

LINUX - Drivers

for Models P7886(S,E), P7887, P7888 and P7889

Features:

- LINUX Driver to control up to four boards of the Model P7886(S,E), P7887, P7888, P7889 family.
- Library and Sample program with Source code included.
- Clearly structured software interface defined in one header file, separated parameter structures for Board Properties, General Settings, Preset Parameters, Digital I/O and DAC Settings, and Acquisition Status.
- Function library with source code allows to set and get all acquisition parameters, start, halt, erase, get status, sweep.
- Sequential mode with fast switching of acquisition segments implemented.
- Control of the Digital Input / Output and the DACs for the threshold of the input discriminators.
- RAM for spectra accumulation can be allocated from the library or the user program.
- Sample console-program with source code contains command interpreter, can be easily expanded by the user to implement customer-specific features.
- Available for all Multichannel Analyzers of the P788x family: Model P7886(S,E), P7887, P7888 and P7889.
- The driver is presently available for LINUX Kernel versions up to 2.6.32 on the x86 platform.
- Free updates will be provided for future kernel versions, if possible.
- DMA and Multithreading is implemented. Performance measurements with a P7887 on a PC showed a throughput of $11.5 * 10^6$ events per sec, the same rate was also reached on this computer under Windows XP.

Description:

LINUX is now established as a very stable operating system especially for the x86 PC hardware and is winning over enthusiastic adherents in many application areas. Especially customers developing their own applications like LINUX for its performance and stability and free compile- and debugging tools.

We therefore support now with this new LINUX software interface especially those customers who want to use our boards of the MCA-3 and P788x family on the x86 LINUX platform and adapt it to their own customer-specific applications.

The kernel device driver module supports up to four boards in one computer. A ready-to-use library module with source code provides direct access to the hardware and all board capabilities. The software interface is clearly structured and defined in one header file. A short console sample program with source code shows how to use the library. It contains a simple command interpreter, can be immediately used for actual measurements and easily expanded for own applications.

A manual describes in detail how to use the software interface.



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