MTA
Advanced Automotive Solutions

CUSTOMIZABLE SOLUTIONS

ALL THE ADVANTAGES OF A HIGHLY VERSATILE SYSTEM

Off-the-shelf customizable dashboards, displays and ECUs are increasingly popular in today's market. They help to reduce research and development costs and timeline for new products.

They also allow significant economies of scale thanks to the use of the same hardware for different platforms, and to the possibility to customize the software for every single application.

100% MADE IN ITALY

The development and production of all the electronic devices by MTA are entirely carried out in MTA Rolo, a company-owned Italian facility working with forefront modelling, simulation and graphic generation systems.

The whole manufacturing area is an Electrostatic Protected Area (EPA) and is equipped with special devices that prevent electrostatic charge build-upon people. The plant is accredited according to the most stringent regulations in the automotive world.

CARS

TRACTORS

OFF-HIGHWAY VEHICLES

MOTORCYCLES

TRUCKS

TO EACH, HIS OWN PRODUCT

The OTS dashboards and displays have hardware and software architectures that are very similar, but have a range of looks, sizes, numbers of LEDs, inputs and outputs, as well as different screen types to meet all the needs of the agricultural and off-highway world.

Round, square, rectangular, oval or ovalized, the dashboard and display shapes meet today's OEM demands, with dimensions ranging from extremely small (107 mm outer diameter) to the high-end 310 x 215 mm display.

State-of-the-art components, advanced treatments and materials guarantee high resistance to temperatures and vibrations, as well as an IP66 or IP67 degree of protection.

Most of these products can feature both a 12 V and a 24 V power supply.

READY TO "GO ELECTRIC"

In recent years, electric vehicles boom continues to heat up and the displays and the dashboards have to change accordingly. They have to retain the partial display of the original traditional vehicle and show a number of different indicators specific for EVs.

The customization facility of our OTS dashboards and displays range, provides the easiest and quickest solution to this need, transforming a "normal" instrument panel in a panel for purely electric vehicles.

DASHBOARDS

SPOT

QUIK

QUIK PLUS

SMART

TELLUS

REVO PLUS

IDEA

DISPLAYS

GIOTTO

LEONARDO

ELECTRONIC CONTROL UNITS

DYNA

ACTUA

Create an account to download all the technical data sheets on www.mta.it/en/resources

SPOT

- Customizable dial plate, front bezel and internal mask
- Dimensions: Ø 100 mm, external frame Ø 107 mm
- 3.1" dot matrix LCD 160 x 56 pixel
- 18 telltales
- Antifog treatment
- Power supply: 12 Vdc
- Protection degree: IP6K9K front, IP65 rear
- 20 inputs, 1 output (optional)
- 1 CAN bus interface
- RTC (optional), buzzer
- Connector: Tyco Superseal 26 pins

Customizable with

MTA STUDIO®

Simulable with

MTA CORE® SIMULATOR

QUIK & QUIK PLUS

- Customizable dial plate, front bezel and internal mask
- Dimensions: 230 x 120 x 60 mm
- Antifog treatment
- Power supply: 12 Vdc (9-16 Vdc)
- Protection degree: IP66 front, IP65 rear
- 27 inputs, 1 output (optional) and 1 Vref 5 Vdc output (optional)
- 1 CAN bus interface
- RTC (optional), buzzer
- Connector: Tyco Superseal 34 pins

QUIK

- 2.2" segment LCD
- 2 analog gauges, 1 LED bar graph and 18 telltales + 5 optional

QUIK PLUS

- 2.7" dot matrix LCD 128 x 128 pixel
- 2 analog gauges and 19 telltales

Customizable with

MTA STUDIO®

Simulable with

MTA CORE® SIMULATOR

SMART

- Dimensions: 162 x 97 x 41.3 mm
- 4.3" color TFT LCD 480 x 272 pixel with optical bonding
- Front glass with integrated telltales
- 10 telltales and 1 bar graph with 8 LEDs
- Power supply: 12 Vdc
- Protection degree: IP66
- 12 inputs, 6 power outputs and 1 H-bridge
- 1 CAN bus and 1 LIN interfaces
- RTC, night & day sensor
- Connector: Tyco Superseal 34 pins

Customizable with

MTASTUDIO

Simulable with

MTACORE SIMULATOR

IDEA

- Customizable dial plate
- Dimensions: 294 x 142 x 45.6 mm
- 7" color TFT LCD 800 x 480 pixel x 16.7M colors with optical bonding
- Portrait or lanscape
- Front glass with anti-glare, anti-reflection, anti-fingerprint and anti-scratch treatments
- 4 push buttons and 18 telltales
- Power supply: 12 Vdc (9-16 Vdc) and 24 Vdc (18-32 Vdc)
- Protection degree: IP65
- 18 inputs, 5 outputs and 1 Vref 5 Vdc output
- 2 CAN bus and 1 LIN interfaces, 1 analog video input
- RTC, internal buzzer, ambient light sensor
- Connectors: 1 Tyco Superseal 34 pins, 1 video input

Customizable with

MTASTUDIO

Simulable with

MTACORE SIMULATOR

TELLUS

- Customizable dial plate, front bezel
- Dimensions: 286 x 135 x 63 mm
- 3.5" color TFT LCD 240 x 320 pixel
- 2 analog gauges
- 2 push buttons and 25 telltales
- 3 LED bar graph + 2 optional
- PMMA front lens with antifog treatment
- Power supply: 12 Vdc
- Protection degree: IP65
- 36 inputs, 4 outputs
- 2 CAN bus and 1 LIN interfaces
- RTC, buzzer
- Connectors: 1 Tyco 26 pins 3 keys and 1 Tyco 26 pins 5 keys

Customizable with

MTASTUDIO®

REVO PLUS

- Customizable dial plate, front bezel and internal mask
- Dimensions: 317 x 152 x 73 mm
- 4.3" color TFT LCD 480 x 272 pixel
- 3 analog gauges (optional 2 or 4 gauges)
- 4 push buttons and 32 telltales
- PMMA front lens with antifog/mineral glass (optional)
- Power supply: 12 Vdc or 24 Vdc
- Protection degree: IP66 front, IP65 rear
- 42 inputs, 4 outputs and 1 Vref 5 Vdc output
- 2 CAN bus and 1 LIN interfaces, 1 analog video input
- RTC, buzzer, night & day sensor
- Connectors: 1 Tyco Superseal 34 pins and 1 Tyco Superseal 26 pins

Customizable with

MTASTUDIO®

Simulable with

MTACORE SIMULATOR

GIOTTO

- Dimensions: 240 x 145 x 45 mm
- 8" color TFT LCD 800 x 480 pixel x 262k colors with optical bonding (landscape)
- Multitouch screen (up to 10 touch points)
- Front glass with anti-reflection and anti-fingerprint treatments
- Power supply: 12 Vdc (8-16 Vdc) and 24 Vdc (18-32 Vdc)
- Protection degree: IP66
- 10 inputs, 2 outputs and 1 Vref 5 Vdc output
- 2 CAN bus, 1 LIN, 2 USB, 2 Ethernet BroadR-Reach, 1 RS232 interfaces and 2 analog video inputs
- Loudspeaker mono, RTC, ambient light sensor
- Connectors: Tyco Superseal 34 pins, 2 mini BNC
- Android based device (Linux based OS on request)

Customizable with

SPEEDY MTA CREATOR | android studio

LEONARDO

- Dimensions: 316 x 205 x 46 mm
- 12.1" color TFT LCD 1280 x 800 pixel x 262k colors with optical bonding (portrait or landscape)
- Multitouch screen (up to 10 touch points)
- Front glass with anti-reflection and anti-fingerprint treatments
- Power supply: 12 Vdc (9-16 Vdc) and 24 Vdc (18-32 Vdc)
- Protection degree: IP66
- 10 inputs, 2 outputs and 1 Vref 5 Vdc output
- 2 CAN bus, 1 LIN, 2 USB, 1 Ethernet BroadR-Reach, 1 RS232 interfaces and 2 analog video inputs
- Audio OUT
- Loudspeaker mono, RTC, ambient light sensor
- Connectors: Tyco Superseal 34 pins, 2 mini BNC
- Android based device (Linux based OS on request)

Customizable with

SPEEDY MTA CREATOR | android studio

DYNA

Customizable with

MTASTUDIO®

Simulable with

MTACORE® SIMULATOR

- Universal controller for agricultural or off-highway vehicles
- Dimensions: 162 x 113 x 40 mm
(excluding fixing points and connector)
- Power supply: 12 Vdc (9-16 Vdc) and 24 Vdc (18-32 Vdc)
- Protection degree: IP67
- 16 inputs, 16 outputs and 2 Vref 5 Vdc/8 Vdc outputs
- 2 CAN bus and 2 LIN interfaces
- RTC
- Connector: Delphi 48 pins

ACTUA

Customizable with

MTASTUDIO®

Simulable with

MTACORE® SIMULATOR

- Universal controller for agricultural or off-highway vehicles
- Dimensions: 185 x 221 x 42 mm
(excluding fixing points and connector)
- Power supply: 12 Vdc (9-16 Vdc) and 24 Vdc (18-32 Vdc)
- Protection degree: IP67
- 58 inputs, 32 outputs, 2 Vref 5 Vdc/8 Vdc outputs,
and 1 h-bridge (at 12 Vdc)
- 4 CAN bus, 2 LIN
- RTC (optional)
- Connector: Tyco 154 pins

SOFTWARE FOR CUSTOMIZABLE DEVICES

MTA provides specific software tools developed in-house. These tools are used to program dashboards, displays and electronic control units with customizable functions.

Each customer will be able to create a “tailored” device according to his needs.

MTA STUDIO®

MTA GATE®

SPEEDY MTA CREATOR® | android studio

MTA CORE® SIMULATOR

Read more about MTA customizable solutions on www.mta.it/en/programming-tools

MTA USB DONGLE

The software tools are managed using the MTA Dongle. The USB allows the end user to unlock all the MTA development and configuration tools.

MTA STUDIO®

MTA Studio is a specific tool used to program dashboards, displays and electronic control units developed with customizable functions which allow the customers to create “tailored” devices.

- Logic functions coded using graphical programming languages compliant to standard IEC 61131-3 (FBD – Function Block Diagram) or C/C++.
- HMI programmed using a WYSIWYG (What You See Is What You Get) interface: supported segment, dot matrix and TFT display technology.
- Easy to use: autocomplete helps to find variables and functions; clear graphic interface, simple application software interface: hardware is mainly managed by var to read and write.
- Integrated debugger based on XCP protocol.
- CAN bus interfaces support: J1939 transport protocols (BAM/CMDT), programmable CAN wake up and termination.
- Rich set of libraries: IEC 61131-3, odometer, hourmeter, etc.
- Real-time task management.
- Code protection using HASP USB dongle to prevent unauthorized access.
- Easy integration of external codes and libraries.

SPEEDY MTA CREATOR® | android studio

MTA Speedy Creator is a plugin developed for Android Studio (the worldwide integrated development environment for Google's Android OS). It enables the customers to easily program the displays.

- Android Studio provides a WYSIWYG (What You See Is What You Get) environment. In addition, MTA provides a set of customizable graphic components (widget libraries) to enable the developers to easily create advanced user interfaces.
- Faster development phase is guaranteed from the Android ecosystem which gives access to rich API and functionalities.
- The Android framework has been extended to provide access to all common automotive interfaces (CAN, LIN, digital input/output, analog). Vehicle data can be configured using MTA Speedy Creator, a dedicated Android Studio data modelling plugin developed by MTA.
- MTA offers 3 widget library styles, designed for agriculture, industrial and construction fields.
- Logic functions can be programmed using graphical widget or native Java languages.
- Specific customizations can be done by the customer himself or by MTA.

MTA GATE®

MTA Gate is a specific tool designed for EOL department and/or for technical service points use.

- MTA Gate allows to transfer a software generated by MTA Studio to all devices. The "Hardware Variant ID" and "Customer ID" prevent misuse and/or wrong software updates.
- Parameters setting: possibility to read and write EEPROM parameters on devices.
- Access to device services: take advantage of software application utilities such as stepper motor calibration.
- Parameters map import from MTA Studio.
- MTA Gate can be used by standard Windows GUI or command-line for EOL process automation purposes.
- MTA Gate license distribution through USB dongle.

MTA CORE® SIMULATOR

MTA Core Simulator is a tool that allows to simulate and debug MTA Studio applications directly on the PC.

- The tool allows to develop and test the application without a real target and provides a complete debug environment.
- Hardware virtualization allows to play with the configuration without harness.
- Simulation of run time behavior.
- Real ECU software runs on PC.
- Fully integrated with MTA Studio.
- "Simulation mode" is designed to help non skilled software engineers to easily understand how the application is working.
- "Debugger mode" is designed for C programmers that need a powerful debug environment.

Advanced Automotive Solutions

www.mta.it

CUSTOMIZABLE SOLUTIONS
Version 1.6
June 2024