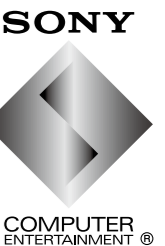


**PSP-2000 TA-085**

**SM-PSP-3083E-01**

**PSP-2000 series TA-085**  
**BOARD SERVICE MANUAL 1st edition Level 3**



Sony Computer Entertainment Inc.  
CS Department  
Published in Japan©2007. 06

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

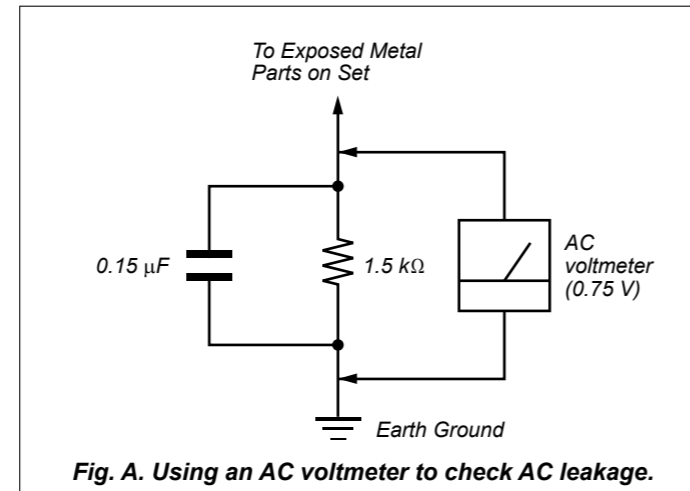
1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the power cable for cracks and abrasion. Recommend the replacement of any such power cable to the customer.
6. Check the B+ voltage to see it is at the values specified.
7. Check the metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



### SAFETY-RELATED COMPONENT WARNING!!

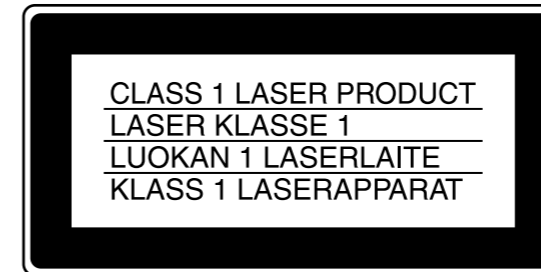
COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\triangle$  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

### CAUTION

The use of optical instruments with this product will increase eye hazard. As the laser beam used in this UMD Drive is harmful to eyes, do not attempt disassemble the cabinet. Refer servicing to qualified personnel only.



This appliance is classified as a CLASS 1 LASER product under IEC60825-1:2001.

### CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

### WARNING!!

**WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 25 cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.**

### CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

**TABLE OF CONTENTS**

**1. CIRCUIT DIAGRAM**

1-1. TA-085 Board (1/10) ..... 1-2  
1-2. TA-085 Board (2/10) ..... 1-3  
1-3. TA-085 Board (3/10) ..... 1-4  
1-4. TA-085 Board (4/10) ..... 1-5  
1-5. TA-085 Board (5/10) ..... 1-6  
1-6. TA-085 Board (6/10) ..... 1-7  
1-7. TA-085 Board (7/10) ..... 1-8  
1-8. TA-085 Board (8/10) ..... 1-9  
1-9. TA-085 Board (9/10) ..... 1-10  
1-10. TA-085 Board (10/10) ..... 1-11  
1-11. HP-142 Board ..... 1-12  
1-12. SW-510 Board ..... 1-13

**2. PRINTED WIRING BOARDS**

2-1. TA-085 Board (Side A) ..... 2-1  
2-2. TA-085 Board (Side B) ..... 2-2  
2-3. HP-142 Board ..... 2-3  
2-4. SW-510 Board ..... 2-4

**3. ELECTRICAL PARTS LIST ..... 4-1**

**SECTION 1  
CIRCUIT DIAGRAM**

**Note on Schematic Diagram:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  
pF:  $\mu\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4$  W or less unless otherwise specified.
- % : indicates tolerance.

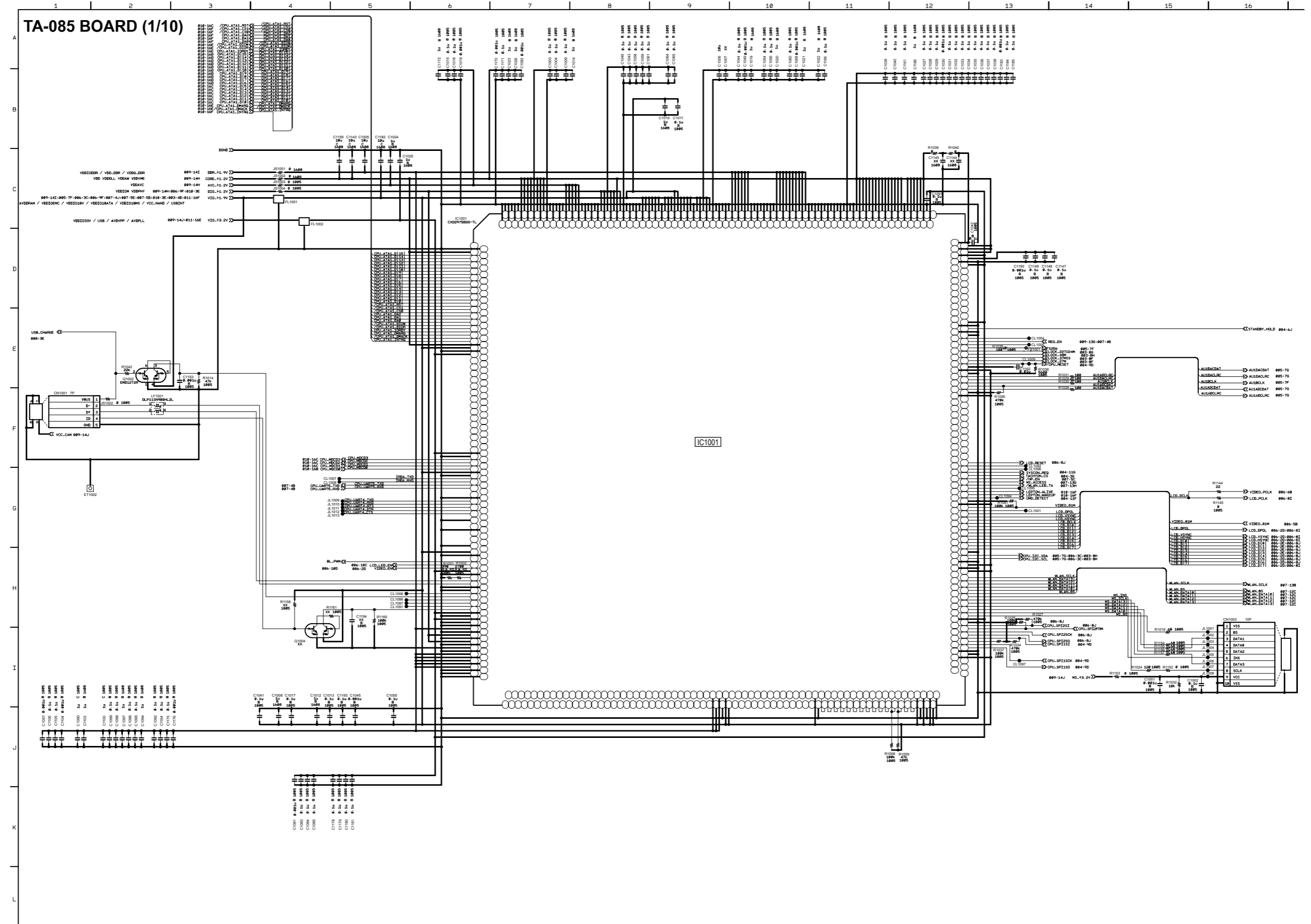
**Note:**

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety. Replace only with part number specified.

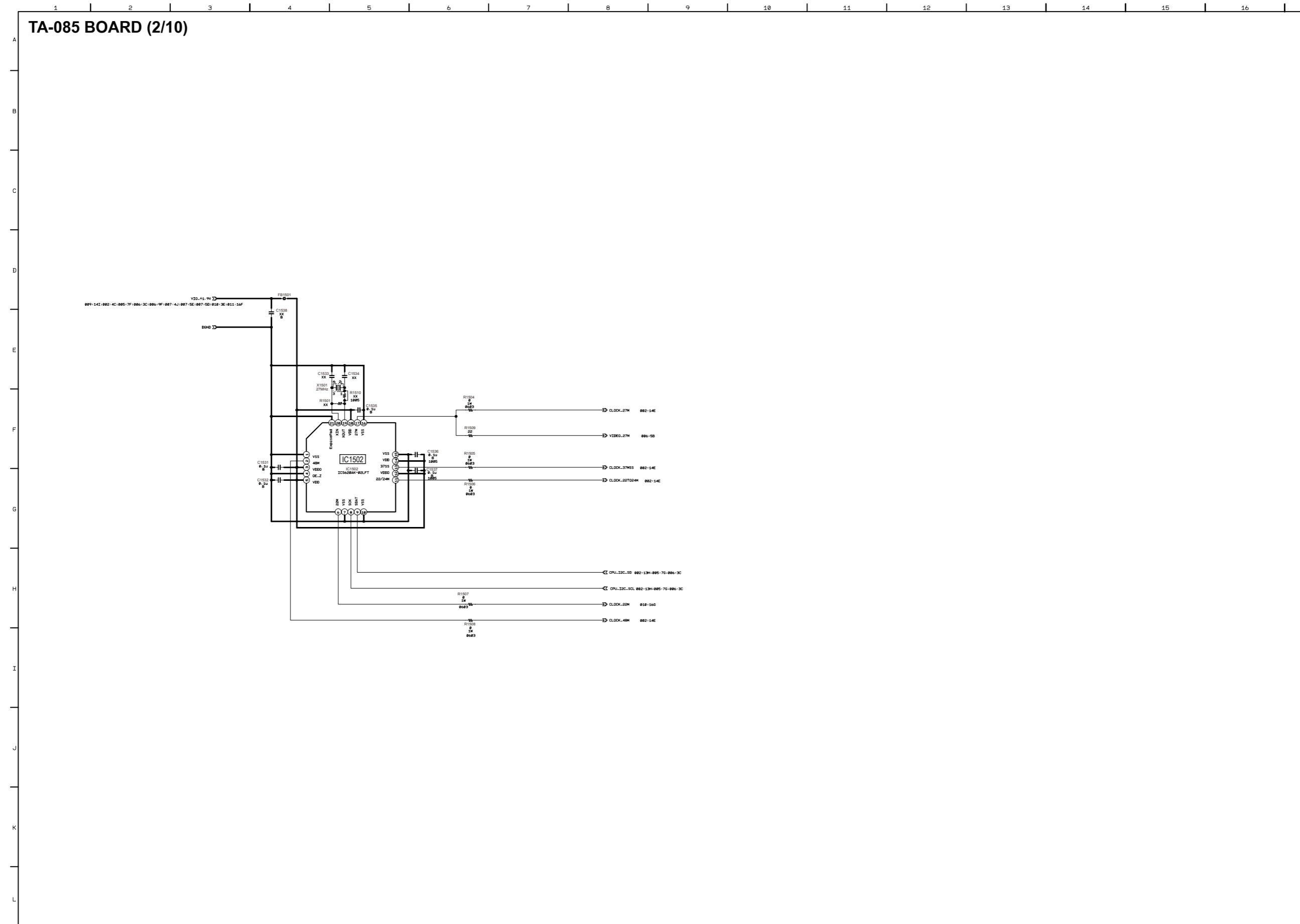
**Note:**

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

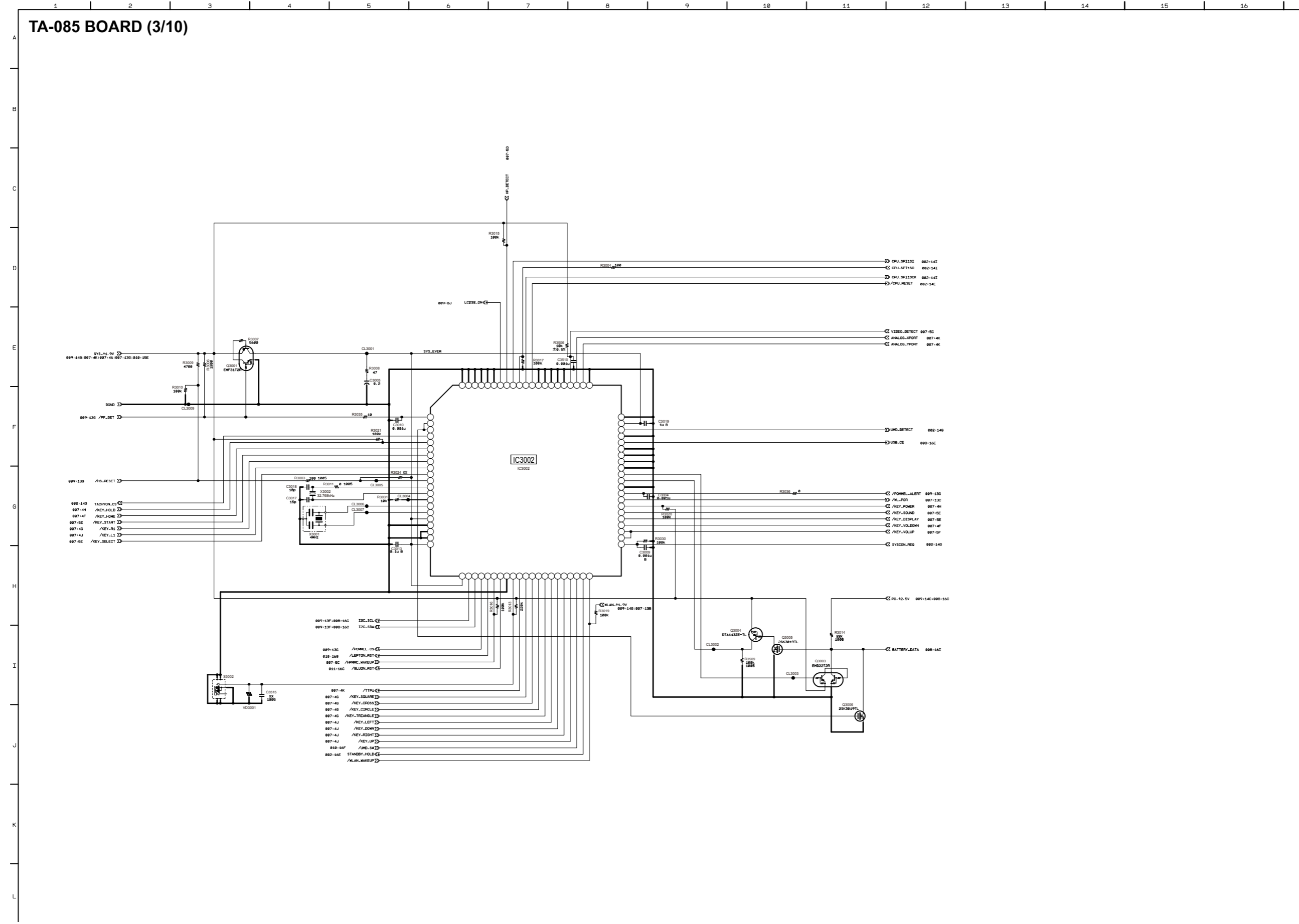
1-1. TA-085 BOARD (1/10)



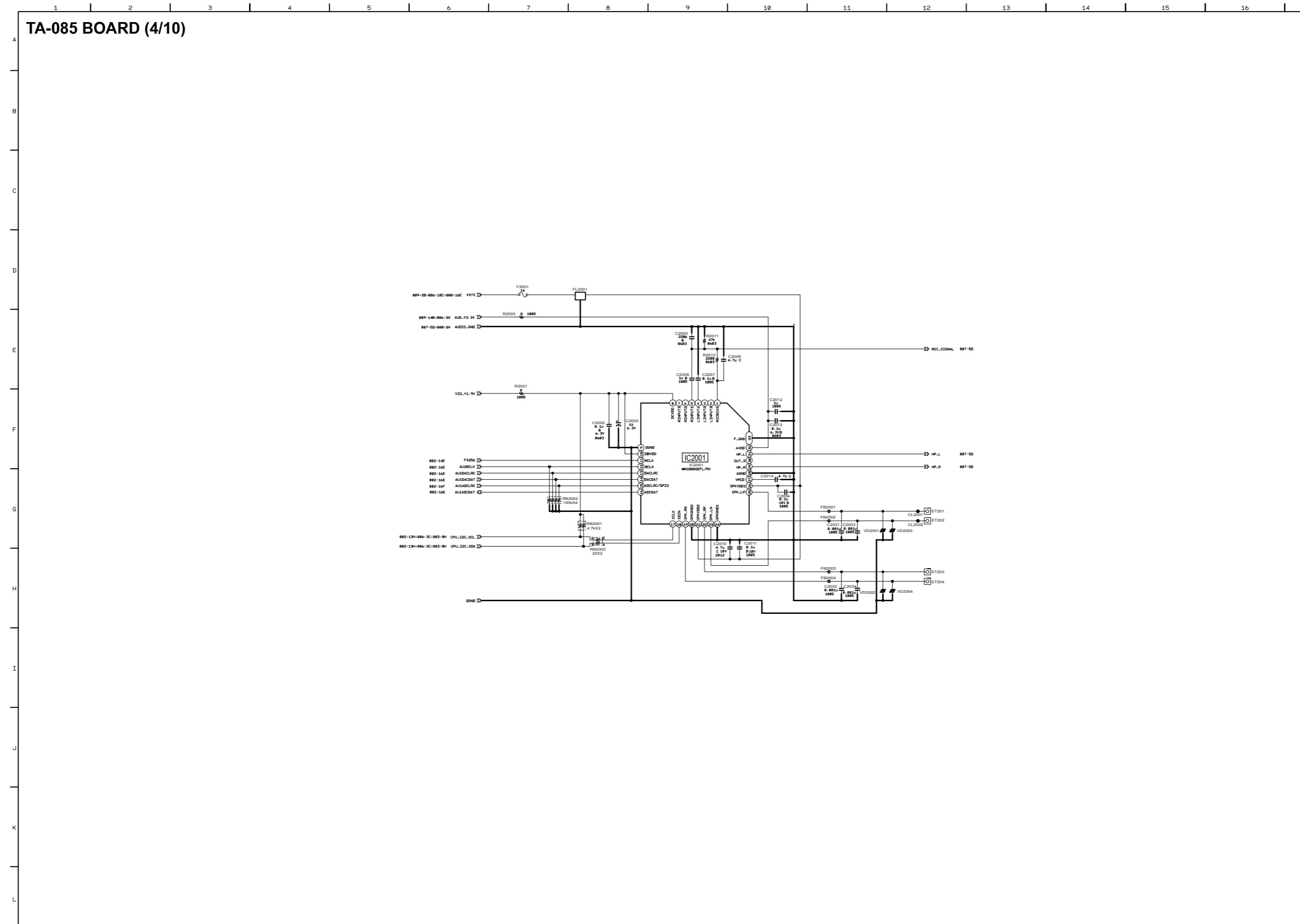
1-2. TA-085 BOARD (2/10)



1-3. TA-085 BOARD (3/10)

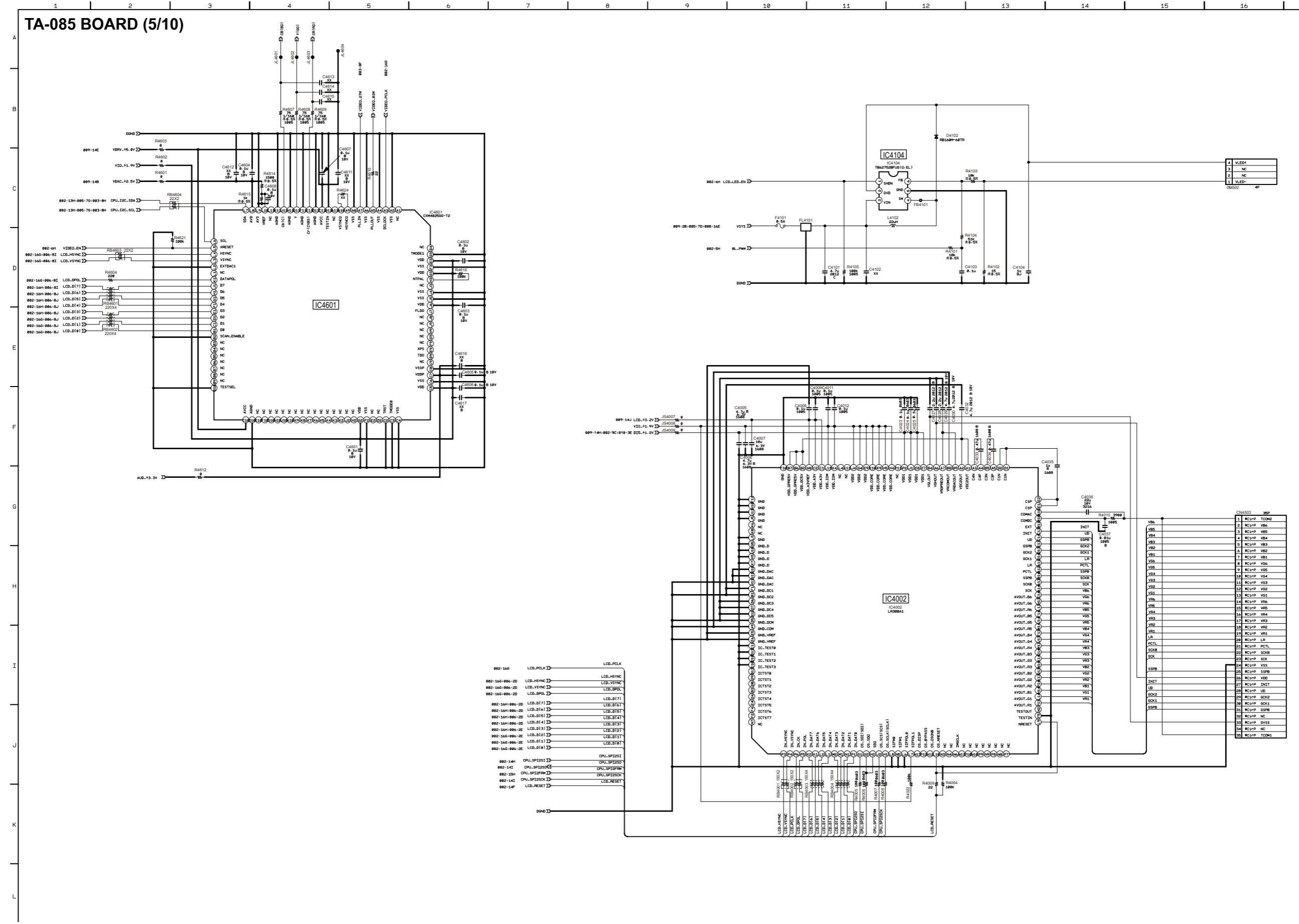


1-4. TA-085 BOARD (4/10)

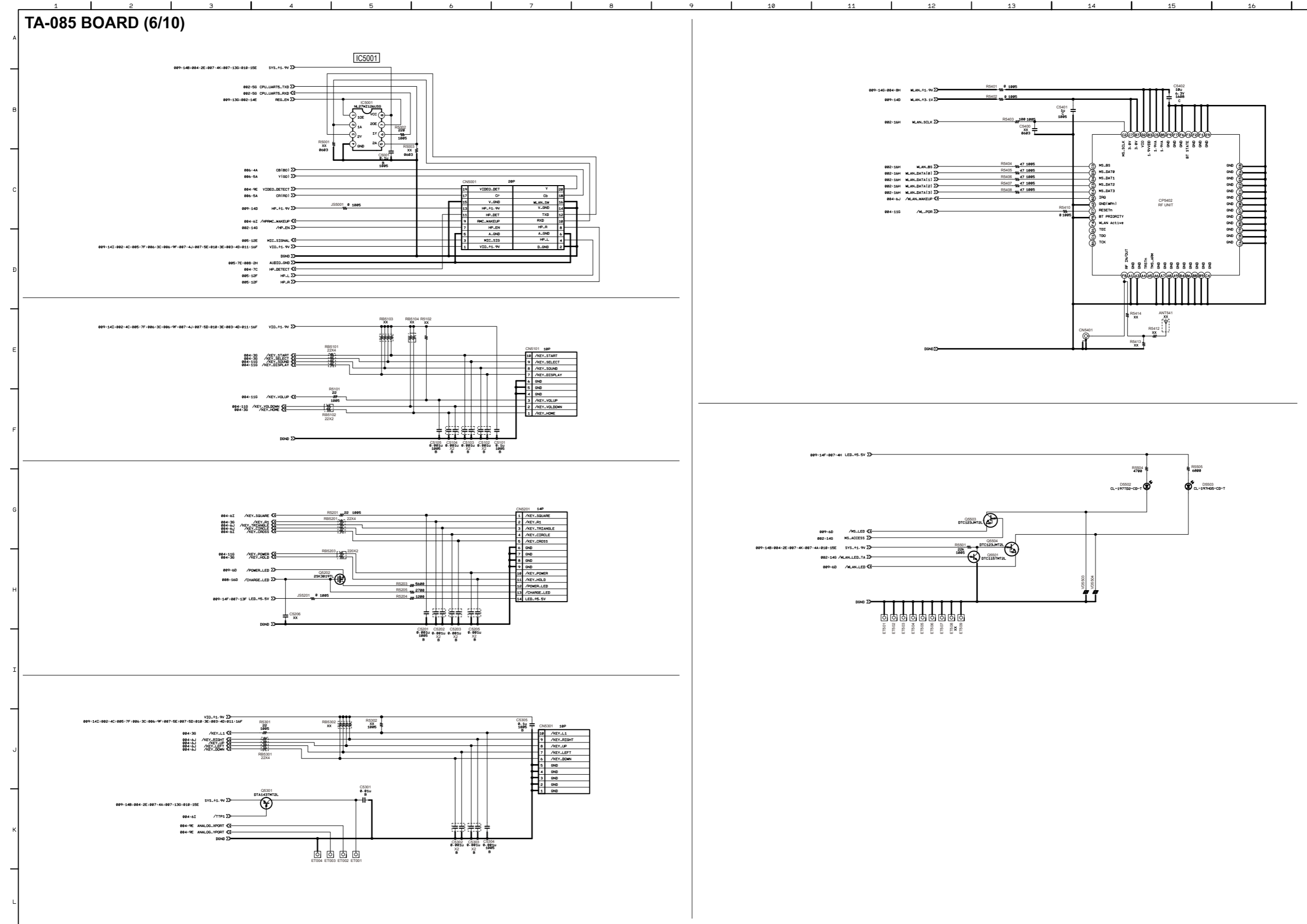




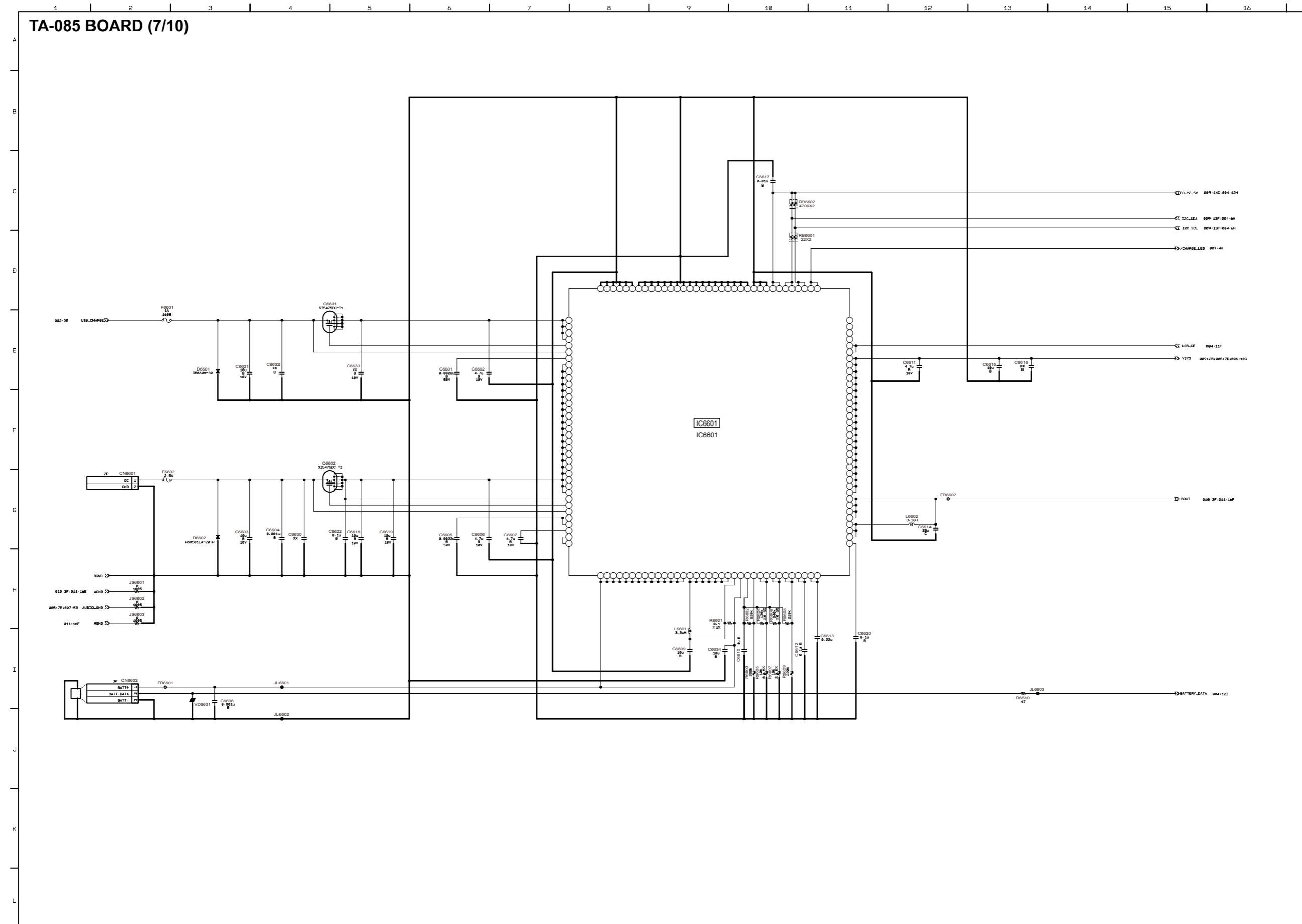
1-5. TA-085 BOARD (5/10)



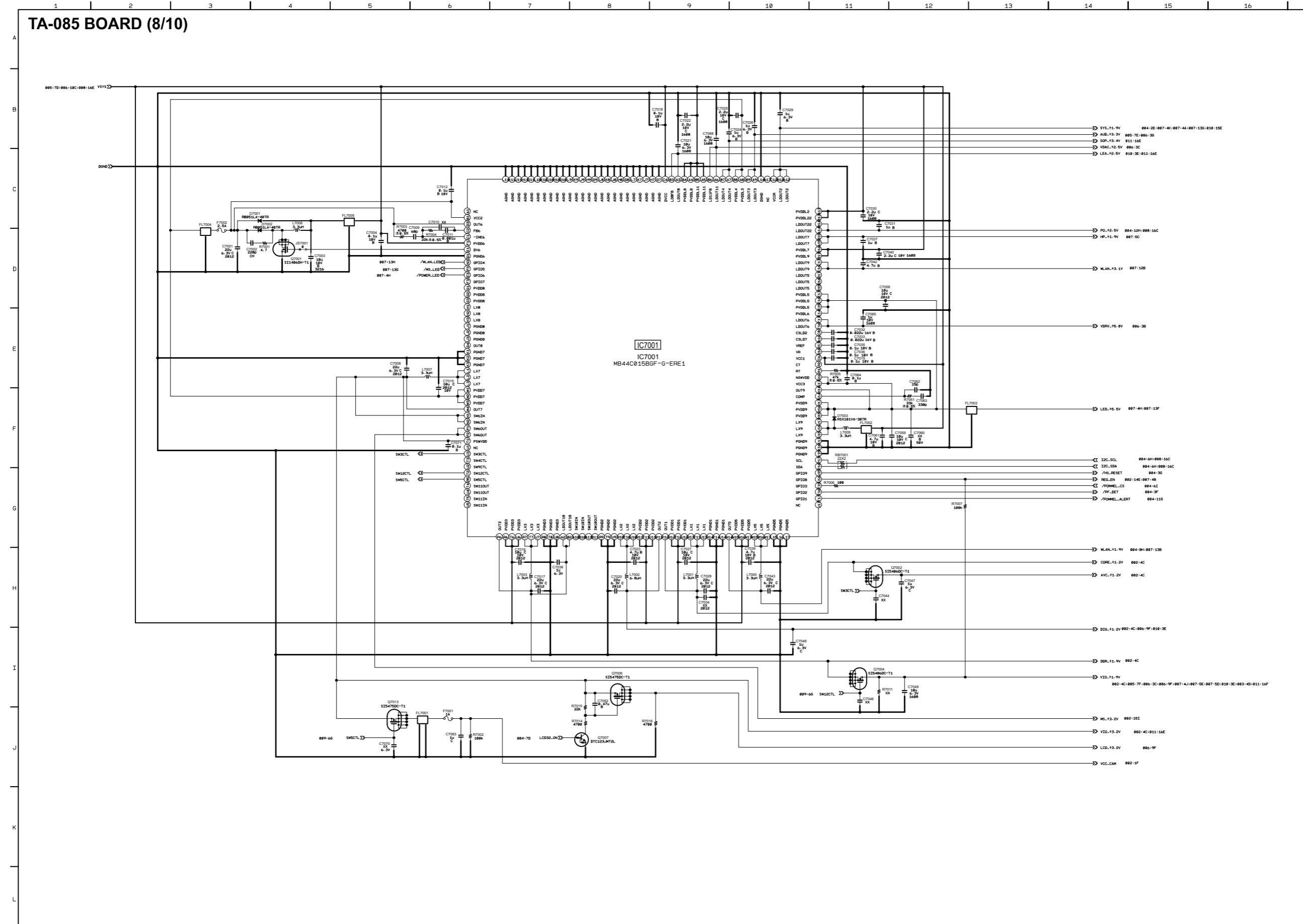
1-6. TA-085 BOARD (6/10)



1-7. TA-085 BOARD (7/10)

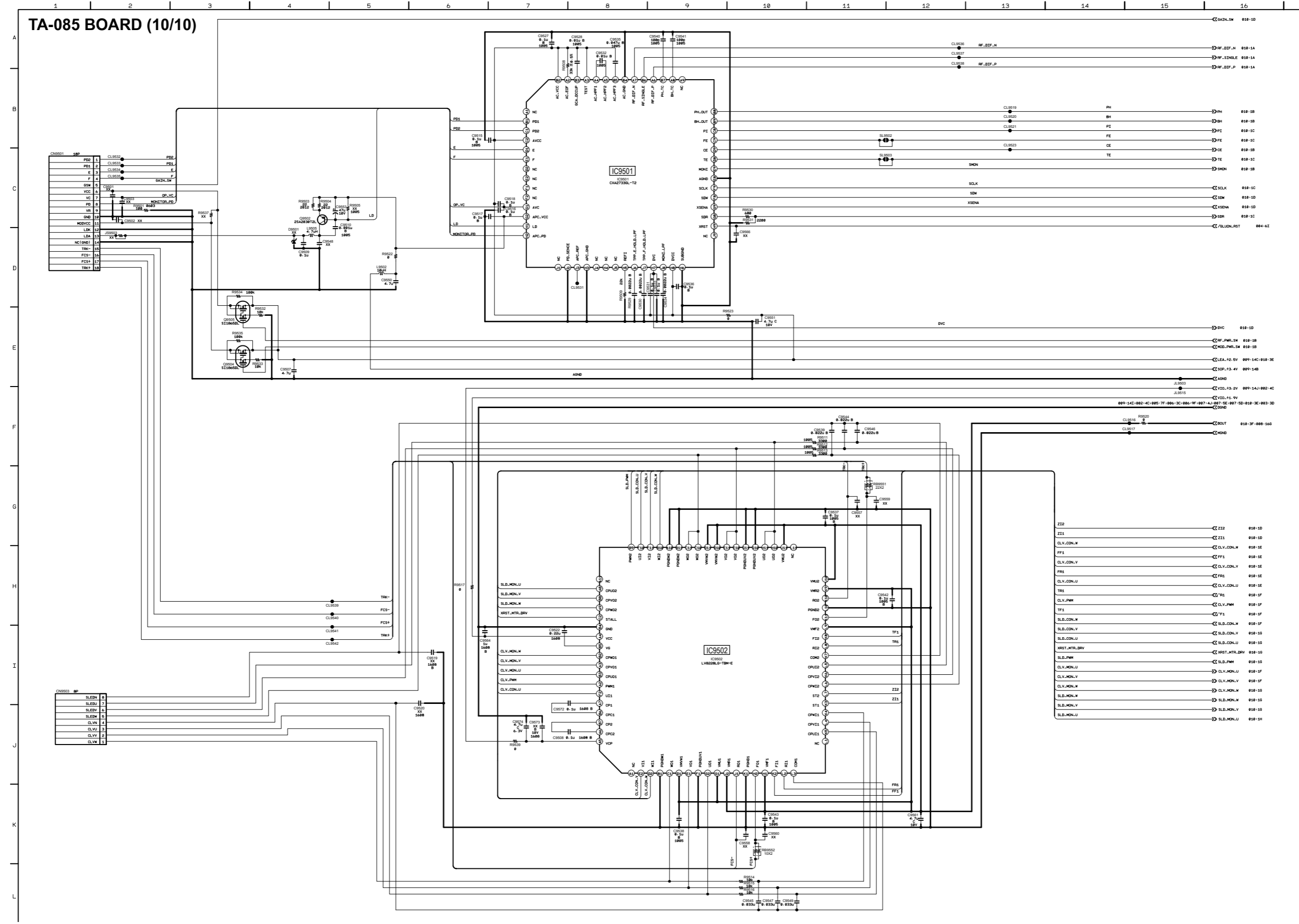


1-8. TA-085 BOARD (8/10)

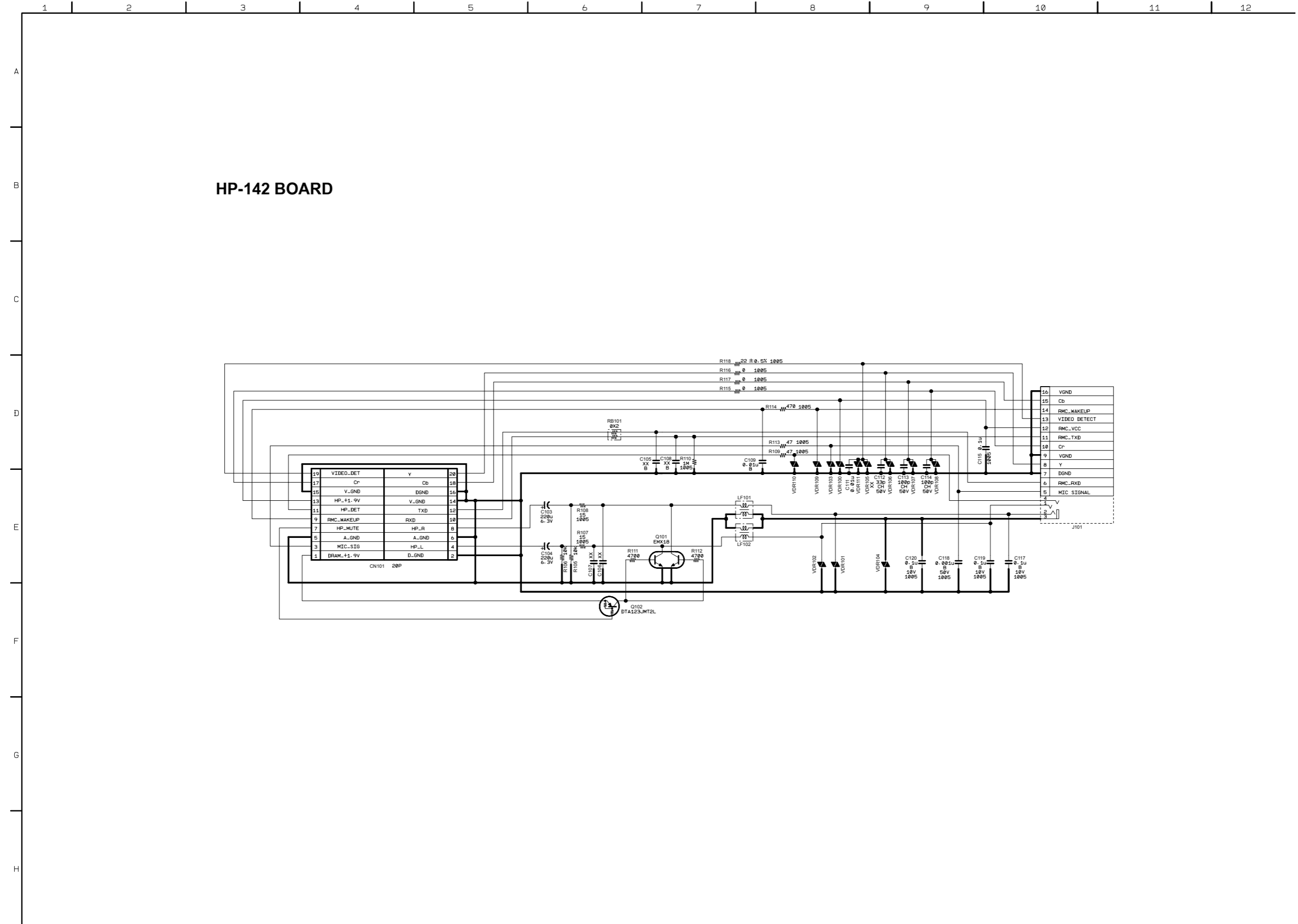




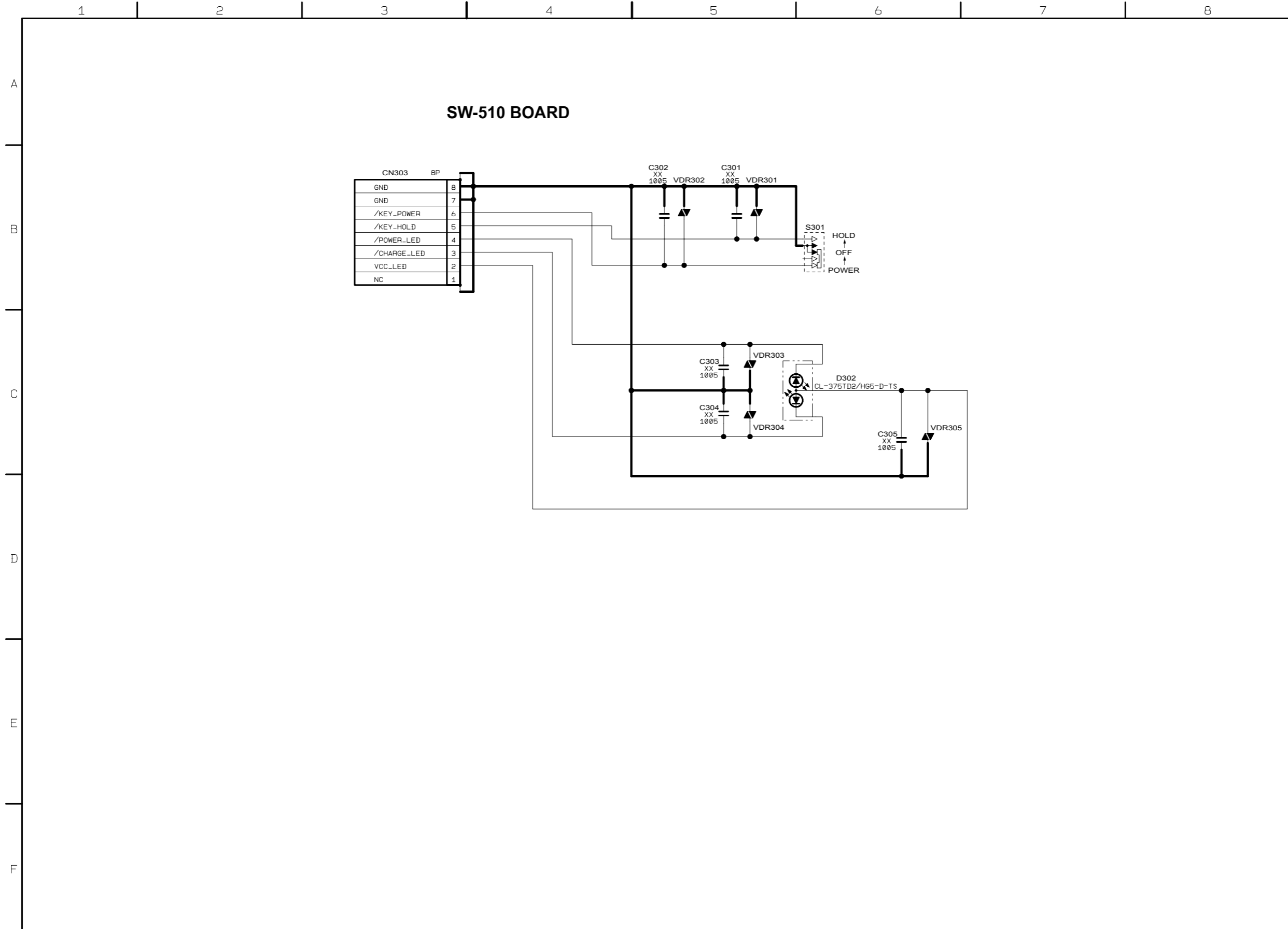
1-10. TA-085 BOARD (10/10)



1-11. HP-142 BOARD



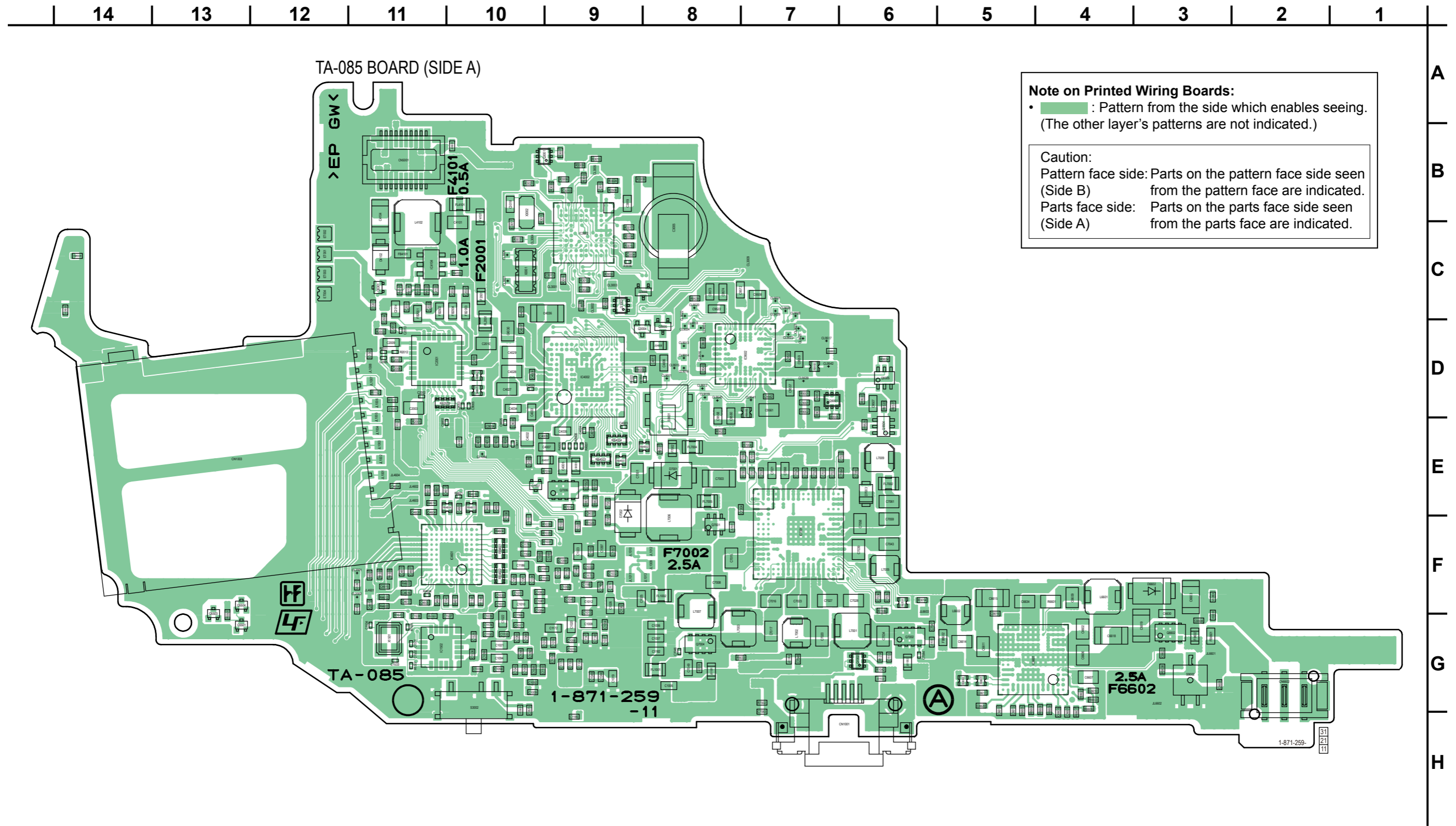
1-12. SW-510 BOARD



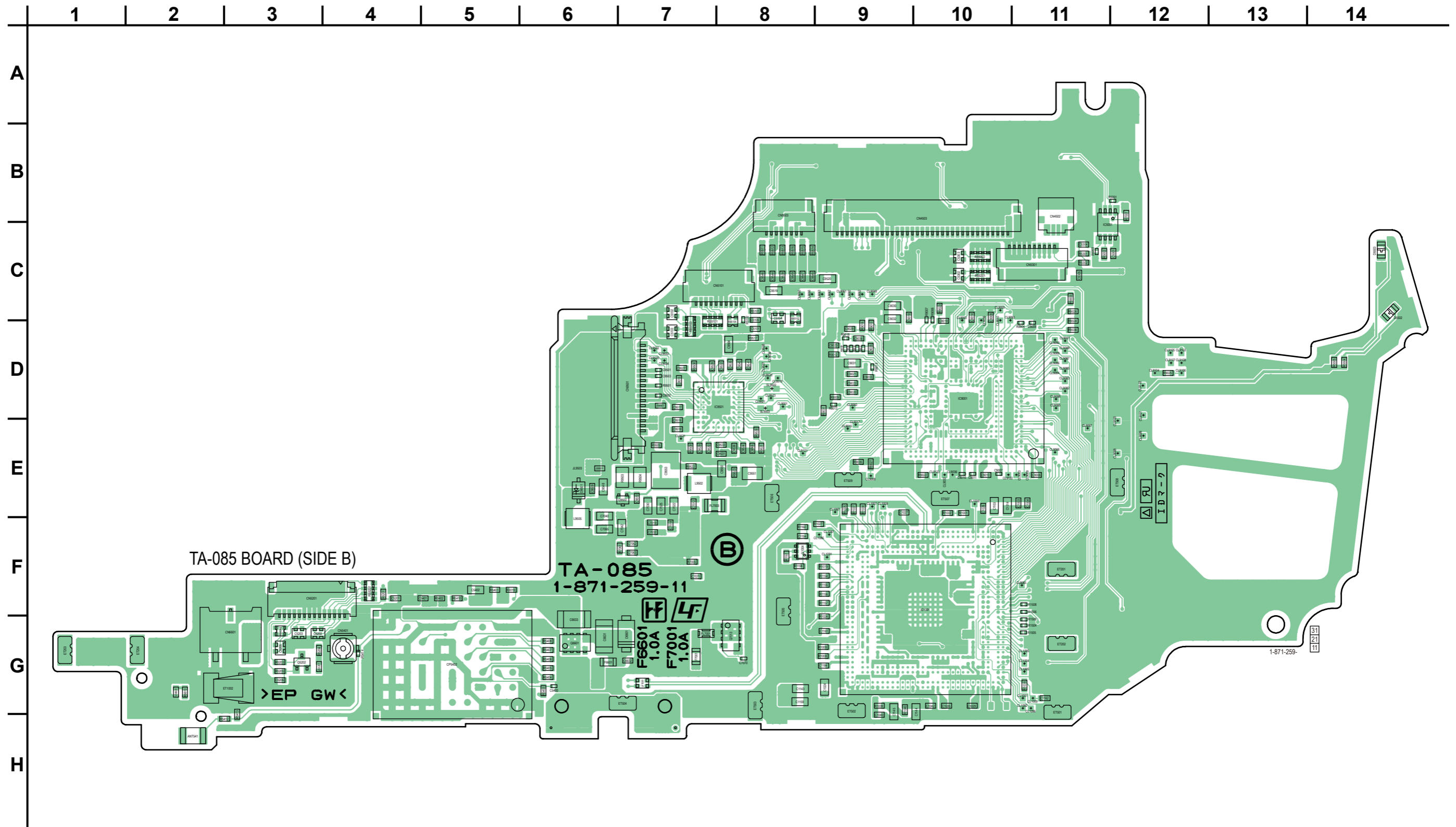


SECTION 2  
PRINTED WIRING BOARDS

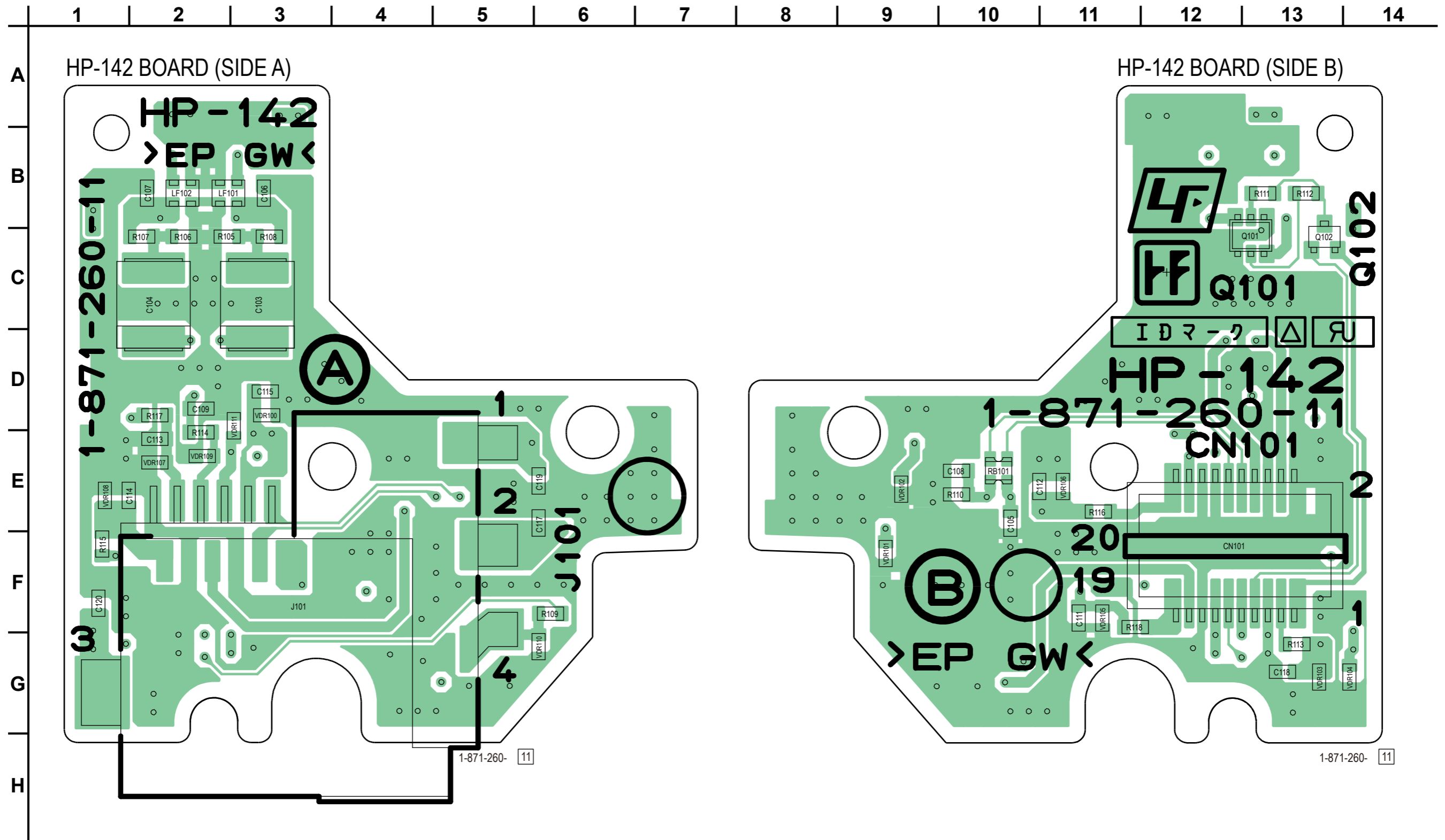
2-1. TA-085 BOARD (SIDE A)



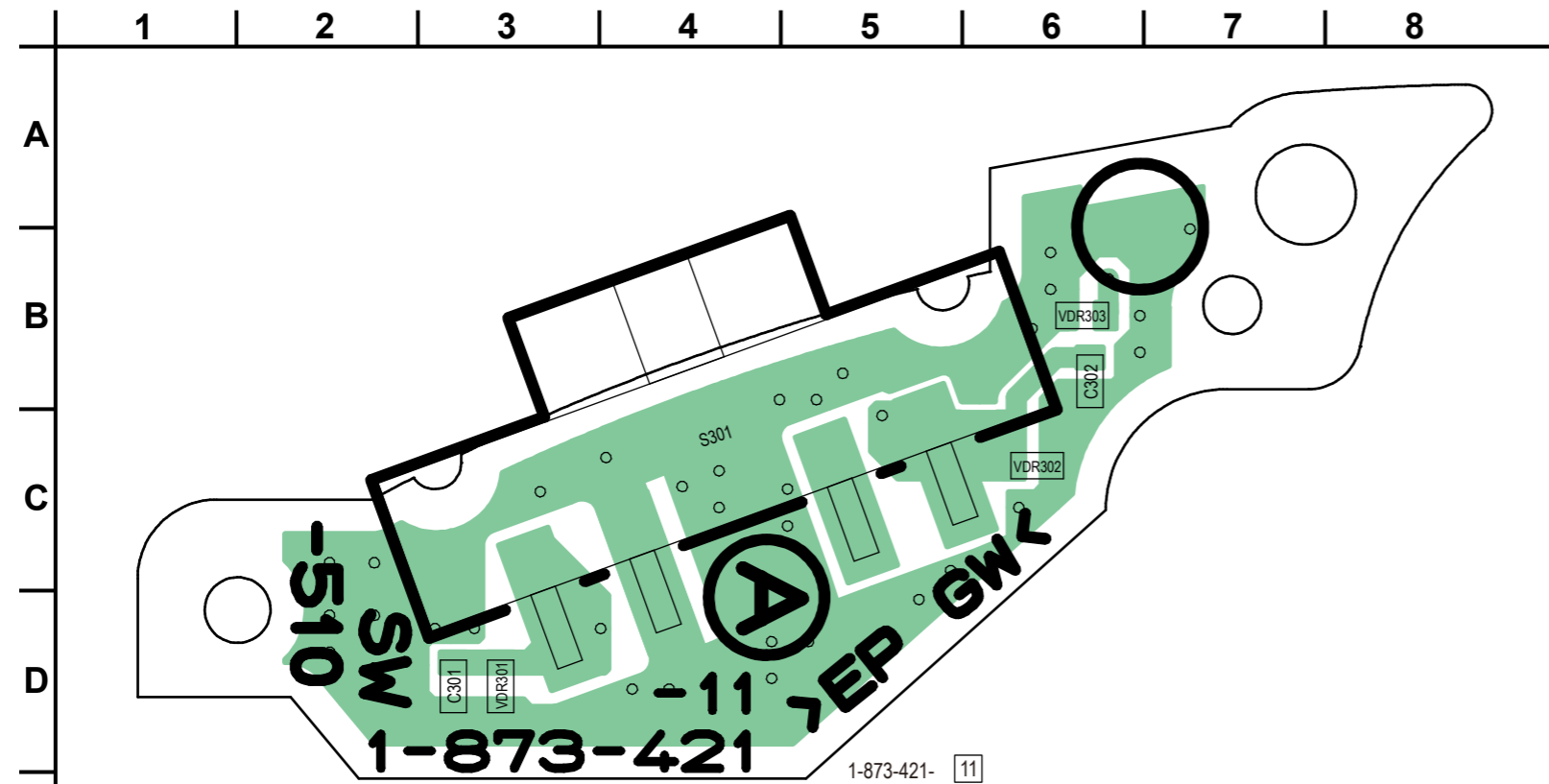
2-2. TA-085 BOARD (SIDE B)



2-3. HP-142 BOARD

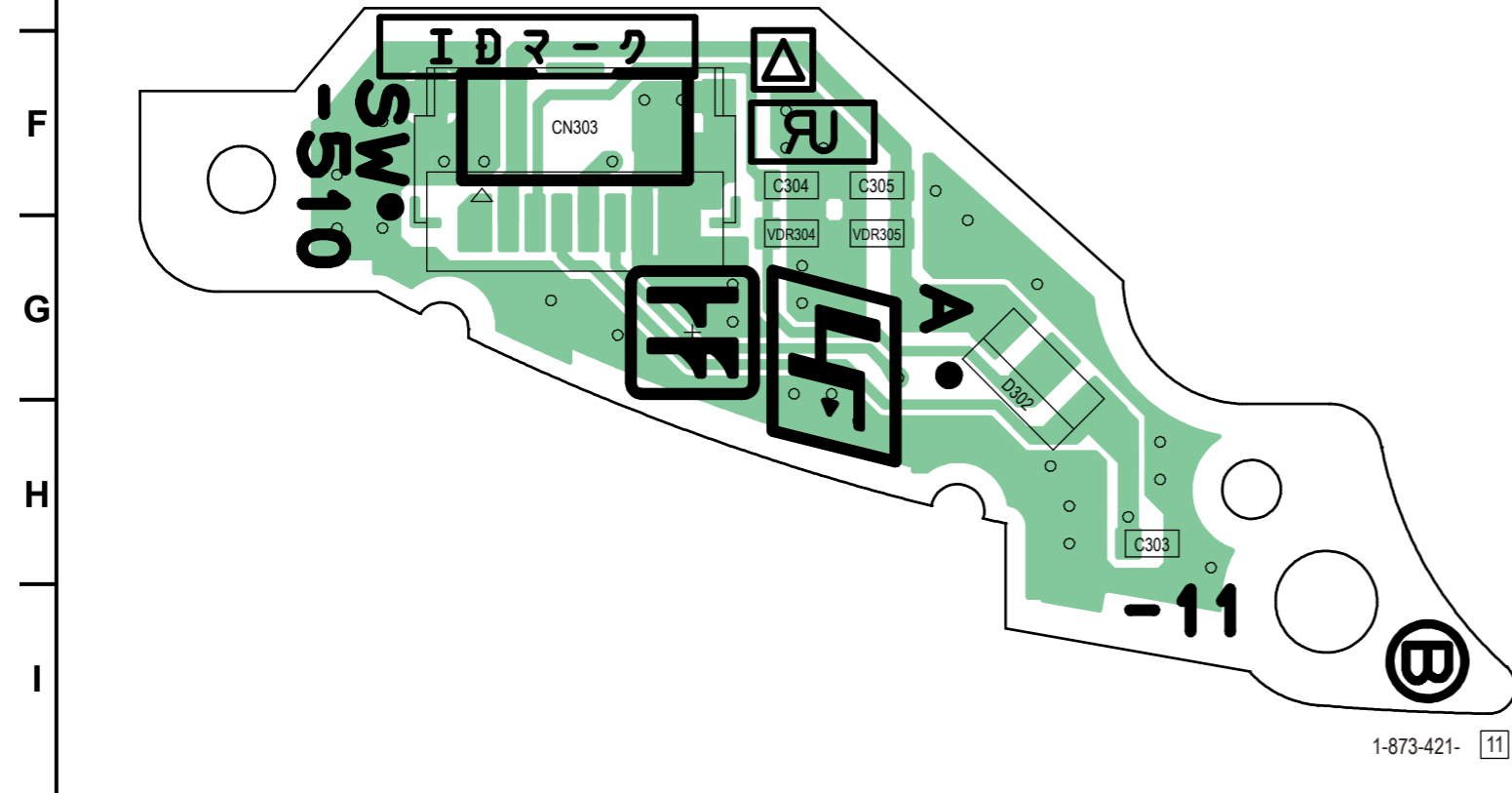


2-4. SW-510 BOARD



SW-510 BOARD (SIDE A)

SW-510 BOARD (SIDE B)



1-873-421- 11







SC	Ref. No.	Part No.	Description		Remark	SC	Ref. No.	Part No.	Description		Remark
U	R6602		RES-CHIP	220K	5%	1/16W	U	R9522	SHORT CHIP	0	
U	R6603		RES-CHIP	220K	5%	1/16W	U	R9523	SHORT CHIP	0	
U	R6604		METAL CHIP	130K	0.5%	1/16W	U	R9530	RES-CHIP	680	5% 1/16W
U	R6605		METAL CHIP	10K	0.5%	1/16W	U	R9531	RES-CHIP	2.2K	5% 1/16W
U	R6606		METAL CHIP	240K	0.5%	1/16W	U	R9532	RES-CHIP	10K	5% 1/16W
U	R6607		METAL CHIP	10K	0.5%	1/16W	U	R9533	RES-CHIP	10K	5% 1/16W
U	R6608		RES-CHIP	220K	5%	1/16W	U	R9534	RES-CHIP	100K	5% 1/16W
U	R6609		RES-CHIP	220K	5%	1/16W	U	R9535	RES-CHIP	100K	5% 1/16W
U	R6610		RES-CHIP	47	5%	1/16W	U	R9539	SHORT CHIP	0	
U	R7001		RES-CHIP	4.7	5%	1/16W					
U	R7002		RES-CHIP	100K	5%	1/16W			< NETWORK RESISTOR >		
U	R7003		METAL CHIP	4.7K	0.5%	1/16W	U	RB2001	RES, NETWORK (CHIP TYPE) 4.7KX2		
U	R7004		METAL CHIP	22K	0.5%	1/16W	U	RB2002	RES, NETWORK (CHIP TYPE) 100KX4		
U	R7005		METAL CHIP	47K	0.5%	1/16W	U	RB2003	RES, NETWORK (CHIP TYPE) 22X2		
U	R7006		RES-CHIP	100	5%	1/16W	U	RB4001	RES, NETWORK (CHIP TYPE) 150X2		
U	R7007		RES-CHIP	100K	5%	1/16W	U	RB4002	RES, NETWORK (CHIP TYPE) 150X2		
U	R7014		RES-CHIP	4.7K	5%	1/16W	U	RB4003	RES, NETWORK (CHIP TYPE) 150X4 (2010)		
U	R7015		RES-CHIP	22K	5%	1/16W	U	RB4004	RES, NETWORK (CHIP TYPE) 150X4 (2010)		
U	R7016		RES-CHIP	4.7K	5%	1/16W	U	RB4601	RES, NETWORK (CHIP TYPE) 220X4		
U	R7061		METAL CHIP	33K	0.5%	1/16W	U	RB4602	RES, NETWORK (CHIP TYPE) 220X4		
U	R9001		METAL CHIP	100K	0.5%	1/16W	U	RB4603	RES, NETWORK (CHIP TYPE) 22X2		
U	R9002		METAL CHIP	68K	0.5%	1/16W	U	RB4604	RES, NETWORK (CHIP TYPE) 22X2		
U	R9003		RES-CHIP	100K	5%	1/16W	U	RB5101	RES, NETWORK (CHIP TYPE) 22X4		
U	R9005		RES-CHIP	10K	5%	1/16W	U	RB5102	RES, NETWORK (CHIP TYPE) 22X2		
U	R9008		METAL CHIP	10K	5%	1/20W	U	RB5201	RES, NETWORK (CHIP TYPE) 22X4		
U	R9009		RES-CHIP	100K	5%	1/16W	U	RB5203	RES, NETWORK (CHIP TYPE) 220X2		
U	R9010		RES-CHIP	470K	5%	1/16W	U	RB5301	RES, NETWORK (CHIP TYPE) 22X4		
U	R9012		RES-CHIP	22K	5%	1/16W	U	RB6601	RES, NETWORK (CHIP TYPE) 22X2		
U	R9015		METAL CHIP	100K	5%	1/20W	U	RB6602	RES, NETWORK (CHIP TYPE) 4.7KX2		
U	R9016		RES-CHIP	2.2M	5%	1/16W	U	RB7001	RES, NETWORK (CHIP TYPE) 22X2		
U	R9017		METAL CHIP	10K	5%	1/20W	U	RB9551	RES, NETWORK (CHIP TYPE) 22X2		
U	R9018		METAL CHIP	3.3K	5%	1/20W	U	RB9552	RES, NETWORK (CHIP TYPE) 10X2		
U	R9019		RES-CHIP	1K	5%	1/16W			< SWITCH >		
U	R9020		RES-CHIP	51K	5%	1/16W	S	S3002	1-771-449-11	SWITCH, SLIDE	
U	R9022		RES-CHIP	10K	5%	1/16W	S	S9001	1-798-072-11	SWITCH, PUSH	
U	R9023		RES-CHIP	4.7K	5%	1/16W	S	S9002	1-771-183-11	SWITCH, PUSH (1 KEY)	
U	R9024		RES-CHIP	10K	5%	1/16W			< VARISTOR >		
U	R9025		RES-CHIP	1M	5%	1/16W	U	VD2001	VARISTOR (SMD) (1005)		
U	R9026		RES-CHIP	10K	5%	1/16W	U	VD2002	VARISTOR (SMD) (1005)		
U	R9027		RES-CHIP	100K	5%	1/16W	U	VD2003	VARISTOR (SMD) (1005)		
U	R9031		SHORT CHIP	0			U	VD2004	VARISTOR (SMD) (1005)		
U	R9032		RES-CHIP	10K	5%	1/16W	U	VD3001	VARISTOR, CHIP		
U	R9033		SHORT CHIP	0			U	VD5503	VARISTOR, CHIP		
U	R9035		SHORT CHIP	0			U	VD5504	VARISTOR, CHIP		
U	R9036		SHORT CHIP	0			U	VD6601	VARISTOR (SMD) (1005)		
U	R9501		METAL CHIP	100	5%	1/20W			< VIBRATOR >		
U	R9503		RES-CHIP	22	5%	1/10W	U	X1501	VIBRATOR, CRYSTAL (27MHz)		
U	R9504		RES-CHIP	22	5%	1/10W	U	X3001	VIBRATOR, CERAMIC (4MHz)		
U	R9508		METAL CHIP	33K	0.5%	1/16W	U	X3002	VIBRATOR, CRYSTAL (32.768kHz)		
U	R9509		RES-CHIP	22K	5%	1/16W					
U	R9511		RES-CHIP	3.3K	5%	1/16W					
U	R9512		RES-CHIP	3.3K	5%	1/16W					
U	R9513		RES-CHIP	3.3K	5%	1/16W					
U	R9514		RES-CHIP	10K	5%	1/16W					
U	R9515		RES-CHIP	10K	5%	1/16W					
U	R9516		RES-CHIP	10K	5%	1/16W					
U	R9517		SHORT CHIP	0							
U	R9520		SHORT CHIP	0							