PCN #: PCN22070603	Ver. 1.0	Issue Date: July 6, 2022

Type of Change:

NAND Flash die, and controller change

Detailed Description of Change:

ATP hereby gives product change notification for microSD / SD card. NAND Flash will be transitioned from 20nm 2D MLC 64Gbit to 64 Layer 3D TLC 256Gbit.

Controller will be transitioned from SM2702 to SM2707.

Quality Impact: ■ no ☐ minor ☐ major

Function Impact: ☐ no ■ minor ☐ major (Better Performance, capacity varies by configuration)

Reliability Impact: ☐ no ■ minor ☐ major (Better Endurance)

Reason for Change:

The 20nm 2D MLC NAND will have limited availability after Q4 2022 due to supplier ending production. ATP will provide a transition window appropriate to re-qualify into other ATP configurations for the extended future support.

Products Affected & Replacements: microSD / SD card   4GB / 8GB / 16GB aMLC

aMLC	Current	Replacement
PN	AF4GUD3A-WAAIX (I-Temp) AF4GSD3A-WAAIX (I-Temp)	AF8GUD4A-BBBIM (I-Temp) AF8GSD4A-BBBIM (I-Temp)
TBW (Total Bytes Written, Tera Bytes)	64	145
Physical Capacity (Bytes)	4,060,086,272	8,039,432,192
Performance (MB/S)	Seq. Read : 38.67 Seq. Write : 30.25	Seq. Read : 92.55 Seq. Write : 63.65
PN	AF8GUD3A-WAAXX (C-Temp) AF8GSD3A-WAAXX (C-Temp) AF8GUD3A-WAAIX (I-Temp) AF8GSD3A-WAAIX (I-Temp)	AF8GUD4A-BBBXM (C-Temp) AF8GSD4A-BBBXM (C-Temp) AF8GUD4A-BBBIM (I-Temp) AF8GSD4A-BBBIM (I-Temp)
TBW (Total Bytes Written, Tera Bytes)	128	145
Physical Capacity (Bytes)	8,120,172,544	8,039,432,192
Performance (MB/S)	Seq. Read : 76.26 Seq. Write : 51.15	Seq. Read : 94.86 Seq. Write : 63.80
PN	AF16GUD3A-WAAXX (C-Temp) AF16GUD3A-WAAIX (I-Temp)	AF16GUD4A-BBBXM (C-Temp) AF16GUD4A-BBBIM (I-Temp)
TBW (Total Bytes Written, Tera Bytes)	256	291
Physical Capacity (Bytes)	16,240,345,088	15,954,083,840
Performance (MB/S)	Seq. Read : 75.43 Seq. Write : 54.04	Seq. Read : 94.91 Seq. Write : 64.93

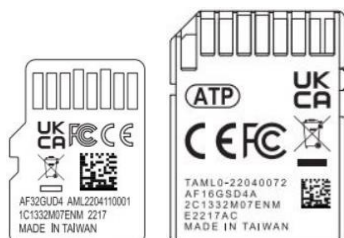Based on CrystalDiskMark 5.2.1 with 100MB file size, SDR104 Speed Mode.
The performance maybe very on different platform.

Method to Distinguish Change:

1. PN will be different to differentiate between the current (old) and new version.

    Please refer to Appearance: Laser marking.

Micron 2D MLC NAND 20nm → Micron 3D TLC NAND 64 Layer

For example:

Current BOM :   AFxxxxxxxxxxxxxxM02M
Replacement :   AFxxxxxxxxxxxxxxM07ENM

Forecasted Milestones:

Milestone	Date
Qualification Samples	Available
Last Time Buy	**Dec. 31, 2022**
Last Time Shipment (with NCNR term)	**June 30, 2023**

Recommended Action:

ATP will supply the parts based on the qty of material inventories and arrange the allocation based on P.O. issue date. We can't fulfill the orders without P.O. considering current supply situation.

Should you have any issues with the timeline or content of this change, please contact ATP representative **within 10 days**. No response will be deemed as customer's acceptance of the change and the change will be implemented pursuant to the milestones set forth in this PCN.