

LEE AIR IS A...

- Tier I & II Part 23/25 Aircraft Electronics, Avionics and Electromechanical Component/System Supplier
- Military, Commercial and General Aviation Design & Manufacturing Partner
- Experienced Specialist in Build-to Print and Design for Manufacture
- 37+ year Veteran of Certifying Innovation in the Aerospace Industry

CAPABILITIES - CONTRACT ELECTRONICS MANUFACTURING

- Furnished & fully traceable Materials
- Design, Build & Certify Avionics Components and Software
- High mix, low volume Rapid Prototyping & Serial Manufacture
- Printed Circuit Board Design & Assembly
 - Surface Mount (SMT)
 - Through hole
 - Double sided SMT & mixed
- Wired Chassis and Mechanical Enclosure Design, Certification & Manufacture
- Cable Bundle and Wire Harness Fabrication
- Conformal Coating and Encapsulation
- Lot, batch and serial number tractability
- Testing and Quality Assurance
 - In-circuit testing (ICT)
 - Continuity and isolation testing
 - Hi-potential (hi-pot) testing
 - Environmental Stress Screening (ESS)

FACILITIES - COMPLIANCE & CERTIFICATIONS

- MIL-STD-1686 & MIL-HDBK-263 Electro Static Discharge (ESD)
 - 35,000 sq foot 3M 8400 ESD protective flooring
- J-STD-001 & IPC-A-610C Class III soldering
- ISO9001/AS9100 Quality System
- FAA/EASA 14 CFR part 145 Repair Station
- ITAR Export Compliance

CORNERSTONE EQUIPMENT

MY500 Solder Paste Jet Printer

- 20 x 20 max, 2 x 2 min board size
- 0.015 to .27 PCB thickness
- 0.019 (0.47 mm) max, 0.013 (0.33 mm) min dot size
- 0.780 - Bottom Clearance
- 0.12 top edge, 0.16 bottom edge clearance (conveyor)

MY9 Pick & Place

- 15.1 x 20 max, 1.2 x 1.2 min board size
- 80 g max part weight
- 0402 min part size
- 0.02 - 0.16 board thickness
- 0.14 edge clearance
- Up to 6,100 components per hour
- Resistors, capacitors, diodes, and transistors electrical verification prior to placement

Linescan Vision Camera

- 3.15 (80mm) max square field of view
- 12 mil (0.3 mm) min pitch
- 6 mil (0.15 mm) min lead width

Heller 1700SX Reflow Oven

- 20 max, 2 min board size

Automatic Optical Inspection (AOI)

- 19.7 x 17.7 max, 2.5 x 2.3 min board size

KISS Through-Hole Robotic Selective Soldering Machine

- 12 x 12 max, 2 x 2 min board size (18 x 24 with manual step over)

Checksum TR-9-1000-QC In Circuit Test (ICT)

- 13.2 x 16 max board size
- 3.325 max component height

PVA Robotic Conformal Coat Dispenser

- 20 max, 2 min board size

PVA Conformal Coat Oven

- 20 max, 2 min board size



DESIGN – EXPERIENCE & ASSISTANCE

- Embedded software design (assembly & C)
- Avionics buses: 1553, ARINC 429
- RF wireless control
- High current 85 Amp Solid State Contactor
- CPLD, PLD design
- Testing & Qualification per RTCA/DO-160, DO-254
- PCB layout, schematic capture
- Analog design experience including switched power circuit design through 15kW including HIRF and lightning protection per MIL-STD-461 and RTCA/DO-160 and printed circuit board design in heavy copper through 12 layers
- ALTIUM, SOLIDWORK and AUTODESK software
- Digital design experience using embedded microprocessors and digital signal processors (DSP) programmed in Assembler and C
- Software development process in accordance to RTCA/DO-178
- Reliability predictions per MIL-STD-217, FMEA and fault trees
- Design and Development of electro-mechanical actuators with integrated electronics including a digital power drive unit (PDU) based flap system, multi-actuator synchronized digital flap system, hydraulic servo drive, flight control actuator, generator controller and landing gear actuators
- Staff FAA DER