

## CLEAN ROOM MANUFACTURING FOR OPTO-MECHANICAL ASSEMBLIES



### PROGRAM HIGHLIGHTS

Clean room manufacturing capability is a requirement for assembly of electronic and mechanical optical viewing/measurement components. Cleanliness is a requirement where assembly of critical components such as lens assemblies and electromechanical interfaces such as surface capacitive touchscreens in a clean environment are crucial to proper functionality. Airborne particles present on lens that measure in pixels will affect the quality of the viewed picture as well as touch sensitivity on touchscreen assemblies.

A customer designed a product that had a complex design assembly requirement of 2

critical components for Tablet Assembly – LCD Touchscreen and 2MP Camera Lens Module assembly. The LCD Touchscreen is integrated into the mechanical housing for the tablet. The 2MP Camera Lens Module is assembled to the board.

### SOLUTION

A clean room, class 1000 was used to incorporate the appropriate controls for component handling, cleanliness protocols (personnel, space, components, fixturing and instrumentation), particle detection, humidity controls, ESD protection and assembly using laminar flow workstations.

Vexos locations hold industry-specific certifications and regulatory compliance approvals to include:

- ISO 9001:2015
- ISO 14001:2015
- ITAR and UCNl compliant
- OHSAS 18001:2007
- ISO 13485:2016
- IATF 16949:2016
- FDA registration (3010067461)
- RoHS and non-RoHS