

About Us

Terapo was established in 1991 as a repair shop for consumer electronics and computers. The name Terapo was derived from three words; TE - television, RA - radio, PO - computers (in Slovak).

We are located in Banska Bystrica, a city in the heart of Slovakia.

At present, we provide servicing, marketing, and inter-mediation in the fields of electronics and energies.

We assemble PCBs using the latest equipment and technologies. Our PCB assembly service can fit SMD components using classical or lead-free materials.

We hold our services to the highest quality standards and client expectations.



SMD Assembly

Our equipment can handle surface mount devices with the following sizes:

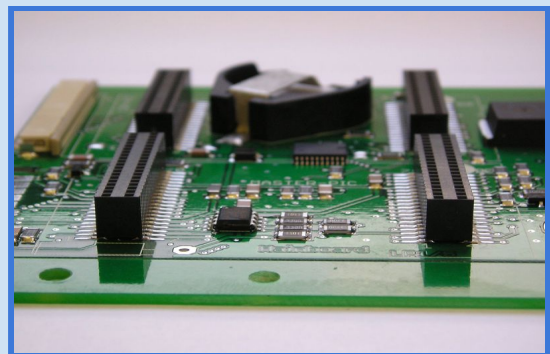
0201, 0402, 0603, 0805, 1206...., SOT23, SOT89, SOT122, SO8, SO16, PLCC4 - 84, QFP 0,5 mm, BGA

We are able to assemble prototypes delivered as single PCBs.

Maximum dimensions: 420 x 300 mm

Minimum dimensions: 40 x 50 mm

SMT populating capacity: 15 000 pcs/h



Our equipment:

ASSEMBLEON OPAL XII - Pick & Place machine

TESCON 307 - Pick & Place machine

UNIPRINT - Manual glue or solder paste application

UNIPRINT G02-V - semi-automatic device for glue or solder paste application

HELLER 1707EXL - automatic reflow soldering oven 7 Heat zones / 1 Cool

ASSCON VP 3000 - 28 - Vapor-Phase Soldering System.

MANTIS - Optical system for visual control

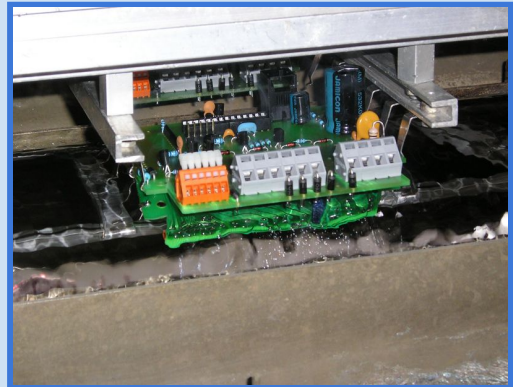
ERSA Digital 2000 - multi-purpose repair station



Materials used for populating with SMDs:
Solder pastes: Heraeus (lead-containing),
KOKI Company Ltd. (lead-free), Qualitec
Glues: Heraeus

Wave soldering

We also offer an assembly line for manual PCB populating. PCB populated with through-hole components or combined (through-hole + SMD) devices are wave soldered with either leaded or lead-free technology.



RoHS Lead-free technology: ATF 20/33,
wave width 330 mm, Alloy: SN100C-SnCu0,7Ni - Balver Zinn
Leaded technology: Delta Junior, wave width 360 mm, Dip: ALPHA
63/37VaCuloy

Assembling and manual soldering

We can populate and perform manual soldering in special cases (atypical devices, oversized PCBs, combined SMT + through-hole mounting, etc.).

Our equipment:

Forming machines: OLAMEF
Manual soldering machines:
SOLOMON, WELLER, ERSA
Ultrasonic PCB cleaner:
POWERSONIC, PS04000A

Equipment for manual mounting:

Solder for manual soldering: Balver Zinn, KOKI Company Ltd, Multicore
Flux: ALPHA (No-clean and Water soluble)

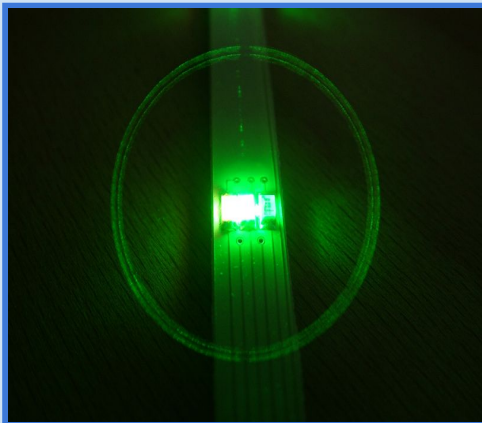
Special Mounting

We also mount various assemblies and subassemblies:

mounting various parts within the enclosure, wire harnesses, heatsink mounting and adjustment, drilling, pressing.

We are able to test and measure assemblies according to your instructions.

Control, Testing, and Software debugging



Optical in-process control is used at each step of the populating process. Output control is then performed at the end.

At your request, we can measure and test subassemblies, assemblies, modules or final products using software and hardware that you provide. Alternatively, we can work with you to develop specific test equipment that we shall then use to verify the products we deliver to you.

Our equipment:

*Special-purpose measuring stations
for low frequency:*

Measuring oscilloscopes BM 566

TEKTRONIX 463

UDC power supplies 2x30V/5A

UDC power supplies 1x60V/10A

Laboratory multimeter

Schlumberger

*Measuring stations for high frequency
- 1,8 GHz:*

Scalar analyser HP8711A

Sweep generator SWOB III

Sweep generator WAVETEK 1702

Sweep generator WAVETEK 1703

Spectrum analyser TEKTRONIK 2712

Generator Rohde & Schwarz BN41401

Requests for assembly

Assembling with SMDs

Data required for manufacturing:

- parts list (bill of materials)
- assembly drawing
- coordinates for machine (Pick & Place file)
- Gerber data for paste stencil preparation for flux or glue application

Provided parts must be distinctly identifiable, quantity margin 2% of standard parts is required

PCBs to be populated with SMTs must be provided in panels with a clearance border so that our machine can hold the PCB

Minimum PCB dimensions: 40 x 50 mm

Maximum PCB dimensions: 420 x 300 mm

Manual assembling, manual and machine soldering of through-hole components:

Data required for manufacturing:

- parts specification
- assembly drawing with parts orientation
- non-standard mounting specifications

Parts supplied must be distinctly identifiable, quantity margin of standard parts is required.

If you have any additional questions, feel free to contact us!