
5. Schematic Diagrams

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Note

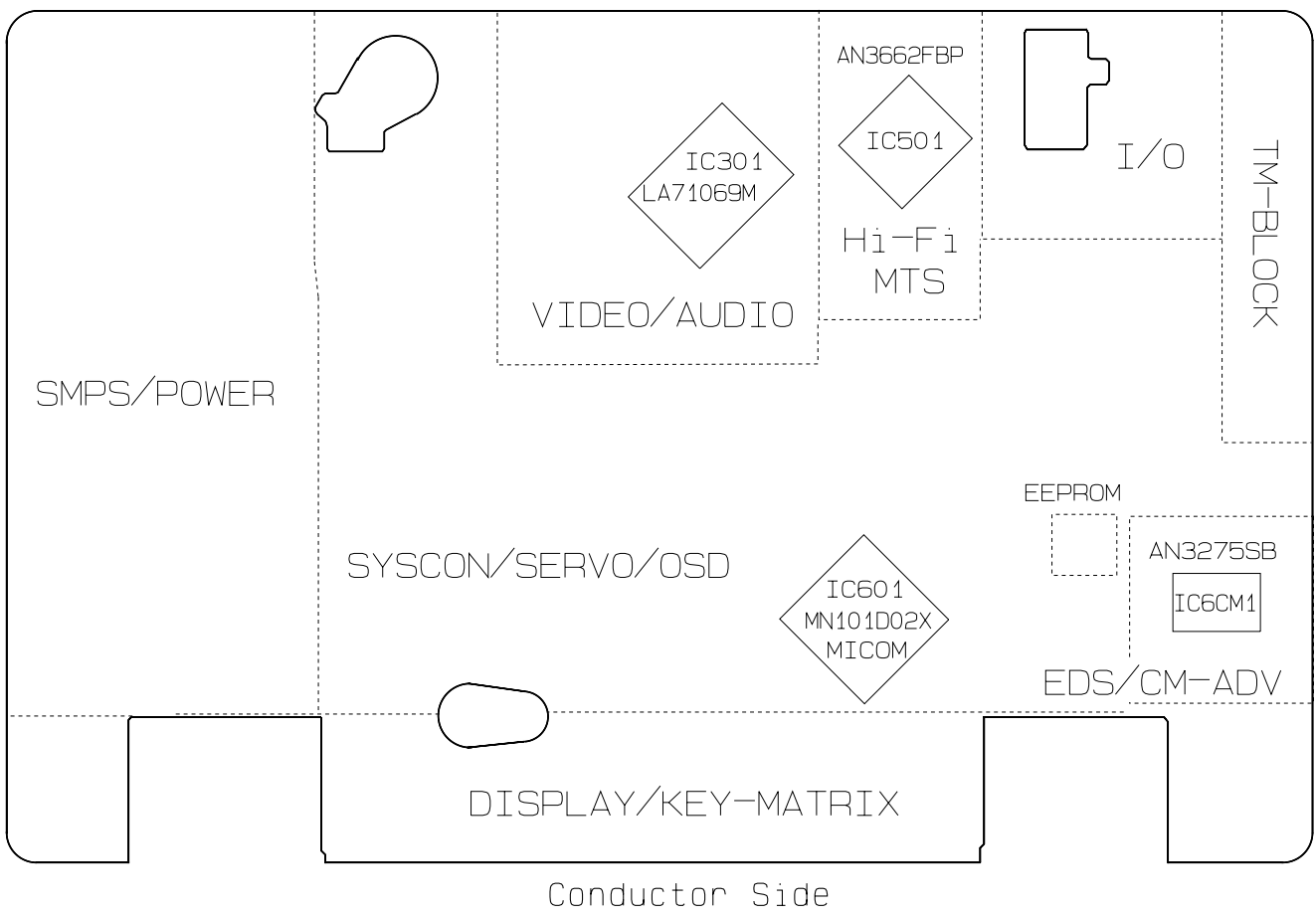
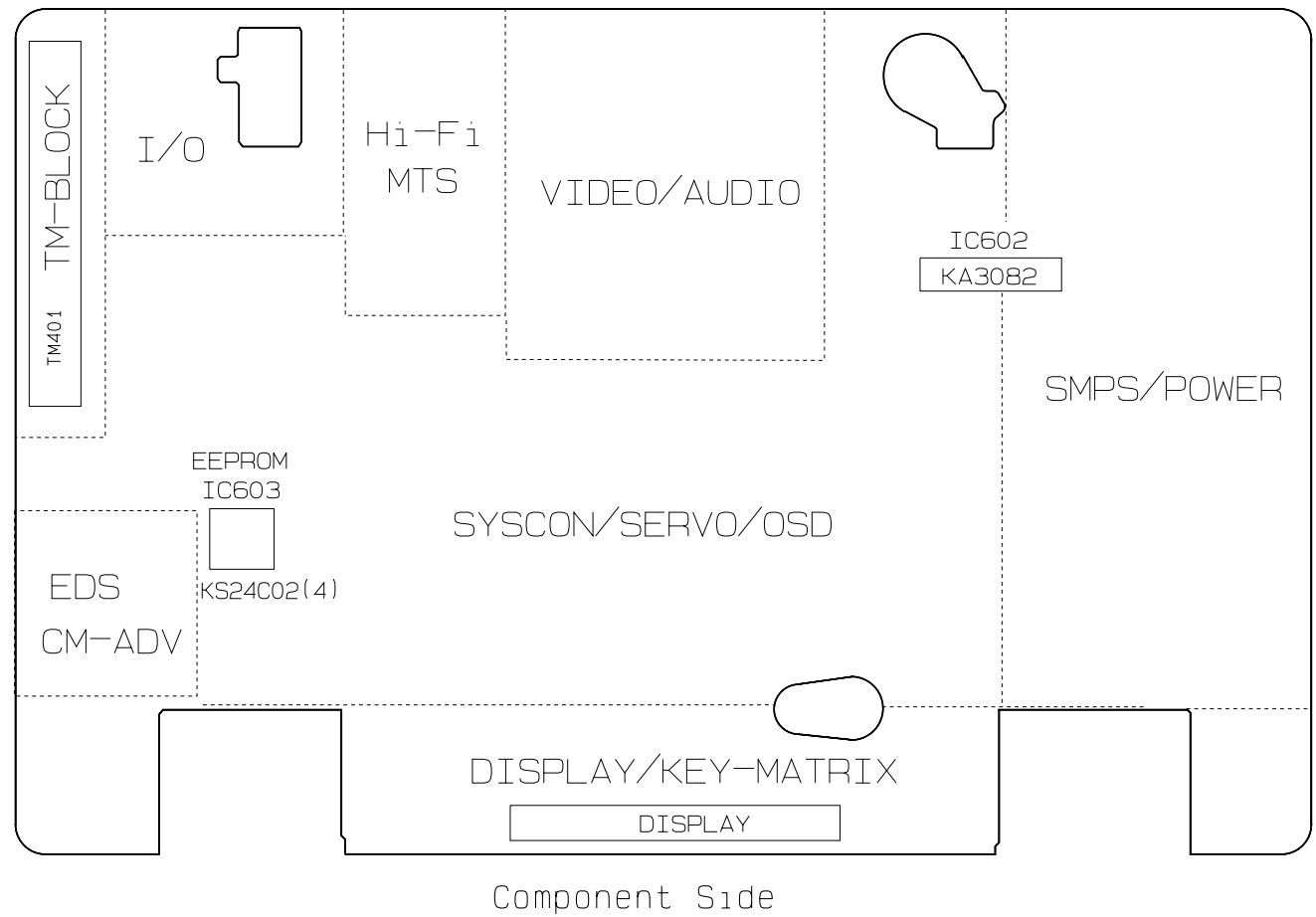
For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.

Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the “electrostatically sensitive (ES) devices” section of this service manual.

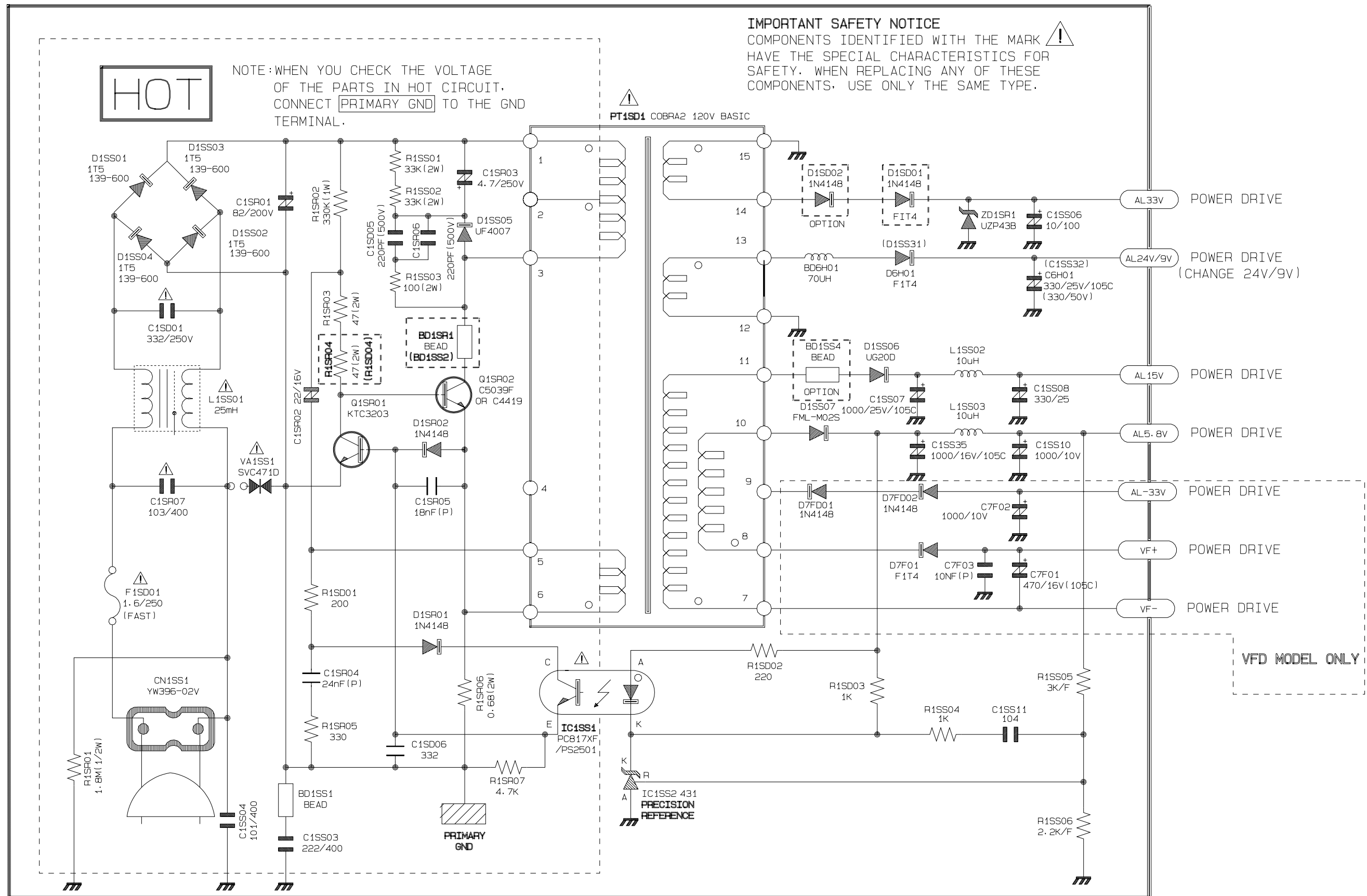
Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components. Use only the same type.

Block Identification of Main PCB

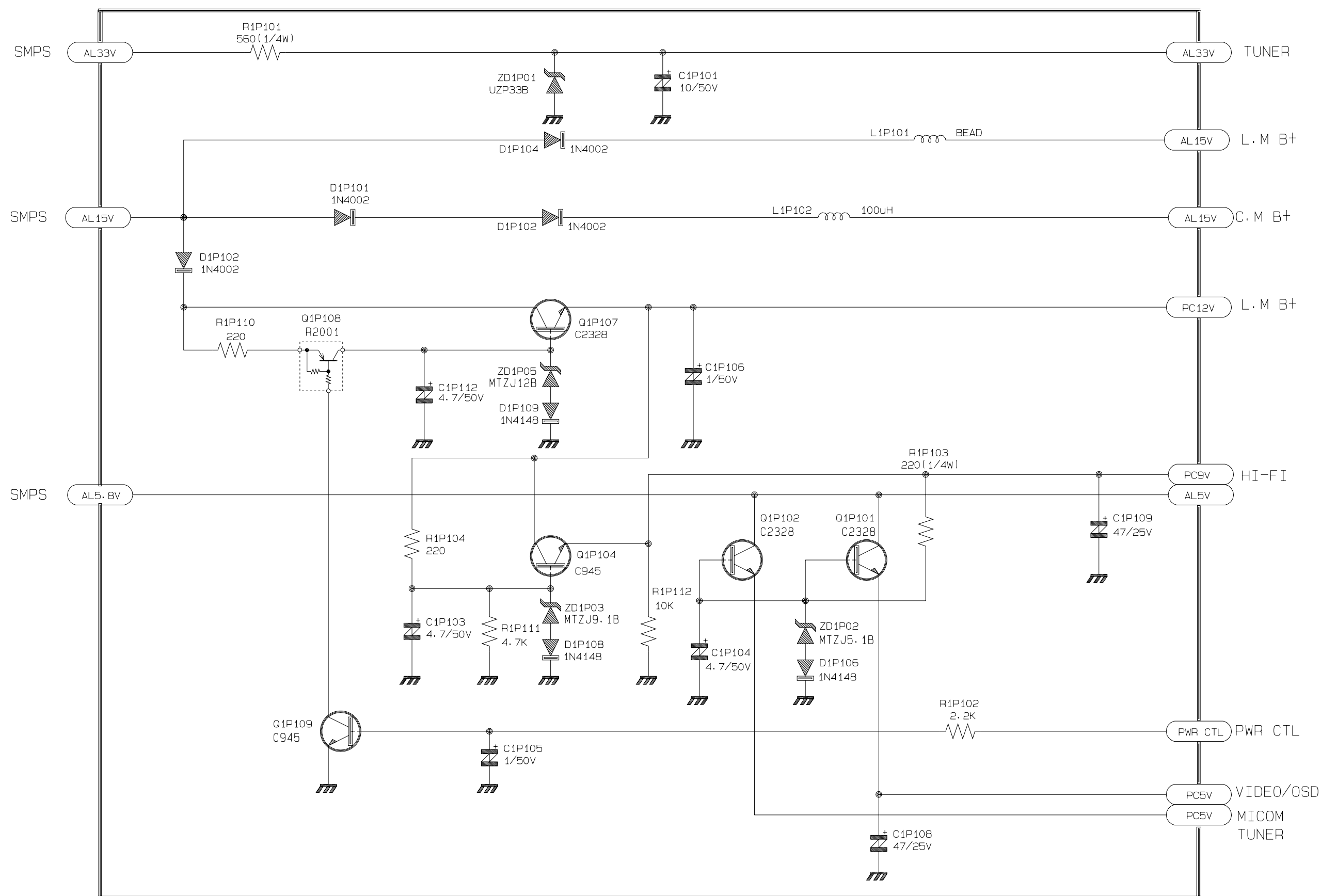


5-1 S.M.P.S. (120 Voltage)

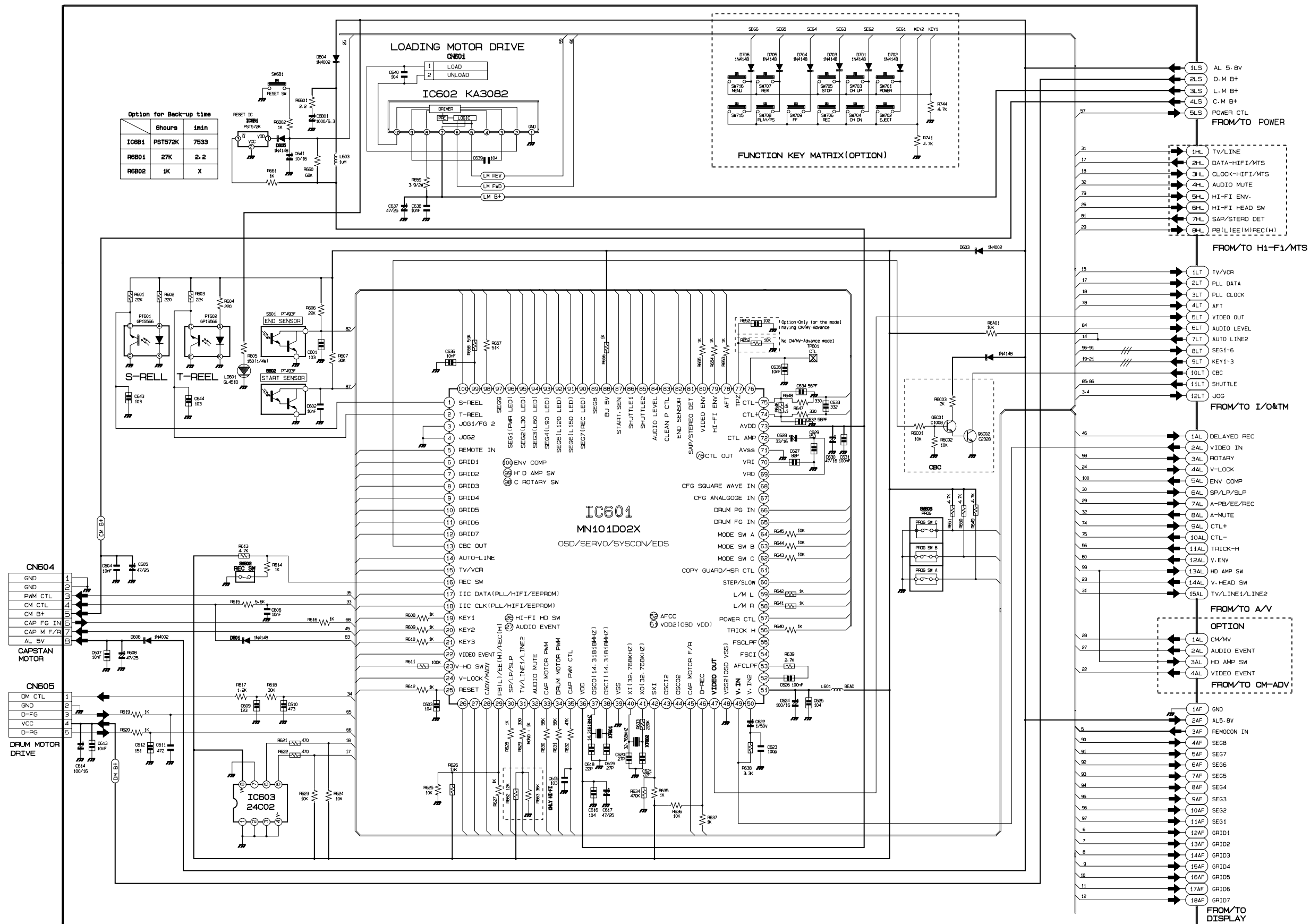


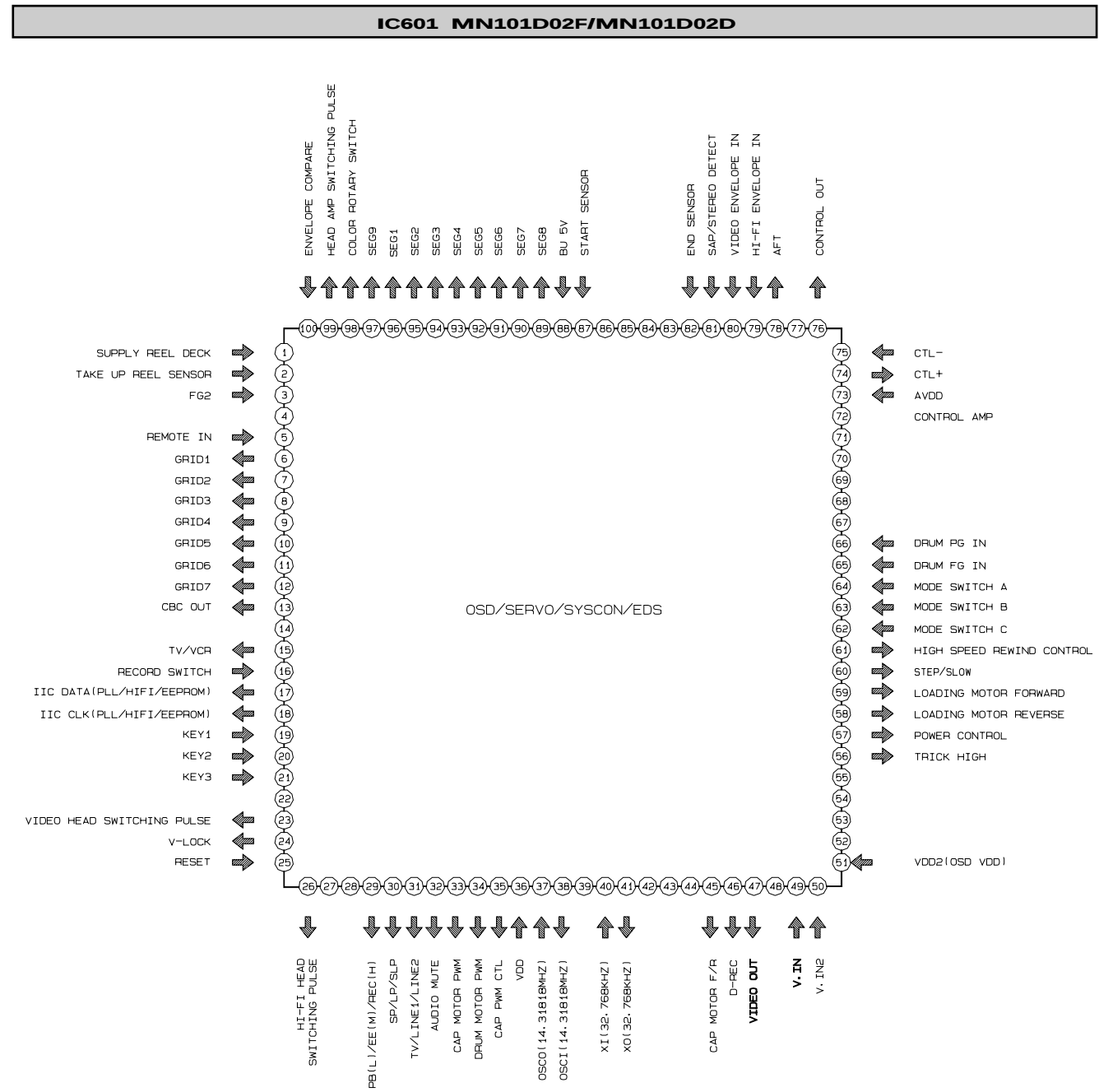


5-4 Power (SV-D95UM/D95UMA/D95UMV/D45UM/D45UMA/D45UMV/D55UP/D45UP/D45UPA/D45UPV/D95P/D95PA/D95PV/D45P/D45PA/D45PV/D55P/D23P/D15B/D15M/SP-D15G)



5-5 Logic





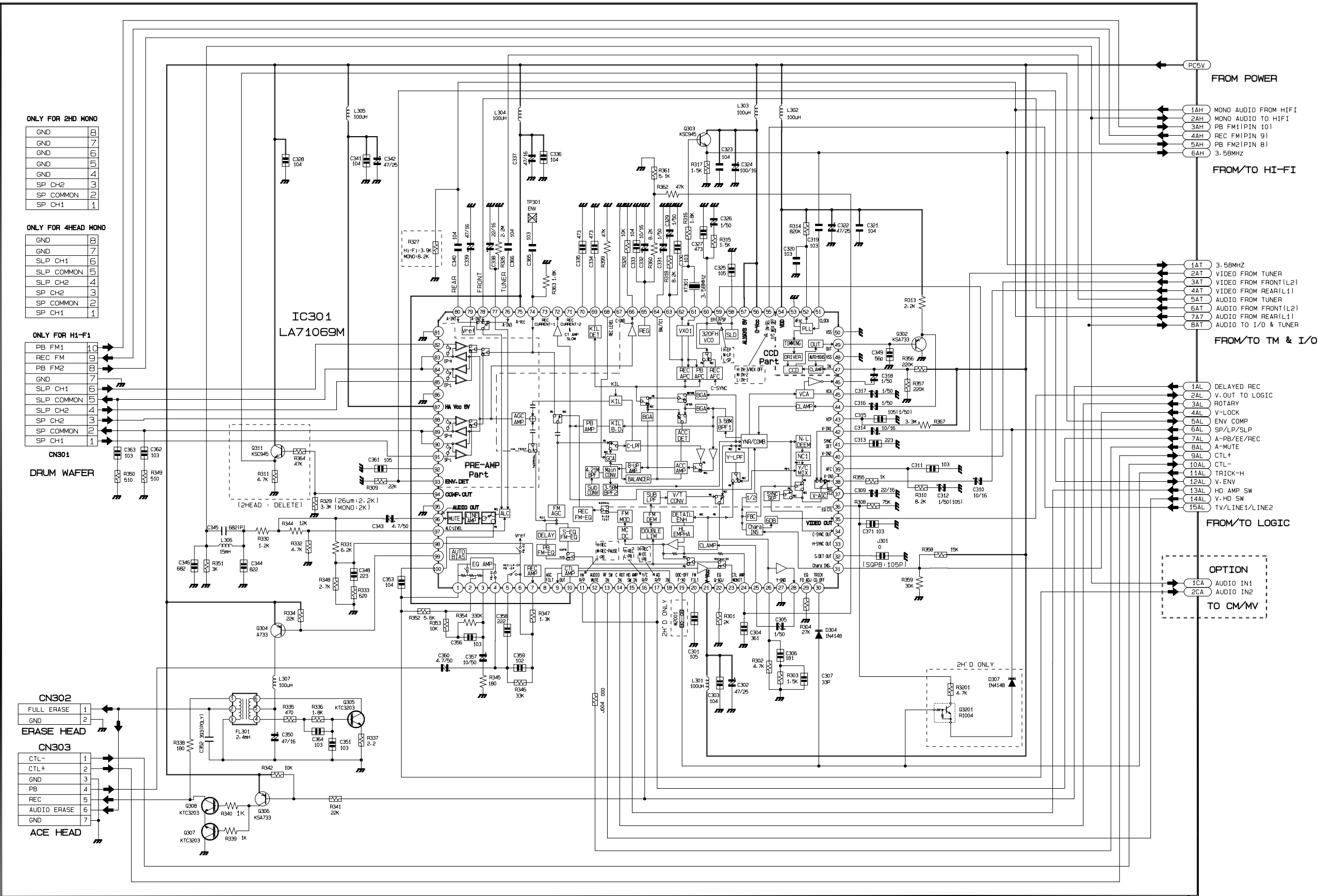
IC601 VOLTAGE TABLE

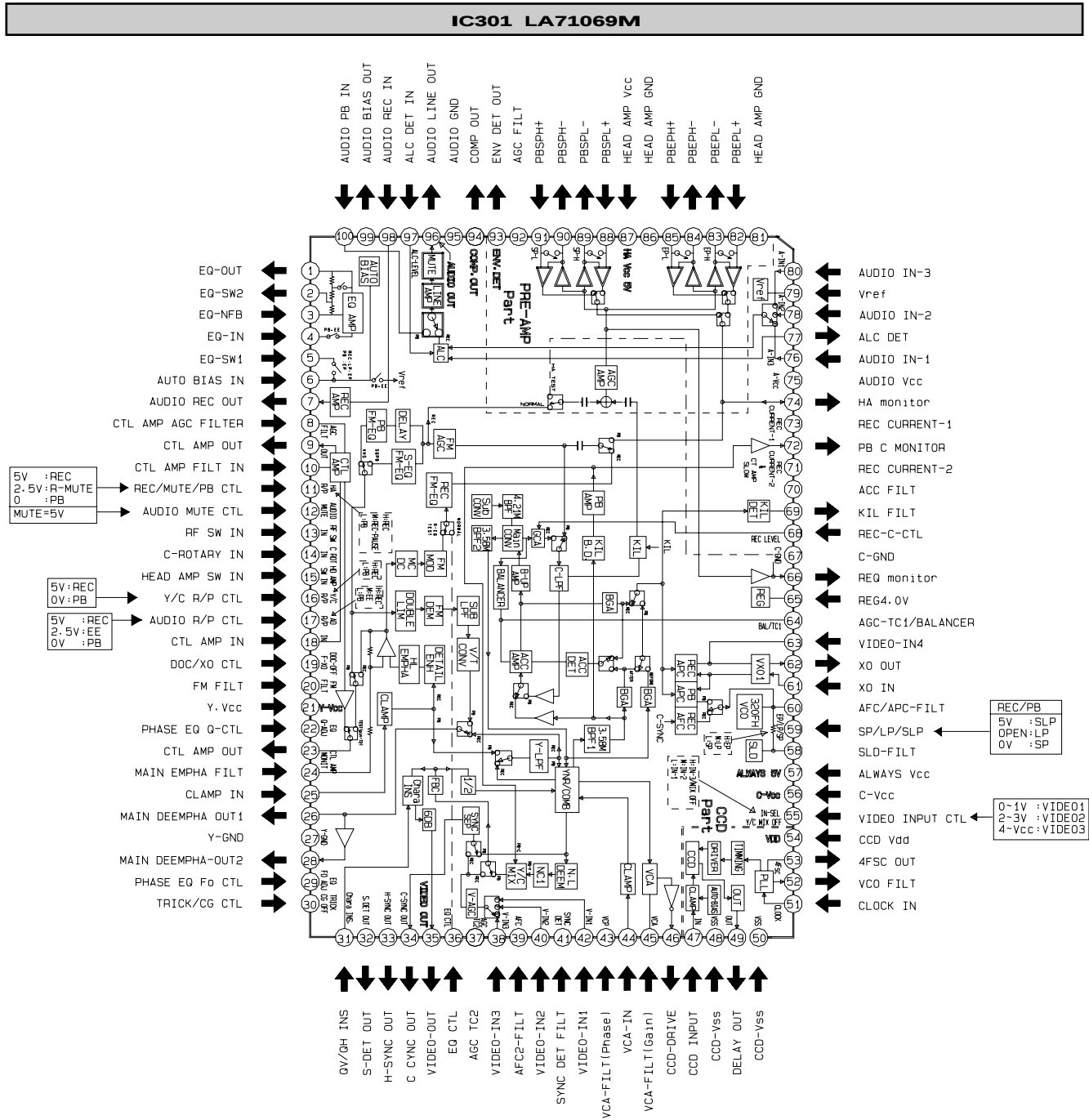
* These values are measured with a Hi-Fi standard tape.
* 5p-p means 5 volts peak to peak. It's a kind of data or clock wave form.
* The value under 0.5 volt is regarded as 0 volt.

Unit : Volt

Pin No.	Power Off	Stop(EE)	Play	Pin No.	Power Off	Stop(EE)	Play	Pin No.	Power Off	Stop(EE)	Play	Pin No.	Power Off	Stop(EE)	Play		
1	0	5 or 0	5p-p	26	5	5	5p-p	51	5	5	5	76	2.5	2.5	0		
2	0	5 or 0	5p-p	27	0	0	0	52	2.8	2.8	2.8	77	0	2.5	0		
3	0	0	0	28	0	0	0	53	2.5	2.5	2.5	78	0	0	0		
4	0	0	0	29	PB:1.3, EE:2.2, REC:5			54	0	0	0	79	0	5	2.5		
5	None input : 5, Any input : 5p-p			30	SP:0, LP:0, SLP:0			55	0	0	0	80	0	0	3		
6	5p-p data for LED display			31	0	0	0	56	0	0	0	81	0	2.2p-p	2.2p-p		
7				32	2	5	0	57	5	5	5	82	5	5	5		
8				33	5	5	5p-p	58	5	5	5	83	0	0	0		
9				34	0	5p-p	5p-p	59	5	5	5	84	0	0	0		
10				35	0	0	5p-p	60	0	0	0	85	0	0	0		
11				36	5	5	5	61	0	0	0	86	0	0	0		
12				37	Clock data			62	0	0	0	87	5	5	5		
13	0	0	0	38				63	0	5	5	88	5	5	5		
14	5V when the front video jack is inerted			39	0	0	0	64	0	0	0	89	5p-p data for LED display				
15	5	VCR:5, TV:0		40	Clock data			65	0	5p-p	5p-p	90					
16	Safety Tab, YES:5, NO:0			41				66	0	5p-p	5p-p	91					
17	5p-p for Hi-Fi/EEPROM/PLL data,clock			42	5	5	5	67	0	5	5p-p	92					
18				43	0	0	5p-p	68	0	0	0	93					
19	0	0	0	44	0	0	5p-p	69	2.5	2.5	2.5	94					
20	0	0	0	45	5	5	0	70	2.5	2.5	2.5	95					
21	0	0	0	46	5	5	0	71	0	0	0	96					
22	0	0	0	47	Video out signal			72	2.5	2.5	2.5	97					
23	0	5p-p	5p-p	48	0	0	0	73	5	5	5	98	0	5p-p	5p-p		
24	0	0	0	49	Video input signal			74	2.5	2.5	2.5	99	0	5	0		
25	5	5	5	50				75	2.5	2.5	2.5	100	0	1	0		

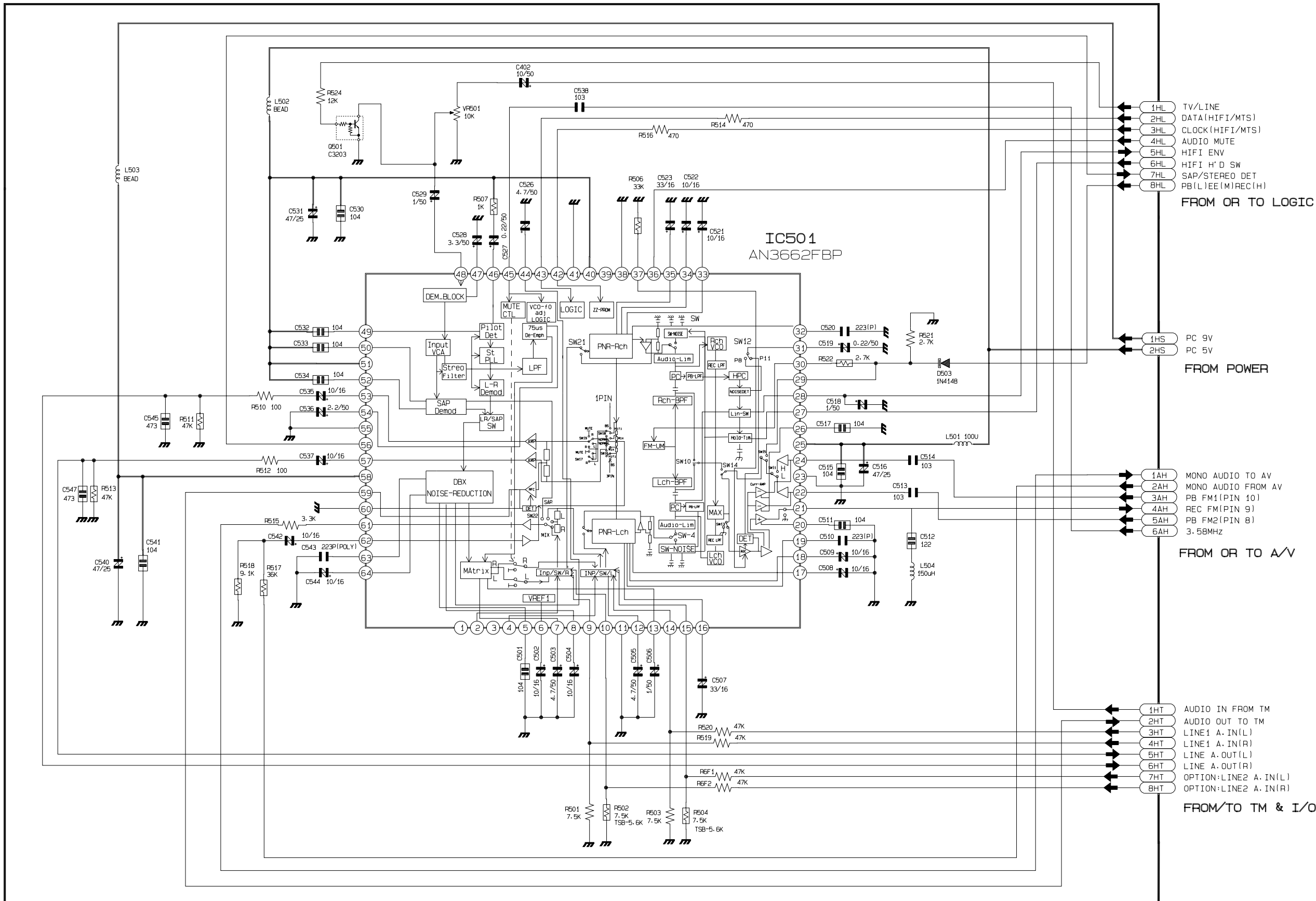
5-6 Audio/Video





IC301 VOLTAGE TABLE													Unit : Volt		
Pin No.	Power Off	Stop(E)	Play	Pin No.	Power Off	Stop(E)	Play	Pin No.	Power Off	Stop(E)	Play	Pin No.	Power Off	Stop(E)	Play
1	2.5	2.5	2.5	25	3	3	3	51	0	0.8	0.8	76	Audio from TM-block		
2	2.5	2.5	2.5	26	2.2	2	2.2	52	0.8	2.3	2.3	77	0	0	0
3	2.5	2.5	2.5	27	0	0	0	53	0	0	0	78	Audio from L2(front)		
4	2.5	2.5	2.5	28	1.2	1.6	1.6	54	1	5	5	79	0	2.4	2.4
5	0	0	0	29	0	1	1	55	0	0.3	0.3	80	Audio from L1(rear)		
6	2.5	2.5	2.5	30	0	0	0	56	1	5	5	81	0	0	0
7	2.5	2.5	2.5	32	0	0	0	57	1	5	5	82	0	0.7	0.7
8	1.8	1.8	1.8	33	0.4	5p-p	5p-p	58	1	3.6	3.6	83	0	0.7	0.7
9	0	0	0	34	0	5p-p	5p-p	59	0	0	0	84	0	0.7	0.7
10	5	5	5	35	0.8	Video Out	Video Out	60	0.9	3.8	3.8	85	0	0.7	0.7
11	2.2	3.1	0	36	0	1	1	61	0.5	4	4	86	0	0	0
12	5	5	0	37	1.3	1.3	1.3	62	0	2.7	2.7	87	0	5	5
13	0	0.8p-p	0.8p-p	38	Video from L1(rear)			63	0	2	2	88	0	4.4	1.8
14	0	0.8p-p	0.8p-p	39	0	3.5	3.5	64	0.7	2.2	2.2	89	0	4.4	1.8
15	0	0.8	0	40	Video from L2(front)			65	0	4	4	90	0	4.4	1.8
16	5	5	0.3	41	0	0.2	5	66	0	2	0	91	0	4.4	1.8
17	2.2	2.2	0	42	Video from TM-block			67	0	0	0	92	0.4	1.7	0.3
18	1.8	1.8	1.8	43	0.9	3.7	3.3	68	0.4	2.4	2.4	93	0	0	2.7
19	0	0	0	44	0.5	2.8	2.8	69	0	3.1	2	94	0	1.2	0
20	1.6	1.6	1.6	45	1	2.9	3	70	0.3	2.4	1.8	95	0	0	0
21	5	5	5	46	0.4	3	2.7	71	0.3	2.4	2.4	96	0	2.4	2.4
22	0.8	0.8	0.8	47	0.4	2.8	2.4	72	0.1	2.8	2.8	97	0	0	0
23	0.3	0.3	0.3	48	0	0	0	73	0.4	2.4	2.4	98	0	0	0
24	2.3	2.3	1.4	49	0.6	1.8	1.8	74	0	0	2	99	1	5	5
25	3	3	3	50	0	0	0	75	1	5	5	100	0	2.5	2.5

5-7 Hi-Fi/MTS

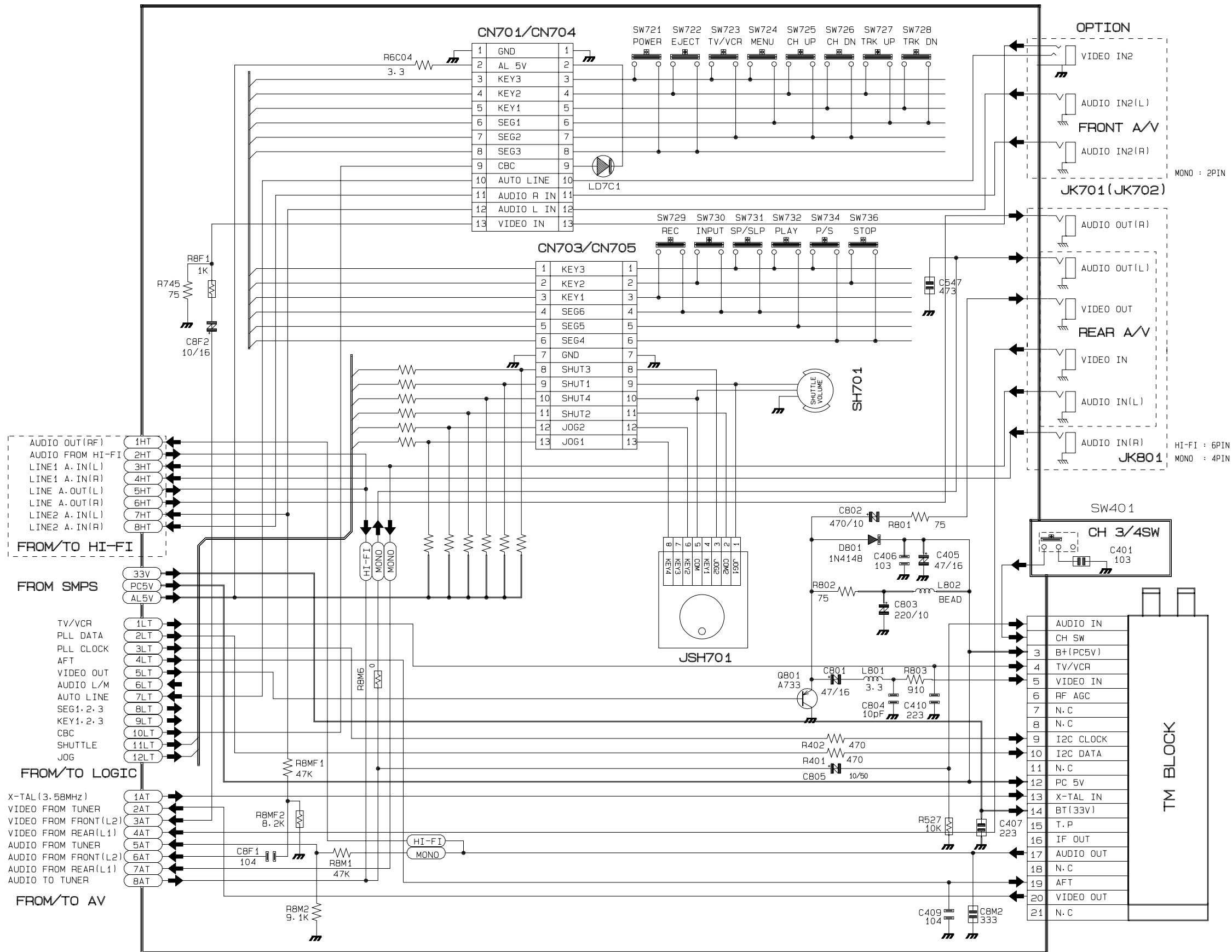


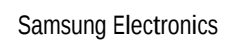
IC501 VOLTAGE TABLE



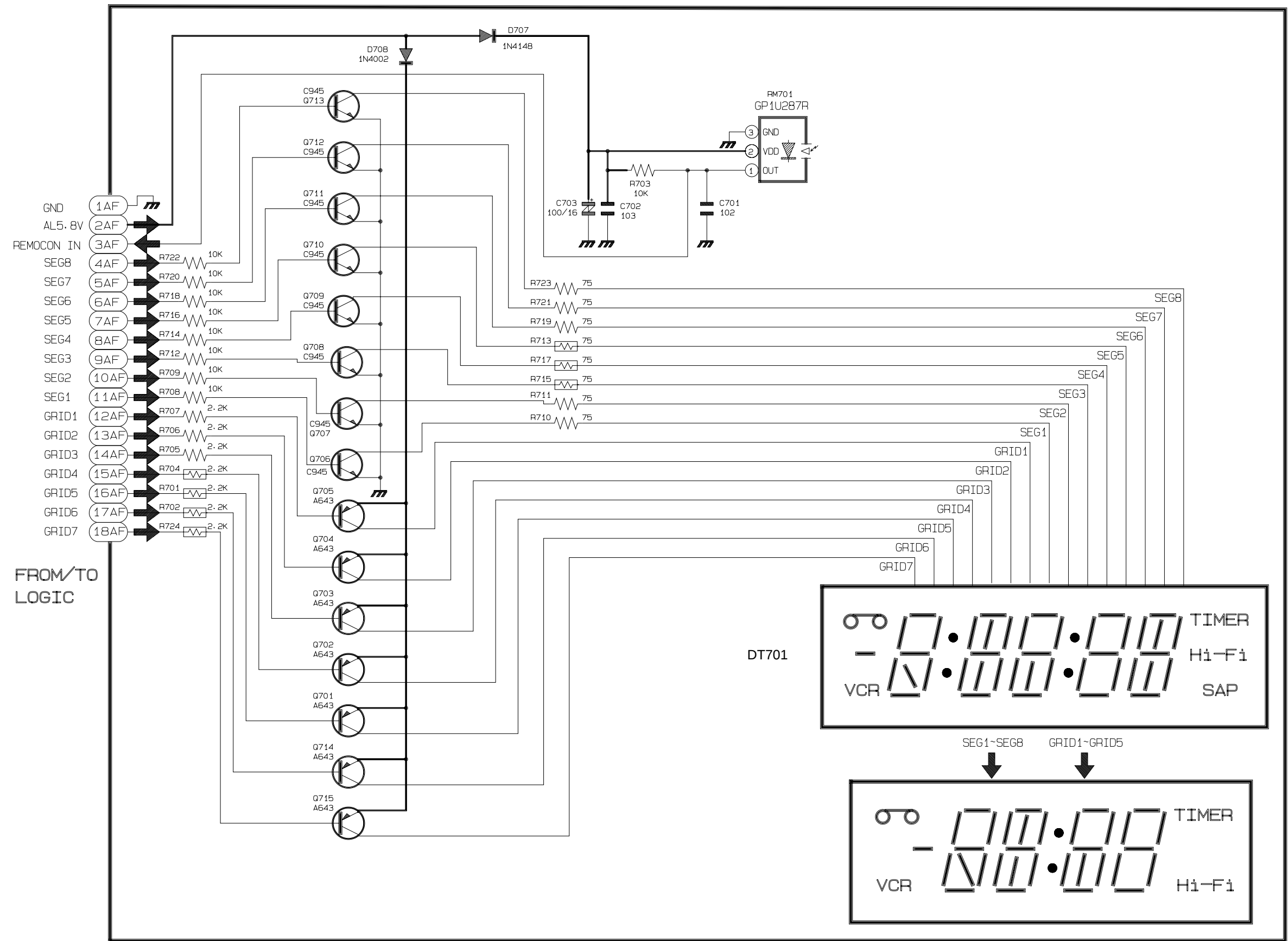
Pin No.	Power Off	Stop(EE)	Play	Pin No.	Power Off	Stop(EE)	Play	Pin No.	Power Off	Stop(EE)	Play	Pin No.	Power Off	Stop(EE)	Play
1	0.3	2.5	2.5	17	0.7	0.4	0.7	33	0.3	2.5	2.5	49	0	3.5	3.5
2	0	0	0	18	0.3	2.5	2.5	34	0.7	0.5	0.7	50	0	3	3
3	0.3	2.5	2.5	19	0.3	2.5	2.5	35	0.7	2.5	2.5	51	0	5	5
4	0	0	0	20	0	2.5	0	36	1.9	5	0	52	0	3.1	3.1
5	0.3	2.2	2.2	21	0	2.5	0	37	0	1.7	1.7	53	0	4.6	4.6
6	0.3	2.5	2.5	22	0	2.5	0.6	38	0	0	0	54	0.3	2.5	2.5
7	0.7	2.2	2.2	23	0	0	0	39	0	0	0	55	0	0	0
8	0.6	0.7	0.7	24	0	2.5	0.6	40	1	5	5	56	0	2p-p	2.2p-p
9	Audio R from rear jack (L1)			25	0	5	5	41	0	0	0	57	0	4.6	4.6
10	Audio R from front jack (option)			26	0	2.5	0	42	5p-p for Hi-Fi data, clock			58	0.3	9	9
11	0	0	0	27	5	5p-p	5p-p	43				59	Audio to TM-block		
12	0.7	2	2	28	0	4.4	4.4	44	0.4	2.4	2.4	60	0	0	0
13	0.3	2.3	2.3	29	0.7	1.9	1.9	45	0	0	0	61	0	2.5	2.5
14	Audio R from rear jack (L1)			30	0.3	0.9	0.9	46	0	3.7	3.7	62	0.3	2.5	2.5
15	Audio L from front jack (option)			31	0.1	0.1	0	47	0.7	1.6	1.6	63	0.3	2.3	2.3
16	0.7	2.5	2.5	32	0.3	2.5	2.5	48	Audio from TM-block			64	0.6	0.7	0.7

5-8 TM-Block/Input-Output (SV-D180UM/D180P)

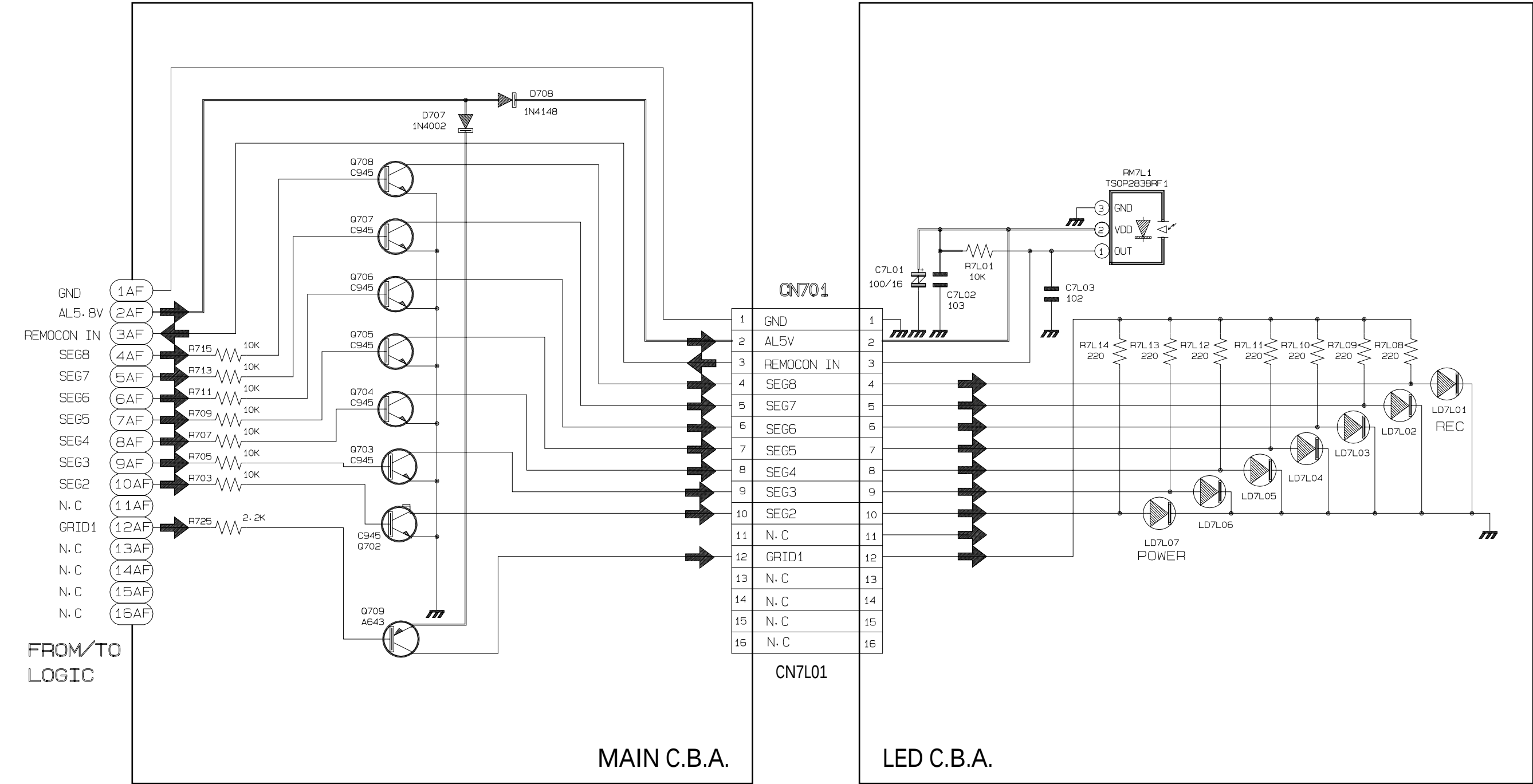




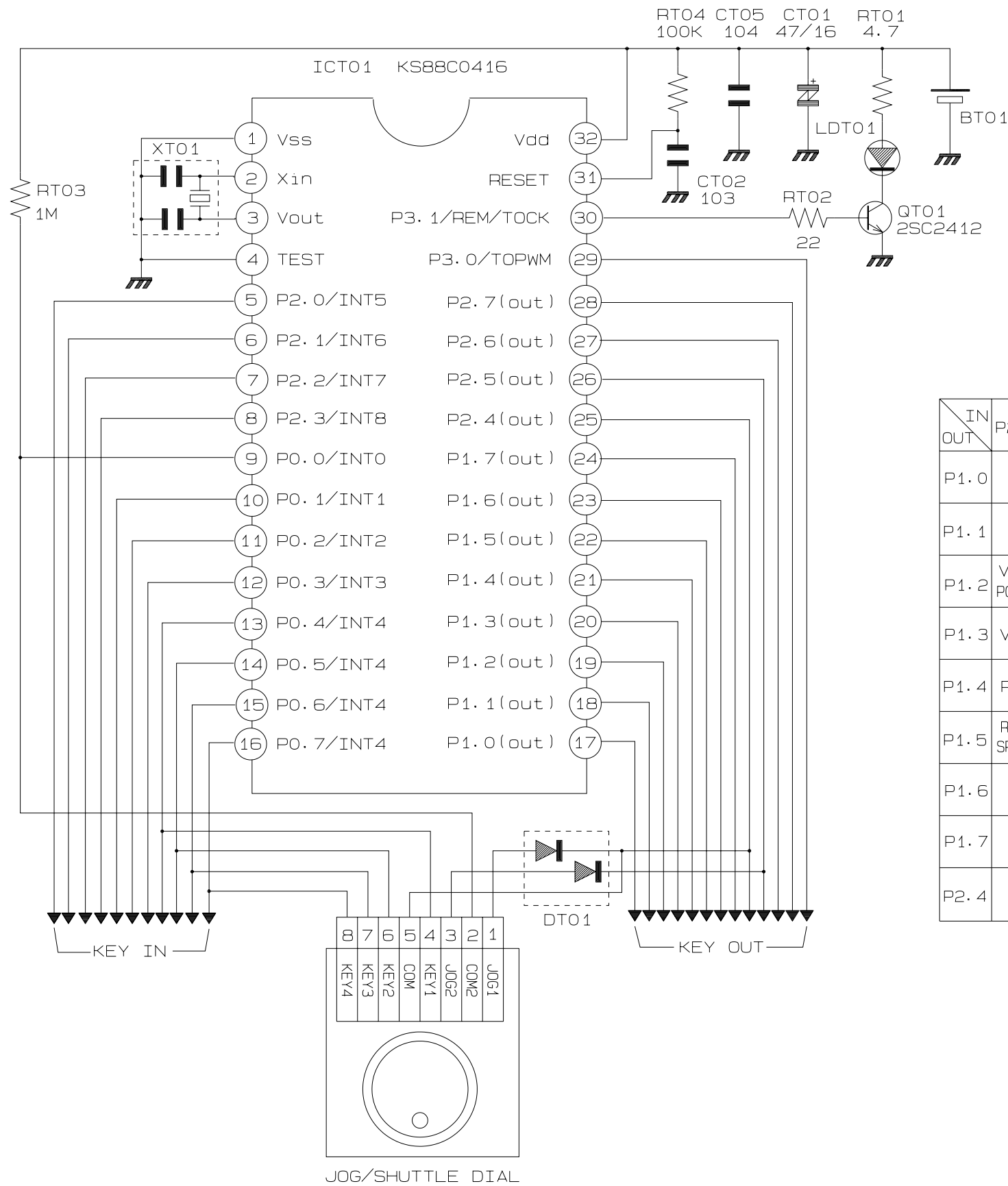
5-10 Display (LED-Module)



5-11 Display (LED-Lamp)



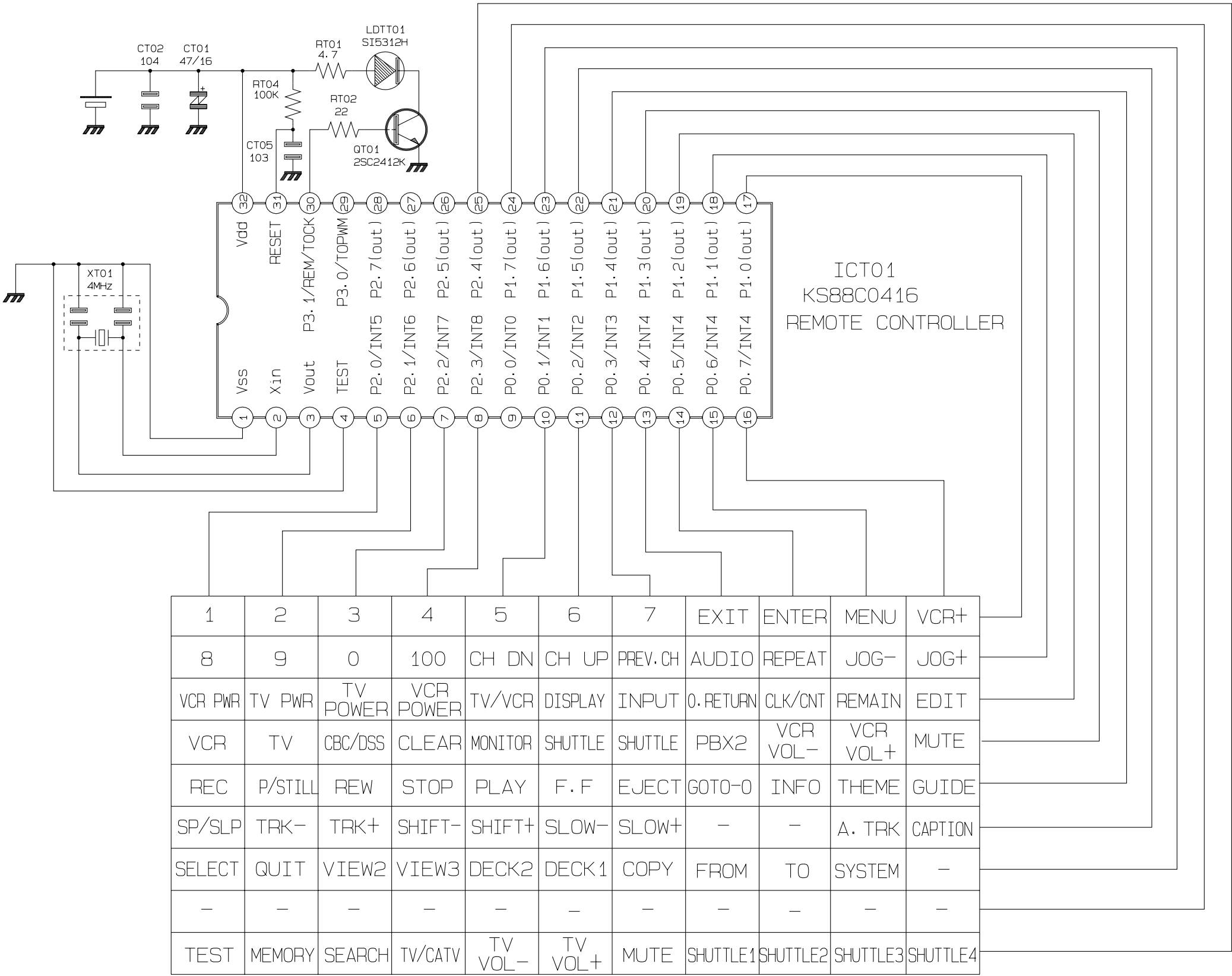
5-12 Remote-Control (Jog/Shuttle)



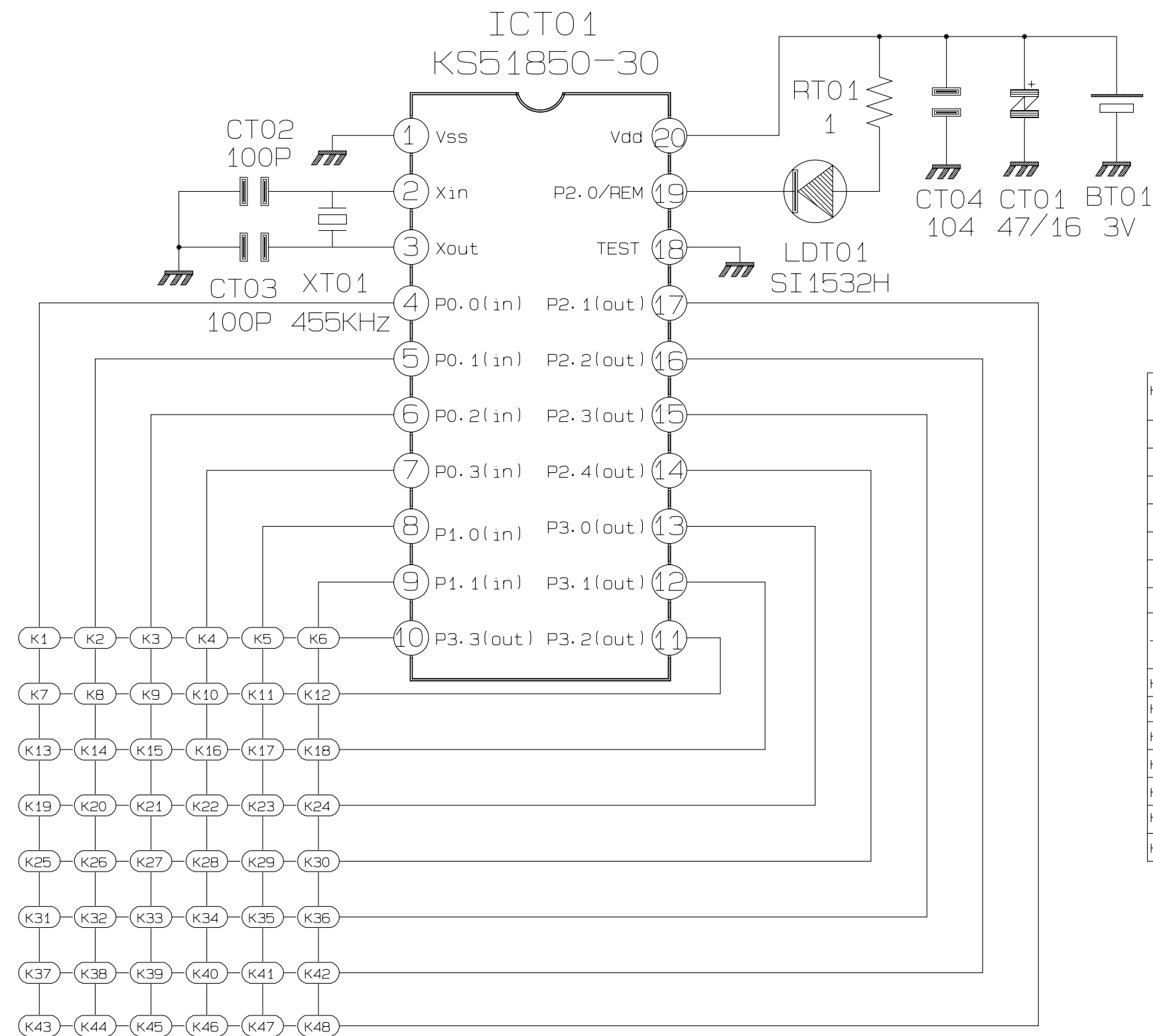
KEY MATRIX

IN OUT	P2.0	P2.1	P2.2	P2.3	P0.1	P0.2	P0.3	P0.4	P0.5	P0.6	P0.7
P1.0	1	2	3	4	5	6	7	EXIT	ENTER	MENU	VCR+
P1.1	8	9	0	100	CH	CH	PREV.CH	AUDIO	REPEAT	JOG-	JOG+ F/ADV
P1.2	VCR POWER	TV POWER	-	-	TV/VCR	DISPLAY	INPUT	-	-	-	-
P1.3	VCR	TV	CBC/DSS	CLEAR RESET	-	SHUTTLE ◀	SHUTTLE ▶	-	-	-	-
P1.4	REC	P/STILL	REW	STOP	PLAY	F.F	EJECT	-	-	-	-
P1.5	REC. SPEED	TRK-	TRK+	SHIFT ◀	SHIFT ▶	SLOW-	SLOW+	-	-	A. TRK	-
P1.6	-	-	-	-	-	-	-	-	-	-	-
P1.7	-	-	-	-	-	-	-	-	-	-	-
P2.4	-	-	-	-	VOL ▽	VOL △	MUTE	SHU1	SHU2	SHU3	SHU4

5-13 Remote-Control (Multi-TV)



5-14 Remote-Control (VCR Only)



KEY NO.	KEY NAME	KEY NO.	KEY NAME	KEY NO.	KEY NAME
K1	PROGRAM	K17	AUTO REPEAT	K33	MENU
K2	SHIFT<-	K18	DISPLAY	K34	CLEAR
K3	SHIFT->	K19	POWER	K35	SEARCH
K4	-	K20	TV/VCR	K36	INPUT
K5	-	K21	ENTER	K37	CH7
K6	TEST	K22	AUDIO	K38	CH8
K7	TRACKING+	K23	P/STILL	K39	CH9
K8	TRACKING-	K24	EJECT	K40	CH0
K9	-	K25	PLAY	K41	-
K10	SLOW+	K26	STOP	K42	PREV. CH
K11	SLOW-	K27	F.F	K43	CH1
K12	-	K28	REW	K44	CH2
K13	EDU. PLAY	K29	REC	K45	CH3
K14	PERIOD REPEAT	K30	REC. SPEED	K46	CH4
K15	CAPTION MUTE	K31	CH UP	K47	CH5
K16	-	K32	CH DN	K48	CH6

MEMO