Revision History

## Schematics taken from P151-A00-X24 MS-8889 00A

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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/S08.
 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.
 002-0624
 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.0905 and 0201 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 "PCT DEVID =253" to "PCT DEVID =283".
5)page 17 a.R2085 change value to 4.7K.
           b.U3 change refernce to U813.
 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.
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%.
1)Page 2 - Add R111,R112 0ohm for thermal sensor.
2)Page 11 - Remove UI 7104H/QFP64.
 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
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1)Need to change Power net on R2088 sheet 17 to "12V"

Need to change Power Net on D658 sheet 17 to "12V".

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COMMON
                                                                                                                     NO STUFF
                                                                                                                     PRI DVI I
                                                                                                                     PRI PROT
00A-0716
                                                                                                                     SEC_DVI_I
1) Page 2 - a.R80 and R81 needs to be tied to "GND". right now it is tied to VDDQ.
                                                                                                                     SEC PROT
           b.R82 and R83 needs to be tied to "VDDQ".
             Pin 'R82.2' moved to net 'VDDQ'.
                                                                                                                     AGP3VFBDO
             Pin 'P83 2' moved to net 'VDDO'
                                                                                                                     FBVDD-FBDO
             Pin 'R81.1' moved to net 'GND'.
                                                                                                                     PLU-SEO
2)Page 2 - Pin 'Q901.3' moved to net 'AGP_MDT2'. This is the collector.
                                                                                                                     PWR-SEO
           Pin 'Q901.1' moved to net 'AGP_MDT4'. This is the BASE.
           Pin 'Q901.2' moved to net '3.3V'. This is the Emitter.
                                                                                                                     PWR-SEO-BP
3)Page 2 - Component value changes:
                                                                                                                     MAMD-3603
           a.R98 please change from 5.76K to 6.49K 1%.
                                                                                                                     FB 2610 SWT
           b.R110 and R105 change from 1.5K to 2.32K 1%.
c.0613 - Changed from 2N7002 to IRLML2502 (N-ch 20V 3A 0.08 on resistence).
                                                                                                                     SC1541
           d.0901A - change to MMBT4403LT1.
                                                                                                                     901565
                                                                                                                     FB64LO
00B-0728
                                                                                                                     FR64IIP
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.
                                                                                                                     SER-PROM
                                                                                                                     DAD_DDOM
3)Page 17 - a.Add CE4-CE8 for EMI 3.3V to FBVDDQ.
                                                                                                                     FAN HS-LFT
          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.
                                                                                                                     FAN_SNK
2)Page 16 - R1076 change to 6.49 ohm / 1%.
            C1250 change to 68nF.
                                                                                                                     HEAT SNK
            R1210 change to 13K / 1%.
                                                                                                                     VTVO
            C1448 change to 47nF.
            C1252 change to 2.2nF.
                                                                                                                     VIDO-7104
3)Page 17 - R1067 change to 10 ohm / 1%.
                                                                                                                     CX-ENC-TVOUT
            C2230 change to 100nF.
                                                                                                                     SOCKET
            R2081 change to 10K / 1%.
            C2234 change to 2.7nF.
                                                                                                                     64MB-4MX16
            R2075 change to 1.58K / 1%.
                                                                                                                     BRACKET
            R2084 change to 49.9K / 1%.
                                                                                                                     BRACKET-VGA
                                                                                                                     FB 2610 LDO
1)We need to change the Device ID from 0x283 to 0x281.
                                                                                                                     FBVDD ADJ
 So that means R959 is a NO STUFF and R258 is 10K.
                                                                                                                     FBVDQ_ADJ
2)Page 17 - R1121 change to 3.16K / 1%.
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.
1)Page 16 - Add Cap C1264,C2309,C2310(dual layout) for layout.
2)Page 18 - Add R58,R59,R60 and U2 for FAN power
100-0819
1)Page 16,17 - Remove C1263,C2267,C2301,C2303,C2309,C2310 for layout.
4)Page 10,12 - C325,C320,C1120,C1121 from 22PF change to 47PF.
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2)Page 16,17 - L801,L802 change Footprint to CHK\_3052\_08. 3) Page 3 - change P1107 to 113P and change P927 to 110P

Table of Contents 1. TOP Page 1.b AGP Interface 1.c NV25 .. PLL / DAC / I2C 2.a NV25 Frame Buffer Intf 2.b Frame Buffer 0..31 2.c Frame Buffer 32..63 2.d Frame Buffer 64..95 2.e Frame Buffer 96..127 3.a DVO A/B 3.b CX25871 TV-OUT 3.c DACB I/O, I2CB --PRI 3.d Video IN / OUT (SAA7801-SAA7804) 3.e DVOB External XMIT 3.f EX-XMIT Filter / I2CA 3.g DVI-\_ / VGA Connectors / HotPlug 3.h S-Video Connector / Filter / Bracket 4.a NV STRAP // P/S-ROM 5.a Power Sequence / 3.3VL Supp 5.b NVVDD Power Supply 5.c.FBVDDQ Power Supply 5.c.FBVDD Power Supply

Legend:

-----TPNC = Test Point - Not Connected

Description

Components are stuffed for all SKUs

Components stuffed for Primary VGA

Components stuffed for Secondary DVI

Components stuffed for PLL Sequence

Components stuffed for NVVDD Power

Components stuffed for FBVDD Power

Components stuffed for 3.3VL Fixed

Components stuffed for Serial PROM

Components stuffed for Parallel PROM

Components stuffed for Fan / Blower

Components stuffed for Video IN/OUT

Components stuffed for FBVDDQ Power

Components to adjust FBVVD out voltage.

Components to adjust FBVVDQ out voltage.

Components stuffed for Socket

IO Bracket / VGA-DIN-DVI-I

IO Bracket / VGA- -DVI-I

Components stuffed for CX25871 - TV-OUT

Fan Sink Component

Heat Sink Component

SAA7104 Video Out

Components stuffed for Power Sequence

Components stuffed for Primary Protection

Components stuffed for AGP 3.3V to FBVDD

Components stuffed for Secondary Protection

Components stuffed for FBVDDO 2.5V to FBVDD

Components stuffed for Power Sequence By-PASS

Components stuffed for SC1565 - 3.3VL Adj.

Components stuffed for FBA DATA and FBD DATA

Components stuffed for FBC\_DATA and FBD\_DATA

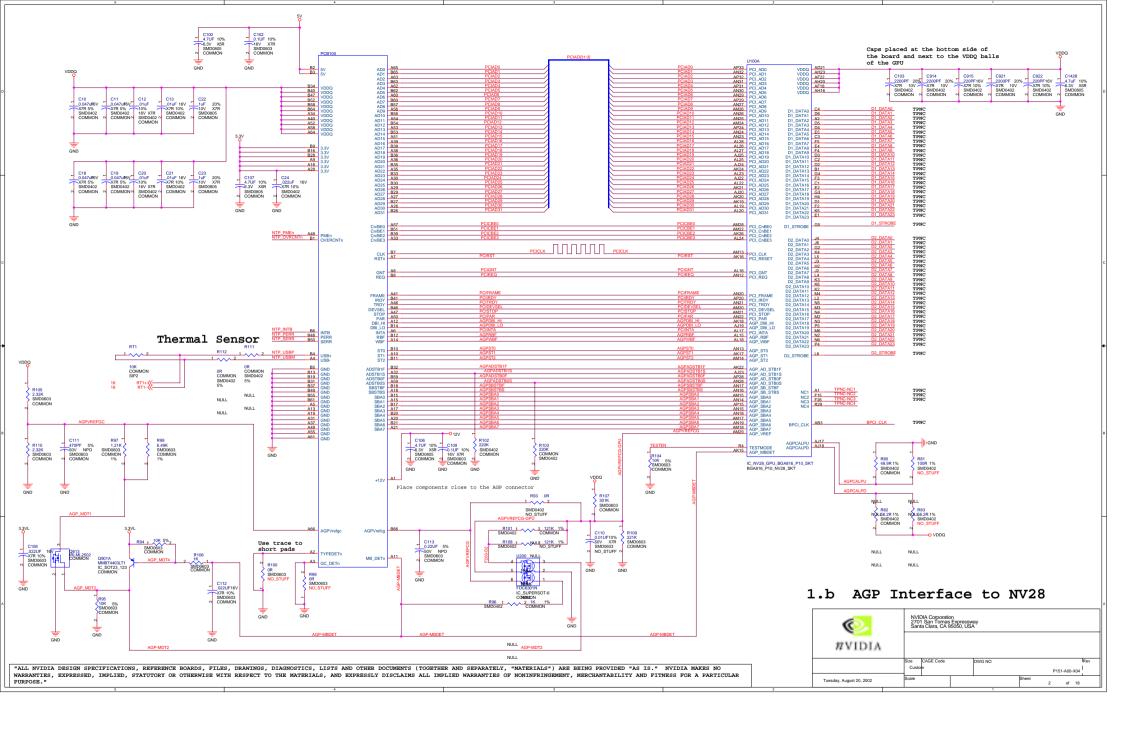
left of the GPII

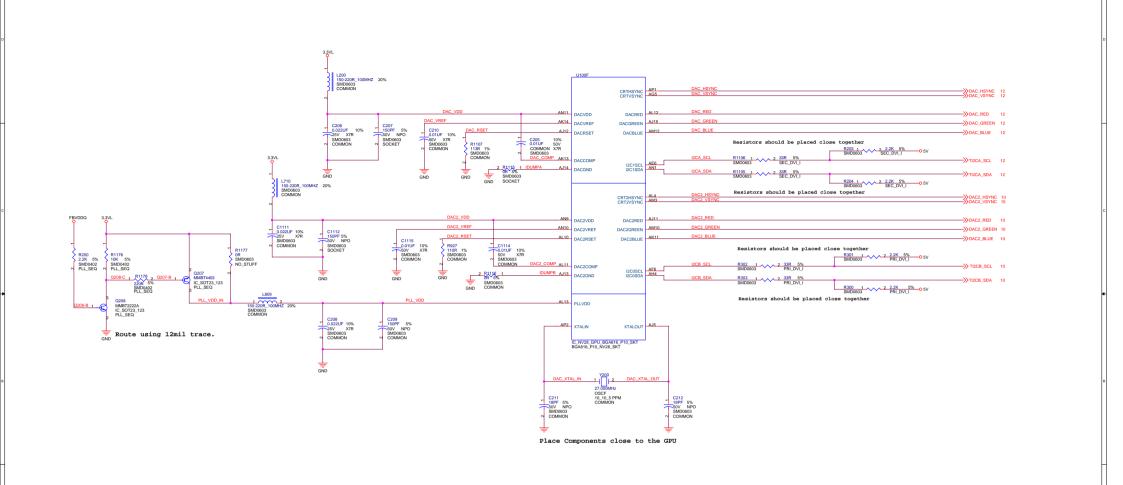
Components stuffed for Mem-CFG: 64MB (4Mx16) memory

Components are not stuffed

Assemblies







## 1.c NV28 .. PLL / DAC / I2C

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NVIDIA		NV28PL / DAC / I2C								
		Size	CAGE Code		DWG NO				lRev	
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