



## Dell Laser MFP 1600n (A3LLASERMFP1600N) Engineering Changes

1. Change Main Control Board Layout and Critical components
2. Change NPC Board Layout and Critical components
3. Changing List of Critical Components On Main Board

Main Control Board: Critical Component Changing List							
	Model Code	Type	Note		Model Code	Type	Note
<b>B E F O R E</b>	NET2270	16BIT,64P,30MHZ	IC-USC(U5)	<b>A F T E R</b>	SPGPV3	ML- 2550_VE,496PIN, ,PBGA	IC-ASIC(U10)
	FS781BZB	SOP,8P,150MIL,	IC-CLOCK GEN(U33)		ISP1582BS	56P,12MHZ,	IC-USC(U13)
	CY25814SC	SOIC,8P,150MIL	IC-CLOCK GEN(U15,U16)		A3977SLP	TSSOP,28P,9.6X4.5X1.2MM,-	IC-Motor Driver(U7)
	Crystal Oscillator	30MHz,50ppm,	CRYSTAL-UNIT(OSC1)		CY25811	SOIC,8P,150MIL	IC Clock gen.(U8, U11)
	Crystal Oscillator	5.97MHz,50ppm,	CRYSTAL-UNIT(OSC2)		Crystal Oscillator	12MHz, 50ppm	Crystal-Unit(OSC1)
	Crystal Oscillator	12.5MHZ,50ppm	CRYSTAL-UNIT(OSC3)		Crystal Oscillator	12MHz, 50ppm	Crystal-Unit(OSC2)
	Crystal Oscillator	20MHZ,20PPM	CRYSTAL-UNIT(OSC4)		Crystal Oscillator	12MHz, 50ppm	Crystal-Unit(OSC3)

4. Changing List of Critical Components On NPC Board

NPC(Network Printing Card): Critical Component Changing List
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B E F O R E	Model Code	Type	Note	A F T E R	Model Code	Type	Note	
	IC ASIC- WIRELESS LAN	NETONE, ML-8550N	3.3V,1.8V,0TO70C,LFBGA,T R,-,PLASTIC,- (U8)			IC- TRANSCEIVER	E-STE100P,TQFP,64P	10X10MM,PLASTIC,3 .45V,-,-40TO+85C
	IC- TRANSCEIVER	ICS1893Y-10, TQFP, 64P	0X10MM,PLASTIC,3.47V,- ,0TO+70C,TR,- (U10)			IC-EEPROM	24C32,4Kx8,SOP,8P	5x4mm,2.7/5.5V,- 40to+85C
	IC-POS.LADJUST REG.	LD1117, DPAK, 3P, 240MIL	PLASTIC,1.25/15V,12W,0TO +125C,1200MA,1.238/1.262V ,TP (U1)					
	IC-FLASH MEMORY	29LV160,2MX8/1 MX16BIT, TSOP, 48P	18.4X12MM,70NS,2.7/3.6V, PLASTIC,0TO+70C, 0.2UA,C (U11)					
IC-EEPROM	24C32,4Kx8, SOP,8P	5x4mm,2.5/5.5V,-40to+85C (U2)						

5. Change of Operating Frequency

Operating Frequency Changing List		
Component	Before	After
System Clock	60 MHz	80 MHz
Main Clock	12 MHz	12 MHz
V Clock	19.61374 MHz	12 MHz
USB Clock	30 MHz	30 MHz
VDO Frequency	19.61374 MHz	19.5 MHz
Modem Clock	28.224 MHz	28.224 MHz
CCD Clock	8 MHz	8 MHz
Network Clock	25 MHz	25 MHz

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**Before**

**Top View of Main Control Board**

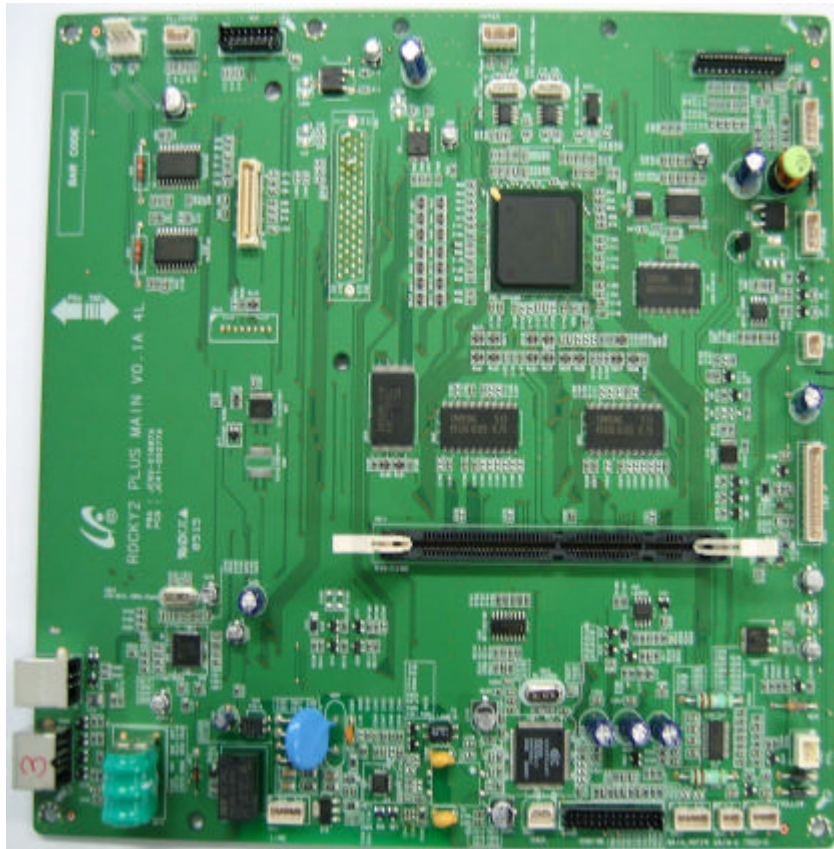


**Bottom View of Main Control Board**

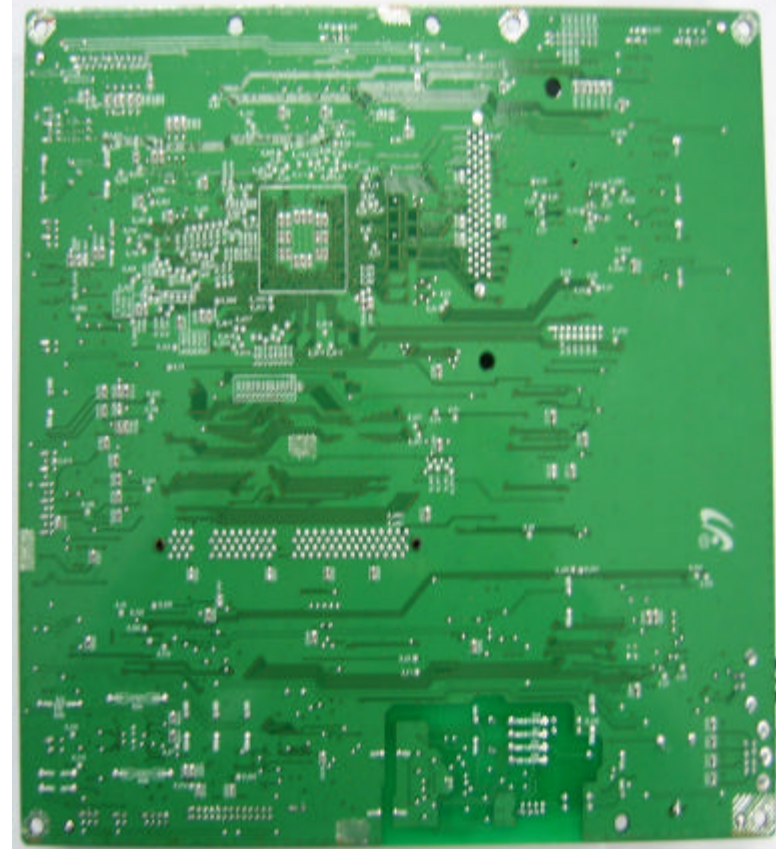


After

Top View of Main Control Board



Bottom View of Main Control Board



Before

Top View of Old NPC



Bottom View of Old NPC



After

Top View of New NPC



Bottom View of New NPC

