



Complete electronics manufacturing under one roof

Prototypes and contract manufacturing from 1 piece · Express production at no surcharge · Series of thousands of units

DFM · Component sourcing and management · SMT assembly · THT assembly · Selective soldering · 3D AOI · Selective conformal coating · Cable harnesses · EOL testing · Box build

Company presentation

Nossberger s.r.o. · Spojovací 318, 382 03 Křemže, Czech Republic · Company ID: 056 29 365 · www.nossberger.cz

ISO 9001:2015 No. 1050/2024/SC/Q, valid until 01.08.2027 · IMDS and Volkswagen LSO registration · Manufacturing to IPC standards

NOSSBERGER **Company profile**

From prototype to finished product – all under one roof, from one to thousands of units

since 2001

25 years of EMS experience

~ CZK 50M

stable annual turnover 2023 – 2025
25+ active customers

ISO 9001

certified since 2021
successfully recertified in 2024

29 machines

full process redundancy
no single point of failure

Who we are

Czech EMS/CMS manufacturer based in Křemže

In the electronics business since 2001, operating as NOSSBERGER s.r.o. since 2017

Prototypes, small batches and series of thousands, all made in-house

Strong focus on quality and first-class customer service

Modern IT, production technology and methods, highly automated processes

Digitally controlled production – flexible documentation changes

What we deliver

Complete, worry-free turnkey manufacturing, not just assembly

Finished product with functional test and documentation

Express production within 3 days, no assembly surcharge

Assembled and tested PCBs (SMD + THT)

Bare PCBs to your data, also as a stand-alone service (Class 3 per IPC-A-600 and IPC-6012)

Cable harnesses and interconnect cables

Mechanical parts (CNC, laser, 3D printing)

Custom foam and technical packaging

2025 in numbers

3

new placement machines

investing in placement capacity
and accuracy

450 m²

production floor space

plus another 350 m² under
construction

476

orders

and 14,751 cable harnesses

193,485

boards produced

successfully tested and shipped
in top quality

27 million

components placed

That is roughly one component
every second.

5 years

employee tenure

on average, counted since 2017

NOSSBERGER Data management, security and IP

Comprehensive protection of customer data, cybersecurity and intellectual property

IT infrastructure and cybersecurity

Hardware firewall and network antivirus protection
Network access control via 802.1X
User authentication on all workstations
Role-based data access
Staff training in cybersecurity and AI
Disk encryption (BitLocker) on all PCs
Physically secured company storage
Redundant encrypted backups – instantly available local copy + online backup in the EU (DE)

IP protection and document control

Need-to-know principle throughout the process
Order access limited to a dedicated team
Paperless documentation – no loose document copies on the shop floor
MRP with immutable audit trail (FDA 21 CFR Part 11)
Data on servers in the EU (DE)
Inspection data archived for at least 5 years (AOI, X-ray, measurements)

Certification and compliance

ISO 9001:2015

Certificate No. 1050/2024/SC/Q
Systémové certifikace s.r.o. (IAF S 3209)
Valid: 02.08.2024 – 01.08.2027
Scope: electronics manufacturing, PCBs, cables

Norms and standards

Processes compliant with RoHS and SVHC
Manufacturing and inspection to IPC-A-610, certified IPC specialists
Staff trained to EN 61340 (ESD), regular training
Registered in IMDS and Volkswagen LSO
Annual ISO 9001 surveillance audit

Project management

Dedicated contact person
Technical and commercial project management
Customer portal – order status online 24/7
Electronic production travelers
Production records
Audit trail for every warehouse transaction

NOSSBERGER **Production and material preparation**

From data receipt to loading material into the machine – every step defined, controlled and traceable

DFM analysis and data preparation

BOM and PnP data merged and checked for consistency
Placement projected onto the Gerber data – position, rotation and polarity of parts
Solder paste pads adjusted, stencil prepared and checked
PCB technology check: layers, material, finish, filled vias, IPC class
Engineering queries (EQ): we flag risks and propose solutions for customer approval
Post-production DFM feedback with industrialization proposals

PCB specification and inspection

We source bare PCBs to customer data in Class 3 per IPC-A-600 and IPC-6012
Multi-sourcing – a supplier outage does not stop production
Above-standard cosmetic quality (incoming inspection)

Component sourcing and storage

Authorized distribution channels only
16 suppliers connected via API for fast stock availability and the best price
Project registration with manufacturers – project pricing
EOL/NRND lifecycle reporting – active management
Part-level risk assessment – long-term availability, advance orders
MSL storage, dry cabinets with RH < 1%, component baking

Handling and soldering materials

2D codes from goods receipt to machine loading
ESD-protected workstations to EN 61340-5-1, MSL handling to J-STD-033
Production material strictly separated for each order
Japanese Almit solders – lead-free SAC305 and premium leaded with silver (Sn62Pb36Ag2), separate processes
Solder paste conditioning and machine mixing before every order

Traceability from goods receipt

Every component identified by a 2D code · Systematic elimination of human error · Electronic production travelers · Selectable traceability level, from basic up to full traceability of individual components

NOSSBERGER **Manufacturing technology – SMT lines**

Three placement lines with full redundancy, component measurement and a placement log for every board

01 Solder paste printing

EKRA X4 Professional
EKRA X5 Professional
EKRA X5
ZelFlex pneumatic stencil frames
Integrated paste inspection and stencil cleanliness check
Lead-free and leaded solder paste

02 SMT placement

4 Mycronic machines in three lines:
MY300DX-14
MY200DX-10 + MY100SX-10
MY100DX-14 (prototype line)
Capacity: 53,000 + 32,000 CPH (per IPC-9850)
Components down to 01005 package size
Run by a qualified technician – not an operator!

03 Vapour phase reflow

VP1000-66 – vapour phase
VP1000-44 – vapour phase
Quicky 800 – vapour phase
Quicky 450 – vapour phase
Tpeak 237 °C – guaranteed never to exceed the max. component temperature
High process repeatability across different products
Significantly lower thermal stress on components

Component verification during placement

Feeder and component paired by barcode at loading
R, C, L, V FWD measurement by component type
Automatic polarity check (even on the underside!)
Basic FET/IGBT transistor test
Placement log for every board
Detailed machine warning and error information
Visual inspection before and after reflow

Preventive maintenance and redundancy

Regular scheduled maintenance per maintenance plans
In-house staff and manufacturer service with SLA guarantee
Automatic calibration with manufacturer tools
29 machines with a recorded maintenance plan
All key machines redundant
No downtime, continuity of supply

NOSSBERGER THT soldering, cleaning and inspection

Selective soldering, chemical cleaning, 100% 3D AOI and optional 3D AXI (X-ray) inspection

04 Selective soldering

Selective wave in N₂ atmosphere
(SEHO Selective Start with Pillargen nitrogen generator)
Wave soldering
Hand soldering – Weller stations
BGA/QFN rework
Press-fit technology instead of soldering

05 Chemical cleaning

DCT InJet 388 + InJet 878
Double rinse, conductivity < 8 µS
Cleaning fluid designed for the Almit fluxes we use
Adhesive staking of SMD and THT components

06 Conformal coating

Polyurethane conformal coating of PCBs
Potting with two-component compound

07 3D AOI + X-ray inspection

SAKI 3Di-Is2 18 µm (3D AOI) – 100% inspection
Cyberoptics QX150 (2D AOI) as a supplement
Mantis Elite stereo microscope
Optional 3D AXI (X-ray) for BGA/LGA
Own criteria stricter than IPC
Inspection data archived for 5+ years

08 Testing and EOL

Comprehensive functional testing and commissioning to customer specification
End-of-line testing with reports and measurements
In-house development of test fixtures and programs
Lab equipment: multimeter, power supply, oscilloscope (IP-controlled from a PC)
Final assembly, packing into retail packaging

09 Cable harness manufacturing

Schleuniger EcoStrip 9380 for precise wire cutting
StripCrimp 200 – crimping machine with high repeatability
Rennsteig CM 25 for manual crimping of closed terminals
Wire twisting

NOSSBERGER Manufacturing process

Every order follows a defined process with inspection points and traceability



Inspection points and traceability

Incoming QC

Visual match with the ordered part
Material inspection to IPC (PCB)
2D codes on all incoming material
MSL control and storage conditions

In-process inspection

3D AOI (SAKI 18 µm) – 100% inspection
2D AOI (Cyberoptics) as a supplement for THT
Double 100% visual inspection
Optional 3D AXI (X-ray) for BGA/LGA

Final inspection

EOL test to customer specification
Test and measurement reports
Photo documentation
Visual inspection of the finished product

Traceability and archiving

Identification of components, parts, modules and assemblies
Production travelers, checklists
Paperless documentation – as actually built
AOI, X-ray and measurement data archived 5+ years

NOSSBERGER Flexibility and additional technologies

From a single piece to large series – no compromise on quality

Order flexibility

Machine SMD/THT assembly from 1 PCB
Express prototype production at no surcharge
Series from a few to thousands of units
Documentation changes during production within minutes
Ramp-up validation – customer samples before the full series is completed

Delivery and logistics

Customer portal – online tracking of order status, material and dates
JIT (just-in-time) deliveries
Faster partial deliveries possible
Blanket orders with call-offs
Complete packing into retail packaging
Custom foam inserts and technical packaging

DFM feedback

Post-production technical review (prototypes, 1st series)
Specific proposals to improve the design, cut costs and shorten assembly time
Improved long-term reliability
Industrialization proposals for series production

Additional technologies (in-house or with partners)

FDM 3D printing

**Prusa MK4S 3D printers
and two large-format printers**

Production fixtures, holders, parts,
enclosures, protective covers,
prototypes

Laser

Thunder Nova 35 (100W)

Engraving and marking
of aluminium and plastic parts,
cutting packaging material

CNC machining

Via partner

Aluminium and plastic parts:
enclosures, profiles, panels,
heat sinks

Labels

Thermal transfer printer

Production labels,
identification labels,
serial numbers

Packaging

In-house production

Foam inserts for
cardboard boxes,
made to measure

NOSSBERGER Customer portal

Every order online 24/7 – material, board, documents and shipment in one place

Order status at any time

Production stage and delivery date online, no phone calls or waiting for e-mails

Material by BOM line

How many BOM lines are in stock and how many are still awaiting delivery

PCBs and stencil with dates

Ordered, due date, delivered – for every order

Board preview with measurement

TOP and BOTTOM in real colours, vector zoom and measurement, PCB technology

All documents in one place

Inquiry, quotation, purchase order, confirmation, delivery note, invoice

Shipment tracking

Tracking number and delivery status right at the order

Sign-in by e-mail code; you see only your orders.

Illustrative screenshot with fictitious data.

Your orders 5

Refresh

Sign out

Search project, order number or PO...

Active only (5)

Finished (1)

All (5)

Order	Project	Qty	Status	Components	Stencil	PCBs	Delivery date	Details
3075	Modul E	10	Sourcing materials	Ordered	Ordered · 12.10.	Ordered · 15.10.	30.10.2026	+
3071	Modul A	150	Sourcing materials	Awaiting 24/78	Ordered · 07.10.	Ordered · 13.10.	27.10.2026	-

Modul A

Series S2 Qty 150 PO PO-0000-1234 Estimated delivery to customer 27.10.2026

Ordered

Materials

Production

Shipped

Components

PCBs

Stencil

160 × 123.4 mm

4 layers

1.6 mm

matte green solder mask

ENIG

filled vias IPC-4761 Type VII

IPC-A-600 Class III

IPC-6012 Class III

fiducials

Inquiry

Quotation

Purchase order

Confirmation

Delivery note

Invoice

3068	Modul B	500	Ready for production	Ready	Ready	Delivered	16.10.2026	+
3064	Modul C	40	In production	Ready	Ready	Delivered	14.10.2026	+
3059	Modul D	1200	Completed	Ready	Ready	Delivered	Shipped	+

NOSSBERGER Quality management system

Certified to ISO 9001:2015 since 2021

CERTIFICATION **ISO 9001:2015**

Certificate No.:	1050/2024/SC/Q
Body:	Systémové certifikace s.r.o.
Accreditation:	IAF S 3209
Valid:	02.08.2024 – 01.08.2027
Scope:	Express and contract manufacturing of electronics, PCBs and cable harnesses
Exclusion:	clause 8.3 (Design and development)

QMS elements

- Quality manual
- Quality policy and objectives
- Organizational rules and chart
- Maintenance plan (29 machines)
- Skill matrix and training plan
- SWOT analysis and risk register
- Internal audit programme
- Management review
- Complaint and corrective action log
- Supplier evaluation and selection
- Measuring equipment register
- Nonconformity control and corrective actions

Quality manager

Jan Vaněček

QMS management, internal audits, liaison with the certification body · support@nossberger.cz · +420 399 499 366

NOSSBERGER Industries we manufacture for

Long-term cooperation with leading technology companies in the Czech Republic and abroad

Automotive

HV charging modules, camera and access systems, power electronics

3D printing and consumer electronics

Control electronics, series of tens of thousands of units

Industry and IoT

Control electronics, sensors, automation

Aerospace

Electronics for nanosatellites, precision SMT

Measurement

Measuring and laboratory instruments

Power management / HV

Evaluation and power boards, extreme PCB thicknesses

We provide complete services and solutions – from design consultation to the finished product with documentation and functional test



We look forward to working with you

Nossberger s.r.o.

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ISO 9001

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