

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

| Product affected / Release Date | |
|--|--------------------------|
| Notice Date: May 19, 2014 | LPN #: LPN-129e_1 |
| Date of Change: | New Product Version: |
| PHYTEC Subassembly: | phyCARD-i.MX27 |
| PHYTEC Subassembly Part #: PCA-A-S1 | |
| New PHYTEC Part #: | |

| Engineering Change (Component, Firmware, Process, other) | | |
|---|-------------------------------|------------------|
| Current Part | | New Part |
| IM602 | PHYTEC Internal Part # | IM693 H600190 |
| Numonyx | Manufacturer | Hynix |
| NAND01GR3B2CZA6E | Manufacturer Part # | HY27S1G8F2BFR-BI |
| 1 Gbit Nand Flash | Description | 1Gbit Nand Flash |

| Engineering Change Details |
|---|
| Reason for Component Change: EOL at Numonix |
| Referenced Component Documents: Information from 25.01.2011 |

Impact of Change

- (1) Flash same form, fit and function
- (2) Different Device ID's

Measures taken by PHYTEC

- (1) Datasheet Check
- (2) Test in Climatic Chamber

Recommended Measures for Customer

- (1) None by Linux BSP
- (2) Integrate Manufacture and Device ID by WinCE BSP
- (3)

Technical Differences

| Parameter | Original NAND01GR3B2CZA6E | Replacement HY27S1G8F2BFR-BI | Assess- ment ¹ |
|--------------------------|-------------------------------------|--|------------------------------|
| Read Cycle Time t_{RC} | 50 ns | 45 ns | 3, 2 |
| Device ID Codes | 0x20 0xa1 0x80 0x15 0x02 | 0xAD 0xa1 0x00 0x15 | 2 |
| | | | |

¹ Assessments:
 1: Effects are to be expected
 2: No negative effects are to be expected
 3: Better than before
 4: Worse than before

| Technical Similarities | | |
|------------------------|--|--|
| Parameter | Original NAND01GR3B2CZA6E | Replacement HY27S1G8F2BFR-BI |
| Supply Voltage | 1.7 V to 1.95 V | |
| Temperature | -40 °C to 85 °C | |
| Package Pitch, Form | VFBGA63 9.5 mm x 12 mm, 0.8 mm pitch | |
| Data Retention | 100k Program/Erase cycles (with 1bit/528byte ECC) 10 years Data Retention | |
| Device Command Set | Compatible | |
| | | |
| | | |
| | | |

Note:
 Technical differences and similarities in the tables above may not be complete. Please refer to the manufacture datasheets for a complete comparison.

Please contact our support if you need any further information.

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