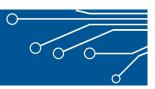# EQUIPMENT LIST

PRE-PRODUCTION

Ucamco Ucam integrated pre-production CAM stations
Windows 11-based Engineering workstations
Aptean Engenix (automated traveler generation)
Apsim RLGC integrated 2D field solver

DRILL ROOM

Excellon drills (2)
Pluritec Automated drills (3)
Posalux high speed drill
Pluritec X-Ray & high-speed drill
Resin debur machine

PRINT ROOM

Automated Orbotech Paragon 9800i LDI
Maintech DFL2200 Double-roll cut sheet laminator
Hakuto 6630NP laminator
Automated Orbotech Nuvogo 600 LDI (Soldermask) - **2019**
Advanced Engineering (AE) mylar peeler
Automated Wise dry film developer - **2023**
Technosystems Robotic Loader & Unloader - **2021**
Class 100,000 clean room

MULTILAYER

TMP 4 opening vacuum lamination hot oil press
Excellon flash router
Environmentally controlled layup room
Bacher automated post-etch punch (4 camera alignment)

PROCESS ROOM

MacDermid electroless line
Wise automated SES line (barcode recipe controlled) - **2022**
Wise automated 4 brush debur - **2022**
Lantronics TT30 vertical Hot Air Leveler (45 degree)
NTO Lead-Free Hot Air Leveler
Western Technology conveyorized pre and post-clean system
MacDermid Sterling Silver line

PLATING ROOM

8 cell automated copper plating line with pulse rectification
2 cell automated copper via fill tanks - **2023**
Nickel / gold tab plating system

VIA FILL

ITC THP 35 automated vacuum assist via fill machine
Wise Cleverstar 650 planarizer

PLANT SYSTEMS

Water pre-treatment plant
Integrated backup and fault detection compressed air system
85,000 CFM make-up air system
Chicago Plastics mist eliminator
Reverse osmosis water generator with de-ionization system
50 HP vacuum system
60+ Windows 10 shop floor movement/tracking stations
3-100HP compressors with On-Demand Smart System

PROCESS CONTROL LAB

Ionic contamination analyzer (panel and piece format)
Statistical process control system
Milton Roy spectrophotometer - **2023**
Nikon Optiphot—100 computerized microscope
CVS automated plating bath analyzer - **2022**
Buehler automated cross-section equipment
Buck atomic absorption unit (AA) - **2023**
Bowman X-Ray fluorescence measurement system - **2023**
Polar Instruments CITS880s controlled impedance tester

SOLDERMASK / NOMENCLATURE

Argus top/bottom spray system with I.R. tack cure
Automated IS Pumiflex scrubber
DP1500 automated screen printer
Tunnel oven
Fully Automated Orbotech Sprint 200 ink jet printer
Wise soldermask developer - **2023**
PQ Systems ovens - **2023**
Atma automated via plug screener

MACHINING

Excellon Mark VI routing machines
AccuSystems AS-150-SE jump score machine
Shoda Automated jump score machine - **2021**
Bevelmate
Depanelizer

INSPECTION AND ELECTRICAL TEST

CIMS Galaxy AOI (0.25mil) - **2022**
ATG A7a automated flying probe tester w/ 1000V Hipot
ATG A7a automated flying probe tester w/ 1000V Hipot - **2023**
ATG A7 manual flying probe tester w/ 1000V Hipot - **2023**
MicroVu automated CMM (large format) - **2022**