

Development / Construction



**Innovative solutions -
Electronics for any application**

Made in Germany



The IMM electronics GmbH is an experienced service provider and offers you years of expertise in the field of electronics development, from the idea to the marketable device. The Development division of IMM electronics covers a range of services from conception through hardware and software development and construction to the prototyping and series production of whole devices or assemblies.

As a competent partner at your side, we support you and offer you innovative, tailor-made solutions founded on a solid project design and flexible resources. We are certified according to DIN EN ISO 9001 and 14001 as well as DS/EN ISO 13485.

Automation technology / industrial electronics

The IMM electronics' Industrial Technology business unit develops and manufactures devices and assemblies ranging from sensor electronics through complex control systems to complete systems. The result? High-quality solutions for demanding industrial applications in the industrial automation, automotive, laser systems, light control and battery management systems sectors. We support your development project in close collaboration with you – from conception through development to prototype manufacturing and series production – working flexibly and to the highest of quality standards throughout.

Medical technology

Our development service for your medical technology product is provided from the moment you begin receiving advice on standards and legal regulations, and lasts throughout each development phase: from development planning through risk management to certification of the finished product. During the process, we pay particular attention to documenting the development in accordance with the legal requirements mandated by the MPG (German Law on Medical Products) and the applicable standards (such as DIN EN 62304).

Media technology (audio / video)

The IMM electronics' Media Technology business unit develops and manufactures products for the professional audio market. The result? Devices and systems used across the globe by radio and TV stations or at big live events. Particular attention is paid to the selection of high-quality components at the most favourable production costs. FPGA design and FPGA programming are part of our day-to-day work, as is expertise in IP-based audio solutions.

Full Service – Made in Germany.

Committed. Collaborative.
Professional.



Our references

RME

DirectOut Technologies

twall®

twall®PLUS

Bikelogger® - meso international GmbH

centric guide® - theratecc GmbH & Co.KG

Laserdiodentreiber - LEC GmbH

RIMA - Holy Trinity GmbH

AREA - Holy Trinity GmbH



1. Development of hardware and software

Based on your product requirements, our developers determine the necessary hardware functionalities and use these to produce specifications.

Every decision taken during the hardware development phase is done so in consultation with you and the subsequent software teams.

We always think one step ahead, taking into account future requirements and further developments right from the circuit design phase, so that we can supply our customers with modern, innovative and technologically advanced products. With extensive qualifications, experience and expertise in hardware and software development, we are always able to find a cost-efficient, functionally optimised solution to meet your individual requirements.

Hardware development

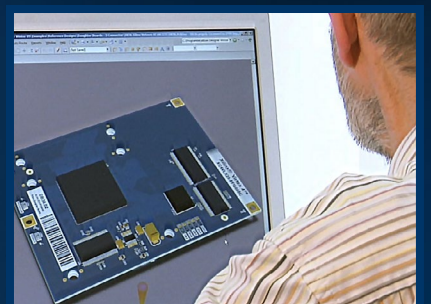
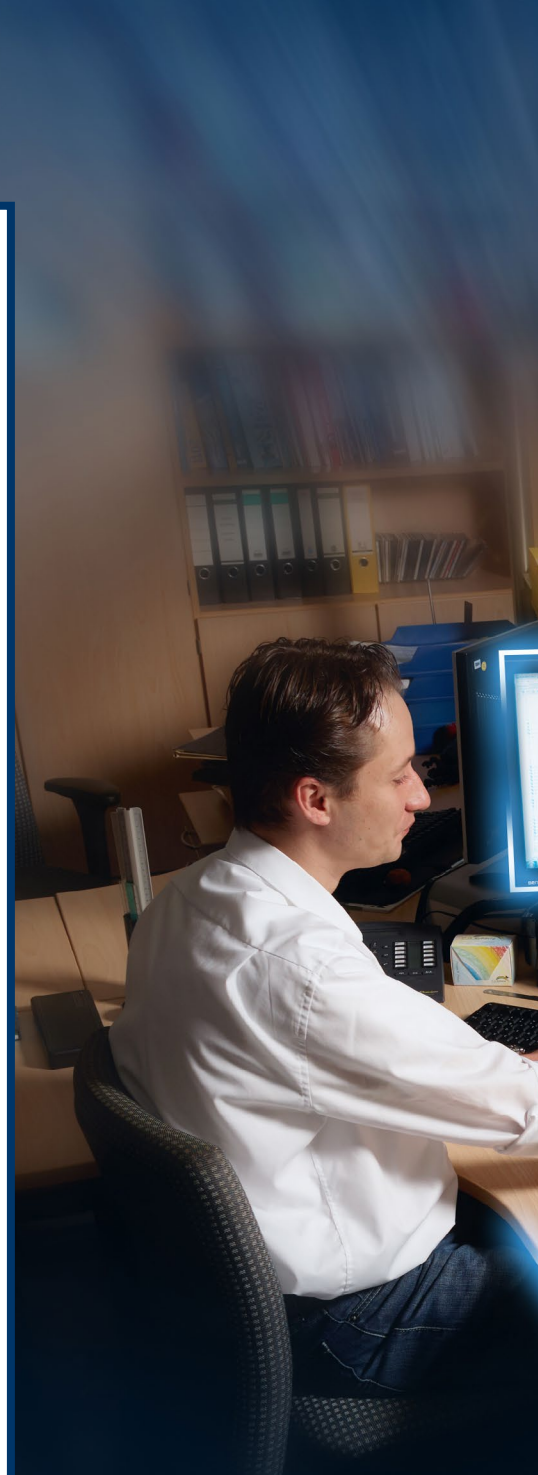
- Analogue and digital circuit technology
- Development and use of special IP cores for XILINX FPGA
- Planning and conception of solutions for industrial automation systems
- Power electronics
- Concepts and devices for media broadcasts

Software development

- Software development according to DIN EN 62304
- Creation of software for different platforms
- Development of individual user interfaces

Tools

- Altium Designer
- Bartels AUTOENGINEER
- Eagle
- National Instruments LabWindows/CVI
- Microsoft Visual C++
- Delphi
- Code Vision
- Eclipse
- various compilers



Our scope of services:

sensitivity, expertise
and experience



2. Circuit board design and mechanical construction

Think ahead and advise – when designing circuit boards, this not only applies to the circuit board manufacturing process and the mounting of the assemblies. All developments in the Construction division comply with the applicable standards. We support you right from the planning phase, advising you on electronic and mechanical construction and ensuring our designs are as resource-friendly as possible.

Circuit board design

- Plated through and multilayer circuit boards
HDI layouts
- Microvias
- Via filling
- Plugging and tenting
- Metal core layouts
- EMV design
- Impedance-controlled circuit boards
- Impedance / attenuation measurements

Mechanical construction

- Chassis solutions (plastic/metal)
- Injection moulded parts
- Milled parts
- Special parts

Tools

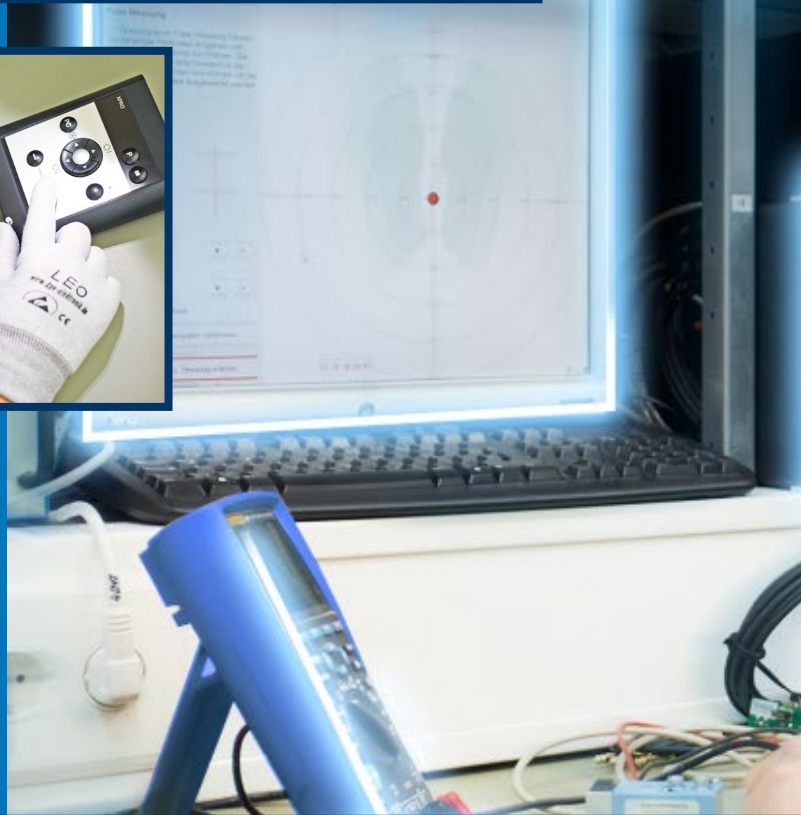
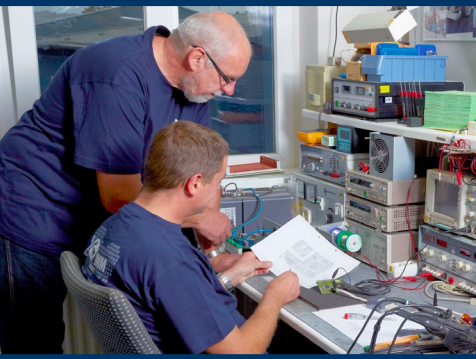
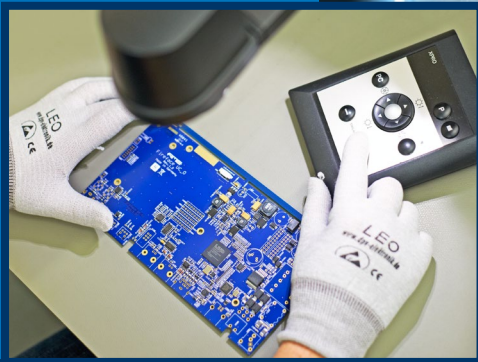
- Altium Designer
- Bartels AUTOENGINEER
- Eagle
- PolarCare Speedstack Si
- ViewMate Pro
- SolidWorks

3. Prototyping and small series production

Prototyping at IMM Ingenieurbüro GmbH forms an important link within the IMM Group. In close collaboration with IMM Elektronik GmbH we manufacture prototypes and small series of electronics components or complete devices in a short period of time, both by machine and by hand. Try out our comprehensive range of services:

Range of services

- Preliminary assessments and tests during the development phase
- Circuit board assembly
- Mounting and commissioning of assemblies and complete devices
- Mechanical production of chassis prototypes, fixtures, gauges, and so on
- Construction of test equipment
- Supervised burn-in and long-term testing of prototypes
- Preparation and support for series production



4. Testing, assessment and advisory services

Fulfilling standards and norms in relation to product quality, product safety, adherence to environmental standards, and electromagnetic compatibility and immunity is becoming an increasingly important factor in product development. Drawing on our experience in device development, including in the field of medical technology, we will gladly advise you on all matters relating to your product and offer you our services:

Services

- logged, development-related EMC measurements
- analysis of EMC measurement results and dissemination of information on how to reduce marginal radiation or serious susceptibility to interference
- development planning, including for medical products
- initiation and supervision of the certification and approval process (also according to the MPG) at an accredited test facility
- establishment of testing strategies for production and subsequent quality control



2004 Finalist
2005 Großer Preis des Mittelstandes
2011 Ehrenplakette
2012 Premier-Finalist



Oskar-Patzelt
STIFTUNG
Initiative für den
MITTELSTAND

Managing Directors:

Prof. Dipl.-Ing. Detlev Müller
CEO

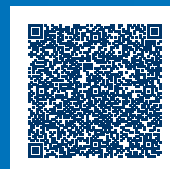
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