

**TN0017**

**Firmware compatibility in Pyramid G2 products**

## G2 products

The Pyramid G2 electronic products all have NIOS II processors implemented in an FPGA on a mezzanine board. These products are:

- A560 ten port loop controller / real time controller
- A360 dual port loop controller
- I128 128+1 channel electrometer / real time controller
- I128r5 128+1 channel electrometer / real time controller
- I128S 64 channel electrometer
- I6400 64+1channel charge electrometer
- F3200E fast 32 channel current electrometer
- F460 fast 4-channel current electrometer
- C400 four channel pulse counting detector controller

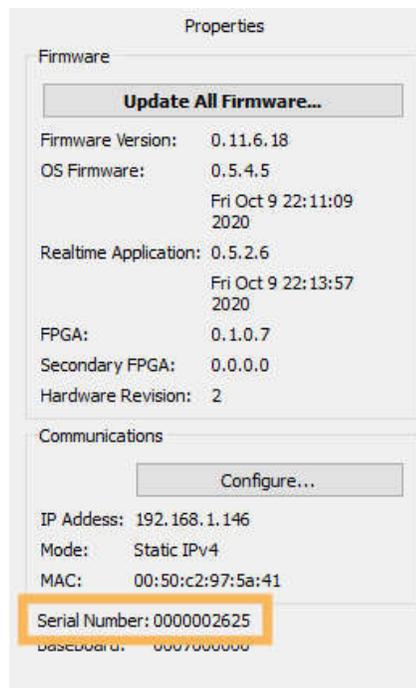


## A60 and A61 processor boards

There are two versions of the processor board, designated A60 and A61. The A61 has extra memory and is used in products that require it. Firmware must match the processor board type. Loading and starting incompatible firmware will result in a non-functional device. If you realise that you are in the process of loading the wrong version of the firmware, do not re-boot the device. Repeat the upload with compatible firmware. If the device is rebooted with incompatible firmware and can no longer function correctly, the product must be returned to Pyramid or one of its qualified agents for recovery.

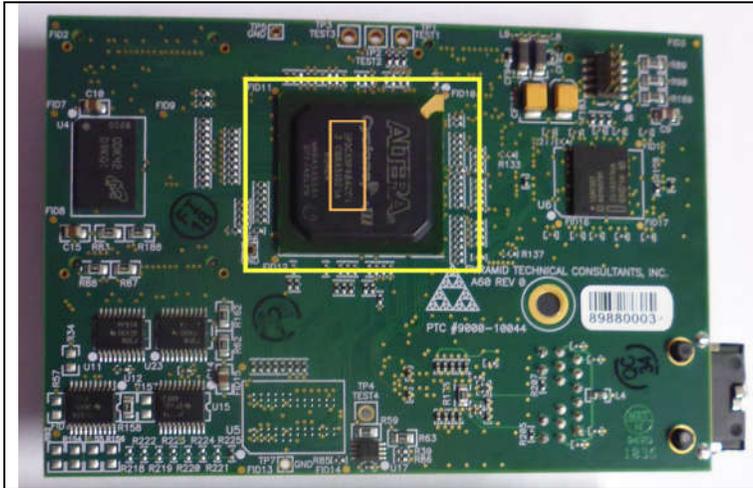
## Checking the processor board type

The easiest way to check the processor board type in the unit is to contact Pyramid citing the serial number of the processor board. This number is displayed by the Properties tab of the PTCDiagnosticG2 software.



The number can be checked in the company database to determine whether it is an A60 or A61 board. You can also check the currently installed firmware version and refer to the table on the next page.

The A60 and A61 boards are visually very similar but can be distinguished if you are still uncertain by close inspection of the FPGA chips after removing the top cover of the 19" rack mounting products or the outer case of the non-rack mounting products. Only do this if you have a clean ESD-safe working environment. The A60 or A61 board mounts the Ethernet connector and is always mounted next to the rear connector panel where there is an aperture to expose the RJ-45 jack.



A60                      Altera Cyclone 3 **EP3C55**

A61                      Altera Cyclone 3 **EP3C80**

## Firmware compatibility

The following versions are recommended as at February 2022.

<b>Product</b>	<b><i>If fitted with A60</i></b>	<b><i>If fitted with A61</i></b>
<b>A360</b>	Current version <b>0.11.6.19</b>	Current version <b>0.12.6.19</b>
<b>A560</b>	Versions x.10.xxx.xxx 0.10.128.40 and onward Current version <b>0.10.133.44</b>	Versions x.13.xxx.xxx 0.13.139.149 and onward Current version <b>0.13.142.112</b>
<b>I128</b>	Versions x.11.xxx.xxx 0.11.137.25 and onward Current version <b>0.11.142.30</b>	Versions x.15.xxx.xxx 0.15.314.279 and onward Current version <b>0.15.317.243</b>
<b>I128r5</b>	As I128	As I128
<b>I128S</b>	As I128	As I128
<b>I6400</b>	Current version <b>0.7.3.33</b>	Not applicable
<b>F3200E</b>	Current version <b>0.7.39.20</b>	Not applicable
<b>F460</b>	Current version <b>0.11.6.18</b>  Special fiber loop slave model: 0.8.4.43.	Not applicable
<b>C400</b>	Current version <b>0.12.6.96</b>	Not applicable