Revision History

Schematics taken from P151-A00-X24

MS-8889 00A

00A-0621

1)Page 10,13,18 of the original design (P151) has been delete.
2)Page 10,12 U816,U817,U818,U811(single gate) share one ACT08/SO8.
3.Page 13 a.P300 change reference to P600.
b.Add P300 (long D-sub)for SEC D-sub.
4.Page 14 a.Remove P602.
b.Add S_OUT1,S_IN1,AV_OUT1,AV_IN1,J1,J2 connector.
5.Page 16,17 Modify power supply solution.
a.PWM from SC1102A,SC1541-3.3V,SC1565 share one ISL6529.
b.FBVDDQ is transfered from Q800,U4 by 5V.
c.SC2610 change to HIP6012.

00A-0624

1)Page 16 a.Remove C1250,C1251,R1076,R1071,Q10,U4,Q800.
b.FBVDDQ Remove Q800 and U4 ,Add U812/NIKO-1085S/TO-263.
c.Q905 and Q201 from 45N02LD change to 55N02LD for low Rdson.
2)page 17 Remove Q9,R2086,Q8,R2087.
3)page 11 Add R2217/33ohm and C2495 for "DVOCLK_IN".
4)page 15 change Text Note "PCI_DEVID =253" to "PCI_DEVID =283".
5)page 17 a.R2085 change value to 4.7K.
b.U3 change refernce to U813.

00A-0625

1)Page 16 ADD C1250,C1251,R1076,C1071.
2)page 9 a.ADD RP16/47ohm for "DVOBD12" and "DVOBD13".
b.Add solder side heat sink "K201"
3)page 11 Add SAA7104/5.

00A-0626

1)Page 9 - Change the 47ohm RPack to 33ohm RPack.
2)Page 2 - a.ADD C106/4.7U for "12V to gnd".
b.R80,R81,R82,and R83 from 5% change to 1%.
3)Page 16 - U812 from L1085/3A change to L1084/5A for FBVDDQ.
4)Page 14 - S_OUT1 & S_IN1 chage to P500 & P501.

00A-0701

1)Page 2 - a.ADD thermal sensor RT1 (in GPU solder side).
b.ADD C113/220PF "AGPVREFCG" pull down.
2)Page 14 - Remove J1.
4)Page 16 - a.Remove C1406.
b.ADD CE1,CE2,CE3,CE4 for EMI (FBVDD bypass).
c.ADD R617/1K,R618/6.8K,C1406/470PF for U814.
5)Page 17 - ADD C2307,C2308 for "FBVDDQ".

00A-0702

1)Page 2 - a.Make R80 = 49.9 ohms 1%, Make R81 =
NO_STUFF, Make R82 = 56.2 ohms 1%, and
Make R83 = NO_STUFF.
b.C110 from 0.1uF change to 0.01uF
C113 from 220PF change to 0.22uF
2)Page 16/17 - R617, R618, R624, R616, R1080, R1082,
R1210, R1104, R2085, R2083, R2082 all be 1%.

00A-0703

1)Page 2 - Add R111,R112 0ohm for thermal sensor.
2)Page 11 - Remove U1 7104H/QFP64.

00A-0704

1)Page 11 - Remove R2218.
2)Add 8.a H/W MONITOR for channel only, Medion NO_STUFF.
3)Page 17 - Add C2235 for 12V to GND.

00A-0708

1)Page 2 - RT1 footprint from SMD change to DIP.

00A-0709

1)Page 16 - Remove C1276,C1264,C1366,C1267,C1301,C1379,C1304.
2)Page 5,6,7,8 - Add C550-C565 / 10PF / 0402 from
"FB(A/B/C/D)CLK(0/0-/1/1-) total 16pcs for
EMI engineer.

00A-0712

1)Need to change Power net on R2088 sheet 17 to "12V".
Need to change Power Net on D658 sheet 17 to "12V".

00A-0716

1)Page 2 - a.R80 and R81 needs to be tied to "GND". right now it is tied to VDDQ.
b.R82 and R83 needs to be tied to "VDDQ".
Pin 'R82.2' moved to net 'VDDQ'.
Pin 'R83.2' moved to net 'VDDQ'.
Pin 'R81.1' moved to net 'GND'.
2)Page 2 - Pin 'Q901.3' moved to net 'AGP_MDT2'. This is the collector.
Pin 'Q901.1' moved to net 'AGP_MDT4'. This is the BASE.
Pin 'Q901.2' moved to net '3.3V'. This is the Emitter.
3)Page 2 - Component value changes:
a.R98 please change from 5.76K to 6.49K 1%.
b.R110 and R105 change from 1.5K to 2.32K 1%.
c.Q613 - Changed from 2N7002 to IRLML2502 (N-ch 20V 3A 0.08 on resistence).
d.Q901A - change to MMBT4403LT1.

00B-0728

1)Page 2 - C108 pin 1 & Q901A pin "E" and R94 pin 1 from 3.3V change to 3.3VL.
2)Page 16 - C1303 from SMD change to DIP for low ESR.
3)Page 17 - a.Add CE4-CE8 for EMI 3.3V to FBVDDQ.
b.D658 pin2 connector to "CP_CAP",D658 pin 3 connector to C2273 pin 1.

00B-0730

1)Page 2 - Add U200/FDC6301N,R93/0R,R101/121K,R108/121K,R96/1K for AGPVrefcg.
2)Page 16 - R1076 change to 6.49 ohm / 1%.
C1250 change to 68nF.
R1210 change to 13K / 1%.
C1448 change to 47nF.
C1252 change to 2.2nF.
3)Page 17 - R1067 change to 10 ohm / 1%.
C2230 change to 100nF.
R2081 change to 10K / 1%.
C2234 change to 2.7nF.
R2075 change to 1.58K / 1%.
R2084 change to 49.9K / 1%.

00B-0731

1)We need to change the Device ID from 0x283 to 0x281.
So that means R959 is a NO_STUFF and R258 is 10K.
2)Page 17 - R1121 change to 3.16K / 1%.

00B-0801

1)Page 17 - C2234 change to 2.7nF.
2)Page 15 - Add JP2 connector to "DVOD21 and GND.
3)Page 13 - P300 pin 17,18 floating.

00B-0802

1)Page 16 - Add Cap C1264,C2309,C2310(dual layout) for layout.
2)Page 18 - Add R58,R59,R60 and U2 for FAN power.

Sub Assemblies	Description
COMMON	Components are stuffed for all SKUs
NO_STUFF	Components are not stuffed
PRI_DVI_I	Components stuffed for Primary VGA
PRI_PROT	Components stuffed for Primary Protection
SEC_DVI_I	Components stuffed for Secondary DVI
SEC_PROT	Components stuffed for Secondary Protection
AGP3VFBDQ	Components stuffed for AGP 3.3V to FBVDD
FBVDD-FBDQ	Components stuffed for FBVDDQ 2.5V to FBVDD
PLL-SEQ	Components stuffed for PLL Sequence
PWR-SEQ	Components stuffed for Power Sequence
PWR-SEQ-BP	Components stuffed for Power Sequence By-PASS
NVVDD-2602	Components stuffed for NVVDD Power
FB_2610_SWT	Components stuffed for FBVDD Power
SC1541	Components stuffed for 3.3VL Fixed
SC1565	Components stuffed for SC1565 - 3.3VL Adj.
FB64LO	Components stuffed for FBA_DATA and FBD_DATA
FB64UP	Components stuffed for FBC_DATA and FBD_DATA
SER-PROM	Components stuffed for Serial PROM
PAR-PROM	Components stuffed for Parallel PROM
FAN_HS-LFT	Components stuffed for Fan / Blower left of the GPU
FAN_SNK	Fan Sink Component
HEAT_SNK	Heat Sink Component
VIVO	Components stuffed for Video IN/OUT
VIDO-7104	SAA7104 Video Out
CX-ENC-TVOUT	Components stuffed for CX25871 - TV-OUT
SOCKET	Components stuffed for Socket
64MB-4MX16	Components stuffed for Mem-CFG: 64MB (4Mx16) memory
BRACKET	IO Bracket / VGA-DIN-DVI-I
BRACKET-VGA	IO Bracket / VGA- -DVI-I
FB_2610_LDO	Components stuffed for FBVDDQ Power
FBVDD_ADJ	Components to adjust FBVVD out voltage.
FBVDQ_ADJ	Components to adjust FBVVDQ out voltage.

Table of Contents

Legend:

TPNC = Test Point - Not Connected

602-10085-0000-A03
140-10085-0000-A03

NVIDIA Corporation
2701 San Tomas Expressway
Santa Clara, CA 95050, USA

NVIDIA

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Size	CAGE Code	DWG NO	Rev
Custom		P151-A00-X04	I
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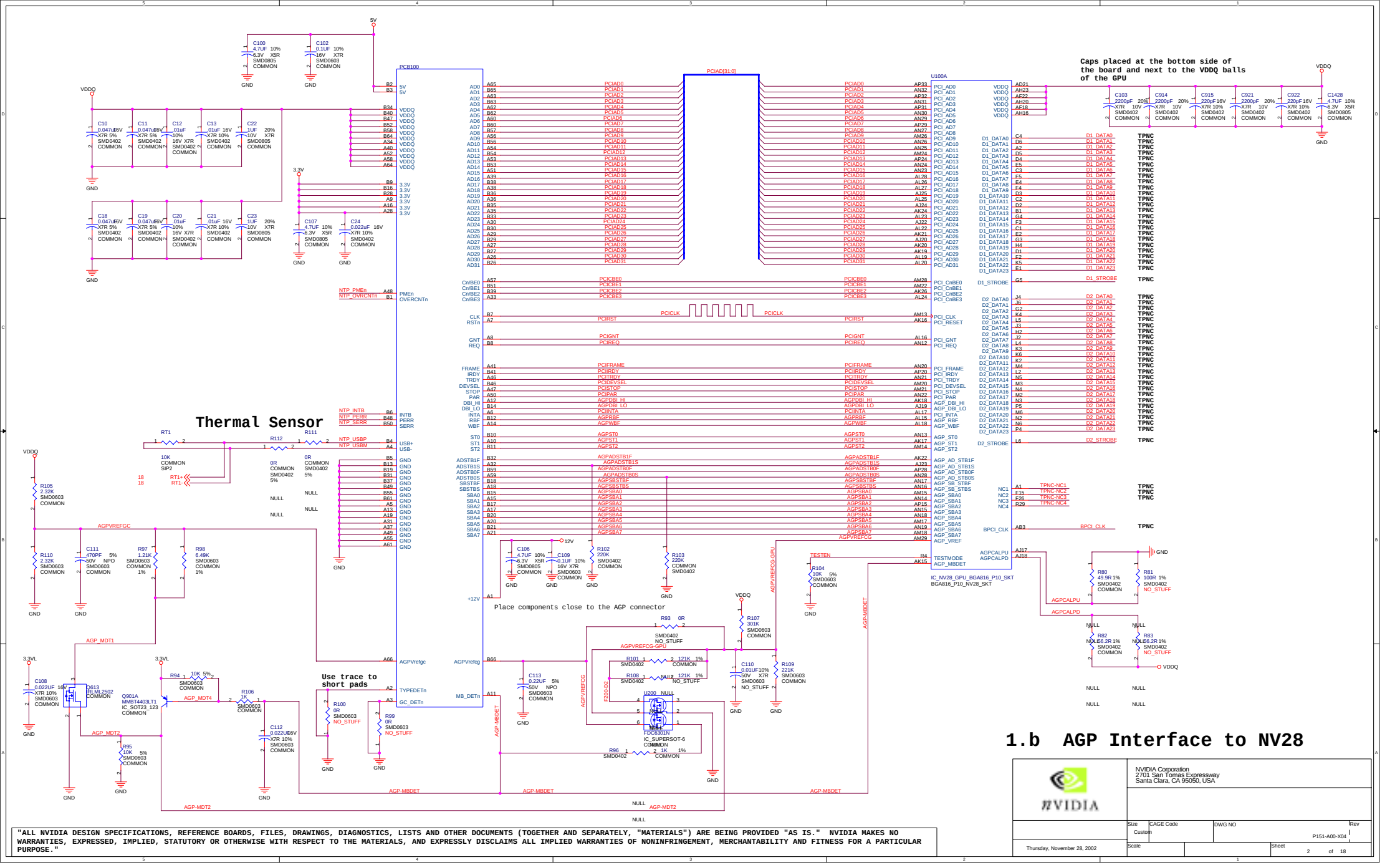

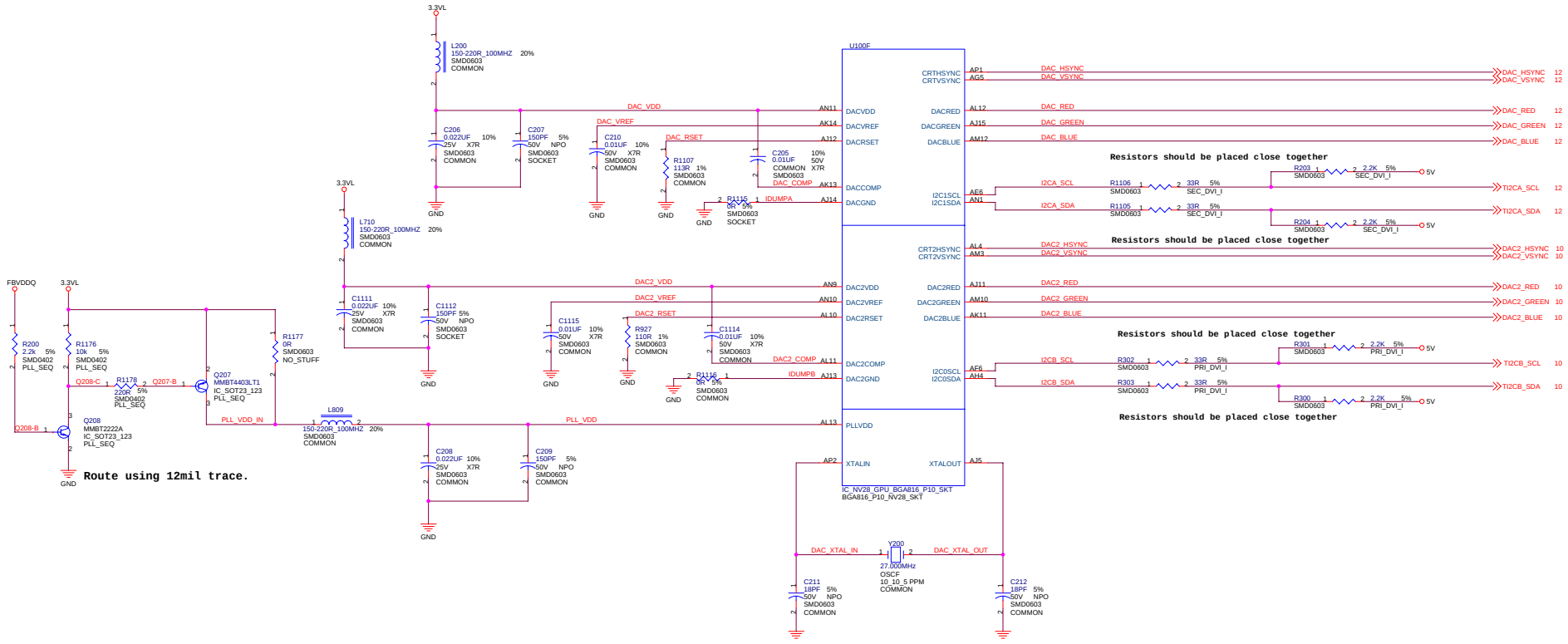

1.c NV28 .. PLL / DAC / I2C

NVIDIA Corporation
2701 San Tomas Expressway
Santa Clara, CA 95050, USA

NV28..PL / DAC / I2C

Size	CAGE Code	DWG NO	Rev
Custom			I

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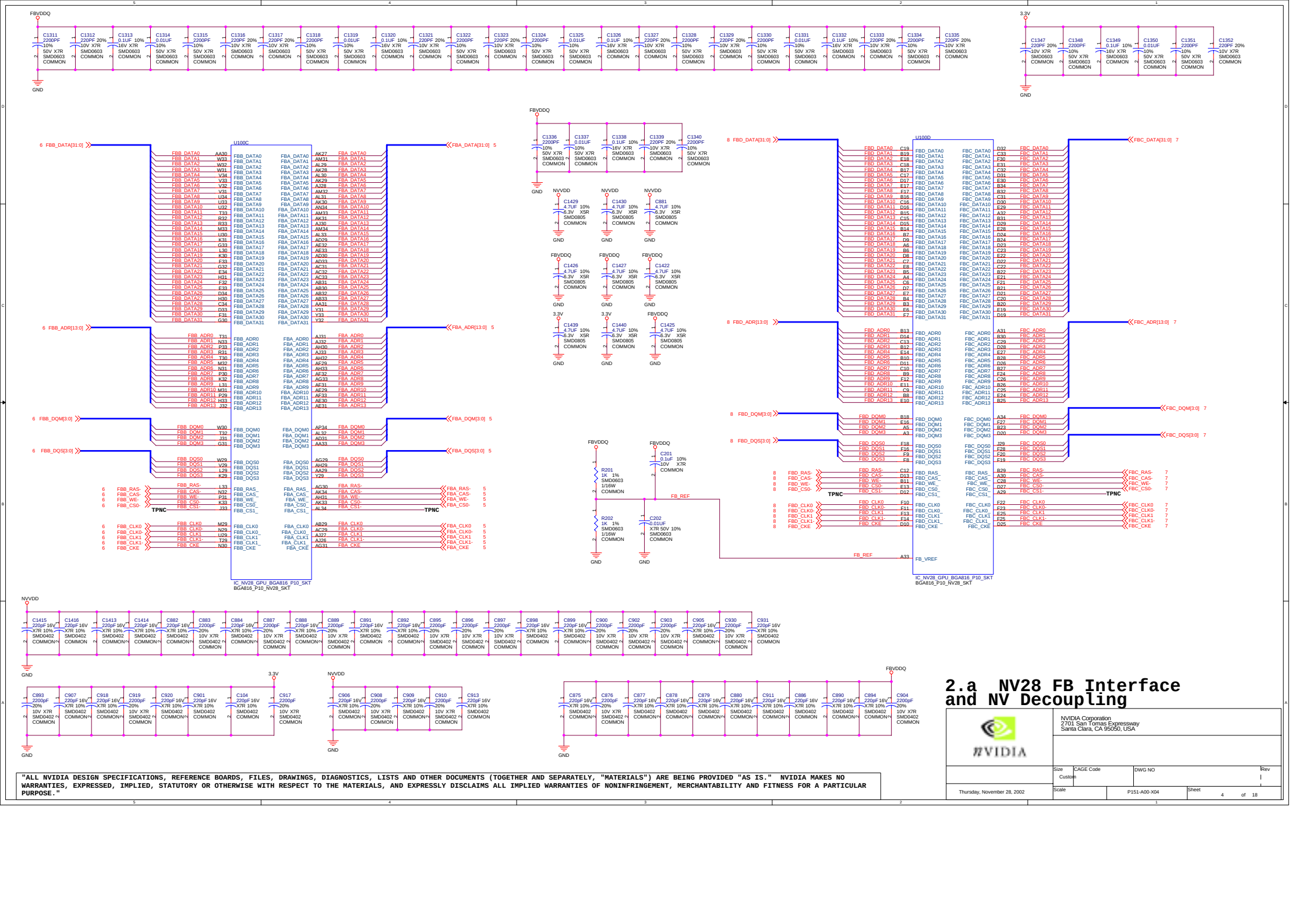
FBVDDQ
C1311 2200PF 10% 50V X7R SMD0603 COMMON
C1312 220PF 20% 10V X7R SMD0603 COMMON
C1313 0.1UF 10% 16V X7R SMD0603 COMMON
C1314 0.01UF 10% 50V X7R SMD0603 COMMON
C1315 2200PF 10% 50V X7R SMD0603 COMMON
C1316 220PF 20% 10V X7R SMD0603 COMMON
C1317 220PF 20% 10V X7R SMD0603 COMMON
C1318 2200PF 10% 50V X7R SMD0603 COMMON
C1319 0.01UF 10% 50V X7R SMD0603 COMMON
C1320 0.1UF 10% 16V X7R SMD0603 COMMON
C1321 220PF 20% 10V X7R SMD0603 COMMON
C1322 2200PF 10% 50V X7R SMD0603 COMMON
C1323 220PF 20% 10V X7R SMD0603 COMMON
C1324 2200PF 10% 50V X7R SMD0603 COMMON
C1325 0.01UF 10% 50V X7R SMD0603 COMMON
C1326 0.1UF 10% 16V X7R SMD0603 COMMON
C1327 220PF 20% 10V X7R SMD0603 COMMON
C1328 2200PF 10% 50V X7R SMD0603 COMMON
C1329 220PF 20% 10V X7R SMD0603 COMMON
C1330 2200PF 10% 50V X7R SMD0603 COMMON
C1331 0.01UF 10% 50V X7R SMD0603 COMMON
C1332 0.1UF 10% 16V X7R SMD0603 COMMON
C1333 220PF 20% 10V X7R SMD0603 COMMON
C1334 2200PF 10% 50V X7R SMD0603 COMMON
C1335 220PF 20% 10V X7R SMD0603 COMMON
GND
3.3V
C1347 220PF 20% 10V X7R SMD0603 COMMON
C1348 2200PF 10% 50V X7R SMD0603 COMMON
C1349 0.1UF 10% 16V X7R SMD0603 COMMON
C1350 0.01UF 10% 50V X7R SMD0603 COMMON
C1351 2200PF 10% 50V X7R SMD0603 COMMON
C1352 220PF 20% 10V X7R SMD0603 COMMON
GND
6 FBB_DATA[31:0]
U100C
FBB_DATA0 AA30
FBB_DATA1 W33
FBB_DATA2 W32
FBB_DATA3 W31
FBB_DATA4 V34
FBB_DATA5 V33
FBB_DATA6 V32
FBB_DATA7 V31
FBB_DATA8 U34
FBB_DATA9 U33
FBB_DATA10 U32
FBB_DATA11 T33
FBB_DATA12 R32
FBB_DATA13 R33
FBB_DATA14 M33
FBB_DATA15 L30
FBB_DATA16 K31
FBB_DATA17 G33
FBB_DATA18 L30
FBB_DATA19 K30
FBB_DATA20 E33
FBB_DATA21 G32
FBB_DATA22 E34
FBB_DATA23 H31
FBB_DATA24 F32
FBB_DATA25 E33
FBB_DATA26 D34
FBB_DATA27 H30
FBB_DATA28 C34
FBB_DATA29 D33
FBB_DATA30 F31
FBB_DATA31 G30
FBA_DATA0 AK27
FBA_DATA1 AM31
FBA_DATA2 AL29
FBA_DATA3 AK28
FBA_DATA4 AL30
FBA_DATA5 AK29
FBA_DATA6 AJ28
FBA_DATA7 AM32
FBA_DATA8 AL31
FBA_DATA9 AK30
FBA_DATA10 AN34
FBA_DATA11 AM33
FBA_DATA12 AK31
FBA_DATA13 AJ30
FBA_DATA14 AM34
FBA_DATA15 AL33
FBA_DATA16 AD29
FBA_DATA17 AE32
FBA_DATA18 AE33
FBA_DATA19 AD30
FBA_DATA20 AD33
FBA_DATA21 AC31
FBA_DATA22 AC32
FBA_DATA23 AC33
FBA_DATA24 AB31
FBA_DATA25 AB30
FBA_DATA26 AB32
FBA_DATA27 AB33
FBA_DATA28 AA31
FBA_DATA29 V31
FBA_DATA30 Y33
FBA_DATA31 Y32
FBA_DATA[31:0] 5
6 FBA_ADR[13:0]
FBB_ADR0 T31
FBB_ADR1 N33
FBB_ADR2 P33
FBB_ADR3 R31
FBB_ADR4 T30
FBB_ADR5 M32
FBB_ADR6 N31
FBB_ADR7 P30
FBB_ADR8 K32
FBB_ADR9 L31
FBB_ADR10 M31
FBB_ADR11 P29
FBB_ADR12 H33
FBB_ADR13 J32
FBA_ADR0 AJ31
FBA_ADR1 AJ32
FBA_ADR2 AH30
FBA_ADR3 AJ33
FBA_ADR4 AH32
FBA_ADR5 AF29
FBA_ADR6 AH33
FBA_ADR7 AE32
FBA_ADR8 AG33
FBA_ADR9 AE31
FBA_ADR10 AE29
FBA_ADR11 AF33
FBA_ADR12 AE30
FBA_ADR13 AE31
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6 FBB_DQM[3:0]
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FBB_DQM1 T32
FBB_DQM2 J31
FBB_DQM3 G31
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FBA_DQM2 AD31
FBA_DQM3 AA33
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6 FBB_DQS[3:0]
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FBB_DQS1 V29
FBB_DQS2 L29
FBB_DQS3 K29
FBA_DQS0 AG29
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FBA_DQS2 AA29
FBA_DQS3 Y29
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6 FBB_CAS-
6 FBB_WE-
6 FBB_CS0-
FBB_RAS- L33
FBB_CAS- N32
FBB_WE- P31
FBB_CS0- K33
FBB_CS1- J33
FBA_RAS- AG30
FBA_CAS- AK34
FBA_WE- AH31
FBA_CS0- AK33
FBA_CS1- AL34
FBA_RAS- 5
FBA_CAS- 5
FBA_WE- 5
FBA_CS0- 5
TPNC
TPNC
6 FBB_CLK0
6 FBB_CLK0-
6 FBB_CLK1
6 FBB_CLK1-
6 FBB_CKE
FBB_CLK0 M29
FBB_CLK0- N29
FBB_CLK1 U29
FBB_CLK1- T29
FBB_CKE N30
FBA_CLK0 AB29
FBA_CLK0- AC29
FBA_CLK1 AJ27
FBA_CLK1- AJ26
FBA_CKE AG31
FBA_CLK0 5
FBA_CLK0- 5
FBA_CLK1 5
FBA_CLK1- 5
FBA_CKE 5
IC_NV28_GPU_BGA816_P10_SKT
BGA816_P10_NV28_SKT
FBVDDQ
C1336 2200PF 10% 50V X7R SMD0603 COMMON
C1337 0.01UF 10% 50V X7R SMD0603 COMMON
C1338 0.1UF 10% 16V X7R SMD0603 COMMON
C1339 220PF 20% 10V X7R SMD0603 COMMON
C1340 2200PF 10% 50V X7R SMD0603 COMMON
GND
NVVDD
C1429 4.7UF 10% 6.3V X5R SM0805 COMMON
C1430 4.7UF 10% 6.3V X5R SM0805 COMMON
C881 4.7UF 10% 6.3V X5R SM0805 COMMON
C1426 4.7UF 10% 6.3V X5R SM0805 COMMON
C1427 4.7UF 10% 6.3V X5R SM0805 COMMON
C1422 4.7UF 10% 6.3V X5R SM0805 COMMON
3.3V
C1439 4.7UF 10% 6.3V X5R SM0805 COMMON
C1440 4.7UF 10% 6.3V X5R SM0805 COMMON
C1425 4.7UF 10% 6.3V X5R SM0805 COMMON
8 FBD_DATA[31:0]
U100D
FBD_DATA0 C19
FBD_DATA1 B19
FBD_DATA2 E18
FBD_DATA3 C18
FBD_DATA4 B17
FBD_DATA5 C17
FBD_DATA6 D17
FBD_DATA7 E17
FBD_DATA8 F17
FBD_DATA9 B16
FBD_DATA10 C16
FBD_DATA11 D16
FBD_DATA12 B15
FBD_DATA13 C15
FBD_DATA14 D15
FBD_DATA15 B14
FBD_DATA16 B7
FBD_DATA17 D9
FBD_DATA18 A6
FBD_DATA19 B6
FBD_DATA20 D8
FBD_DATA21 C7
FBD_DATA22 E8
FBD_DATA23 B5
FBD_DATA24 A4
FBD_DATA25 C6
FBD_DATA26 D7
FBD_DATA27 E7
FBD_DATA28 B4
FBD_DATA29 B3
FBD_DATA30 E6
FBD_DATA31 E7
FBC_DATA0 D32
FBC_DATA1 C33
FBC_DATA2 F30
FBC_DATA3 E31
FBC_DATA4 C32
FBC_DATA5 D31
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FBC_DATA18 D23
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FBC_DATA20 E22
FBC_DATA21 D22
FBC_DATA22 C22
FBC_DATA23 B22
FBC_DATA24 E21
FBC_DATA25 F21
FBC_DATA26 B21
FBC_DATA27 D21
FBC_DATA28 C20
FBC_DATA29 B20
FBC_DATA30 E19
FBC_DATA31 D19
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FBD_ADR1 D14
FBD_ADR2 C13
FBD_ADR3 B12
FBD_ADR4 E14
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FBD_ADR6 D11
FBD_ADR7 C10
FBD_ADR8 B9
FBD_ADR9 F12
FBD_ADR10 E11
FBD_ADR11 C9
FBD_ADR12 B8
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FBC_ADR0 A31
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FBC_ADR2 C29
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FBC_ADR5 B28
FBC_ADR6 D26
FBC_ADR7 B27
FBC_ADR8 F24
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FBC_ADR12 E24
FBC_ADR13 B25
FBC_ADR[13:0] 7
8 FBD_DQM[3:0]
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FBD_DQM1 E16
FBD_DQM2 A5
FBD_DQM3 A3
FBC_DQM0 A34
FBC_DQM1 F27
FBC_DQM2 B23
FBC_DQM3 D20
FBC_DQM[3:0] 7
8 FBD_DQS[3:0]
FBD_DQS0 F18
FBD_DQS1 F16
FBD_DQS2 F9
FBD_DQS3 F8
FBC_DQS0 J29
FBC_DQS1 F28
FBC_DQS2 F20
FBC_DQS3 F19
FBC_DQS[3:0] 7
8 FBD_RAS-
8 FBD_CAS-
8 FBD_WE-
8 FBD_CS0-
FBD_RAS- C12
FBD_CAS- D13
FBD_WE- B11
FBD_CS0- E13
FBD_CS1- D12
FBC_RAS- B29
FBC_CAS- A30
FBC_WE- C28
FBC_CS0- D27
FBC_CS1- A29
FBC_RAS- 7
FBC_CAS- 7
FBC_WE- 7
FBC_CS0- 7
TPNC
TPNC
8 FBD_CLK0
8 FBD_CLK0-
8 FBD_CLK1
8 FBD_CLK1-
8 FBD_CKE
FBD_CLK0 F10
FBD_CLK0- F11
FBD_CLK1 E13
FBD_CLK1- F14
FBD_CKE D10
FBC_CLK0 F22
FBC_CLK0- F23
FBC_CLK1 E26
FBC_CLK1- F25
FBC_CKE D25
FBC_CLK0 7
FBC_CLK0- 7
FBC_CLK1 7
FBC_CLK1- 7
FBC_CKE 7
FBVDDQ
R201 1K 1% SMD0603 1/16W COMMON
R202 1K 1% SMD0603 1/16W COMMON
C201 0.1UF 10% 10V X7R COMMON
C202 0.01UF X7R 50V 10% SMD0603 COMMON
FB_REF
FB_REF
A33
FB_VREF
IC_NV28_GPU_BGA816_P10_SKT
BGA816_P10_NV28_SKT
NVVDD
C1415 220pF 16V X7R 10% SMD0402 COMMON
C1416 220pF 16V X7R 10% SMD0402 COMMON
C1413 220pF 16V X7R 10% SMD0402 COMMON
C1414 220pF 16V X7R 10% SMD0402 COMMON
C882 220pF 16V X7R 10% SMD0402 COMMON
C883 2200pF 20% 10V X7R SMD0402 COMMON
C884 220pF 16V X7R 10% SMD0402 COMMON
C887 220pF 16V X7R 20% SMD0402 COMMON
C888 220pF 16V X7R 10% SMD0402 COMMON
C889 2200pF 20% 10V X7R SMD0402 COMMON
C891 220pF 16V X7R 10% SMD0402 COMMON
C892 220pF 16V X7R 10% SMD0402 COMMON
C895 2200pF 20% 10V X7R SMD0402 COMMON
C896 2200pF 20% 10V X7R SMD0402 COMMON
C897 2200pF 20% 10V X7R SMD0402 COMMON
C898 220pF 16V X7R 10% SMD0402 COMMON
C899 220pF 16V X7R 10% SMD0402 COMMON
C900 2200pF 20% 10V X7R SMD0402 COMMON
C902 2200pF 20% 10V X7R SMD0402 COMMON
C903 2200pF 20% 10V X7R SMD0402 COMMON
C905 220pF 16V X7R 10% SMD0402 COMMON
C930 2200pF 20% 10V X7R SMD0402 COMMON
C931 220pF 16V X7R 10% SMD0402 COMMON
GND
C893 2200pF 20% 10V X7R SMD0402 COMMON
C907 220pF 16V X7R 10% SMD0402 COMMON
C918 220pF 16V X7R 10% SMD0402 COMMON
C919 2200pF 20% 10V X7R SMD0402 COMMON
C920 220pF 16V X7R 10% SMD0402 COMMON
C901 220pF 16V X7R 10% SMD0402 COMMON
C104 220pF 16V X7R 10% SMD0402 COMMON
3.3V
C917 2200pF 20% 10V X7R SMD0402 COMMON
GND
NVVDD
C906 220pF 16V X7R 10% SMD0402 COMMON
C908 2200pF 20% 10V X7R SMD0402 COMMON
C909 220pF 16V X7R 10% SMD0402 COMMON
C910 2200pF 20% 10V X7R SMD0402 COMMON
C913 220pF 16V X7R 10% SMD0402 COMMON
GND
FBVDDQ
C875 220pF 16V X7R 10% SMD0402 COMMON
C876 2200pF 20% 10V X7R SMD0402 COMMON
C877 220pF 16V X7R 10% SMD0402 COMMON
C878 220pF 16V X7R 10% SMD0402 COMMON
C879 220pF 16V X7R 10% SMD0402 COMMON
C880 220pF 16V X7R 10% SMD0402 COMMON
C911 220pF 16V X7R 10% SMD0402 COMMON
C886 220pF 16V X7R 10% SMD0402 COMMON
C890 220pF 16V X7R 10% SMD0402 COMMON
C894 220pF 16V X7R 10% SMD0402 COMMON
C904 2200pF 20% 10V X7R SMD0402 COMMON
GND
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2.a NV28 FB Interface and NV Decoupling
NVIDIA Corporation
2701 San Tomas Expressway
Santa Clara, CA 95050, USA
Size
Custom
CAGE Code
DWG NO
Rev
Thursday, November 28, 2002
Scale
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Sheet
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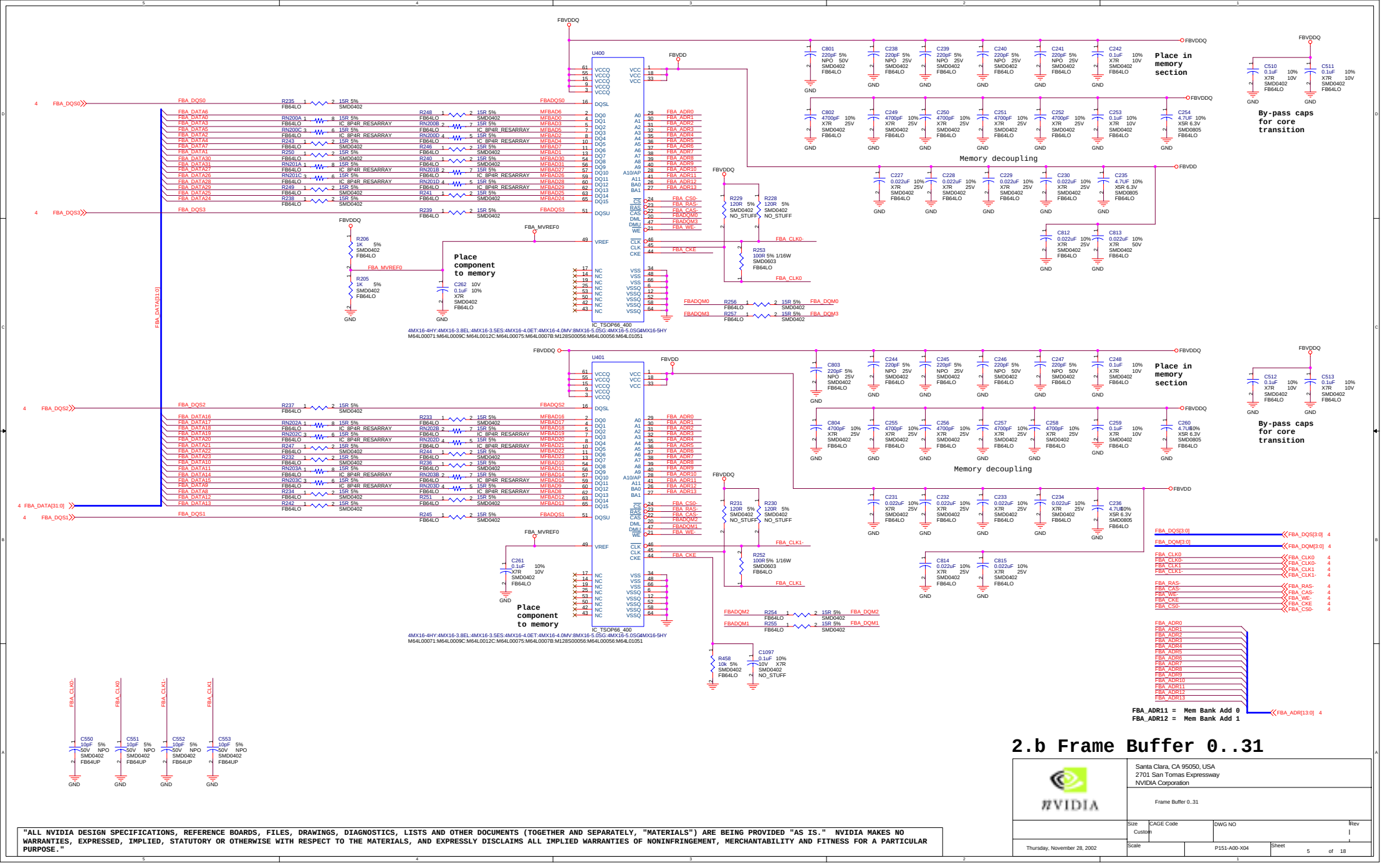

2.b Frame Buffer 0..31

NVIDIA
Santa Clara, CA 95050, USA
2701 San Tomas Expressway
NVIDIA Corporation

Frame Buffer 0..31

Size	CAGE Code	DWG NO	Rev
Custom			

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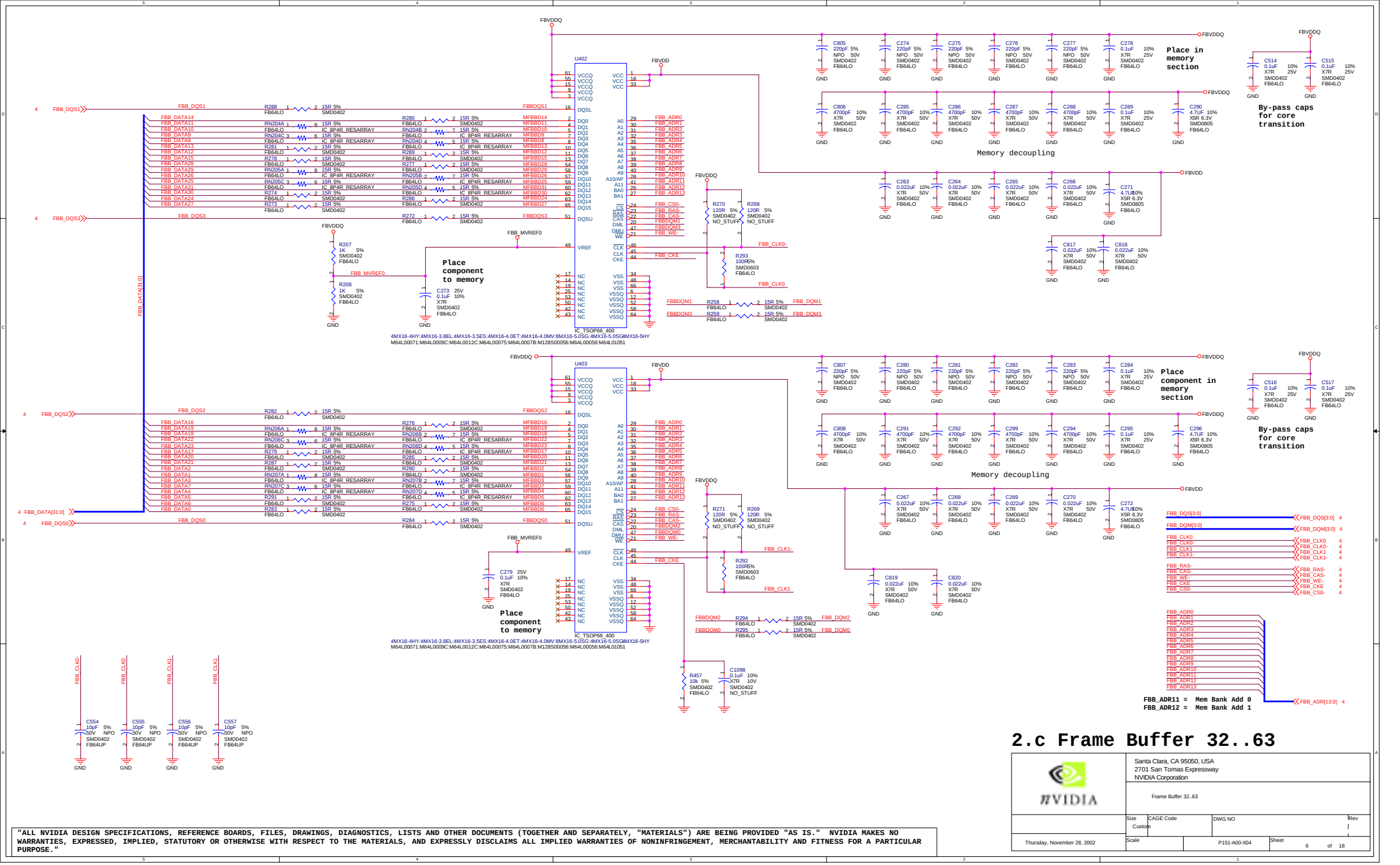

2.d Frame Buffer 64..95

Santa Clara, CA 95050, USA
2701 San Tomas Expressway
NVIDIA Corporation

Frame Buffer 64..95			
Size	CAGE Code	DWG NO	Rev
	Custom		I
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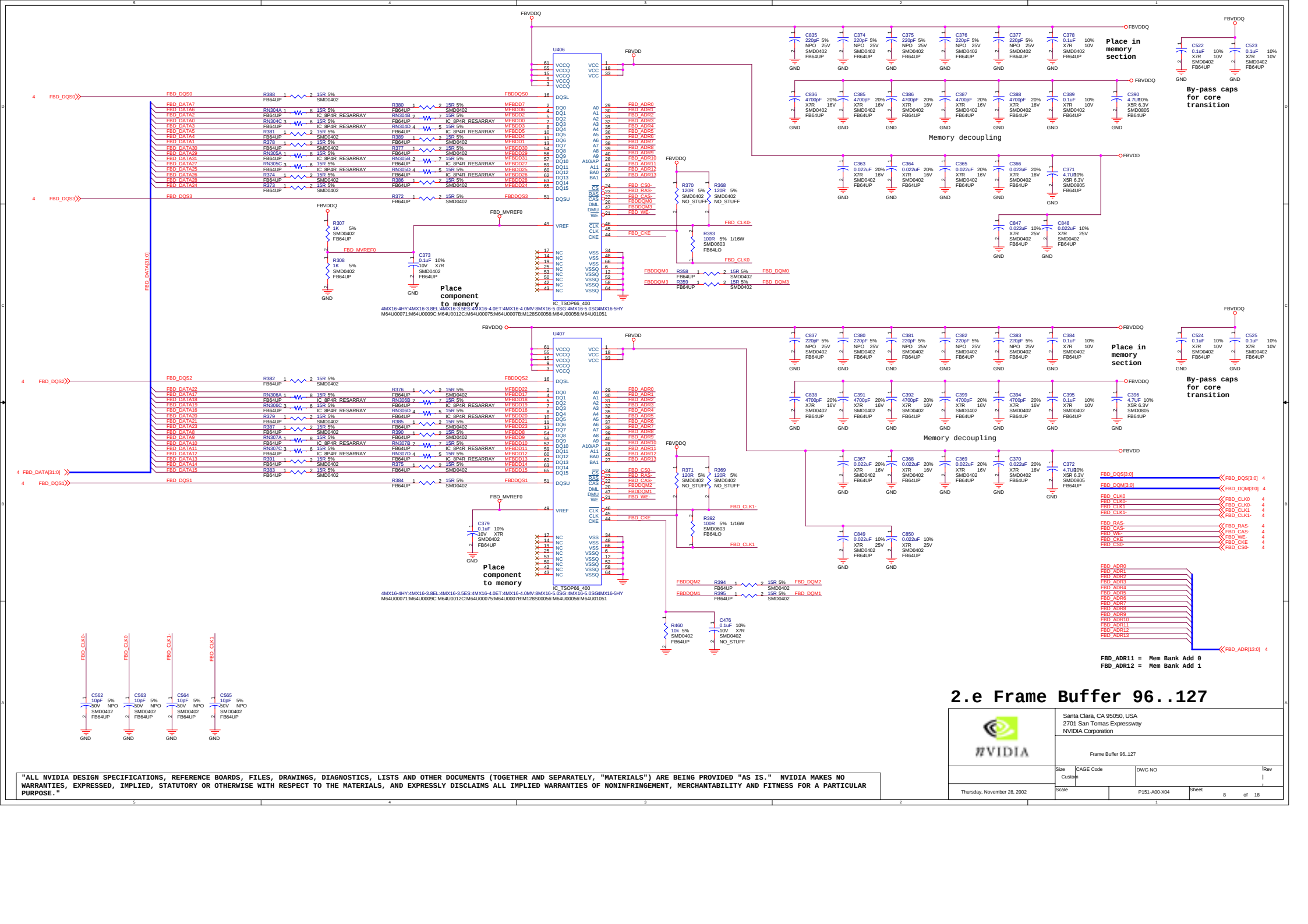


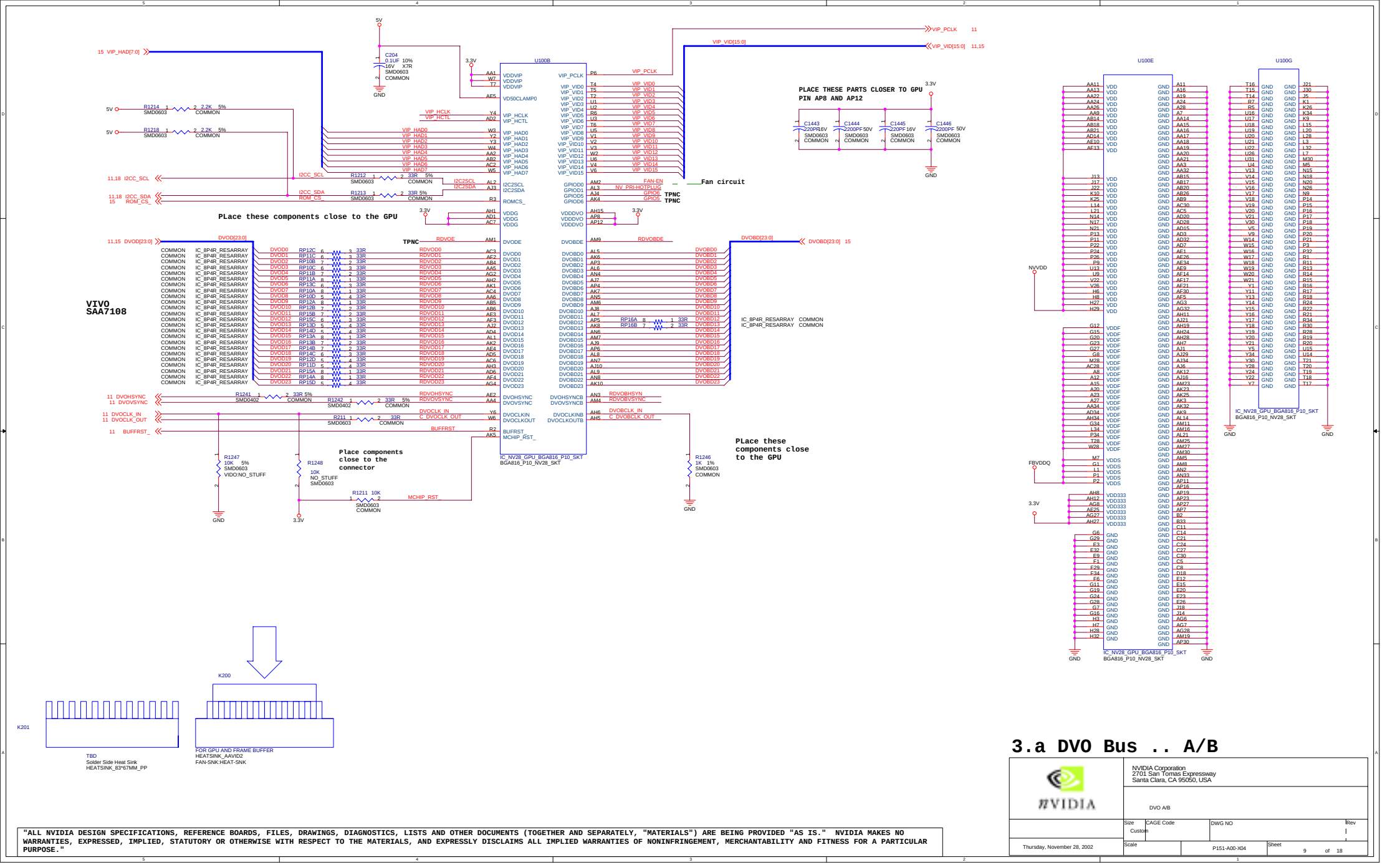
2.e Frame Buffer 96..127

Santa Clara, CA 95050, USA
2701 San Tomas Expressway
NVIDIA Corporation

Frame Buffer 96..127

Size	CAGE Code	DWG NO	Rev
Custom			I

Thursday, November 28, 2002 | Scale | P151-A00-X04 | Sheet 8 of 18



3.a DVO Bus .. A/B

NVIDIA Corporation
2701 San Tomas Expressway
Santa Clara, CA 95050, USA

DVO A/B			
Size: Custom	CAGE Code	DWG NO	Rev
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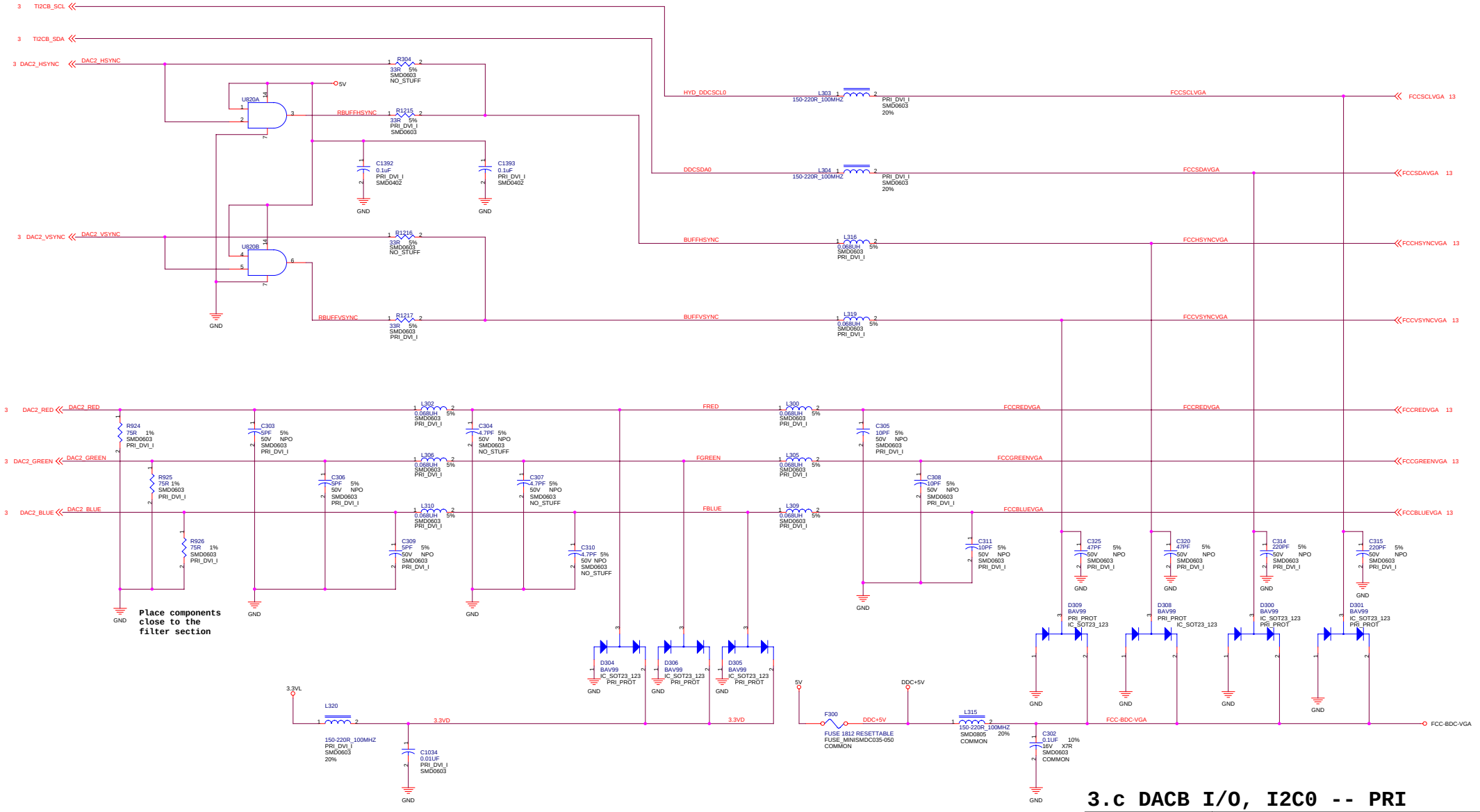

3.c DACB I/O, I2C0 -- PRI

NVIDIA Corporation
3535 Monroe St
Santa Clara, CA 95051, USA

DACB I/O, I2C0 -- PRI			
Size: Custom	CAGE Code	DWG NO	Rev: I
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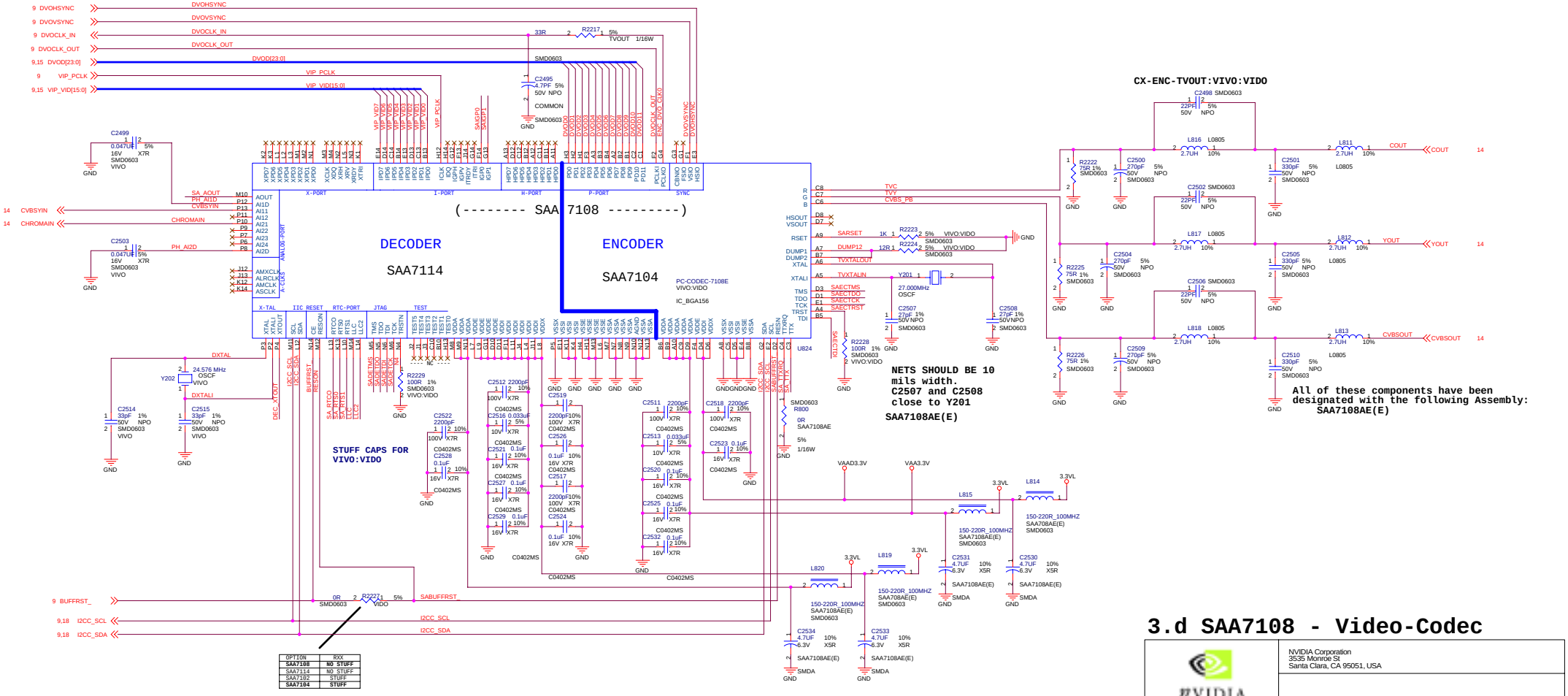

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3.d SAA7108 - Video-Codec

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SAA7108 - Video-Codec

Size	CAGE Code	DWG NO	Rev
Custom			

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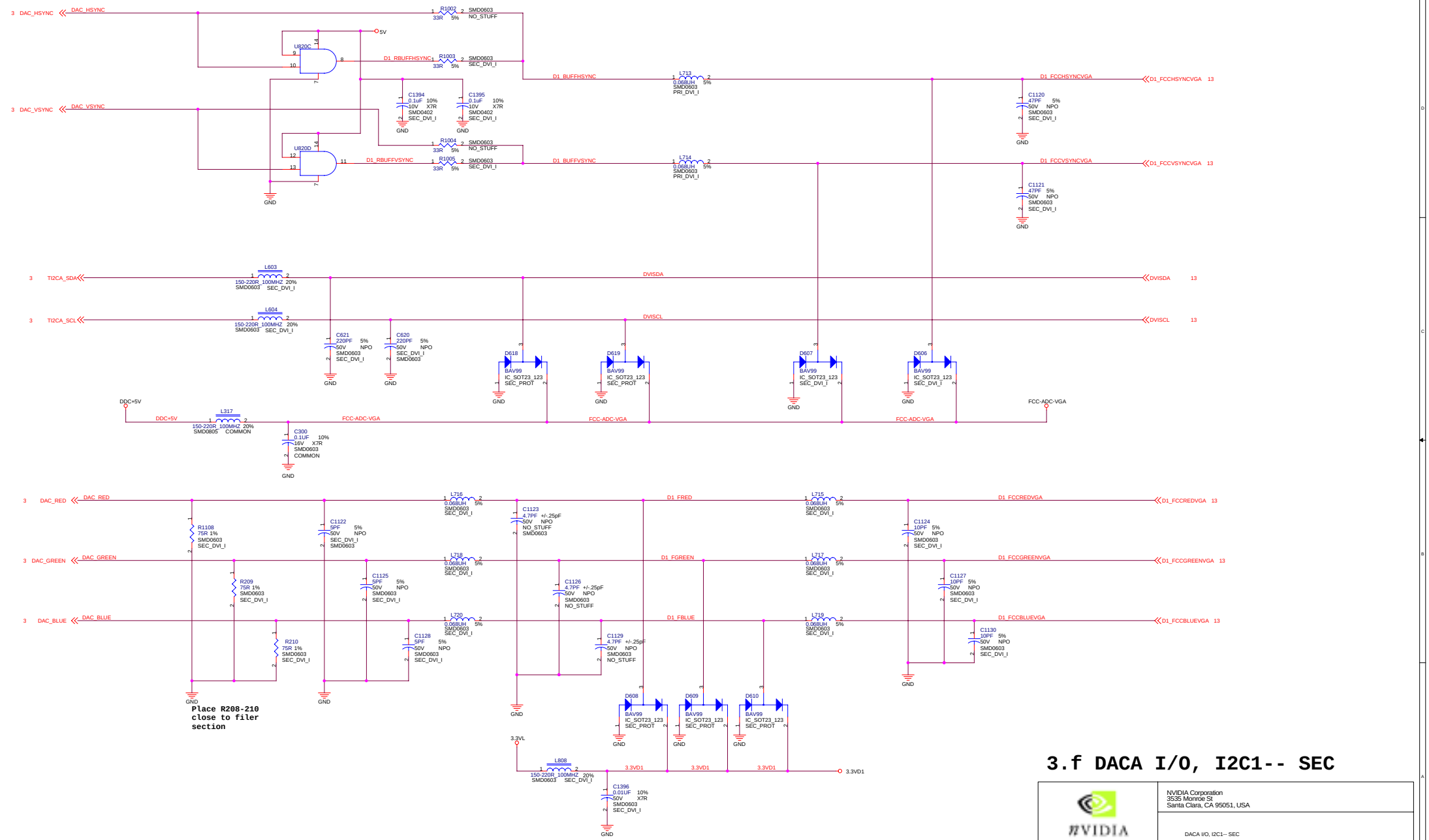

3.f DACA I/O, I2C1-- SEC

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3535 Monroe St
Santa Clara, CA 95051, USA

DACA I/O, I2C1-- SEC

Size	CAGE Code	DWG NO	Rev
Custom			

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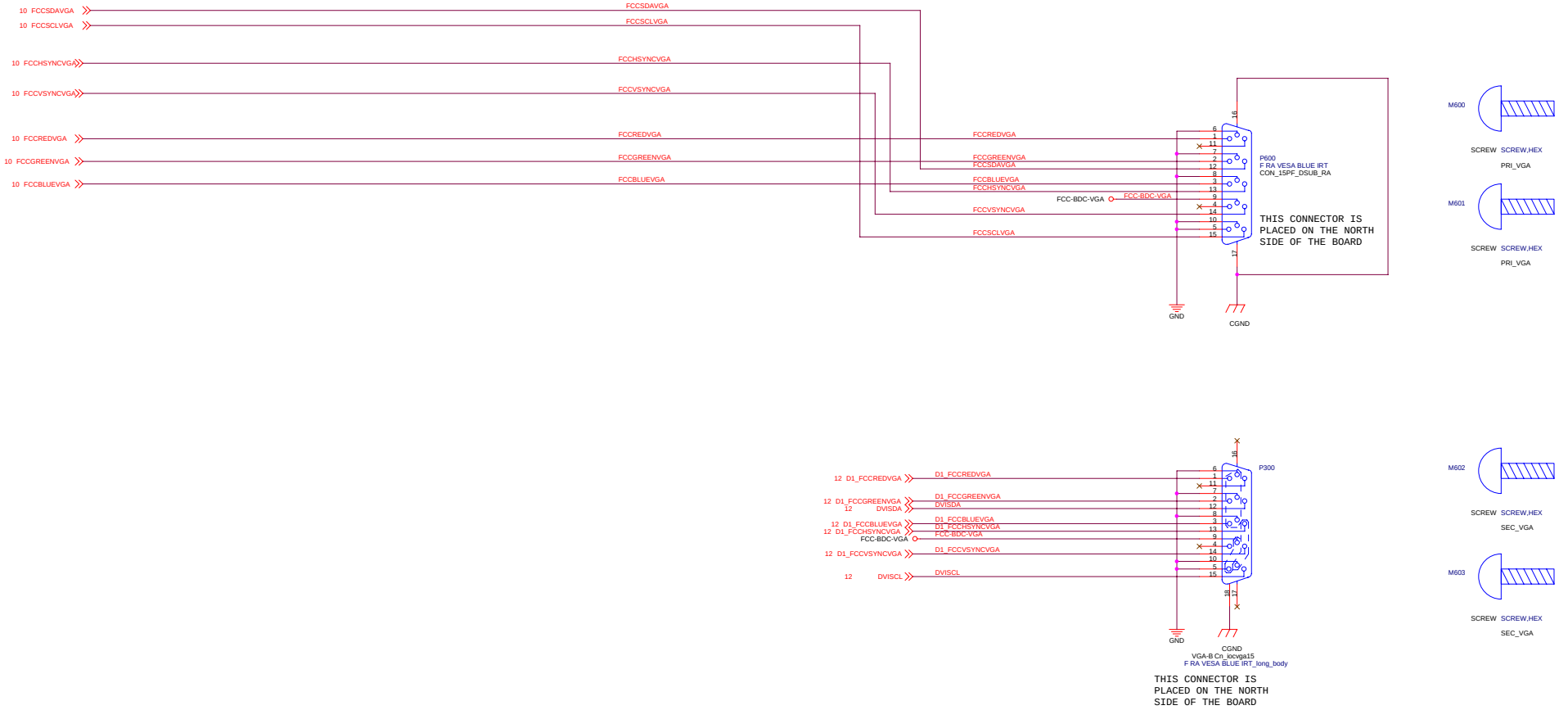

3.g DACB(A)/VGA-DB15 Connectors

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Santa Clara, CA 95051, USA

DACB(A)/VGA-DB15 Connectors

Size	CAGE Code	DWG NO	Rev
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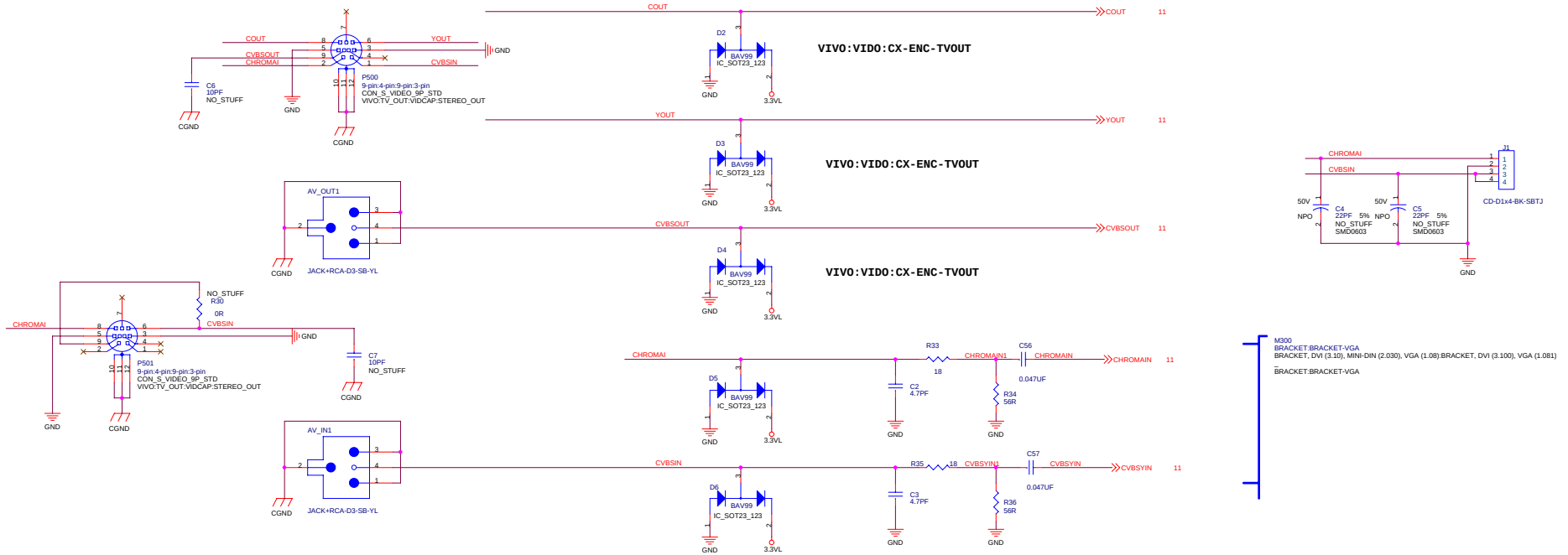
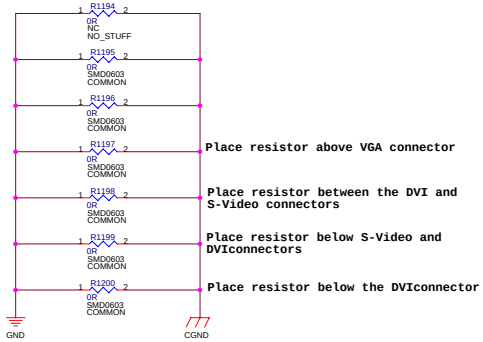


X-Components

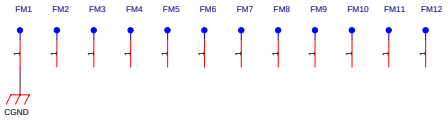


Place resistor above VGA connector

Place resistor between the DVI and S-Video connectors

Place resistor below S-Video and DVIconnectors

Place resistor below the DVIconnector



All of these components have been designated with the following Assembly: VIVO

3.h Connector - S-Video-Vidcap.

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Connector - S-Video-Vidcap.

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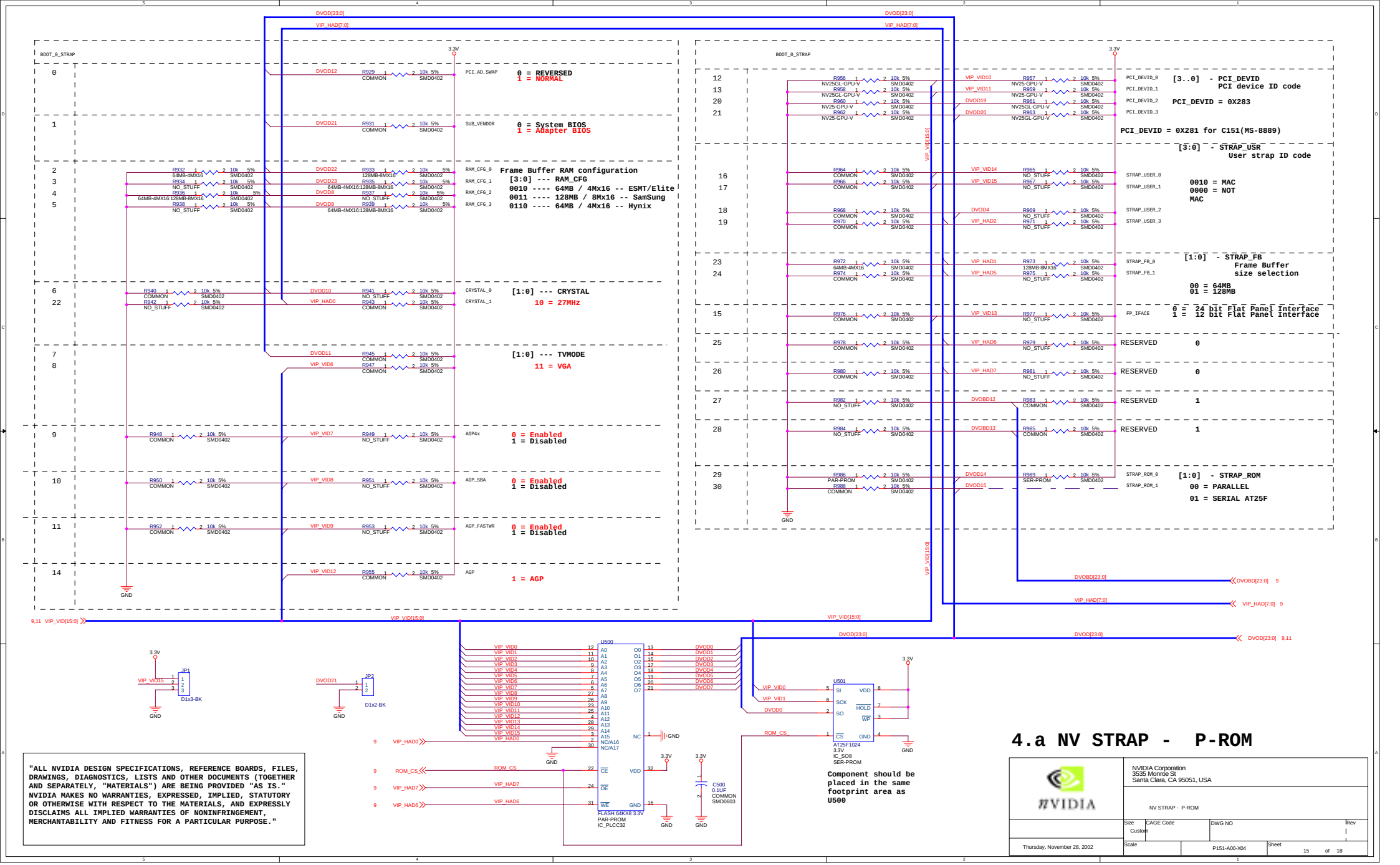

4.a NV STRAP - P-ROM

NVIDIA Corporation
3535 Monroe St
Santa Clara, CA 95051, USA

NV STRAP - P-ROM

Size	CAGE Code	DWG NO	Rev
Custom			

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Components C1250,C1251, R1076 and R1071 are installed only if the output caps have a low ESR. Example: C1304 = 510uF (OSCON low ESR 15mO)

Vout = 0.8 (1 + (Rtop/Rbot))

Regulated 3.3V

3.3V@500mA
Drop Out
225mV Typ.

NVVDD

Min: 1.641V, Typ: 1.665, Max: 1.690

FBVDDQ (Vout) = 1.25 x (1 + R1102/R1103)+55uA*R1103

FBVDDQ

5.a NVVDD/3.3VL POWER SUPPLY

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3535 Monroe St
Santa Clara, CA 95051, USA

NVVDD/3.3VL POWER SUPPLY			
Size: Custom	CAGE Code	DWG NO	Rev
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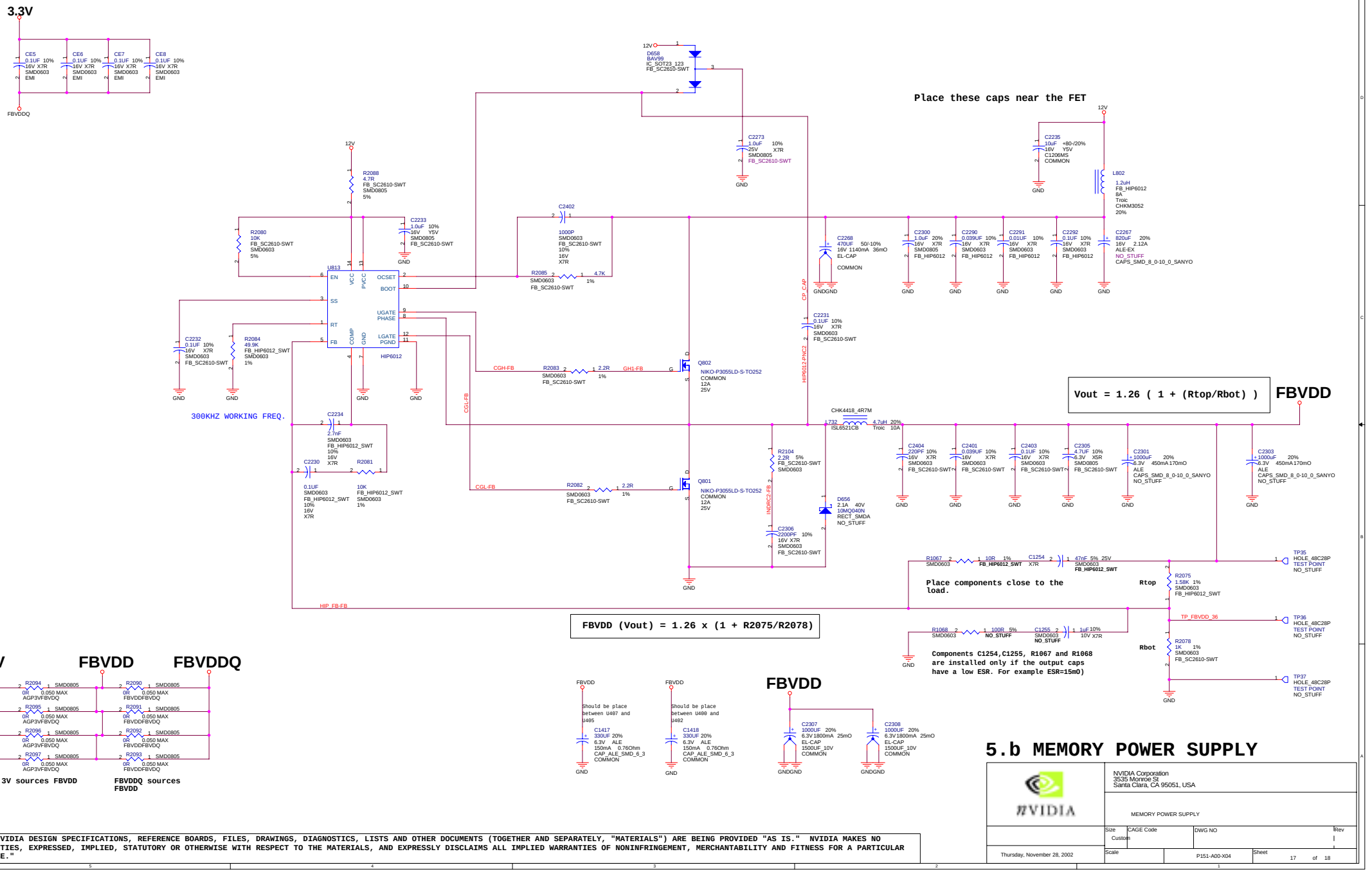

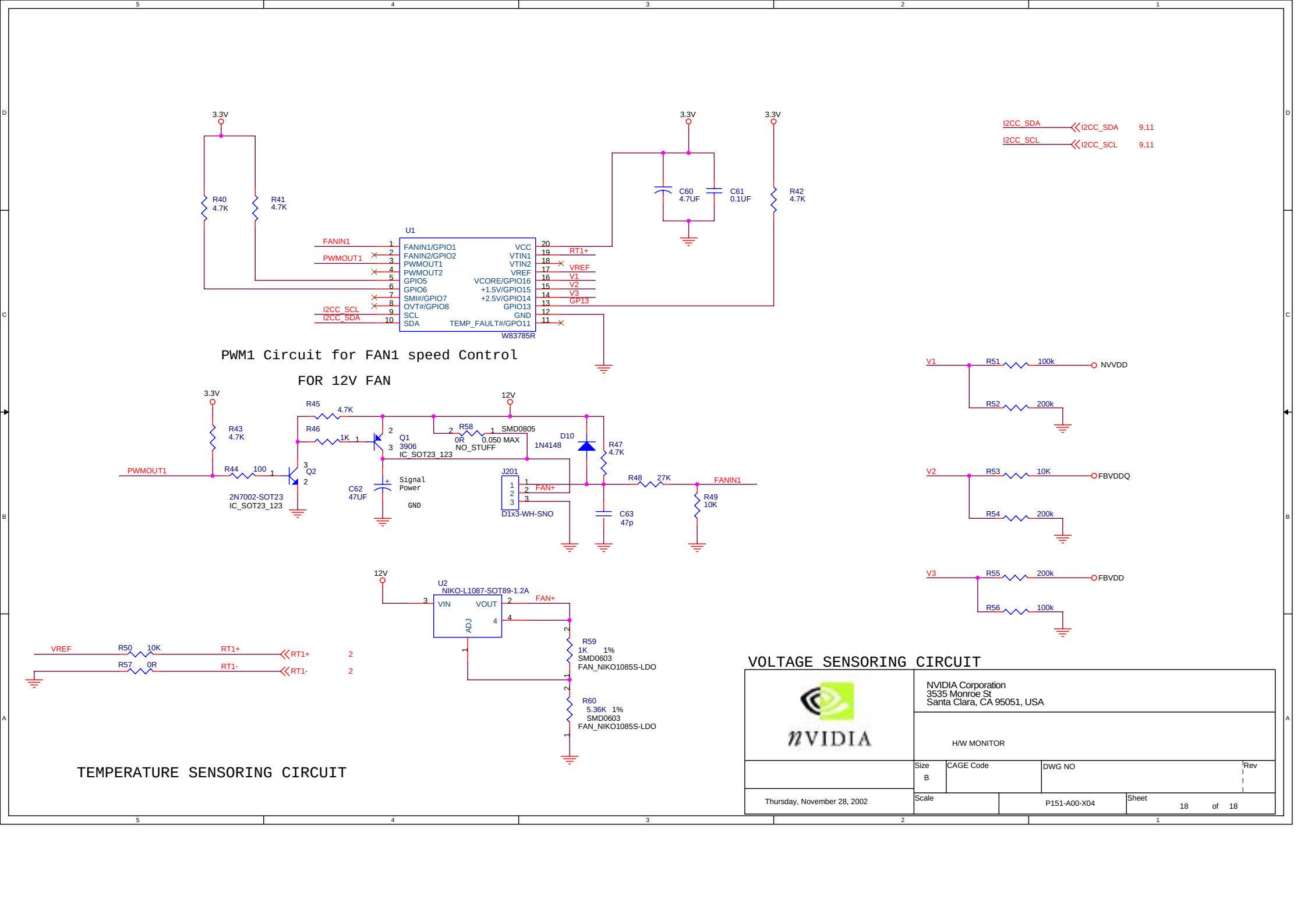
3.3V
R40
4.7K
R41
4.7K
U1
FANIN1
PWMOUT1
I2CC_SCL
I2CC_SDA
FANIN1/GPIO1
FANIN2/GPIO2
PWMOUT1
PWMOUT2
GPIO5
GPIO6
SMI#/GPIO7
OVT#/GPIO8
SCL
SDA
VCC
VTIN1
VTIN2
VREF
VCORE/GPIO16
+1.5V/GPIO15
+2.5V/GPIO14
GPIO13
GND
TEMP_FAULT#/GPO11
RT1+
VREF
V1
V2
V3
GP13
W83785R
3.3V
C60
4.7UF
C61
0.1UF
3.3V
R42
4.7K
I2CC_SDA
I2CC_SDA
9,11
I2CC_SCL
I2CC_SCL
9,11
PWM1 Circuit for FAN1 speed Control
FOR 12V FAN
3.3V
R43
4.7K
PWMOUT1
R44
100
2N7002-SOT23
IC_SOT23_123
R45
4.7K
R46
1K
Q1
3906
IC_SOT23_123
12V
R58
0R
0.050 MAX
NO_STUFF
SMD0805
D10
1N4148
R47
4.7K
C62
47UF
Signal
Power
GND
J201
D1x3-WH-SNO
FAN+
R48
27K
FANIN1
R49
10K
C63
47p
V1
R51
100k
NVVDD
R52
200k
V2
R53
10K
FBVDDQ
R54
200k
V3
R55
200k
FBVDD
R56
100k
12V
U2
NIKO-L1087-SOT89-1.2A
VIN
VOUT
ADJ
FAN+
R59
1K 1%
SMD0603
FAN_NIKO1085S-LDO
R60
5.36K 1%
SMD0603
FAN_NIKO1085S-LDO
VREF
R50
10K
RT1+
RT1+
2
R57
0R
RT1-
RT1-
2
TEMPERATURE SENSORING CIRCUIT
VOLTAGE SENSORING CIRCUIT
NVIDIA Corporation
3535 Monroe St
Santa Clara, CA 95051, USA
H/W MONITOR
Size
B
CAGE Code
DWG NO
Rev
Thursday, November 28, 2002
Scale
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