## MS-8854

NVVDD SET TO: 1.67V FBVDD SET TO: 3.63V FBVDDO SET TO: 2.59V

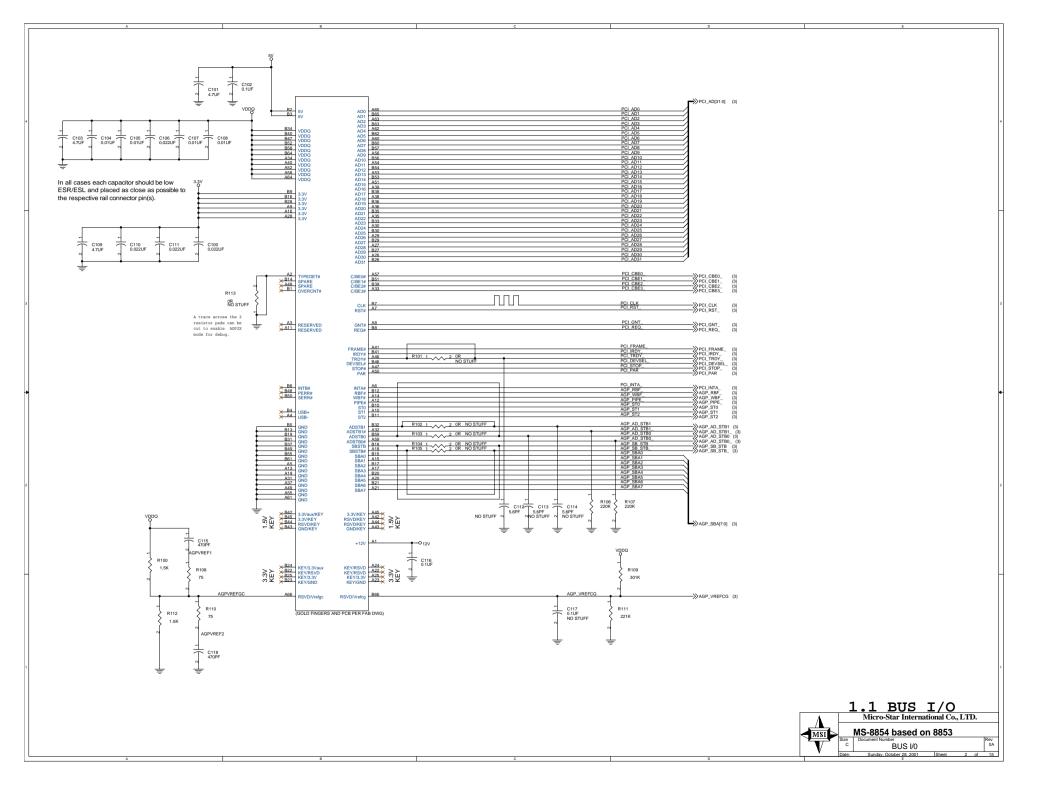
NV20, 4MX16 DDR, RGB, EXTERNAL DVI-I, TV-DOWN, TV IF, AGP4X

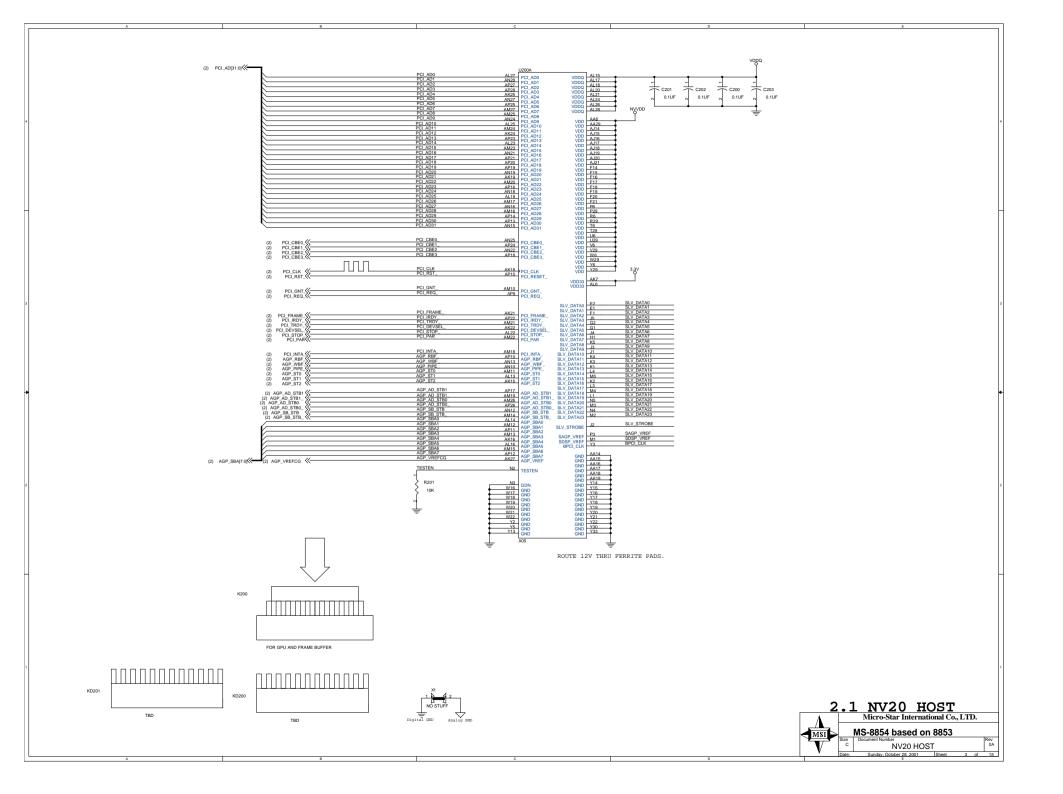
HISTORY REVISION: X00: Based on P50-A06 - See change list in 149- file. - Set FBVDDQ=2.59V D50-A07-Y01: - Changed all memory clk/clk# diff pair resistors to 68R 5% (from 47R) X04: - Delay PLL VDD to come up after NVVDD. X05: - Added 1UF accross R257. X06: - Removed X04-5 above, added a switcher generated PLL delay option. - SSENA cap for 2nd SW changed to 1UF. - A05 Si, NVVDD=1.52V P50-A09: XO2: - Changed PLL VDD and DAC VDD to be gated by Fet controlled by FBVDD power good signal. X03: - Added option to pull up power good to 12V ECO1235: - Changed R841 PU to 10K (from 4.7K) P50-A10: Removed unintended shorts between the analog ground and the digital ground (layout affected only). P50-A11: Isolate analog and chassis GND from the main digital GND. Generate clean 3.3V onboard (3.3VL), used on TV, TMDS and DAC/PLL. Added 100R resistor on each of the lower FET in series with 680pf. Removed Shunt Regulator TL431 used previously for external TMDS. RGB filters are now back to P50-A09 style. Removed SLI connector. Added Linear bypass option resistor. Reference PVCC1 and PVCC2 filtering caps to PGND pin (digital GND). All plane bridge "X" components will be initially stuffed with OR resistors. Power Supply power sequencing to remain as P50-A09 style. X76 is where All and B00 are branced off. B00 is official after Dell's review. B00-X01: R241 and R242 silkscreens are swapped. The bd may look like R241=NOSTUFF and R242=STUFF (but it's the other way around: BOM is correct). Added diff pairs parallel terminations (Res, 0603, 300R) Populated C897 with 150uF to lower DFP supply noise. C00: Added 700mA circuit from 5V to 3.3V No Stuff on 3.3V Power Patch. Set FBVDD to 3.6V max. C01: 1. Added L804 to connect PLL VDD SW to FBVDD 2. Changed R259 and R261 connected to PLL VDD SW net created, was connected to 3.3VL

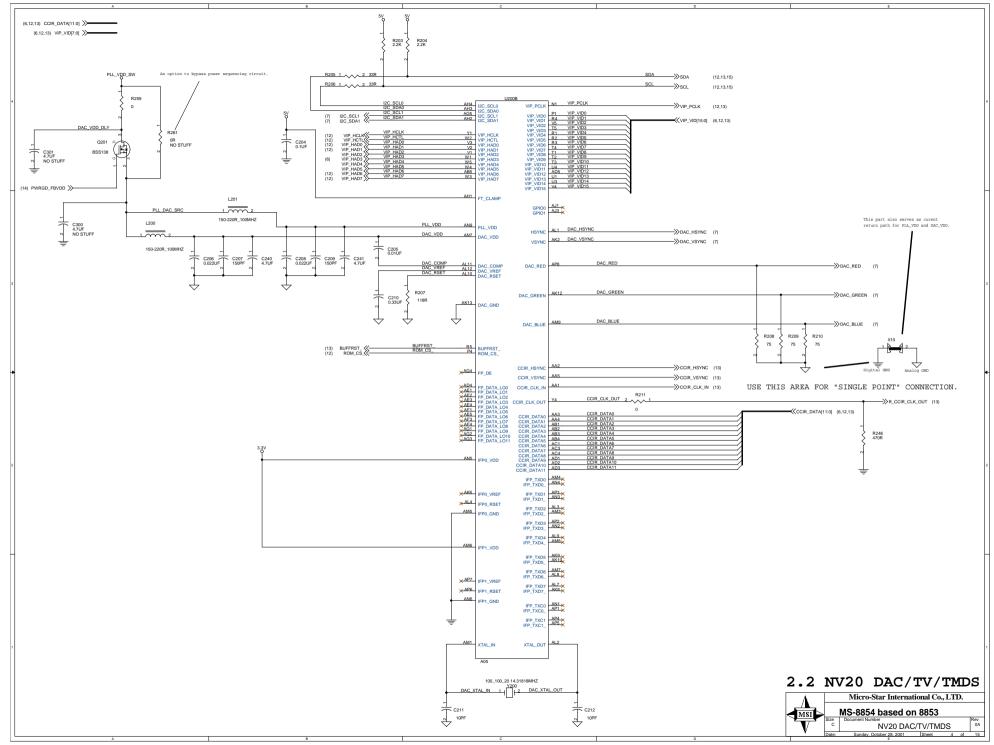
3. Added two more ground termination 0-ohm resistors X13 and X14.

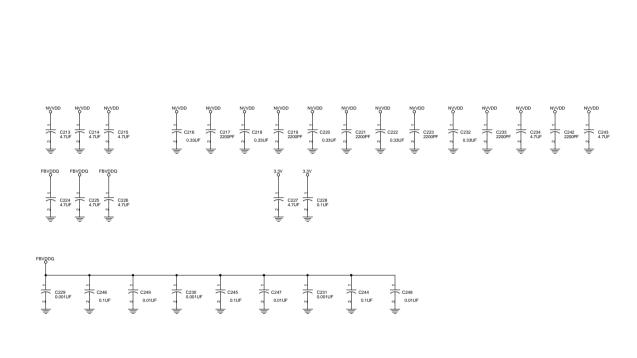
## 0. TOP PAGE





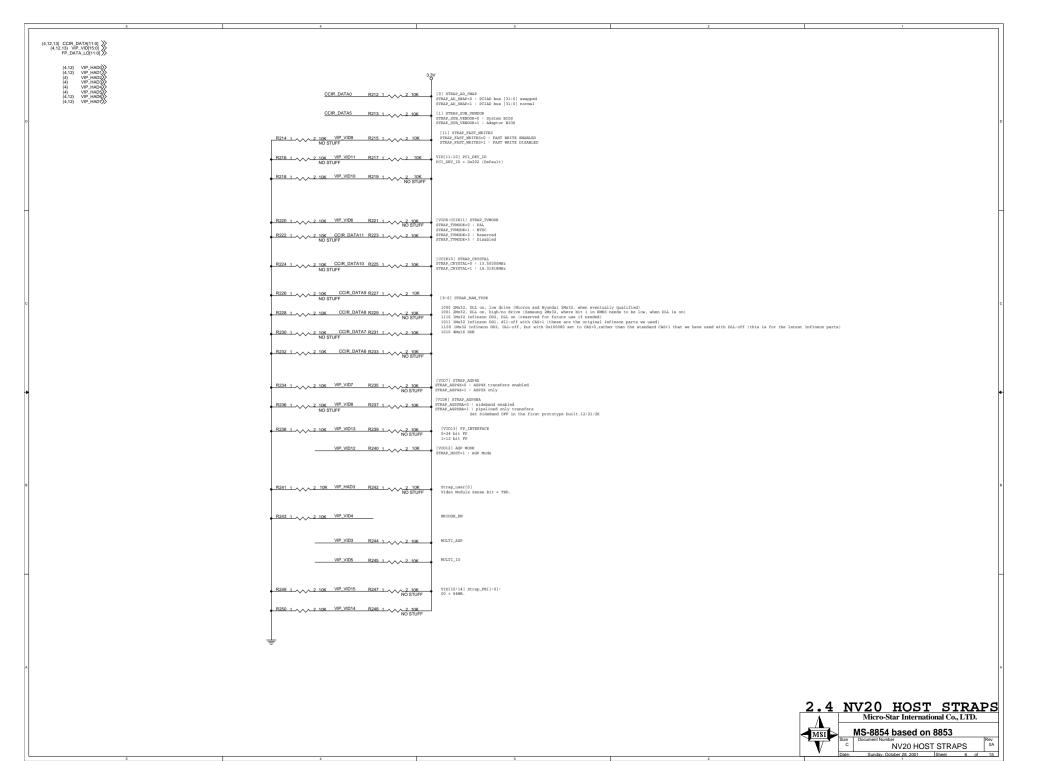


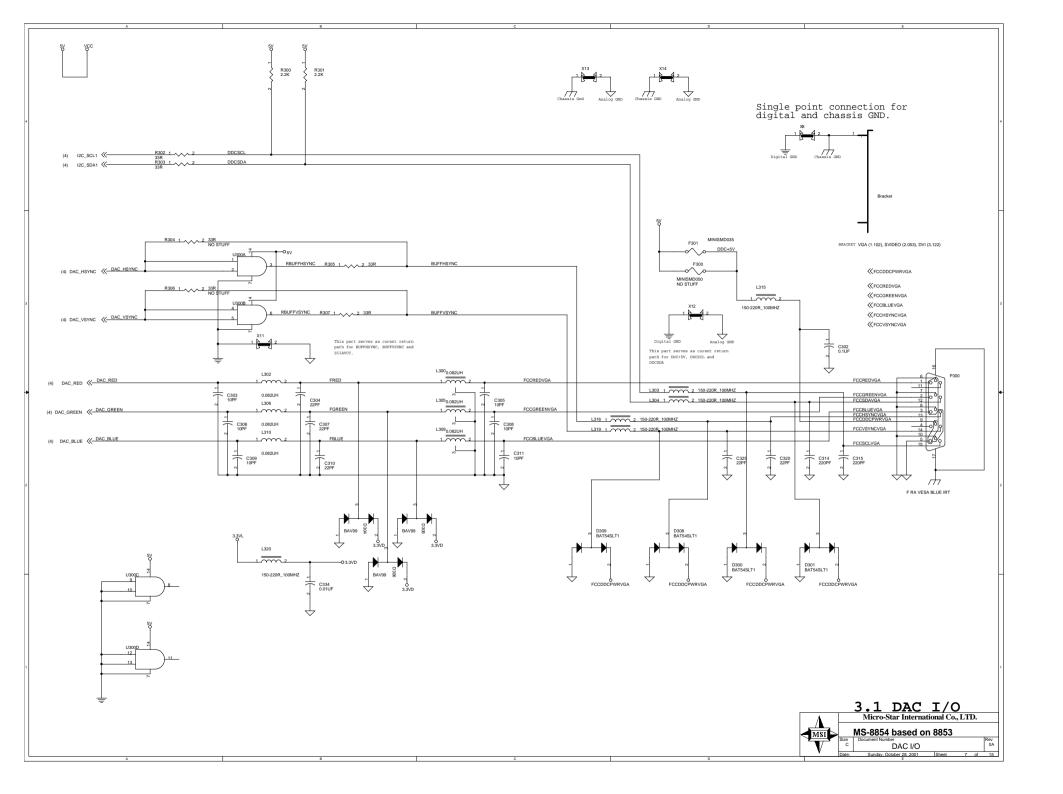


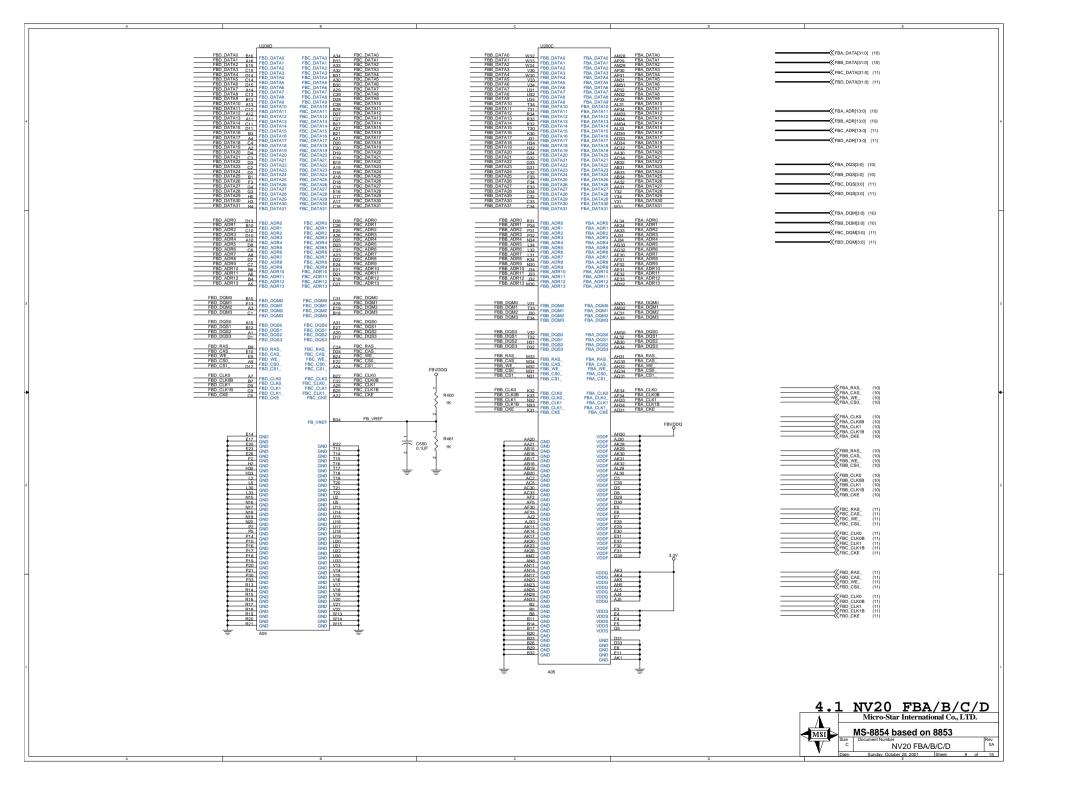


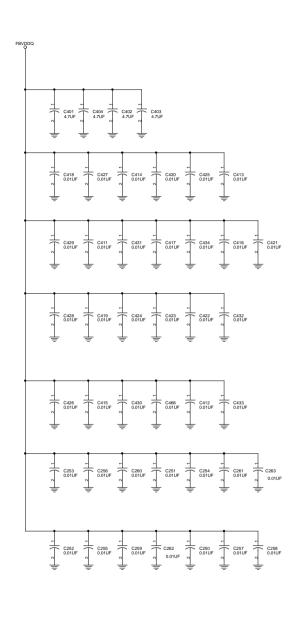
## 2.3 NV20 DECOUPLING

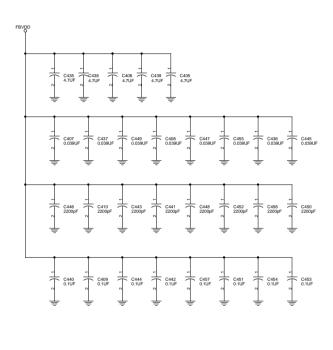
DIS MILO DECOGEDENC				
Α	Micro-Star International Co., LTD.			
MSI	MS-8854 based on 8853			
	Size	Document Number		Rev
	С	NV20 DECOUPLING		
_ •	Date:	Sunday, October 28, 2001 Sheet 5	of	15











## 4.2 FB DECOUPLING 4MX16 SDRAM



