# Major Product/Process Change Notice

## Jetson Nano

Addition of Manufacturing BOM components:
Hynix memory, Hynix eMMC

PCN 206841

## Major Product or Process Change Notification

**PCN Title**:

Addition of Manufacturing BOM components: Hynix memory, Hynix eMMC

| **Notification Date** | September 9, 2020 | **Projected First Ship Date for Product** | December 9, 2020 |
|---|---|---|---|

## Change Information

**Description:**

Manufacturing BOM additions:

- Addition of Hynix memory H9HCNNNBKUMLXR
- Addition of Hynix eMMC H26M52208FPRN

**Reason:**

Manufacturing BOM and supply chain is being expanded to include these items for supply continuity and resiliency.

**Impact (form, fit, function, quality, or reliability):**

Form, fit, quality, or reliability:

- No change

Function:

- No change, assuming requirement to update software image flashed to the Jetson Nano (See Recommended Action section below) to include:
    - Appropriate BCT and DVFS changes required by the Hynix memory device
    - Increase bootloader OCR register polling timeout per JEDEC specification

## Qualification Plan and Data Availability

**Qualification Plan:**

NVDIA is committed to providing high quality products to our customers. The qualification of this revision adheres to the same stringent standards and procedures as those used for all NVIDIA products.

## Method of Identifying Changed Product

**Details:**

Any Jetson Nano module with 699 level part number version greater than or equal to 401 may be affected by this PCN. Each module has a label and/or 2D barcode which provides the 699 level part number.

For example, a module with 699 level part number 699-13448-****-401 may be affected.

Customers may receive mixed shipments, with 699 level part number versions less than, equal to, or greater than 401. Modules with 699 level part number versions equal to or greater than 401 may be built with the new components described in this PCN, or with the older components.

## Recommended Action for Customers

To support the new Hynix DRAM and Hynix eMMC, the software image flashed to the Jetson Nano must include:

- Appropriate BCT and DVFS changes required by the Hynix memory device
- Updated bootloader implementing updated OCR register polling timeout per JEDEC specification

JetPack 4.4.1 / BSP 32.4.4 or later releases of Linux for Tegra (L4T) will include the required changes.

For customers using L4T releases JetPack 4.3 / BSP 32.3.1 or later who do not wish to fully update to JetPack 4.4.1 / BSP 32.4.4, the necessary changes may be integrated by using the APT server to pull the following Debian modules:

- nvidia-l4t-tools deb
- nvidia-l4t-bootloader
- nvidia-l4t-kernel-dtbs

Instructions for how to use the APT server to update L4T images can be found on docs.nvidia.com/jetson/l4t under Quick Start Guide -> Over-the-Air (OTA) Update -> How to Install Debian Packages with OTA Update.

For customers with versions of L4T older than JetPack 4.3 / BSP 32.3.1, please contact your NVIDIA support representative to discuss possibilities for patching.

Note that the new firmware is also fully compatible with the previous manufacturing BOM.

In addition to integrating the required software changes, customer should perform whatever additional qualification they deem required to validate the change.

## NVIDIA Contact

Please contact your Customer Program Manager or sales representative if additional information is required.

## Affected Product(s) or Ordering Codes

| Part Number | New Part Number |
|---|---|
| 900-13448-0020-000 | N/A |

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