

TROUBLESHOOTING CHART

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Precautions

- (1)To check voltage, use digital Multimeter or an apparatus which input impedance of 10M or greater.
- (2)To check conductivity, use a circuit tester of 3V or less.
- (3)Check mainly soldering at lead wires or electrical elements and switch operation, since elements (IC, diode, transistor, resistor, or condenser) seldom cause the trouble.
- (4)When checking, do not push elements or pull lead wires strongly.
- (5)When checking voltage at patterns where switch operates, be careful not to prevent switch operation or to scratch patterns.
- (6)Before removing electrical parts, be sure to disconnect Power Supply.
- (7)Before soldering, heat the soldering iron to 290 - 340 . If higher, solder quickly.
- (8)When handling ICs avoid static electricity.

Error code list

(1)Check

Equipment required

PC with 2782 adjustment program installed
AC-1L/AC-11
USB-500 (USB cable)

Procedure

1. Start 2782 adjustment program. (See pg. 34 of Repair guide.)
 2. Connect the camera and PC via USB cable, and click "START".
 3. Click "LEAD" in the CAMERA LOG [READ].
 4. Check the items in the CAMERA LOG dialog. (Fig.1)
- *To clear the log of error code, shooting, and flash, see pg. 35 of Repair guide.

Fig.1

	ERROR CODE	TIME STAMP	SHOOTING
1	0xb00000ce	2003/12/25 10:36	268
2	0xb00000ce	2003/12/24 15:33	
3	0xb00000ce	2003/12/24 15:33	FLASH
4	0xb00000ce	2003/12/19 11:30	243
5	0x00000000	---/---/--- :---	
6	0x00000000	---/---/--- :---	
7	0x00000000	---/---/--- :---	
8	0x00000000	---/---/--- :---	
9	0x00000000	---/---/--- :---	
10	0x00000000	---/---/--- :---	
11	0x00000000	---/---/--- :---	
12	0x00000000	---/---/--- :---	
13	0x00000000	---/---/--- :---	
14	0x00000000	---/---/--- :---	
15	0x00000000	---/---/--- :---	CHECK-SUM
16	0x00000000	---/---/--- :---	3473265072

ERROR CODE: Refer to the error code list (listed in hex).

Note: When an error code which is not in the list is internal system error. If the error appears frequently, hardware problem is presumed.

TIME STAMP: date and time of error code

SHOOTING: number of shutter-release for still images

FLASH: number of flash burst

CHECK-SUM: calculation data for check of data communication

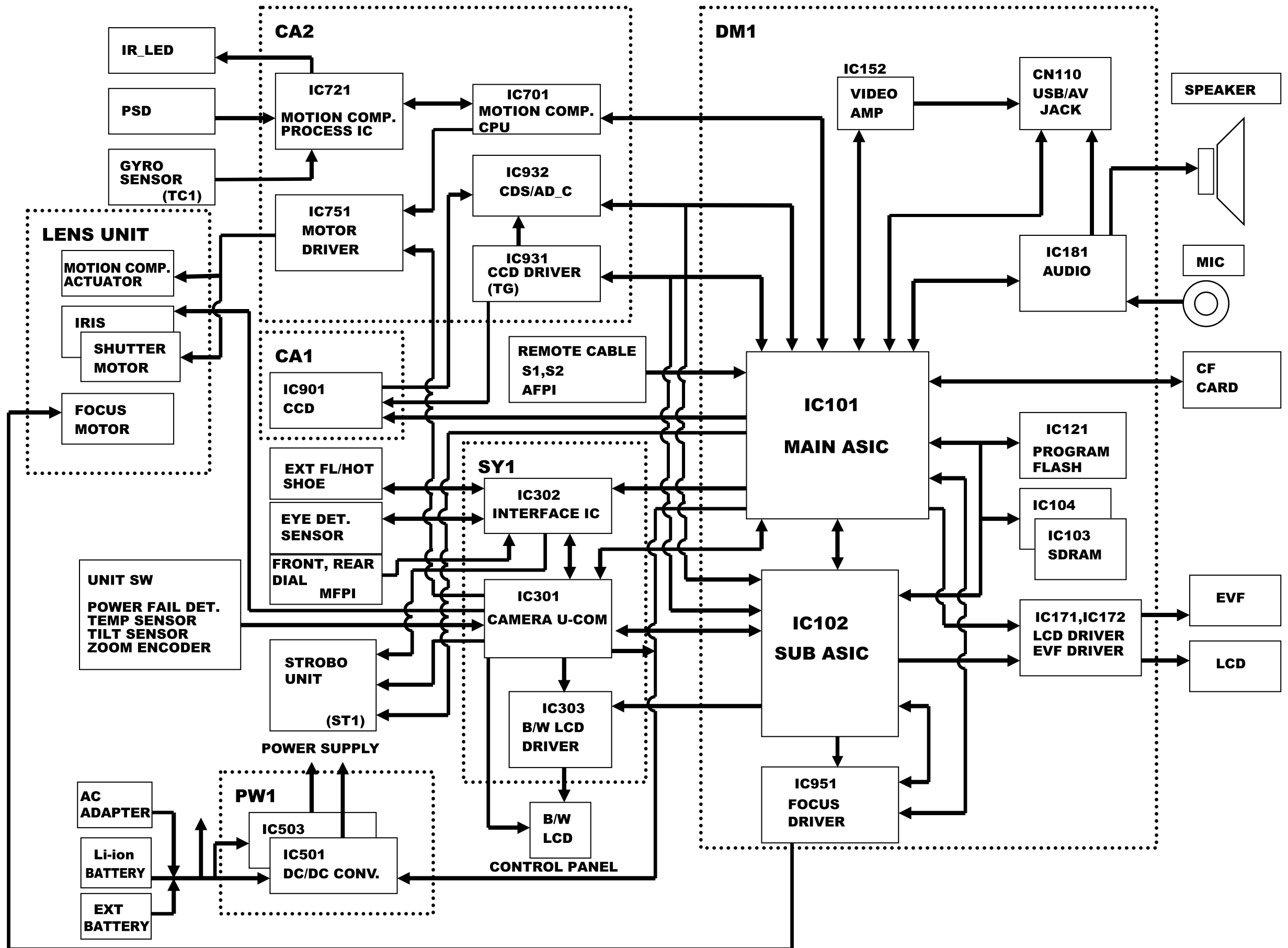
(2) Error code list

ERROR CODE Hex (0x)	Condition	Category	
00001000	Card error	Software	
00001100	RPU error		
00001200	File size 0		
00001F00	Camera log initialization (unmatched checksum of the first time and log)	Flash	
00003000	Flash charge time-out		
00004000	No PI output at zooming to telephoto direction (no PI output in the set period)	Zoom	
00004100	No PI output at zooming to wideangle direction (no PI output in the set period)		
00004300	Detection failure. Zoom telephoto reference SW position is shifted to wideangle with beyond the allowable range.		
00004400	Detection failure. Zoom telephoto reference SW position is shifted to telephoto with beyond the allowable range.		
00004500	Cannot detect telephoto reference SW at zoom telephoto end.		
00004700	Detection failure. Zoom wideangle reference SW position is shifted to wideangle with beyond the allowable range.		
00004800	Detection failure. Zoom wideangle reference SW position is shifted to telephoto with beyond the allowable range.		
00004A00	Receiving the target position for out of zooming range.		
00004B00	Receive zoom drive direction to move to the range outside when reaching at telephoto/wideangle end.		
00004C00	Receiving tracking drive when receiving the target position.		
00004D00	Receiving drive direction for out of definition.		
00004E00	Receiving excess zooming amount for 1 frame within a set period.		
00006000	Detection failure (focus reset error). Focus reference position cannot be detected.		Focus
00006100	"Lo" of AF-PI output is unchanged in focus reset.		
00006200	"Hi" of AF-PI output is unchanged in focus reset.		
00006300	Focus drive failure in interval APO.		
00006500	Receiving 255 and more pulse of zooming amount (one frame)		
00006600	Receiving a direction other than extend/retract for focusing.		
00006700	Detecting large shift length at updating focus reset SW (infinity).		
00006800	Detecting large shift length at updating focus reset SW (close).		
00006A00	Receiving zooming amount of over (close)		
00006B00	Receiving zooming amount of over (far)		
00008100	Aperture PR cannot be adjusted.	Aperture	
00008400	At power on, aperture PR does not change from "Lo" to "Hi".		
00008500	In LV, aperture PR does not change from "Hi" to "Lo".		
00008600	In LV, aperture PR does not change from "Lo" to "Hi".		
00008700	When Capturing, aperture PR does not change from "Hi" to "Lo".		
00008800	When Capturing, aperture PR does not change from "Lo" to "Hi".		
00008900	After Capturing, aperture PR does not change from "Lo" to "Hi".		
00008A00	In LV, receiving the same position as current aperture position.		
00008B00	In LV, receiving zooming direction though the aperture is not at open position.		
00008C00	In capturing, receiving the same position as current aperture position.		
00008D00	In capturing, receiving zooming direction though the aperture is not at open position.		
00009100	ASIC temperature rise	Temperature	
00009200	Anti shake module temperature rise		
0000B000	Gemneral image processing	Image processing	
0000B001	Main SW:ON, shutter does not open.		
0000B002	Main SW:OFF, shutter does not close.		
0000B004	Abnormal in capturing (Gr, Gb level differ significantly.)		
0000B008	Shutter error for unexpected condition.		
0000B100	Abnormal AE		
0000B200	Abnormal AWB		
0000B201	R gain error (custom setting)		
0000B202	B gain error (custom setting)		
0000B204	Unexpected pre-set		
0000B208	Operation error		
0000B210	Unexpected data at limiter. (check preset value)		
0000B300	Abnormal Flash control		
0000B301	Flash GNo adjustment error		
0000B400	Abnormal AF		

4 (2720)A

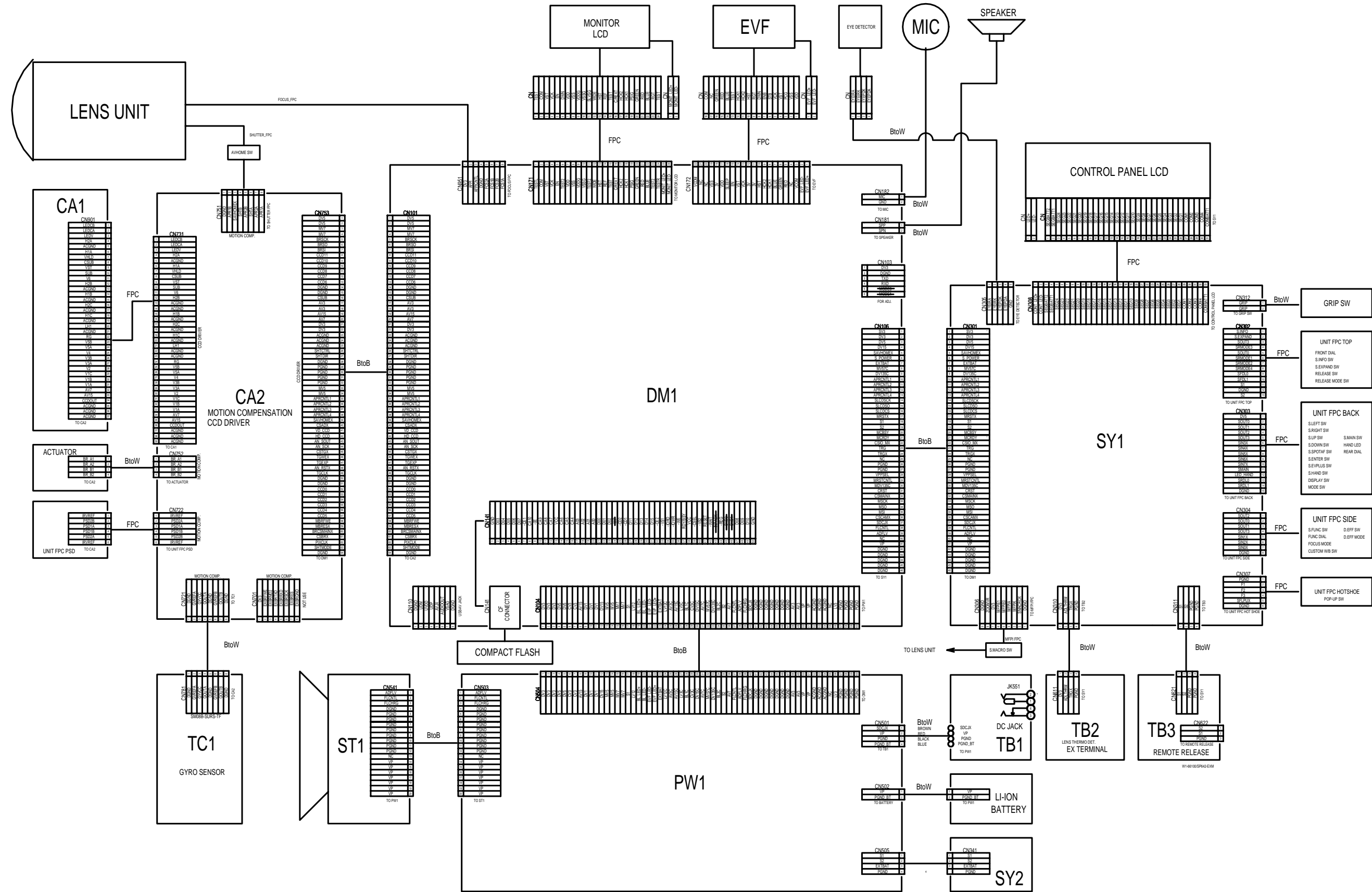
ERROR CODE Hex (0x)	Condition	Category	
AF100000	Going into an infinite loop and then freeze during single shot AF processing.	Single shot AF	
AF101000	Error in frame rate change processing		
AF102001	Specified value for motor drive is beyond the range.		
AF102002	Specified speed of motor drive is beyond the range which motor could drive.		
AF102004	Specified starting time is beyond the executable range.		
AF102010	Specified infinite position further from the infinite position.		
AF102020	Specified closer position than closest position.		
AF102080	Step-out		
AF103000	Though I sent in a motor stop order, did not stop		
AF103001	Time between motor stop and next drive was less than 8msec.		
AF103002	Motor worked when single shot AF starts.		
AF103003	Motor does not stop after completion of direction judgment sequence of one shot AF.		
AF103004	Motor was working when starting focusing		
AF103005	Motor does not work.		
B00000CE	CCD centering not completed.		Centering
FA000001 - FA000218	Communication error of camera CPU.	CPU	
FA001000 - FA002413	Capture sequence error	Sequence control	
FA002500 - FA002511	CCD control error	CCD control	
FA002600 - FA002612	Adjustment value error	BOOT	
FA002700 - FA002712	CCD phase control error	CCD phase control	
FA002800 - FA002815	Manual_Shutter control error	Shutter	
FA002900 - FA002A11	Frame rate control error	CCD control	
FA002B00 - FA002B13	B.C. error	B.C.	
FA002C00 - FA002D13	Capture sequence error	Sequence control	
FA002E00 - FA002E13	Adjustment value error	BOOT	
FA003001	Image processing error	Image processing	
FA003011 - FA003023	Image processing setting error		
FA004000	System error in focus check.		
FA004001	Focus operation error in focus check.		
FA004002	Aperture operation error in focus check.		
FA004003	Aperture and shutter operation error in focus check.		
FA004004 - FA004013	System Error		
FA004031	System Error in focus check at capturing.		
FA004100	System Error		
FA004101	Focus operation error in aperture check.		
FA004102	Shutter operation error in aperture check.		
FA004103 - FA004104	System Error		
FA004105 - FA004108	Aperture operation error in aperture check.		
FA004111	Focus operation error in aperture check.		
FA004112	Shutter operation error in aperture check.		
FA004113 - FA004114	System Error		
FA004115 - FA004131	Aperture operation error in aperture check.		
FA004200 - FA004201	System Error		
FA004202	Focus operation error in shutter check.		
FA004203	Aperture operation error in shutter check.		
FA004204 - FA004215	System Error		
FA004221	Shutter error after capturing.		
FA004231	Shutter operation error at checking in capturing.		
FA004300 - FA004411	System Error		
FA006000 - FA006001	Timer control error		Timer control
FA010010 - FA010230	Sequence error		Sequence control
FA011001	Shading compensation check error.		Shading
FA020001 - FA030001	CCD error		CCD control
FC000000	Focus reset error		Focus
FC000001	Delay time setting error		
FC000002	Motor drive error in macro position reset.		
FC000003	PI count is beyond the standard.		
FC000004	Focus operation error during aperture operation.		
FC000067	Detecting large shift length at updating focus reset SW (infinity).		
FC000068	Detecting large shift length at updating focus reset SW (close).		
FC000069	Shut off during focusing.		

■Block Diagram / ブロック回路図



TROUBLE-SHOOTING CHART

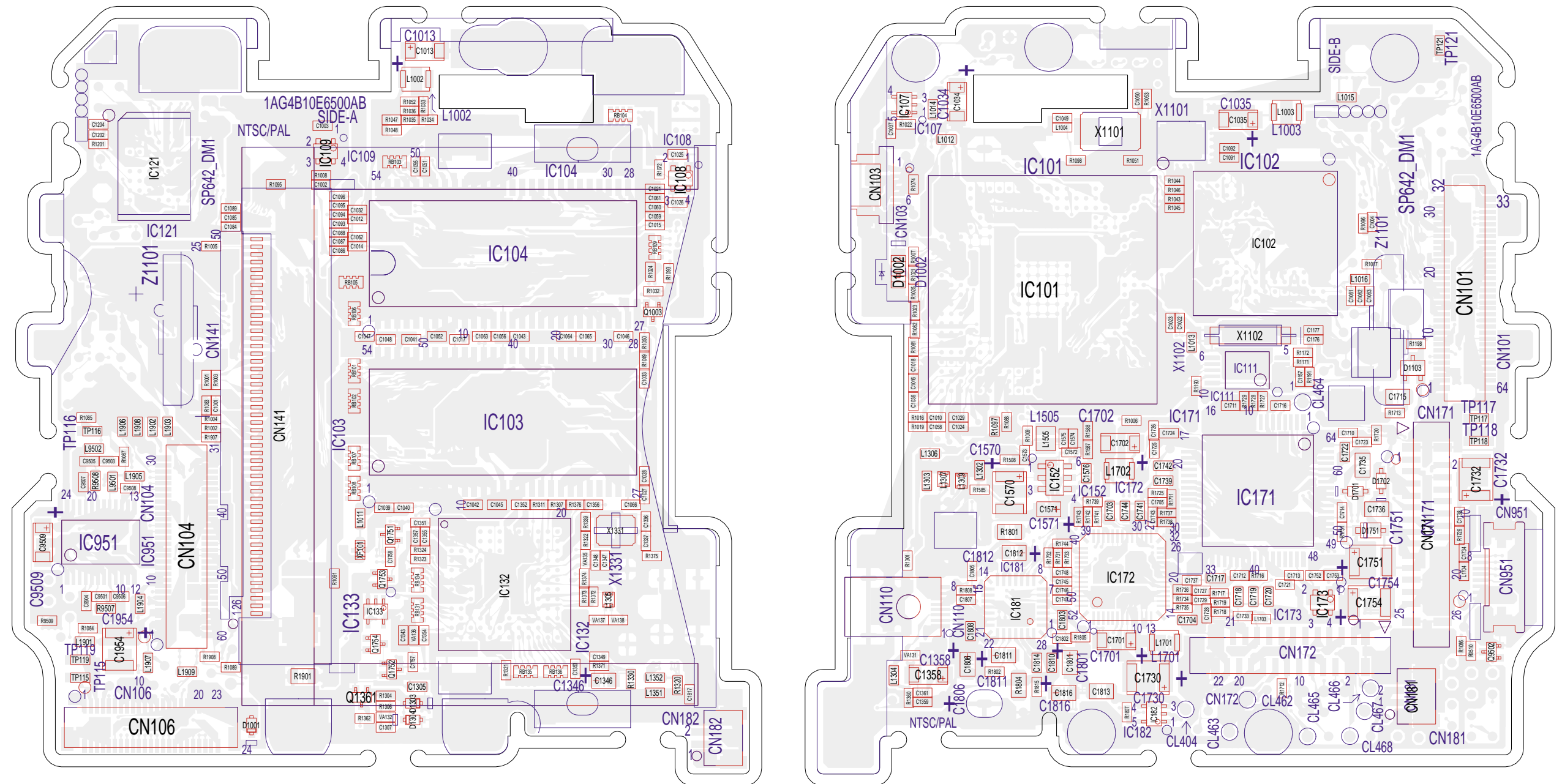
■Circuit Board Connection Diagram/ 実体配線図



TROUBLE-SHOOTING CHART

■Map of Electrical Elements/素子配置図

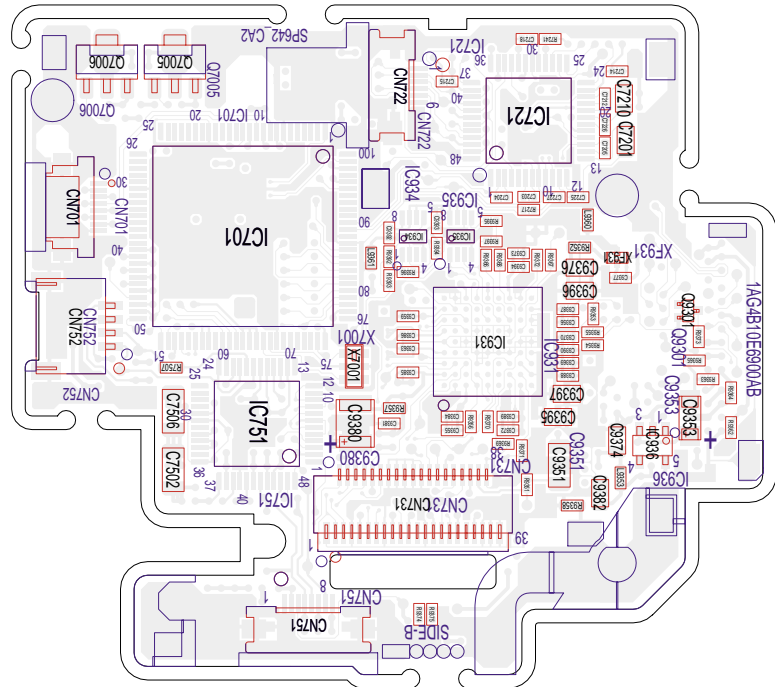
(1) COMPL PWB, DM-1 (#0492)/コンプル PWB DM-1 (#0492)



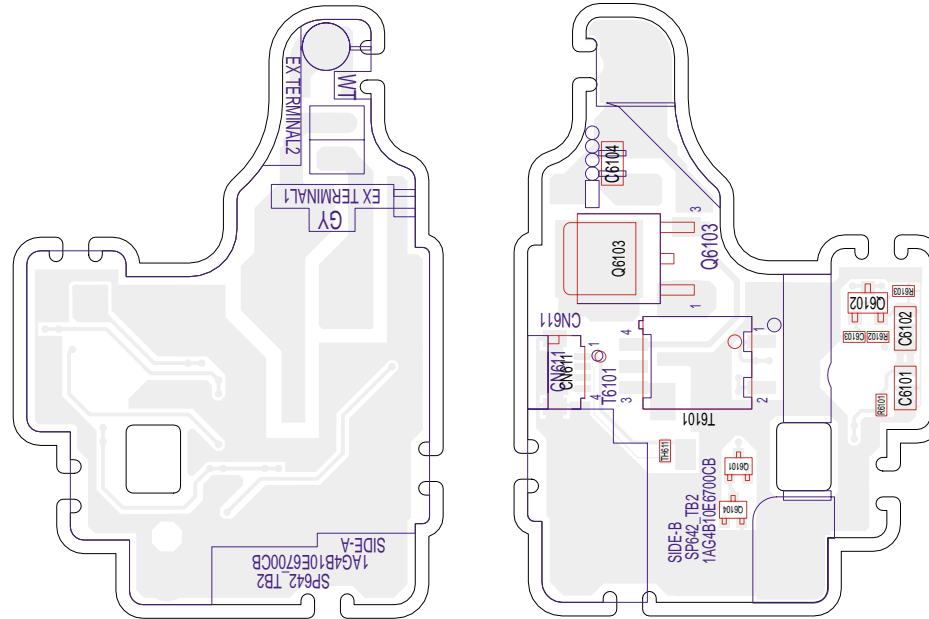
■ Map of Electrical Elements/素子配置図

- (2) COMPL PWB, CA-2 (#0420)/コンプラ PWB CA-2 (#0420)
- (3) COMPL PWB, SY-1 (#0491)/コンプラ PWB SY-1 (#0491)
- (4) COMPL PWB, TB-2 (#1109)/コンプラ PWB TB-2 (#1109)
- (5) COMPL PWB, TB-3 (#0457)/コンプラ PWB TB-3 (#0457)
- (6) COMPL PWB, SY-2 (#0465)/コンプラ PWB SY-2 (#0465)

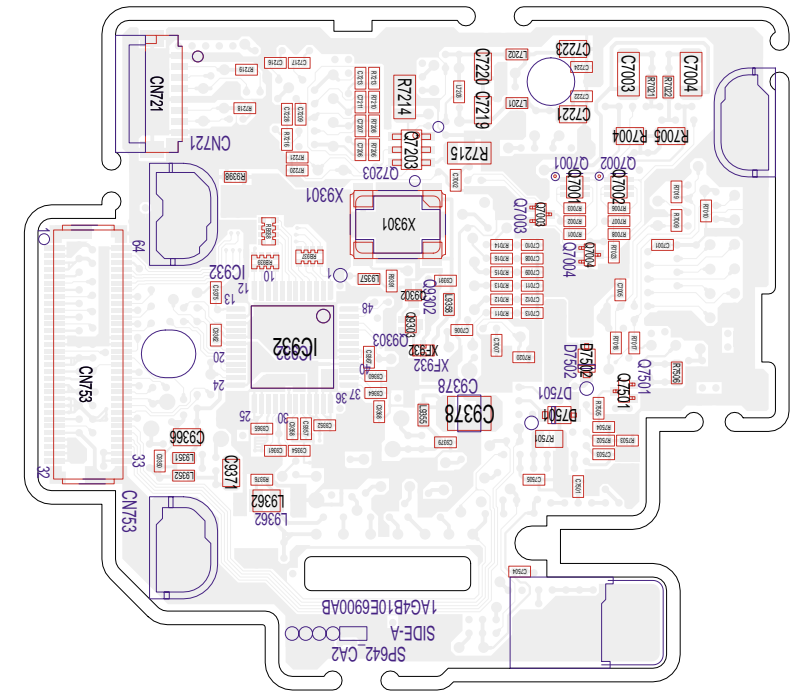
(2) COMPL PWB, CA-2 (#0420)/コンプラ PWB CA-2 (#0420)



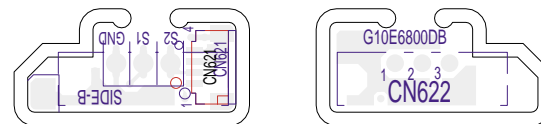
(4) COMPL PWB, TB-2 (#1109)/コンプラ PWB TB-2 (#1109)



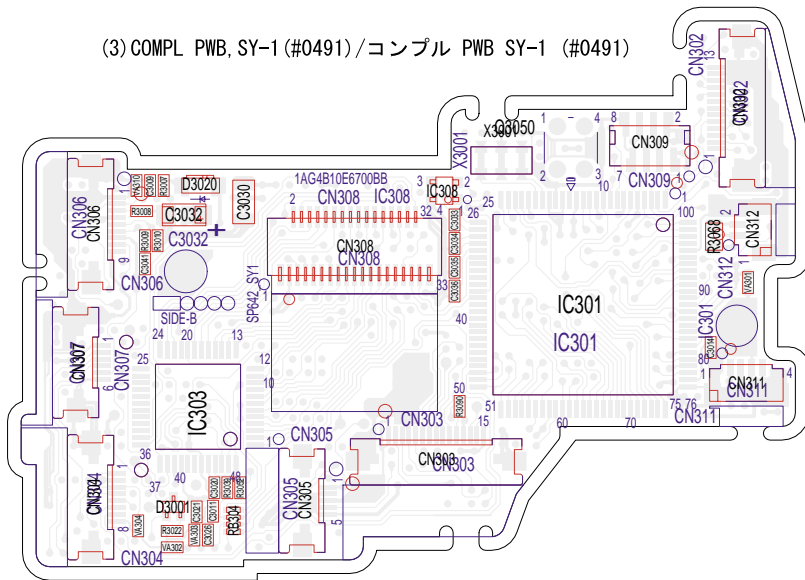
(2) COMPL PWB, CA-2 (#0420)/コンプラ PWB CA-2 (#0420)



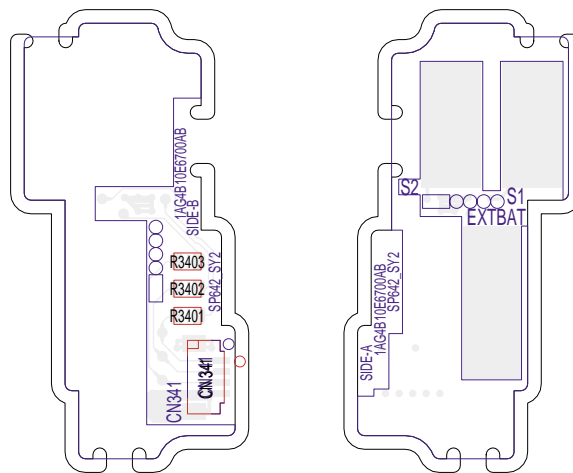
(5) COMPL PWB, TB-3 (#0457)/コンプラ PWB TB-3 (#0457)



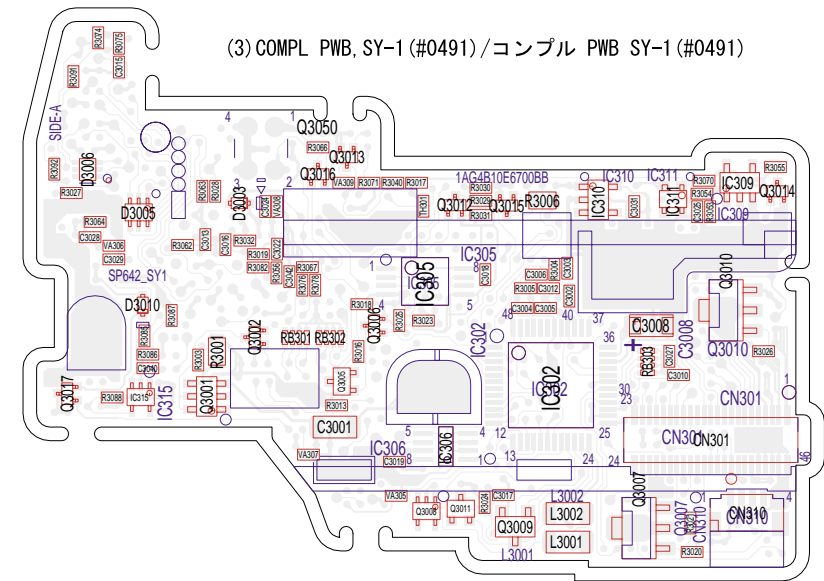
(3) COMPL PWB, SY-1 (#0491)/コンプラ PWB SY-1 (#0491)



(6) COMPL PWB, SY-2 (#0465)/コンプラ PWB SY-2 (#0465)



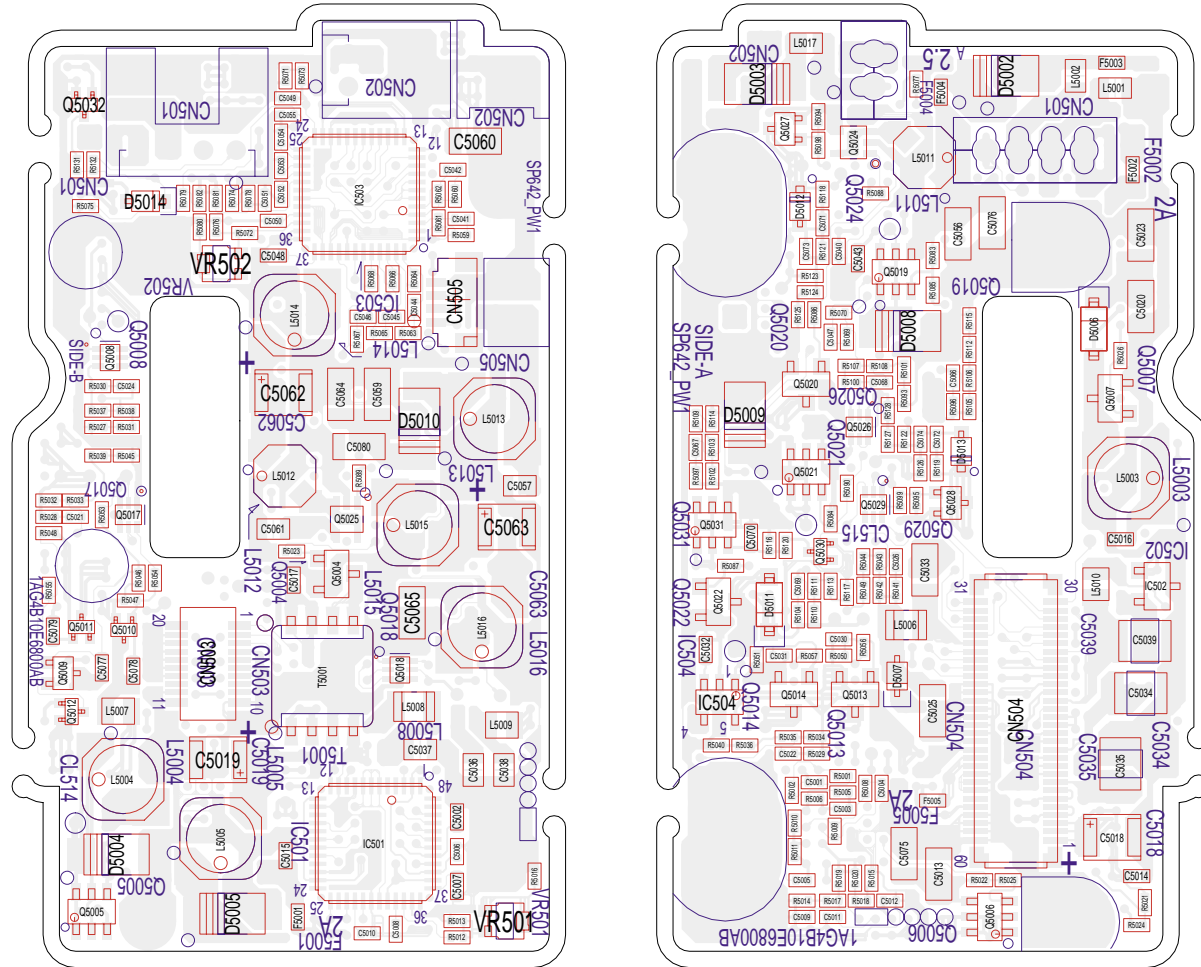
(3) COMPL PWB, SY-1 (#0491)/コンプラ PWB SY-1 (#0491)



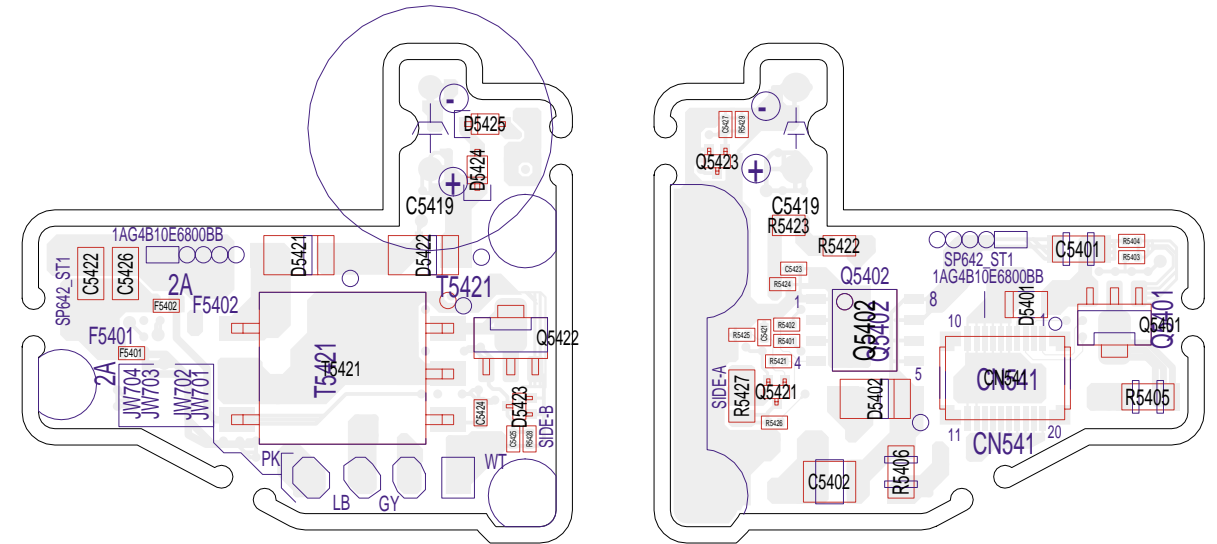
Map of Electrical Elements/素子配置図

- (7) COMPL PWB, PW-1 (#0487)/コンプル PWB PW-1 (#0487)
- (8) COMPL PWB, ST-1 (#0485)/コンプル PWB ST-1 (#0485)
- (9) COMPL PWB, TB-1 (#0489)/コンプル PWB TB-1 (#0489)
- (10) COMPL PWB, TC-1 (#1208)/コンプル PWB TC-1 (#1208)
- (11) CCD HOLDER ASSY (#3258-0270)/CCDホルダーセット (#3258-0270)

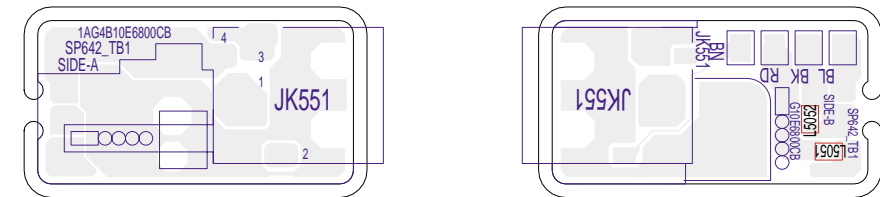
(7) COMPL PWB, PW-1 (#0487)/コンプル PWB PW-1 (#0487)



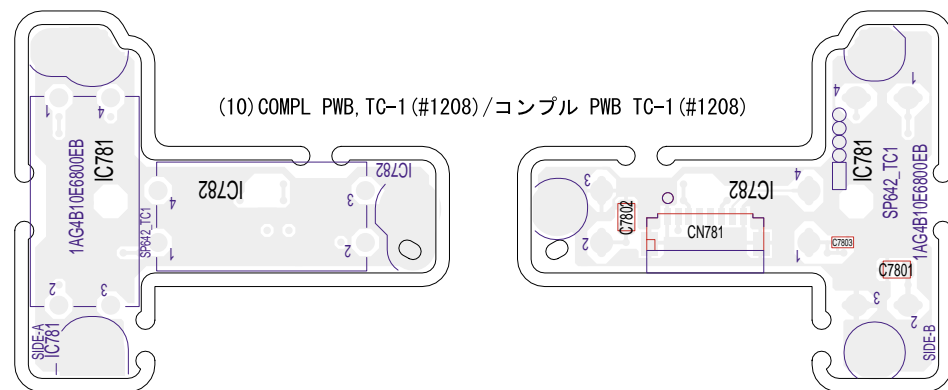
(8) COMPL PWB, ST-1 (#0485)/コンプル PWB ST-1 (#0485)



(9) COMPL PWB, TB-1 (#0489)/コンプル PWB PW-1 (#0487)



(10) COMPL PWB, TC-1 (#1208)/コンプル PWB TC-1 (#1208)



(11) CCD HOLDER ASSY (#3258-0270)/CCDホルダーセット (#3258-0270)

