



ADVANTAGES TO FIRMWARE 6 (FW6) FOR THE DP5 PROCESSOR

- 1) Supports all operating systems (Win XP – Win 7) 32 and 64-bit with the WinUSB driver through Windows Update. See <http://www.amptek.com/winusb.html>.
- 2) Uses text based configuration instead of the packet style. You can send only one command if necessary, and you can open the configuration file and clearly read the settings (e.g. TPEA=2.400 is a peaking time of 2.4 us).
- 3) The communications protocol is the same for all three interfaces, RS232, USB and Ethernet.
- 4) The USB interface is much faster less than 5 ms for 1k channels compared to 12 ms in FW5.
- 5) All new digital processing improvements and any other fixes are only done to FW6. FW5 is now “frozen.”
- 6) Ethernet is available on FW6 (not available on FW5).
- 7) List Mode and other custom OEM functions are only be available with FW6.
- 8) FW6 features more robust communications (all packets are acknowledged, checksums, much more error checking than in FW5, etc.).
- 9) FW6 supports firmware updates over all interfaces. FW5 can only accept firmware updates via RS232.
- 10) FW6 offers many more peaking time options; pseudo-cusp shaping; greater precision for fine gain and thresholds; SCA counter packets; generic I2C transfers.
- 11) The PX5, DP5G, and Gamma-Rad5 products only support FW6. If software is developed for the DP5 with FW6, it will work with PX5 and DP5G although additional commands would be needed. If custom code is developed for the DP5 with FW5 it will NOT work with the PX5, DP5G, and Gamma-Rad5 or of course a DP5 with FW6.
- 12) Various diagnostic packets are available in FW6 to aid troubleshooting and software development.

NOTES:

The DP5 is the only product that can operate with both FW5 and FW6. The PX5, DP5G, and Gamma-Rad5 only support FW6.

If you have written custom software for the DP5 with FW5, you will have to re-write the interface portion using the new Software Developer’s Kit (SDK). The FW5 DPP API is NOT compatible with FW6. For this reason Amptek supplies a firmware uploader so that you can easily go back and forth between the firmware versions. This will allow you to develop new software on your own timetable.

DPPMCA Display and Acquisition Software (this has replaced ADMCA which only works with FW5): <http://www.amptek.com/dppmca.zip>

Firmware Loader: <http://www.amptek.com/uploader.zip>

FW6 SDK: http://www.amptek.com/dp5_sdk.zip