLELCELL

MULTI-CHIP PACKAGE (MCP)

Ultra High Density Memory Solution for Military & Embedded Applications

Viking Technology ParallelCell Multi-Chip Package (MCP) is part of the extreme density line of DDR4 memory products optimized for the embedded, industrial, and military/aerospace markets. ParallelCell products achieve significantly higher memory performance and density per cubic inch than conventional memory DIMMs. These performance and density milestones will critically change the way future system hardware is designed and deployed.



BENEFITS

Very small footprint: Saves up to 85% board space vs. Standard DIMM Modules	Very high memory capacity per cu. in.	Very high memory bandwidth per cu. in.
Rugged: Soldered-down PBGA – No DIMM connector	Superior signal integrity	Lower cost motherboard due to easier DDR routing



A full size module in a ultra small form factor MCP.

Optimized for embedded applications
Greater I/O per cu. in.



Up to 85% space savings vs. standard DIMM modules

Rugged: Soldered-down PBGA – no DIMM connector

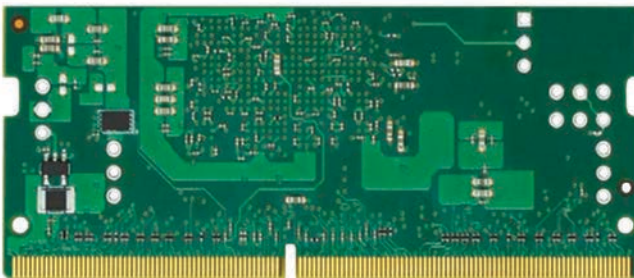
(15mm x 20mm)

PARALLELCELL MULTI-CHIP PACKAGE (MCP)

Ultra High Density Memory Solution for Military & Embedded Applications

SPEEDS		VOLTAGE
DDR4	2400/2667	1.2V
TEMPERATURE		
Industrial	-40°C to 95°C	
Extended	-40°C to 105°C	
Military	-55°C to 125°C	
Commercial	0°C to 70°C	

DDR4 PARALLELCELL MCP EVALUATION BOARD



- ▶ JEDEC standard DDR4 SODIMM
 - ▶ Suitable for evaluating ParallelCell
 - ▶ Accelerate time to market
 - ▶ Integrate ParallelCell in application environment
 - ▶ 4GB version requires BIOS support for x16 memory
 - ▶ 8GB version requires BIOS support x8 memory
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- ▶ DDR4 functionality support defined in applicable datasheet
 - ▶ Calibration resistors – $Z_q = 240\Omega$ installed
 - ▶ $V_{dd} = 1.20V$
 - ▶ $V_{pp} = 2.5V$
 - ▶ $V_{ddspd} = 2.5V$
 - ▶ Total Power = 3.0W
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- ▶ On board I²C SPD (Serial Presence Detect) EEPROM
 - ▶ 512 byte JEDEC compliant EEPROM
 - ▶ Gold edge finger contacts
 - ▶ 260 Pin – 69.6mm x 30mm
 - ▶ Operating Temperature: 0°C to 75°C

For price and availability, please email us at sales@vikingtechnology.com.



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