



Table II : List of Critical QA/QC Gates

DETAILS	
1.	Raw Wafer Inspection - Resistivity, Thickness, Surface Quality, Etch Pits, Stacking Faults.
2.	Masking - Dimensional Accuracy, Registration Accuracy
3.	Diffusion - Junction Depth, Electrical Check
4.	Metalisation - Thickness, Adherence, Step Coverage, Reflectivity, Grain Size, Hillocks, Corrosion, Bubbles, Proper Sintering.
5.	Oxide Formation - Thickness, Ionic Contamination Pitting, Stains etc.
6.	Dicing - Chip Cracks, Active Area Integrity, Proper Separation, Silicon Dust
7.	Die Bonding - Die Shear, Thermal Resistance, Chip Cracks
8.	Wire Bonding - Bond Strength, Bond Placement and Shape, Wire Dressing
9.	Encapsulation - Fine Leak, Gross Leak, Moisture Resistance
10.	Lead Finish - Solderability
11.	Final Testing - All Electrical Parameters AC/DC/Switching
12.	Print - Correctness, Completeness, Legibility, Permanence
13.	Pack - Correct Quality, Identity and Packing Method, viz. tape and reel, Silica gel, etc. and all documentation as per customer requirements, e.g., batch certificates.
14.	Incoming Inspection of: Chemicals Gases Raw Materials Operational Supplies
15.	Audits on: Temperature, Humidity, Dust Levels, House Keeping
16.	On-line monitor of process (deionised) water quality.