

The logo for SAFIRAL, featuring a stylized blue icon of three horizontal bars on the left and the word "SAFIRAL" in a bold, blue, sans-serif font to its right, all contained within a white rectangular box.

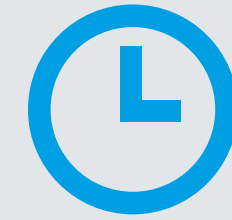
SAFIRAL

A vertical list of three white horizontal bars on the left side of the slide, serving as bullet points for the text to their right.

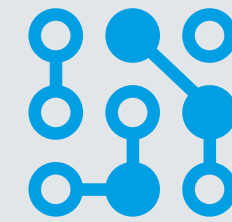
**Electronic
Manufacturing
Services**

EMS

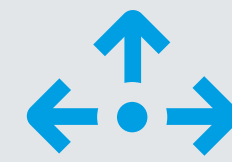
**EMS is a synonym
for a complex
service of custom
production of
electronics.**



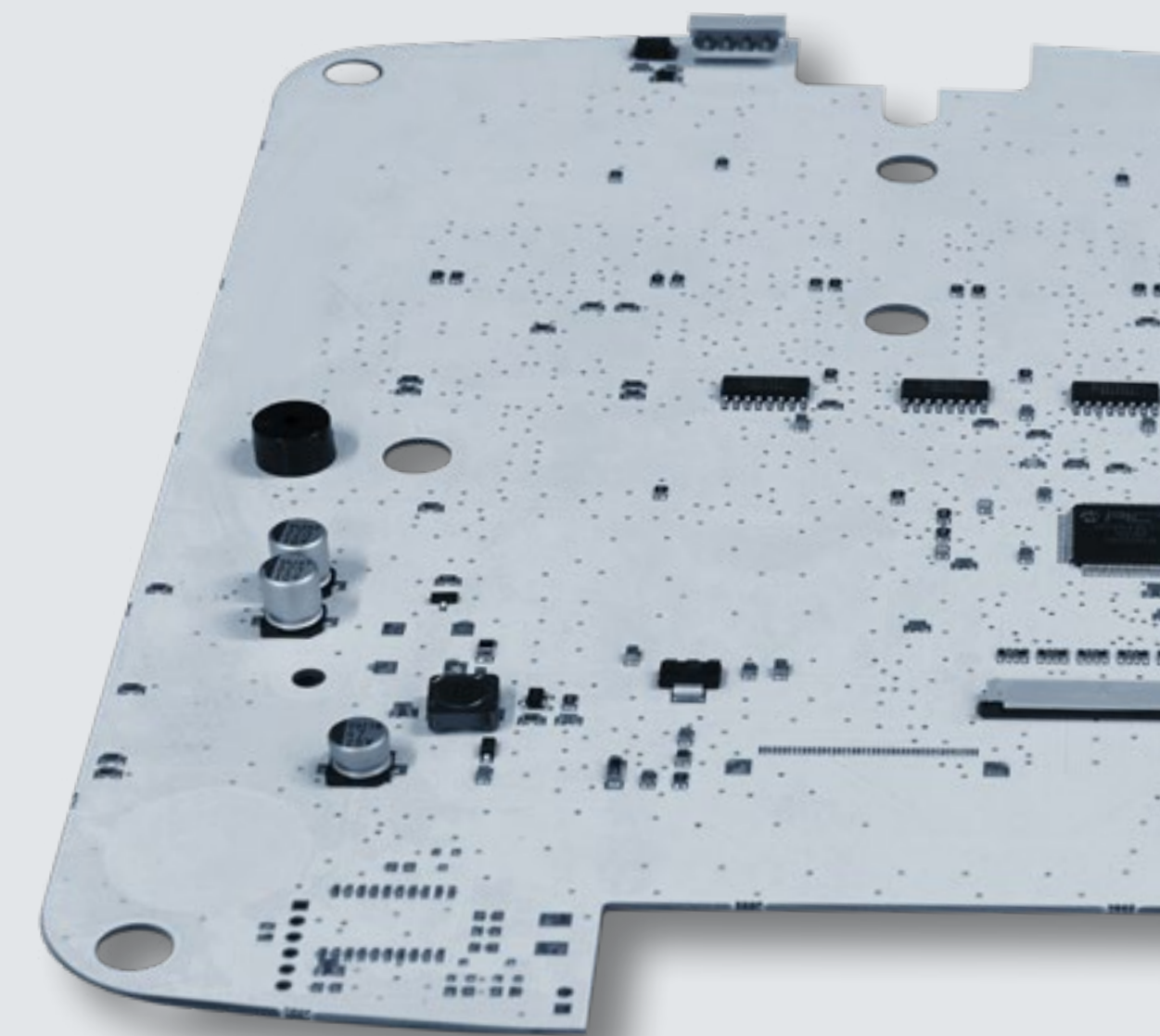
EMS express services

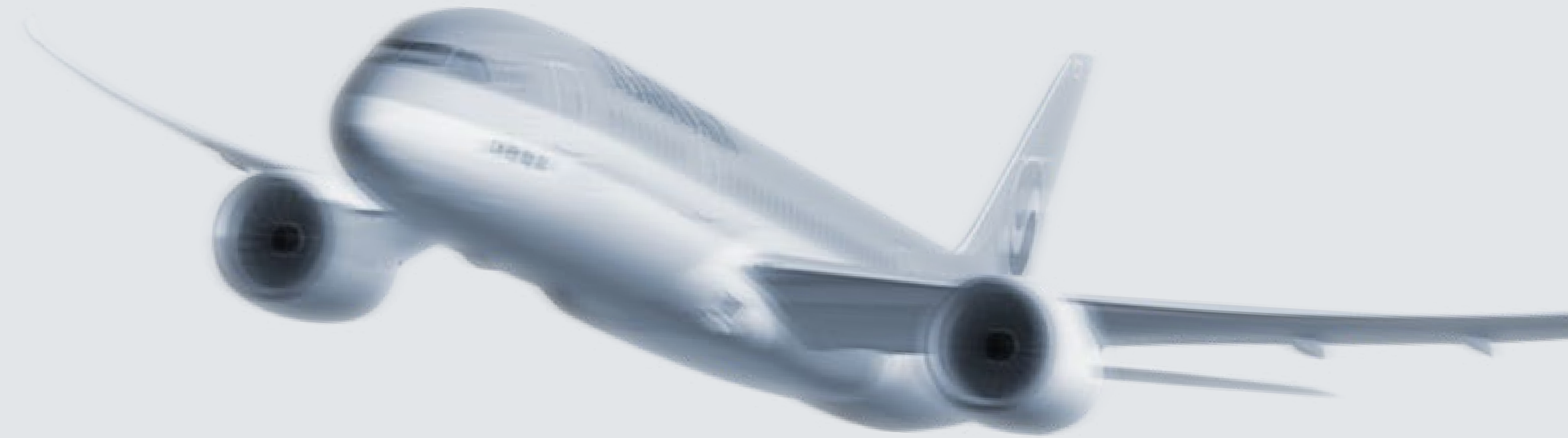
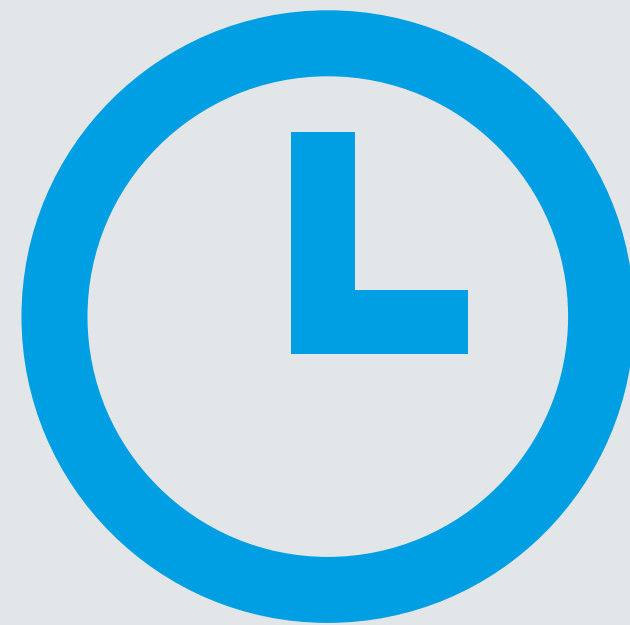


High technology



Reliability and flexibility





**Time flies. Never mind,
we can fly with it.**

We offer express production of electronics realization to our customers.

Delivery terms

PROTOTYPE mode

faster production is possible
at an additional cost

production of PCB in the Prototype mode is up
to 50 dm²

assembly up to 5000 SMD components
(max. 100 types)

5 WD production of PCB and
purchase of components



+

5-8* WD assembly



* working days, according to current
production capacities

10-13 WD for the whole project



Table of express surcharges for assembly in PROTOTYPE mode

working days	1*	2	3	4	5-8
surcharge (%)	300	150	80	30	0

* only after prior agreement, according to specifications

Delivery terms

STANDARD mode

faster production is possible
at an additional cost

production of PCB in the STANDARD mode is
over 50 dm²
assembly is over 5000 SMD components

from **8** WD production of PCB
and purchase of components

Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mon	Tue	Wed				

+

from **8-12*** WD assembly

Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mon	Tue	Wed	Thu	Fri	Sat	Sun
Mon						

* working days, according to current
production capacities

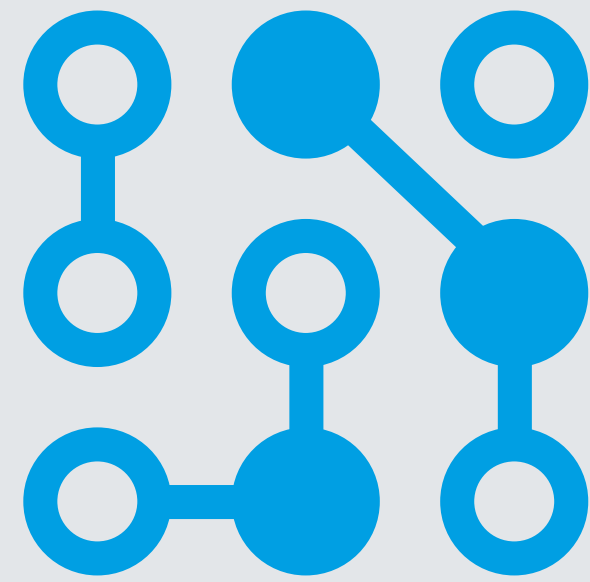
from **16-20** WD for the whole project



Table of express surcharges for assembly in STANDARD mode

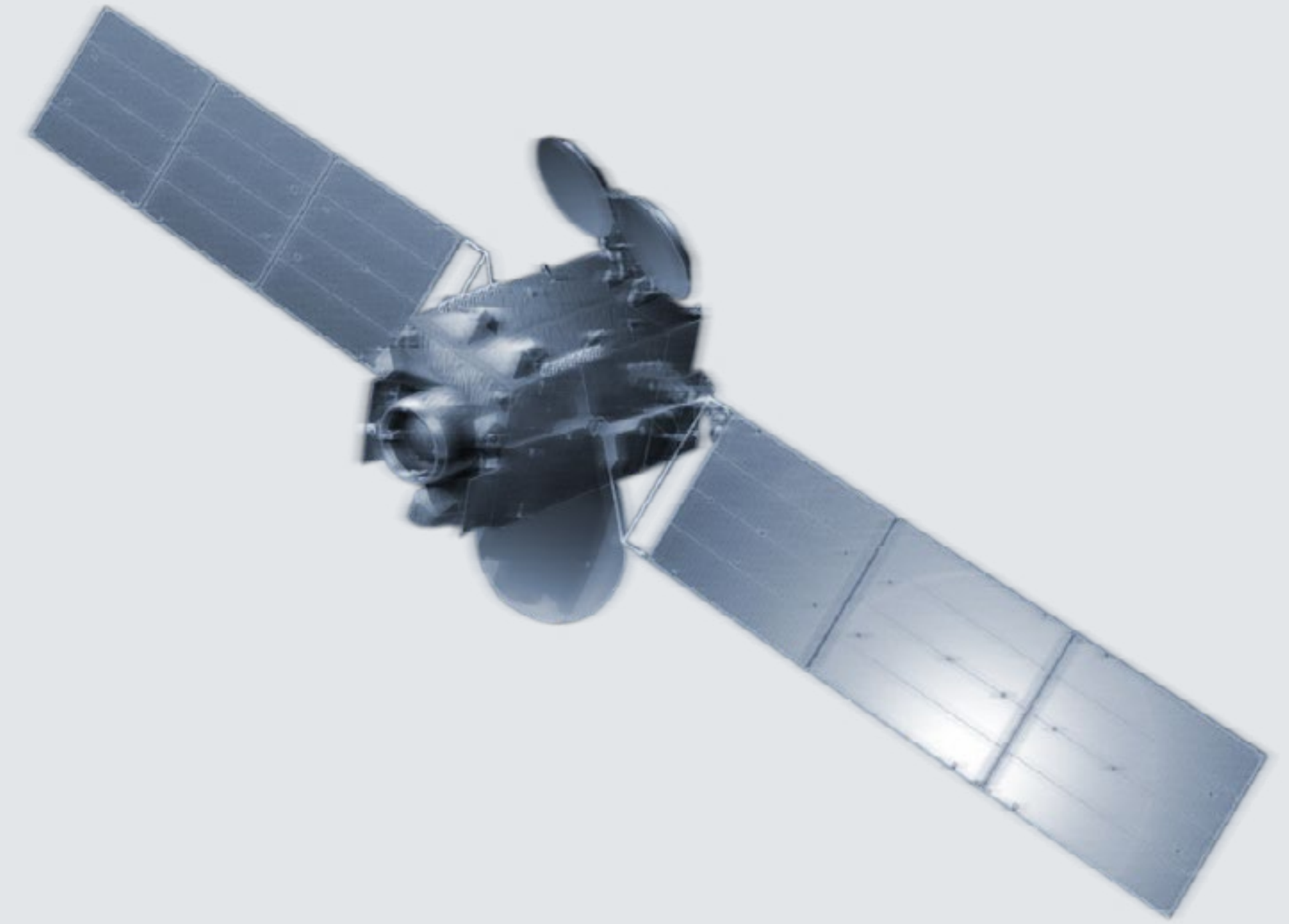
working days	1*	2*	3*	4	5	6	7	8-12
surcharge (%)	400	200	100	80	60	40	25	0

* only after prior agreement, according to specifications and quantity



High level technology

We can offer first-class services due to our modern equipment.



ELECTRONIC ASSEMBLING

BASIC DESCRIPTION

Solder paste
printing



Pick and
place
components



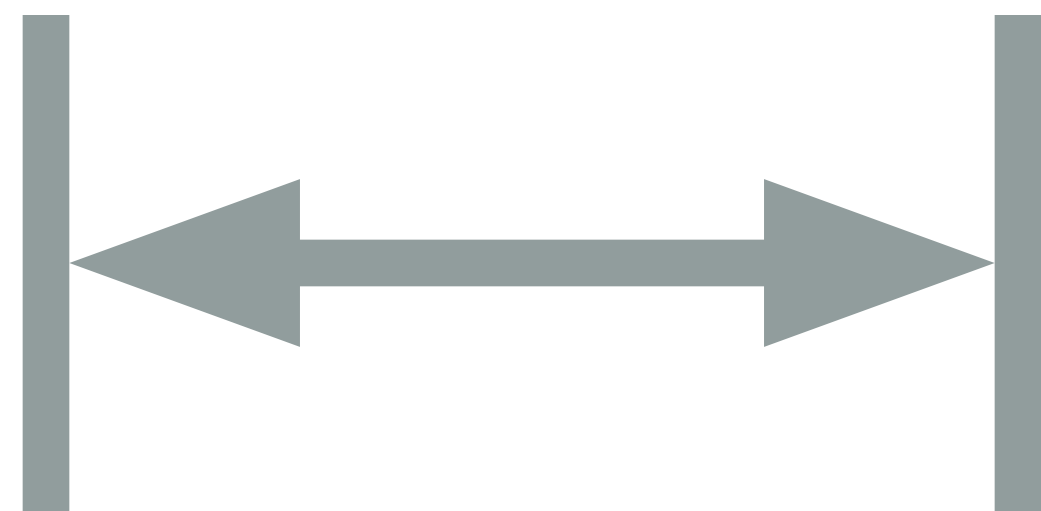
Soldering in
reflow oven



Control,
cleaning,
cutting



FITTING LIMITS



0402 standard
01005 minimum

QFN, QFP, apod.

BGA, mikroBGA
(pitch from 0,38 mm)

max. dimension
of the panel:

450 x 500 mm

MACHINERY EQUIPMENT

5× pick and place machines Mycronic

2× Jet Printer Mycronic MY600

Selective soldering InterSelect IS-B-335S

2× reflow ovens

Optical test 3D AOI SAKI

Rework station APR-5000-DZ

3× Mycronic SMD Tower™ 200

3× MP DRY CABINET

Electrical test according to the specification

The cleaning system InJet® 388 CRRD “Combo”

SEHO 8140 PCS Wave Solder

X-Scope 3000 X-Ray Inspection System

AXC-800III X-Ray Component Counting System

Jet Printer

- solder paste printing
- integrated SPI system
- speed 1.080.000 dot/h
- variable solder paste thickness



Mycronic Jet Printer
MY600



Pick-and-place machine

- speed: up to 24.000 cph
- electronical testing of components
- agilis feeders

Mycronic
MY200



Reflow oven SEHO

- 14 heating zones
- input 42 kW
- nitrogen atmosphere
- chain conveyor

Reflow oven SMT

- 7 heating zones
- input 48 kW
- nitrogen atmosphere
- chain conveyor



SEHO GoReflow 2.3



SMT Quattro Peek M

2D and 3D control

- Automated Optical Inspection according standard IPC
- control of soldering quality and polarity of components
- ODB ++ compatibility

3D AOI SAKI



Optical tester

- FAI (First Article Inspection)
- visual inspection for sample production
- supplementary UV-light
- conformal coating control

Quins LC20



Rework station

- advanced rework system
- total output 2600 W, dual zone
- visual system with contrast control
- DPS up to 381 mm x 197 mm size
- placement precision 0.025 mm

METCAL
APR-5000-DZ



Selective soldering

- fully programmable soldering
- wide range of nozzles
- nitrogen atmosphere
- dot-like flux application
- top quality THT

InterSelect IS-B-335S



Solder wave

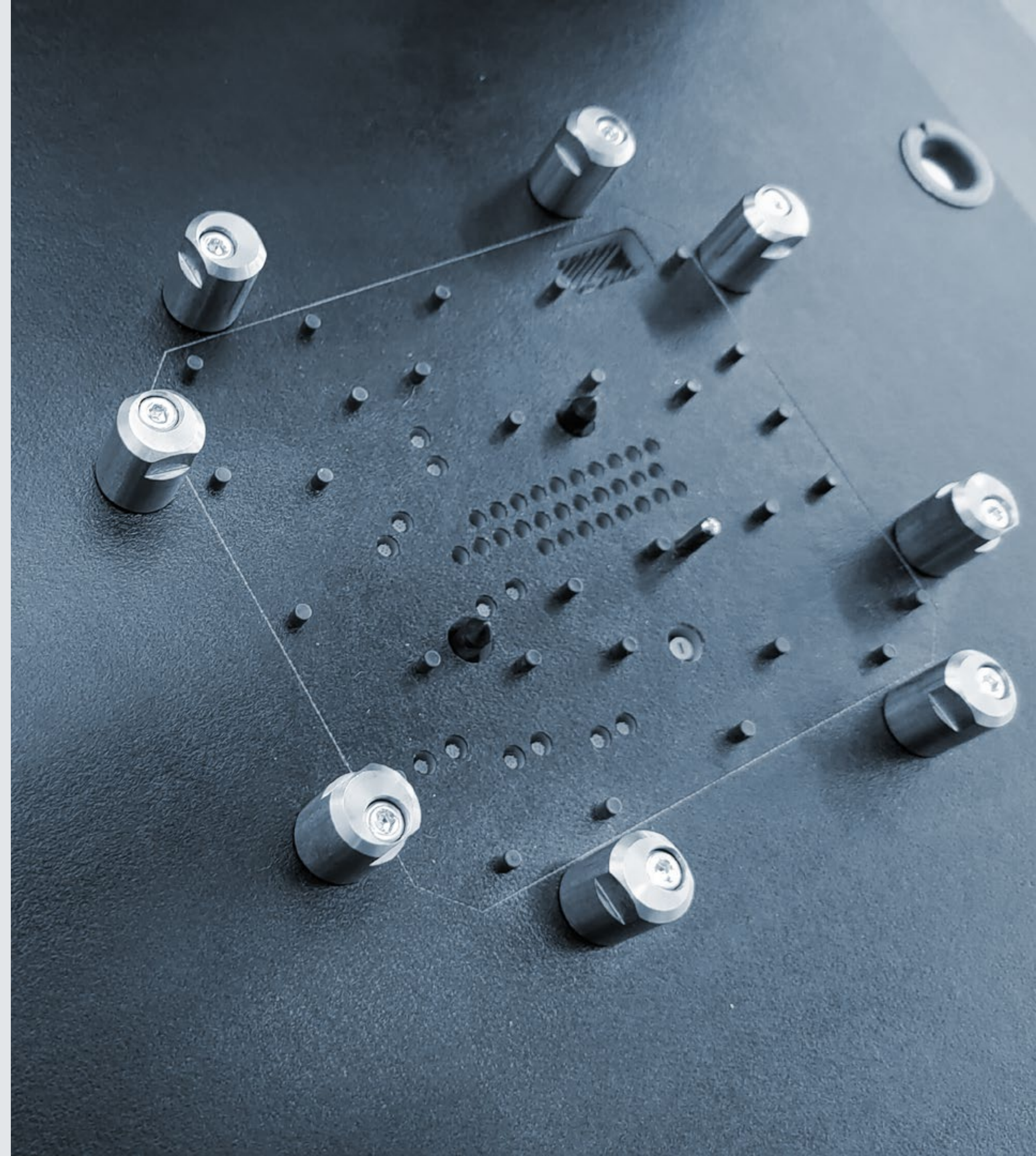
- lead free wave soldering machine
- SAC 305 alloy
- max panel size 400 mm
- automatic PCB preheating temperature setting

SEHO SYSTEM
8140 PCS



Electrical test according to the specification

- custom needle field
- ICT tests (measuring devices)
- functional tests
- integrated QR code reader



Storage towers

- flexible, compact and high-capacity component storage
- fast storage and component search
- automatic recording of all stock movements

Mycronic SMD Tower™ 200



X-Ray Component counting system

- Tubes, sealed ESD bags
- JEDEC Trays
- BGA ball count
- 7", 13" and 15" reels

SCIENSCOPE AXC-800III



X-Ray Inspection System

- micro focus closed X-ray tube
- multiplayer PCBs control
- color mapping camera with zoom

SCIENSCOPE X-Scope 3000

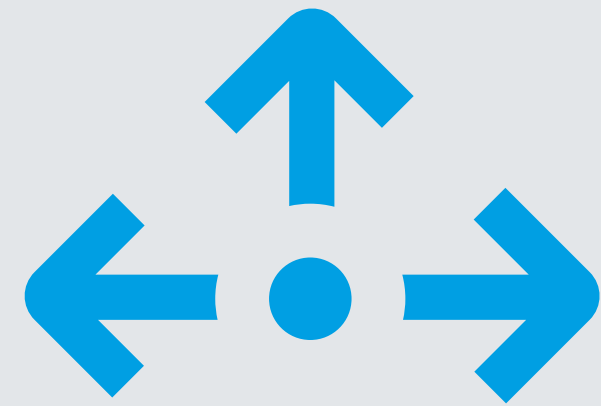


The cleaning system

- precise washing of PCB after soldering
- possibility to set the washing cycle
- automatic control of the quality of washing fluids

InJet 388 CRRD Combo





Almost nothing is impossible.

We are focused on flexibility and satisfying our clients' needs reliably.





SAFIRAL Ltd.

- the company established in **2007**
- based in its own premises
- **1400 m²** floorspace
- gradual reconstruction of the compound
- currently **49** people employed



MISSION

To have cooperation systematically set up to lead to the highest possible efficiency and speed.

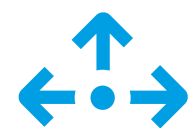
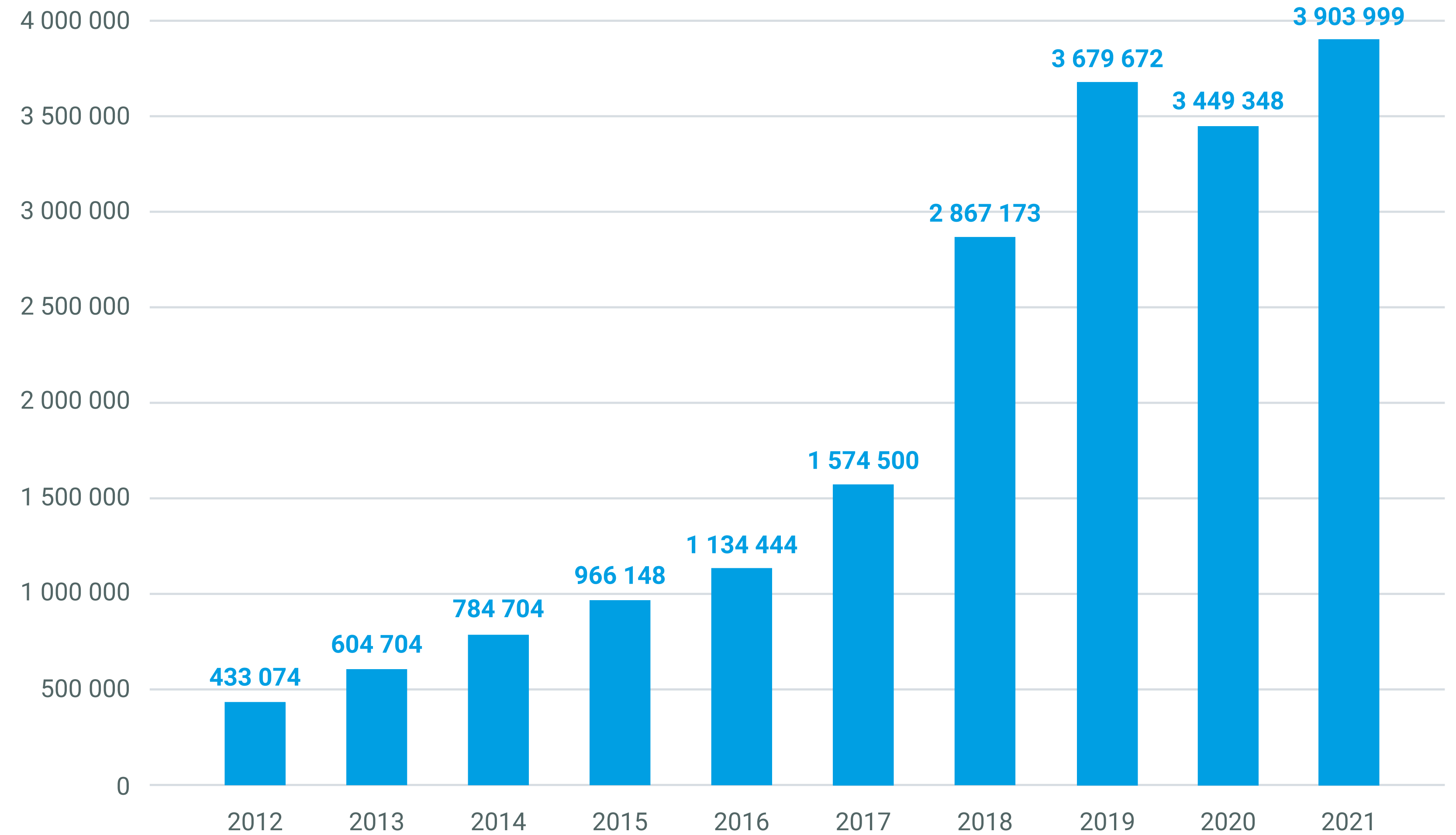
VISION

Extend speed and flexibility from prototype to series by 2027.



SAFIRAL Ltd.

turnover in EUR



CERTIFICATION

EN ISO 9001:2016

EN ISO 14001:2016

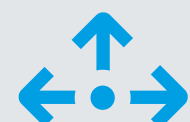
IPC-A-610

(certified IPC specialist)

ESD space according to

EN 61340-5-1,

IEC 61340-4-1 specification





**We are looking forward to
our co-operation.**

SAFIRAL s.r.o.

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