

Miniaturization & Packaging Solutions

A PCB Technologies Company



iNPACK™ is an advanced heterogeneous integration provider of System-in-Package (SiP) solutions. We help our clients achieve maximum functionality and efficiency within a smaller semiconductor and electronics packaging form factor. As a subsidiary of PCB Technologies, we benefit from 40 years of experience in PCB design, manufacturing, and electronic assemblies operation (EMS) and lead the way in new high-end heterogeneous integration Sip, technology, and innovation.

We focus on embedded technology that contributes to improved signal integrity and reduces unwanted inductance effects while embedding power dissipation solutions. This also allows us to use more powerful components which increase the functionality of the end application. We provide SiP, semiconductor packaging, substrates, and miniaturized 3D, 2.5 and 2D solutions to many of the world's most demanding industries including aerospace, defense, medical electronics, consumer electronics, automotive, energy, and communications.

Substrate and Packaging Solutions Tailored to Your Needs

iNPACK takes a custom approach to miniaturization systems, SiP, substrate and packaging. Our engineering team works with yours to create custom designs tailored to your project's specific requirements. This uniquely high level of customization and manufacturing allows iNPACK to provide next-gen technologies, today. These capabilities have made us a key partner in the innovation of heterogeneous integration and semiconductor packaging for advanced, high-performance applications.

We provide game-changing miniaturization solutions for medical devices, radars, satellites, drones and autonomous cars applications. Our all-in-one approach to (SiP), substrates, and PCB architecture and assembly as well as system engineering enables us to achieve optimal systems design and manufacturing, and provide the shortest time to market and lower initial cost. All these ensure on time delivery, decrease the number of departments involved in development, and adds up to greater system performance.

System-in-Package (SiP) Technology – The iNPACK Way

The global drive to reduce the form factor of electronics applications, while maintaining or increasing their functionality, is accomplished by using bare dies, innovative substrates, and smart, state-of-the-art integration. As miniaturization specialist, iNPACK has developed System-in-Package (SiP) technology that allows us to create an electronic system or sub-system in an integrated and miniaturized package. In particular, our technology enables us to incorporate as many interconnects solutions into our SiP design. These interconnects help to optimize thermal and electrical performance, as well as overcome the challenge of the gap between the semiconductors' line and space resolution and the packaging and substrates that integrates them.

This technology provides increased reliability and thermal efficiency, as well as improved signal integrity. Our best-in-class micro packaging fabrication facility is designed specifically to provide world-leading SiP technology integration as well as process and structure design. iNPACK's in-house SiP capabilities include high precision die placement for maximum process flexibility, wire bonding, accurate flip-chip mounting, and underfilling, solder ball placement, 3D interconnections, sintering processes, encapsulation, hermetic sealing, and shielding and molding.

Enhanced Organic Substrate and Packaging Capabilities

iNPACK's expert offering includes organic substrate and enhanced micro-electronics packaging technologies. This enables us to deliver comprehensive substrate panel-level manufacturing and engineering support to our customers, helping them to miniaturize their systems. We work to improve the interconnections between the PCB, substrate and semiconductors through advanced technologies, creative solutions, improved design flexibility, to deliver high speed, thermal, and RF paths that simplify the integration process. This also has the benefit of improving system reliability.

Its expert PCB & substrate with state-of-the-art production capabilities in Israel and its global technical

support allow iNPACK to locally support clients wherever they are based. We work closely with our clients' engineers throughout the development of the chip design to adapt the final product, and the packaging solution to their requirements at every step. This includes the system and integration design, the back-end processes, and the post semiconductor stage covering fabrication, electronic packaging and testing. Our clients also benefit from a reduced reliance on fragmented global supply chains, which makes their operations more robust and lean at the same time.

Local, Expert PCB Support

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We work closely with our clients' engineers throughout the development of the chip design to adapt the final product to their requirements at every step. This includes the front-end concept and design, the back-end chip layout, and the post silicon stage covering fabrication, firmware, packaging and testing

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