

Purpose: This Product Change Notification (PCN) is to provide notification to PHYTEC customers of component, process or other relevant engineering changes on a PHYTEC hardware subassembly. Impact, qualification, validation and approval of this change shall be documented on the corresponding Customer-Specific Modification (KSM/KSP) form for the PHYTEC hardware subassembly

Per JEDEC Standard JESD46-D Section 3.2.3; lack of acknowledgment of this PCN within 30 days constitutes acceptance of change

Type of Change

Notice Date: **2018.07.27** <yyyy.mm.dd> | LPN #: **LPN-354e_1**

Major Change Minor Change

Description of Change:

For BSP-Yocto-AM335x-PD17.2.x and BSP-Yocto-AM335x-PD17.1.x the Bootloader NAND driver does not correctly detect and correct all bit flips. This can cause unexpected behavior and crashes of the system.

Mainline Barebox Versions affected by this issue: v2017.05.0 – v2018.06.0. This has been fixed upstream with version v2018.07.0.

Update the BSPs to the following versions:

- BSP-Yocto-AM335x-PD17.2.2 when using BSP-Yocto-AM335x-PD17.2.0/1
- BSP-Yocto-AM335x-PD17.1.3 when using BSP-Yocto-AM335x-PD17.1.0/1/2 (release is planned for September 2018)

BSPs other than PD17.1.0 and barebox versions older than v2017.05.0 are not affected.

Standard bootloaders shipped on the modules are not affected, because the bootloader versions are older than PD17.1.0 Please check your custom bootloader, which is flashed on module during production.

Referenced Documents:

Type of Change:
Software Update

Impacted Component:

Software Update necessary:

Possible Measures

- Change to new PHYTEC product revision with replacement part
- Change to different option of product
- Change to different PHYTEC Product
- Software Update BSP-Yocto-AM335x-PD17.1.x and BSP-Yocto-AM335x-PD17.2.x
- Interims stock \ final stock

Product Affected

Affected PHYTEC Productgroup: phyCORE-AM335, phyCORE-AM335 Rev.2, phyBOARD-Wega, phyBOARD-REGOR

Affected PHYTEC Productgroup Part: PCM-051, PCM-060, PB-00802, PB-01802

Affected Product Number	Replacement Product Number
PCM-051-KSMxy.Az with affected Custom Bootloader	PCM-051-KSMxy.Az+1
PCM-051-KSPxy.Az with affected Custom Bootloader	PCM-051-KSPxy.Az+1
PCM-060-KSMxy.Az with affected Custom Bootloader	PCM-060-KSMxy.Az+1
PCM-060-KSPxy.Az with affected Custom Bootloader	PCM-060-KSPxy.Az+1
PB-00802-KSMxy.Az with affected Custom Bootloader	PB-00802-KSMxy.Az+1
PB-00802-KSPxy.Az with affected Custom Bootloader	PB-00802-KSPxy.Az+1
PB-01802-KSMxy.Az with affected Custom Bootloader	PB-01802-KSMxy.Az+1
PB-01802-KSPxy.Az with affected Custom Bootloader	PB-01802-KSPxy.Az+1

Anticipated impact on Form, Fit, Function, EMI, Quality or Reliability

- (1) no impact in fit or form
- (2) impact in function

PHYTEC Qualification

The new product(s) were qualified according to our Company qualification procedure and best practices.

PCB redesign was necessary, because

Software Adaption was necessary, because of Bootloader NAND driver issue

Software tests were conducted with
 BSP for testing: BSP-Yocto-AM335x-PD17.2.2; BSP-Yocto-AM335x-PD17.1.3 Test program: bit flip driver test, boot tests

Recommended Measures for Customer

Software update or patch

Linux BSP: BSP-Yocto-AM335x-PD17.2.2 backward compatible

Link: <http://www.phytec.de/software/board-support-packages/yocto-buildsystem/bsp-seite/?bsp=BSP-Yocto-AM335x-PD17.2.2>

Linux BSP: BSP-Yocto-AM335x-PD17.1.3 Will be available in September 2018 backward compatible

Link: <https://www.phytec.de/software/board-support-packages/yocto-buildsystem/phytec-unified-yocto-bsp-releases/unified-yocto-am335x/>

Update Programming Tool

Test the recommended measures in combination with your system and use case.

PHYTEC recommends that customers take this opportunity to review these changes against their specifications, system design considerations, and environment conditions to assess impact (if any) to their application.

Please contact our order team to ask for an interims or final stock for components or PHYTEC products.
Please contact our support if you need any further information.

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Revision History of the Document

_1: Initial Document
_2: