

Release Note

PD69100 Firmware Version 2.4.2

1 General

- **Affected Part Number/s:** PD69100 family.
- **Distinction:** According to chip label
- **Effective Date:** Feb 5, 2012

2 Introduction

The following release note describes the firmware release (2.4.2) which is to be used on Microsemi Enhanced mode controller – the PD69100

PD69100 Enhanced mode RELEASE 2.4.2 controller supports:

2.1 Microsemi™ PoE devices: PD69108 v1r2 and above

2.2 Microsemi™ PoE devices: PD69104 v1r2 and above

Loading a new firmware version into an existing PD69100 is to be done using the UART / I²C interface, utilizing the 'Firmware Download' procedure.

3 Release Content – New Features

None

4 Bug fixes:

4.1 Initialization sequence

Missing initialization command was missing in the configuration sequence, which resulted in port detection not working properly.
Initialization sequence was fixed.

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5 Known Limitations:

5.1 ***Does not operate with PD69108 and PD69104 v1r1***

See the PD69108 and PD69104 Errata for limitations related to PD69108 and PD69104 v1r1.

5.2 ***Hot Swap control signal support***

To be supported by PD69100x-0250

5.3 ***Reset cause and smart recovery***

To be supported by PD69100x-0300

5.4 ***User Data feature not implemented***

The feature of saving 9 bytes of user data is not implemented. The relevant commands "Save Non-volatile Memory" and "Get Non-Volatile Memory" are not implemented.

5.5 ***Set PoE Device Parameters command not supported***

The 15 byte protocol command "Set PoE Device parameters" is not implemented since it cannot be supported by PD69108 technology.

5.6 ***Get all ports power***

In the Command Get all ports power, the value received is divided by 5, 1 bit is 0.2w.

5.7 ***Port Max power***

Port max power is 15.4w in AF, 32w in AT and 36w in AT Extra power, instead of Icut_Max limit for each mode.

5.8 ***Class4 is not getting 5% additional power***

Class 0-3 get up to ~5% above the power level of the class, class 4 is limited to max value of 32W (w/o additional 5%).

5.9 ***"No more connect" interrupt isn't working as defined***

5.10 ***Force Power Reported Staus***

When a port is set to "Force Power" and the system is in "Power Management" status (crossed the GB and no available power). The reported status is #32:Port is Off: power budget exceeded, instead of Port is off: "Out of power budget" during Force On. The port behavior is correct.

5.11 ***Port status in static mode and "Power Management" Reported Staus***

When a port in static mode and the system is in "Power Management" status (crossed the GB and no available power), the reported status is: #32: port is off: Power budget exceeded. Port status should be: Standard port: #60: Power Management- static.

Forced power port #62: Force power Error Management static.

The port behavior is correct.

5.12 ***Interrupt report issues***

"Port Fault" should be activated when Overload is discovered

No interrupt on "detection failed" error when working on ALT B

5.13 ***when power bank is set to above 6553W, the actual value configured is wrong***

5.14 ***System OK pin blinks on "vmain out of range" condition***

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Upon entering "Vmain out of range" value, the Sys_OK pin blinks at 1 Hz between 0-3.3V. it should go up to 3.3V until Vmain returns to the defined working range.

5.15 Need to use Class 7 instead of Class 4

See the new feature defined above.

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6 Label Change

Firmware version changed to 2.4.2 (previous version: 2.4.1). See Figure 1.

6.1 Communication Protocol User Guide:

All features and commands are described in the PD69100 Communication Protocol user guide.

6.2 EVB's

- PD-IM-7548E – for PD69108 evaluation (48 ports)
- PD-IM-7524E – for PD69108 evaluation (24 ports)

6.3 Applicable Documents

- PD69100 Serial Communication Protocol
- PD69100 CPU Data-Sheet
- PD69108 Data-Sheet
- PD69104 Data-Sheet
- User Guide for the PD-IM-7548E EVB
- User Guide for the PD-IM-7524E EVB
- AN 160 - Designing an IEEE802.3at PD interface
- AN 185 - Designing a PD69108/PD69104 48-port PoE System (802.3af/802.3at Compliant)
- AN 186 - Layout Design Guidelines for PD69108 PoE Systems

7 Ordering Options

To order PD69100 with Rel 2.4.2 firmware, please mark "**PD69100x-0242ff**" in the purchase order. Where,

x stands for the default parameters setting as following:

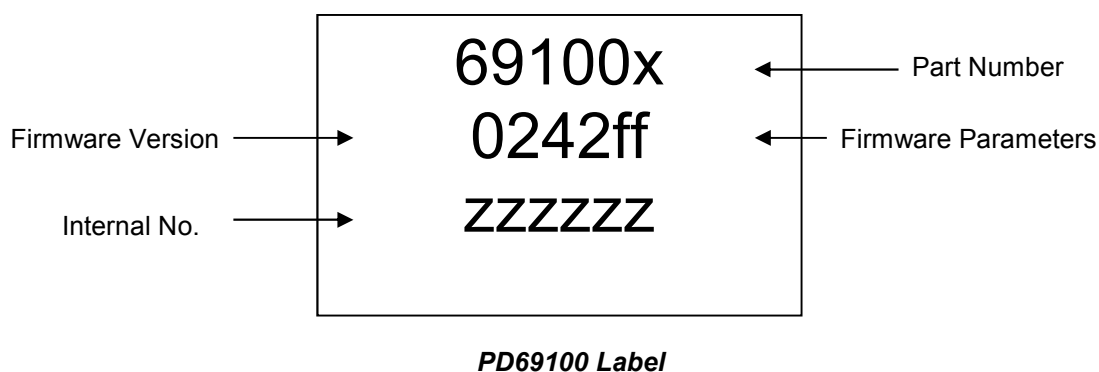
- **C**: Detection Method = IEEE802.3at & Pre-standard
- **R**: Detection Method = IEEE802.3at

ff stands for firmware parameters option which is different than the default parameters

01 for C version

03 for R version

8 Label Information



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