

AN EXCELLENT MATCH: YOUR PROJECT & OUR M-U-T EXPERTS

Our goal is to be the partner our customers want to seek out every time they face challenges that can be resolved using optical methods or automation. We are part of NYNOMIC AG. All sister companies within the Group are united by their enthusiasm for photonics. Together, we solve challenges in the field of optical measurement, control and automation technology.

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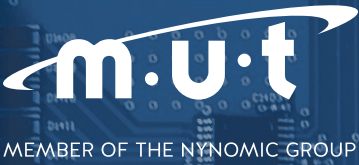
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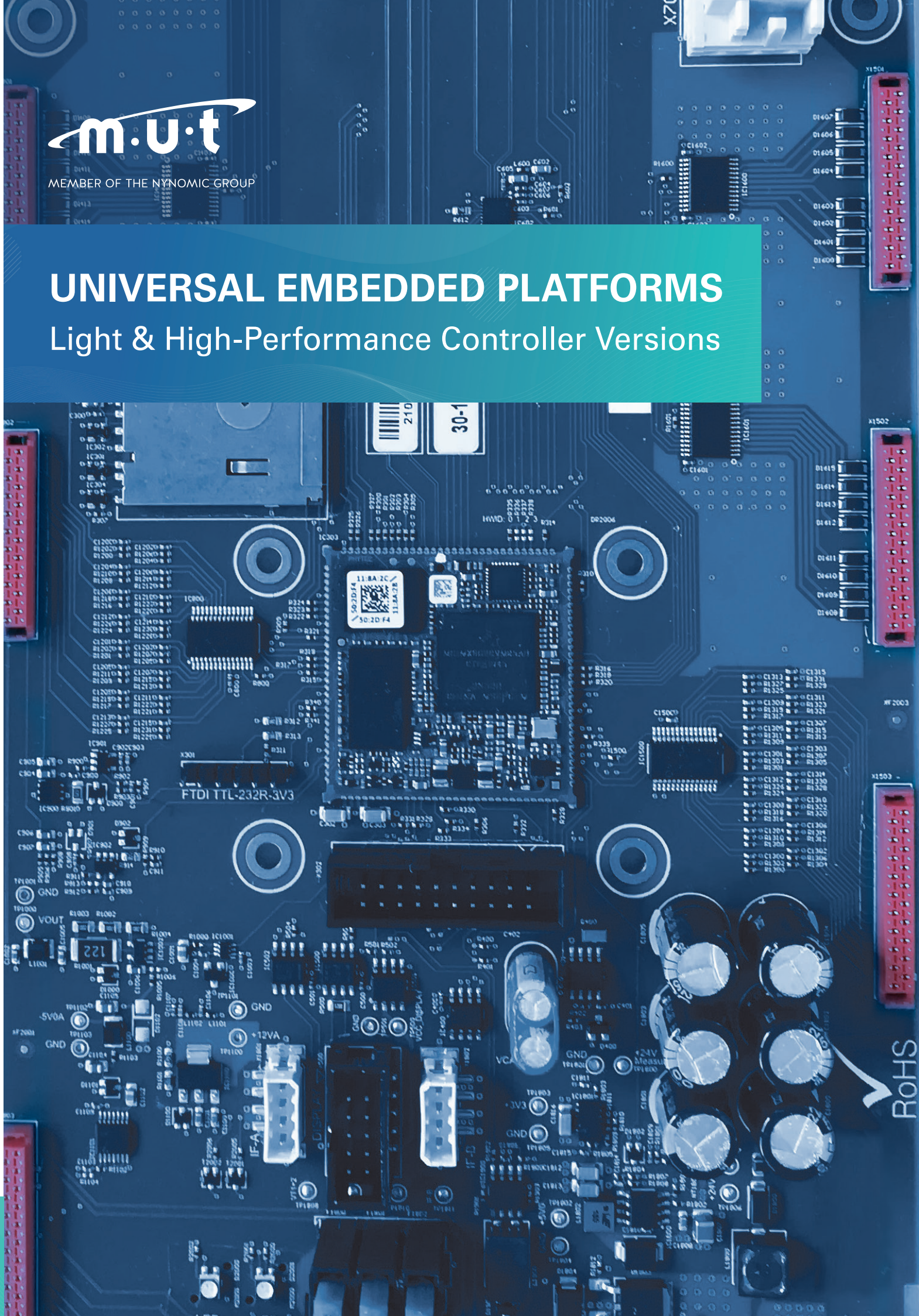
Any questions?
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UNIVERSAL EMBEDDED PLATFORMS
Light & High-Performance Controller Versions



Universal Embedded Platform



A CONTROLLER FOR VERSATILE CHALLENGES

Product Development

- Customized solutions
- Over 40 engineers for electronics, computer science, construction & physics
- Short development times
- Complete with qualification
- Series transfer

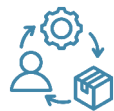


Customer-oriented quality management



Manufacture & distribution of medical products

Convincing Features



Long lasting life cycles designed for efficient upgrades and obsolescence changes.



Robust & Reliable against extreme conditions.

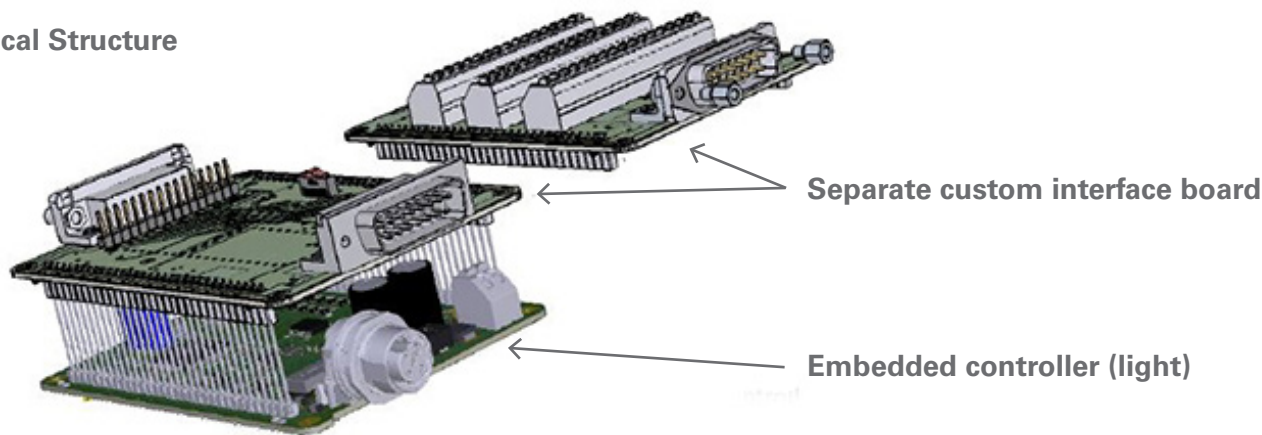


Freely configurable and programmable interfaces.



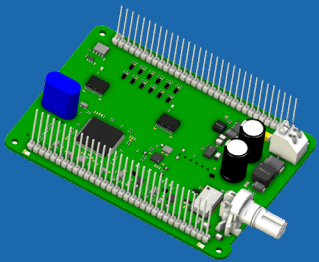
Optional extensions like touch displays, LTE-M / NB-IoT modul.

Technical Structure



Note: Please contact us for additional pictures, sketches or technical details.

OVERVIEW OF STANDARD CONFIGURATION (Hardware mainboard)



	Light (EC-S)	High-Performance (EC-L)
Main areas of application	<ul style="list-style-type: none">• Gateways and converter• Controllers for smaller control tasks / autonomous systems• Integration of specific sensors or sub systems in the overall structure• Interfaces and protocols can be expanded according to customer requirements	<ul style="list-style-type: none">• Universal controller for complex control tasks• Freely programmable control according to PLC standard IEC 61131-3• Modular control unit: COTS (commercial of the shelf) mainboard with customer-specific interface and expansion boards
Processor	ARM Cortex M3 (STM32), 120MHz, 32-Bit	ARM Cortex A7 (i.Mx6ULL); 528MHz; 32-Bit
Internal memory	<ul style="list-style-type: none">• Flash: 1024 kByte• SRAM: 128 kByte• Data-EEPROM: 256 kByte• EEPROM: 256 Byte	<ul style="list-style-type: none">• Flash: 512 MByte• SRAM: 512 MByte• Data-EEPROM: 256 kByte• EEPROM: 4 kByte
Memory extensions	-/-	via SD card
Real Time Clock (RTC)	12 hours guaranteed buffer time (via 0.47F supercap)	12 hours guaranteed buffer time (via 0.47F supercap)
Communication interfaces (default)	<ul style="list-style-type: none">• 1x Ethernet (100Mbit/s)• 2x CAN (1Mbit/s)• 1x serial debug (UART; 3,3V level; 115200 baud)	<ul style="list-style-type: none">• 2x Ethernet (100Mbit/s; full-duplex; autonegotiation)• 2x CAN (1Mbit/s)• 1x serial debug (UART; 3,3V level; 115200 baud)
Optional interfaces & extensions	<ul style="list-style-type: none">• 2x UART, 1x I²C; 1x SPI;• 5x GPIO; 1x ADC; 1x DAC	Touch display, LTE-M / NB-IoT modul
Digital input / output	<ul style="list-style-type: none">• 12x digital input, 24V logic, low- or high-active via mounting option• 12x digital output, open-drain, max. 0.5A per output	<ul style="list-style-type: none">• 32x digital input, 24V logic, low- or high-active via mounting option• 32x digital output, open-drain, max. 0.5A per output
Analog input / output	2x 0 - 20 mA; 12-Bit	<ul style="list-style-type: none">• 1x analog input 0 - 10V, 12-Bit• 1x analog input 0 - 20mA, 12-Bit• 1x analog output 0 - 10V, 12-Bit
Temperature sensor inputs	-/-	<ul style="list-style-type: none">• 4x PT1000 temperature sensor input (4-wire interface)
Dimensions (W x H x L)	ca. 74 x 44 x 115 mm	ca. 300 x 133 x 27 mm
Power supply	24VDC ± 30%	24VDC ± 30%
Notice	Transceiver and EMC protection elements are to be provided on the specific interface boards.	All I/Os refer to the supply potential (no galvanic isolation). EMC protection elements are to be provided on the specific interface boards.