

ASTHA SINGH

Quality Assurance Engineer

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PROFILE

Quality-focused professional with **3 years of experience** in electronics manufacturing and process improvement. Proficient in 7 QC Tools, 8D methodology, and 5 Core Tools (MSA, SPC). Skilled in SMT processes, PCBA analysis, testing, and rework procedures. Experienced in root cause analysis for customer complaints and field failures, implementing Kaizen and Poka-Yoke for continuous improvement, managing 4M changes, and driving defect reduction through Red Bin meetings and process optimization.

WORK EXPERIENCE

Napino Auto and Electronics Ltd., *QUALITY ASSURANCE Engineer*

22/06/2023 – Present

- Performed **customer return part analysis** and **root cause analysis** for complaints and field failures; prepared and presented **8D reports and PPTs** for closure and effectiveness verification.
- Prepared/updated **MSA and SPC documentation**, monitored process capability and stability, and resolved in-house quality issues using multiple tools; executed **CAPA for top defects**.
- Led **daily morning meetings** for gap analysis and **Red Bin meetings** with cross-functional teams for defect analysis and rapid containment; coordinated with production, maintenance, and process teams for corrective actions.
- Conducted **process setup verification**, drove **process improvement, productivity enhancement**, and ensured **First Board Approval** for SMT & TH processes; validated **Master Samples** and implemented **Poka-Yoke systems**.
- Prepared **MIS reports (Daily/Weekly/Monthly)** for SMT & TH processes; published dashboards for trends and actions; maintained **customer audit records** and ensured timely **NC closure**.
- Developed **check sheets, WI/SOP/OPL, and Quality Alerts**; trained operators; updated complaint index register and rejection data with action plans to reduce recurrence.
- Conducted **X-ray analysis of defective parts, strain tests**, and prepared detailed reports; performed **5S audits** and **process/patrolling audits** per Control Plan and check sheets.
- Implemented **Lean Manufacturing, Kaizen initiatives**, and **Poka-Yoke systems** to achieve zero-defect manufacturing, reduce cycle time, and improve throughput and yield in SMT & TH processes.
- Applied **Industry 4.0 practices** with **data-driven quality analysis**, real-time dashboards, and predictive analytics; leveraged **Excel (Pivot/Power Query)** and **Power BI** for defect trend monitoring and actionable insights.
- Experienced in **Quality Management Systems (QMS)** and **ERP tools (SAP, Oracle)**; drove continuous improvement projects with measurable outcomes.
- Exposure to **Six Sigma methodology** and **AI-driven quality analytics** for defect anticipation and process reliability enhancement; ensured compliance with **ISO standards** and **IATF 16949** for audit readiness.

SKILLS:-

Technical & Quality Skills: 7 QC Tools, 8D Methodology, Root Cause Analysis | APQP, FMEA, Control Plan (CP), MSA, SPC | Lean Manufacturing, Kaizen, Poka-Yoke | SMT & TH Process Optimization, PCBA Analysis | Industry 4.0 Practices – Data-driven Quality Analysis, Digital Dashboards | Predictive Analytics for Defect Prevention | Six Sigma (Green Belt exposure or certification if applicable)

Data & Reporting Skills: MIS Reporting (Daily/Weekly/Monthly) | Data Analysis using Excel (Pivot Tables, Power Query) | Dashboard Creation using Power BI

Software & ERP: SAP (Quality & Production Modules) | MS Office Suite (Excel, Word, PowerPoint)

MEASUREMENT INSTRUMENT KNOWLEDGE:-

Vernier Caliper, Micrometer, VMS, LCR Meter, Multimeter, X-Ray Inspection System, CMM (Coordinate Measuring Machine), Torque Wrench/ Torque Tester, Oscilloscope, Height Gauge & Dial Gauge, Surface Roughness Tester.

CERTIFICATION:-

Embedded system

Completed 45-day training on microprocessor-based hardware and software integration.

CP, APQP, FMEA

Certified in automotive quality planning and risk analysis aligned with IATF 16949 standards.

TRAINING:-

5S, 7QC Tool, MSA, SPC, Part, Handling, 4M Change, EHS, 5Why, 8D, CP

EDUCATIONAL QUALIFICATION

B. Tech in ECE, MG Institute of Management and Technology (AKTU) CGPA: 8.43

Diploma in ECE, Girls Polytechnic Varanasi, U.P