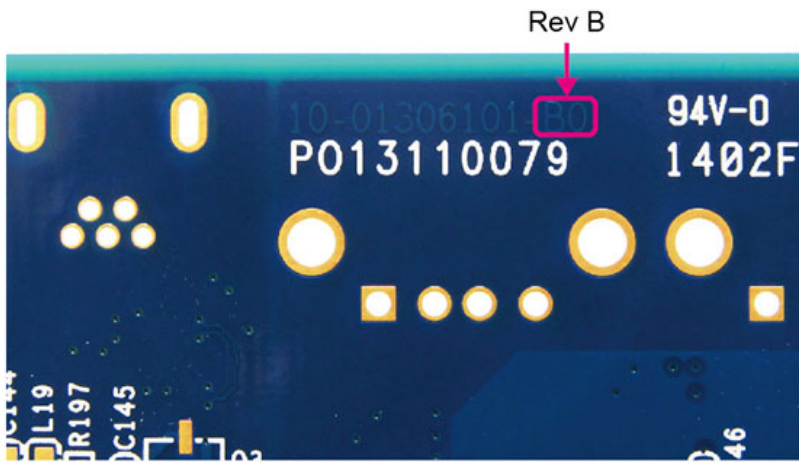# DE1-SoC Board How to distinguish rev. B, rev. C, rev. D and rev. E board?
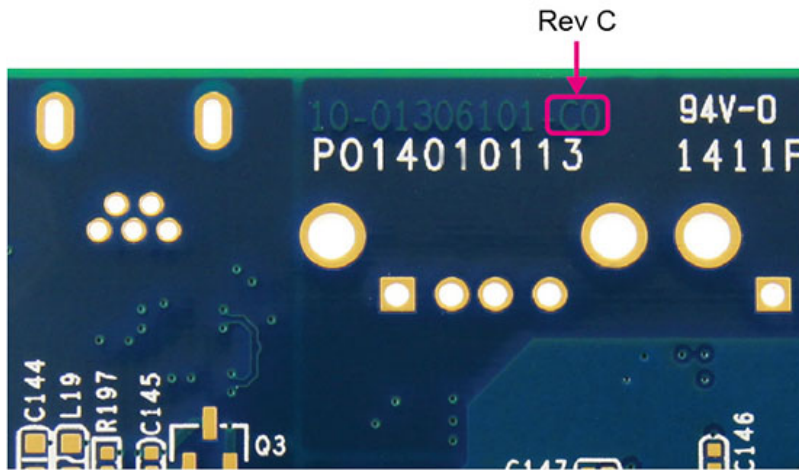
How to distinguish rev. B, rev. C, rev. D and rev. E board?

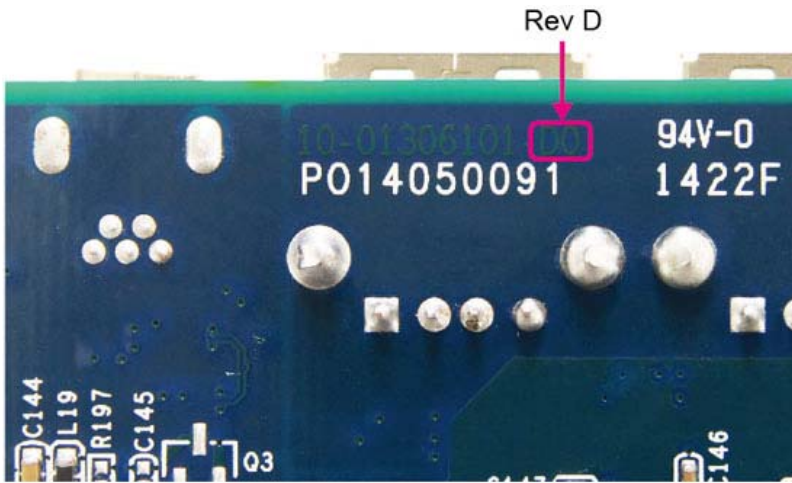**Simply check the serial number on the board.**
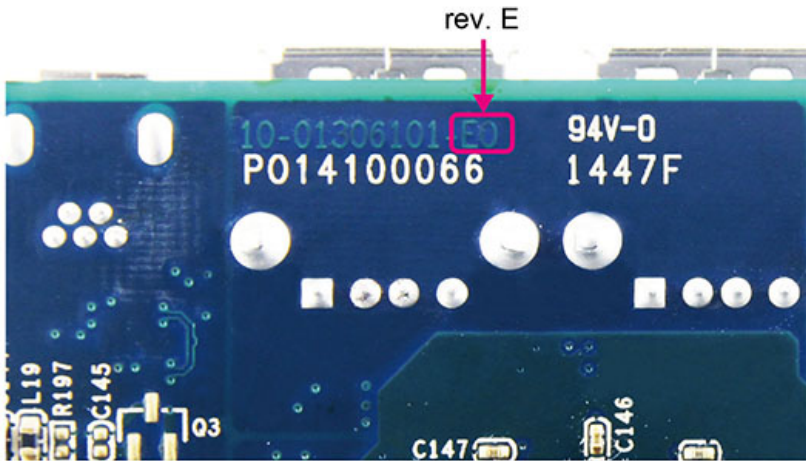
rev. B

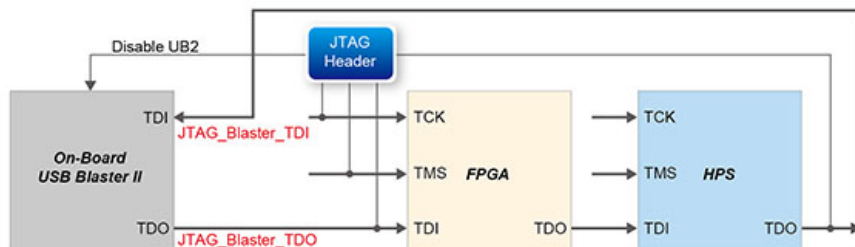**rev. C**

rev. D

Rev D

rev. E

rev. E

What are the parts changed?

The JTAG chain has been changed. Starting from rev. C, the HPS comes before FPGA in the JTAG chain. This is to bypass a bug in the DS-5 where reset can't function properly.
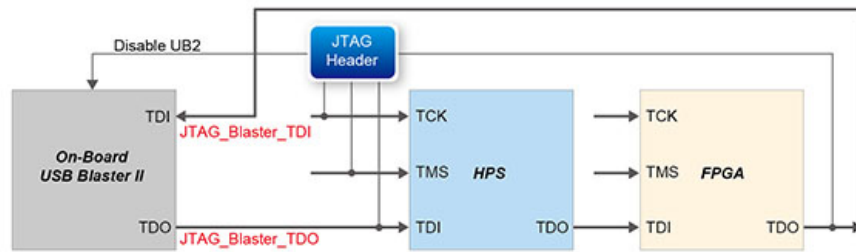
The difference between DE1-SoC rev. C and rev. D:
Both 5V and GPIO 3.3V power are provided by two different power module LTM4624 respectively in rev. C. In rev. D, 5V power is provided by one LTC3605 regulator instead of LTC4624, GPIO 3.3V power is provided by one original on-board LTC3605 regulator which provides all 3.3V power for DE1-SoC board.

rev. B JTAG chain: USB Blaster II ---> FPGA ---> HPS ---> USB Blaster II

JTAG chain starting from rev. C: USB Blaster II ---> HPS ---> FPGA ---> USB Blaster II

The difference between DE1-SoC rev. D and rev. E:

The serial configuration device has been changed from EPCQ256 to EPCS128.

Changes in the CD-ROM

Item	Description
Schematic	JTAG Chain
User Manual	Modified Figures involving Quartus Programming and JTAG description
Demonstration Code	Batch file can automatically detect FPGA device index such that the code can be used for both revision boards.