

### **INDUSTRIAL AUTOMATION**

In this age of cut throat competition and global outsourcing scenario, it's a great challenge for industries to maintain high product quality and high manufacturing productivity along with high margins for the products. Cost cutting exercises have become day to day routine rather than once in a while exercises. Automation of various processes in an industry is a must now, but what is more important is the reliability and cost effectiveness of the Industrial Automation Solutions.

We have realized that our customer don't just want any Automation Solutions at cheaper cost but what they really want are very reliable, compatible and highly flexible solutions at lower cost. They want these systems to be flexible enough to accommodate the company's future technology requirements and other expansion requirements. The demands for reliability of these systems have been very high as in the long run a reliable system will ensure lower maintenance cost and above all will ensure the manufacturing targets are not affected and in effect reducing a great deal of missed sales and opportunities for the customer.

Thus, we have developed our expertise that will always provide solutions which are very reliable, compatible with customer's various processes, flexible enough to meet their future requirements and costs a lot less.



Data Acquisition System

## SATTVA eTECH adheres to the following standards while developing products

UL cUL

CE

**ATEX** 



# **SAMPLE PRODUCTS / PROJECTS DELIVERED:**

### ISO 9001-2008 / AS9100 Rev C Certified

PROJECTS	SCOPE
Data Acquisition System	Design, Development, Qualification & Manufacturing
Scalable Data Acquisition System	Design, Development and Manufacturing
Portable terminal	Re-engineering, Development of Re-engineering Model

### **PRODUCT DEVELOPMENT & QUALITY:**

Project Concept	Validate the Design and Concept of the Project
Hardware Design	Validate using Reference Board, using Emulators and Evaluation Boards. Developing sub modules and validating with jigs before the schematics. Component reliability studies, Signal integrity, Thermal engineering
Software Proto Development	Proto Software is validated on Evaluation Board, Writing the Critical Timing Diagrams, Compilers and Platform using Bench Mark Codes. Checking the Critical Signal Responses and Throughput response
Firmware Development	The Project platform Kernel Customization, Development of Device Drivers, Implementation of the Application of all I/O's. Validation of the Software with Sample Applications
Test Cases	Test Applications for validating the Worst cases of the Design and Performances of the Project Test Cases for Recording the Performance Validation
Component Procurement	Procuring Industrial, Military & Commercial Grade JSS components from approved vendors with COC. Developing Custom Components
PCB Fabrication	Fabricating the PCB from JSS, Military & UL approved Vendors
Component Assembly	SMD components are assembled with stencils. Baking of BGA's & PCBs are done as per the standards
Testing	Using calibrated measuring Equipment. Preliminary testing (Design Verification and Functional Verification), Functional Verification-1. Burn-in (168 hours). Functional Verification-2. Final qualification at customer place
Test Jigs	We build custom test jigs with custom software to verify the complete product functions
Inspection	Visual Inspection done at multiple stages
Packing	Use High quality antistatic sheets and environmental friendly packing material
EMI/EMC	We test the products for EMI/EMC emissions
Certification	Our products are CE, UL, cUL and MIL 461E compliant as per customer needs
Waste Management & Productivity	We are practicing Lean Manufacturing Techniques (Sponsored by Government of India, MSME)



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