mikroelektronika



COMPANY PROFILE

Mikroelektronika spol s r.o.

We are a technology company with more than 30 years of experience in the development and manufacturing of electronics. We combine in-house development, top-tier manufacturing, and a customer-oriented approach that enables us to deliver reliable solutions even for the most demanding operations worldwide.

All our products are designed and manufactured in-house, allowing us to maintain maximum flexibility, high quality, and the ability to respond to the specific needs of each customer. Our solutions and products are used in major cities, by smaller transport operators, and across many other industries on multiple continents in more than 40 countries.

We operate in two key areas:

- AFC – ticketing systems for public transport
- EMS – custom electronics development and manufacturing

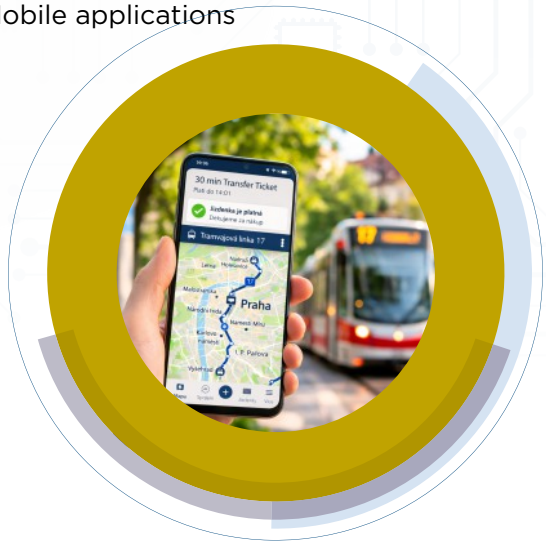
AFC

Our current ticketing product portfolio fully covers the needs of urban, suburban, and intercity transport operators. We provide solutions for all types of transport, including buses, trams, railways, metro systems, BRT, ferries, cable cars, taxis, and more.We deliver comprehensive turnkey systems – from fare collection systems and passenger information systems to fare inspection, automated passenger counting systems, AVL dispatching, monitoring, and additional integrated solutions such as ERP and online services.



We offer solutions in the following areas:

- Vehicle validators for contactless card payments
- Ticket validators
- Ticket issuing devices and onboard computers
- Ticket vending machines
- Information terminals
- Turnstiles and gates
- Additional devices and accessories
- Backoffice – management, monitoring, inspection
- Mobile applications



Why AFC by Mikroelektronika?

- Reliability and durability in extreme conditions
- Maximum security thanks to in-house development – we have full control over our products
- Openness and compatibility – customers are not dependent on a single vendor
- Tailor-made solutions based on customer needs
- In-house development and SDK for customer application integration
- Easy installation and operation
- Guaranteed service and support

EMS

We specialize in **electronics for demanding and mission-critical applications** where maximum reliability is essential – including transport, healthcare, laboratory equipment, data transmission, satellite technologies, and other industrial sectors.

We provide complete services, including the development and manufacturing of electronic components as well as complete devices – from prototype development to mass production. We work with the latest technologies such as SMT, THT, AOI, X-ray inspection, and ICT, ensuring a high level of quality control. Just bring us your idea – we will take care of the rest.



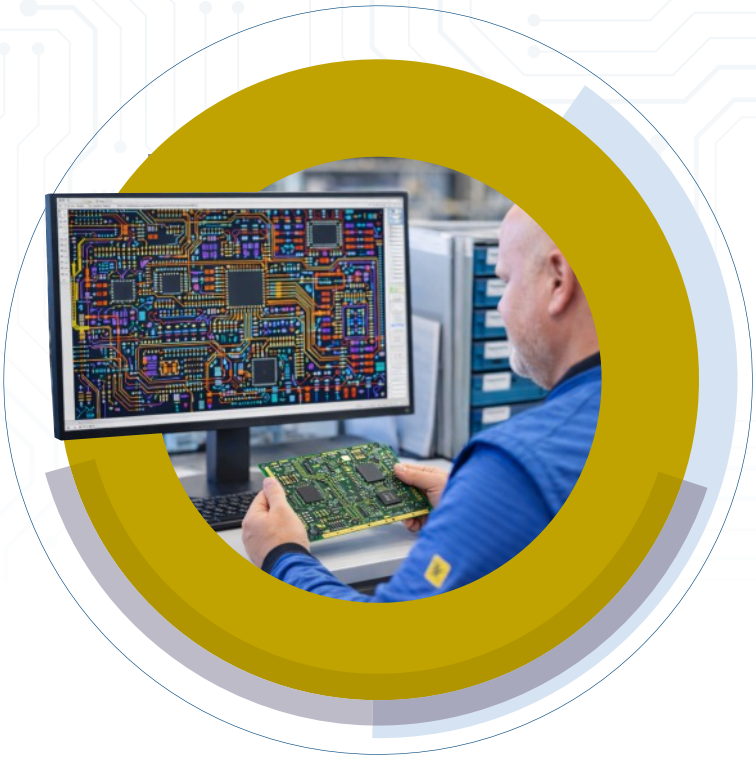
We take care of the entire process

- Electronics design and development
- Material sourcing and procurement
- Prototype and serial production
- Device assembly
- Mechanical parts, cabling, enclosures, and design
- Packaging and logistics

We understand your products

We help optimize products in terms of:

- Production costs
- Functionality
- Reliability
- Long-term component availability





mikroelektronika®



SYSTEMS FOR PUBLIC TRANSPORT

AFC DIVISION

Mikroelektronika

We supply efficient and customer-friendly ticketing systems. Automated, flexible and easy to integrate.

Our customers include capitals around the world as well as small transport operators. The secret of our success lies in the ability to offer tailor-made solution reflecting clients' needs and capabilities. We develop and manufacture all products in-house.
Currently our product portfolio completely covers the needs of urban, suburban and intercity transport operators. We offer solutions for all types of transport. For buses, trams, railways, metro, BRT, ferries, cable cars, taxis, etc. We can provide our systems on a turnkey basis. Starting with ticketing system, through passenger information systems, transport control, automated passenger counting systems, AVL, dispatching, monitoring and other related systems such as ERP or online services.
We develop our products primarily from the perspective of the operator and the end customer, so that we can offer practical and user-friendly solutions. We offer a comprehensive support program and a wide range of above-standard services.



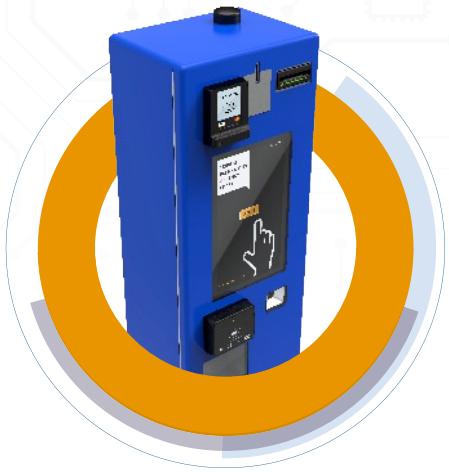
Card validators and ticket stampers

- Contactless smartcard validators, contactless bank card validators (EMV), 2D codes (QR, Aztec, ...) scanners and ticket stampers.
- Single-purpose devices or devices combining several methods of validation with receipt printer.
- Visual and acoustic signalisation of transaction, various sizes of displays, various product colours and interface extension according to client requirements.
- Fast validating, large memory space, wide options of data transfer and maximum security level.



Ticket issuing machines and on-board computers

- Devices for ticket issuing and control of other on-board peripherals.
- Clear and easy to read displays with automated brightness adjustment.
- Ranging from simple driver terminals to multipurpose devices with cashbox and separate passenger interface with printer.
- Readers of various types of cards including bank cards (EMV), barcode or 2D code scanners and wide options of data transfer.
- Compact all-in-one or separated solution.



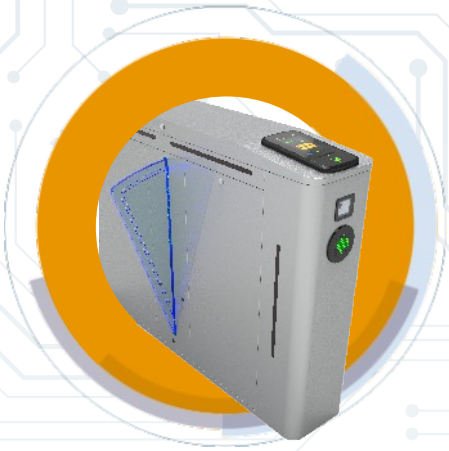
Ticket vending machines

- Mobile or stationary machines for issue of various media and documents.
- Unlimited payment options e.g. coins, banknotes, bank cards, contactless smartcards, mobile devices etc.
- Control via touchscreen, capacitive keys or mechanical buttons.
- Ranging from practical compact devices to comfortable multipurpose devices.
- Anti-vandal and anti-graffiti design.



Multifunction terminals

- Universal terminals or kiosks providing not only ticket sale but also a whole range of other services.
- Recharging of stored value cards, booking system, payment for various services, searching timetables and other information, internet access etc.
- Substitutes the function of classic point of sale desk.
- High resistance against vandalism and weather conditions.
- Architecture based on standard industrial PC enables smooth operation of existing applications.



Turnstiles and gates

- Stationary or mobile turnstiles, access control barriers and gates.
- Tripod bar turnstiles, opening swing or sliding flap systems with intuitive passenger interface.
- Enabling identification or payment with contactless smartcards, bank cards, tokens, mobile devices, 2D codes or other means.
- Autonomous devices or complex access systems.
- Configurable design.

BackOffice, e-shop and mobile applications

- Set of applications providing complete control of fare collection system, POS services, transport inspection, dispatching etc.
- Online application and client zone for passengers.
- Mobile application for journey planning based on GPS location, map of lines, purchase of fare documents, information on delays and other useful functions.



Accessories

- Compact terminals for contactless payments, certified proprietary EMV readers.
- Inner and outer information boards, acoustic info systems.
- Control units and vehicle electronics.
- Equipment of POS, transport inspection and dispatcher workplaces.
- Passenger counting systems.



Benefits of our solutions

Reliability and resistance
Our fare collection devices are daily exposed to attacks of vandals and bad weather conditions. Therefore, all devices undergo demanding procedures to test reliability in the most extreme conditions.

Security
We strictly comply with all security standards, which are commonly offered by particular technologies and always combine more security elements. Furthermore, we create our own above-standard security elements and flexibly implement new technologies.

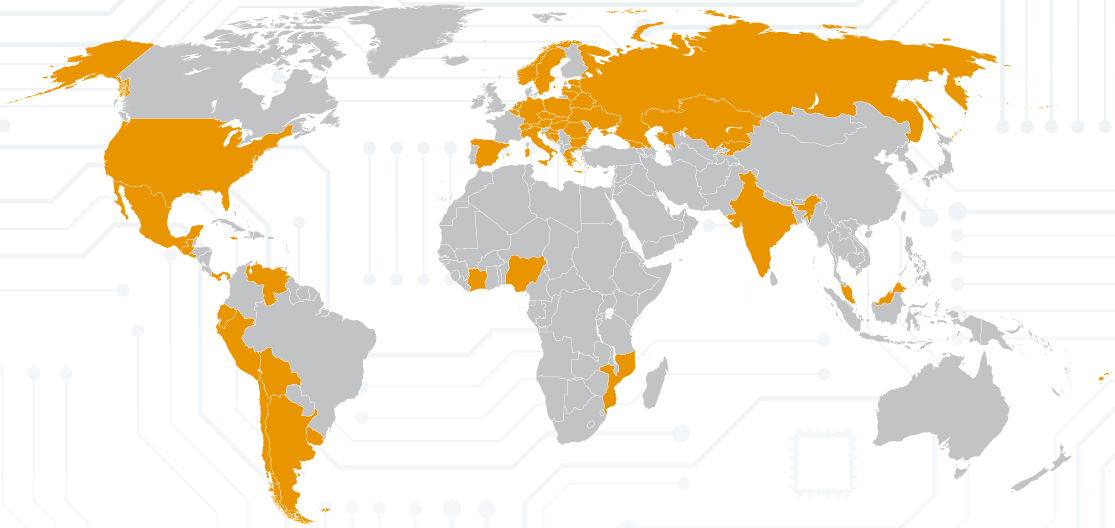
Compatibility and openness
Since the beginning, Mikroelektronika has promoted the idea of open and compatible systems where the operator is completely independent from the supplier. Thanks to this, our systems are able to reflect continuous technological development.

Tailor-made solutions
Every customer's needs are different. Therefore, we design custom solutions, which shall reasonably satisfy any demand. Every device can be adjusted or we can develop completely new product.

Independent application development - SDK
If the customer has his own software development capacity or existing application that can be customized or is provided by a third party, the device can be delivered with its basic software. In these cases we provide our customers with full support to develop the system on their own through SDK.

Ease of use
When we design a new device, we think not only about the end users, but also about the system operators. Therefore, our devices are easy to install, operate, maintain and service.

We provide products and services to customers in more than 40 countries



Europe:
Austria
Belarus
Belgium
Bosnia and Herzegovina
Bulgaria
Croatia
Czech Republic
Estonia
Georgia
Germany
Greece
Hungary
Italy
Latvia
Lithuania
Netherlands
Norway
Poland
Romania
Russia
Slovakia
Spain
Sweden
Switzerland
Ukraine

America:
Argentina
Bolivia
Ecuador
Chile
Guatemala
Jamaica
Mexico
Panama
Peru
Salvador
Uruguay
U.S.A.
Venezuela

Africa:
Ivory Coast
Mozambique
Nigeria

Asia:
India
Kazakhstan
Kyrgyzstan
Malaysia

Australia and Oceania:
Fiji

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mikroelektronika®



From prototype to mass production. Without stress. Without delays.

ELECTRONICS MANUFACTURING THAT MAKES SENSE FOR BOTH ENGINEERS AND PROCUREMENT

We take care of the complete manufacturing of your electronics – from the first prototype to stable mass production. You can focus on your product and the market. We will make sure the manufacturing process runs smoothly.

EMS DIVISION



Why do customers choose us?

One partner for the entire product lifecycle

Prototypes, pilot series, and long-term production – without the need to change suppliers.

Flexibility that matches the reality of development

Design changes, small production runs, tight deadlines – we are used to it.

Manufacturing that doesn't hold you back, but moves you forward

We do more than just manufacture. We simplify processes, shorten lead times, and help bring your product to market faster.

What can we take care of for you?

- PCB design and optimization
- PCB assembly (SMT / THT)
- Complete device assembly
- Testing and quality control
- Arranging the necessary certifications
- Logistics, packaging, and customer delivery preparation

Everything transparent, under control, and backed by our full responsibility.





How do we work?

- You communicate directly with the people who make decisions
- You always have visibility into the project status – no guesswork
- Quality is built into the process, not just checked at the end

The result is stable production without surprises.

Who are we the ideal partner for?

- Development companies and product teams
- Industrial electronics manufacturers
- Customers looking for long-term cooperation, not just “low-cost assembly”



Mikroelektronika

For more than 30 years, we have been developing and manufacturing custom electronics using the latest technologies. We specialize in advanced electronics for demanding and mission-critical applications where absolute reliability and resistance to extreme conditions are essential.

We are not just a contract electronics manufacturer. We develop, manufacture, and most importantly operate our own products in the field of fare collection systems in more than 40 countries worldwide. Being in direct contact with end users allows us to benefit from many years of practical experience.

We can turn your idea into reality, redesign an existing solution, or develop a completely new product tailored to your requirements. We design the device architecture, select suitable components, and define both the mechanical construction and the overall product design. We prepare and test prototypes, including software and firmware.

Let's find out if we're the right EMS partner for you.

NO-OBLIGATION CONSULTATION
FAST FEEDBACK
CLEAR ANSWERS



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