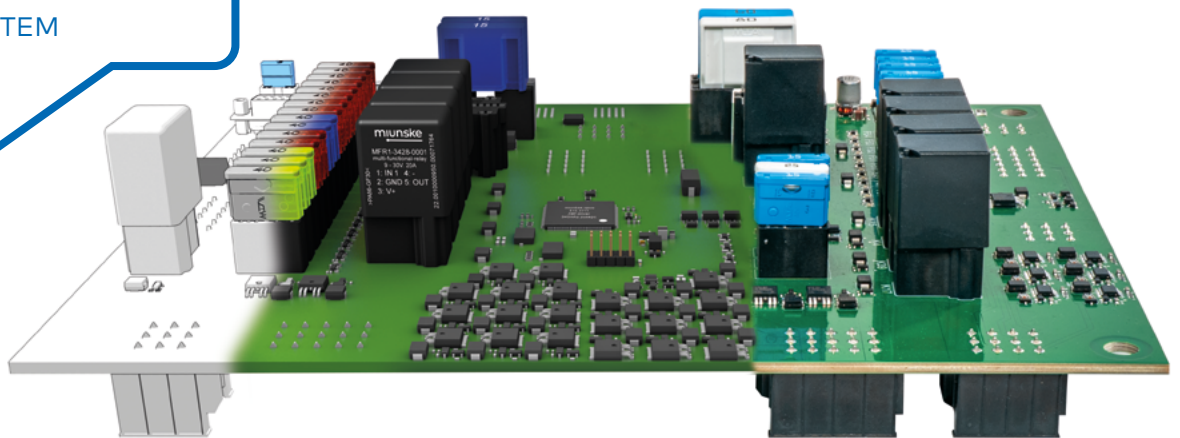


CUSTOMIZED FROM ONE SOURCE

POWER DISTRIBUTION

TAILOR-MADE

FROM STANDARD POWER
DISTRIBUTOR TO
INTELLIGENT CENTRAL
ELECTRIC SYSTEM



- + FULL-SERVICE
- + CUSTOMIZED FROM ONE SOURCE
- + STABILITY & FUNCTIONAL RELIABILITY
- + QUALITY



ELECTRONICS FOR COMMERCIAL & SPECIAL VEHICLES



miunske
PLUS + POINT

FULL-SERVICE

from the prototype
to the serial product

miunske® POWER DISTRIBUTION

Customized from one source

Central power distribution units (PDU) in special purpose vehicles have to meet a wide requirement profile. In addition to distributing and switching various consumers and power circuits, the protection and the diagnosis of possible malfunctions are indispensable. We implement your individual power distribution unit according to your requirements by using different manufacturing technologies focused on high quality and high performed connections.

SUITABLE TO YOUR REQUIREMENTS

From simple power distribution unit to intelligent central electric system in PCB design. We will find the right power distribution unit together with you!

GENERAL INFORMATION

- max. dimensions of the PCB 500 mm x 500 mm
- max. thickness of the PCB 3,2 mm
- Multiboard, number of layers according to demand
- customized hardware development

STANDARD PDU VARIANTS

- multilayer PCB, copper level up to 105 µm
- continuous current-carrying capacity up to 200 A
- assembling in soldering and press-fit technology as well as SMD assembly with discrete components such as e.g. transistors, diodes and LEDs

WITH INTELLIGENT COMPONENTS

- PCB with copper thickness 70 µm
- continuous current-carrying capacity up to 200 A
- mixed assembling in THT, SMT and PFT (press-fit technology)
- microcontroller with customized software development
- current monitoring of the outputs
- self-diagnosis by self-tests
- communication interfaces e.g. CAN

PRODUCT ADVANTAGES

- + minimized cable effort
 - + extremely high resistant connections
 - + reduced installation effort
 - + compact design
- + weight- and space reduction
 - + significant more functionality
 - + customized: components & design
 - + error prevention

ASSEMBLING TECHNOLOGIES

THT, SMT or PFT (press-fit technology)

Whether you favour the realization of your power distribution unit in one assembling technology or by using different methods. We find out the type of manufacturing and design that will fit your requirements exactly to the point.

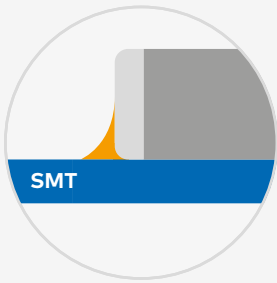
miunske
PLUS + POINT

Quality

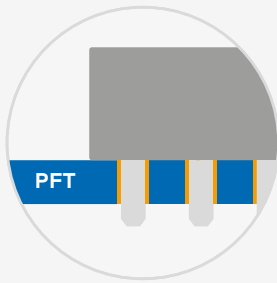
certified processes and
optimal component selection



THROUGH HOLE
TECHNOLOGY



SURFACE MOUNTED
TECHNOLOGY



PRESS FIT
TECHNOLOGY

THT-assembly manual or via selective soldering

automatical selective soldering system
SPA440 EVO to assemble a PCB with
THT-components up to an element size
400 x 400 mm

SMT-Productionline for PCB-assembling

- consisting of:
- placement machine Essemtec
 - stencil printer EKRA/ASYS (SERIO 4000)
 - reflow soldering system
 - handling-module ASYS

PFT processing and assembly of own press-fit components

- fuse holder
- relay sockets
- single contacts
- connectors
- additional purchased parts:
power bolts and elements

BENEFITS OF DIFFERENT ASSEMBLY VARIANTS

THT – selective soldering:

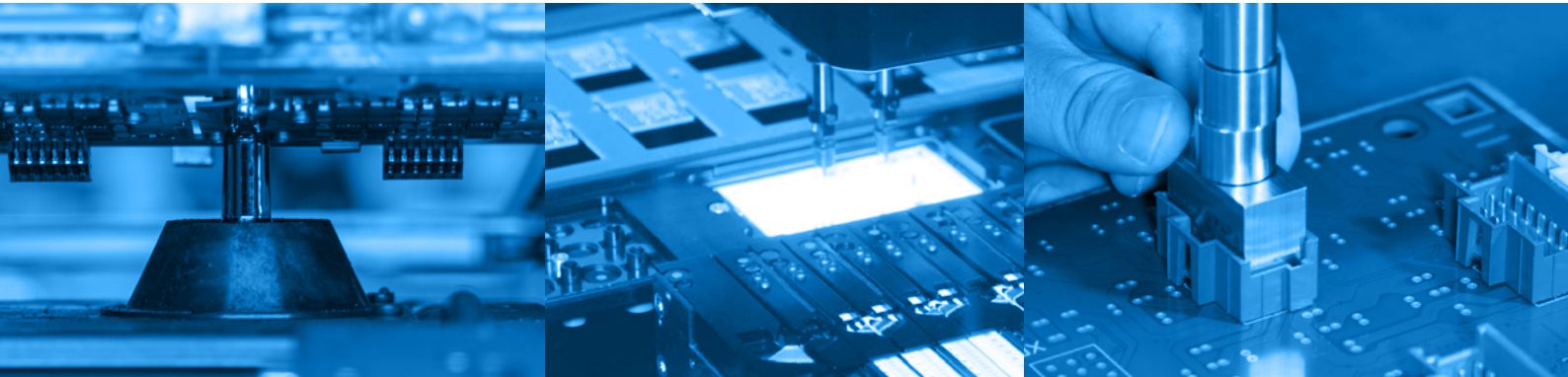
- cost-effective due to reduced machine set-up times
- powerful, also indispensable for certain components in hard to-access THT solder joints, such as plugs and switches
- quality assured, no thermal stress for other components in the case of mixed and double-sided THT assembly

• SMT-assembly:

- significant miniaturization due to smaller placement space between components
- weight reduction due to increased compactness
- shorter production times due to automated SMT assembly
- highest product quality by AOI and Flying-Probe tests

Press-Fit Technology

- minimization of the installation space via compact components
- low contact resistances especially at high continuous current loads
- high resistance regarding climate and mechanical stress
- minimal risk of default e.g. due to cold solder joints
- environmentally friendly due to the renunciation of solder and fluxes



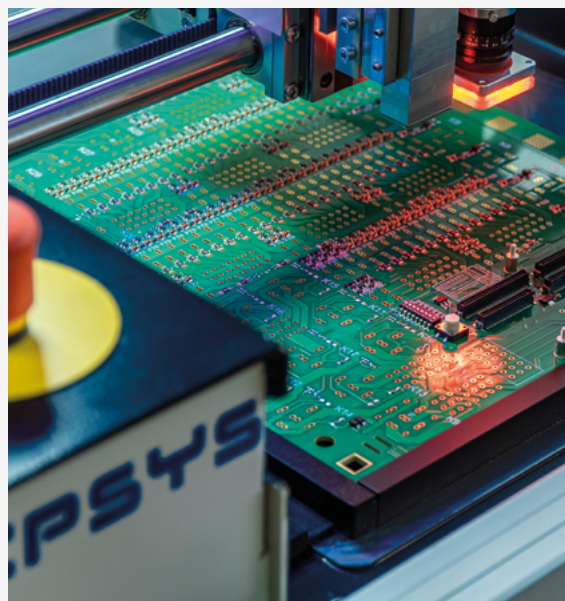
TESTING METHODS

- AOI - automatic optical inspection - Göpel AOI Advanced Line X30
Assembly Testing of right components usage and placement
- FLYING PROBE - in-circuit- and multifunctional test system
- SPEA – 4060S2, functional testing after assembly



PRECISE COATING

With the help of an I-Jet jetting system from EPSYS, we apply protective coatings to printed circuit boards and assemblies with the highest precision and accuracy. From single printed tracks, via's or components up to complete assemblies. Even partial omissions, e.g. for sensitive components and areas can be realized without any problems. These are already planned and implemented in the layout creation phase. Coating with protective lacquer protects electronic circuits from negative influences such as moisture, solvents, dust and other contamination that potentially cause impairment and malfunction.



STATEMENTS

„Our innovative vehicles include a lot of development work. miunske® always provides advise and support with their special know-how. They are highly flexible and able to react fast on modification requests.“

Friedrich Neu • Brandschutztechnik Görlitz

„Next to good reachability and a trustworthy communication we appreciate the competent advisory. miunske® always manages to find a solution.“

Stefan Lindner • Traktorenwerk Lindner GmbH

„We rely on quality with our business partners as well! Not only the service but also the quality of the product is solid.“

Uli Leube • TS Fahrzeugtechnik GmbH

