ATTACHMENT 2.
ASSEMBLY FLOWCHART

INCOMING

QUALITY INSPECTION AND GATE

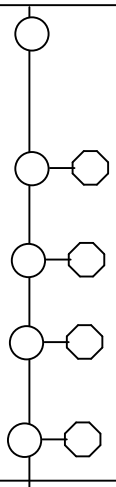
MANUFACTURING PROCESS

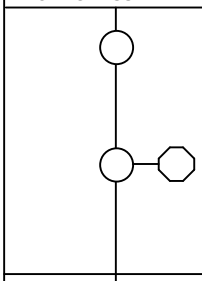
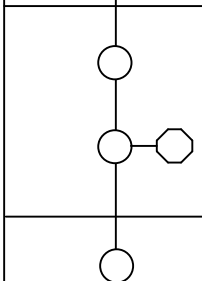
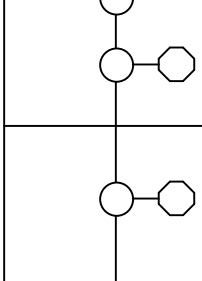
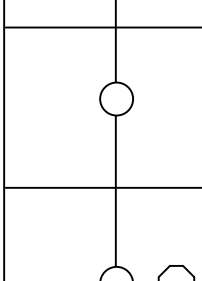
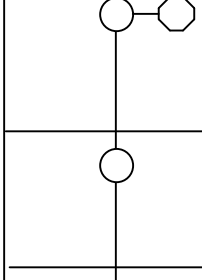
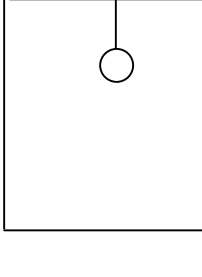
QUALITY MONITOR / SURVEILLANCE

REWORK

Vendor:	**Linear Technology Corporation**
Product:	**BIPOLAR or CMOS PROCESS**
Package:	**SC70**
Location of Wafer Fab:	**Linear Technology Corp., Milpitas, CA./ Camas, WA.**
Assembly:	**NSE Bangkok-Thailand**
Final Test:	**Linear Technology Corp., Milpitas, CA., Singapore**
Q.C. Test	**Linear Technology Corp., Milpitas, CA., Singapore**
Source Accept Test:	**Linear Technology Corp., Milpitas, CA., Singapore**
Quality Contact:	**Dwight Somersett, LTC, Milpitas, CA.**
	(408) 432-1900 Ext. 2427

FLOW CHART INCOMING ASSY REWORK	PROCESS STEP	DESCRIPTION	INSPECTION/ TEST CRITERIA	METHOD & EQUIPMENT	SAMPLING PLAN	SPC TECHNIQUE
	TRANSFER IN	WAFER				
	BACKGRIND	DIE THINING	8 mils	LAPPING TABLE	100%	LOG
	100% 2ND OPT INSPECTION	DIE QUALITY	DIE VISUAL QUALITY	75X MICROSCOPE		
	QA 2ND OPTICAL INSPECTION		DIE VISUAL QUALITY	75X MICROSCOPE	EVERY LOT 100% BASIS	YIELD ANALYSIS
	WAFER MOUNT	PREPARATION FOR DIE SEPERATION	VISUAL INSPECTION	UNAIDED EYE	3 WAFERS/SHIFT Ø PPM TARGET	
	WAFER MOUNT MONITOR					
	WAFER SAW	DIE SEPERATION	ALIGNMENT ACCURACY	TV ALIGNMENT MICRO AUTOMATION OR DISCO SAW 10X TO 30X MICROSCOPE	EVERY WAFER LOT / MACHINE, Ø PPM TARGET	LOG
	BACTERIA COUNT	BACTERIA CULTURE	10 COL / 100 CC	BACTERIA CULTURE	1X PER WEEK	LOG
	SET-UP CHECK	INSPECTION	PER SPEC	VISUAL	EA WAFER LOT	LOG
		BLADE LIFE	45K IN SAW LINE	COUNT USAGE	N/A	LOG
		SAW KERF	1.0 TO 2.2 MILS	TM MICROSCOPE OR EQUIVALENT	ONCE PER SHIFT 4 CUTS PER MACHINE	nP CHART
	PARAMETERS	PRESSURE, SPEED, CUT COUNT	PER SPEC	VISUAL	1X PER SHIFT	LOG
	PARAMETERS	PRESSURE, SPEED, CUT COUNT	PER SPEC	VISUAL	1X PER WEEK	LOG
	DI WATER QUALITY	RESISTIVITY	12 M OHM MIN	RESISTIVITY METER	1X PER WEEK	LOG

FLOW CHART INCOMNG FAB REWORK	PROCESS STEP	DESCRIPTION	INSPECTION/ TEST CRITERIA	METHOD & EQUIPMENT	SAMPLING PLAN	SPC TECHNIQUE
	DIE ATTACH	DIE BONDED TO LEAD FRAME WITH DIE ATTACH EPOXY	PER SPEC	AUTO DIE BONDER	100%	LOG
	DIE PLACEMENT	VISUAL	PER SPEC	20X TO 40X MICROSCOPE	1 STRIP/WAFER LOT ACC = Ø, REJ = 1	LOG
	DIE ATTACH MONITOR	VISUAL QULAITY	PER SPEC	DIE SHEAR TESTER	3 UNITS/ OVEN LOAD	nP CHART
	RESIN BLEED	VISUAL	PER SPEC	20X TO 40X MICROSCOPE	2 STRIPS/OVEN/DAY ZERO BLEED	LOG
	EPOXY CURE	CURE TEMP	+175°C +/-5°C	PYROMETER / TC	1X / DAY	LOG
	WIRE BOND	BALL BONDS GOLD 1.3 MIL WIRE	GOLD WIRE	AUTO THERMOSONIC BALL BONDER 20X TO 40X	10 UNITS/LOT ACC = Ø, REJ = 1	LOG
	SURVEILLANCE	VISUAL	PER SPEC		10 INITS/MAG ACC = Ø, REJ = 1	LOG
	PARAMETERS	VISUAL	PER SPEC		1X PER LOT	LOG
	CAPILLARY LIFE	VISUAL	COUNT USAGE		EVER 6 SHIFTS	LOG
	SET-UP	VISUAL		20X TO 40X MICROSCOPE	10 UNITS / LOT ACC = Ø, REJ =1	LOG
	WIRE BOND MONITOR	WIRE PULL	PER SPEC	BOND PULL TESTER	EACH LOT / CAP CHANGE (ALL WIRES)	X BAR & R CHART
	MOLD	ENCAPSULATION WITH EPOXY NOVOLAC	VISUAL: CHIP, VOID AND CRACKS, MISALIGNMENT ETC	TRANSFER MOLD	EVERY LOT 100% BASIS	nP CHART
	MOLD MONITOR	MOLDING QUALITY		30X TO 60X MICROSCOPE	5 TIMES PER SHIFT PER MOLD 1 SHOT, ACC = Ø	% LAR TREND CHART
	POST MOLD BAKE	CURE MOLDING COMPOUND		BAKE IN +175°C OVEN FOR 6 HOURS	1X PER DAY	X BAR & R
	MOLD BAKE MONITOR	PROCESS MONITOR	CHECK OVEN TEMPERATURE	MOLD CURE IN OVEN	EACH OVEN AT START AND 1 TIME PER SHIFT	% FAILED MONITOR TREND CHART

FLOW CHART INCMNG ASSY REWORK	PROCESS STEP	DESCRIPTION	INSPECTION/ TEST CRITERIA	METHOD & EQUIPMENT	SAMPLING PLAN	SPC TECHNIQUE
	MARK	DATE CODE & DEVICE MARKING		OFFSET MARKING WITH MARKEM 7226 OR LAZER MARK	EVERY HALF HOUR, S/S = 15 UNITS, ACC = Ø PER MACHINE.	
	MARK MONITOR	CHECK MARKING QUALITY	VISUAL: ILLEGIBLE MARK, CORRECT MARK, MARKING PERMANENCY TEST (IF INK MARKED)	UN-AIDED EYE, 6 INCHES UNDER NORMAL ROOM LIGHTING METHOD 2015 MIL-STD-883	2 TIMES PER SHIFT PER MACHINE S/S = 20, ACC = Ø	% UNIT DEFECTIVE P.A. TREND CHART
	DEFLASH	REMOVE MOLD FLASH FROM PACKAGE	L/F & HEATSINK MUST BE FREE FROM MOLD FLASH			
	DEFLASH MONITOR	PROCESS MONITOR	VISUAL: INCOMPLETE DEFLASH, PACKAGE DAMAGE	7X TO 30X MICROSCOPE	2 STRIPS EVERY 2 HOURS, ACC = Ø	% UNIT DEFECTIVE TREND CHART
	SOLDER PLATE	LEAD FINISH			2X PER SHIFT	X & MOVING R CHART
	SOLDER PLATE INSPECTION	SOLDER PLATE QUALITY	COVERAGE, THICKNESS, QUALITY	UN-AIDED EYE	100%	% DEFECTIVE TREND CHART
	SOLDERABILITY TEST	SOLDER PLATE QUALITY	MINIMUM 95% COVERAGE	3X TO 10X MICROSCOPE	S/S = 11, ACC = Ø	% LAR CHART
	TRIM & FORM SINGULATION	SINGULATE UNIT AND PLACE IN ANTISTATIC TUBE	VISUAL: BENT LEADS, PACKAGE DAMAGE	HANI AUTO MACHINE 7X TO 30X MICROSCOPE	2 STRIPS PER SHIFT	LOGBOOK
	FINAL VISUAL INSPECT	100% INSPECT	VISUAL: BENT LEADS MOLD FLASH, SOLDER QUALITY ETC	UN-AIDED EYE TO 10X MICROSCOPE	EVERY LOT 100% BASIS	% LAR AND % UNIT DEFECTIVE P.A. TREND CHART
	PACK	PACKING & PREPERATION FOR DELIVERY		ANTI-STATIC SHIPPING TUBE		
	SHIP TO LTC					