

Description

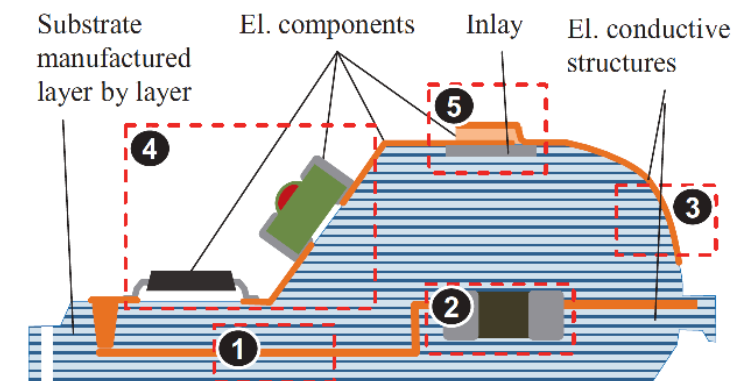
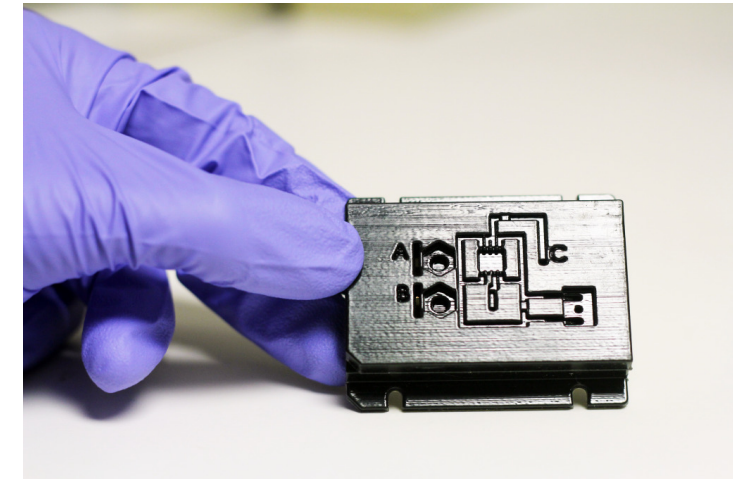
- 3D printing has recently become a very interesting technique for generative/additive module and parts manufacturing and rapid prototyping.
- Many different materials including metals and dielectrics can be used in 3D printing.
- Additive manufacturing processes can be combined with electronic components (printed, embedded, SMD mounted, inlays, etc)

Goals

- Describe the state of the art in 3D printing techniques and their applications in power electronics
- Describe choice of materials and their respective fabrication limitations in 3D printing
- Focus on the most relevant parameters for applications to power electronics, i.e. thermal conductivities, current handling capability, blocking voltage capability of conductive, dielectric and magnetic materials
- Employ finite-element thermal simulations and coupled electro-thermal co-simulation to investigate the performance of power modules fabricated with 3D printing techniques

For further questions please contact

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[1] J. Hoerber et.al. Approaches for Additive Manufacturing of 3D Electronic Applications