DuraMemory™

Module-In-A-Package™ (MIP™)

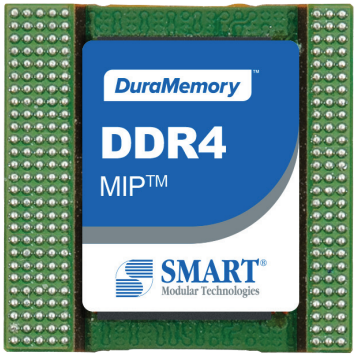
SMART Modular's MIP (Module In a Package) is a Tiny Form Factor (TFF) memory module that combines the benefits of industry standard SODIMMs with SMART's proprietary stacking technology. About the size of a nickel, SMART's MIP occupies 1/5th the area of a SODIMM while offering higher performance and lower power.

Key advantages of the MIP over SODIMMs include 42% power savings, 42% jitter reduction, and 39% PK/PK savings. These benefits are critical for applications such as broadcast video, mobile routing, high-end video/graphics cards and embedded computing applications where memory density in a small space is essential.

MIPs contain on-package address and control signal termination, eliminating the need in DRAM-down board usage scenarios. The MIP leverages SMART's extensive stacking technology into new markets and new applications. It addresses OEMs' need for faster memory in space-saving cube computing applications for networking, telecom and embedded markets.

Features & Benefits

- Occupies only 1/5th the space of an SODIMM
- Up to 42% power savings vs SODIMMs
- Superior ruggedness – soldered down; no sockets or clips
- Leverages SMART Modular's proven stacking technology



Applications

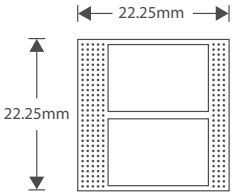
- Video Broadcast
- Video/Graphics Cards
- Embedded Computing
- Telecom
- Defense/Aerospace
- Automotive

Ordering Information

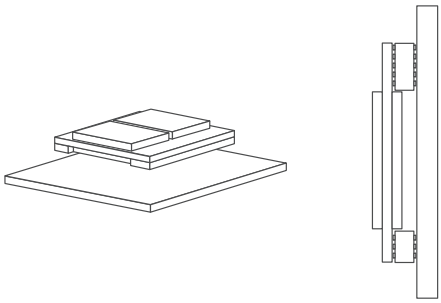
216 PIN - DDR4 MIP							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp*
ST2046MP42W625MF	16GB	22.25	2Gb x64	2Gx16	3200MT/s	1.2V	0°C to +70°C
ST2046MP42W614MB	16GB	22.25	2Gb x64	1Gx16	2933MT/s	1.2V	0°C to +70°C
STT1026MP411625MF	8GB	22.25	1Gb x64	1Gx16	3200MT/s	1.2V	-40°C to +85°C
ST1026MP41W693HC	8GB	22.25	1Gb x64	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST1026MP41W672SB	8GB	22.25	1Gb x64	1Gx8	2400MT/s	1.2V	0°C to +70°C
STT5126MP451625MR	4GB	22.25	512Mb x64	512Mx16	3200MT/s	1.2V	-40°C to +85°C
STT2566MP421625NE	2GB	22.25	256Mb x64	256Mx16	3200MT/s	1.2V	-40°C to +85°C
STT2566MP421625MG	2GB	22.25	256Mb x64	256Mx16	3200MT/s	1.2V	-40°C to +85°C
216 PIN - DDR3 MIP							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp*
SP2566MP321638NE	2GB	22.25	256Mb x64	256Mx16	1866MT/s	1.35V	0°C to +70°C

* Reflects Operating Ambient Temperature

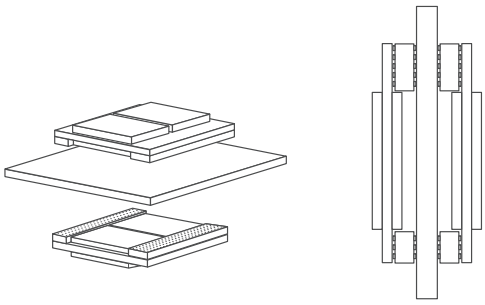
MIP Layout



Layout 1

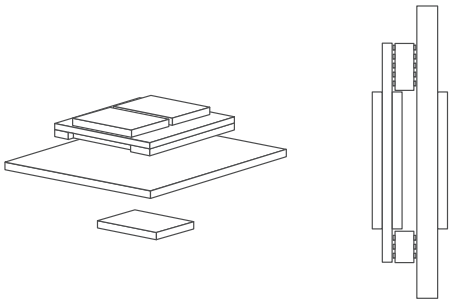


Layout 2



Layout 3

with ECC on
opposite side of the MIP



SMART® Modular Technologies

For more information, please visit: **www.smartm.com**

**Product images are for promotional purposes only. Labels may not be representative of the actual product.*

Headquarters/North America:
T: (+1) 800-956-7627 • T: (+1) 510-623-1231
F: (+1) 510-623-1434 • E: info@smartm.com

Latin America:
T: (+55) 11 4417-7200 • E: sales.br@smartm.com

Asia/Pacific:
T: (+65) 6678-7670 • E: sales.asia@smartm.com

EMEA:
T: (+44) 0 7826-064-745 • E: sales.euro@smartm.com

Customer Service:
T: (+1) 510-623-1231 • E: customers@smartm.com

©2024, SMART Modular Technologies, All rights reserved. The stylized "S" in conjunction with "SMART", as well as "SMART Modular Technologies" are registered trademarks of SMART Modular Technologies. All other trademarks are the property of the respective owners. These materials are provided by SMART Modular Technologies as a service to its customers and may only be used for informational purposes. 04.14.24/MIP/Rev.5