Batch Wafer Quality Report

Report Date: 2025-12-26 23:37:03

Per-Wafer Decisions

Wafer 1 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0001
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:35:34.007217

Defect Class: Near-Full
Confidence Score: 0.7329
Defect Percentage: 90.49%

Reason: Defect Percentage: 90.49% (>50% threshold), Defect Class: Near-Full, Confidence: 73.29%

Wafer 2 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0001
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:35:34.009323

Defect Class: Donut
Confidence Score: 0.9999
Defect Percentage: 59.78%

Reason: Defect Percentage: 59.78% (>50% threshold), Defect Class: Donut, Confidence: 99.99%

Wafer 3 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0001
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:35:34.012351

Defect Class: Near-Full
Confidence Score: 1.0000
Defect Percentage: 98.09%

Reason: Defect Percentage: 98.09% (>50% threshold), Defect Class: Near-Full, Confidence: 100.00%

Wafer 4 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0001

Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:35:34.014763

Defect Class: Local
Confidence Score: 0.9989
Defect Percentage: 45.95%

Reason: Defect Percentage: 45.95% (<=50% threshold), Defect Class: Local, Confidence: 99.89%

Wafer 5 Inspection Decision

Wafer ID: Thermal_THERM_01_W0001
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:35:34.016893

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 44.21%

Reason: Defect Percentage: 44.21% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 6 Inspection Decision

Wafer ID: Thermal_THERM_02_W0001
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:35:34.017968

Defect Class: Local
Confidence Score: 1.0000
Defect Percentage: 47.75%

Reason: Defect Percentage: 47.75% (<=50% threshold), Defect Class: Local, Confidence: 100.00%

Wafer 7 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0002
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:35:39.384915

Defect Class: Random
Confidence Score: 1.0000
Defect Percentage: 70.54%

Reason: Defect Percentage: 70.54% (>50% threshold), Defect Class: Random, Confidence: 100.00%

Wafer 8 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0002
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:35:39.411586

Defect Class: Random
Confidence Score: 0.9999
Defect Percentage: 0.05%

Reason: Defect Percentage: 0.05% (<=50% threshold), Defect Class: Random, Confidence: 99.99%

Wafer 9 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0002
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:35:40.090761

Defect Class: Random
Confidence Score: 0.9992
Defect Percentage: 77.50%

Reason: Defect Percentage: 77.5% (>50% threshold), Defect Class: Random, Confidence: 99.92%

Wafer 10 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0002
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:35:40.584681

Defect Class: Center
Confidence Score: 0.9999
Defect Percentage: 44.23%

Reason: Defect Percentage: 44.23% (<=50% threshold), Defect Class: Center, Confidence: 99.99%

Wafer 11 Inspection Decision

Wafer ID: Thermal_THERM_01_W0002
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:35:43.103450

Defect Class: Random
Confidence Score: 0.9997
Defect Percentage: 81.54%

Reason: Defect Percentage: 81.54% (>50% threshold), Defect Class: Random, Confidence: 99.97%

Wafer 12 Inspection Decision

Wafer ID: Thermal_THERM_02_W0002
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:35:43.157744

Defect Class: Donut
Confidence Score: 0.9997
Defect Percentage: 53.32%

Reason: Defect Percentage: 53.32% (>50% threshold), Defect Class: Donut, Confidence: 99.97%

Wafer 13 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0003
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:35:44.965743

Defect Class: Random
Confidence Score: 1.0000
Defect Percentage: 70.54%

Reason: Defect Percentage: 70.54% (>50% threshold), Defect Class: Random, Confidence: 100.00%

Wafer 14 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0003
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:35:45.717731

Defect Class: Center
Confidence Score: 0.9995
Defect Percentage: 47.17%

Reason: Defect Percentage: 47.17% (<=50% threshold), Defect Class: Center, Confidence: 99.95%

Wafer 15 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0003
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:35:45.828997

Defect Class: Near-Full
Confidence Score: 1.0000
Defect Percentage: 94.12%

Reason: Defect Percentage: 94.12% (>50% threshold), Defect Class: Near-Full, Confidence: 100.00%

Wafer 16 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0003
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:35:46.706318

Defect Class: Donut
Confidence Score: 0.9997
Defect Percentage: 54.45%

Reason: Defect Percentage: 54.45% (>50% threshold), Defect Class: Donut, Confidence: 99.97%

Wafer 17 Inspection Decision

Wafer ID: Thermal_THERM_02_W0003
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:35:50.094361

Defect Class: Edge-Loc
Confidence Score: 0.9999
Defect Percentage: 50.36%

Reason: Defect Percentage: 50.36% (>50% threshold), Defect Class: Edge-Loc, Confidence: 99.99%

Wafer 18 Inspection Decision

Wafer ID: Thermal_THERM_01_W0003
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:35:50.250015

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 45.04%

Reason: Defect Percentage: 45.04% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 19 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0004
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:35:50.632836

Defect Class: Center
Confidence Score: 0.9999
Defect Percentage: 52.11%

Reason: Defect Percentage: 52.11% (>50% threshold), Defect Class: Center, Confidence: 99.99%

Wafer 20 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0004
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:35:51.105348

Defect Class: Random
Confidence Score: 0.9998
Defect Percentage: 81.99%

Reason: Defect Percentage: 81.99% (>50% threshold), Defect Class: Random, Confidence: 99.98%

Wafer 21 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0001
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:35:51.902308

Defect Class: Normal
Confidence Score: 0.9998
Defect Percentage: 33.38%

Reason: Defect Percentage: 33.38% (<=50% threshold), Defect Class: Normal, Confidence: 99.98%

Wafer 22 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0001
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:35:51.903555

Defect Class: Near-Full
Confidence Score: 1.0000
Defect Percentage: 98.04%

Reason: Defect Percentage: 98.04% (>50% threshold), Defect Class: Near-Full, Confidence: 100.00%

Wafer 23 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0001
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:35:51.903555

Defect Class: Center
Confidence Score: 0.9982
Defect Percentage: 45.17%

Reason: Defect Percentage: 45.17% (<=50% threshold), Defect Class: Center, Confidence: 99.82%

Wafer 24 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0001
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:35:51.904559

Defect Class: Local
Confidence Score: 1.0000
Defect Percentage: 50.78%

Reason: Defect Percentage: 50.78% (>50% threshold), Defect Class: Local, Confidence: 100.00%

Wafer 25 Inspection Decision

Wafer ID: Thermal_THERM_01_W0001
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:35:51.906652

Defect Class: Local
Confidence Score: 1.0000
Defect Percentage: 46.42%

Reason: Defect Percentage: 46.42% (<=50% threshold), Defect Class: Local, Confidence: 100.00%

Wafer 26 Inspection Decision

Wafer ID: Thermal_THERM_02_W0001
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:35:51.907652

Defect Class: Normal
Confidence Score: 0.9991
Defect Percentage: 38.98%

Reason: Defect Percentage: 38.98% (<=50% threshold), Defect Class: Normal, Confidence: 99.91%

Wafer 27 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0004
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:35:52.895013

Defect Class: Center
Confidence Score: 0.9999
Defect Percentage: 43.32%

Reason: Defect Percentage: 43.32% (<=50% threshold), Defect Class: Center, Confidence: 99.99%

Wafer 28 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0004
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:35:53.772157

Defect Class: Normal
Confidence Score: 0.9997
Defect Percentage: 29.05%

Reason: Defect Percentage: 29.05% (<=50% threshold), Defect Class: Normal, Confidence: 99.97%

Wafer 29 Inspection Decision

Wafer ID: Thermal_THERM_02_W0004
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:35:55.280243

Defect Class: Edge-Ring
Confidence Score: 0.9948
Defect Percentage: 56.78%

Reason: Defect Percentage: 56.78% (>50% threshold), Defect Class: Edge-Ring, Confidence: 99.48%

Wafer 30 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0005
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:35:56.607613

Defect Class: Normal
Confidence Score: 0.9997
Defect Percentage: 35.20%

Reason: Defect Percentage: 35.2% (<=50% threshold), Defect Class: Normal, Confidence: 99.97%

Wafer 31 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0005
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:35:56.731205

Defect Class: Edge-Loc
Confidence Score: 0.9997
Defect Percentage: 47.75%

Reason: Defect Percentage: 47.75% (<=50% threshold), Defect Class: Edge-Loc, Confidence: 99.97%

Wafer 32 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0002
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:35:57.416499

Defect Class: Donut
Confidence Score: 0.9999
Defect Percentage: 63.68%

Reason: Defect Percentage: 63.68% (>50% threshold), Defect Class: Donut, Confidence: 99.99%

Wafer 33 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0002
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:35:58.225595

Defect Class: Edge-Ring
Confidence Score: 0.9832
Defect Percentage: 56.34%

Reason: Defect Percentage: 56.34% (>50% threshold), Defect Class: Edge-Ring, Confidence: 98.32%

Wafer 34 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0005
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:35:58.481595

Defect Class: Donut

Confidence Score: 0.9982
Defect Percentage: 55.10%

Reason: Defect Percentage: 55.1% (>50% threshold), Defect Class: Donut, Confidence: 99.82%

Wafer 35 Inspection Decision

Wafer ID: Thermal_THERM_01_W0002
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:35:58.663268

Defect Class: Edge-Loc
Confidence Score: 0.6178
Defect Percentage: 52.83%

Reason: Defect Percentage: 52.83% (>50% threshold), Defect Class: Edge-Loc, Confidence: 61.78%

Wafer 36 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0002
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:35:59.281438

Defect Class: Normal
Confidence Score: 0.9997
Defect Percentage: 34.83%

Reason: Defect Percentage: 34.83% (<=50% threshold), Defect Class: Normal, Confidence: 99.97%

Wafer 37 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0002
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:35:59.423104

Defect Class: Random
Confidence Score: 1.0000
Defect Percentage: 73.91%

Reason: Defect Percentage: 73.91% (>50% threshold), Defect Class: Random, Confidence: 100.00%

Wafer 38 Inspection Decision

Wafer ID: Thermal_THERM_01_W0004
Decision: PASS

Machine Type: Thermal

Machine ID: THERM_01
Timestamp: 2025-12-26T23:35:59.815617

Defect Class: Scratch
Confidence Score: 0.9996
Defect Percentage: 45.38%

Reason: Defect Percentage: 45.38% (<=50% threshold), Defect Class: Scratch, Confidence: 99.96%

Wafer 39 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0005
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:00.692583

Defect Class: Normal
Confidence Score: 0.9998
Defect Percentage: 38.44%

Reason: Defect Percentage: 38.44% (<=50% threshold), Defect Class: Normal, Confidence: 99.98%

Wafer 40 Inspection Decision

Wafer ID: Thermal_THERM_02_W0002
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:01.604844

Defect Class: Donut
Confidence Score: 1.0000
Defect Percentage: 51.08%

Reason: Defect Percentage: 51.08% (>50% threshold), Defect Class: Donut, Confidence: 100.00%

Wafer 41 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0006
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:02.324159

Defect Class: Edge-Loc
Confidence Score: 0.9984
Defect Percentage: 53.75%

Reason: Defect Percentage: 53.75% (>50% threshold), Defect Class: Edge-Loc, Confidence: 99.84%

Wafer 42 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0006
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:02.631344

Defect Class: Normal
Confidence Score: 0.9991
Defect Percentage: 38.98%

Reason: Defect Percentage: 38.98% (<=50% threshold), Defect Class: Normal, Confidence: 99.91%

Wafer 43 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0003
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:03.304608

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 43.86%

Reason: Defect Percentage: 43.86% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 44 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0003
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:03.645281

Defect Class: Random
Confidence Score: 0.9976
Defect Percentage: 84.62%

Reason: Defect Percentage: 84.62% (>50% threshold), Defect Class: Random, Confidence: 99.76%

Wafer 45 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0006
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:04.733569

Defect Class: Edge-Loc
Confidence Score: 0.9909
Defect Percentage: 44.71%

Reason: Defect Percentage: 44.71% (<=50% threshold), Defect Class: Edge-Loc, Confidence: 99.09%

Wafer 46 Inspection Decision

Wafer ID: Thermal_THERM_02_W0005
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:05.763959

Defect Class: Center
Confidence Score: 0.9999
Defect Percentage: 48.77%

Reason: Defect Percentage: 48.77% (<=50% threshold), Defect Class: Center, Confidence: 99.99%

Wafer 47 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0006
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:06.187385

Defect Class: Edge-Ring
Confidence Score: 0.9970
Defect Percentage: 57.83%

Reason: Defect Percentage: 57.83% (>50% threshold), Defect Class: Edge-Ring, Confidence: 99.70%

Wafer 48 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0003
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:06.707561

Defect Class: Near-Full
Confidence Score: 1.0000
Defect Percentage: 92.14%

Reason: Defect Percentage: 92.14% (>50% threshold), Defect Class: Near-Full, Confidence: 100.00%

Wafer 49 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0003
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:06.873610

Defect Class: Scratch

Confidence Score: 0.9999
Defect Percentage: 43.66%

Reason: Defect Percentage: 43.66% (<=50% threshold), Defect Class: Scratch, Confidence: 99.99%

Wafer 50 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0007
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:07.499913

Defect Class: Center
Confidence Score: 0.9997
Defect Percentage: 49.82%

Reason: Defect Percentage: 49.82% (<=50% threshold), Defect Class: Center, Confidence: 99.97%

Wafer 51 Inspection Decision

Wafer ID: Thermal_THERM_01_W0003
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:07.640465

Defect Class: Center
Confidence Score: 1.0000
Defect Percentage: 45.92%

Reason: Defect Percentage: 45.92% (<=50% threshold), Defect Class: Center, Confidence: 100.00%

Wafer 52 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0007
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:07.805725

Defect Class: Random
Confidence Score: 1.0000
Defect Percentage: 74.29%

Reason: Defect Percentage: 74.29% (>50% threshold), Defect Class: Random, Confidence: 100.00%

Wafer 53 Inspection Decision

Wafer ID: Thermal_THERM_02_W0003
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:08.345285

Defect Class: Local
Confidence Score: 0.9995
Defect Percentage: 44.99%

Reason: Defect Percentage: 44.99% (<=50% threshold), Defect Class: Local, Confidence: 99.95%

Wafer 54 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0004
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:08.806234

Defect Class: Normal
Confidence Score: 0.9993
Defect Percentage: 36.47%

Reason: Defect Percentage: 36.47% (<=50% threshold), Defect Class: Normal, Confidence: 99.93%

Wafer 55 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0004
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:08.828423

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 44.29%

Reason: Defect Percentage: 44.29% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 56 Inspection Decision

Wafer ID: Thermal_THERM_01_W0005
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:09.242458

Defect Class: Random
Confidence Score: 0.9992
Defect Percentage: 77.74%

Reason: Defect Percentage: 77.74% (>50% threshold), Defect Class: Random, Confidence: 99.92%

Wafer 57 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0007
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:12.698494

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 43.79%

Reason: Defect Percentage: 43.79% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 58 Inspection Decision

Wafer ID: Thermal_THERM_01_W0004
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:12.762350

Defect Class: Center
Confidence Score: 0.9992
Defect Percentage: 55.02%

Reason: Defect Percentage: 55.02% (>50% threshold), Defect Class: Center, Confidence: 99.92%

Wafer 59 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0004
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:12.978824

Defect Class: Random
Confidence Score: 0.9999
Defect Percentage: 77.80%

Reason: Defect Percentage: 77.8% (>50% threshold), Defect Class: Random, Confidence: 99.99%

Wafer 60 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0004
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:13.146188

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 44.70%

Reason: Defect Percentage: 44.7% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 61 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0008
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:13.227371

Defect Class: Normal
Confidence Score: 0.9999
Defect Percentage: 29.98%

Reason: Defect Percentage: 29.98% (<=50% threshold), Defect Class: Normal, Confidence: 99.99%

Wafer 62 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0008
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:13.313380

Defect Class: Edge-Ring
Confidence Score: 0.9981
Defect Percentage: 54.25%

Reason: Defect Percentage: 54.25% (>50% threshold), Defect Class: Edge-Ring, Confidence: 99.81%

Wafer 63 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0007
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:13.941983

Defect Class: Near-Full
Confidence Score: 0.9985
Defect Percentage: 92.05%

Reason: Defect Percentage: 92.05% (>50% threshold), Defect Class: Near-Full, Confidence: 99.85%

Wafer 64 Inspection Decision

Wafer ID: Thermal_THERM_02_W0006
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:13.975727

Defect Class: Edge-Ring
Confidence Score: 0.9969
Defect Percentage: 56.41%

Reason: Defect Percentage: 56.41% (>50% threshold), Defect Class: Edge-Ring, Confidence: 99.69%

Wafer 65 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0005
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:14.040135

Defect Class: Scratch
Confidence Score: 0.9999
Defect Percentage: 44.22%

Reason: Defect Percentage: 44.22% (<=50% threshold), Defect Class: Scratch, Confidence: 99.99%

Wafer 66 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0005
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:14.581735

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 44.27%

Reason: Defect Percentage: 44.27% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 67 Inspection Decision

Wafer ID: Thermal_THERM_01_W0006
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:15.390581

Defect Class: Edge-Ring
Confidence Score: 0.9976
Defect Percentage: 54.13%

Reason: Defect Percentage: 54.13% (>50% threshold), Defect Class: Edge-Ring, Confidence: 99.76%

Wafer 68 Inspection Decision

Wafer ID: Thermal_THERM_02_W0004
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:16.239080

Defect Class: Edge-Ring
Confidence Score: 0.7199
Defect Percentage: 52.08%

Reason: Defect Percentage: 52.08% (>50% threshold), Defect Class: Edge-Ring, Confidence: 71.99%

Wafer 69 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0009
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:18.491122

Defect Class: Random
Confidence Score: 0.9992
Defect Percentage: 77.74%

Reason: Defect Percentage: 77.74% (>50% threshold), Defect Class: Random, Confidence: 99.92%

Wafer 70 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0009
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:19.186256

Defect Class: Scratch
Confidence Score: 0.9995
Defect Percentage: 44.64%

Reason: Defect Percentage: 44.64% (<=50% threshold), Defect Class: Scratch, Confidence: 99.95%

Wafer 71 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0005
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:19.198318

Defect Class: Center
Confidence Score: 0.9993
Defect Percentage: 54.91%

Reason: Defect Percentage: 54.91% (>50% threshold), Defect Class: Center, Confidence: 99.93%

Wafer 72 Inspection Decision

Wafer ID: Thermal_THERM_02_W0007
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:19.312831

Defect Class: Edge-Loc
Confidence Score: 0.9999
Defect Percentage: 50.36%

Reason: Defect Percentage: 50.36% (>50% threshold), Defect Class: Edge-Loc, Confidence: 99.99%

Wafer 73 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0006
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:19.728029

Defect Class: Donut
Confidence Score: 0.9999
Defect Percentage: 59.96%

Reason: Defect Percentage: 59.96% (>50% threshold), Defect Class: Donut, Confidence: 99.99%

Wafer 74 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0008
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:19.781705

Defect Class: Edge-Ring
Confidence Score: 0.9911
Defect Percentage: 56.43%

Reason: Defect Percentage: 56.43% (>50% threshold), Defect Class: Edge-Ring, Confidence: 99.11%

Wafer 75 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0006
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:19.976413

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 44.00%

Reason: Defect Percentage: 44.0% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 76 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0005
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:20.277906

Defect Class: Edge-Loc
Confidence Score: 0.9998
Defect Percentage: 45.86%

Reason: Defect Percentage: 45.86% (<=50% threshold), Defect Class: Edge-Loc, Confidence: 99.98%

Wafer 77 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0008
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:20.503713

Defect Class: Near-Full
Confidence Score: 1.0000
Defect Percentage: 95.99%

Reason: Defect Percentage: 95.99% (>50% threshold), Defect Class: Near-Full, Confidence: 100.00%

Wafer 78 Inspection Decision

Wafer ID: Thermal_THERM_01_W0005
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:22.114558

Defect Class: Local
Confidence Score: 1.0000
Defect Percentage: 51.32%

Reason: Defect Percentage: 51.32% (>50% threshold), Defect Class: Local, Confidence: 100.00%

Wafer 79 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0010
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:24.112504

Defect Class: Donut
Confidence Score: 0.9995
Defect Percentage: 62.12%

Reason: Defect Percentage: 62.12% (>50% threshold), Defect Class: Donut, Confidence: 99.95%

Wafer 80 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0009
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:25.056791

Defect Class: Near-Full
Confidence Score: 1.0000
Defect Percentage: 95.99%

Reason: Defect Percentage: 95.99% (>50% threshold), Defect Class: Near-Full, Confidence: 100.00%

Wafer 81 Inspection Decision

Wafer ID: Thermal_THERM_02_W0005
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:25.109965

Defect Class: Local
Confidence Score: 1.0000
Defect Percentage: 46.42%

Reason: Defect Percentage: 46.42% (<=50% threshold), Defect Class: Local, Confidence: 100.00%

Wafer 82 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0007
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:25.248962

Defect Class: Local
Confidence Score: 1.0000
Defect Percentage: 52.27%

Reason: Defect Percentage: 52.27% (>50% threshold), Defect Class: Local, Confidence: 100.00%

Wafer 83 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0010
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:25.472983

Defect Class: Center
Confidence Score: 0.9998
Defect Percentage: 51.55%

Reason: Defect Percentage: 51.55% (>50% threshold), Defect Class: Center, Confidence: 99.98%

Wafer 84 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0006
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:25.515378

Defect Class: Local
Confidence Score: 0.9999
Defect Percentage: 51.84%

Reason: Defect Percentage: 51.84% (>50% threshold), Defect Class: Local, Confidence: 99.99%

Wafer 85 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0007
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:25.949646

Defect Class: Normal
Confidence Score: 0.9998
Defect Percentage: 33.38%

Reason: Defect Percentage: 33.38% (<=50% threshold), Defect Class: Normal, Confidence: 99.98%

Wafer 86 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0006
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:26.302985

Defect Class: Edge-Ring
Confidence Score: 0.9832
Defect Percentage: 56.34%

Reason: Defect Percentage: 56.34% (>50% threshold), Defect Class: Edge-Ring, Confidence: 98.32%

Wafer 87 Inspection Decision

Wafer ID: Thermal_THERM_01_W0007
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:27.002451

Defect Class: Local
Confidence Score: 1.0000

Defect Percentage: 46.51%

Reason: Defect Percentage: 46.51% (<=50% threshold), Defect Class: Local, Confidence: 100.00%

Wafer 88 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0009
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:27.658334

Defect Class: Donut
Confidence Score: 1.0000
Defect Percentage: 61.21%

Reason: Defect Percentage: 61.21% (>50% threshold), Defect Class: Donut, Confidence: 100.00%

Wafer 89 Inspection Decision

Wafer ID: Thermal_THERM_02_W0008
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:29.199676

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 43.48%

Reason: Defect Percentage: 43.48% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 90 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0011
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:29.923454

Defect Class: Random
Confidence Score: 0.9997
Defect Percentage: 82.02%

Reason: Defect Percentage: 82.02% (>50% threshold), Defect Class: Random, Confidence: 99.97%

Wafer 91 Inspection Decision

Wafer ID: Thermal_THERM_01_W0006
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_01

Timestamp: 2025-12-26T23:36:30.586459

Defect Class: Random
Confidence Score: 1.0000
Defect Percentage: 0.35%

Reason: Defect Percentage: 0.35% (<=50% threshold), Defect Class: Random, Confidence: 100.00%

Wafer 92 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0008
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:30.753578

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 44.10%

Reason: Defect Percentage: 44.1% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 93 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0011
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:31.136693

Defect Class: Scratch
Confidence Score: 1.0000
Defect Percentage: 44.10%

Reason: Defect Percentage: 44.1% (<=50% threshold), Defect Class: Scratch, Confidence: 100.00%

Wafer 94 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0008
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:31.499102

Defect Class: Local
Confidence Score: 1.0000
Defect Percentage: 47.75%

Reason: Defect Percentage: 47.75% (<=50% threshold), Defect Class: Local, Confidence: 100.00%

Wafer 95 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0010
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:32.201231

Defect Class: Edge-Loc
Confidence Score: 0.9983
Defect Percentage: 44.88%

Reason: Defect Percentage: 44.88% (<=50% threshold), Defect Class: Edge-Loc, Confidence: 99.83%

Wafer 96 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0007
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:32.302923

Defect Class: Donut
Confidence Score: 0.9998
Defect Percentage: 59.32%

Reason: Defect Percentage: 59.32% (>50% threshold), Defect Class: Donut, Confidence: 99.98%

Wafer 97 Inspection Decision

Wafer ID: Thermal_THERM_01_W0008
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:33.296059

Defect Class: Random
Confidence Score: 0.9998
Defect Percentage: 69.32%

Reason: Defect Percentage: 69.32% (>50% threshold), Defect Class: Random, Confidence: 99.98%

Wafer 98 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0007
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:33.792081

Defect Class: Random
Confidence Score: 0.9999
Defect Percentage: 77.80%

Reason: Defect Percentage: 77.8% (>50% threshold), Defect Class: Random, Confidence: 99.99%

Wafer 99 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0009
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:36.531355

Defect Class: Near-Full
Confidence Score: 1.0000
Defect Percentage: 98.04%

Reason: Defect Percentage: 98.04% (>50% threshold), Defect Class: Near-Full, Confidence: 100.00%

Wafer 100 Inspection Decision

Wafer ID: Thermal_THERM_02_W0006
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:36.694748

Defect Class: Random
Confidence Score: 0.9999
Defect Percentage: 74.25%

Reason: Defect Percentage: 74.25% (>50% threshold), Defect Class: Random, Confidence: 99.99%

Wafer 101 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0009
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:37.387737

Defect Class: Center
Confidence Score: 0.9999
Defect Percentage: 44.93%

Reason: Defect Percentage: 44.93% (<=50% threshold), Defect Class: Center, Confidence: 99.99%

Wafer 102 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0008
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:38.270721

Defect Class: Donut
Confidence Score: 0.9999
Defect Percentage: 52.28%

Reason: Defect Percentage: 52.28% (>50% threshold), Defect Class: Donut, Confidence: 99.99%

Wafer 103 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0008
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:41.036948

Defect Class: Center
Confidence Score: 1.0000
Defect Percentage: 52.74%

Reason: Defect Percentage: 52.74% (>50% threshold), Defect Class: Center, Confidence: 100.00%

Wafer 104 Inspection Decision

Wafer ID: Thermal_THERM_01_W0007
Decision: PASS

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:41.200754

Defect Class: Edge-Loc
Confidence Score: 0.9848
Defect Percentage: 45.46%

Reason: Defect Percentage: 45.46% (<=50% threshold), Defect Class: Edge-Loc, Confidence: 98.48%

Wafer 105 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0010
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:42.522406

Defect Class: Normal
Confidence Score: 0.9996
Defect Percentage: 33.89%

Reason: Defect Percentage: 33.89% (<=50% threshold), Defect Class: Normal, Confidence: 99.96%

Wafer 106 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0010
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:42.871321

Defect Class: Normal
Confidence Score: 0.9996
Defect Percentage: 33.89%

Reason: Defect Percentage: 33.89% (<=50% threshold), Defect Class: Normal, Confidence: 99.96%

Wafer 107 Inspection Decision

Wafer ID: Mechanical_MECH_01_W0009
Decision: FAIL

Machine Type: Mechanical
Machine ID: MECH_01
Timestamp: 2025-12-26T23:36:45.086185

Defect Class: Edge-Loc
Confidence Score: 0.8984
Defect Percentage: 55.54%

Reason: Defect Percentage: 55.54% (>50% threshold), Defect Class: Edge-Loc, Confidence: 89.84%

Wafer 108 Inspection Decision

Wafer ID: Thermal_THERM_02_W0007
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_02
Timestamp: 2025-12-26T23:36:45.346869

Defect Class: Random
Confidence Score: 1.0000
Defect Percentage: 73.91%

Reason: Defect Percentage: 73.91% (>50% threshold), Defect Class: Random, Confidence: 100.00%

Wafer 109 Inspection Decision

Wafer ID: Mechanical_MECH_02_W0009
Decision: PASS

Machine Type: Mechanical
Machine ID: MECH_02
Timestamp: 2025-12-26T23:36:47.303513

Defect Class: Local
Confidence Score: 0.9992
Defect Percentage: 48.88%

Reason: Defect Percentage: 48.88% (<=50% threshold), Defect Class: Local, Confidence: 99.92%

Wafer 110 Inspection Decision

Wafer ID: Thermal_THERM_01_W0008
Decision: FAIL

Machine Type: Thermal
Machine ID: THERM_01
Timestamp: 2025-12-26T23:36:48.090134

Defect Class: Edge-Loc
Confidence Score: 0.9979
Defect Percentage: 50.44%

Reason: Defect Percentage: 50.44% (>50% threshold), Defect Class: Edge-Loc, Confidence: 99.79%

Wafer 111 Inspection Decision

Wafer ID: Electrical_ELEC_01_W0011
Decision: FAIL

Machine Type: Electrical
Machine ID: ELEC_01
Timestamp: 2025-12-26T23:36:48.130790

Defect Class: Edge-Loc
Confidence Score: 1.0000
Defect Percentage: 50.25%

Reason: Defect Percentage: 50.25% (>50% threshold), Defect Class: Edge-Loc, Confidence: 100.00%

Wafer 112 Inspection Decision

Wafer ID: Electrical_ELEC_02_W0011
Decision: PASS

Machine Type: Electrical
Machine ID: ELEC_02
Timestamp: 2025-12-26T23:36:48.288228

Defect Class: Edge-Loc
Confidence Score: 1.0000
Defect Percentage: 49.01%

Reason: Defect Percentage: 49.01% (<=50% threshold), Defect Class: Edge-Loc, Confidence: 100.00%

Batch Summary

Total wafers: 112
PASS: 51 | **FAIL:** 61
PASS rate: 45.54%

Top 5 Highest Defect Percentages

• Mechanical_MECH_02_W0001 (Mechanical): 98.09% [Near-Full]
• Electrical_ELEC_01_W0001 (Electrical): 98.04% [Near-Full]
• Electrical_ELEC_01_W0009 (Electrical): 98.04% [Near-Full]
• Mechanical_MECH_02_W0008 (Mechanical): 95.99% [Near-Full]
• Mechanical_MECH_01_W0009 (Mechanical): 95.99% [Near-Full]

Distribution by Machine Type

• Electrical: 44 wafers
• Mechanical: 37 wafers
• Thermal: 31 wafers

Distribution by Defect Class

• Random: 18 wafers
• Scratch: 15 wafers
• Center: 13 wafers
• Edge-Loc: 13 wafers
• Local: 12 wafers
• Normal: 12 wafers
• Donut: 11 wafers
• Near-Full: 9 wafers
• Edge-Ring: 9 wafers

AI-Enhanced Engineering Summary

The batch yield is significantly low at 45.54%, with a high failure count of 61 wafers out of 112. The predominant defect class contributing to failures is Near-Full, especially on Mechanical and Electrical machines, with defect percentages nearing 98%. Other defect classes such as Scratch, Random, and Center also contribute but to a lesser extent. This indicates a systemic issue likely related to machine performance or process control in the Mechanical and Electrical equipment.

Estimated batch yield impact: High

Key Risks

• High Near-Full defect rate causing wafer failures
• Mechanical and Electrical machines showing severe defect concentrations
• Potential process drift or equipment malfunction
• Risk of continued low yield if root cause not addressed

Recommended Actions

• Perform detailed root cause analysis on Mechanical and Electrical machines

- Inspect and recalibrate equipment to reduce Near-Full defects
- Review process parameters and environmental conditions
- Implement tighter monitoring and control for defect-prone steps