

Technical Note



Migrating to PLX82-MNET-61850 Series B

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How to Contact Us

**Asia Pacific
Regional Office**
+60.3.7941.2888
support.ap@prosoft-technology.com

**North Asia
(China, Hong Kong)**
+86.21.5187.7337
support.ap@prosoft-technology.com

**Europe/Middle East/Africa
Regional Office**
+33.(0)5.34.36.87.20
support.emea@prosoft-technology.com

**Latin America
Regional Office**
+52.222.264.1814
support.la@prosoft-technology.com

**North America
Corporate Office**
+1.661.716.5100
support@prosoft-technology.com

IMPORTANT NOTE 1

The PLX81 and PLX82-MNET-61850 **Series A** modules were sold up till July 2019. The differences between the 2 modules are listed below:

- PLX81-MNET-61850: Has a single Ethernet port and requires that both the IEC 61850 and the Modbus/TCP networks be on the same network subnet.
- PLX82-MNET-61850: Has dual Ethernet ports and requires that the IEC 61850 and the Modbus/TCP networks be on different network subnets.

With the PLX82-MNET-61850 **Series B** modules, there is a selection in the configuration software to utilize either a single Ethernet port for communications with both IEC 61850 and Modbus TCP/IP networks (PLX81-MNET-61850 functionality) or utilize IEC 61850 communications on one port and Modbus TCP/IP communications on another port (PLX82-MNET-61850 functionality). The configuration software allows for easy conversion of existing PLX81-MNET-61850 configuration files to use in the PLX82-MNET-61850 Series B module.

There is only one part number that can be ordered now, and this is the **PLX82-MNET-61850**. Effective July, 2019 only Series B modules will be shipped due to component obsolescence on previous hardware.

IMPORTANT NOTE 2

Use of the **ProSoft MNET-61850 Configuration Manager** Software Version 2.0.2.4 or greater is required with the new PLX82-MNET-61850 Series B modules

How to tell if module is PLX82-MNET-61850 Series B

PLX82-MNET-61850 Series B modules will have the series noted on the product label as shown below:



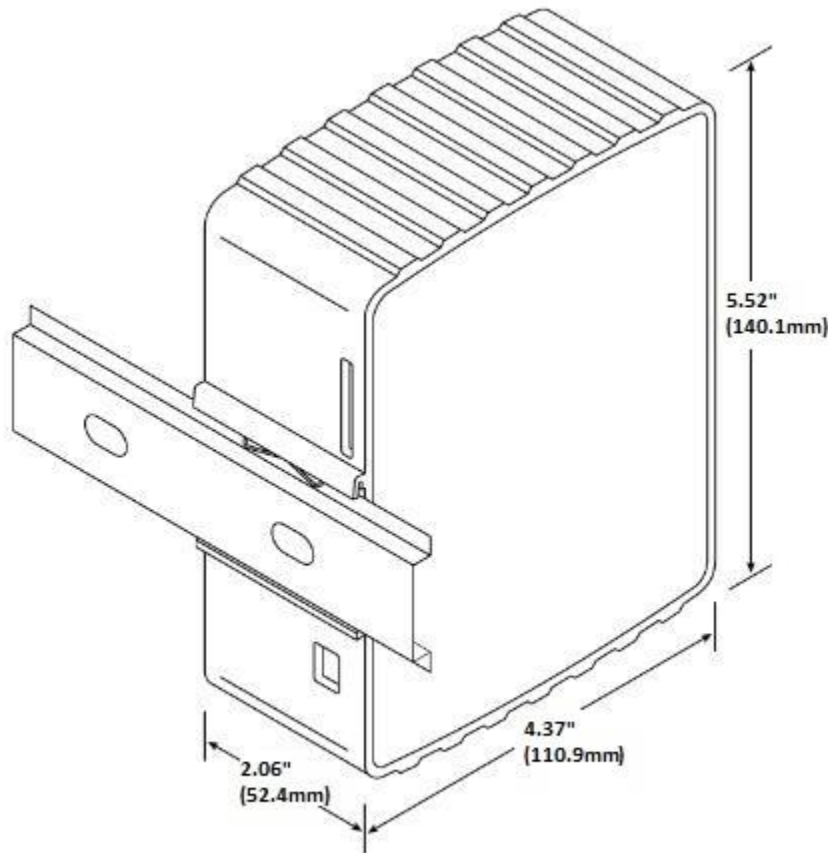
All Series B modules will be clearly marked in the upper right hand corner of the module just below the part number of the unit.

Differences between Series A and Series B modules

The differences between the Series A and PLX82-MNET-61850 Series B modules are minor, but something to take note of when replacing older Series A units with a PLX82-MNET-61850 Series B module. Below is a list:

- 1) **Temperature Range** – The PLX82-MNET-61850 Series B has a wider temperature range of 0°C to 70°C (32°F to 158°F). PLX81-MNET-61850 and PLX82-MNET-61850 Series A modules only had a temperature range of 0°C to 60°C (32°F to 140°F).
- 2) **Input Power** – The PLX82-MNET-61850 Series B module supports input power of 10-36 VDC. The PLX81-MNET-61850 and PLX82-MNET-61850 Series A had an input power range of 10-32 VDC.
- 3) **Module Enclosure Size** – When replacing Series A modules with Series B units, the enclosure size is larger on the Series B units, so if installing in an existing panel you will need to verify that there is sufficient room in the panel for the larger module enclosure, especially if replacing a PLX81-MNET-61850 unit with a PLX82-MNET-61850 Series B unit.

Below are the dimensions for the PLX82-MNET-61850 **Series B** module for reference:



Below is a chart of the various modules and the enclosure sizes:

	PLX81-MNET-61850 Series A	PLX82-MNET-61850 Series A	PLX82-MNET-61850 Series B
Length (Depth)	4.20" (106.7mm)	4.20" (106.7mm)	4.37" (110.9mm)
Width	1.25" (31.75mm)	2.00" (50.8mm)	2.06" (52.4mm)
Height	5.37" (136.4mm)	5.37" (136.4mm)	5.52" (140.1mm)

As shown above, when replacing either of the End-Of-Life PLX8x-MNET-61850 modules with a new **PLX82-MNET-61850** Series B module, the enclosure size is slightly larger (especially when converting from a PLX81 to a PLX82 due to the $\frac{3}{4}$ " Width increase).

Please take into account the larger size of the new **PLX82-MNET-61850** Series B module.

ProSoft MNET-61850 Configuration Manager Software

Starting with version 2.0.2.4 of the **ProSoft MNET-61850 Configuration Manager** there is now another option under the module selection page as shown below:

The screenshot shows the 'ProSoft Gateway Configuration' window. On the left, under 'Select Module:', three radio buttons are listed: 'PLX81 - 1 Port', 'PLX82 - 2 Ports', and 'PLX82 - 1 Port'. The 'PLX82 - 1 Port' option is selected and highlighted with a red rectangle. To the right of the radio buttons is a small image of the ProSoft hardware module. Further right, there is a 'Project Name:' field containing 'Project 1' and a 'Notes:' text area. Below these, there is a checked checkbox for 'Optimize MNET Command mappings'. The 'Ethernet Port E1' section contains fields for IP Address (192 . 168 . 0 . 250), Subnet Mask (255 . 255 . 255 . 0), Default Gateway (192 . 168 . 0 . 1), and NTP Address (192 . 168 . 0 . 1). There are also checked checkboxes for 'IEC 61850' and 'Modbus TCP/IP', and an 'NTP Update Time' field set to 0. The 'Ethernet Port E2' section is grayed out, with its IP Address field set to 192 . 168 . 1 . 250, Subnet Mask (255 . 255 . 255 . 0), and Default Gateway (192 . 168 . 1 . 1). The 'IEC 61850' and 'Modbus TCP/IP' checkboxes are unchecked.

With the selection of the “PLX82 – 1 Port” you will notice that Ethernet Port E1 is used for both IEC 61850 Communications and Modbus TCP/IP communications and the settings for Ethernet Port E2 are grayed out. This option available in the PLX82-MNET-61850 Series B modules is what will allow the module to operate on a single Ethernet subnet for both protocols and will allow for the replacement of PLX81-MNET-61850 Series A modules.

Converting Configuration Files from PLX81 to PLX82-MNET-61850

When converting a configuration file from a PLX81-MNET-61850 Series A module to the new PLX82-MNET-61850 Series B modules, you will need to load the configuration file into the latest version of the ProSoft MNET-61850 Configuration Manager software. It will load as a PLX81-MNET-61850 module.

Next change the selection type from “PLX81 – 1 Port” to “PLX82 – 1 Port”, and you will now be able to download the configuration file to the new module.

Additional questions

For any additional questions not covered within this document, please contact ProSoft Technical support.