# Product Change Notification (PCN): 0023 Colibri T30 1GB V1.1G and 0030 Colibri T30 1GB IT V1.1B to versions V1.1X

Date of publication: 25 Apr 2023

## Table of Contents

## 1. Affected Products

| End of Life Product | | Additional Substitution Version (with limited features to increase availability, group EOL still apply) | |
|---|---|---|---|
| Part Number | Product Name | Part Number | Product Name |
| 00231106 | Colibri T30 1GB V1.1G | 00231123 | Colibri T30 1GB V1.1X |
| 00301101 | Colibri T30 1GB IT V1.1B | 00301123 | Colibri T30 1GB IT V1.1X |

## 2. Product Phase-in / Phase-out Schedule

| End of Life Product | | Additional Substitution Version (with limited features to increase availability, group EOL still apply) | |
|---|---|---|---|
| Part Number | Estimated Schedule | Part Number | Estimated Schedule |
| 00231106 | Last time buy (LTB)/Last time ship (LTS) can not be assured due to overwhelming LTB for EOL of product group and complex supply situation. In order to keep validation effort for our customers to a minimum, we are introducing a new version with one single functional change. | 00231123 | Sample: April, 2023 |
| 00301101 | | 00301123 | Volume: June 2023 LTB (Last Time Buy): 2023-06-15 non-cancellable and non-returnable, subject to availability of key components LTS (Last Time Ship): 2025-01-15 |

Customers not requiring the parallel camera input are strongly encouraged to use the additional substitution version. Toradex also advises customers to validate the new product version before their production release, we can provide a rework instruction or "Sample" of the additional substitution version.

## 3. Description of Changes
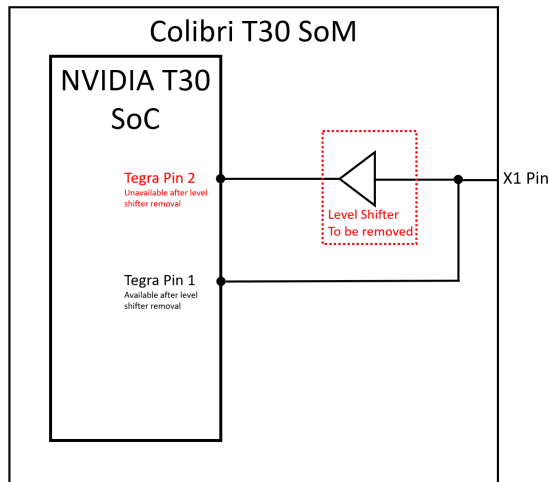
**Change #1: Removal of level shifter**

- Removed TI 74AVCA164245ZQLR and related components due to component EOL and shortage

# 4. Customer Impact

**Hardware**

- Parallel camera interface won't be available in V1.1X
- No changes are required on the Colibri carrier board
- SoM Pins affected by this change are : 59, 65, 67, 69, 71, 77, 79, 81, 85, 94, 96, 97, 98, 101, 103
  (see Table 5-18 - Camera Interface Pins in Colibri T30 datasheet)
- All the affected SoM pins multiplexed. They are connected to 2 pins on the SoC-side
  (see Table 4-1 - Colibri Multiplexed Pins in Colibri T30 datasheet)

### Colibri T30 SoM

NVIDIA T30 SoC

Tegra Pin 2
Unavailable after level shifter removal

Level Shifter
To be removed

X1 Pin

Tegra Pin 1
Available after level shifter removal

### Affected Pins on SODIMM Connector X1

| X1 Pin# | Tegra Pin 1 | Tegra pin 2 |
|---------|-------------|-------------|
| 59 | SDMMC3_DAT3 | VI_D7 |
| 65 | PEX_L1_CLKREQ_N | VI_D9 |
| 67 | SDMMC3_CMD | VI_D6 |
| 69 | PEX_L1_RST_N | VI_D10 |
| 71 | GPIO_PV2 | VI_D0 |
| 77 | GPIO_PCC2 | VI_D11 |
| 79 | SDMMC1_DAT2 | VI_D4 |
| 81 | LCD_PWR1 | VI_VSYNC |
| 85 | GPIO_PV3 | VI_D8 |
| 94 | PEX_L2_CLKREQ_N | VI_HSYNC |
| 96 | SDMMC1_CLK | VI_PCLK |
| 97 | SDMMC1_DAT3 | VI_D5 |
| 98 | SDMMC1_CMD | VI_D1 |
| 101 | SDMMC1_DAT0 | VI_D2 |
| 103 | SDMMC1_DAT1 | VI_D3 |

**Software**

## Customer Software

We request customers to check their own software in detail to guarantee functionality on the new product version. For example, please check that no excessive warning or error logging is done in the background which might compromise system performance or flash storage lifetime.

Without the level shifter being assembled, the following Tegra pins are floating:

| Tegra Pin | X1 Pin# |
|-----------|---------|
| VI_D0 | 71 |
| VI_D1 | 98 |
| VI_D2 | 101 |
| VI_D3 | 103 |
| VI_D4 | 79 |
| VI_D5 | 97 |
| VI_D6 | 67 |
| VI_D7 | 59 |
| VI_D8 | 85 |
| VI_D9 | 65 |
| VI_D10 | 69 |
| VI_D11 | 77 |
| VI_HSYNC | 94 |
| VI_PCLK | 96 |
| VI_VSYNC | 81 |

## Toradex Linux BSP

- The removal of the TI 74AVCA164245ZQLR does not impact the functionality of software, i.e. no errors are displayed
- Coming out of Reset, some of these pins will have the internal pull-up/down enabled (for more details see Section 4.4 - List Functions in Colibri T30 datasheet)
- After boot, If not handled properly, the affected Tegra pins listed above will be left floating as a direct consequence of removing the TI 74AVCA164245ZQLR level shifter. Thus, Toradex strongly recommends enabling the pull-down resistor on these Tegra pins (see related developer website guide)

## Windows CE

- The removal of the TI 74AVCA164245ZQLR do not impact the functionality of software, i. e. no errors are displayed. All the pins are left on pull-down unless the camera interface is effectively used

# 5. Contact

- Please contact Toradex if you have any questions
- For commercial and sales questions, please contact shop@toradex.com
- For technical questions, please contact support@toradex.com