

DIGITAL CABLING UNIT DCU5D

SERVICE MANUAL



■ CONTENTS (目次)

SPECIFICATIONS (総合仕様)	3
DIMENSIONS (寸法図)	3
PANEL LAYOUT (パネルレイアウト)	4
CIRCUIT BOARD LAYOUT (ユニットレイアウト)	5
DISASSEMBLY PROCEDURE (分解手順)	6
LSI PIN DESCRIPTION (LSI 端子機能表)	10
IC BLOCK DIAGRAM (IC ブロック図)	15
CIRCUIT BOARDS (シート基板図)	18
PARTS LIST	
BLOCK DIAGRAM (ブロックダイアグラム)	
CIRCUIT DIAGRAM (回路図)	

IMPORTANT NOTICE

This manual has been provided for the use of authorized Yamaha Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically Yamaha Products, are already known and understood by the users, and have therefore not been restated.

WARNING : Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components and failure of the product to perform as specified. For these reasons, we advise all Yamaha product owners that all service required should be performed by an authorized Yamaha Retailer or the appointed service representative.

IMPORTANT : This presentation or sale of this manual to any individual or firm does not constitute authorization certification, recognition of any applicable technical capabilities, or establish a principal-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research engineering, and service departments of Yamaha are continually striving to improve Yamaha products. Modifications are, therefore, inevitable and changes in specification are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING : Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground bus in the unit (heavy gauge black wires connect to this bus.)

IMPORTANT : Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (Where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHAT SO EVER!

Avoid prolonged, unprotected contact between solder and your skin! When soldering, do not inhale solder fumes or expose eyes to solder/flux vapor!

If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.


IMPORTANT NOTICE FOR THE UNITED KINGDOM**Connecting the Plug and Cord**

WARNING: THIS APPARATUS MUST BE EARTHED

IMPORTANT. The wires in this mains lead are coloured in accordance with the following code:

GREEN-AND-YELLOW	: EARTH
BLUE	: NEUTRAL
BROWN	: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol  or colored GREEN or GREEN-and-YELLOW.


The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

• This applies only to products distributed by Yamaha-Kemble Music (U.K.) Ltd.

(3 wires)

WARNING

Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.



印の部品は、安全を維持するために重要な部品です。交換する場合は、安全のために必ず指定の部品をご使用ください。

■ SPECIFICATIONS (総合仕様)

• General Specifications

Sampling Frequency	Normal Rate: 42.9975–49.200 kHz Double Rate: 85.995–98.400 kHz
Power Requirements	12 W
Dimensions	480 x 150 x 44 mm (W x D x H)
Net Weight	2.3 kg
Temperature Range	Operation free-air: +10°C to +35°C Storage: -20°C to +60°C
AC Power Cord Length	250 cm
Accessories	AC power cord

• I/O Characteristics

Terminal		Level	Connector
CASCADE	IN	RS422	D-Sub Half Pitch Connector 68 P(Female)
	OUT		
CASCADE	IN	100Base-TX	RJ-45 *1
	OUT		
EXT DC INPUT *2		DC	XLR-4-32 type *3

- *1. • Use a RJ-45 connector compliant with Neutrik EtherCon®.
• Use a CAT5 STP (Shielded Twisted Pair) cable compliant with EtherSound.
• Use electrically conductive tape to securely connect the metal part of the connector with the shielded part of the cable in order to prevent electromagnetic interference.

*2. max.: +15 V, min.: +11.4 V, 1.5 A

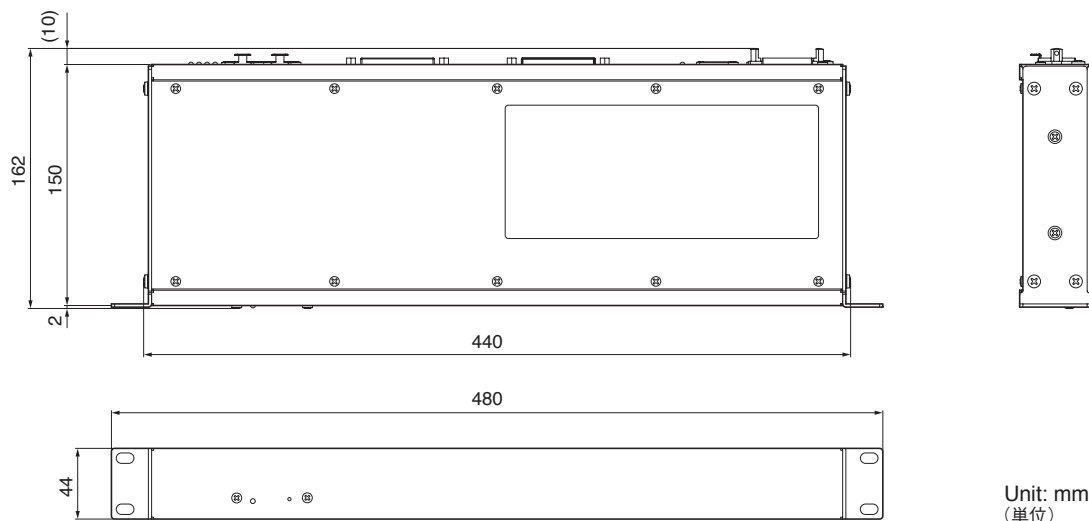
*3. 4 pin=12 V, 1 pin = GND

• Connector Pin Assignment

EXT DC INPUT

Pin No.	Signal Name
1	GND
2	N.C
3	N.C
4	+12 V

■ DIMENSIONS (寸法図)

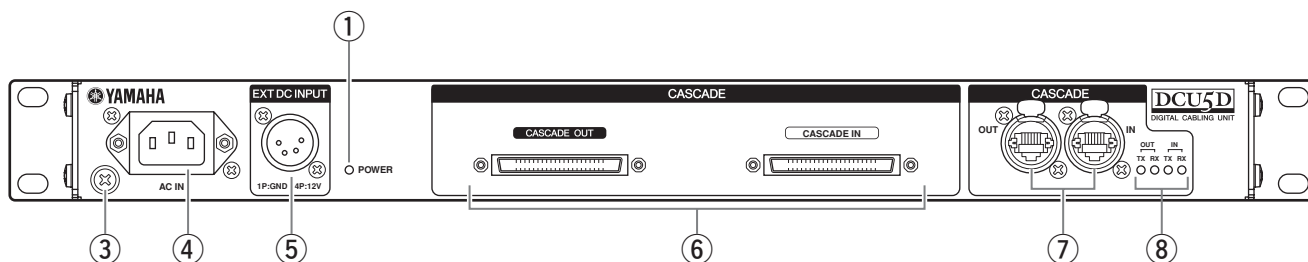


■ PANEL LAYOUT (パネルレイアウト)

• Front Panel (フロントパネル)



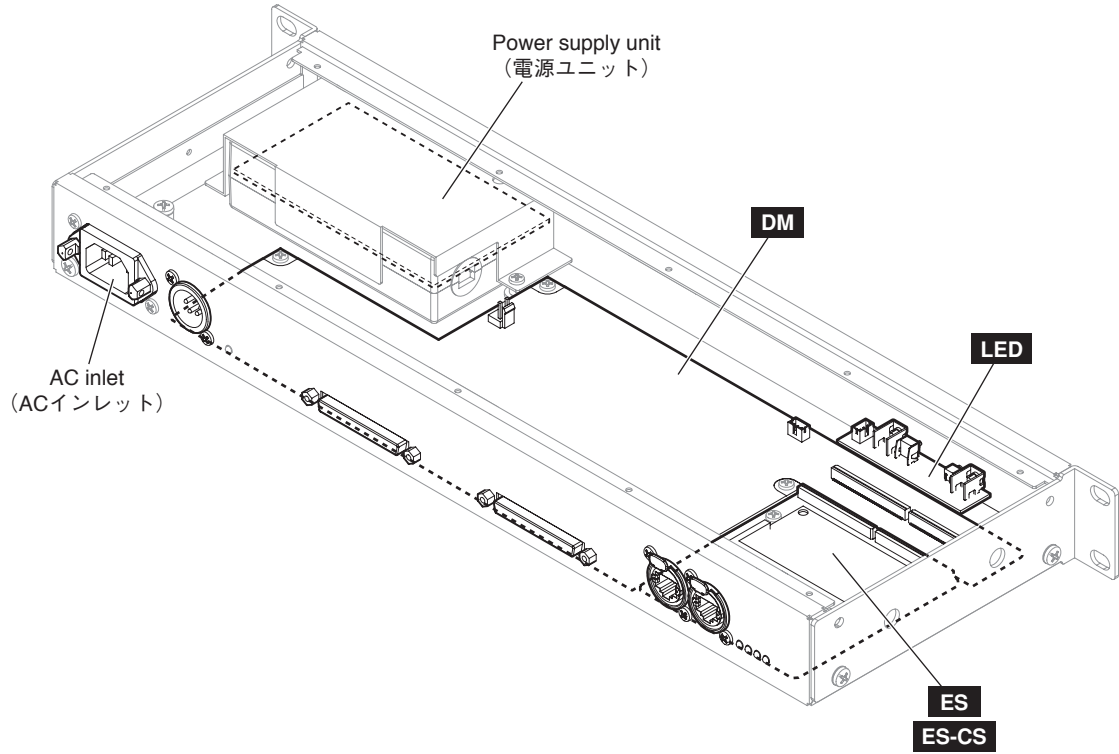
• Rear Panel (リアパネル)



- ① [POWER] Indicator
- ② Mode switch
- ③ Ground screw
- ④ [AC IN] connector
- ⑤ [EXT DC INPUT] connector
- ⑥ [CASCADE IN][CASCADE OUT] connectors
- ⑦ [CASCADE IN][CASCADE OUT] connectors
- ⑧ IN/OUT[TX][RX] indicators

- ① [POWER]インジケータ
- ② モードスイッチ
- ③ アース用ネジ
- ④ [AC IN]端子
- ⑤ [EXT DC INPUT]端子
- ⑥ [CASCADE IN][CASCADE OUT]端子
- ⑦ [CASCADE IN][CASCADE OUT]端子
- ⑧ IN/OUT[TX][RX]インジケータ

■ CIRCUIT BOARD LAYOUT (ユニットレイアウト)



DISASSEMBLY PROCEDURE (分解手順)

Precautions (注意事項)

- * Install the filament tape and the harness clamp in the same way as they were before removal.
- * **Notes on Flat Cable**
Contacts are visible from the back. Pay attention not to insert and install the cable to the connector inversely. (Photo 1)



Front Side (表面)



Back Side (裏面)

Photo A (写真A)

- ※ フィラメントテープ、束線止めは、取り外す前と同じように取り付けてください。
- ※ フラットケーブルの注意
接点が裏面から透けて見えます。コネクタにケーブルの表・裏を逆に差込まないように注意して取り付けてください。(写真A)

1. Rack Angles, Top Cover

(Time required: About 4 minutes)

- 1-1 Remove the four (4) screws marked [480]. The left and right rack angles can then be removed. (Fig. 1)
- 1-2 Remove the fourteen (14) screws marked [460]. The top cover can then be removed. (Fig. 1)

2. DM Circuit Board

(Time required: About 6 minutes each)

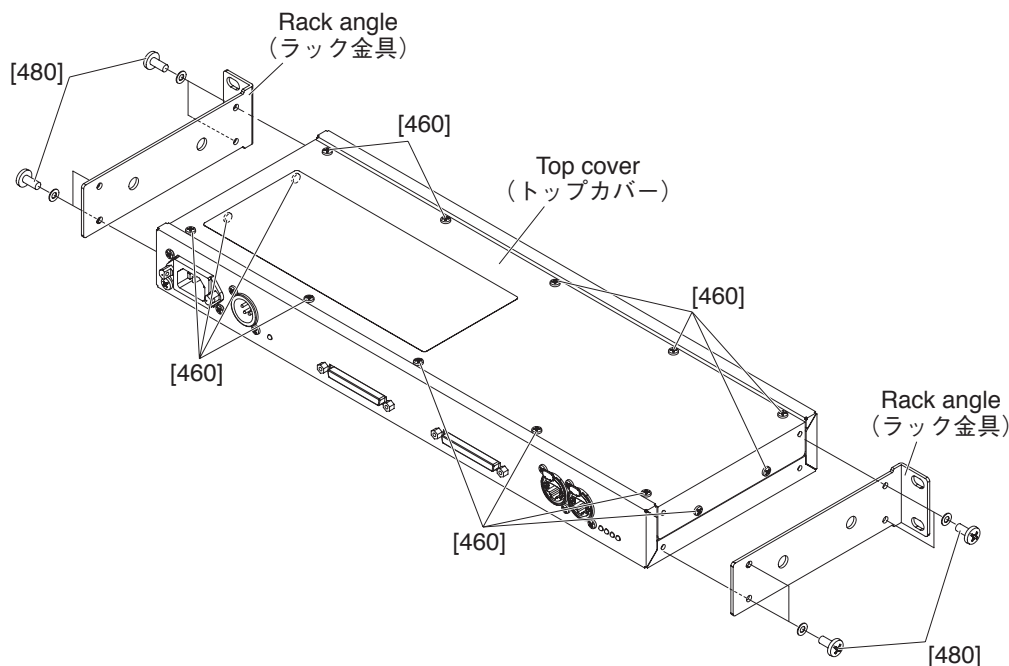
- 2-1 Remove the left and right rack angles and top cover. (See procedure 1.)
- 2-2 Remove the two (2) screws marked [60], four (4) hex locking screws marked [A] and four (4) screws marked [80], tilt the DM circuit board and remove it by lifting it. (Fig. 2)

1. ラック金具、トップカバー (所要時間: 約4分)

- 1-1 [480] のネジ 4 本ずつを外して、左右のラック金具を外します。(図1)
- 1-2 [460] のネジ 14 本を外して、トップカバーを外します。(図1)

2. DM シート (所要時間: 各約6分)

- 2-1 左右のラック金具とトップカバーを外します。(1項参照)
- 2-2 [60] のネジ 2 本と [A] の六角ロックネジ 4 本、[80] のネジ 4 本を外して、DM シートを斜めに傾けて持ち上げ外します。(図2)



[460]: Bonding Head Tapping Screw-S (Sタイト+BOND) 3.0X6 MFZN2B3 (WE978000)
 [480]: Bind Head Screw (小ネジ+BIND) 4.0X8 MFZN2B3 IT (WE997100)

Fig. 1 (図1)

3. ES Circuit Board, ES-CS Circuit Board (Time required: About 6 minutes)

- 3-1 Remove the left and right rack angles and top cover. (See procedure 1.)
- 3-2 Remove the four (4) screws marked [180] and two (2) screws marked [190]. The ES circuit board or ES-CS circuit board can then be removed. (Fig. 2)
- 3-3 To remove the AVDM-ES module on the ES circuit board, open the hooks on the portion B outward as in Photo 1, lift the AVDM-ES module and pull out obliquely upward.

* **To install the AVDM-ES module, insert securely until the terminal cannot be seen while fitting the contact point of the terminal to the connector to be connected, push in backward and fasten with the hooks. (Photo 2)
(The photographs show DSP5D.)**

3. ES シート、ES-CS シート (所要時間: 約 6 分)

- 3-1 左右のラック金具とトップカバーを外します。(1 項参照)
- 3-2 [180] のネジ 4 本と [190] のネジ 2 本を外して、ES シートまたは ES-CS シートを外します。(図 2)
- 3-3 ES シートに付いている AVDM-ES モジュールを外すには、写真 1 のように B 部のフックを外に開いて AVDM-ES モジュールを浮かせて、斜め上方方向に引き抜きます。

※ AVDM-ES モジュールを取り付けるには、差し込み先のコネクタに端子の接点を合わせながら端子が見えなくなるまでしっかりと差し込み、奥に押し込んでフックに引っ掛けます。(写真 2)
(写真は DSP5D の例です。)

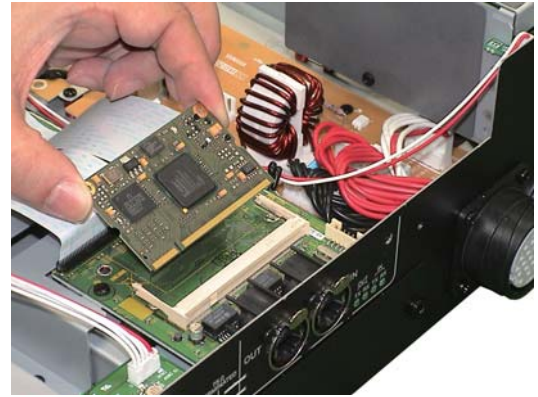
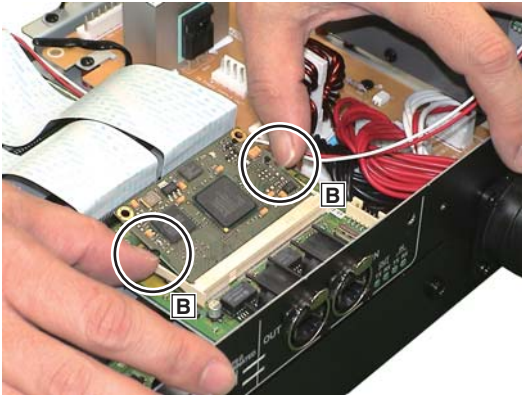


Photo 1 (写真 1)

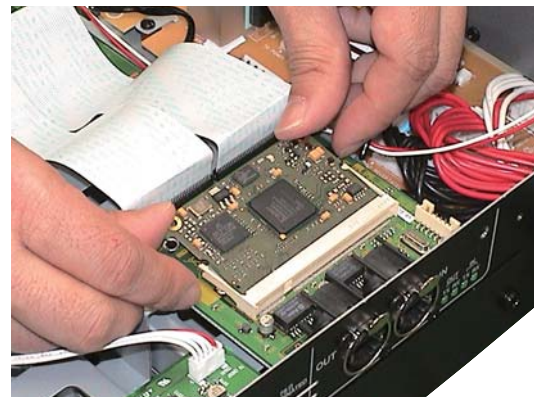
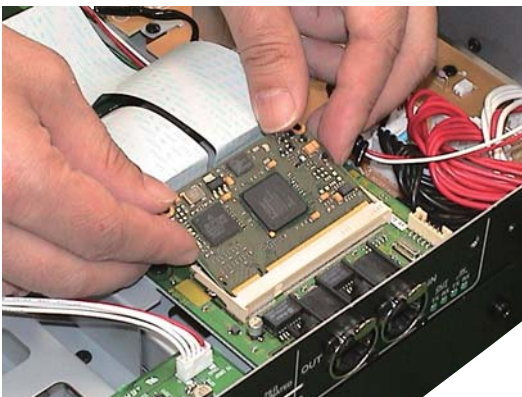
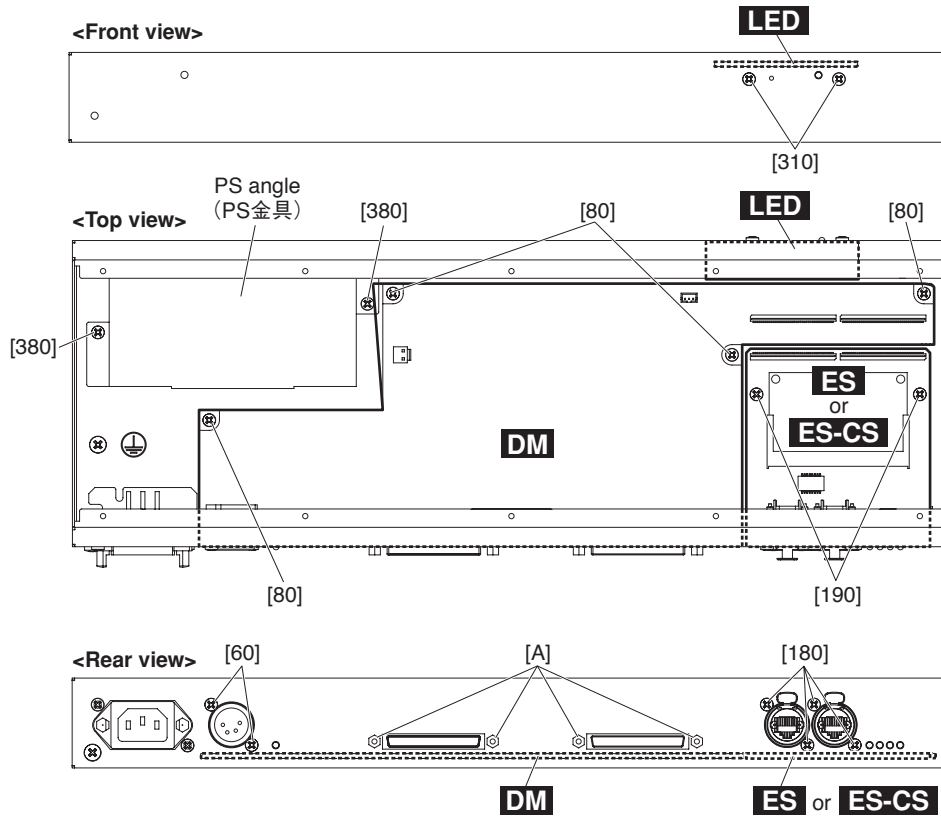
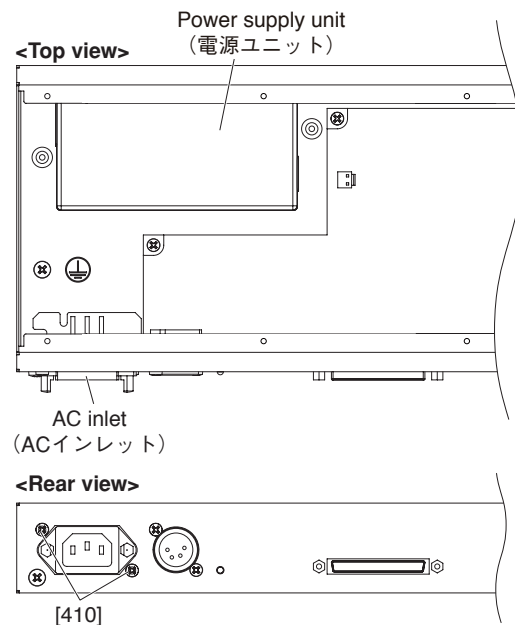


Photo 2 (写真 2)



- [60]: Bind Head Tapping Screw-B (B タイト+B I N D) 3.0X8 MFZN2B3 (WE774400)
- [80]: Bind Head Tapping Screw-B (B タイト+B I N D) 3.0X6 MFZN2W3 (WE936300)
- [180]: Bind Head Tapping Screw-B (B タイト+B I N D) 3.0X8 MFZN2B3 (WE774400)
- [190]: Bind Head Tapping Screw-B (B タイト+B I N D) 3.0X6 MFZN2W3 (WE936300)
- [310]: Bind Head Tapping Screw-S (S タイト+B I N D) 3.0X6 MFZN2B3 (WE877800)
- [380]: Bind Head Tapping Screw-B (B タイト+B I N D) 3.0X6 MFZN2W3 (WE936300)

Fig. 2 (図 2)



- [410]: Bind Head Tapping Screw-S (S タイト+B I N D) 3.0X6 MFZN2B3 (WE877800)

Fig. 3 (図 3)

4. LED Circuit Board**(Time required: About 5 minutes)**

- 4-1 Remove the left and right rack angles and top cover. (See procedure 1.)
- 4-2 Remove the two (2) screws marked [310] from the rear side. The LED circuit board can then be removed. (Fig. 2)

5. Power Supply Assembly**(Time required: About 7 minutes)**

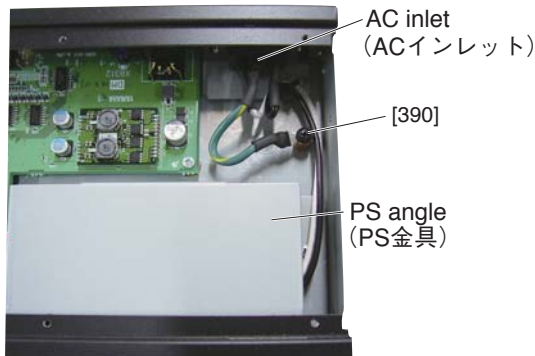
- 5-1 Remove the left and right rack angles and top cover. (See procedure 1.)
- 5-2 Remove the two (2) screws marked [380]. The PS angle can then be removed. (Fig. 2)
- 5-3 Remove the two (2) screws marked [410] and the screw marked [390]. The power supply assembly can then be removed. (Fig. 3, Photo 3)

4. LED シート (所要時間: 約 5 分)

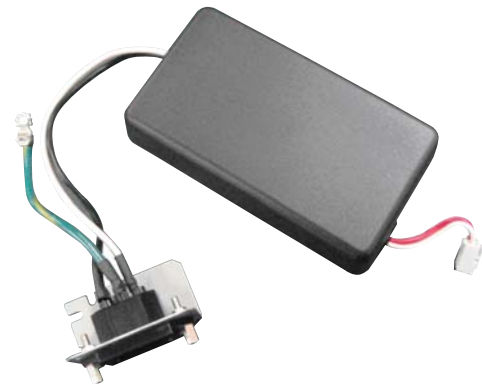
- 4-1 左右のラック金具とトップカバーを外します。(1 項参照)
- 4-2 リア側から [310] のネジ 2 本を外して、LED シートを外します。(図 2)

5. 電源 Ass'y (所要時間: 約 7 分)

- 5-1 左右のラック金具とトップカバーを外します。(1 項参照)
- 5-2 [380] のネジ 2 本を外して、PS 金具を外します。(図 2)
- 5-3 [410] のネジ 2 本と [390] のネジ 1 本を外して、電源 Ass'y を外します。(図 3、写真 3)



Power Supply Assembly (電源 Ass'y)



[390]: Bind Head Tapping Screw-S (S タイト + B I N D) 4.0X8 MFZN2B3 (WE994800)

Photo 3 (写真 3)

■ LSI PIN DESCRIPTION (LSI 端子機能表)

XC9572XL-10TQG100C (X4765C00) CPLD (Complex Programmable Logic Device)	10
LC4064V-75TN100C (X8955A00) CPLD (Complex Programmable Logic Device)	11
RD-0759 (X7792A00) DC-DC MODULE	11
S1L51252F32S200 (X3775A00) PLL2 (Gate Array)	12
MBCG61594-130-E1 (X3299A00) ATSC2A	13
YM3436D-VZ (XG948F00) DIR2	14

● XC9572XL-10TQG100C (X4765C00) CPLD

DM: IC16

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	I/O1	I/O	Input / Output 1	51	VCCIO2.5V/3.3V	-	Power Supply (2.5V/3.3V)
2	NC		Not used	52	I/O52	I/O	Input / Output 52
3	I/O/GTS1	I/O	} Input / Output / GTS buffer delay	53	I/O53	I/O	Input / Output 53
4	I/O/GTS2	I/O		54	I/O54	I/O	Input / Output 54
5	VCCINT3.3V	-	Power Supply (3.3V)	55	I/O55	I/O	Input / Output 55
6	I/O6	I/O	Input / Output 6	56	I/O56	I/O	Input / Output 56
7	NC		Not used	57	VCCINT3.3V	-	Power Supply (3.3V)
8	I/O8	I/O	Input / Output 8	58	I/O58	I/O	Input / Output 58
9	I/O9	I/O	Input / Output 9	59	I/O59	I/O	Input / Output 59
10	I/O10	I/O	Input / Output 10	60	I/O60	I/O	Input / Output 60
11	I/O11	I/O	Input / Output 11	61	I/O61	I/O	Input / Output 61
12	I/O12	I/O	Input / Output 12	62	GND	-	GND
13	I/O13	I/O	Input / Output 13	63	I/O63	I/O	Input / Output 63
14	I/O14	I/O	Input / Output 14	64	I/O64	I/O	Input / Output 64
15	I/O15	I/O	Input / Output 15	65	I/O65	I/O	Input / Output 65
16	I/O16	I/O	Input / Output 16	66	I/O66	I/O	Input / Output 66
17	I/O17	I/O	Input / Output 17	67	I/O67	I/O	Input / Output 67
18	I/O18	I/O	Input / Output 18	68	I/O68	I/O	Input / Output 68
19	NC		Not used	69	GND	-	GND
20	I/O20	I/O	Input / Output 20	70	I/O70	I/O	Input / Output 70
21	GND	-	GND	71	I/O71	I/O	Input / Output 71
22	I/O/GCK1	I/O	} Input / Output / GCK buffer delay	72	I/O72	I/O	Input / Output 72
23	I/O/GCK2	I/O		73	NC		Not used
24	NC		Not used	74	I/O74	I/O	Input / Output 74
25	I/O25	I/O	Input / Output 25	75	GND	-	GND
26	VCCIO2.5V/3.3V	-	Power Supply (2.5V/3.3V)	76	I/O76	I/O	Input / Output 76
27	I/O/GCK3	I/O	Input / Output / GCK buffer delay	77	I/O77	I/O	} Input / Output 77
28	I/O28	I/O	Input / Output 28	78	I/O78	I/O	
29	I/O29	I/O	Input / Output 29	79	I/O79	I/O	Input / Output 79
30	I/O30	I/O	Input / Output 30	80	NC		Not used
31	GND	-	GND	81	I/O81	I/O	} Input / Output 81
32	I/O32	I/O	Input / Output 32	82	I/O82	I/O	
33	I/O33	I/O	Input / Output 33	83	TDO	O	Output test data
34	NC		Not used	84	GND	-	GND
35	I/O35	I/O	Input / Output 35	85	I/O85	I/O	Input / Output 85
36	I/O36	I/O	Input / Output 36	86	I/O86	I/O	Input / Output 86
37	I/O37	I/O	Input / Output 37	87	I/O87	I/O	Input / Output 87
38	VCCIO2.5V/3.3V	-	Power Supply (2.5V/3.3V)	88	VCCIO2.5V/3.3V	-	Power Supply (2.5V/3.3V)
39	I/O39	I/O	Input / Output 39	89	I/O89	I/O	Input / Output 89
40	I/O40	I/O	Input / Output 40	90	I/O90	I/O	Input / Output 90
41	I/O41	I/O	Input / Output 41	91	I/O91	I/O	Input / Output 91
42	I/O42	I/O	Input / Output 42	92	I/O92	I/O	Input / Output 92
43	NC		Not used	93	I/O93	I/O	Input / Output 93
44	GND	-	GND	94	I/O94	I/O	Input / Output 94
45	TDI	I	Input test data	95	I/O95	I/O	Input / Output 95
46	NC		Not used	96	I/O96	I/O	Input / Output 96
47	TMS	I	Test mode switch	97	I/O97	I/O	Input / Output 97
48	TCK	I	Test clock	98	VCCINT3.3V	-	Power Supply (3.3V)
49	I/O49	I/O	Input / Output 49	99	I/O/GSR	I/O	Input / Output / GSR buffer delay
50	I/O50	I/O	Input / Output 50	100	GND	-	GND

● **LC4064V-75TN100C (X8955A00) CPLD (Complex Programmable Logic Device)**

ES: IC002

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	GND	—	Ground	51	GND	—	Ground
2	TDI	I	Test data in	52	TMS	I	Test mode select input
3	A8	I/O	General purpose I/O	53	C8	I/O	General purpose I/O
4	A9	I/O					
5	A10	I/O					
6	A11	I/O					
7	GND	—	Ground	56	C11	I/O	Ground
8	A12	I/O	General purpose I/O	57	GND	—	
9	A13	I/O					
10	A14	I/O					
11	A15	I/O					
12	I	I	Input	62	I	I	Input
13	VCCO	—	Power supply +3.3 V	63	VCCO	—	Power supply +3.3 V
14	B15	I/O	General purpose I/O	64	D15	I/O	General purpose I/O
15	B14	I/O					
16	B13	I/O					
17	B12	I/O					
18	GND	—	Ground	68	GND	—	Ground
19	B11	I/O	General purpose I/O	69	D11	I/O	General purpose I/O
20	B10	I/O					
21	B9	I/O					
22	B8	I/O					
23	I	I	Input	73	I	I	Input
24	TCK	I	Test clock input	74	TDO	O	Test data out
25	VCC	—	Power supply +3.3 V	75	VCC	—	Power supply +3.3 V
26	GND	—	Ground	76	GND	—	Ground
27	I	I	Input	77	I	I	Input
28	B7	I/O	General purpose I/O	78	D7	I/O	General purpose I/O
29	B6	I/O					
30	B5	I/O					
31	B4	I/O					
32	GND	—	Ground	82	GND	—	Ground
33	VCCO	—	Power supply +3.3 V	83	VCCO	—	Power supply +1.6 V
34	B3	I/O	General purpose I/O	84	D3	I/O	General purpose I/O
35	B2	I/O					
36	B1	I/O					
37	B0	I/O					
38	CLK1/I	I	Configured to be either CLK input / As an input.	87	D0/GOE1	I/O	Configured to be either global output enable input / As general I/O
39	CLK2/I	I					
40	VCC	—	Power supply +3.3 V	89	CLK0/I	I	Configured to be either CLK input / As an input.
41	C0	I/O	General purpose I/O	90	VCC	—	Power supply +3.3 V
42	C1	I/O					
43	C2	I/O					
44	C3	I/O					
45	VCCO	—	Power supply +3.3 V	91	A0/GOE0	I/O	Configured to be either global output enable input / As general I/O
46	GND	—	Ground	92	A1	I/O	General purpose I/O
47	C4	I/O					
48	C5	I/O					
49	C6	I/O					
50	C7	I/O	General purpose I/O	93	A2	I/O	
			Power supply +3.3 V	95	VCCO	—	Power supply +3.3 V
			Ground	96	GND	—	Ground
			General purpose I/O	97	A4	I/O	
			Ground on output side	98	A5	I/O	
			Ground on output side	99	A6	I/O	
			Voltage output +5V	100	A7	I/O	

● **RD-0759 (X7792A00) DC-DC MODULE**

DM: IC1

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	F _{IN}	I	Signal input for external synchronization	13	NC	-	Non-connection
2	PGOOD	O	Open drain output	14	V _{ADJ2}	O	V _{out2} voltage setting
3	ON/OFF1	O	V _{out1} output ON/OFF control and soft start control	15	+V _{out2}	O	Voltage output +3.3V
4	+V _{IN}	I					
5	+V _{IN}	I	Voltage input	16	+V _{out2}	O	
6	+V _{IN}	I					
7	NC	-	Non-connection	17	-V _{out2}	-	Ground on output side
8	-V _{IN}	-	Ground on input side	18	-V _{out2}	-	
9	-V _{IN}	-					
10	-V _{IN}	-					
11	ON/OFF2	O		V _{out2} output ON/OFF control and soft start control	19	—	-
12	MODE	O	DC-DC converter operation mode setting	20	-V _{out1}	-	Ground on output side
				21	-V _{out1}	-	
				22	+V _{out1}	O	Voltage output +5V
				23	+V _{out1}	O	
				24	V _{ADJ1}	O	V _{out1} voltage setting
				25	NC	-	Non-connection

● S1L51252F32S200 (X3775A00) PLLP2 (Gate Array)

DM: IC6

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	(NC)	-	(Connected to VSS on P.C.B.)	105	(NC)	-	(Pulled up on P.C.B.)
2	(NC)	-	(Pulled up on P.C.B.)	106	VDD	-	Power supply
3	PB8	O	Output port B8	107	(NC)	-	(Connected to VSS on P.C.B.)
4	PB9	O	Output port B9	108	(NC)	-	(Connected to VSS on P.C.B.)
5	VDD	-	IO power supply (3.3V)	109	VSS	-	Ground
6	VSS	-	Ground	110	VDD	-	Power supply
7	PA0	O	Output port A0	111	NCSDSP7	O	Chip select (DSP7_ALL)
8	NCSIN6	I	CPU chip select 6	112	NCSDSP6	O	Chip select (DSP6_ALL)
9	NCSIN5	I	CPU chip select 5	113	PA9	O	Output port A9
10	NRD	I	CPU read enable	114	MCK256O	O	256FS synchronous clock output
11	NWRH	I	CPU write enable H	115	MCK256MI	I	256FS synchronous clock input (Master)
12	NWRL	I	CPU write enable L	116	MCK256SI	I	256FS synchronous clock input (Slave)
13	PA1	O	Output port A1	117	VSS	-	Ground
14	ADH1	I	CPU address bus 11	118	VDD	-	Power supply
15	ADH2	I	CPU address bus 12	119	ICK45	I	For internal clock 88.2k, 44.1k
16	ADH3	I	CPU address bus 13	120	ICK49	I	For internal clock 96k, 48k
17	ADH4	I	CPU address bus 14	121	DIR2X1	O	Clock for X1 of DIR2
18	ADH5	I	CPU address bus 15	122	PA10	O	Output port A10
19	PA2	O	Output port A2	123	VSS	-	Ground
20	VSS	-	Ground	124	VDD	-	Power supply
21	VDD	-	Internal power supply (2.5V)	125	EXTWC1	I	External word clock input 1
22	VDD	-	IO power supply (3.3V)	126	EXTWC2	I	External word clock input 2
23	VSS	-	Ground	127	EXTWC3	I	External word clock input 3
24	ADL1	I	CPU address bus 1	128	EXTWC4	I	External word clock input 4
25	ADL2	I	CPU address bus 2	129	VSS	-	Ground
26	ADL3	I	CPU address bus 3	130	VDD	-	Power supply
27	ADL4	I	CPU address bus 4	131	EXTWC2561	I	External WC (256FS) input 1
28	ADL5	I	CPU address bus 5	132	EXTWC2562	I	External WC (256FS) input 2
29	ADL6	I	CPU address bus 6	133	PA11	O	Output port A11
30	ADL7	I	CPU address bus 7	134	DIRMCA	I	MCA input of DIR2
31	ADL8	I	CPU address bus 8	135	DIRMCB	I	MCB input of DIR2
32	VSS	-	Ground	136	DIRWC	I	WC input of DIR2
33	VDD	-	Internal power supply (2.5V)	137	VSS	-	Ground
34	VDD	-	IO power supply (3.3V)	138	VDD	-	Power supply
35	VSS	-	Ground	139	DIRMCC	I	MCC input of DIR2
36	DT0	I/O	CPU data bus 0	140	DIRSYNC	I	SYNC input of DIR2
37	DT1	I/O	CPU data bus 1	141	EXTWCSEL	O	EXTWC clock select output
38	DT2	I/O	CPU data bus 2	142	DIRWCSEL	O	DIRWC clock select output
39	DT3	I/O	CPU data bus 3	143	PA12	O	Output port A12
40	DT4	I/O	CPU data bus 4	144	PLLOUT	I	PLL VCO OUT input
41	DT5	I/O	CPU data bus 5	145	VSS	-	Ground
42	VDD	-	IO power supply (3.3V)	146	VDD	-	Power supply
43	VSS	-	Ground	147	PCPOUT	O	EXT WC SEL to MWC comparison circuit output
44	DT6	I/O	CPU data bus 6	148	PA13	O	Output port A13
45	DT7	I/O	CPU data bus 7	149	M256FS	O	Master clock (256FS)
46	DT8	I/O	CPU data bus 8	150	M128FS	O	System clock (128FS)
47	DT9	I/O	CPU data bus 9	151	VSS	-	Ground
48	VDD	-	Internal power supply (2.5V)	152	VDD	-	Power supply
49	VSS	-	Ground	153	(NC)	-	(Connected to VDD on P.C.B.)
50	(NC)	-	(Connected to VDD on P.C.B.)	154	(NC)	-	(Connected to VSS on P.C.B.)
51	(NC)	-	(Connected to VDD on P.C.B.)	155	(NC)	-	(Pulled up on P.C.B.)
52	(NC)	-	(Pulled up on P.C.B.)	156	(NC)	-	(Pulled up on P.C.B.)
53	DT10	I/O	CPU data bus 10	157	M64FS	O	System clock (64FS)
54	DT11	I/O	CPU data bus 11	158	MWC	O	Word clock
55	DT12	I/O	CPU data bus 12	159	MSYNC	O	Synchronous signal
56	DT13	I/O	CPU data bus 13	160	PA14	O	Output port A14
57	DT14	I/O	CPU data bus 14	161	WCO_BNC	O	WC output for BNC connector
58	DT15	I/O	CPU data bus 15	162	PA15	O	Output port A15
59	VSS	-	Ground	163	FS256_SLOT1	O	Clock (256FS) for MY SLOT1
60	PA3	O	Output port A3	164	FS256_SLOT2	O	Clock (256FS) for MY SLOT2
61	NTCWAIT	O	CPU wait signal	165	VDD	-	Power supply
62	NCSIO3V	O	Chip select (103V)	166	SYNC_SLOT1	O	Synchronous signal for MY SLOT1
63	NCSIO5V	O	Chip select (105V)	167	SYNC_SLOT2	O	Synchronous signal for MY SLOT2
64	NCSJK1	O	Chip select (JK1)	168	PB0	O	Output port 80
65	NCSCONT	O	Chip select (CONT)	169	SLOT_12M	O	Clock (12MHz) for MY SLOT
66	VDD	-	Power supply	170	SLOT_6M	O	Clock (6MHz) for MY SLOT
67	NCSSL0T1	O	Chip select (SLOT1)	171	VSS	-	Ground
68	NCSSL0T2	O	Chip select (SLOT2)	172	SLOT_3M	O	Clock (3MHz) for MY SLOT
69	NCSSIO4	O	Chip select (S104)	173	PB1	O	Output port B1
70	NCSREC2	O	Chip select (REC2)	174	SLOT_48K	O	Word clock (48/44) for MY SLOT
71	NCSMTLED	O	Chip select (MTLED)	175	SLOT_48S	O	Synchronous signal (48/44) for MY SLOT
72	VDD	-	Power supply	176	PB2	O	Output port B2
73	NCSUSB	O	Chip select (USB)	177	ANA256FS	O	Clock for analog circuit
74	NCSSMPTE	O	Chip select (SMPTE)	178	VDD	-	Power supply
75	NCSUART	O	Chip select (UART)	179	NLOCK	I	PLL lock detect signal
76	VSS	-	Ground	180	NDIRLOCK	I	DIR2 PLL lock signal
77	VDD	-	Power supply	181	VSS	-	Ground
78	NRES	I	System reset	182	SCANEN	I	Scan test input
79	CPUCLK	I	CPU clock	183	ATPGEN	I	ATPG test input
80	(NC)	-	(Connected to VSS on P.C.B.)	184	TSTEN	I	Test mode selection
81	VSS	-	Ground	185	VDD	-	Power supply
82	VSS	-	Ground	186	TRRERR1	I	2TR DIN UNLOCK input
83	NCSATSC1	O	Chip select (ATSC1)	187	TRRERR2	I	2TR DIN UNLOCK input
84	VDD	-	Power supply	188	VSS	-	Ground
85	NCSATSC2	O	Chip select (ATSC2)	189	PB3	O	Output port B3
86	PA4	O	Output port A4	190	NMLOCKSEL	O	Lock select output
87	PA5	O	Output port A5	191	NLOCKRTN	I	Lock delay input
88	PA6	O	Output port A6	192	PB4	O	Output port B4
89	NCTSYNCO	O	Internal counter synchronous signal output	193	MUTEIN	I	Mute input
90	NCTSYNCI	I	Internal counter synchronous signal input	194	VDD	-	Power supply
91	VDD	-	Power supply	195	MUTEOUT1	O	Mute output 1
92	NCSDSP71	O	Chip select (DSP7_1)	196	MUTEOUT2	O	Mute output 2
93	NCSDSP72	O	Chip select (DSP7_2)	197	MUTEOUT3	O	Mute output 3
94	NCSDSP73	O	Chip select (DSP7_3)	198	MUTEOUT4	O	Mute output 4
95	NCSDSP74	O	Chip select (DSP7_4)	199	MUTEOUT5	O	Mute output 5
96	NCSDSP75	O	Chip select (DSP7_5)	200	NMUTEOUT6	O	Mute output 6
97	NCSDSP76	O	Chip select (DSP7_6)	201	VDD	-	Power supply
98	VDD	-	Power supply	202	PB5	O	Output port B5
99	PA7	O	Output port A7	203	DOUBLE	O	Register setting value output
100	PA8	O	Output port A8	204	K48K96	O	Register setting value output
101	NCSDSP61	O	Chip select (DSP6_1)	205	PB6	O	Output port B6
102	NCSDSP62	O	Chip select (DSP6_2)	206	SLOT1_16CH	O	SLOT1 16/8 ch selection
103	NCSDSP63	O	Chip select (DSP6_3)	207	SLOT2_16CH	O	SLOT2 16/8 ch selection
104	NCSDSP64	O	Chip select (DSP6_4)	208	PB7	O	Output port B7

• MBCG61594-130-E1 (X3299A00) ATSC2A

DM: IC12, 13

PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	VDD		Power supply +3.3V	73	VDD		Power supply +3.3V
2	XTST	I	LSI test pin	74	PB_H_M4_SEL	I	Port B audio data input buffer active select
3	VSS		Ground	75	PB_O_MUTE	I	Port B mute
4	WT_X	I	CPU interface write input	76	VSS		Ground
5	RD_X	I	CPU interface read input	77	PB_SO0_ATO	O	Port B audio data output
6	CS_X	I	CPU interface chip select input	78	PB_SO1	O	
7	HS_SEL	I	Chip active select	79	PB_SO2	O	
8	RES_X	I	System reset input	80	PB_SO3	O	Ground
9	VSS		Ground	81	VSS		
10	ADD[0]	I	CPU interface address bus	82	PB_O_H_MODE[0]	I	Port B audio data output mode select
11	ADD[1]	I					
12	ADD[2]	I					
13	ADD[3]	I		Port C audio data input mode select	83	PB_O_H_MODE[1]	I
14	ADD[4]	I					
15	ADD[5]	I					
16	ADD[6]	I					
17	ADD[7]	I		84	PB_O_H_MODE[2]	I	
18	VDD		Power supply +3.3V	85	PC_I_H_MODE[0]	I	Port C audio data input buffer active select
19	VSS		Ground	86	PC_I_H_MODE[1]	I	
20	DAT[0]	I/O	CPU interface data bus	87	PC_I_H_MODE[2]	I	Port C audio data input
21	DAT[1]	I/O					
22	DAT[2]	I/O					
23	DAT[3]	I/O					
24	VDD		Power supply +3.3V	88	PC_H_M4_SEL	I	Port C audio data output sync/wc select
25	VSS		Ground	89	PC_SIO_AT1	I	
26	DAT[4]	I/O	CPU interface data bus	90	VDD		Power supply +3.3V
27	DAT[5]	I/O					
28	DAT[6]	I/O					
29	DAT[7]	I/O					
30	VSS		Ground	91	VSS		Ground
31	VDD		Power supply +3.3V	92	PC_SI1	I	Port C audio data input
32	PA_I_H_MODE[0]	I	Port A audio data input mode select	93	PC_SI2	I	
33	PA_I_H_MODE[1]	I					
34	PA_I_H_MODE[2]	I					
35	PA_O_H_MODE[0]	I	Port A audio data output mode select	94	PC_SI3	I	Port C audio data input sync/wc select
36	PA_O_H_MODE[1]	I					
37	PA_O_H_MODE[2]	I					
38	PA_SIO_AT1	I	Port A audio data input	95	PC_I_SW_SEL	I	Port C audio data input sync/wc input
39	PA_SI1	I					
40	PA_SI2	I					
41	PA_SI3	I					
42	PA_I_SW_SEL	I	Port A audio data input sync/wc select	96	PC_SYNC_WC_SI	I	Port C audio data input bit clock input (256fs)
43	PA_SYNC_WC_SI	I	Port A audio data input sync/wc input	97	PC_FS256_SI	I	
44	PA_FS256_SI	I	Port A audio data input bit clock input (256fs)	98	VSS		Ground
45	VSS		Ground	99	PC_FS256_SO	I	Port C audio data output bit clock input (256fs)
46	PA_FS256_SO	I	Port A audio data output bit clock input (256fs)	100	PC_SYNC_WC_SO	I	Port C audio data output sync/wc input
47	PA_SYNC_WC_SO	I	Port A audio data output sync/wc input	101	PC_O_SW_SEL	I	Port C audio data output sync/wc select
48	PA_O_SW_SEL	I	Port A audio data output sync/wc select	102	VSS		Ground
49	VSS		Ground	103	PC_SO0	O	Port C audio data output
50	PA_SO0	O	Port A audio data output	104	PC_SO1	O	
51	PA_SO1	O					
52	PA_SO2	O					
53	PA_SO3	O		105	PC_SO2	O	Ground
54	VDD		Power supply +3.3V	106	PC_SO3	O	
55	VSS		Ground	107	VSS		Ground
56	PA_CLK_AT1	I	Port A ADAT clock input	108	PC_O_MUTE	I	Port C mute
57	PA_H_M4_SEL	I	Port A audio data input buffer active select	109	PC_O_H_MODE[0]	I	Port C audio data output mode select
58	PA_O_MUTE	I	Port A mute	110	PC_O_H_MODE[1]	I	
59	PB_SIO	I	Port B audio data input	111	PC_O_H_MODE[2]	I	
60	PB_SI1	I					
61	PB_SI2	I					
62	PB_SI3	I					
63	PB_I_SW_SEL	I	Port B audio data input sync/wc select	112	PC_CLK_AT1	I	Port C ADAT clock input
64	PB_SYNC_WC_SI	I	Port B audio data input sync/wc input	113	VSS		Ground
65	PB_FS256_SI	I	Port B audio data input bit clock input (256fs)	114	PD_I_H_MODE[0]	I	Port D audio data input mode select
66	VSS		Ground	115	PD_I_H_MODE[1]	I	
67	PB_FS256_SO	I	Port B audio data output bit clock input (256fs)	116	PD_I_H_MODE[2]	I	
68	PB_SYNC_WC_SO	I	Port B audio data output sync/wc input	117	VSS		Ground
69	PB_O_SW_SEL	I	Port B audio data output sync/wc select	118	PD_H_M4_SEL	I	Port D audio data input buffer active select
70	PB_I_H_MODE[0]	I	Port B audio data input mode select	119	PD_SIO	I	Port D audio data input
71	PB_I_H_MODE[1]	I					
72	PB_I_H_MODE[2]	I					
				120	PD_SI1	I	Port D audio data output
				121	PD_SI2	I	
				122	PD_SI3	I	
				123	PD_I_SW_SEL	I	Port D audio data input sync/wc select
				124	PD_SYNC_WC_SI	I	Port D audio data input sync/wc input
				125	PD_FS256_SI	I	Port D audio data input bit clock input (256fs)
				126	VDD		Power supply +3.3V
				127	VSS		Ground
				128	PD_FS256_SO	I	Port D audio data output bit clock input (256fs)
				129	PD_SYNC_WC_SO	I	Port D audio data output sync/wc input
				130	PD_O_SW_SEL	I	Port D audio data output sync/wc select
				131	VSS		Ground
				132	PD_SO0_ATO	O	Port D audio data output
				133	PD_SO1	O	
				134	PD_SO2	O	
				135	PD_SO3	O	Ground
				136	VSS		
				137	PD_O_MUTE	I	Port D mute
				138	VSS		Ground
				139	PD_O_H_MODE[0]	I	Port D audio data output mode select
				140	PD_O_H_MODE[1]	I	
				141	PD_O_H_MODE[2]	I	
				142	XSM	I	LSI test pin
				143	PA_WC_AT1	O	Port A ADAT word clock output
				144	PC_WC_AT1	O	Port C ADAT word clock output

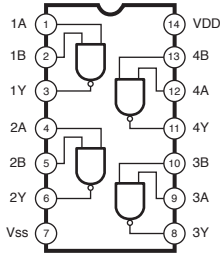
● **YM3436D-VZ (XG948F00) DIR2 (Digital Format Interface Receiver)**

DM: IC11

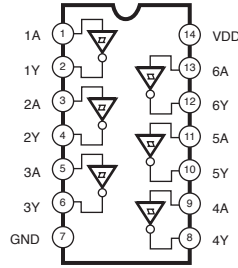
PIN NO.	NAME	I/O	FUNCTION	PIN NO.	NAME	I/O	FUNCTION
1	DAUX	I	Auxiliary input for audio data	23	RSTN	I	System reset input
2	HDLT	O	Asynchronous buffer operation flag	24	Vdda	I	VCO section power (+5V)
3	DOUT	O	Audio data output	25	CTLN	I	VCO control input N
4	VFL	O	Parity flag output	26	PCO	O	PLL phase comparison output
5	OPT	O	Fs x 1 Synchronous output signal for DAC	27	(NC)		
6	SYNC	O	Fs x 1 Synchronous output signal for DSP	28	CTLP	I	VCO control input P
7	MCC	O	Fs x 64 Bit clock output	29	Vssa	I	VCO section power (GND)
8	WC	O	Fs x 1 Word clock output	30	TSTN	I	Test terminal. Open for normal use
9	MCB	O	Fs x 128 Bit clock output	31	KM2	I	Clock mode switching input 2
10	MCA	O	Fs x 256 Bit clock output	32	KM0	I	Clock mode switching input 0
11	SKSY	I	Clock synchronization control input	33	FS1	O	Channel status sampling frequency display output 1
12	XI	I	Crystal oscillator connection or external clock input	34	FS0	O	Channel status sampling frequency display output 0
13	XO	O	Crystal oscillator connection	35	CSM	I	Channel status output method selection
14	P256	O	VCO oscillating clock connection	36	EXTW	I	External synchronous auxiliary input word clock
15	LOCK	O	PLL lock flag	37	DDIN	I	EIAJ (AES/EBU) data input
16	Vss		Logic section power (GND)	38	LR	O	PLL word clock output
17	TC	O	PLL time constant switching output	39	Vdd	I	Logic section power (+5 V)
18	DIM1	I	Data input mode selection	40	ERR	O	Data error flag output
19	DIM0	I	Data input mode selection	41	EMP	O	Channel status emphasis control code output
20	DOM1	I	Data output mode selection	42	CD0	O	3-wire type microcomputer interface data output
21	DOM0	I	Data output mode selection	43	CCK	I	3-wire type microcomputer interface clock input
22	KM1	I	Clock mode switching input 1	44	CLD	I	3-wire type microcomputer interface load input

IC BLOCK DIAGRAM (IC ブロック図)

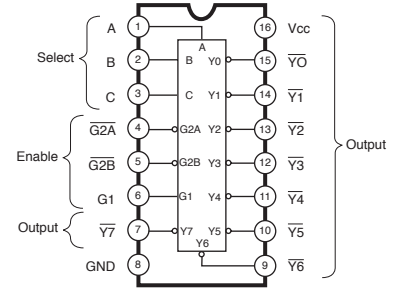
- **TC74VHC00F** (XT229B00)
DM: IC5, 15
Quad 2 Input NAND



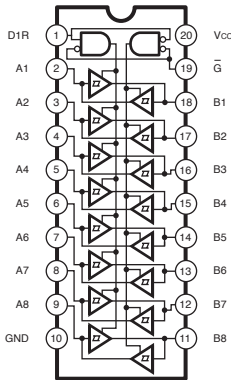
- **TC74VHC14F** (XW876B00)
DM: IC17
Hex Inverter



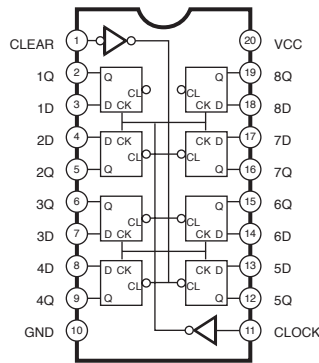
- **74VHC138SJX** (XY873A00)
DM: IC29
3 to 8 Demultiplexer



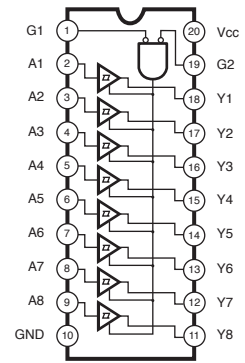
- **TC74VHCT245AF** (XV242B00)
DM: IC7, 9, 19, 24
- **SN74AHC245NSR** (X2717A00)
DM: IC26, 27, 30, 47-50
Octal 3-State Bus Transceiver



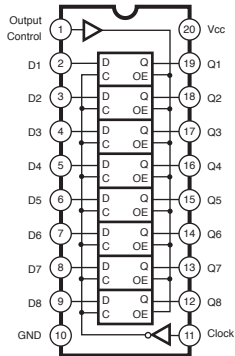
- **74VHC273SJX** (X4370A00)
DM: IC31
Octal D-Type Flip Flop



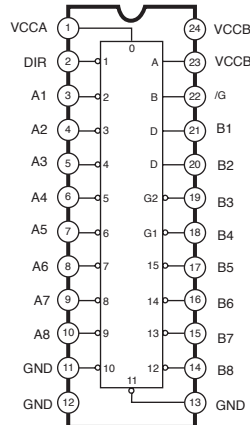
- **74VHC541SJX** (XY961A00)
DM: IC8, 34
Octal 3-State Buffer



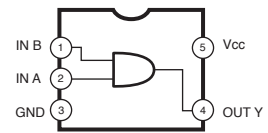
- **TC74VHC573F** (X8819A00)
DM: IC300
Octal 3-State D-Latches



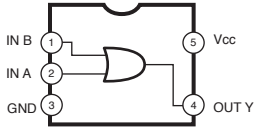
- **74LVX4245MTCX** (X3097A00)
DM: IC25
Dual Supply Octal Bus Transceiver



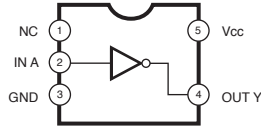
- **TC7SH08FU** (XR680A00)
DM: IC4
2 Input AND Gate



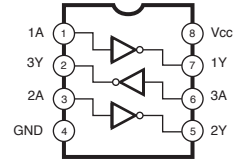
- **TC7SH32FU (XW633A00)**
DM: IC22
2-Input OR Gate



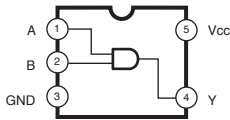
- **TC7SH04FU (XS775A00)**
DM: IC18, 28, 301, 302
Inverter Gate



- **TC7WU04FU (XQ805A00)**
ES: IC001
Triple Inverter



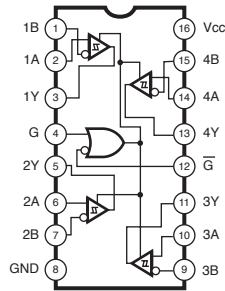
- **SN74AHCT1G08DCKR (X0158A00)**
DM: IC23
Single 2-Input Positive-AND Gate



FUNCTION TABLE

INPUTS		OUTPUT
A	B	Y
H	H	H
L	X	L
X	L	L

- **AM26LS32ACNSR (X3251A00)**
DM: IC36-40, 46
Quadruple Differential Line Receivers

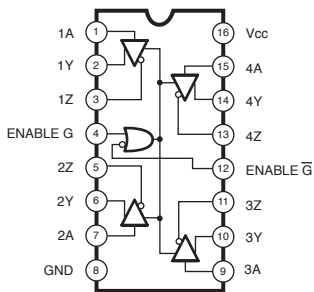


EACH RECEIVER

DIFFERENTIAL A-B	INPUTS		OUTPUT Y
	ENABLES G	\bar{G}	
$V_{ID} \geq V_{IT+}$	H X	X L	H H
$V_{IT-} \leq V_{ID} \leq V_{IT+}$	H X	X L	? ?
$V_{ID} \leq V_{IT-}$	H X	X L	L L
X	L H	H L	Z Z
Open	H X	X L	H H

H=high level, L=low level, ?=indeterminate, X=irrelevant, Z=high impedance (off)

- **AM26LS31CNSR (XU996A00)**
DM: IC35, 41-45
Quad Line Driver



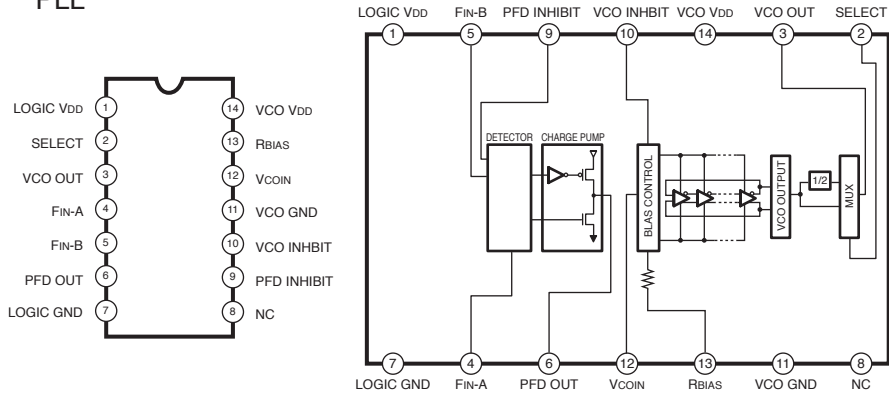
INPUT A	ENABLES		OUTPUTS	
	G	\bar{G}	Y	Z
H	H	X	H	L
L	H	X	L	H
H	X	L	H	L
L	X	L	L	H
X	L	H	Z	Z

H= high level
L= low level
X= irrelevant
Z= high impedance (off)

● **TLC2932IPWRG4 (XV064A00)**

DM: IC10, 20

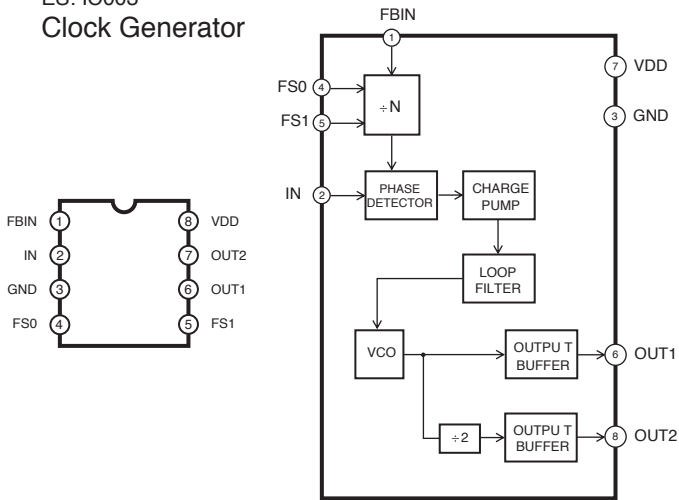
PLL



● **CY2302SXC-1T (XW492A00)**

ES: IC003

Clock Generator



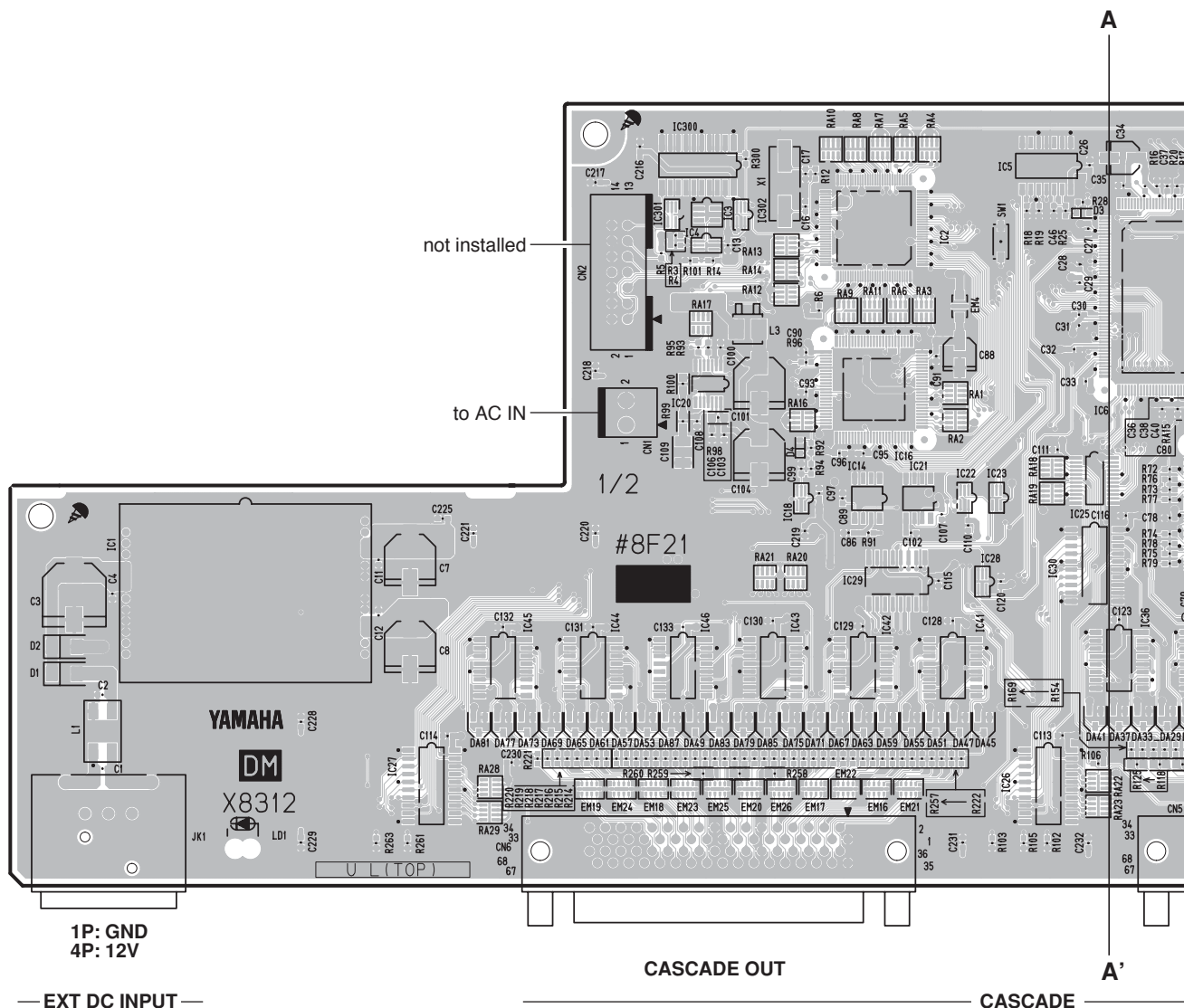
CIRCUIT BOARDS (シート基板図)

DM Circuit Board (X8312C0).....	18/20
ES Circuit Board (X8308D0).....	22
LED Circuit Board (X8312C0).....	20

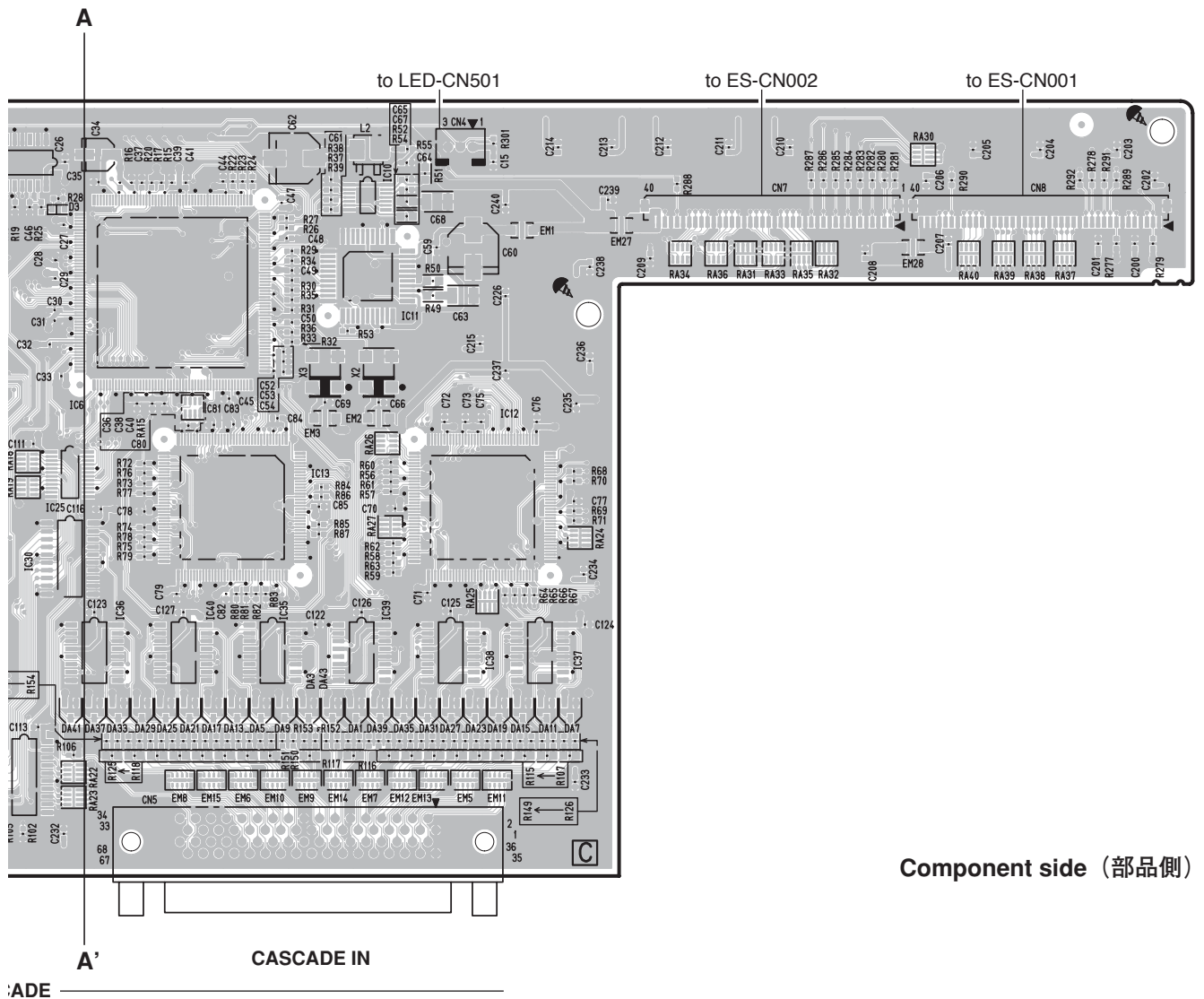
Note: See parts list for details of circuit board component parts.

注： シートの部品詳細はパーツリストをご参照ください。

● DM Circuit Board

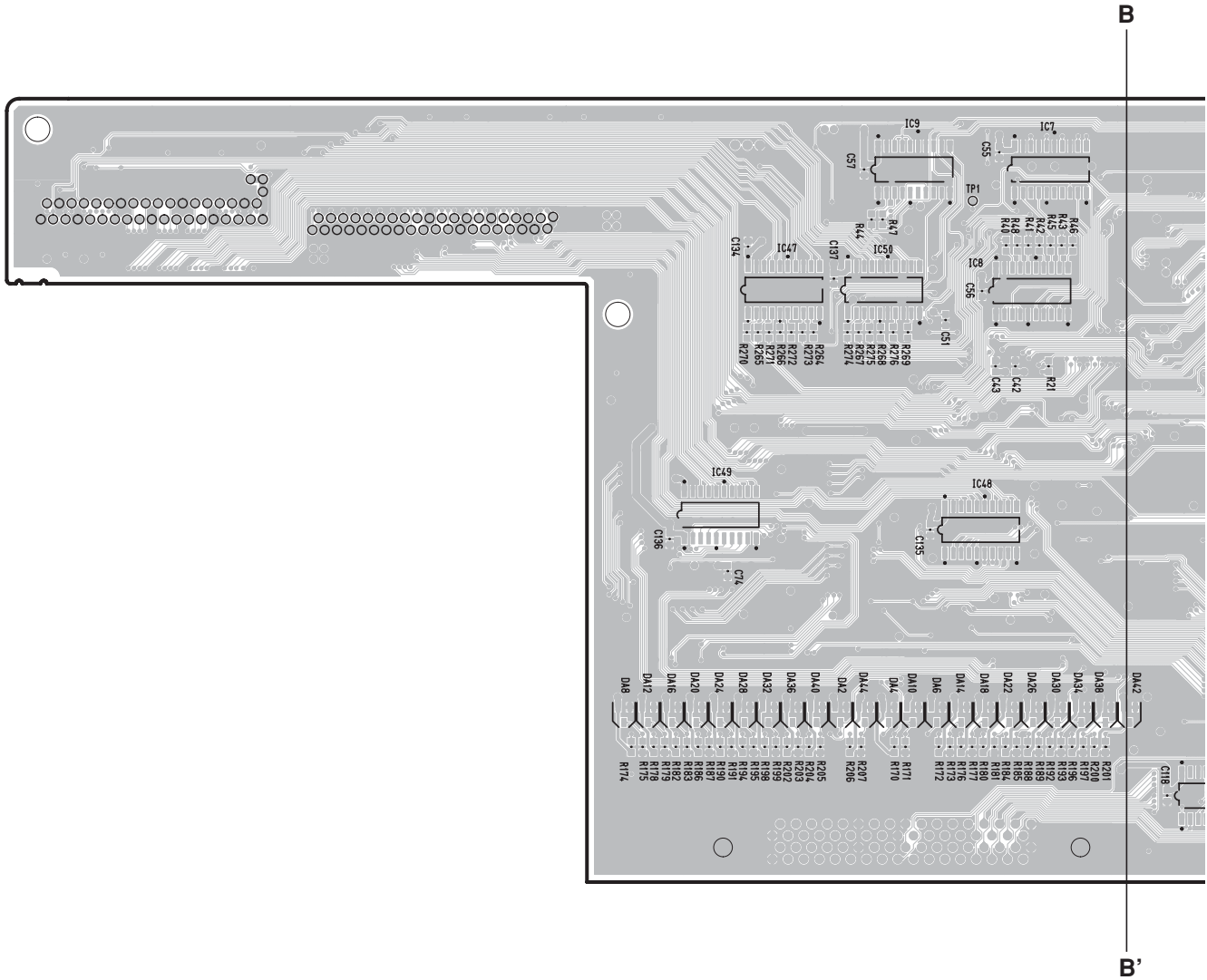


Scale: 90/100

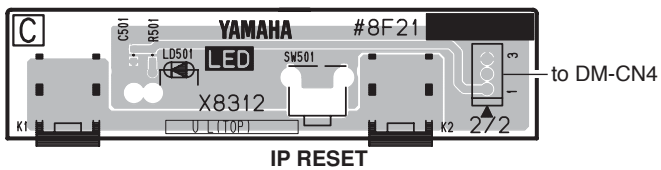


Component side (部品側)

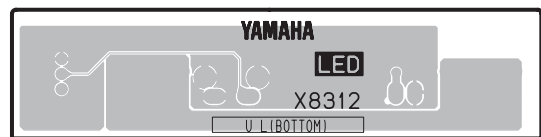
● DM Circuit Board



● LED Circuit Board



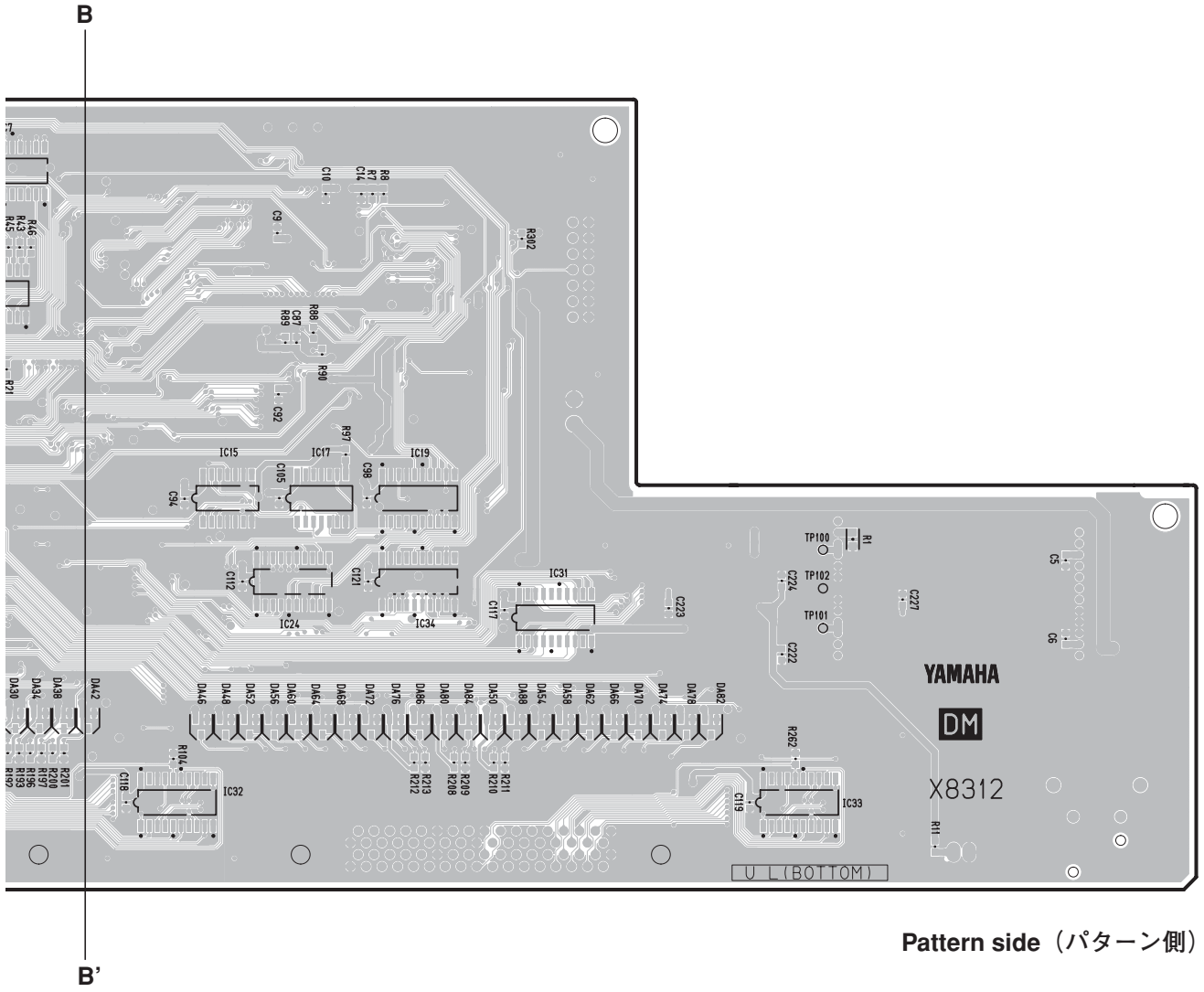
Component side (部品側)



Pattern side (パターン側)

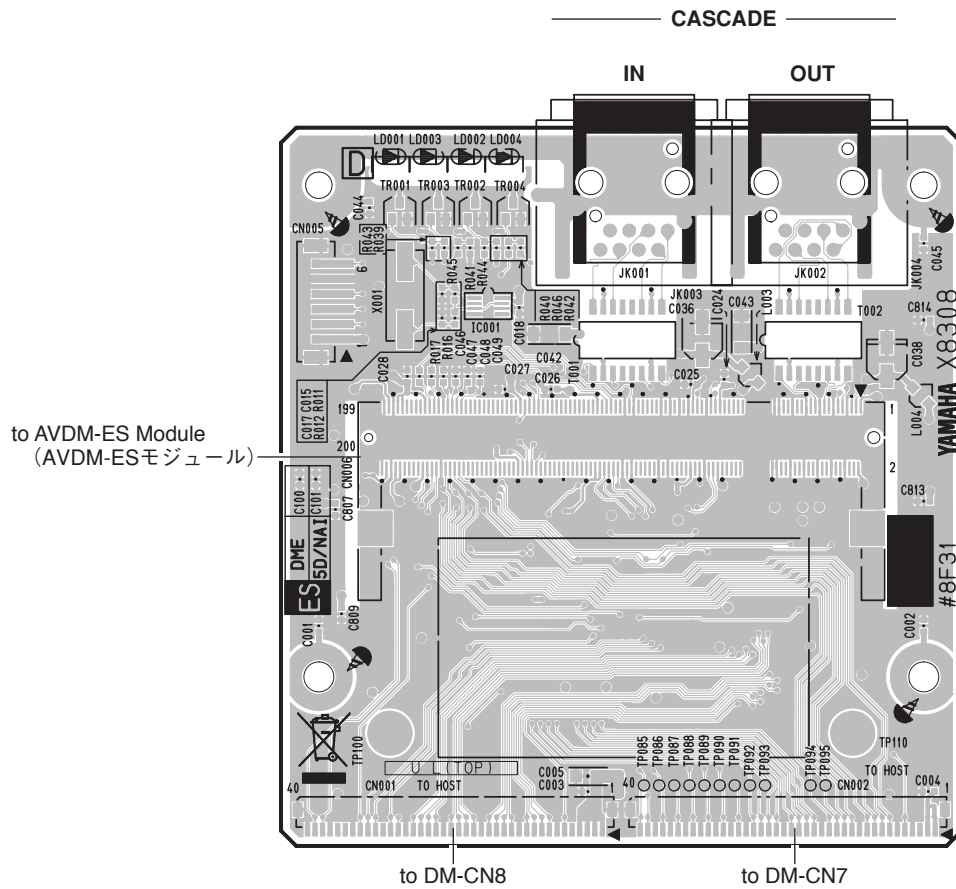
DM: 2NA-WJ02270-2
LED: 2NA-WJ02270

Scale: 90/100

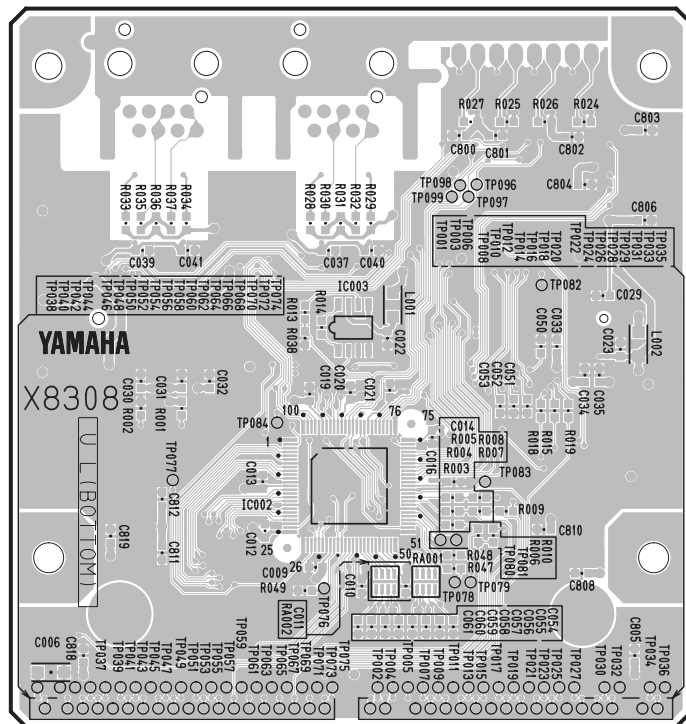


Pattern side (パターン側)

● ES Circuit Board



Component side (部品側)



Pattern side (パターン側)

DIGITAL CABLING UNIT

DCU5D

PARTS LIST


■ CONTENTS (目次)


OVERALL ASSEMBLY (総組立)	2
ELECTRICAL PARTS (電気部品)	4-8

Notes : DESTINATION ABBREVIATIONS

A : Australian model	M : South African model
B : British model	O : Chinese model
C : Canadian model	Q : South-east Asia model
D : German model	T : Taiwan model
E : European model	U : U.S.A. model
F : French model	V : General export model (110V)
H : North European model	W : General export model (220V)
I : Indonesian model	N,X : General export model
J : Japanese model	Y : Export model
K : Korean model	

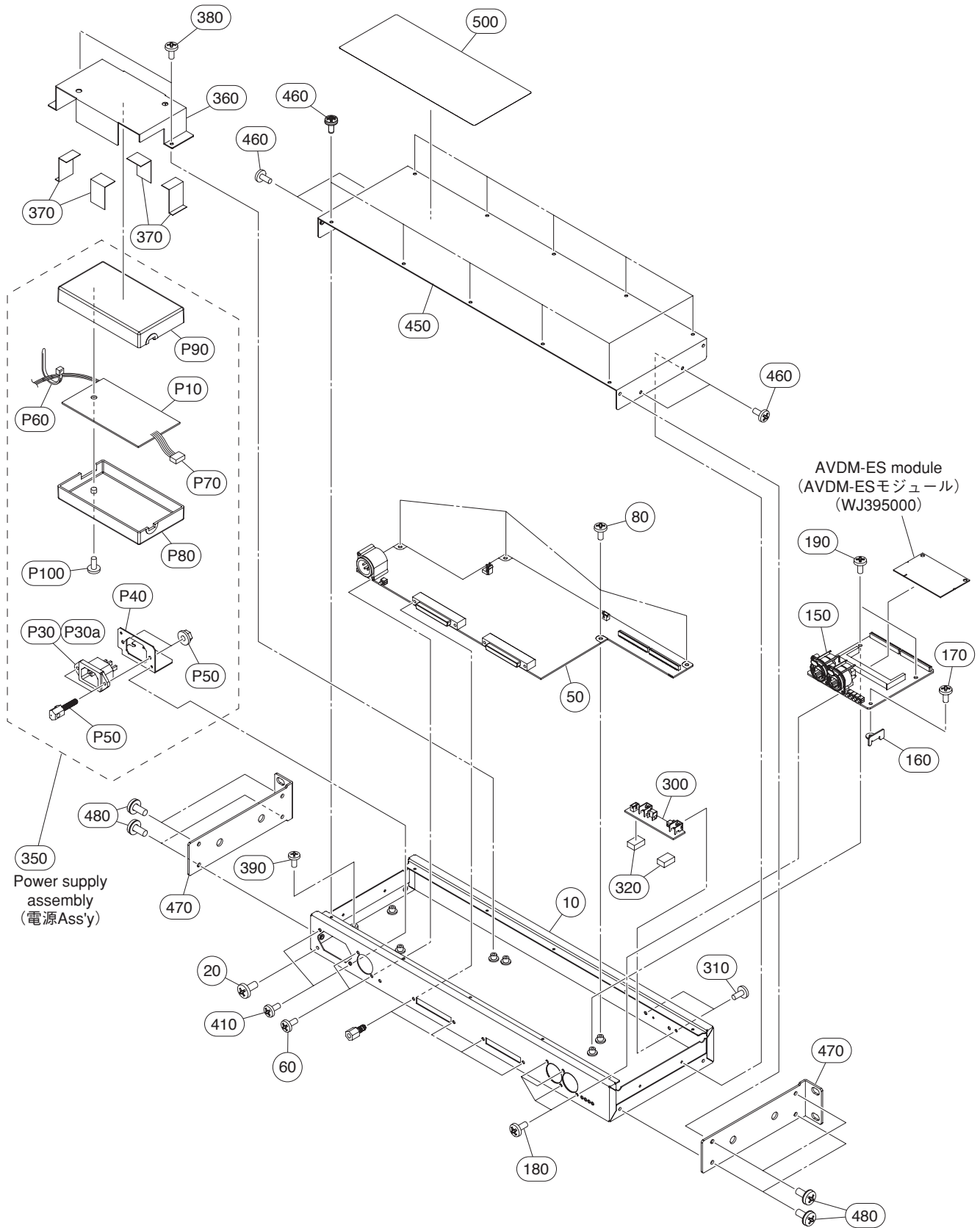
■ WARNING

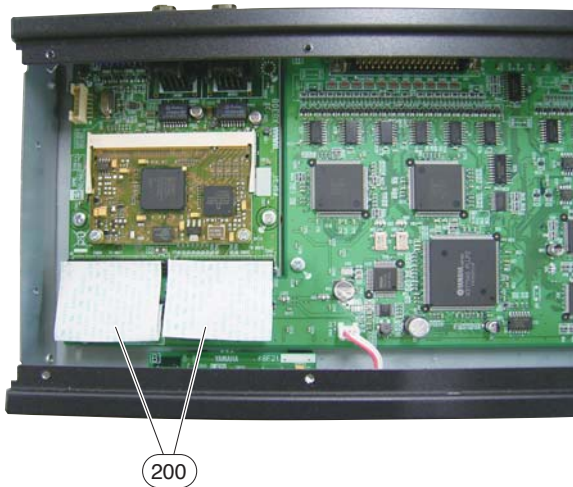
Components having special characteristics are marked  and must be replaced with parts having specification equal to those originally installed.

 印の部品は、安全を維持するために重要な部品です。交換する場合は、安全のために必ず指定の部品をご使用ください。

- The numbers "QTY" show quantities for each unit.
- The parts with "--" in "PART NO." are not available as spare parts.
- This mark "}" in the REMARKS column means these parts are interchangeable.
- The second letter of the shaded (■) part number is O, not zero.
- The second letter of the shaded (■) part number is I, not one.
- 部品価格ランクは、変更になることがあります。
- QTY 欄に記載されている数字は、各ユニット当たりの使用個数です。
- PART NO. が "--" の部品は、サービス用部品として準備されておりません。
- REMARKS 欄の「}」マークの部品は、併用部品です。
- 網掛けの付いた PART NO. の 2 番目の文字は「ゼロ」ではなく、「オー」です。
- 網掛けの付いた PART NO. の 2 番目の文字は「イチ」ではなく、「アイ」です。

OVERALL ASSEMBLY (総組立)





REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
	--	OVERALL ASSEMBLY	総 組 立	DCU5D		
	--	Overall Assembly	総 組 立	(WJ34970)		
* 10	WJ350800	Bottom Chassis	ボトムシャーシ印刷品			
20	WE994800	Bind Head Tapping Screw-S	S タイト+ B I N D			01
* 50	WJ431400	Circuit Board	D M シ ー ト			
60	WE774400	Bind Head Tapping Screw-B	B タイト+ B I N D		2	01
80	WE936300	Bind Head Tapping Screw-B	B タイト+ B I N D		4	01
150	--	Circuit Board	E S シ ー ト	(WJ02920)		
150	WK818600	Circuit Board	E S - C S シ ー ト	for service use		
* 160	WJ350100	Stopper Angle	ス ト ッ パ 金 具			
170	WE877800	Bind Head Tapping Screw-S	S タイト+ B I N D			01
180	WE774400	Bind Head Tapping Screw-B	B タイト+ B I N D		4	01
190	WE936300	Bind Head Tapping Screw-B	B タイト+ B I N D		2	01
* 200	WJ492400	FFC Cable	F F C ケ ー ブ ル		2	
* 300	WJ199700	Circuit Board	L E D シ ー ト			
310	WE877800	Bind Head Tapping Screw-S	S タイト+ B I N D		2	01
* 320	WK253300	Spacer	ス ペ ー サ ー		2	
⚠ * 350	WJ350200	Power Supply Assembly	電 源 A s s ' y			
360	--	PS Angle	P S 金 具	(WJ35050)		
370	--	Felt Black	フ ェ ル ト	(WJ48470)	4	
380	WE936300	Bind Head Tapping Screw-B	B タイト+ B I N D		2	01
390	WE994800	Bind Head Tapping Screw-S	S タイト+ B I N D			01
400	CB069250	Cord Holder	インシュロックタイ			01
410	WE877800	Bind Head Tapping Screw-S	S タイト+ B I N D		2	01
* 450	WJ349900	Top Cover	ト ッ プ カ バ ー			
460	WE978000	Bonding Head Tapping Screw-S	S タイト+ B O N D		14	01
* 470	WJ523500	Rack Angle	ラ ッ ク 金 具 塗 装 品		2	
480	WE997100	Bind Head Screw	小 ネ ジ + B I N D		8	
500	--	Label	規 格 ラ ベ ル	(WJ53720)		
		ACCESSORIES	付 属 品			
	V5600500	Holder, AC Cord	I / O ロ ッ ク	J,U,C		07
	V5600800	Holder, AC Cord	I / O ロ ッ ク	H,B,O,K		07
⚠	V5800000	AC Cord	電 源 コ ー ド 加 工 品	J		09
⚠	V5068000	AC Cord	U/C 3P 15A	電 源 コ ー ド	U,C	09
⚠	V5067700	AC Cord	CE 3P 15A	電 源 コ ー ド	H,K	08
⚠	WE667300	AC Cord	BS	電 源 コ ー ド	B	09
⚠	WC901300	AC Cord	CHN 3P 2.5m	電 源 コ ー ド セ ッ ト	O	10
⚠ * 1	WJ350200	Power Supply Assembly	電 源 A s s ' y			
P10	--	Power Supply Unit	電 源 ユ ニ ッ ト	(WJ49300)		
P30	--	Inlet Assembly	インレット A s s ' y	(WJ50880)		
⚠ P30a	V5065200	AC Inlet	A C インレット 3 P	AC IN		03
P40	--	Inlet Angle	インレット 金 具	(WJ35060)		
P50	V5600300	Support	サ ポ ー ト		2	05
P60	--	Cord Holder	インシュロックタイ	(CB06925)		01
P70	--	Connector Assembly	D C 束 線	(WJ50890)		
P80	--	PS Bottom Cover	P S ボ ト ム カ バ ー	(WJ35040)		
P90	--	PS Top Cover	P S ト ッ プ カ バ ー	(WJ35030)		
* P100	WF026200	Bind Head Tapping Screw-B	B タイト+ B I N D			

*: New Parts

RANK: Japan only

ELECTRICAL PARTS (電気部品)

DM/LED

REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
		ELECTRICAL PARTS		電 気 部 品	DCU5D		
*	WJ431400	Circuit Board	DM	D M シ ー ト	(WJ02270)(X8312C0)		
*	WJ199700	Circuit Board	LED	L E D シ ー ト	(WJ02270)(X8312C0)		
	--	Circuit Board	ES	E S シ ー ト	(WJ02920)(WJ37400)		
	WK818600	Circuit Board	ES-CS	E S - C S シ ー ト	for service use (X8308D0)		
	WK818600	Circuit Board	ES-CS	E S - C S シ ー ト	for service use (WK81870)(X8308D0)		
*	WJ431400	Circuit Board	DM	D M シ ー ト	(WJ02270)(X8312C0)		
*	WJ199700	Circuit Board	LED	L E D シ ー ト	(WJ02270)(X8312C0)		
	--	LED Spacer	LDS-45B L=4.5	L E D ス ペ ー サ ー	(WJ35070)	2	
C1	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C2	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C3	WE431300	Electrolytic Cap. (chip)	330U 35V	チ ッ プ ケ ミ コ ン U D			01
C4	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-6	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C7	WD677700	Aluminum Electrolytic Cap.	150 10V	ア ル ミ 電 解 コ ン			02
C8	WD677700	Aluminum Electrolytic Cap.	150 10V	ア ル ミ 電 解 コ ン			02
C9	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-15	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C16	US060700	Ceramic Capacitor-CH(chip)	7P 50V D RECT.	チ ッ プ セ ラ (C H)			01
C17	US060700	Ceramic Capacitor-CH(chip)	7P 50V D RECT.	チ ッ プ セ ラ (C H)			01
C26	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-33	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C34	UF017470	Electrolytic Cap. (chip)	47 6.3V	チ ッ プ ケ ミ コ ン			01
C35	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-45	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C46	US062560	Ceramic Capacitor-SL(chip)	560P 50V J RECT.	チ ッ プ セ ラ (S L)			01
C47	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-57	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C59	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C60	UF118330	Electrolytic Cap. (chip)	330 6.3V UUR0J3	チ ッ プ ケ ミ コ ン			01
C61	US044220	Ceramic Capacitor-B (chip)	0.0220 25V K RECT.	チ ッ プ セ ラ (B)			01
C62	UF128470	Electrolytic Cap. (chip)	470 10V UUR1A4	チ ッ プ ケ ミ コ ン			02
C63	VR327300	Mylar Capacitor (chip)	0.0820 16V J RECT.	チ ッ プ マ イ ラ ー			01
C64	US044220	Ceramic Capacitor-B (chip)	0.0220 25V K RECT.	チ ッ プ セ ラ (B)			01
C65	US044220	Ceramic Capacitor-B (chip)	0.0220 25V K RECT.	チ ッ プ セ ラ (B)			01
C66	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C67	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C68	V6200900	Film Capacitor (chip)	1.0000 16V M RECT	チ ッ プ フ ィ ル ム コ ン			01
C69	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-85	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C86	US135330	Ceramic Capacitor-F (chip)	0.3300 16V Z RECT.	チ ッ プ セ ラ (F)			01
C87	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C88	UF017470	Electrolytic Cap. (chip)	47 6.3V	チ ッ プ ケ ミ コ ン			01
C89	US135330	Ceramic Capacitor-F (chip)	0.3300 16V Z RECT.	チ ッ プ セ ラ (F)			01
C90	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-98	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C99	US062560	Ceramic Capacitor-SL(chip)	560P 50V J RECT.	チ ッ プ セ ラ (S L)			01
C100	US044220	Ceramic Capacitor-B (chip)	0.0220 25V K RECT.	チ ッ プ セ ラ (B)			01
C101	UF128470	Electrolytic Cap. (chip)	470 10V UUR1A4	チ ッ プ ケ ミ コ ン			02
C102	US135330	Ceramic Capacitor-F (chip)	0.3300 16V Z RECT.	チ ッ プ セ ラ (F)			01
C103	US044220	Ceramic Capacitor-B (chip)	0.0220 25V K RECT.	チ ッ プ セ ラ (B)			01
C104	UF128470	Electrolytic Cap. (chip)	470 10V UUR1A4	チ ッ プ ケ ミ コ ン			02
C105	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C106	US044220	Ceramic Capacitor-B (chip)	0.0220 25V K RECT.	チ ッ プ セ ラ (B)			01
C107	US135330	Ceramic Capacitor-F (chip)	0.3300 16V Z RECT.	チ ッ プ セ ラ (F)			01
C108	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C109	V6200900	Film Capacitor (chip)	1.0000 16V M RECT	チ ッ プ フ ィ ル ム コ ン			01
C110	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-117	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C120	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-137	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C200	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-240	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C501	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
CN1	LB932020	Base Post Connector	VH 2P TE	ベ ー ス ポ ス ト			01
CN4	VB389900	Base Post Connector	PH 3P TE	ベ ー ス ポ ス ト			01
CN5	WF879200	Connector	PCS-XE 68P SE	コ ネ ク タ P C S - X E	CASCADE IN		
CN6	WF879200	Connector	PCS-XE 68P SE	コ ネ ク タ P C S - X E	CASCADE OUT		

*: New Parts

RANK: Japan only

DM/LED

REF NO.	PART NO.	DESCRIPTION	部 品 名	REMARKS	QTY	RANK
CN7	WC199000	Connector, FMN	FMN 40P TE	F M N コ ネ ク タ ー		
CN8	WC199000	Connector, FMN	FMN 40P TE	F M N コ ネ ク タ ー		
CN501	--	Connector Assembly	SAN-PH 3P 60L	束 線 # 2 8	(VM76780)	
D1	WD475700	Diode	M2FM3 TP	ダ イ オ ー ド		03
D2	WD475700	Diode	M2FM3 TP	ダ イ オ ー ド		03
D3	VT332900	Diode	1SS355 TE-17	ダ イ オ ー ド		01
D3	WG139300	Diode	KDS4148U-RTK/P	ダ イ オ ー ド		
D4	VT332900	Diode	1SS355 TE-17	ダ イ オ ー ド		01
D4	WG139300	Diode	KDS4148U-RTK/P	ダ イ オ ー ド		
DA1	VV556300	Diode Array	DAN217 0.3A X2	ダ イ オ ー ド ア レ イ		01
-88	VV556300	Diode Array	DAN217 0.3A X2	ダ イ オ ー ド ア レ イ		01
EM1	VZ581100	EMI Filter (chip)	31PT222Z1E9L TP	チ ッ プ エ ミ フ ィ ル		01
-4	VZ581100	EMI Filter (chip)	31PT222Z1E9L TP	チ ッ プ エ ミ フ ィ ル		01
EM5	WC391500	LC Filter	NFA31CC101S1E4D	L C フ ィ ル タ ー E M I		01
-26	WC391500	LC Filter	NFA31CC101S1E4D	L C フ ィ ル タ ー E M I		01
EM27	VZ581100	EMI Filter (chip)	31PT222Z1E9L TP	チ ッ プ エ ミ フ ィ ル		01
EM28	VZ581100	EMI Filter (chip)	31PT222Z1E9L TP	チ ッ プ エ ミ フ ィ ル		01
IC1	X7792A00	IC	RD-0759	I C	DC-DC MODULE	
IC2	X8120A00	IC	HD64F2215RTE24V	I C	CPU H8S/2215	
IC3	X4853A00	IC	S-80130BNMC-JGPT2G	I C	SYSTEM RESET	01
IC4	XR680A00	IC	TC7SH08FU	I C	AND	01
IC5	XT229B00	IC	TC74VHC00F	I C	NAND	01
IC6	X3775A00	IC	S1L51252F32S200	I C	PLL P2 (GATE ARRAY)	08
IC7	XV242B00	IC	TC74VHCT245AF	I C	TRANSCEIVER	
IC8	XY961A00	IC	74VHC541SJX_NL	I C	BUFFER	03
IC9	XV242B00	IC	TC74VHCT245AF	I C	TRANSCEIVER	
IC10	XV064A00	IC	TLC2932IPWRG4	I C	PLL	06
IC11	XG948F00	IC	YM3436D-VZ	I C	DIR2	
IC12	X3299A00	IC	MBCG61594-130-E1	I C	ATSC2A	11
IC13	X3299A00	IC	MBCG61594-130-E1	I C	ATSC2A	11
IC14	XW422A00	IC	M51953AFP	I C	SYSTEM RESET	01
IC15	XT229B00	IC	TC74VHC00F	I C	NAND	01
IC16	X4765C00	IC	XC9572XL-10TQG100C	I C	CPLD	
IC17	XW876B00	IC	TC74VHC14F	I C	INVERTER	01
IC18	XS775A00	IC	TC7SH04FU	I C	INVERTER	01
IC19	XV242B00	IC	TC74VHCT245AF	I C	TRANSCEIVER	
IC20	XV064A00	IC	TLC2932IPWRG4	I C	PLL	06
IC21	XW422A00	IC	M51953AFP	I C	SYSTEM RESET	01
IC22	XW633A00	IC	TC7SH32FU	I C	OR	01
IC23	X0158A00	IC	SN74AHCT1G08DCKR	I C	AND	01
IC24	XV242B00	IC	TC74VHCT245AF	I C	TRANSCEIVER	
IC25	X3097A00	IC	74LVX4245MTCX	I C	TRANSCEIVER	03
IC26	X2717A00	IC	SN74AHC245NSR	I C	TRANSCEIVER	02
IC27	X2717A00	IC	SN74AHC245NSR	I C	TRANSCEIVER	02
IC28	XS775A00	IC	TC7SH04FU	I C	INVERTER	01
IC29	XY873A00	IC	74VHC138SJX	I C	DECODER	01
IC30	X2717A00	IC	SN74AHC245NSR	I C	TRANSCEIVER	02
IC31	X4370A00	IC	74VHC273SJX	I C	D-FF	01
IC34	XY961A00	IC	74VHC541SJX	I C	BUFFER	03
IC35	XU996A00	IC	AM26LS31CNSR	I C	LINE DRIVER	05
IC36	X3251A00	IC	AM26LS32ACNSR	I C	LINE RECEIVER	03
-40	X3251A00	IC	AM26LS32ACNSR	I C	LINE RECEIVER	03
IC41	XU996A00	IC	AM26LS31CNSR	I C	LINE DRIVER	05
-45	XU996A00	IC	AM26LS31CNSR	I C	LINE DRIVER	05
IC46	X3251A00	IC	AM26LS32ACNSR	I C	LINE RECEIVER	03
IC47	X2717A00	IC	SN74AHC245NSR	I C	TRANSCEIVER	02
-50	X2717A00	IC	SN74AHC245NSR	I C	TRANSCEIVER	02
IC300	X8819A00	IC	TC74VHC573F	I C	LATCH	
IC301	XS775A00	IC	TC7SH04FU	I C	INVERTER	01
IC302	XS775A00	IC	TC7SH04FU	I C	INVERTER	01
JK1	WJ021800	DC-IN Jack	XLR 4P NC4MBH	D C 電 源 ジャ ッ ク	EXT DC INPUT	
K1	BB071360	Screw Terminal	M3 8.3X13 M1698	ネ ジ 端 子 M 3		01
K2	BB071360	Screw Terminal	M3 8.3X13 M1698	ネ ジ 端 子 M 3		01
L1	WG593200	Coil	ACM7060-701-2PL-TL	コ イ ル		04
L2	V7716400	Coil	330uH SSB44-331	コ イ ル 3 3 0 U		03
L3	V7716400	Coil	330uH SSB44-331	コ イ ル 3 3 0 U		03
LD1	V5616900	LED Green	SLR-332MG3F	L E D	POWER Indicator	01
LD501	V5616900	LED Green	SLR-332MG3F	L E D	POWER Indicator	01
R1	WA027800	Metal Film Resistor (chip)	36.0K 1/10 D RECT.	チ ッ プ 金 皮 抵 抗		01
R3	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ ッ プ 抵 抗		01

*: New Parts

RANK: Japan only

DM/LED

REF NO.	PART NO.	DESCRIPTION		部	品	名	REMARKS	QTY	RANK
R4	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R5	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
-8	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R11	RD355330	Carbon Resistor (chip)	330.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R12	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R14	RD354330	Carbon Resistor (chip)	33.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R15	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
-19	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R20	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R21	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R22	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
-24	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R25	RD355150	Carbon Resistor (chip)	150.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R26	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R27	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R28	RD356150	Carbon Resistor (chip)	1.5K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R29	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
-32	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R33	RD354330	Carbon Resistor (chip)	33.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R34	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
-48	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R49	VI194600	Metal Film Resistor (chip)	750.0 1/10 D RECT.	チ	ッ	ブ 金 被 抵 抗			01
R50	VI196100	Metal Film Resistor (chip)	3.3K 1/10 D RECT.	チ	ッ	ブ 金 被 抵 抗			01
R51	VI196100	Metal Film Resistor (chip)	3.3K 1/10 D RECT.	チ	ッ	ブ 金 被 抵 抗			01
R52	VI193700	Metal Film Resistor (chip)	330.0 1/10 D RECT.	チ	ッ	ブ 金 被 抵 抗			01
R53	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R54	VI196000	Metal Film Resistor (chip)	3.0K 1/10 D RECT.	チ	ッ	ブ 金 被 抵 抗			01
R55	RD357470	Carbon Resistor (chip)	47.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R56	RD354330	Carbon Resistor (chip)	33.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
-88	RD354330	Carbon Resistor (chip)	33.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R89	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R90	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R91	RD355100	Carbon Resistor (chip)	100.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R92	RD356150	Carbon Resistor (chip)	1.5K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R93	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R94	RD355150	Carbon Resistor (chip)	150.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R95	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R96	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R97	RD355100	Carbon Resistor (chip)	100.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R98	VI196100	Metal Film Resistor (chip)	3.3K 1/10 D RECT.	チ	ッ	ブ 金 被 抵 抗			01
R99	VI193700	Metal Film Resistor (chip)	330.0 1/10 D RECT.	チ	ッ	ブ 金 被 抵 抗			01
R100	VI196000	Metal Film Resistor (chip)	3.0K 1/10 D RECT.	チ	ッ	ブ 金 被 抵 抗			01
R101	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R102	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
-105	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R106	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R107	RD255150	Carbon Resistor (chip)	150.0 0.1 J RECT.	チ	ッ	ブ 抵 抗			01
-125	RD255150	Carbon Resistor (chip)	150.0 0.1 J RECT.	チ	ッ	ブ 抵 抗			01
R126	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
-143	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R144	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R145	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R146	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R147	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R148	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
-151	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R152	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
-169	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R170	RD357220	Carbon Resistor (chip)	22.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
-213	RD357220	Carbon Resistor (chip)	22.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R214	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
-239	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R240	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R241	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R242	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R243	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R244	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R245	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ	ッ	ブ 抵 抗			01
R246	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01
R247	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ	ッ	ブ 抵 抗			01

*: New Parts

RANK: Japan only

DM/LED and ES/ES-CS

REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
R248	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R249	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R250	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ ッ プ 抵 抗			01
-257	RD354100	Carbon Resistor (chip)	10.0 63M J RECT.	チ ッ プ 抵 抗			01
R258	RD255150	Carbon Resistor (chip)	150.0 0.1 J RECT.	チ ッ プ 抵 抗			01
-260	RD255150	Carbon Resistor (chip)	150.0 0.1 J RECT.	チ ッ プ 抵 抗			01
R261	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
-263	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
R264	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
-276	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
R277	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R278	RD354470	Carbon Resistor (chip)	47.0 63M J RECT.	チ ッ プ 抵 抗			01
R279	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R280	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R281	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
-292	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
R300	RD356100	Carbon Resistor (chip)	1.0K 63M J RECT.	チ ッ プ 抵 抗			01
R301	RD357100	Carbon Resistor (chip)	10.0K 63M J RECT.	チ ッ プ 抵 抗			01
R302	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
RS01	RD355330	Carbon Resistor (chip)	330.0 63M J RECT.	チ ッ プ 抵 抗			01
RA1	RE047100	Resistor Array	10K X4	抵 抗 ア レ イ			01
-15	RE047100	Resistor Array	10K X4	抵 抗 ア レ イ			01
RA16	RE046470	Resistor Array	4.7K X4	抵 抗 ア レ イ			01
RA17	RE047100	Resistor Array	10K X4	抵 抗 ア レ イ			01
-32	RE047100	Resistor Array	10K X4	抵 抗 ア レ イ			01
RA33	RE044470	Resistor Array	47X4	抵 抗 ア レ イ			01
-36	RE044470	Resistor Array	47X4	抵 抗 ア レ イ			01
RA37	RE044220	Resistor Array	22X4	抵 抗 ア レ イ			01
-40	RE044220	Resistor Array	22X4	抵 抗 ア レ イ			01
SW501	VQ751500	Tact Switch	SKHHLMA010	タ ク ト ス W	IP RESET		01
* X1	WJ070100	Quartz Crystal Unit	22.1184MHz SMD-49	水 晶 振 動 子			07
X2	V8904500	Quartz Crystal Unit	49.152MHz DSO751SB	水 晶 発 振 器			07
X3	V8904400	Quartz Crystal Unit	45.1584MHzDSO751SB	水 晶 発 振 器			07
	--	Circuit Board	ES	E S シ ー ト	(WJ02920)(WJ37400)		
	WK818600	Circuit Board	ES-CS	E S - C S シ ー ト	(X8308D0) for service use (WK81870)(X8308D0) ES-CS circuit board does not included WJ395000 and WE945700.		
* WJ395000	AVDM-ES Module			A V D M - E S モ ジ ュ ー ル			
WE945700	Pan Head Screw	3.0X5 MFZN2W3 SP		小 ネ ジ + P A N		2	
--	LED Spacer	LDS-45B L=4.5		L E D ス ペ ー サ ー	(WJ35070)	4	
C001	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
C002	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
C003	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
* C005	WF547900	Ceramic Capacitor (chip)	10.000 25V K	チ ッ プ セ ラ			01
* C006	WF547900	Ceramic Capacitor (chip)	10.000 25V K	チ ッ プ セ ラ			01
C009	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-014	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C015	US061120	Ceramic Capacitor-CH(chip)	12P 50V J RECT.	チ ッ プ セ ラ (C H)			01
C016	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C017	US061120	Ceramic Capacitor-CH(chip)	12P 50V J RECT.	チ ッ プ セ ラ (C H)			01
C018	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-035	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C036	UF017470	Electrolytic Cap. (chip)	47 6.3V	チ ッ プ ケ ミ コ ン			01
C037	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C038	UF017470	Electrolytic Cap. (chip)	47 6.3V	チ ッ プ ケ ミ コ ン			01
C039	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-041	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C042	V7658000	Monolithic Ceramic Cap.	1000P 2KV K RECT.	チ ッ プ 積 層 セ ラ コ ン			01
C043	V7658000	Monolithic Ceramic Cap.	1000P 2KV K RECT.	チ ッ プ 積 層 セ ラ コ ン			01
C044	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)			01
C045	US064100	Ceramic Capacitor-B (chip)	0.0100 50V K RECT.	チ ッ プ セ ラ (B)			01
C101	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C800	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
-814	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C818	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
C819	US145100	Ceramic Capacitor-F (chip)	0.1000 25V Z RECT.	チ ッ プ セ ラ (F)			01
CN001	WC199000	Connector, FMN	FMN 40P TE	F M N コ ネ ク タ ー			01

*: New Parts

RANK: Japan only

ES/ES-CS

REF NO.	PART NO.	DESCRIPTION		部 品 名	REMARKS	QTY	RANK
CN002	WC199000	Connector, FMN	FMN 40P TE	F M N コ ネ ク タ ー			
CN005	VT388700	Base Post Connector	PH 6P TE	ベ ー ス 付 ポ ス ト			01
CN006	--	SODIMM Socket	MM50-200B1-E1E	S O D I M M ソ ケ ッ ト	(WH99960)		
IC001	XQ805A00	IC	TC7WU04FU(TE12L,F)	I C	INVERTER		01
IC002	X8955A00	IC	LC4064V-75TN100C C	I C	CPLD		
IC003	XW492A00	IC	CY2302SXC-1T	I C	PLL (CLOCK GENERATOR)		05
JK003	WJ010200	RJ45 Connector	8P NE8FBH	イ ー サ コ ン	CASCADE IN		
JK004	WJ010200	RJ45 Connector	8P NE8FBH	イ ー サ コ ン	CASCADE OUT		
L001	V3232700	Chip Inductance	120uH	チ ッ プ イ ン ダ ク タ			01
L002	V3232700	Chip Inductance	120uH	チ ッ プ イ ン ダ ク タ			01
L003	WH143800	Coil	CDRH2D18/LD-220NC	コ イ ル 2 2 U	22uH		
L004	WH143800	Coil	CDRH2D18/LD-220NC	コ イ ル 2 2 U	22uH		
LD001	V5616900	LED Green	SLR-332MG3F	L E D	CASCADE IN RX		01
LD002	V5616900	LED Green	SLR-332MG3F	L E D	CASCADE OUT RX		01
LD003	V5616900	LED Green	SLR-332MG3F	L E D	CASCADE IN TX		01
LD004	V5616900	LED Green	SLR-332MG3F	L E D	CASCADE OUT TX		01
R001	RD356470	Carbon Resistor (chip)	4.7K 63M J RECT.	チ ッ プ 抵 抗			01
R002	RD356470	Carbon Resistor (chip)	4.7K 63M J RECT.	チ ッ プ 抵 抗			01
R003	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
R004	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
R006	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
-008	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
R011	RD359100	Carbon Resistor (chip)	1.0M 63M J RECT.	チ ッ プ 抵 抗			01
R012	RD355680	Carbon Resistor (chip)	680.0 63M J RECT.	チ ッ プ 抵 抗			01
R013	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
-018	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
R019	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
R024	HF755680	Carbon Resistor	680.0 1/4 J AX TP	カ ー ボ ン 抵 抗			01
-027	HF755680	Carbon Resistor	680.0 1/4 J AX TP	カ ー ボ ン 抵 抗			01
R028	RF454750	Carbon Resistor (chip)	75.0 D RECT.	チ ッ プ 抵 抗			
-037	RF454750	Carbon Resistor (chip)	75.0 D RECT.	チ ッ プ 抵 抗			
R038	RD357470	Carbon Resistor (chip)	47.0K 63M J RECT.	チ ッ プ 抵 抗			01
R043	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
-046	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
R048	RD354220	Carbon Resistor (chip)	22.0 63M J RECT.	チ ッ プ 抵 抗			01
R049	RD350000	Carbon Resistor (chip)	0 63M J RECT.	チ ッ プ 抵 抗			01
RA001	RE044470	Resistor Array	47X4	抵 抗 ア レ イ			01
RA002	RE044470	Resistor Array	47X4	抵 抗 ア レ イ			01
T001	X6230A00	Filter	H1102NLT	フ ィ ル タ ー モ ジ ュ ー ル			
T002	X6230A00	Filter	H1102NLT	フ ィ ル タ ー モ ジ ュ ー ル			
TP100	WK043800	Round Spacer	M3 L=4	丸 ス ペ ー サ ー M 3			03
TP110	WK043800	Round Spacer	M3 L=4	丸 ス ペ ー サ ー M 3			03
TR001	VY677600	Digital Transistor	DTC123JKA TP	デ ジ タ ル ト ラ ン ジ ス タ			01
-004	VY677600	Digital Transistor	DTC123JKA TP	デ ジ タ ル ト ラ ン ジ ス タ			01
X001	WD391000	Quartz Crystal Unit	14.7456MHz SMD-49	水 晶 振 動 子			03
* ⚠	WJ350200 V5065200	Power Supply Assembly AC Inlet	3P 1908-C	電 源 A s s ' y A C イ ン レ ッ ト 3 P	AC IN		03

*: New Parts

RANK: Japan only

DIGITAL CABLING UNIT

DCU5D

CIRCUIT DIAGRAM

■ CONTENTS (目次)

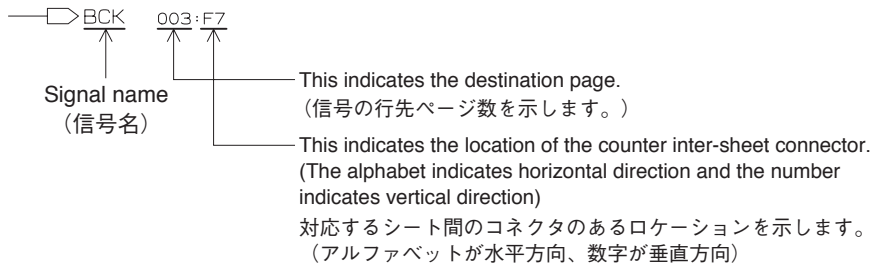
BLOCK DIAGRAM (ブロックダイアグラム)	3
CIRCUIT DIAGRAM (回路図)	4
ES	4
DM (001-008)	5-12
LED	13

Note: See parts list for details of circuit board component parts.

注： シートの部品詳細はパーツリストをご参照ください。

Notation for Circuit Diagrams (回路図表記上の注意)

1. How to identify inter-sheet connectors (シート間コネクタの読み方について)



2. Connection of connectors. (コネクタの接続について)

(Example)

to DCD-CN501 (Page 21: P1)

Page 21 are the page of a circuit diagram.

(Page 21 は回路図のページです。)

P1 is indicates the location of the counter inter-sheet connector.

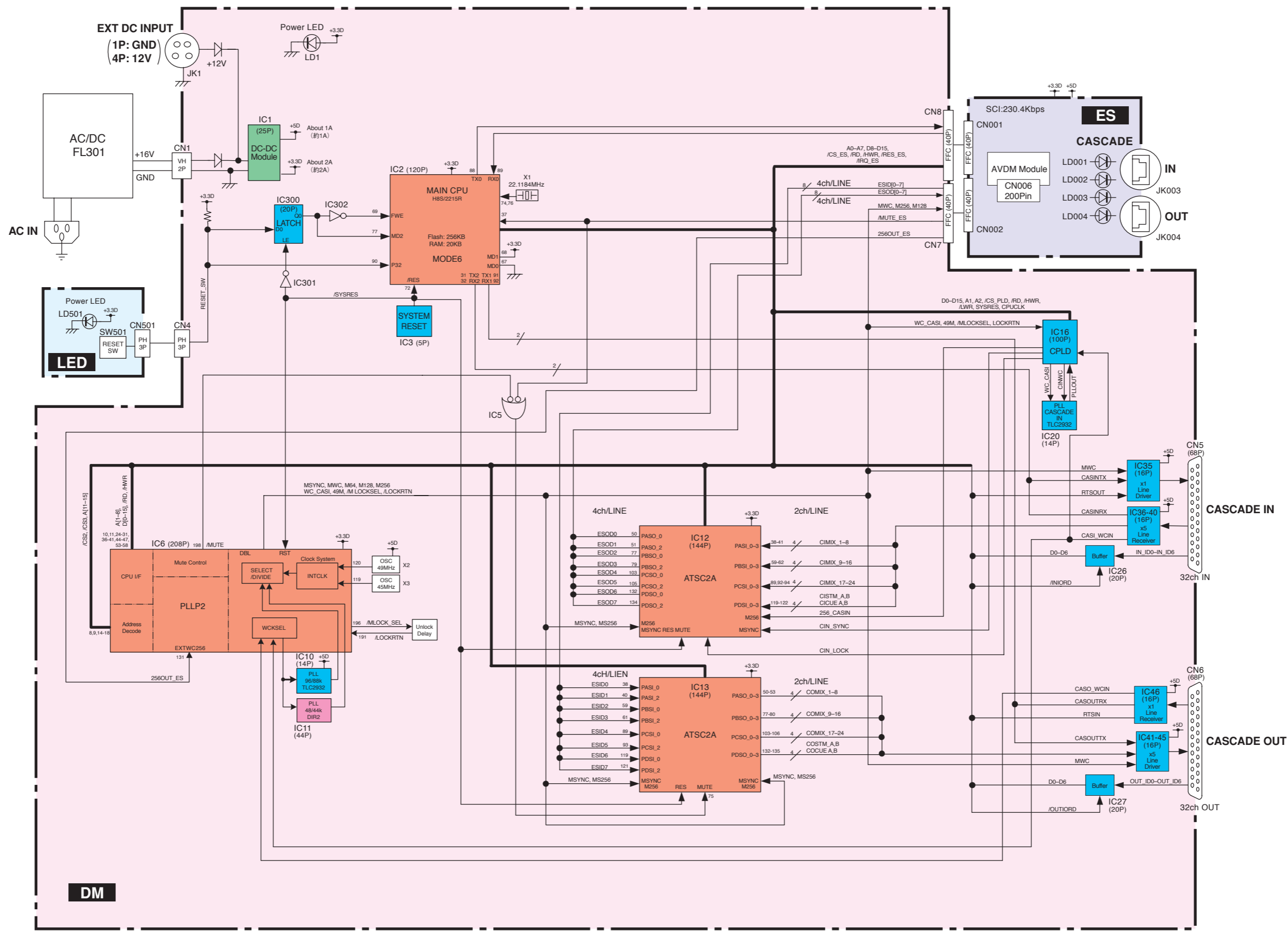
(The alphabet indicates horizontal direction and the number indicates vertical direction)

P1は対応するシート間のコネクタのあるロケーションを示します。

(アルファベットが水平方向、数字が垂直方向)

■ BLOCK DIAGRAM 001 (DCU5D)

DCU5D

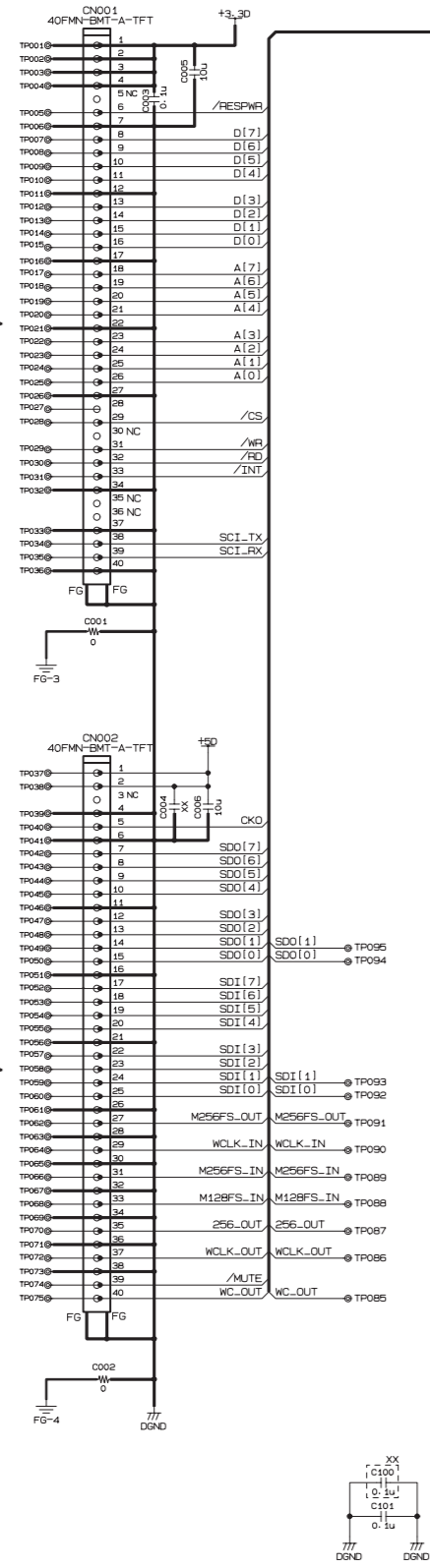


ES CIRCUIT DIAGRAM (DCU5D)

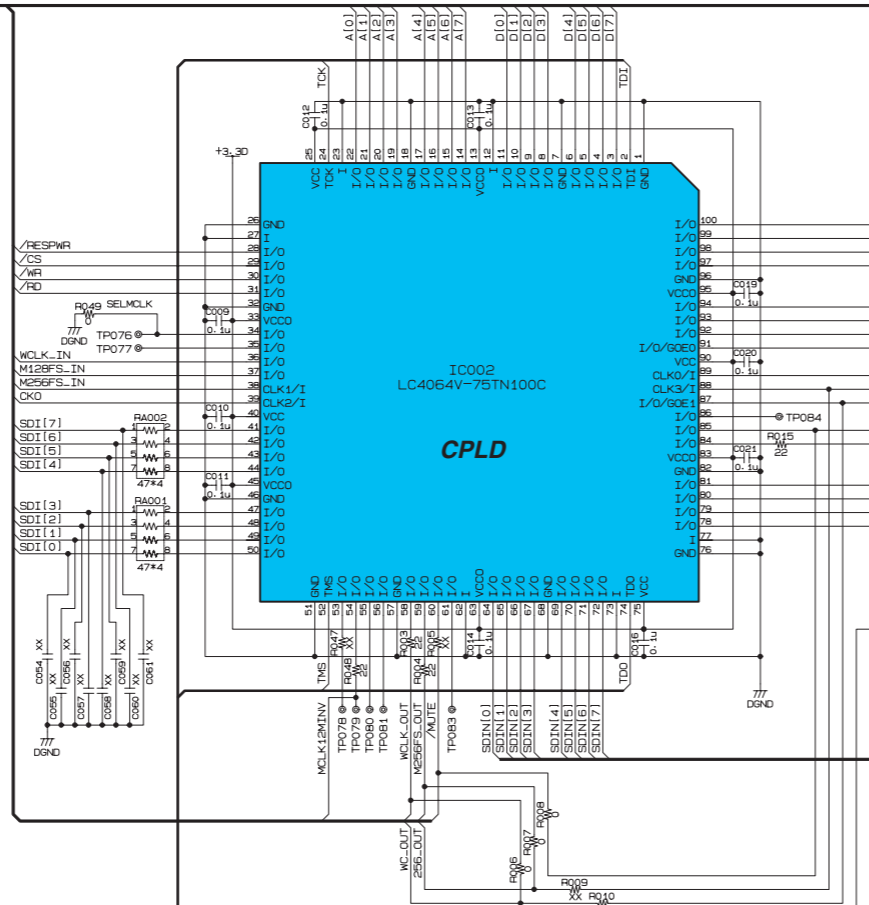
<HOST & CARD I/F Section>

to DM-CN8
<Page 12: B-2>

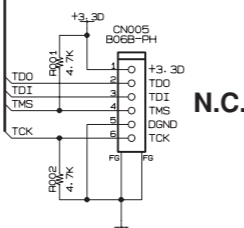
to DM-CN7
<Page 12: E-4>



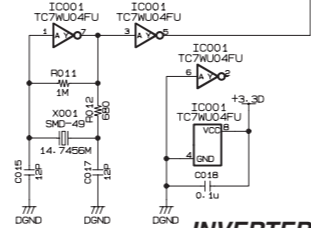
<CPLD Section>



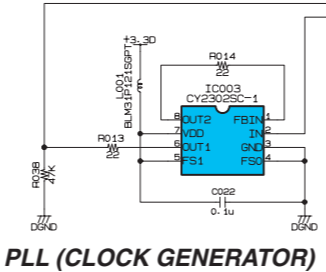
<JTAG>



<UART CLOCK>

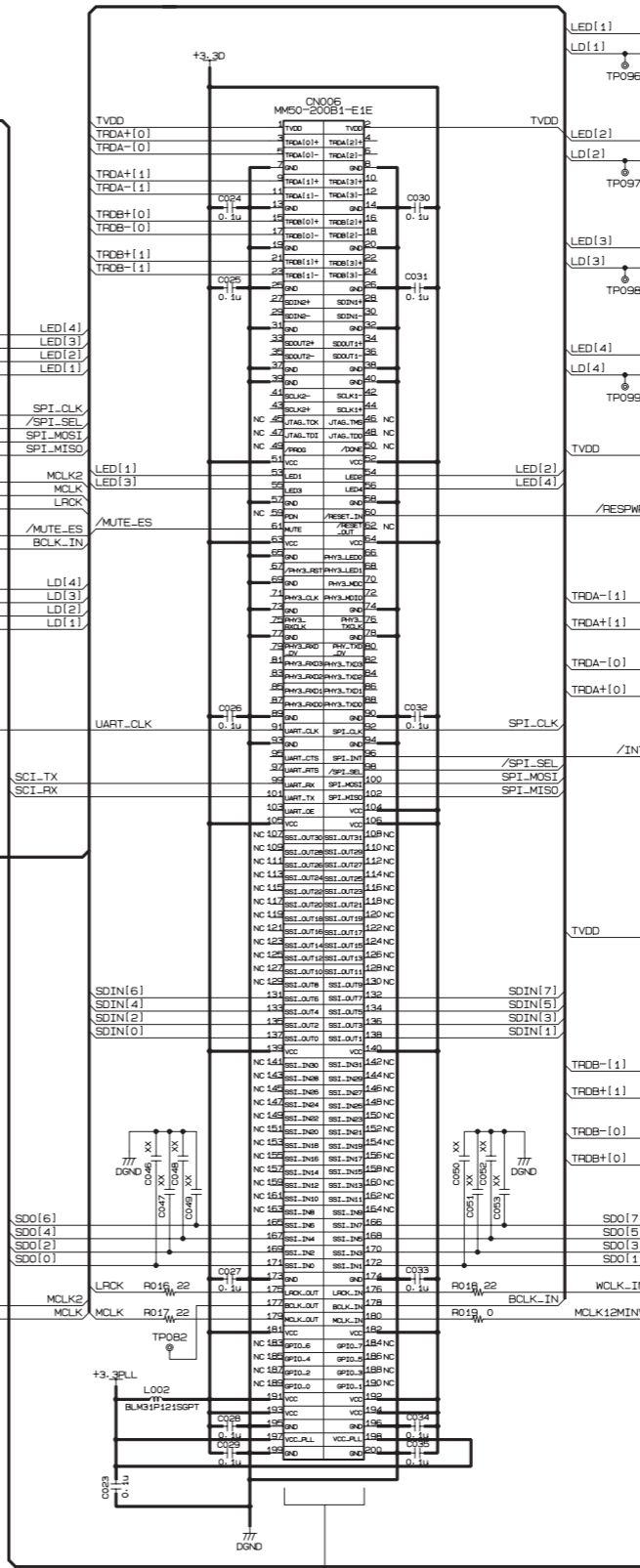


INVERTER



PLL (CLOCK GENERATOR)

<ES module Section>

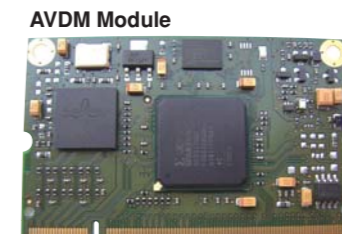
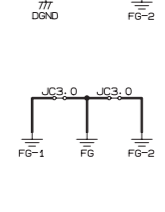
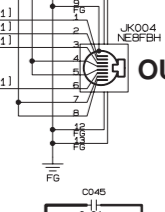
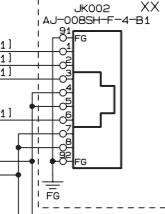
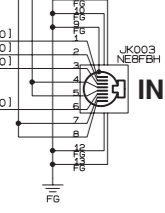
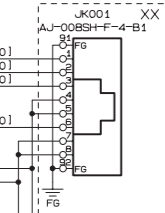
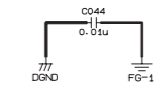
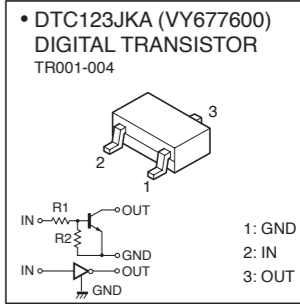


Through hole tap for holding a module
(モジュール止め用スルーホールタップ)

××: Not installed (未実装)

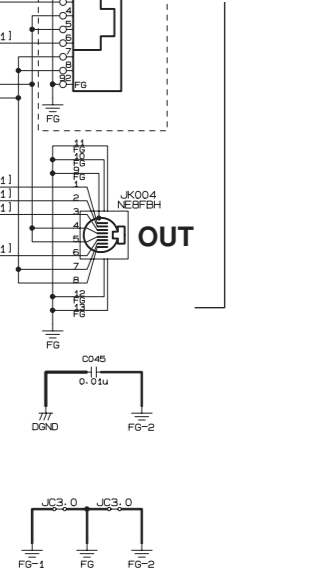
Resistance power rating: 1/16 W for ones with no indication
(抵抗電力定格: 無記入品=1/16 W)

DCU5D



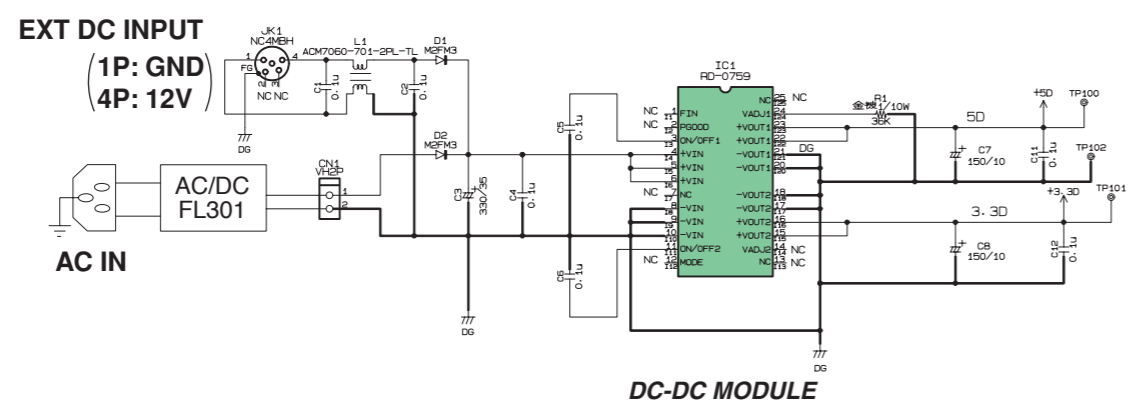
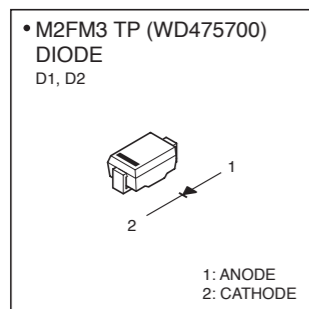
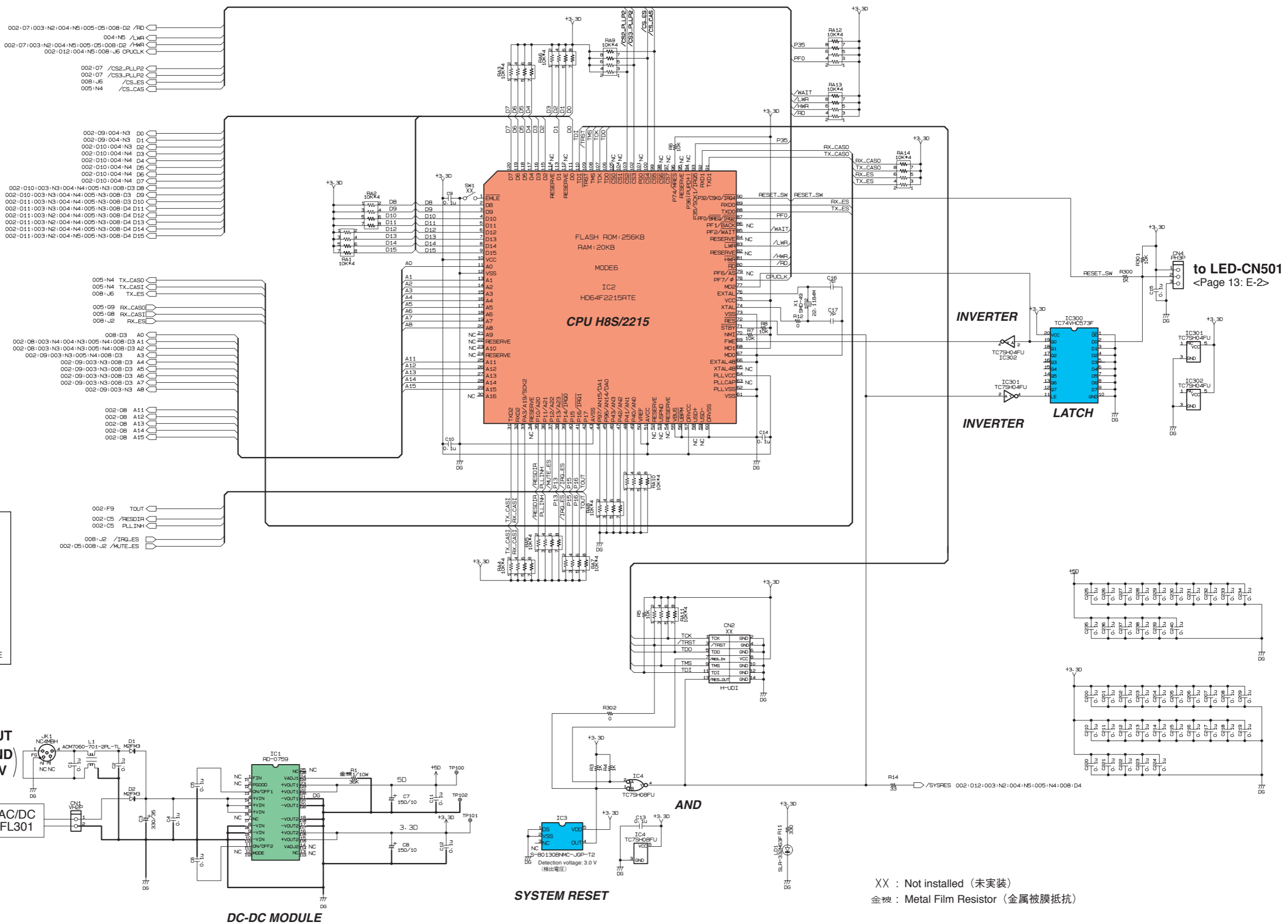
AVDM Module

CASCADE



DM CIRCUIT DIAGRAM 001 (DCU5D)

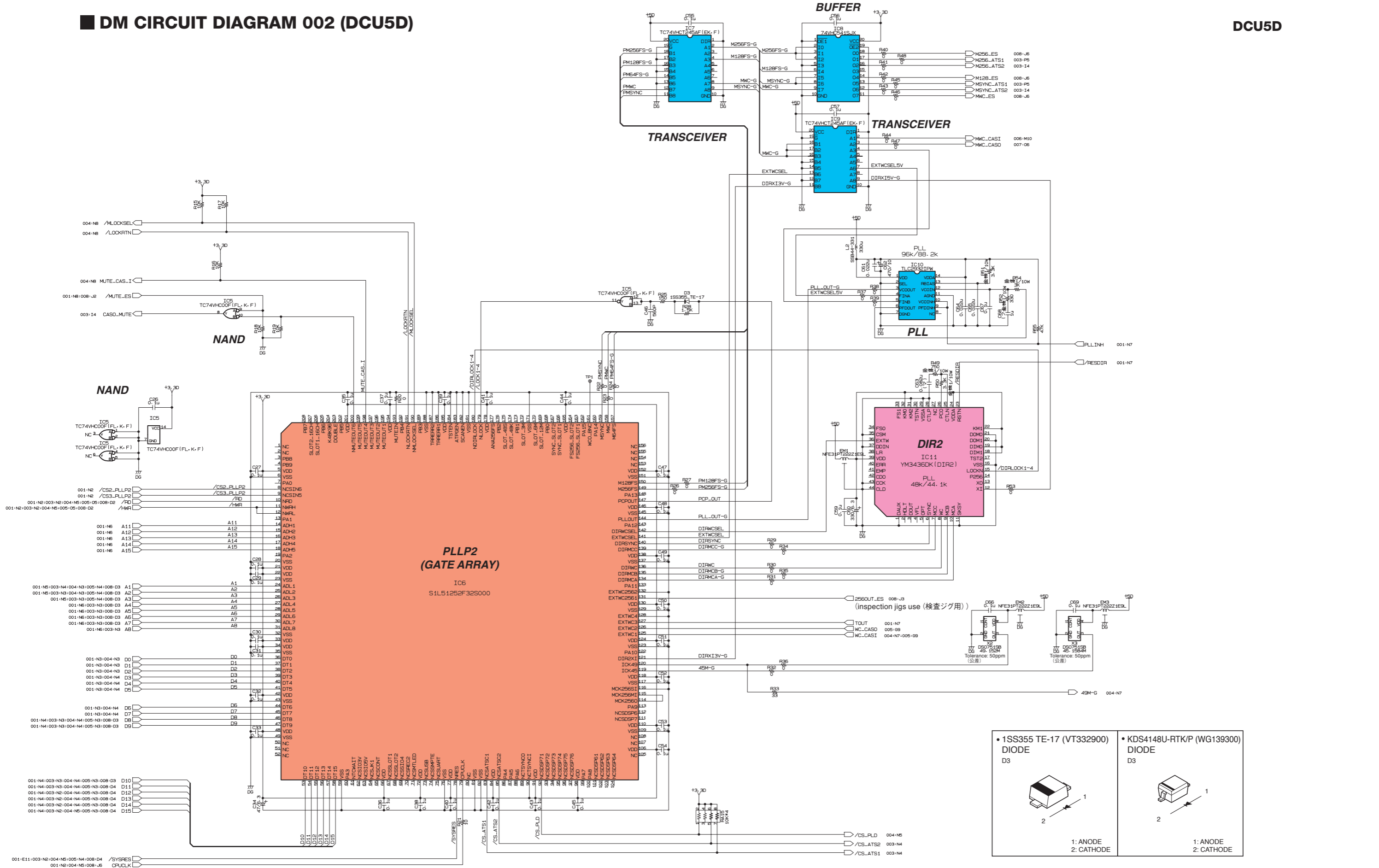
DCU5D



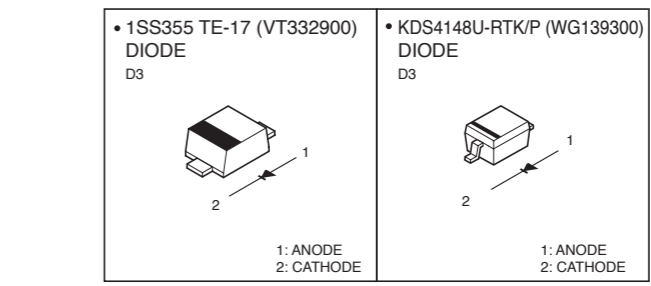
XX : Not installed (未実装)
金被 : Metal Film Resistor (金属被膜抵抗)

DM CIRCUIT DIAGRAM 002 (DCU5D)

DCU5D



(マ) : Mylar Capacitor (マイラーコンデンサー)
 金被 : Metal Film Resistor (金属被膜抵抗)
 (フ) : Film Capacitor (フィルムコンデンサー)

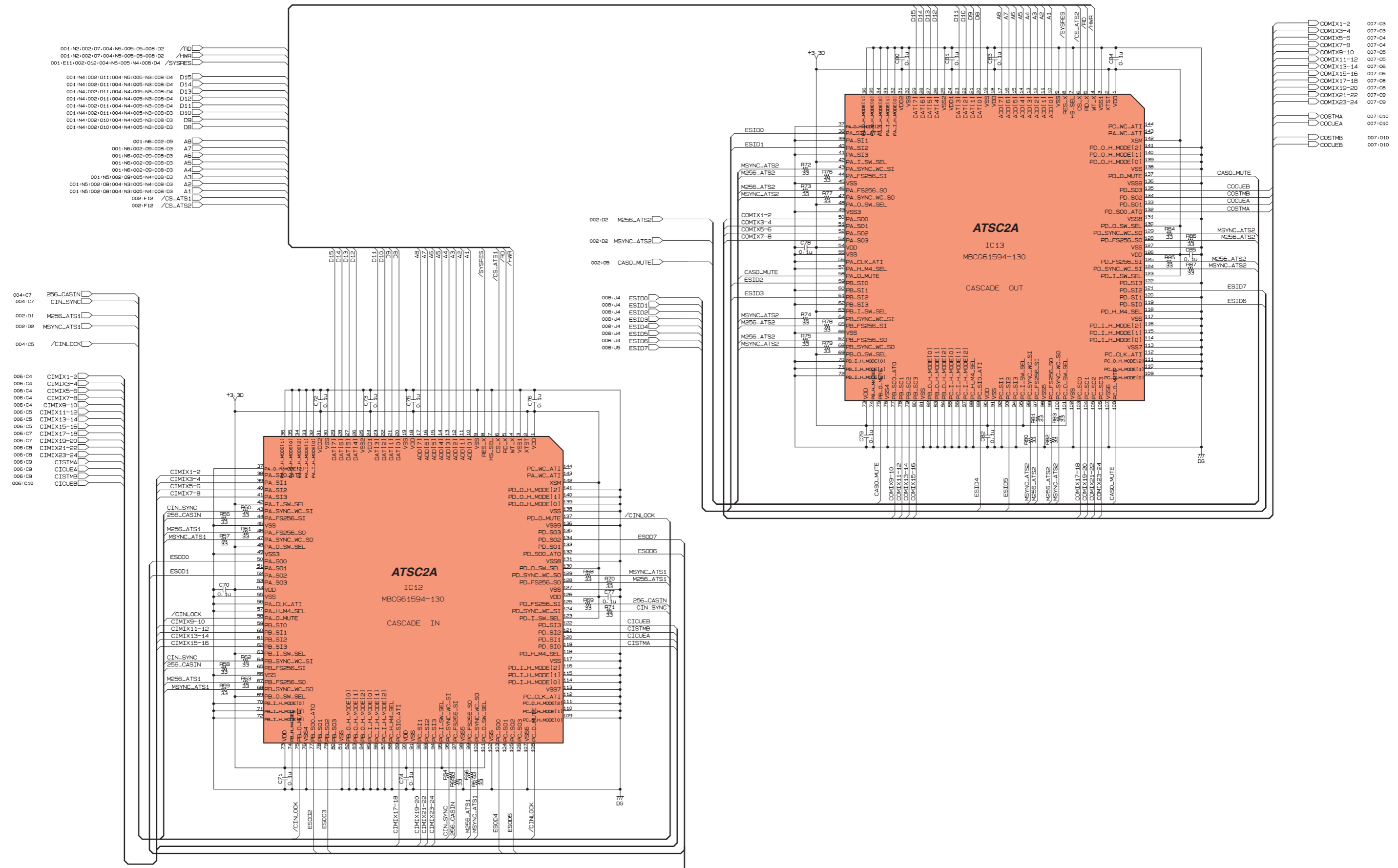


CLOCK SYSTEM

DM CIRCUIT DIAGRAM 002 (DCU5D)

DM CIRCUIT DIAGRAM 003 (DCU5D)

DCU5D

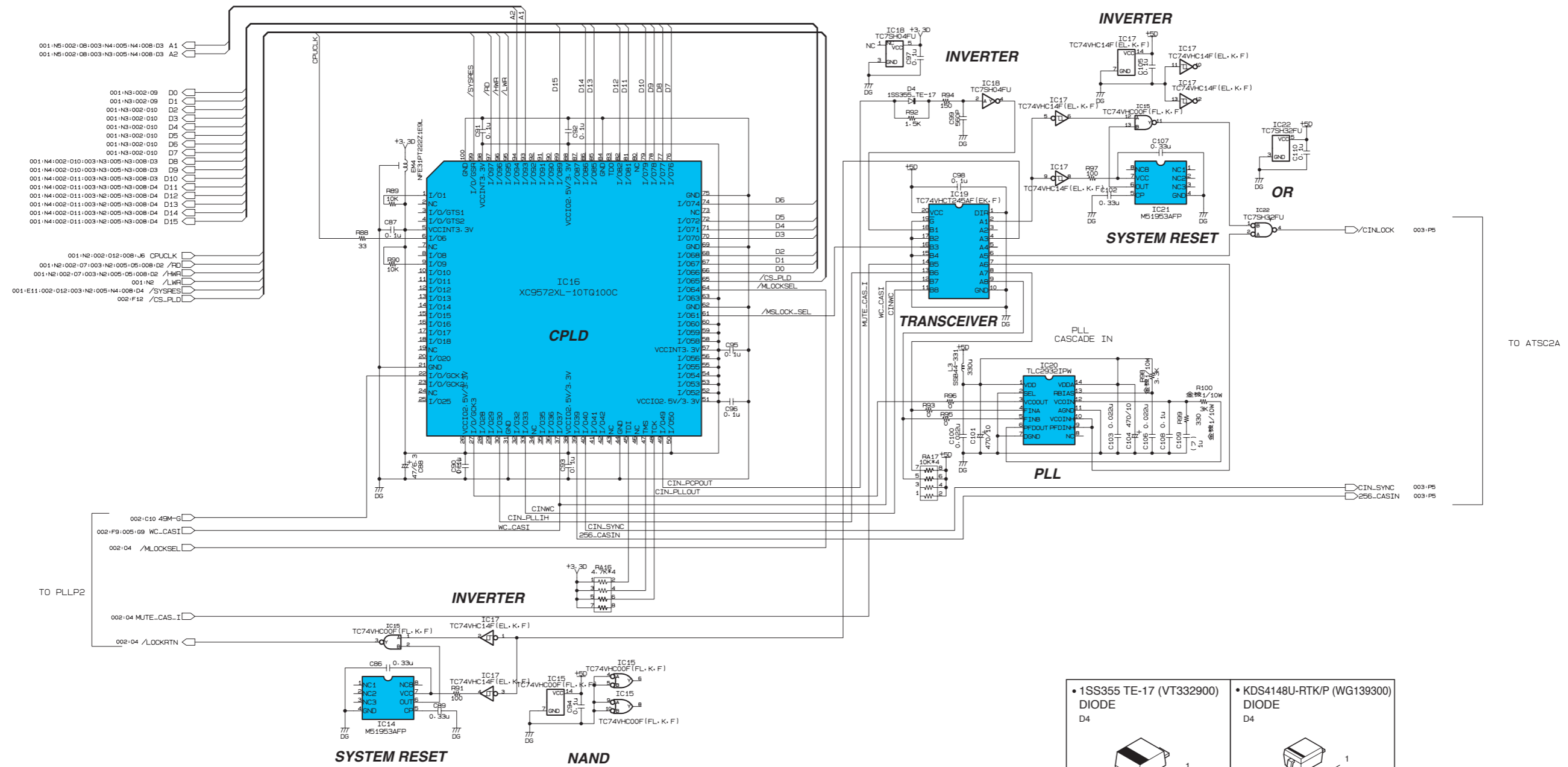


CASCADE IN OUT

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11

DM CIRCUIT DIAGRAM 004 (DCU5D)

DCU5D



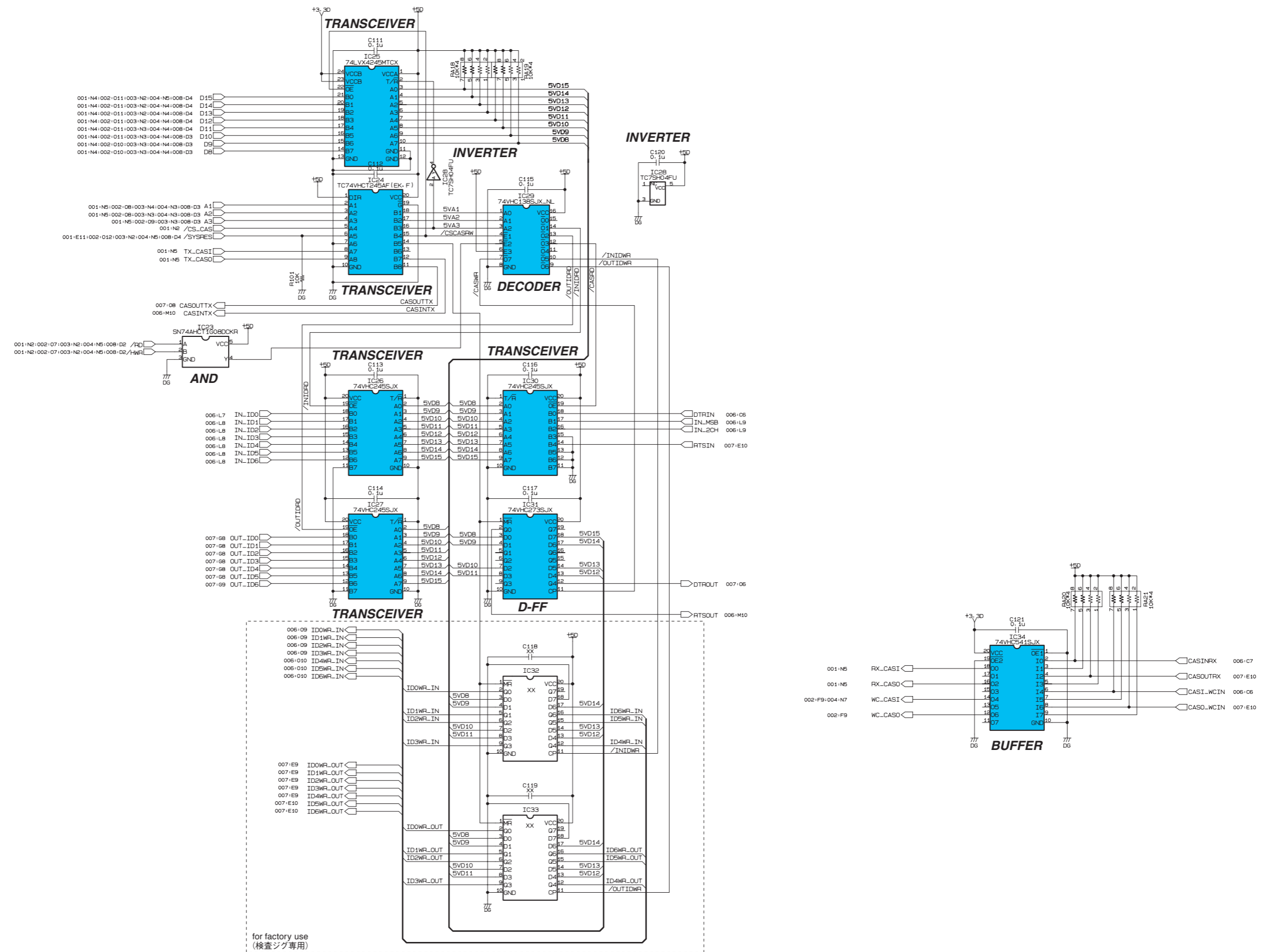
<ul style="list-style-type: none"> • 1SS355 TE-17 (VT332900) DIODE D4 <p>1: ANODE 2: CATHODE</p>	<ul style="list-style-type: none"> • KDS4148U-RTK/P (WG139300) DIODE D4 <p>1: ANODE 2: CATHODE</p>
---	---

金被：Metal Film Resistor（金属被膜抵抗）

1
2
3
4
5
6
7
8
9
10
11
12

DM CIRCUIT DIAGRAM 005 (DCU5D)

DCU5D

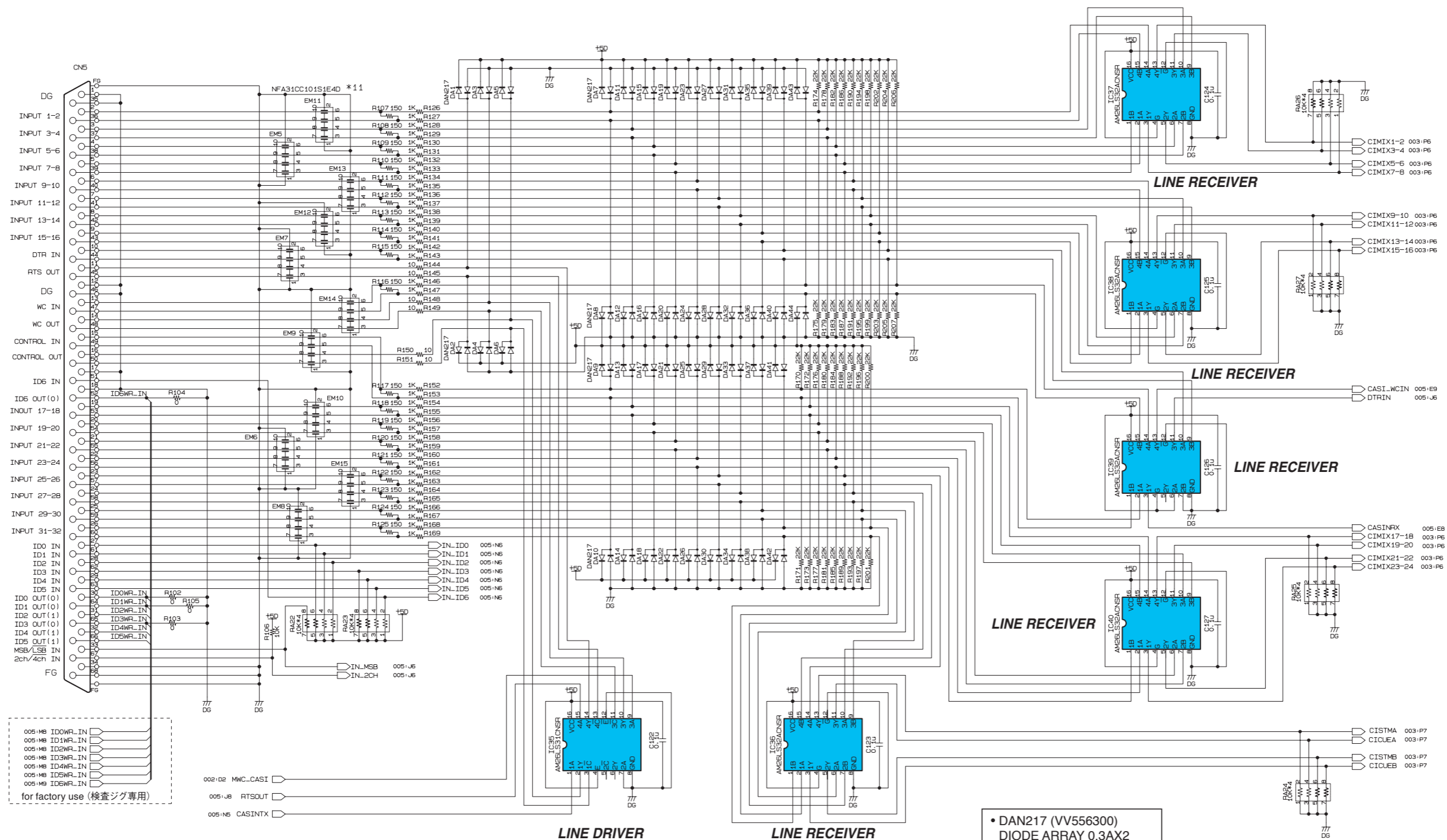


1
2
3
4
5
6
7
8
9
10
11
12

DM CIRCUIT DIAGRAM 006 (DCU5D)

DCU5D

CASCADE IN

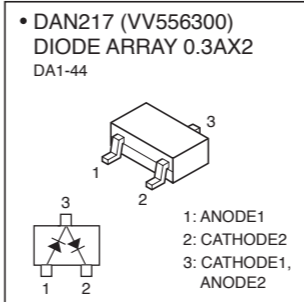


005:MS ID0WR_IN
005:MS ID1WR_IN
005:MS ID2WR_IN
005:MS ID3WR_IN
005:MS ID4WR_IN
005:MS ID5WR_IN
for factory use (検査ジグ専用)

002:02 MWC_CAS1
005:08 RTSOUT
005:08 CASINTX

LINE DRIVER

LINE RECEIVER

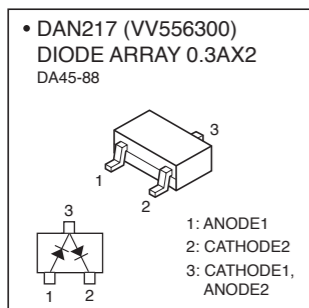
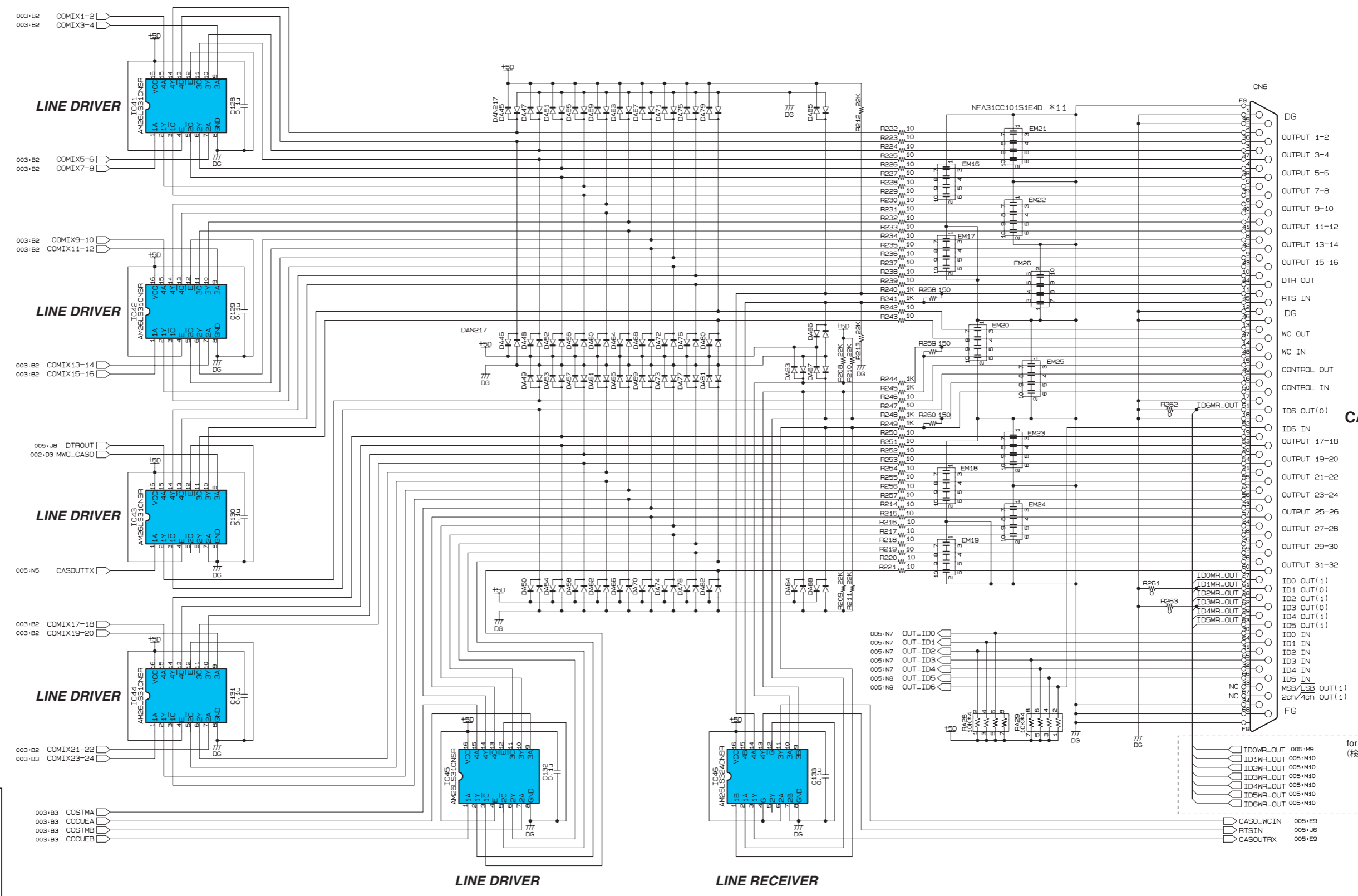


CASCADE IN

DM CIRCUIT DIAGRAM 006 (DCU5D)

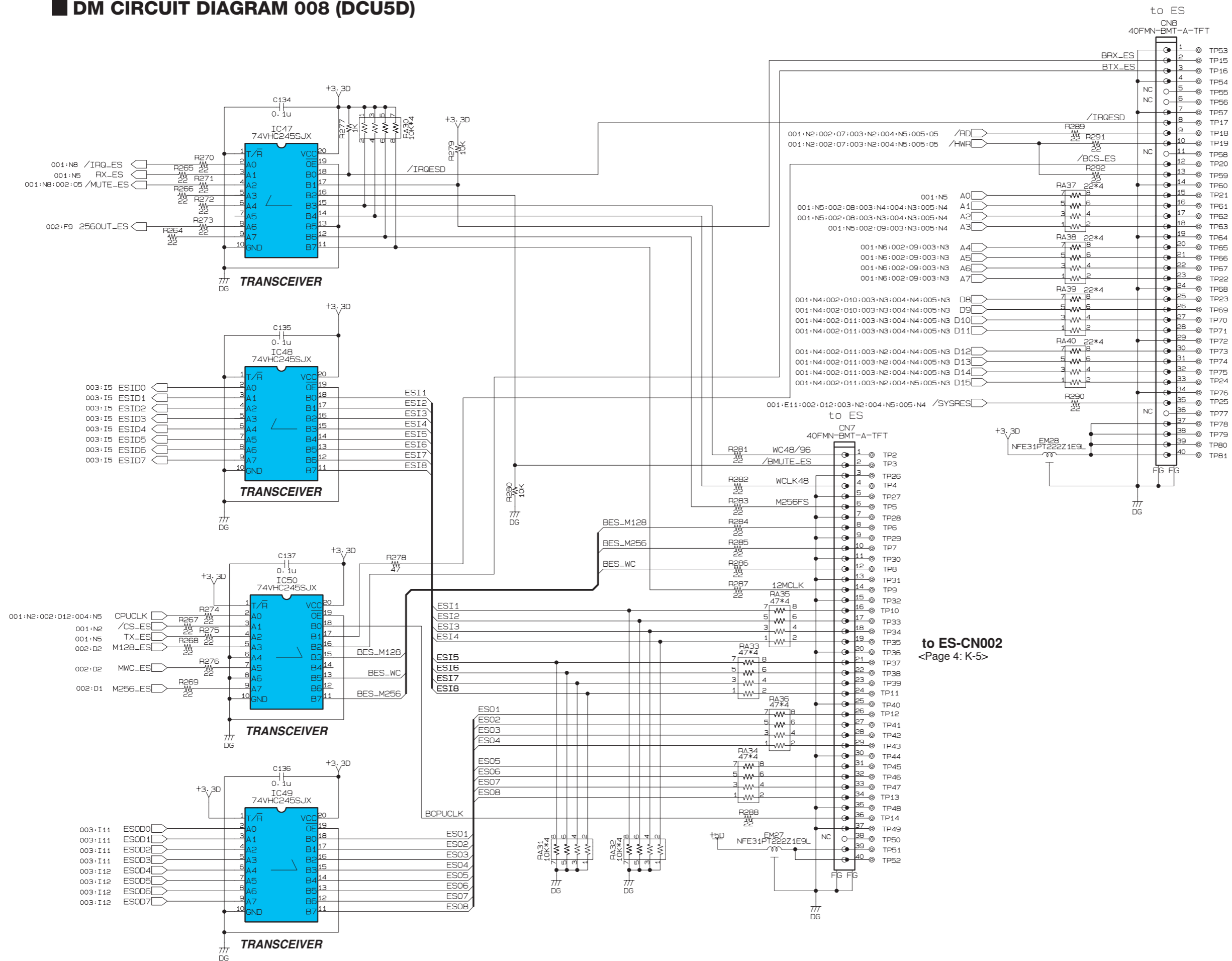
DM CIRCUIT DIAGRAM 007 (DCU5D)

DCU5D



DM CIRCUIT DIAGRAM 008 (DCU5D)

DCU5D

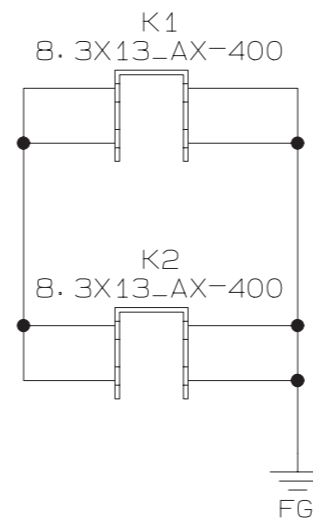
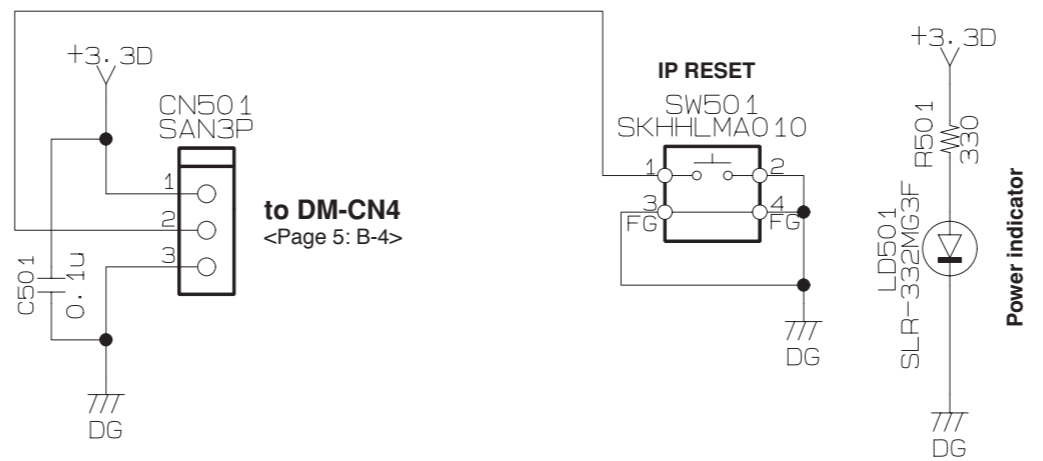


to ES-CN001
<Page 4: K-2>

to ES-CN002
<Page 4: K-5>

LED CIRCUIT DIAGRAM (DCU5D)

DCU5D



1
2
3
4
5
6