TECHBASE updates ModBerry M500 series

The latest version of Raspberry Pi development board, **Raspberry Pi Model 3 B+**, is now available as a platform for [**ModBerry M500**](#) industrial computer series. **Raspberry Pi 3 Model B+ (Plus)** offers has more computing power and much greater possibilities in the field of wired and wireless communication.

Updated features of ModBerry M500

The biggest new feature introduced in 2016 is the Raspberry Pi 3 wireless support. Now the creators took a step forward and refined the solution. The new **ModBerry M500** powered by **Raspberry Pi 3 Model B+** - supports two-band Wi-Fi (2.4 GHz and new 5 GHz), Bluetooth version 4.2 and Ethernet over USB 2.0 (up to 300 Mb/s). Upgraded ModBerry M500 series is powered by more powerful heart, in the form of a Broadcom **BCM2837B0** quad-core processor clocked at **1.4 GHz**. Power-over-Ethernet support has also appeared, and heat dissipation has been improved.

PREVIOUS ModBerryM500	NEW ModBerryM500
Broadcom BCM2837 quad-core 64-bit ARM-8 Cortex-A53 1,2 GHz	Broadcom **BCM2837B0** quad-core 64-bit ARM-8 Cortex-A53 **1,4 GHz**
WiFi 150 Mbps 802.11 b/g/n 2,4Ghz	WiFi Dual Band 802.11 b/g/n/ac 2,4GHz **& 5GHz**
Bluetooth Low Energy BLE 4.1	Bluetooth Low Energy BLE **4.2**
HDMI HD 1080px / 30 fps	HDMI HD 1080px / 30 fps **H.264 1080p30 OpenGLES 1.1, 2.0**
10/100 Mbps Ethernet interface	**Gigabit** Ethernet interface **(max. 300Mbps)**
	Power over Ethernet with an additional overlay

ModBerry M500 vs ModBerry 500(CM3)

Standard **ModBerry 500** series is based on **Raspberry Pi Compute Module 3**, an industrial version of commercial Raspberry Pi branch, with flagship Raspberry Pi 3 Model B+. Used Compute Module is more suitable for custom products, such as our ModBerry 500 industrial computer, which can be adapted to customer's need with wide range of extension modules from TECHBASE. ModBerry equipped with CM3 can be configured to support chosen number of RS-232/485 serial ports, Digital and Analog I/Os, various setup of Ethernet/USB ports, CAN interface, 1-Wire and wireless modems: 3G/LTE, GPRS/EDGE, GPS, LoRa, ZigBee, Wireless M-Bus, NarrowBand-IoT and many more.

CODESYS support for ModBerry series

ModBerry M500 and ModBerry 500 series, powered by Raspberry Pi are supported by the **CODESYS development platform**. It enables the device's programming using languages compliant with IEC 61131-3, i.e. IL, ST, LD, FBD, SFC and CFC language not defined in IEC. Such varied possibilities allow you to choose your favorite language or learn a new one. Configured ModBerry is treated by CODESYS like any other driver. Connection can be made on the cable, as well as wirelessly.

CODESYS is a complex environment and allows you to use wide range ModBerry capabilities. At the programmer's disposal, the GPIO port is handed over, its digital inputs and outputs can be operated, as well as using the SPI, I²C and 1-wire protocols. In addition, the implementation of protocols using Ethernet and RS-485 interfaces, such as **Modbus RTU and TCP, OPC, EtherCAT, Profinet**, is offered. The environment also allows you to create a visualization that runs in a web browser.

The updated M500 availability

Currently the updated M500 samples, are available on demand. Please contact TECHBASE's sales department via **http://modberry.techbase.eu/** contact form with specific requirements to receive an offer that will suit the project's needs. Since the M300 update is still under the development, the development, specific datasheets will be available in mid-June. The pricing of each unit may vary on the basis of configuration and order quota.

TECHBASE is a first company in the world, that developed and manufactured an Industrial IoT solution based on Raspberry Pi. **ModBerry 500**, the first device powered by first gen. **Compute Module** from Raspberry Pi Foundation revolutionized the market of industrial automation.