PCB100

PCB

P200-1

SCREW

P200-2

SCREW

K100

FAN

BRACKET

BRACKET

Title	<Title>	
Size B	Document Number <Doc>	Rev 0A
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NV15, 4MX16 TERMINATED DDR, RGB, INTERNAL DVI-I, TV I/F, AGP4X.

PCI DEVICE ID 0X0=0X150 FOR NV15.

GPU : GeForce2 PRO
STRAPS : AGP4X, SIDEBAND DIS, FAST WRITE ENA, ADP BIOS, NORMAL PCIAD, 14.318MHz
STRAP_RAM_TYPE [5 : 2]=1010 4MX16 DDR SDRAM
ALL "NO STUFF" COMPONENTS HIGHLITED
SWITCHER1(VTT) SET TO 1.25V
SWITCHER2(NVVDD) SET TO 2.05V
LINEAR(FBVDDQ) SET TO 2.5V

HISTORY REVISION FROM A01:

1) B00: Added LC TMDS filters on TX- signals on bottom side near the DVI-I connector.

2) B00: Changed R217 to 267R 1%.

3) B00: Changed R500 to 825R 1%.

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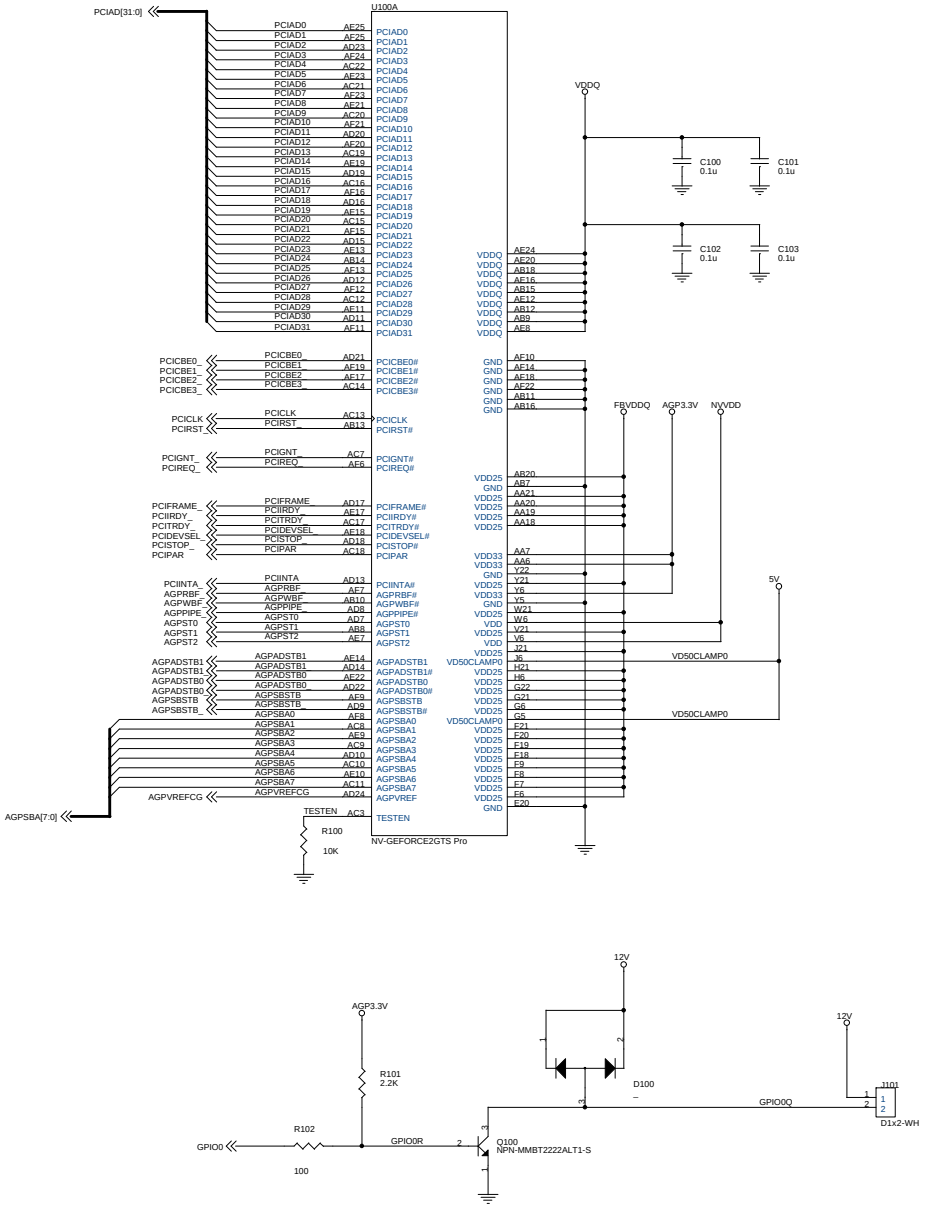

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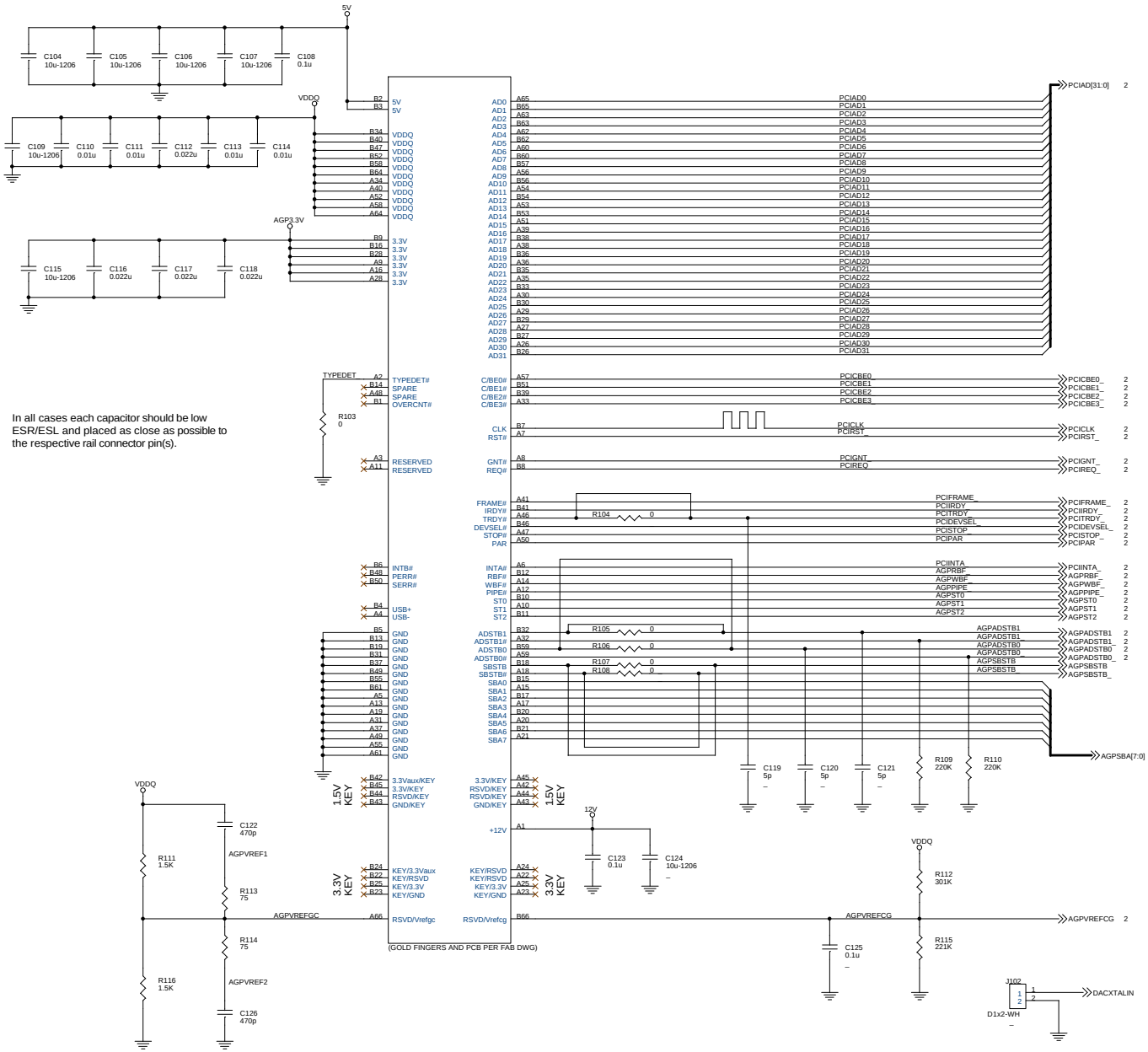

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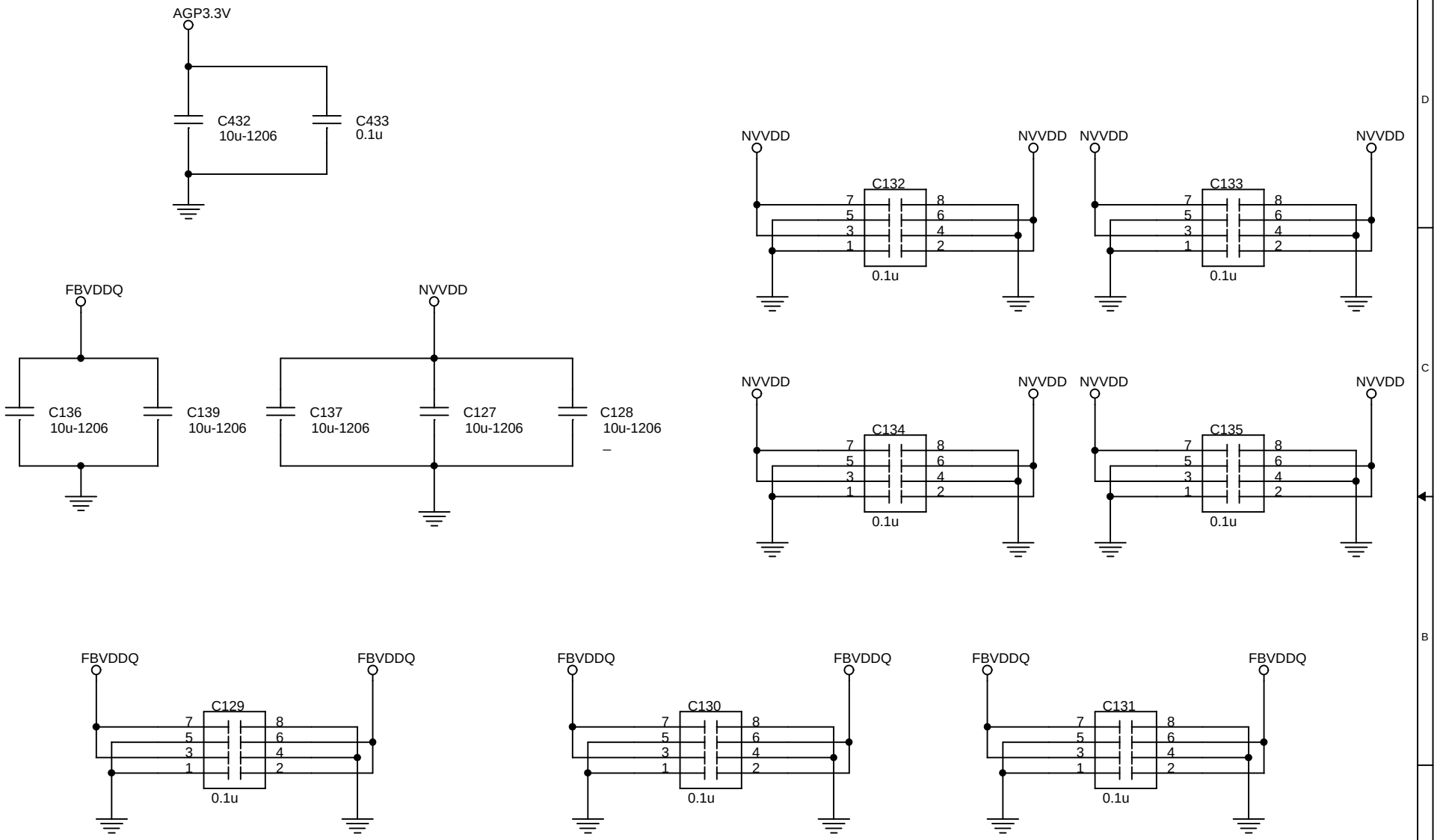

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MS-8831		
Size: A	Document Number: NV15 DECOULPING	Rev: 1.0
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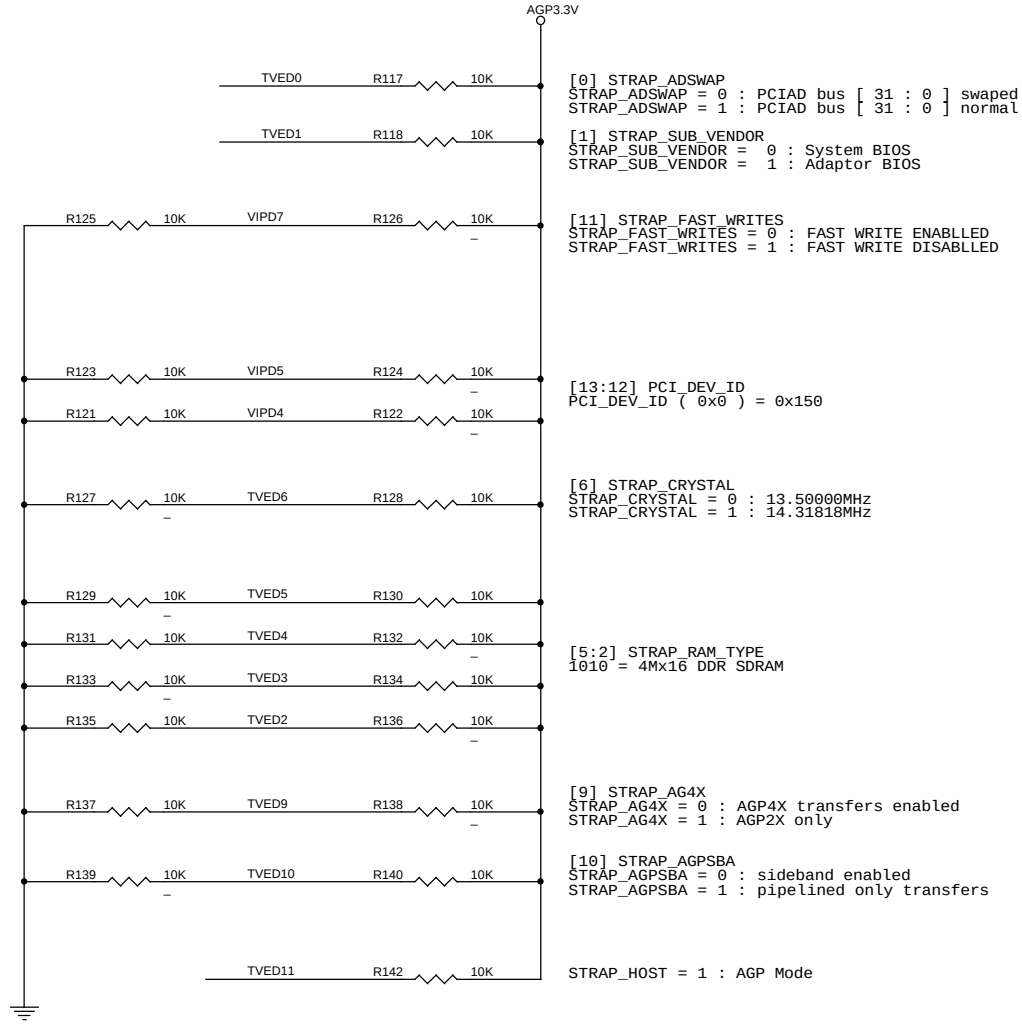

[0] STRAP_ADSWAP
STRAP_ADSWAP = 0 : PCIAD bus [31 : 0] swaped
STRAP_ADSWAP = 1 : PCIAD bus [31 : 0] normal

[1] STRAP_SUB_VENDOR
STRAP_SUB_VENDOR = 0 : System BIOS
STRAP_SUB_VENDOR = 1 : Adaptor BIOS

[11] STRAP_FAST_WRITES
STRAP_FAST_WRITES = 0 : FAST WRITE ENABLLED
STRAP_FAST_WRITES = 1 : FAST WRITE DISABLLED

[13:12] PCI_DEV_ID
PCI_DEV_ID (0x0) = 0x150

[6] STRAP_CRYSTAL
STRAP_CRYSTAL = 0 : 13.50000MHz
STRAP_CRYSTAL = 1 : 14.31818MHz

[5:2] STRAP_RAM_TYPE
1010 = 4Mx16 DDR SDRAM

[9] STRAP_AG4X
STRAP_AG4X = 0 : AGP4X transfers enabled
STRAP_AG4X = 1 : AGP2X only

[10] STRAP_AGPSBA
STRAP_AGPSBA = 0 : sideband enabled
STRAP_AGPSBA = 1 : pipelined only transfers

STRAP_HOST = 1 : AGP Mode

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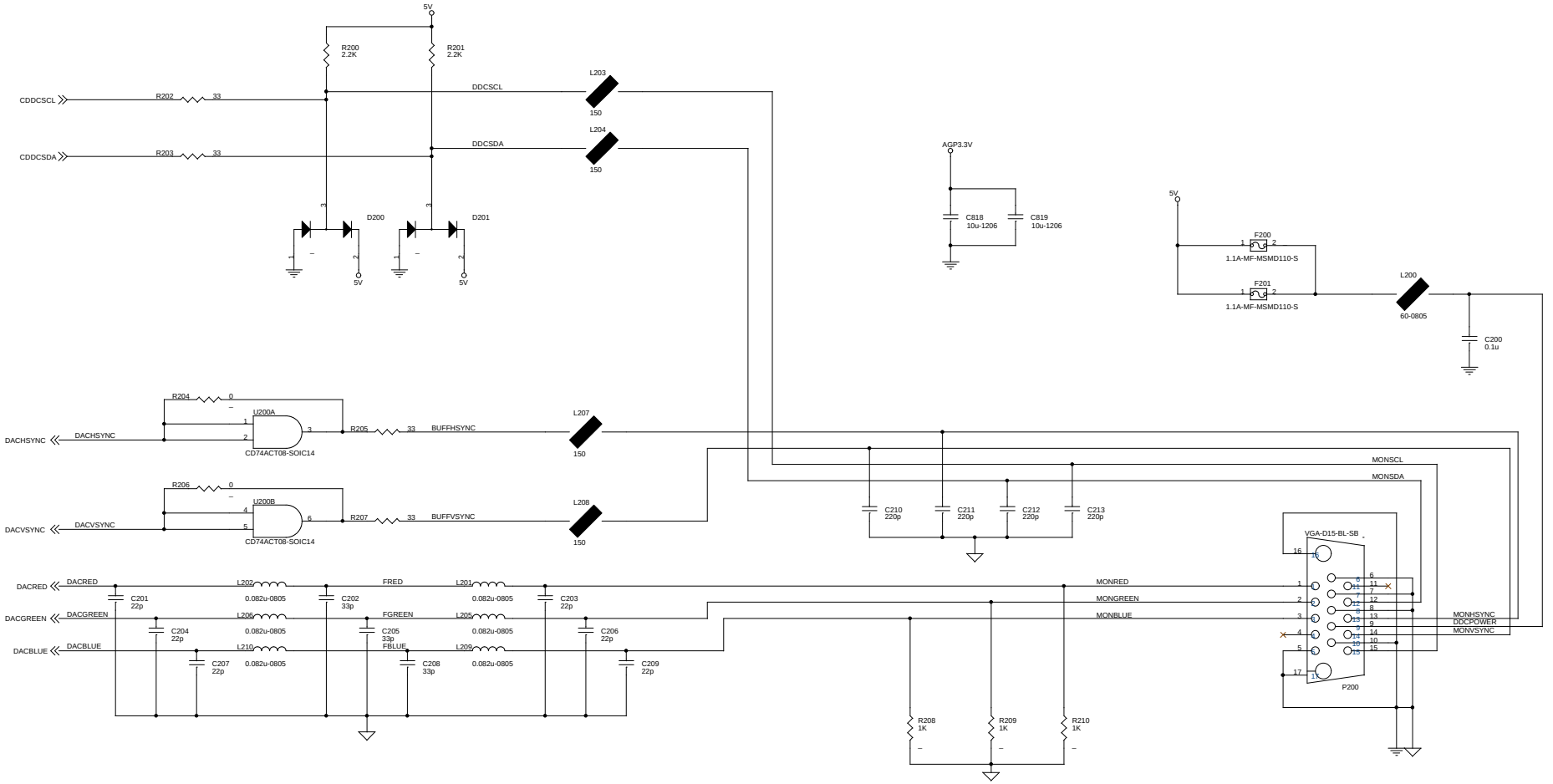

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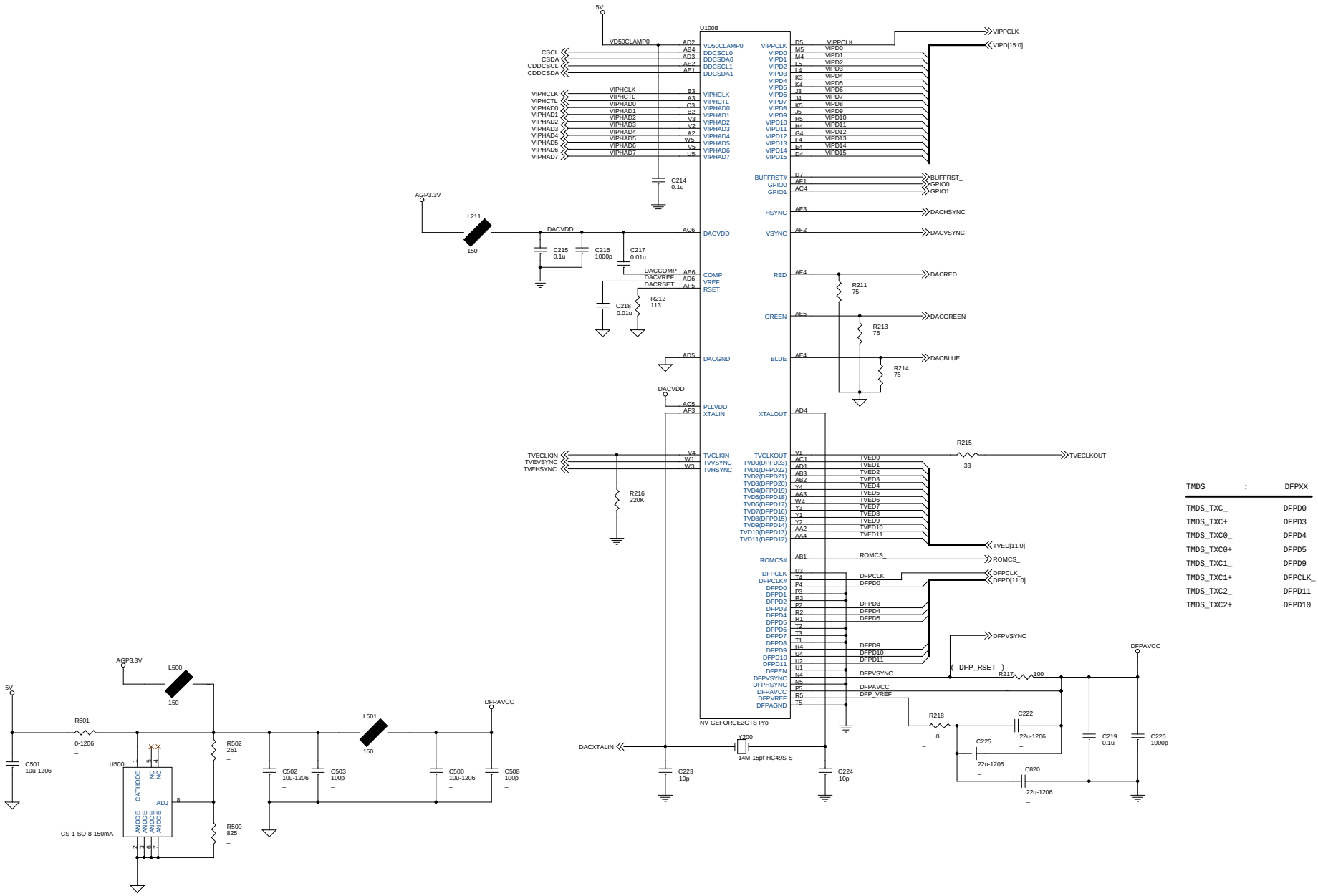

TMDS	:	DFPXX
TMDS_TXC_		DFPD0
TMDS_TXC+		DFPD3
TMDS_TXC0_		DFPD4
TMDS_TXC0+		DFPD5
TMDS_TXC1_		DFPD9
TMDS_TXC1+		DFPCLK_
TMDS_TXC2_		DFPD11
TMDS_TXC2+		DFPD10

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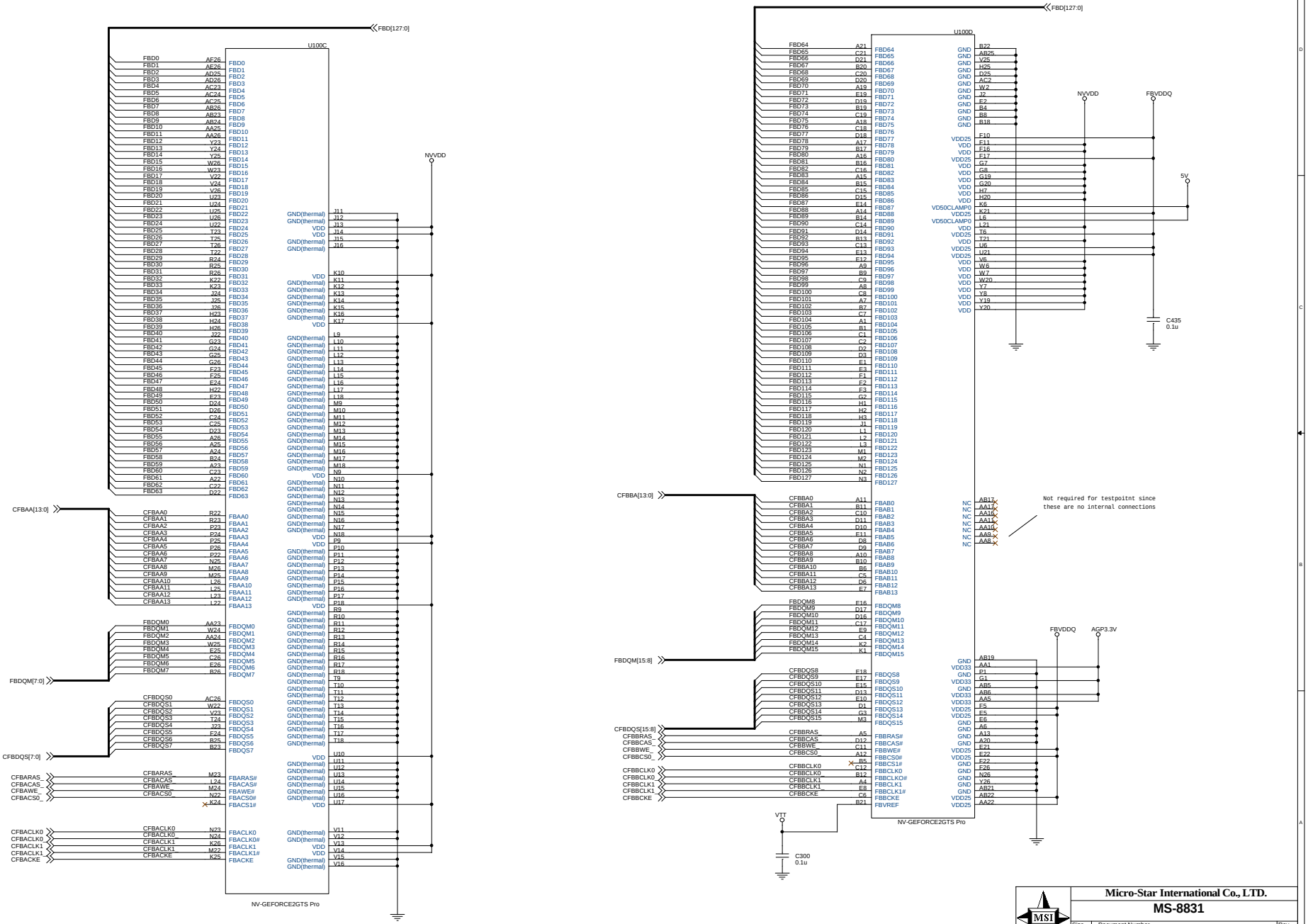

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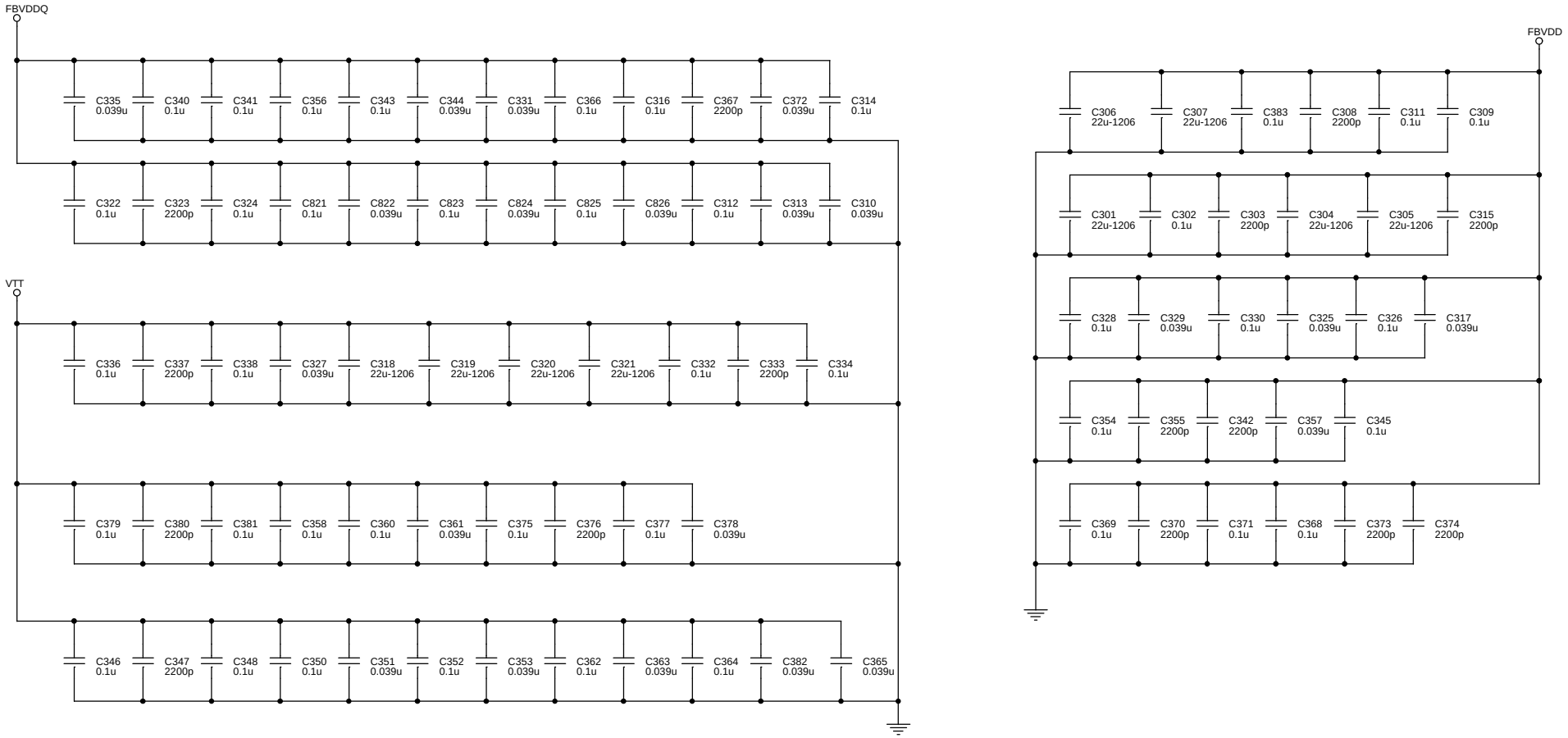

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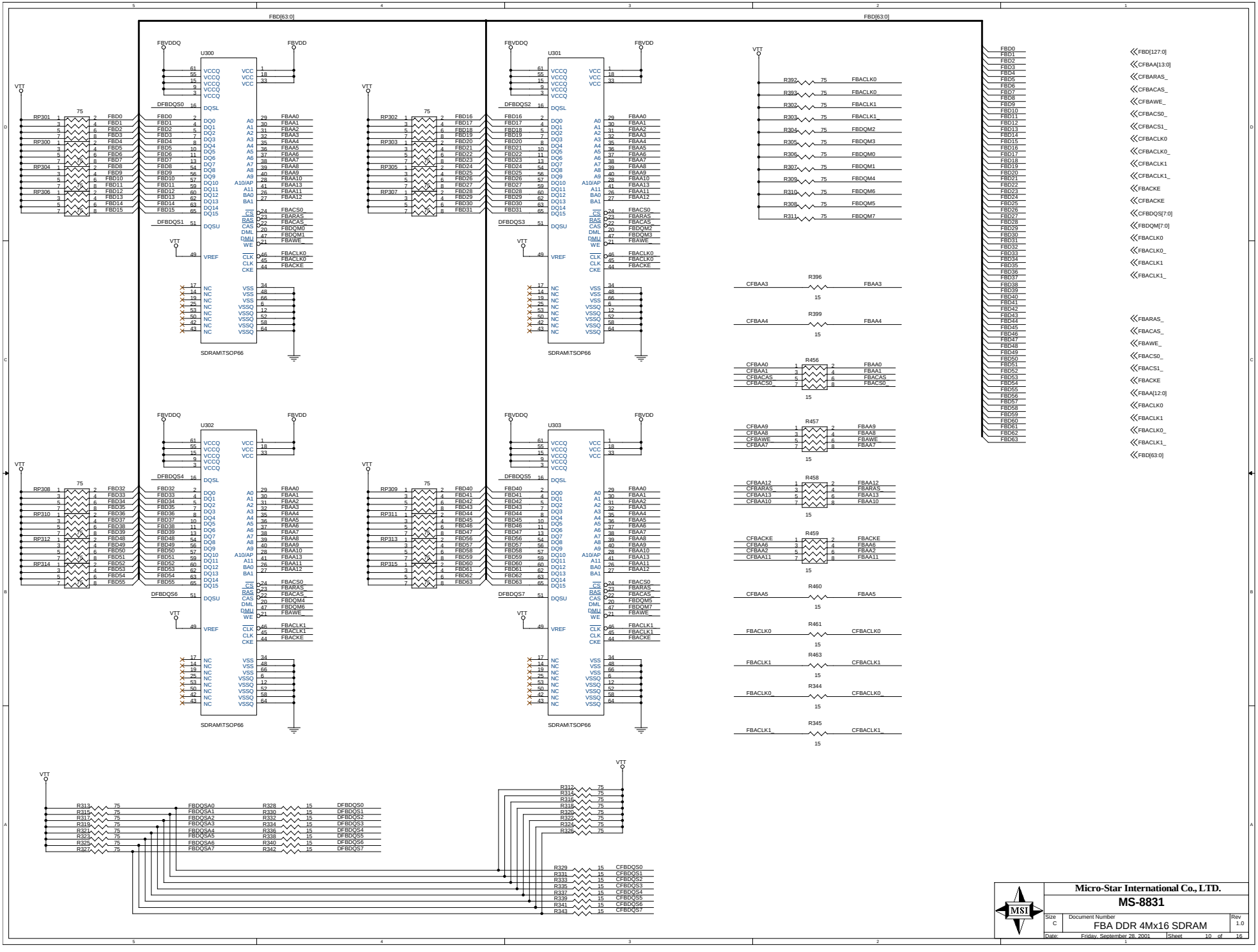
FBD[63:0]
FBD[63:0]
U300
U301
U302
U303
FBVDDQ
FBVDD
VTT
SDRAM\TSOP66
DFBDQS0
DFBDQS2
DFBDQS4
DFBDQS5
DFBDQS6
DFBDQS7
RP301
RP302
RP303
RP304
RP305
RP306
RP307
RP308
RP309
RP310
RP311
RP312
RP313
RP314
RP315
R392
R393
R302
R303
R304
R305
R306
R307
R309
R310
R308
R311
R396
R399
R456
R457
R458
R459
R460
R461
R463
R344
R345
FBDQSA0
FBDQSA1
FBDQSA2
FBDQSA3
FBDQSA4
FBDQSA5
FBDQSA6
FBDQSA7
R312
R314
R316
R318
R320
R322
R324
R326
R328
R330
R332
R334
R336
R338
R340
R342
R329
R331
R333
R335
R337
R339
R341
R343
CFBDQS0
CFBDQS1
CFBDQS2
CFBDQS3
CFBDQS4
CFBDQS5
CFBDQS6
CFBDQS7
FBD[127:0]
CFBAA[13:0]
CFBARAS_
CFBACAS_
CFBAWE_
CFBACS0_
CFBACS1_
CFBACLK0
CFBACLK0_
CFBACLK1
CFBACLK1_
CFBACKE
CFBACKE
CFBDQS[7:0]
CFBDQM[7:0]
FBACLK0
FBACLK0_
FBACLK1
FBACLK1_
FBD[63:0]
FBARAS_
FBACAS_
FBAWE_
FBACS0_
FBACS1_
FBACKE
FBAA[12:0]
FBACLK0
FBACLK1
FBACLK0_
FBACLK1_
FBD[63:0]
Micro-Star International Co., LTD.
MS-8831
Size C
Document Number
FBA DDR 4Mx16 SDRAM
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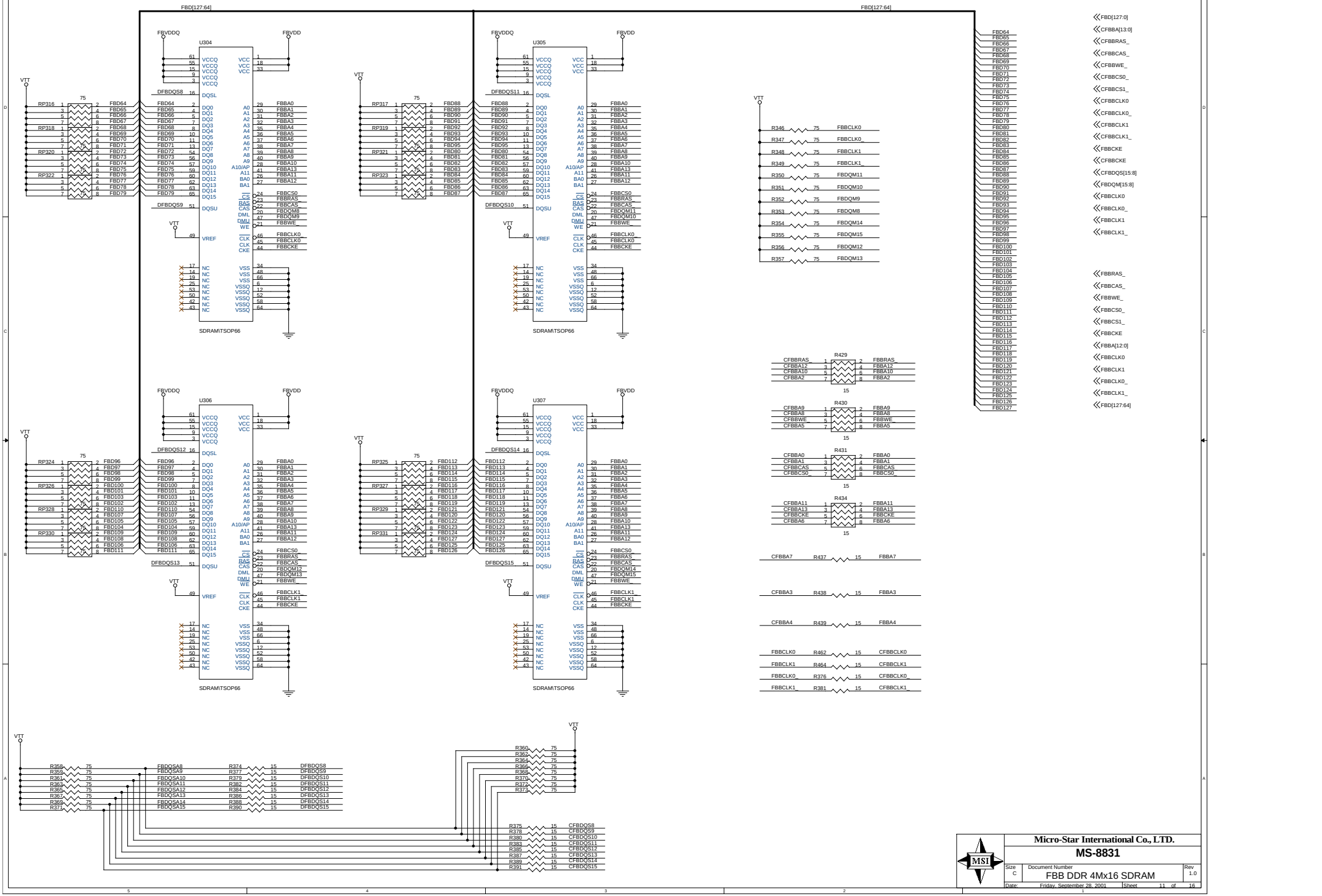

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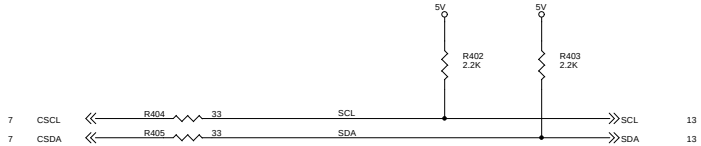

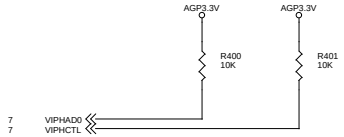

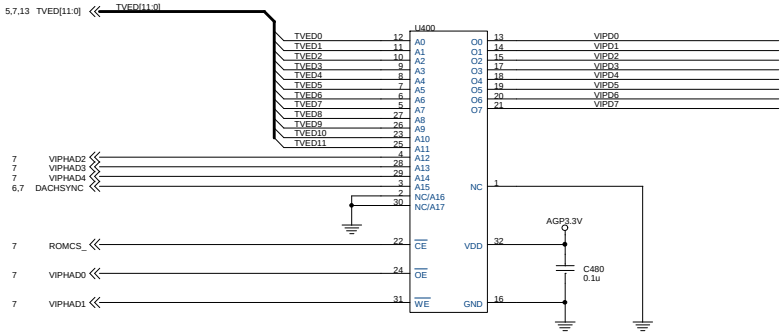

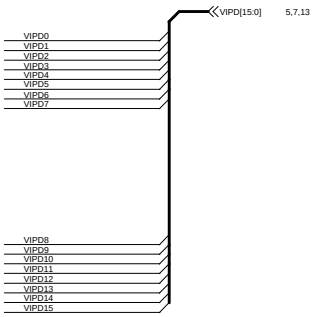

ROM

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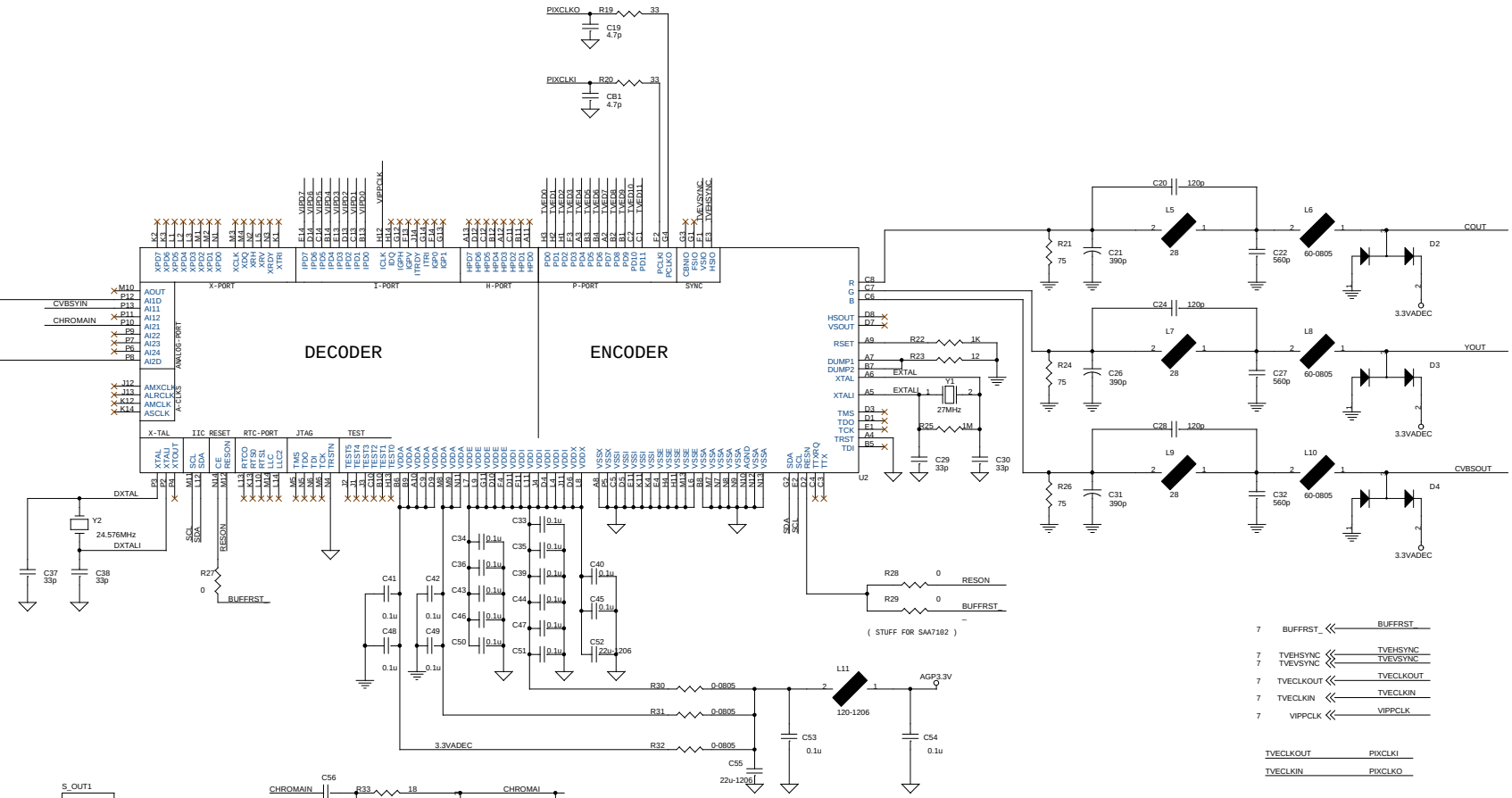
DECODER
ENCODER
X-PORT
I-PORT
H-PORT
P-PORT
SYNC
X-TAL
IIC RESET
RTC-PORT
JTAG
TEST
PIXCLKO
PIXCLKI
CVBSYIN
CHROMAIN
DXTAL
DXTALI
BUFFRST
RESON
(STUFF FOR SAA7102)
COUT
YOUT
CVBSOUT
3.3VADEC
AGP3.3V
1.EXTAL,EXTALI,DXTAL AND DXTALI
NETS SHOULD BE 10 mils width.
S_OUT1
AV_OUT1
S_IN1
MINIDIN-D4-BK
JACK+RCA-D3-SB-YL
D2x3-1-1-BK-A
PHILIPS 7108 EN/DECORDER
Micro-Star International Co., LTD.
MS-8836
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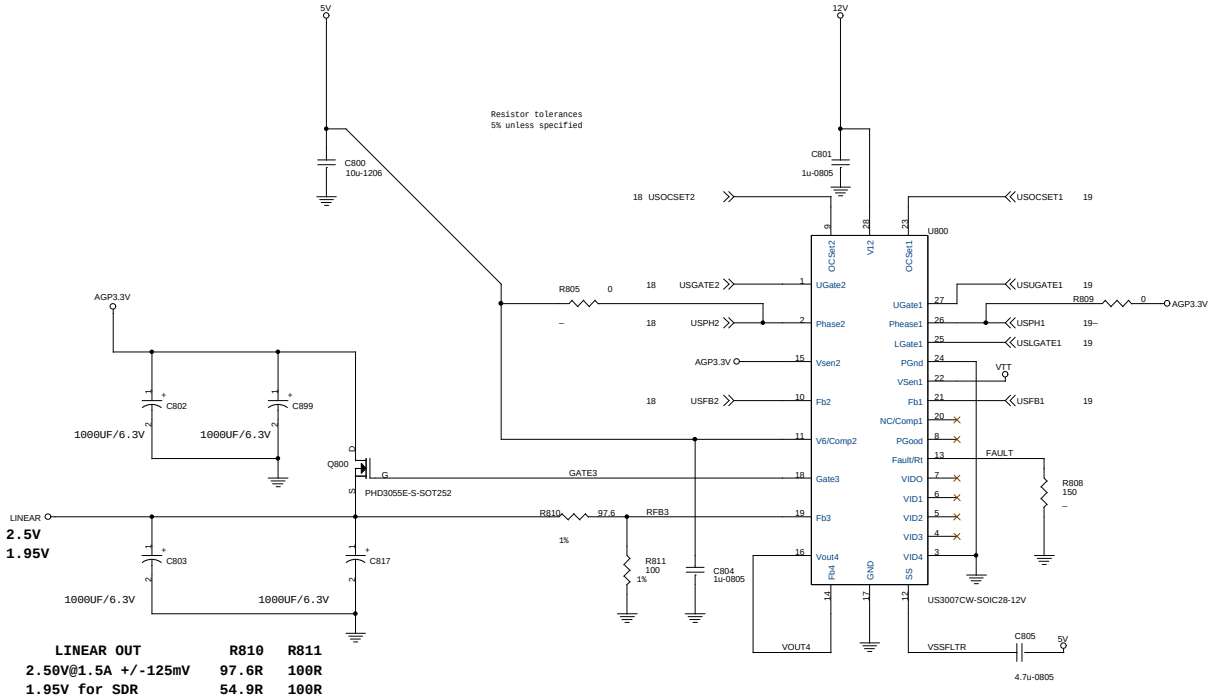
FBVDD — AGP3.3V **AGP3.3**

NVVDD — SWR2 **SWITCHER2=2.05V**

FBVDDQ — LINEAR **LINEAR=2.5V**



LINEAR OUT	R810	R811
2.50V@1.5A +/-125mV	97.6R	100R
1.95V for SDR	54.9R	100R

R810=((LINEAR OUT/1.26)-1)*100(R811)

NV15 BASE POWER SOLUTION

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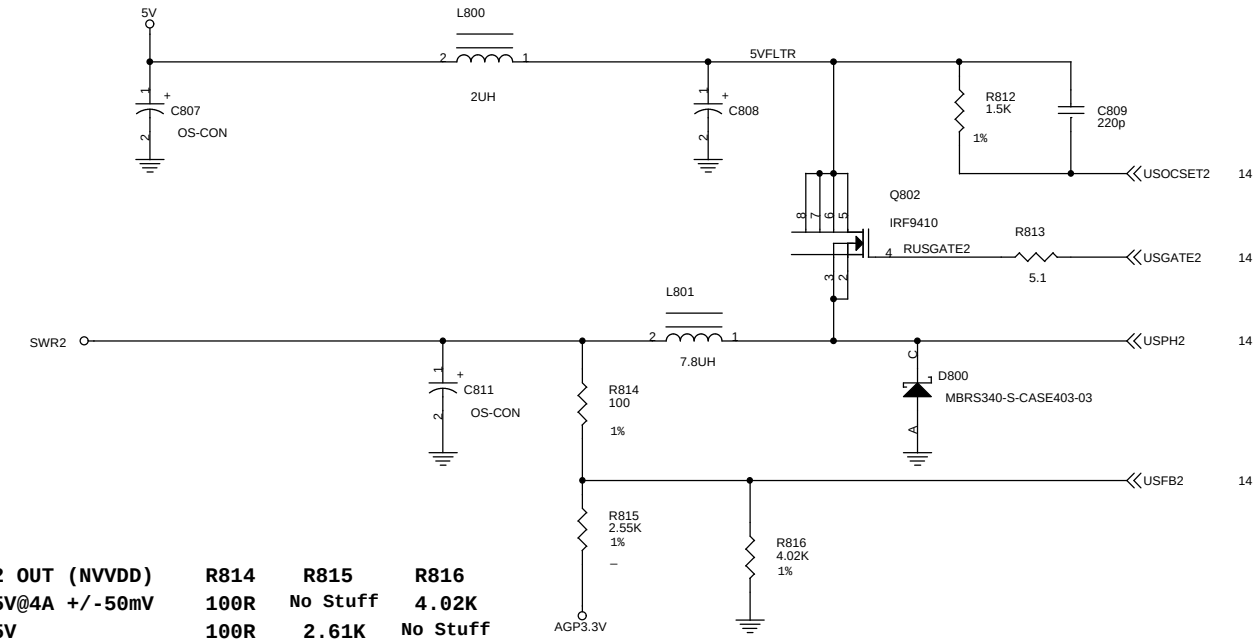

SWR2 OUT (NVVDD)	R814	R815	R816
2.05V@4A +/-50mV	100R	No Stuff	4.02K
1.95V	100R	2.61K	No Stuff

R816=100/((2.05V/2)-1)

R815=130/(2-1.95v)

NV15 DDR POWER ADDER

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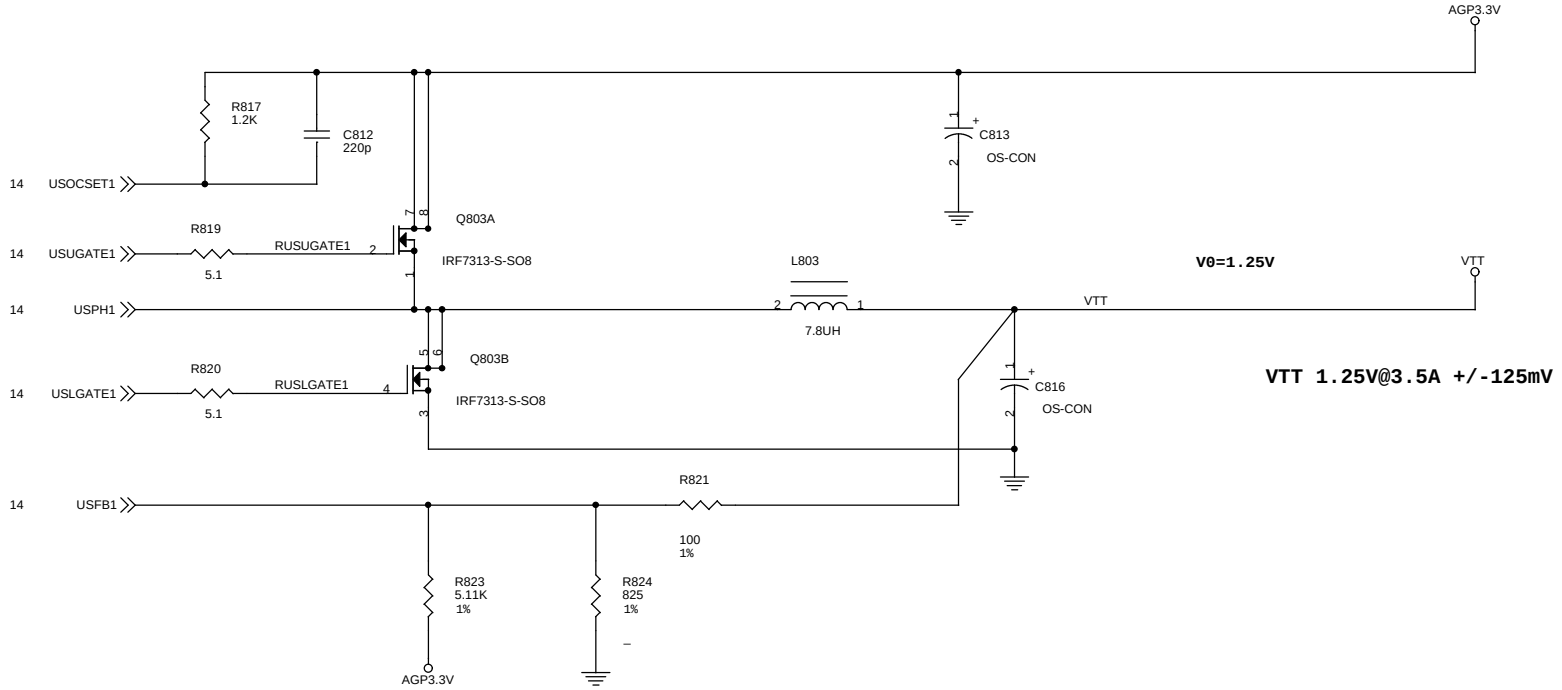

NV15 VTT POWER ADDER

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