

## MAP1002-I and MAP1202-I/MAP1602-I

DRAMless PCIe/NVMe Gen3 controllers

SSD solutions based on these controllers target cost effective mainstream high-performance client PC. The Gen3x4 PCIe controllers integrate Maxio's new generation of Agile ECC technology, providing enhanced error correction and adaptive NAND processing capability. This series of SSD controllers can be used to support all 3D NAND Flash (MLC / TLC / QLC) products launched worldwide to date.

In addition, the adoption of our unique Smart Cache architecture, the multi-core Fusion technology and the HW/FW co-design methodology helped MAP1002-I and MAP1202-I/MAP1602-I, significantly optimize the utilization of the on-die resources, increase the reading and writing speed, reduce power consumption, hence provide the market with more competitive SSD controllers and SSD solutions.

### Product Feature

Model	MAP1002-I	MAP1202-I	MAP1602-I
Interface Protocol	PCIe Gen3x4 NVMe1.3	PCIe Gen3x4 NVMe1.4	PCIe Gen4x4 NVMe2.0
Supportable Pcb	M.2	M.2	M.2
Ecc Error Correction	MAXIO Agile ECC 2 Technology	MAXIO Agile ECC 3 Technology	MAXIO Agile ECC 3 Technology
Nand Interface	ONFi4.0/Toggle 3.0 NV-DDR3 up to 800MT/s	ONFi4.1/Toggle 3.0 NV-DDR3 up to 1600MT/s	ONFi5.0/Toggle 5.0 NV-DDR3 up to 2400MT/s
Package Size	7.1mm*11mm	7.1mm*11mm	7.1mm*11mm & 7.1mm*12mm

Channel	4CHx4CE	4CHx4CE	4CHx4CE & 4CHx8CE
Dram Interface	N/A	N/A	N/A
Maximum Capacity	2TB	4TB	4TB
Nand Flash Support	2D MLC/TLC 3D MLC/TLC/QLC	2D MLC/TLC 3D MLC/TLC/QLC	2D MLC/TLC 3D MLC/TLC/QLC
Up To Sequential Read	2400MB/s	3500MB/s	7400MB/s
Up To Sequential Write	2000MB/s	3200MB/s	6500MB/s
Up To 4k Random Read	400K IOPS	600K IOPS	1000K IOPS
Up To 4k Random Write	350K IOPS	600K IOPS	1000K IOPS
Encryption Support	SM2/SM3/SM4/AES256/ SHA256/RSA2048	SM2/SM3/SM4/AES256/ SHA256/RSA2048	SM2/SM3/SM4/AES256/ SHA256/RSA2048