



Integrated Device Technology, Inc.  
6024 Silver Creek Valley Road, San Jose, CA 95138

## PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **TP1902-02**      Date: February 13, 2019  
 Product Affected:      Refer to Page 3 for the list of datasheets and  
    attached file for the affected part numbers  
 Date Effective:      May 13, 2019 or upon order of the new  
    part number

MEANS OF DISTINGUISHING CHANGED DEVICES:  
 Product Mark  
 Back Mark  
 Date Code  
 Other

Orderable part with "C" in part#

Contact: Ian Dobson  
 E-mail: [ian.dobson@idt.com](mailto:ian.dobson@idt.com)      Samples: Available on request

**DESCRIPTION AND PURPOSE OF CHANGE:**

- Die Technology
- Wafer Fabrication Process
- Assembly Process
- Equipment
- Material
- Testing
- Manufacturing Site
- Data Sheet
- Other - Die Revision Change

**Reason for Change:** Eliminate the need to load micro-controller code v4.7 using serial port or via EEPROM.  
**Description of Change:** Update embedded micro-controller ROM code from v4.0 to v4.7  
 A new orderable part number will be issued to distinguish this change. The previous part number will be discontinued as of the effective date of this notice.

**RELIABILITY/QUALIFICATION SUMMARY:**

No change to the form or fit of the device except that micro-controller ROM code v4.7 is preloaded in ROM.

**CUSTOMER ACKNOWLEDGMENT OF RECEIPT:**

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.  
 The earlier version will be discontinued after the effective date.

Customer: \_\_\_\_\_  *Approval for shipments prior to effective date.*  
 Name/Date: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_  
 Title: \_\_\_\_\_ Phone # /Fax #: \_\_\_\_\_

**CUSTOMER COMMENTS:** \_\_\_\_\_

**IDT ACKNOWLEDGMENT OF RECEIPT:**

RECD. BY: \_\_\_\_\_ DATE: \_\_\_\_\_



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### PCN# TP1902-02

**PCN Type:** Part Number Change

**Data Sheet Change:** A new datasheet and part number created for change

**Detail of Change:** **Reason for Change:** Eliminate the need to load micro-controller code v4.7 using serial port or via EEPROM.

**Description of Change:** Update embedded micro-controller ROM code from v4.0 to v4.7 (see details below)

Detailed Description of Changes and Their Effects:

- 1) Embedded micro-controller code upgraded from v4.0 to v4.7
  - a. Compared to using Revision B HW with v4.7 loaded via EEPROM or serial port, the following change will be visible
    - i. Device will complete reset sequence more quickly due to improved algorithm for checking external EEPROM for updates and/or configurations – no customer HW or SW changes needed
    - ii. No changes to register maps or other functionality
  - b. Customers currently using older versions of micro-controller code should contact IDT for Release Notes documents with descriptions of changes in the code.
  - c. One mask layer was changed to update the data stored in a mask ROM
- 2) Trace re-routed to remove coupling between the XO\_DPLL input frequency and outputs driven by FOD\_5
  - a. Revision B showed a spur on FOD\_5-driven outputs at the frequency of the XO\_DPLL input
  - b. This spur is removed in Revision C by a re-route of one signal
- 3) Scan chain improvements to increase test coverage
  - a. No customer-visible impact
  - b. Changes limited to two signals
- 4) Revision ID values for device from JTAG port and from register accesses updated
  - a. Changes to set / reset values for two registers
  - b. JTAG Revision ID value changed from 1 to 2
  - c. HW Revision ID value changed from 2 to 3
- 5) Analog PLL calibration algorithm improvement
  - a. Change to one circuit block within the Analog PLL function
  - b. Improves repeatability of VCO calibration



## PRODUCT/PROCESS CHANGE NOTICE (PCN)

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#### Affected Datasheets

8A34001	8A34011	8A34042
8A34002	8A34012	8A34043
8A34003	8A34013	8A34044
8A34004	8A34041	8A34045

#### Affected Parts

Current Orderable Part	New Orderable Part
8A34001B-000AJG	8A34001C-000AJG
8A34001PB-000AJG	8A34001PC-000AJG
8A34001B-000AJG8	8A34001C-000AJG8
8A34001PB-000AJG8	8A34001PC-000AJG8
8A34002B-000NLG	8A34002C-000NLG
8A34002PB-000NLG	8A34002PC-000NLG
8A34002B-000NLG8	8A34002C-000NLG8
8A34002PB-000NLG8	8A34002PC-000NLG8
8A34002B-000NLG#	8A34002C-000NLG#
8A34002PB-000NLG#	8A34002PC-000NLG#
8A34003B-000NBG	8A34003C-000NBG
8A34003PB-000NBG	8A34003PC-000NBG
8A34003B-000NBG8	8A34003C-000NBG8
8A34003PB-000NBG8	8A34003PC-000NBG8
8A34003B-000NBG#	8A34003C-000NBG#
8A34003PB-000NBG#	8A34003PC-000NBG#
8A34004B-000NBG	8A34004C-000NBG
8A34004PB-000NBG	8A34004PC-000NBG
8A34004B-000NBG8	8A34004C-000NBG8
8A34004PB-000NBG8	8A34004PC-000NBG8
8A34004B-000NBG#	8A34004C-000NBG#
8A34004PB-000NBG#	8A34004PC-000NBG#
8A34011B-000AJG	8A34011C-000AJG
8A34011B-000AJG8	8A34011C-000AJG8
8A34012B-000NLG	8A34012C-000NLG

Current Orderable Part	New Orderable Part
8A34012B-000NLG8	8A34012C-000NLG8
8A34012B-000NLG#	8A34012C-000NLG#
8A34013B-000NBG	8A34013C-000NBG
8A34013B-000NBG8	8A34013C-000NBG8
8A34013B-000NBG#	8A34013C-000NBG#
8A34041B-000AJG	8A34041C-000AJG
8A34041B-000AJG8	8A34041C-000AJG8
8A34041B-999AJG	8A34041C-999AJG
8A34041B-999AJG8	8A34041C-999AJG8
8A34042B-000NLG	8A34042C-000NLG
8A34042B-000NLG8	8A34042C-000NLG8
8A34042B-000NLG#	8A34042C-000NLG#
8A34043B-000NBG	8A34043C-000NBG
8A34043B-000NBG8	8A34043C-000NBG8
8A34043B-000NBG#	8A34043C-000NBG#
8A34044B-000NLG	8A34044C-000NLG
8A34044B-000NLG8	8A34044C-000NLG8
8A34044B-000NLG#	8A34044C-000NLG#
8A34045B-000NLG	8A34045C-000NLG
8A34045B-000NLG8	8A34045C-000NLG8
8A34045B-000NLG#	8A34045C-000NLG#
8A34045B-001NLG	8A34045C-001NLG
8A34045B-001NLG8	8A34045C-001NLG8
8A34045B-001NLG#	8A34045C-001NLG#