## P2597-B04

## Jetson TX1/TX2 Developer Kit Carrier Board HDMI, USB, PCIe, SATA, Gbe

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#### Description Page

DC Jack

BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO STUFF ASSEMBLY NOTES AND BOM NOT FINA

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Please get the latest stuff information from BOM sheet(P2597\_B04\_BOM.xlsx).

#### P2597 I2C Port Assignments

Slave Device	BUS:Device address
SIAVE DEVICE  INA3221 (Power measurement) INA3221 (Power measurement) TCA9539 (GPIO Expander) TCA9539 (GPIO Expander) BOARDID EBPROM	I2C Gen 2 : 7'h42 I2C Gen 2 : 7'h43 I2C Gen 2 : 7'h74
Dolland I Delitor.	120 0011 0 / 3/11

#### P2180 I2C Port Assignments

L		
	Slave Device	BUS:Device address
	TMP451 (Thermal) ADS1015 (ACA detection) INA226 (Power measurement)	I2C Gen 1 : 7'h4C I2C Gen 2 : 7'h4A I2C Gen 2 : 7'h46
	INA3221 (Power measurement)	

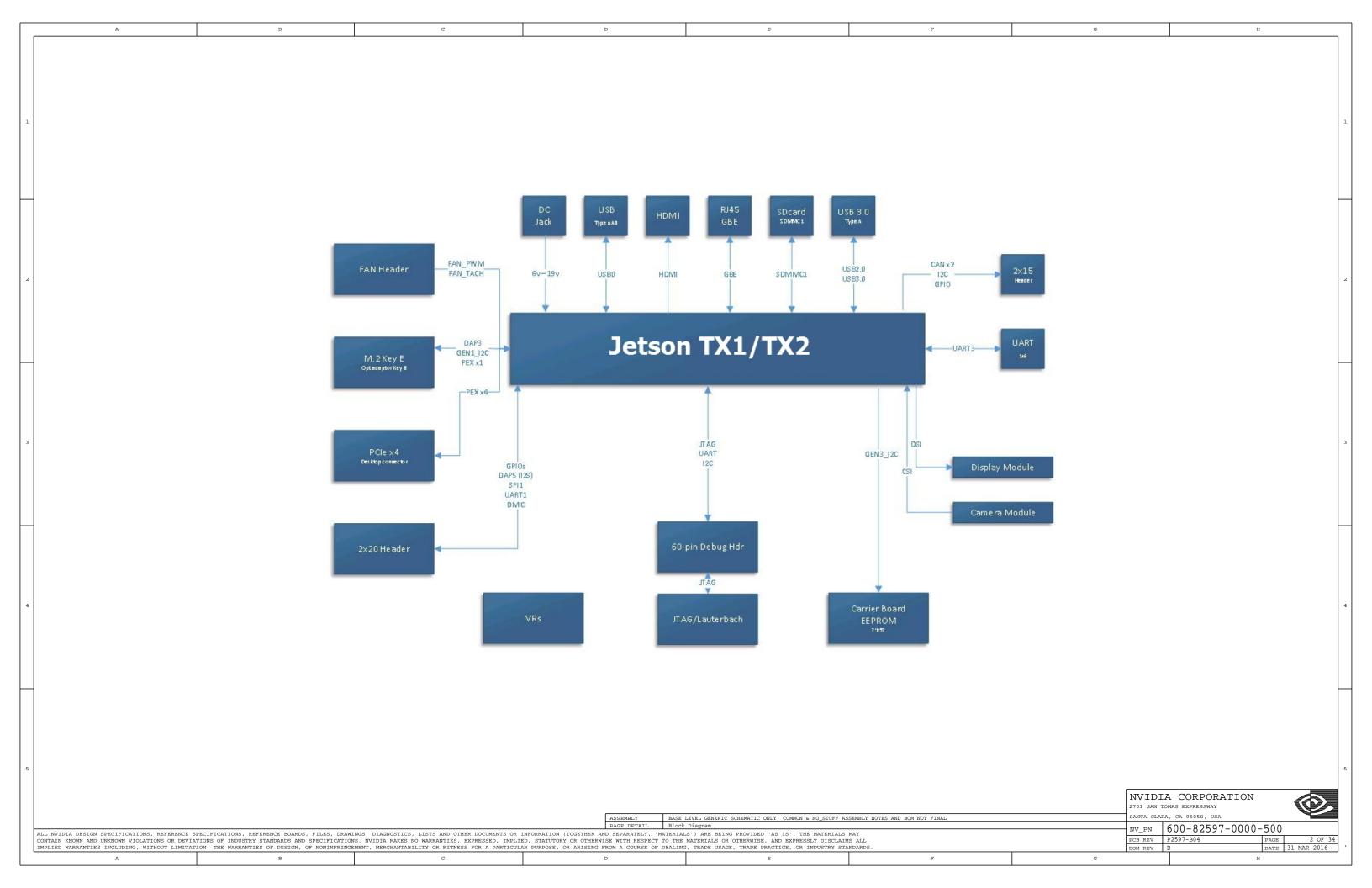
NVIDIA CORPORATION

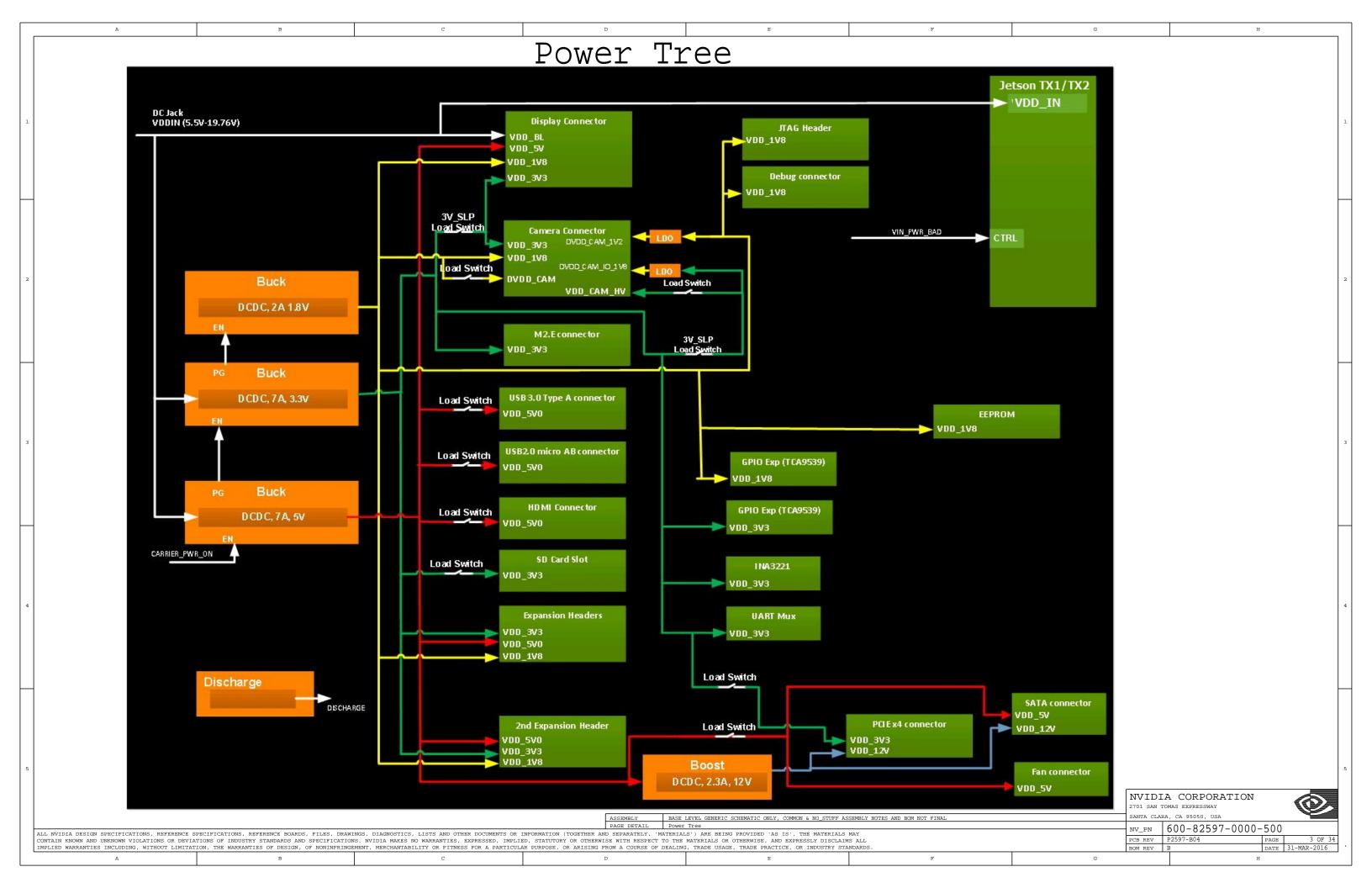
2701 SAN TOMAS EXPRESSWAY

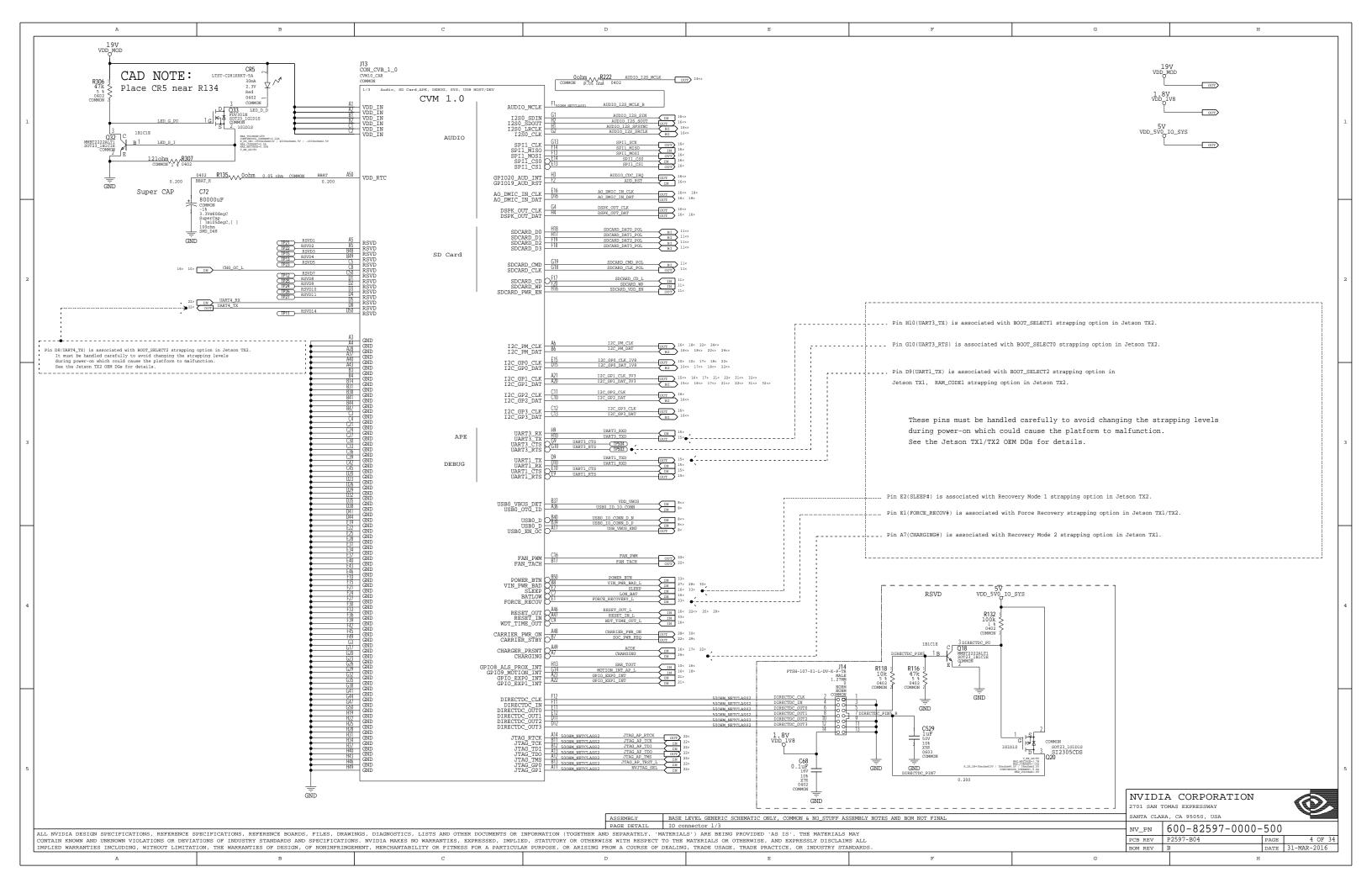
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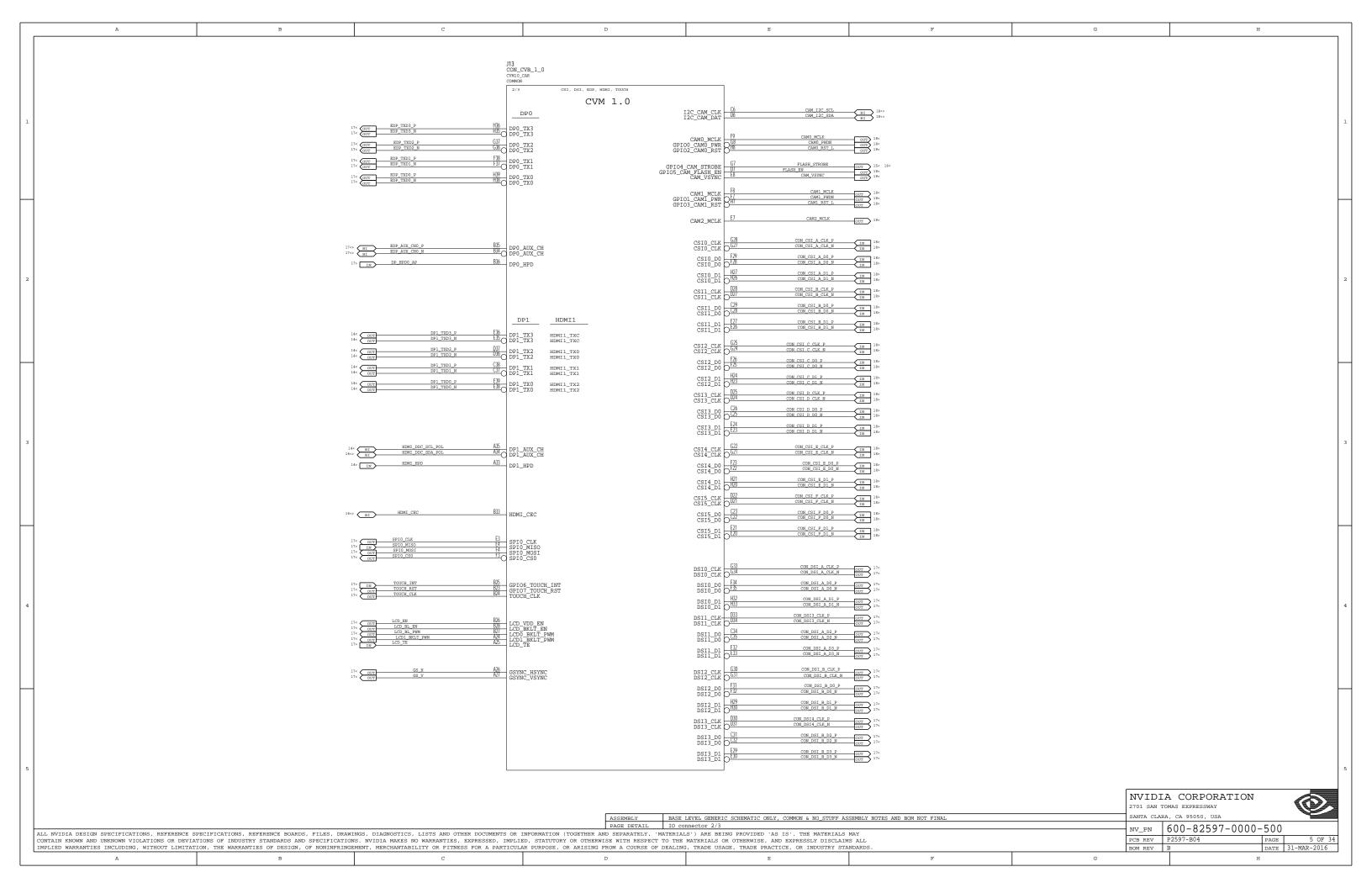
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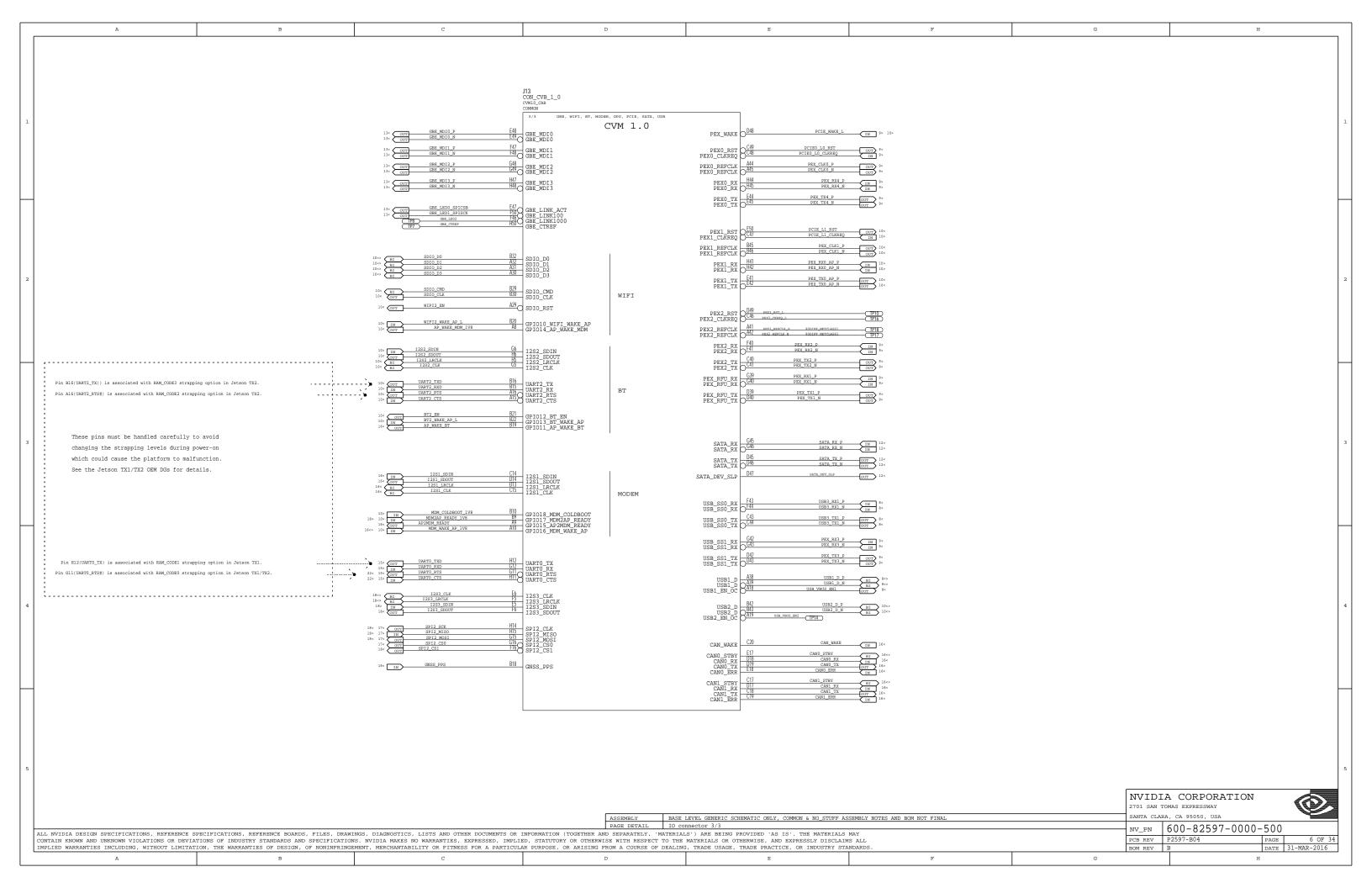
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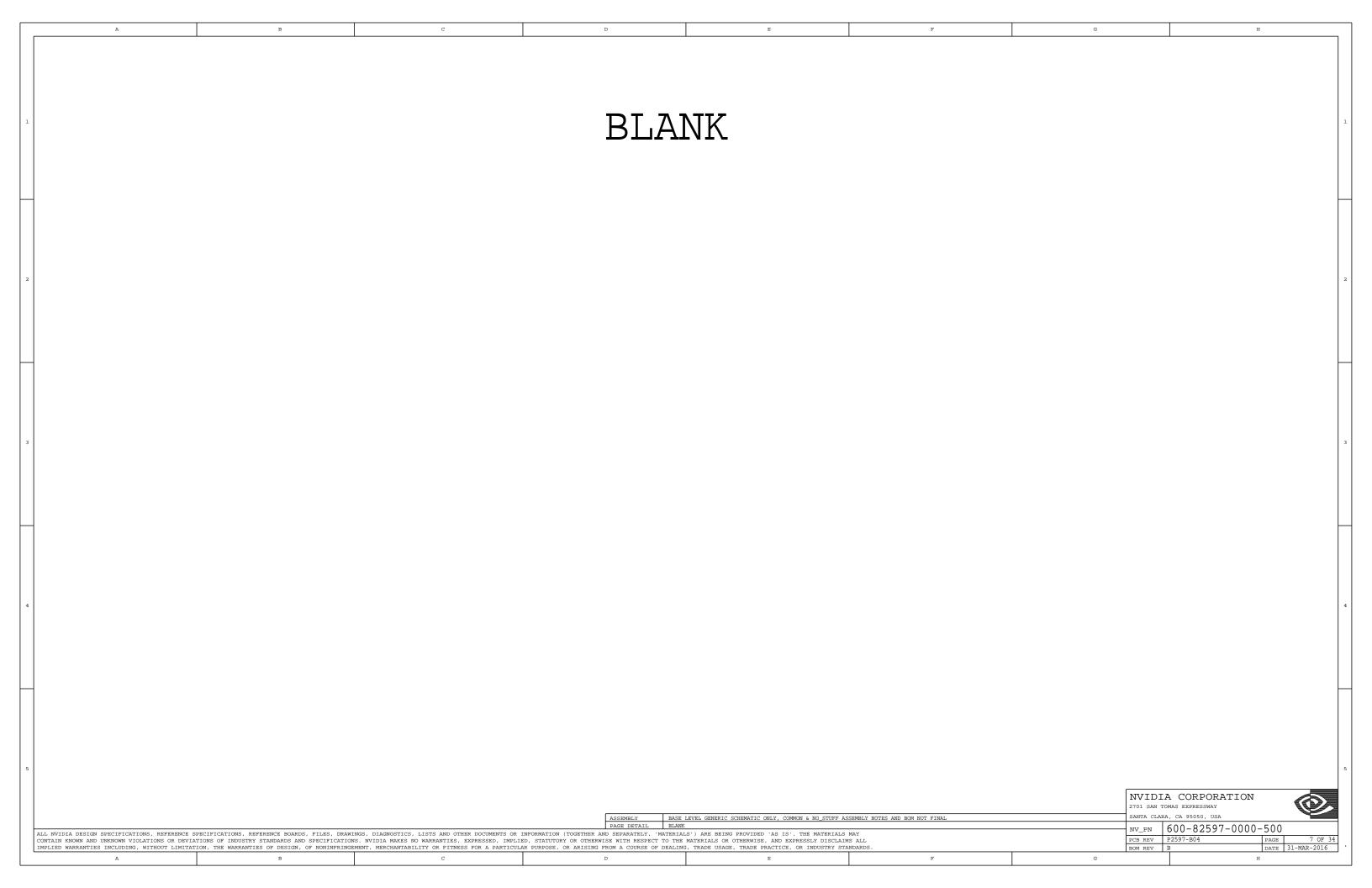


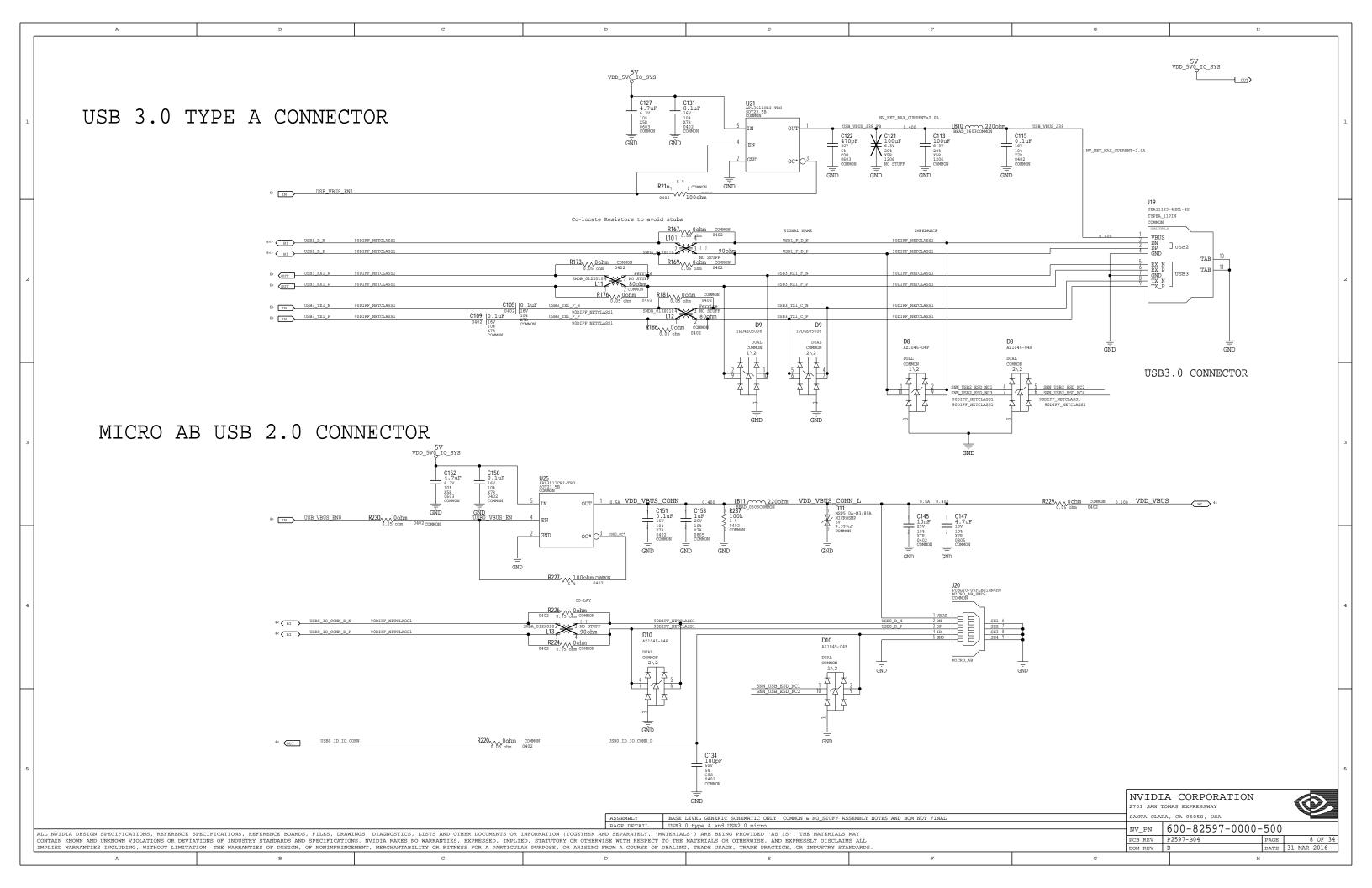


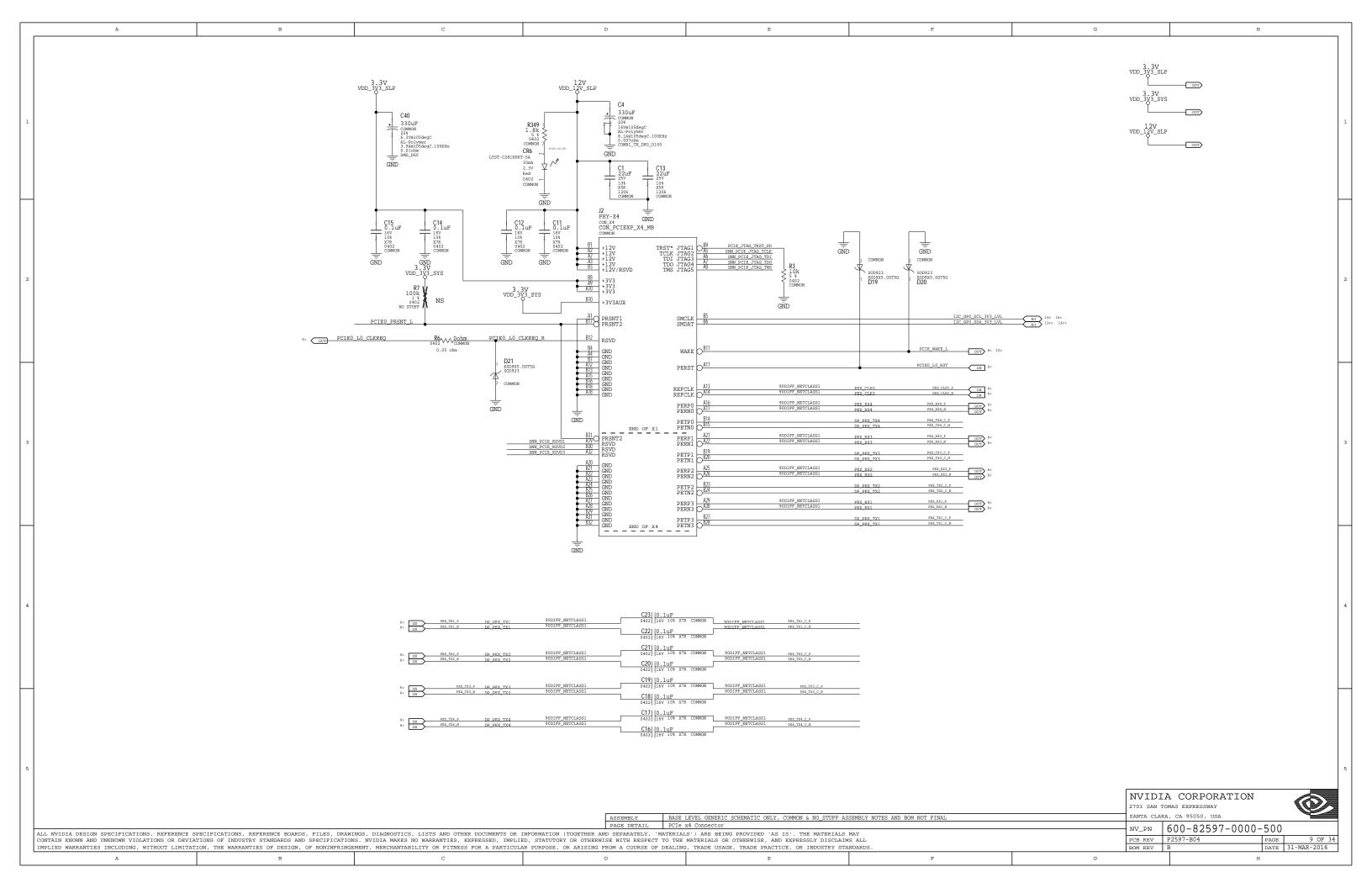


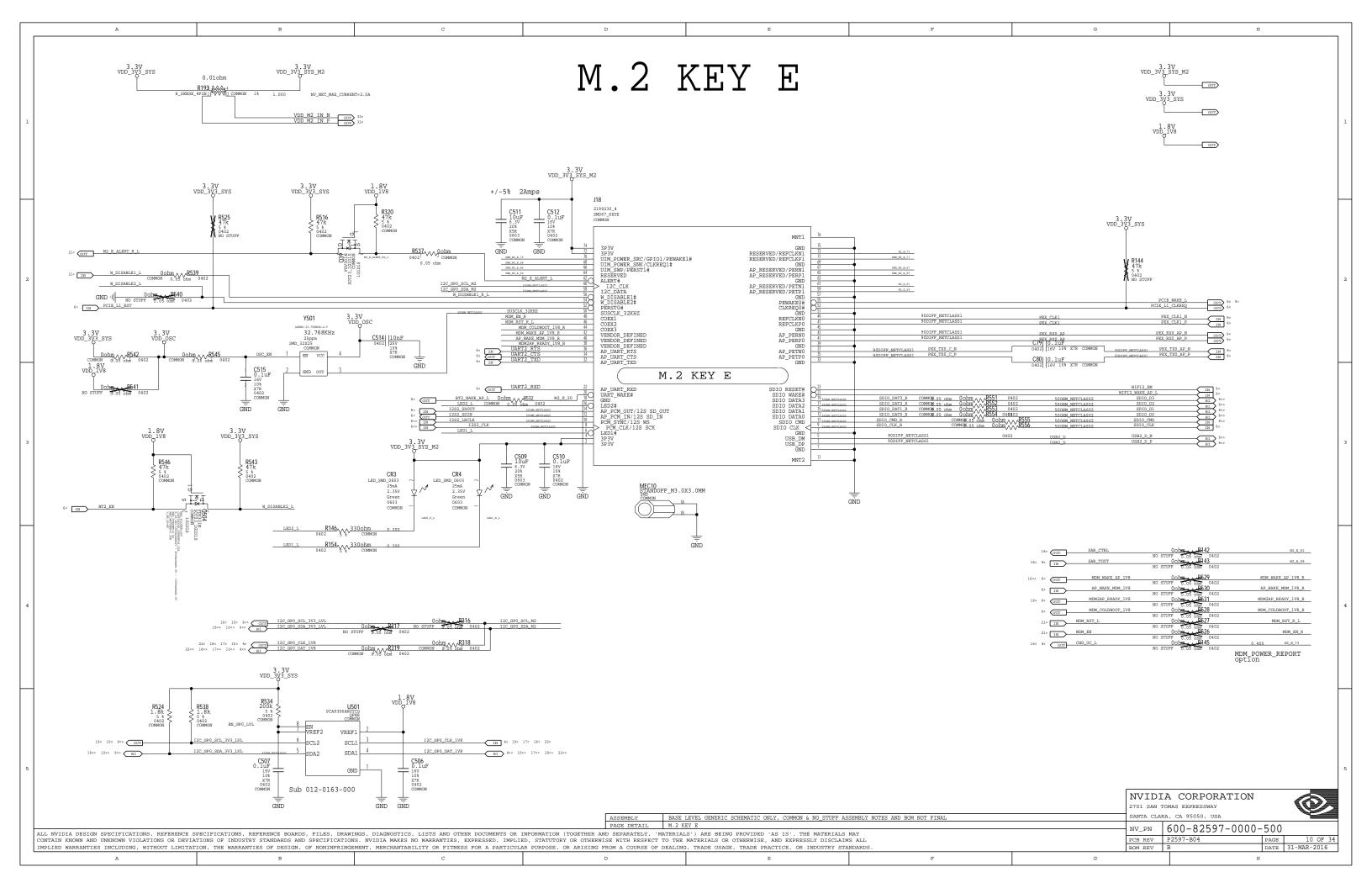


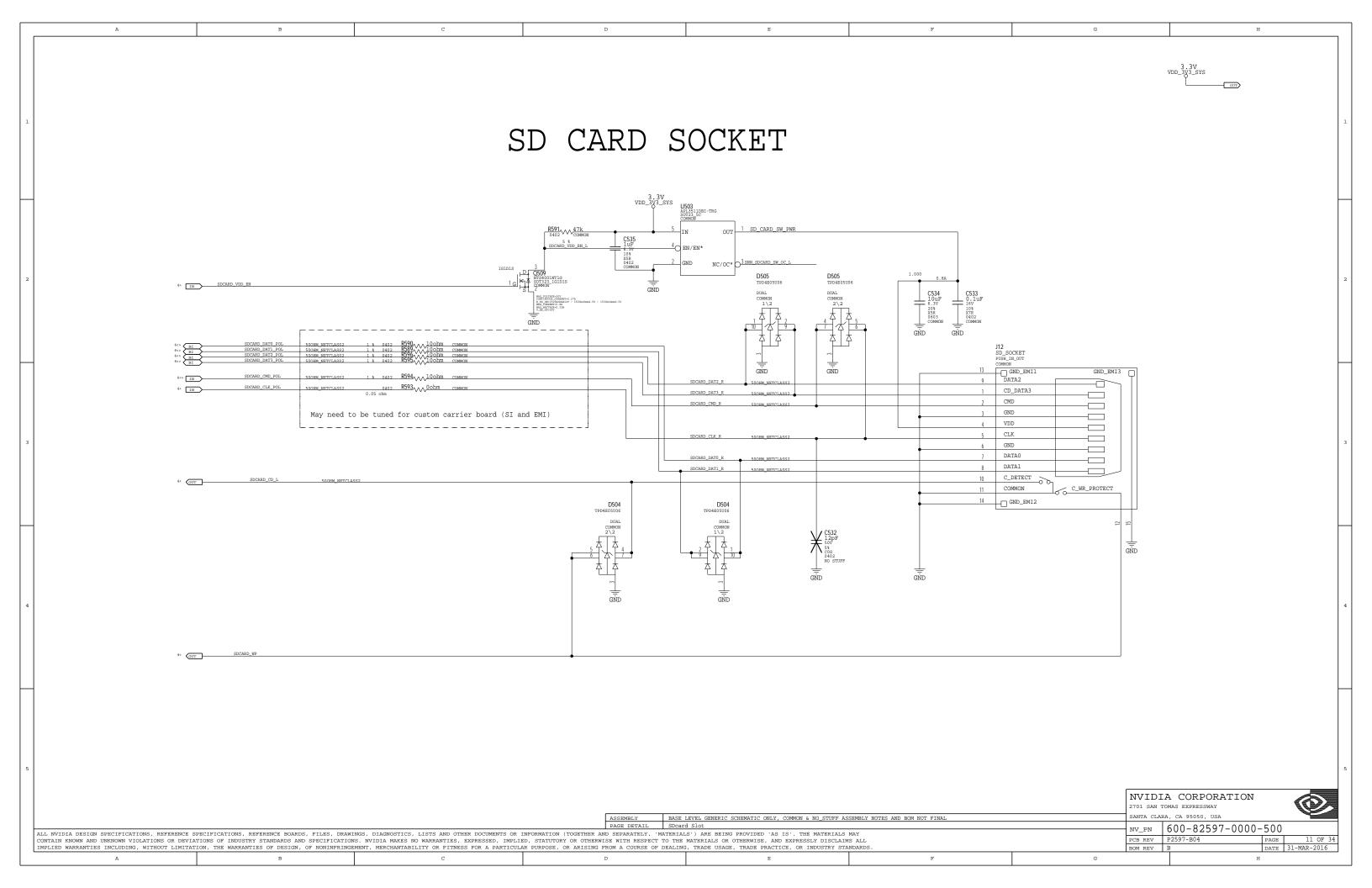


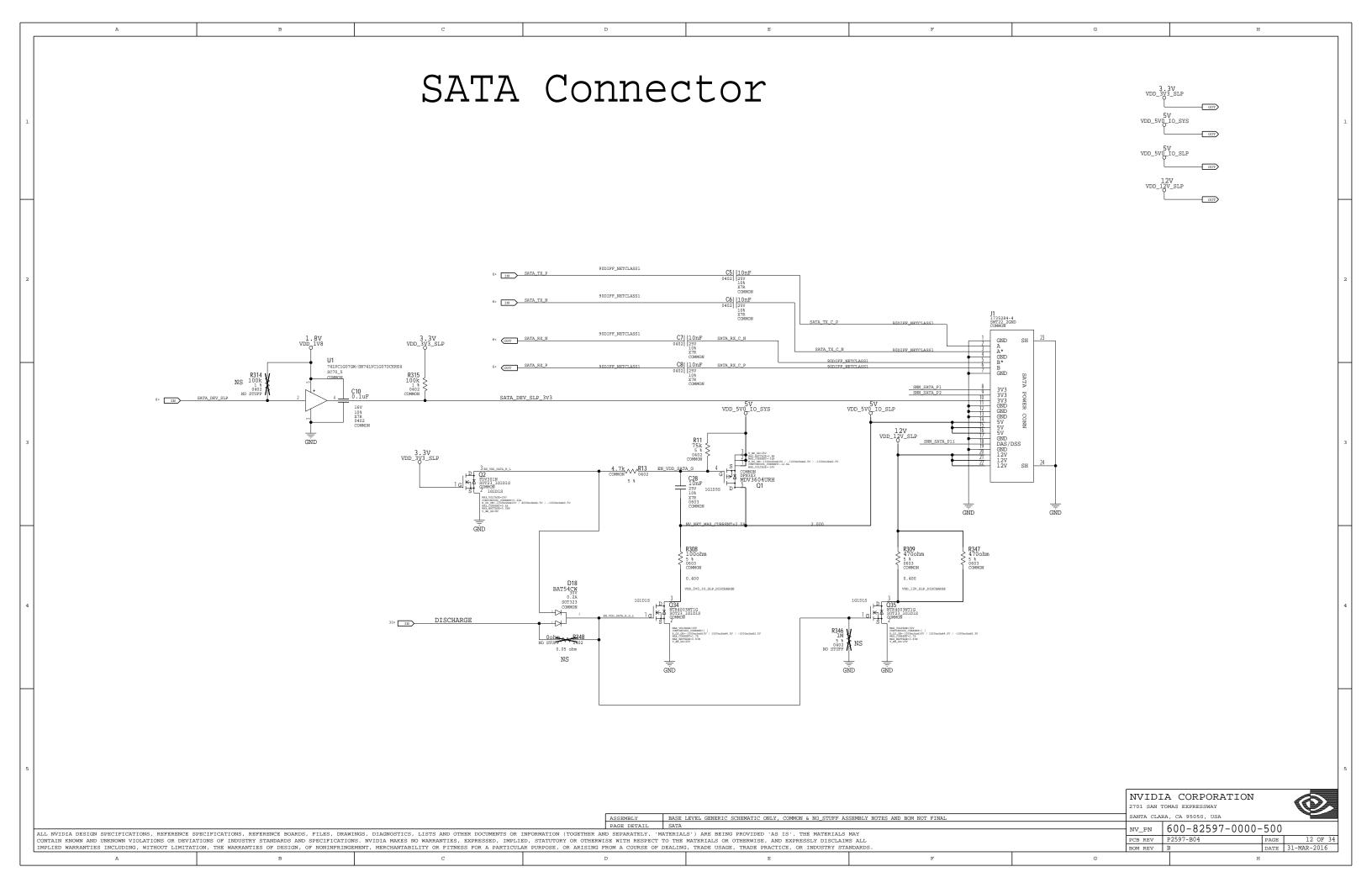










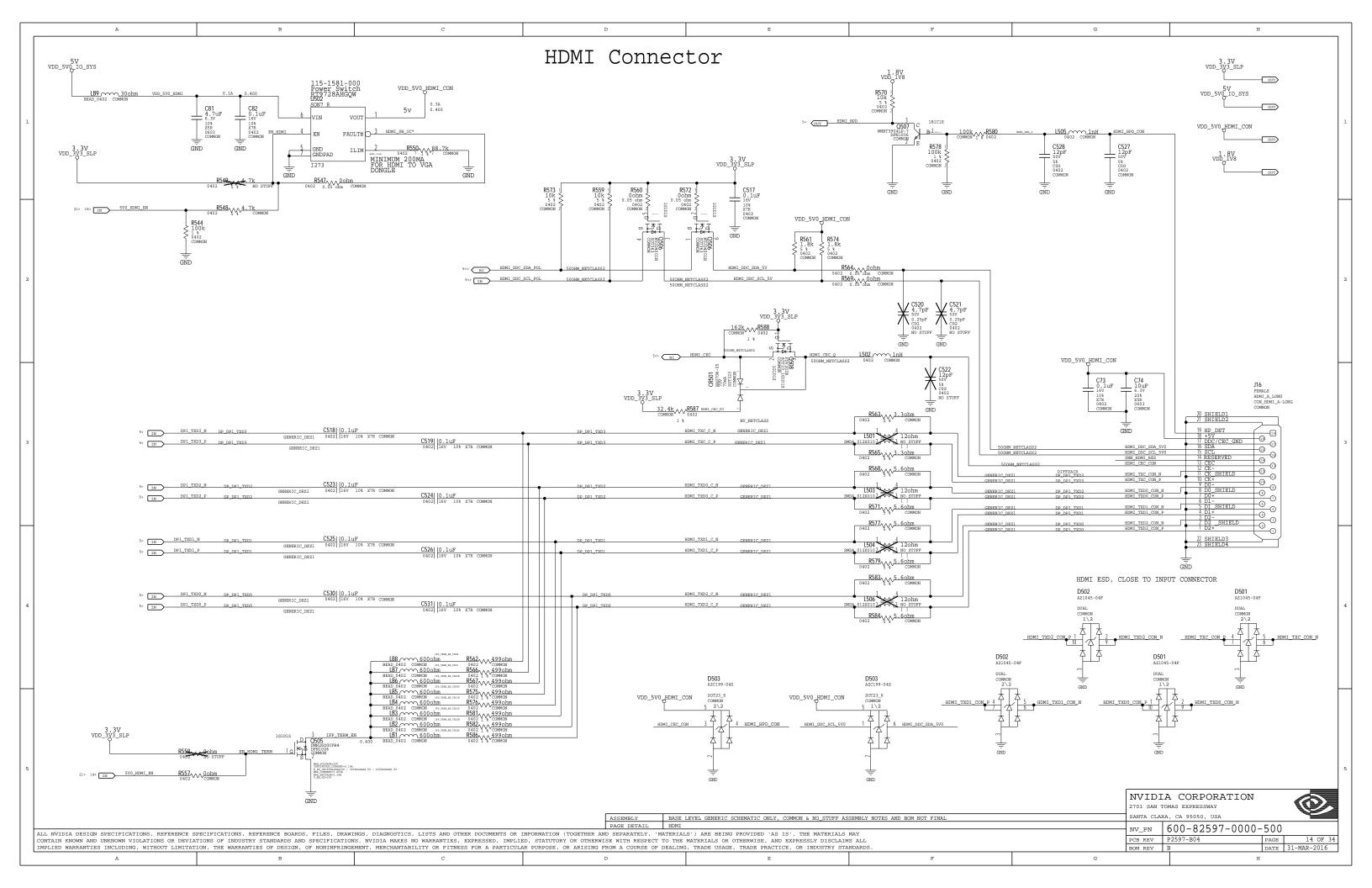


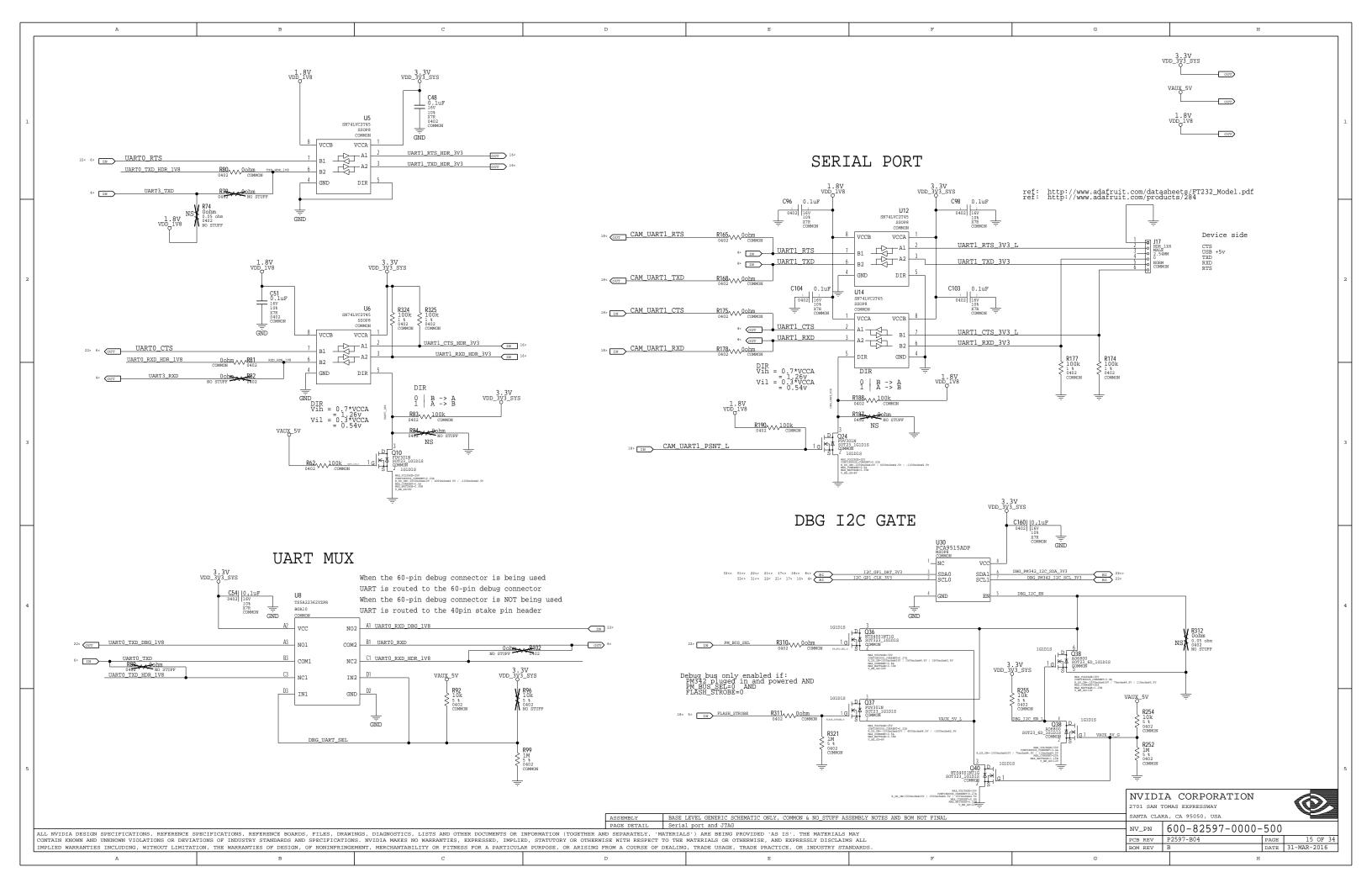
Gigiabit Ethernet 3.3V VDD\_3V3\_SLP GND R18 Oohm
0402 0.05 Ohm COMMON DP RJ45 TD
DP RJ45 TD
DP RJ45 TD
DP RJ45 TD1
DP RJ45 TD1
DP RJ45 TD1 R598 75 ohm COMMON 12 LED2A R597 0402 \ \sqrt{8} \ \tag{750hm}{COMMON} 13 NC/GND R10 6810hm 0.200 0402 8 COMMON R44 6810hm 0.200 0.200 R8 Oohm

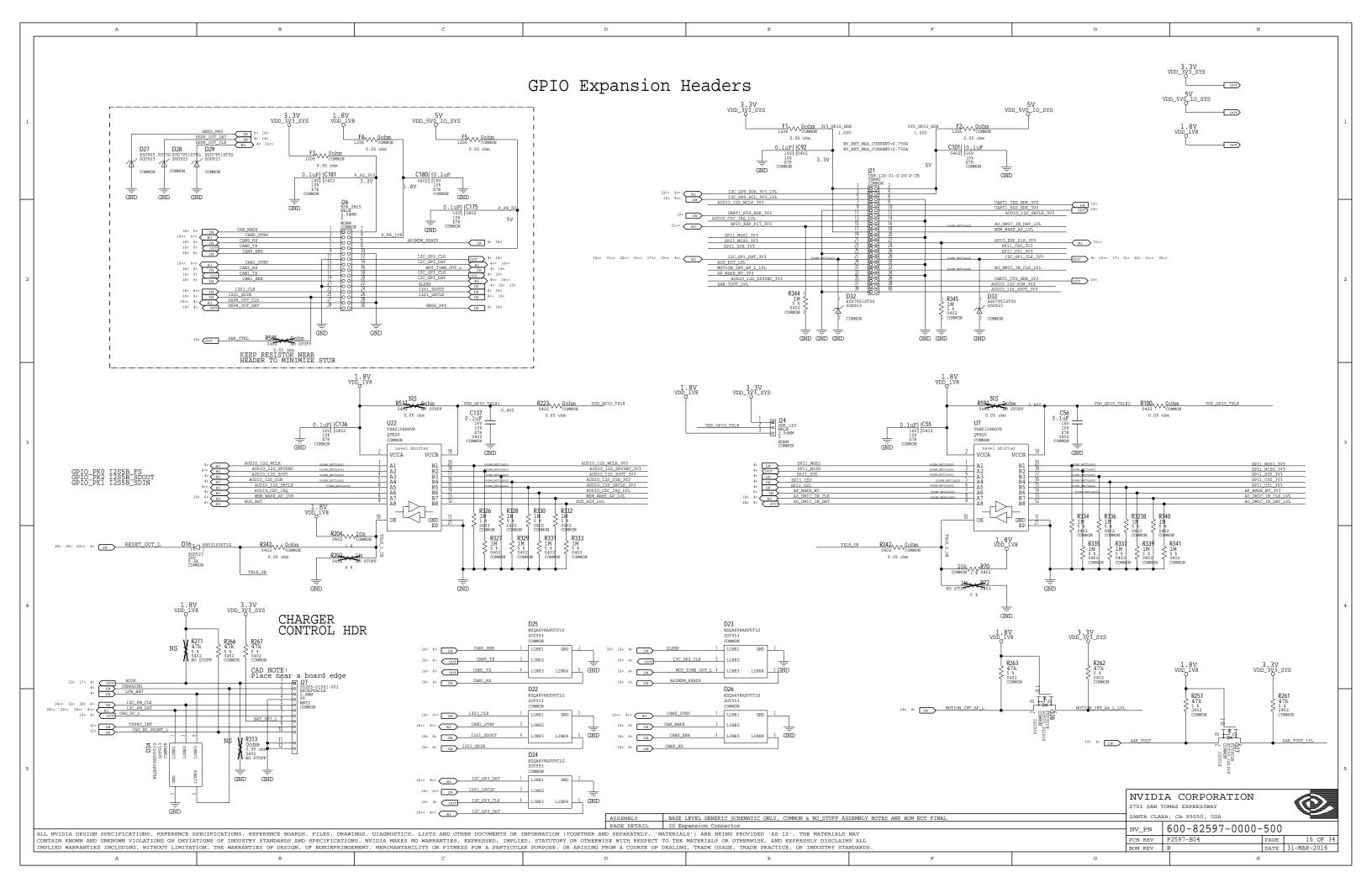
0603 R46 Oohm

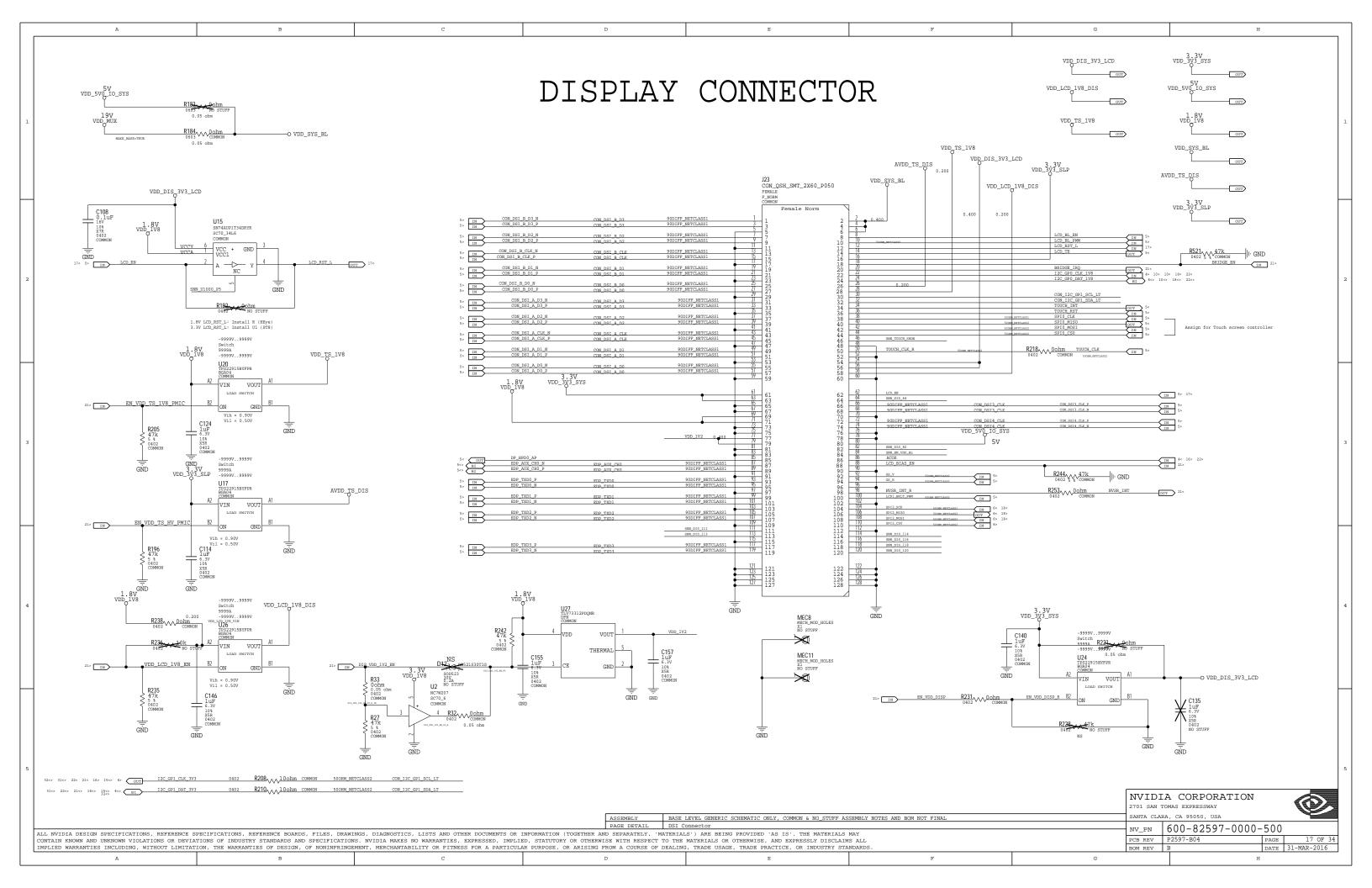
0603 NO STUFF 0.05 ohm

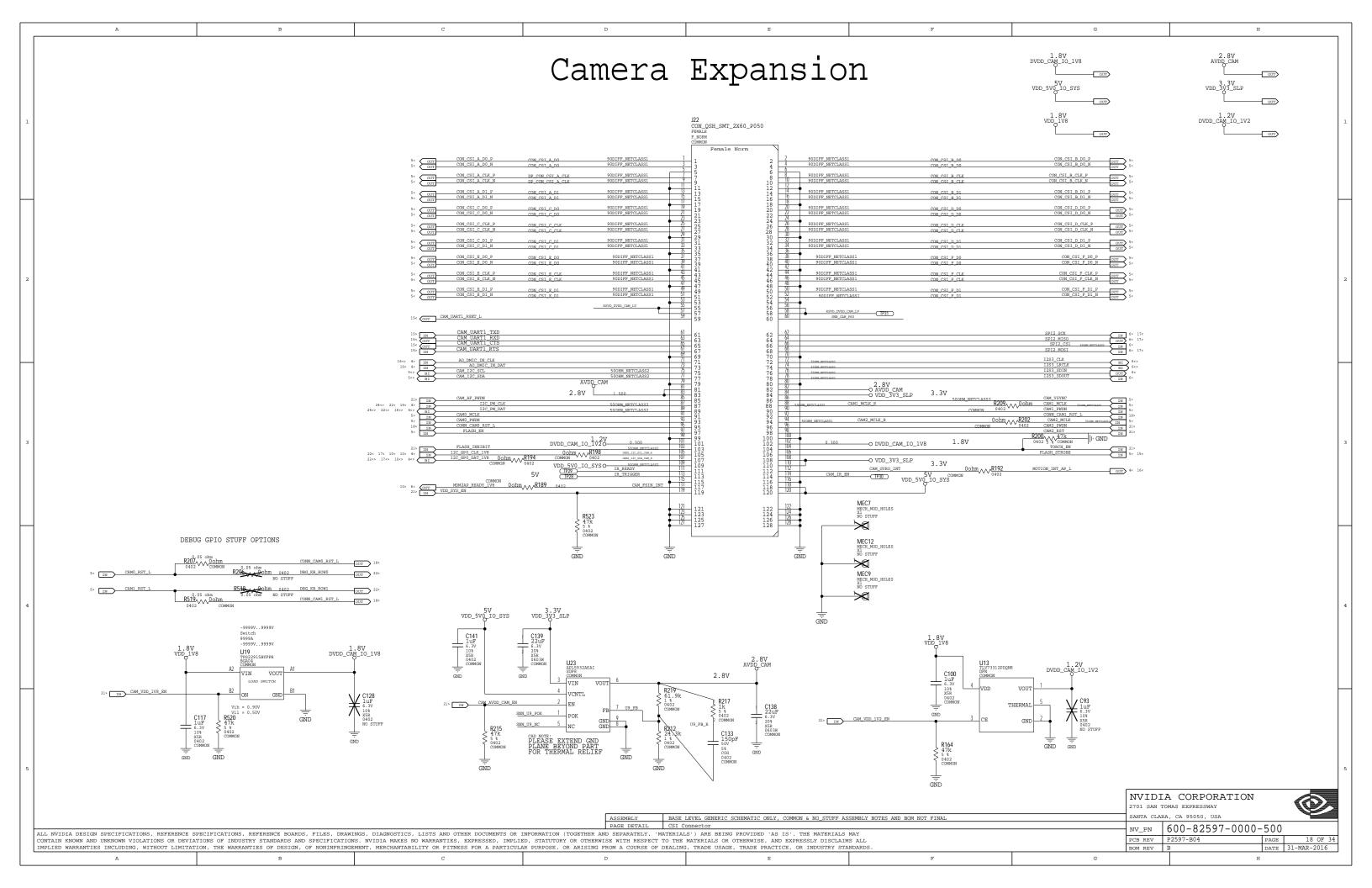
NO STUFF 0.05 ohm D507 AZC199-04S SOT23\_6 COMMON 2\2 D506 AZC199-04S SOT23\_6 COMMON 2\2 R47 Oohm 0603 NO STUFF 0.05 ohm SOT23\_6 COMMON 5 1\2 NVIDIA CORPORATION 2701 SAN TOMAS EXPRESSWAY SANTA CLARA, CA 95050, USA ASSEMBLY BASE LEVEL GENERIC SCHEMATIC ONLY, COMMON & NO\_STUFF ASSEMBLY NOTES AND BOM NOT FINAL PAGE DETAIL Gigabit Ethernet NV\_PN 600-82597-0000-500 ALL NVIDIA DESIGN SPECIFICATIONS, REFERENCE SPECIFICATIONS, REFERENCE BOARDS, FILES, DRAWINGS, DIAGNOSTICS, LISTS AND OTHER DOCUMENTS OR INFORMATION (TOGETHER AND SEPARATELY, 'MATERIALS') ARE BEING PROVIDED 'AS IS'. THE MATERIALS MAY CONTAIN KNOWN AND UNKNOWN VIOLATIONS OR DEVIATIONS OF INDUSTRY STANDARDS AND SPECIFICATIONS. NVIDIA MAKES NO WARRANTIES, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE WITH RESPECT TO THE MATERIALS OR OTHERWISE, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF DESIGN, OF NONINFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ARISING FROM A COURSE OF DEALING, TRADE USAGE, TRADE PRACTICE, OR INDUSTRY STANDARDS. PCB REV P2597-B04 DATE 31-MAR-2016 BOM REV B

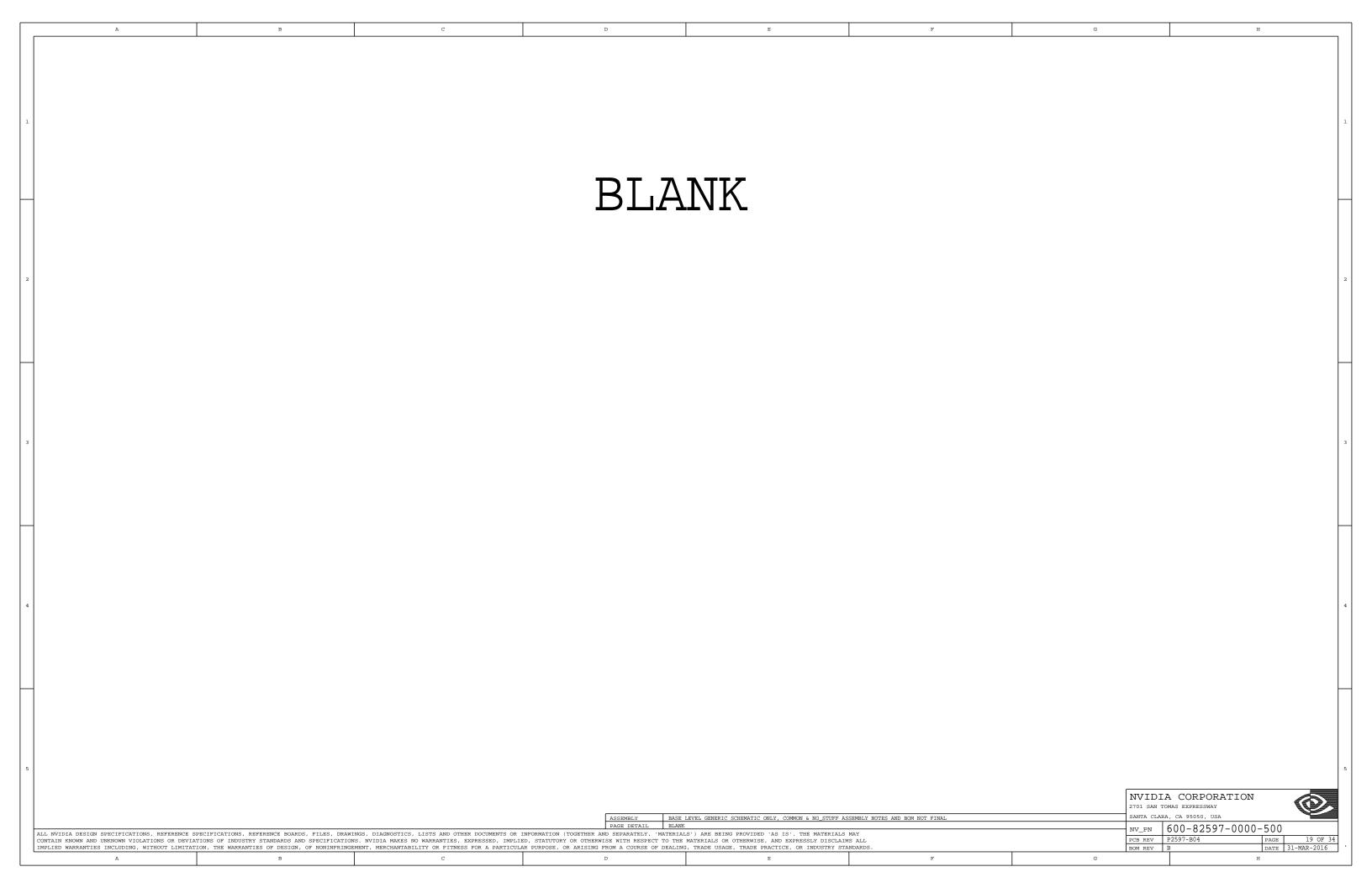


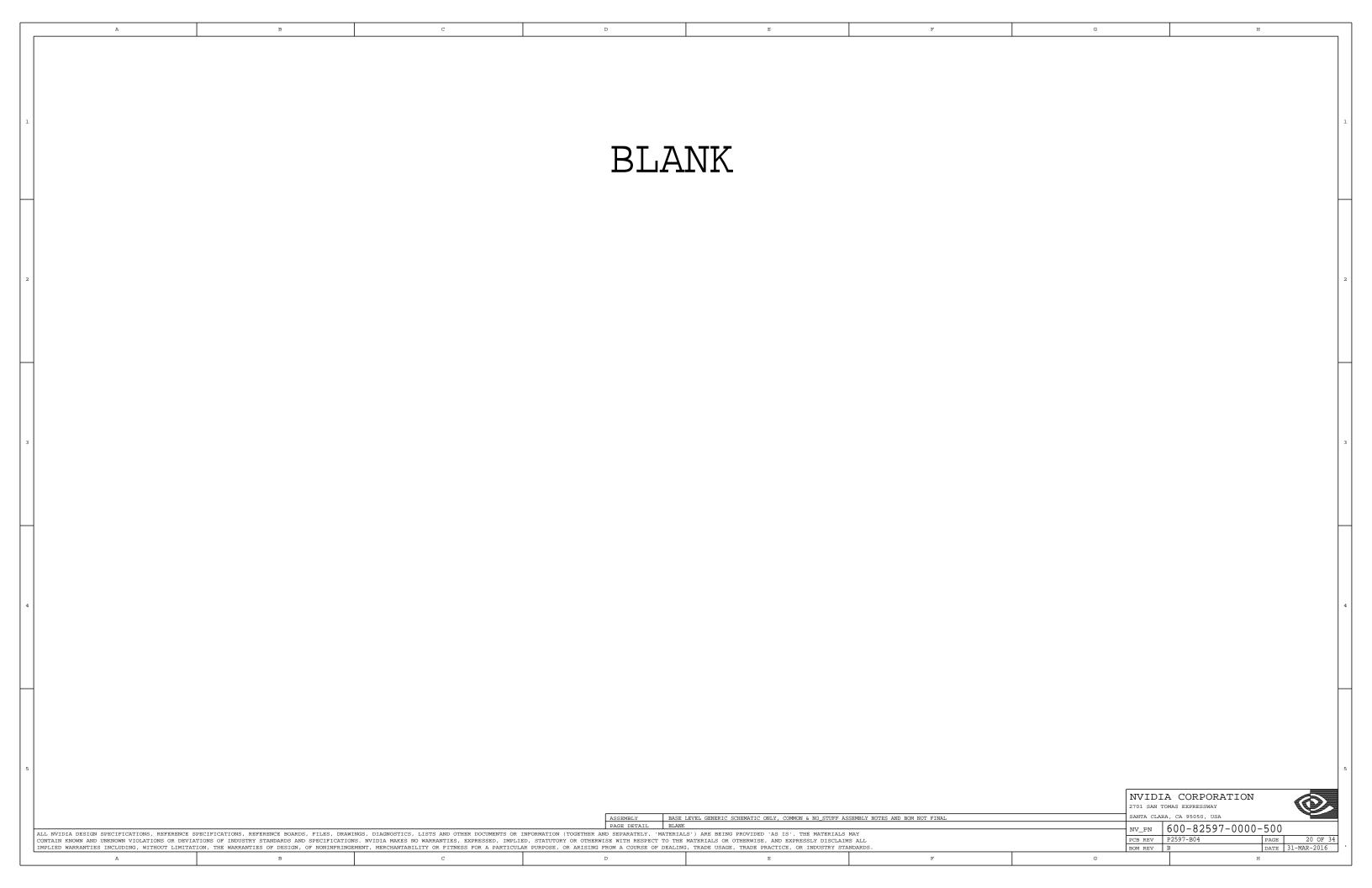


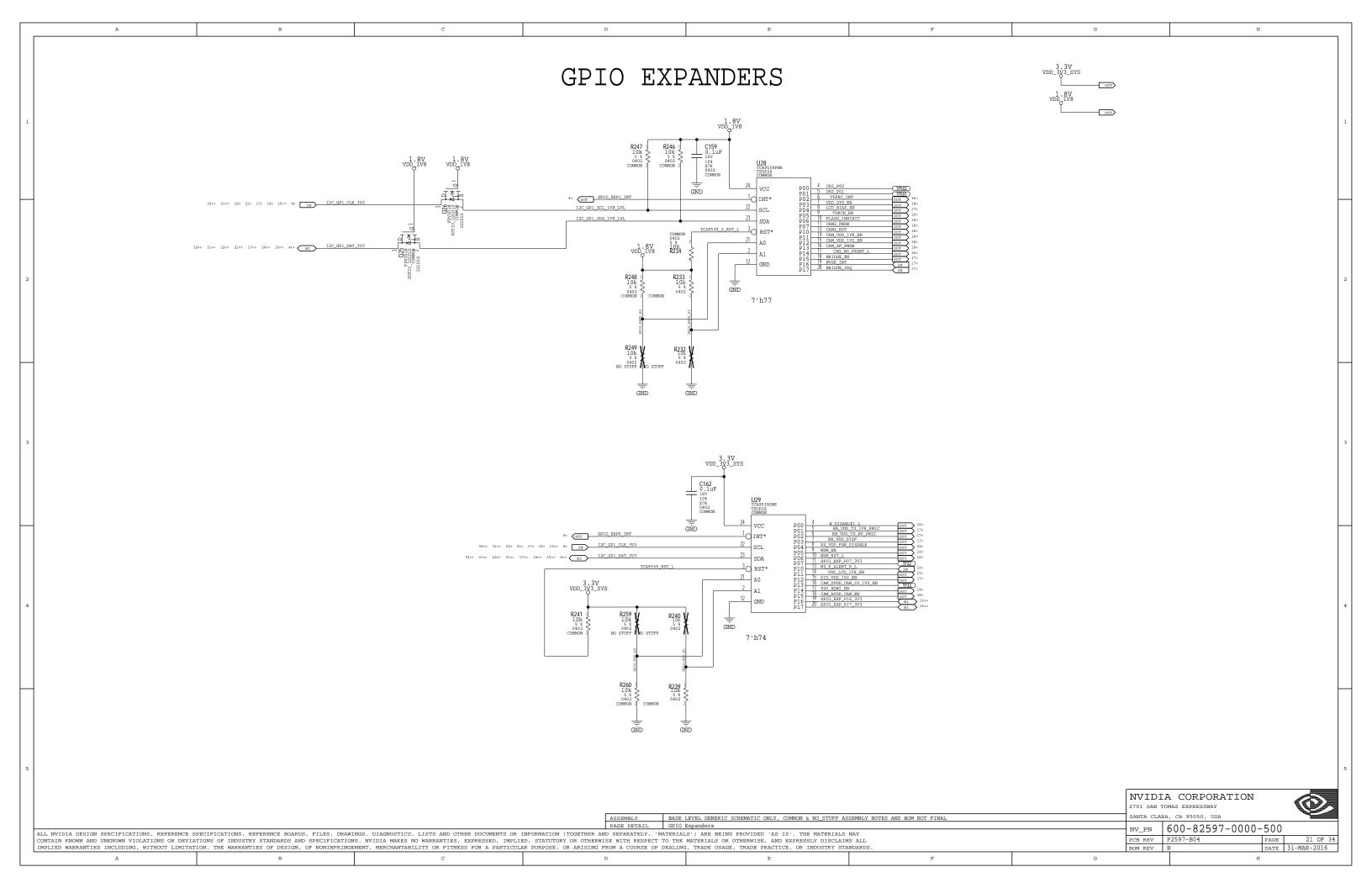


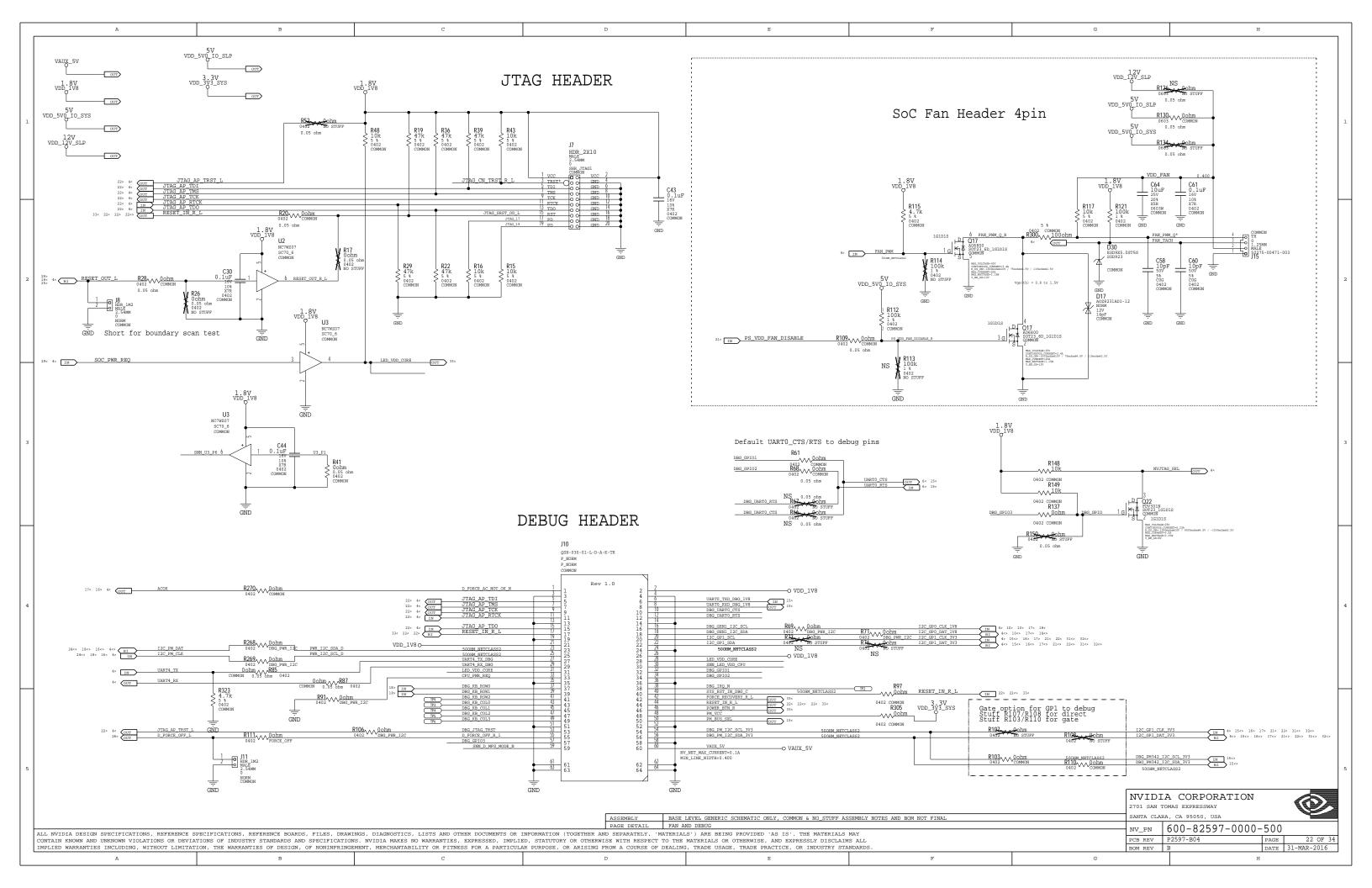


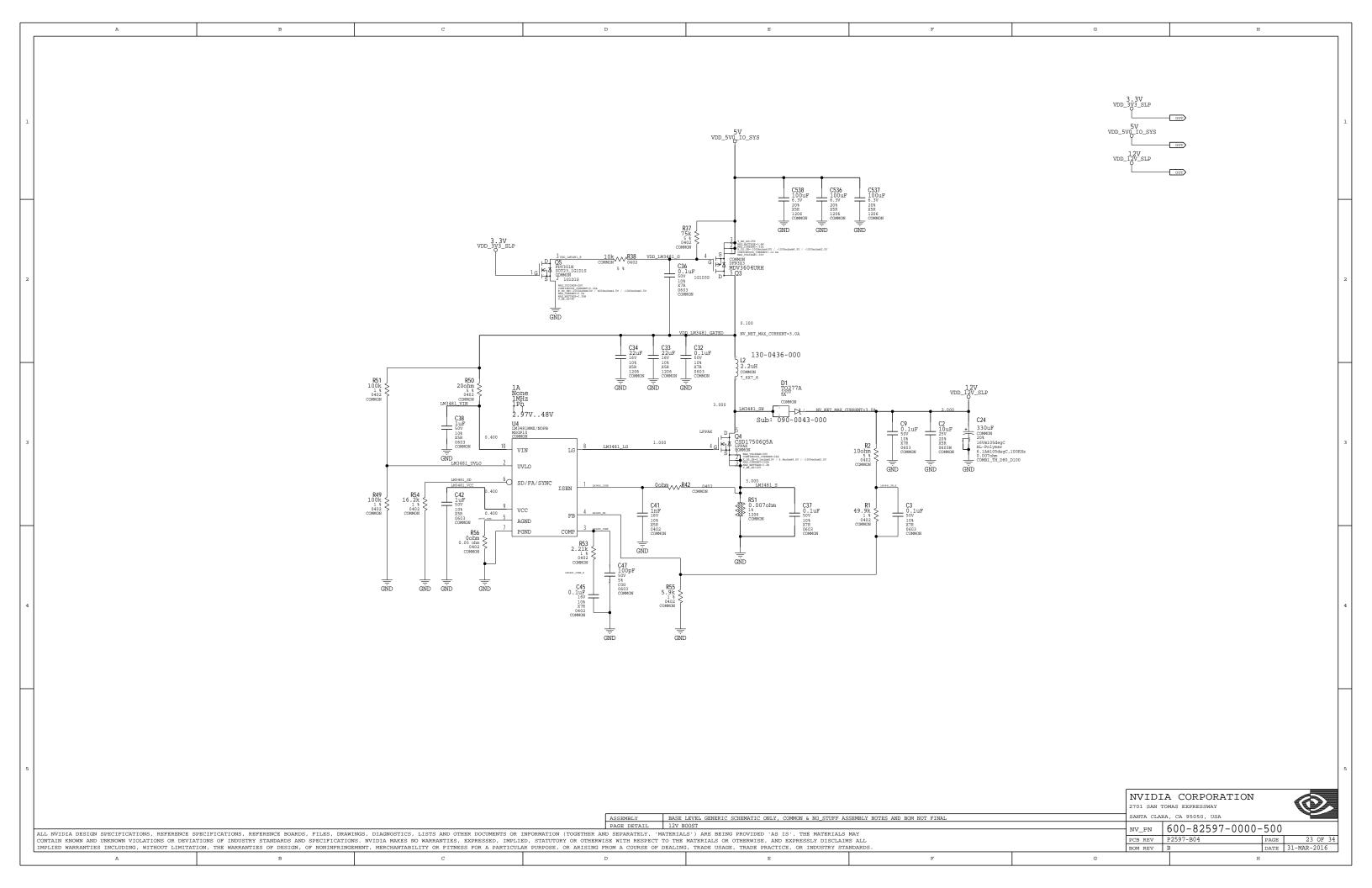


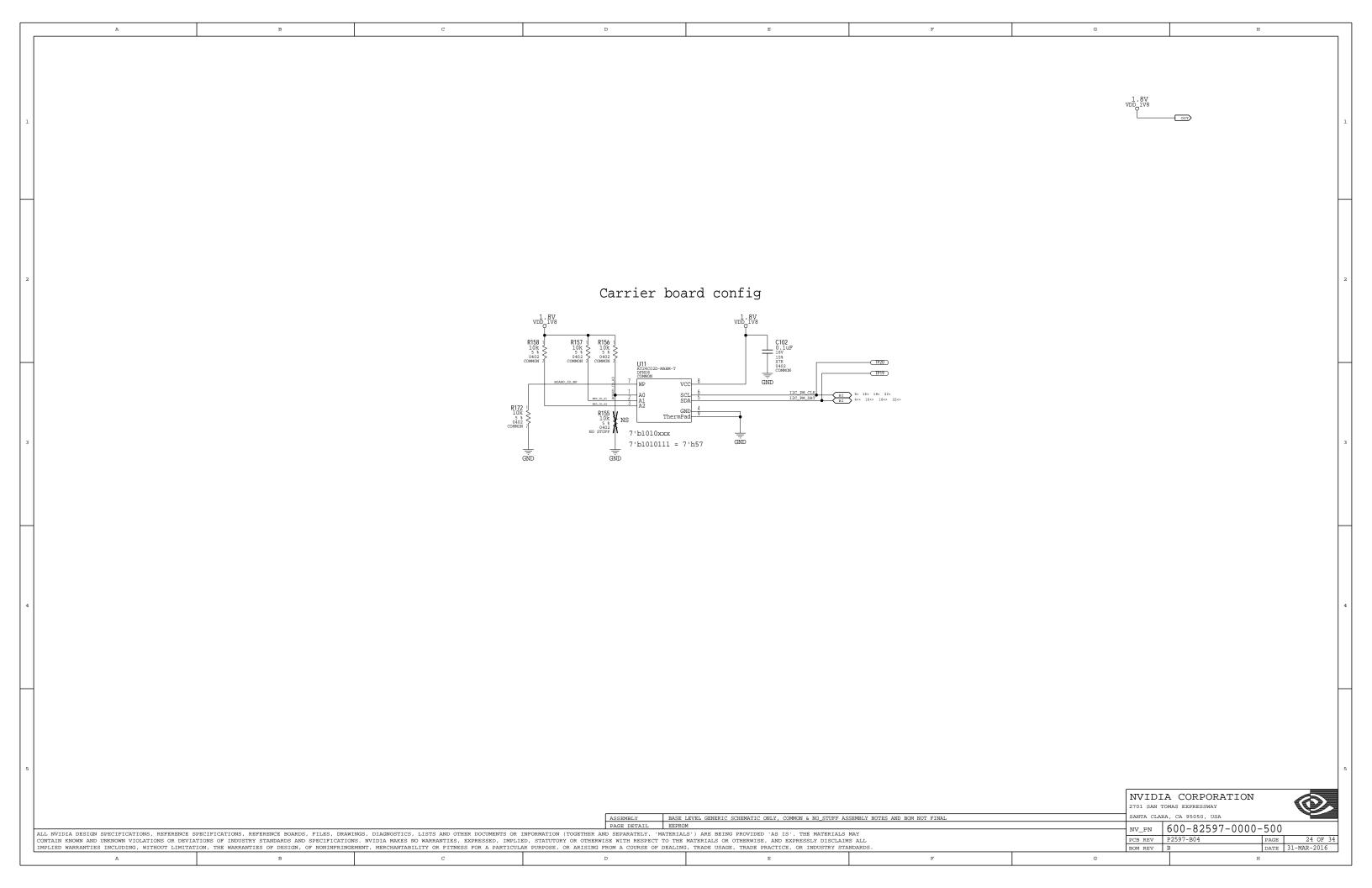


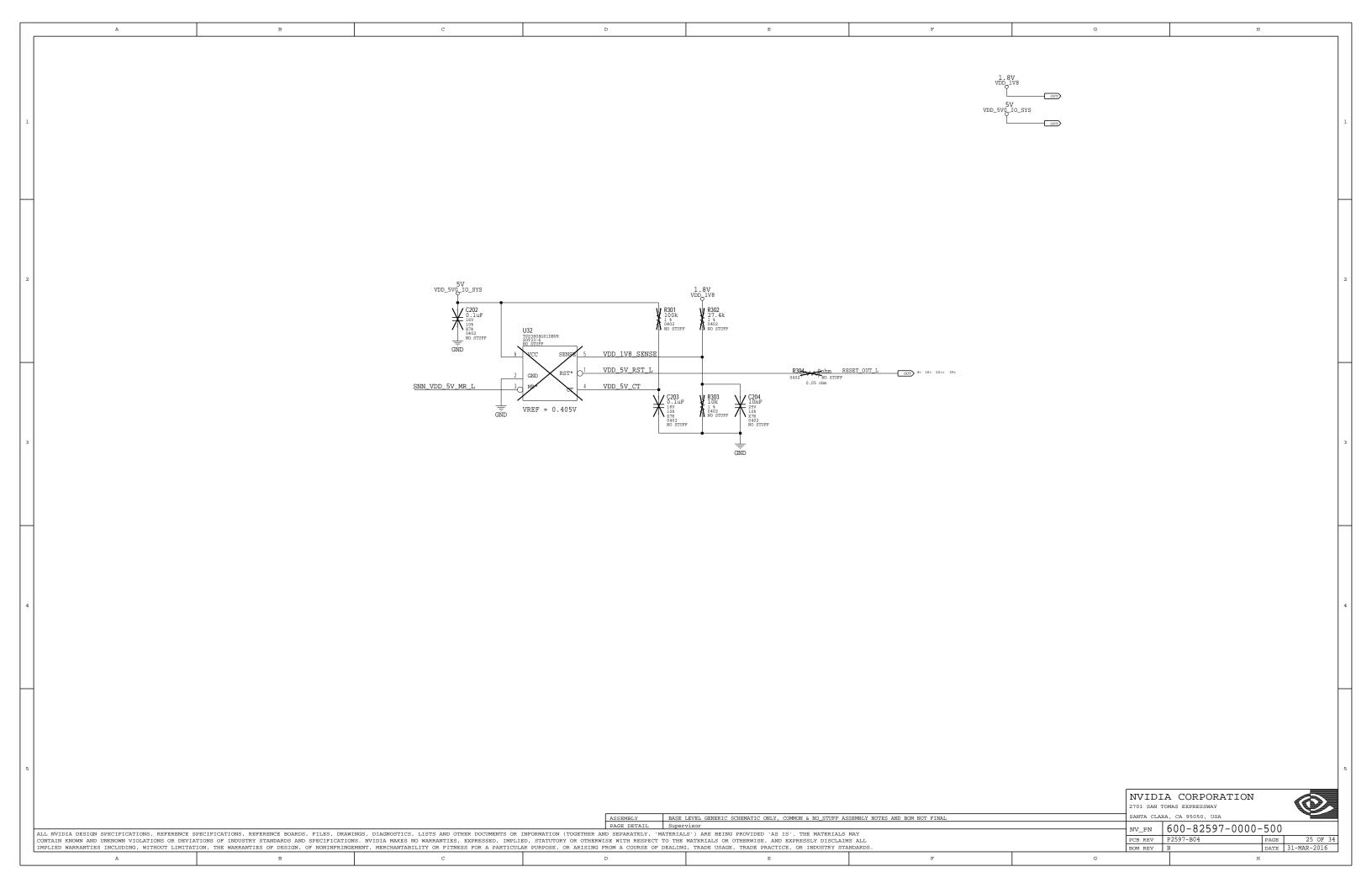


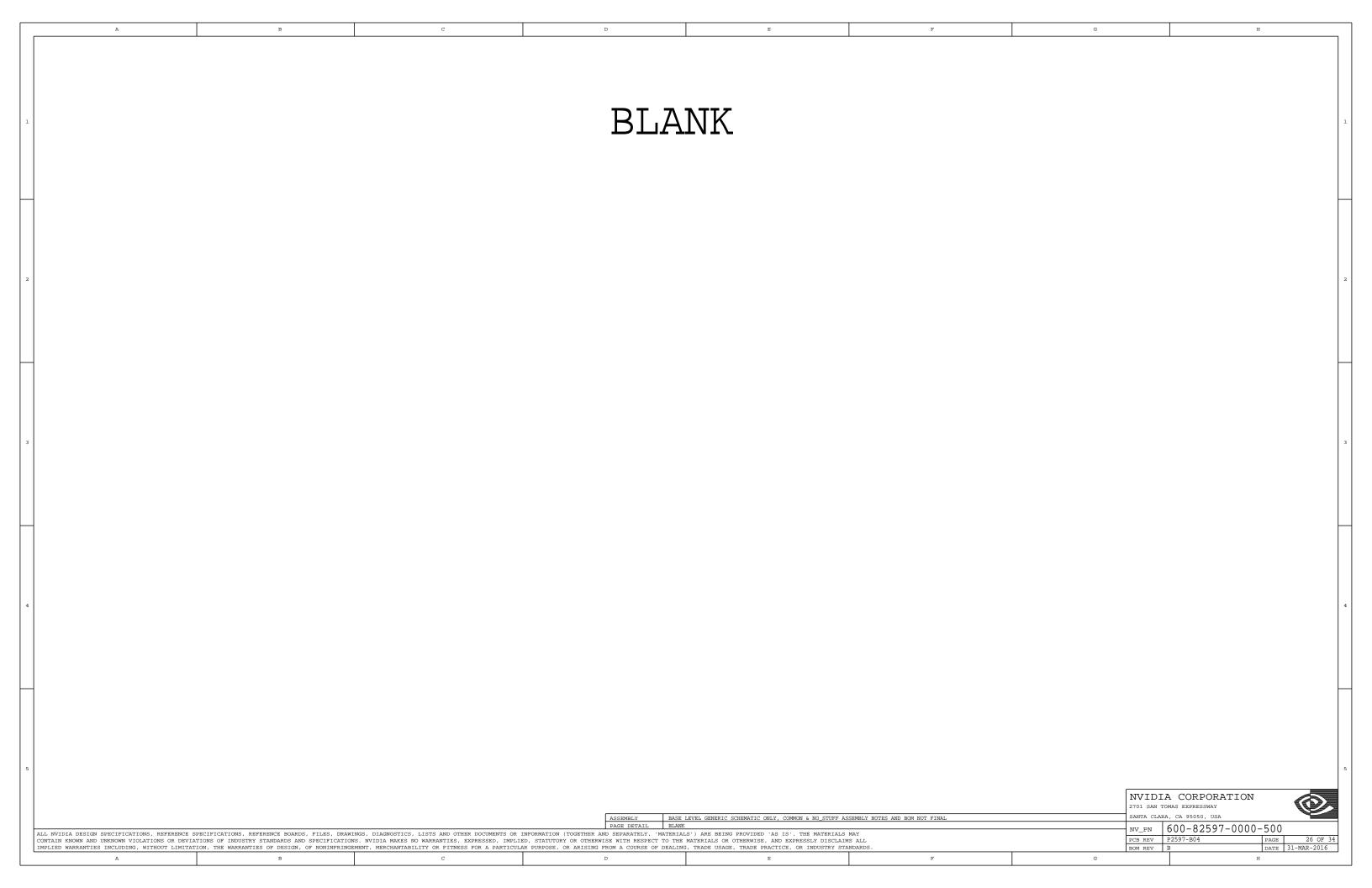


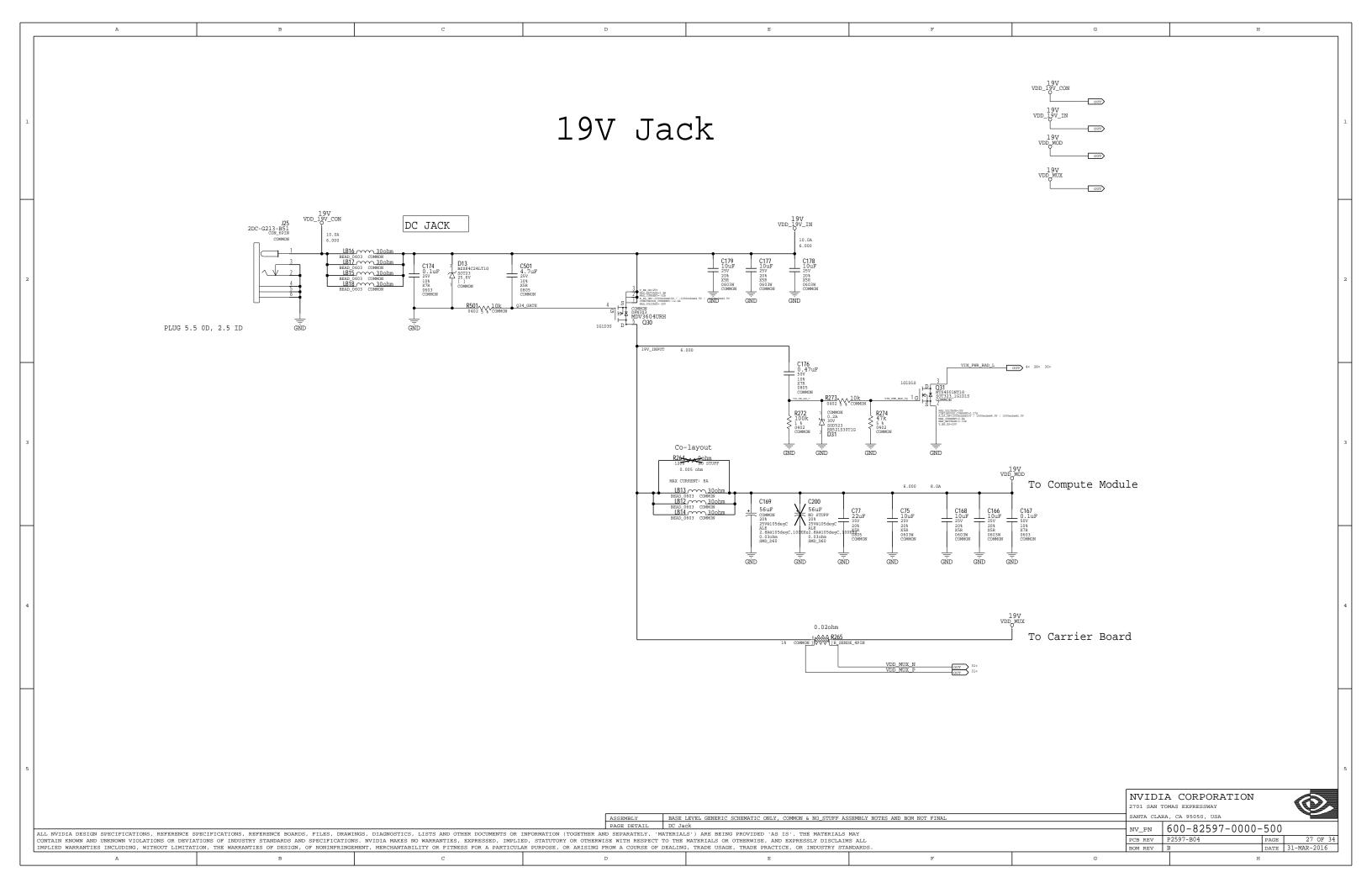


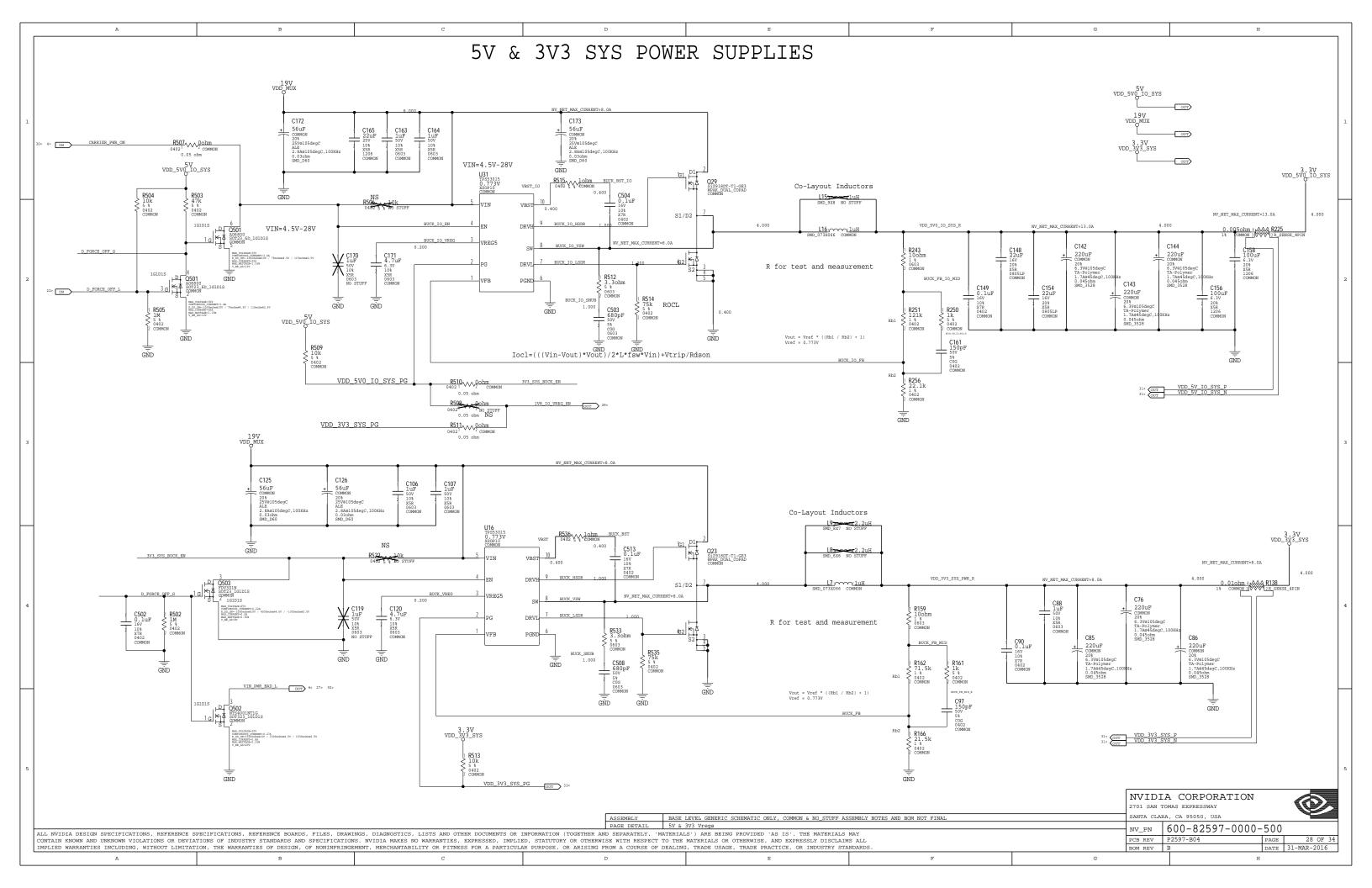


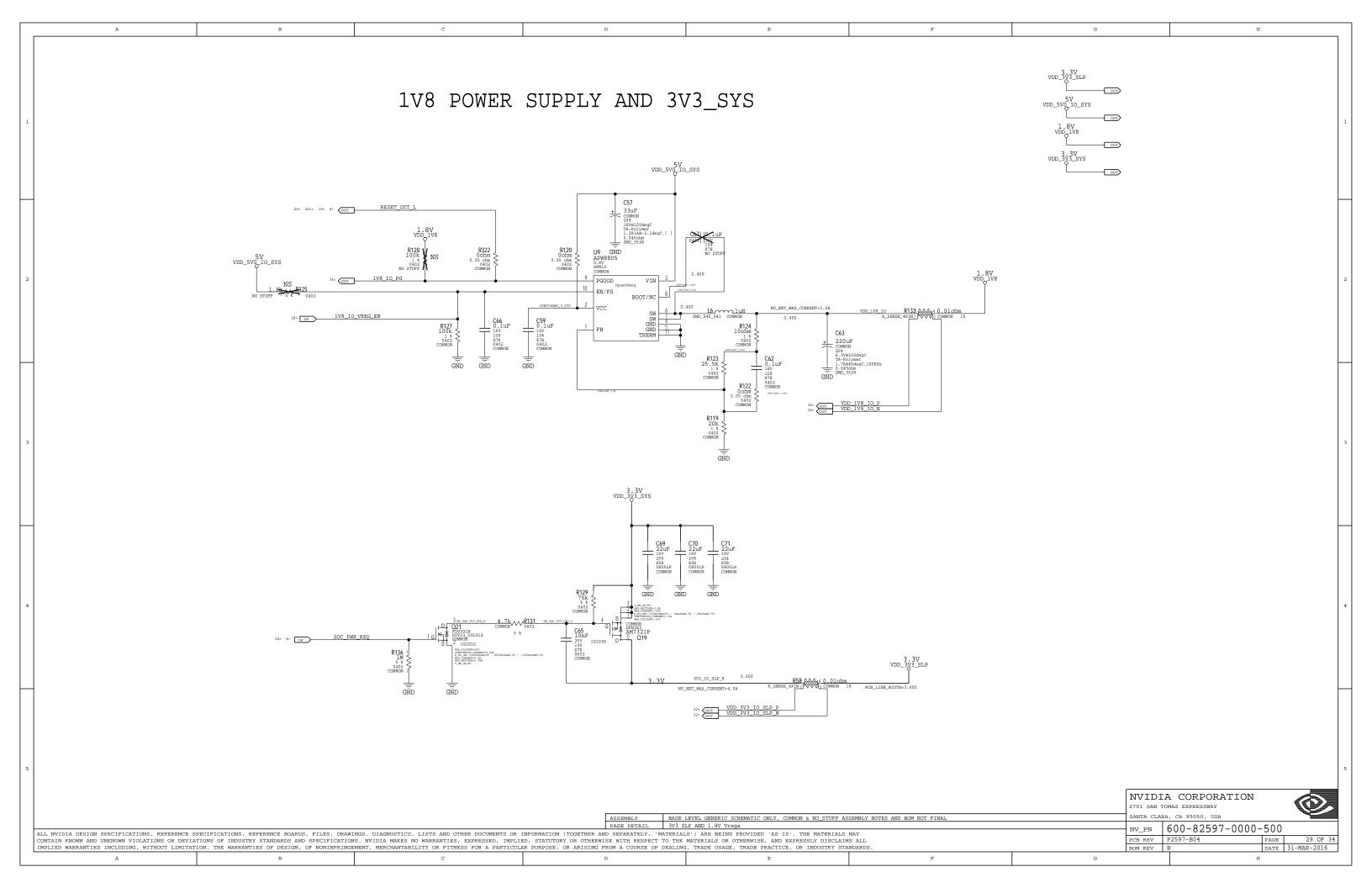


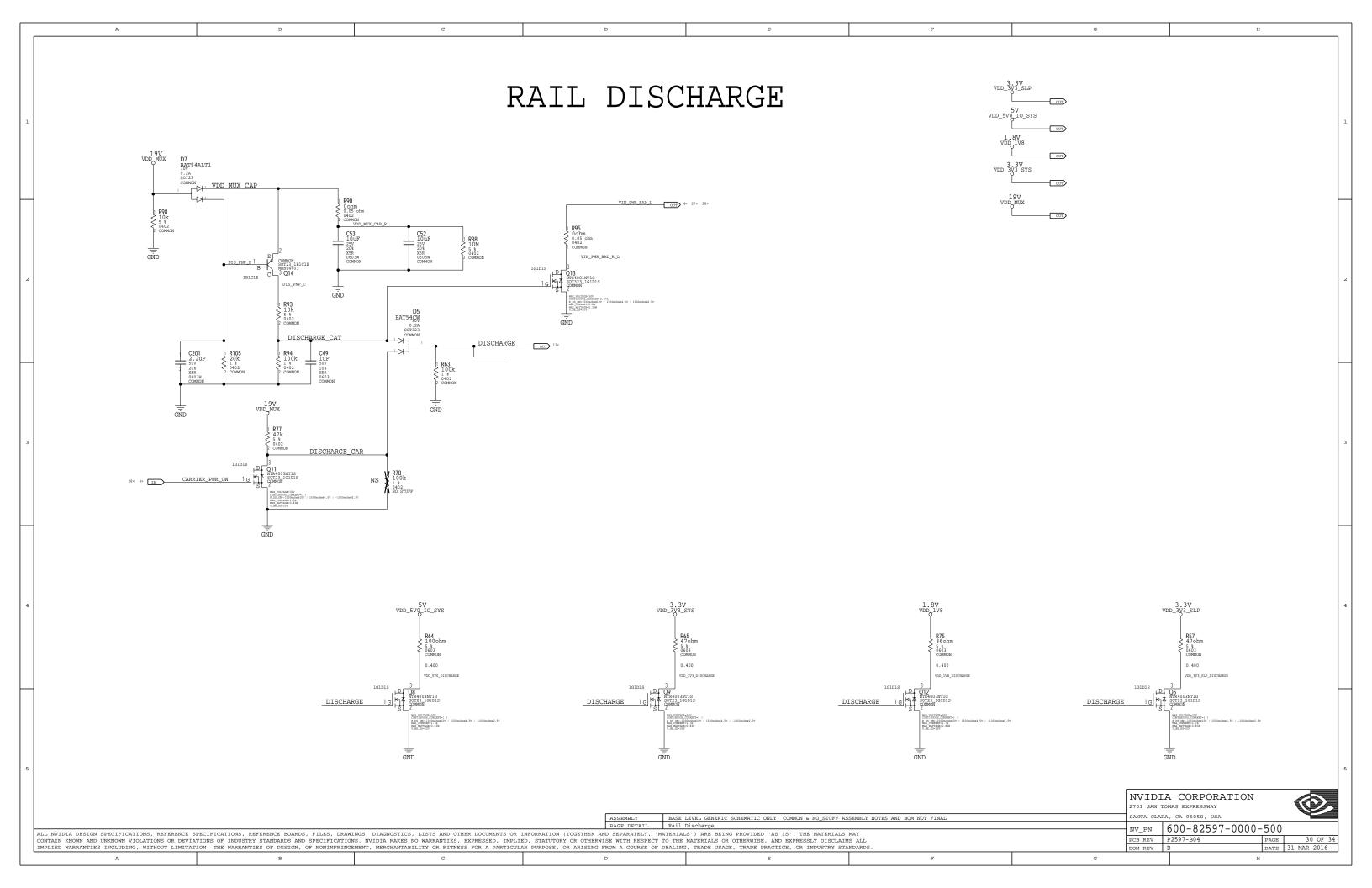


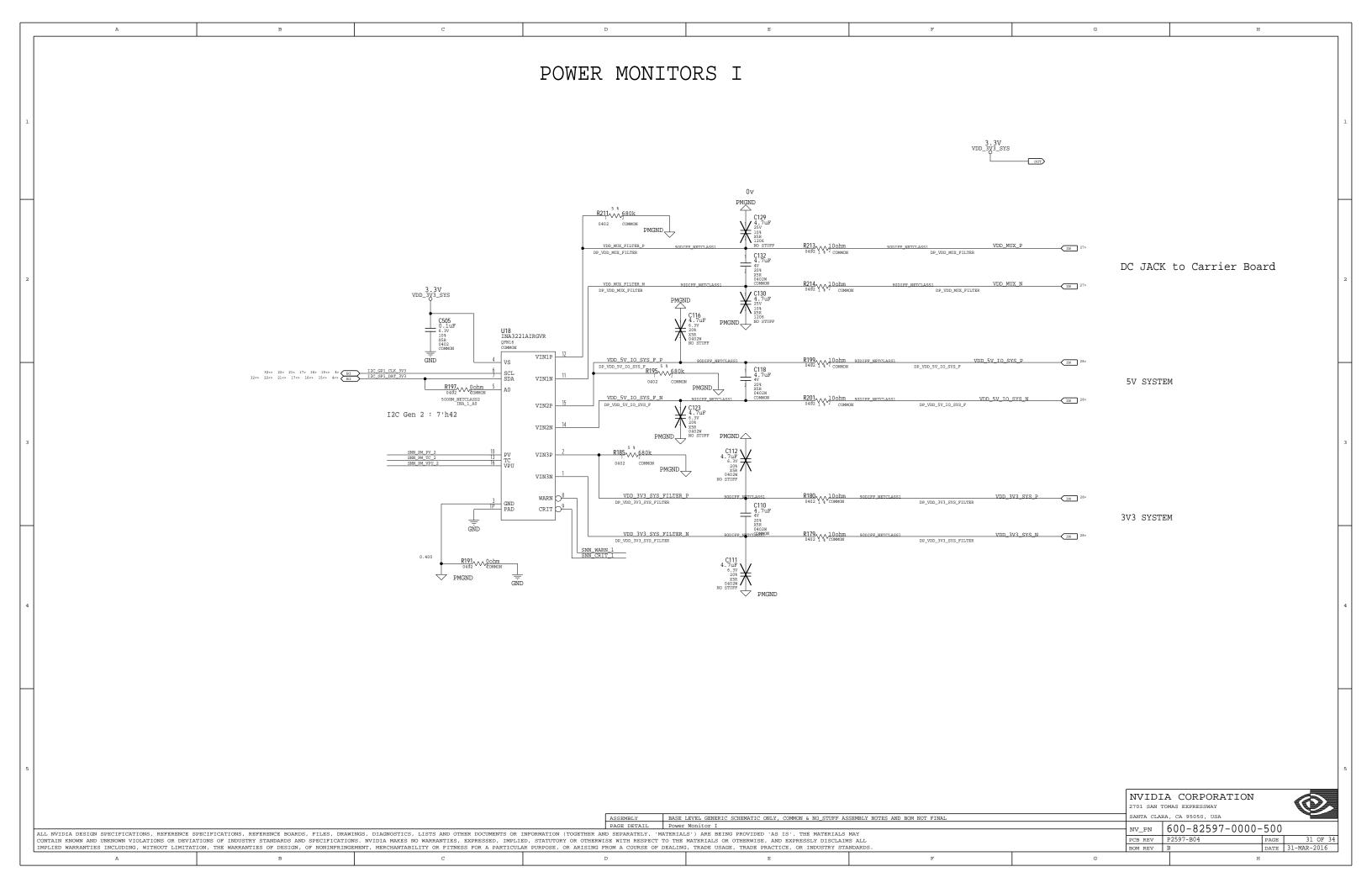


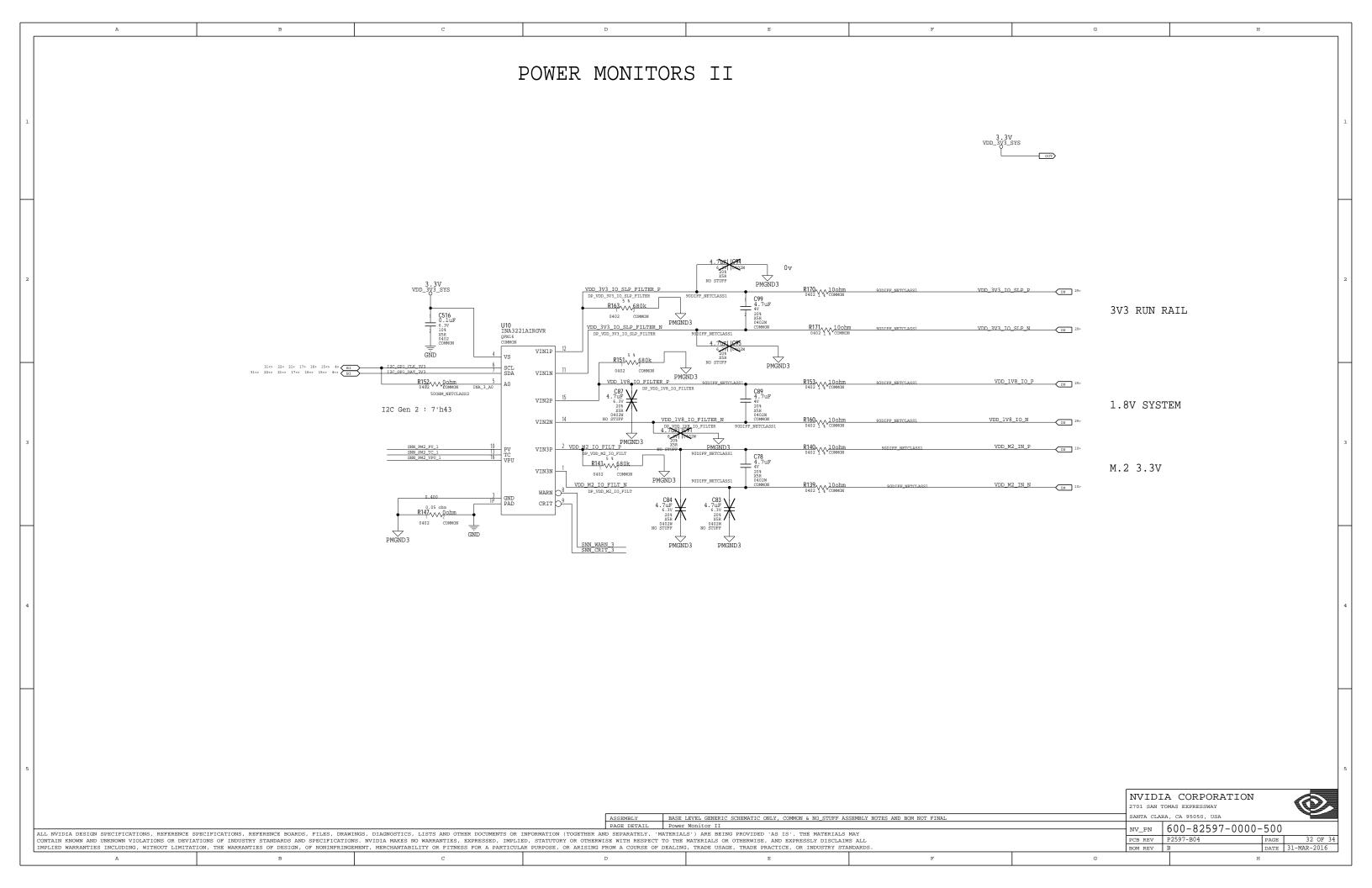


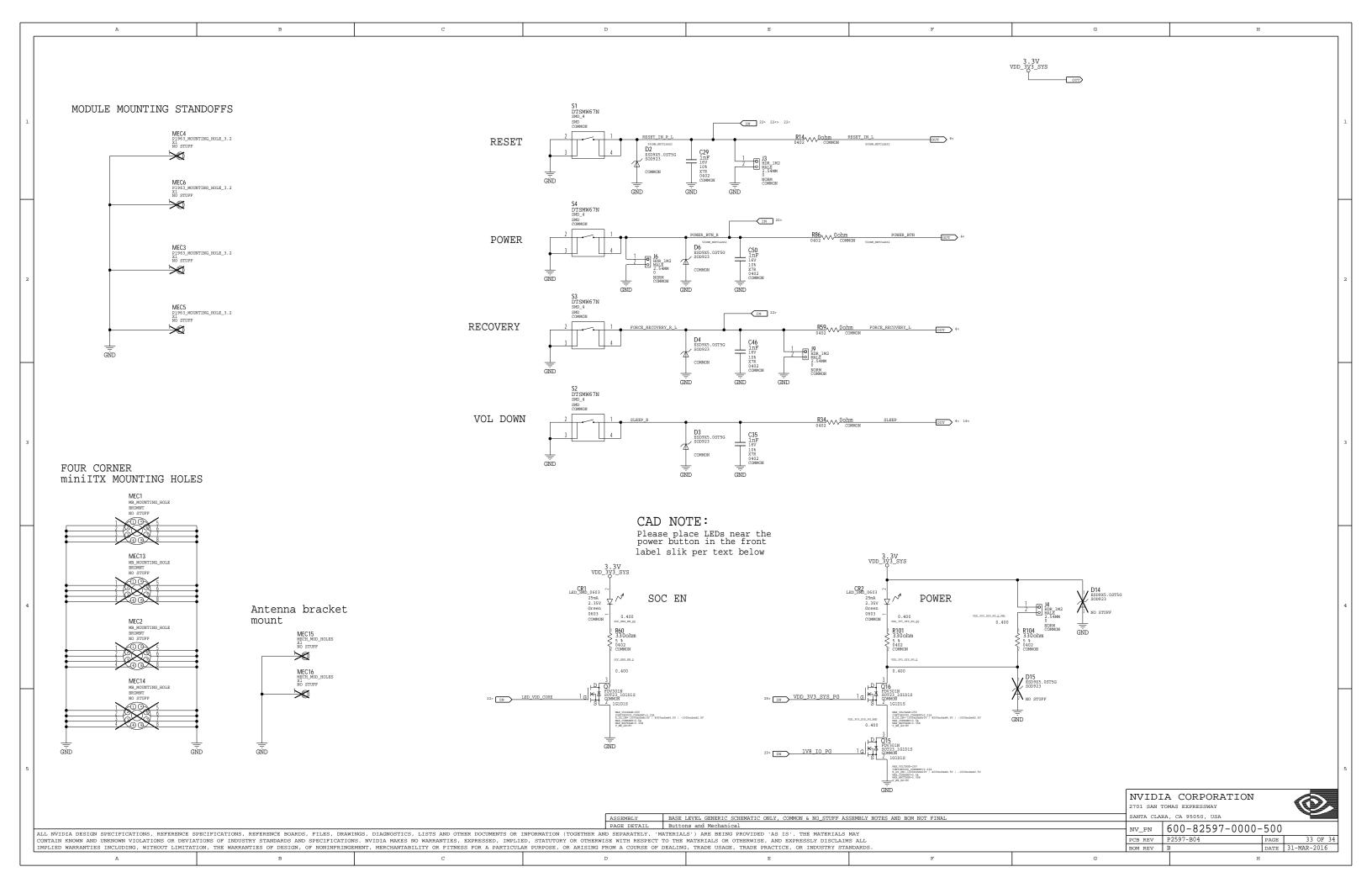












# Revision History

### P2597-B03

Page 4: Added a red LED to indicate power is active on the Jetson TX1/TX2. Page 8: Replaced U21 due to EOL on previous part Page 9: Changed an unused pull up to a TVS device on PCIe RST PCIE WAKE L and PCIE CLKREO Page 10: Change R524 and R538 to 1.8k (tune for gyro bypass) Page 10: Changed M.2 I2C to 1.8v Page 12: Added discharge for VDD\_5V0\_IO\_SLP and VDD\_12V\_SLP Added a red LED to 12v at PCIe connector Changed DEV\_SLP buffer to OD

Page 13: Changed R9 to 100pF cap C205 (EU emissions)

Page 14: Changed R548 to 4.7k ohm and R544 to 100k Page 15: Changed DBG I2C MUX to I2C repeater with enable Added pull ups on inputs to U6
Page 16: Added 1206 Oohm resistors on J26 Added pull downs on J21 side of U22 and U7 Added reset connection to U22 and U7 Added ESD protection Page 22: Added pull-up on J10 pin 48 for direct INA support Added Oohm resistor on the fan PWM to allow always on Added a pull down on UART4\_TX for bug 200160113 Added ESD protection to pins 4 and 6 of Q17 Page 24: Changed U11 EEPROM to AT24C02D-MAHM-T Page 25: Added supervisor to hold Tegra in reset until 1.8v up Page 27: Added additional bulk site on VDD\_MOD Page 28: Changed 5v and 3.3v VR FETs for better thermal perf Page 30: Added C201 and changed C49 to 1uF to filter DC loss Page 33: Added ESD option for power LED P2597-B04 Corrected minor solderpaste issue

Page 12: Stuffed R315

Page 14: Changed R563 and R565 to 3.3ohm

Page 25: Unstuffed page

#### BOM rev B

Page 23: Changed C36 to 0.1uF

Page 30: Changed C201 to 2.2uF and R105 to 20k

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PCB REV P2597-B04 DATE 31-MAR-2016

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