DF PROFINET IO

PROFINET IO Controller/Device Board

KUNBUS
■ industrial communication

DF PROFINET IO
HIGH PERFORMANCE, FLEXIBLE AND PRACTICAL

PROFINET is the Industrial Ethernet Standard from PI (PROFIBUS & PROFINET International) which has become the market-leading standard over the last five years. Excellent plant-wide networking, fast data communication and long-term availability are just a few of the many benefits.

DF PROFINET IO, the newest in the company's line of PC cards, is a high performance PN IO Controller/Device board in PCI, CompactPCI and PCI-Express format. With this new improvement it is now possible, for the first time, to operate large networks without any performance restriction.

The DF PROFINET IO board operates as a PN IO Controller and/or as PROFINET IO Device. Because its efficiency is so huge the new board achieves as PN IO Controller operations of 64 PROFINET devices per millisecond in the performance class RT. A second independent Ethernet interface is optionally available, so the board can therefore operate as PROFINET IO Device at the same time. A stand-alone operation, such as PN IO Device is also possible.

In PN IO Controller mode, among the cyclic data traffic, all acyclic read/write/diagnosis and alarm functions are supported and of course compatible to the PN IO standard of PROFIBUS & PROFINET International, the umbrella organization. The size of the process image of the card's I/O data is 16 Kbyte (8 Kbyte input and 8 Kbyte output data). The PROFINET configuration data is stored in a failsafe Flash Type Memory. The Controller board also supports

PROFINET supervisor functionality, making it possible to scan the network as well as to control the names and IP addresses of various PROFINET devices. KUNBUS' CONFIGURATOR III is available for compilation and download of the PROFINET configuration. The comfortable and fully graphical tool minimises the configuration effort, while extensive download, analysis and control functions permit an efficient checkup of the configured PROFINET IO network.

In PN IO Device mode the min. cycle time is 1 millisecond with a max. IO data size of 1440 bytes. The board does not need to be configured but instead receives the IO configuration directly from the PN IO controller, which significantly simplifies putting it into service. A special feature supported by the board is the PN IO Shared Device mode, which allows multiple PN IO controllers (up to 20) to access allocated

IO buffers within the device simultaneously. This allows a very flexible integration also into large and complex PN IO networks. The operation modes PN IO Controller and PN IO Device can be run simultaneously.

Drivers for all current operating systems (WINDOWS and LINUX) are available and an OPC UA server is planned for a later release date. A LabVIEW™ PROFINET VISA driver is already available.

LabVIEW™ PROFINET VISA DRIVER
The LabVIEW™ PROFINET VISA Driver equips National Instruments' LabVIEW™ with a real-time PROFINET IO connection. The installation in a classical PC system under LabVIEW™ for Windows is just as likely as in a real-time PXI system under LabVIEW™ RT, for example as a high performance PAC system for time-critical test applications or industrial automation applications.

TECHNICAL DATA

Available Types	PCI, CPCI, PCIe in preparation
Operation Mode	PN IO Controller, PN IO Device
PROFINET IO Performance Class	Class B ($\geq$ 1 ms)
Ethernet Interface	2 x RJ45 100 Base-T(X)