

# RTU32 RTU/PLC

Bridging the gap between Industrial PC, RTU & PLC

## Overview Data Sheet

27 November 2012



- 500MHz 32bit x86 CPU
- 128MB RAM, 128MB FLASH
- 2x LAN, 2x Serial, 2x USB
- Embedded Web Server/HMI
- Sequence of Events Recorder
- Modbus/DNP3/IEC61850
- Fast IO scan time (<5ms)
- 12VDC/24VDC/240VAC P/S
  - Integrated UPS option
- 16DI, 4DO, 4AI, 2AO
  - IO expansion (>500 IO)

### Overview

The RTU32 Series is based on an x86 500MHz 32-bit, industrial embedded CPU platform, providing flexible RTU/PLC functionality for a wide range of monitoring and control applications in the utility and infrastructure markets. Physical communication interfaces include 2x independent LAN 10/100MBit/s port, 1x RS232, 1x RS232/RS485 COM ports (option for up to 6x serial ports) and 2x USB ports. The USB ports allow easy expansion of memory and/or ports via memory sticks, USB-Ethernet interfaces etc. The RTU32 supports external communication devices like data radios, GSM/GPRS/3G, Wi-Fi and PSTN modems and also includes VGA monitor and keyboard/mouse interfaces, allowing flexible local and remote HMI display.

The RTU32 has a flexible and open Windows CE Embedded Real Time Operating System, which combined with the STRATON IEC61131-3 logic 'engine' allows the RTU32 to be used in demanding applications where advanced control, communication and secure data handling is required. The RTU32 includes a variety of standard and open serial and IP style protocol interfaces such as Modbus, IEC61850, IEC60870 and DNP3. A web server allows for rapid setup of the RTU configuration parameters (IP address, Time Sync options, IO options etc) and it also allows viewing of RTU data in a graphical format. Database and logic functions for management of control and communication are configured in the STRATON IEC61131 Workbench – that provides a modern, flexible, integrated development environment.

# RTU32

## Technical Data - Overview

CPU	32bit AMD Geode LX800 at 500MHz, WinCE 6.0 Operating System
Memory	128MB SDRAM (supports up to 512MB RAM), 128-512MB removable CompactFlash card
Real time clock	Integrated and battery backed RTC with 1mSec resolution
COM ports (2-6)	1x RS232 DB9M, 1x RS232/RS422/RS485 DB9M, option for 6x serial ports
LAN port (2)	2x independent 10/100Mbps RJ45
USB ports (2)	USB2.0, Type A
IO Local Bus	RJ45 for local IO expansion modules (add up to 32 IO modules per RTU, >500 IO)
LED Indications	Power, System, Run, I/O, COM1, COM2, LAN1, LAN2, one for each DI and DO.
Local HMI Interface	VGA (high density DB15F), PS/2 (KB/mouse/touch screen can also connect via USB)
Isolation – Digital IO	2kV AC (input or output to electronics)
Isolation – Analog Inputs	500V (input to input) – differential, flying capacitor inputs, with solid state multiplexer
Temperature - Ambient	Storage: -40 to +85C, Operation: -20 to +60C
Climatic Tests – IEC60068-2	Cold: -10C, 8 hours, Dry Heat: +55C, 8 hours, Damp Heat: 40C, 95% RH 8 hours
Mounting / Dimensions	DIN rail or wall mount, 189mmW x 94mmH x 101mmD, weight approx. 1.5kg
Housing / IP Rating	Black corrosion protected aluminium, IP20
Digital Inputs (16)	16x opto isolated inputs 10-30VDC, can also function as 100Hz input counters
Digital/Relay Outputs (4)	4x potential free SPST-NO contacts (individual commons)
Analog Inputs (4)	4x isolated 14bit analog inputs, software configurable 0-5/10V, 0/4-20mA, -10-+10V
Analog Outputs (2)	2x sourced 14bit analog outputs
Power Supply Options (3)	110-240VAC – optional with 12V DC UPS/battery charger 24-48VDC – with 12VDC output
Wide range of PLC/RTU protocols	Modbus TCP/Serial (Master & Slave), DNP3 with Secure Authentication TCP/Serial (Master & Slave), DNP3 WITS, AB Ethernet/IP, IEC60870-101/103/104, IEC61850 (Client & Server), PROFIBUS DP Master, ProfiNET Client, SNMP Server/Agent and SNMP Client

### RTU32 Order code example

RTU32 PLC/Industrial Controller

Basic – without IO  
16DI/4DO/4AI/2AO

500MHz x86 CPU

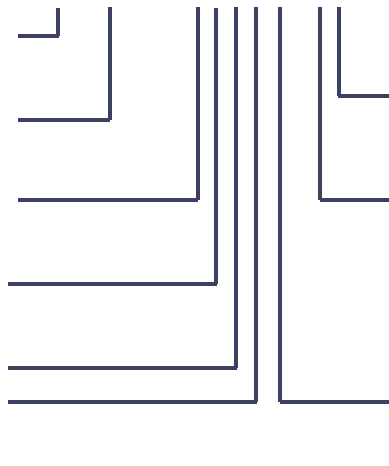
128MB RAM/Flash  
128MB RAM/Flash + 1MB NVRAM

Standard Configuration

Branding – Brodersen

### UCN-26IOA /2 2 1 B 01 30.D

UCN-  
B  
26IO  
/2  
2  
3  
1  
B



.0 No IO on RTU  
.D Standard Analog/Digital Range  
10 12VDC Power Supply  
20 110-240VAC Power Supply  
30 24-48VDC Power Supply  
01 COM1, COM2: RS232  
02 COM1-COM6: RS232  
03 COM1,3-6: RS232, COM2: RS485  
04 COM1: RS232, COM2: RS485  
05 COM1,2: RS232, PROFIBUS DP M  
06 COM1: 232, COM2: 485 DP M

Additional product information is available from our website, or from the authorised distributor in your region.

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