

# 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).



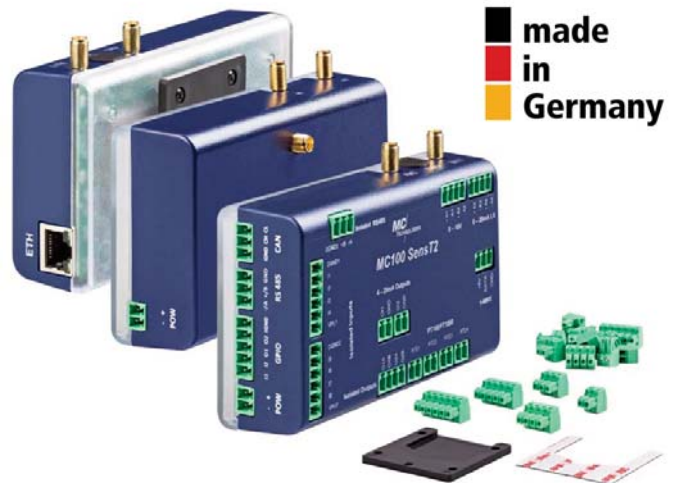
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Germany**

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.



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## 4G/LTE MC100 SensorBox M-Bus

The **MC100 SensorBox** with M-Bus 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.



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## 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.



## NEW: MC-MNR 5G Router

- 5G sub-6GHz Router with Dual-SIM
- Up to 8x SMA (female) antenna connections fully equipped (4x 5G, 2x LTE, GPS, WiFi)
- 5G, 4G, 2G, Ethernet, GPIO, Voice (optional)
- Secure site networking via VPN
- Maximum data security thanks to integrated firewall
- Metal housing

## MC Fleet Device management portal

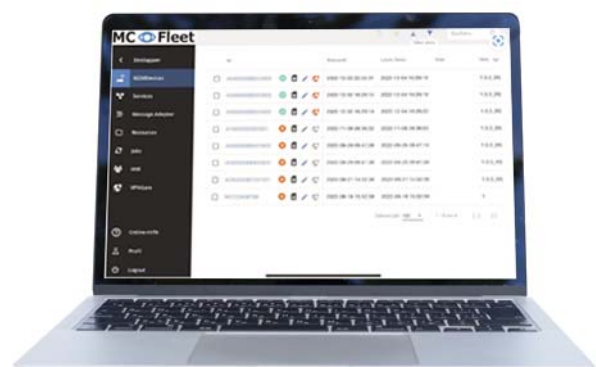
With our new MC Fleet device management portal, you can easily maintain full control and an overview of all your IoT devices in the field.

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.



### 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.



## 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.



## 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.



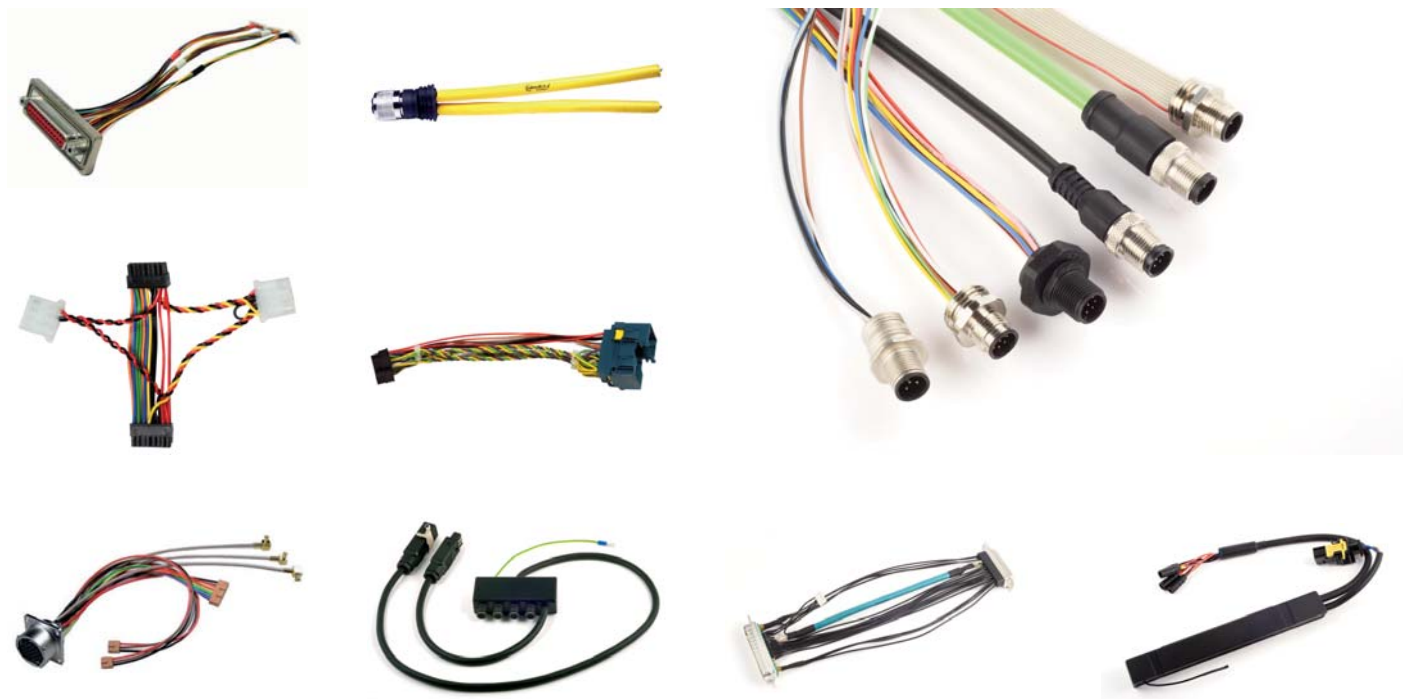


## Cable assembly

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.

### Why is MC Technologies the right contact for cable assembly?

We have been manufacturing at 5 locations (Germany, Poland, Portugal, Asia) **for more than 30 years** and can therefore offer a very wide range of products. Short-term requirements can be realised as well as cost-effective procurement in Asia. In addition, 2 contact persons with many years of experience are available to answer technical questions at any time.



## 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

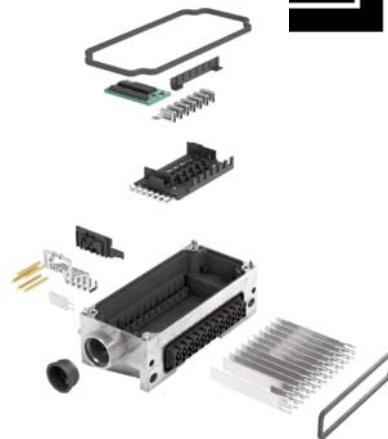
By working together with binder solution, we are able to develop a customised electromechanical solution from your idea.

### 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

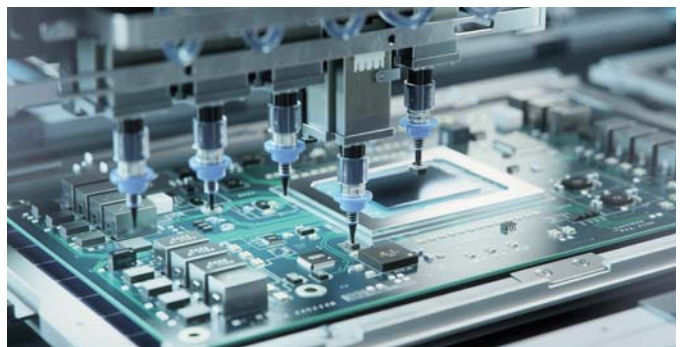
- Solution-orientated consulting
- Defined contact persons
- Agile project management
- High flexibility and short distances
- Cost transparency



## 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."

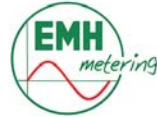


### Excerpt from our range of services:

- 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



## References



## 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 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.