

RB300

RB300 is a computer designed for use in control and automation systems. RB300 is powered by Raspberry Pi Compute Module 3 and Linux system. Ready to use with the CODESYS® development system and the IEC 61131-3 programming languages.

Features

- **Powered by Raspberry Pi 3 CM**
BCM2837 processor
1Gbyte RAM
4Gbyte eMMC Flash
- **A lot of inputs and outputs**
8 x digital opto-isolated inputs
4 x dry contact inputs
8 x open drain outputs
4 x analog inputs 0-10V
2 x analog outputs 0-10V
- **Rich set of interfaces**
3 x USB 2.0
CAN
1-Wire
RS-232
RS-485
Ethernet
HDMI
- **Real Time Clock**
Real Time Clock with supercapacitor backup
- **Robust design**
Two watchdogs
Meets requirements of EN 61326-1:2013 for basic and industrial electromagnetic environments
- **Created for long life**
Designed, developed and produced in European Union
No moving parts
No electrolytic capacitors
- **Designed for low power consumption**
High efficiency DC/DC converters



- **Peripherals power supply control**
- **Integrated UPS**
Supercapacitor based UPS for reliable operation
Safe shut down procedure
Power button
- **Linux on board**
Small and stable distribution that is fully compatible with official Raspbian
Full support for all interfaces
- **Easy programmable**
Ready to use **CODESYS®** Runtime with complete HVAC functions libraries
IEC 61131-3 programming languages
- **DIN rail enclosure**
DIN rail enclosure with optional wall mount bracket
- **Community Support**
Huge Raspberry Pi Community support

Applications

- **Control and automation systems**
- **Home automation**
- **Building management systems**
- **Process control**
- **Industrial automation**
- **Machine control**
- **Industrial control networks**
- **Monitoring**

Technical Specifications

CPU & memory		
SoC	BCM2837, ARM Cortex A53 core, 1.2GHz	
RAM memory	1 Gbyte	
Flash memory	4Gbyte eMMC	
Power supply		
Supply voltage	15 ... 28V DC	
Power consumption	Conditions	Supply current @ 24V
	CPU 100% load, Ethernet 100Mbit active	210 mA
	CPU 1% load, Ethernet no active	75 mA
	CPU 1% load, +3V3 peripherals switched off	40 mA
Interfaces		
Ethernet	1 x Ethernet 10/100-Mbit, Auto MDI-MDIX, RJ-45	
CAN	1 x CAN, MCP2515, terminal blocks	
1-WIRE	1 x 1-WIRE, DS2482S-100+, terminal blocks	
RS-232	1 x RS-232 (RXD, TXD, RTS, CTS), DB9 male	
RS-485	1 x RS-485, terminal blocks	
USB	3 x USB host 2.0 Type-A, 1 x Mini USB 2.0 Type B	
Inputs & Outputs		
Dry contact inputs	Channels	4
Digital opto-isolated inputs	Channels	8
Open drain outputs	Channels	8
Analog inputs	Channels	4
Analog outputs	Channels	2
Standards		
EU standard	EN 61326-1:2013	
Environment		
EMC	EN 55011 group 1 class A, EN 55011 group 1 class B	
Operating Temperature	0 °C ~ 50 °C	
Operating Relative Humidity	5 ~ 95%, non-condensing	
Storage Temperature	-25 °C ~ 80 °C	
Protection Rating	IP20	
Miscellaneous		
Watchdog	Two watchdogs: WDT 1: SoC BCM2835 built-in WDT 2: connected to GPIO	
Dimension	158 x 114 x 59 mm (including connectors)	
Enclosure	Mount	Din-rail, wall mount
	Material	ABS UL-94-HB
Weight	295g	