



NAPROTEK™

SemiGen 

# INNOVATIVE ELECTRONICS EMS INTEGRATION & TEST

Strength in Flexibility with High-Velocity Manufacturing



## Manufacturing Test & Burn-in

- › Design for Manufacturing (DFM)
- › Post Process reporting

## High-Quality Solder Solutions

- › Kester EP256HA: Our standard No-Clean Solder—ROLO paste delivers reliable solderability
- › Sn63/Pb37 Alloy: Trusted solder alloy for our lead process
- › In-House Ionic (ROSE) Testing: Ensuring PCBA cleanliness monitoring

## SMT Line Equipment

- › Pick and Place: Hanwa/Fuji/Mycronic
- › Reflow Oven: BTU/Samsung/Vitronics
- › 10 & 8 Zone reflow ovens with Nitrogen (N<sub>2</sub>) capabilities

## AOI (Automated Optical Inspection)

- › 3D inspection capabilities utilizing Mirtec advanced inspection algorithms

## X-ray Inspection

- › Standard process for semi-automated inspection of hidden solder joints (i.e. BGA, QFN) utilizing 2.5D Nordson Dage
- › AXI (Viscom Automated X-ray Inspection): As required—100% solder joint, radiation dosage by reference designator, 5µm plane scanning

## SPI (Solder Paste Inspection)

- › SPI performed on all FAI and process monitoring
- › Automated 3D SPI: 100% scanning available upon request

## FPT (Functional Test)

- › Coverage depends on DFT, with a goal of 100% coverage, Viscom V8 NEXT

## Functional Test

- › Seasoned Test Engineers from RF & Aerospace industries to implement testing onsite, may require consignment of specialized equipment

## Environmental Screening

- › Performed by accredited Outside Service Partner (OSP)

## Quality Control

- › 100% Final QC of all products. All Certified to IPC-610
- › Certified soldering and rework personnel to J-STD-001+Space Addendum

# INNOVATIVE ELECTRONICS BOX BUILD

Strength in Flexibility with High-Velocity Manufacturing



## State-of-the-art Facilities

### West Coast | San Jose, CA

Sq-Ft	55,000
SMT Lines	7
Inspection	AOI, FP, SPI, X-Ray, ICT
Clean Room	Class 10k
Box-Build	Yes
QMS	Yes
ITAR	Yes

### East Coast | Londonderry, NH

Sq-Ft:	43,000
MicroE Cells	4
Inspection	XRF, X-Ray
Clean Room	Class 10k (15k sq-ft)
RF Products	Yes
Foundry	Yes
QMS	Yes
ITAR	Yes

## Certifications and Standards

### CERTIFICATIONS

#### Aerospace

- » AS9100:2016, Rev D

#### Defense

- » Cybersecurity: CMMC
- » NIST 800-171

#### International Standards

- » ISO9001:2015

#### Medical Devices

- » ISO 13485: 2016

### MIL/ AERO REGISTRATIONS

#### ITAR

- » International Traffic in Arms Regulations

#### SAM

- » Systems for Award Management

#### OASIS

- » Online Aerospace Supplier Information System

#### GIDEP

- » Government Industry Data Exchange Program

## INDUSTRY STANDARDS

- » IPC-A-600
- » IPC-A-610
- » IPC-WHMA-A-620
- » J-STD-001 (Including Space Addendum)
- » ANSI/ESD S2020
- » MIL-STD-750, 883, 1686C
- » MIL-PRF-38534, 38535, 19500



**NAPROTEK™**

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