proza *LKKU*

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PROZA LKKU 1122C

COMMUNICATION GATEWAY
PRODUCT GUIDE

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Document Approval

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Technical Review:			
Quality Review:			
Project director:			

Revision History

Document Changes			
Date	Rev	Author/Modifier	Description of Changes
04.05.2016	1.0	Domagoj Ožanić	Initial document

PROZA LKKU 1122C COMMUNICATION GATEWAY

Compact industrial communication gateway

Features:

- Linux KKU Communication Gateway
- Linux Real-time
- Optimized Linux industrial setup
- LKKU tools
- Fan less design without any internal cabling or moving parts
- 1 x mini PCIe expansion slot (used by SSD)
- Intel Atom N2600 dual core CPU 1.6 GHz
- Single VGA display (1920x1200)
- No audio connectors
- 4 GB DDR3 RAM 800 MHz
- SATA 30 GB miniPCIe industrial SSD hard drive
- 1 x gigabit network
- 2 x RS232 ports, 2 x RS-232/422/485 ports
- 4 x USB 2.0 ports
- Operating temperature -20 ~ 60°C
- Power Consumption 9.47 W
- Input voltage 12V DC
- IP40
- 24 Watt PSU Traco Power TCL 024-112 (12V/2A)
- Hardware based on Advantech ARK 1122C

More information about hardware is available in separate detailed hardware specification.

Real-Time Linux

ORDER CODES		
PROZA LKKU 1122C Communication Gateway	PNLKKU1-1122C-S6A1E	
ACCESORIES ORDER CODES		
USB 2.0 Gigabit network card	PNLKKU1-1122C-USB-NETSP	

SOFTWARE ORDER CODES		
Number of process points	PNLKKU1SW-PP(nnn)	
Redundancy	PNLKKU1SW-RDN	
Communication protocols		
IEC 60870-5-101 Master	PNLKKU1SW-101M	
IEC 60870-5-104 Master	PNLKKU1SW-104M	
IEC 60870-5-104 Slave	PNLKKU1SW-104S	
IEC 60870-5-103 Master	PNLKKU1SW-103M	
IEC 61850 MMS Client	PNLKKU1SW-61850C	
MODBUS RTU Master	PNLKKU1SW-MODBUSRM	
MODBUS RTU Slave	PNLKKU1SW-MODBUSRS	
MODBUS TCP Master	PNLKKU1SW-MODBUSTM	
MODBUS TCP Slave	PNLKKU1SW-MODBUSTS	

SOFTWARE LICENSE INFORMATION
Number of process points This is the total number of process points in database. In license code it is presented as "nnn" which is the exact number of process points. **This license is mandatory.**
Redundancy Redundant system specification.
Communication Protocols License for needed communication protocols. License is counted per communication protocol with unlimited number of lines or stations. However maximum number can be limited by CPU and memory limitations.
More information about PROZA LKKU software is available in separate documentation.

HARDWARE ACCESORIES

Single port Gigabit USB 2.0 network card

Startech USB21000S (ASIX - AX88178 chipset)

Several additional gigabit network ports can be added in USB slots. Maximum speed is limited to USB 2.0 standard (480 Mbps) Temperature range of network card is suitable for industrial use (0 – 70 ℃).

24 Watt PSU

Traco Power TCL024-112 (12V/2A)

External TRACO power supply is delivered with every computer. Power supply redundancy is supported by power supply. One PSU can supply two systems. In redundant configurations it is recommendable to connect both PSU to both computers.
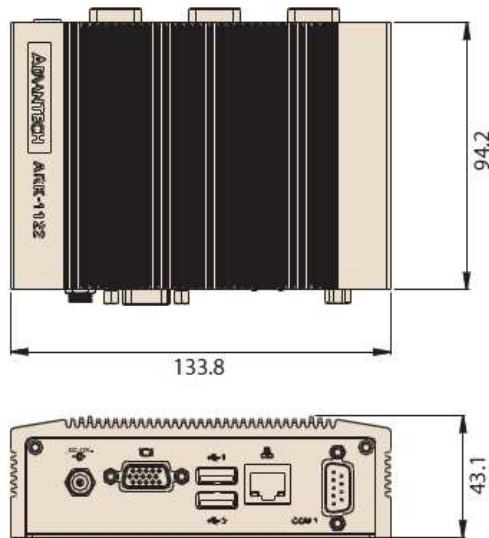

HARDWARE INSTALLATION

DIN Rail/Wall mount plates enables ARK 1122C to be installed in horizontal or vertical position since there are no moving parts inside the case. If installation is done horizontally or vertically at least 10 cm of free space must be ensured for the proper heat dissipation over the main heat sink.

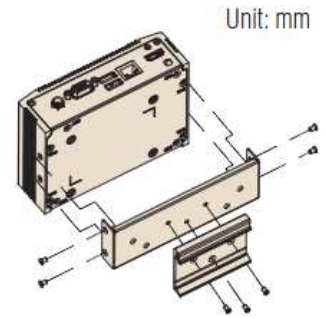Although vertical installation positions are most effective considering heat dissipation.

When mount plates are fixed to metal of the cabinet the recommendation is not to use supplied rubber in between because metal to metal contact will improve heat dissipation from ARK 1122C to the metal construction of the cabinet.

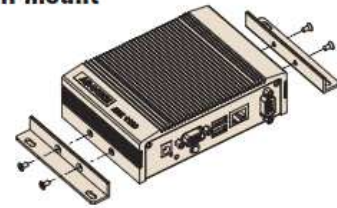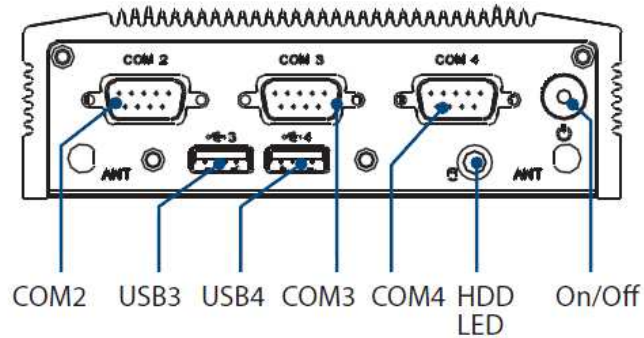Always do proper ground connection of ARK 1122C.
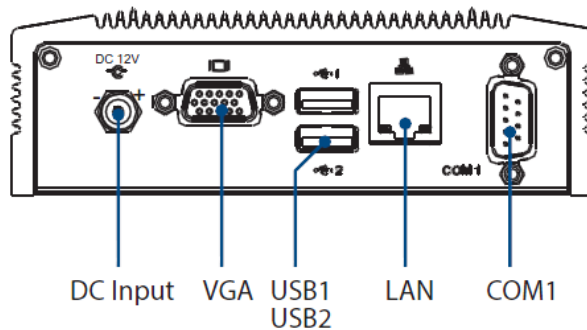
Dimensions

DIN Rail

Unit: mm

Wall mount

Front Panel External I/O Mechanical Layout/Drawing

COM2 USB3 USB4 COM3 COM4 HDD LED On/Off

Rear Panel External I/O Mechanical Layout/Drawing

DC Input VGA USB1 USB2 LAN COM1

HARDWARE MAINTAINANCE

Since there are no moving parts or fans inside ARK 1122C maintenance is reduced to the following procedures:

1. Every 3-5 years it is needed to replace thermal paste of the main heat sink on the top of the case. Thermal paste is losing its characteristics and should be replaced because main heat sink is very important for ARK 1122C to function properly.
2. SSD disc should be replaced approx. every 5 years. The period can be much longer since it depends on the usage (number of write operations). SSD discs are with time shrinking in space taking out of use bad sectors.

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