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## Supplier Process Management Plan

PREPARED BY (Name )	ORGANIZATION	DATE
Byron Murray	SYS	5/29/2013

APPROVALS (Name)	ORGANIZATION	APPROVAL DATE
Javier Marti	CCB Chair	6/12/2013
Krista Laursen	CCB Chair	6/11/2013
Laura Newton	CCB DIR SE	6/11/2013
Mike Stewart	CCB SE	6/12/2013

RELEASED BY (Name)	ORGANIZATION	RELEASE DATE
Stephen Craft	CCB Admin	6/12/2013

See Configuration Management System for approval history.

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Supplier :		Facility/Location :	
NEON Quality :	Date :	Supplier's Quality Manager :	Rev Date :

## Manufacturing Process Matrix

Step	Process	Mfg. Equipment, Fixture, Tools	Consumables	Feature Creation Controls	Verification/Validation Methods	Reference Specification and Supplier Document	Out-of-control reaction
00	Material Ordering	NEON AVL	N/A	JDE system	N/A	NEON AVL	Contact supplier
10	Material Receipt	Labels Printer	Labels	Invoice Packing List JDE system	Check part number against AVL.	AVL	Quarantine part and inform Product Engineer/Supervisor.
20	IQA	Caliper Pin Gauge Microscope (Olympus) Mitutoyo Microscope Profile Projector (PJ3000) Height gauge Granite block	3M Transparent Tape 600	IPC-A-600 Part Receiving Checklist (682F230) Part Inspection Instruction (682F244)	Checklist	IPC-A-600 AVL NEON Drawings	Quarantine part and inform Product SQE and IQA Enginner/Supervisor.  Non Conforming Material
30	Material Release	N/A	N/A	JDE system Production Order Pick List	N/A	Pick List	Quarantine part and issue new part.
40	Material Staging	N/A	N/A	SFDM Production Order Pick List	Pick List Verification	Pick List	Quarantine part and issue new part or call Production Engineer.
50	Pre-Depanalization	Slice Cutter	N/A	"Depanalization" in On-Line Documentation.	N/A	On-Line Documentation NEON Drawings	Stop the process and inform Production Supervisor/Technician.
51	Cut Trace	Exactor Knife Microscope Micro Drill	Epoxy EP-01 MSDS 680	"Cut Trace" in On-Line Documentation.  692T007	LCR Meter Verification	On-Line Documentation NEON Drawings	Stop the process and inform Production Supervisor/Technician.
60	Screen Printing	MPM Screen Printer (UP 2000/AP-21/AP-HIE)  LSM Stencil Alex Ultrasonic Batch cleaning Smartsonic 5000	Solder Paste (Kester 562)  Clean agent (SWAX and 440R) Wiper paper (C-100) SOP 79	"First Assembly or Second Assembly" in On-Line Documentation.  Procedure 621T027  WI-192 MPM software	SPC control on solder paste height inspect and measure.  Solder Paste Height Records	PCBA Gerber File  On-Line Documentation.	Stop the process and inform Production Supervisor/Technician. (system automatically notifies technician)

70	Chip Placement	Fuji CP-642, CP-65, CP-643, Mydata MY19E or Genesis C30	N/A	"First Assembly or Second Assembly" in On-Line Documentation.  Fuji software Maintenance records WI-265	SMT Conversion Checklist.  Component Change Log	On-Line Documentation.	Stop the process and inform Supervisor/Technician
80	IC Placement	Fuji IP-3, GSM or Mydata MY 19E	N/A	"First Assembly or Second Assembly" in On-Line Documentation.  Fuji software Maintenance records WI-265	SMT Conversion Checklist  Component Change Log	On-Line Documentation.	Stop the process and inform Supervisor/Technician.
81	Manual Placement	ESD Plastic Twizzle	N/A	"First Assembly or Second Assembly" in On-Line Documentation.	SFDM	On-Line Documentation.	Stop the process and inform Supervisor/Technician.
90	Reflow	HVN-102 Conceptronic Oven, Heller 9200 or Omniflex  Datapaq Profiler	N/A	"First Assembly or Second Assembly" in On-Line Documentation.  Profileer software Maintenance records WI-265	N/A	On-Line Documentation.	Stop the process and inform Process Engineer.
100	Post Reflow Inspection	Microscope  Visual Template	N/A	"First Assembly or Second Assembly" in On-Line Documentation.  WI-265	SFDM	IPC-A-610  On-Line Documentation.	Inform production supervisor.
110	Auto Inspection	MVP Ultra III	N/A	AOI in Online Document	SFDM Storm	Machine program IPC-A-610 Class II	Stop the process and inform Production Supervisor/Technician.
120	Auto Insertion	Universal 6241B or Radial 8 2.5/5	N/A	"AI" in On Line Documentation.  Component Station List Maintenance records WI-265	AI Conversion Checklist	On-Line Documentation IPC-A-610	Stop the process and inform Production Supervisor.
130	Depanalization	Router Machine - ATI 101 CM or GETech ESR-1000	Router Milling Bit	"Depanalization" in On-Line Documentation.	N/A	On-Line Documentation  NEON Drawings	Stop the process and inform Production Supervisor/Technician.
140	Manual Insert	MI station  Wave Pallet	N/A	"Manual Assembly" in On-Line Documentation.  WI-265	Wave Solder Checklist	IPC-A-610  On-Line Documentation.	Stop the process and inform Production Supervisor/Technician.

150	Wave Soldering	Electrovert Ultrapak 600C Vitronics Soltec Wave Pallet Datapaq Profiler	Solder (Sn63Pb37) Flux (Kester 2331ZX)	"Wave Solder" in On-Line Documentation. Maintenance records Profile software WI-265	N/A	On-Line Documentation. NEON Drawings	Stop the process and inform Production Supervisor/Technician.
160	Wash	Electrovert H-500 SMT Triton IV MII SMT	DI water	Shiftly monitoring on cleaning efficiency. Maintenance records WI-265	Ionograph 500 M	IPC-A-610	Stop the process and inform Production Supervisor/Technician.
170	Wave Visual Inspection	Microscope Visual Template	Cleaning agent – Vericlean	"Inspection" in On-Line Documentation. WI-265	SFDM	IPC-A-610  On-Line Documentation	Inform production supervisor.
180	5DX (side1 & side 2)	Agilent	Carrier	"5DX" in On-Line Documentation. WI-265	SFDM Storm Papeless Repair Station "PLR"	Machine program, IPC-A-610 Class II, SMT Solder Joints, Plated Through-Hole Components, Missing Component and Pcap Orientation.	Stop the process and inform Production Supervisor/Technician.
190	Manual Soldering and Assembly	Metcal Soldering Iron Hand Soldering Tools Ionizer (Desco) Hand Soldering Jig Torque Driver	Cleaning agent – Vericlean Flux (952-D6) Solder Wire (No clean, Flux-245)	"Manual Soldering & Assembly" in On-Line Documentation. WI-265	SFDM	IPC-A-610  On-Line Documentation	Stop the process and inform Production Supervisor/Technician.
200	Final Viual Inspection	Microscope	N/A	"Manual Soldering & Assembly" in On-Line Documentation. WI-265	SFDM	IPC-A-610  On-Line Documentation	Stop the process and inform Production Supervisor/Technician.
210	QA02	Microscope	N/A	"QA02" in On-Line Documentation. WI-265	SFDM	IPC-A-610  On-Line Documentation.	Inform QA Supervisor

220	ICT Test	HP3065, HP3070, Takaya or Test Fixture	N/A	"HP3065, HP3070, Takaya or Test Fixture" in On-Line Documentation Maintenance records  WI-265	SFDM	Customer specification	Inform technician if three consecutive failure
230	Conformal Coating	Besin  Tank	Alcohol	SOP 22	SFDM	IPC 610D	Inform Production Supervisor.
240	Hardware 1	Torque Driver  Metcal Soldering Iron  Hand Soldering Tools	N/A  Flux (952-D6)  Solder Wire (No clean, Flux-245)	"Hardware" in On-Line Documentation.  WI-265	SFDM	IPC-A-610  On-Line Documentation.	Inform Production Supervisor.
250	QA03	Microscope	N/A	"QA03" in On-Line Documentation.  WI-265	SFDM	IPC-A-610  On-Line Documentation.	Inform QA Supervisor
260	Hardware2	Torque Driver  Metcal Soldering Iron  Hand Soldering Tools	N/A  Flux (952-D6)  Solder Wire (No clean, Flux-245)	"Hardware" in On-Line Documentation.  WI-265	SFDM	IPC-A-610  On-Line Documentation.	Inform Production Supervisor.
270	Functional Test	NEON FT Fixture / Tester	Cleaning agent – Vericlean	"FT" in On-Line Documentation  Maintenance records  WI-265	SFDM	Customer specification	Inform technician if three consecutive failure
280	Hi-POT	Extach 7140 AC/DC Withstand Voltage Tester	N/A	"Hi-POT" in On-line Documentation  Maintenance records  WI-265	SFDM  Pass/Fail criteria	Customer specification	Debugged by Technician
290	SI/QA04/CQA	Microscope	N/A	"SI/QA04/CQA" in On-Line Documentation.  WI-265	SFDM	IPC-A-610  On-Line Documentation.	Inform QA Supervisor
300	Packaging	Label Printer	Nesting, Carton box, Packing Material, Labels.	"Packaging" in On-Line Documentation.  WI-265	SFDM	RM0002 standards	Inform Production Supervisor.
310	Shipping	Label Printer	Shipping Label	Customer address and shipping information.  JDE system	Invoice  System verification of each individual board.	N/A	Inform Shipping Supervisor/Program Manager/QA Engineer.



### Supplier Process Management Plan Reference Table

Step	Process	Model					
		Part Number XXX	Part Number XXX	Part Number XXX			
00	Material Ordering	✓	✓	✓			
10	Material Receipt	✓	✓	✓			
20	IQA	✓	✓	✓			
30	Material Release	✓	✓	✓			
40	Material Staging	✓	✓	✓			
50	Pre-Depanalization						
51	Cut Trace						
60	Screen Printing	✓	✓	✓			
70	Chip Placement	✓	✓	✓			
80	IC Placement	✓	✓	✓			
81	Manual Placement						
90	Reflow	✓	✓	✓			
100	Post Reflow Inspection	✓	✓	✓			
110	Auto Insertion						
120	Depanalization	✓	✓	✓			
130	Manual Insert	✓	✓	✓			
140	Wave Soldering	✓	✓	✓			
150	Wash	✓	✓				
160	Wave Visual Inspection	✓	✓	✓			
170	5DX (side1 & side 2)						
180	Manual Soldering and Assembly	✓		✓			
190	Final Visual Inspection	✓		✓			
200	QA02						
210	ICT Test	✓	✓	✓			
220	Hardware/Hardware 1						
230	QA03						
240	Hardware2						
250	Functional Test						
260	Hi-POT						
270	SI/QA04/CQA	✓	✓	✓			
280	Packaging	✓	✓	✓			
290	Shipping	✓	✓	✓			



