PRINTRONIX®

Printronix Technical Bulletin	Number 7-0004	Revision A
	Product Type P7000	Date 01/08
Subject Introducing PPC Subassy Controller, Ver. 6 for the P7000	Originator Gary Gentry	

Subject
Introducing a new PPC Controller design designated Version 6 for the P7000 Series.

Implementation Date
The PPC Controller Version 6 will phase into production approximately mid-March, 2008.

Spares and Repairs Pricing
The Spares price has been improved versus the Version 5 Controller, the Repair price will remain the same as the Version 5 Controller, please refer to the Spares and Repair pricelists as applicable to your region (EMEA Only).

Information
The PPC Subassy Controller, V6 maintains the same form factor as the current PPC Subassy Controller, Version 5.
There are no mounting or cable changes.
The PPC Subassy, V6 is fully backwards compatible with the existing P7000 mechanical design but requires a software upgrade of which minimum levels are listed on page 2.

The field spare part number assigned to the PPC Subassy Controller, V6 will be 253081-901.
The hardware changes to this board that most affect the field are:

- 8 Mb of Flash soldered to the PCBA to improve reliability by removing connector.
- 32 Mb of SDRAM soldered to the PCBA to improve reliability by removing connector.
- One Flash memory socket will be retained for future expansion and support of the P7000H Series printers using DBCS. This socket will be capable of adding from 8 Mb to 32 Mb of expansion flash memory in increments of 8 Mb.
- Onboard wired Ethernet enabled by Factory Option or Factory-Programmed Security Key only.
- One PCI option slot instead of two.
- Removal of socketed Non-Volatile SRAM with lithium ion battery backup and replaced with NV Flash device with larger 1 Mb memory storage. This new Flash device will contain board ID information, the onboard NIC's MAC Address and SDRAM configuration information. The socket will remain for future options.
- EC changes made to improve Motor Drive Fault Detection circuitry as well as the Motor Drive FET circuit which will also improve reliability.

All previous host interface options such as the external NIC, PCI-based NIC, Wireless NIC, CT card and GPIO card are all still supported.
Both Security Key and SPX devices used on current PPC Subassy Controller, Version 5 can also be used for the V6 PCBA.

Minimum Software Requirement

Software upgrade to latest FMR (Full Mfg Release) is required to support the new functionality of this V6 board. The following software builds support both V5 and V6 controllers but will be the minimum level builds for the PPC Subassy Controller, V6:

P7000 ASCII Printers

CT/IPDS/IGP	Version 2.10K	368962-001
ANSI/IGP	Version 2.10K	368963-001
TN/IGP	Version 2.10K	368964-001
PCL2/IGP	Version 2.10K	368965-001
LG/IGP	Version 2.10K	368966-001
HD-LP+	Version 1.03E	368971-001

P7000 Asian Language Printers

PTX Indian	Version 1.04C	368917-001
THAI PGL	Version 1.07D	368919-001
VIET PGL	Version 1.07D	368921-001
Hanzi GB PGL	Version 1.07D	368924-001
Kanji SJIS PGL	Version 1.07D	368925-001
Hangul BMP PGL	Version 1.07D	368928-001
Hangul SCAL PGL	Version 1.07D	368929-001

P7000H Asian Language Printers

Hanzi GB LP+	Version 1.07E	368911-001
Hanzi Big 5 LP+	Version 1.07E	368912-001
Kanji SJIS LP+	Version 1.07E	368913-001
Hangul LP+	Version 1.07E	368915-001

How to Identify if PPC Subassy, V6 is Installed

There are several ways to identify the installation of the PPC Subassy, V6 inside of a P7000 Series printer.

By Printer Serial Number:
Newly built P7000 Series printers with PPC Subassy, V6 installed will be provided with a new serial number sequence as listed below.
Note: 2nd and 3rd digits of Non-RoHS and 3rd and 4th digits of RoHS will both state "**V6"**.

Non-RoHS Printronix P7000 Printers 12-Digit Serial Number

- 1st Digit - 4 = IRV (Irvine), 5 = SXN (Singapore), 6 = HOL (Holland)
- **2nd - 3rd Digits - V6**
- 4th - 5th Digits - Last 2 digits of year built (08 = 2008)
- 6th - 7th Digits - Week of year listed on 4th and 5th digits (01 thru 52)
- 8th - 12th Digits - Numeric sequence of tracking numbers (00000 – 99999)

RoHS Printronix P7000 Printers 12-Digit Serial Number

- 1st Digit - 4 = IRV (Irvine), 5 = SXN (Singapore), 6 = HOL (Holland), 7 = CMP
- 2nd Digit - R = RoHS
- **3rd - 4th Digits - V6**
- 5th - 6th Digits - Last 2 digits of year built (08 = 2008)
- 7th - 8th Digits - Week of year listed on 5th and 6th digits (01 thru 52)
- 9th - 12th Digits - Numeric sequence of tracking numbers (0000 – 9999)

Note: After field service has been performed, it is possible but not recommended, that a V6 Controller could be replaced with a V5 Controller as outlined on page 4.
Other avenues to properly ID the V6 Controller board are available as listed below.

By Visual Hardware Identification:
Looking at the backside of the printer's card cage, three connectors are visible on the left side, along the bottom of the card cage. The first connector on the far left is a DB9 Serial Connector, The connector on the right side is RJ-12 Debug Connector**. The connector in the center of the three is the RJ-45 Ethernet Connector which is unique to the V6 Controller.** This connector belongs to the onboard NIC and is not present on the V5 Controller.

By Configuration Code on the Configuration Printout:
If a configuration printout is available, look at the 6-digit alpha-numeric Configuration Code present in the top section of the printout. An example of this code may look like "**FH06AF**", where the 3rd and 4th digits indicate the hardware version number of the installed PPC Subassy Controller. **The "06", as shown in the example, indicates that a V6 Controller is installed.** If a "04" is present, either a V4 or V5 Controller is installed.

PPC Subassy Controller Version 5 and Version 6 Compatibility

Although the PPC V6 maintains full backwards compatibility as mentioned on page 1, options required by the customer site have to be considered to maintain compatibility in order to use the printer after field service has been performed. These options and any stored data will be affected when replacing the PPC V6 with a V6, a PPC V6 with a PPC V5 or a PPC V5 with a PPC V6.

IMPORTANT: It is always expected and best to replace the PPC V5 with the PPC V5 and the PPC V6 with the PPC V6. Variation from this plan may require additional parts and costs. The following information is a guideline when the desired board is unavailable and the other version is available as a replacement. The Security Key must be moved to the new board in every case.

Replacing PPC V6 with a PPC V6

Condition: PPC V6 with any/all options replaced with a PPC V6 with any/all options moved over.
Result/Comments: Each saved config will need to be reprogrammed manually. PPC V6 needs to be reflashed. If Security Key was pre-programmed to enable the onboard NIC on previous V6, once moved over, it will re-enable the onboard NIC on the new board.

Replacing PPC V6 with a PPC V5

Condition: **PPC V6 with no options** replaced with PPC V5 with no options.
Result/Comments: Both Flash and DRAM will need to be added to the PPC V5.
PPC V5 needs to be reflashed.

Condition: **PPC V6 with NIC Enabled** replaced with PPC V5 with no options to move over.
Result/Comments: Both Flash and DRAM will need to be added to the PPC V5.
PPC V5 needs to be reflashed. NIC PCBA must be provided for PPC V5.

Condition: **PPC V6 with NIC Enabled and CT installed** replaced with PPC V5 with CT moved over.
Result/Comments: Both Flash and DRAM will need to be added to the PPC V5.
PPC V5 needs to be reflashed. NIC PCBA must be provided for PPC V5.

Condition: **PPC V6 with Wireless NIC** replaced with PPC V5 with Wireless NIC moved over.
Result/Comments: Both Flash and DRAM will need to be added to the PPC V5.
PPC V5 needs to be reflashed.

Condition: **PPC V6 with NIC Enabled and Wireless NIC** (same functionality as Dual NIC) replaced with PPC V5 with Wireless NIC moved over.
Result/Comments: Both Flash and DRAM will need to be added to the PPC V5.
PPC V5 needs to be reflashed. A Dual-NIC could be added or a standard external (parallel-attached) NIC added to retain same capability.

Condition: **PPC V6 with NIC Enabled and GPIO installed** replaced with PPC V5 with GPIO moved over.
Result/Comments: Both Flash and DRAM will need to be added to the PPC V5.
PPC V5 needs to be reflashed. NIC PCBA must be provided for PPC V5.

Condition: **PPC V6 with both CT and external Wireless NIC** replaced with PPC V5 with both CT and external (parallel-based) Wireless NIC moved over.
Result/Comments: Both Flash and DRAM will need to be added to the PPC V5.
PPC V5 needs to be reflashed.

Replacing PPC V5 with a PPC V6

Condition: **PPC V5 with no options** replaced with PPC V6 with no options.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).

Condition: **PPC V5 with NIC installed** replaced with PPC V6 with no options moved.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).
PCI or other NIC must be provided for PPC V6.

Condition: **PPC V5 with NIC installed** replaced with PPC V6 with NIC moved over.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).
Only one NIC will be recognized. PCI NIC from PPC V5 will be default.

Condition: **PPC V5 with NIC and CT installed** replaced with PPC V6 with CT moved over.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).
PPC V6 does not have enough slots to accommodate transfer of both boards.
Other NIC must be provided for PPC V6.

Condition: **PPC V5 with Wireless NIC installed** replaced with PPC V6 with Wireless NIC moved over.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).
Only one NIC will be recognized. Wireless NIC from PPC V5 will be default.

Condition: **PPC V5 with Wireless NIC installed** replaced with PPC V6 with Enabled onboard NIC and Wireless NIC moved over.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).
If the customer is accidentally given a PPC V6 with onboard NIC enabled, the printer will function as if it had a Dual NIC.

Condition: **PPC V5 with Wireless NIC and CT installed** replaced with PPC V6 with CT moved over.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).
PPC V6 does not have enough slots to accommodate transfer of both boards.
If Wireless NIC is required over a provided wired NIC and CT is still required, the only solution will be another PPC V5 as a CT/Wireless NIC option is not available.

Condition: **PPC V5 with Dual NIC installed** replaced with PPC V6 with Dual NIC moved over.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).

Condition: **PPC V5 with NIC and GPIO installed** replaced with PPC V6 with GPIO moved over.
Result/Comments: PPC V6 Flash software required (see page 2 for minimum level).
PPC V6 does not have enough slots to accommodate transfer of both boards.
Other NIC must be provided for PPC V6.