

# System-in-Package



## The Future of Microelectronics

The need for functions that were once unachievable due to the size and weight of the assembled electronics package can now be realized because of System-in-Package. Whether it be in delicate and size sensitive Medical applications, weight-to-function restrictive Aerospace and Defense applications or even to satisfy a multitude of new Industrial needs: *System-in-Package is the answer!*

## Case Study - i3 Electronics' SiP Technology

### Customer:

An international communications and information technology company serving government and commercial markets.

### Challenge:

Redesign a PCB for use in the next generation military communication device to make it lighter, smaller with superior performance.

**Original PCB**-198mm x 381mm

### Solution:

**SiP Design**-55 mm x 55 mm  
**Substrate**-3-4-3 CoreEZ, 4 Signal, 6 Power Planes, 30 um line width/ space width, 28m of wiring

## Benefits Of Utilizing System-in-Package

- **Reductions in size and weight:** System-in-Package Technology can significantly reduce the complexity of PCB's. Smaller components are used where possible. Surface mount capacitors, resistors, etc. can be embedded into the substrate and packaged die can be replaced with bare die. i3 has successfully redesigned existing products into form factors that provide up to 24X size reduction.
- **Flexibility**-SiP is perfect for almost any market. SiP substrates can be manufactured in many different shapes, sizes and configurations.

## Contact Information

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