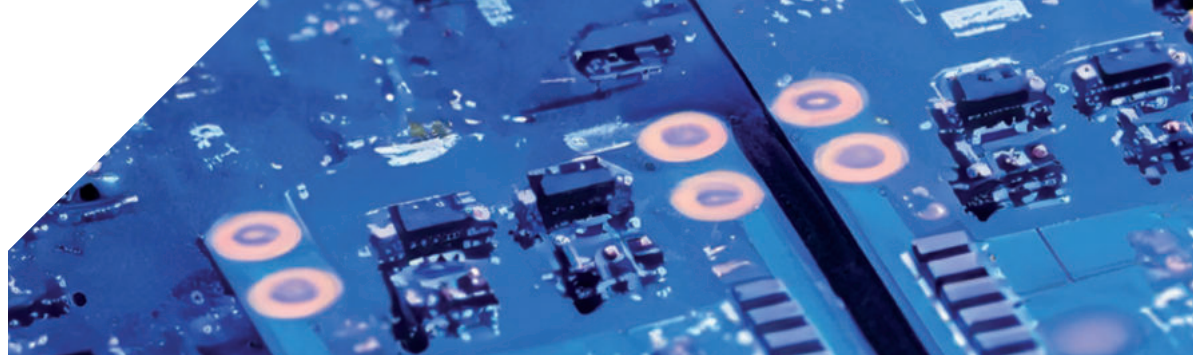




Products and manufacturing services  
for the defence industry



Innovative products  
Innovative technologies



# Who we are, what we do

over **35**  
years of experience

**120+**  
employees

**4**  
localizations

**4000** sqm  
production area

**100%**  
PCBA tested

**100%**  
employee  
certified in IPC A-610

Semicon Sp. z o.o. is a family-owned, innovative company operating in electronics, photonics, aerospace, defence and other high-tech industries.

Semicon has been operating on the electronics market for more than three decades. Our team consists of 120 professionals, working in four locations, with a total area of about 5000 square meters, offers you a number of services and a rich portfolio of products from globally renowned manufacturers.

We specialize in providing turnkey electronics solutions to clients in all business and industrial sectors. With an extensive range, including materials and components for electronics, services for electronics and testing products, we can turn your ideas and requirements into highly advanced electronics solutions that are custom-made to your specifications.

Our electronics manufacturing expertise means that we can offer guidance from the early planning stages, through to final manufacturing and packaging. Whether you need a single wire harness, or a more complex printed circuit board assembly (PCBA), our technical team will work closely with you on design concepts and advise on the technologies that will be most suitable for your products.

Furthermore, with strong global partnerships and technical experts in Poland, we can source competitively priced electronic manufacturing and PCB assembly solutions to fulfil any size of production requirements. This highly advanced service means that we are the leading choice for cost-effective, reliable and unique electronics manufacturing solutions.

Joint venture: PB Technik Sp. z o. o. [www.pbtechnik.com.pl](http://www.pbtechnik.com.pl)

Offers a wide range of devices and materials used in the electronics industry. Representative of the companies JUKI, ERSA, EKRA, ASYS, VISCOM, ESSEGI, CAB, SEICA, BRADY, VISION ENGINEERING, FISHMAN, KOKI, ZESTRON, PVA, and others. Delivery, service, technological consultations.

## Certificates

Semicon has implemented and maintain the Integrated Quality Management System, confirmed by the following certificates:



ISO 9001:2015

Quality Management System



AS 9120:2018

Quality Management System  
Requirements for Aviation, Space  
and Defence Distributors



ISO 13485:2016

Quality Assurance  
of Medical Devices



ISO 14001:2015

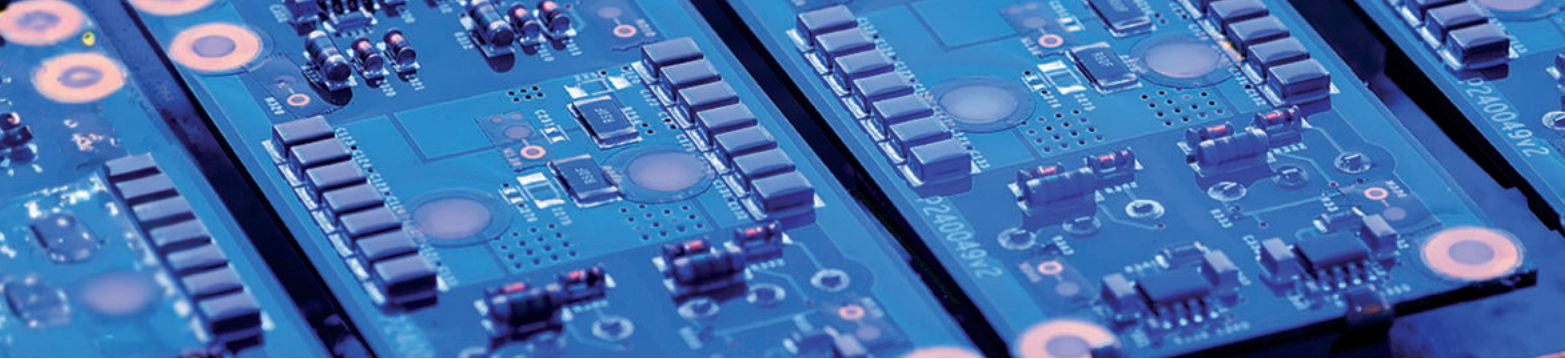
Environmental  
Management System



AQAP 2110:2016

Quality Assurance  
of Defence Products





# Other Semicon business areas



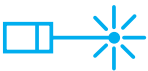
## Distribution

- Electronic and electromechanical components
- Materials for electronics and other industrial branches
- Certified materials for aviation, defense
- Measuring accessories, test probes
- Tools for the electronics industry



## Laser cutting of SMT stencils

- Stencils on aluminium frames, Vector Guard and self-tension systems
- Long stencils for LEDs, up to 1800 mm
- Micro stencils for reballing with thickness up to 600  $\mu\text{m}$
- Step stencils (variable thickness) – milling, micro welding
- Nano coating stencils
- Precise laser-cut mechanical components



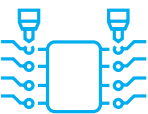
## Optoelectronic equipment manufacturing

- Laser modules: line, cross, spot
- Laser measuring equipment



## Tapes converting

- Rolls, tapes and velcros slitting, die-cut, kiss-cut, laminating



## In-Circuit test fixtures (ICT) and functional testers (FCT)

- Designing and building adapters with testing probes
- Full systems preparation based on customer documentation



## Wire harness production

- Short series
- Wires and cables processing from #36 to #10
- Customization & design
- Box build

## Member of

- Polish Space Industry Association
- Polish Chamber of Commerce for Electronics and Telecommunications
- Polish Technological Platform on Photonics
- Microelectronics, Electronics & Photonics Cluster



[space.biz.pl](http://space.biz.pl)



[pptf.pl](http://pptf.pl)



[kiget.org.pl](http://kiget.org.pl)





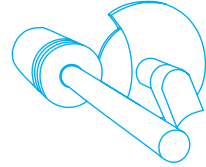
# | Tapes

Aerospace | Industrial | Defence



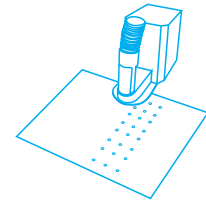
- Masking
  - Protective
  - Carpet
  - Floor sealing
- Damping
  - Antislip
  - Aluminium
  - Double side
- Cargo liner
  - Corossion protective
  - Adhesive Transfer
  - Applicators & tools

## TAPE CONVERTING LINE



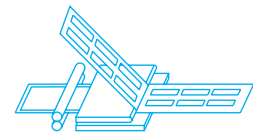
### Cutting the roll of tapes

- Maximum logroll length: 1700 mm
- Minimum cut length: 6 mm
- Cutting accuracy: 0.1 mm
- Maximum logroll diameter: 430 mm



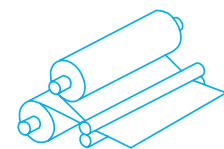
### Cutting

- Working area 1330 mm x 830 mm
- Cutting difficult materials
- Cutting of adhesive films
- Cutting foams and other materials
- Filter extraction



### Punch of matrix

- Material thickness
- Working area 300 mm x 300 mm



### Lamination

- Working width max 1600 mm





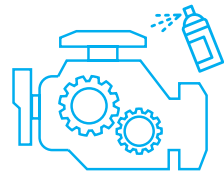
# Chemicals

Aerospace | Defence | MRO | Industrial

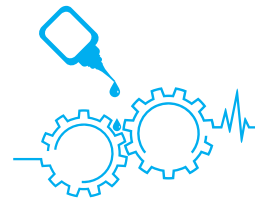
## APPLICATION



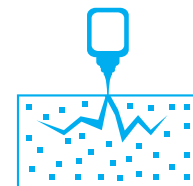
Anti-corrosion products  
Protection in the form of dry, wet and wax coatings



Cleaners/degreasers  
Fast and slow evaporating solvents, aqueous (alkaline and acidic)



Anti-seize greases/paste  
Available in aerosols, cartridges, canisters, cans



Adhesives/Sealants  
Epoxies, polyurethanes, silicones



- Sealants
- Penetrants
- Greases
- Adhesives
- Gaskets
- Silicones
- Degreasers
- Cleaning agents
- Surface treatment
- Coolants
- Abrasives
- Primers
- Corrosion inhibitors
- Applicators & tools







# Electronic manufacturing services (EMS)

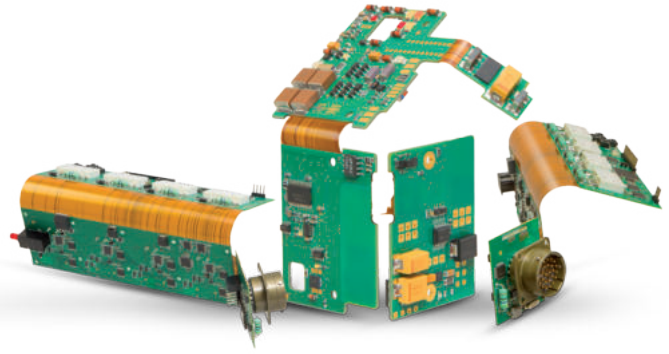
Industrial | Defence | Space | Medical

## Our production capabilities

### What we offer:

Professional assembly of electronic boards in SMT and THT technologies based on the guidelines of the IPC-A-610 Class 2 and 3 standard for building electronic assemblies, including:

- PoP assembly
- Flex PCB assembly
- Assembly in Flex on Glass, Flex on Board technologies
- Hot Bar Soldering
- Assembly of long PCBs: 915 mm x 500 mm printing area
- Complex procurement: printed circuit boards, components, materials: pastes, adhesives, varnishes, thermally conductive materials
- Laser cut stainless steel stencils, step-up/step-down stencils
- Ion purity control
- Potting, gasketing, conformal coating
- Design of boards, complete equipment and software
- Storage and heating of SMD components
- AOI, Flying-probe, X-Ray inspections
- Electrical testing using needle fixture
- Board separation by mechanical and laser method (green laser)
- Assembly of Press-Fit connectors
- PCB repair, including BGA and  $\mu$ BGA reballing
- Optional activation, including programming and functional testing
- Professional engineering consultancy
- ESD protection of components and finished products according to IEC 6340
- Protection of moisture-sensitive components according to IPC JEDEC JSTD-033



### Testing



### Components & Connectors



### Wires, Cables & Wire Harnesses





# | Laser modules

Industrial | Defence | Medical



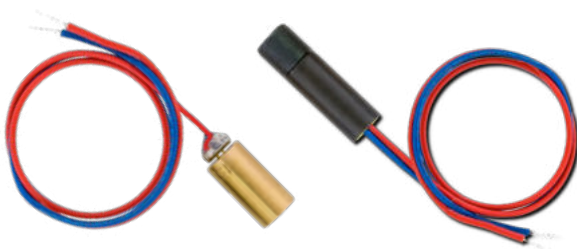
## Line lasers:

Laser line generators are compact instruments generating a well visible laser line on any surface. Line generators perform excellently as cutting line markers in industrial machines, wood and stone saws and in machine vision systems. There are many versions of these lasers available, but green and red lines are the most popular.

- Available wavelenghts: 405-980nm
- Average optical power: up to several Watts
- Many electronic features, like automatic power control, soft start and proper polarity protection
- Good quality optics

## Laser pointers:

Point lasers are used as indicators, markers, crosshairs, elements of alarm systems, laser barrier components, sensors, etc. As a manufacturer, we are able to adjust most of the device parameters to individual requirements.



## Cross lasers:

Cross generating lasers are compact instruments that generate two well visible crossing laser lines on any surface. Cross generators are applied in industrial positioning systems, in textile and clothing industries, in screen printing machines and machine vision systems.

## Laser measurement instruments:

Laser measuring instruments (LZP series) are sets of specialist laser instruments developed by Semicon. Each set includes a laser source and a beam detector (or a measurement screen). These instruments are designed to perform displacement and deformation measurements. LZP sets may be custom made by selecting an appropriate laser module that affects the working range of the sets and their accuracy.





## Contact us

### Headquarters and R&D department

info@semicon.com.pl  
zamowienia@semicon.com.pl  
PL 04-805 Warsaw,  
Zwolenńska 43/43a Street  
+48 22 615 73 71  
+48 22 615 64 31  
fax: +48 22 615 73 75

### EMS - Electronic Manufacturing Services

Inquiries: EMSinquiry@semicon.com.pl  
Orders: EMSorder@semicon.com.pl  
General information: EMSinfo@semicon.com.pl  
PL 04-805 Warsaw,  
Ezopa 71a Street  
+48 22 612 67 92  
+48 22 825 24 64

### Laser modules design and production

lasery@semicon.com.pl  
PL 04-761 Warsaw,  
Zwolenska 43/43a Street  
+48 22 615 73 71

### SMT Laser cut stencils manufacturing

szablony@semicon.com.pl  
PL 05-077 Warsaw,  
Zakretowa 4 Street  
+48 22 615 27 05  
+48 22 102 22 50

### Tapes converting

tasmy@semicon.com.pl  
PL 05-077 Warsaw,  
Zakretowa 4 Street  
+48 22 102 22 52

### Main warehouse

(open Mo-Fr, 8:00-16:00 CET)  
radomszczanska@semicon.com.pl  
PL 04-764 Warsaw,  
Radomszczanska 19 Street  
+48 22 615 83 40  
+48 607 180 600  
fax: 22 615-73-75

### WARSAW

- Headquarters and R&D department
- Electronic Manufacturing Services
- SMT Laser cut stencils manufacturing
- Main warehouse

