

TOSHIBA

FILE NO. 020-200417

CIRCUIT DIAGRAMS

Plasma Color Television

42HP84



SCHEMATIC DIAGRAM

MODEL : 42HP84

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON THE MANUAL FOR THIS MODEL.

CAUTION: The international hazard symbols " \triangle " in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

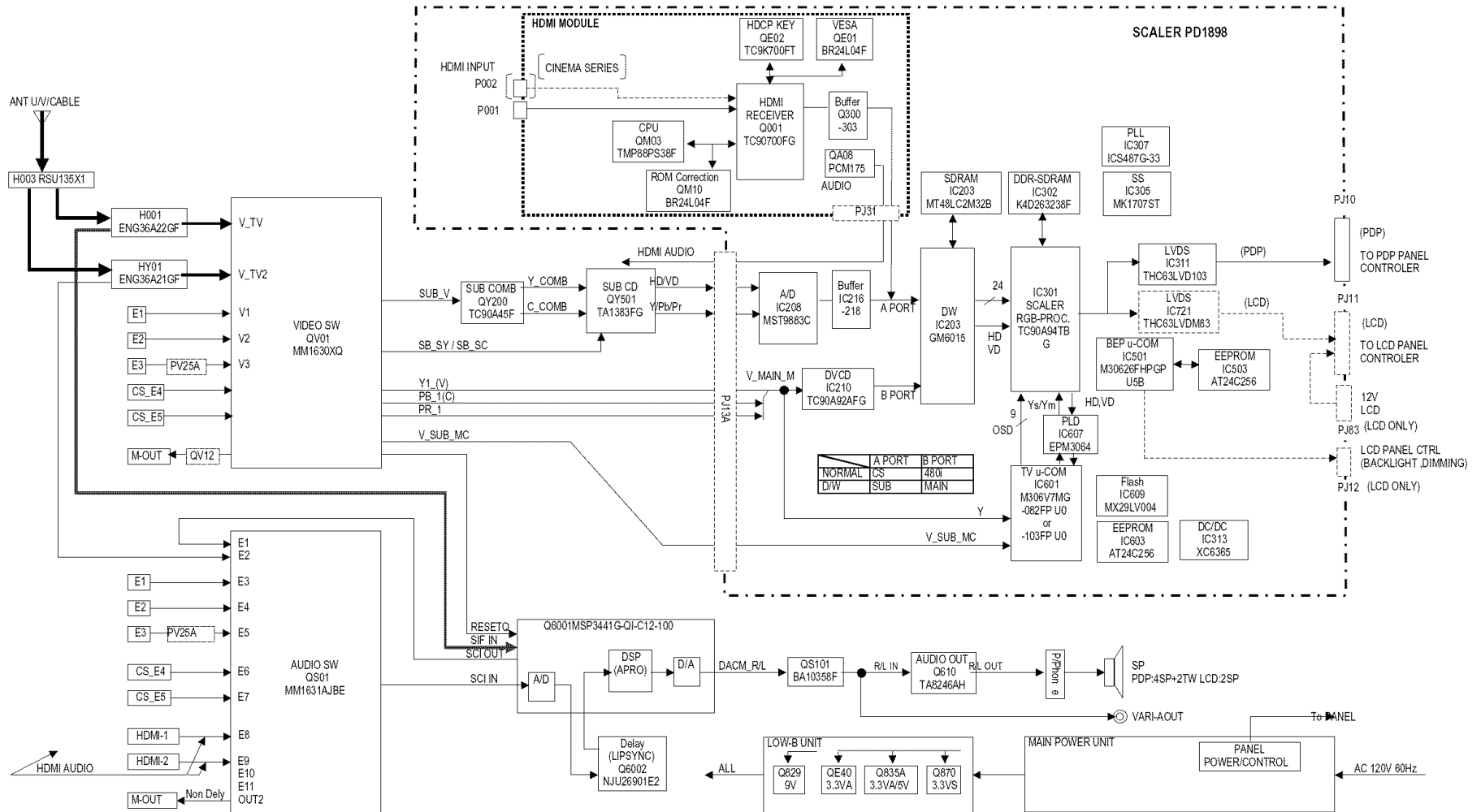
NOTE:

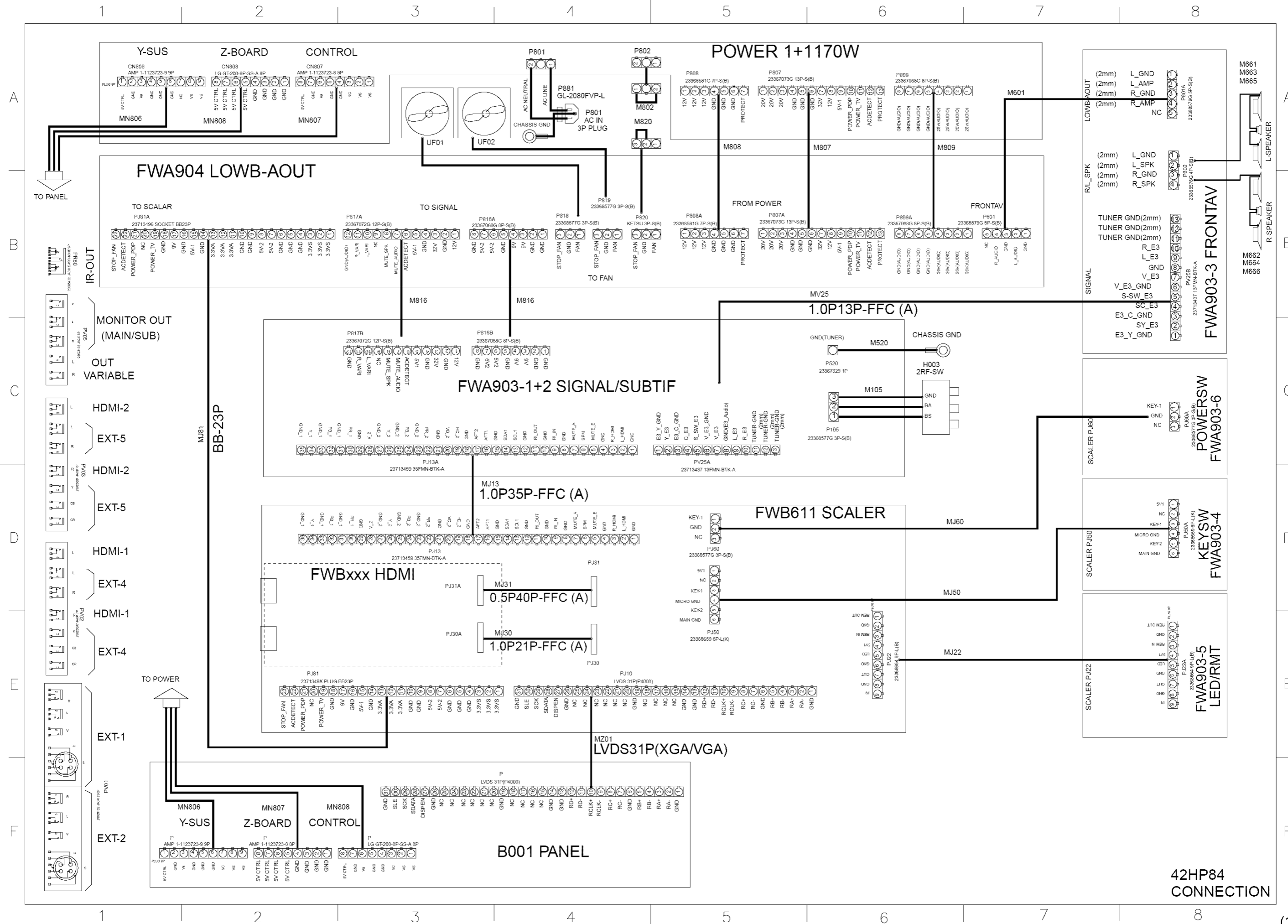
1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon composition of 1/2 watt
1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
K = $\pm 10\%$ G = $\pm 2\%$ F = $\pm 1\%$
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF , and the values more than 1 in pF.
All capacitors are ceramic 50V, unless otherwise noted as the following marks.
 Electrolytic capacitor  Mylar capacitor
3. The parts indicated with " \triangle " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage at 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary $\pm 20\%$ except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE

| | | |
|-------------------|------------------------------|-------------------------------|
| CONNNECTION | | 1/58 |
| SIGNAL | (CONNECTOR) | [SHEET-1/8] 2/58 |
| | (VIDEO-SW) | [SHEET-2/8] 3/58 |
| | (MSP+LipSync) | [SHEET-3/8] 4/58 |
| | (BACK-AV) | [SHEET-4/8] 5/58 |
| | (TIF) | [SHEET-5/8] 6/58 |
| | (AUDIO MUTE) | [SHEET-6/8] 7/58 |
| | (AUDIO-SW) | [SHEET-7/8] 8/58 |
| | (SUB VCD) | [SHEET-8/8] 9/58 |
| LOWB-AOUT | (1/2) | [SHEET-1/2] 10/58 |
| | (2/2) | [SHEET-2/2] 11/58 |
| FRONT-AV | | 12/58 |
| POWER SW | | 13/58 |
| KEY | | 14/58 |
| SCALLER | (AV_CONNECTOR) | [SHEET-200] 15/58 |
| | (AD LPF) | [SHEET-201] 16/58 |
| | (DVCD2_LPF) | [SHEET-202] 17/58 |
| | (DVCD1_LPF) | [SHEET-203] 18/58 |
| | (3chADC HD) | [SHEET-204] 19/58 |
| | (3chADC MST9883C-LF-110) | [SHEET-205] 20/58 |
| | (SUB (AD/HDMI) Selector) | [SHEET-206] 21/58 |
| | (DVCD TC90A92AFG) | [SHEET-207] 22/58 |
| | (DVCD_POWER) | [SHEET-208] 23/58 |
| | (GENESIS-1 GM6015BD-LF) | [SHEET-209] 24/58 |
| | (GENESIS-2 GM6015BD-LF) | [SHEET-210] 25/58 |
| | (SDRAM) | [SHEET-211] 26/58 |
| | (GENESIS_POWER) | [SHEET-212] 27/58 |
| | (GENESIS_IIC) | [SHEET-213] 28/58 |
| | (94 DIGITAL INPUT) | [SHEET-300] 29/58 |
| | (94 CAPTURE INPUT) | [SHEET-301] 30/58 |
| | (94 DDR SDRAM) | [SHEET-302] 31/58 |
| | (94 PLL) | [SHEET-303] 32/58 |
| | (94 OSD ROM I/F) | [SHEET-304] 33/58 |
| | (94 IIC and RESET) | [SHEET-305] 34/58 |
| | (94 POWER and GND) | [SHEET-306] 35/58 |
| | (94 LVDS OUT) | [SHEET-307] 36/58 |
| | (94 2.5V Reg.) | [SHEET-308] 37/58 |
| | (DC/DC CONVERTER) | [SHEET-310] 38/58 |
| | (SUB MICON) | (1/4) [SHEET-500] 39/58 |
| | | (2/4) [SHEET-501] 40/58 |
| | | (3/4) [SHEET-502] 41/58 |
| | | (4/4) [SHEET-503] 42/58 |
| | (TV-MICON) | (1/3) [SHEET-600] 43/58 |
| | | (2/3) [SHEET-601] 44/58 |
| | | (3/3) [SHEET-602] 45/58 |
| | (TV-MICON RESET IC) | [SHEET-603] 46/58 |
| | (SYNC_DETECT) | [SHEET-604] 47/58 |
| | (PLD) | [SHEET-605] 48/58 |
| | (POWER_CONNECTOR) | [SHEET-800] 49/58 |
| | (TV-MICON CONNECTOR) | [SHEET-801] 50/58 |
| | (TV-MICON FIL) | [SHEET-802] 51/58 |
| | (SERVICE CONNECTOR) | [SHEET-804] 52/58 |
| | (HDMI CONNECTOR) | [SHEET-805] 53/58 |
| | (LG PDP LVDS CONNECTOR) | [SHEET-807] 54/58 |
| | (LVDS OUT for LCD) | [SHEET-808] 55/58 |
| | (LG LCD LVDS CONNECTOR) | [SHEET-809] 56/58 |
| | (LCD DIMMING) | [SHEET-810] 57/58 |
| | (CONNECTORS FOR SHARP PANEL) | [SHEET-811] 58/58 |

BLOCK DIAGRAM





42HP84
CONNECTION

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4

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8

A

B

C

D

E

F

A

B

C

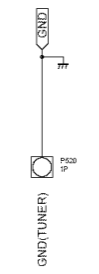
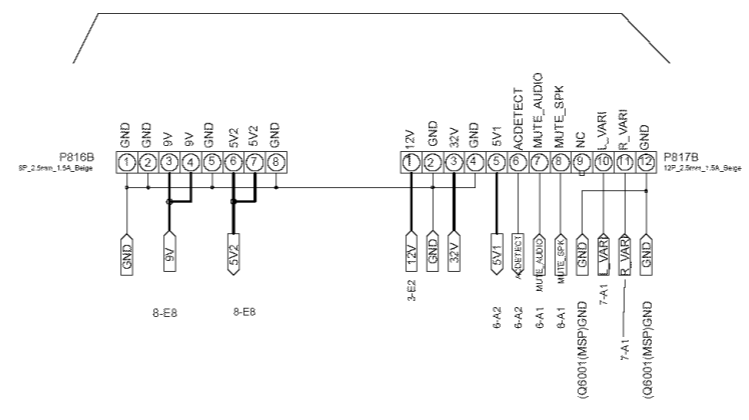
D

E

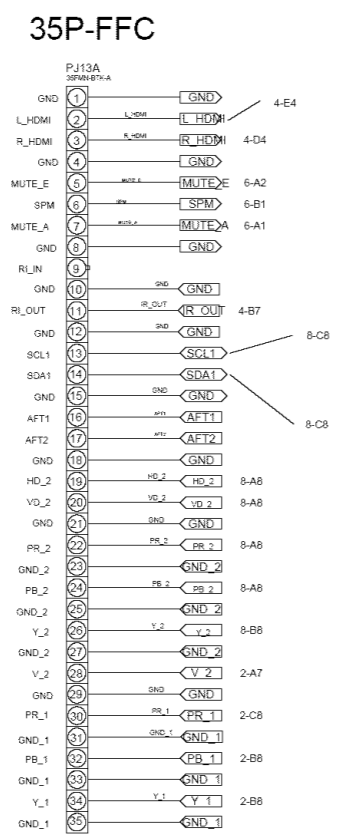
F

CONNECTOR

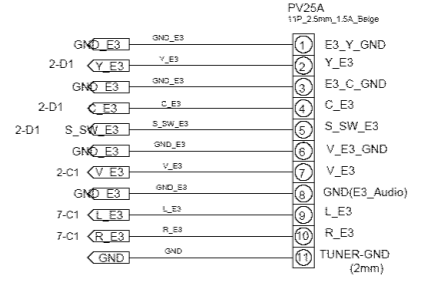
LOWB-AOUT



SCALER

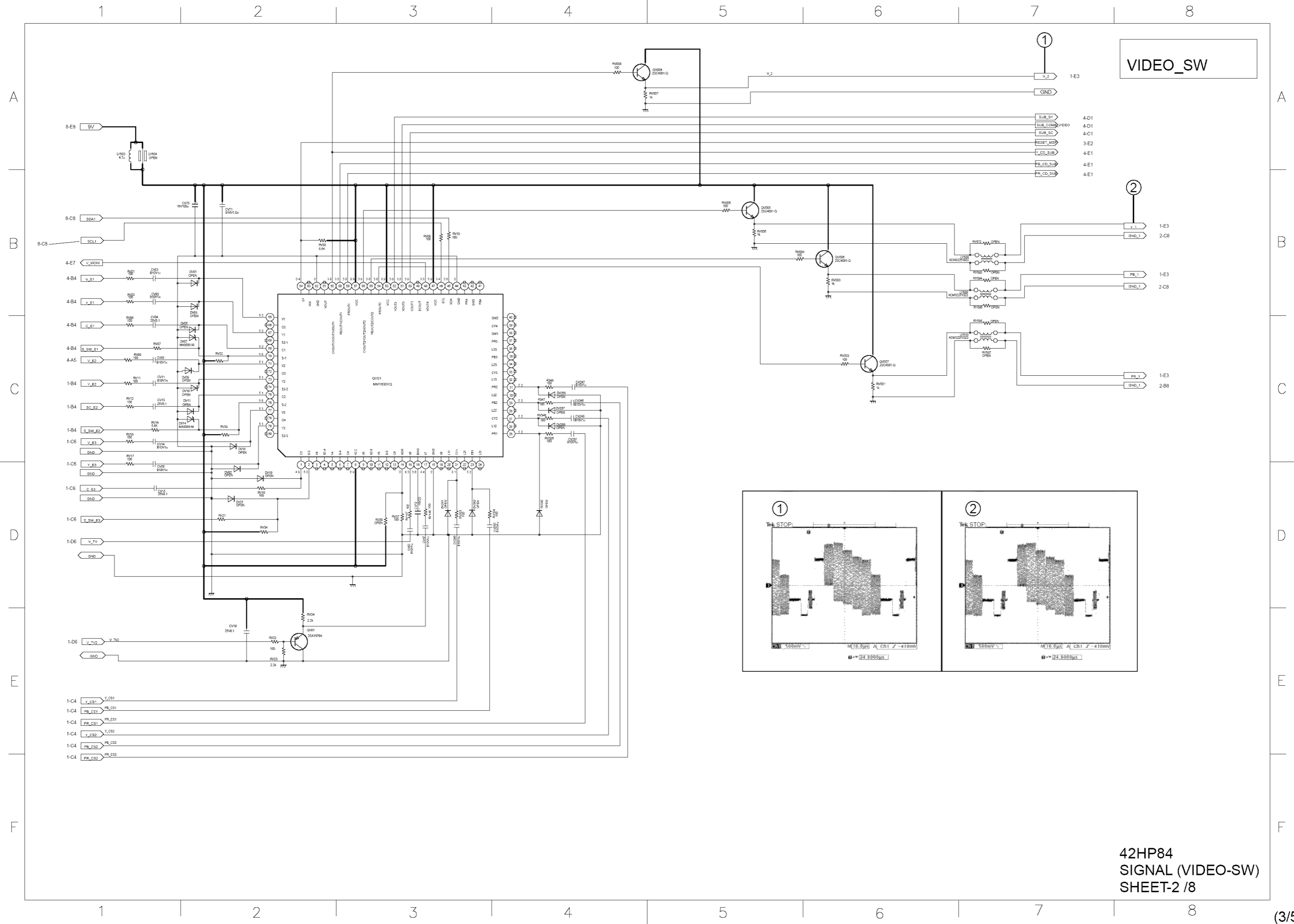


11P



FRONT-AV

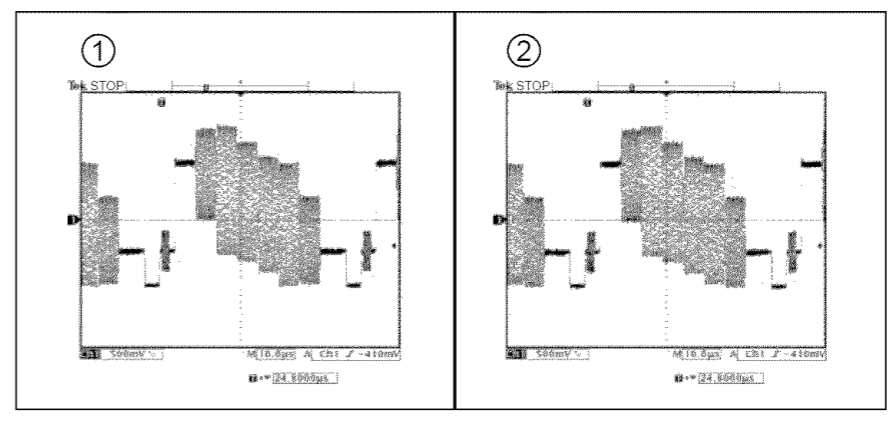
42HP84
SIGNAL (CONNECTOR)
SHEET-1/8



VIDEO_SW

- 1-E3 V_2
- GND
- 4-D1 SUB_SV
- 4-D1 SUB_COMB_VIDEO
- 4-C1 SUB_SC
- 3-E2 RESET_AHD
- 4-E1 V_CD_SUB
- 4-E1 PB_CD_SUB
- 4-E1 PR_CD_SUB

- 1-E3 Y_1
- 2-C8 GND_1
- 1-E3 PB_1
- 2-C8 GND_1
- 1-E3 PB_1
- 2-B8 GND_1

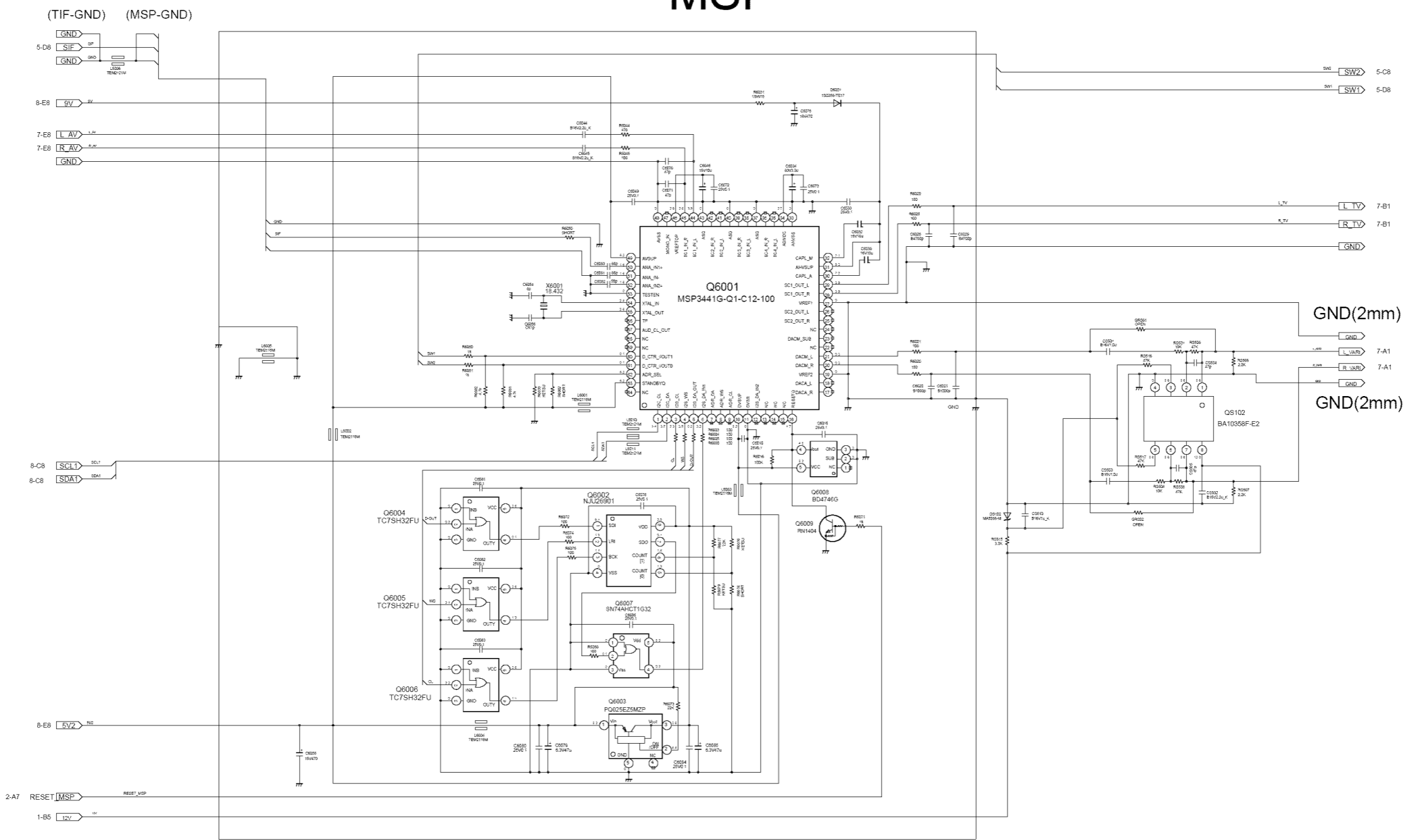


42HP84
 SIGNAL (VIDEO-SW)
 SHEET-2 / 8

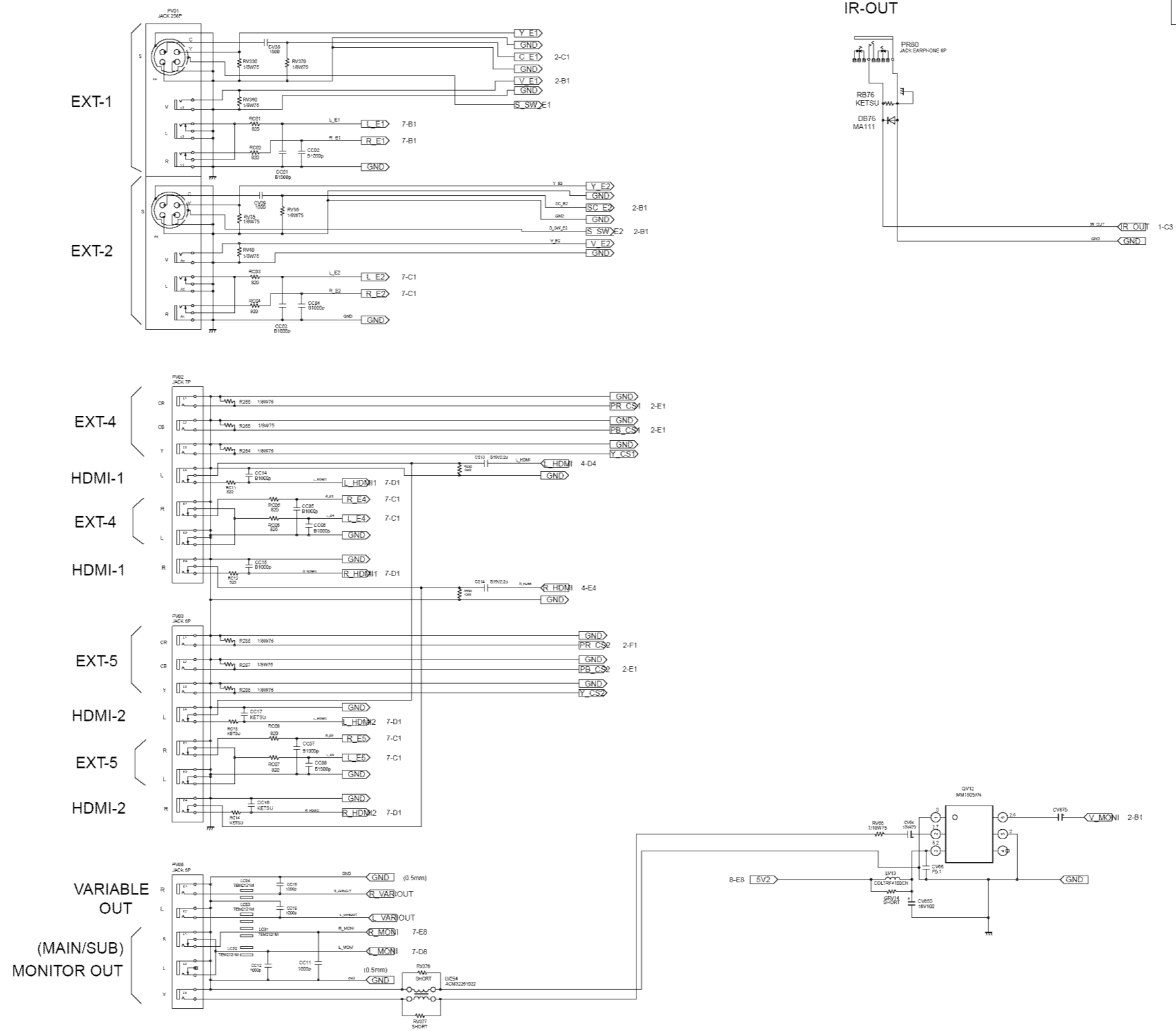
MSP+LipSync

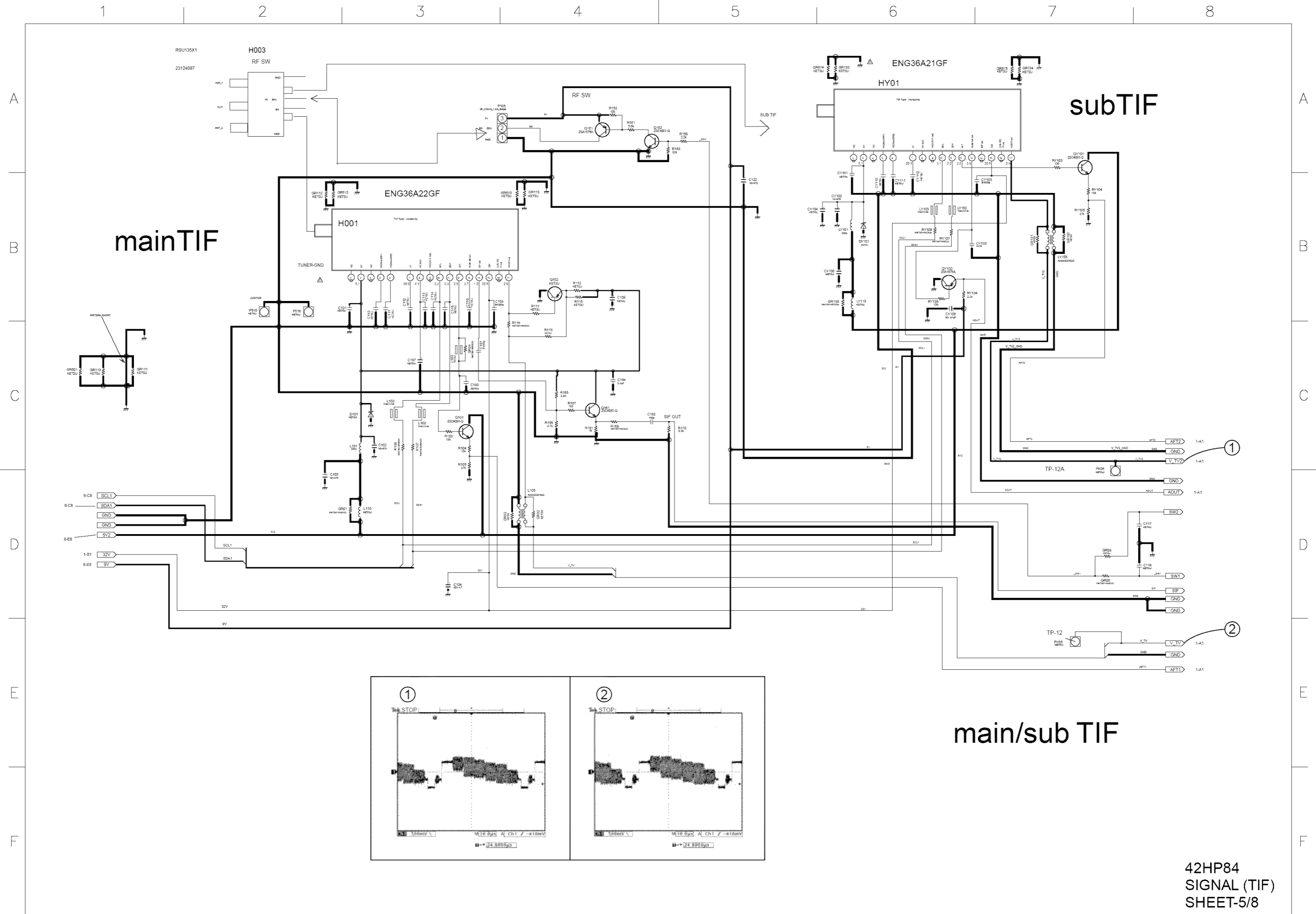
MSP

LipSync



BACK-AV

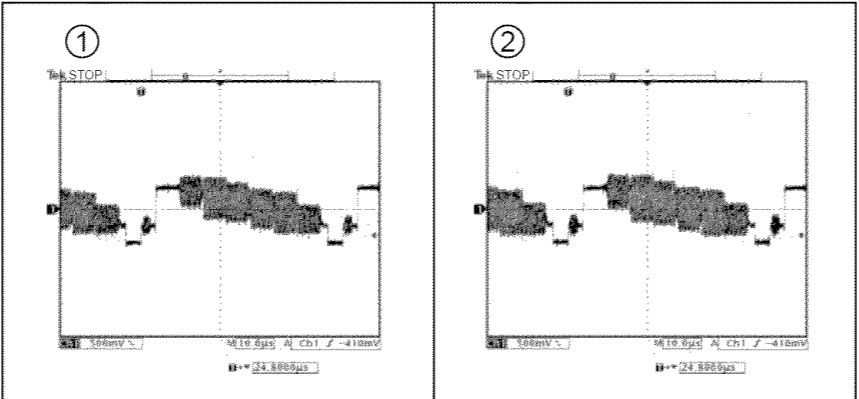




mainTIF

subTIF

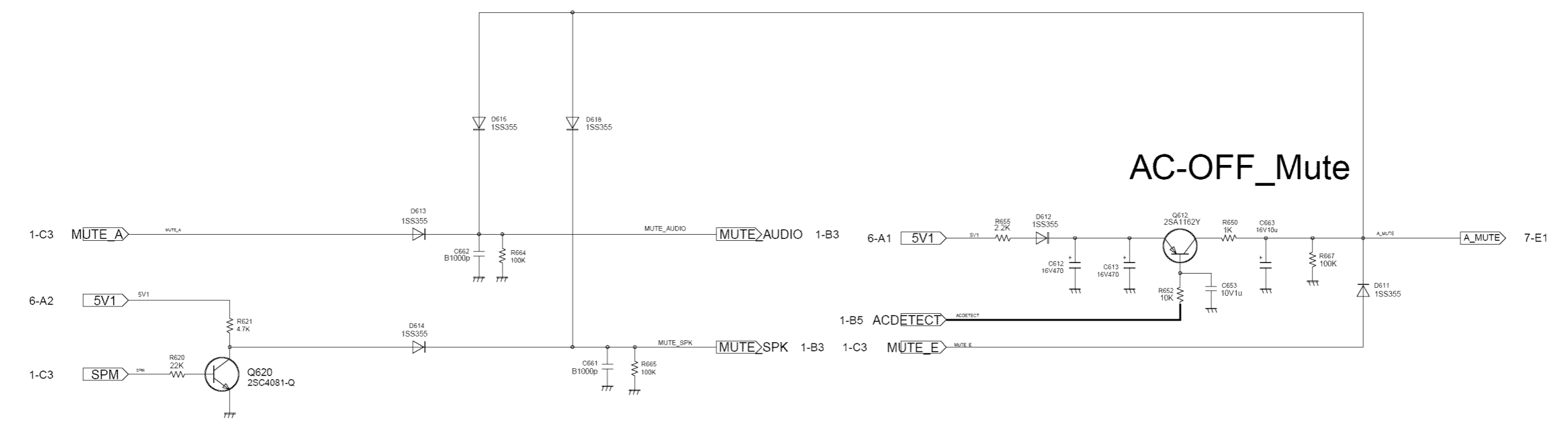
main/sub TIF



42HP84
SIGNAL (TIF)
SHEET-5/8

Audio-MUTE

AC-OFF_Mute



A

A

B

B

C

C

D

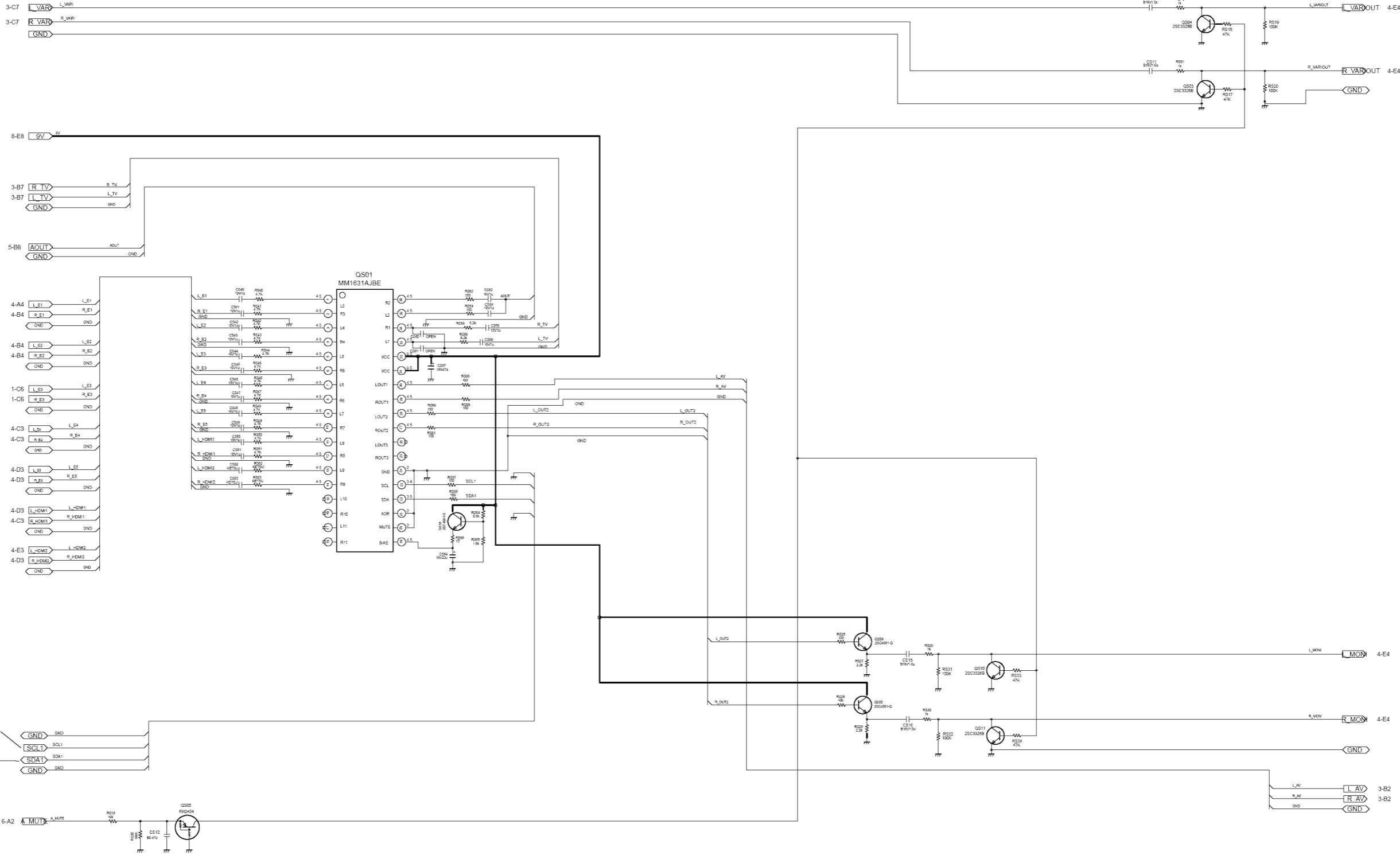
D

E

E

F

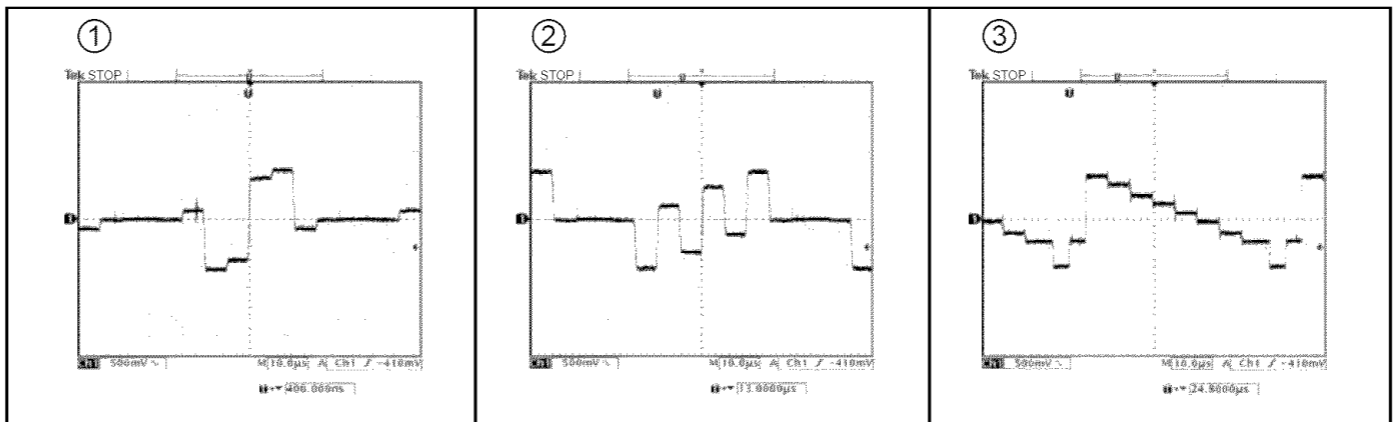
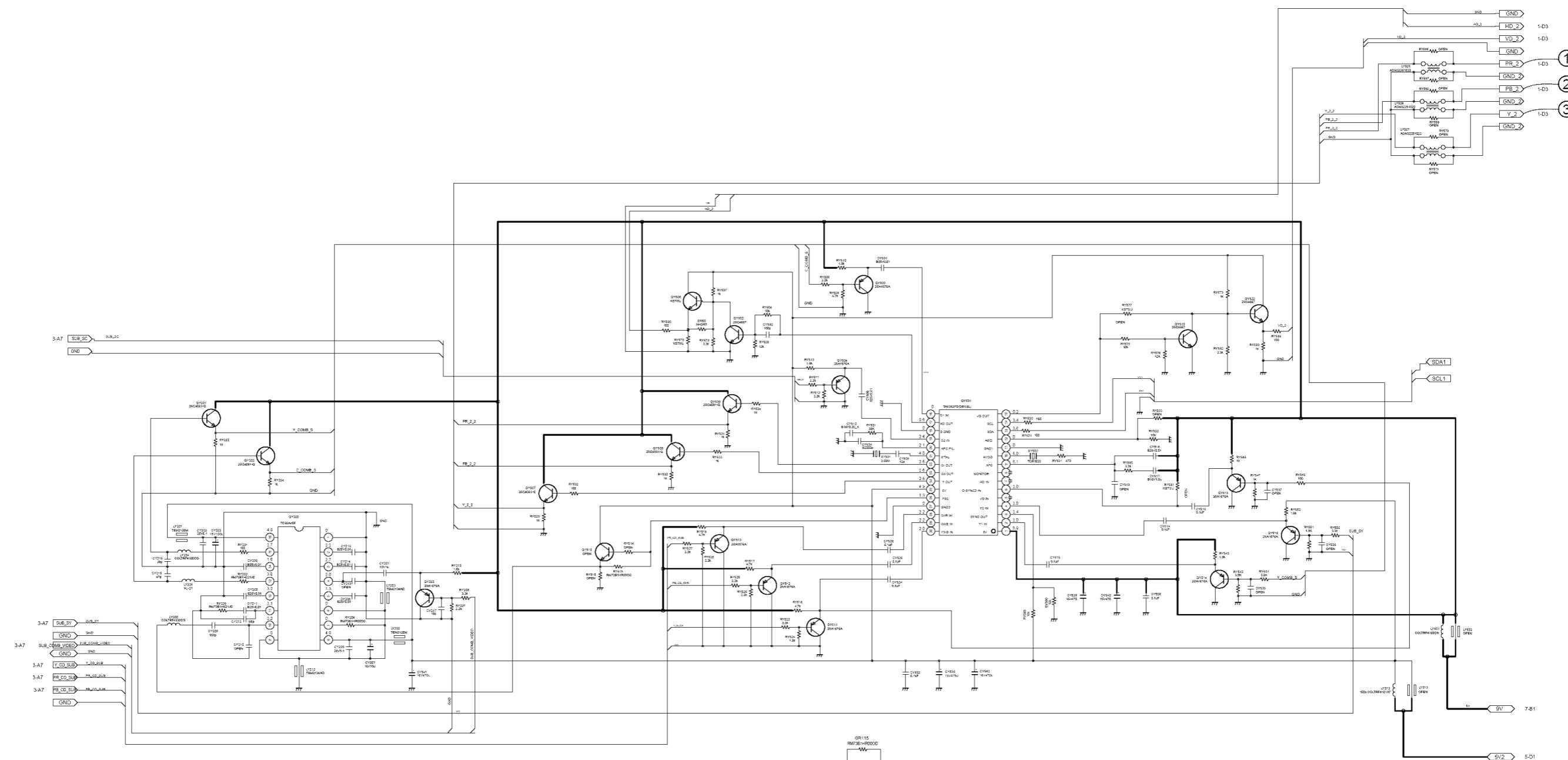
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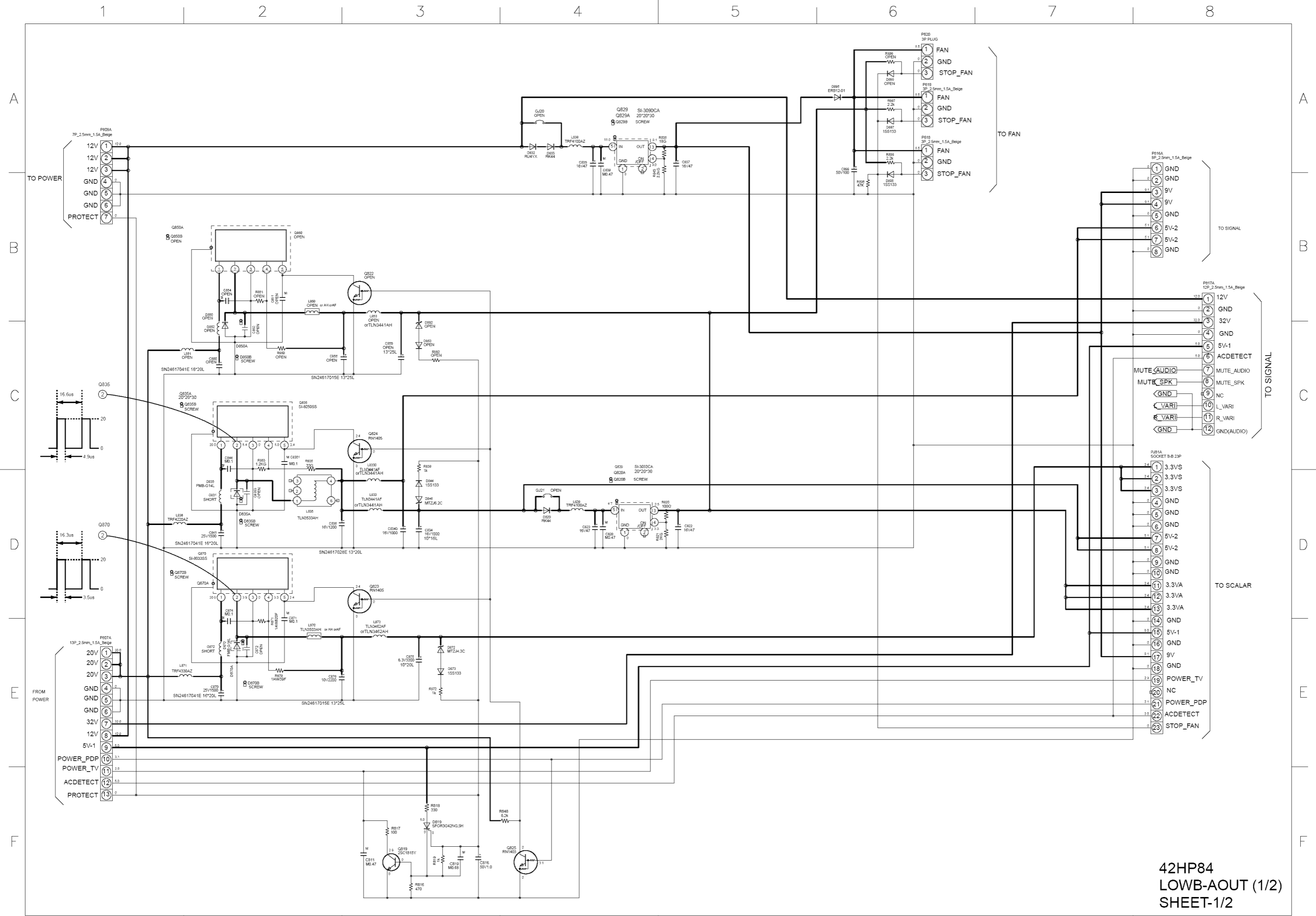
AUDIO-SW

42HP84
SIGNAL (AUDIO-SW)
SHEET-7/8

SUB VCD



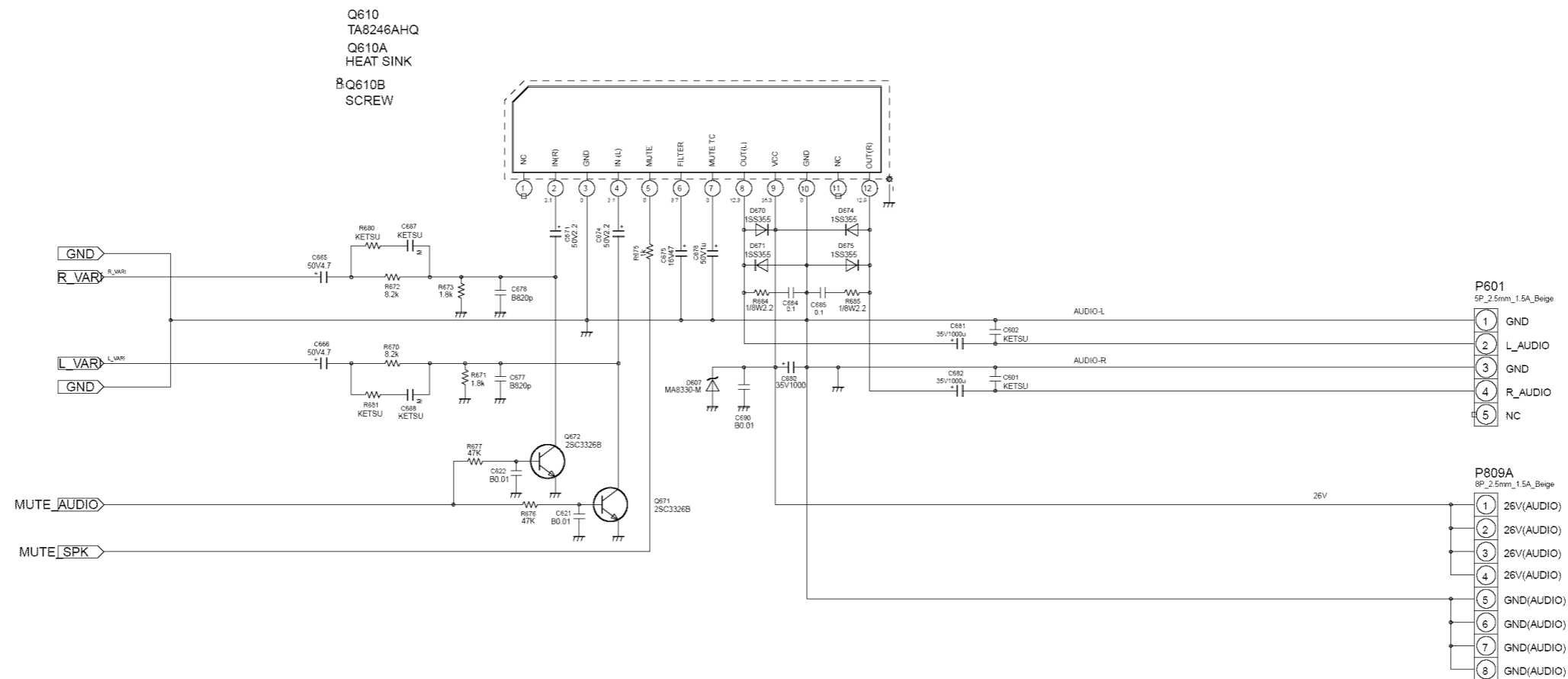
42HP84
SIGNAL (SUB VCD)
SHEET-8/8



42HP84
LOWB-AOUT (1/2)
SHEET-1/2

A

A



B

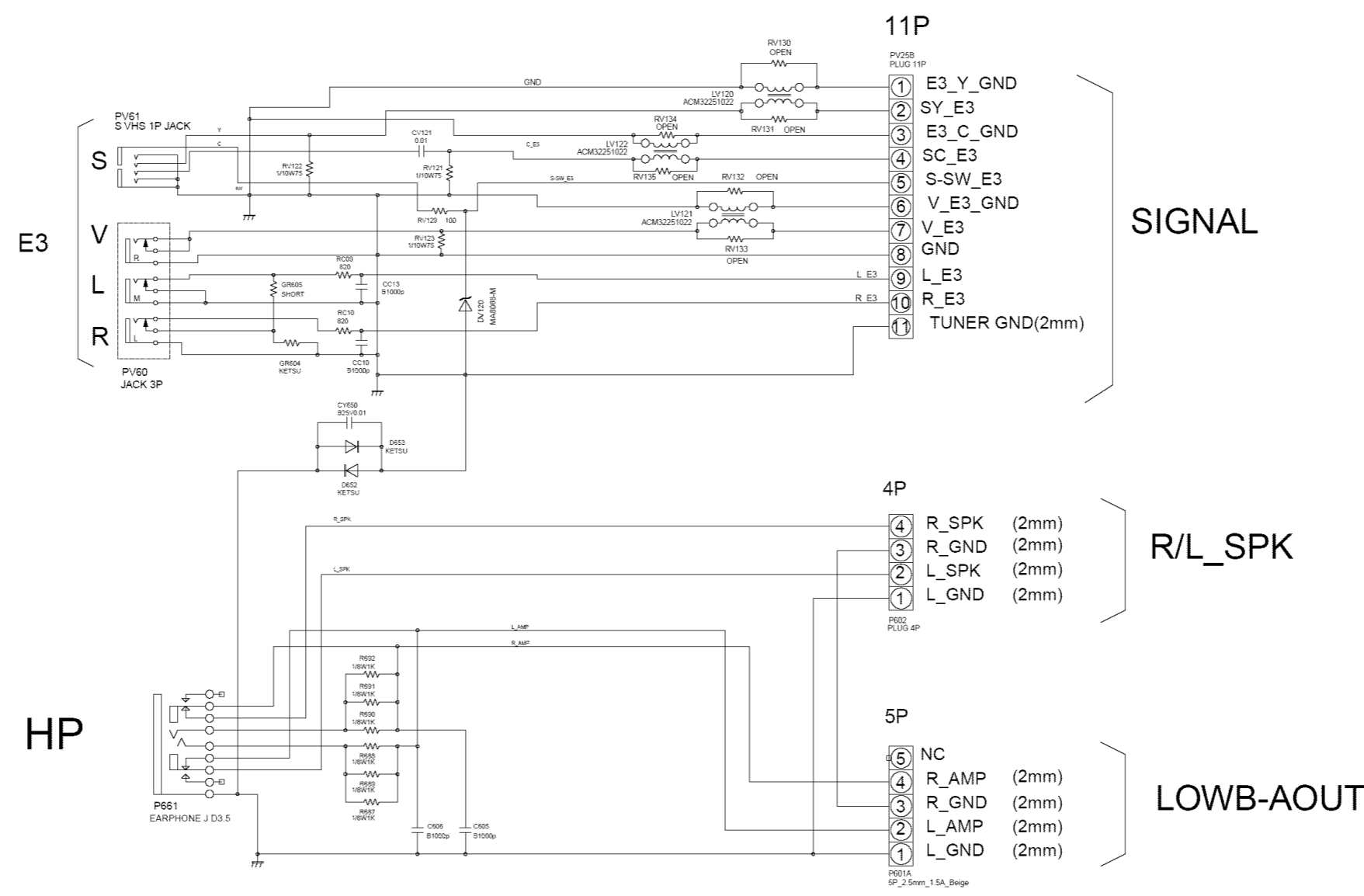
B

A

A

B

B

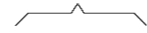


42HP84 FRONT-AV

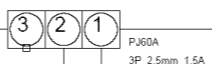
A

A

To SCALER
PJ60

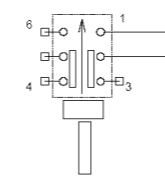


NC
GND
KEY-1



PJ60A
3P_2.5mm_1.5A

S801
SW PUSH 2C2P



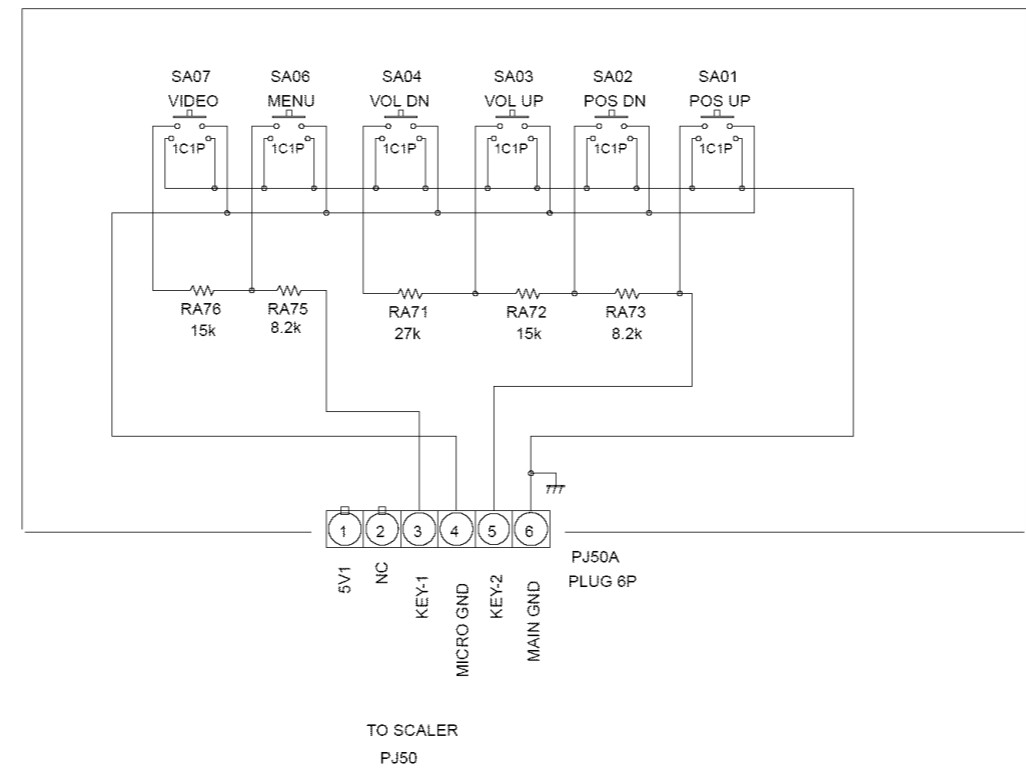
B

B

A

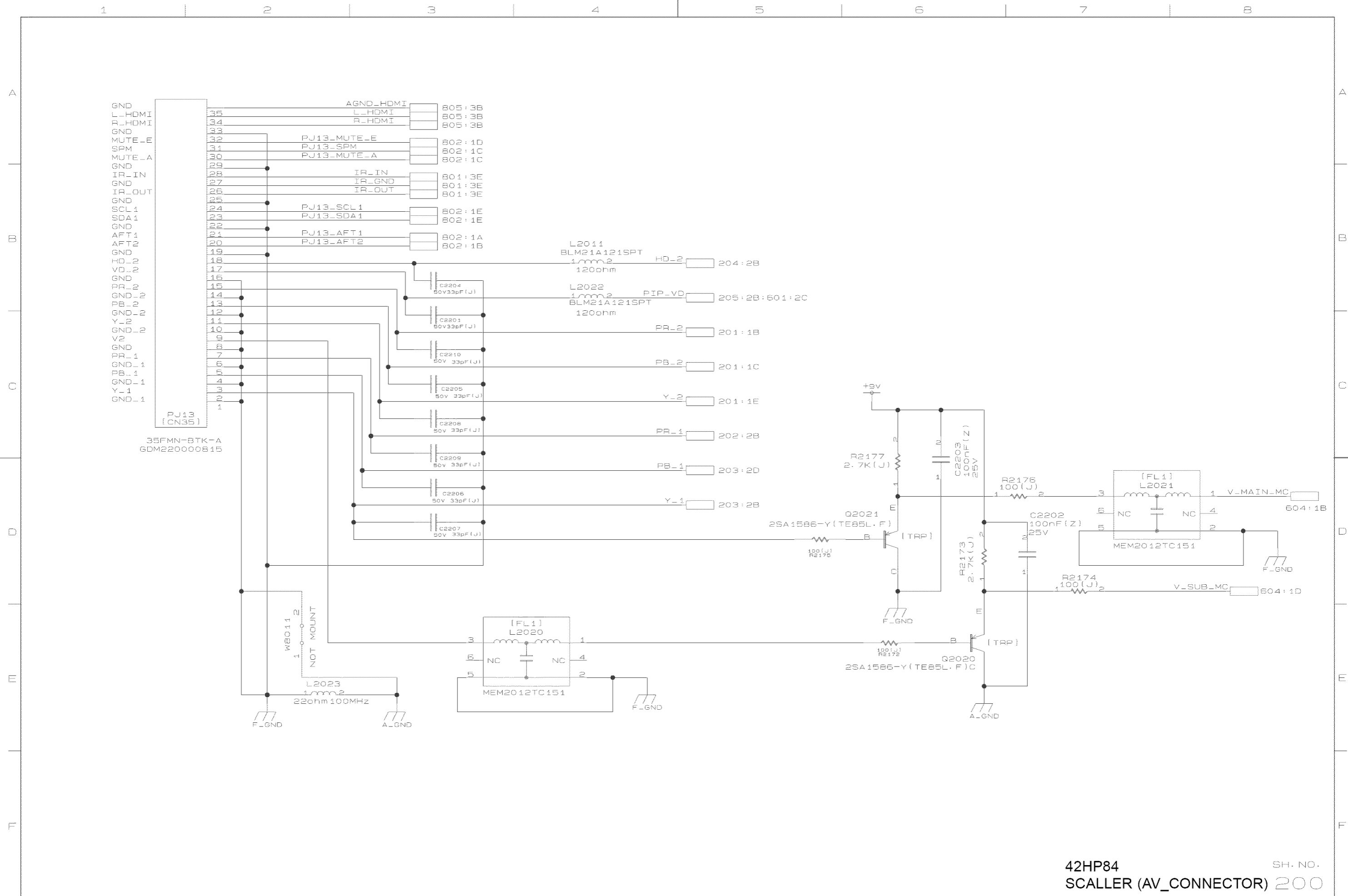
A

KEY CONTROL



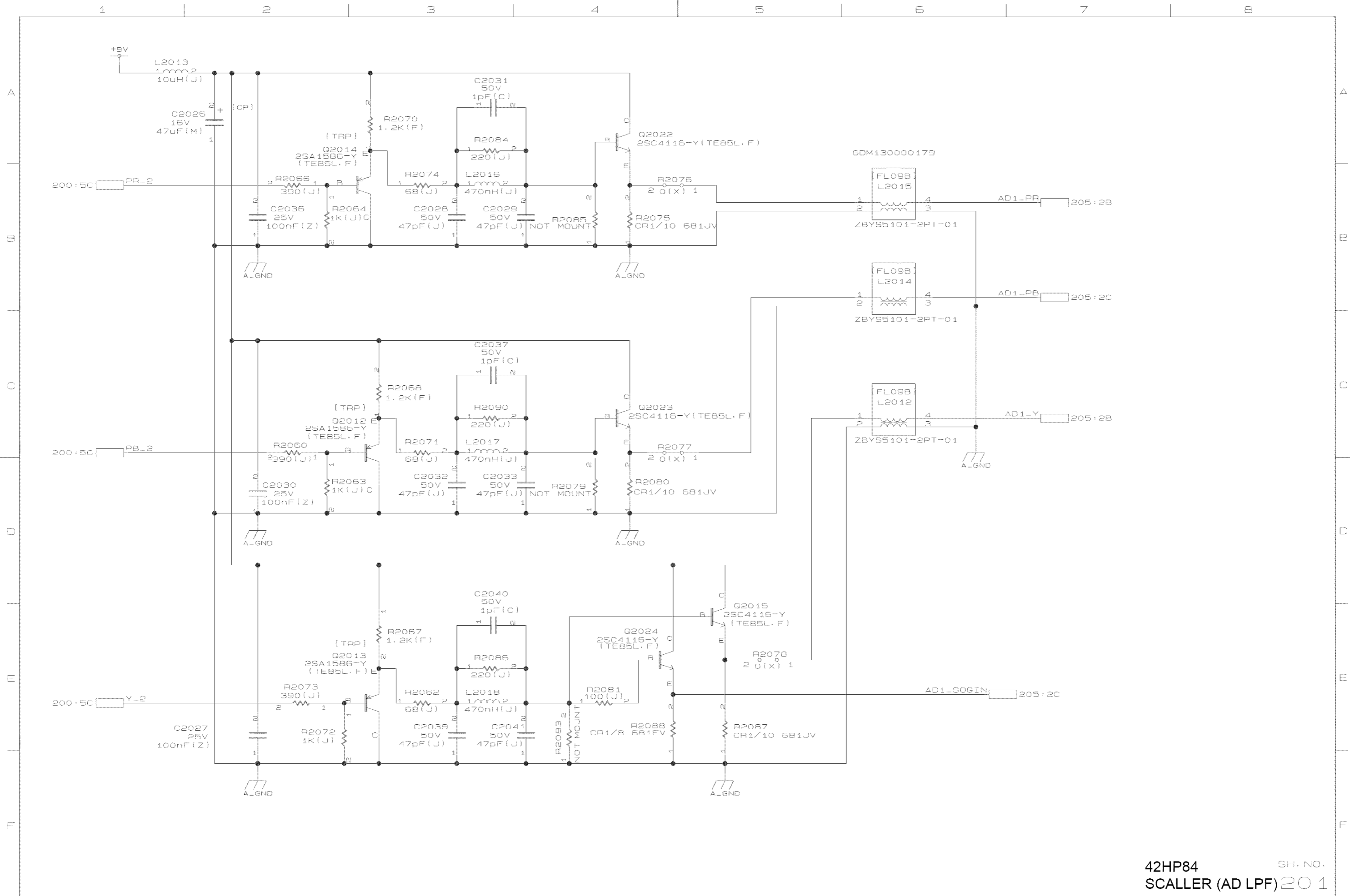
B

B



42HP84
SCALLER (AV_CONNECTOR) 200

SH. NO.



42HP84 SH. NO.
 SCALLER (AD LPF) 201

1 2 3 4 5 6 7 8

A

B

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A

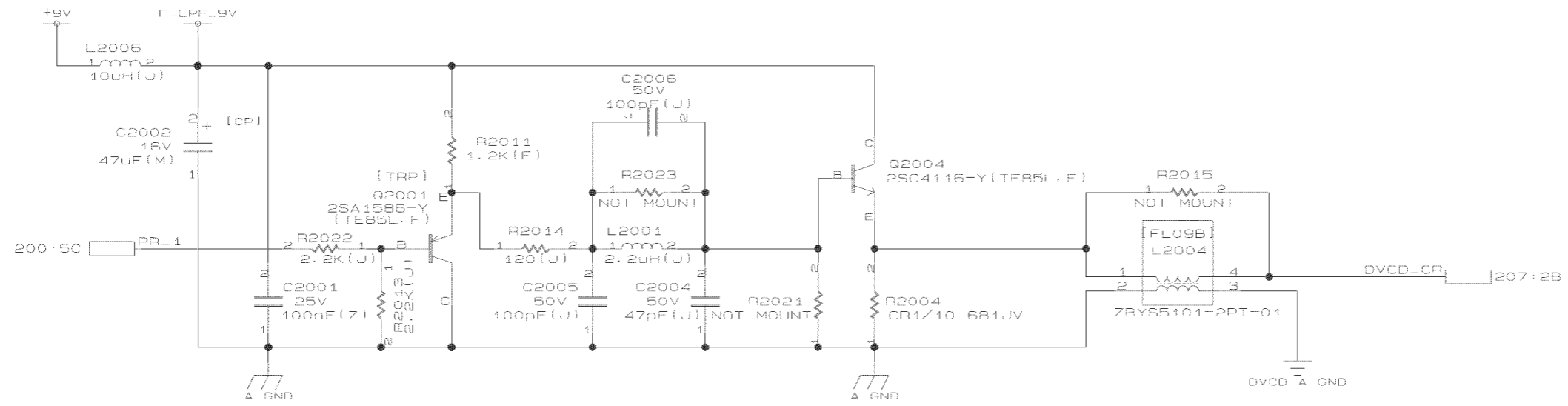
B

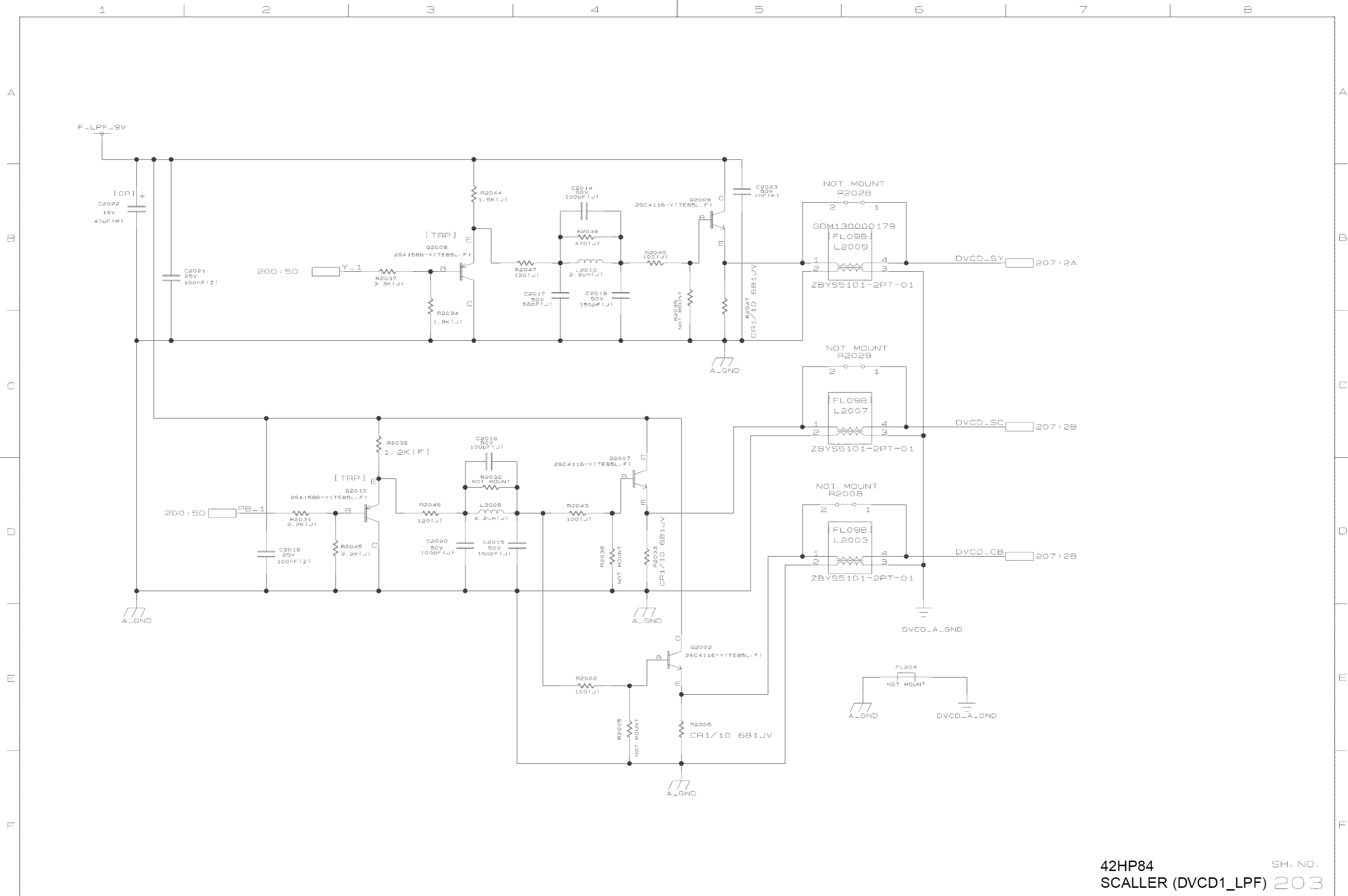
C

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42HP84 SH-NO. SCALLER (DVCD1_LPF) 203

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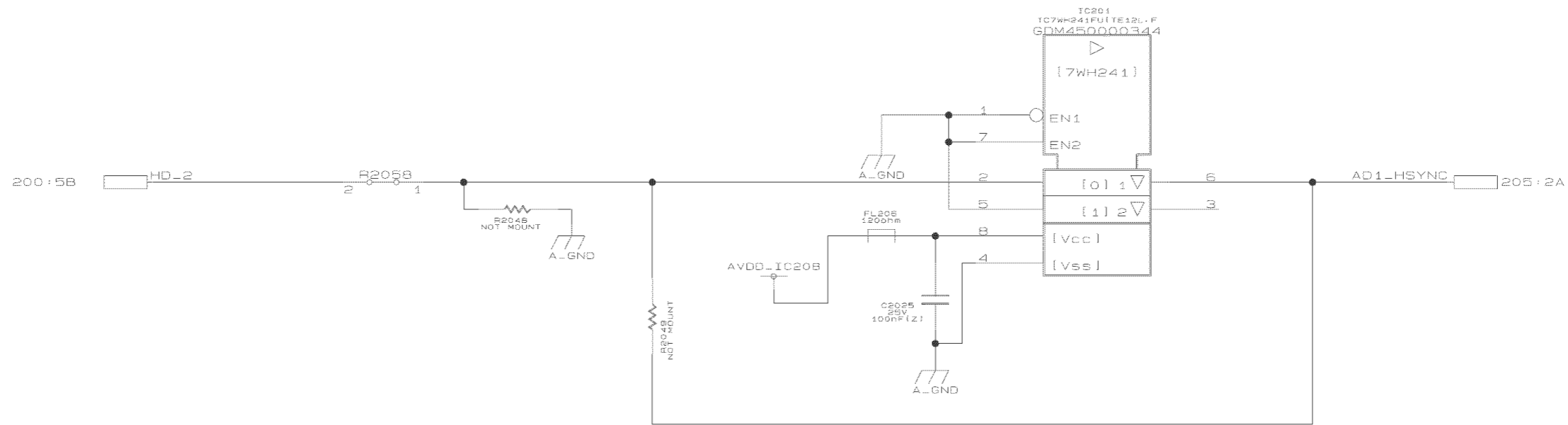
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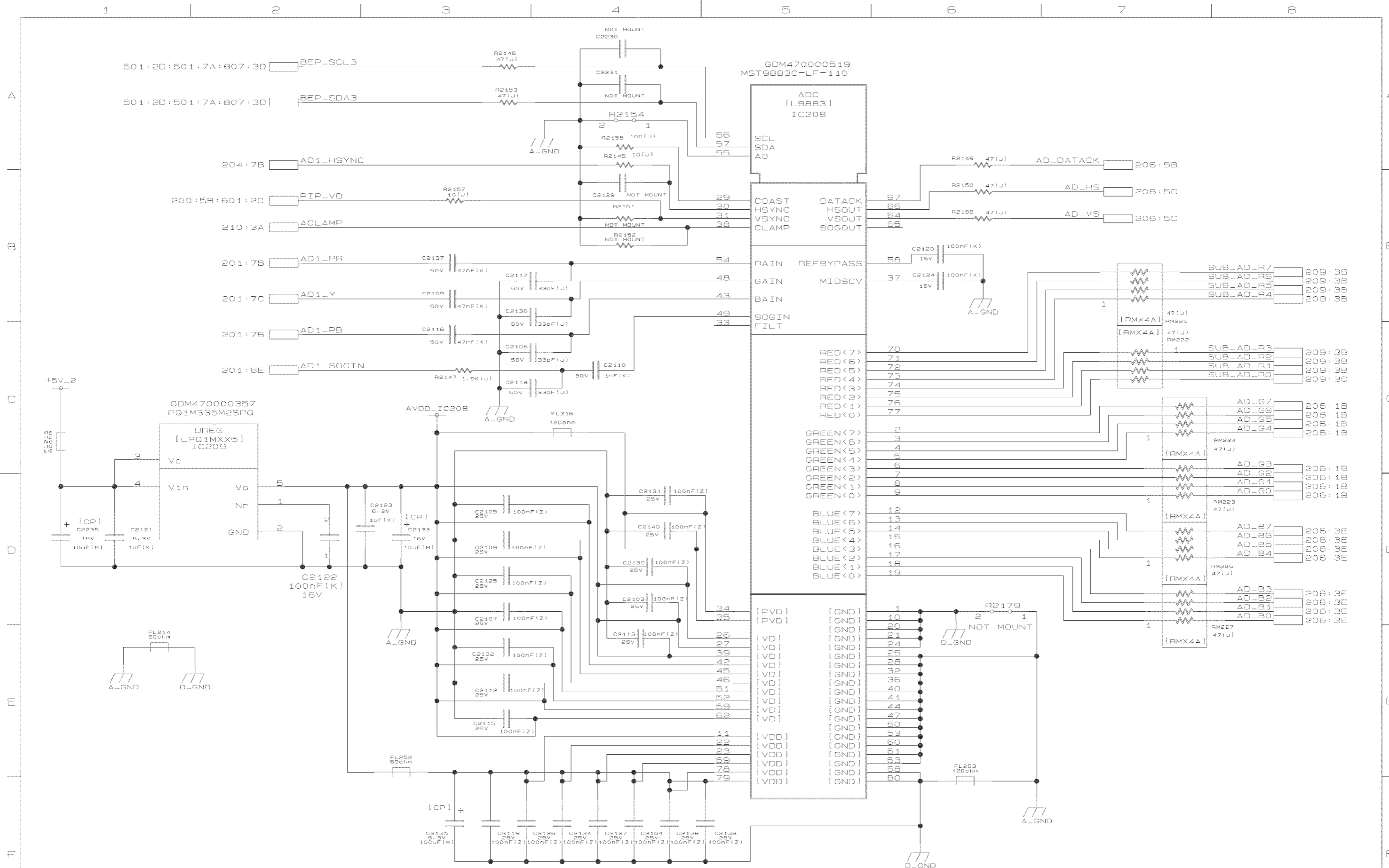
E

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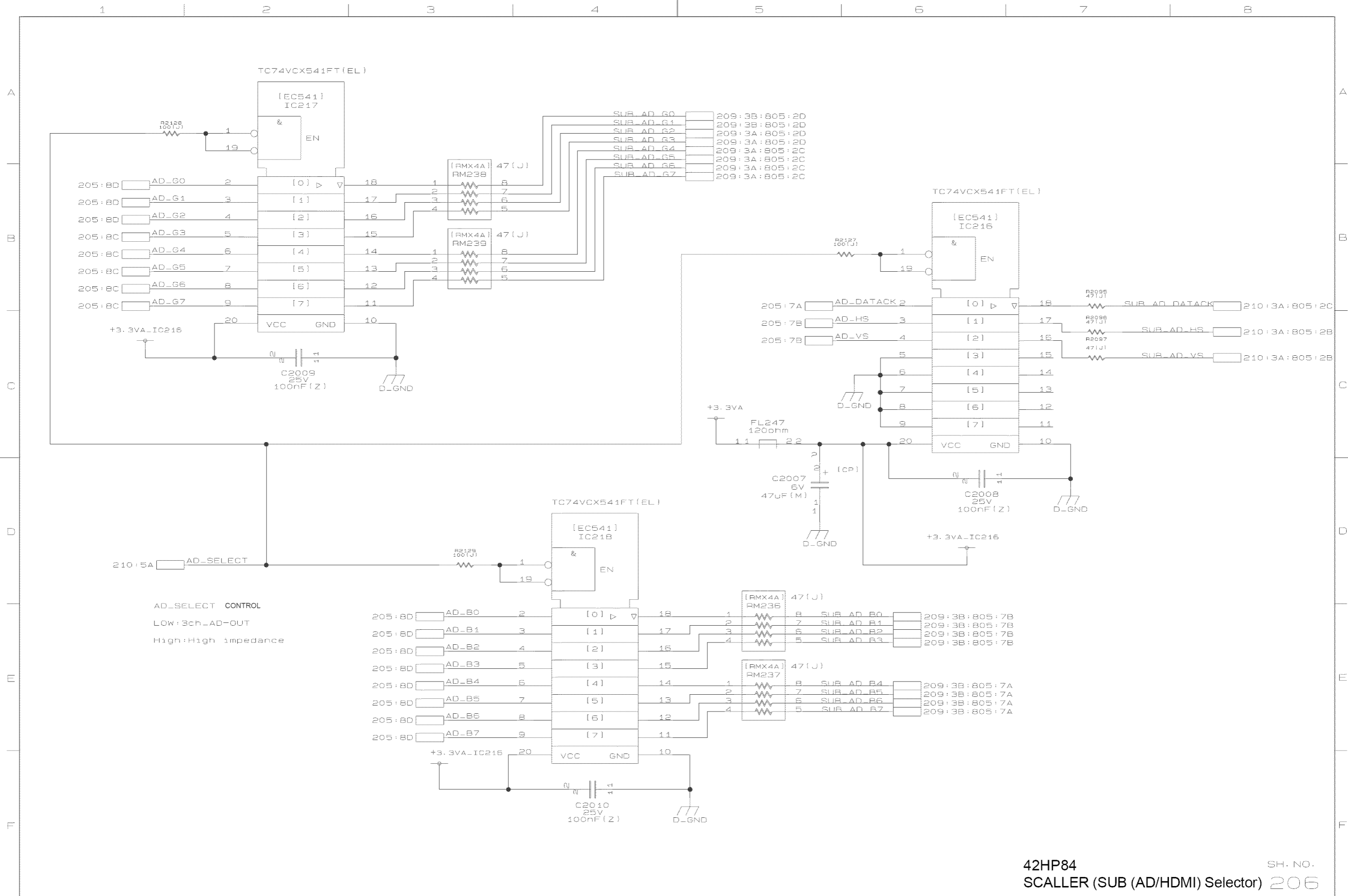


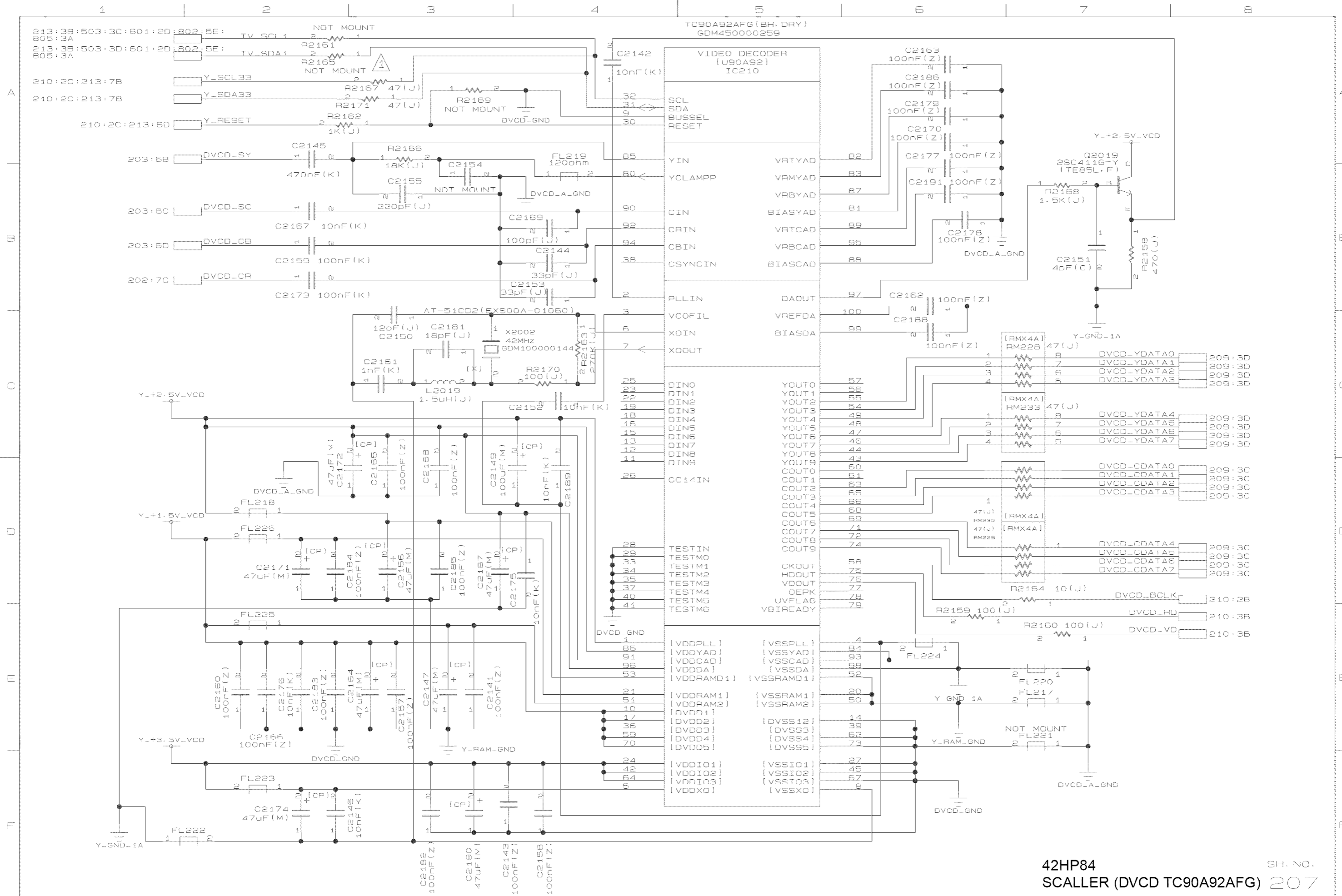
42HP84
 SCALLER (3chADC HD)

SH. NO.
 204

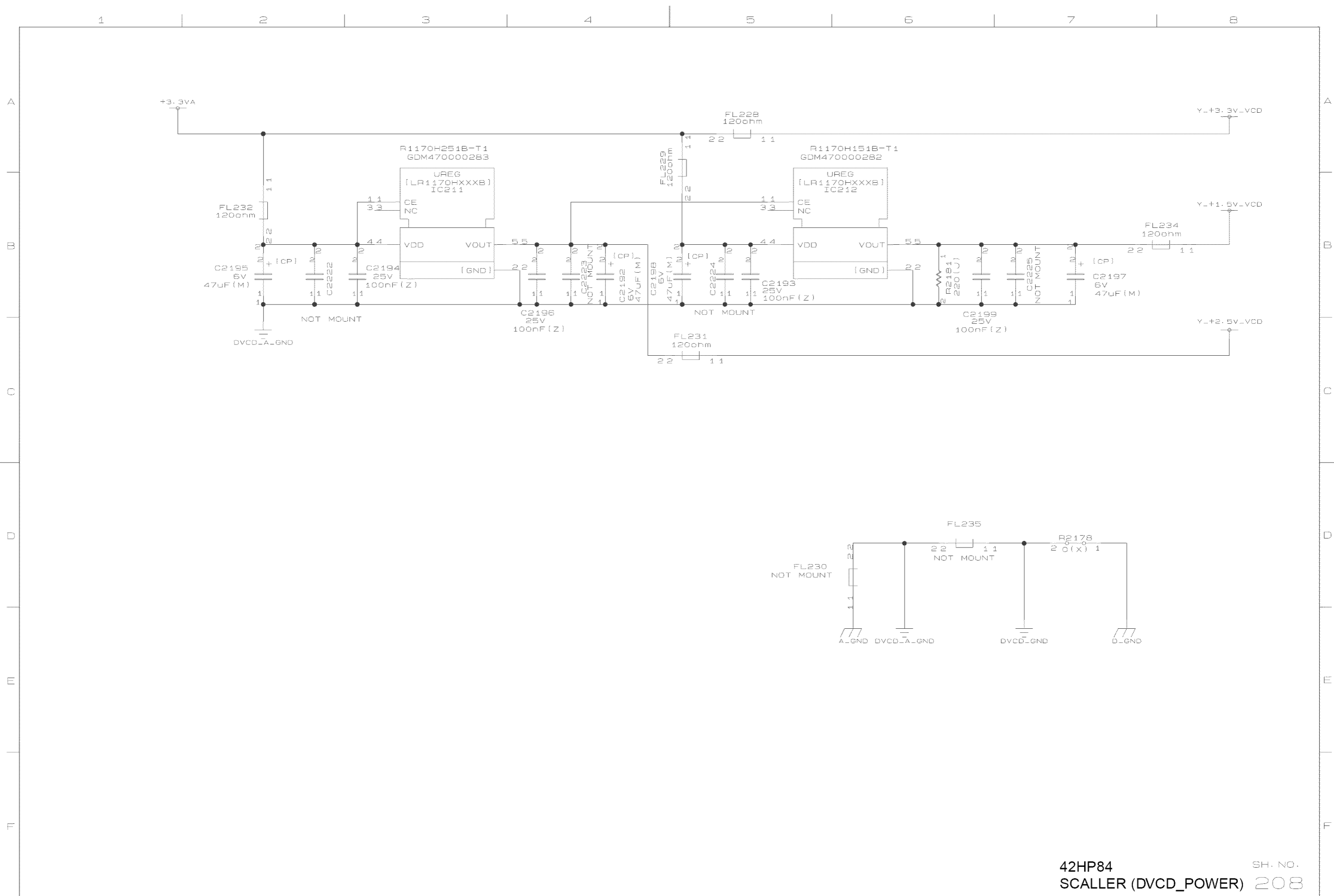


42HP84
SCALLER (3chADC MST9883C-LF-110) SH. NO. 205

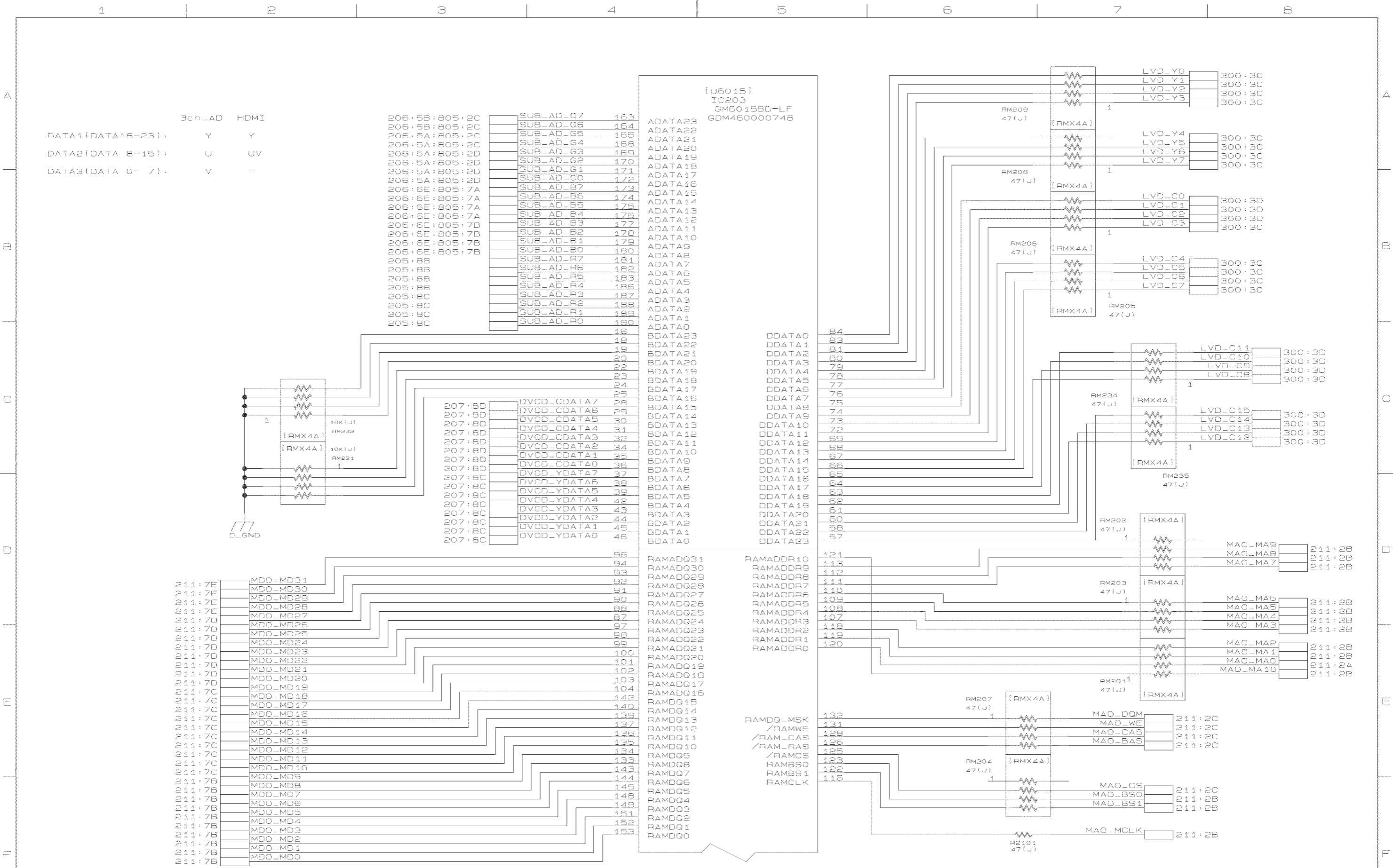


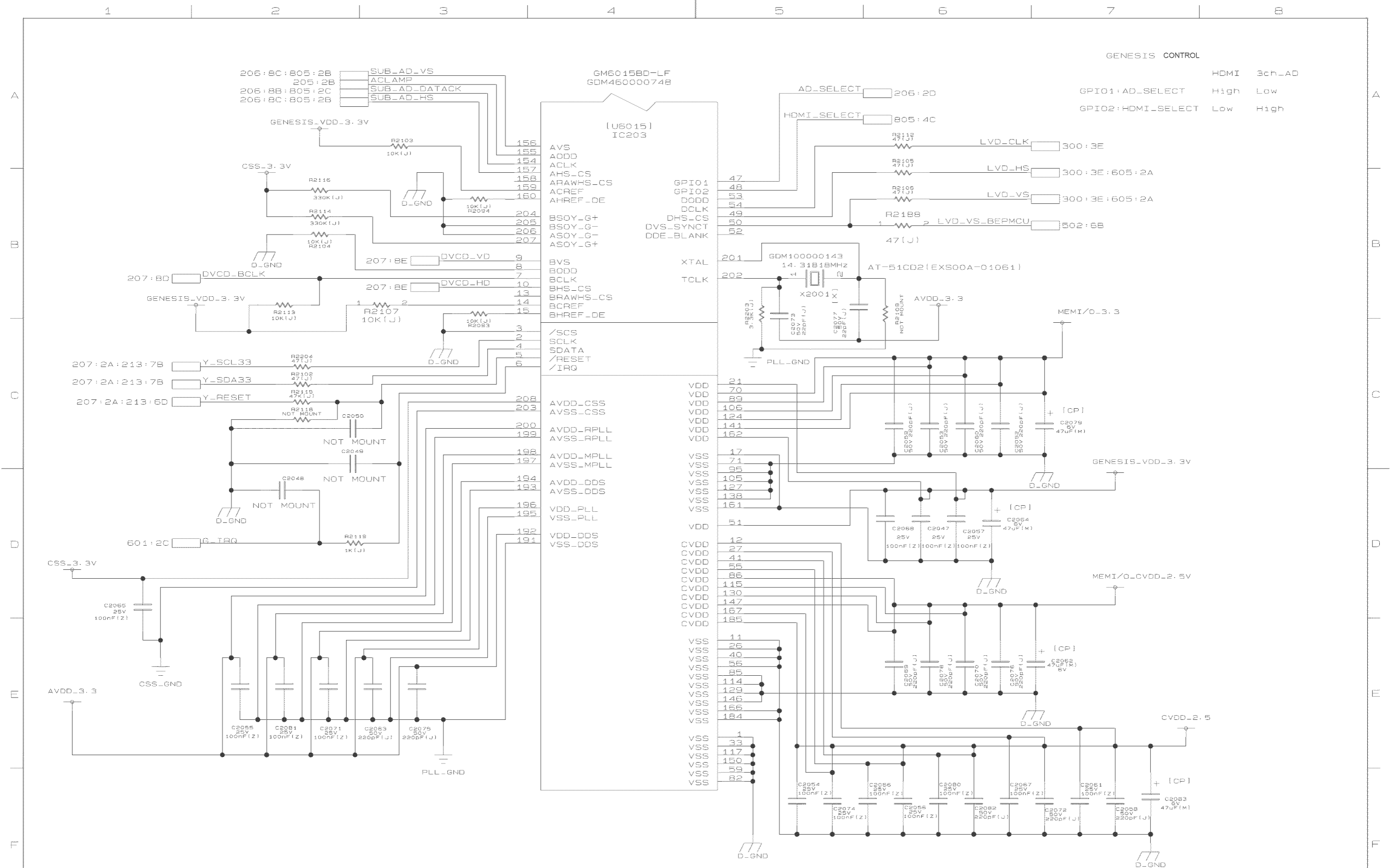


42HP84
SCALLER (DVCD TC90A92AFG) SH. NO. 207



42HP84
 SCALLER (DVCD_POWER) SH. NO. 208



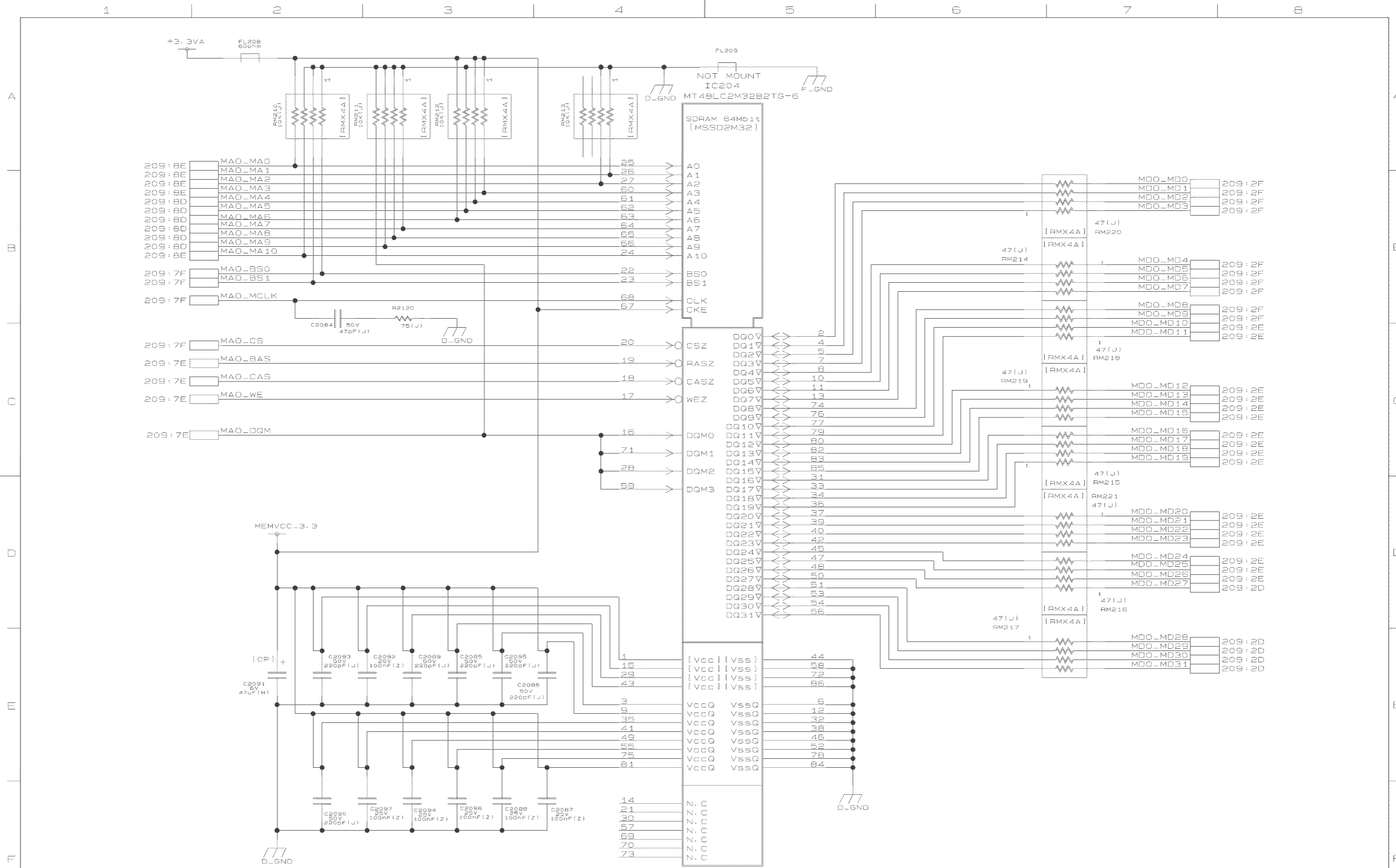


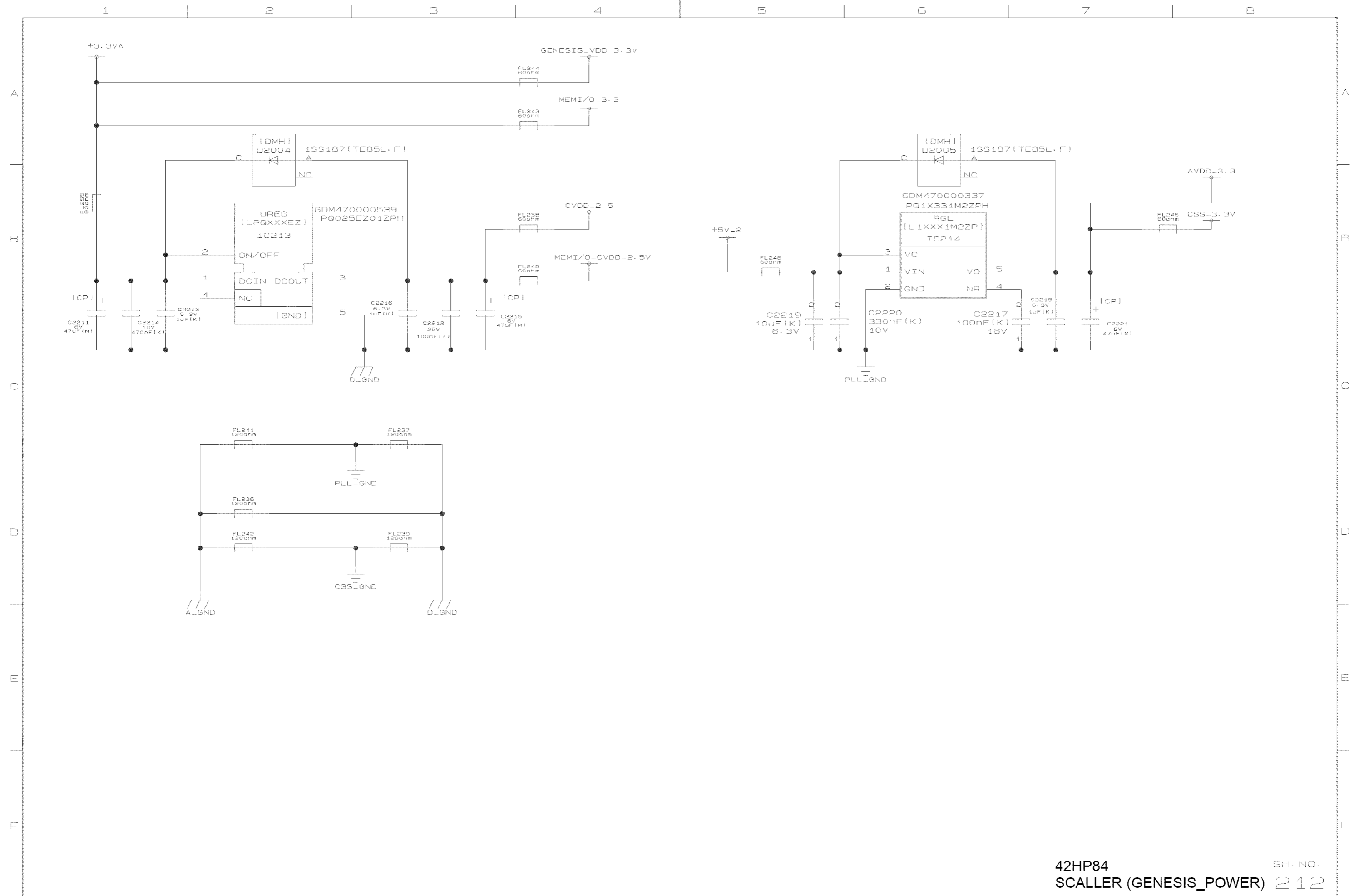
GENESIS CONTROL

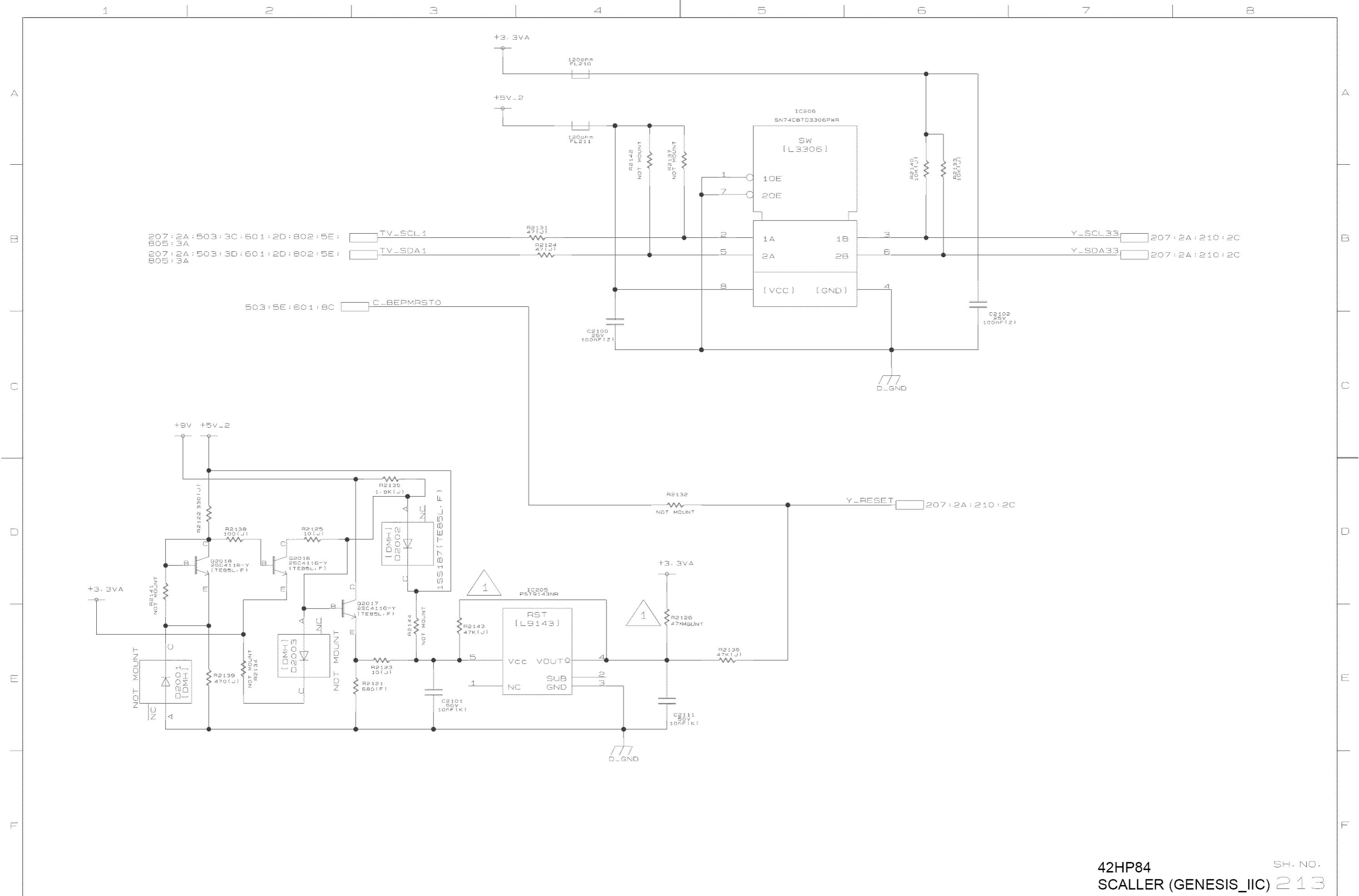
| | |
|-------------------|----------|
| HDMI | 3ch_AD |
| GPIO1:AD_SELECT | High Low |
| GPIO2:HDMI_SELECT | Low High |

42HP84
SCALLER (GENESIS-2 GM6015BD-LF) 210

SH. NO.







2007:2A:503:3C:601:2D:802:5E: TV_SCL1
 B05:5A
 0007:5D:A:503:3D:601:2D:802:5E: TV_SDA1
 005:5A

503:5E:601:8C C_BEPMRSTO

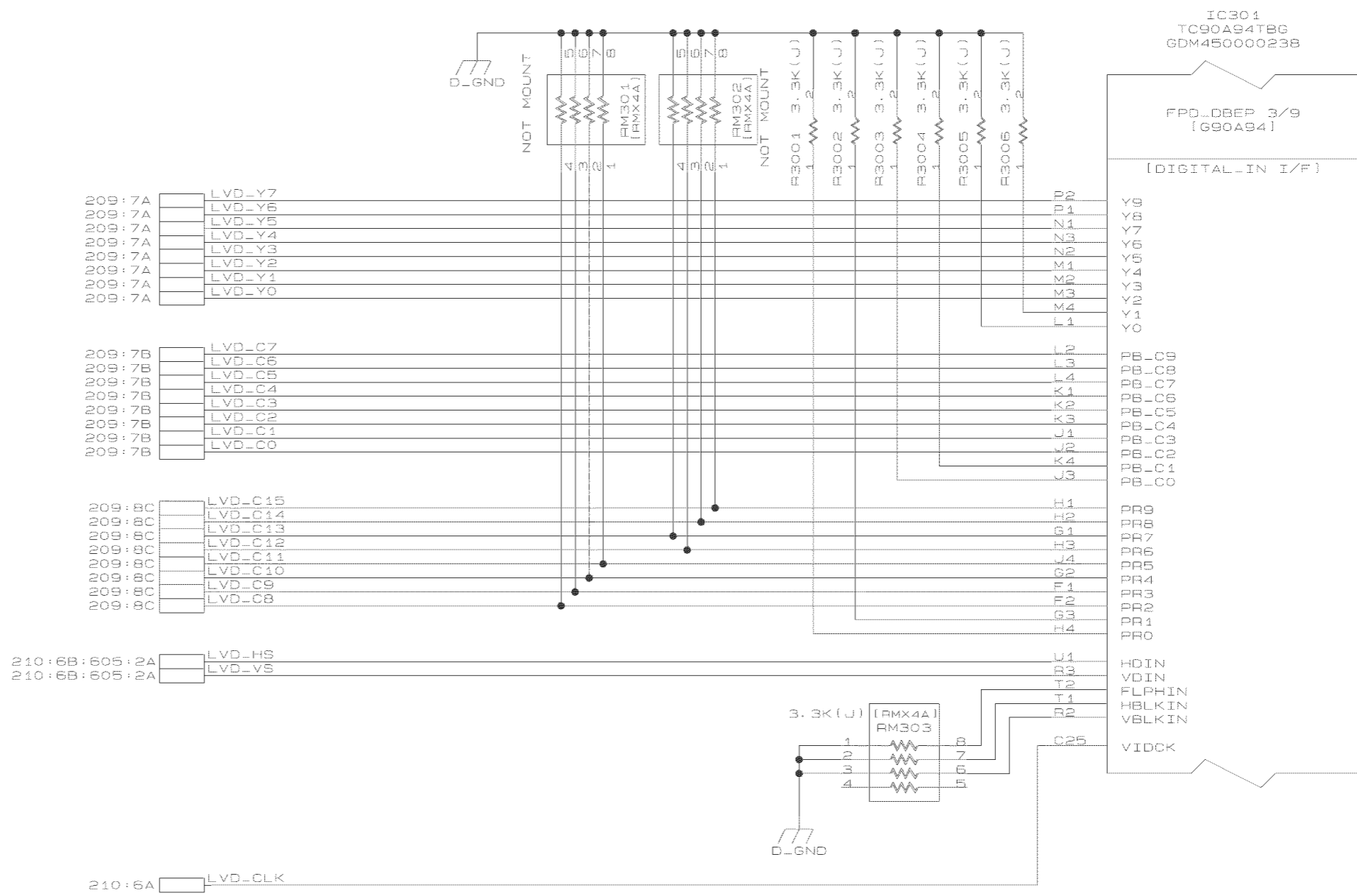
Y_RESET 207:2A:210:2C

42HP84
 SCALLER (GENESIS_IIC) 213

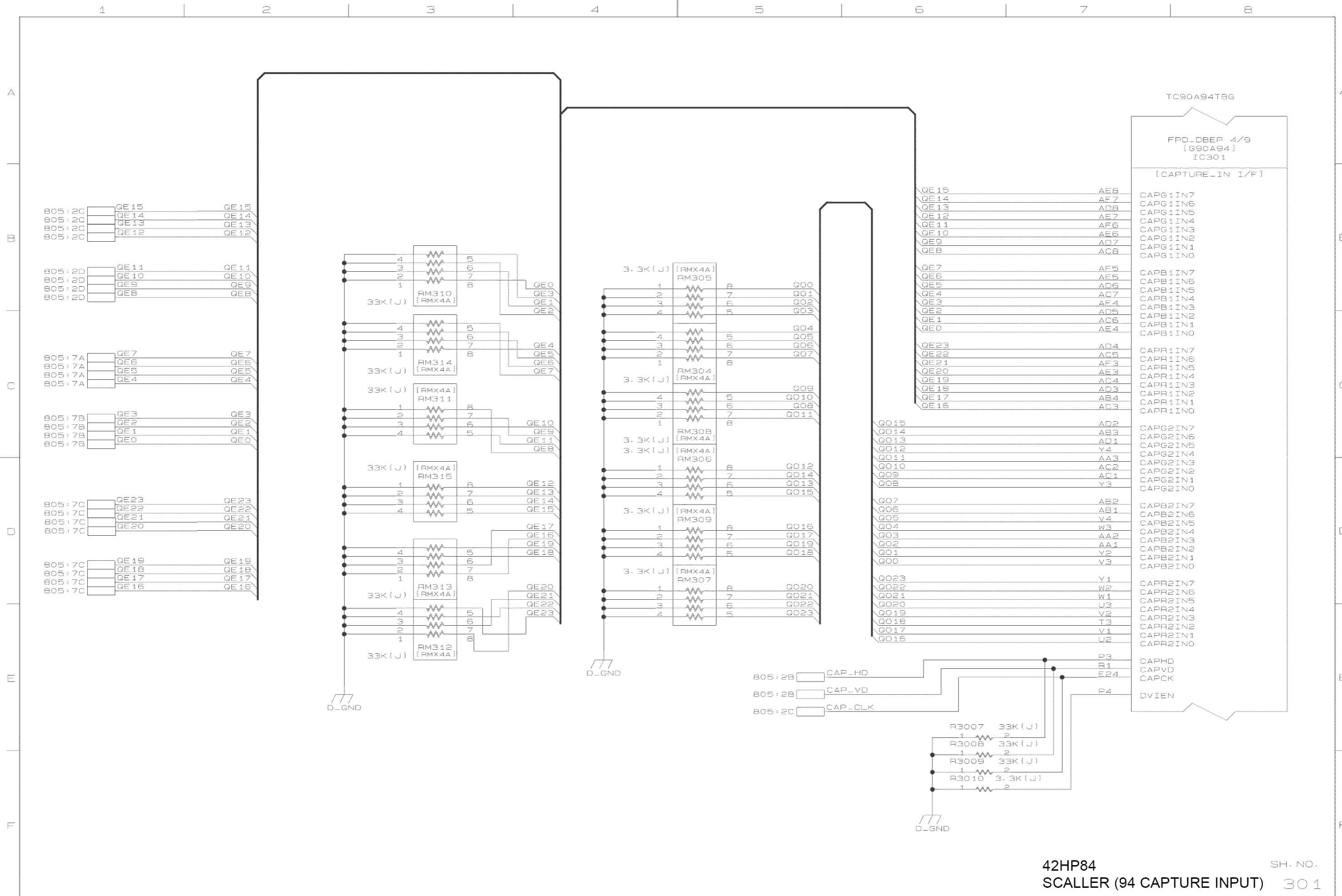
SH. NO.

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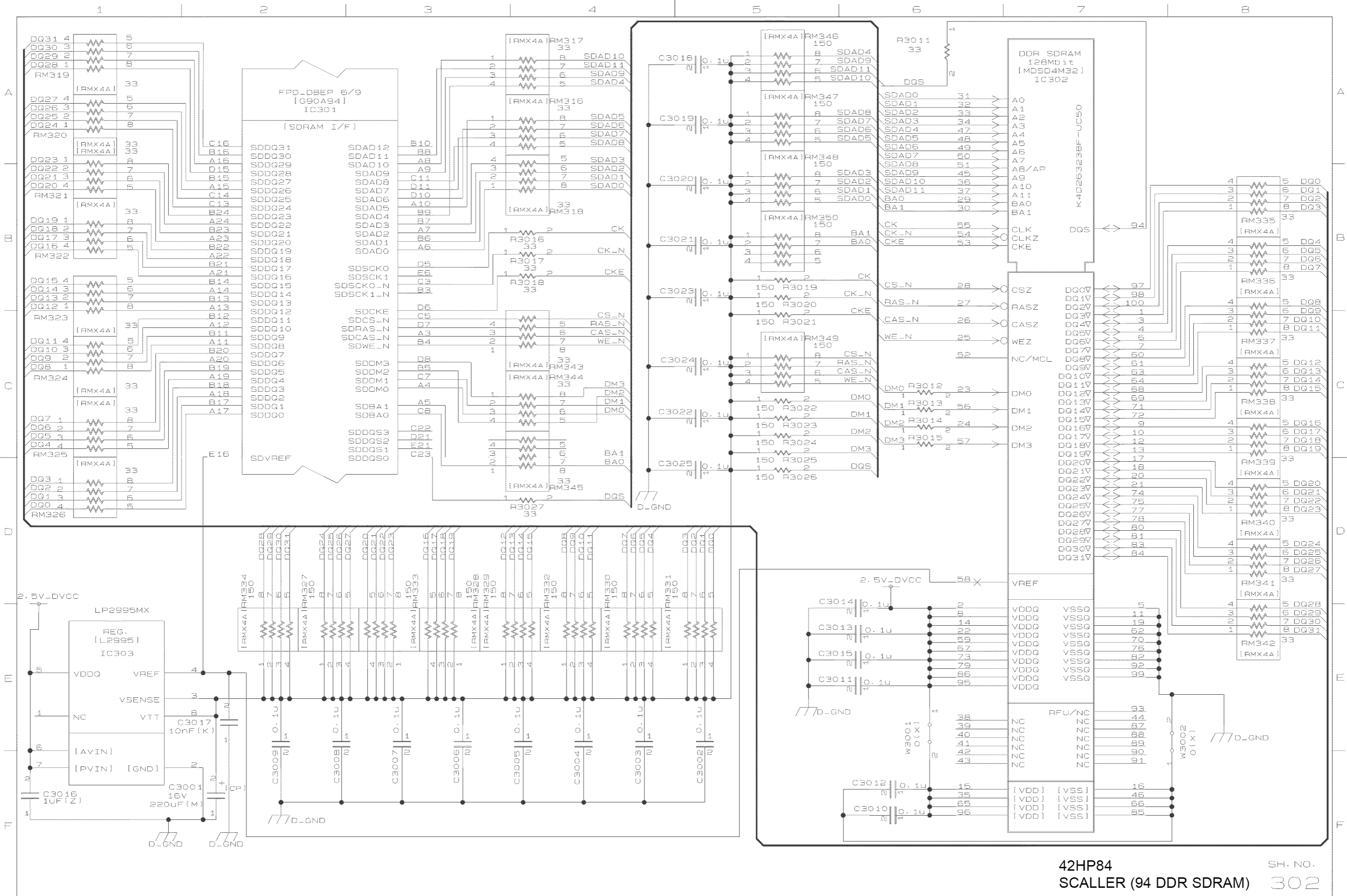
1 2 3 4 5 6 7 8



42HP84
SCALLER (94 DIGITAL INPUT) SH. NO. 300

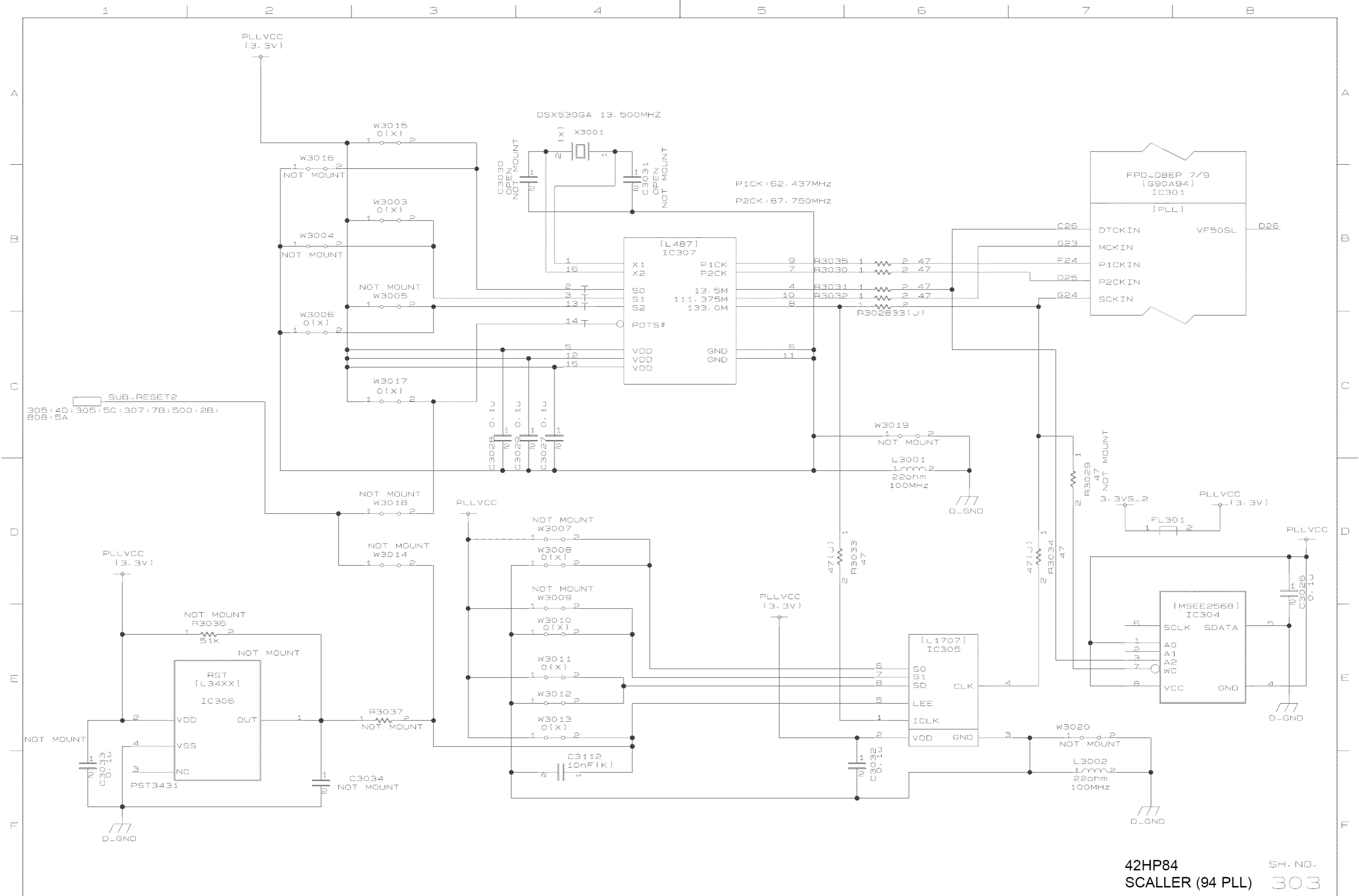


42HP84
SCALLER (94 CAPTURE INPUT) SH. NO. 301

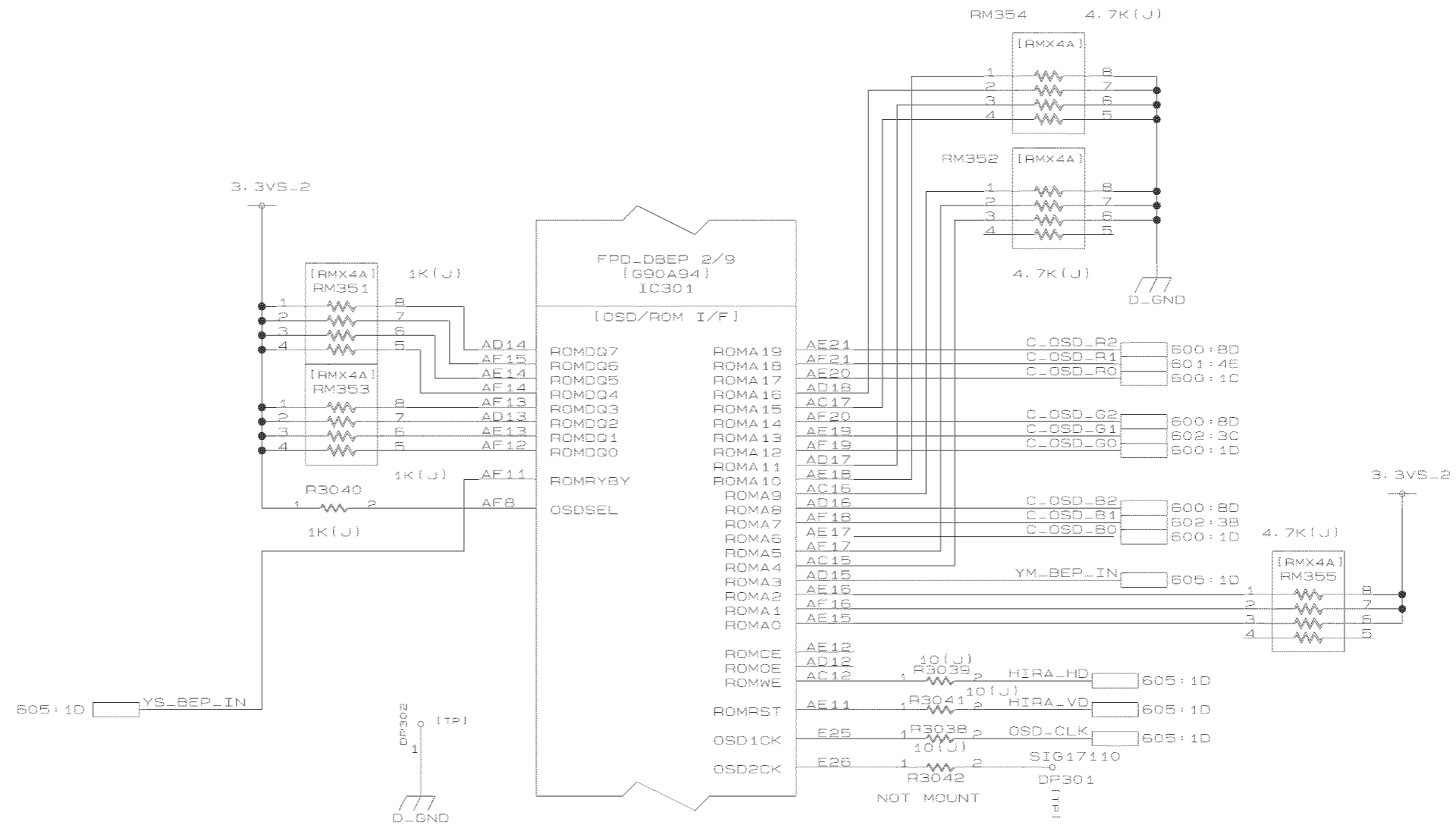


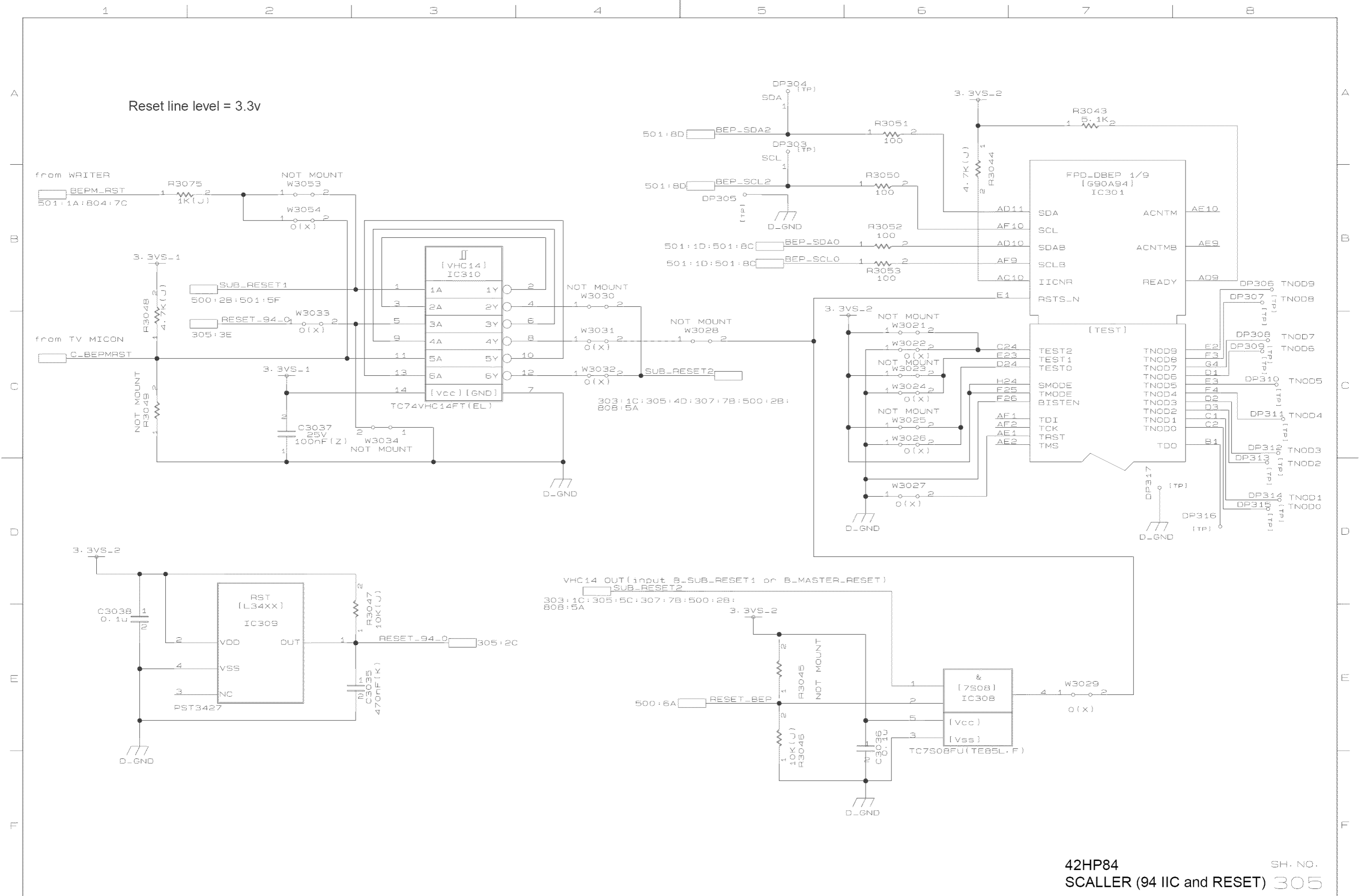
42HP84
SCALLER (94 DDR SDRAM)

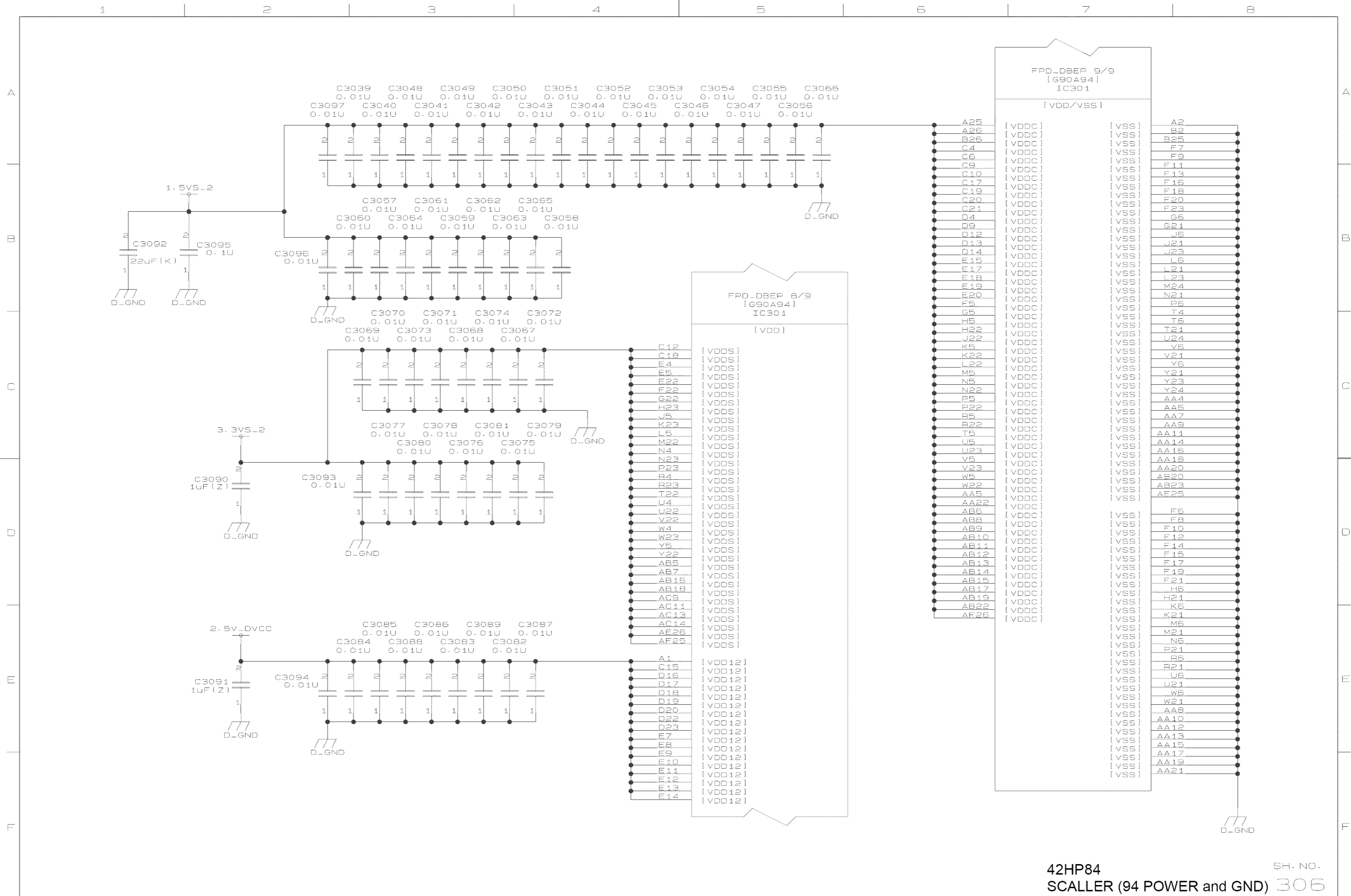
SH. NO.
302

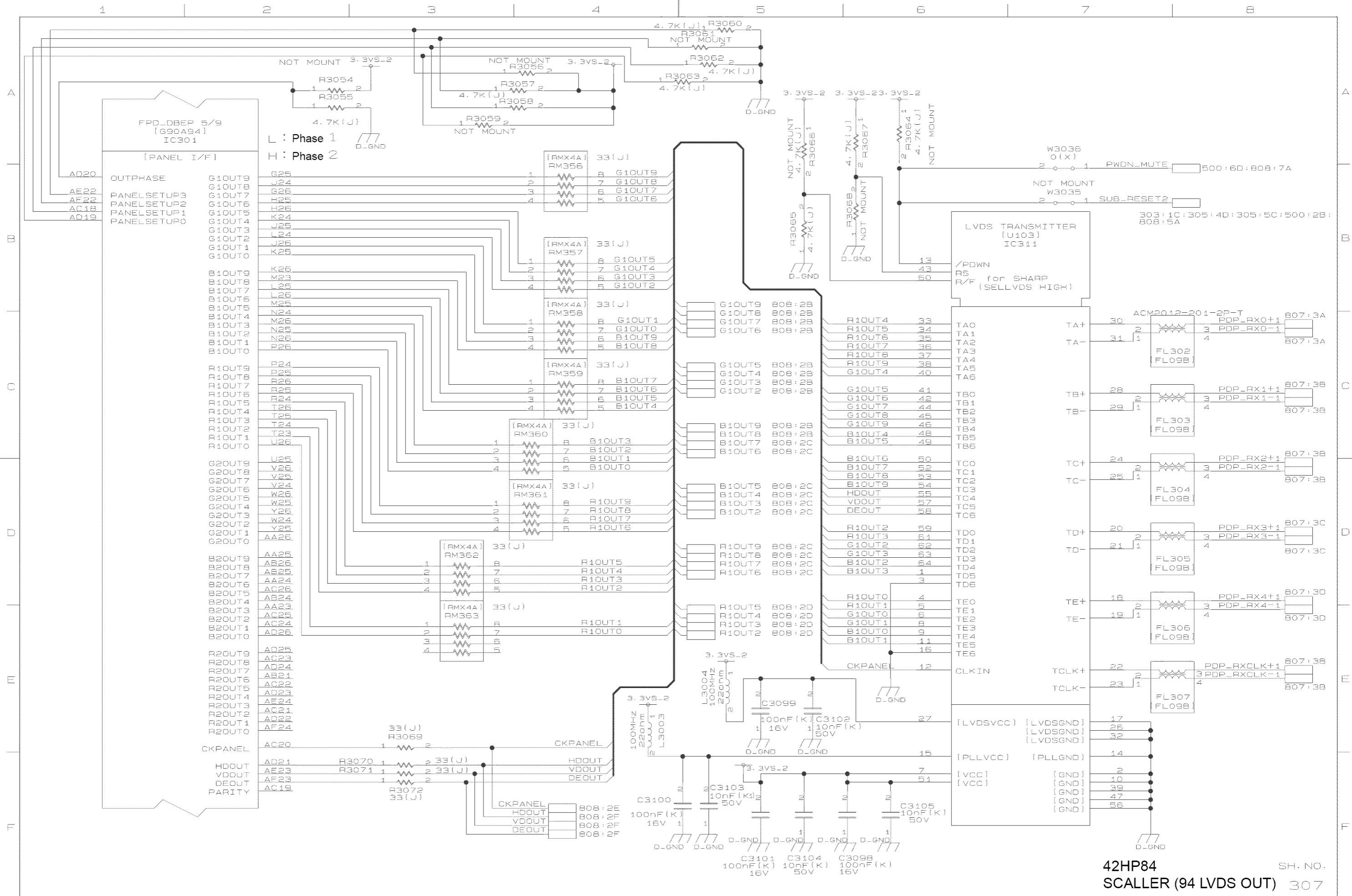


42HP84
SCALLER (94 PLL) SH. NO. 303









42HP84
SCALLER (94 LVDS OUT) 307

SH. NO.

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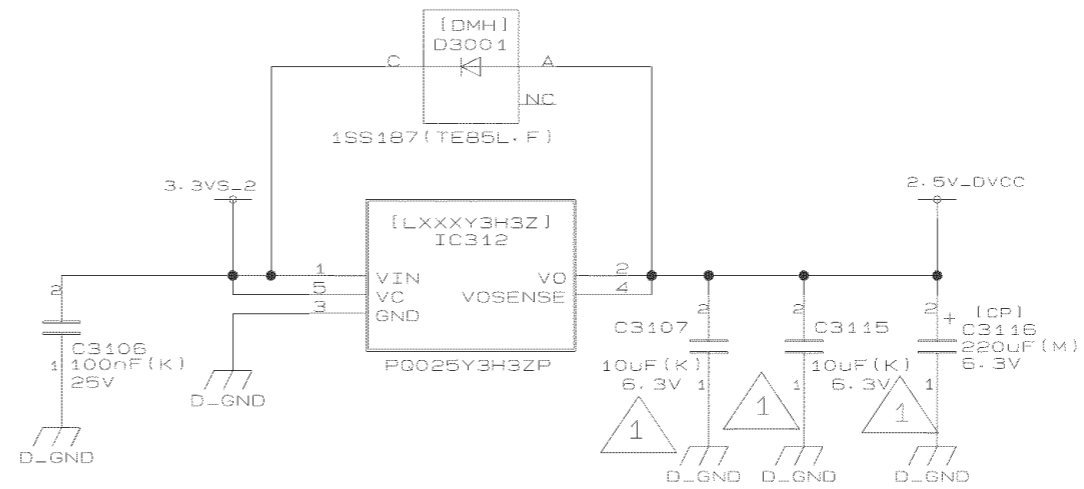
B

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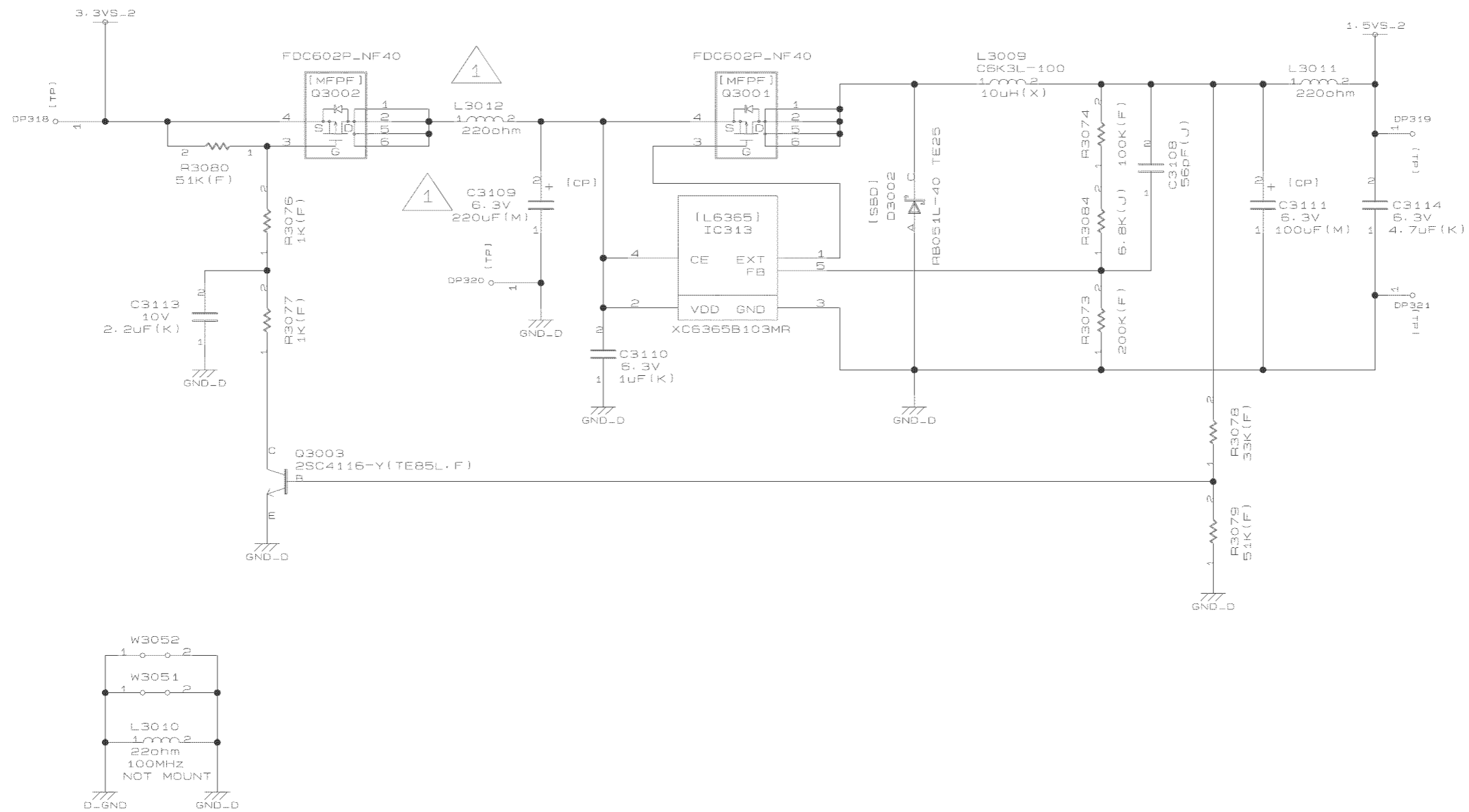
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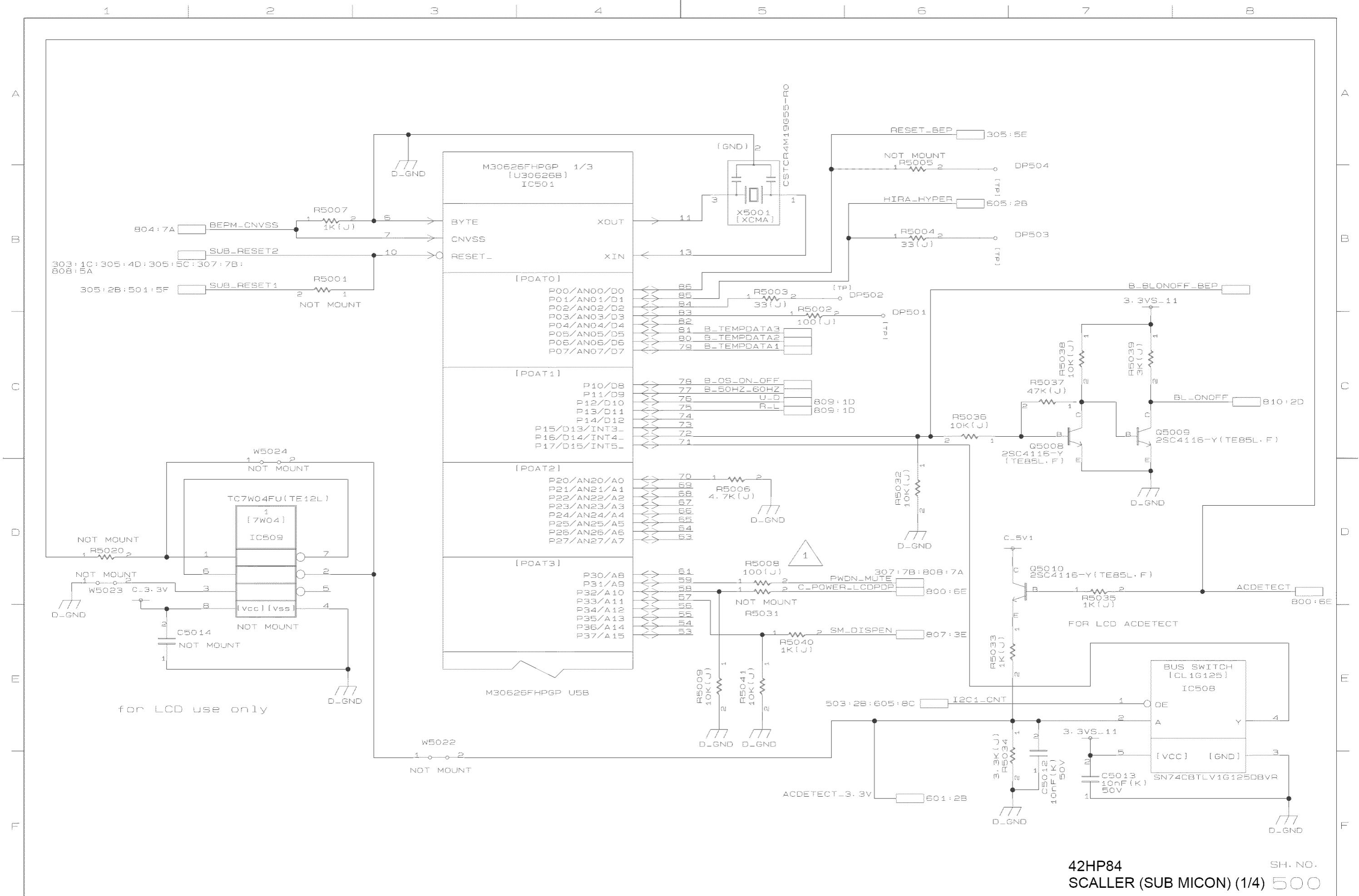
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42HP84
 SCALLER (94 2.5V Reg.)

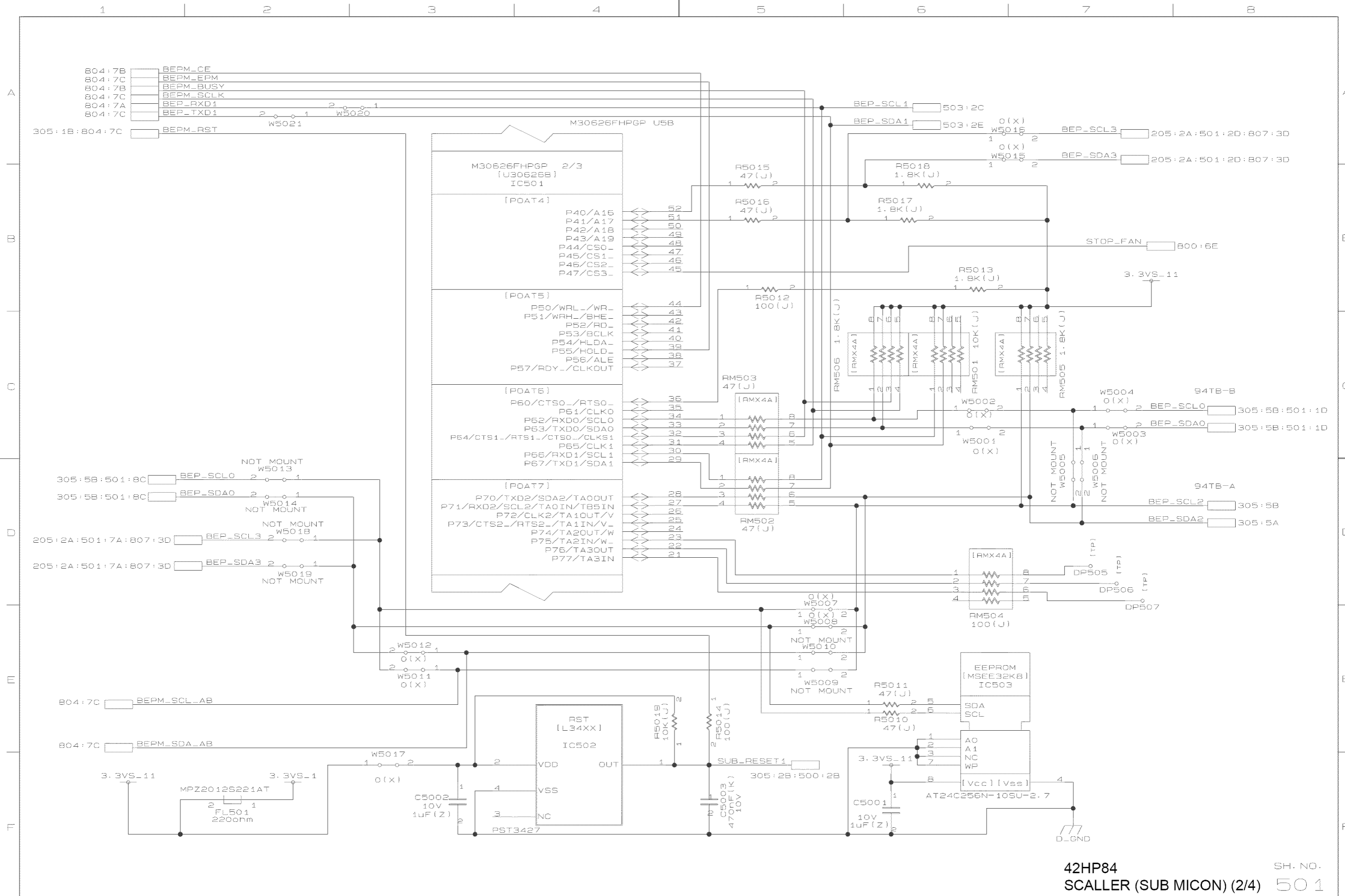
SH. NO.
 308





42HP84
SCALLER (SUB MICON) (1/4) 500

SH. NO.



42HP84
SCALLER (SUB MICON) (2/4) SH. NO. 501

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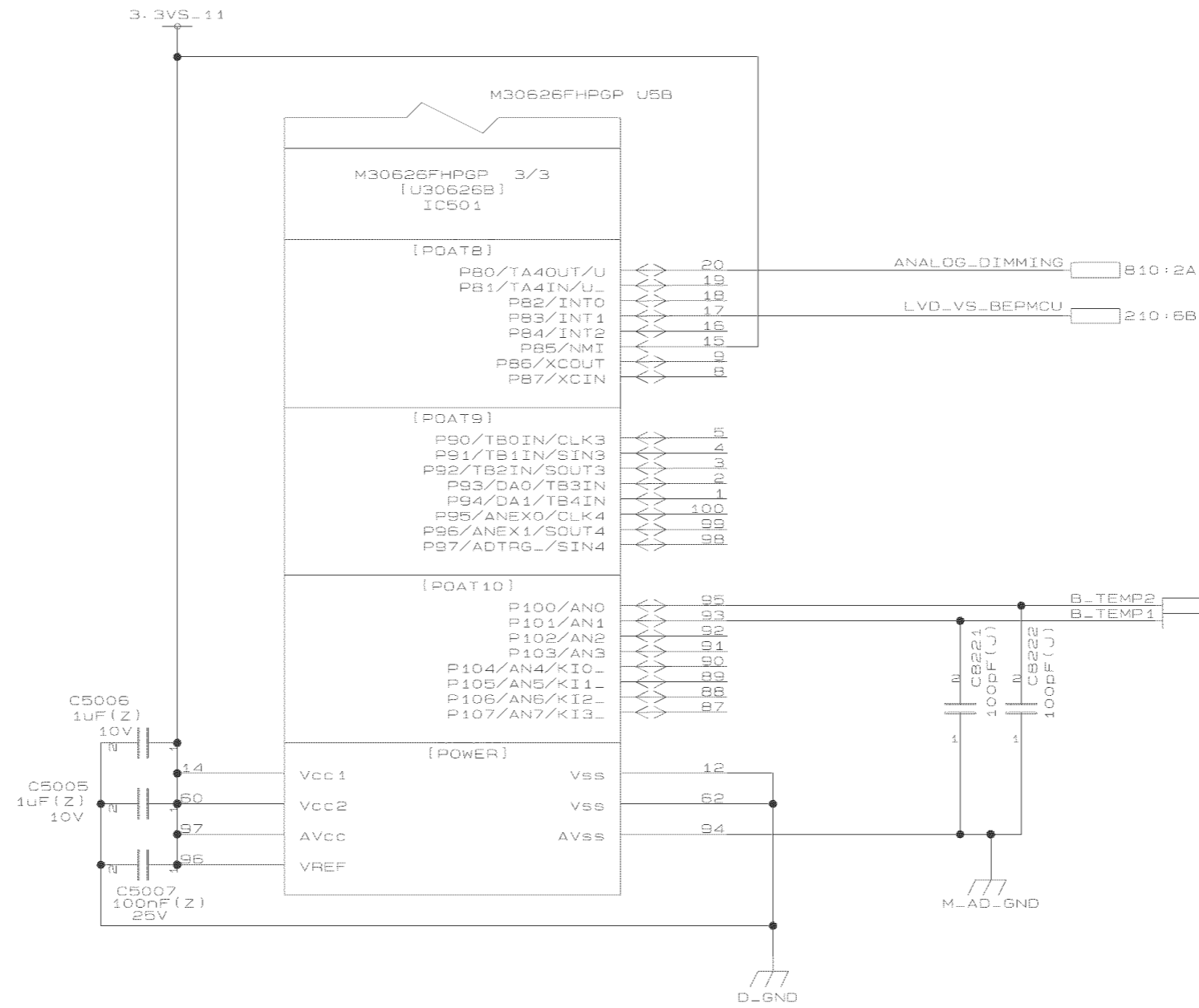
B

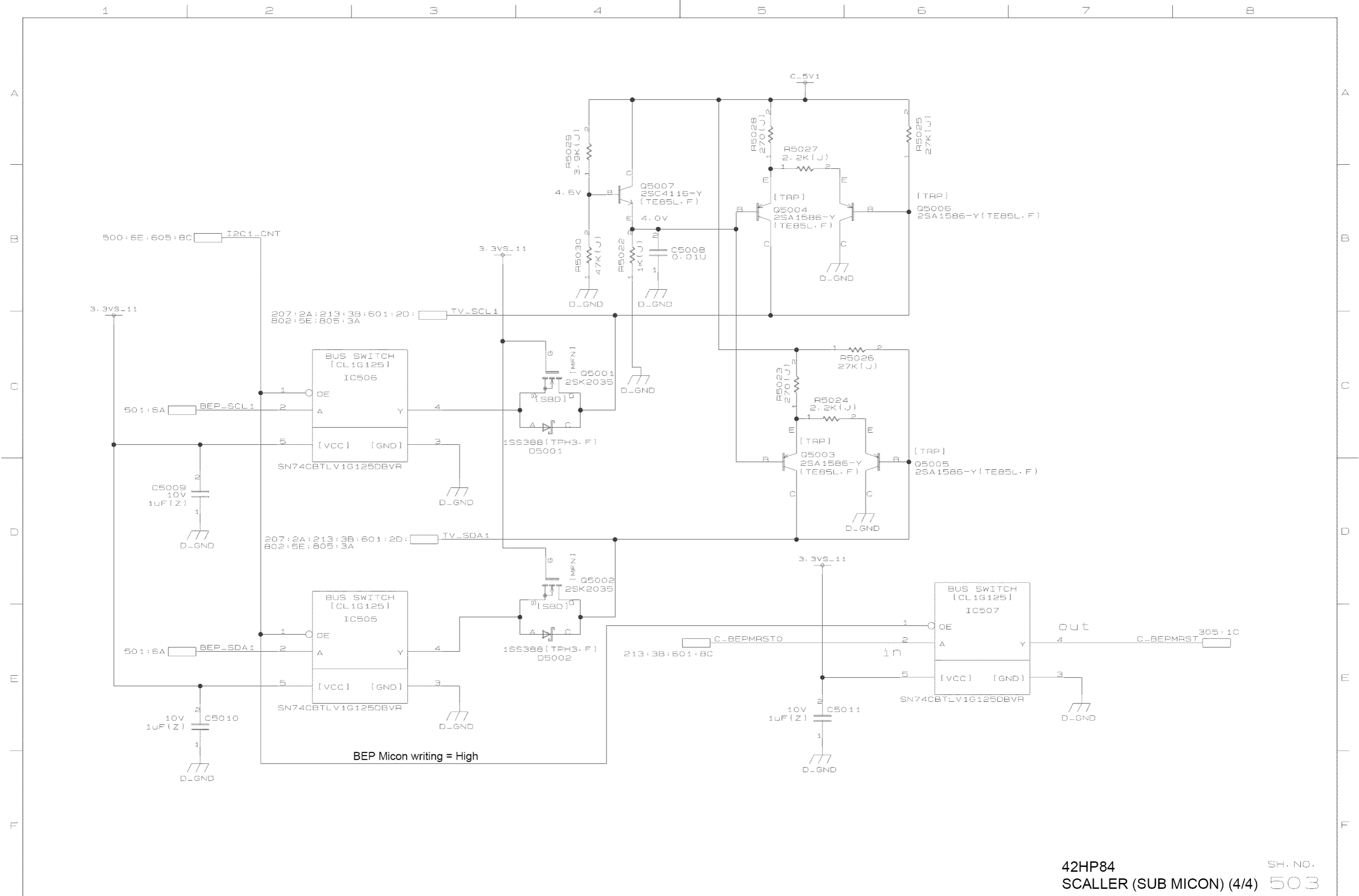
C

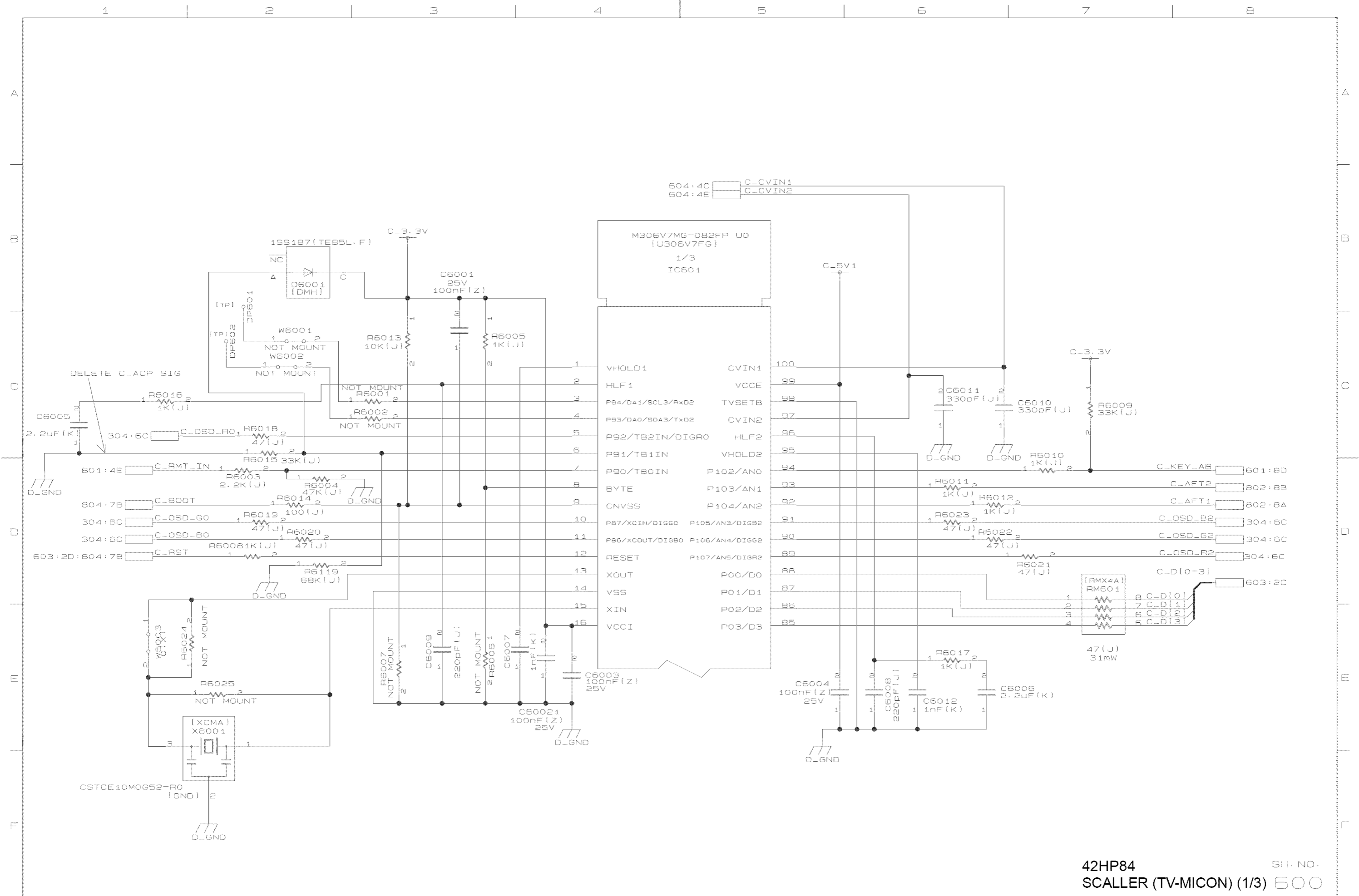
D

E

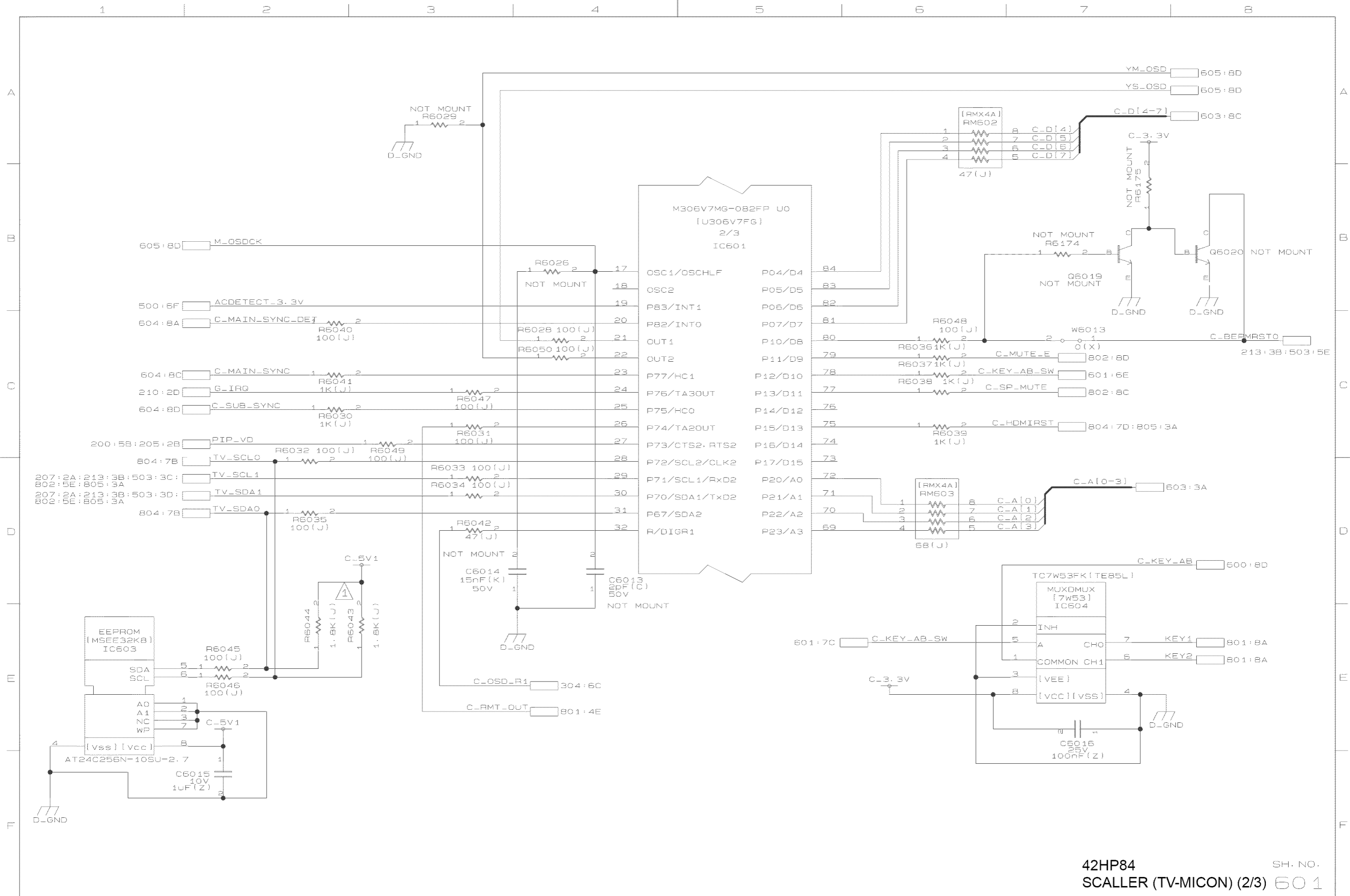
F





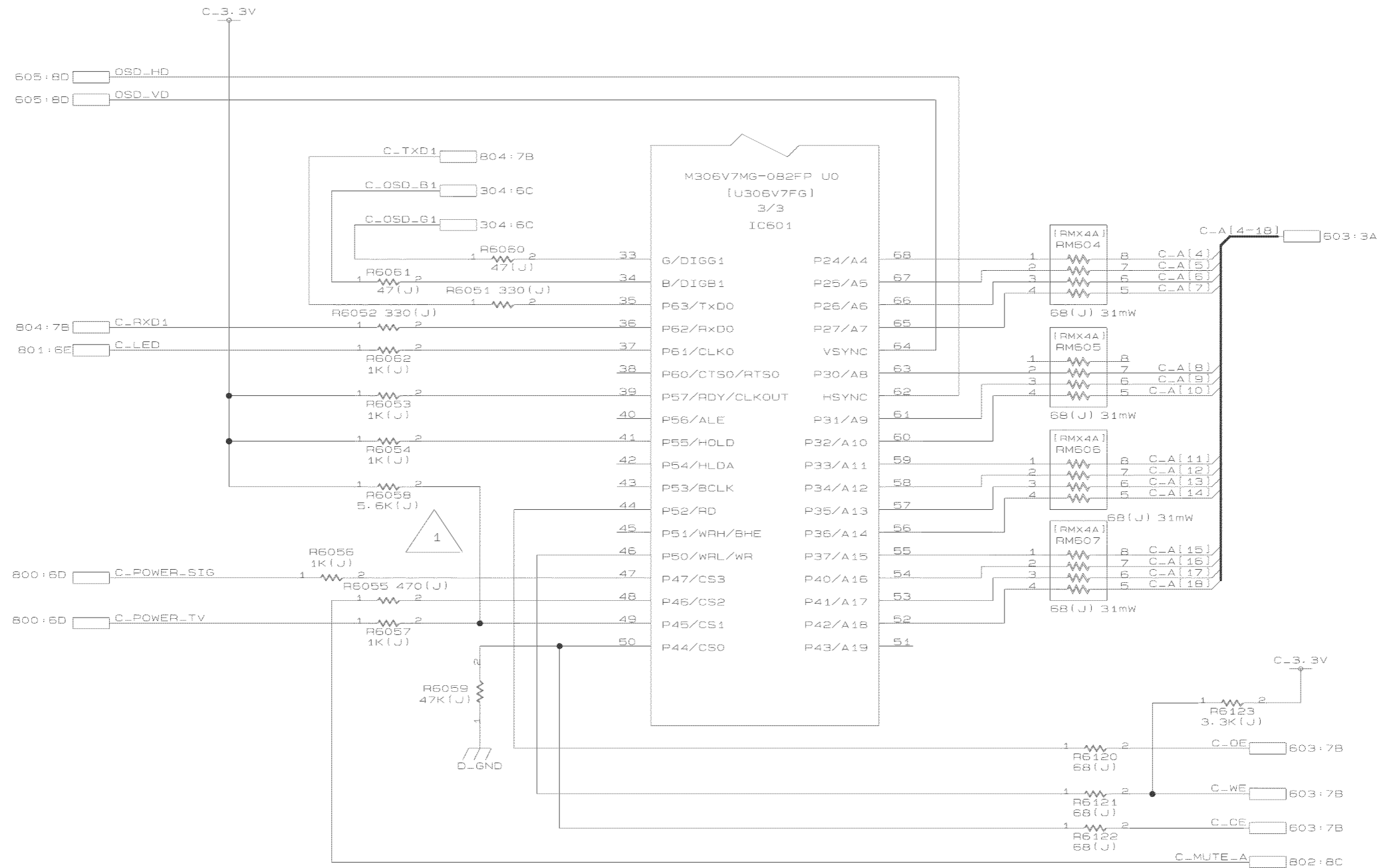


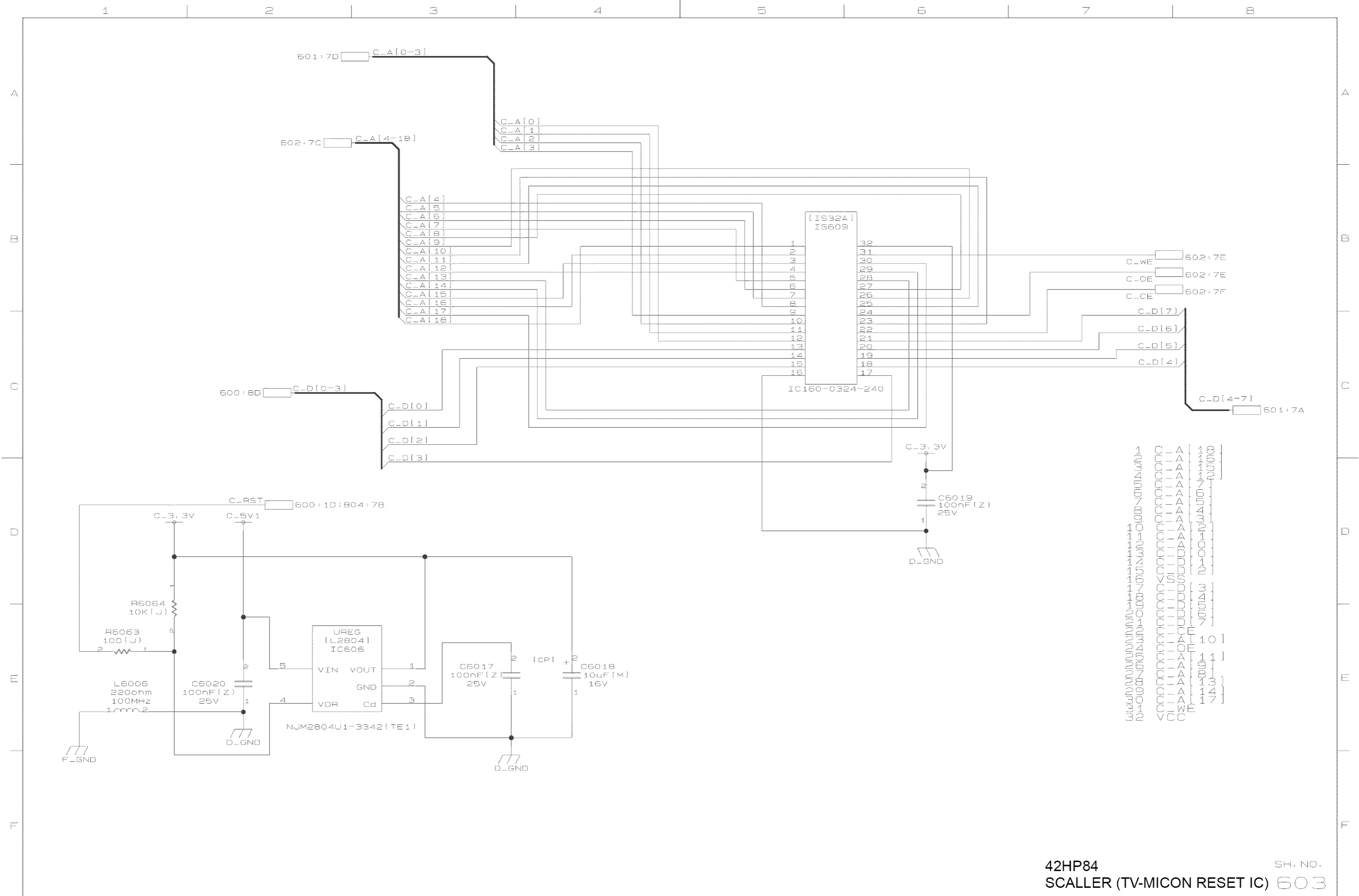
42HP84 SH. NO. SCALLER (TV-MICON) (1/3) 600



42HP84
SCALLER (TV-MICON) (2/3) 601

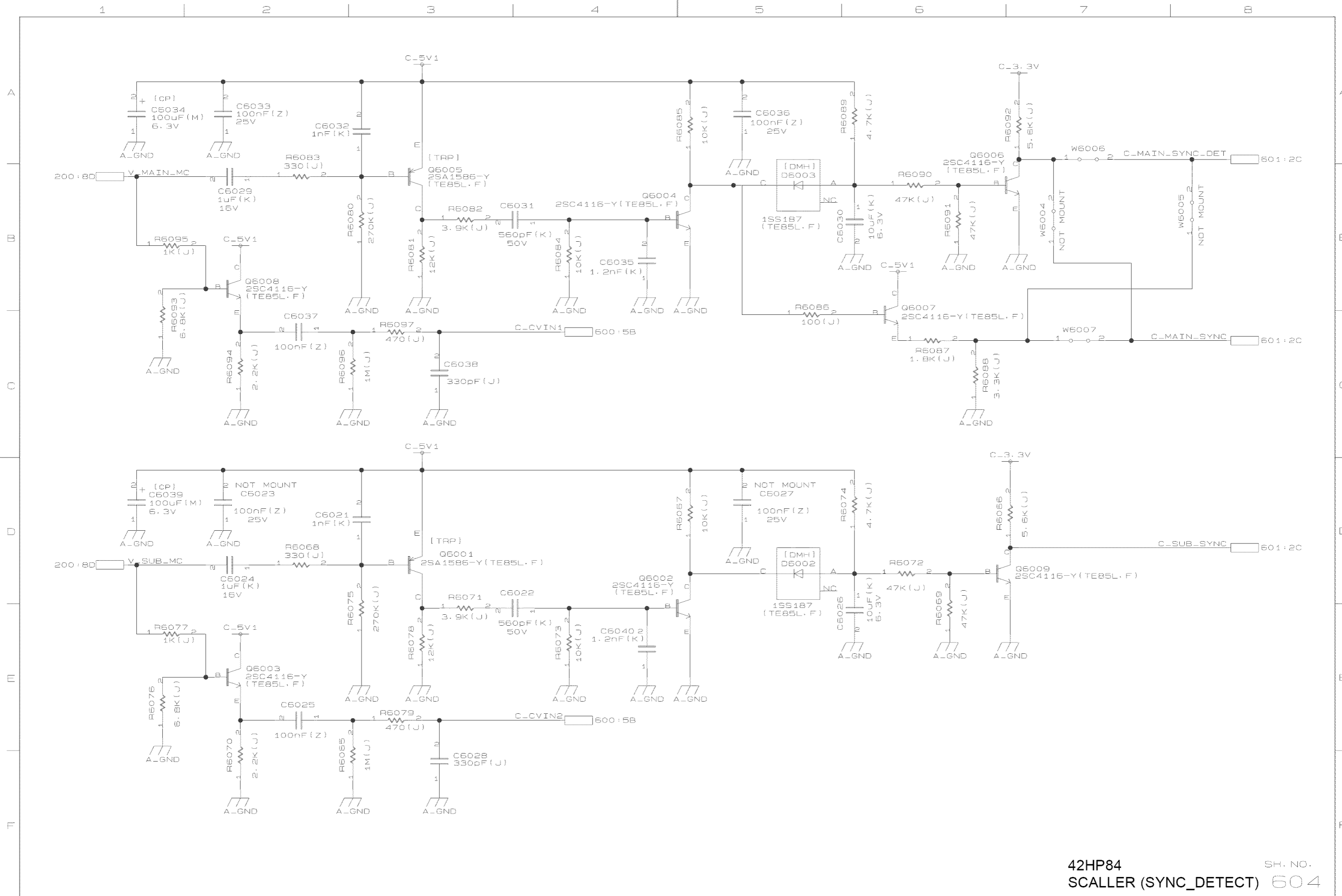
SH. NO.





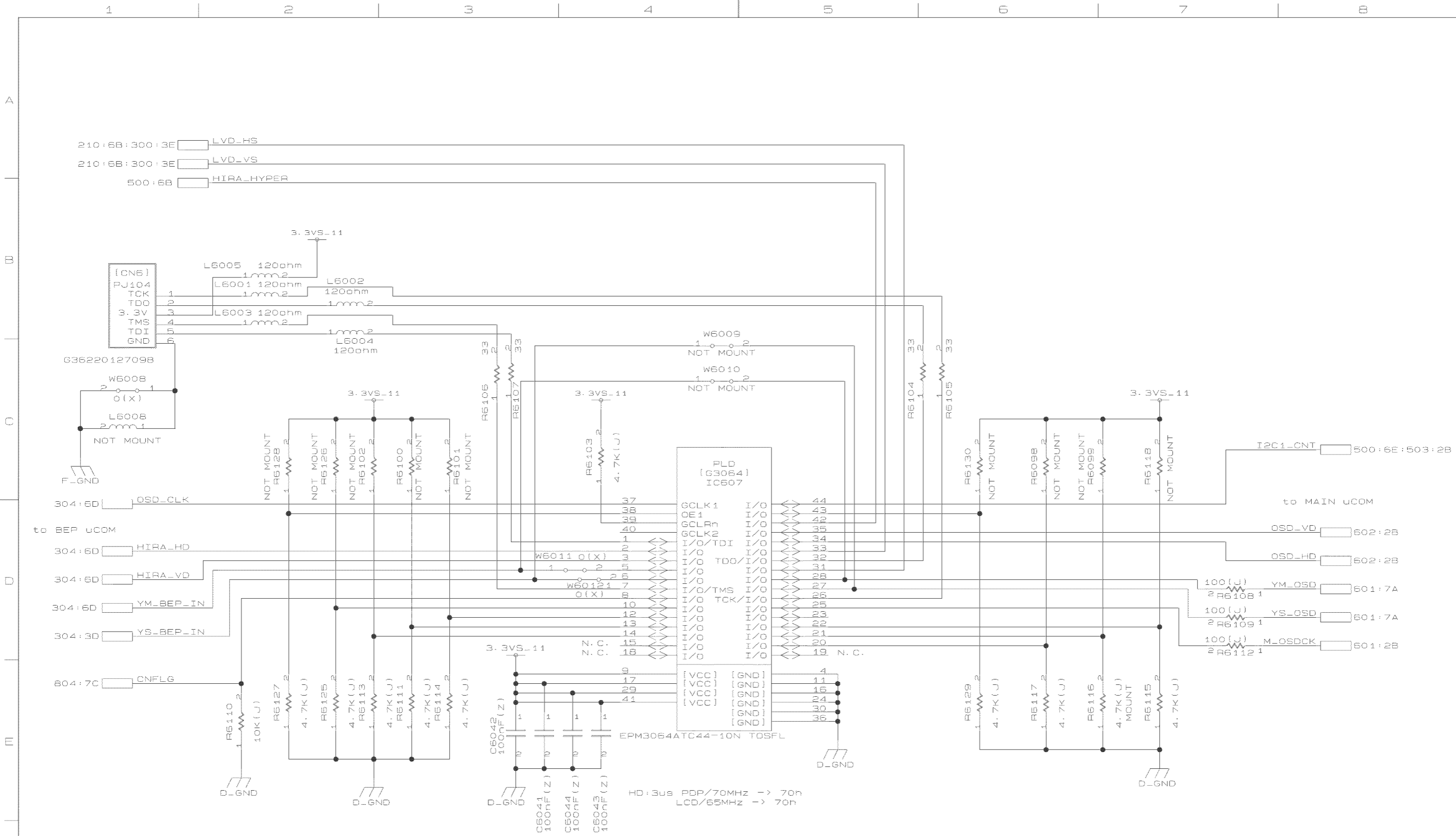
42HP84
SCALLER (TV-MICON RESET IC) 603

SH. NO.

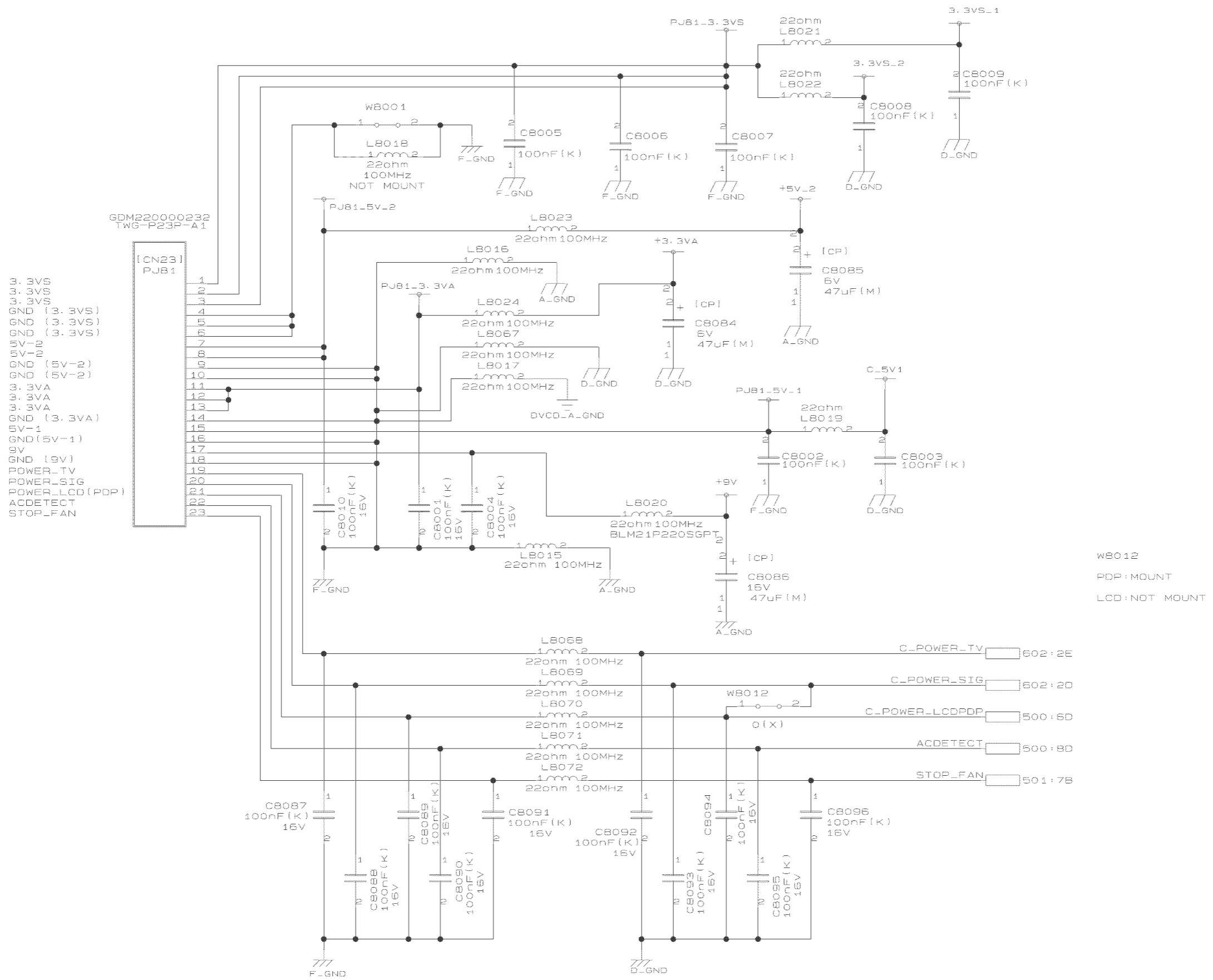


42HP84
SCALLER (SYNC_DETECT) 604

SH. NO.



42HP84 SH-NO. SCALLER (PLD) 605



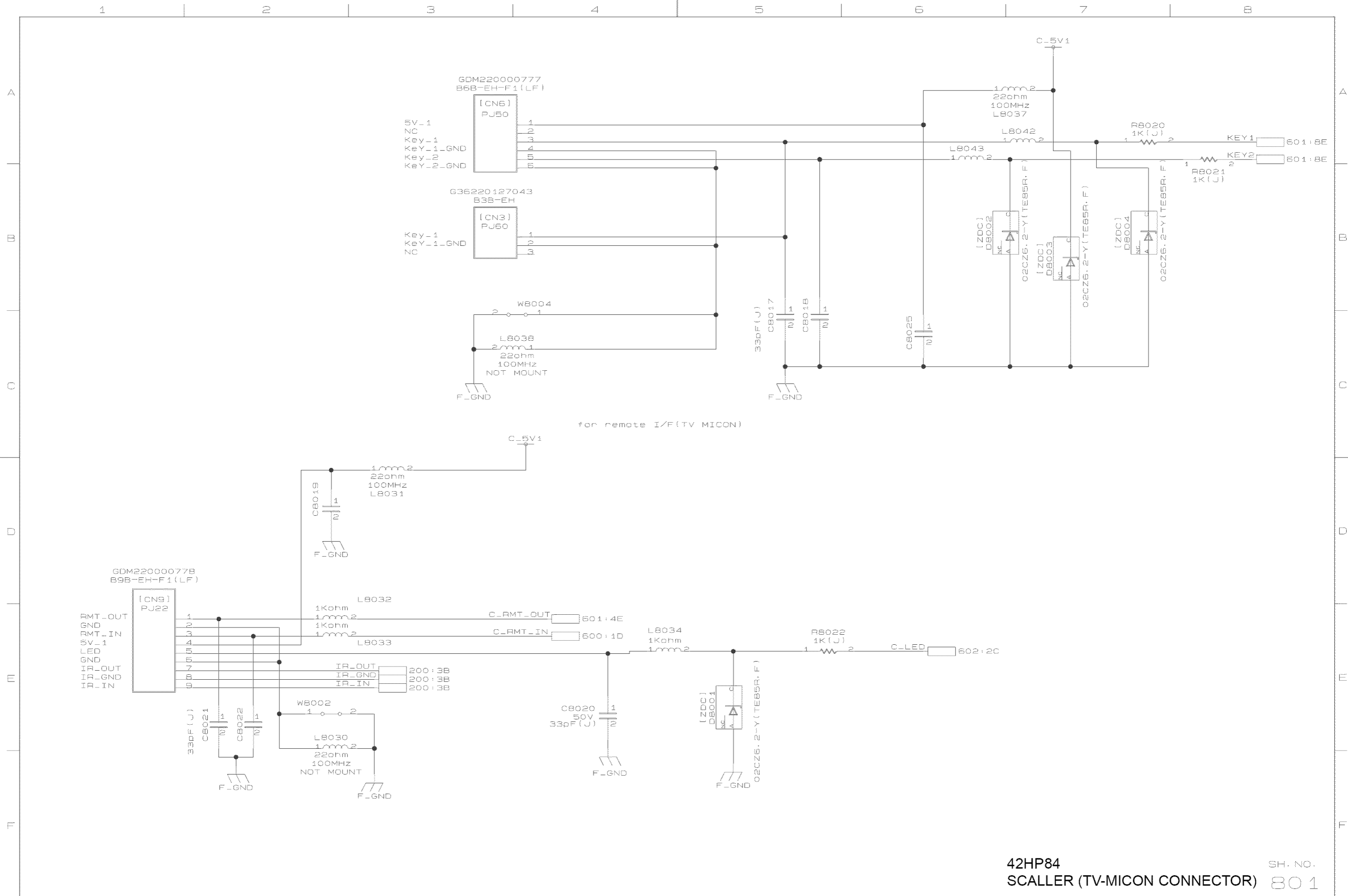
- 3.3VS
- 3.3VS
- 3.3VS
- GND (3.3VS)
- GND (3.3VS)
- GND (3.3VS)
- 5V-2
- 5V-2
- GND (5V-2)
- GND (5V-2)
- 3.3VA
- 3.3VA
- 3.3VA
- GND (3.3VA)
- 5V-1
- GND (5V-1)
- 9V
- GND (9V)
- POWER_TV
- POWER_SIG
- POWER_LCD (PDP)
- ACDETECT
- STOP_FAN

W8012
PDP: MOUNT
LCD: NOT MOUNT

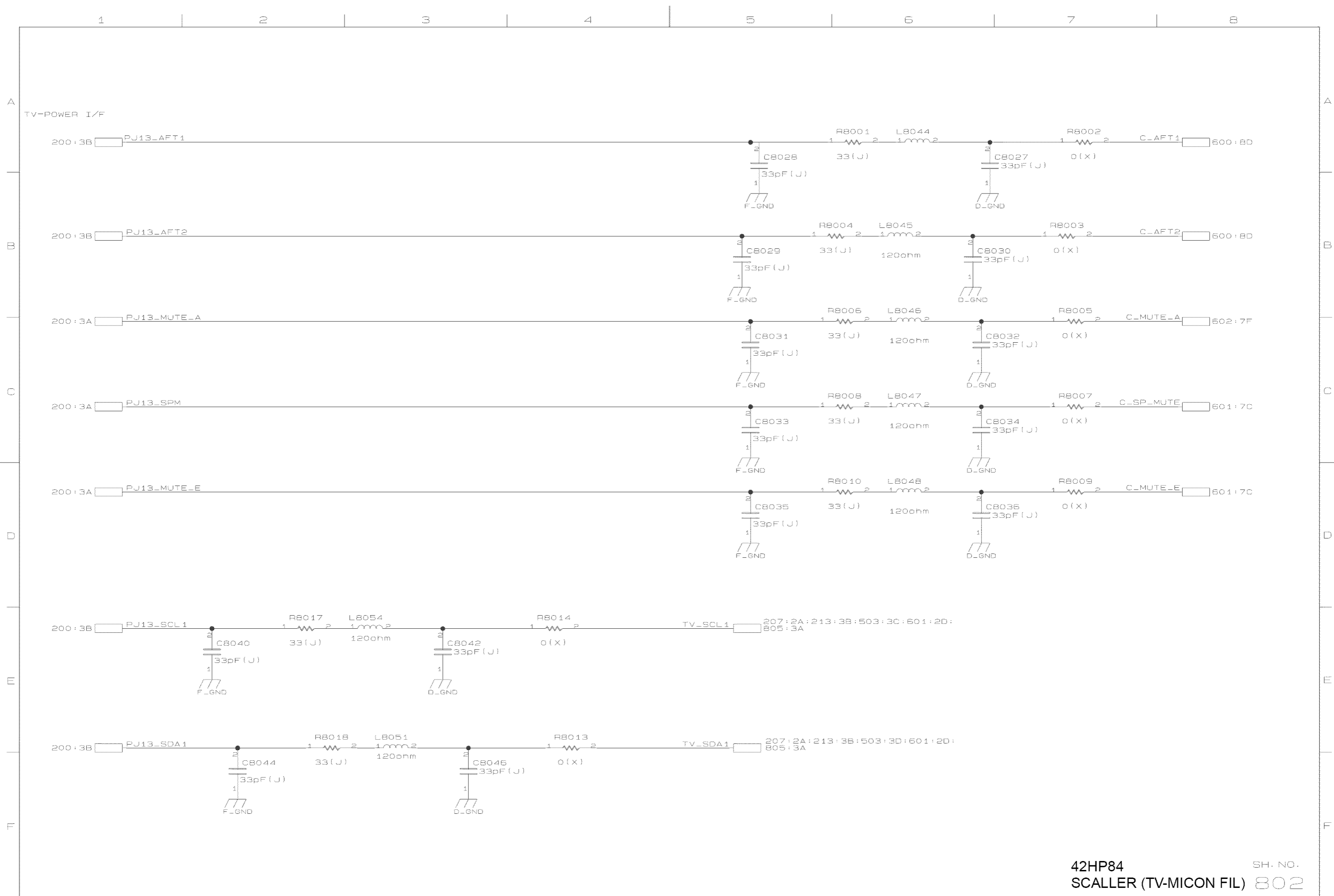
- C_POWER_TV 602: 2E
- C_POWER_SIG 602: 2D
- C_POWER_LCDPDP 500: 6D
- ACDETECT 500: 8D
- STOP_FAN 501: 7B

**42HP84
SCALLER (POWER_CONNECTOR)**

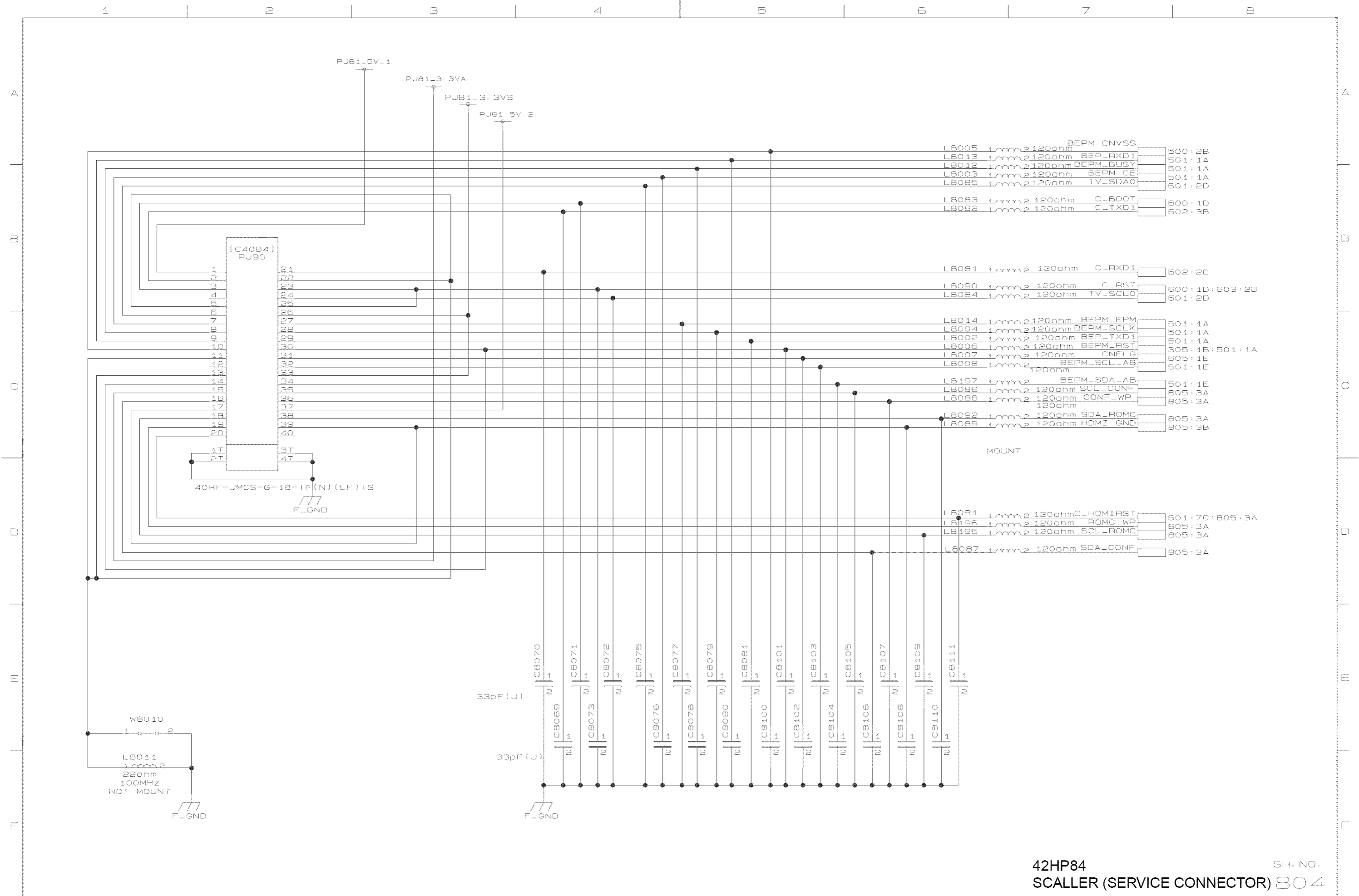
SH. NO.
800



42HP84
 SCALLER (TV-MICON CONNECTOR) SH. NO. 801



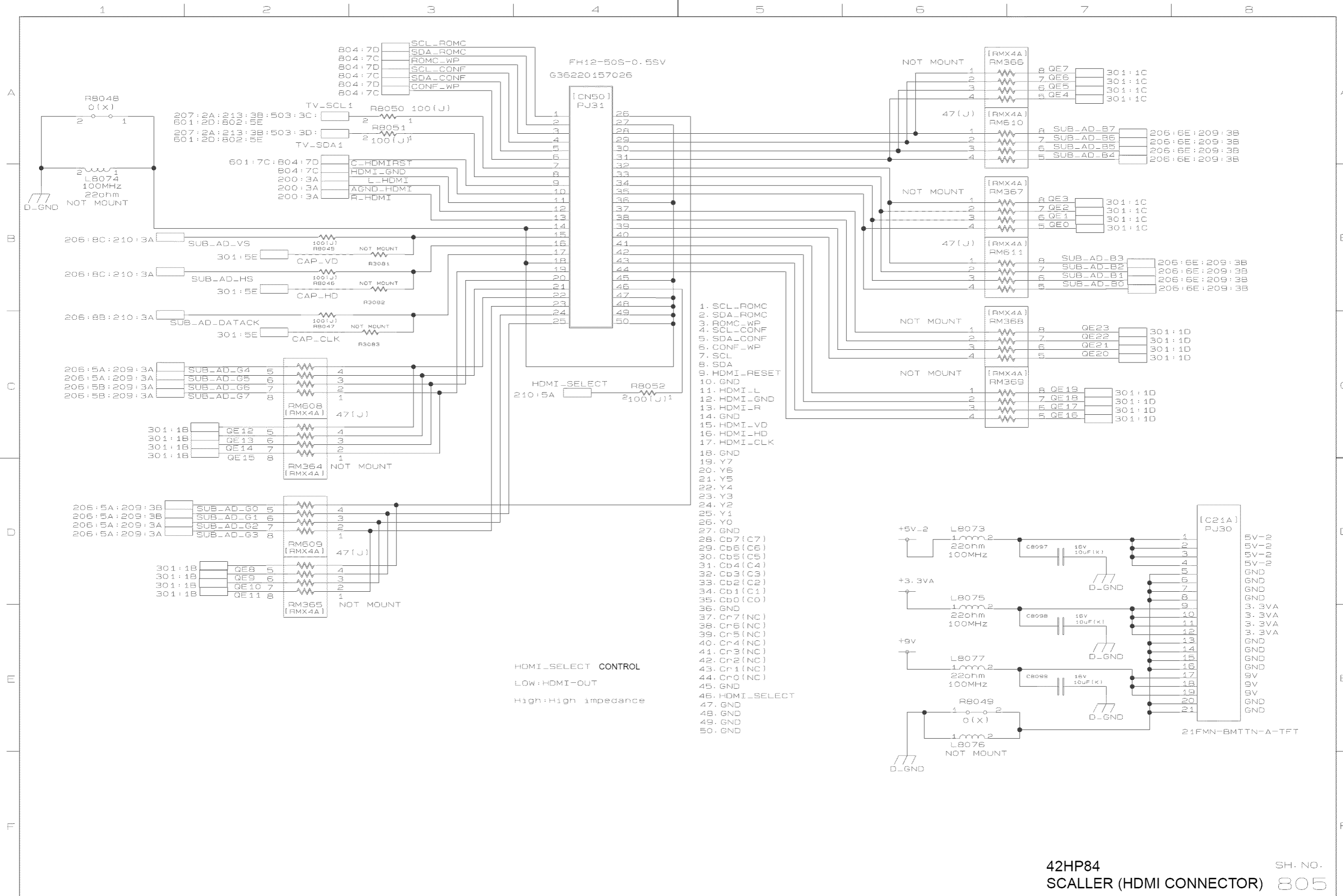
42HP84 SH. NO.
SCALLER (TV-MICON FIL) 802

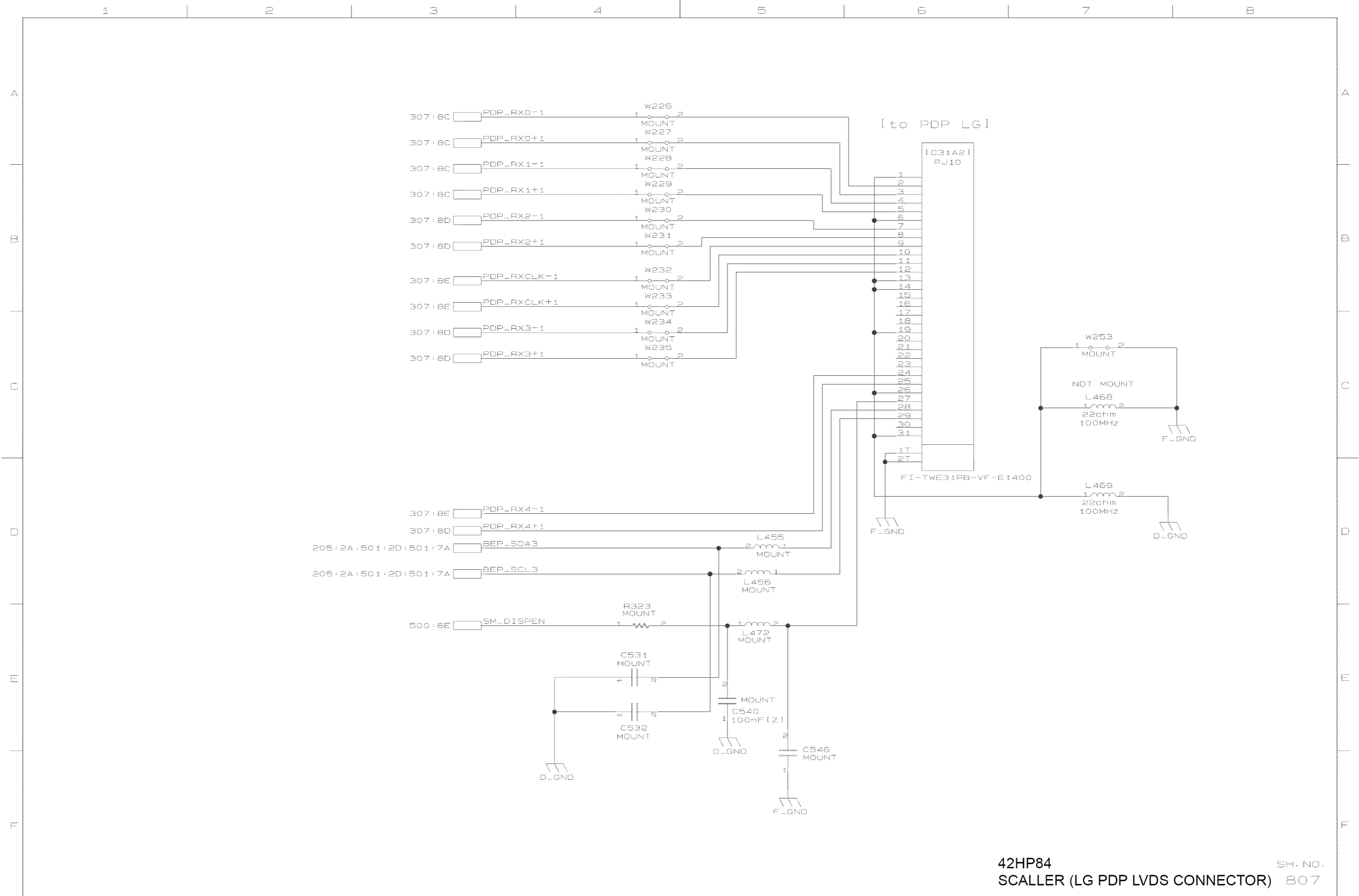


- L8005 1mm2 120ohm BEPM_CNVSS 500:2B
- L8013 1mm2 120ohm BEP_RXD1 501:1A
- L8012 1mm2 120ohm BEPM_BUSY 501:1A
- L8003 1mm2 120ohm BEPM_CE 501:1A
- L8085 1mm2 120ohm TV_SDA0 601:2D
- L8083 1mm2 120ohm C_600T 600:1D
- L8082 1mm2 120ohm C_TXD1 602:3B
- L8081 1mm2 120ohm C_RXD1 602:2C
- L8090 1mm2 120ohm C_RST 600:1D:603:2D
- L8084 1mm2 120ohm TV_SCL0 601:2D
- L8014 1mm2 120ohm BEPM_EPM 501:1A
- L8004 1mm2 120ohm BEPM_SCLK 501:1A
- L8002 1mm2 120ohm BEP_TXD1 501:1A
- L8006 1mm2 120ohm BEPM_RST 305:1B:501:1A
- L8007 1mm2 120ohm CNFLG 605:1E
- L8008 1mm2 120ohm BEPM_SCL_AB 501:1E
- L8197 1mm2 BEPM_SDA_AB 501:1E
- L8086 1mm2 120ohm SCL_CONF 805:3A
- L8088 1mm2 120ohm CONF_WP 805:3A
- L8092 1mm2 120ohm SDA_ROMC 805:3A
- L8089 1mm2 120ohm HDMT_GND 805:3B
- L8091 1mm2 120ohm C_HDMI_RST 601:7C:805:3A
- L8196 1mm2 120ohm ROMC_WP 805:3A
- L8195 1mm2 120ohm SCL_ROMC 805:3A
- L8087 1mm2 120ohm SDA_CONF 805:3A

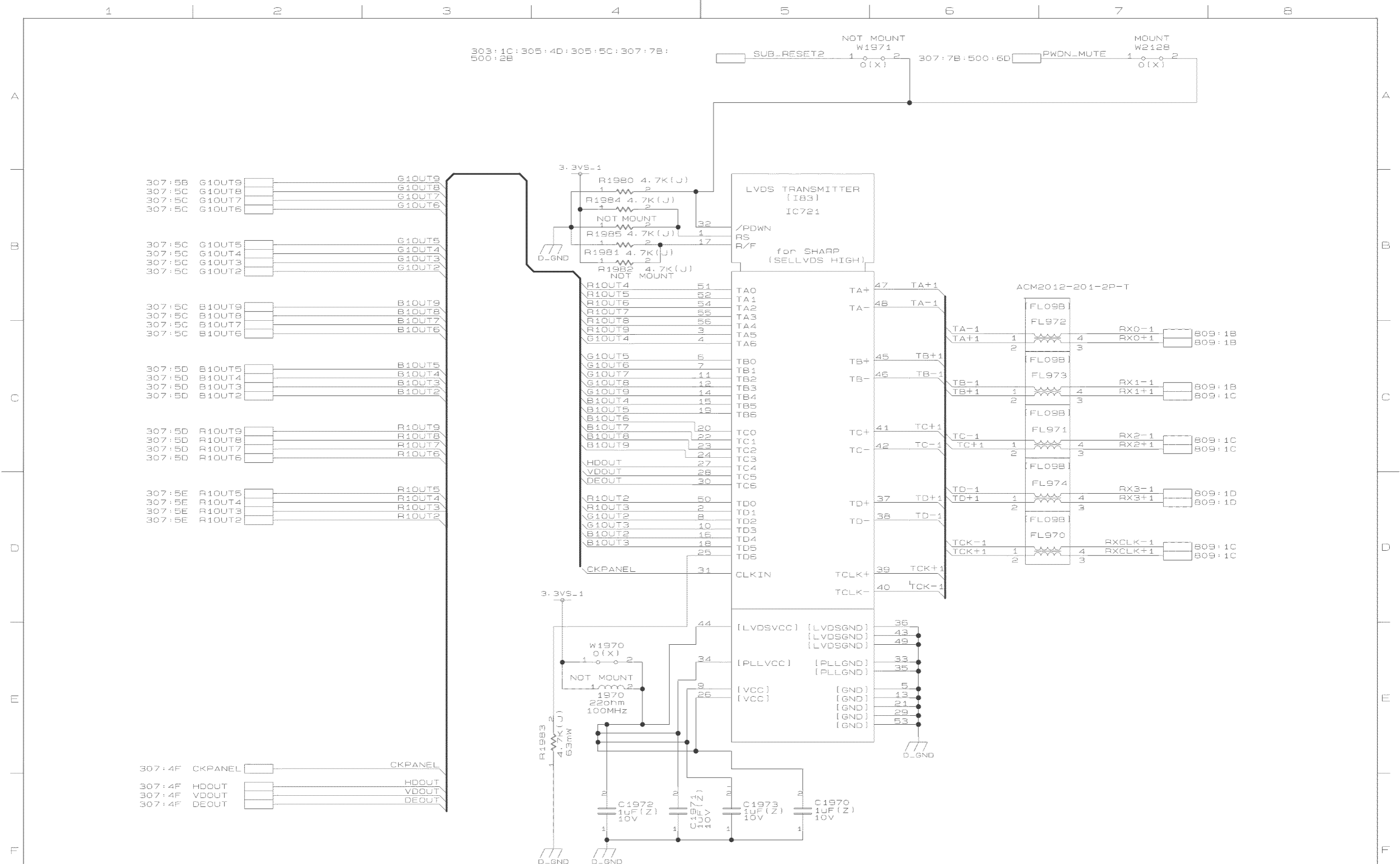
42HP84
SCALLER (SERVICE CONNECTOR) 804

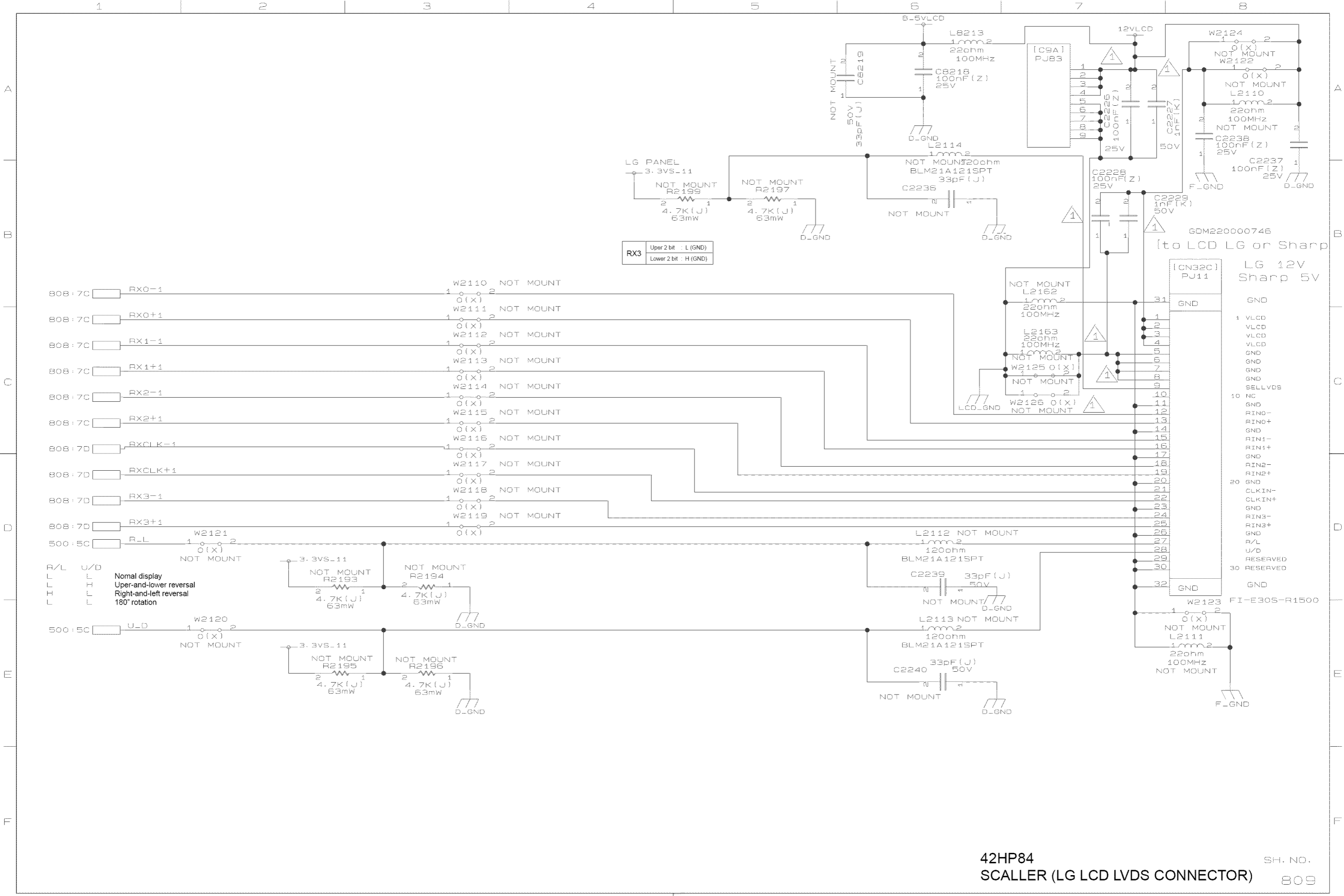
SH. NO.



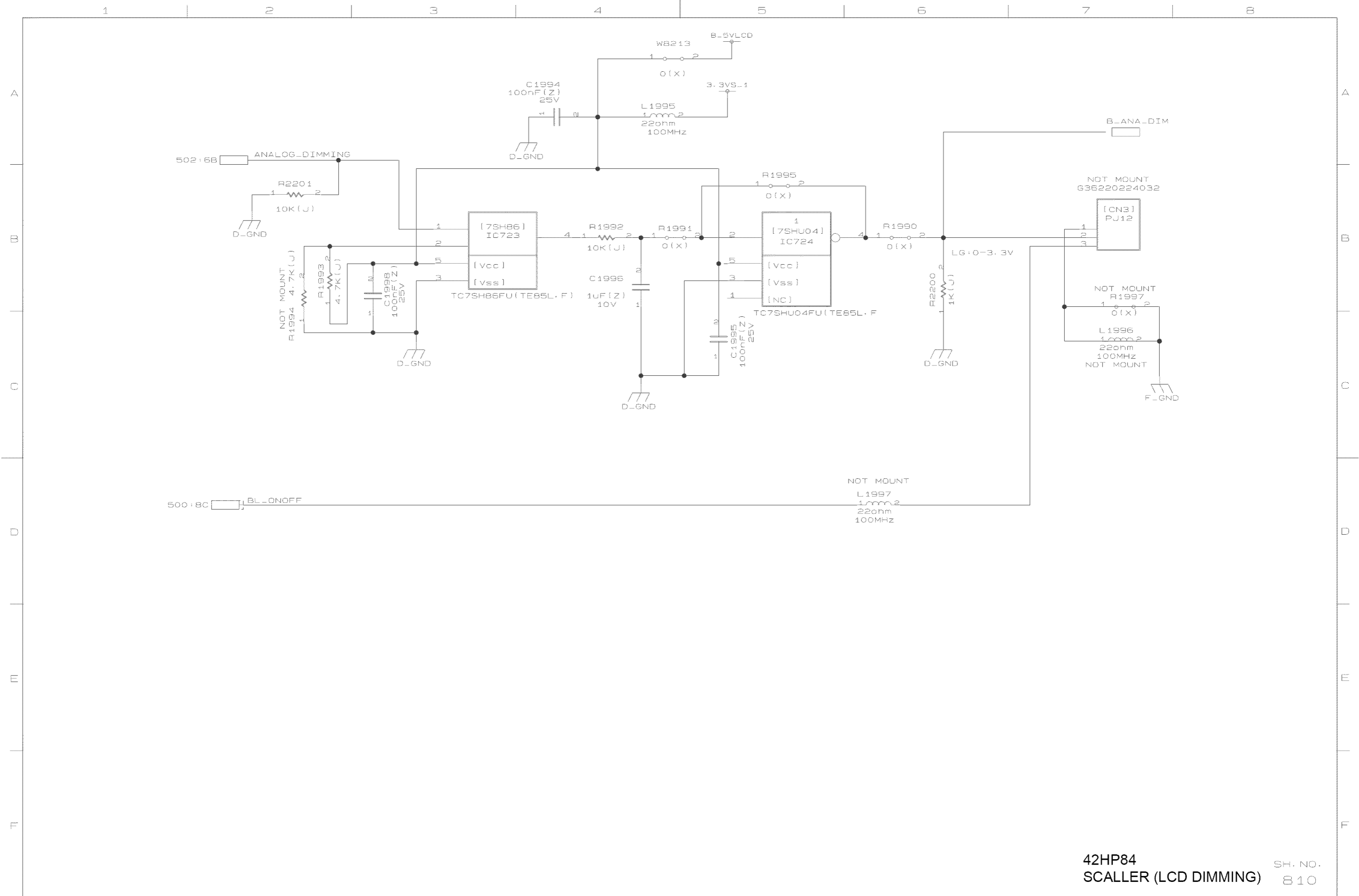


42HP84
 SCALLER (LG PDP LVDS CONNECTOR) SH. NO. 807

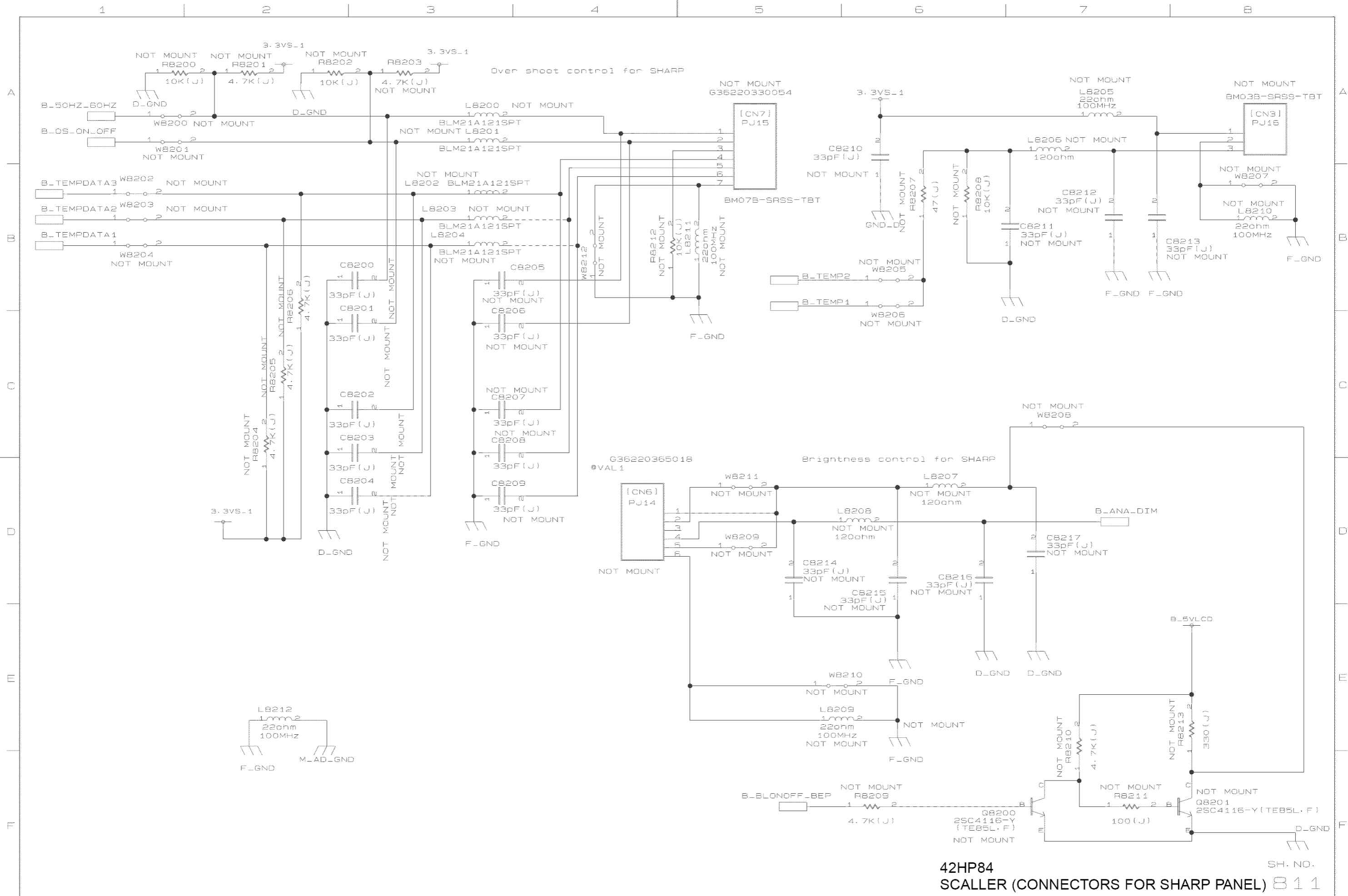




42HP84
 SCALLER (LG LCD LVDS CONNECTOR)
 SH. NO. 809



42HP84
 SCALLER (LCD DIMMING) SH. NO. 810



42HP84
SCALLER (CONNECTORS FOR SHARP PANEL) 811

SH. NO.

TOSHIBA CORPORATION

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN