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PRESS RELEASE

Multiprotocol Support (PROFINET, EtherNetIP und EtherCAT) for MCU STM32F, G, H, L Serie from ST Microelectronics

port extends the connection of the SoM modules (Stack on Module) to the STM32 MCU family from ST Microelectronics. With the firmware extension “ μ GOAL”, all derivatives of the STM32F, STM32G, STM32L and STM32H families can now be connected to the SoM (Stack on Module) via SPI. The user is now able to offer PROFINET (incl. MRP), EtherNetIP (incl. DLR) and EtherCAT for all named derivatives.

The firmware extension μ GOAL describes a software package that enables the integration of the SoM module in applications without using a complete GOAL framework platform. As a result, for example, 8 bit CPUs with 2KB RAM can also be connected via SPI with the multi-protocol support technology SoM (Stack on Module). This makes it possible to enable low-cost or low-performance CPUs to be integrated into PROFINET, EtherNetIP and EtherCAT environments quickly and easily. μ GOAL mimics the required functionality from the GOAL framework, which is specifically required by the application controller framework. It is configurable in a number of ways to ensure compatibility with a wide variety of destinations. Most of the CCM-specific examples for fieldbus applications can be reused without modification.

By using the module, no investment costs in the form of licenses are necessary. The module is cUL / CE certified. The PROFINET, EtherNetIP and EtherCAT protocols are “PRE-Certified” and therefore easy to integrate.

An extensive tool chain such as the ICE (Industrial Communication Explorer - is included free of charge) and the ICC (Industrial Communication Creator - optionally available) make integration much easier.

For simple testing, port GmbH offers EVAL kits based on the STM32F4 or STM32F7.

about port GmbH

port is a leading supplier of industrial real time communication technologies like CANopen and Industrial Ethernet including the PROFINET, EtherNet/IP, EtherCAT POWERLINK, CC-LinkIE TSN, and TSN protocols. port GmbH has been located in Halle/Saale since 1990. For more than five years port has successfully provided Industrial Ethernet Technology such as PROFINET, EtherCAT, POWERLINK, EtherNet/IP and CC-LinkIE TSN. port offers stacks, tools, workshops and integration support as well as custom hardware and software development, including manufacturing of electronic devices and systems.

Keywords: STM32H, STM32G, STM32F, STM32G. ST Microelectronics, GOAL, µGOAL PROFINET, EtherNet/IP, EtherCAT, MRP, DLR, System on Module, Stack on Module, embedded PROFINET Module, embedded EtherNet/IP Module, embedded EtherCAT Module, Communication Module PROFINET, Communication Module EtherNet/IP, Communication Module EtherCAT

Links

µGOAL: <https://portgmbh.atlassian.net/wiki/spaces/IRJ45SOM/pages/138739774/004+-+uGOAL+-+Introduction>

ICC - industrial communication creator:

<https://portgmbh.atlassian.net/wiki/spaces/ICCX/overview>

ICE – industrial communication explorer:

<https://portgmbh.atlassian.net/wiki/spaces/ICE/overview>

EVAL Kits: <https://www.system-on-module.com/evaluation-boards/stm32f4-eval-kit/>

SoM: <https://www.system-on-module.com/product-details/som-iot-rin32m3ec/>

Pictures

