

P75, NV17-Pro, 4MX32 DDR BGA, 64MB, RGB, dual DVI-I, VGA TV-out, video capture, stereo, AGP4X



HISTORY:

A01-X00:  
started with P75-A00  
added the TV-out filter to the TV\_OUT\_CK assembly  
fixed strapping hops for xtal and vco  
remove the Conexant TV encoder  
add serial termination for the DVO port

A01-X01:  
changed switcher input to 3.3V  
added 2.8V supply for 1PFPPLMVD

A01-X02:  
added possible OCSet circuit to Semtech switcher (R640,R641,C640)

A01-X03:  
DVO pinswap

A01-X04:  
fixed 0603 caps on 0402 footprints


PCI DEVICE ID 0X0 see strapping options.

PAGE OVERVIEW

- 1 TOP (this) page
- 2 1. AGP interface, core decoupling
- 3 2.a NV17 Frame Buffer
- 4 2.b Frame Buffer 0..63
- 5 2.b Frame Buffer 64...127
- 6 3.a DAC\_A, DAC\_B, XTAL
- 7 3.c DAC\_A VGA
- 8 3.d DAC\_B VGA
- 9 3.e Int. Transmitter
- 10 5.b PH-Video Decoder
- 11 5.c TV out, Video Capture
- 12 6.a NVVDD Power Supply, VDD33
- 13 6.b Analog Power Supply, FBVDDQ
- 14 7 BIOS, Strapping

Stuffing Options

Stuffing Options	Meaning
COMMON	the common components
1117	stuff fixed 1117 linear regulator for analog 3.3V
1117_ADJ	stuff adjustable 1117 linear regulator for analog 3.3V
NO_1117	bypass the linear regulator for analog 3.3V
BP_FBVDDQ	bypass the linear regulator for FBVDDQ (=> FBVDDQ=FBVDD)
SET_FBVDDQ	set the FBVDDQ voltage (memory IO)
SET_FBVDD	set the FBVDD voltage (memory core)
SET_NVVDD	set the NVVDD voltage (GPU core)
BP_VDD33	bypass the VDD33 voltage for the GPU
VDD33	stuff the VDD33 regulator components
SET_VDD33	set the VDD33 voltage
SC	stuff the Semtech switcher
SC1565	stuff FBVDDQ voltage regulator SC1565
IRU	stuff the IR switcher
IRU_VID	stuff the VID setting resistors of the IR switcher
IRU_POWSEQ	stuff the power sequencing circuit for the IR switcher
VIDCAP	stuff the video capture circuit with SAA7114
TV_OUT_PH	stuff TV-out with the Philips encoder SAA7102
VIVO	stuff video in/out with SAA7108
VGA-B_PROT	stuff the protection diodes around DAC B
DVI-I_A_PROT	stuff the protection diodes around DVI-I A
VGA-B	stuff the VGA connector at DAC B
VGA-B-SYNCBUFF	stuff the sync buffer for DAC B/DVI-I-B
DVI-I-A-SYNCBUFF	stuff the sync buffer for DVI-I-A
NO_DVI-I-A-SYNCBUFF	bypass the sync buffer for DVI-I-A
NO_VGA-B-SYNCBUFF	bypass the sync buffer for DAC B/DVI-I-B
DVI-I-A	stuff the DVI-I at DAC A (and the SII164)
DVI-I-B	stuff the DVI-I at DAC B (and internal transmitter)
STEREOSYNC1	stuff the stereo synchronisation for DAC A
STEREOSYNC2	stuff the stereo synchronisation for DAC B
STEREOSYNCS	stuff the switchable stereo synchronisation
STEREO	stuff the stereo circuit
A_HPLUG	stuff the hot plug detection for DVI-I-A
B_HPLUG	stuff the hot plug detection for DVI-I-B
XOR_HPLUG	stuff the hot plug detection for DVI-I-A and B
VGA-TV-DVI	use the VGA-TV-DVI bracket
VGA-TV	use the VGA-TV bracket
VGA	use the VGA bracket
DVI-TV-DVI	use the DVI-TV-DVI bracket
PASSIVE_HS	use the passive heatsink
FAN	use the fan heatsink and stuff all associated components
TH_Control	stuff the thermal control circuit
MEMORY	the memory stuffing
MEM_STRAP_1111	strap the memory to 1111 (= 4Mx32, 1DQS per 32bit)
MEM_STRAP_1101	strap the memory to 1101 (= 4Mx32, 1DQS per 8bit)
NV17-Pro	stuff the NV17 Pro
NV17-P-GL	stuff the NV17 GL Pro

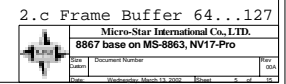


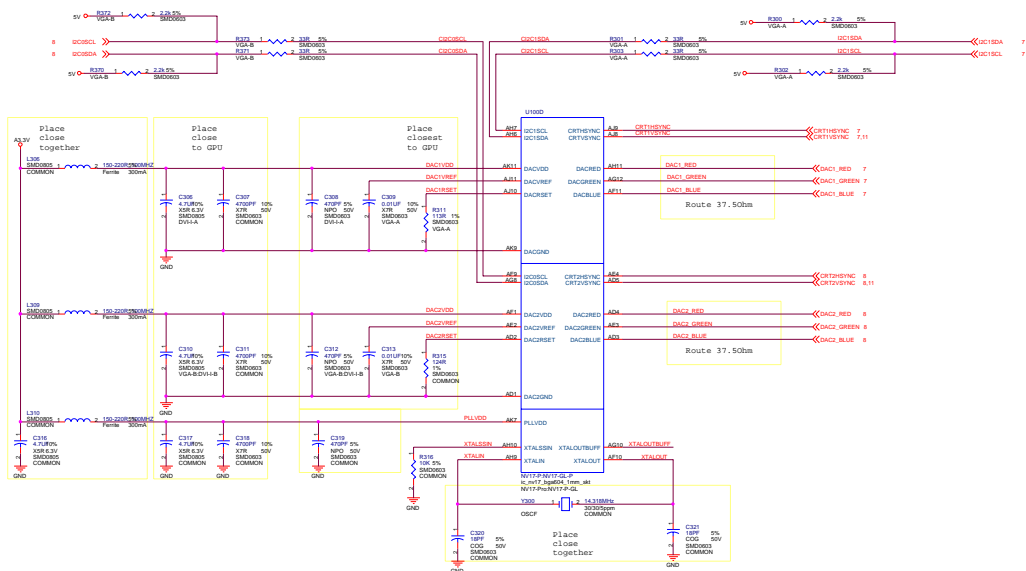
Micro-Star International Co., LTD.			
8867 base on MS-8863, NV17-Pro			
Date:	Document Number:	Rev:	Ver:
2000.08.01	MS-8863, NV17-Pro	01	1.0

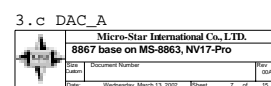








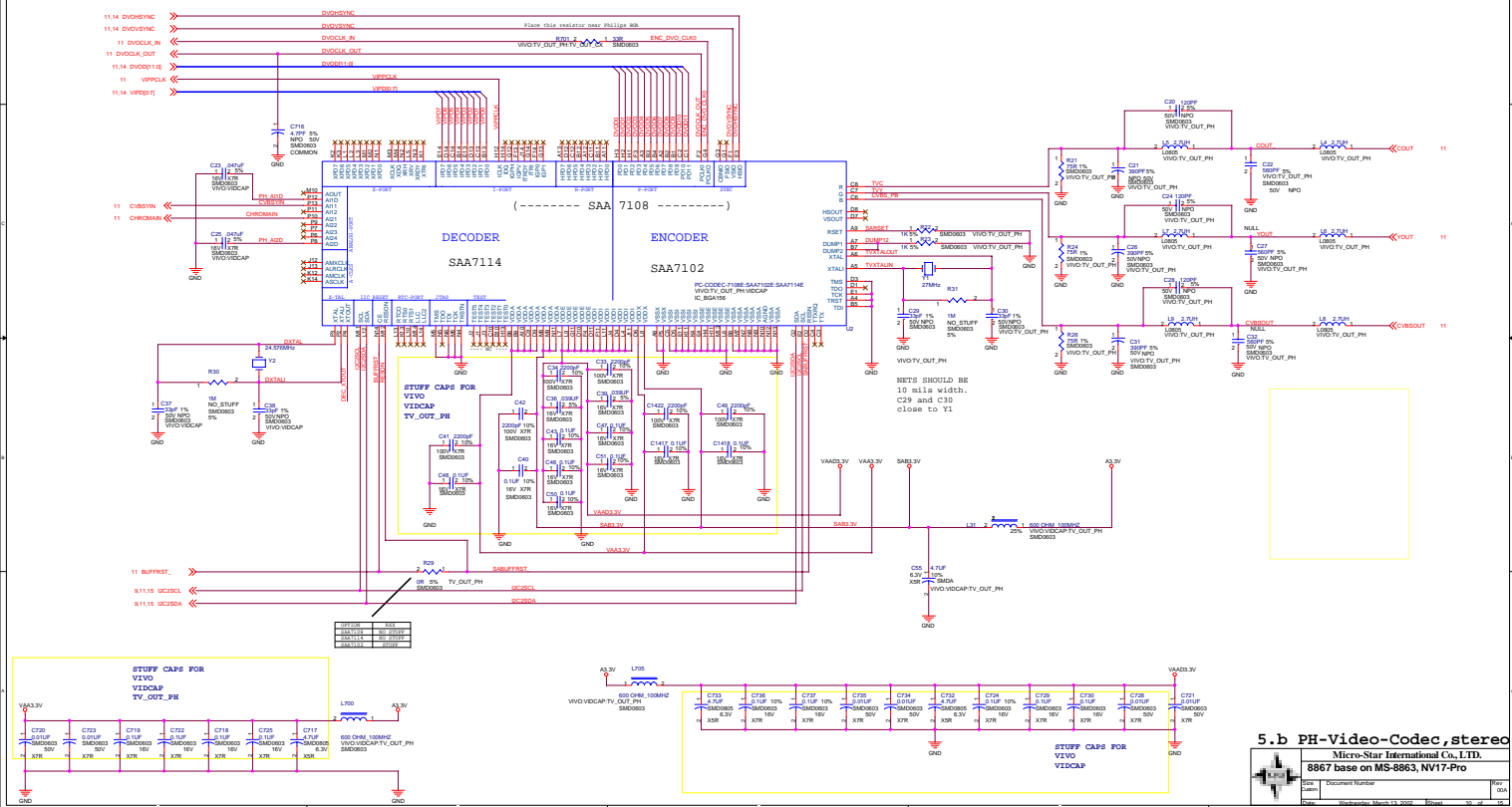


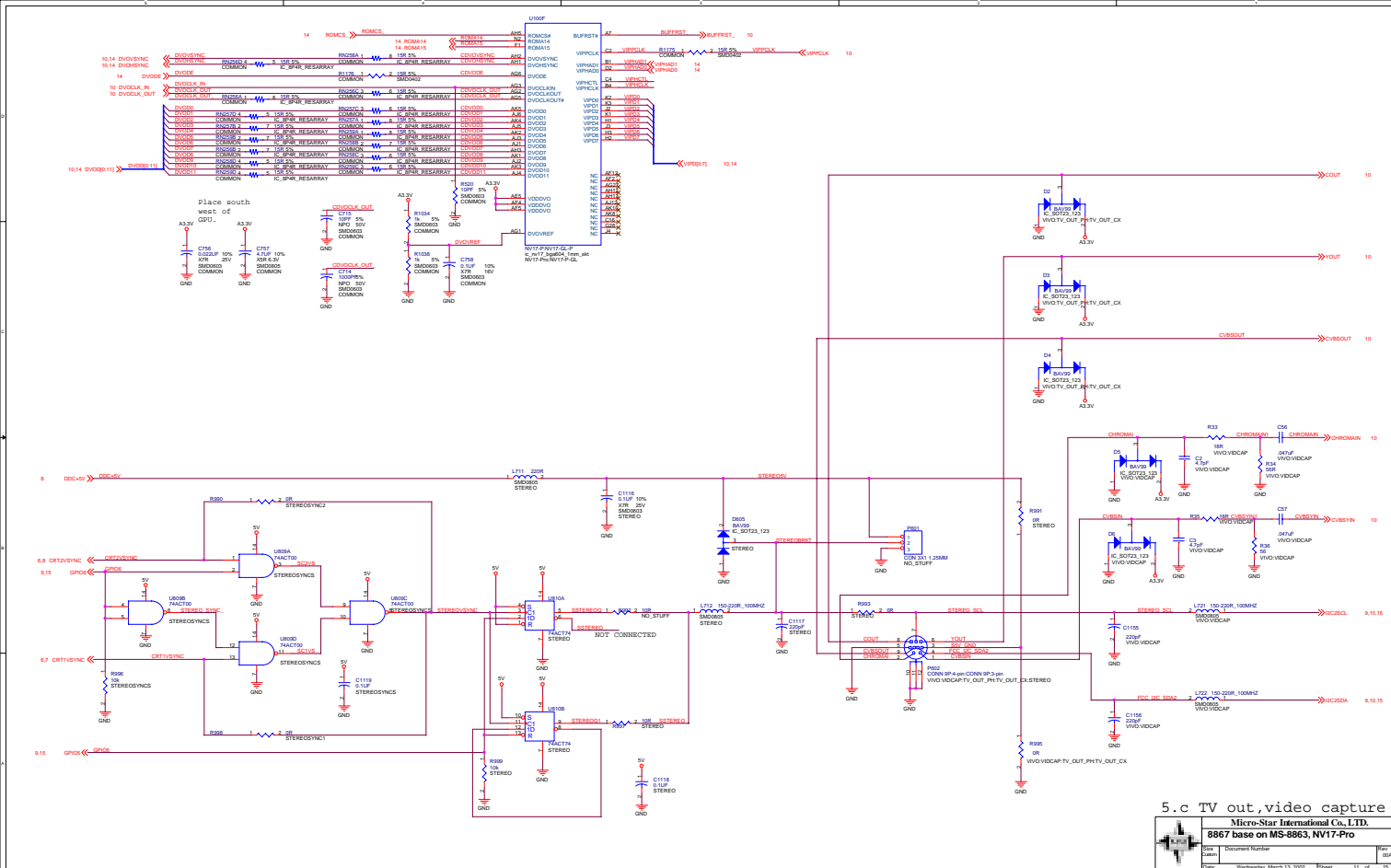




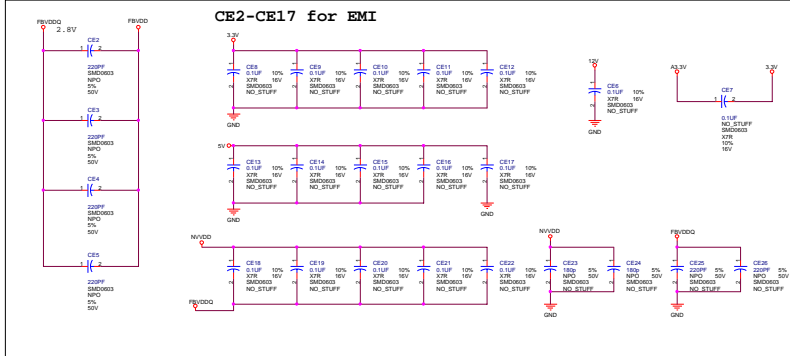
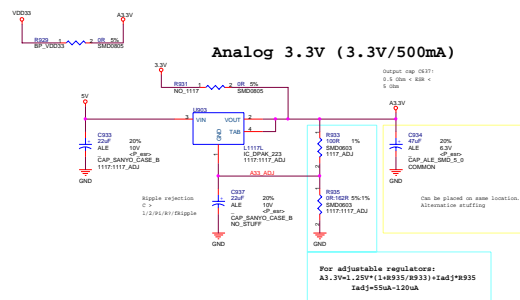
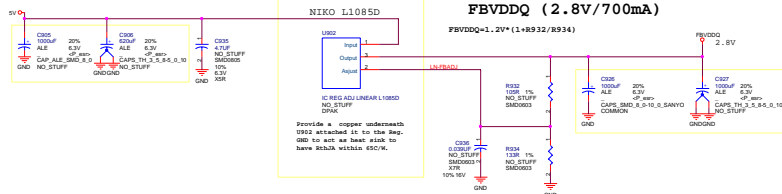
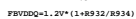
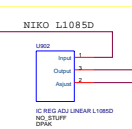




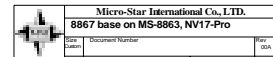


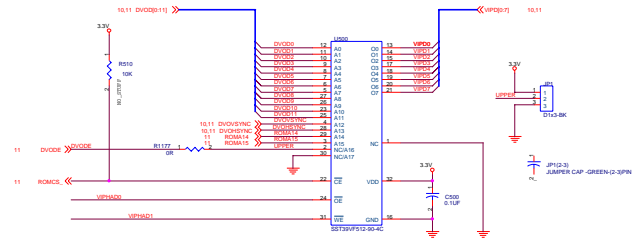
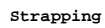






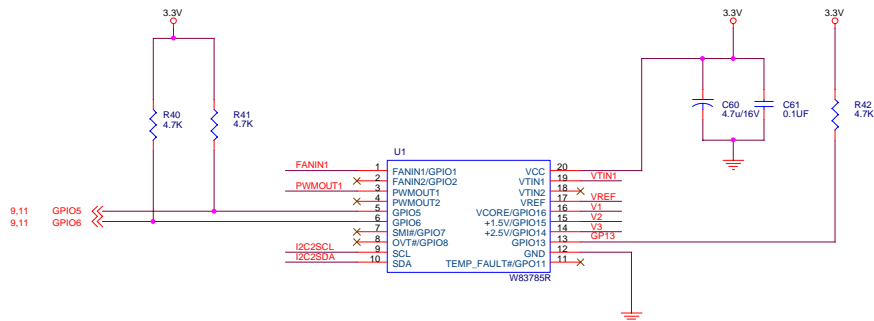
6.b Analog power supply, FBVDDQ



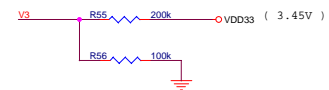
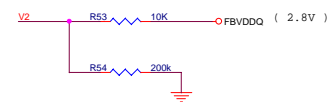
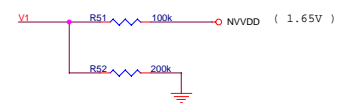


	<b>Micro-Star International Co., LTD.</b> 8867 base on MS-8863, NV17-Pro
---	---

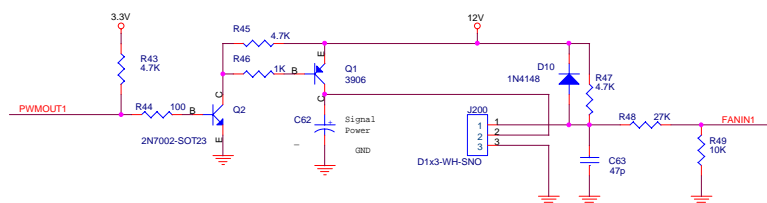
Page: Wednesday, March 13, 2002 Sheet: 54 of 54



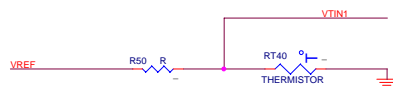
I2C2SDA << I2C2SDA 9,10,11  
I2C2SCL << I2C2SCL 9,10,11



VOLTAGE SENSING CIRCUIT



PWM1 Circuit for FAN1 speed Control  
FOR 12V FAN



TEMPERATURE SENSING CIRCUIT

Micro-Star International Co., LTD.			
8867 base on MS-8863, NV17-Pro			
Size	Document Number	Rev	
B		00A	
Date:	Wednesday, March 13, 2002	Sheet	15 of 15