

# THE MOST INNOVATIVE PCB ASSEMBLY SERVICE Lean Iteration Manufacturing

Using single piece flow, we build and inspect a PCB assembly. With 3D solder paste printing, vapor phase reflow, and CT scan x-ray analysis, our process has real-time learning to optimize subsequent assemblies in the same production run.

Customized to the ultra-low volume, high reliability needs of space production

The best method for mission critical electronics product realization goes through six steps:

### 1. 3D SOLDER PASTE PRINTING

Non-contact dispensing, software driven, additive process



#### 2. PRECISION PLACEMENT

SMT parts, including BGAs, POPs, CGAs, and QFNs machine placed and optically inspected



#### 3. VAPOR PHASE REFLOW

Inert environment, low delta-T across complex surfaces, physics controlled soldering



#### 6. SOLDER DEPOSIT OPTIMIZATION

Programming updated and next single piece is run through



#### 5. REAL-TIME LEARNING

Visual and x-ray inspections synthesized into optimization strategies



#### 4. X-RAY ANALYSIS

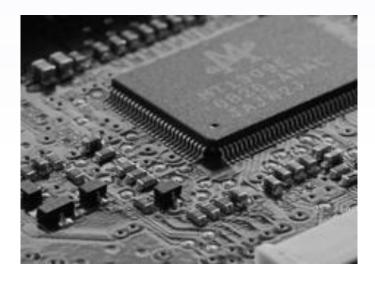
Laminography CT scan, all BTCs 100% x-ray inspected

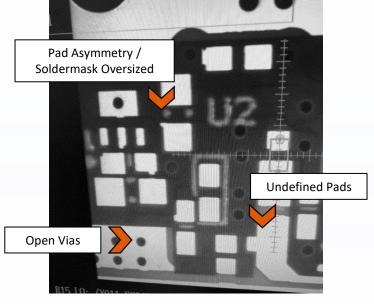
## Manufacturability Optimization Feedback

#### INNOVATION THROUGH COLLABORATION

#### Reduce total cost of development

Because we offer ultra low-volume builds, you can manufacture 5 PCB assemblies—even a single one—for development needs. Prototyping with your flight production partner enhances manufacturability from the first engineering unit. By capturing more improvements sooner, the development cycle reduces and your time to market is enhanced.





#### Quicker and more effective

Improve open vias, poor soldermask, and asymmetrical pads, all clearly communicated in a customized Xanfab build report after your assembly is complete. We then work jointly towards improving your next spin.

Our space heritage manufacturing is your most affordable mission assurance



THE MOST INNOVATIVE PCB ASSEMBLY SERVICE Lean Iteration Manufacturing