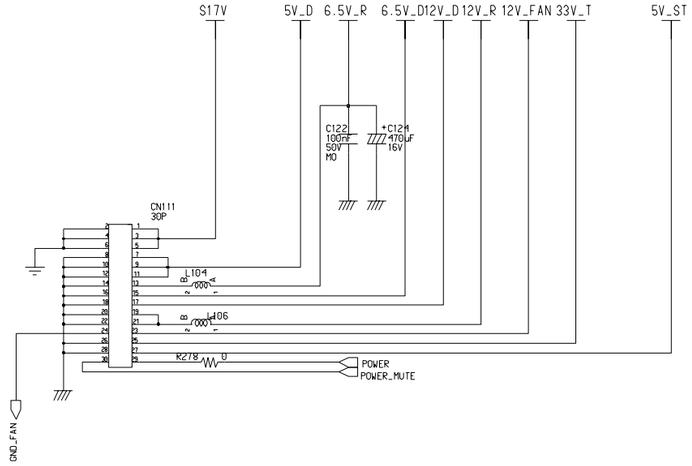
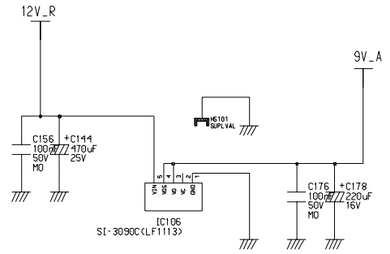
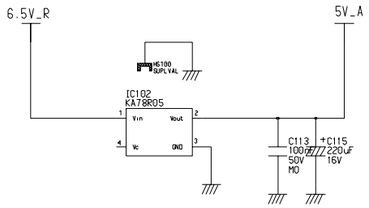
11. Schematic Diagrams

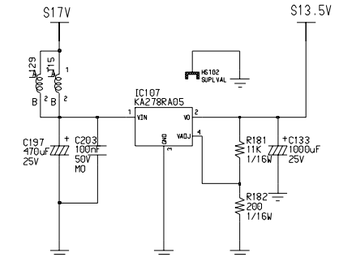
11-1 ANALOG

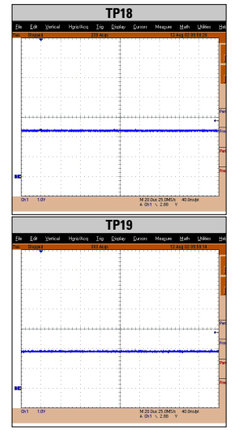
11-1-1 ANALOG

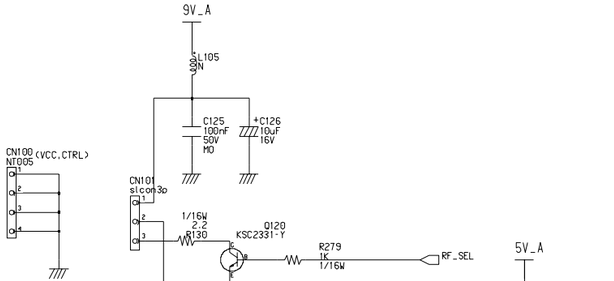


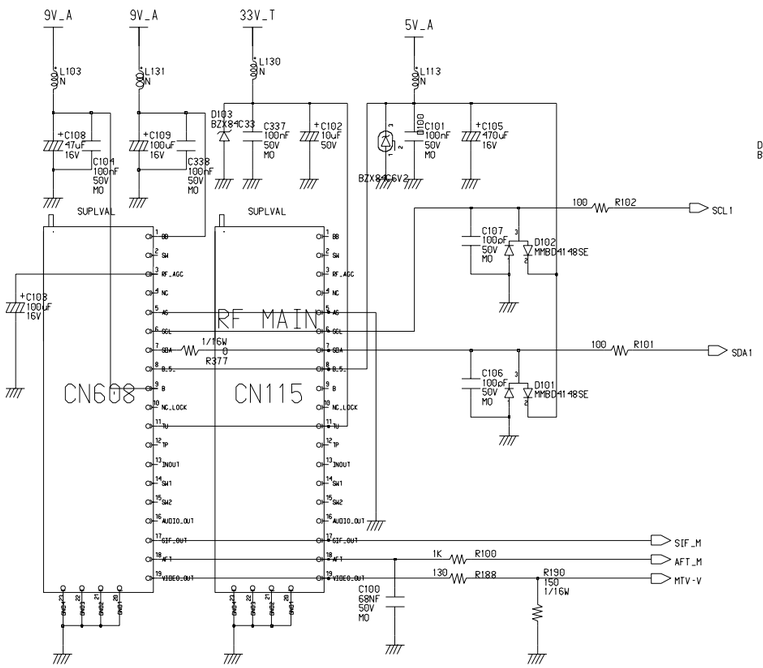


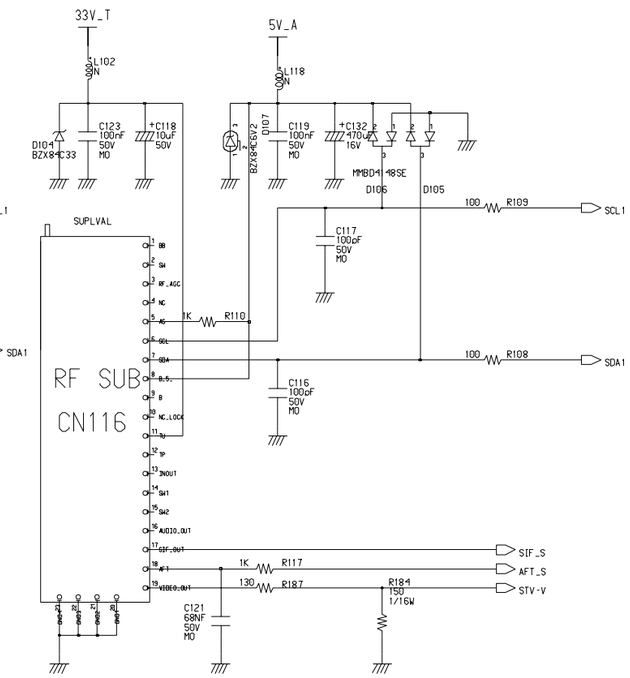


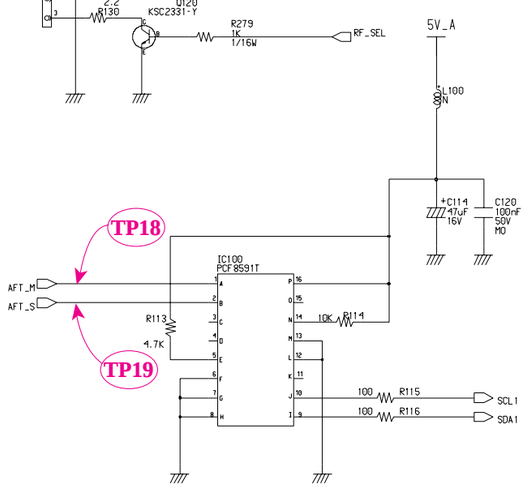




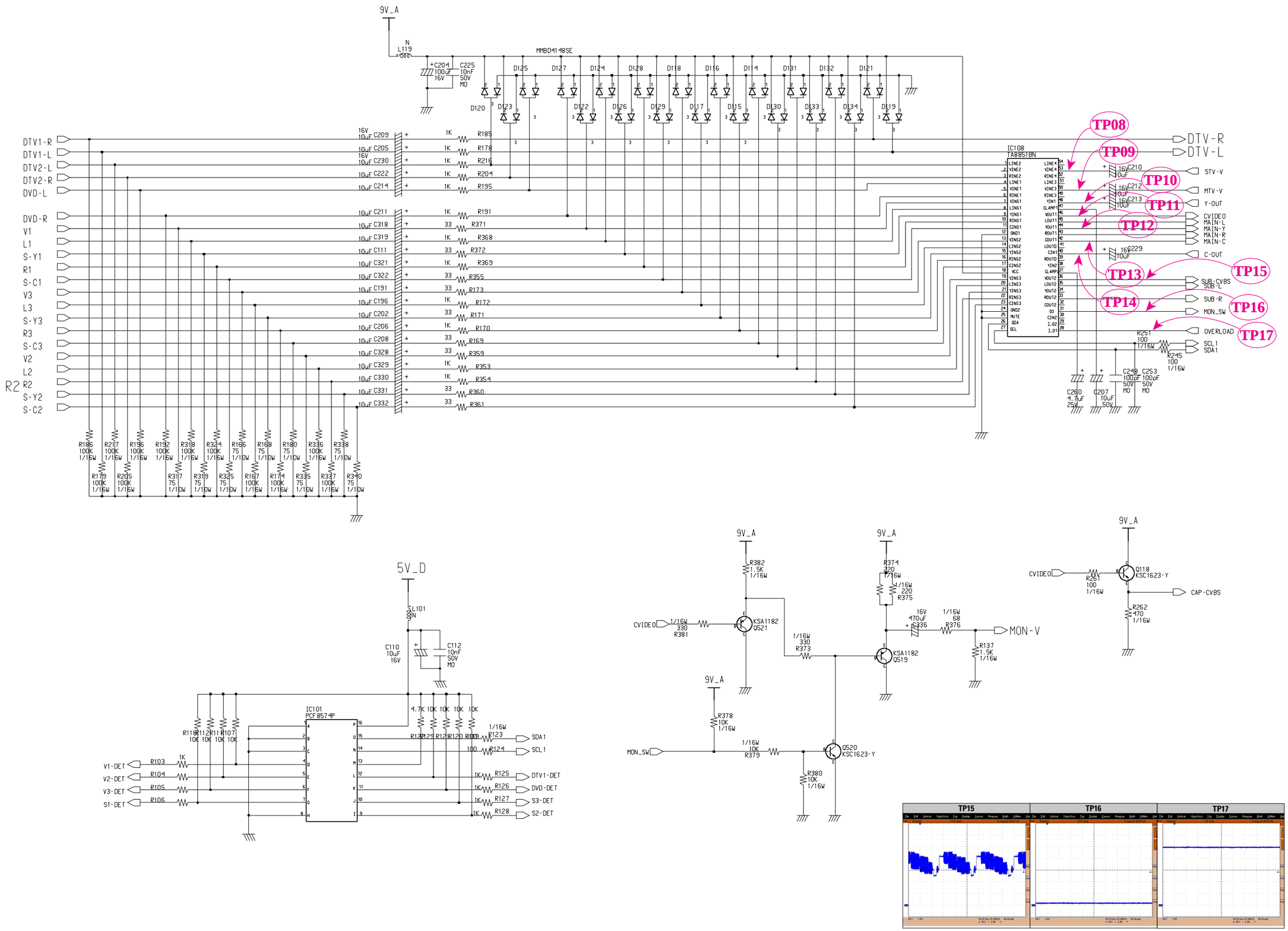




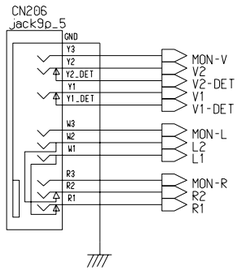


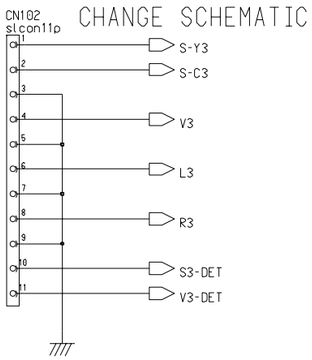


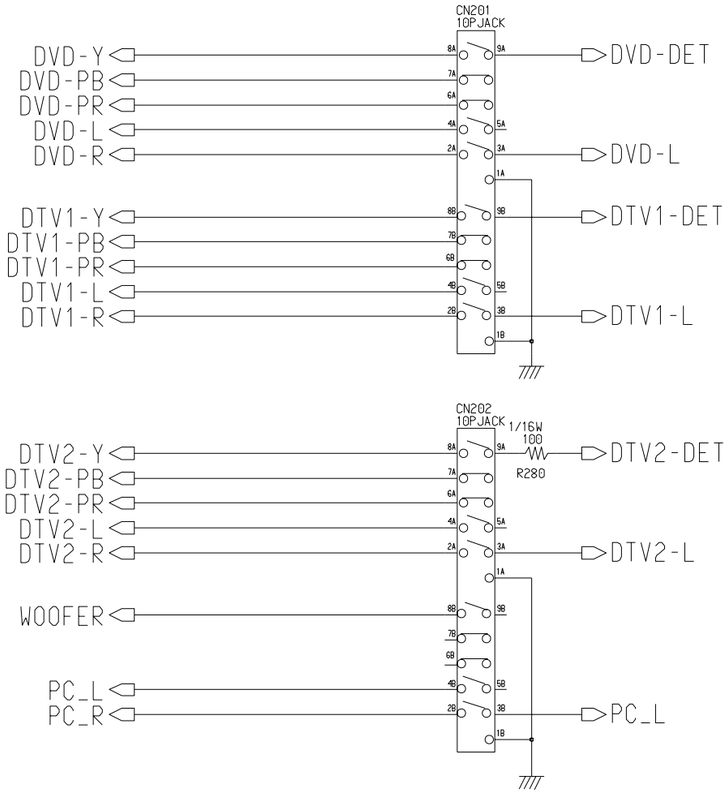
11-1-2 CONNECTOR

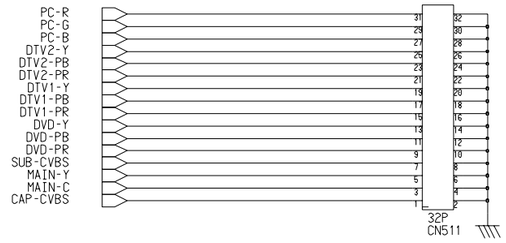


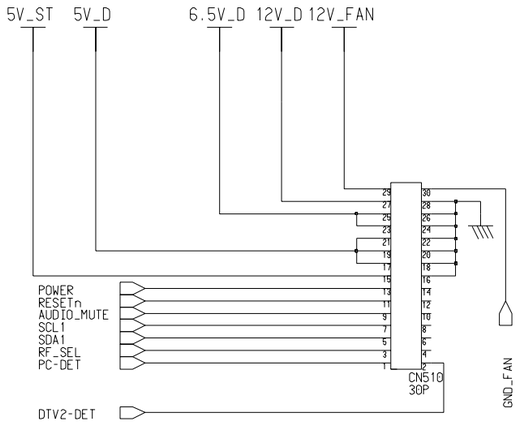
11-1-3 AV INPUT

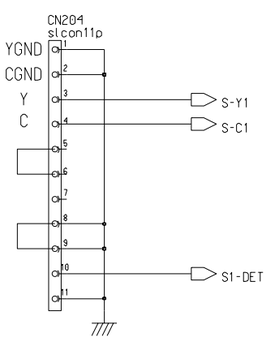


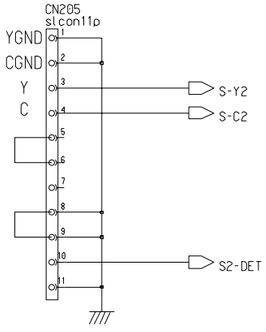


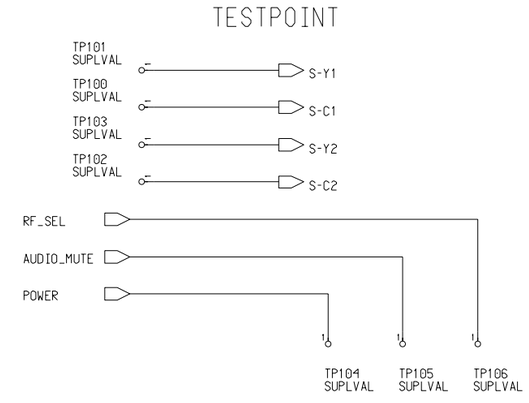


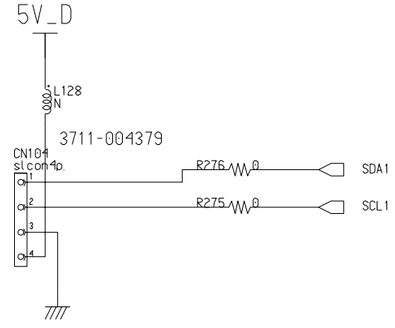


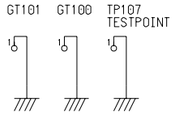




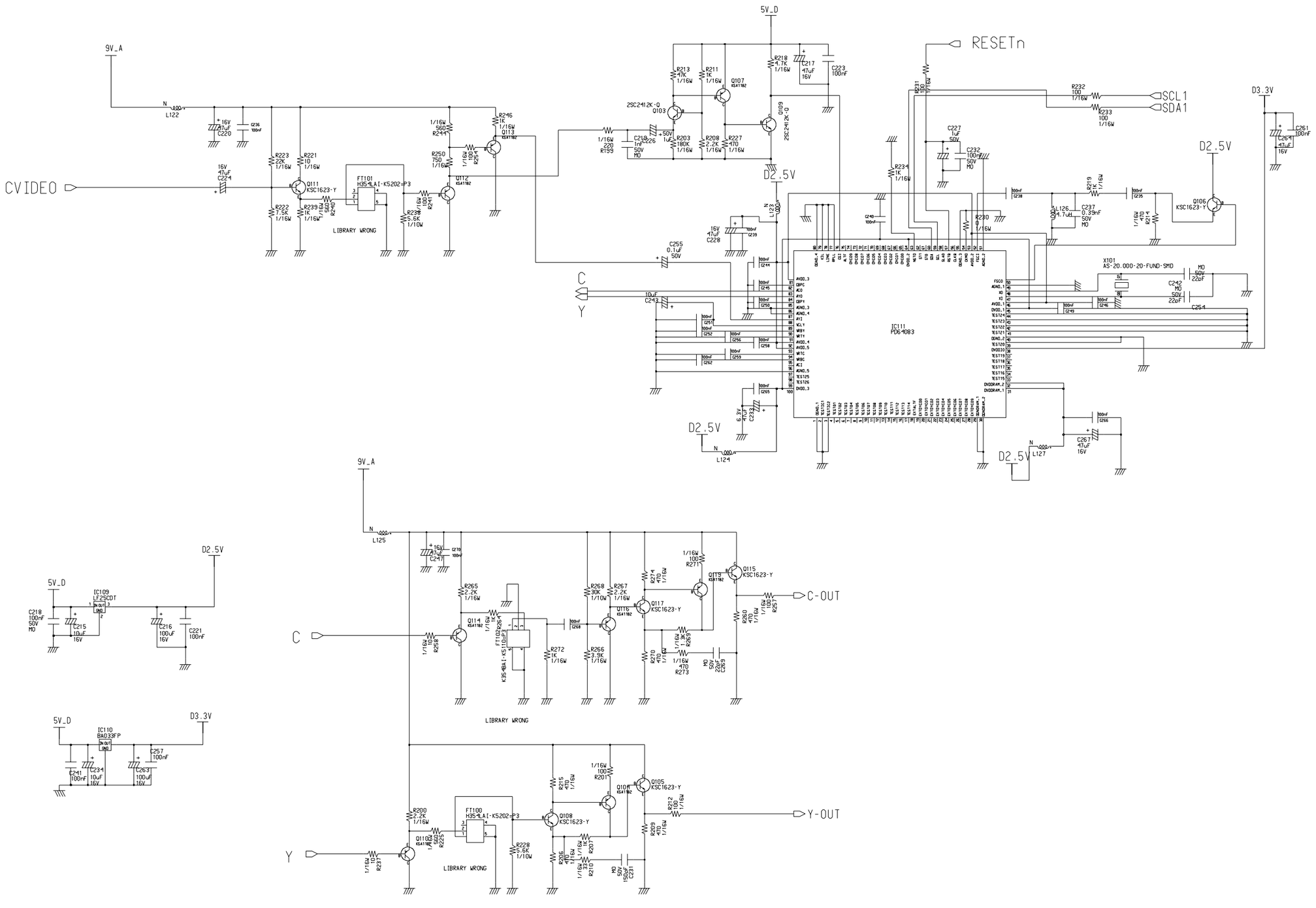




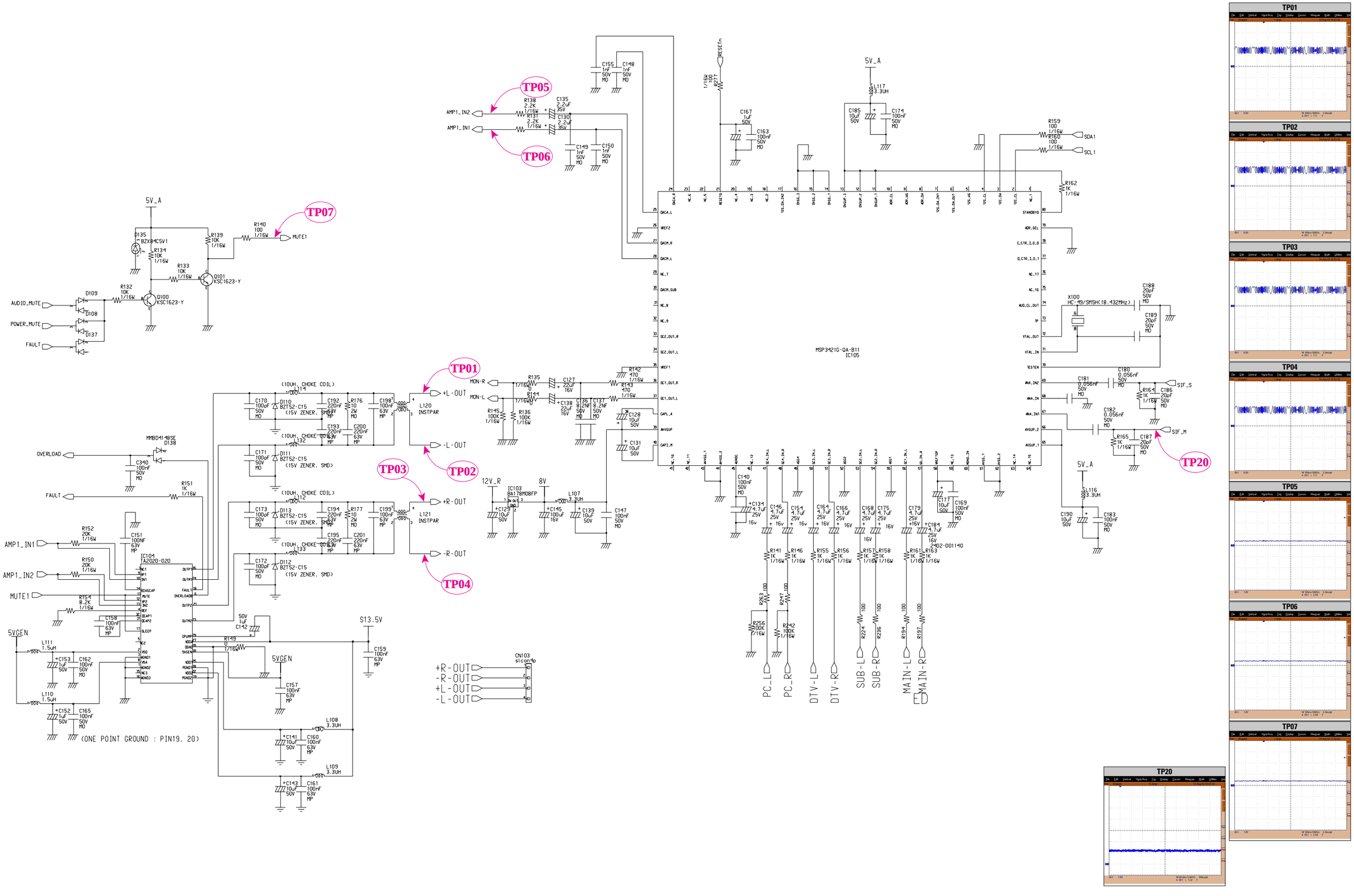




11-1-4 3D-COMB

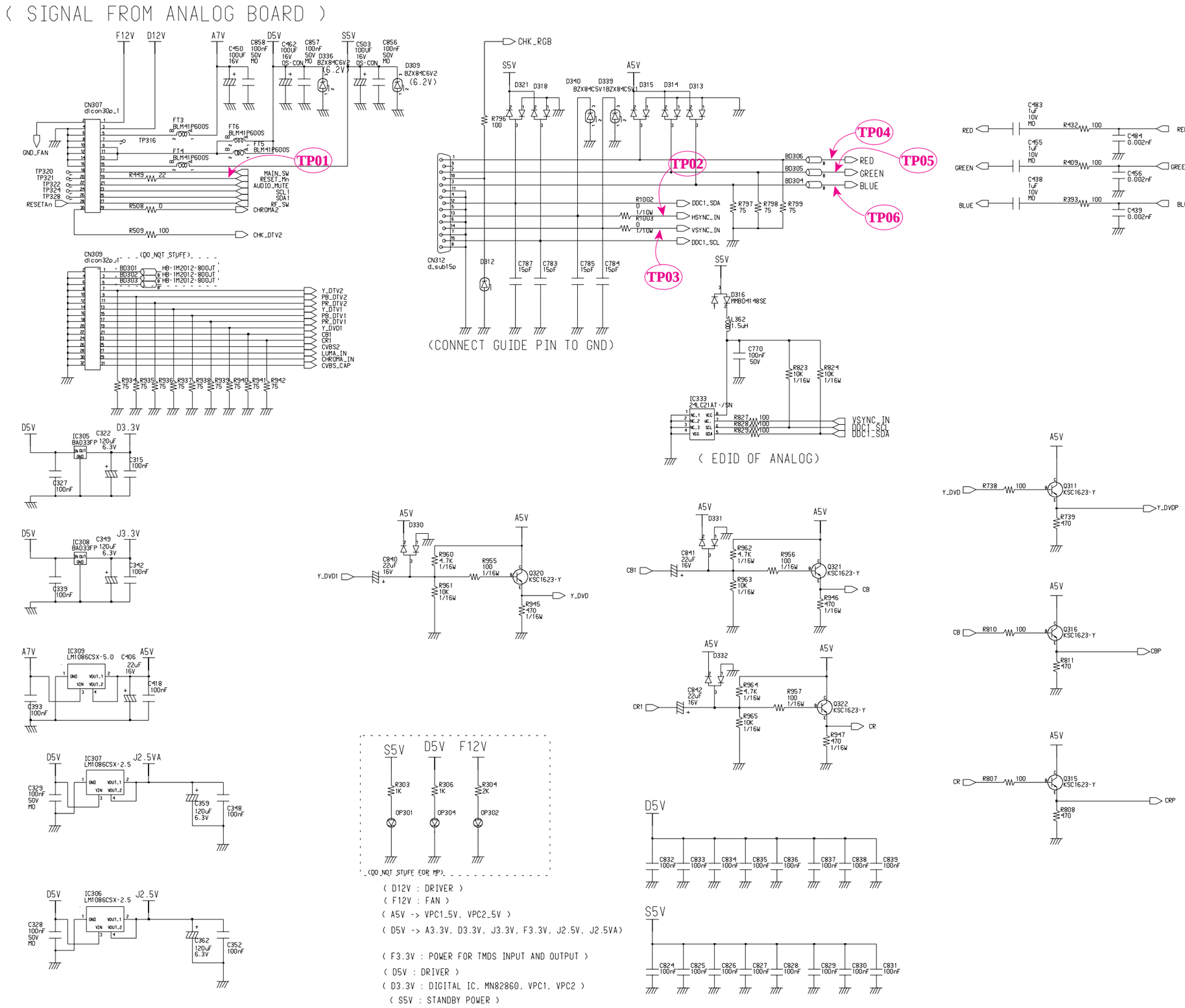

9V_A
5V_D
D2.5V
D3.3V
RESETn
SCL1
SDA1
CVIDEO
C
Y
C-OUT
Y-OUT
LIBRARY WRONG
IC109 LF25CDT
IC110 BA033FP
IC111 PDG4083
X101 AS-20.000-20-FUND-SMD
FT101 H35-LAI-K5202-P3
FT100 H35-LAI-K5202-P3
FT102 K35-4BA1-K5102-P3

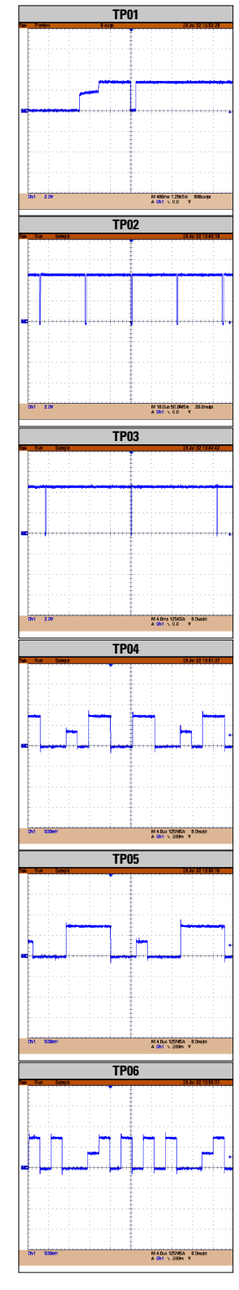
11-1-5 SOUND


TP01
TP02
TP03
TP04
TP05
TP06
TP07
TP20
MSP3421G-QA-B11
IC105
IC104
TA2020-020
IC103
BA178M08FP
CN103
5V_A
8V
12V_R
5VGEN
S13.5V
AMP1_IN1
AMP1_IN2
MUTE1
OVERLOAD
FAULT
AUDIO_MUTE
POWER_MUTE
FAULT
+L-OUT
-L-OUT
+R-OUT
-R-OUT
MON-R
MON-L
SDA1
SCL1
SIF_S
SIF_M
PC_LL
PC_RR
DTV-LL
DTV-RR
SUB-L
SUB-R
MAIN-L
MAIN-R
(ONE POINT GROUND : PIN19, 20)

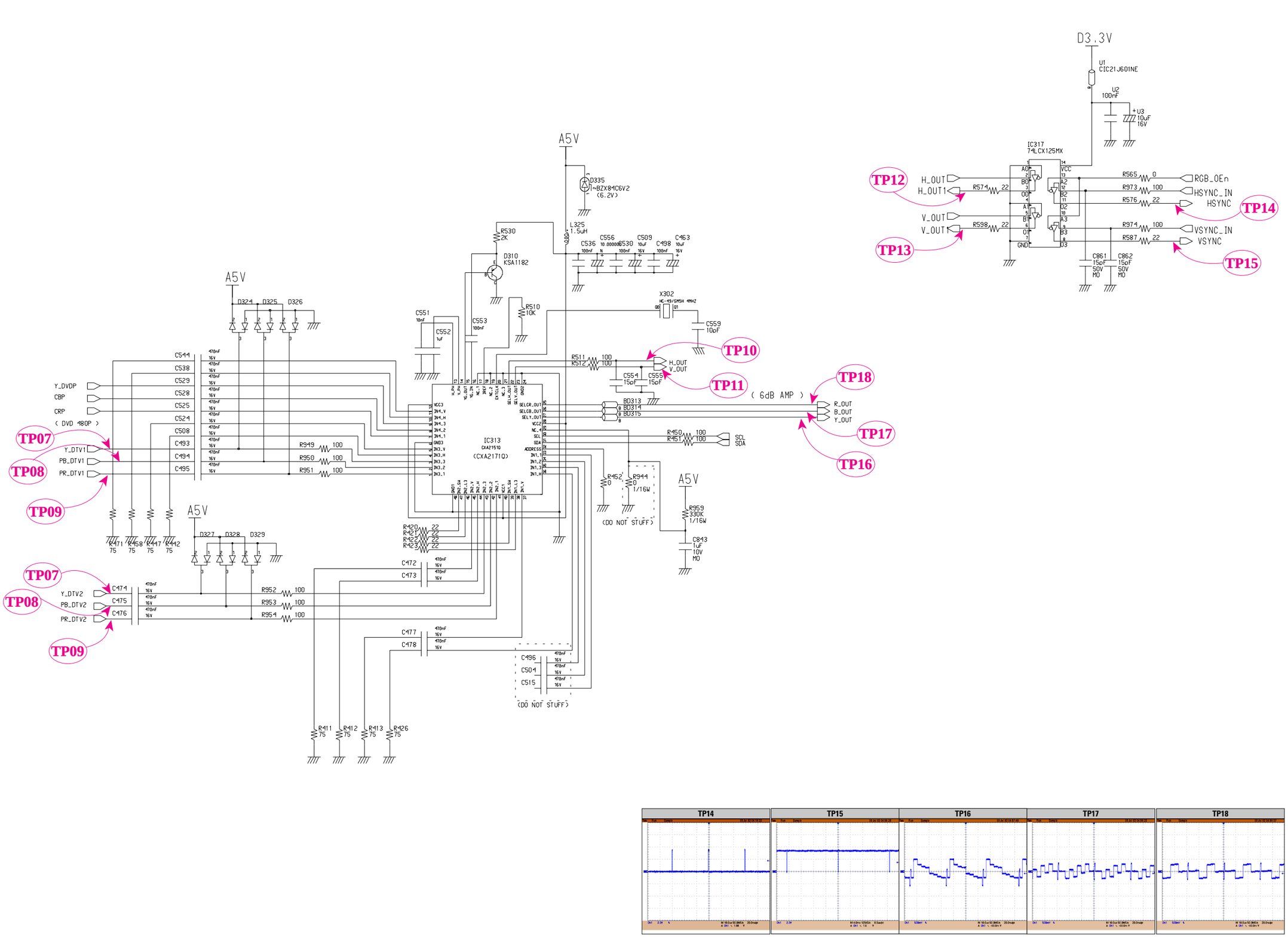
11-2 DIGITAL

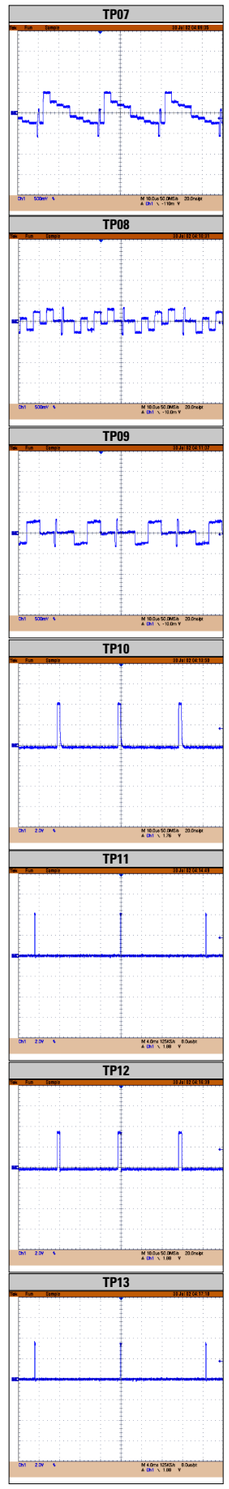
11-2-1 DIGITAL





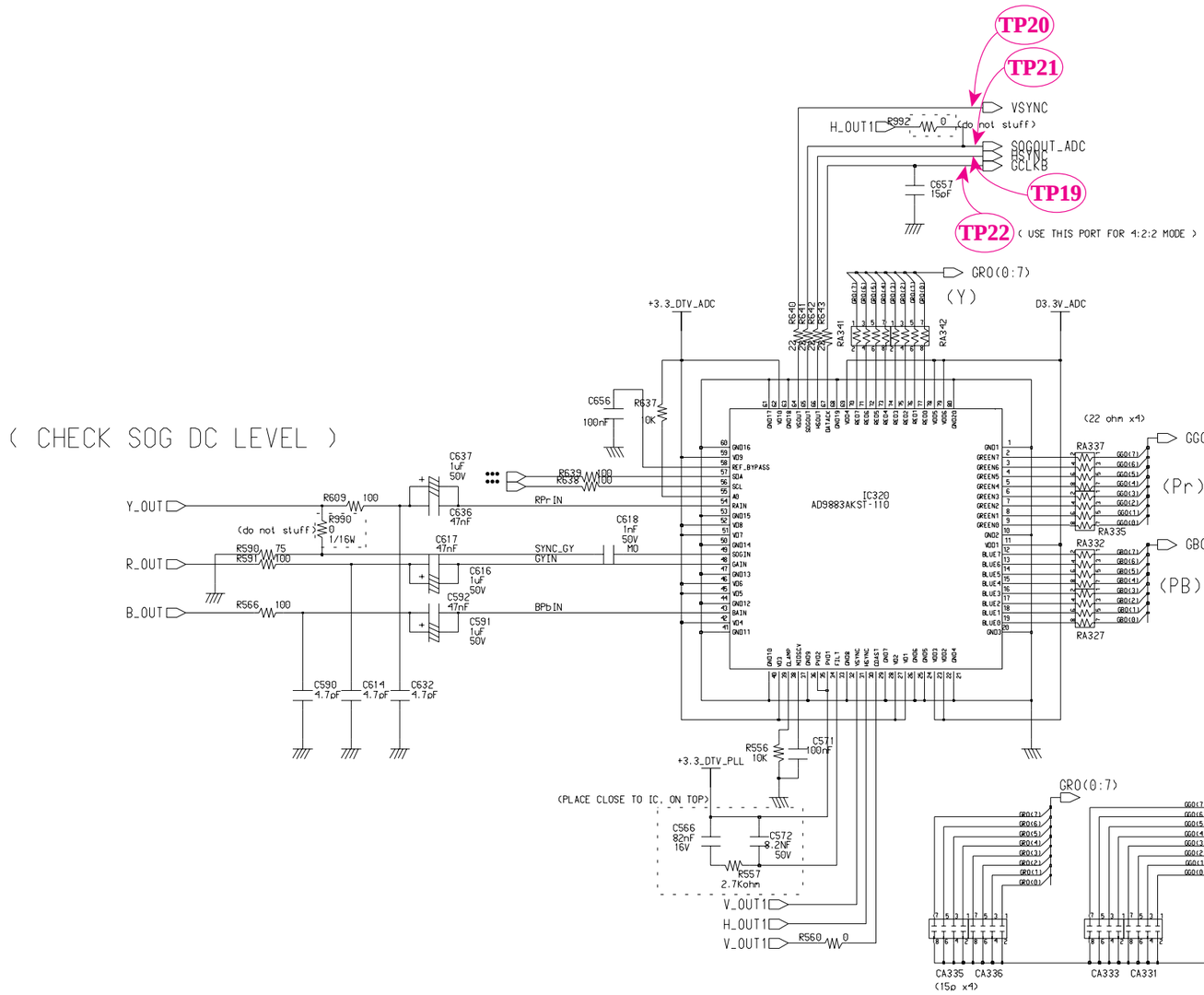
11-2-2 DTVMUX

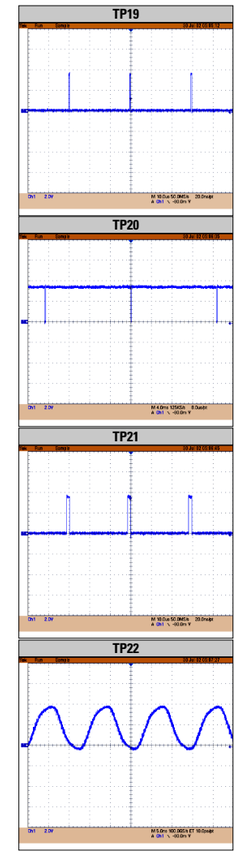

A5V
D3.3V
U1
CIC21J601NE
U2
100nF
U3
10uF
16V
IC317
74LCX125MX
H_OUT
H_OUT1
V_OUT
V_OUT
R571 22
R598 22
R565 0
R573 100
R576 22
R574 100
R587 22
RGB_OEn
HSYNC_IN
HSYNC
VSYNC_IN
VSYNC
C861 15pF 50V MO
C862 15pF 50V MO
TP12
TP13
TP14
TP15
D335
MMBZX84C6V2
(6.2V)
L325
1.5uH
R530
2K
D310
KSA1182
C536 100nF
C556 10 0000 6530 100nF
C509 10uF 16V
C498 100nF
C463 10uF 16V
X302
HC-49/SM5H 49MHZ
C559
10pF
C551
10nF
C552
1uF
C553
100nF
R510
10K
R511 100
R512 100
C554 15pF
C555 15pF
H_OUT
V_OUT
TP10
TP11
(6dB AMP)
BD313
BD314
BD315
R_OUT
B_OUT
Y_OUT
TP18
TP17
TP16
R450 100
R451 100
SCL
SDA
IC313
CXA2151Q
(CXA2171Q)
R452 0
R944 0 1/16W
(DO NOT STUFF)
R959 330K 1/16W
C843 1uF 10V MO
D324 D325 D326
D327 D328 D329
C544 C538 C529 C528 C525 C524 C508 C493 C494 C495
Y_DVDP
CBP
CRP
(DVD 480P)
TP07
TP08
TP09
Y_DTV1
PB_DTV1
PR_DTV1
R949 100
R950 100
R951 100
R471 75
R458 75
R447 75
R442 75
R420 22
R421 22
R422 22
R423 22
C472 470nF 16V
C473 470nF 16V
C474 C475 C476
Y_DTV2
PB_DTV2
PR_DTV2
R952 100
R953 100
R954 100
C477 C478 470nF 16V
C496 C504 C515 470nF 16V
(DO NOT STUFF)
R411 75
R412 75
R413 75
R426 75


TP07
TP08
TP09
TP10
TP11
TP12
TP13

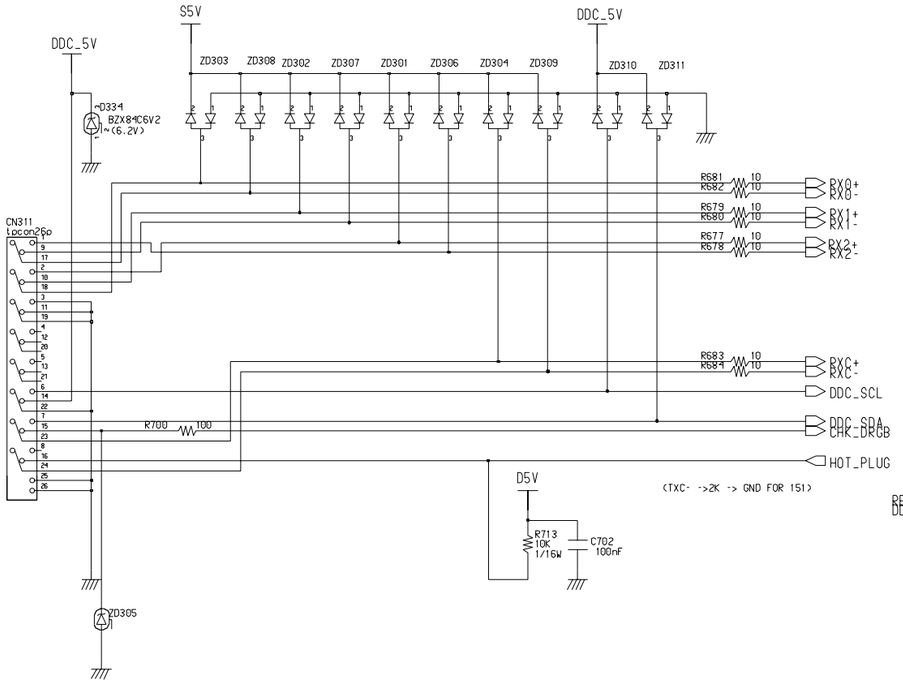
TP14
TP15
TP16
TP17
TP18

11-2-3 AD9883


TP20
TP21
TP19
TP22
VSYNC
H_OUT1
R992 0 (do not stuff)
SOGOUT_ADC
HSYNC
SCLKB
C657 15pF
< USE THIS PORT FOR 4:2:2 MODE >
GRO(0:7)
(Y)
+3.3_DTV_ADC
D3.3V_ADC
(CHECK SOG DC LEVEL)
C656 100nF
R637 0K
IC320
AD9883AKST-110
(22 ohm x4)
GGO(0:7)
(Pr)
GBO(0:7)
(PB)
RA337
RA335
RA332
RA327
Y_OUT
R_OUT
B_OUT
R609 100
R590 0 1/16W
(do not stuff)
R590 75
R591 100
R566 100
C637 1uF 50V
C636 47nF
C617 47nF
C616 1uF 50V
C592 47nF
C591 1uF 50V
R639 100
R638 100
RPr IN
SYNC_GY
GYIN
BPb IN
C618 1nF 50V MD
C590 4.7pF
C614 4.7pF
C632 4.7pF
+3.3_DTV_PLL
R556 10K
C571 100nF
(PLACE CLOSE TO IC, ON TOP)
C566 82nF 16V
C572 8.2NF 50V
R557 2.7Kohm
V_OUT1
H_OUT1
V_OUT1
R560 0
GRO(0:7)
GGO(0:7)
GBO(0:7)
CA335 CA336
(15p x4)
CA333 CA331
CA329 CA325
+3.3_DTV_PLL
L331 3.3UH
+C567 10.000000 N
C575 C595 C564 C596 C576
100nF 100nF 100nF 10nF 10nF
+3.3_DTV_ADC
D5V
IC318 BA033FP
C633 120uF 6.3V
C608 100nF
C599 C619 C607 C640 C628 C612 C598 C594 C646
100nF 100nF 100nF 100nF 10nF 10nF 10nF 10nF 10nF
+C620 10uF
D3.3V
L348 1.5uH
D3.3V_ADC
C680 10uF
C622 C647 C648 C601 C600
100nF 100nF 100nF 10nF 10nF
D3.3V
BD309 CIC21J601NE
C570 100nF
(VIDEO FIELD REGENERATION)
IC315
74LCX74MX
C_D1 VCC
D1 C_D2
CP1 D2
S_D1 CP2
Q1 S_D2
Q_1 Q2
GND Q_2
R554 0
R567 0
R579 0
VFIELD
V_VSYNC
VFIELD_FLI

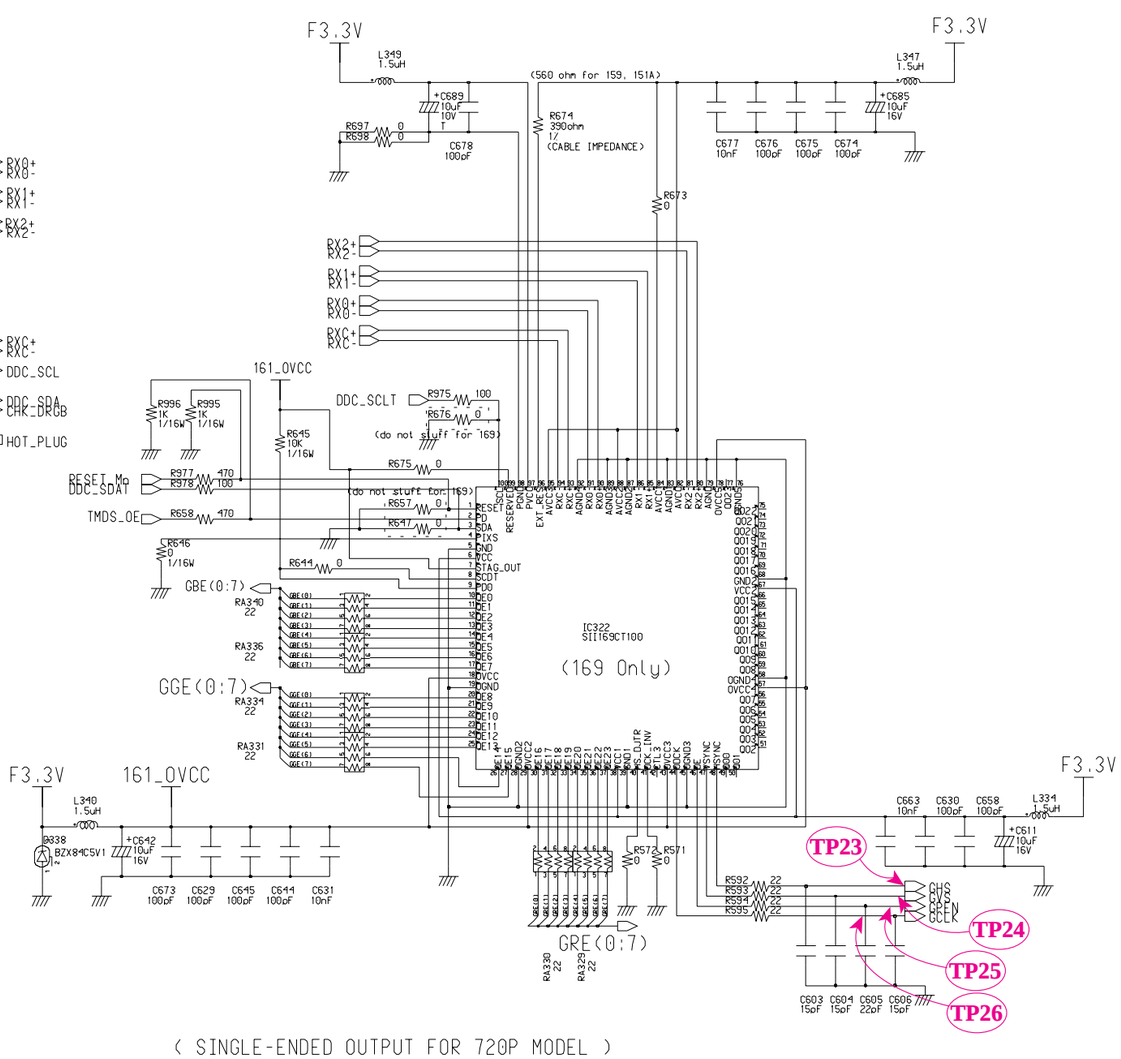

TP19
TP20
TP21
TP22

11-2-4 SIL169

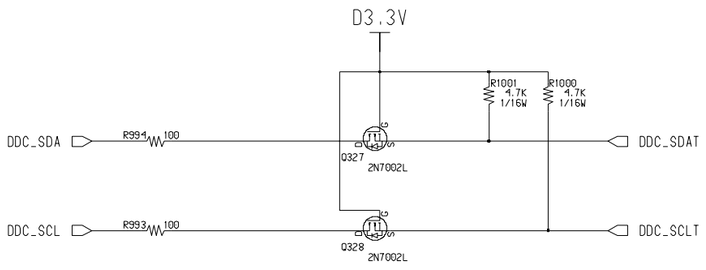


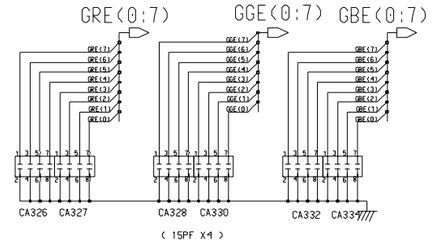
(DVI-D VERTICAL)

(EDID OF DIGITAL)

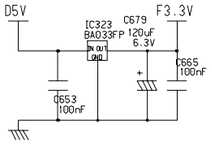


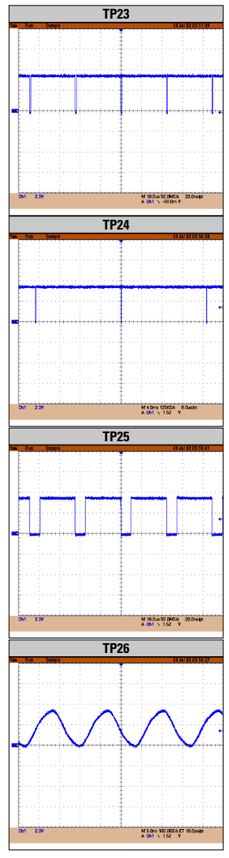
(SINGLE-ENDED OUTPUT FOR 720P MODEL)



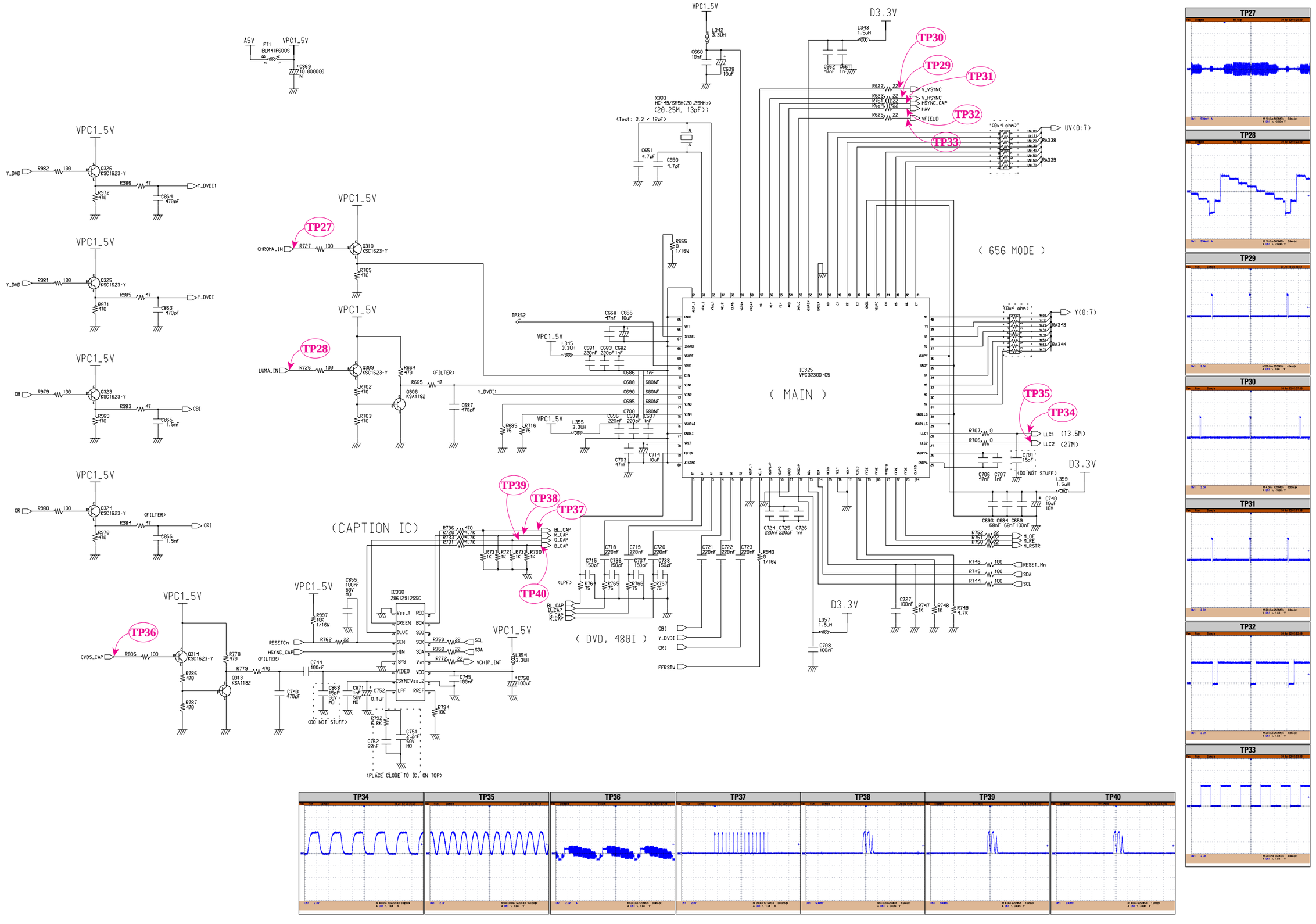


(15PF X4)

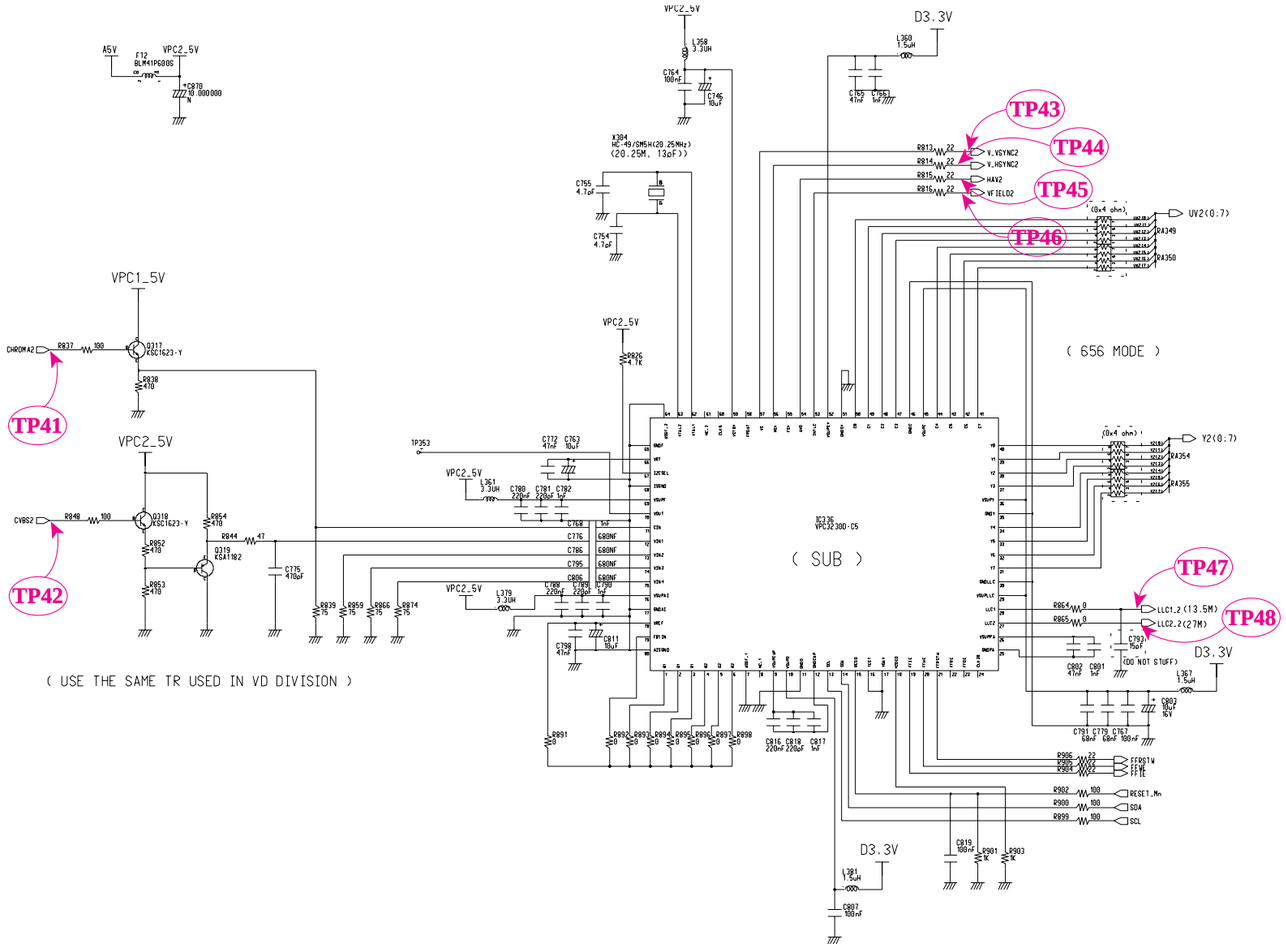




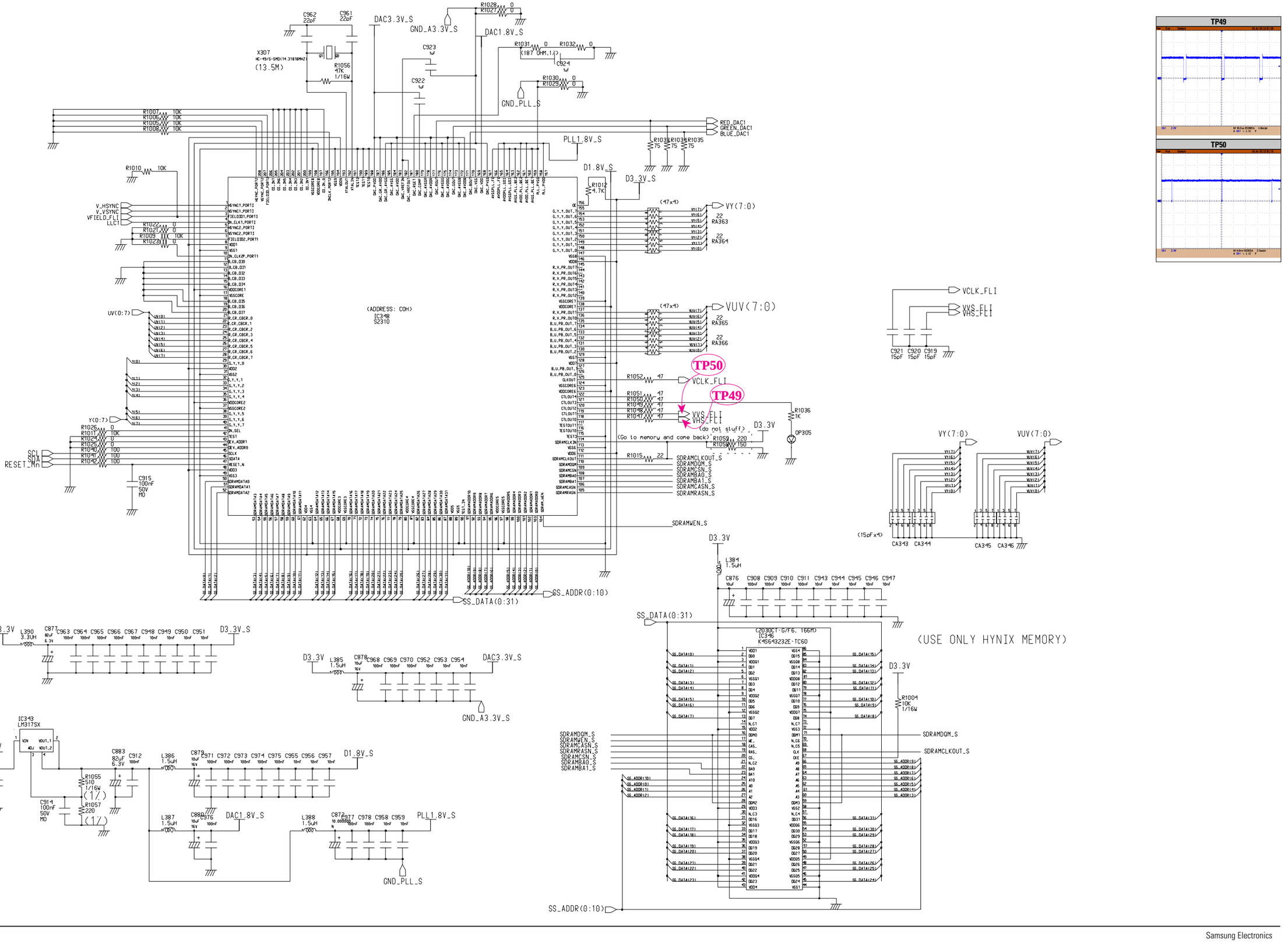
11-2-5 VPC3230



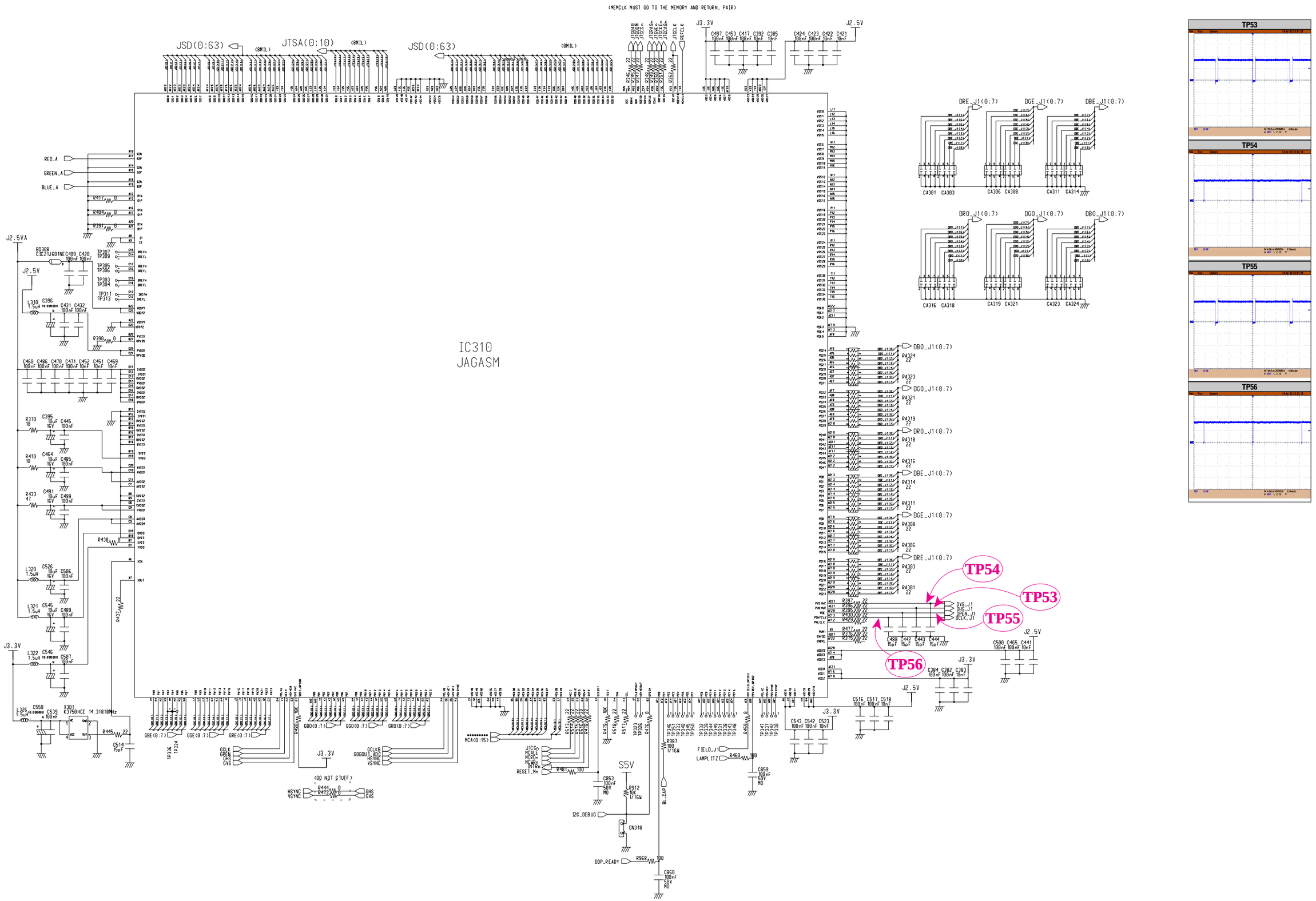
11-2-6 VPC2


TP41
TP42
TP43
TP44
TP45
TP46
TP47
TP48
(656 MODE)
(SUB)
(USE THE SAME TR USED IN VD DIVISION)
D3.3V
VPC2_5V
VPC1_5V
A5V
IC336
VPC3230D-C5
IC337
MSB1004160-3BTB
V_VSYNC2
V_HSYNC2
HAV2
VFIELD2
UV2(0:7)
Y2(0:7)
UV(0:7)
Y(0:7)
LLC1,2
LLC1
LLC2,2(27M)
(DO NOT STUFF)
RESET_Ms
SDA
SCL
FFRST4
FFOE
FFWE
FFRSTW
FFWE
FFOE
W_OE
W_WE
W_RSTR
R_OE
R_WE
R_RSTR

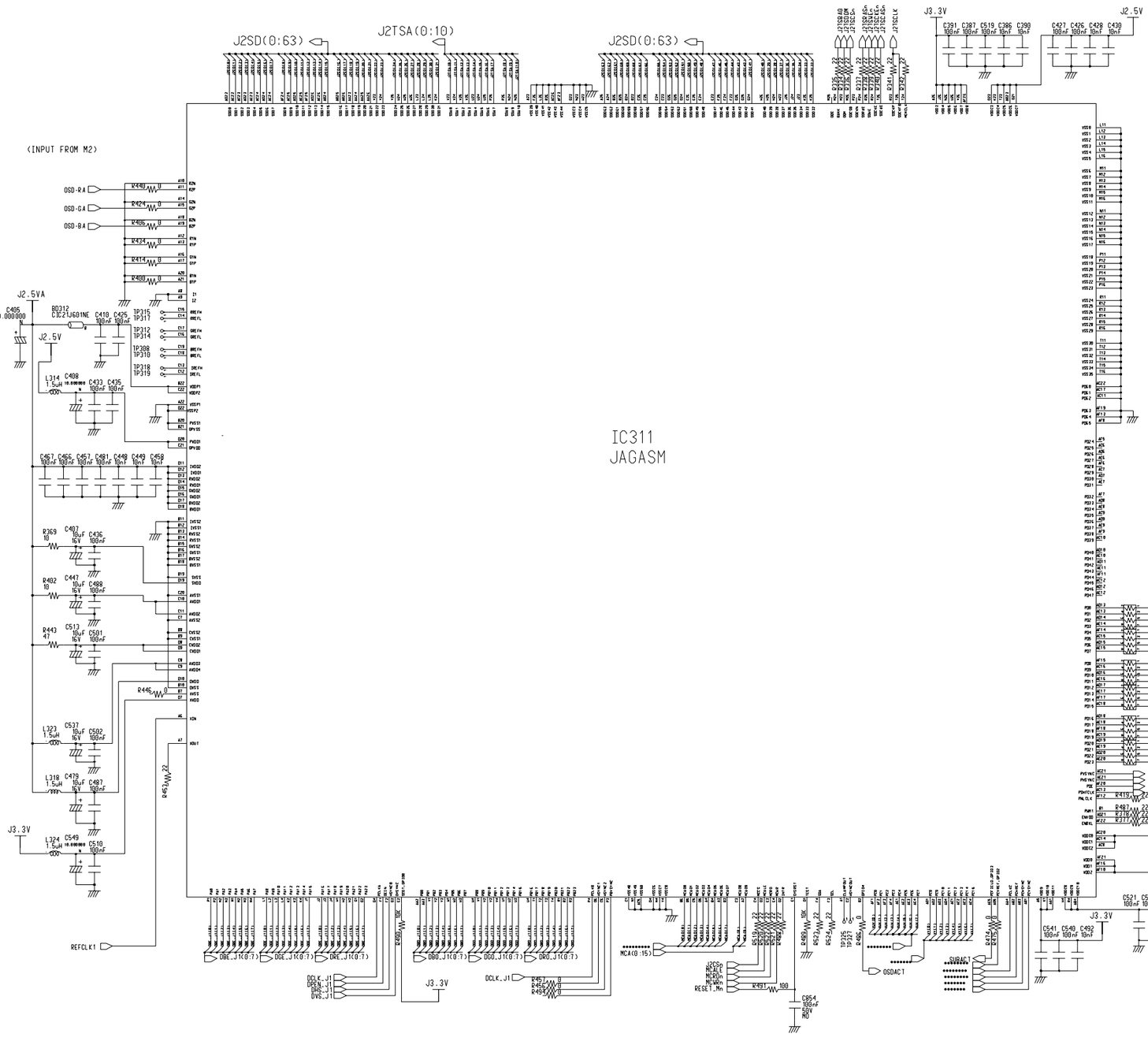
11-2-7 FLI2310

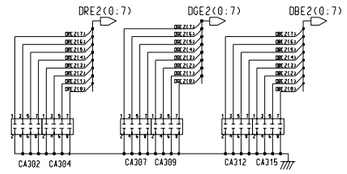


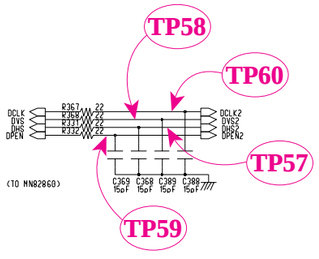
11-2-8 JANG1

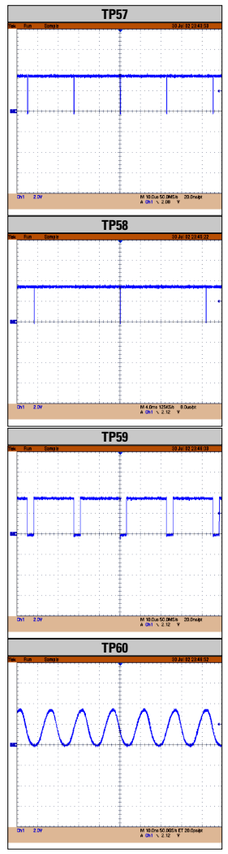

(MEMCLK MUST GO TO THE MEMORY AND RETURN. PAIR)
JSD(0:63)
JTSA(0:10)
JSD(0:63)
IC310
JAGASM
J3.3V
J2.5V
J2.5VA
DRE_J1(0:7)
DGE_J1(0:7)
DBE_J1(0:7)
DRO_J1(0:7)
DGO_J1(0:7)
DBO_J1(0:7)
TP53
TP54
TP55
TP56
S5V
I2C_DEBUG
DDP_READY
FIELD_J1
LAMPLITZ
(DO NOT STUFF)

11-2-9 JAG2

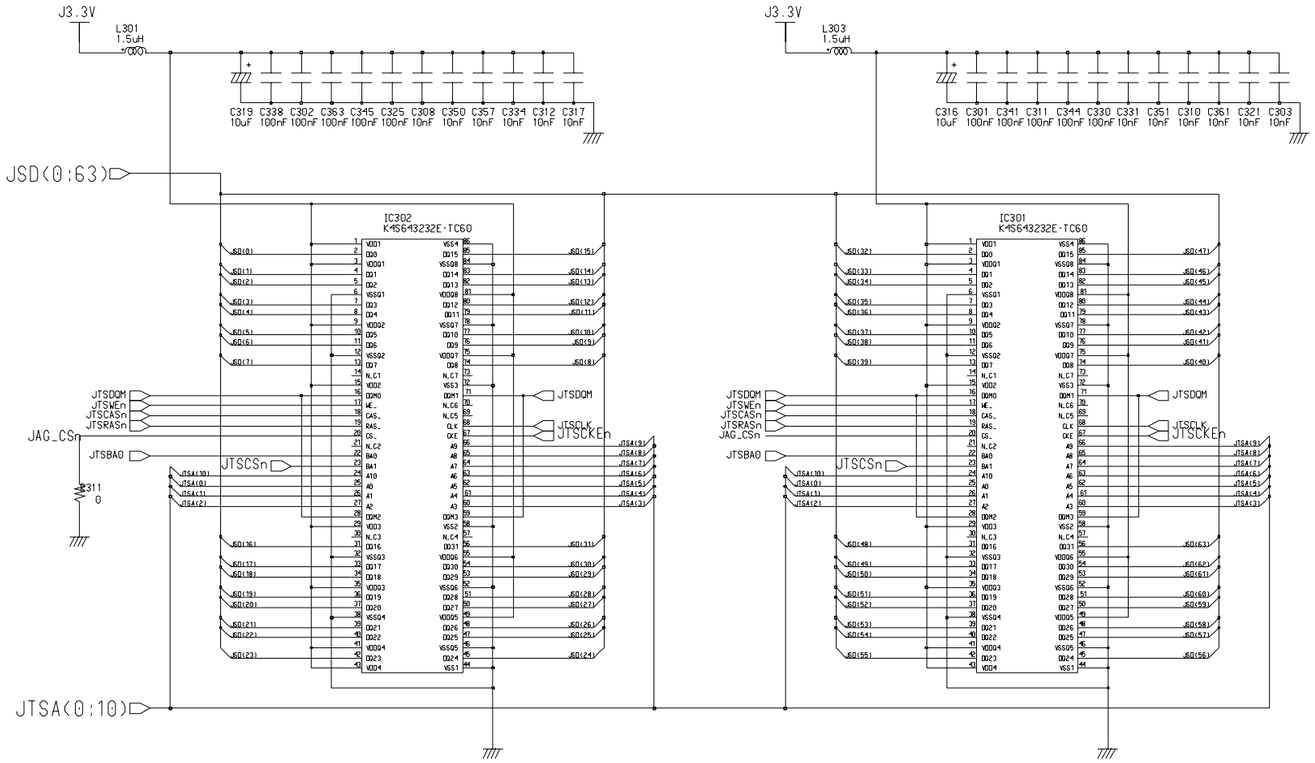

J2SD(0:63)
J2TSA(0:10)
J2SD(0:63)
J3.3V
J2.5V
(INPUT FROM M2)
OSD-RA
OSD-GA
OSD-BA
J2.5VA
J2.5V
IC311
JAGASM
REFCLK1
DBE_J1(0:7)
DGE_J1(0:7)
DRE_J1(0:7)
DBO_J1(0:7)
DGO_J1(0:7)
DRO_J1(0:7)
DCLK_J1
DPEN_J1
DVS_J1
MCA(0:15)
OSDAC1
SVRAC1
DBE2(0:7)
DGE2(0:7)
DRE2(0:7)
ENVDD
ENBKL
DCLK
DVS
DHS
DPEN
(TO MN88286D)


DRE2(0:7)
DGE2(0:7)
DBE2(0:7)
CA302 CA304
CA307 CA309
CA312 CA315

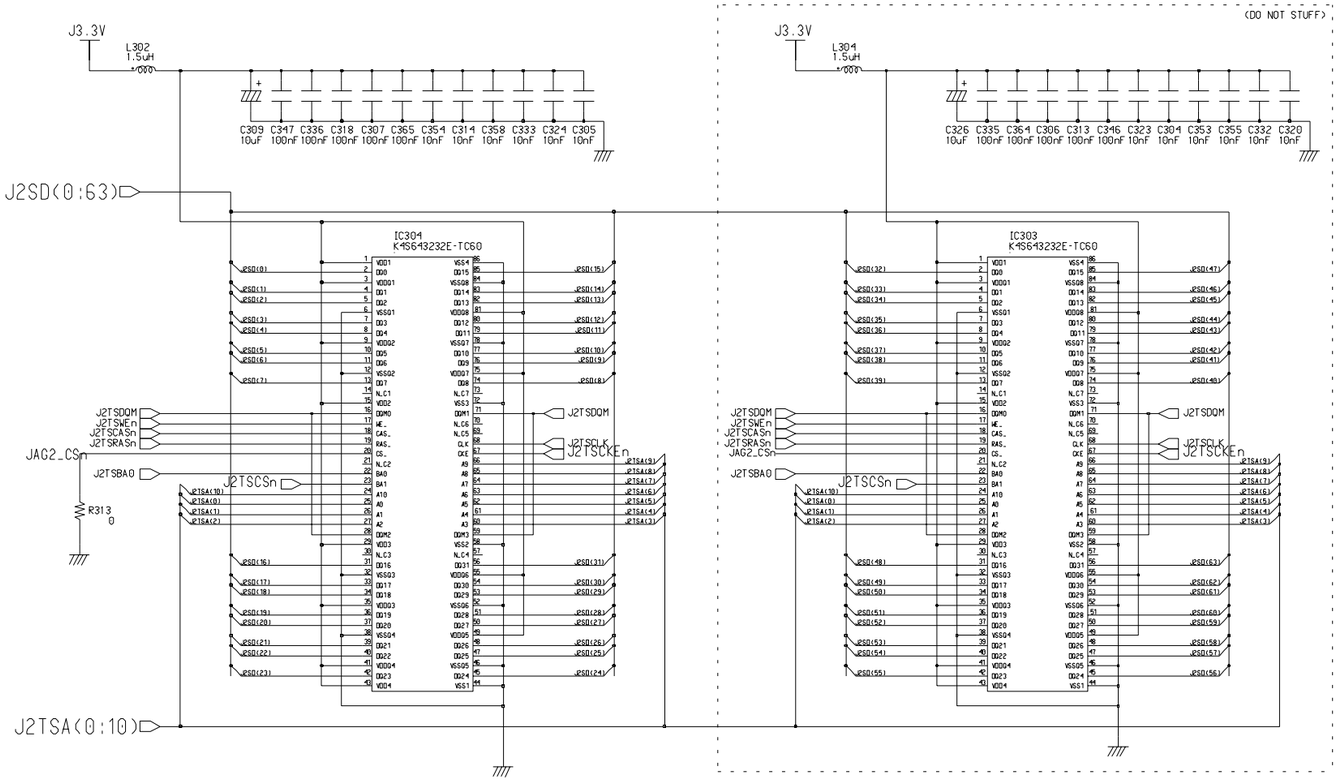

TP58
TP60
TP57
TP59
DCLK
DVS
DHS
DPEN
DCLK2
DVS2
DHS2
DPEN2
(TO MN88286D)


TP57
TP58
TP59
TP60

11-2-10 SDRAM



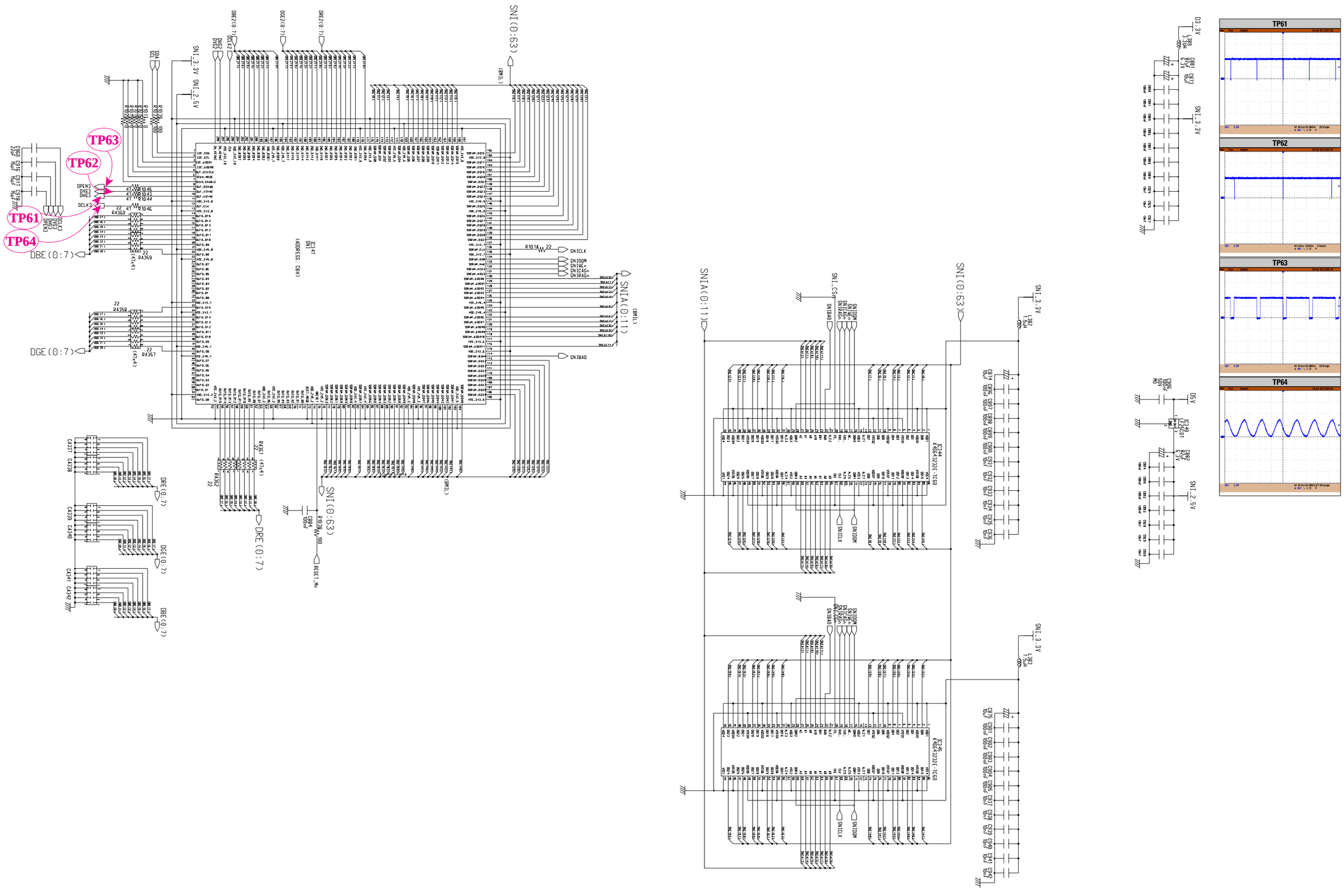
(TWO 2X32M SDRAM FOR JAG1)



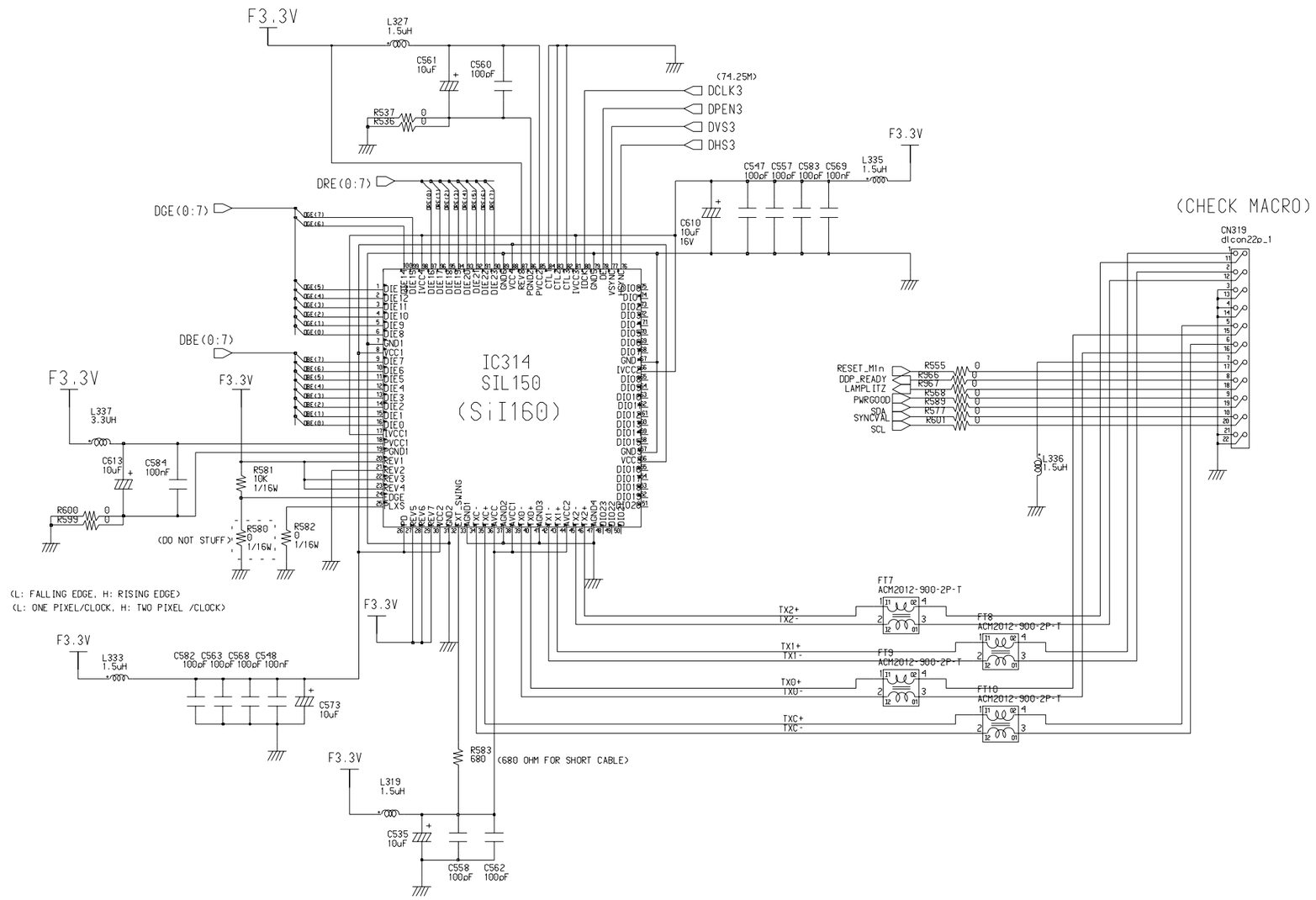
(ONE 2X32M SDRAM FOR JAG2)

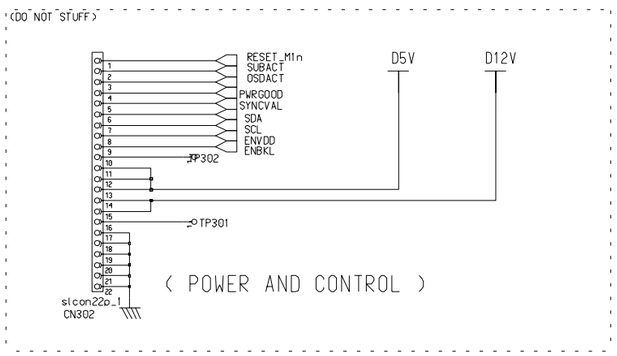
(ONE MORE SDRAM FOR 1368x1024 TEST)

11-2-11 SNI

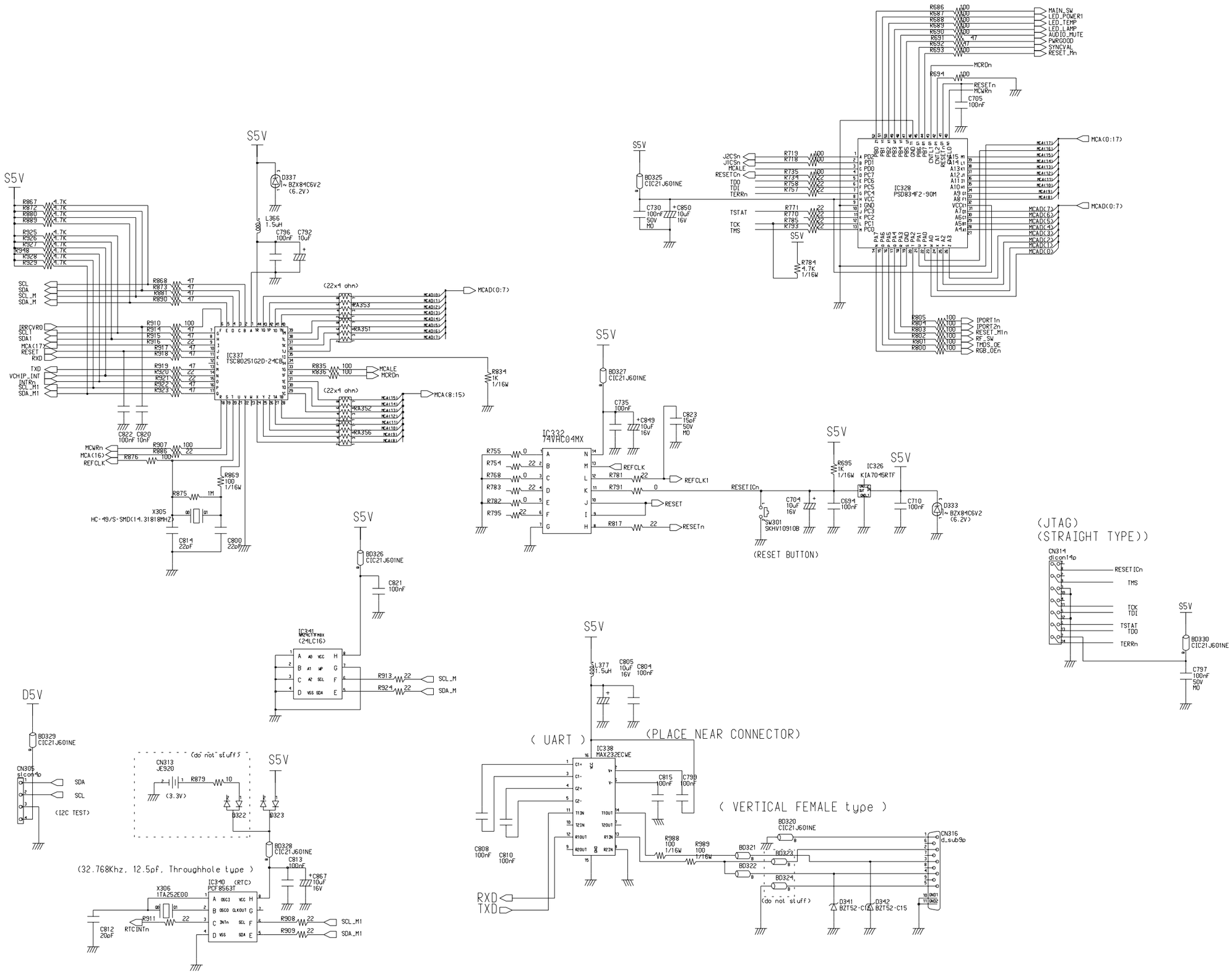

TP63
TP62
TP61
TP64
SNI(0:63)
SNIA(0:11)
DBE(0:7)
DGE(0:7)
DRE(0:7)
SNICLK
SNIDOM
SNICASn
SNIRASn
SNIBA0
SNI_3.3V
SNI_2.5V
D3.3V
D5V
TP61
TP62
TP63
TP64

11-2-12 SII160

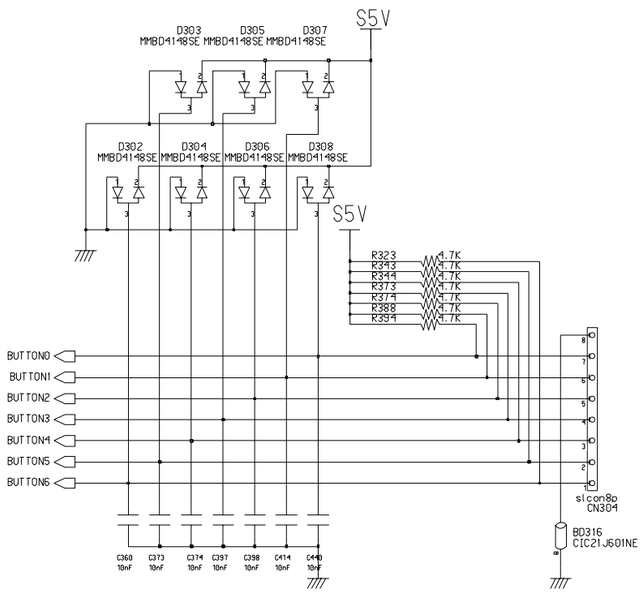


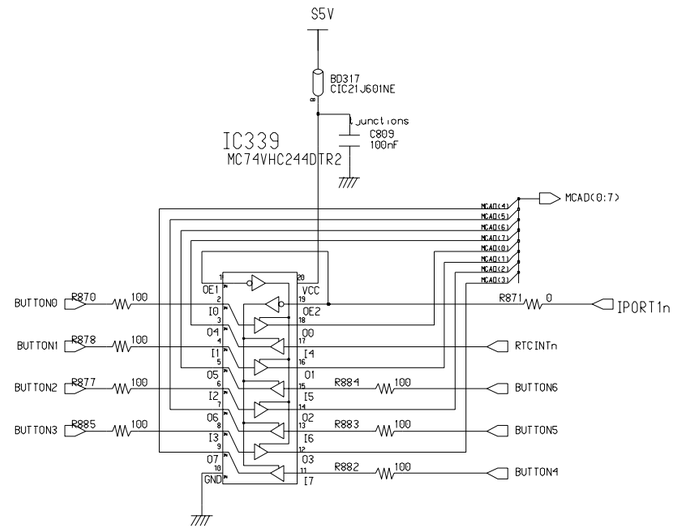


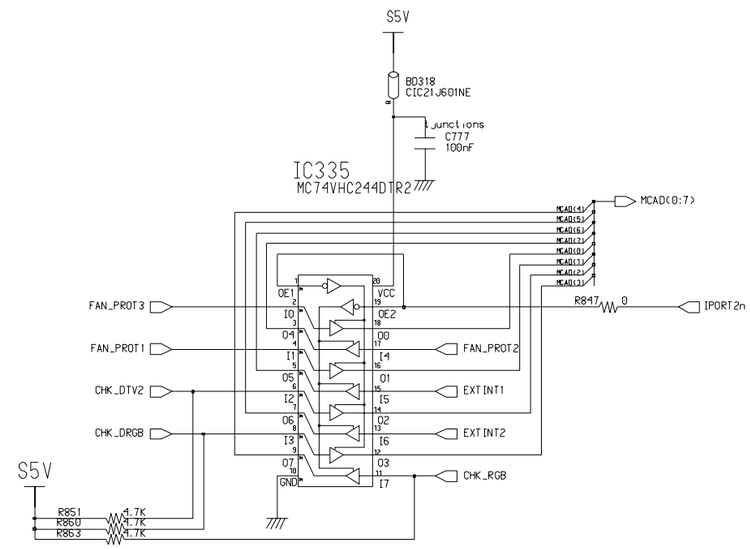
11-2-13 MICOM

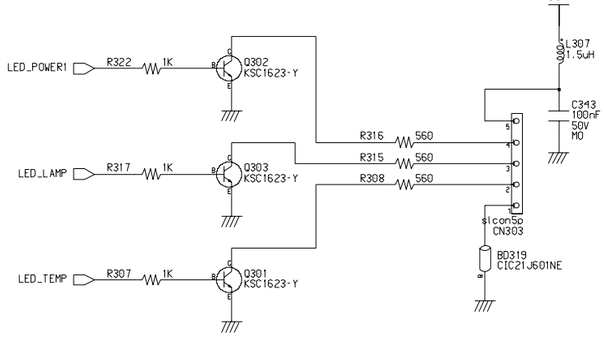

S5V
D337
BZX84C6V2
(6.2V)
L366
1.5uH
C796
100nF
C792
10uF
R867
R872
R880
R885
4.7K
R925
R926
R927
R928
R929
R948
SCL
SDA
SCL_M
SDA_M
R868
R873
R901
R890
47
(22x4 ohm)
RA353
RA351
RA352
RA356
MCAD(0:7)
MCA(8:15)
IC337
TSC80251G2D-24CB
IRRCVR0
SCL1
SDA1
MCA(17)
RESET
RXD
TXD
VCHIP_INT
INTRn
SCL_M1
SDA_M1
R910
R914
R915
R916
R917
R918
R919
R920
R921
R922
R923
100
22
R834
1K
1/16W
R835
R836
MCALE
MCRDn
C822
100nF
C820
10nF
MCWRn
MCA(16)
REFCLK
R907
R886
R876
R869
100
1/16W
R875
1M
X305
HC-49/S-SMD(14.31818MHZ)
C814
22pF
C800
22pF
IC332
74VHC04MX
R755
R754
R768
R783
R782
R795
0
22
C735
100nF
C849
10uF
16V
C823
15pF
50V
MO
REFCLK
REFCLK1
R781
R791
R817
RESET
RESETn
RESETICn
SW301
SKHV10910B
(RESET BUTTON)
C704
10uF
16V
C694
100nF
C710
100nF
IC326
KIA7045RTF
R695
1K
1/16W
D333
BZX84C6V2
(6.2V)
BD325
CIC21J601NE
C730
100nF
C850
10uF
16V
50V
MO
J2CSn
JICSn
MCALE
RESETCn
TDO
TDI
TERRn
R719
R718
R735
R734
R758
R757
R771
R770
R785
R793
TSTAT
TCK
TMS
R784
4.7K
1/16W
IC328
PSD834F2-90M
R686
R687
R688
R689
R690
R691
R692
R693
R694
MAIN_SW
LED_POWER1
LED_TEMP
LED_LAMP
AUDIO_MUTE
PWRGOOD
SYNCVAL
RESET_Mn
MCRDn
RESETn
MCWRn
C705
100nF
MCA(0:17)
MCAD(0:7)
R805
R804
R803
R802
R801
R800
IPORT1n
IPORT2n
RESET_M1n
RF_SW
TMDS_OE
RGB_OEn
S5V
BD327
CIC21J601NE
BD326
CIC21J601NE
C821
100nF
IC341
M24C16-WBX
(24LC16)
R913
R924
22
SCL_M
SDA_M
D5V
BD329
CIC21J601NE
CN305
slcon4p
SDA
SCL
(I2C TEST)
(do not stuff)
CN313
JE920
(3.3V)
R879
10
D322
D323
BD328
CIC21J601NE
C813
100nF
C867
10uF
16V
(32.768Khz, 12.5pf, Throughhole type)
X306
1TA2S2E00
IC340 (RTC)
PCF8563T
R911
RTCINTn
R908
R909
SCL_M1
SDA_M1
C812
20pF
S5V
L377
33.5uH
C805
10uF
16V
C804
100nF
(UART)
(PLACE NEAR CONNECTOR)
IC338
MAX232ECWE
C815
100nF
C799
100nF
C808
100nF
C810
100nF
RXD
TXD
(VERTICAL FEMALE type)
BD320
CIC21J601NE
BD321
BD322
BD323
BD324
R988
R989
100
1/16W
(do not stuff)
D341
BZT52-C15
D342
BZT52-C15
CN316
d_sub9p
(JTAG)
(STRAIGHT TYPE))
CN314
dlcon14p
RESETICn
TMS
TCK
TDI
TSTAT
TDO
TERRn
BD330
CIC21J601NE
C797
100nF
50V
MO

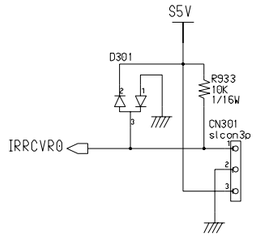
11-2-14 KEYPAD

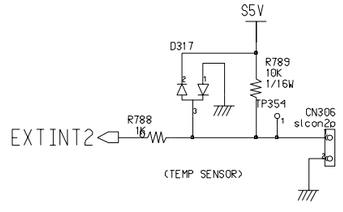


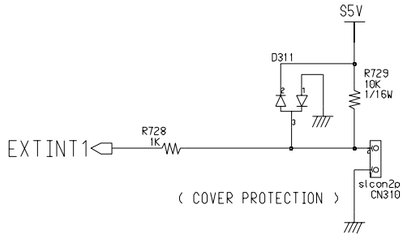


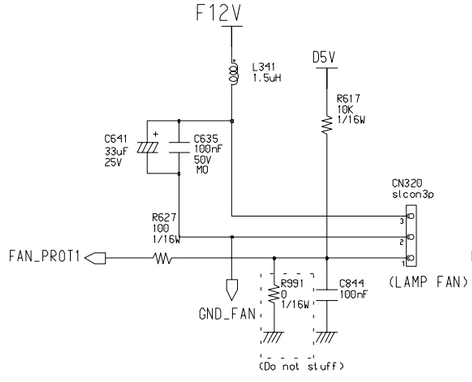


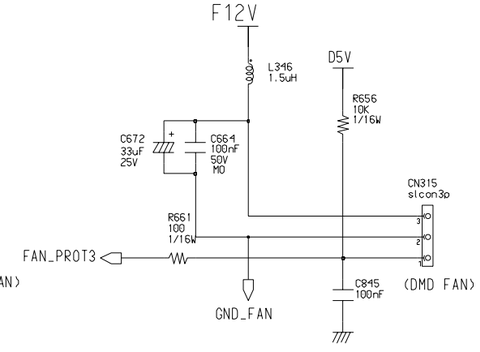


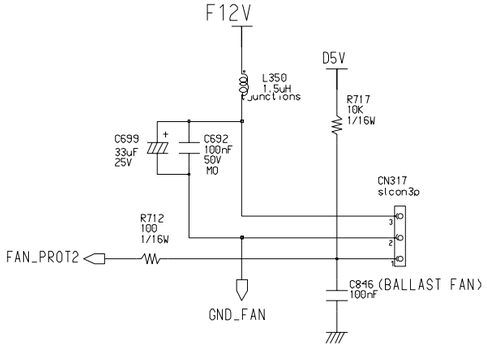






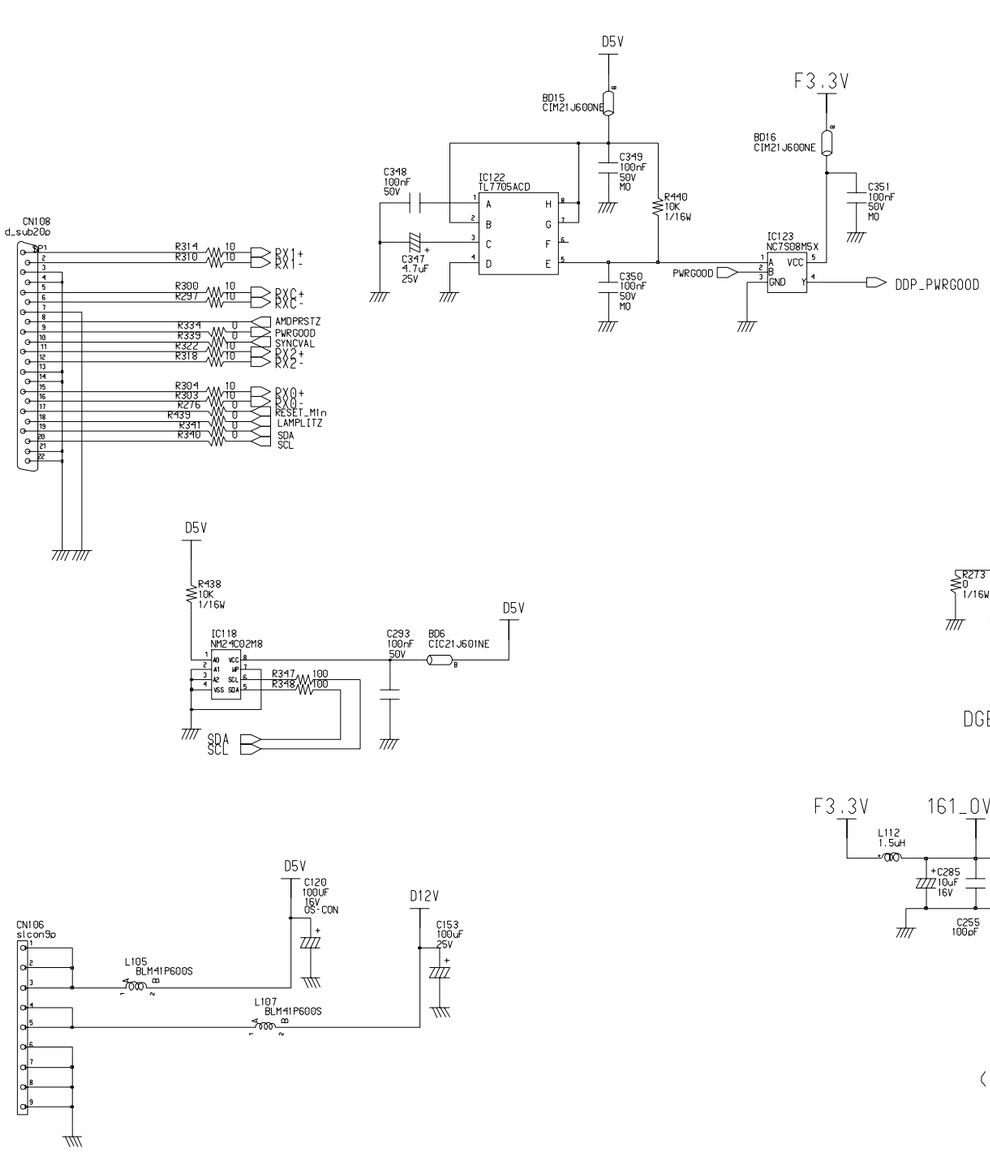




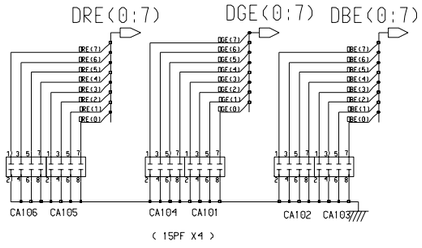


11-3 DMD

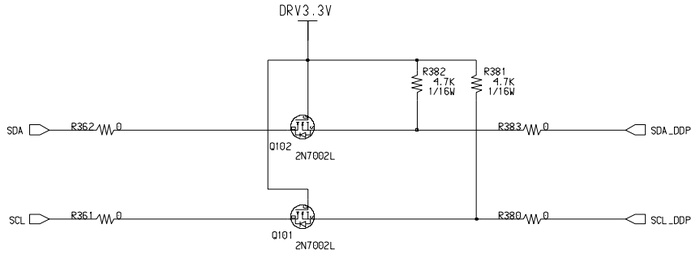
11-3-1 SIL161

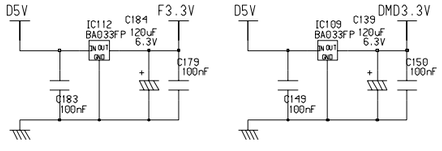


(SINGLE-ENDED OUTPUT FOR 720P MODEL)

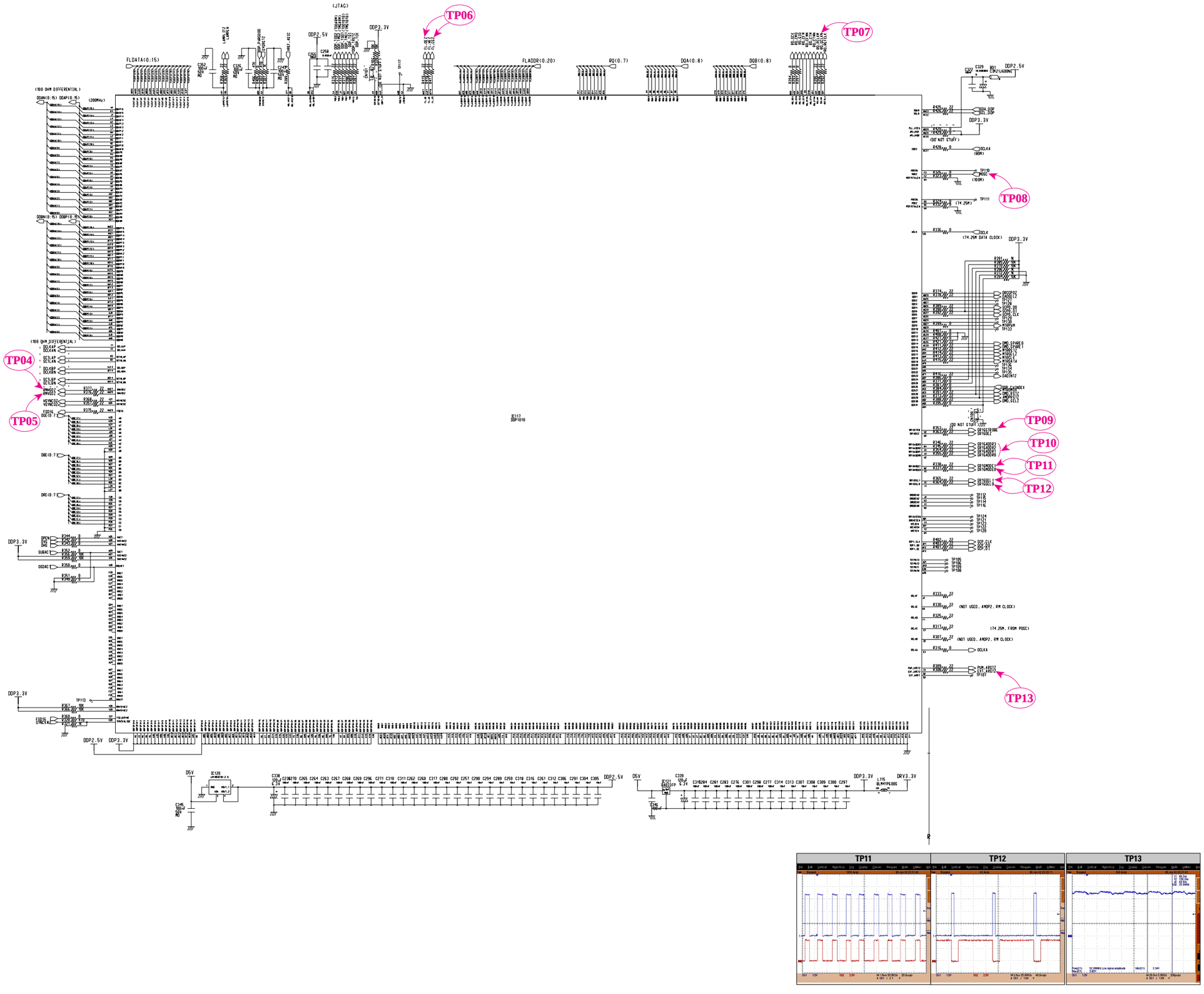


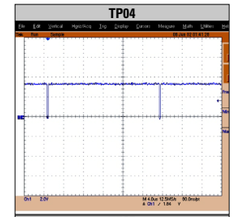
(DDP1010 CONTROL OPTION FROM PC)

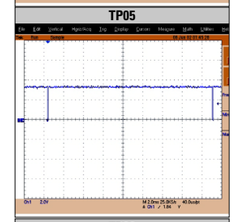


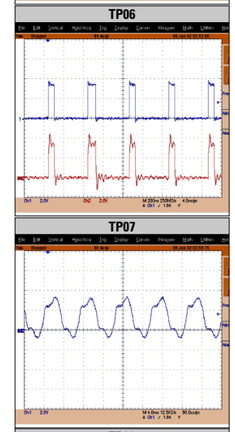


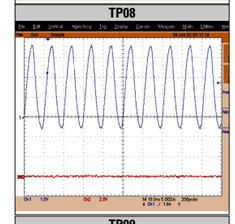
11-3-2 DDP1010

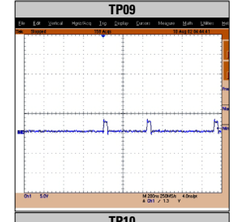


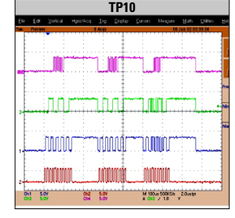




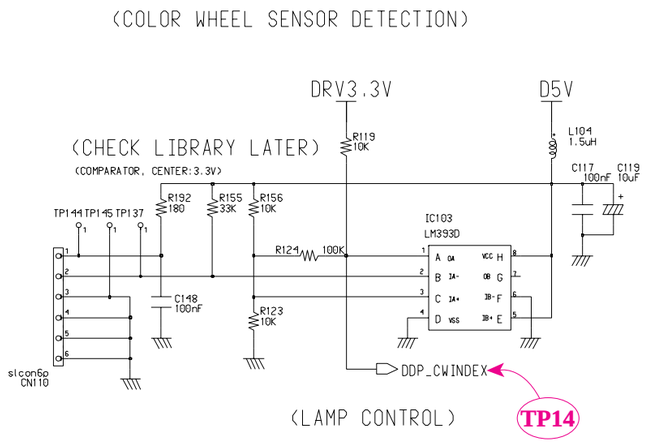


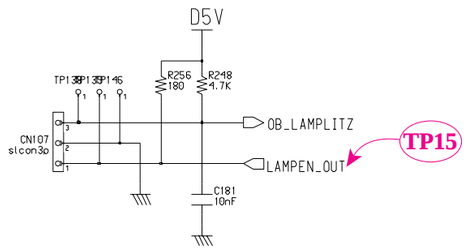


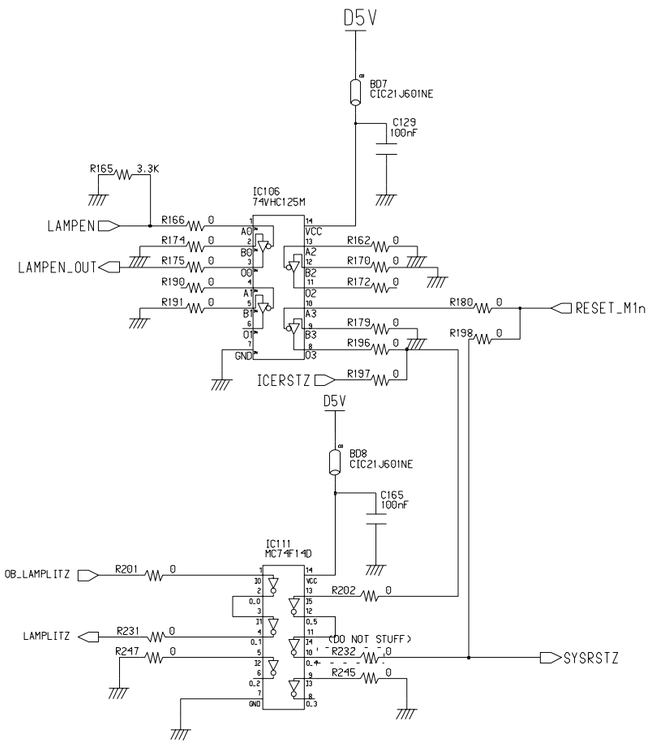


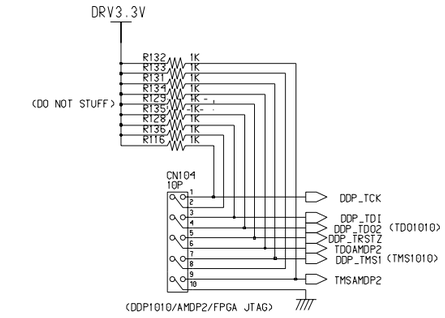


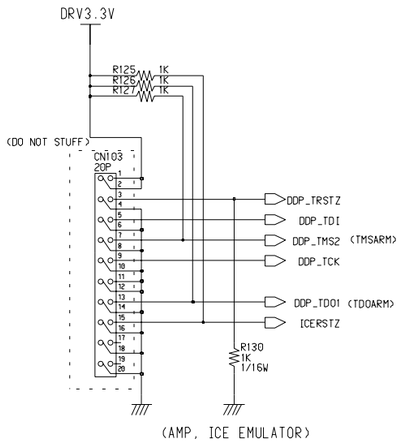
11-3-3 CW

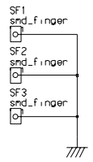

(COLOR WHEEL SENSOR DETECTION)
DRV3.3V
D5V
(CHECK LIBRARY LATER)
(COMPARATOR, CENTER:3.3V)
R119 10K
L104 1.5uH
C117 100nF
C119 10uF
R192 180
R155 33K
R156 10K
TP144 TP145 TP137
IC103 LM393D
R124 100K
C148 100nF
R123 10K
slcon6p CN110
DDP_CWINDEX
TP14
(LAMP CONTROL)

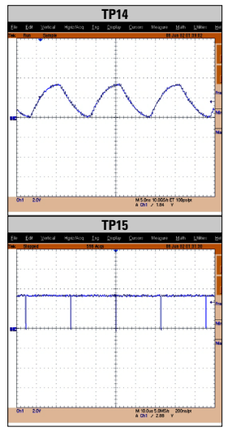

D5V
TP138 TP139 TP146
R256 180
R248 4.7K
CN107 slcon3p
OB_LAMPLITZ
LAMPEN_OUT
TP15
C181 10nF


D5V
BD7 CIC21J601NE
C129 100nF
R165 3.3K
IC106 74VHC125M
LAMPEN
LAMPEN_OUT
R166 0
R174 0
R175 0
R190 0
R191 0
R162 0
R170 0
R172 0
R180 0
R179 0
R196 0
R198 0
RESET_M1n
ICERSTZ
R197 0
D5V
BD8 CIC21J601NE
C165 100nF
IC111 MC74F14D
OB_LAMPLITZ
R201 0
R202 0
LAMPLITZ
R231 0
R247 0
R232 0
R245 0
(DO NOT STUFF)
SYSRSTZ

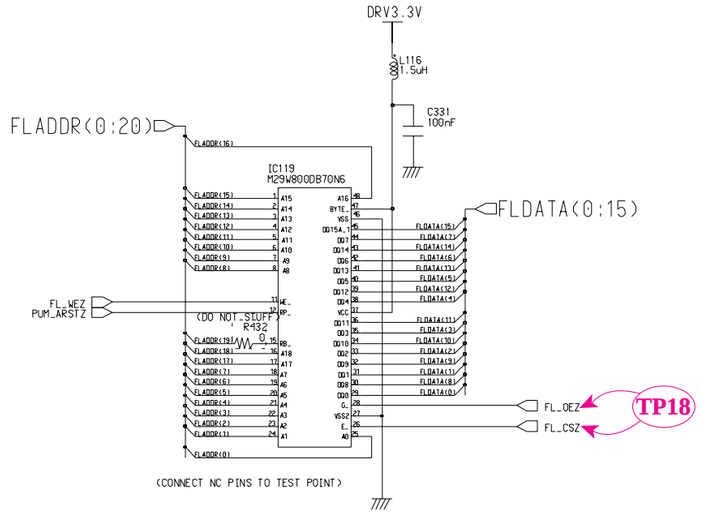

DRV3.3V
R132 1K
R133 1K
R131 1K
R134 1K
R129 1K
R135 1K
R128 1K
R136 1K
R116 1K
(DO NOT STUFF)
CN104 10P
DDP_TCK
DDP_TDI
DDP_TDO2 (TDO1010)
DDP_TRSTZ
TDOAMDP2
DDP_TMS1 (TMS1010)
TMSAMDP2
(DDP1010/AMDP2/FPGA JTAG)

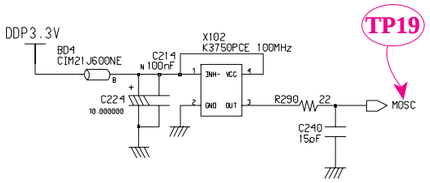

DRV3.3V
R125 1K
R126 1K
R127 1K
(DO NOT STUFF)
CN103 20P
DDP_TRSTZ
DDP_TDI
DDP_TMS2 (TMSARM)
DDP_TCK
DDP_TDO1 (TDOARM)
ICERSTZ
R130 1K 1/16W
(AMP, ICE EMULATOR)

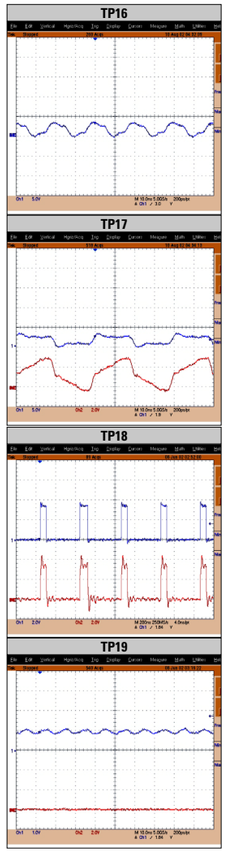

SF1 smd_finger
SF2 smd_finger
SF3 smd_finger

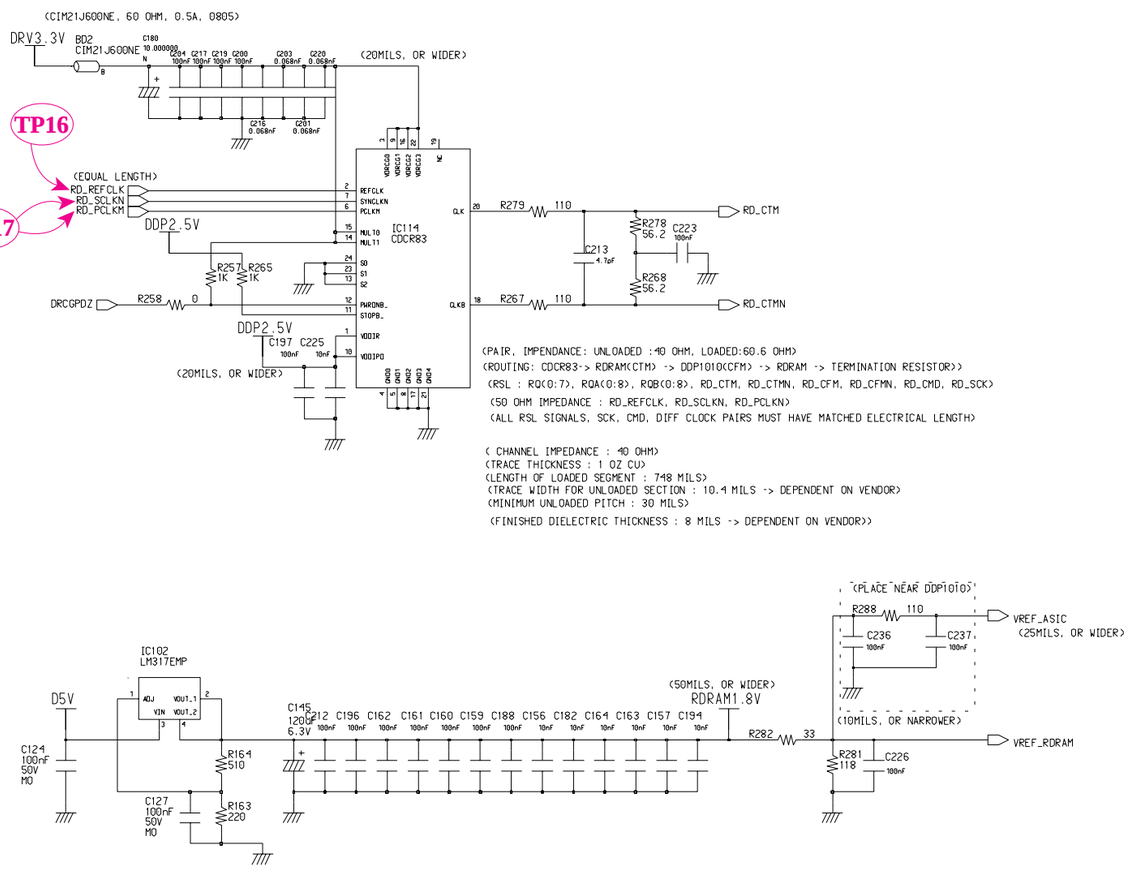

TP14
TP15

11-3-4 FLASH



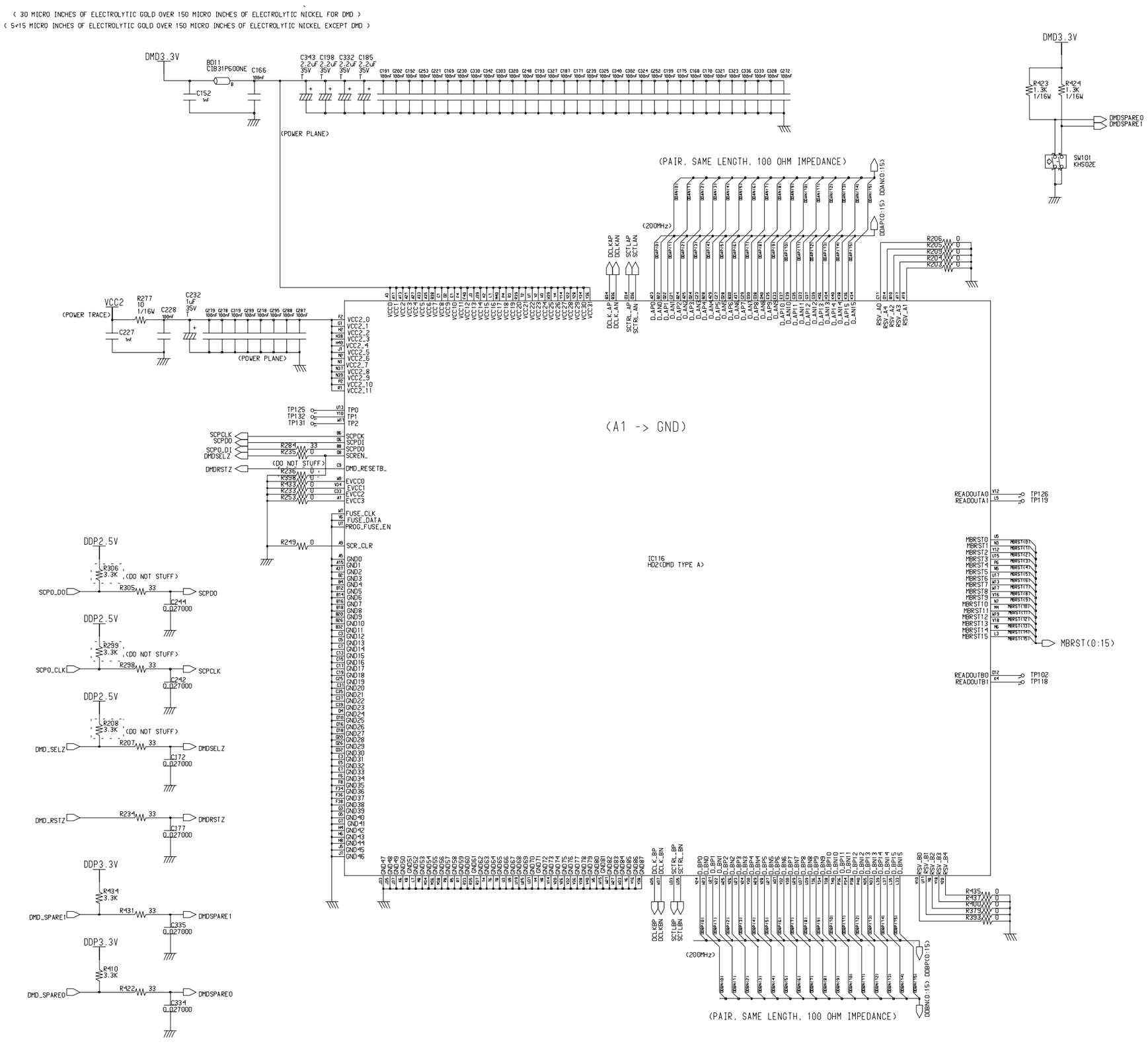




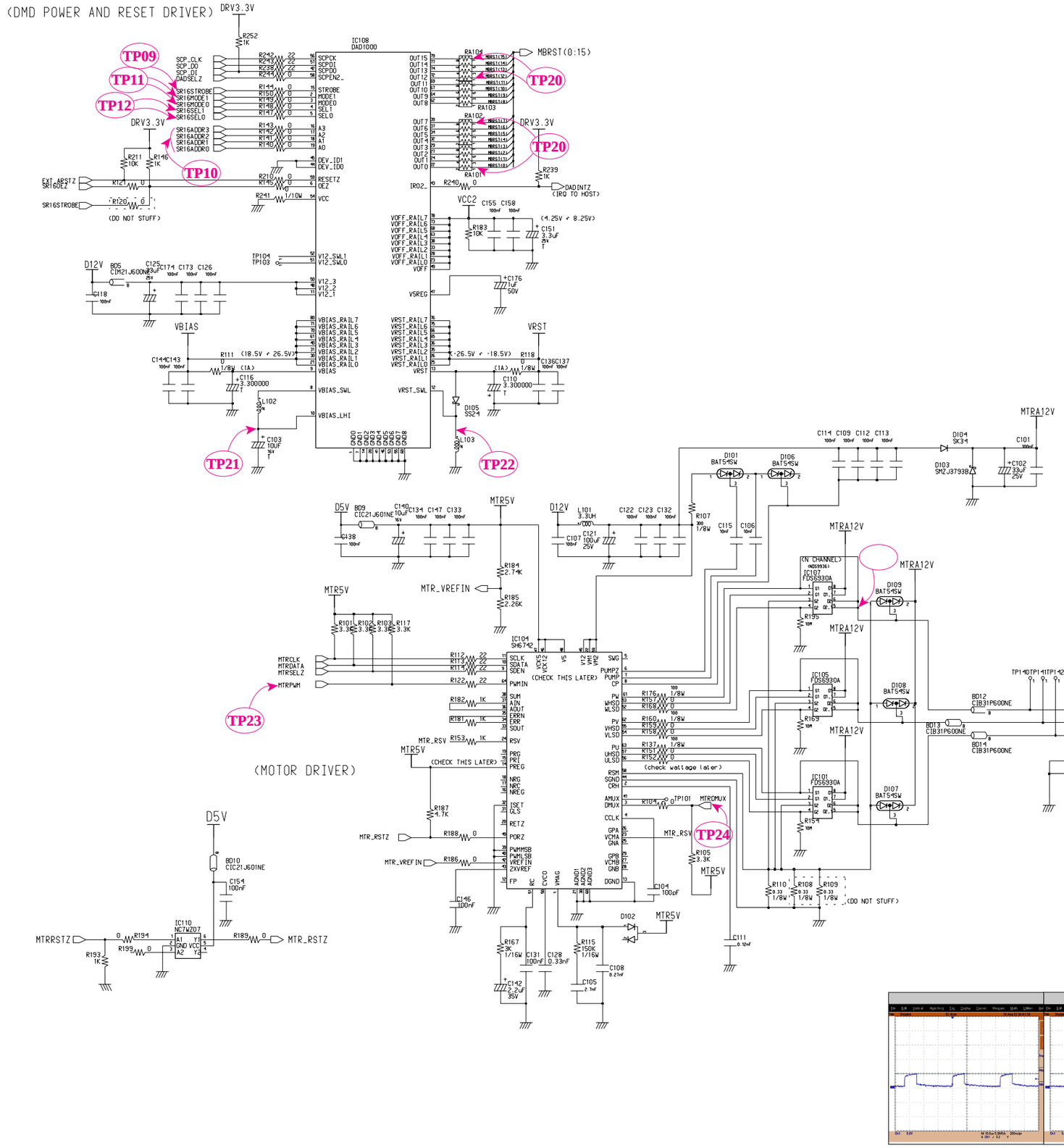


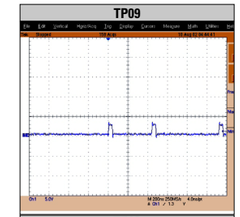
(RDRAM FOR SHORT CHANNEL, 54PIN)

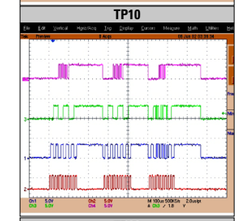
11-3-5 DMD

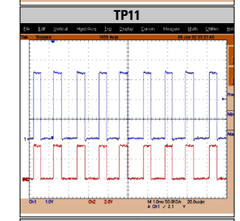

(30 MICRO INCHES OF ELECTROLYTIC GOLD OVER 150 MICRO INCHES OF ELECTROLYTIC NICKEL FOR DMD)
(5~15 MICRO INCHES OF ELECTROLYTIC GOLD OVER 150 MICRO INCHES OF ELECTROLYTIC NICKEL EXCEPT DMD)
DMD3.3V
BD11
C1B31P600NE
C166
100nF
C152
1nF
C343 C198 C332 C185
2.2uF 2.2uF 2.2uF 2.2uF
35V 35V 35V 35V
(POWER PLANE)
(PAIR, SAME LENGTH, 100 OHM IMPEDANCE)
(200MHz)
DDAP(0:15) DDAN(0:15)
DCLKAP
DCLKAN
SCTLAP
SCTLAN
R206 0
R205 0
R204 0
R203 0
R202 0
R423 1.3K 1/16W
R424 1.3K 1/16W
DMDSPARE0
DMDSPARE1
SW101
KHS02E
VCC2
(POWER TRACE)
R277 10 1/16W
C228 100nF
C227 1nF
C232 1uF 35V
(POWER PLANE)
VCC2_0
VCC2_1
VCC2_2
VCC2_3
VCC2_4
VCC2_5
VCC2_6
VCC2_7
VCC2_8
VCC2_9
VCC2_10
VCC2_11
TP125
TP132
TP131
TP0
TP1
TP2
(A1 -> GND)
SCPCLK
SCPDO
SCPO_DI
DMDSELZ
R284 33
R235 0
(DO NOT STUFF)
DMDRSTZ
DMD_RESETB_
R236 0
R238 0
R433 0
R233 0
R253 0
EVCC0
EVCC1
EVCC2
EVCC3
FUSE_CLK
FUSE_DATA
PROG_FUSE_EN
R249 0
SCR_CLK
GND0
GND1
GND2
GND3
GND4
GND5
GND6
GND7
GND8
GND9
GND10
GND11
GND12
GND13
GND14
GND15
GND16
GND17
GND18
GND19
GND20
GND21
GND22
GND23
GND24
GND25
GND26
GND27
GND28
GND29
GND30
GND31
GND32
GND33
GND34
GND35
GND36
GND37
GND38
GND39
GND40
GND41
GND42
GND43
GND44
GND45
GND46
IC116
HD2(DMD TYPE A)
READOUTA0
READOUTA1
TP126
TP119
MBRST0
MBRST1
MBRST2
MBRST3
MBRST4
MBRST5
MBRST6
MBRST7
MBRST8
MBRST9
MBRST10
MBRST11
MBRST12
MBRST13
MBRST14
MBRST15
MBRST(0:15)
READOUTB0
READOUTB1
TP102
TP118
R435 0
R437 0
R400 0
R379 0
R393 0
DCLK_BP
DCLK_BN
SCTL_BP
SCTL_BN
DCLKBP
DCLKBN
SCTLBP
SCTLBN
(200MHz)
DDBP(0:15) DDBN(0:15)
(PAIR, SAME LENGTH, 100 OHM IMPEDANCE)
DDP2.5V
R306 3.3K (DO NOT STUFF)
R305 33
SCP0_DO
SCPDO
C244 0.027000
R299 3.3K (DO NOT STUFF)
R298 33
SCP0_CLK
SCPCLK
C242 0.027000
R209 3.3K (DO NOT STUFF)
R207 33
DMD_SELZ
DMDSELZ
C172 0.027000
R234 33
DMD_RSTZ
DMDRSTZ
C177 0.027000
DDP3.3V
R434 3.3K
R431 33
DMD_SPARE1
DMDSPARE1
C335 0.027000
R410 3.3K
R422 33
DMD_SPARE0
DMDSPARE0
C334 0.027000

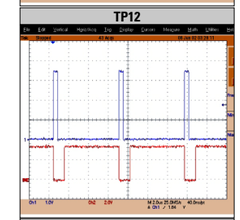
11-3-6 DAD1000

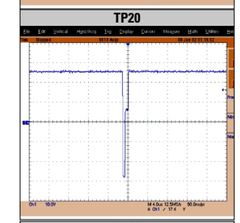


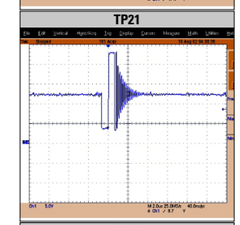


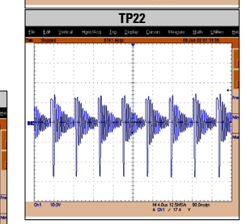


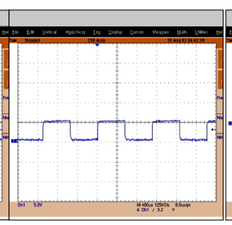


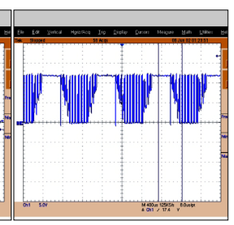




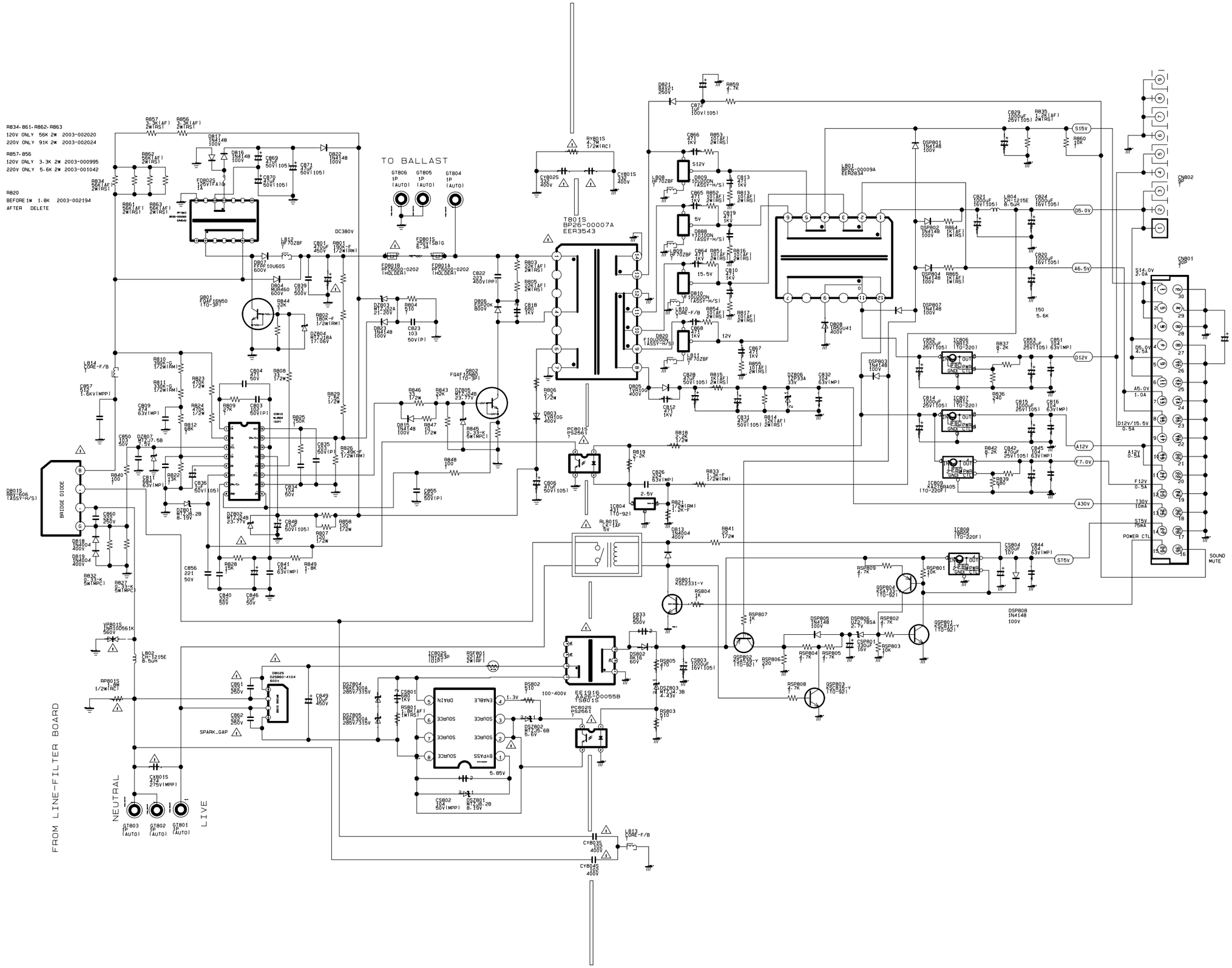








11-4 POWER


R834.861.R862.R863
120V ONLY 56K 2W 2003-002020
220V ONLY 91K 2W 2003-002024
R857.856
120V ONLY 3.3K 2W 2003-000995
220V ONLY 5.6K 2W 2003-001042
R820
BEFORE 1W 1.8K 2003-002194
AFTER DELETE
TO BALLAST
T801S
BP26-00007A
EER3543
DC380V
FROM LINE-FILTER BOARD
NEUTRAL
LIVE
BRIDGE DIODE
SPARK_GAP
SOUND MUTE
POWER CTL
S15V
S12V
5V
15.5V
12V
D5.0V
A6.5V
D12V
A5.0V
A12V
F7.0V
A30V
F12V
T30V
ST5V
S14.0V
D5.0V
D12V/15.5V
A12V
F12V
T30V
ST5V
CN801
CN802
CN803
CN804