

SCHEMATIC DIAGRAM

MODEL : 32HFX73 / 36HFX73

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 " Δ " 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:

- 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 = $\pm 1\%$
- 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.
 $\begin{array}{c} + \\ | \\ \text{---} \end{array}$ Electrolytic capacitor $\begin{array}{c} \text{---} \\ | \\ \text{---} \end{array}$ Mylar capacitor
- The parts indicated with " Δ " have special characteristics, and should be replaced with identical parts only.
- Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 120 volts.
- Waveforms are taken receiving color bar signal with enough sensitivity.
- Voltage reading shown are nominal values and may vary $\pm 20\%$ except H.V.

■ SCHEMATIC DIAGRAM STRUCTURE:

SIGNAL Circuit	Sheet Assignment	[SHEET - 1]	1/25
	AV-1	[SHEET - 2]	2/25
	AV-2	[SHEET - 3]	3/25
	PIP	[SHEET - 4]	4/25
	Maicon	[SHEET - 5]	5/25
	BEP	[SHEET - 7]	6/25
	BEP2	[SHEET - 8]	7/25
	LOWB-REG	[SHEET - 9]	8/25
	AUDIO OUT	[SHEET - 10]	9/25
	IF	[SHEET - 11]	10/25
	BANKAN	[SHEET - 98]	11/25
	BB CONNECTER	[SHEET - 99]	12/25
POWER / DEF Circuit	BANKAN	[SHEET - 1/6]	13/25
	H-DEF	[SHEET - 2/6]	14/25
	V-DEF	[SHEET - 3/6]	15/25
	MAIN-POWER	[SHEET - 4/6]	16/25
	SUB-POWER	[SHEET - 5/6]	17/25
	DQF / OPC / OTHER	[SHEET - 6/6]	18/25
CRT DRIVE / SVM Circuit	CRT DRIVE	[SHEET - 1/2]	19/25
	SVM	[SHEET - 2/2]	20/25
VERTICAL Circuit			21/25
AC INPUT Circuit			22/25
IF Circuit			23/25
CONTROL-1 Circuit			24/25
CONTROL-2 Circuit			25/25

	1	2	3	4	5	6	7	8
A								
B		IF Sheet 11	PIP Sheet 4	BEP Sheet 7		AUDIO Sheet 10		
C		AV-1 Sheet 2	u-COM Sheet 5	BEP-2 Sheet 8				
D		AV-2 Sheet 3		LowB REG Sheet 9				
E		BANKAN Sheet 98	BB Connector Sheet 99					
F								

1

2

3

4

A

B

C

D

E

F

IF
Sheet 11

PIP
Sheet 4

AV-1
Sheet 2

u-COM
Sheet 5

AV-2
Sheet 3

BANKAN
Sheet 98

BB Connector
Sheet 99

1

2

3

4

5

6

7

8

A

BEP
Sheet 7

AUDIO
Sheet 10

B

BEP-2
Sheet 8

C

LowB REG
Sheet 9

D

E

F

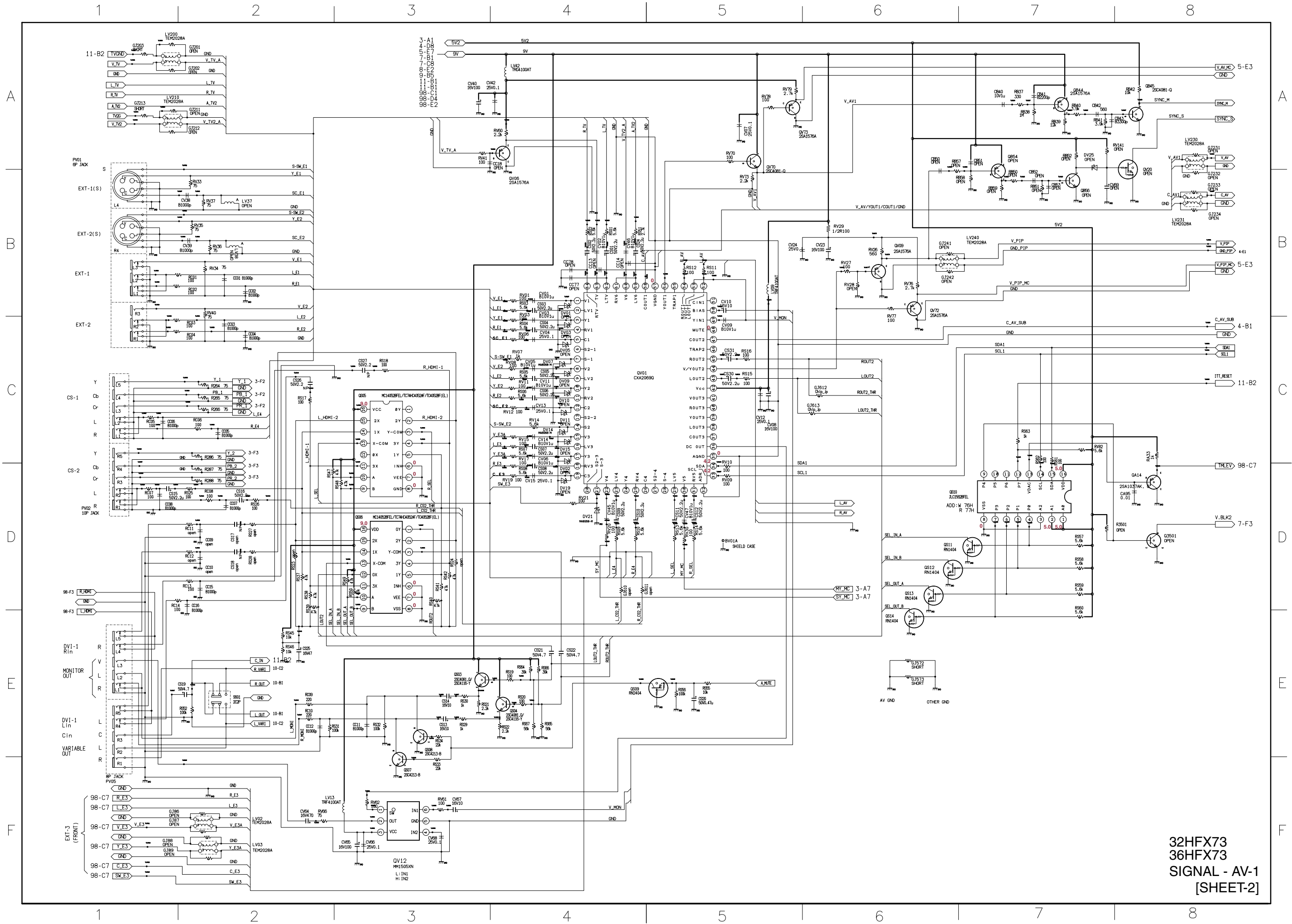
32HFX73
36HFX73
SIGNAL - Sheet Assignment
[SHEET-1]

5

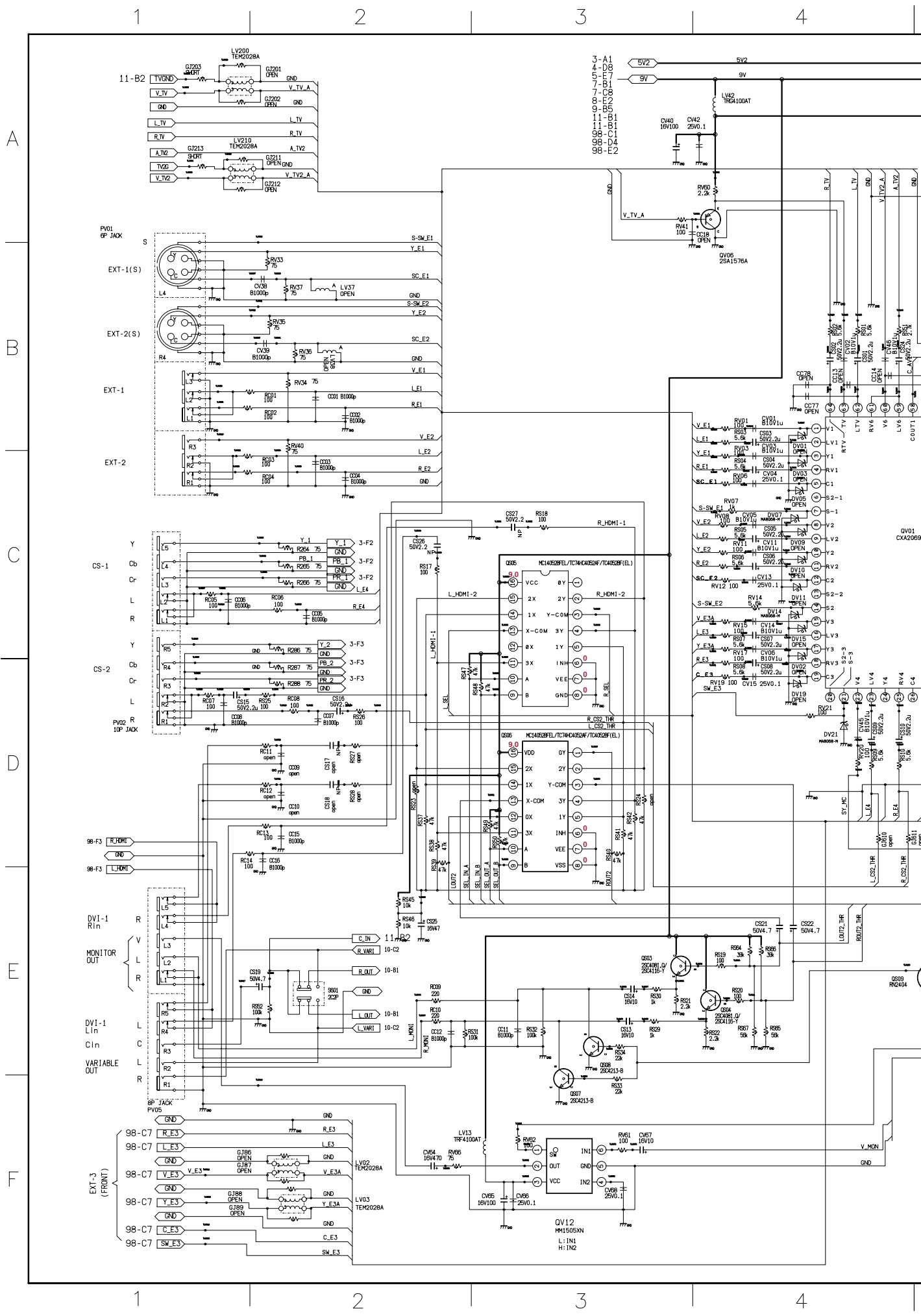
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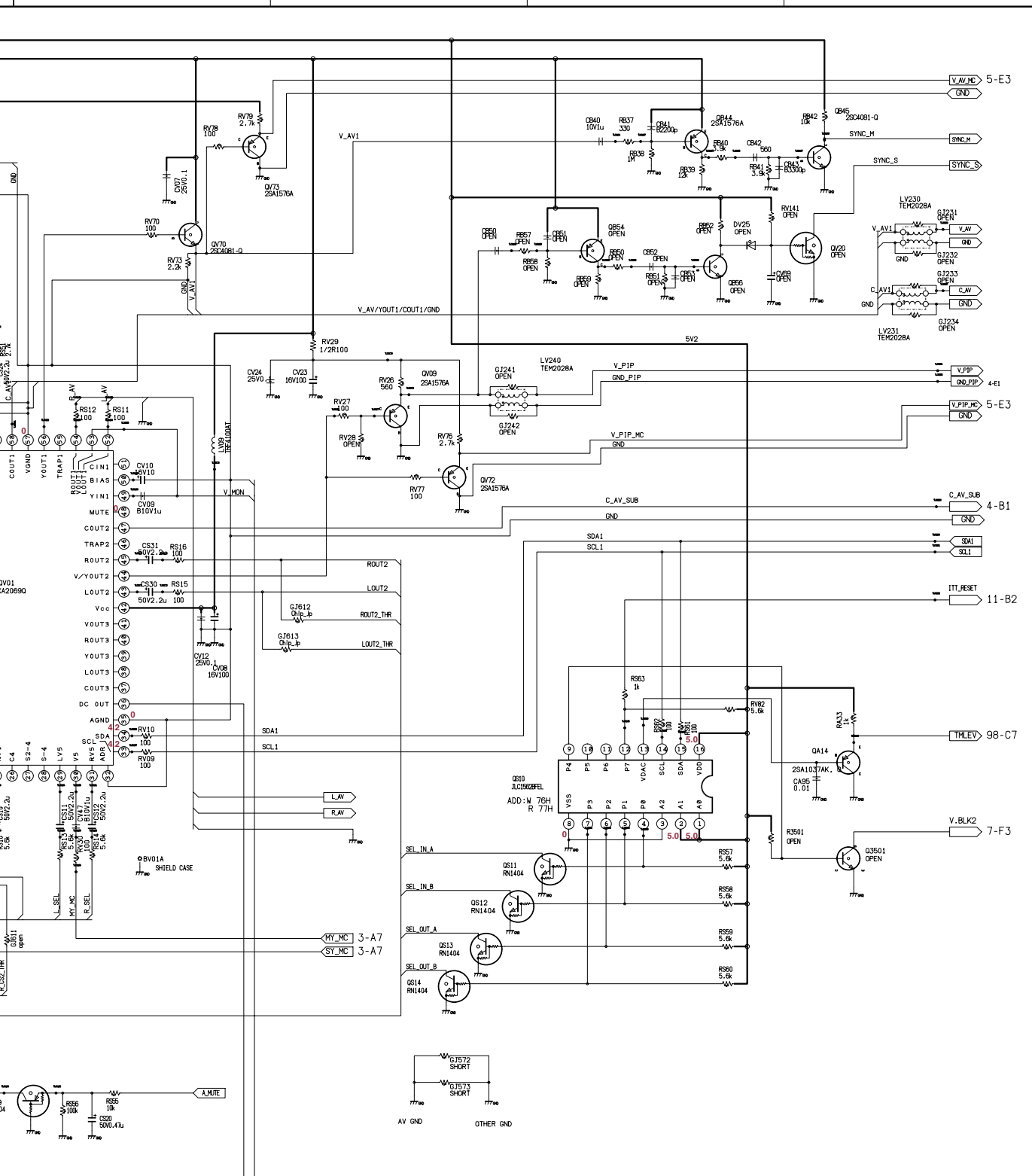
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8



32HF73
 36HF73
 SIGNAL - AV-1
 [SHEET-2]





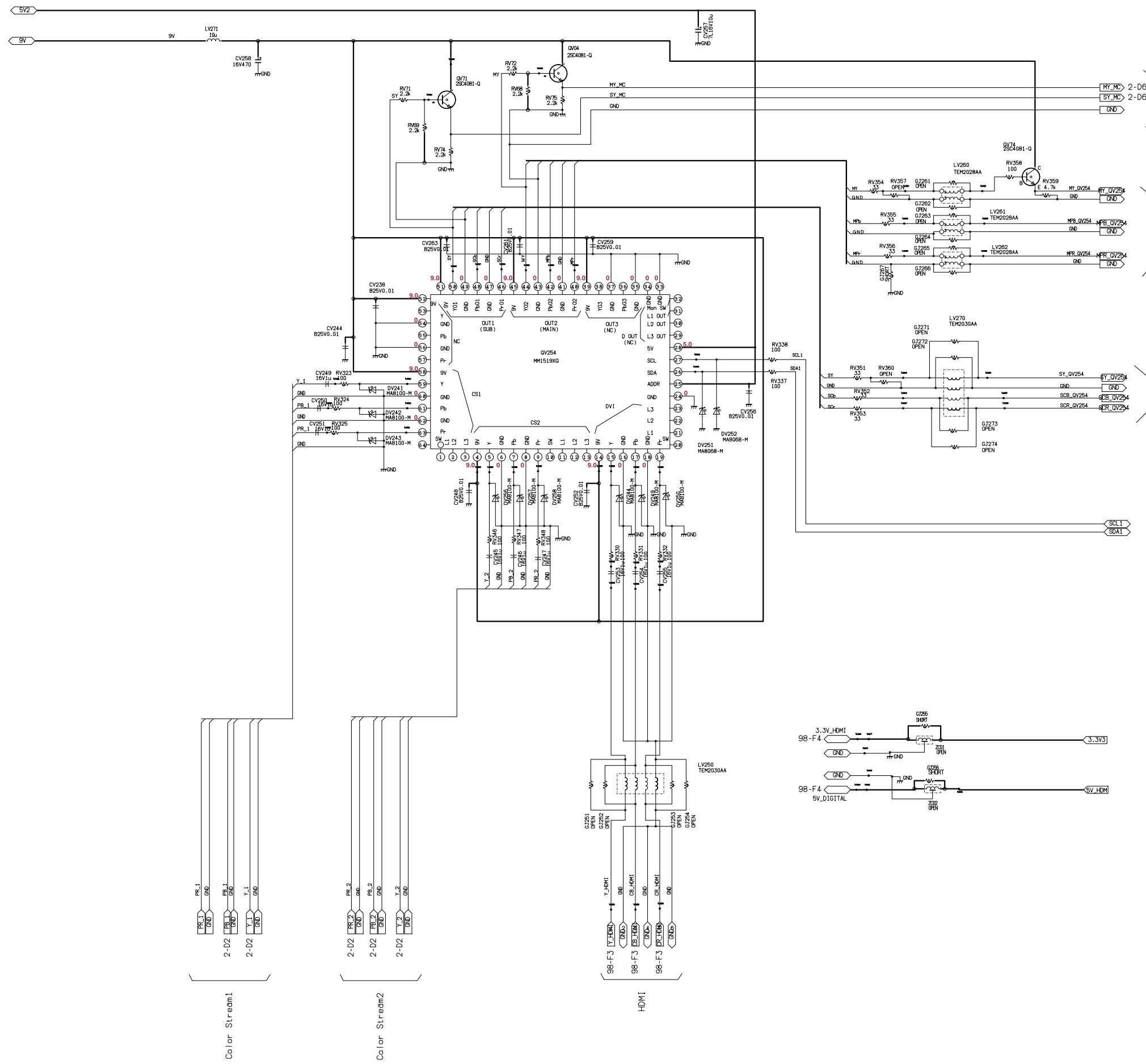
A
B
C
D
E
F

32HF73
36HF73
SIGNAL - AV-1
[SHEET-2]

1 2 3 4 5 6 7 8

A B C D E F

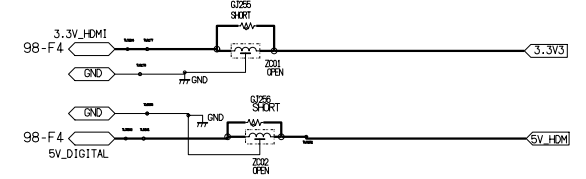
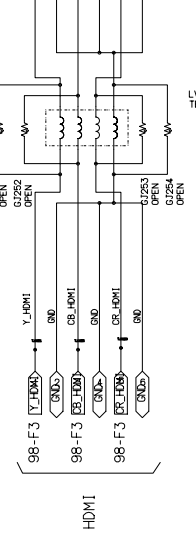
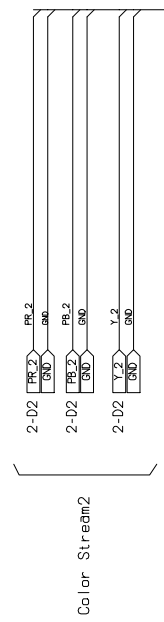
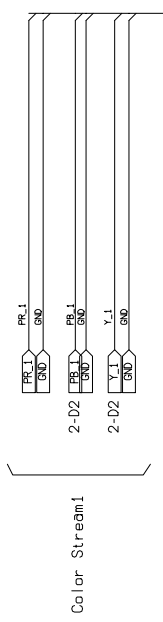
2-A3
4-F3
5-A8
7-A1
9-D3
11-B1
98-D6
98-F4
2-A3
4-D6
5-E7
7-B1
9-C8
11-B1
98-C1
98-D4
98-F2



To QV01

To Hyper

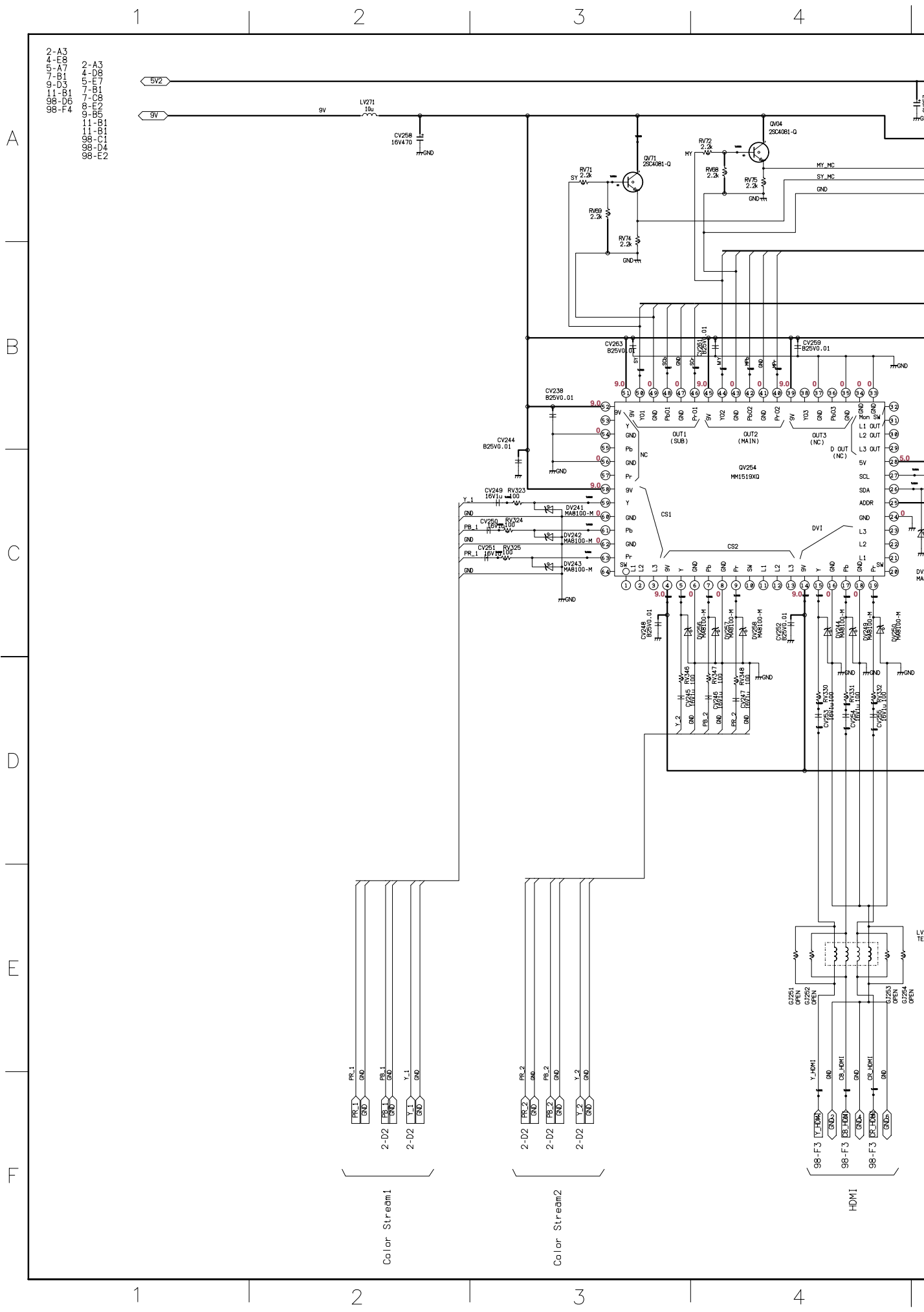
To QY501



32HFX73
36HFX73
SIGNAL - AV-2
[SHEET-3]

1 2 3 4 5 6 7 8

F E D C B A



- 2-A3
- 4-E8
- 5-A7
- 7-B1
- 9-D3
- 11-B1
- 98-D6
- 98-F4
- 2-A3
- 4-D8
- 5-E7
- 7-B1
- 9-D3
- 11-B1
- 98-D6
- 98-F4

A

B

C

D

F

F

1

2

3

4

1

2

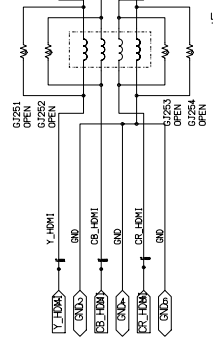
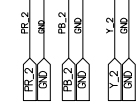
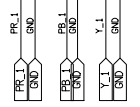
3

4

Color Stream1

Color Stream2

HDMI



A

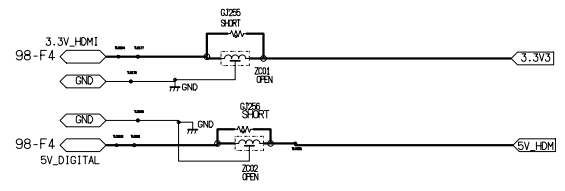
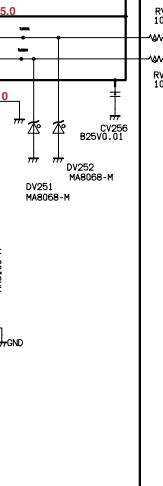
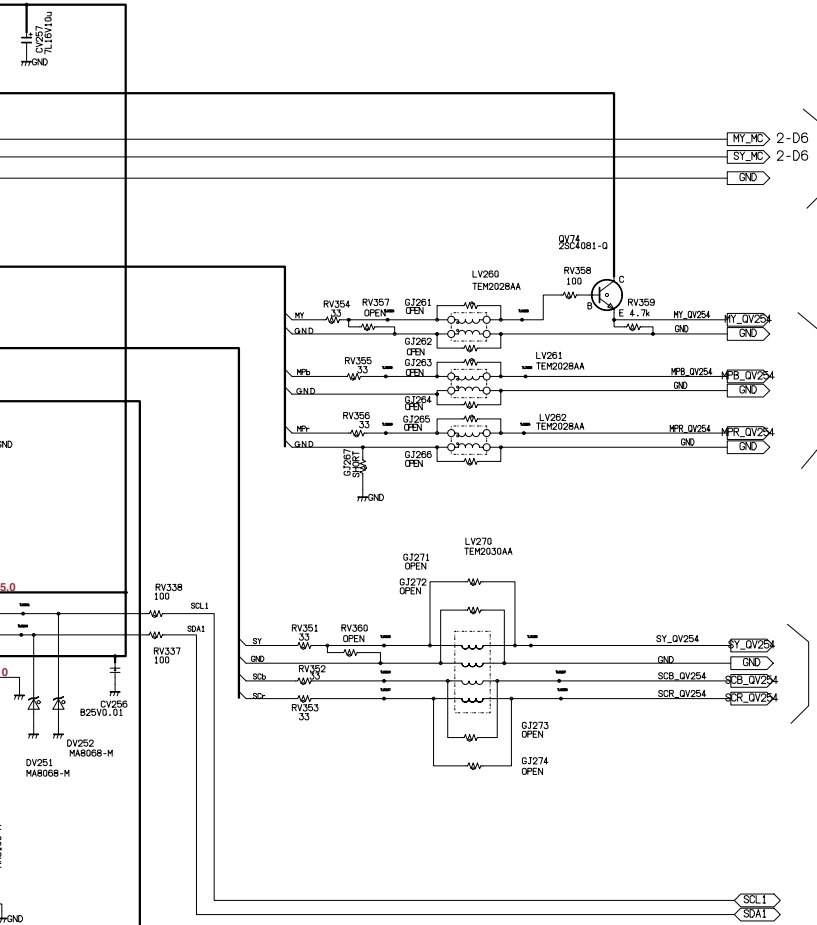
B

C

D

E

F



To QV01

To Hyper

To QY501

MY_MC 2-D6
SY_MC 2-D6
GND

MY_OV254
GND

MF_OV254
GND

MF_OV254
GND

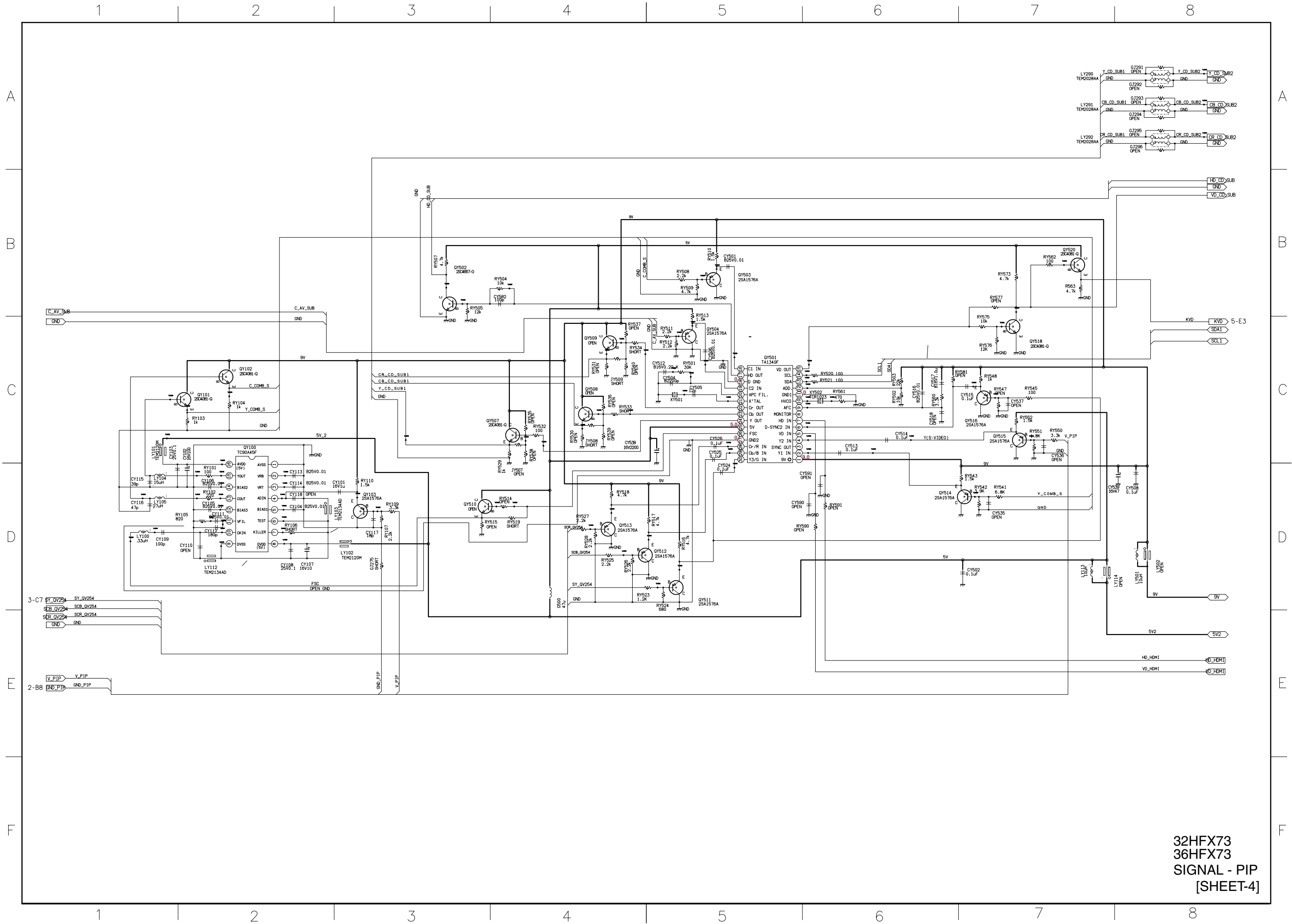
SY_OV254
GND

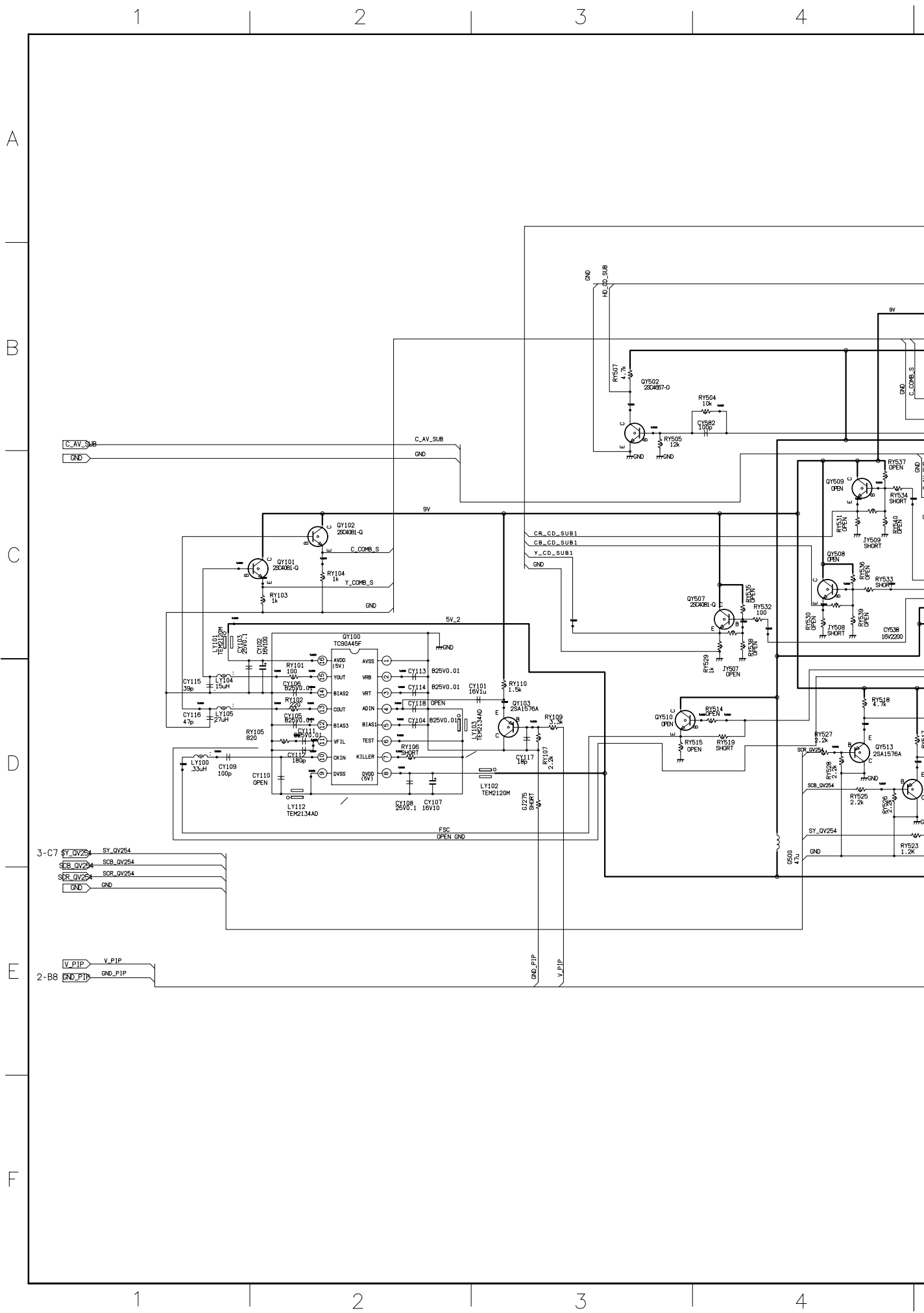
SCB_OV254
GND

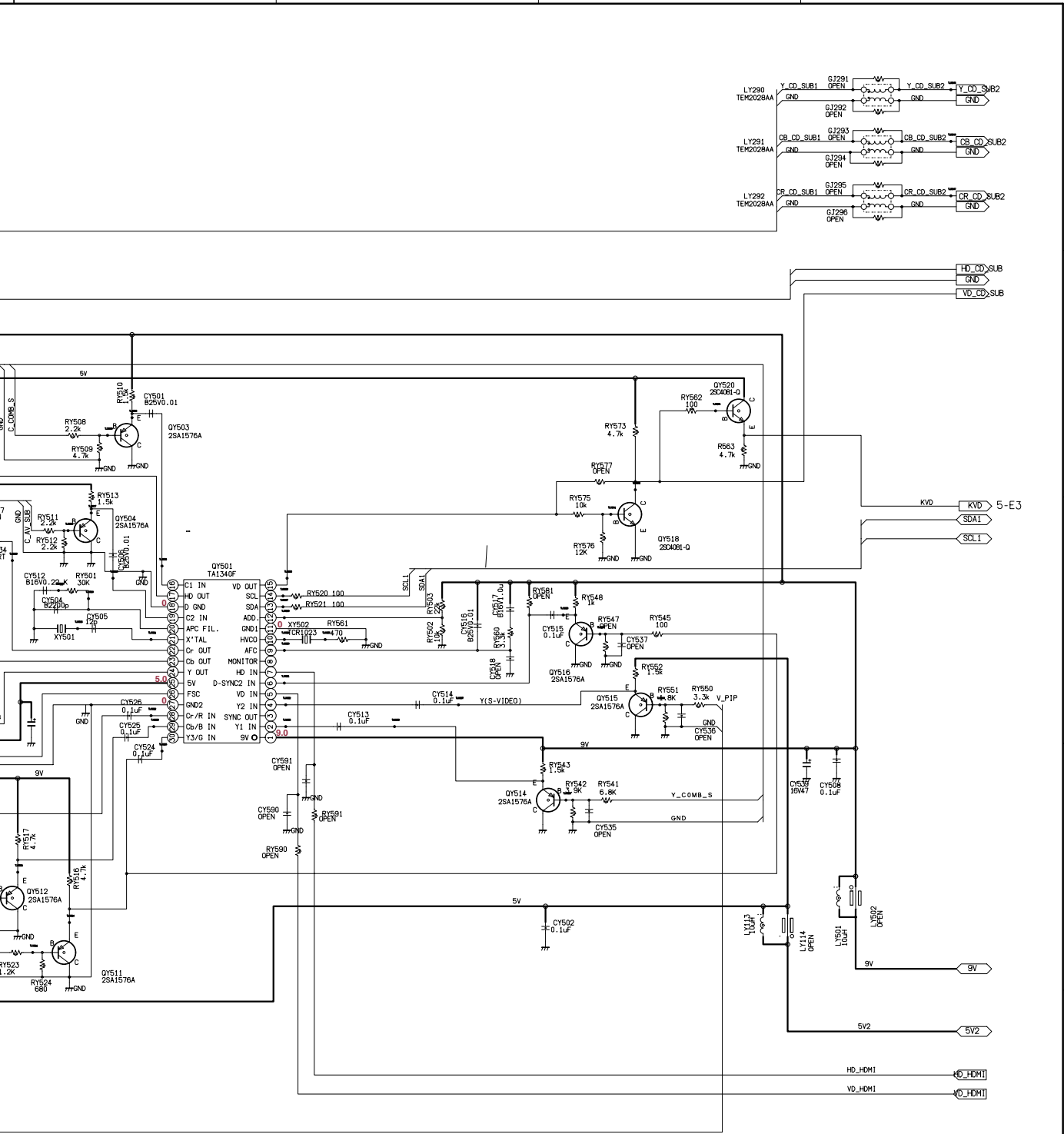
SCR_OV254
GND

SCL1
SDA1

32HFX73
36HFX73
SIGNAL - AV-2
[SHEET-3]







A

B

C

D

E

F

32HF73
 36HF73
 SIGNAL - PIP
 [SHEET-4]

A

B

C

D

E

F

A

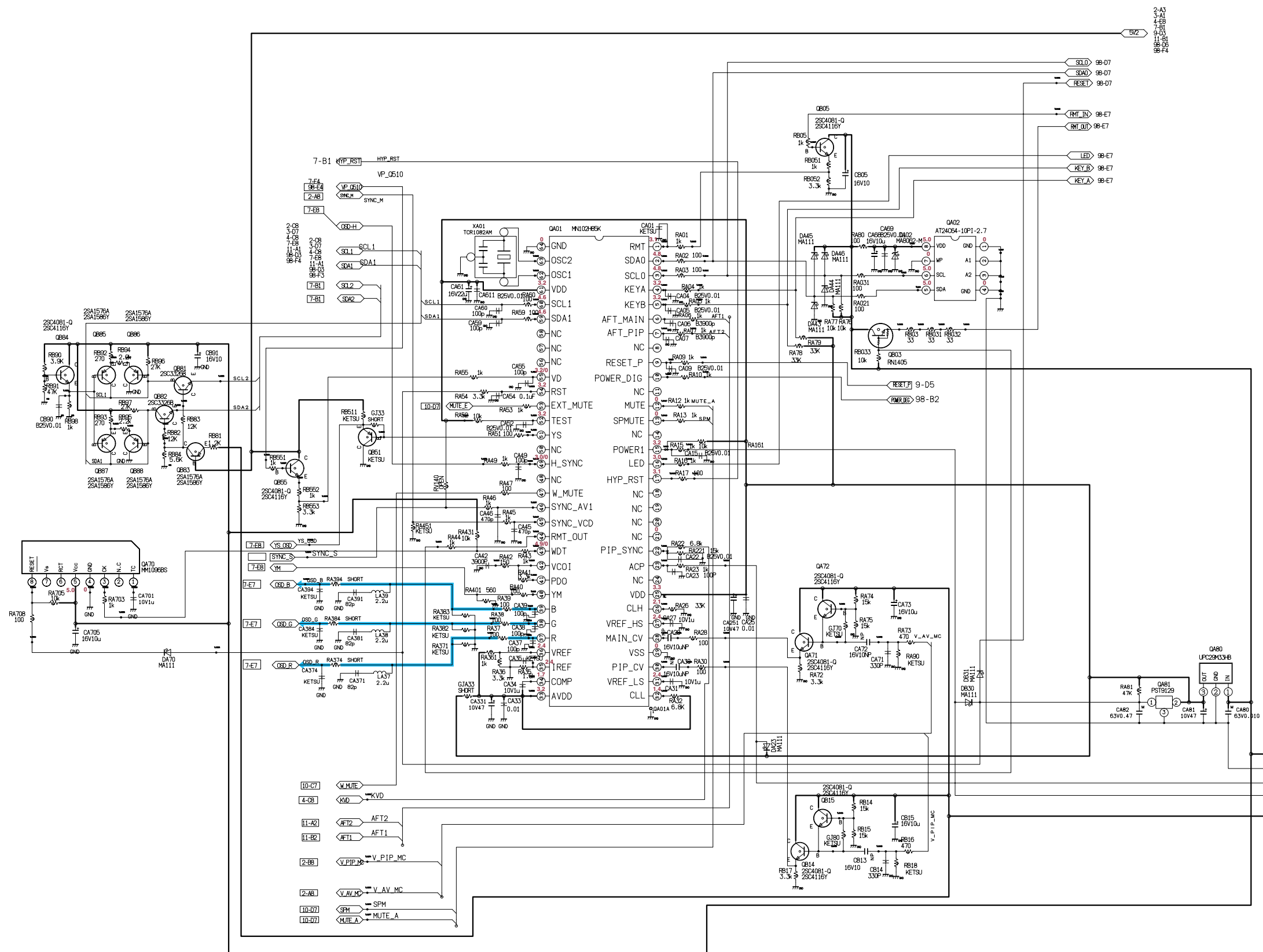
B

C

D

E

F



A

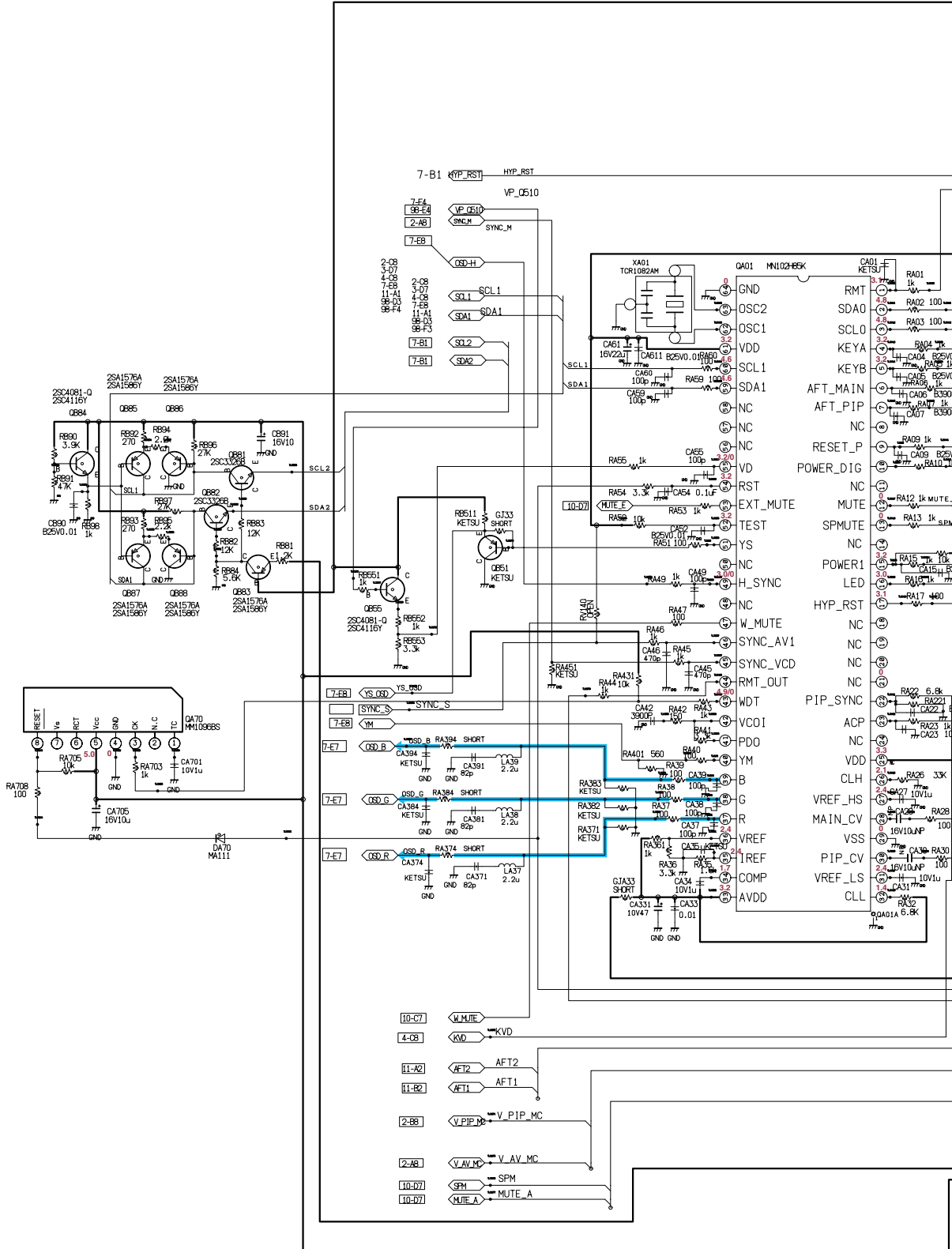
B

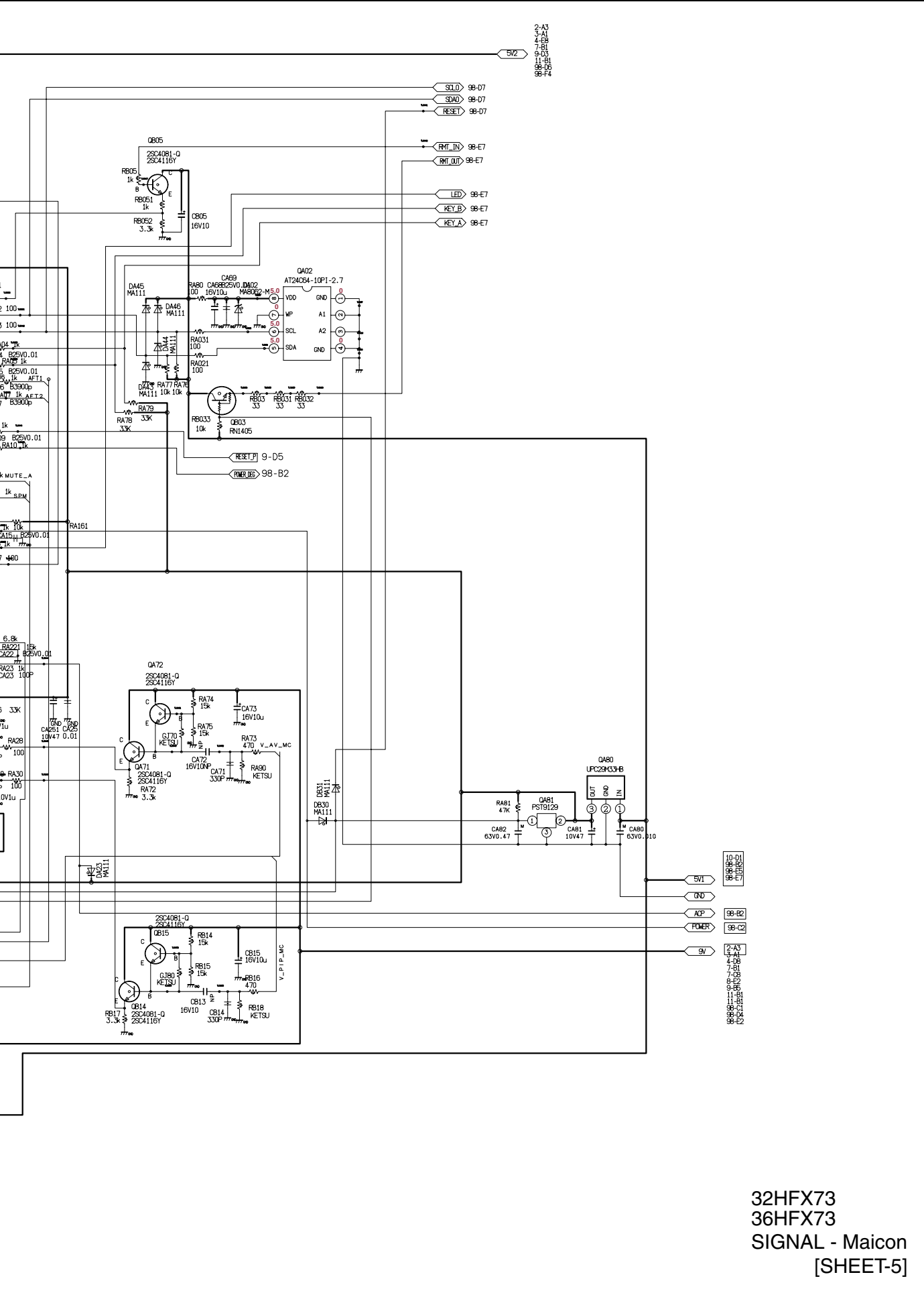
C

D

E

F





A

B

C

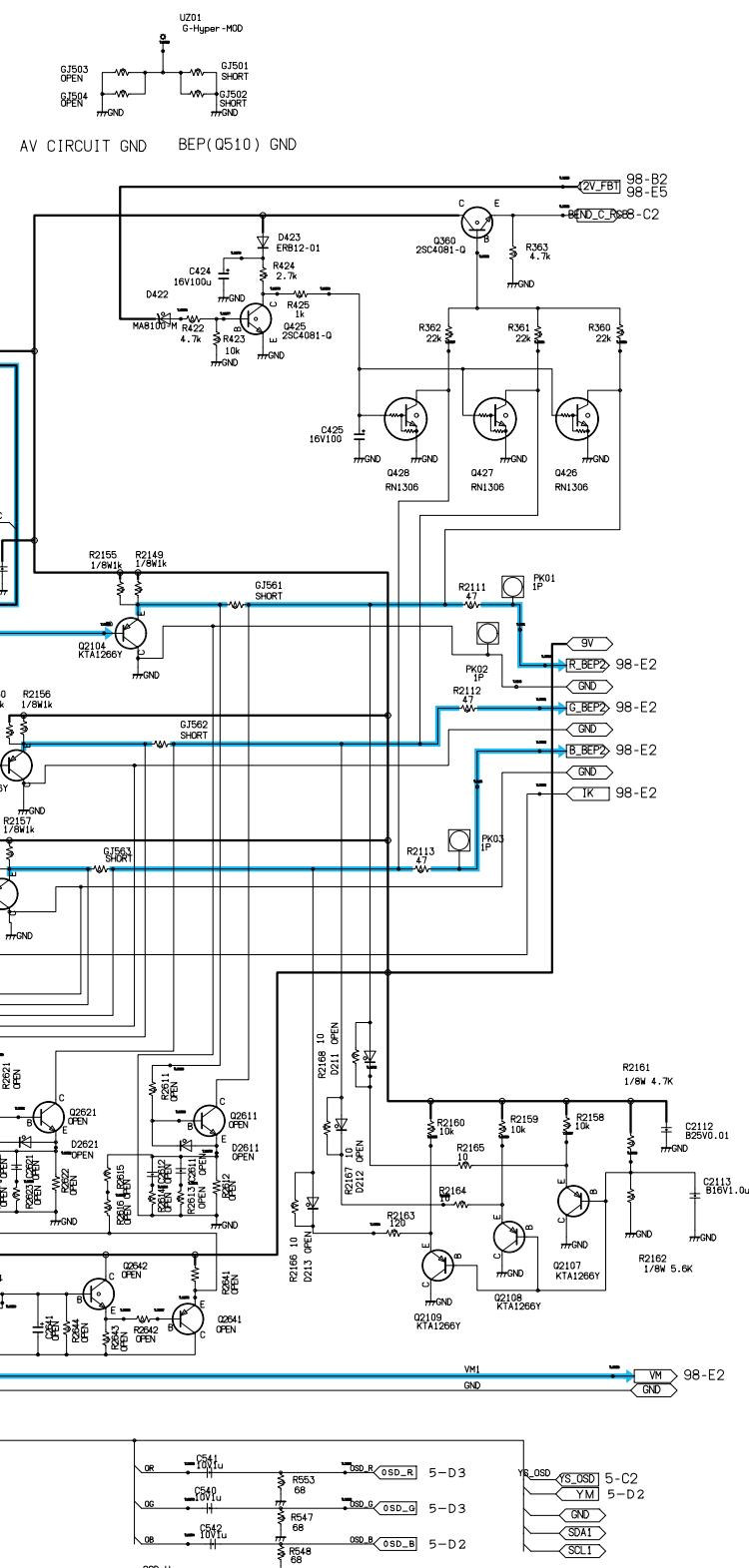
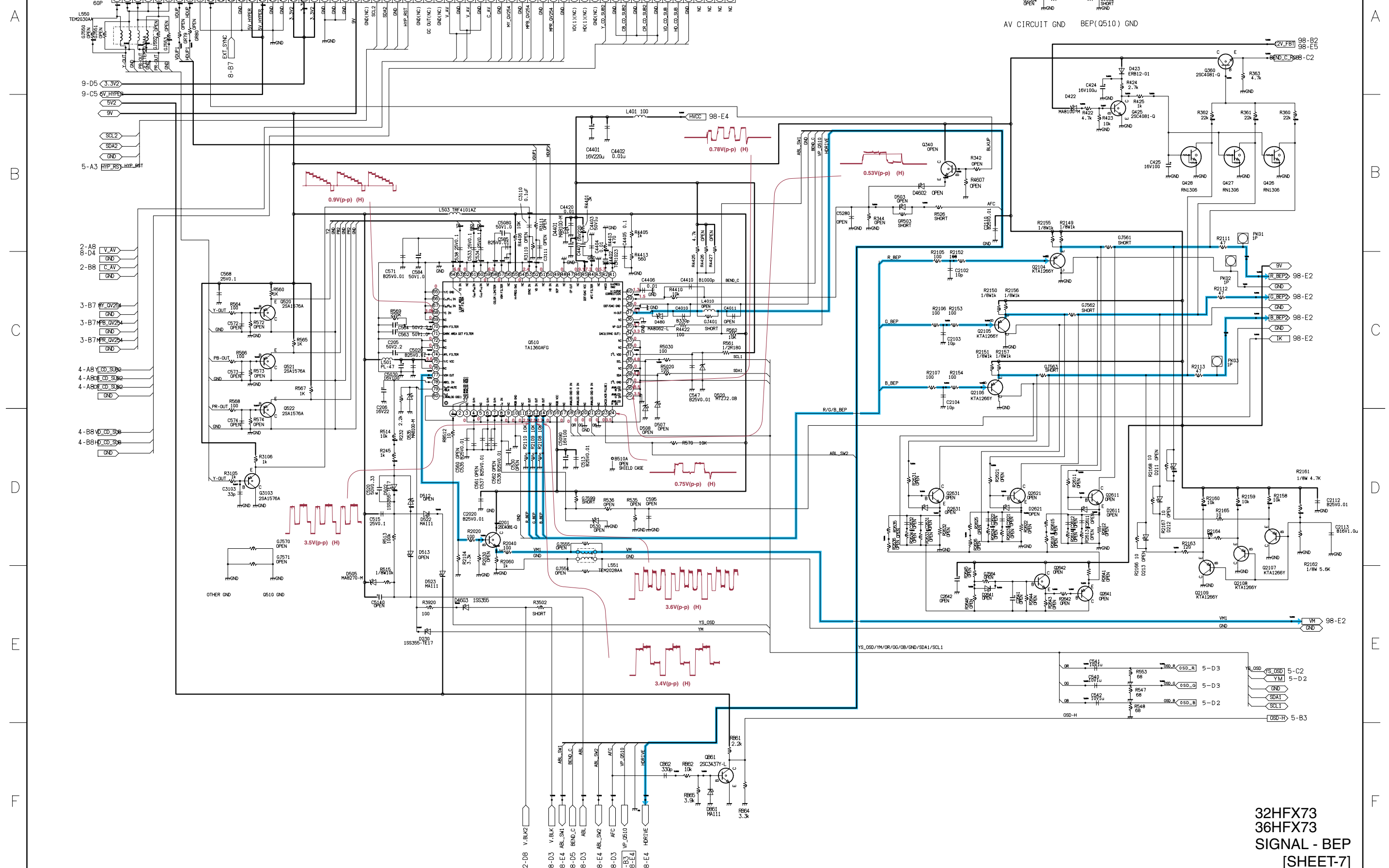
D

E

F

32HFX73
 36HFX73
 SIGNAL - Maicon
 [SHEET-5]

G.Hyper



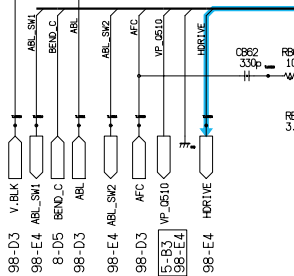
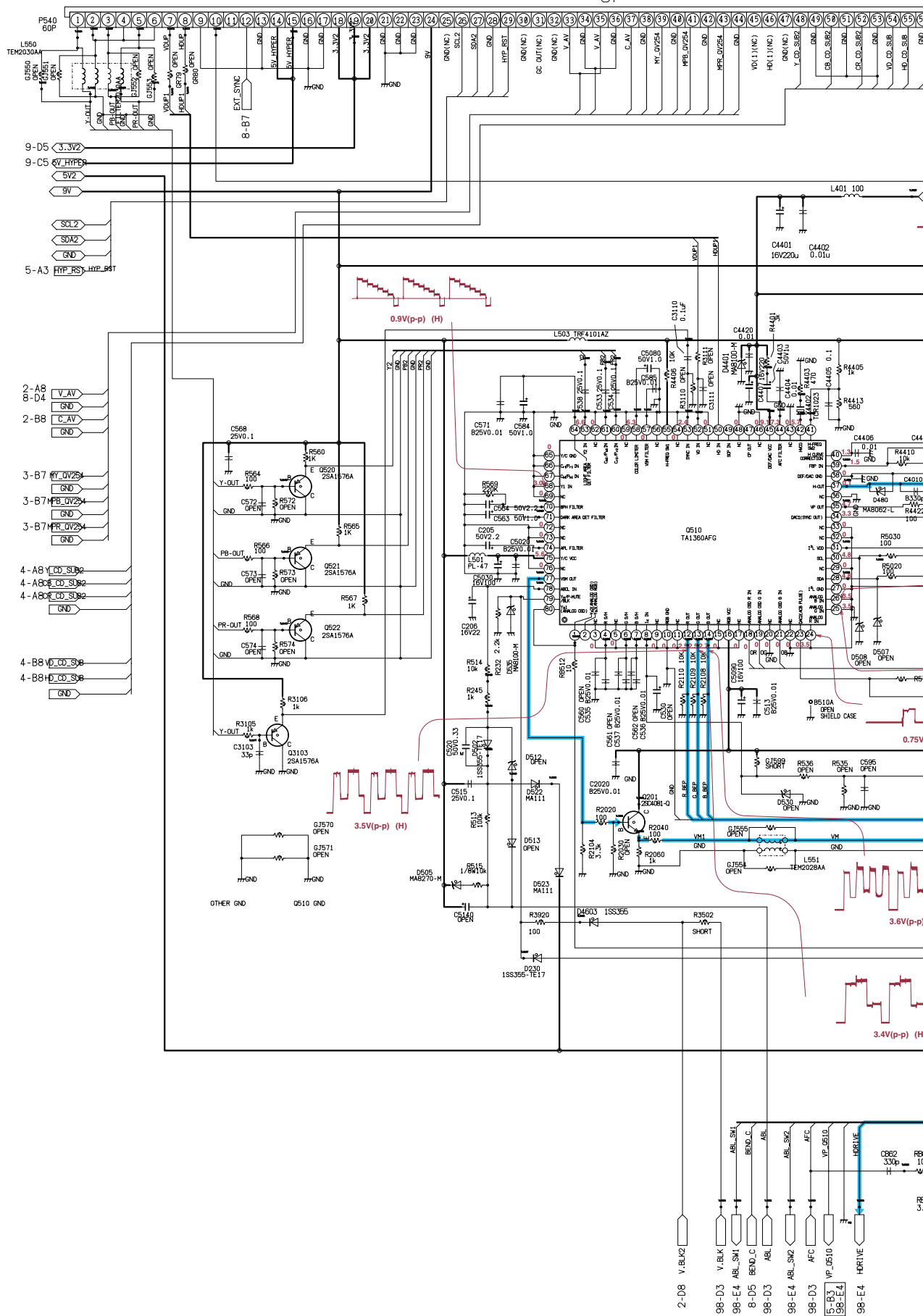
32HFX73
36HFX73
SIGNAL - BEP
[SHEET-7]

G.Hyper

A
B
C
D
E
F

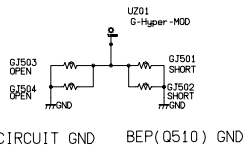
1 2 3 4

1 2 3 4



2-D8 V-BLK2
98-D3 V-BLK
98-E4 ABL-SM1
8-D5 BEND_C
98-D3 ABL
98-E4 ABL-SM2
98-D3 AFC
5-B3 VP-0510
98-E4 HOR-VE
C562 330p
R662 10k
R665 3.9k

57) 58) 59) 60)



HVCC 98-E4

0.78V(p-p) (H)

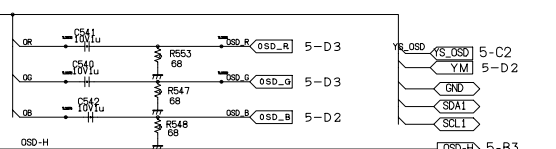
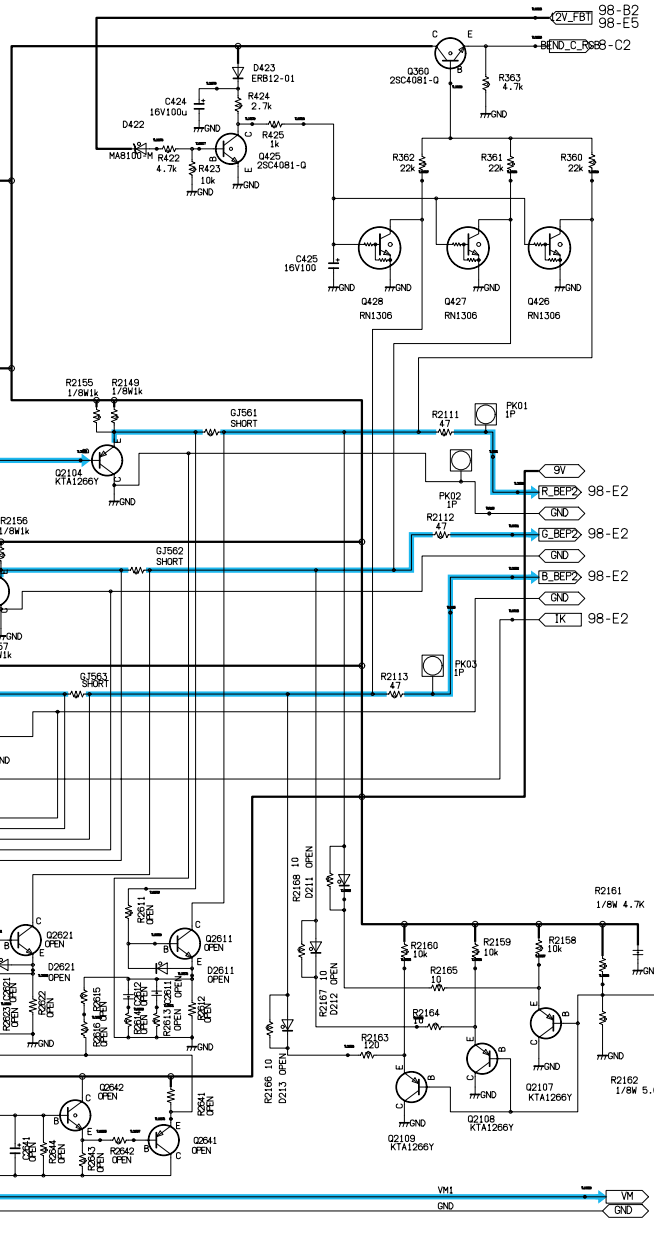
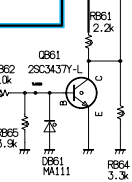
0.53V(p-p) (H)

V(p-p) (H)

V(p-p) (H)

YS_OSD

V(p-p) (H)



32HFX73
36HFX73
SIGNAL - BEP
[SHEET-7]

1

2

3

4

5

6

7

8

A

B

C

D

E

F

A

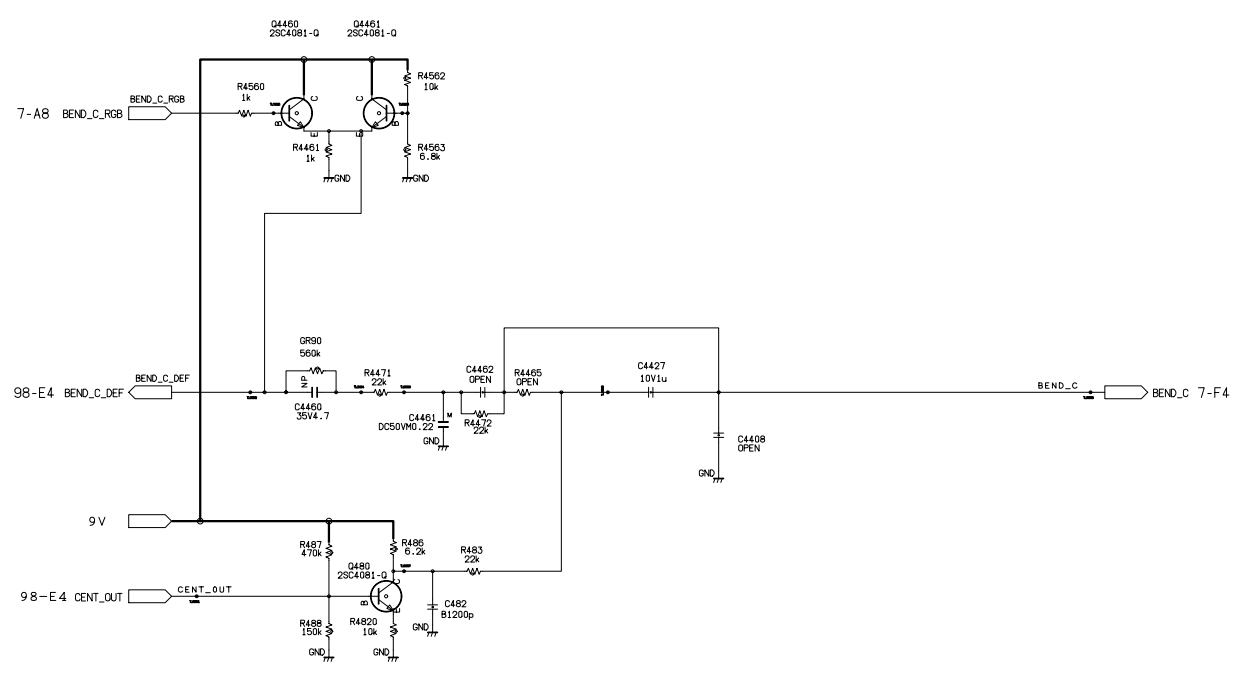
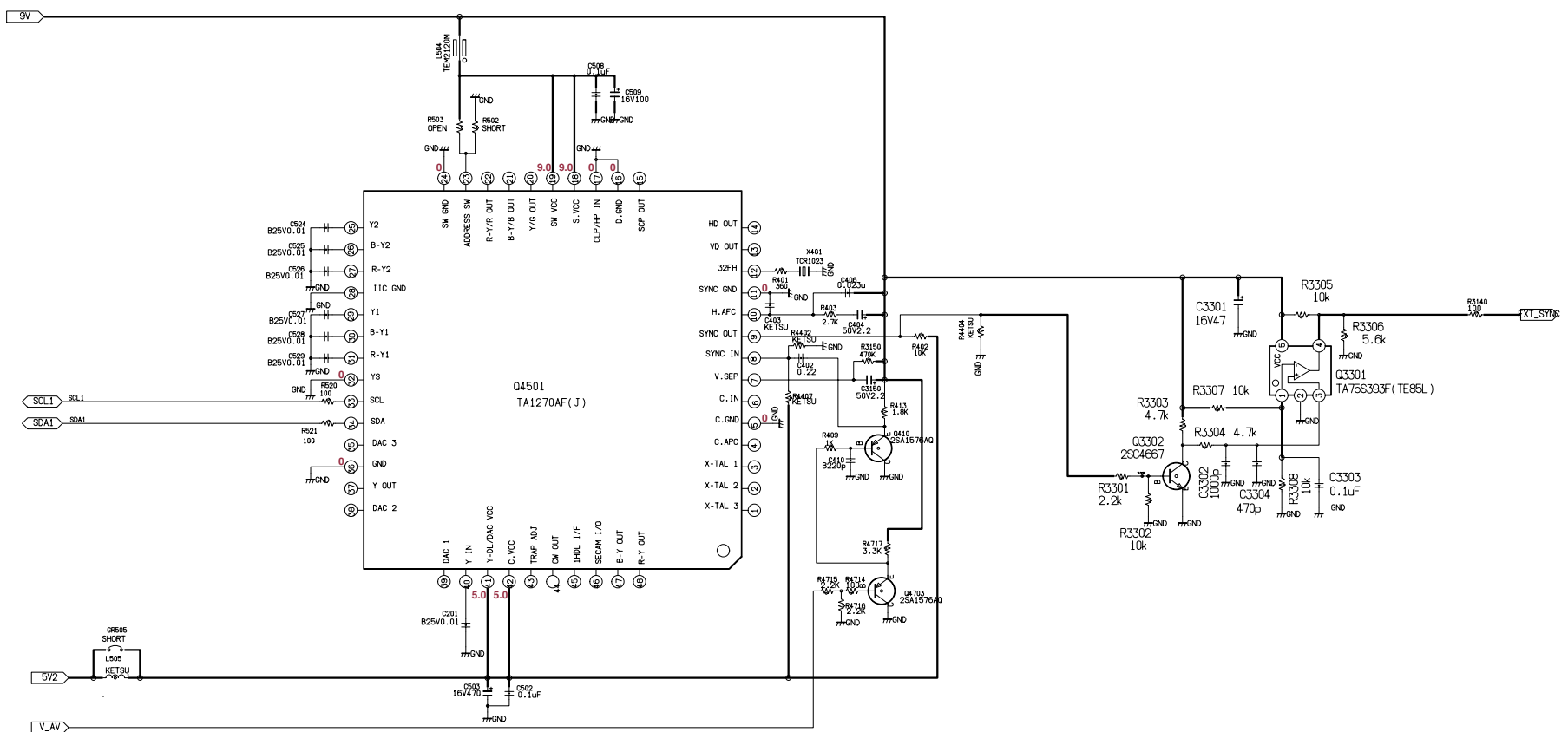
B

C

D

E

F



32HFX73
 36HFX73
 SIGNAL - BEP2
 [SHEET-8]

1

2

3

4

A

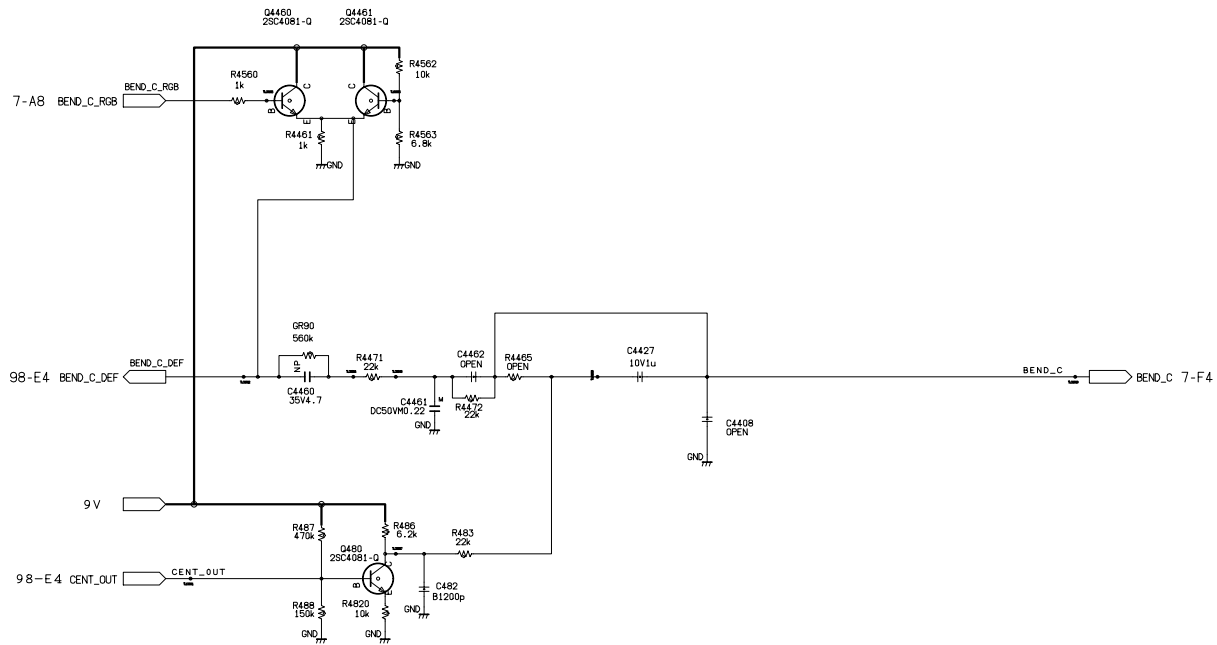
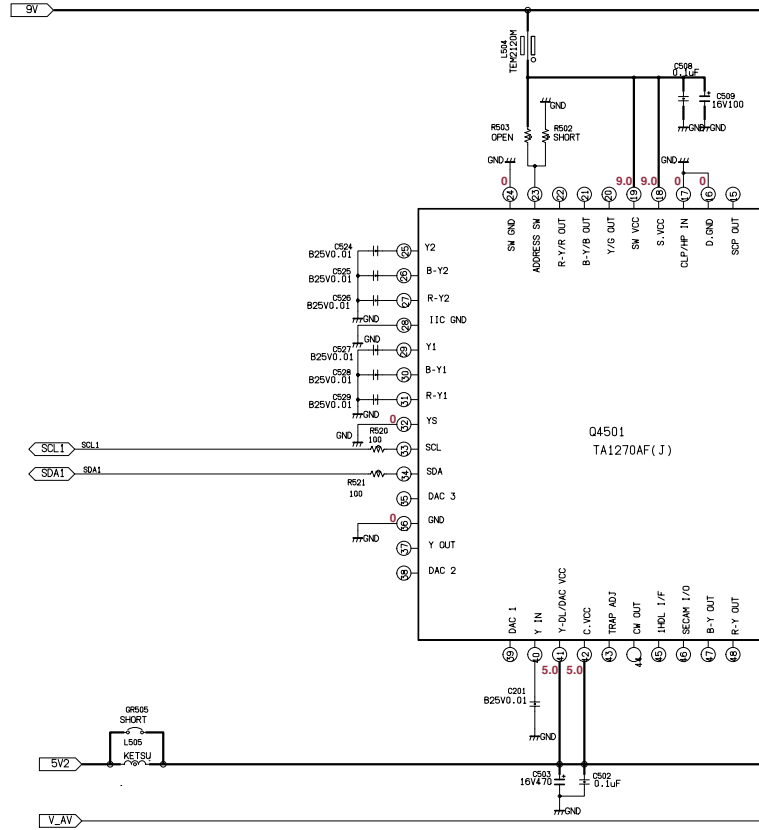
B

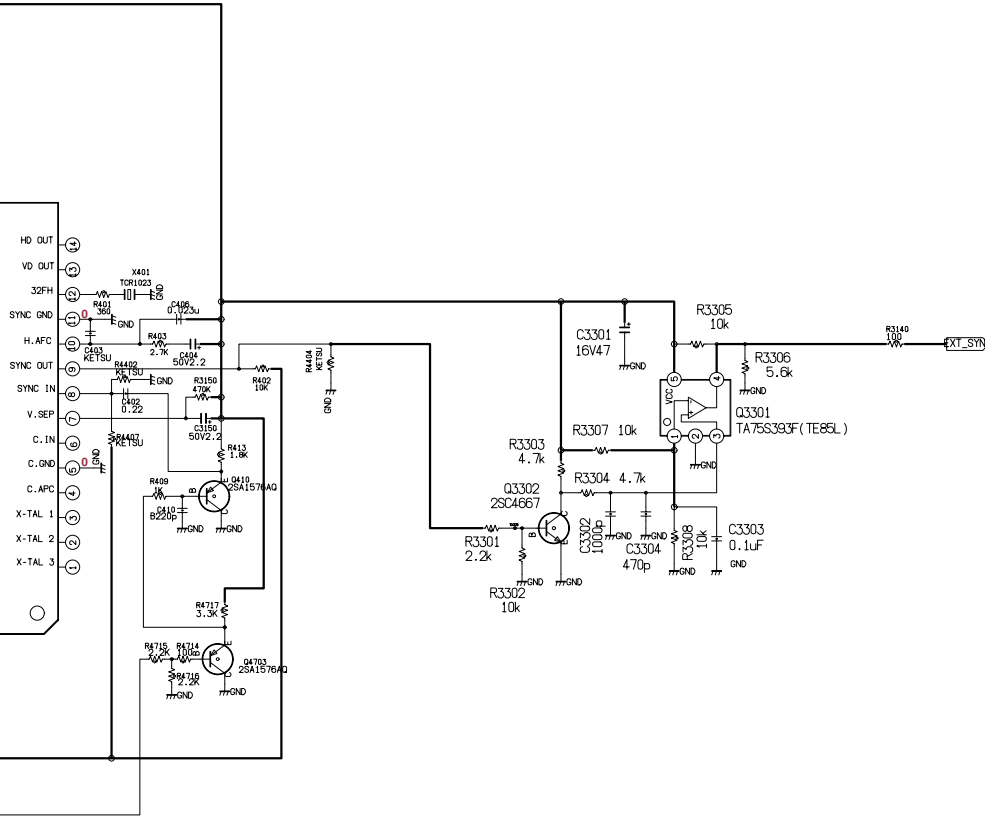
C

D

E

F





32HFX73
 36HFX73
 SIGNAL - BEP2
 [SHEET-8]

1

2

3

4

5

6

7

8

A

B

C

D

E

F

A

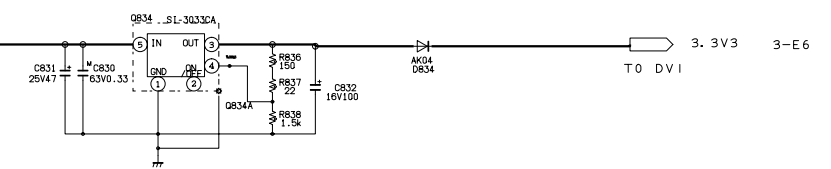
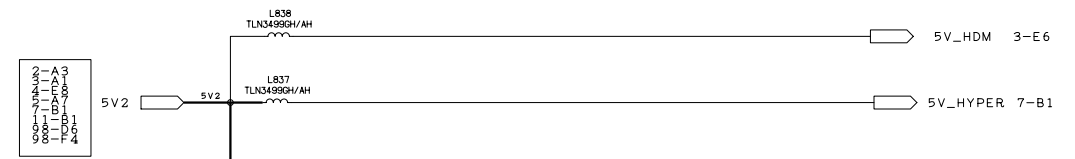
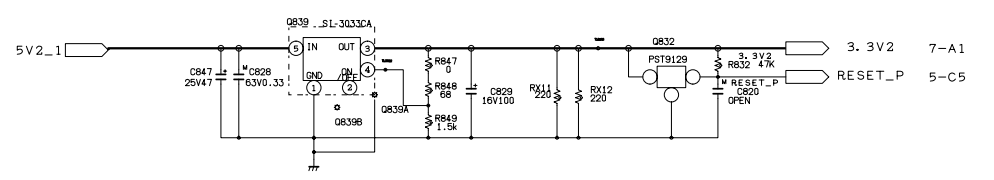
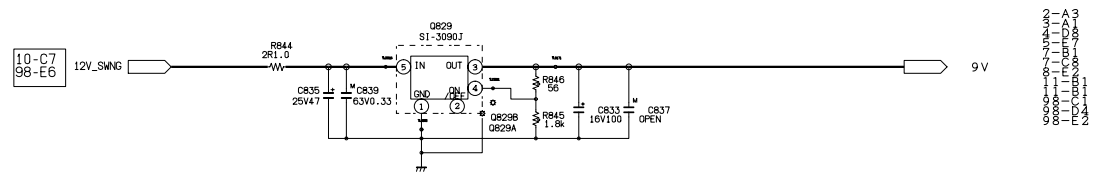
B

C

D

E

F



32HFX73
 36HFX73
 SIGNAL - LOWB-REG
 [SHEET-9]

1

2

3

4

A

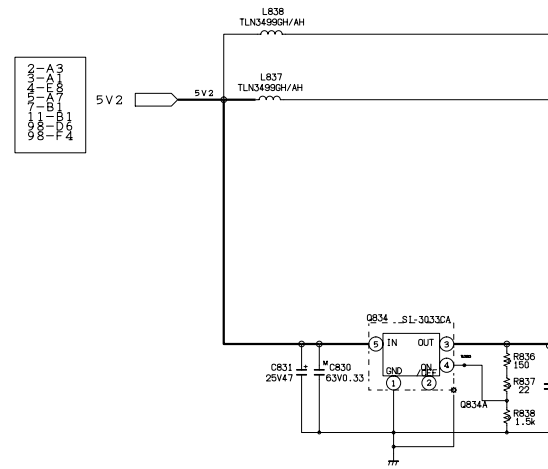
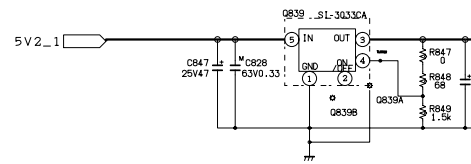
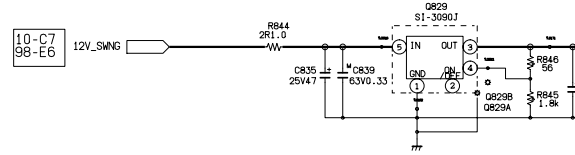
B

C

D

E

F



1

2

3

4

A

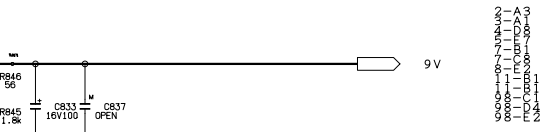
B

C

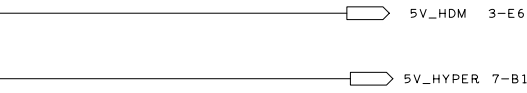
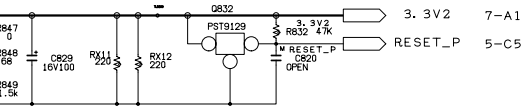
D

E

F



32HFX73
36HFX73
SIGNAL - LOWB-REG
[SHEET-9]



32HFX73
36HFX73
SIGNAL - LOWB-REG
[SHEET-9]

1

2

3

4

5

6

7

8

A

B

C

D

E

F

A

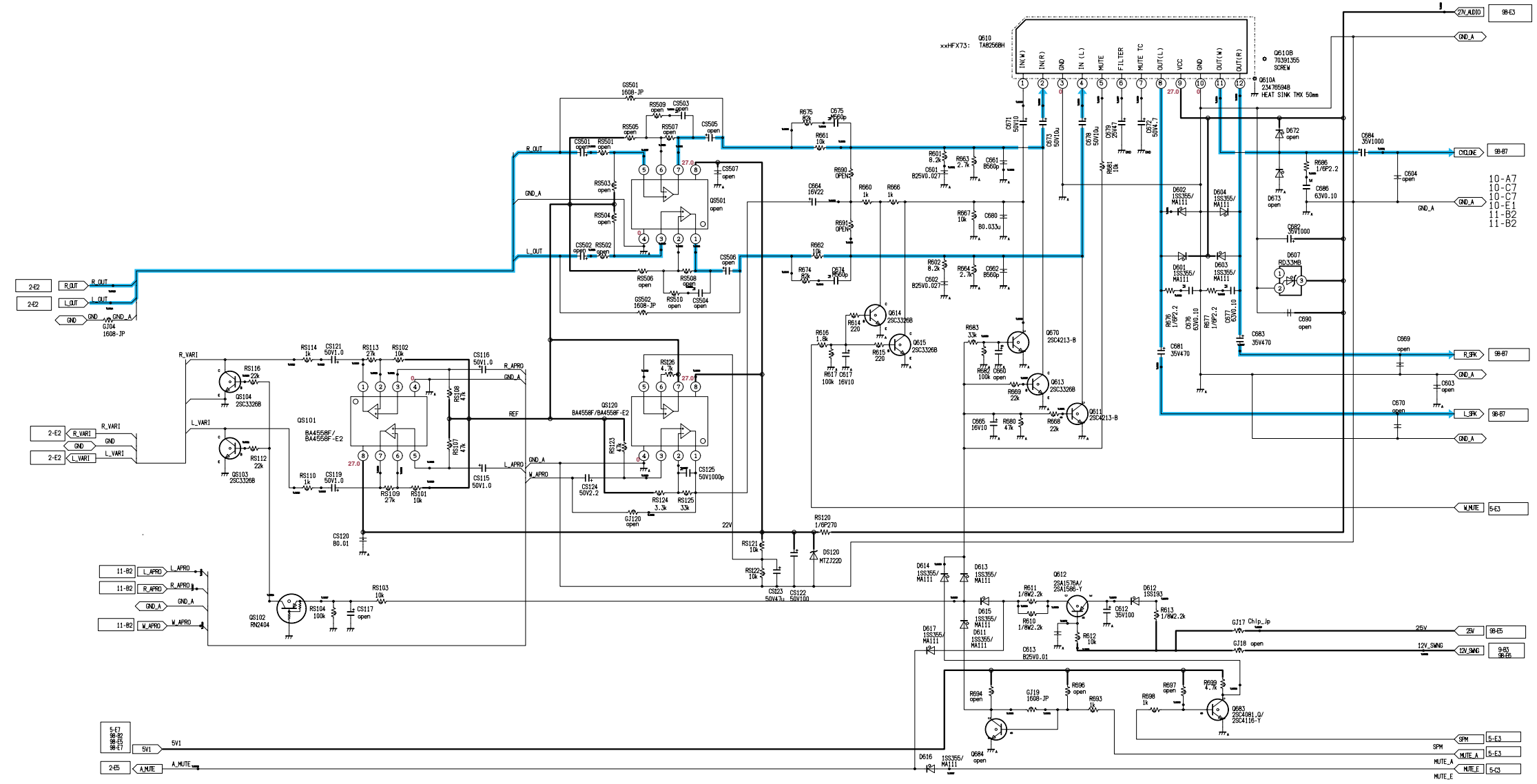
B

C

D

E

F



32HFX73
 36HFX73
 SIGNAL - AUDIO OUT
 [SHEET-10]

1

2

3

4

A

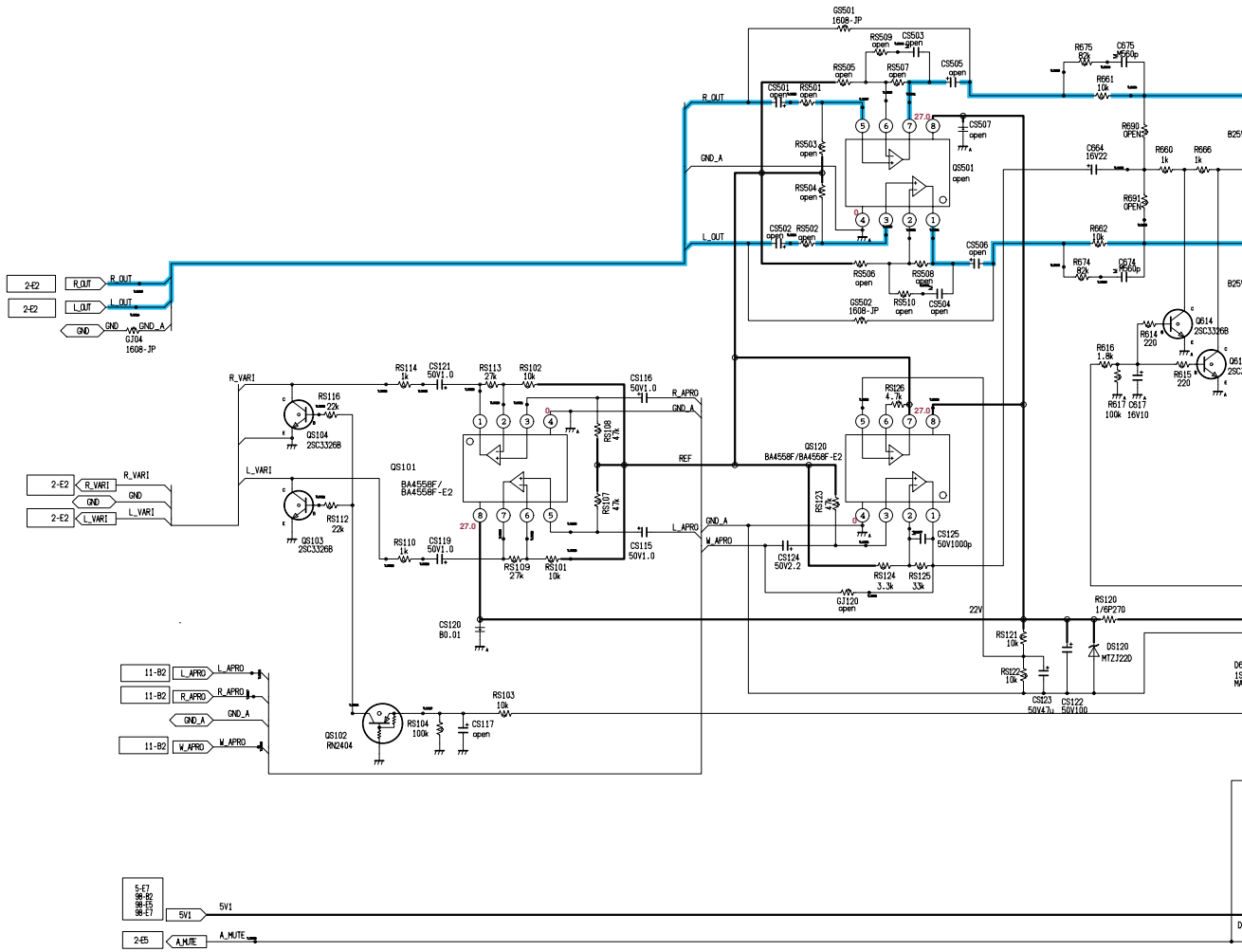
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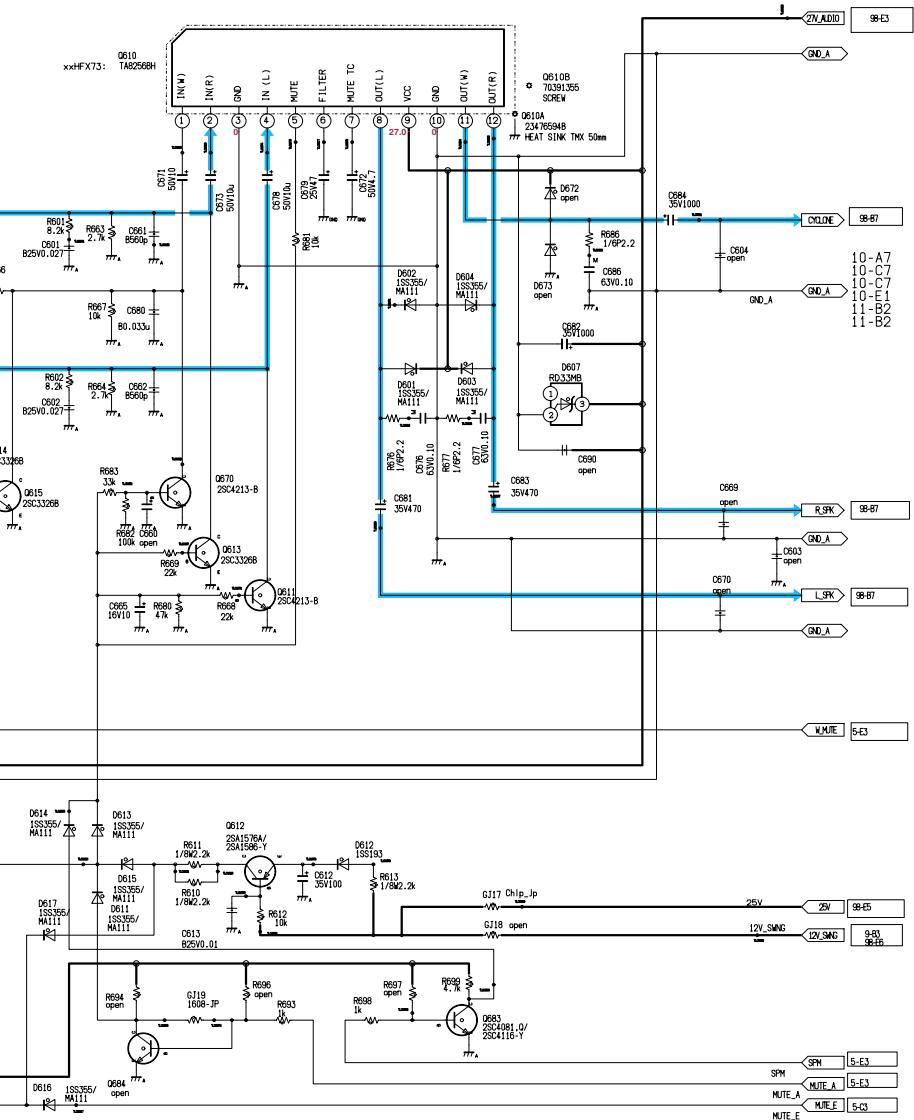
C

D

E

F





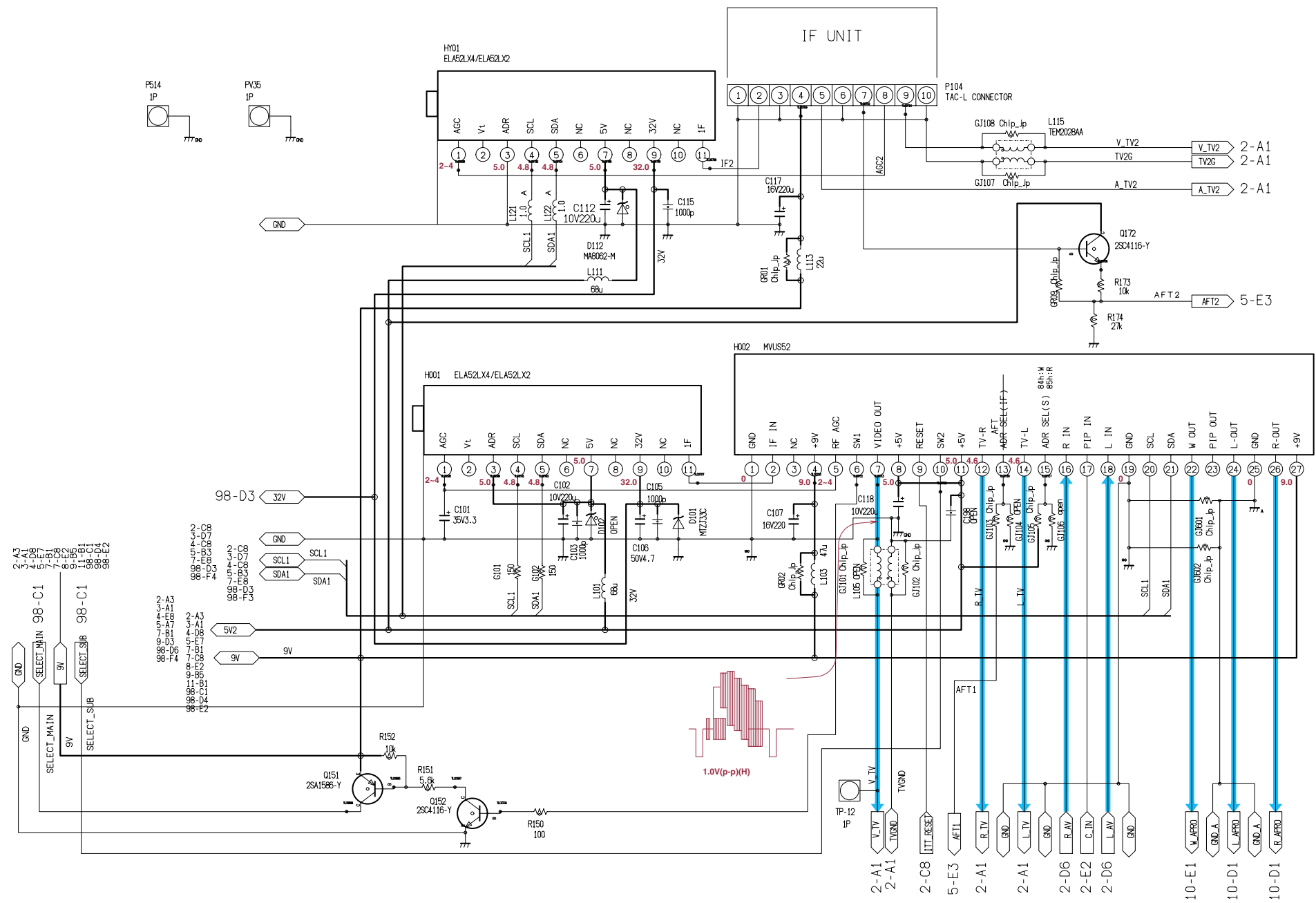
32HFX73
 36HFX73
 SIGNAL - AUDIO OUT
 [SHEET-10]

A

A

B

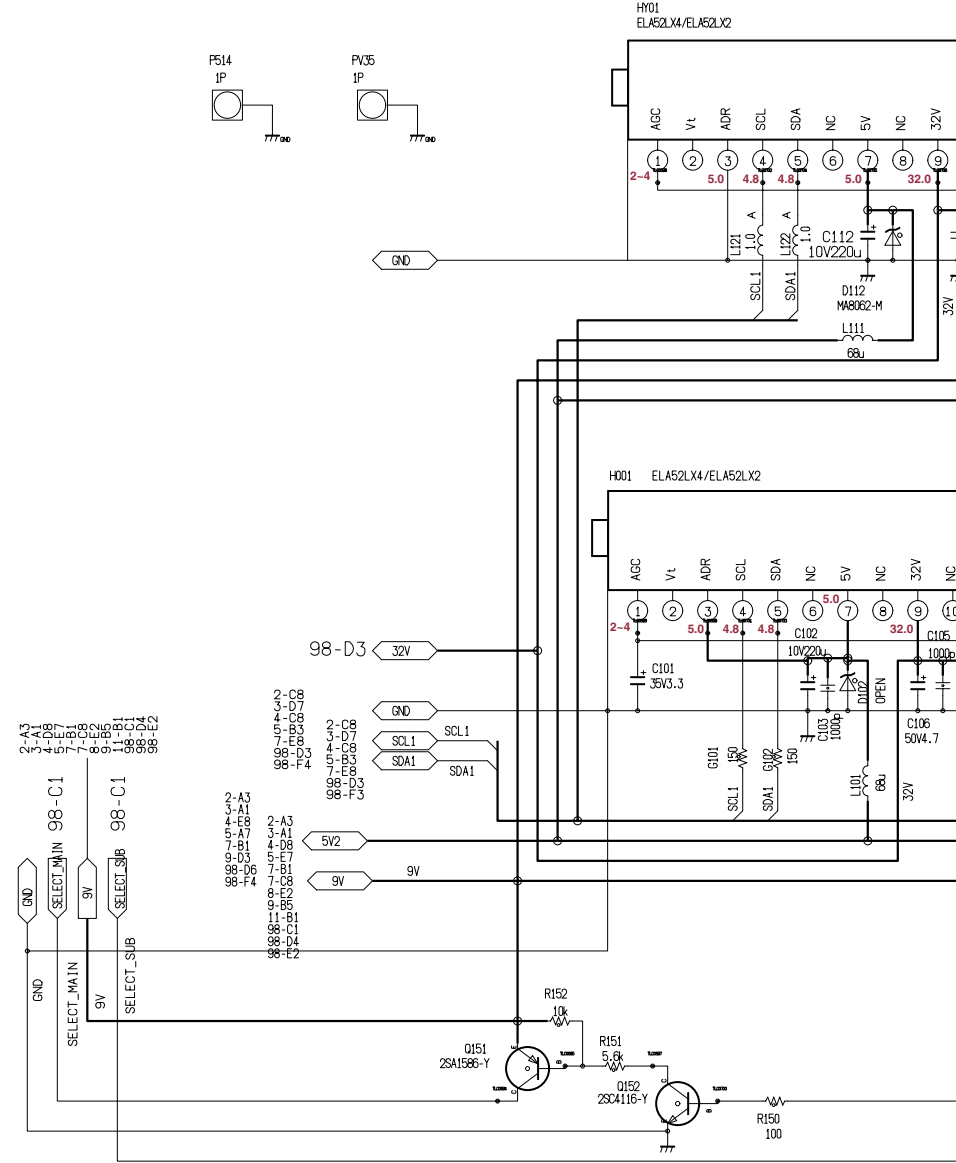
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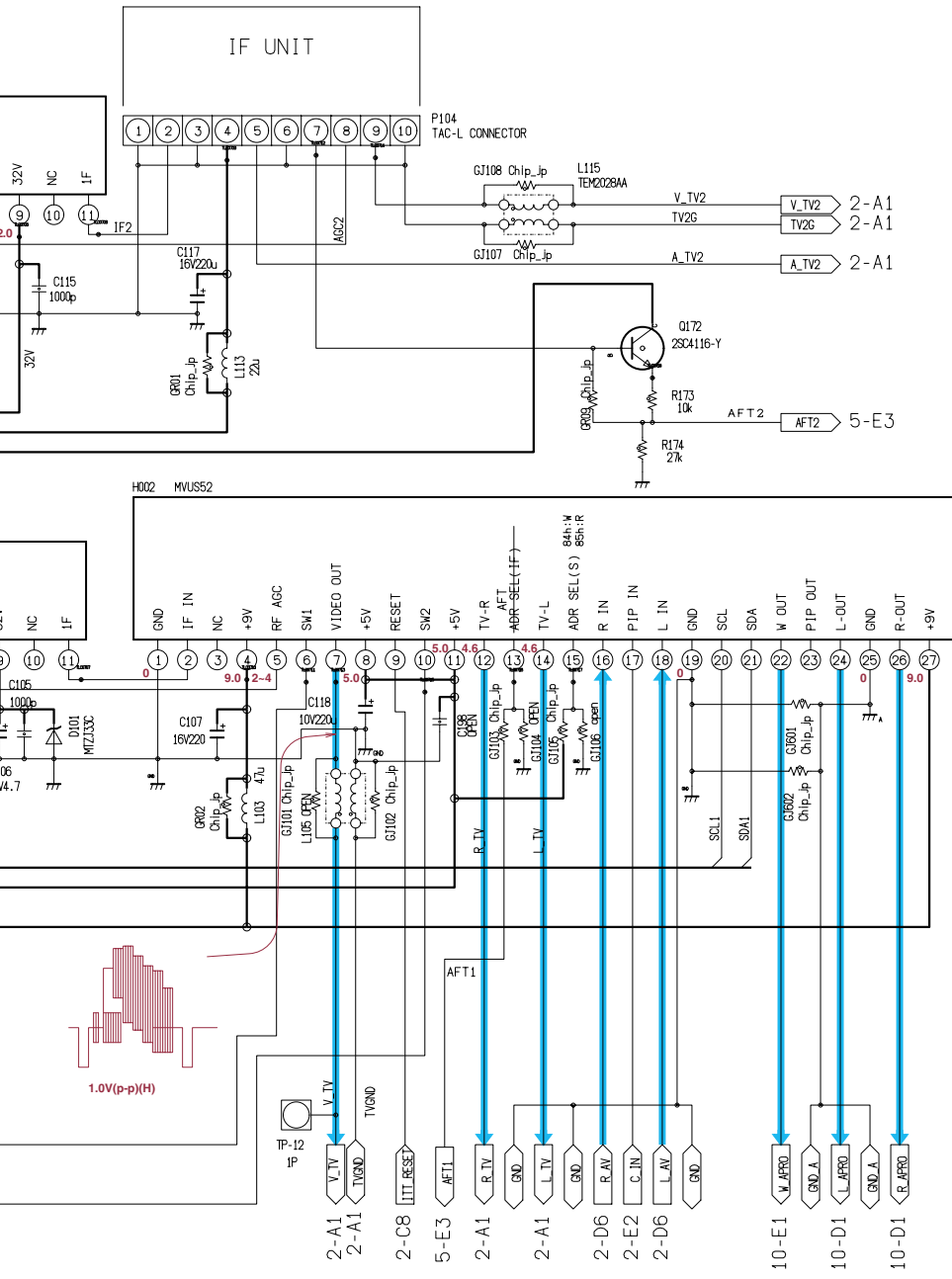


32HFX73
 36HFX73
 SIGNAL - IF
 [SHEET-11]

A

B





A

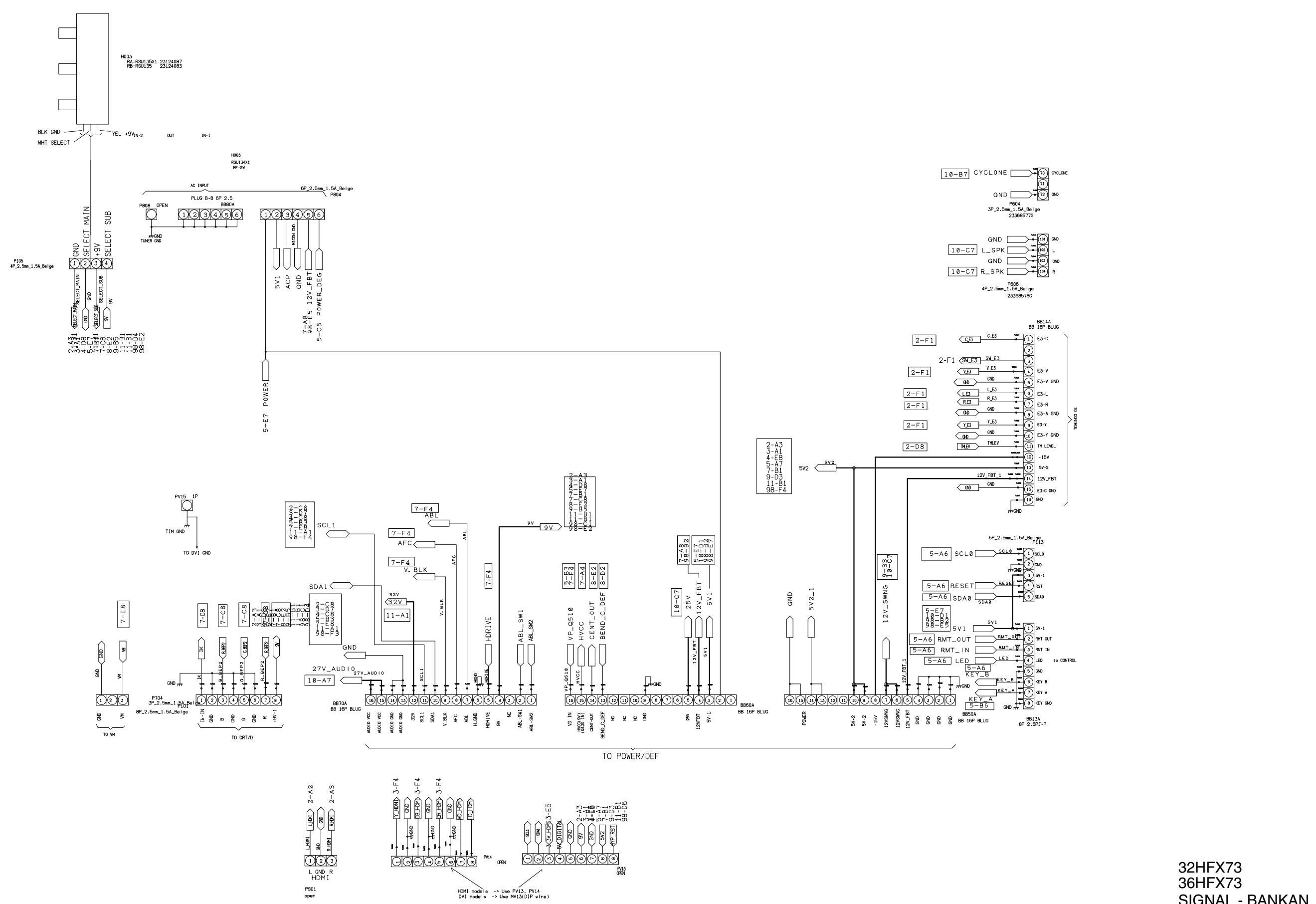
B

32HFX73
 36HFX73
 SIGNAL - IF
 [SHEET-11]

A
B
C
D
E
F

1 2 3 4 5 6 7 8

A
B
C
D
E
F



32HFX73
36HFX73
SIGNAL - BANKAN
[SHEET-98]

1

2

3

4

A

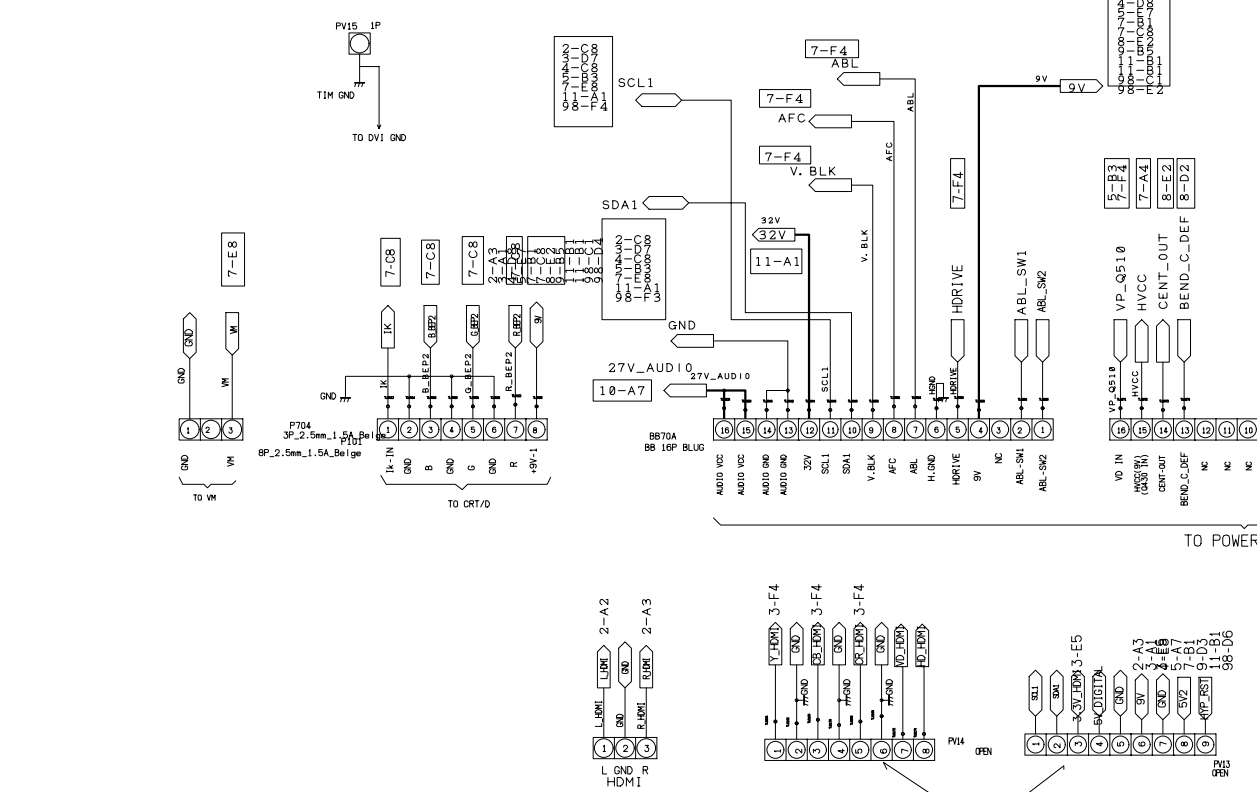
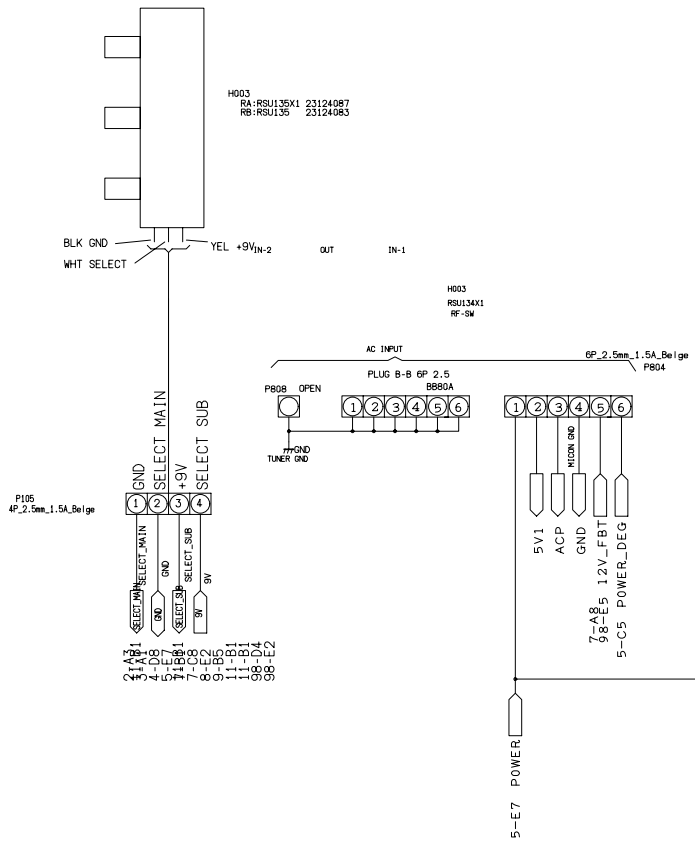
B

C

D

E

F



1

2

3

4

1

2

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4

5

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7

8

A

B

C

D

E

F

A

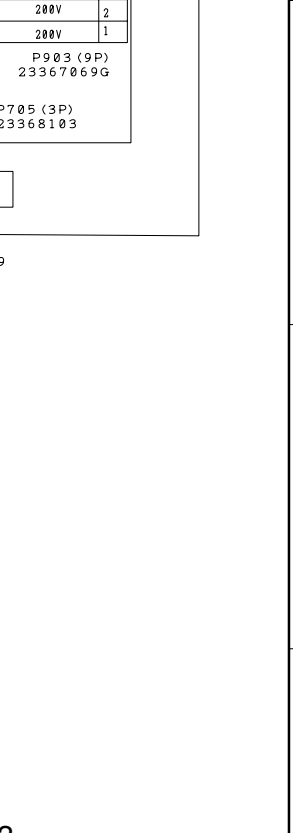
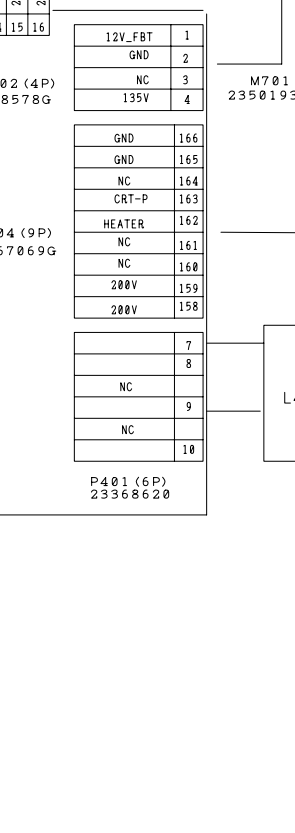
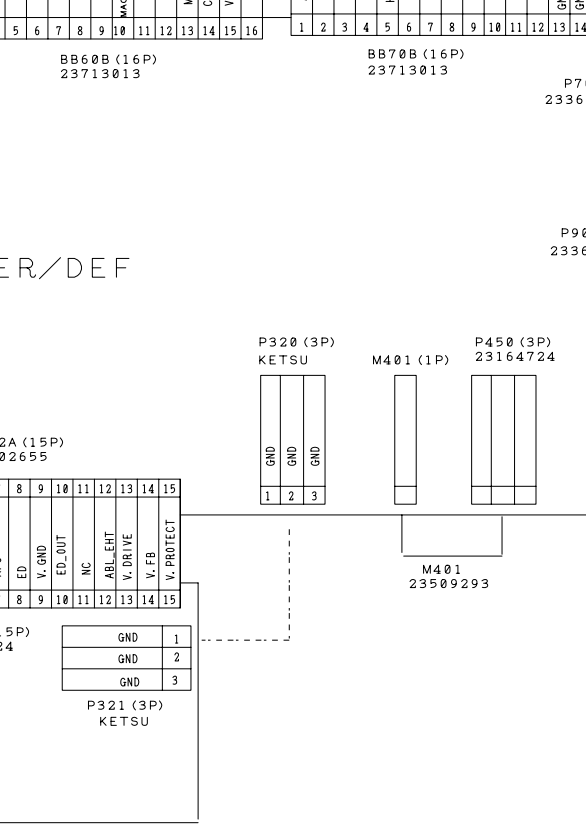
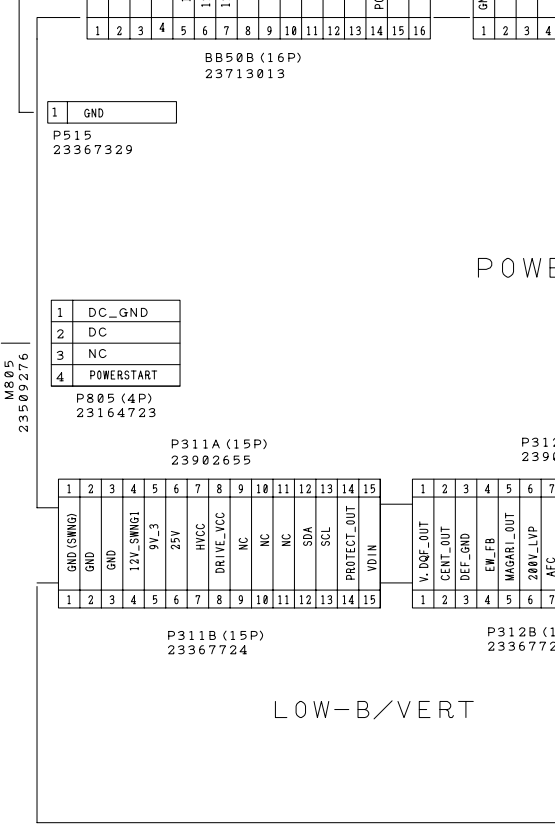
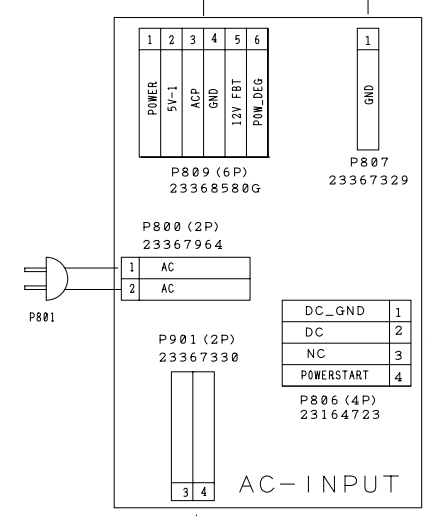
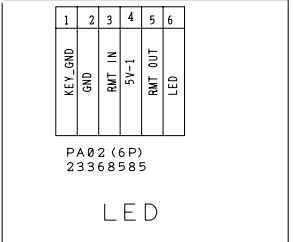
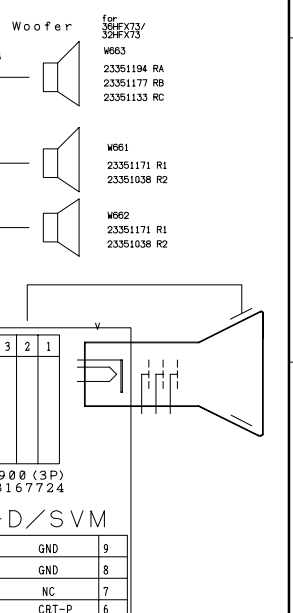
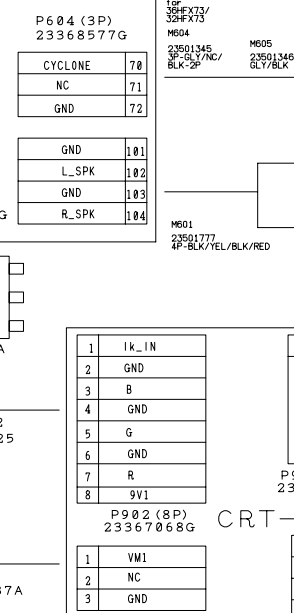
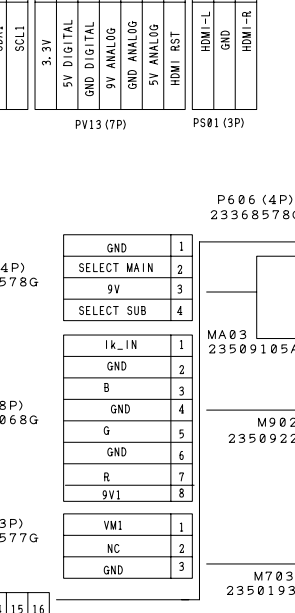
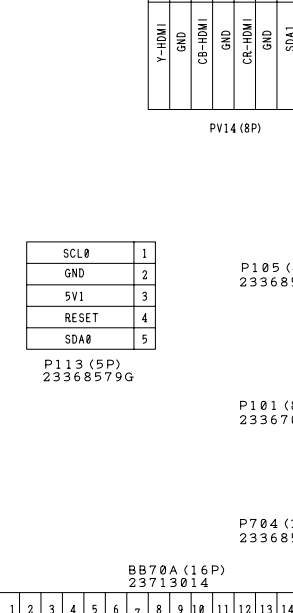
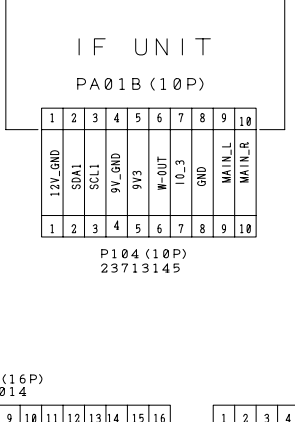
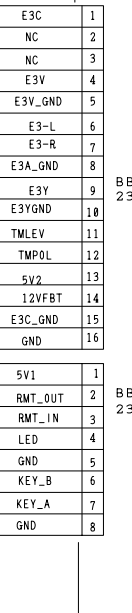
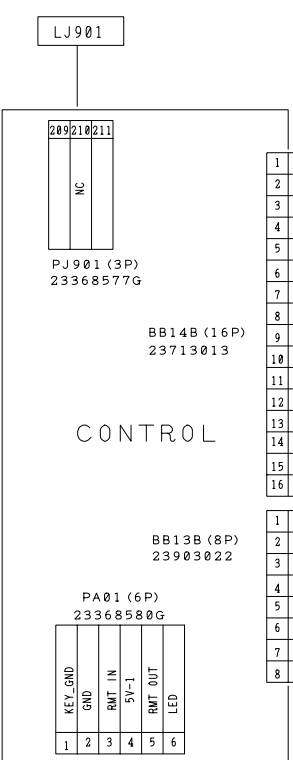
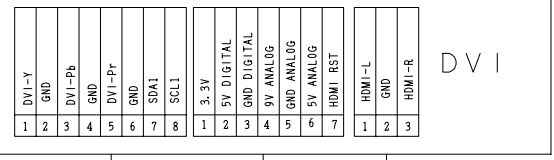
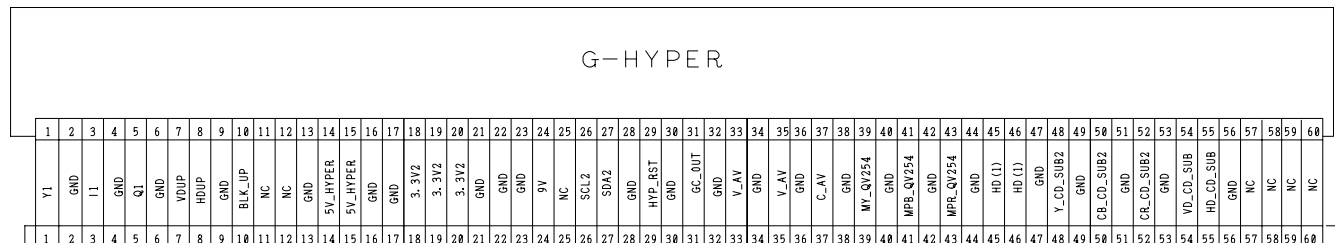
B

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32HFX73
36HFX73
SIGNAL - BB CONNECTER
[SHEET-99]

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LJ901

209	210	211
	NC	

PJ901 (3P)
23368577G

BB14B (16P)
23713013

CONTROL

BB13B (8P)
23903022

PA01 (6P)
23368580G

KEY_GND	GND	RMT_IN	5V-I	RMT_OUT	LED
1	2	3	4	5	6

MA01
23509292

KEY_GND	GND	RMT_IN	5V-I	RMT_OUT	LED
1	2	3	4	5	6

PA02 (6P)
23368585

LED

1	E3C	1
2	NC	2
3	NC	3
4	E3V	4
5	E3V_GND	5
6	E3-L	6
7	E3-R	7
8	E3A_GND	8
9	E3Y	9
10	E3YGND	10
11	TMLEV	11
12	TMPOL	12
13	5V2	13
14	12VFBT	14
15	E3C_GND	15
16	GND	16

P540 (60P)
45639

BB14A (16P)
23713014

1	5V1	1
2	RMT_OUT	2
3	RMT_IN	3
4	LED	4
5	GND	5
6	KEY_B	6
7	KEY_A	7
8	GND	8

BB13A (8P)
23903022

P804 (6P)
23368580G

POWER	5V-I	ACP	GND	12V_FBT	POW_DEG
1	2	3	4	5	6

P808
23367329

P514
23367329

SIGNAL

IF UNIT
PA01B (10P)

12V_GND	SDA1	SCL1	9V_GND	9V3	WF-OUT	10-3	GND	MAIN-L	MAIN-R
1	2	3	4	5	6	7	8	9	10

P104 (10P)
23713145

BB50A (16P)
23713014

GND	GND	GND	GND	12V_FBT	12V_SWING1	12V_SWING2	5V2	5V2	NC	NC	NC	NC	POWER_DEG	ACP	NC
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

BB60A
23713

GND (MICON)	POWER	5V-1	12V_FBT	25V	NC	GND	GND	GND	GND
1	2	3	4	5	6	7	8	9	10

BB50B (16P)
23713013

GND	GND	GND	GND	12V_FBT	12V_SWING1	12V_SWING2	5V2	5V2	NC	NC	NC	NC	POWER_DEG	ACP	NC
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

BB60
2371

POWER/DE

1	AC
2	AC

P801

POWER	5V-I	ACP	GND	12V_FBT	POW_DEG
1	2	3	4	5	6

P809 (6P)
23368580G

P807
23367329

P800 (2P)
23367964

1	AC
2	AC

P901 (2P)
23367330

DC_GND	1
DC	2
NC	3
POWERSTART	4

P806 (4P)
23164723

AC-INPUT

DG	L901
1	

1	GND
---	-----

P515
23367329

1	DC_GND
2	DC
3	NC
4	POWERSTART

P805 (4P)
23164723

P311A (15P)
23902655

GND (SWING)	GND	GND	12V_SWING1	9V-3	25V	HVCC	DRIVE_VCC	NC	NC	NC	NC	SDA	SCL	PROTECT_OUT	VDIN
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	

P311B (15P)
23367724

P312A (15P)
23902655

V_DQF_OUT	CENT_OUT	DEF_GND	EW_LFB	MASARI_OUT	288V_LVP	AFC	ED	V_GND	ED_OUT	NC
1	2	3	4	5	6	7	8	9	10	11

P312B (15P)
23367724

LOW-B/VERT

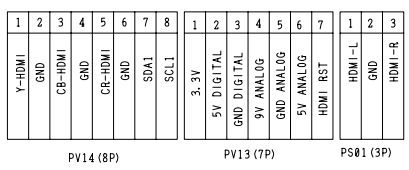
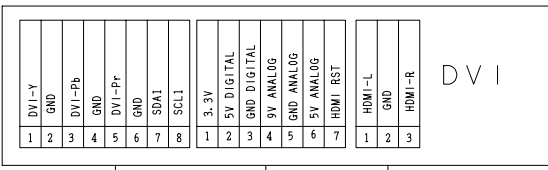
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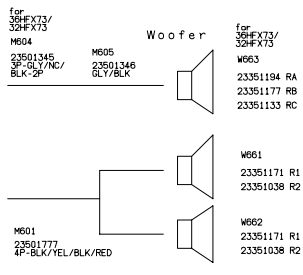
5	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
HD (L)	HD (L)	GND	Y_CD_SUB2	GND	CB_CD_SUB2	GND	CR_CD_SUB2	GND	VD_CD_SUB	HD_CD_SUB	GND	NC	NC	NC	NC



P604 (3P)
23368577G

CYCLONE	70
NC	71
GND	72

GND	101
L_SPK	102
GND	103
R_SPK	104



SCL0	1
GND	2
5V1	3
RESET	4
SDA0	5

P113 (5P)
23368579G

P105 (4P)
23368578G

GND	1
SELECT MAIN	2
9V	3
SELECT SUB	4

P101 (8P)
23367068G

Ik_IN	1
GND	2
B	3
GND	4
G	5
GND	6
R	7
9V1	8

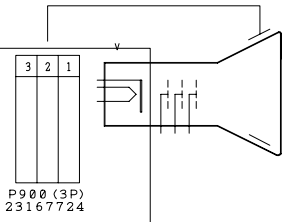
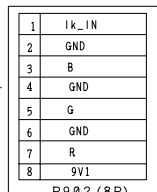
P704 (3P)
23368577G

VM1	1
NC	2
GND	3

MA03
23509105A

M902
23509225

M703
23501937A



P900 (3P)
23167724

P902 (8P)
23367068G

1	VM1
2	NC
3	GND
4	+137V
5	NC
6	GND
7	200V
8	+12V

P703 (3P)
23368577G

1	VM1
2	NC
3	GND

P701 (4P)
23368578G

1	VM
2	NC
3	GND

P705 (3P)
23368103

1	VM
2	NC
3	GND

P903 (9P)
23367069G

1	GND
2	GND
3	NC
4	CRT-P
5	HEATER
6	NC
7	NC
8	200V
9	200V

M705
23504959

M903
23504959

BB60A (16P)
23713014

8	9	10	11	12	13	14	15	16
GND	GND	MAGARI_ROSE	31K_33K	NC	MAGARI	CENT_OUT	VG9V	VD

BB70A (16P)
23713014

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ABL_SW2	ABL_SW	LIVE	9V3	HDRIVE	ABL	ABL	AFC	V_BLK	SDA1	SCL1	32V	GND(AUDIO)	27V_AUDIO	27V_AUDIO	

BB60B (16P)
23713013

8	9	10	11	12	13	14	15	16
GND	GND	MAGARI_ROSE	31K_33K	NC	MAGARI	CENT_OUT	VG9V	VD

BB70B (16P)
23713013

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ABL_SW2	ABL_SW	LIVE	9V3	HDRIVE	ABL	ABL	AFC	V_BLK	SDA1	SCL1	32V	GND(AUDIO)	27V_AUDIO	27V_AUDIO	

P702 (4P)
23368578G

12V_FBT	1
GND	2
NC	3
135V	4

M701
23501938

P904 (9P)
23367069G

GND	166
GND	165
NC	164
CRT-P	163
HEATER	162
NC	161
NC	160
200V	159
200V	158

M705
23504959

M903
23504959

P320 (3P)
KETSU

GND	1
GND	2
GND	3

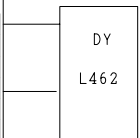
M401 (1P)
23509293

P450 (3P)
23164724

GND	1
GND	2
GND	3

P401 (6P)
23368620

7	8
NC	9
NC	10



0	11	12	13	14	15
NC	ABL_ENT	V_DRIVE	V_FB	V_PROTECT	

GND	1
GND	2
GND	3

P321 (3P)
KETSU

A

B

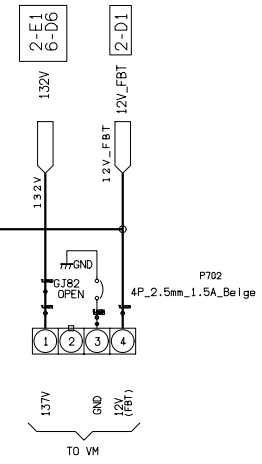
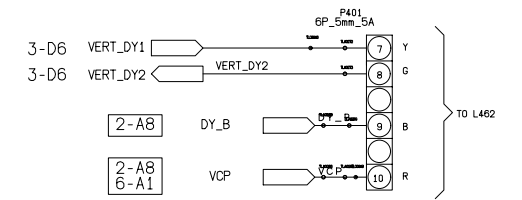
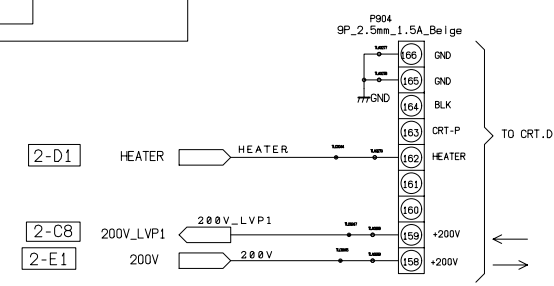
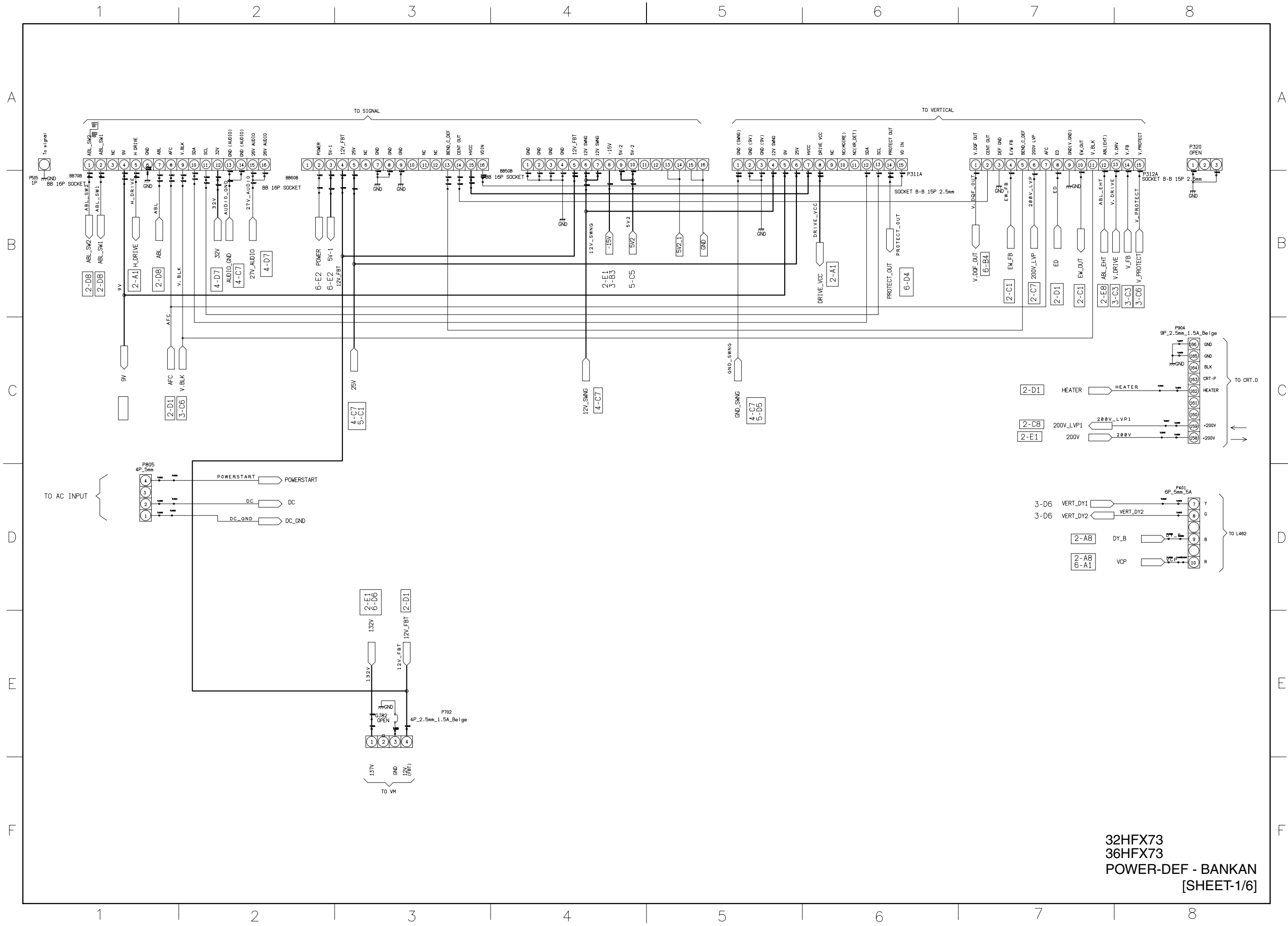
C

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32HFX73
36HFX73
SIGNAL - BB CONNECTER
[SHEET-99]



32HF73
36HF73
POWER-DEF - BANKAN
[SHEET-1/6]

1 2 3 4

A

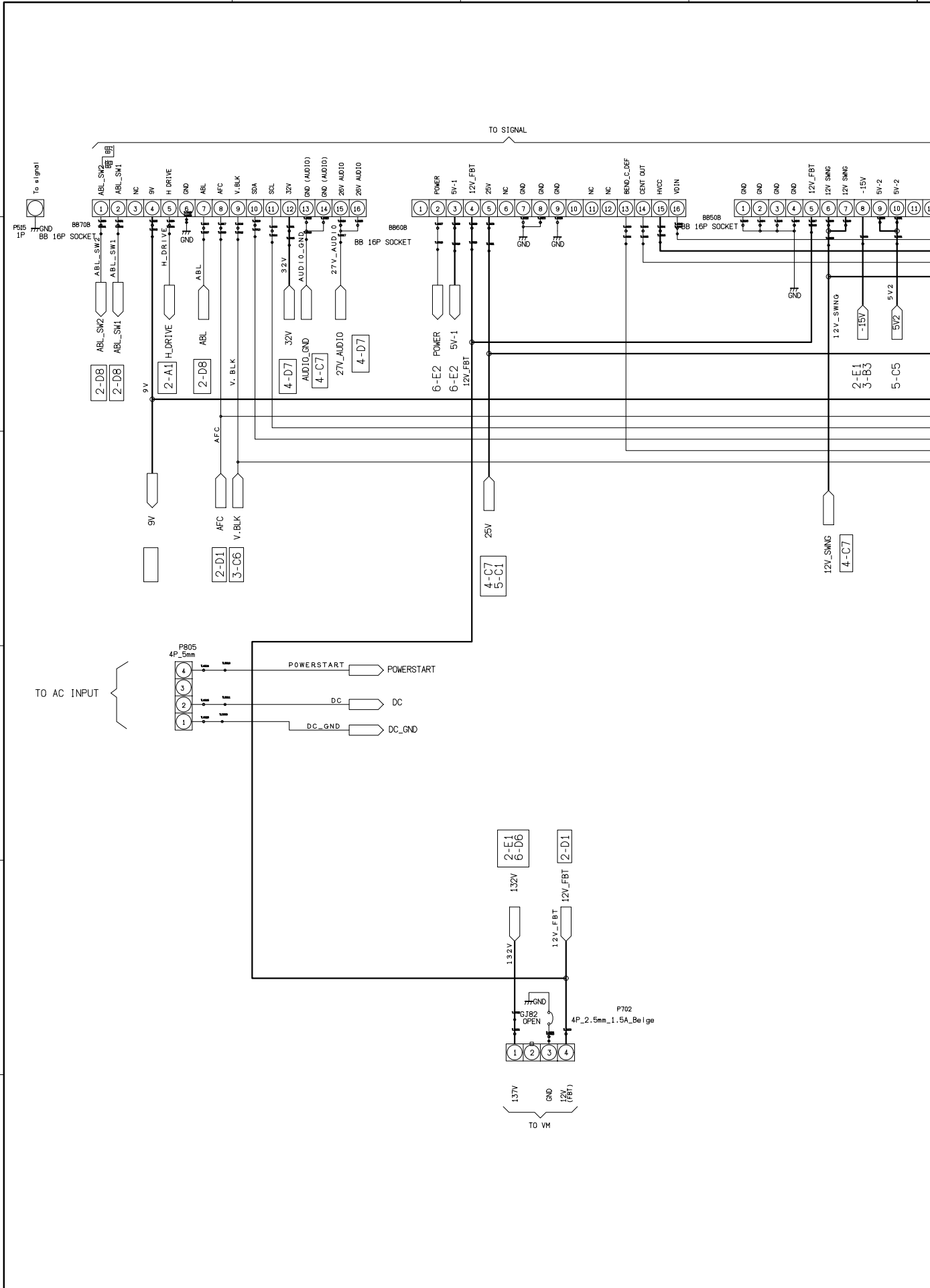
B

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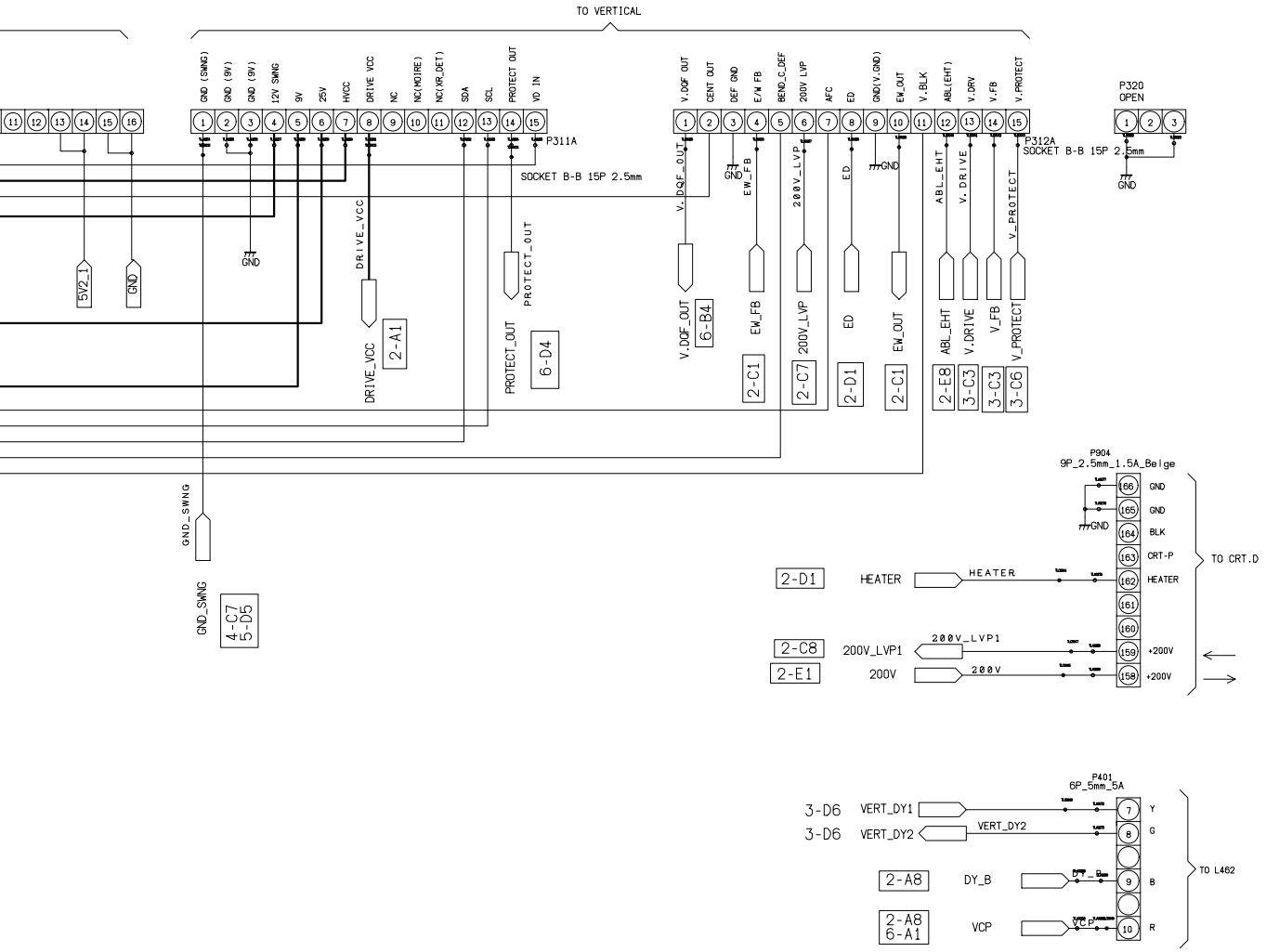
D

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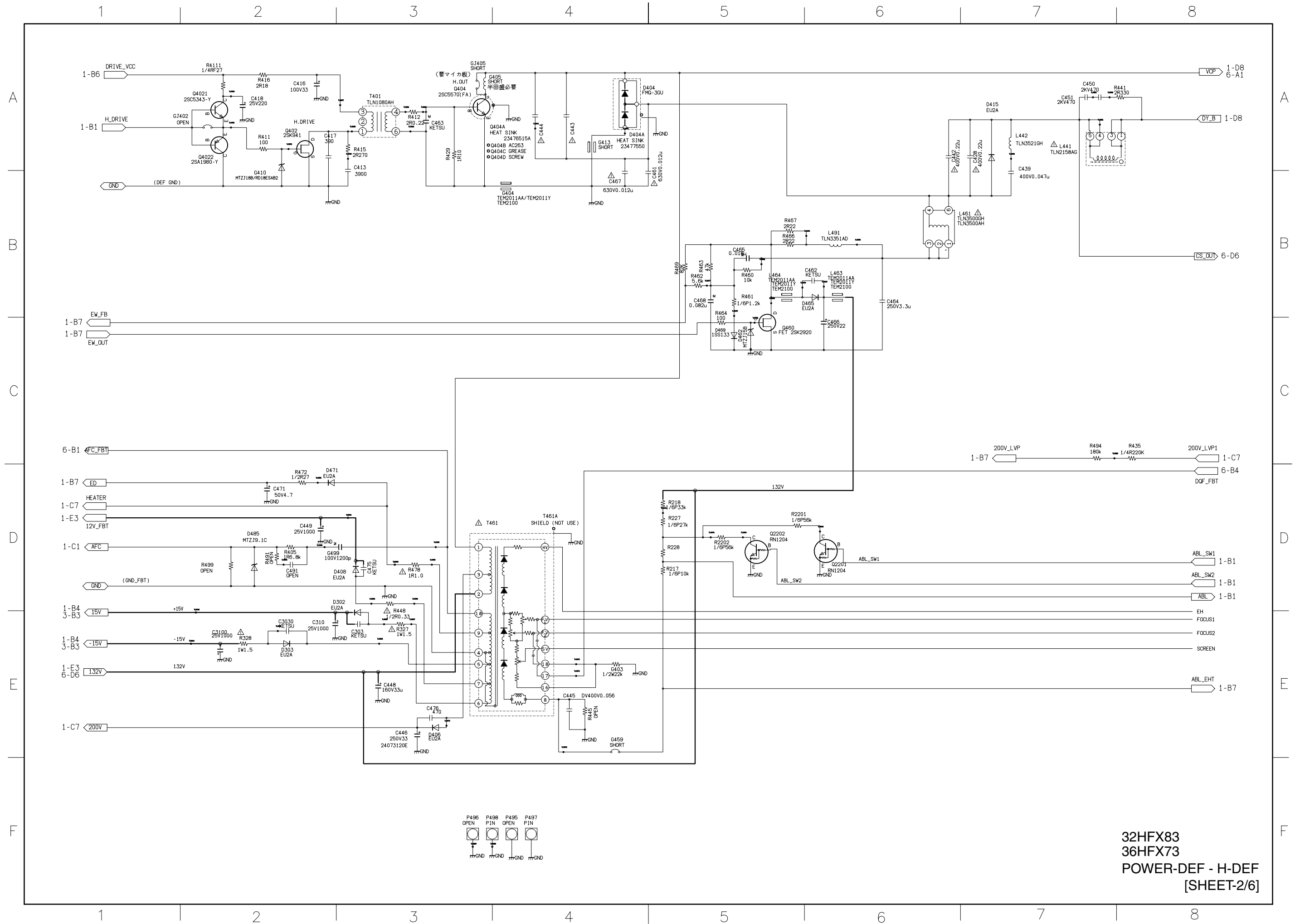
F



1 2 3 4



32HFX73
 36HFX73
 POWER-DEF - BANKAN
 [SHEET-1/6]



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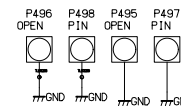
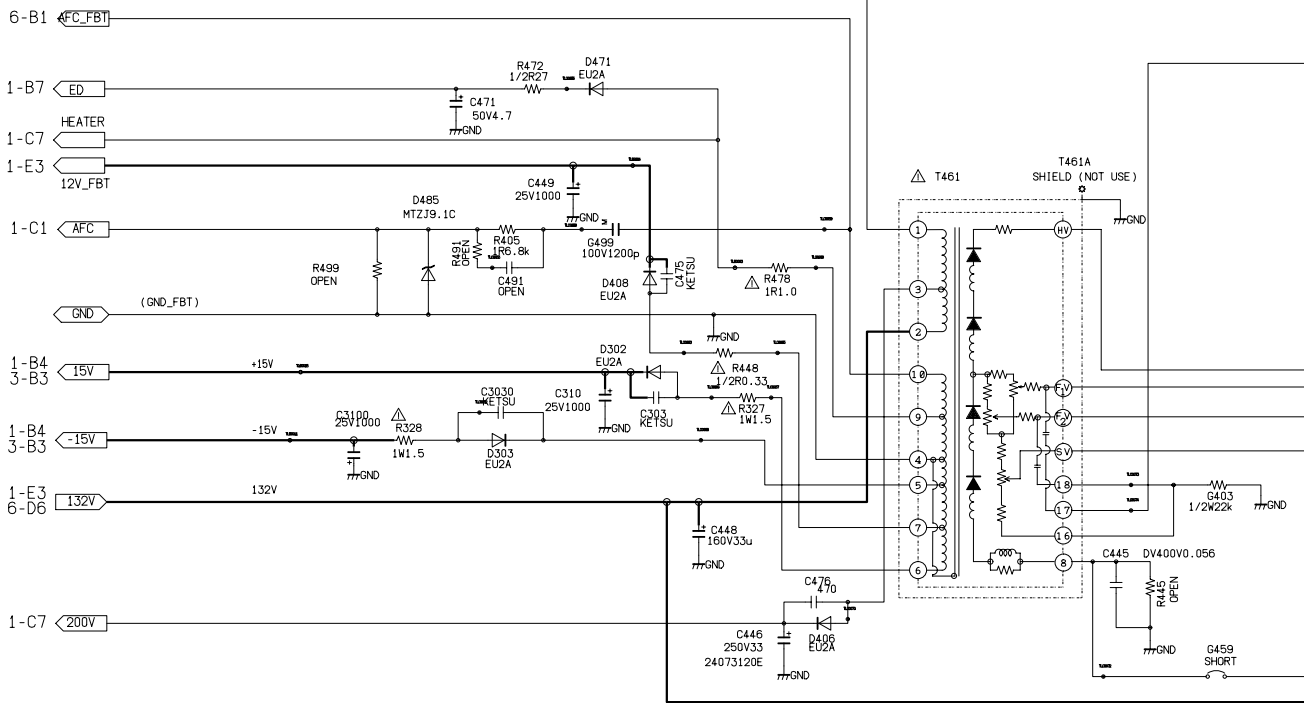
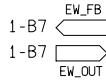
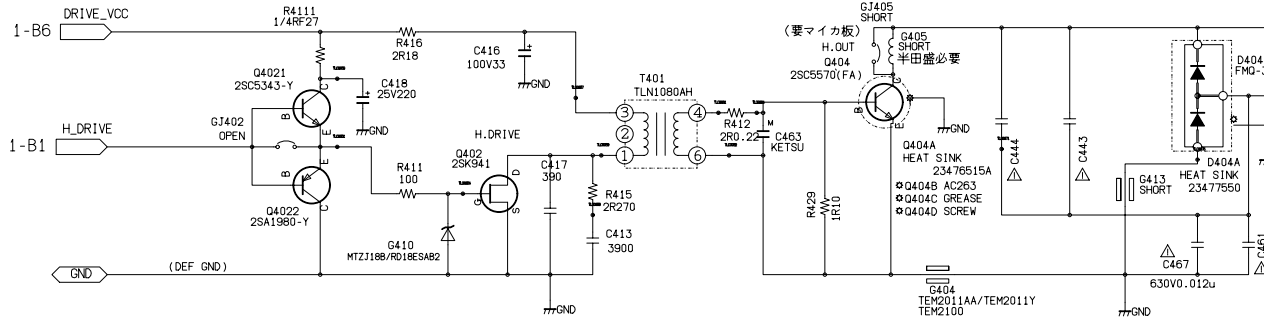
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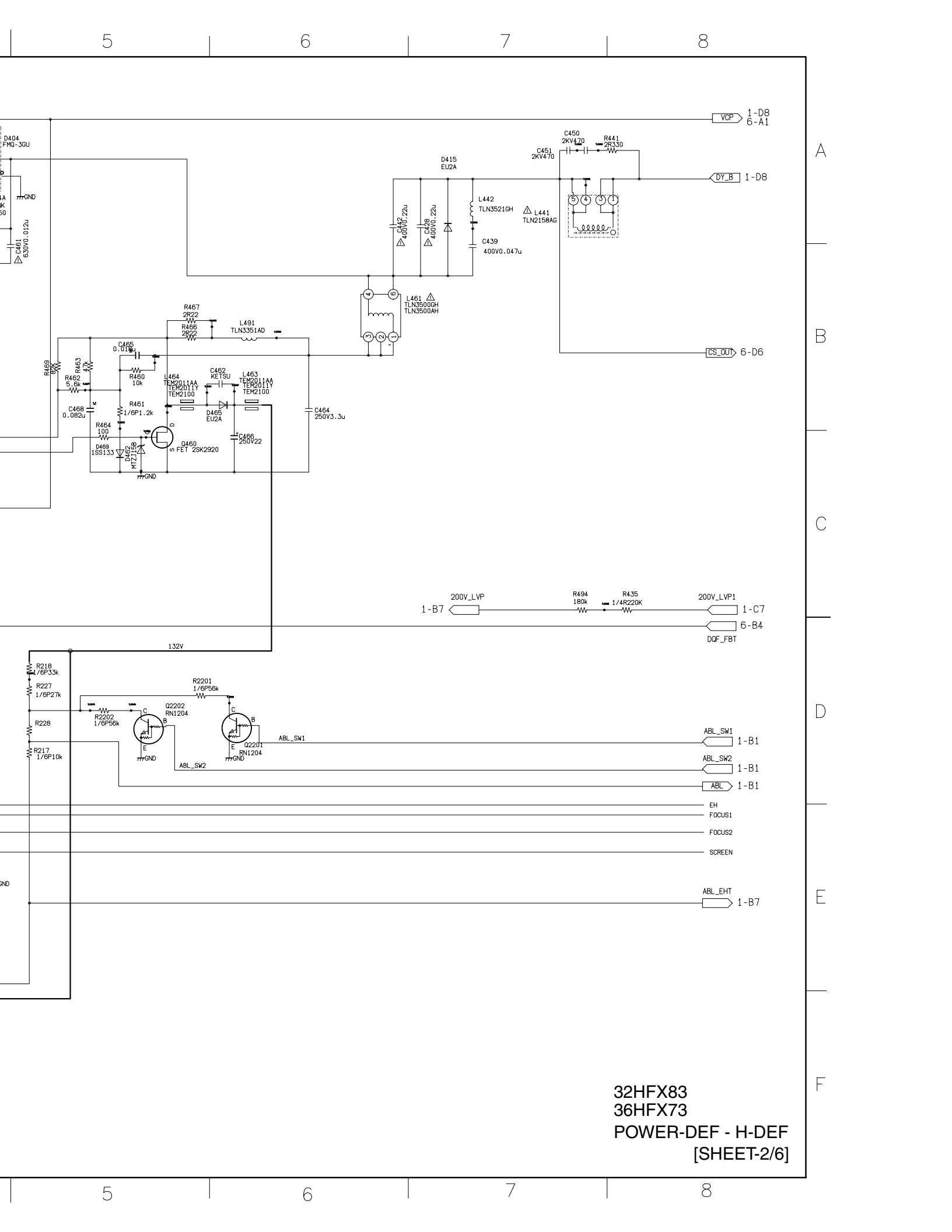


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32HFX83
 36HFX73
 POWER-DEF - H-DEF
 [SHEET-2/6]

5 6 7 8

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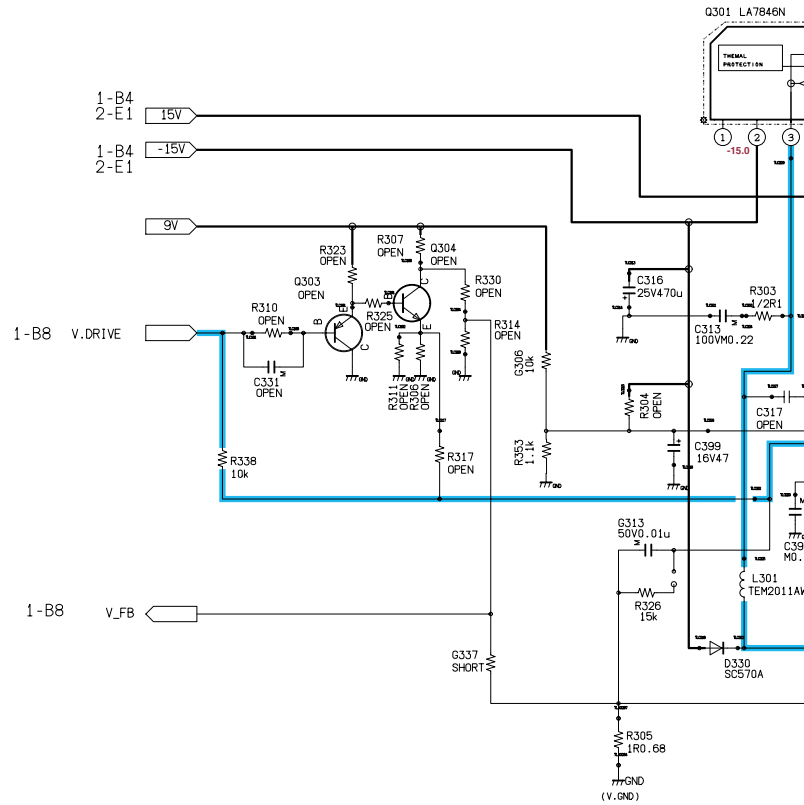
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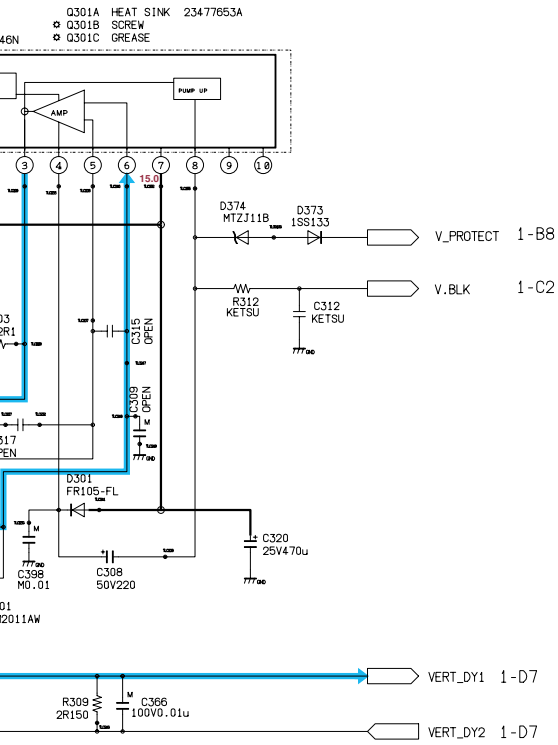
C

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32HFX73
 36HFX73
 POWER-DEF - V-DEF
 [SHEET-3/6]

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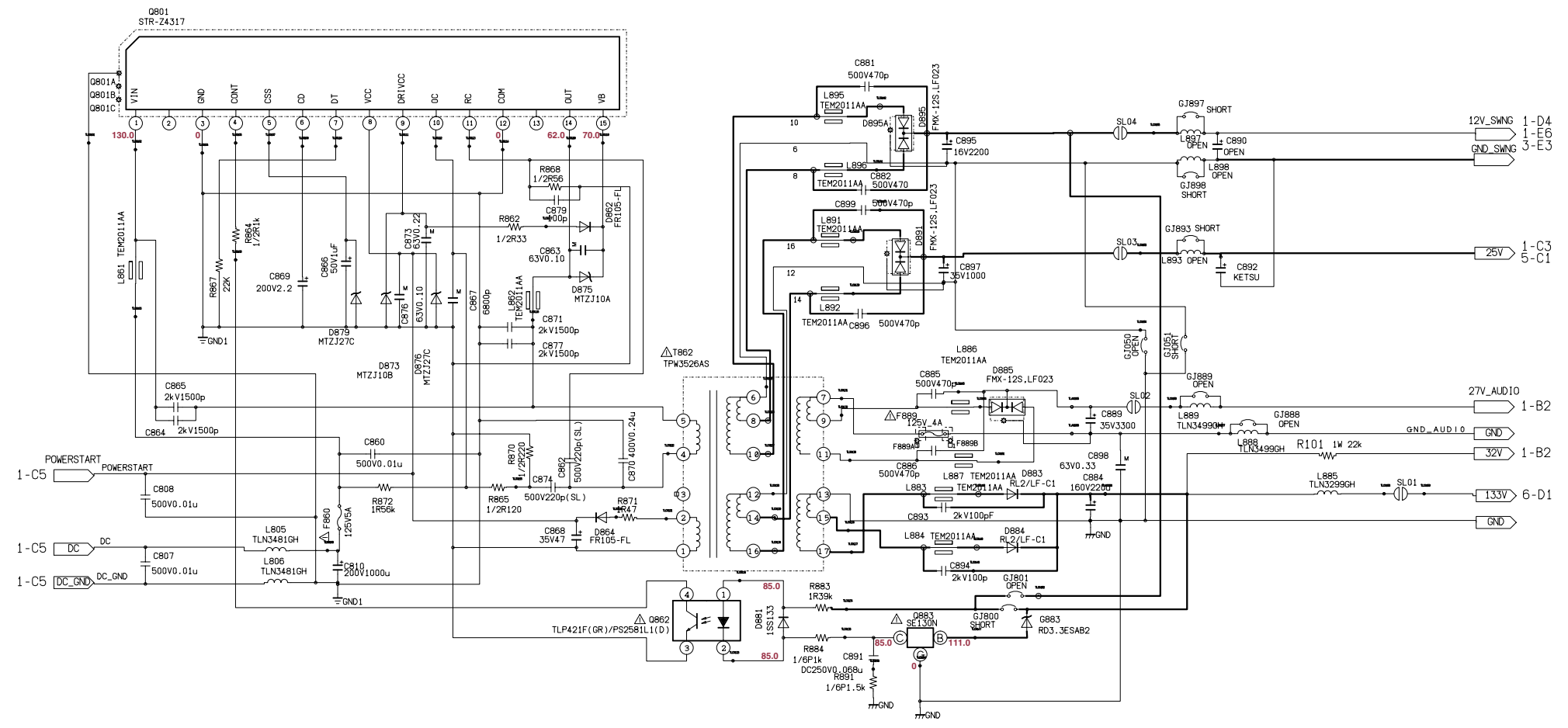
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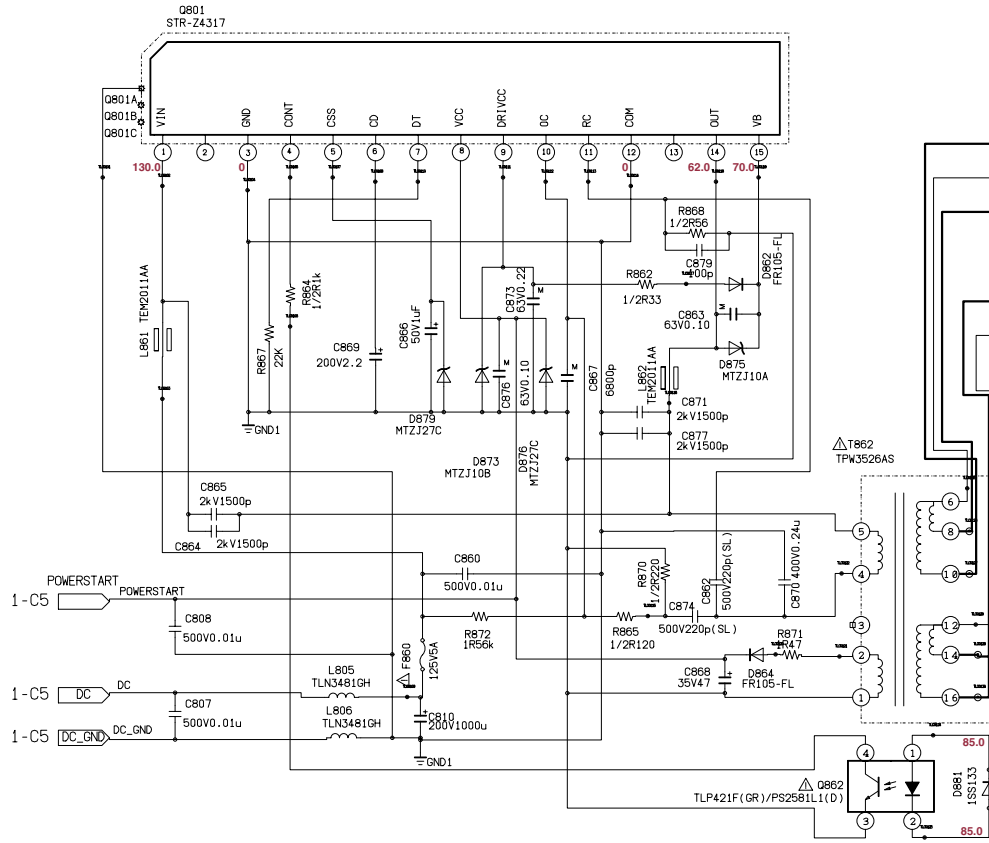
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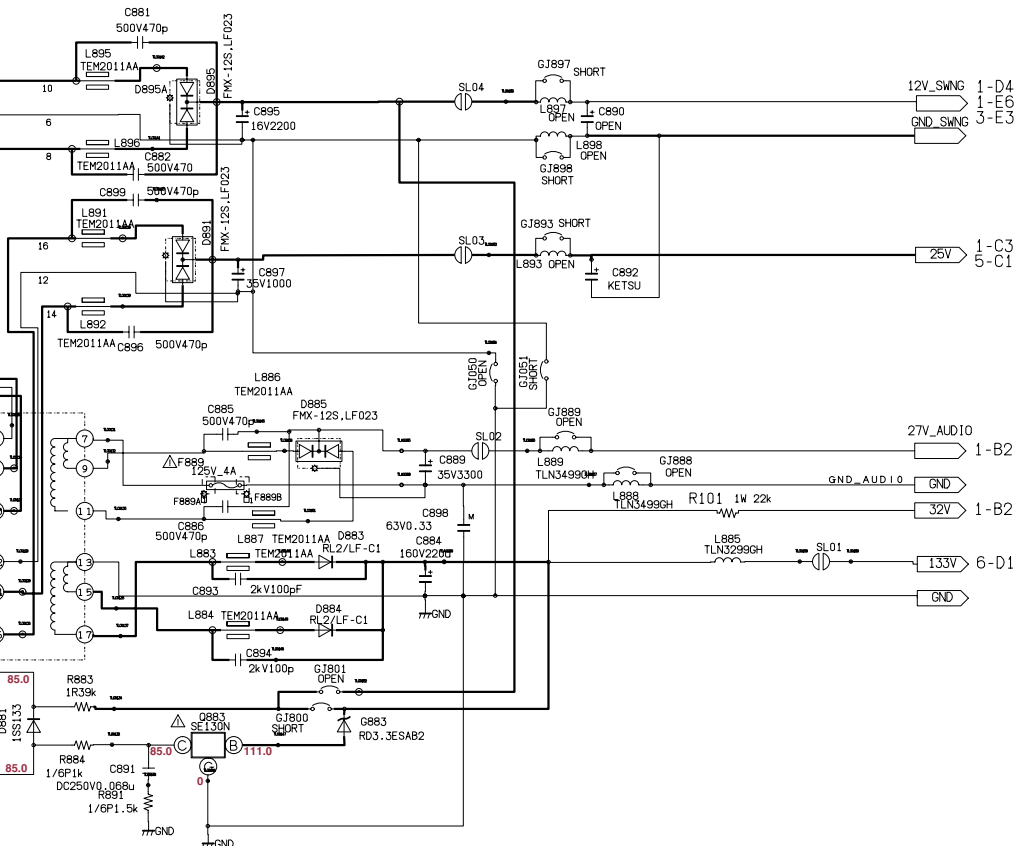
D

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32HFX73
 36HFX73
 POWER-DEF - MAIN-POWER
 [SHEET-4/6]

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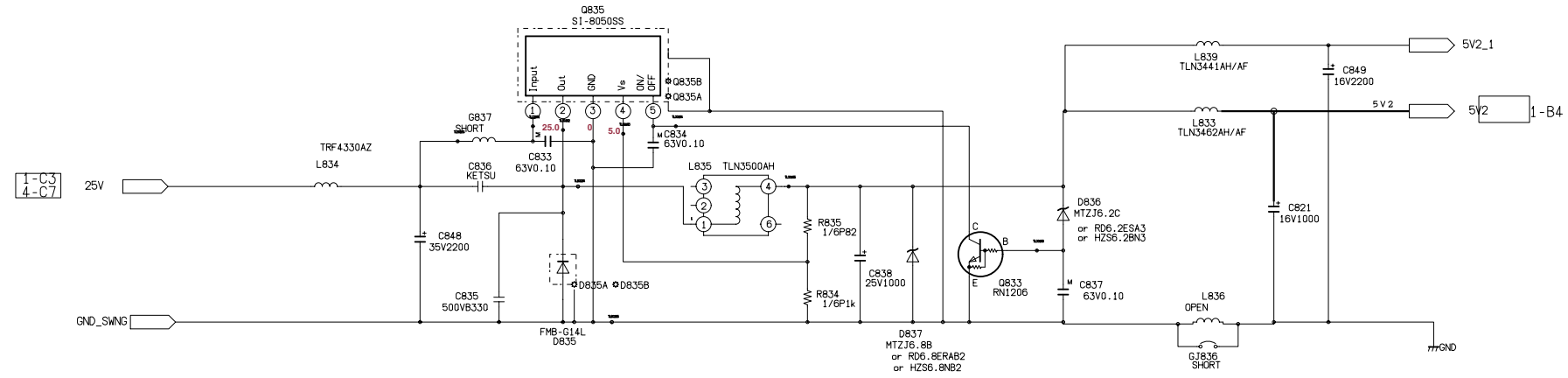
B

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32HFX73
 36HFX73
 POWER-DEF - SUB-POWER
 [SHEET-5/6]

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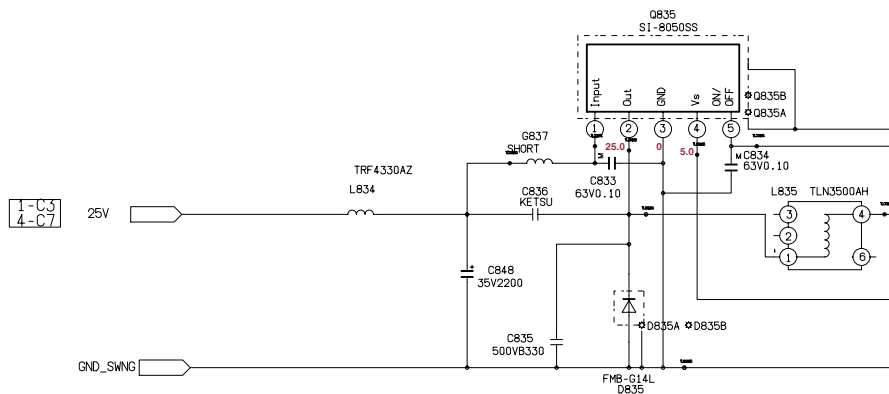
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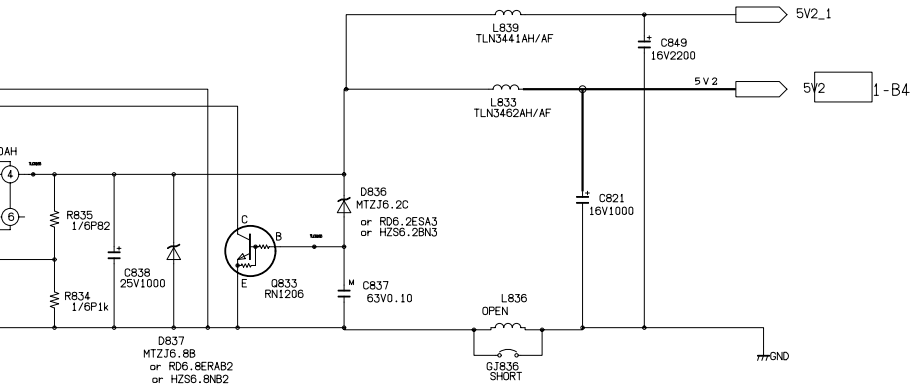


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32HFX73
 36HFX73
 POWER-DEF - SUB-POWER
 [SHEET-5/6]

1 2 3 4 5 6 7 8

A A

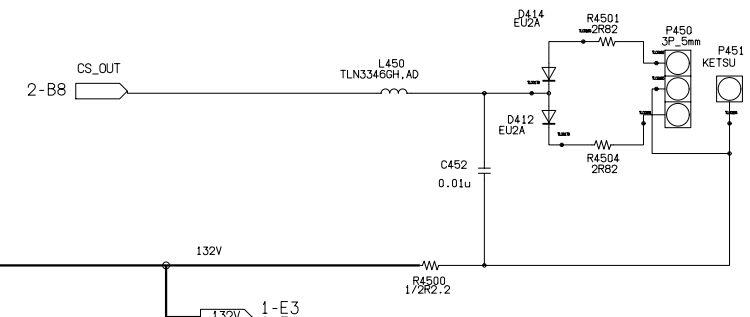
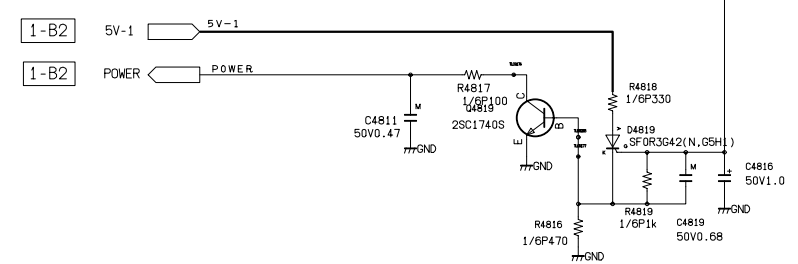
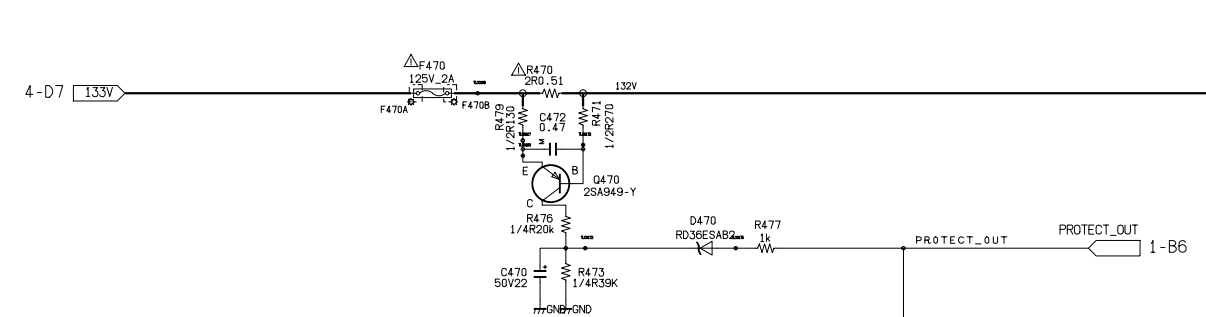
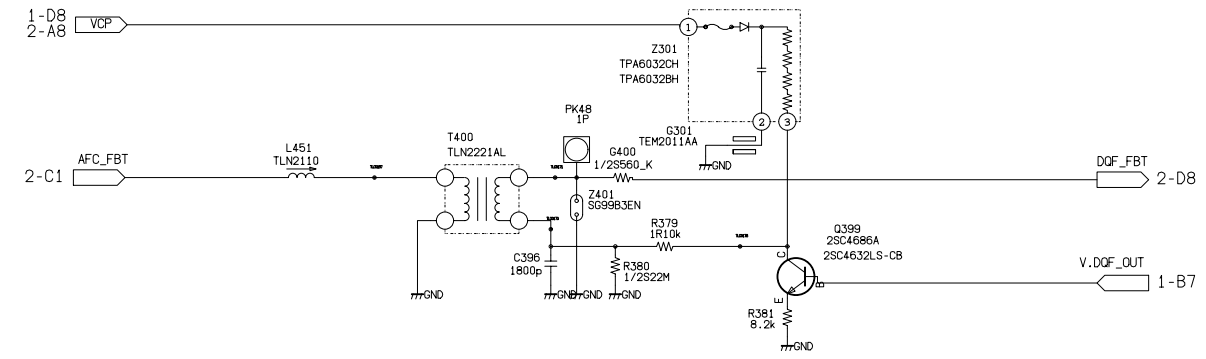
B B

C C

D D

E E

F F

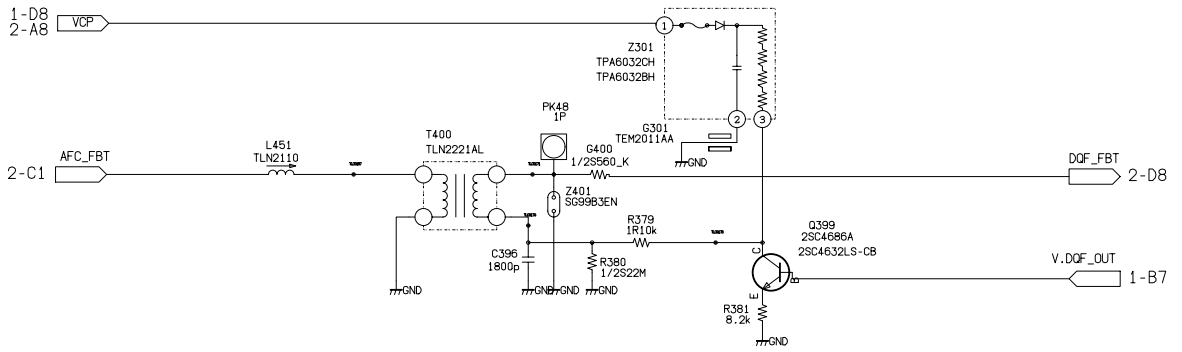


32HFX73
 36HFX73
 POWER-DEF - DQF/OCP/OTHER
 [SHEET-6/6]

1 2 3 4 5 6 7 8

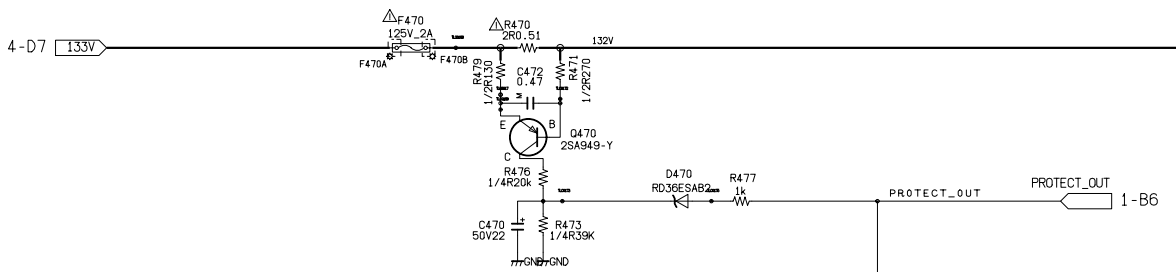
1 2 3 4

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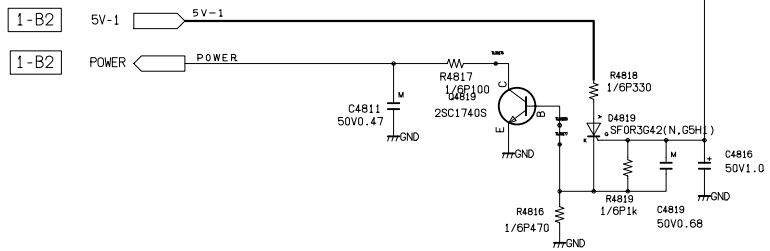
B

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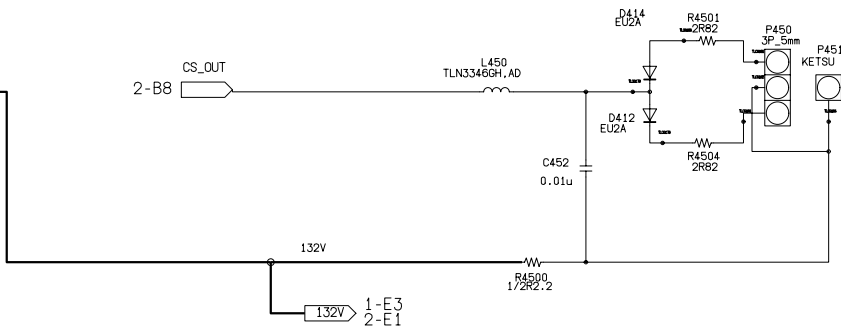
B

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F



32HFX73
 36HFX73
 POWER-DEF - DQF/OCP/OTHER
 [SHEET-6/6]

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1 2 3 4 5 6 7 8

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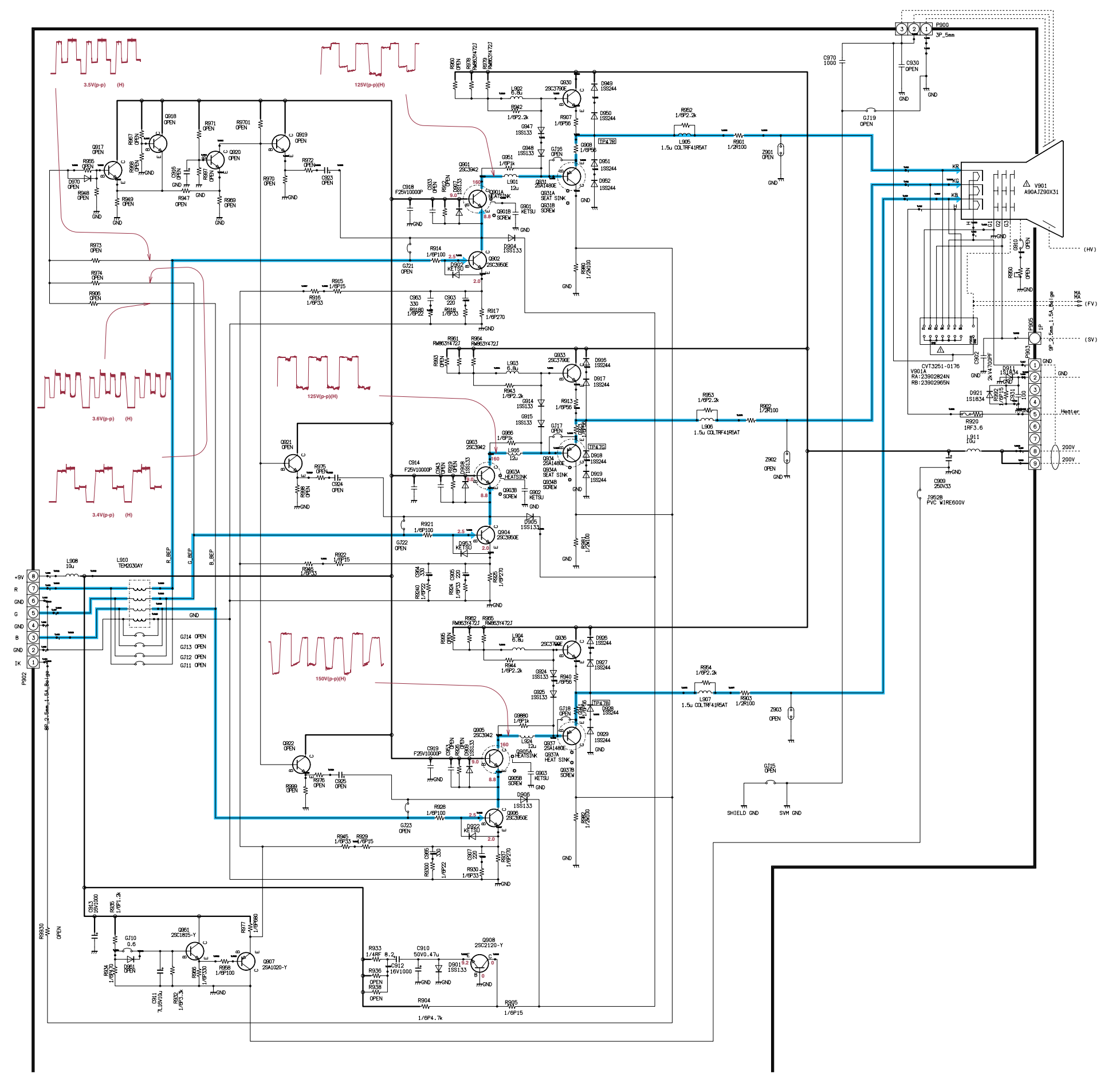
B

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32HFX73
 36HFX73
 CRT-D_SVM_HF - CRT DRIVE
 [SHEET-1/2]

A

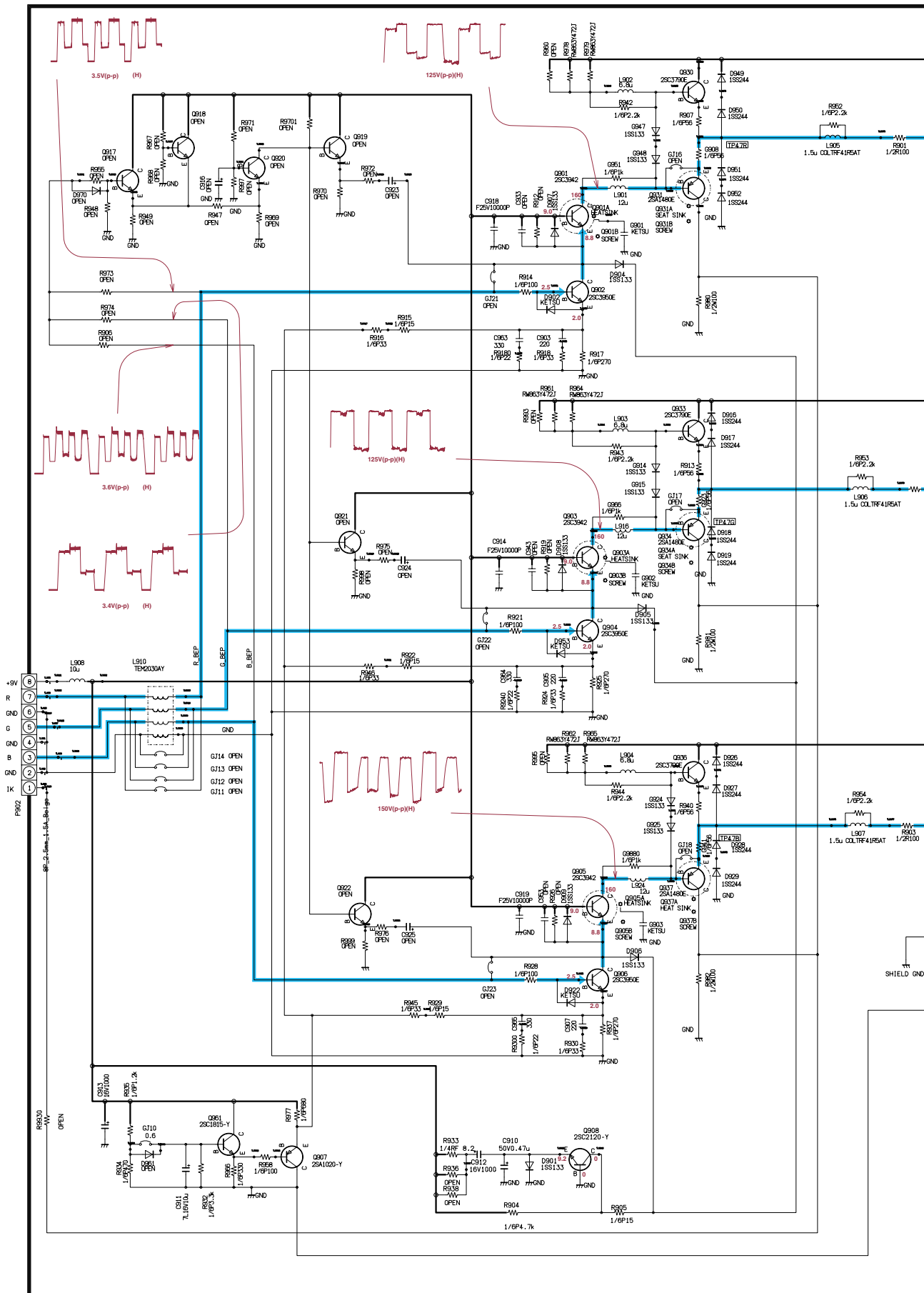
B

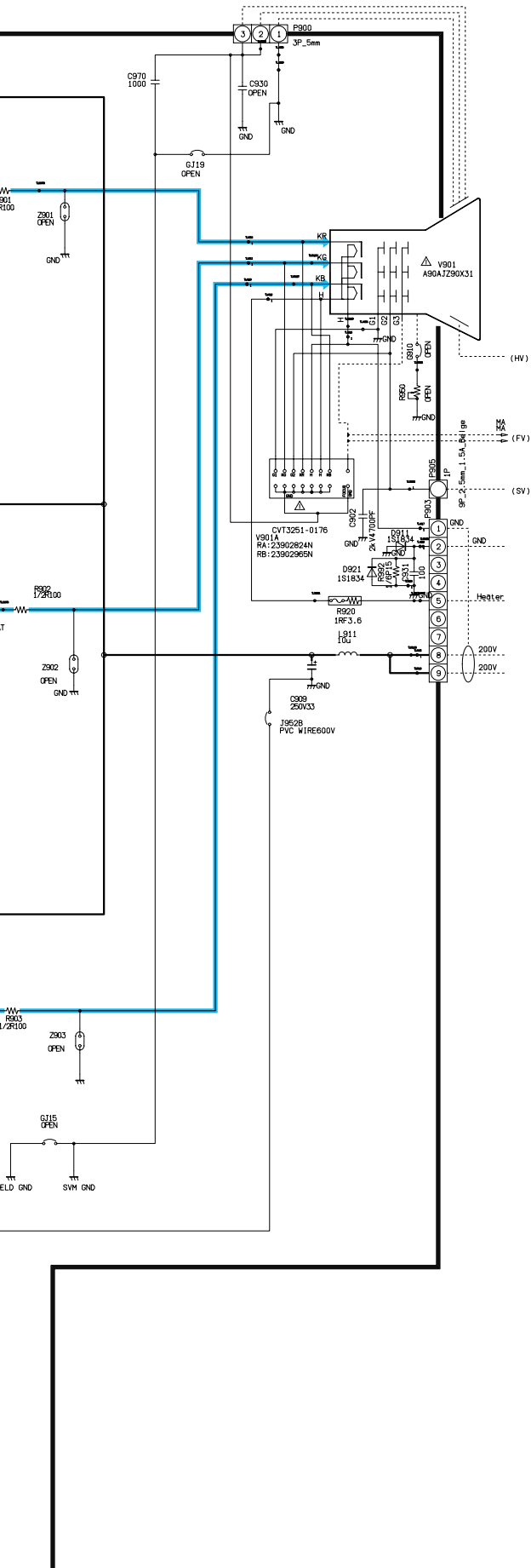
C

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32HFX73
 36HFX73
 CRT-D_SVM_HF - CRT DRIVE
 [SHEET-1/2]

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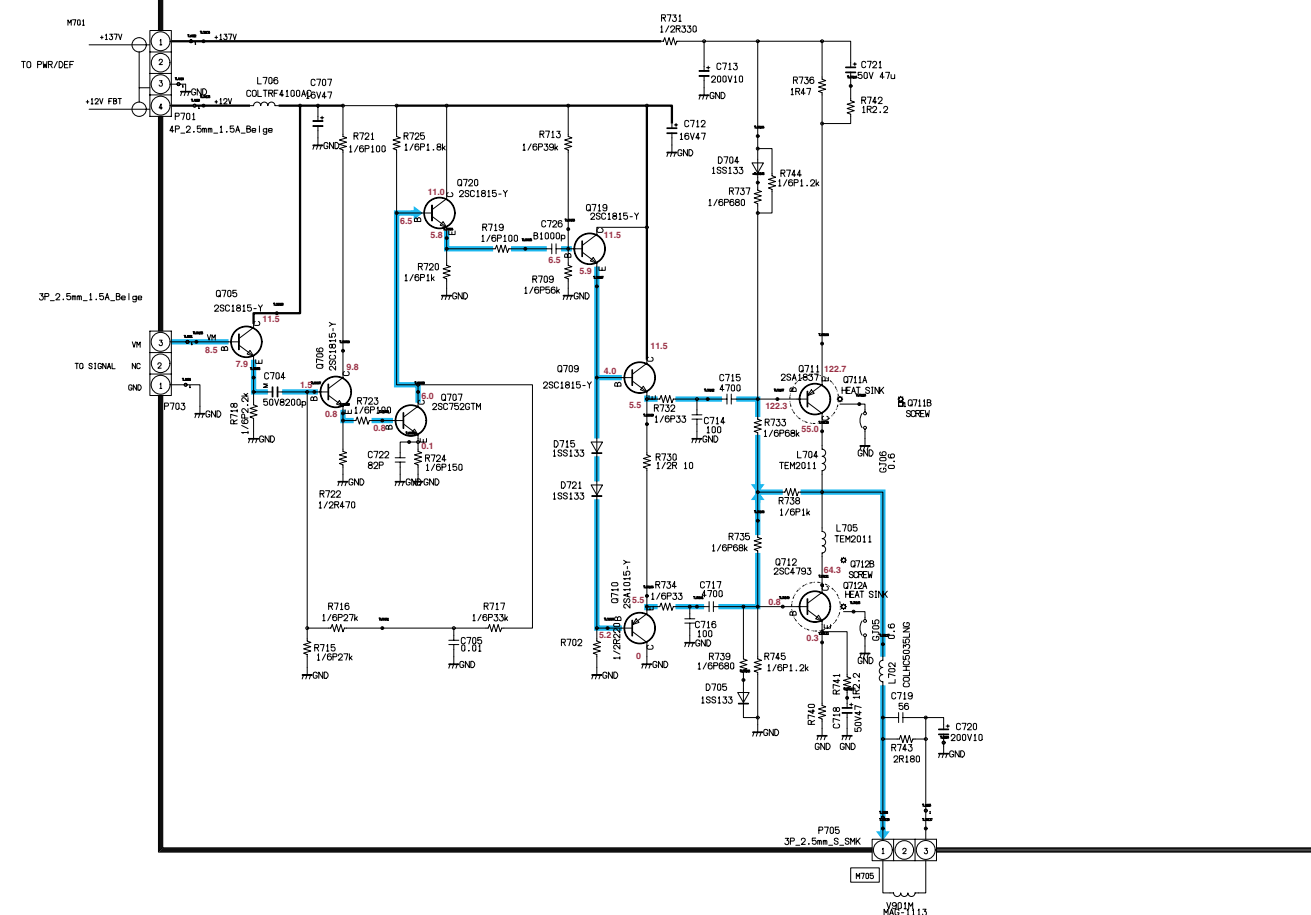
B

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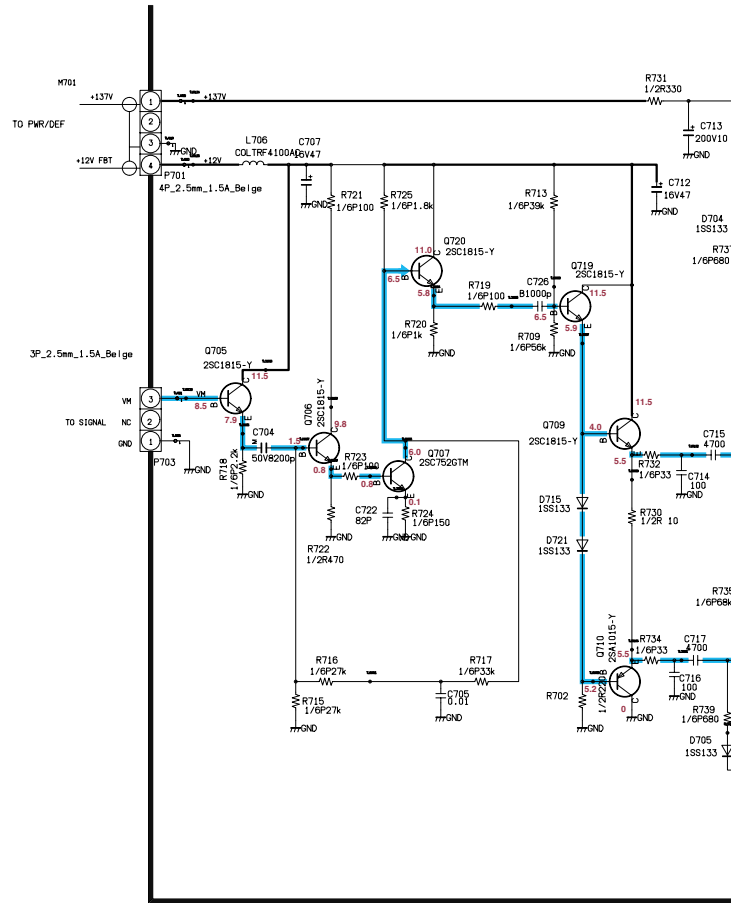
B

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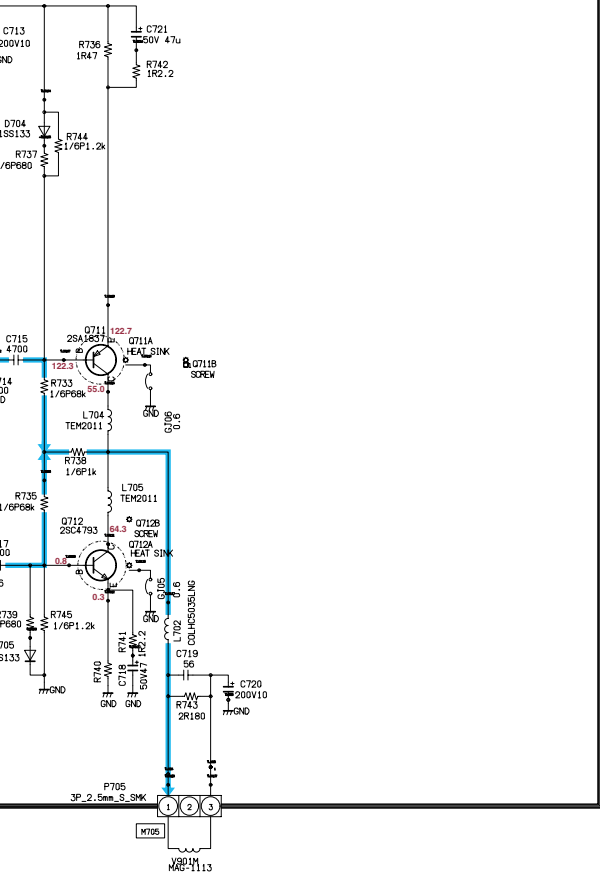


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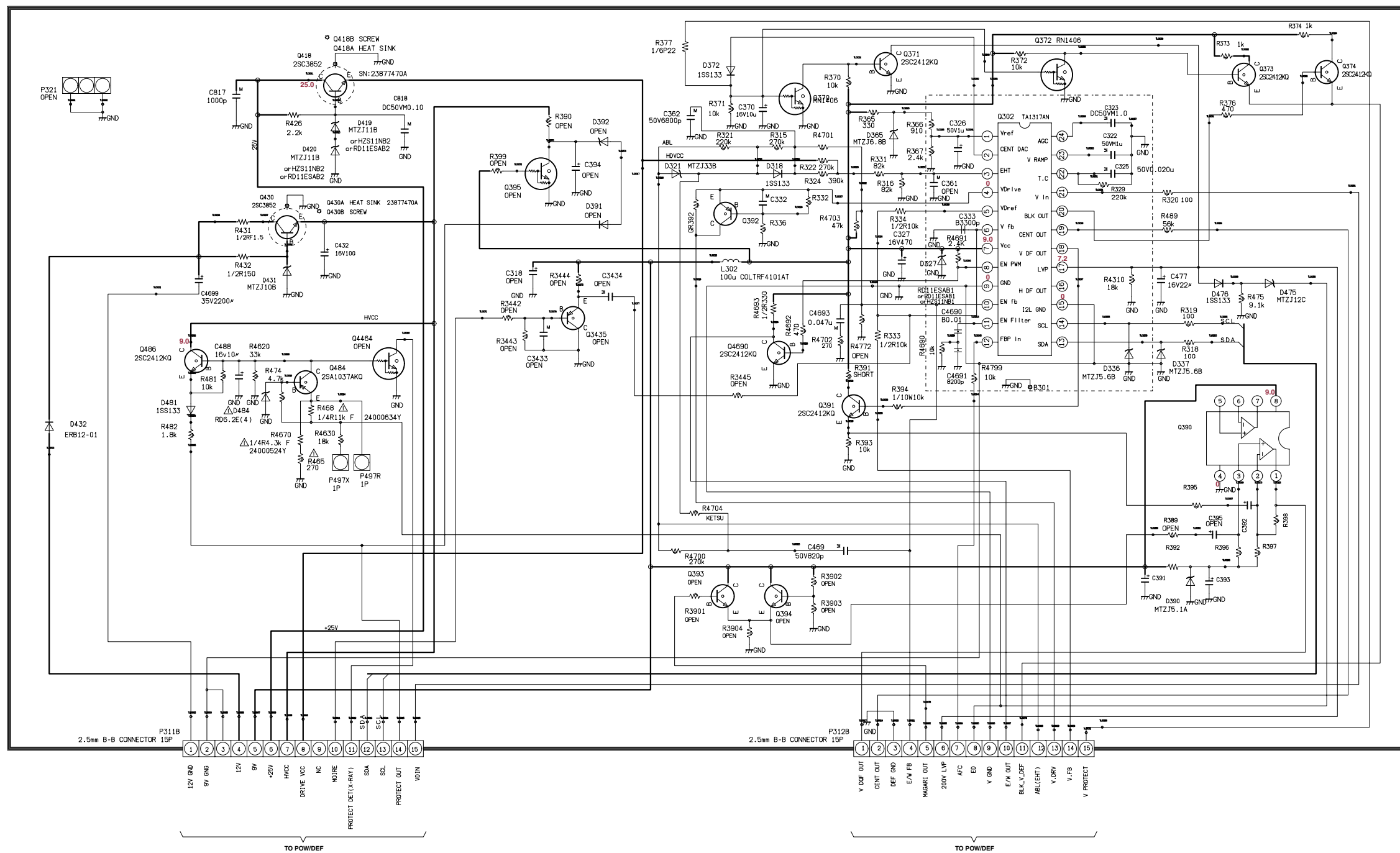
3

4



32HFX73
 36HFX73
 CRT-D_SVM_HF - SVM
 [SHEET-2/2]

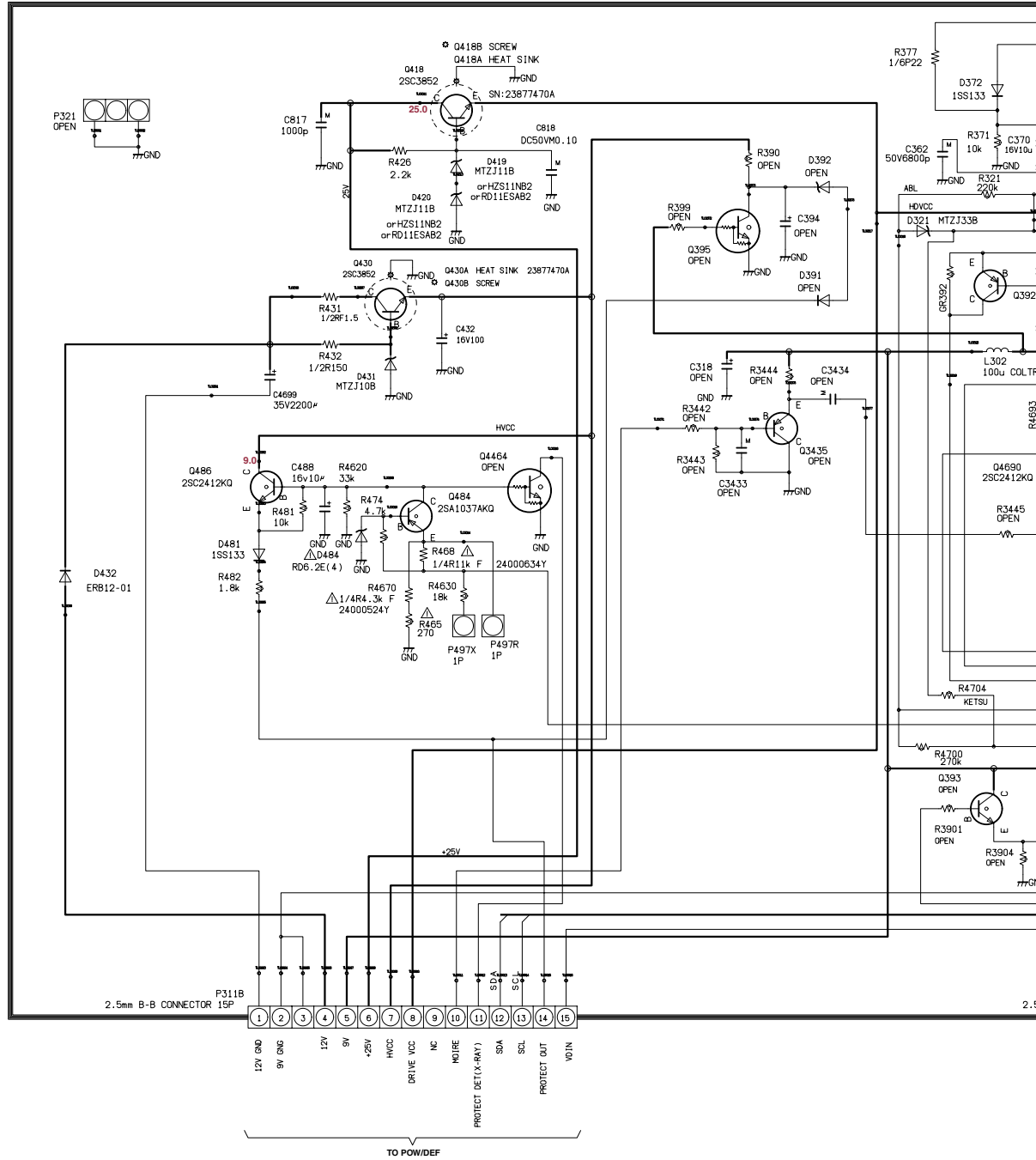
U903 VERTICAL

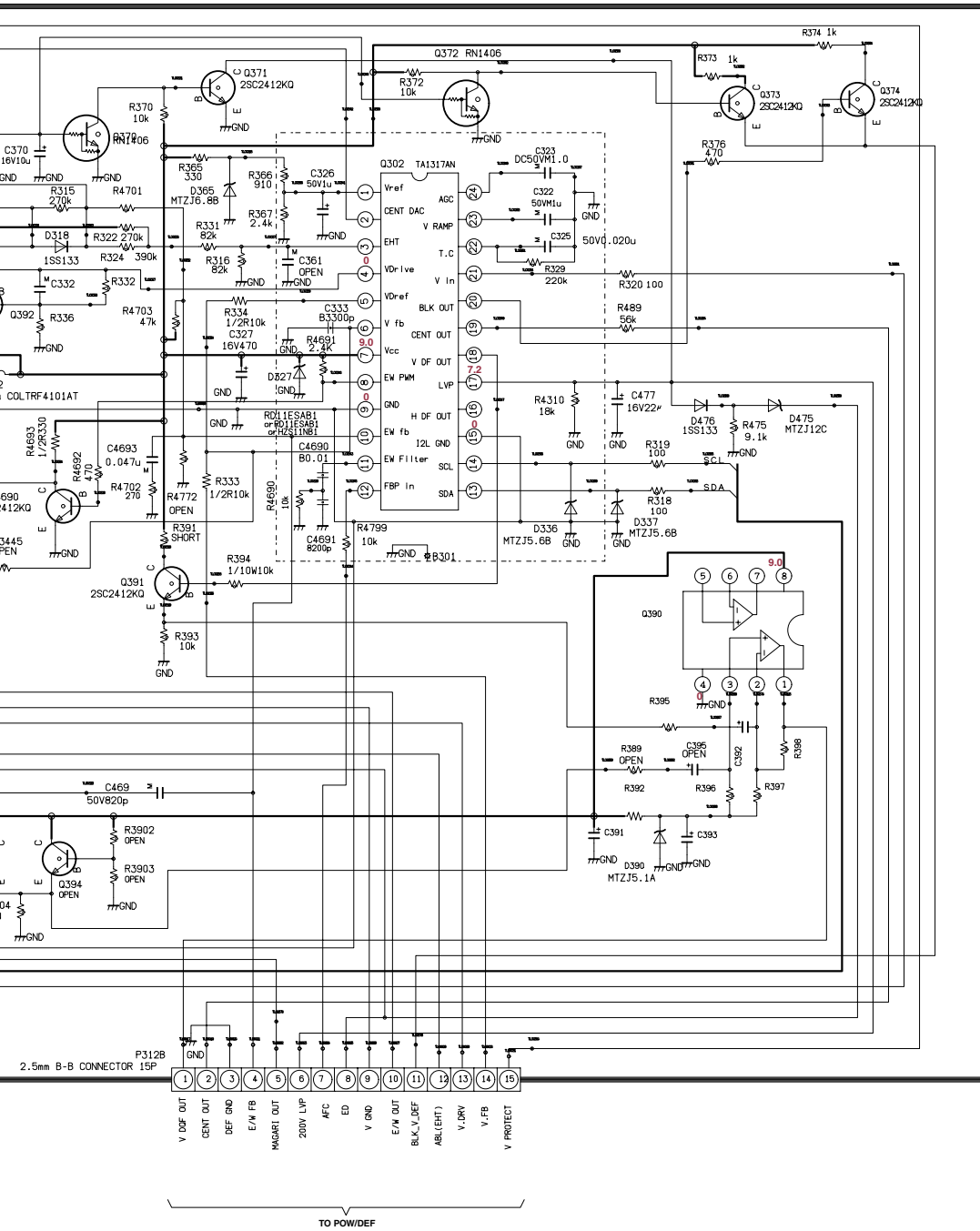


32HFX73
36HFX73
VERTICAL

U903 VERTICAL

A
B
C
D
E
F





32HFX73
 36HFX73
 VERTICAL

1

2

3

4

5

6

7

8

A

B

C

D

E

F

A

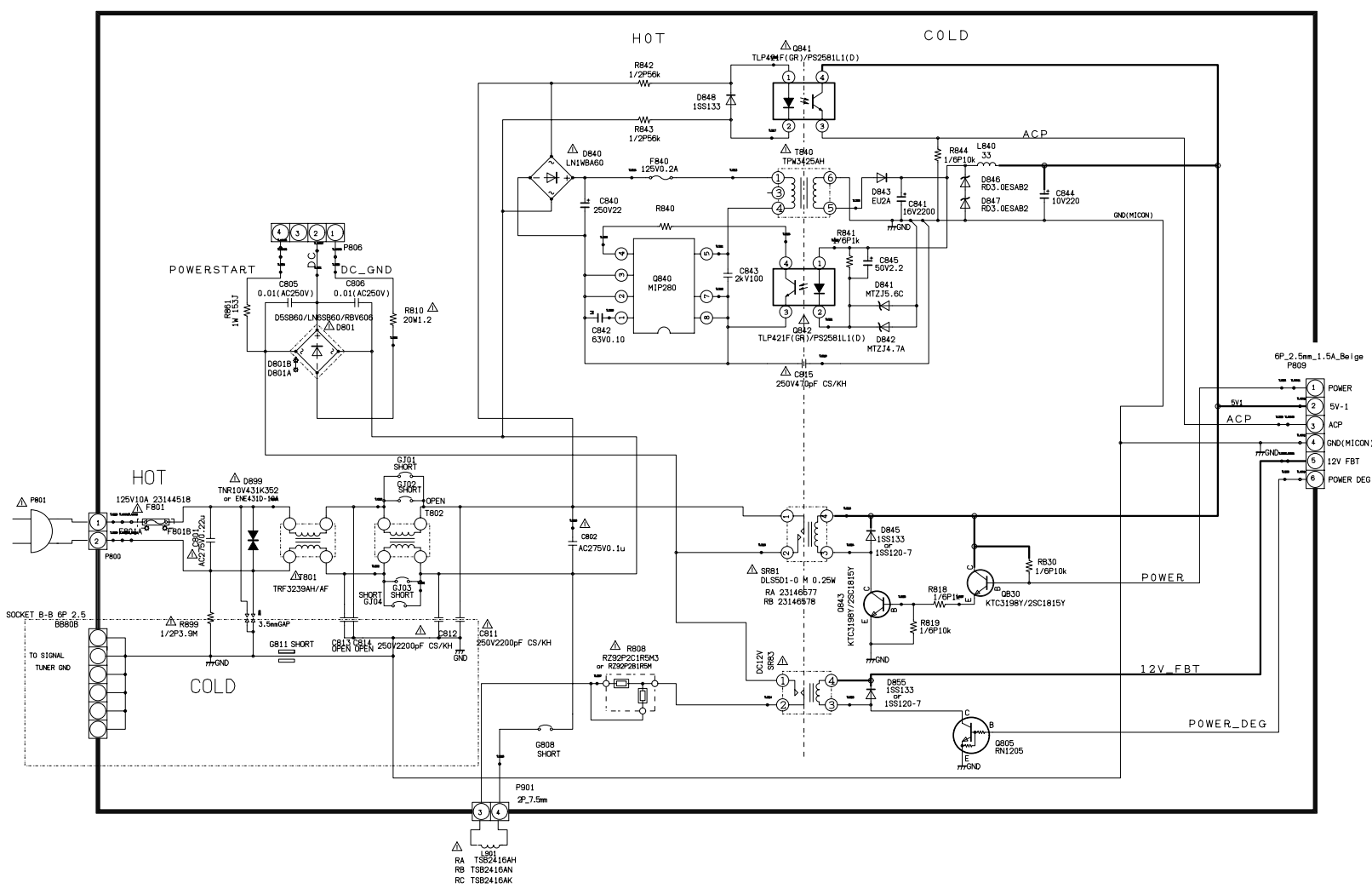
B

C

D

E

F



TO SIGNAL

32HFX73
 36HFX73
 AC INPUT

1

2

3

4

A

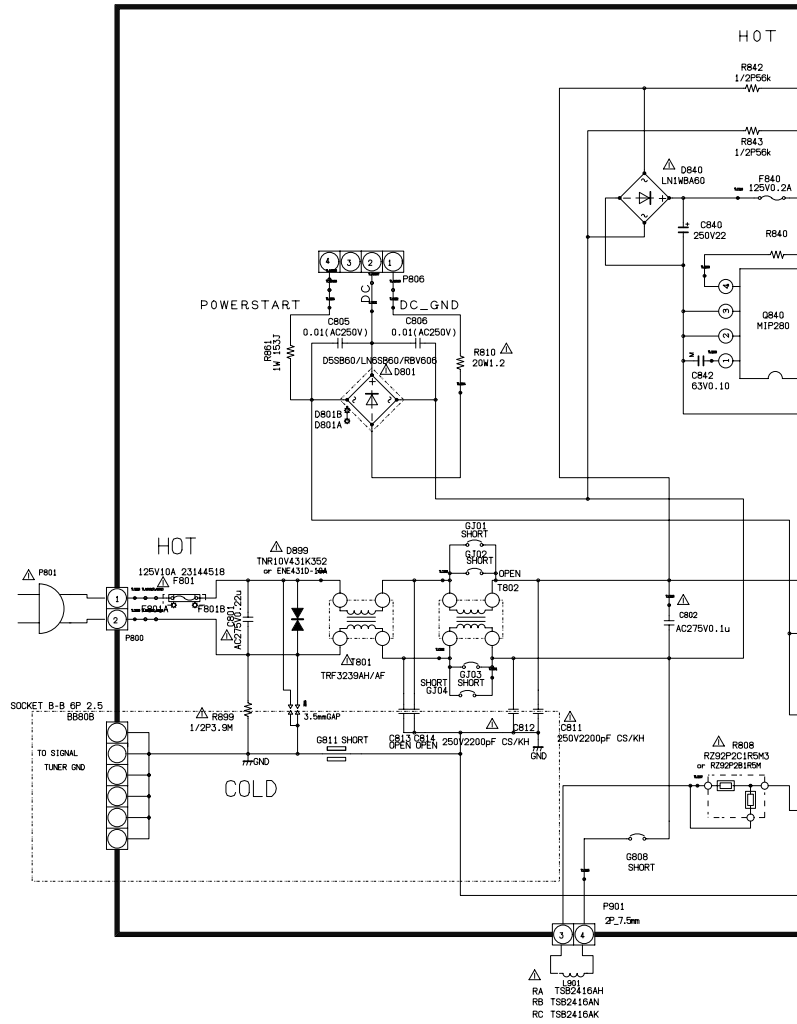
B

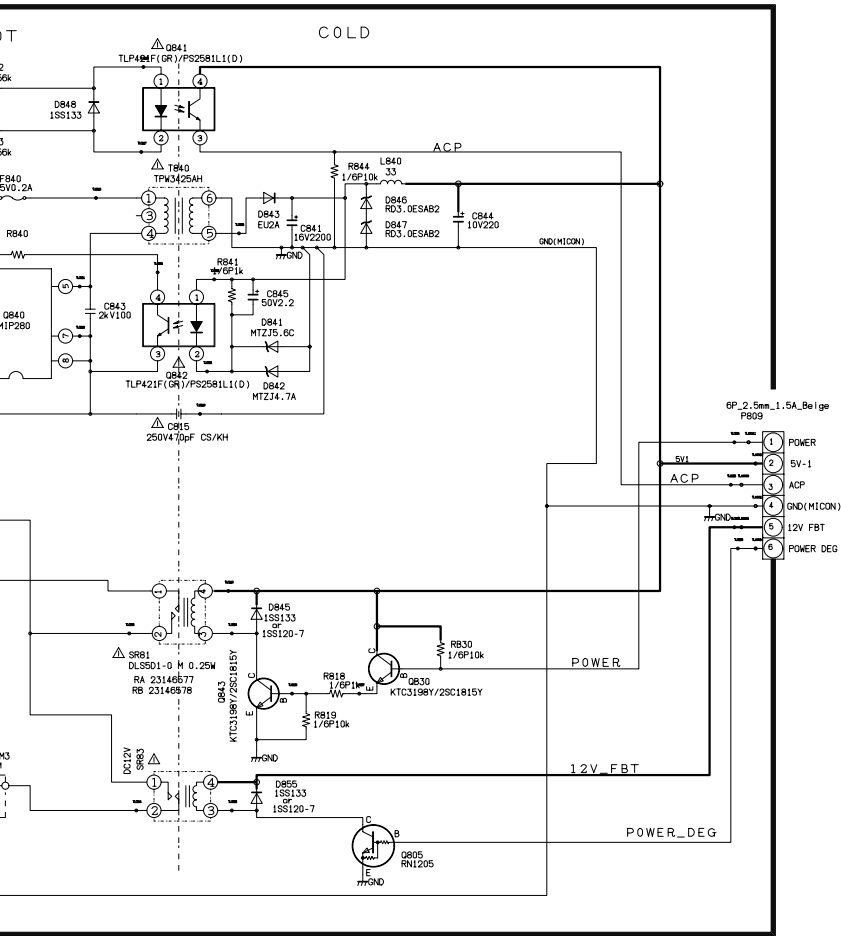
C

D

E

F





TO SIGNAL

32HFX73
 36HFX73
 AC INPUT

1

2

3

4

5

6

7

8

A

B

C

D

E

F

A

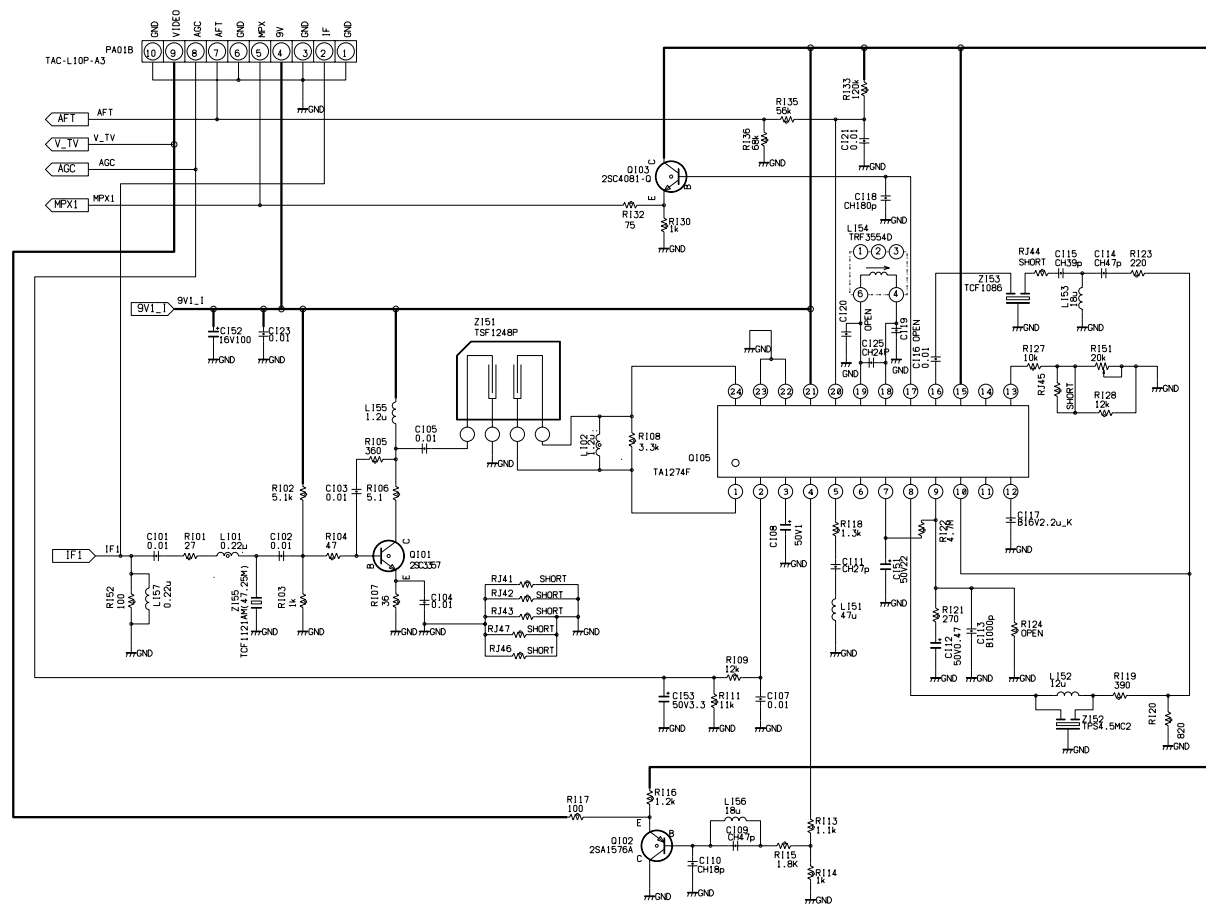
B

C

D

E

F



32HFX73
 36HFX73
 IF

1

2

3

4

A

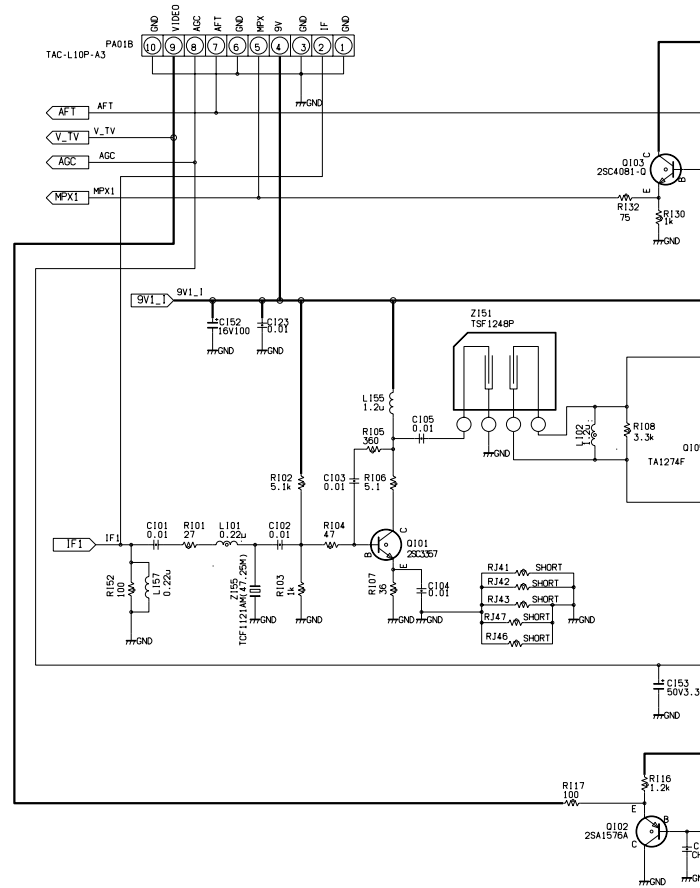
B

C

D

E

F

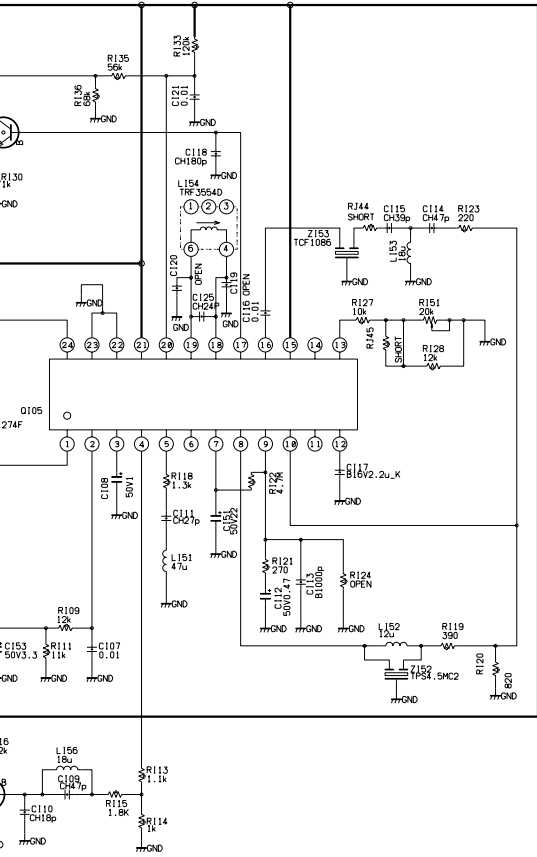


1

2

3

4



32HFX73
 36HFX73
 IF

1

2

3

4

A

B

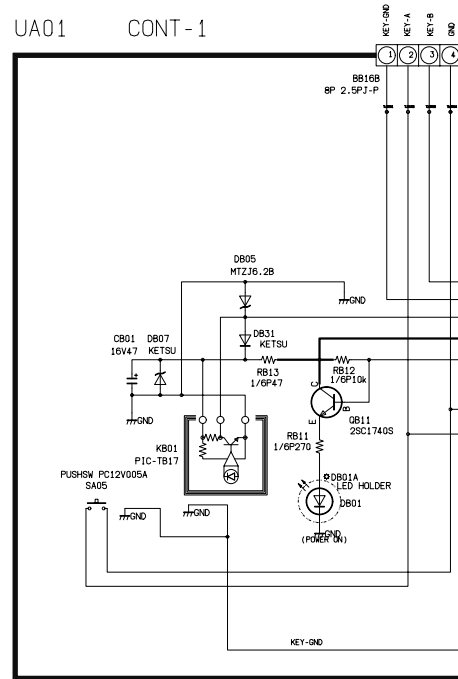
C

D

E

F

UA01 CONT - 1

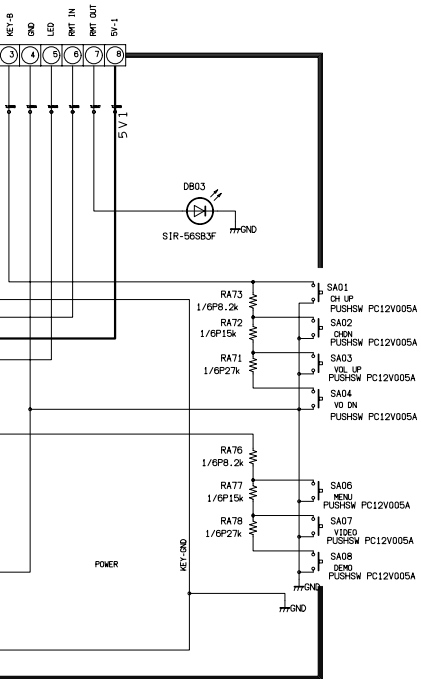


1

2

3

4



32HFX73
 36HFX73
 CONTROL-1

1 2 3 4 5 6 7 8

A

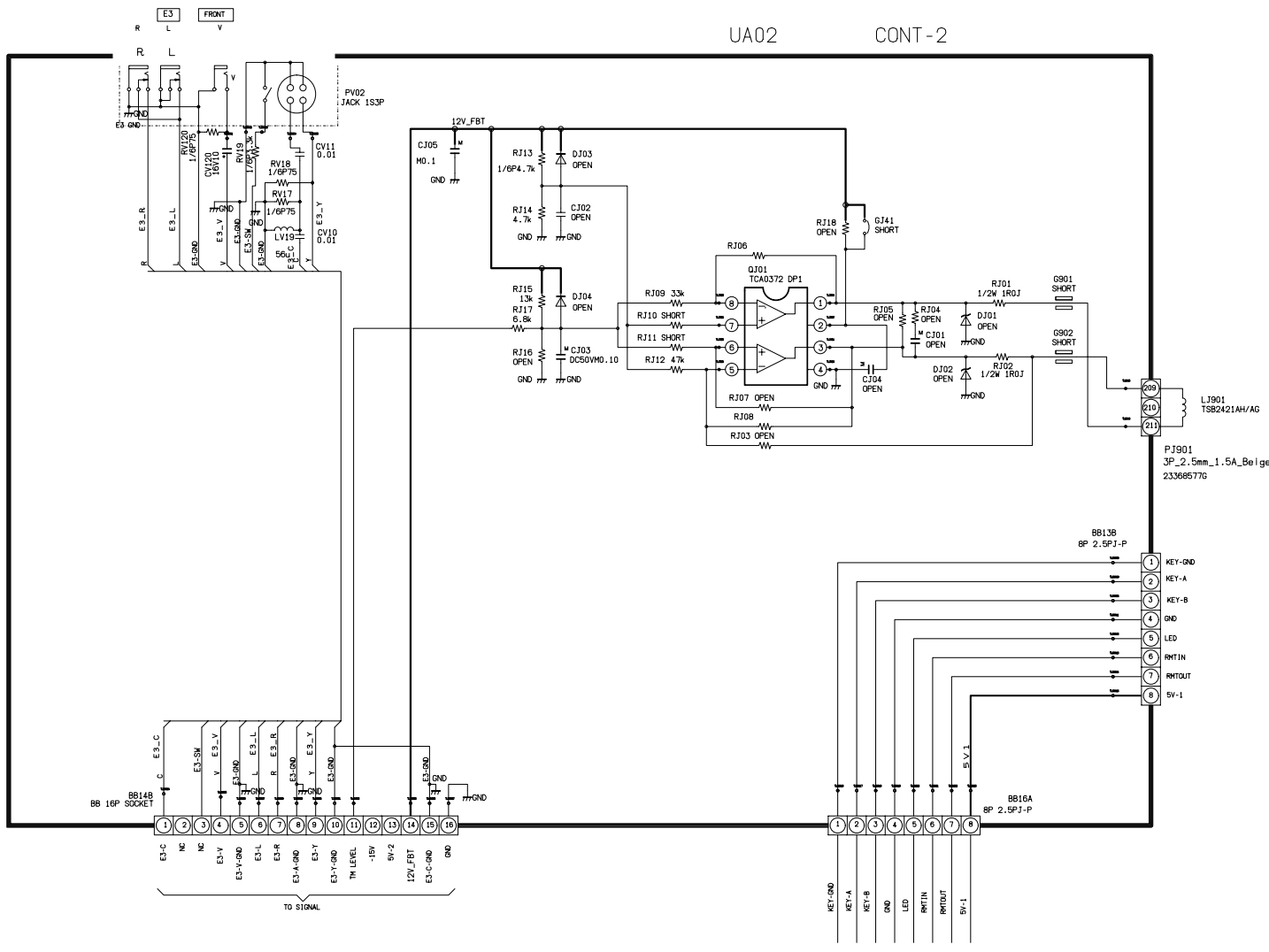
B

C

D

E

F



32HFX73
 36HFX73
 CONTROL-2

1 2 3 4 5 6 7 8

1

2

3

4

A

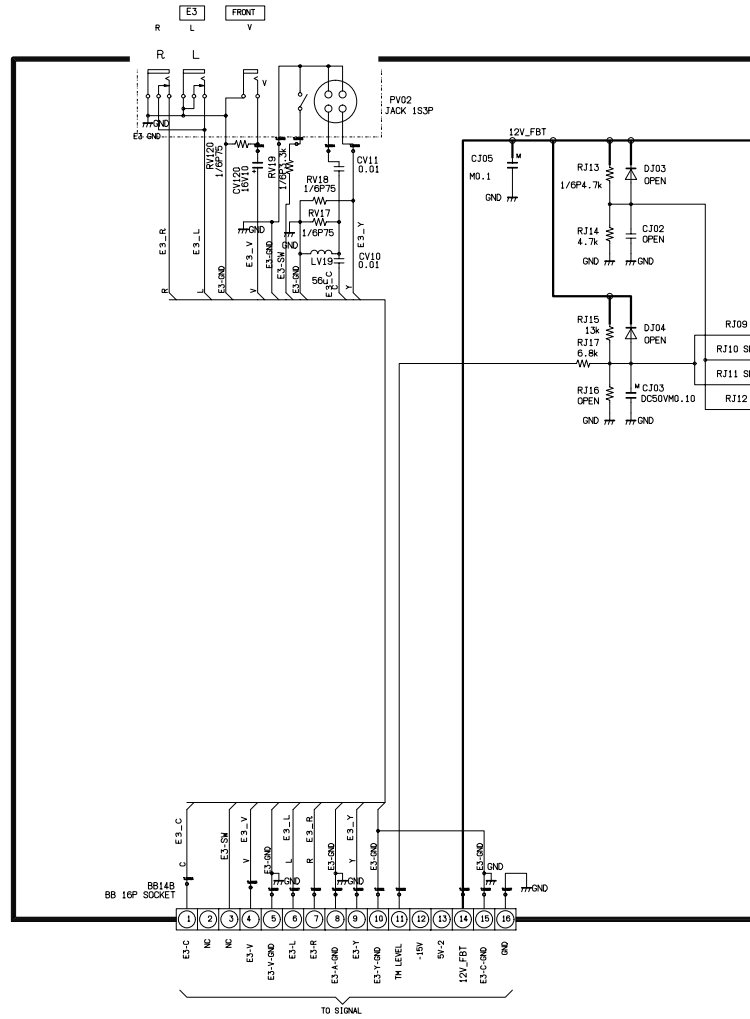
B

C

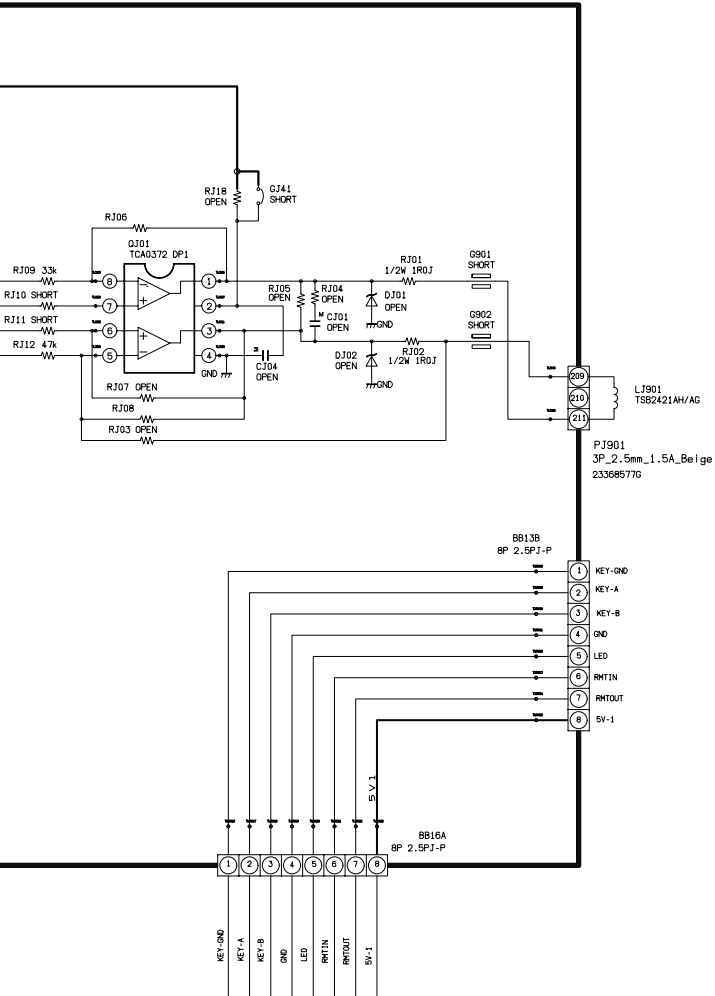
D

E

F



UA02 CONT-2



32HFX73
36HFX73
CONTROL-2