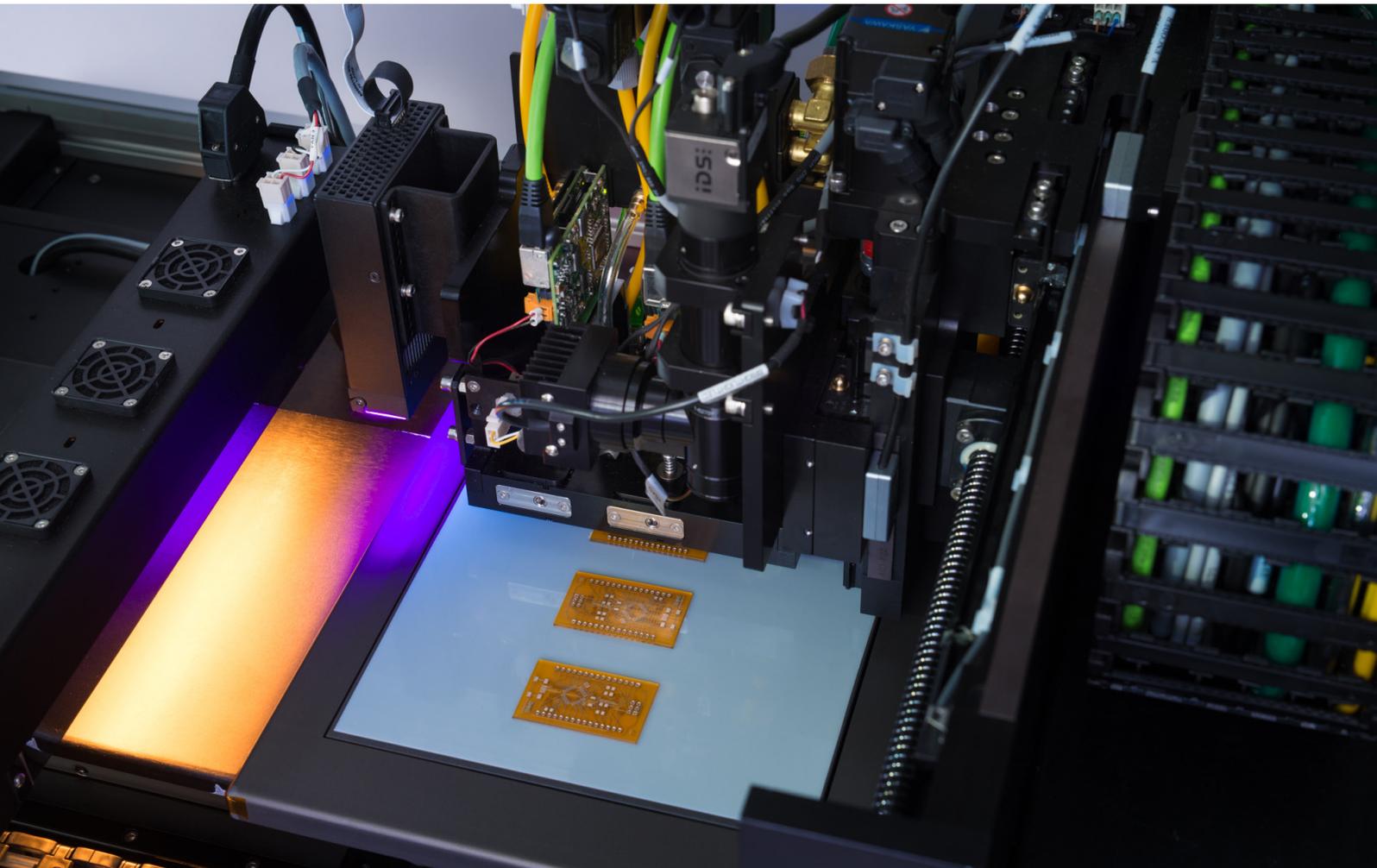




NANO DIMENSION

Electrifying Additive Manufacturing®

# NaNoS Printing Services for Additively Manufactured Electronics



Nanos is the ultimate solution for outsourcing your electronics for low volume manufacturing or for fast turnaround prototyping of special devices.

Working alongside with us from idea to production, NaNoS provides engineers the freedom to design and produce free shapes of 3D printed electronics that cannot be manufactured by any other printing method.

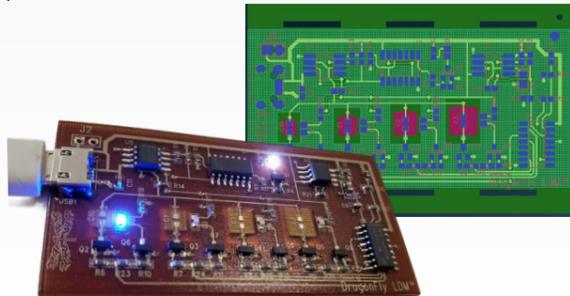
## About AME technology

AME technology is used by our DragonFly LDM machine which prints free form electronic boards by jetting conductive and dielectric materials simultaneously. AME is useful to verify a new design and functionality of specialized electronic components before production.

## Unique AME designs:

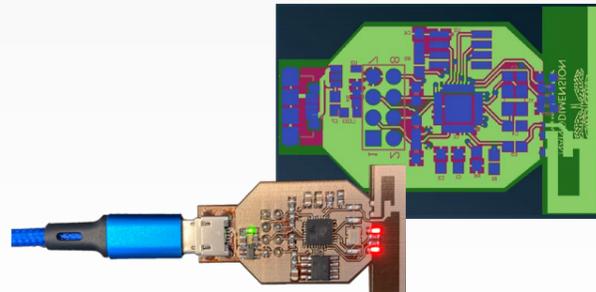
### Capacitors

The AME technology enables capacitors consist of parallel layers of conductive plates in between. Up to 50 layers of dielectric can be produced, enabling a variety of capacitor values depending not only on the number of layers, but also on the area. A capacitor integrates circuits, resistors, and a USB connector for power. A total of 51 mounted components are soldered either manually or by solder reflow procedures.



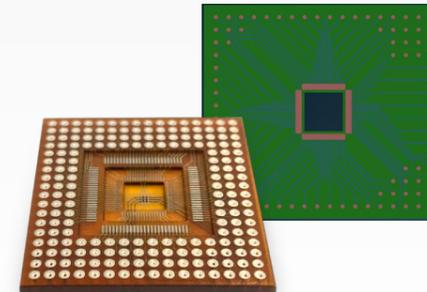
### IoT

The AME IoT/WiFi access point circuit of 2.4GHz demonstrates a fully functional device with a tested data transmission and reception accuracy of 99%. The high accuracy is due to the dielectric properties of the AME technology



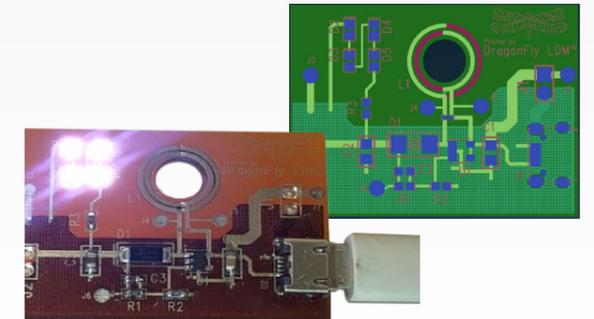
### Vertically stacked Integrated Circuits

The circuit uses a combination of High-Density Interconnects (HDI) and vias to enable vertically assembled integrated circuits. Therefore, mounting of ICs with varying sizes from small to large and reducing the total AME surface area



### DC2DC

The most common DC-DC Up Converters are units mounted on a PCB. By producing the device as an integrated part of the AME additive manufacturing process, surface area usage, assembly time, and other overhead costs are reduced. DC-DC Up Converters are useful to power components, such as LEDs, that need to operate at higher voltages than the nominal operating voltage of the AME.



## Pioneering 3D Designs and Rapid Prototypes of Complex Multi-Layer Projects

### Benefits:

- Reduction of time and cost in the development process
- Agility enables designing, testing and iterating in real time
- Approved design before production starts, leading to higher quality of the final product.

### How it works



Chat With an expert regarding the most efficient way of printing your model



Send your CAD or SolidWorks files to optimize the printing



Your parts are printed cost effectively and shipped to you in the shortest competitive time

The entire process would take up to a week

## About Nano Dimension:

Nano Dimension machines serve cross-industry needs by depositing proprietary consumable conductive and dielectric materials simultaneously, while concurrently integrating in-situ capacitors, antennas, coils, transformers and electromechanical components, to function at unprecedented performance. Nano Dimension bridges the gap between PCB and semiconductor Integrated Circuits. A revolution at the click of a button: From CAD to a functional high-performance AME device in hours, solely at the cost of the consumable materials.

Nano Dimension (Nasdaq, TASE: NNDM) is a provider of intelligent machines for the fabrication of Additively Manufactured Electronics (AME). High fidelity active electronic and electromechanical subassemblies are integral enablers of autonomous intelligent drones, cars, satellites, smartphones, and in vivo medical devices. They necessitate iterative development, IP safety, fast time-to-market and device performance gains, thereby mandating AME for in-house, rapid prototyping and production.

“Nano Dimension’s AME technology helped us to achieve an original product prototype in which wires and connectors were eliminated such that the package was minimized to obtain an optimal user experience. It simplifies the manufacturing process compared to traditional manufacturing methods.”

*Dr. Francesco Guido*  
CTO of Piezoskin S.R.L.



### For more information

 <https://www.nano-di.com/3d-fabrication-services>

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