

Atlas 4NSD

Multifunction gateway process computer

Atlas 4NSD is a multifunctional gateway process computer for monitoring and management in power and industrial plants with the ability to collect data and control slave devices, which gives the possibility of complete monitoring of all parts of the plant, with full support for the superior SCADA system.

Atlas 4NSD is based on the Real Time Linux (RTL) platform, which provides full support for the operation of a large number of slave devices, and SSH services give it exceptional portability and connectivity to more advanced hardware platforms. Full support for PLC algorithms is provided through FBD and ST editors according to the IEC 61131-3 standard, as well as a PLC debugger. Reliable collection of data from different devices using different routes and protocols. Collected and processed data can be presented locally (HMI) and/or sent to a supervisory SCADA server.

Communication protocols

It is possible to communicate with several subordinate stations through the same port, namely: through the serial port (with and without modem) and through the network port (using UDP and TCP/IP network protocols), and then further using appropriate media converters: radio and wireless connection, optical transmission paths, etc. Time synchronization: NTP, PTP network protocols. Maximum flexibility in connecting different transmission paths with different communication protocols is enabled.

Supported protocol types:

• IEC 60870-5-101	Master and Slave
• IEC 60870-5-102	Master
• IEC 60870-5-103	Master
• IEC 60870-5-104	Client and Server
• IEC 61850, Edition 2	Client and Server
• MODBUS RTU	Master and Slave
• MODBUS TCP	Client and Server
• SPA	Master
• GOOSE	
• ProfiBUS	Master
• DNP3	Master and Slave
• NEO	Master
• FINS	Master
• DLMS	
• PTA-ATP Net	Master and Slave
• ASEA/SINDAC 9000	
• R3E4, RC1	
• BACNET	Master
• ANSI C12.21	
• PROFINET	
• Hart	Master



Possible system implementations

- Management in power industry and other industries:
 - Integration of microprocessor protections
 - Integration of IED devices
 - RTU integration
 - Connecting to different SCADA systems
- Traffic management
- Access control
- Fire protection
- Video surveillance

Standard hardware platform:

- Intel® Celeron® 6305/6305E 1.8 GHz / Intel® Core™ i5-1145G7E 1.5 GHz
- System memory: 2xSO-DIMM DDR4 3200MHz (8GB pre-installed, do 64GB)
- Power supply: 12~28 V DC/85...264 V AC or 80...370 V DC
- Consumption: 12V@6,98A
- 2xUSB 3.2 Gen 2, 2xUSB 2.0
- Ethernet 4xRJ-45 (1x2.5GbE by Intel® I225LM 3x2.5GbE by Intel® I225V; colay I225LM)
- COM port: 2xRS-422/485 with AFC (DB-9, with 2.5kV isolation); 2xRS-232 (DB-9, with 2.5kV isolation)
- Display: 1xHDMI, 1xDP++
- Watchdog Timer (Programmable 1~255 sec/min)
- Expansion Slots: M.2
- Drive Bays: 1x2.5" SATA 6Gb/s HDD/SSD bay reinstalled min. SSD 128GB
- Passive cooling
- LEDs: 1xPower LED (green); 1xHDD LED (yellow)
- Dimensions (cm): 8.1x15x19
- Operating temperature: -20°C~60°C
- Humidity: 10% ~ 95%

