

Kontron ODM/EMS Alliance More Than Just Production and Assembly Services

Discover the advantages – Get to know us



kontron



»With our wide portfolio,
our strong alliance
is ready for the challenges
of the coming years.«

Jochen Gimple
Head of EPC Operations Kontron Europe
VP Kontron Manufacturing



We Value Trust and Partnership

Currently, the Kontron ODM/EMS Alliance comprises eight locations: Frickenhausen and Halle (Saale) in Germany, Ebbs and Engerwitzdorf in Austria, Tab and Pécs in Hungary as well as Kranj in Slovenia. The Alliance has created a consortium of enterprises that boasts decades of experience along the entire manufacturing chain and broad expertise for a wide range of requirements.

In the EMS provider market, we can discern a clear concentration trend toward larger enterprises. This will continue to increase in the coming years. Additionally, technology developments in automation and miniaturization are steadily accelerating. To keep pace with these change processes, businesses need to keep investing and innovating. As an Alliance within the strong S&T Group, we are well positioned to serve your needs.

As an association of European companies, we are able to offer you the geographic proximity that many of our customers value. Our Alliance supports initiatives aimed at promoting Europe as an industry location and increasing the share of goods produced in Europe. For all of us, sustainability aspects play an important role in this context.

The Kontron ODM/EMS Alliance stands out against the competition thanks to our large development division

with more than 50 electronics developers. In both the hardware and software fields, we rely on a large number of specialists for a wide variety of client requirements and industries. Our portfolio ranges from small, embedded electronics devices to complex overall systems. For both, and everything in between, we are your one-stop shop for customer-specific solutions.

Digital transformation makes time-to-market considerations are becoming ever more important. Getting to the prototype stage quickly is crucial. Our high-power custom development strategy and our reliance on our proprietary product range let us drastically reduce our development times.

The products developed and manufactured by Kontron include the high-performance, compact and modular SoM (system-on-module) and COM (computer-on-module) range. These prefabricated modules simplify the development of complex, client-specific board architectures and offer perspectives for later processor upgrades without baseboard redesign. Our portfolio also extends to HMI and display systems, including end-to-end solutions complete with software.

Jochen Gimple

Head of EPC Operations Kontron Europe
VP Kontron Manufacturing



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Introducing a Strong Partner

We unite eight production locations under one roof.

These electronics service providers interact and collaborate as a consortium and leverage the many resulting synergies for the benefit of their customers.





Kontron ODM/EMS Alliance

Your Specialist for

- › Hardware development of electronic components and devices
- › Software development for automation, communication and visualization
- › Mechanical design with state-of-the-art development tools
- › Product industrialization from prototype to series production
- › Maximum-quality manufacturing services
- › Stringent quality and functional testing
- › Final assembly work for complex components and devices



IoT/Industry 4.0



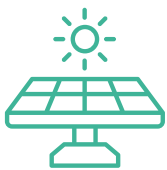
Mechanical Engineering



Medical Technology



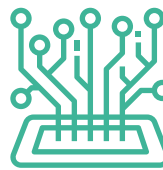
Building Services Technology



Environmental Engineering



Office Technology



Electronics



Laboratory Technology

CERTIFICATE



DEKRA

ISO 9001:2015

that the organization

Certificates and Mandatory Norms

The Alliance Companies Guarantee Maximum Governance Standards

Quality is our calling card, and we operate on the basis of a well-internalized, continually audited quality management system. Our **ISO 9001:2015 Certification** demonstrates our commitment to transparent business operation and thoroughly documented processes across all business segments. We pledge to live up to these values, continually review and develop them, and comply with statutory and administrative obligations at all times.

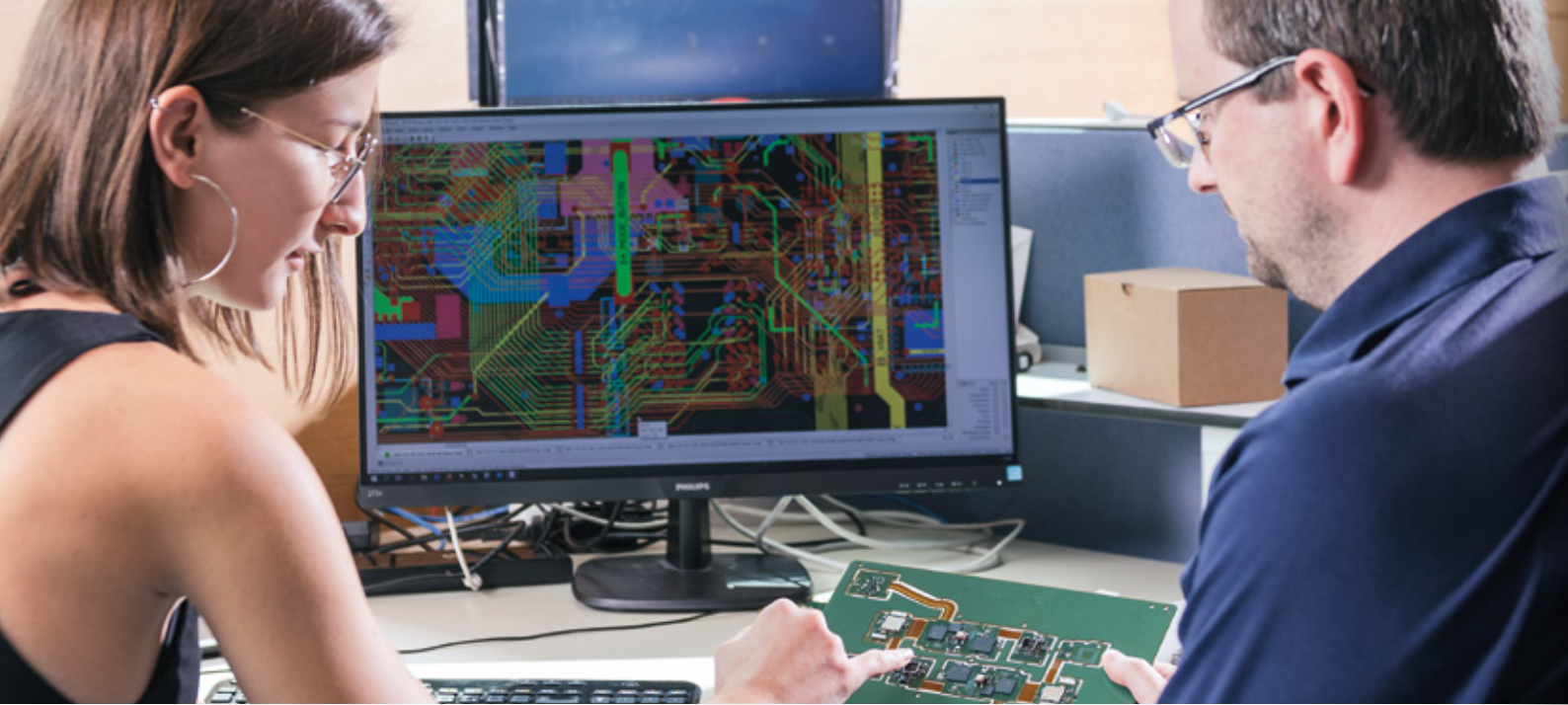
By virtue of our commitment to the environmental management norm **DIN EN ISO 14001**, we assume responsibility for ecological conservation. We define targets for sustainable and resource-saving projects and processes.

EN ISO 13485 relates to quality management with respect to development and production of custom components and products for the medical technology sector. Only products certified under ISO 13485 may be marketed in the EU.

All Facilities are ISO 9001 Certified

- **ISO 14001, Apple MFI**
Kontron Electronics GmbH, Germany
- **ISO 14001, ISO 13485, UL**
Kontron Electronics Kft, Hungary
- **ISO 13485, ATEX-DIRECTIVE 2014/34/EU, UL, Apple MFI**
Kontron Austria GmbH, Austria
- **ISO 14001, ISO 9001, ISO/IEC 27001**
Iskratele EMS, Slovenia
- **ISO 9001, ISO 14001**
Kontron Europe GmbH, Germany
- **Avionics Maintenance and Repair Organisation, Ismaning Reference: DE.145.0092**
Kontron Europe GmbH, Ismaning, Germany





Product Development

We Make Your Ideas Reality

Our many years of development experience and our technology expertise on state-of-the-art components and procedures guarantee your success. Based on your product specs, we develop and optimize your product and bring it to series maturity.

We are there to support you when you need construction advice, help with generating CAD layouts or defining specifications for components and design. In addition to a wide array of testing methodologies, we develop and manufacture test equipment for electronic validation of your components. Our EMV lab ensures full compliance with the relevant guidelines and regulations throughout the development process.

Our focus lies on these key industry sectors: Mechanical engineering, automation, transport, building services engineering, electric mobility, gateways, IoT devices and medical technology.

Hardware

- › Product specification
- › Circuit design
- › Layout design
- › Commissioning

Software

- › Real-time software
- › Linux BSPs
- › Applications programming
- › Web technology

Mechanics

- › Industrial Design
- › 2D/3D construction
- › Materials
- › Tool procurement

Product Industrialization

- › Prototype construction
- › EMC lab
- › Declaration of conformity
- › Construction of test equipment



Electronics Manufacturing and Final Assembly

Kontron ODM/EMS Alliance

As an experienced provider of electronics services, we deliver maximum competence in a wide range of manufacturing procedures. We offer a broad scope of services for your entire component assembly, from circuit board mounting to various soldering processes, application of protective coatings and final assembly.

We are pleased to support you with our technology expertise, develop ideas and solutions for your prototypes and assist you in bringing your product to series maturity. We are the trusted partner at your side.

Assembly Technologies

- › SMT technologies
- › THT assembly

Soldering Processes

- › Reflow soldering
- › Wave soldering
- › Selective soldering

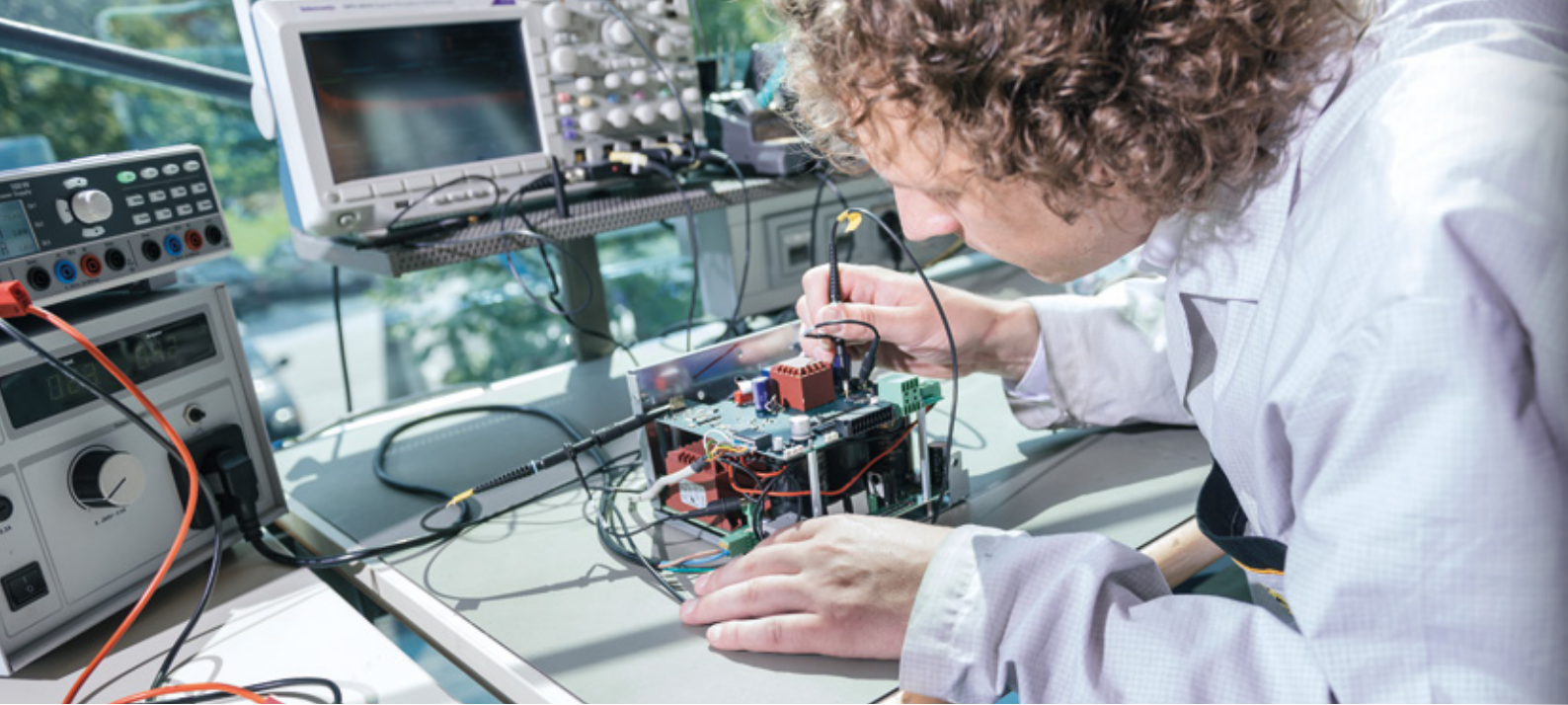
Surface Protection

- › Coating
- › Nano coating
- › Grouting

Final Assembly

- › Electromechanical components
- › Devices assembly
- › System integration
- › Box Building





Testing and Programming

Modern Technology and Maximum Quality

All electronics components, modules and system produced by Kontron are subjected to strict functional and quality testing. For us, secure recognition of potential errors is an absolute prerequisite for optimal production quality.

Thanks to our many years of experience in developing and building test equipment and based on our own custom testing infrastructure, we ensure that components are validated in strict compliance with customer specifications.



Inline Inspection Procedures

- › SPI Solder past inspection
- › 3D AOI Automated optical inspection

End-of-Line Testing Processes

- › ICT In-circuit test
- › FKT Function test
- › BST Boundary Scan Test
- › High-voltage test
- › X-Ray

Test Equipment Construction

- › Testing according to customer specification
- › Own testing services
- › Test software development

Traceability

- › Traceability at the component and assembly levels
- › Process data monitoring and archiving



Maintenance and Services

We Are Well Positioned and Connected

As our client, you benefit from our global network of suppliers and the advantages of large acquisition volumes throughout Kontron Group. We are ideally positioned to handle the immense range of requirements, components and production technologies that our clients bring to us.

Our service scope encompasses a wide range of tasks along the entire product lifecycle. Each and every day, we do our best to fulfill your expectations.

»Our SCM and global sourcing teams connect with our suppliers in the closest possible way. Our customer focus and clearly defined delivery channels guarantee efficient supply in normal times but are essential in times of shortage and crisis.«



Thomas Ebner
CPO

Material Management

- › Kontron global sourcing, worldwide demand consolidation and direct price negotiations with manufacturers
- › Global network of suppliers
- › On-site staff in the most important procurement markets
- › Direct support of all leading semiconductor manufacturers

Produkt Lifecycle Management

- › PCN process, EOL monitoring, sourcing, and stocking of discontinued parts
- › Search for and testing of alternative components
- › Connection to silicon experts
- › Long-term storage of components with nitrogen

Logistic Concepts

- › Consignment stock for a flexible and needs-based supply
- › Kanban
- › Rolling forecast
- › Security stocks

Repairs Service

- › Repair in cases of warranty and services
- › Technical support



Our Production Sites

Kontron Europe GmbH, Germany

We are your competent partner for end-to-end manufacturing of industrial PCs, HMIs and high-grade electronic systems and devices. Together with our broad service portfolio, our highly flexible manufacturing facilities (work cell design) permit rapid scaling and adaptation to client requirements. We also assume assembly, systems integration and avionics services, all „Made in Germany“.

Quality is our absolute priority. To meet this self-imposed demand, Kontron has developed an AI-based optical quality monitoring system. Additionally, a MES system permits paperless, data-driven production planning and control as well as documentation and replicability of all individual process steps. Both systems help us guarantee that we deliver first-class quality and offer our clients maximum transparency and planning security.

Our customers' success is our prime motivation.



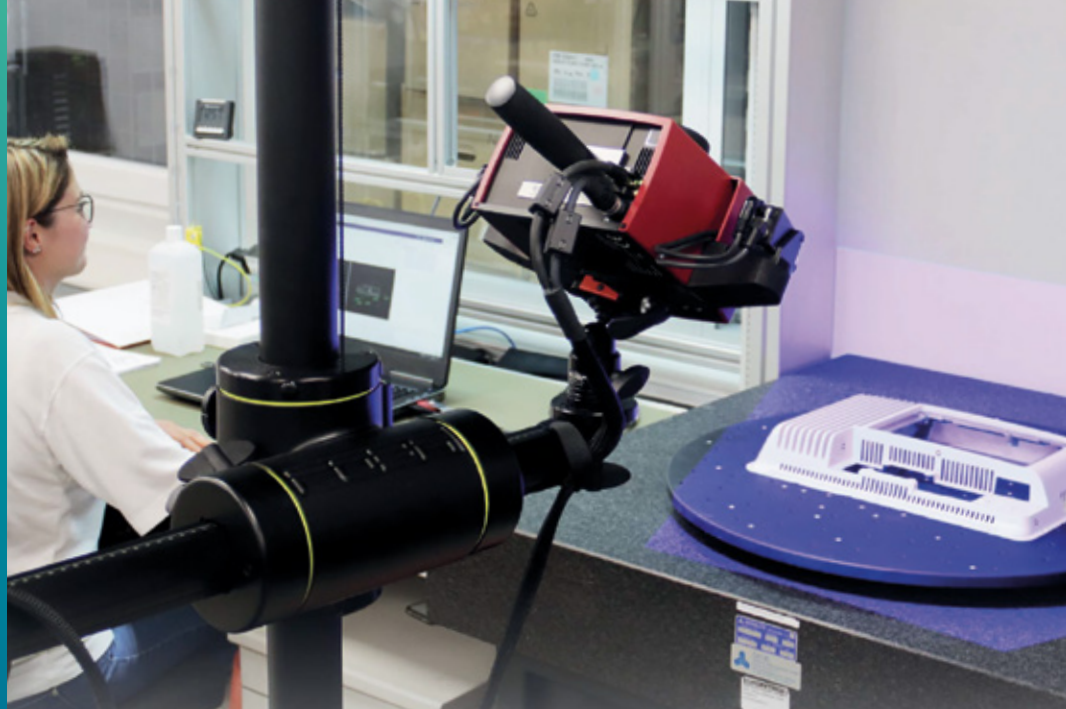
»End-to-end MES-driven, automated processes guarantee maximum quality, flexibility and security.«



Walter Gruber
Director Production & Logistics

Augsburg in Detail

- ▶ Production area
7,800 square meters
- ▶ Assembly for Industrial
PC's, HMI's, complex
systems and devices
- ▶ Avionics Maintenance
and Repair Organisation,
Ismaning
Reference: DE.145.0092
- ▶ Product Approvals: UL, CSA,
TÜV, Intertek, CCC (China),
CQC (China), BIS (India),
DNV (Maritime)
- ▶ 200.000 systems per year
- ▶ Certifications: ISO 9001,
ISO 14001





Our Productions Sites

Kontron Electronics GmbH, Germany

We are the competent and experienced full-service provider at your side. We cover all aspects of electronics, development and manufacturing services. Our portfolio includes proprietary and client-specific products as well as development and engineering services for complex electronics components, modules and systems.

We assume production and assembly services for complete assembly groups – profit from our knowhow! With our high-powered team and more than 25 years of experience, we stand ready to turn your requirements and expectations into future-proof products and solutions.

Frickenhausen in Detail

- › Production area
600 square meters
- › System assembly,
box building
- › 250,000 assembled units
per year
- › Certifications: ISO 9001,
ISO 14001, Apple MFI





Halle in Detail

- › Production area
1,400 square meters
- › 2x SMT assembly
machines
- › THT production
(wave soldering)
- › Certification: ISO 9001

»Quality is paramount – every assembly is tested and validated before it leaves our premises.«



Simon Mistele
Test Equipment Engineering





Our Production Sites

Kontron Austria GmbH, Austria

As all-round service provider, we handle development as well as production of complex electronic components, modules and systems in the industrial and medical technology.

We are also your partner for end-to-end manufacturing of electronic assemblies, devices and systems. Our experienced and competent specialists are ready to support you in consulting and development, production and process optimization, as well as professional outsourcing of your assemblies and complete systems.

»We act as partners to our clients throughout the entire production process, tackling all challenges with innovation and flexibility.«



Stephan Niederhauser
Dipl.-Ing., Site Manager

Engerwitzdorf in Detail

- › Production area
ca. 1,400 square meters
- › Assembly area
700 square meters (Linz)
- › 2x SMT assembly lines
- › THT production (wave and selective soldering)
- › 200,000 assembled units per year
- › Certifications: ISO 9001, ISO 13485



Ebbs in Detail

- › Production area ca. 1,500 square meters
- › 3x SMT assembly lines
- › THT production (wave and selective soldering)
- › 500,000 assembled units per year
- › Certifications: ISO 9001, ISO 13485, ATEX-Directive 2014/34/EU, UL, Apple MFI



»We are at home in the industry sector and also have deep expertise in the fields of safety and medical technology.«



Andreas Schlaffer
Head of R&D



Our Production Sites

Kontron Electronics Kft, Hungary

We are a provider of production and assembly services with decades of experience in producing entire electronic assemblies, devices and systems. At our facilities in Tab und Pécs, we offer our entire range of services. With our modern, high-performing machine pool and continual optimization of our processes and production methods, we guarantee maximum quality.

»Our highly competent and committed staff receive continual training and are always up to speed on the latest methods and technologies.«



Mónika Csécsné Mihály
Production Manager

Tab in Detail

- Production area ca. 2,000 square meters
- 3x SMT assembly lines
- THT production (wave and selective soldering)
- 750,000 assembled units per year
- Certifications: ISO 9001, ISO 14001, UL



Pécs in Detail

- › Production area
ca. 3,500 square meters
- › 3x SMT assembly lines
- › THT production (wave and
selective soldering)
- › 750,000 assembled units
per year
- › Certifications: ISO 9001,
ISO 13485, ISO 14001, UL



»As a competent high-tech provider with deep sense of excellence, we offer our clients reliability and quality.«



Erika Óbertné-Simics
Production Manager



Our Production Sites

Iskratel EMS, Kranj, Slovenia

We are your versatile one-stop shop for electronics manufacturing services. Our company portfolio includes research and development, introduction of new products as well as series production. Our scope also extends to electronics/final assembly, programming and testing as well as systems integration.

Of course, we also see to proper packaging and delivery of goods to your desired location via our logistics center. Should any questions remain after delivery, our aftersales support team is available at all times. It's been our job for almost 75 years!





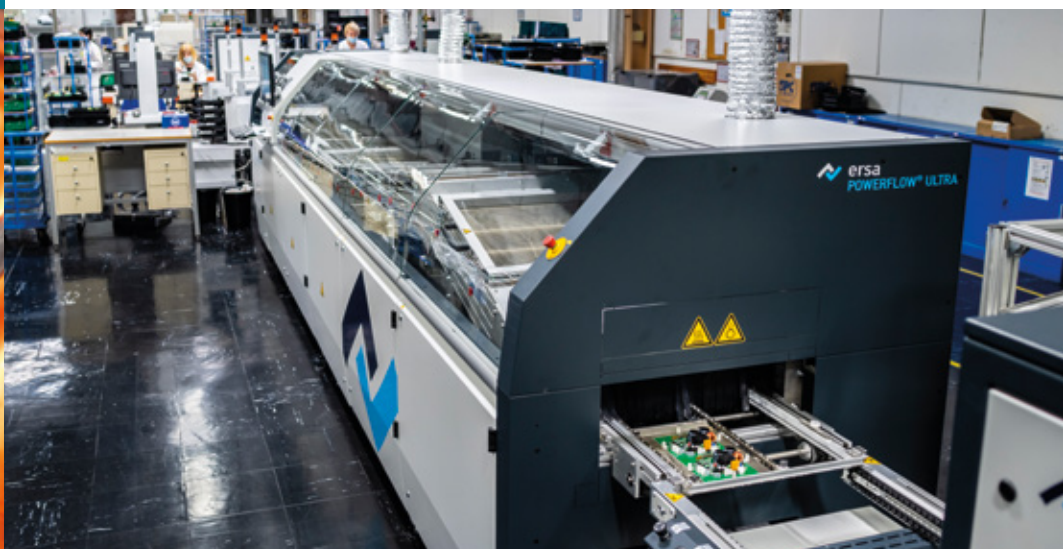
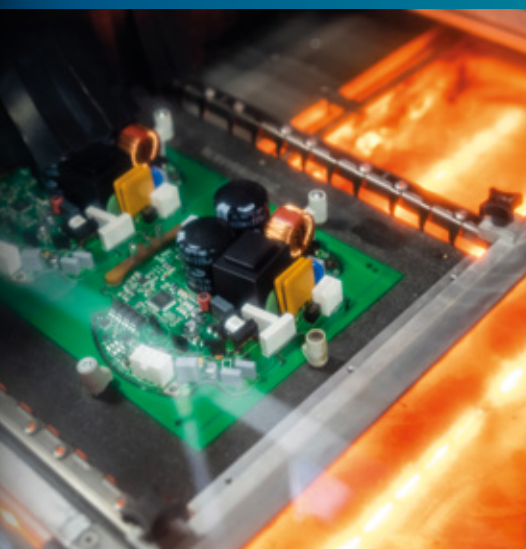
Kranj in Detail

- › Production area
4,500 square meters
- › 3x SMT assembly lines
- › THT production (wave and selective soldering)
- › 600,000 assembled units per year
- › Certifications: ISO 14001, ISO 9001, ISO/IEC 27001

»Highly automated manufacturing as well as strong technology and production competency are our guarantee for quality products.«



Jernej Polič
Director of Business Unit EMS





As an ODM/EMS Partner, We Offer You the Following Advantages

- ▶ **Low volume/high mix bis high volume/low mix**
As a high-performance alliance of medium-sized companies, we can economically offer the entire range from small and medium quantities to large volumes
- ▶ **Very high volume/low mix**
We can have very large quantities produced by our cooperation partner in Asia
- ▶ **Active site selection**
We produce at the site that best meets your requirements
- ▶ **Logistics Concepts**
Consignment warehousing, Kanban, rolling forecast, security stockpiles
- ▶ **Product and cost analysis**
Upon request, you will receive suggestions for cost reduction in the component selection and manufacturing processes
- ▶ **Lifecycle analysis and management**
Choose the optimal time for new design or redesign based on our forecast data
- ▶ **Global sourcing**
Take advantage of our global purchasing networks
- ▶ **Internal second source**
We offer maximum supply security in the event of production downtime. Thanks to site-independent redundancy, we are able to ensure resilient production

Kontron Your One-Stop-Shop for Custom and Standard Products as well as ODM and EMS Services.





»Development and manufacturing are matters of trust
That's what we stand for with our name and reputation
– now and in future.«

Kontron ODM/EMS Alliance

Speak to us – we are there for you!

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