

MC Technologies GmbH

LINECARD

We connect the industry



4G/LTE Data terminals and gateways for M2M/IoT

The MC Technologies **data terminals** can be used in a variety of ways for applications via LTE. Classic AT commands can be used, for example, to send short messages via SMS, HTTP(S), MQTT or SMTP.

We offer a range of standard terminals with different interface variants, Java™-programmable, with GPS or with very low power consumption.

In addition, the **MC92 alarm terminal** can also send commands (such as an emergency shutdown).

The **MC100** is an industrial mobile radio multifunctional platform, OpenWrt Linux-based, freely programmable, network-compatible and available in various versions.

Typical applications include remote maintenance access to industrial control systems or machine components via the mobile phone network and the transmission of data from Ethernet-capable machines and systems to a control centre.

The MC100 is equipped with a lean Linux Board Support Package (BSP) and thus provides drivers for all interfaces, among other things. The Ethernet data terminal functionality via the mobile network is already integrated in the basic version. Configuration is carried out via an integrated web interface.

Customers can develop their own applications on the MC100 platform. This is possible in C/C++, Java™, Python™ or Node-RED™, for example.



4G/LTE MC100 SensorBox MBus

The **MC100 SensorBox** with MBus extension is a system for control and regulation technology as well as for control and visualisation systems. It is equipped with a large number of interfaces and can be expanded modularly with additional slots. OpenWrt Linux is used as the operating system and the device can be programmed using various programming languages such as C/C++, Python™, Java™ and Node-RED™.

It is a central data collector for the following **use cases**:

- Counter values are collected in the gateway and, depending on the settings, sent daily, weekly or monthly to servers or a web portal specified by you.
- Ideal solution for data collection for billing water, heating and cooling.
- Data transfer to almost all accounting programmes possible.
- Monitoring of pumps in the water circuit, replacement of expensive PLC controls.



4G/LTE Mobile router and LAN/WAN router for M2M/IoT

Our industrial router portfolio impresses with top quality and robustness at an attractive price for the discerning professional customer.

Hardware and software are designed and manufactured according to German quality standards.

All our industrial routers are supplied in a robust aluminium housing and operate in an extended temperature range.

The scope of delivery includes a power supply unit, an Ethernet cable and a top-hat rail bracket as well as one of our LTE/MIMO antennas for the mobile routers.



Coming soon: MC-MNR 5G router

- 5G Cat.16 router with 450 MHz and dual SIM
- 6x SMA (female) antenna connections
- 5G, 4G, 3G, Ethernet, GPIO
- Secure location networking via VPN
- Integrated firewall for maximum data security
- Metal housing

MC Fleet Device management portal

With our new MC Fleet device management portal, you can easily maintain full control and an overview of all your IoT devices in the field.

In just a few steps, you can roll out configurations and software updates to exactly the right devices and maintain a full overview of all relevant device information such as signal quality, connection status, location, firmware status and more.

MC Fleet also manages the simple and secure VPN connection to your devices and systems with minimal configuration effort and optimised data traffic.

The system offers you full flexibility in device assignment, user management and rights assignment for any client structure via an intuitive user interface.

MC Fleet is available both as a cloud solution and as an on-premise solution.

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<input type="checkbox"/>	A50000000340922	2022-12-02 16:29:14	2022-12-04 16:29:22		1.0.0_20c
<input type="checkbox"/>	A100000025350821	2022-11-08 08:36:02	2022-11-08 08:36:03		1.0.0_20c
<input type="checkbox"/>	A500000000410922	2022-09-29 09:47:08	2022-09-29 09:47:10		1.0.0_20c
<input type="checkbox"/>	A500000000430922	2022-09-29 09:41:38	2022-09-29 09:41:38		1.0.0_20c
<input type="checkbox"/>	A200000007591021	2022-09-21 14:52:38	2022-09-21 14:52:39		1.0.0_20c
<input type="checkbox"/>	MC123456789	2022-08-18 15:52:58	2022-08-18 15:52:59		1

Application examples for our M2M/IoT devices:

- Telemetry of vending machines.
- Control of passenger information displays.
- Remote maintenance/monitoring of machines and systems.
- GPS position data transmission (tracking).
- Data logger, e.g. for temperature monitoring.
- Direct network access to vehicles and GPS tracking.

Mobile antennas - always the best reception

We offer antennas for a wide variety of mounting situations, whether for soldering or for magnetic, adhesive, screw or mast mounting, and for a wide range of applications from simple SMS applications to complex, data-intensive applications in the LTE/5G network. Our range also includes antennas in the ISM and VHF/UHF range, such as those used in building technology (wM-BUS) or marine radio.

All antennas can be customised to your desired cable length or with other connectors. We will be happy to advise you and find the optimum solution for you.



Wireless universal sensors with wireless M-Bus or Sigfox

Receive and collect data wirelessly in the building: Our wireless, battery-operated sensors make it possible.

Wireless measurements of temperature, humidity, pressure, flow rate or gas are carried out via corresponding sensors.

Convenient data processing via MQTT, OPC UA and FTP are just one practical application example.

The sensors are an ideal addition to our MC100 SensT2, MC100 SensorBox and MC100 wM-Bus.



Quectel M2M/IoT wireless modules

Quectel offers high-performance modules in the areas of mobile radio (from GSM, NB-IoT to LTE and 5G) and GNSS (GPS, GLO-NASS, BeiDou, Galileo and QZSS).

Products with Java VM as well as Wi-Fi and Bluetooth are a matter of course to enable IoT connectivity in every market and every industry. The modules are available in LGA, LCC, M.2 and mini PCIe variants.



New: Cavli M2M/IoT wireless modules

Cavli Wireless is a company that specialises in the development and production of cellular IoT modules. These modules are equipped with an integrated eSIM and offer worldwide connectivity thanks to the Cavli Hubble platform.

Cavli product portfolio:

- Wireless modules for 5G, 4G, NB-IoT, LTE-M Technologies and smart modules
- Modules for global use
- The modules feature integrated GNSS, low power consumption, compact form factor, power saving mode and eSIM
- Cavli Hubble Platform: Platform for IoT connectivity, device management and monitoring

MC Technologies has been your partner in wireless modules for data communication for over 20 years. Not only do we offer a wide range of products, we also use the modules in our own router, gateway and terminal products.

We are happy to pass this experience on to you, e.g. with design-in support. With us, you have a personal contact who is a specialist in the subject. And on site if required.



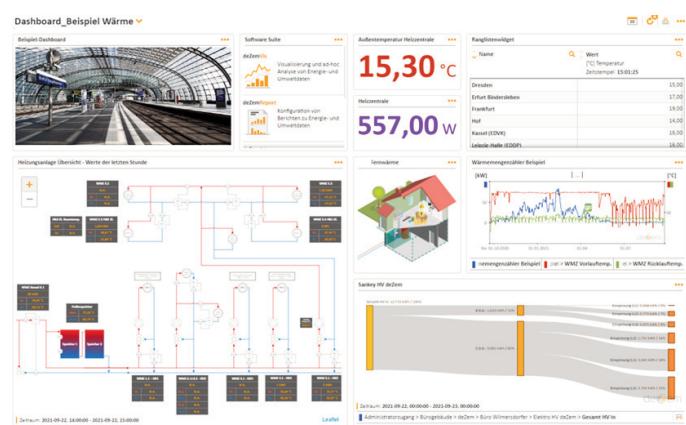
Visualisation

For the monitoring and control of plants and production facilities, we offer you hardware and software, from data acquisition to visualisation, from a single source. Once the sensors have been integrated, the data is collected by our gateway and visualised in a dashboard.

The dashboard is web-based and therefore available on desktop PCs and all mobile devices. It is individually configurable and can therefore also be designed for pure users.

In addition to live values, various time series can also be graphically analysed and archived. It is easy to create a digital twin. Intuitive alarm management can also be realised by defining threshold values.

All data and reports can be easily extracted into Excel, SAP and other formats. The data is stored on 3 servers certified in Germany, but can also be saved locally if required.



Cable assembly

High quality cable assembly according to your requirements
- realized quickly, reliably and cost-effectively

- We advise you from the idea, through design-in to series production.
 - We assemble individual strands, simple connecting cables and complex cable harnesses for you, from one up to large series.

- We crimp, solder, assemble, mould and label according to your needs.
 - We test your cable assemblies in consultation with you or according to the rules of technology.
 - We offer you consignment stock, framework agreements, KANBAN and customised packaging.

References:



For which application areas does MC Technologies assemble?

MC Technologies offers cable assembly for a wide range of applications. These include the building automation and mechanical engineering industries, medical technology, the aerospace industry, and the telecommunications and audio/video industries. We can develop and manufacture individual solutions for any application area. As a customer, you benefit from our know-how, our flexibility and the high quality of our products. We work closely with our customers to ensure that the assembled cables are tailored to their exact requirements and function optimally.



Connectors

MC Technologies GmbH is your personal distributor for industrial connectors from well-known manufacturers.

We are a certified distributor of leading manufacturers such as binder and JST. Many connector types are available from stock to ensure security of supply, customised delivery batch sizes and optimum conditions for you.

We are also happy to advise you on the selection of the right type and design-in for your application.



Other manufacturers: Conec, FCT, IMS, Lemo, Molex, Neutrik, ODU, WAGO



Customised solutions

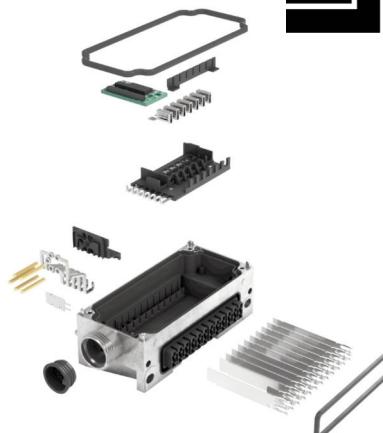
By working together with binder solution, we are able to develop a customised electromechanical solution from your idea.

Core competences

- Product design in appearance and function
- Validation of the product idea through to series production
- Prototypes and series construction through to series production

Special features

- Solution-orientated consulting
- Defined contact persons
- Agile project management
- High flexibility and short distances
- Cost transparency



EMS service

We are your service provider for SMD and THT PCB assembly of samples and small series in industrial quality. We also offer you the service of component rework. We rework incorrectly assembled PCBs or realise complete conversions in small series.

As a competent specialist in the field of sample, prototype and series assembly, we create customised solutions for our customers in the shortest possible delivery time - our motto: "Your project is our challenge."



Excerpt from our range of services:

- Procurement of solder paste stencils and printed circuit boards
- Single-sided and double-sided assembly of printed circuit boards (SMD and THT)
- Complete apparatus construction including programming (flashing) and final testing, according to your specifications
- Programming (flashing) of assemblies according to your specifications
- Rework of assemblies



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Company profile

We are a leading European provider of innovative solutions for:

- Machine-to-machine (M2M) hardware and end-to-end solutions
- Mobile-based remote maintenance and remote control

Thanks to our many years of experience we can offer:

- A broad, attractively priced range of products meeting German quality standards
- Development of the optimum solution specifically tailored to your application
- Competent technical advice on product selection and design-in
- Quick, professional implementation of all associated commercial and logistics processes
- Comprehensive service concepts for our products and solutions

We cover a wide range of products:

- GSM/GPRS/UMTS/HSPA+/LTE/5G/GPS modules, terminals, gateways, routers, computers and antennas
- Customer-specific cable assemblies
- Connectors for industry
- Automation technology
- Software development



The contractual quality of our goods is based exclusively on our product specifications in their current version.

We make no representation or warranty as to the suitability of our goods for any particular purpose. We expressly disclaim all warranties relating to the use of the goods sold by the buyer or its customers, including any warranty that may be implied by law, custom or tradition.

