

HISTORY:

MS8866-0B

P70, NV17, 2M/4MX32 DDR, 32MB/64MB, RGB, TV-out, video capture, T-BIOS, Hardware Monitor, AGP4X

X00:
first version for layout start. No video capture, no stereo. NO DRC CHECK.

X01:
fixed PCB footprints for IC, SO14, 150MIL and CON_DVH_RA
added end-termination r-packs for address-status-bus
changed RGB filter to integrated 5-pole only
added video capture, BIOS, Strapping
changed RefDes
NO DRC CHECK

X02:
added missing end termination for FBBAx
changed stereo 3pin header
added clamp diodes for TV-out and video capture
changed topology for 2nd DDC (VGA / DVI)
NO DRC CHECK

X03:
splitted analog/digital supply for SAA7113 (no component change)
Fixed some RefDes
Changed the strapping resistors cases to 0402
NO DRC CHECK

X04:
changed C617 to SMD0603
changed U502 and U503 to TSSOP14
added CKE connection to the memories
added D505 to the stereo section
changed L501, L502, L503 to 0603
NO DRC CHECK

X05:
changed U601 to SOT223-DPAK-D2PAK
added bracket
changed L600 to IND_CDR73
added VIP connector
NO DRC CHECK

X06:
deleted VIP
changed TPs to HOLE_48C28P
changed switcher gate circuit (no component change)
added C641 and C642 to the linear voltage regulator
pinswap of memory termination
NO DRC CHECK

X07:
deleted page 10: 5.b V/Io
changed filter topology for RGB
added return traces for RGB
NO DRC CHECK

X08:
added TV filter caps with reference to GND (C511,C517,C522)
separated RGB returns (NOTE: there will be a change for DAC2)
NO DRC CHECK

X09:
added net names to unused panel signals (test points)
NO DRC CHECK

X10:
added decoupling for DVO rail (C529 and C530)
added GND connection to pin 1 of U700
added R520 pull down for DVOCLKIN
DRC CHECK DONE

X11:
changed caps in power section to the combined footprints

X12:
data bus swappings

X13:
swapped CLKs for U201 and U202

X14:
connected the RGB returns of VGA2 together

X15:
update materials

X16:
update stuffings

X17-A01:
release A01
changed DVOVDD from VID3.3V to A3.3V
add linear regulator for NV17's VDD33
connected the IFP-RSETs to GND
deleted C134 and C135

PCI DEVICE ID 0X0=0X171 FOR NV17-128D.

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 Dual DAC, 1st VGA
- 7 3.b Dual DAC, 2nd VGA
- 8 4. Panel
- 9 5.a TV-out, video capture
- 10 6. Power supply
- 11 7. BIOS, Strapping
- 12 8. Hareware Monitor

Stuffing Options

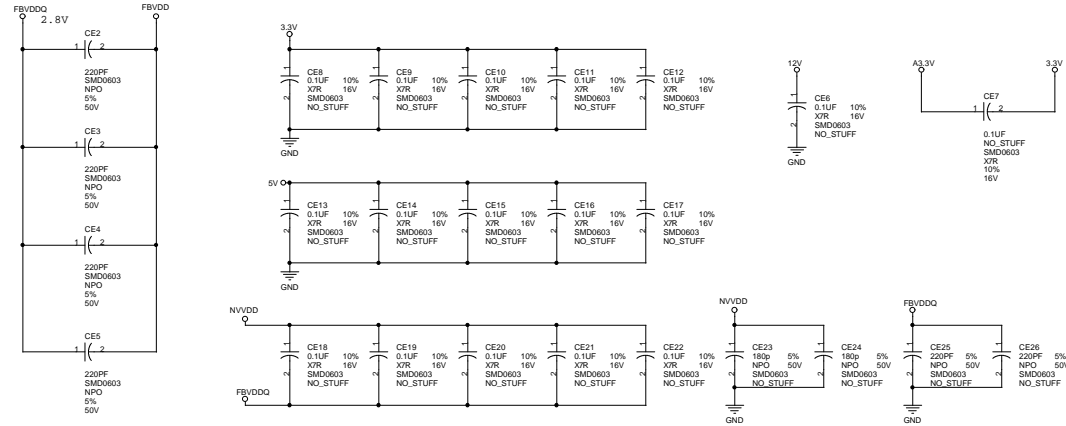
Meaning

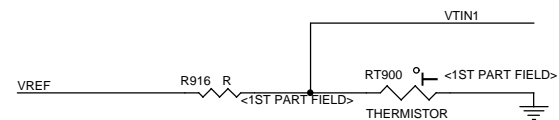
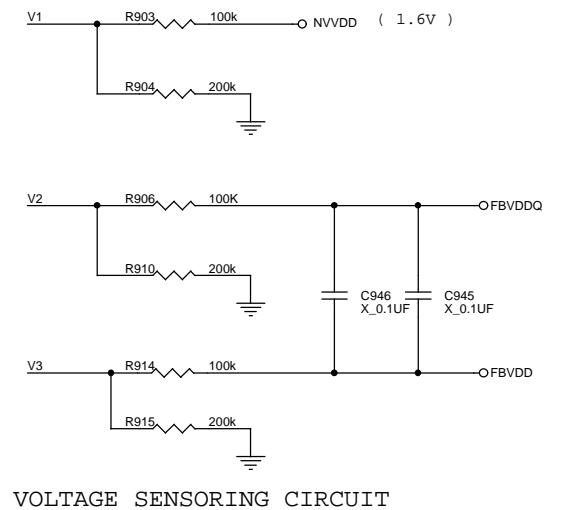
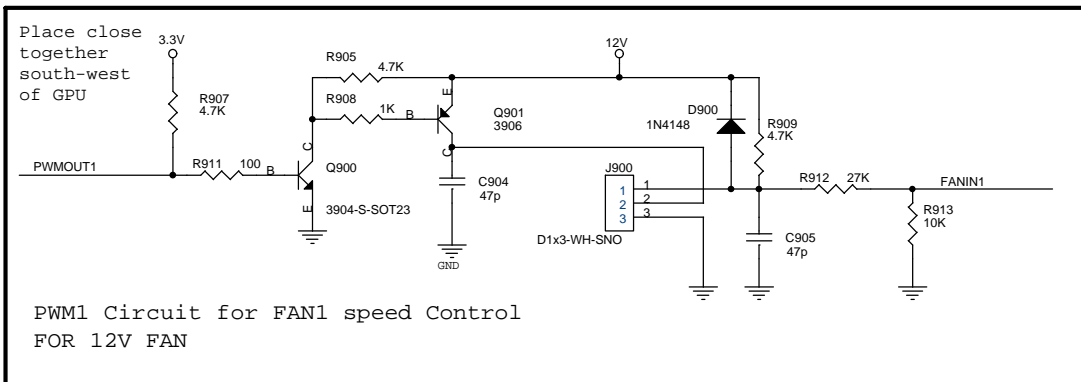
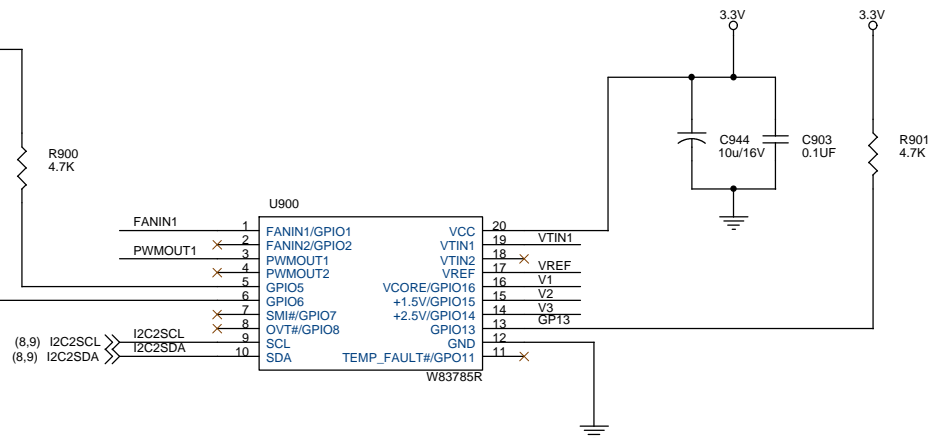
COMMON	common components for all skus
NO_STUFF	no assembly at all
XTAL_27	stuff the 27MHz xtal for the GPU
XTAL_14	stuff the 14.318MHz xtal for the GPU
VIVO	stuff video I/O
VIDCAP	stuff video capture
TV_OUT	stuff TV-out
DVI-I	stuff the DVI-I option
DVI	stuff the DVI-D option
2NDVGA	stuff a second VGA
NO_DVI	don't stuff any DVI
SYNC_DRIVER2	stuff the termination resistors for the DACB syncs
SYNC_DRIVER	stuff the sync driver chip
NO_SYNC_DRIVER2	bypass the sync driver for the DAC B syncs
NO_SYNC_DRIVER	bypass the sync driver for the DAC A syncs
STEREOSYNCS	stuff the switchable stereo sync circuit
STEREOSYNC2	sync stereo to DAC B
STEREOSYNC1	sync stereo to DAC A
STEREO	stuff the generic stereo circuit
SI2C_PROT	stuff the protection diodes for syncs and I2C at DAC A
RGB_PROT	stuff the protection diodes for RGB at DAC A
2NDVGA_RGB_PROT	stuff the protection diodes for RGB at DAC B
2NDSI2C_PROT	stuff the protection diodes for syncs and I2C at DAC B
SET_NVVDD_ISL	set NVVDD voltage at Intersil switcher
SET_NVVDD_IRU	set NVVDD voltage at IR/Uniseml switcher
SET_FBVDDQ_ISL	set FBVDDQ voltage at Intersil switcher
SET_FBVDDQ_IRU	set FBVDDQ voltage at IR/Uniseml switcher
NO_1117	bypass the A3.3V regulator to AGP3.3V
ISL	stuff the Intersil switcher
IRU	stuff the IR/Unisem switcher
FBVDD_3.3	connect FBVVDD with AGP3.3V
FBVDD_2.5	connect FBVVDD with FBVDDQ
1117_ADJ	stuff the adjustable regulator for A3,3V
1117	stuff the fixed regulator for A3,3V
PASSIVE_HS	have passive heatsink
FAN	fan sink and components
BRCKT_VGA_TV_VGA	Bracket VGA-TV-VGA
BRCKT_VGA_TV_DVI	Bracket VGA-TV-DVI
BRCKT_VGA_TV	Bracket VGA-TV
BRCKT_VGA	Bracket VGA
MEMSTRAP1111	strap memory to 1111
MEM-64B	stuff 64 bit memory - 2pcs
MEM-128B	stuff 128 bit memory - 4pcs
NV17-128D	stuff NV17-128D

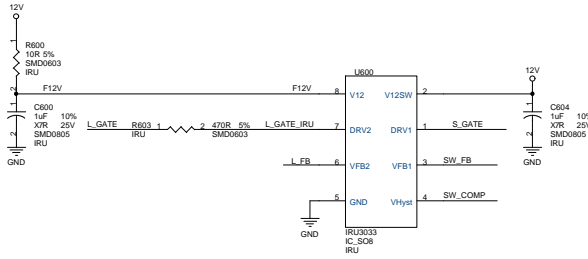
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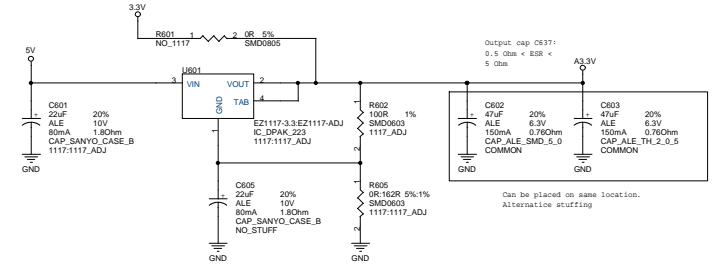
CE2-CE17 for EMI



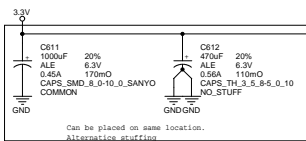




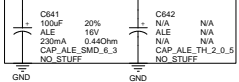
Analog 3.3V



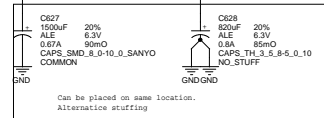
For adjustable regulators:
A3.3V=1.25V*(1+R605/R602)+Iadj*R605
Iadj=50uA-120uA



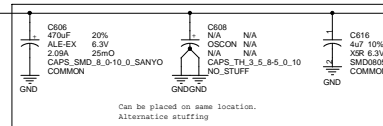
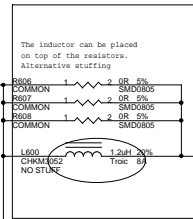
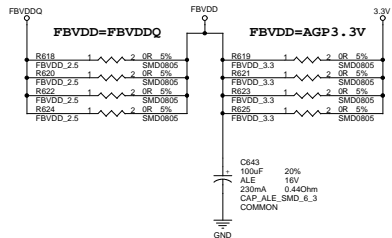
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Alternative stuffing.
Place close to Q601.



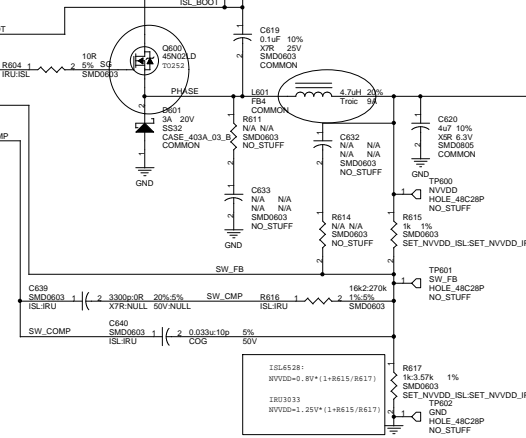
FBVDDQ



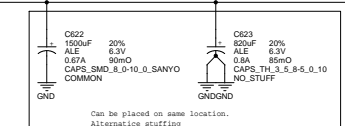
FBVDD



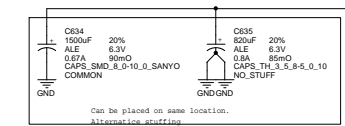
Can be placed on same location.
Alternative stuffing



NVVDD=1.6V



Can be placed on same location.
Alternative stuffing



Can be placed on same location.
Alternative stuffing

GND

CHANGE 0402 TO 0603

