

From
Prototype
to
Production



AGHANTA

AGHANTA TECHNOLOGIES PVT LTD

Electronics Manufacturing Services (EMS)

Quality-Driven | AS9100 Aligned | Customer-Focused
Supporting Low, Medium & Scalable Volume Manufacturing

ABOUT US

Aghanta Technologies Pvt. Ltd. is a professionally managed Electronics Manufacturing Services (EMS) company based in Bengaluru, India. We deliver high-reliability electronic assemblies for Aerospace, Defence, Medical, Telecom, Industrial, and Automotive applications, serving both domestic and export customers.

With strong emphasis on process discipline, quality assurance, and customer collaboration, we support customers across the complete product life cycle - from New Product Introduction (NPI) to volume production and system integration.



CORE OFFERINGS

- Engineering Services - Design for Manufacturability (DFM), Testability (DFT), and Production (DFP)
- Sourcing – Agile material sourcing, cost modelling, counterfeit prevention and alternate BoM management
- Manufacturing – SMT/PTH assembly, prototyping, testing, box build, and reliability validation
- Skill Development – Industry-aligned training and up skilling for manufacturing professionals



KEY DIFFERENTIATORS

- End-to-end EMS partner – from process design to delivery
- Proven expertise across Defense, Aerospace, and E-Mobility sectors
- Agile and responsive sourcing network



CLIENTS & PARTNERS

- Trusted by leading organizations across industries for our engineering depth, manufacturing excellence, and commitment to quality.
- Defense and Aerospace OEMs
- Electric Vehicle manufacturers
- Telecom and 5G solution providers
- Industrial automation and control system integrators



VISION

To deliver comprehensive product engineering and realization services that enable customers to meet time-to-market goals efficiently.



MISSION

To provide the right technology from the right source to the right customer at the right time.



CORE VALUES

Integrity | Innovation | Quality | Collaboration | Customer Success



CONSUMER ELECTRONICS



AEROSPACE



DEFENSE



MEDICAL



MARINE



AUTOMOBILE



MOBILITY INDUSTRY



TELECOM

PROCESS WE OFFER



PTH Assembly



Testing



Programming



Wire Harness Assembly



Box Build Assembly



Packing and Delivery

SMT LINE CONFIGURATION

Aghanta Technologies Production Concept Single Lane

SL. No.	ITEM	SPECIFICATION
1.	Fully automatic solder paste JUKI printer GPX-Cii	Applicable Board size 48 x 48mm to 610 x 610mm, Thickness: 0.4 to 6.0mm Alignment Accuracy: $\pm 0.010\text{mm}$, 6σ ; Wet Print Accuracy: $\pm 0.018\text{mm}$, 6σ
2.	Magic Ray SPI ICON	Camera 5MP/ 12MP industrial camera Lighting 3 color ring shape LED (RGB) PCB Size 50*50-510*610mm Maximum pad height 600um Minimum Pad spacing 100um (within height of 150um) Defects: Icicle, Insufficient solder, Excess solder, Average height, Offset, Solder Bridge, Odd shape, exposed copper, Golden Finger etc Inspection Speed 400-450ms/FOV
Panasonic Pick & Place Machine NPM D3A & NPM TT2		
3.	PCB Dimensions (mm)	PC size Single-lane mode: L 50 x W 50 ~ L 510 x W 590 Dual-lane mode: L 50 x W 50 ~ L 510 x W 300
	Placement speed	Lightweight 8-nozzle head (Per head) 17 460 cph (0.21 s / chip) 3-nozzle head V2 *5 (Per head) 6 984 cph (0.52 s / chip) 5 900 cph (0.61 s / QFP) High production mode [ON] 46 000 cph (0.078 s / chip) Lightweight 8-nozzle head (Per head) 21 500 cph (0.167 s / chip) 2-nozzle head (Per head) 5 500 cph (0.655 s / chip) 4 250 cph (0.847 s / QFP)
	Component supply	Taping 4 / 8 / 12 / 16 / 24 / 32 / 44 / 56 / 56 / 72 / 88 / 104 mm Tray Max. 40 (Front supply unit : Max. 20 + Rear supply unit : Max. 20)
Reflow Oven Heller 1936MK7		
4.	Heating System	Heat zone No.: Top 10/Bottom 10 zones, 20 heating modular, heating length 3950mm Temp control : Well-known brand converter to control hot air motor, with frequency 25---50HZ
	Cooling System	Cooling zone: 3 Top Cooling zone with 1200mm length
	Conveyor System	Conveyor type: Chain +Mesh Width range: PCB width 50---460 PCB component height: 25/25mm
5.	Magic Ray AOI CUBE	Camera: 12MP industrial camera Lighting: 4 color ring shape LED (RGBW) Conveyor Height 900 $\pm$ 20mm Component: wrong component, missing, polarity, shift reverse, damage, IC lead bend, IC lifted lead, Solder Joint: No solder, Insufficient solder, Open solder, Excess solder, solder bridge, solder ball, etc Component Size: Chip: 03015 and above (3D): LS1: 0.3mm pitch and above: others: odd shape component Inspection Speed: 450ms/FOV
6.	X-Ray	Max. Power: 8W Tube Type: Sealed Focus Spot Size: 5 μm Voltage: 0~90kV (Adjustable) Imaging System Pixel Size: 85 μm Detector: Flat Panel Detector (FPD) Frame Rates: 40fps Effective Detection Area Pixel Matrix : 65*65mm 768*768 System Magnification: 600X Software Auto-measuring Multiple Measuring Tools CNC Mode BGA Soldering Voids Auto-measuring and Support Data/Graphic Output Support Measuring Distance, Angle, Diameter, Polygon, PTH filling rate, etc. CNC X-Ray Safety <1 $\mu\text{Sv/h}$ (Meets All International Standards) Safety Operation Electromagnetic Interlock, Warning Light and Real-time Radiation Leakage Monitor

OUR MACHINERIES



**Solder Paste Printer
FUJI 'GPX-CII'**



**Magic Ray 3D
SPI ICON**



**Panasonic Pick & Place
NPM-D3A**



**Panasonic Pick & Place
NPM-TT2**



**Reflow Oven
HELLER 1936MK7**



**Magic Ray 3D
AOI CUBE**



X-ray Inspection System



**ZM-R7220A Smart Optical
BGA Rework Station**

OUR SHOP FLOOR



CORE CAPABILITIES

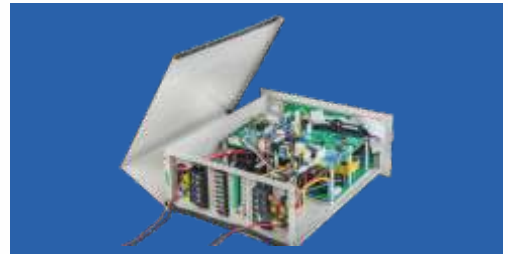
PCB ASSEMBLY:

- SMT Assembly (Fine Pitch, BGA, QFN, CSP)
- Through-Hole & Mixed Technology Assembly
- Lead-Free / RoHS Compliant Processes
- Low to Medium Volume with Scalable Capability



System & Box Build Assembly:

- Electro-Mechanical Assembly
- Box Build & Sub-System Integration
- Cable & Wire Harness Assembly
- Product Labeling & Serialization



New Product Introduction (NPI) & Engineering Support:

- DFM / DFA feedback during early stages
- Prototype & pilot builds
- BOM validation and alternate sourcing support
- Smooth transition from prototype to production



TESTING & INDUSTRIES

Testing & Inspection:

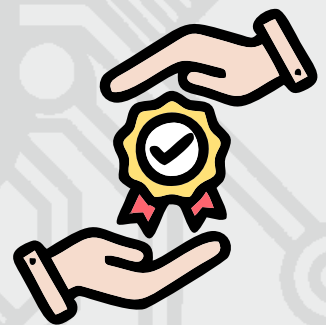
- Visual Inspection as per IPC Standards
- Functional Testing
- Customer-Specific Test Setups
- Burn-in & Reliability Testing (as applicable)



QUALITY & COMPLIANCE

Quality is embedded into every stage of our manufacturing process.

- AS9100 – Stage 1 Audit Completed | Preparing for Stage 2 Certification
- ISO 9001:2015 – Quality Management System
- IPC-A-610 & IPC/WHMA-A-620 Compliance
- ESD Controlled Manufacturing Environment
- End-to-End Material Traceability



Supply Chain & Traceability Assurance:

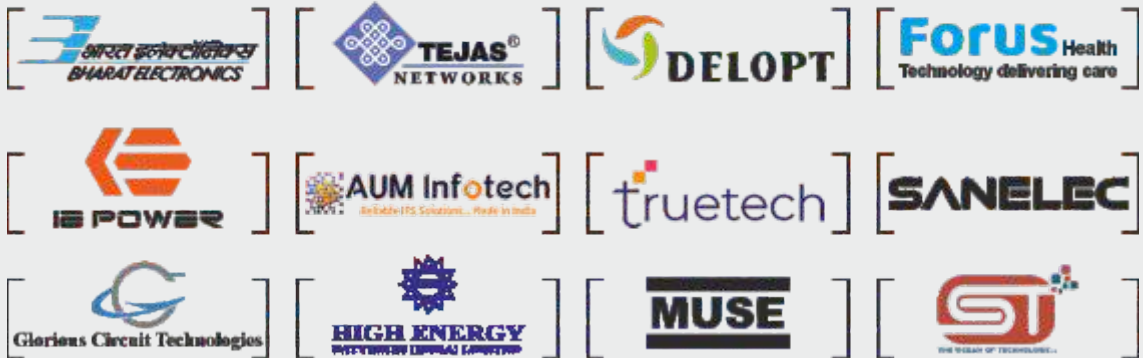
- Approved and controlled supplier base
- Component traceability up to batch / lot level
- Counterfeit component risk mitigation
- Incoming material inspection & verification

Responsible Manufacturing:

- RoHS - compliant processes
- Focus on waste reduction & process efficiency
- Safe and compliant working environment



OUR CLIENTELE LIST



AGHANTA

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