



SERVICE MANUAL

Megapixel Camera



VDC-HD3500P

(Product Code : 117 408 00)
 (Product Code : 117 458 00)
 (Product Code : 117 458 10)
 (Europe, U.K., Southeast Asia)

VDC-HD3500

(Product Code : 117 408 01)
 (Product Code : 117 458 01)
 (Product Code : 117 458 11)
 (U.S.A., Canada, Taiwan, Brazil)

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PRODUCT SAFETY NOTICE

The components designated by a symbol (⚠) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance, wattage, and voltage ratings shown.

RoHS

- This product does not contain any hazardous substances prohibited by the RoHS Directive.

⚠ WARNING

- You are requested to use RoHS compliant parts for maintenance or repair.
- You are requested to use lead-free solder.
 (This product has been manufactured using lead-free solder. Be sure to follow the warning given on page 2 when carrying out repair work.)

- NOTE: 1. Parts order must contain model number, part number, and description.
 2. Substitute parts may be supplied as the service parts.
 3. N.S.P. : Not available as service parts.

Design and specifications are subject to change without notice.

WARNING

Do not use solder containing lead.

This product has been manufactured using lead-free solder in order to help preserve the environment.

Because of this, be sure to use lead-free solder when carrying out repair work, and never use solder containing lead.

Lead-free solder has a melting point that is 30 - 40°C (86 - 104°F) higher than solder containing lead, and moreover it does not contain lead which attaches easily to other metals. As a result, it does not melt as easily as solder containing lead, and soldering will be more difficult even if the temperature of the soldering iron is increased.

The extra difficulty in soldering means that soldering time will increase and damage to the components or the circuit board may easily occur.

Because of this, you should use a soldering iron and solder that satisfy the following conditions when carrying out repair work.

Soldering iron

Use a soldering iron which is 70 W or equivalent, and which lets you adjust the tip temperature up to 450°C (842°F). It should also have as good temperature recovery characteristics as possible.

Set the temperature to 350°C (662°F) or less for chip components, to 380°C (716°F) for lead wires and similar, and to 420°C (788°F) when installing and removing shield plates.

The tip of the soldering iron should have a C-cut shape or a driver shape so that it can contact the circuit board as flat or in a line as much as possible.

Solder

Use solder with the metal content and composition ratio by weight given in the table below. Do not use solders which do not meet these conditions.

Metal content	Tin (Sn)	Silver (Ag)	Copper (Cu)
Composition ratio by weight	96.5%	3.0%	0.5%

Lead-free solder is available for purchase as a service tool.

Use the following part number when ordering:

Part name: Lead-free solder with resin (0.5 mm dia., 500 g)

Part number: VJ8-0270

Note:

If replacing existing solder containing lead with lead-free solder in the soldered parts of products that have been manufactured up until now, remove all of the existing solder at those parts before applying the lead-free solder.

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Discard used batteries according to the manufacturer's instructions.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri af samme fabrikat og type.

Levér det brugte batteri tilbage til leverandøren.

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.

Benytt samme batteritype eller en tilsvarende type andefalt av apparatfabrikanten.

Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

VARNING

Explosionsfara vid felaktigt batteribyte.

Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.

Kassera använt batteri enligt fabrikantens instruktion.

VAROITUS

Paristo voi räjähtää jos se on virheellisesti asennettu.

Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.

Hävittä käytetty paristo valmistajan ohjeiden mukaisesti.

SPECIFICATIONS

Camera

Image pickup device : 1/3-inch CMOS sensor

Effective pixels : 16:9 1920 (H) x 1080 (V), 4:3 2288 (H) x 1712 (V)

Lowest image illumination : 50IRE: 1.0 lx (at F1.2, color mode, high gain)

50IRE: 0.06 lx (at F1.2, black-and-white mode, high gain)

Video S/N ratio : 50 dB (when AGC is "OFF")

Lens : Built-in varifocal lens f=3 to 9 mm, F1.2 to 2.1

Adjustment focus : Focus assist function

Day/Night function : Auto, color, black-and-white, alarm input switching

White balance : Auto (ATW), one push (AWC), manual (R/B gain adjustable), indoor, outdoor, fluorescent

Backlight compensation : Multi-spot evaluative metering, center-weighted evaluative metering, masking, face detection

Electronic sensitivity boosting : Auto (32 x max) or Off

Electronic shutter : 1/25, 1/50, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (VDC-HD3500P)

1/30, 1/60, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000 (VDC-HD3500)

Long exposure shutter (1x, 2x, 4x, 8x, 16x, 32x)

Iris control : DC iris lens supported

Electronic zoom : Max. 16x

Digital PTZ : Enables electronic pan, tilt, and zoom operations on clipped subject areas in VGA size.

Camera settings : Selectable between 2 camera setting patterns

AGC gain : Normal/ Middle/ High (Manual gain setting possible at Off)

Gamma correction : 0.45, 1, Mode 1, Mode 2

Aperture compensation : On/Off (Correction level adjustable)

VIVID COLOR EFFECT : ON/OFF

DNR : ON/OFF

Mirror : H/V/HV/OFF

Privacy mask : On/Off, max. 8 mask patterns

Motion sensor : On (Motion masking/ motion detection area setting, or video analytics)/ Off, face detection function supported

Language selection : English, French, German, Spanish, Japanese

I/O

Video output : Composite output

LAN : 10BASE-T/ 100BASE-TX (RJ-45 connector)

Card slot : 1 (SDHC compliant, max.32GB supported)

There are recommende SD memory cards.

Alarm input : 2 (NO/NC), also serving as Day/Night switching terminal

Alarm output : 2 (NO/NC, 16V, 150 mA, open collector)

Audio input/ output : Microphone input (3.5-mm mini jack)

Line output (3.5-mm mini jack)

SD Recording [SD Memory Card]

Recording mode : Alarm recording, backup recording in event of a network failure

Network

Image/ video compression : H.264/ JPEG

Video size (H.264) : (16:9) 1920x1080, 1280x720, 640x360, 320x180
(4:3) 1600x1200, 1280x960, 1024x768, 640x480, 320x240

Video size (JPEG) : (16:9) 1920x1080, 1280x720, 1024x576, 640x360
(4:3) 2288x1712, 1600x1200, 1280x960, 1024x768, 800x600, 640x480, 320x240

Picture quality : QUALITY mode: BASIC, NORMAL, ENHANCED, FINE, SUPER FINE
BITRATE mode: User-specified bit rate

Interface : 10BASE-T/ 100BASE-TX

Protocol : TCP/IP, UDP, HTTP, HTTPS, SMTP, NTP, DHCP, FTP, DDNS, RTP, RTSP, RTCP

Audio : G.711 (Bidirectional)

Simultaneous access : 20

Security : BASIC authentication (ID/password), SSL, IP filtering

Others

International Waterproof and Dustproof Standard : IP66

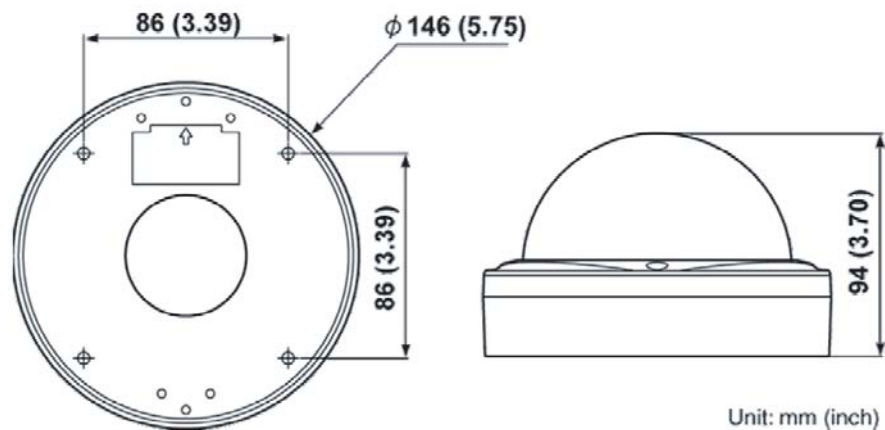
Operating ambient temperature/humidity : Temperature: -10 °C - + 50 °C (14°F - 122°F)
Humidity: less than 90 % RH (no condensation)

Power source : 24 V AC \pm 10 %, 50/60 Hz/ 12 V -15 V DC/ PoE

Power consumption (approx.) : 6.8 W, 20 W (with heater turned on)

Weight (approx.) : 800 g (29 oz.)

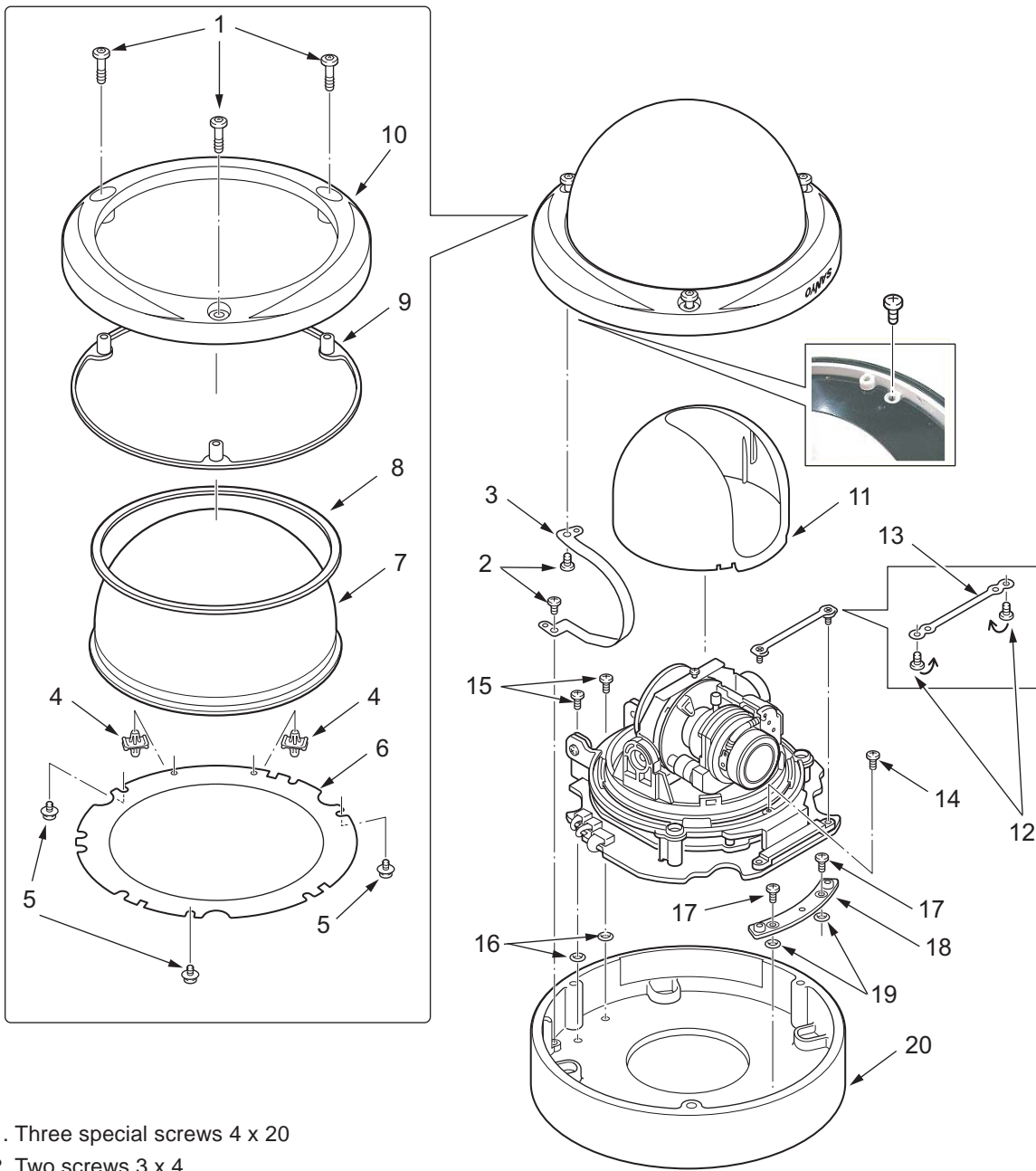
Dimensions [mm/(inch)] :



Unit: mm (inch)

1. DISASSEMBLY

1-1. REMOVAL OF CABINET

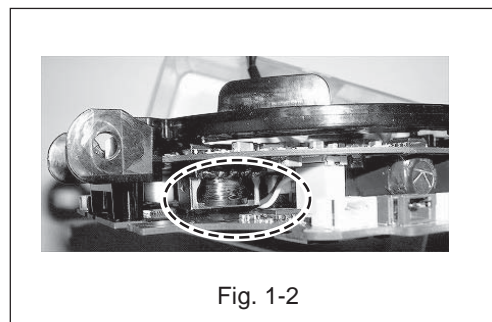
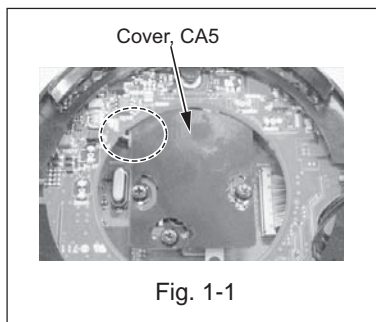
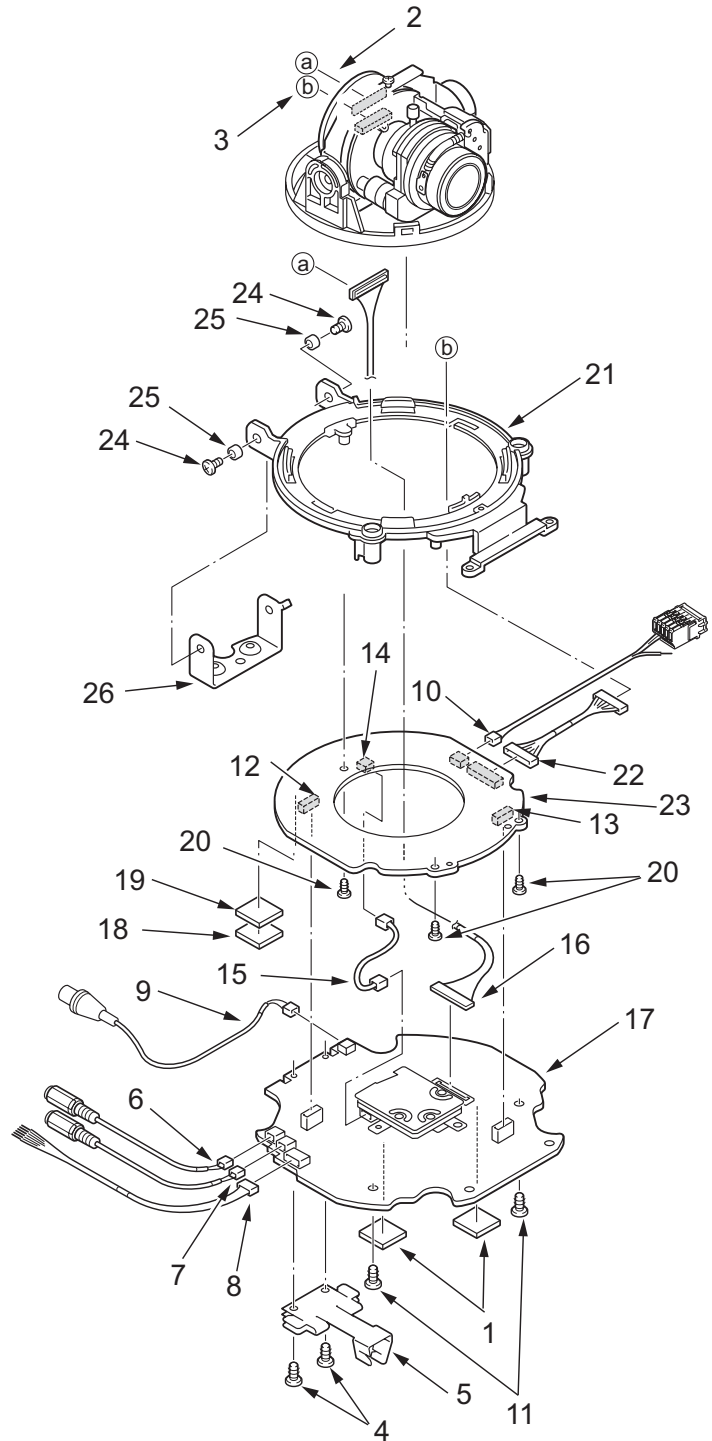


- 1. Three special screws 4 x 20
- 2. Two screws 3 x 4
- 3. Holder safety
- 4. Two spacers
- 5. Three screws 3 x 6
- 6. Mounting dome
- 7. Cover dome
- 8. Gasket dome
- 9. Gasket top
- 10. Cabinet top
- 11. Cover, inner
- 12. Two screws 3 x 10
- 13. Holder safety screw

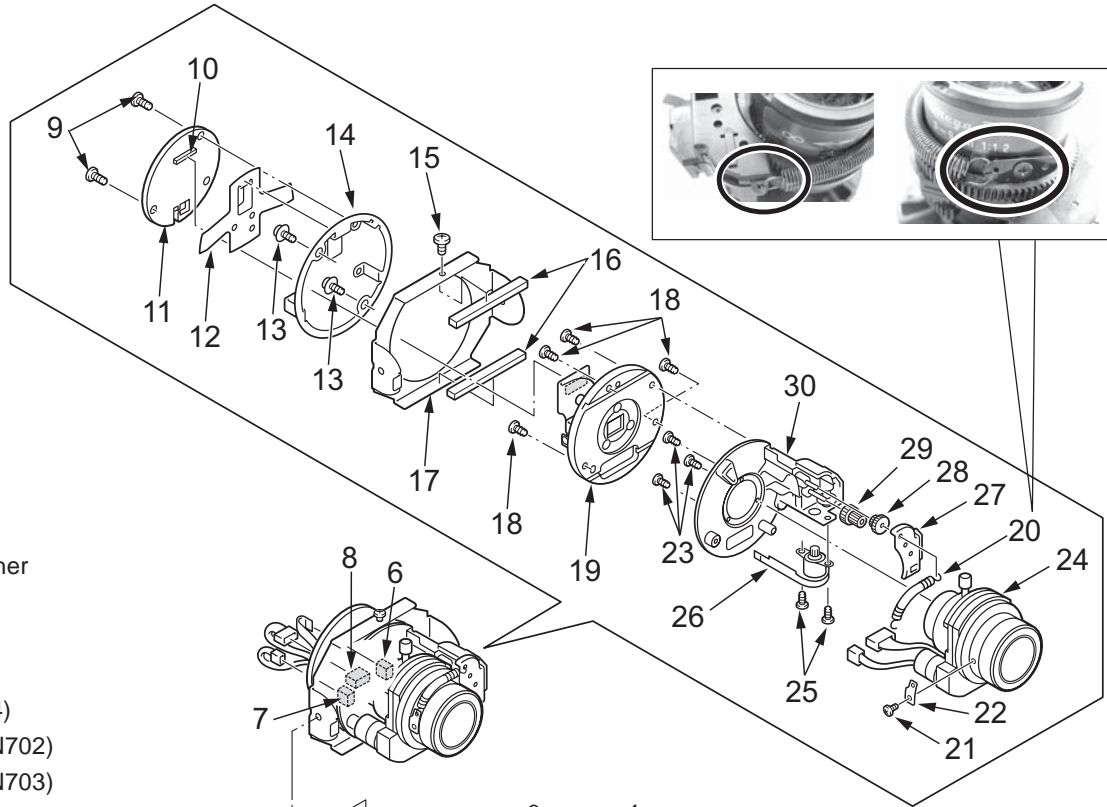
- 14. Screws 3 x 4
- 15. Two screws 3 x 6
- 16. Two gasket O rings
- 17. Two screws 3 x 6
- 18. Holder CA2
- 19. Two gasket O rings
- 20. Cabinet bottom

1-2. REMOVAL OF CA-2 BOARD AND CA-3 BOARD

1. Two heat sink rub CA2
2. Connector (CN714)
3. Connector (CN713)
4. Two screws 3 x 6
5. Fixer cable
6. Assy, wire (W4003, CN202)
7. Assy, wire (W4002, CN201)
8. Assy, wire (W4007, CN106)
9. Assy, wire (video cable, CN111)
10. Assy, wire (W4005, CN401)
11. Two screws 3 x 6
12. Connector
13. Connector
14. Connector (CN403)
15. Assy, wire (W4006, CN882)
When assembling the assembly wire should be placed below the cover CA5.(Fig. 1-1)
When assembling be careful that the assembly wire does not get clamped.(Fig. 1-2)
16. Assy, wire (W4004, CN104)
17. CA-2 board (with CA-5 board)
18. Heat sink rub CA3-B
19. Heat sink rub CA3-A
20. Three screws 2 x 4
21. Holder PWB
22. Assy, wire (W4008, CN972)
23. CA-3 board
24. Two screws 3 x 4
25. Two pipes
26. Holder camera

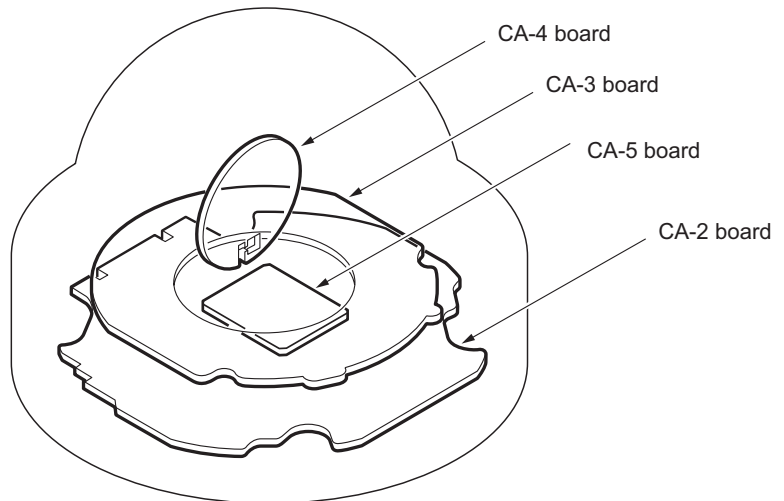


1-3. REMOVAL OF CA-4 BOARD, ASSY LENS AND BOARD LOCATION



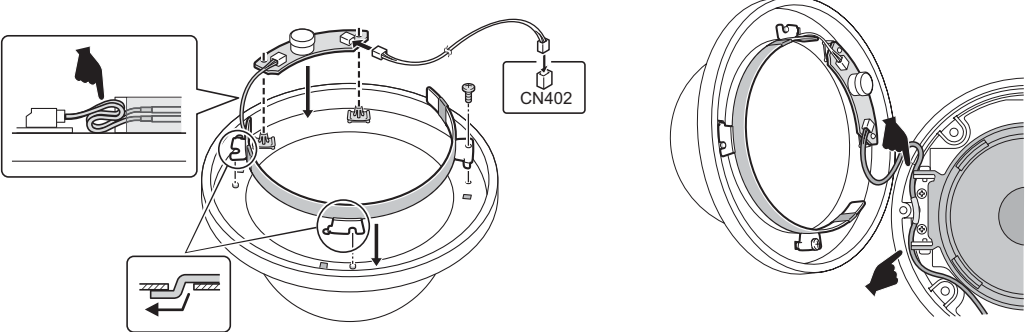
1. Screw 3 x 6
2. Special washer
3. Pipe
4. Screw 3 x 6
5. Arm pan
6. FPC (CN704)
7. Harness (CN702)
8. Harness (CN703)
9. Two screws 2 x 4
10. Connector
11. CA-4 board
12. Heat sink tape CMOS
13. Two screws 2 x 6
14. Holder CA4
15. Screw 2 x 3
16. Two spacer lenses
17. Holder lens
18. Four screws 2 x 5
19. Assy, unit
20. Spring lens
21. Screw 1.7 x 2
22. Spacer spring
23. Three screws 1.4 x 4
24. Assy, lens
25. Two screws 1.4 x 4
26. Assy, motor DN
27. Lid,FAD
28. Gear, FAD
29. Gear, helical
30. Assy, FAD

BOARD LOCATION



1-4. HEATER POTION BOARD

When assembling, organize the cables as illustrated in the figure shown above. (☛)



2. ADJUSTMENT

2-1. Table for Servicing Tools

Ref. No.	Name	Number	Part code
J-1	Pattern box	1	VJ8-0190
J-2	Calibration software	1	
J-3	Chroma meter	1	VJ8-0192
J-4	Spare lump (pattern box)	1	VJ8-0191
J-5	Collimator	1	VJ8-0260
J-6	Spare lump (collimator)	1	VJ8-0282

1. Calibration software

Download the calibration software and the firmware from the following URL.

http://www.overseas.sanyo.com/dcamera_service/

Place the DscCalDi.exe file, camapi32.dll file and QrCodeInfo.dll file together into a folder of your choice.

2. Pattern box

Turn on the switch and wait for 30 minutes for aging to take place before using Color Pure. It is used after adjusting the chroma meter (VJ8-0192) adjust color temperature to 3100 ± 20 K and luminosity to 900 ± 20 cd/m². Be careful of handling the lump and its circumference are high temperature during use and after power off for a while.

2-2. Setup

1. System requirements

- Windows 2000 or XP or Vista
- IBM® -compatible PC with pentium processor
- USB port

2. Video monitor

- Connect the video output to a video monitor with an input impedance of 75 ohms.

2-3. Adjustment Items and Order

1. Timer Quartz Adjustment
2. AWB Adjustment
3. CMOS White Point Defect Detect Adjustment
4. CMOS Black Point And White Point Defect Detect Adjustment In Lighted
5. Focus Assistance Drive Adjustment

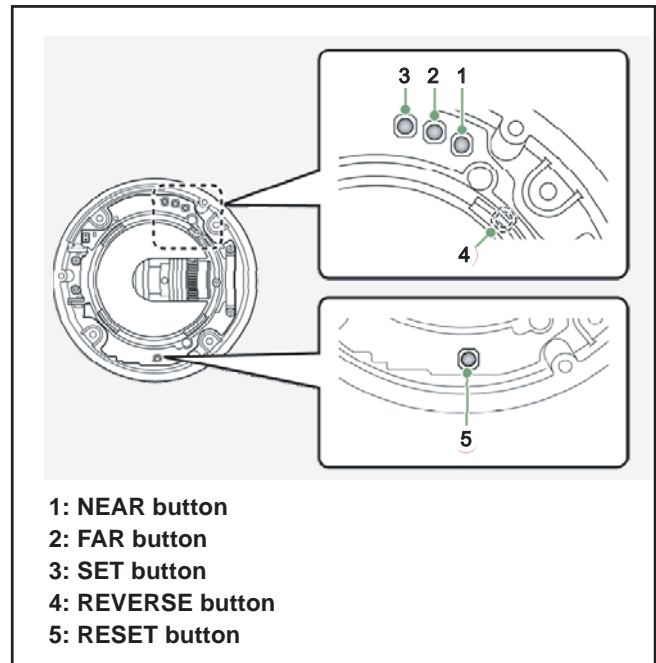
Note: If the lens, CMOS and board and changing the part, it is necessary to adjust again. Item 1-5 adjustments should be carried out in sequence.

2-4. Connecting the camera to the computer

1. Connect the camera's USB terminal to the computer's USB connector.
2. It turns on power while pushing the FAR button and the SET button of the operation panel.
3. Double-click on the DscCalDi.exe.
4. L5DE2 is selected with Model Code.
5. PAL (VDC-HD3500P) or NTSC (VDC-HD3500) is selected with Video Mode.

2-4-1. Computer screen during adjustment

2-4-2. Operation buttons



2-5. Adjustment

1. Timer Quartz Adjustment

Adjustment location: CT351 (CA-2)

Measuring location: CL351 (CA-2)

Measuring equipment: Frequency counter

Subject: No designation

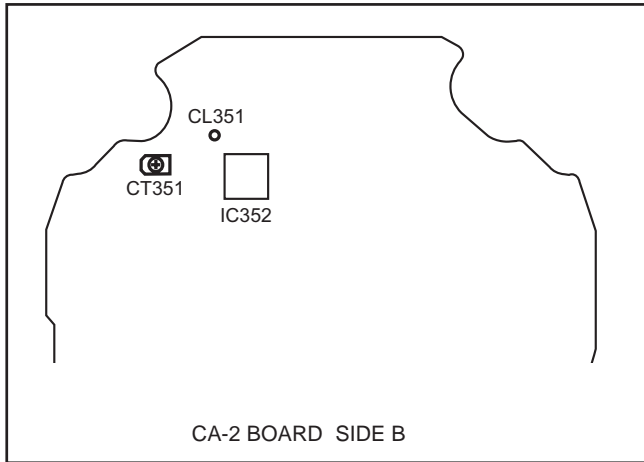
Preparation:

Turn on the switch and wait for 1 minute.

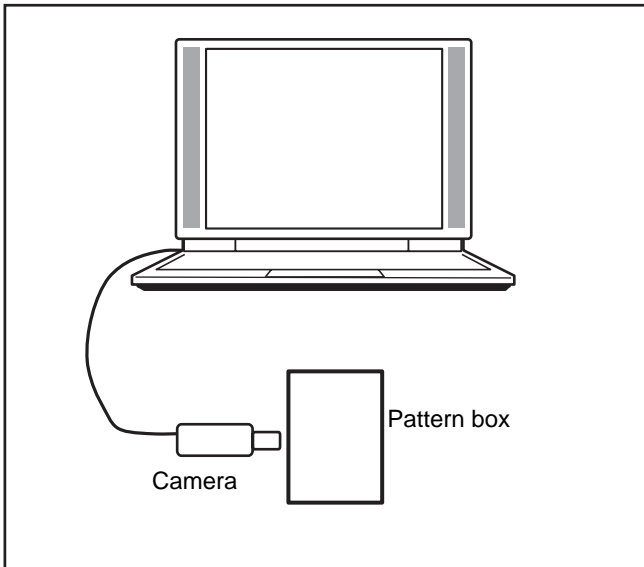
Temperature: $25 \pm 5^\circ\text{C}$

Adjusting method:

1. It turns on power while pushing the FAR button and the SET button of the operation panel.
2. Adjust with CT351 to 32768.852 Hz - 32769.016 Hz.



2. AWB Adjustment



Adjustment location: AWB of computer screen

Measuring location: Computer screen

Measuring equipment:

Preparation:

Lens is set on TELE edge/NEAR edge.

Adjusting method:

1. Set a distance of 0.5-1.0 cm between camera lens and the pattern box. (Do not enter any light.)
2. Connect the camera's USB terminal to the computer's USB connector.
3. It turns on power while pushing the FAR button and the SET button of the operation panel.
4. Double-click on the DscCalDi.exe.
5. Click the AWB, and click the Yes.
6. AWB adjustment value will appear on the screen.
7. Click the OK.

Adjustment value determination is effectuated using the "CHECK".

CHECK= wc0, wc1, wc2

The adjustment values fulfill the conditions below, they are determined as within specifications.

Adjustment value determination

wc0= 128 ± 2 , wc1= 128 ± 2 , wc2= 130 ± 40

3. CMOS White Point Defect Detect Adjustment

Adjustment location: CCD Defect of computer screen

Measuring location: Computer screen

Measuring equipment:

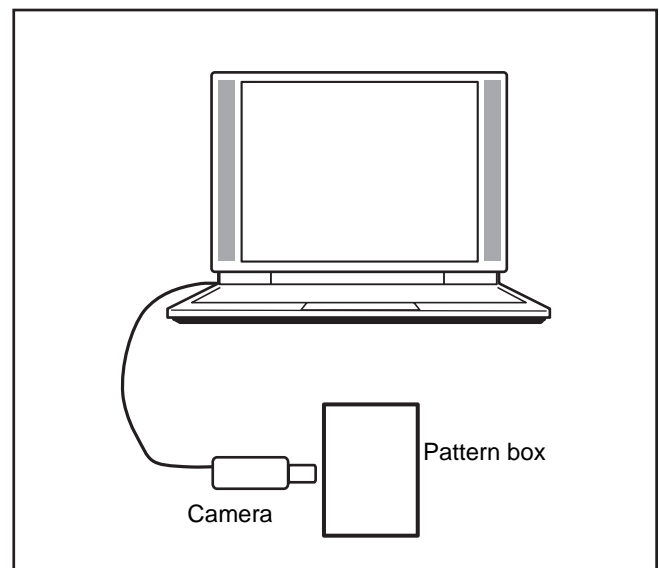
Note:

If readjusting after it has already been adjusted, wait for 15 minutes or more for the unit to cool down first.

Adjustment method:

1. Connect the camera's USB terminal to the computer's USB connector.
2. It turns on power while pushing the FAR button and the SET button of the operation panel.
3. Double-click on the DscCalDi.exe.
4. Shield light with a lens cap to provide dark condition.
5. Select "CCD Defect" on the LCD "Test", and click the "Yes".
6. After the adjustment is completed, OK will display.
7. Click the OK.

4. CMOS Black Point And White Point Defect Detect Adjustment In Lighted



Adjustment location: CCD Black of computer screen

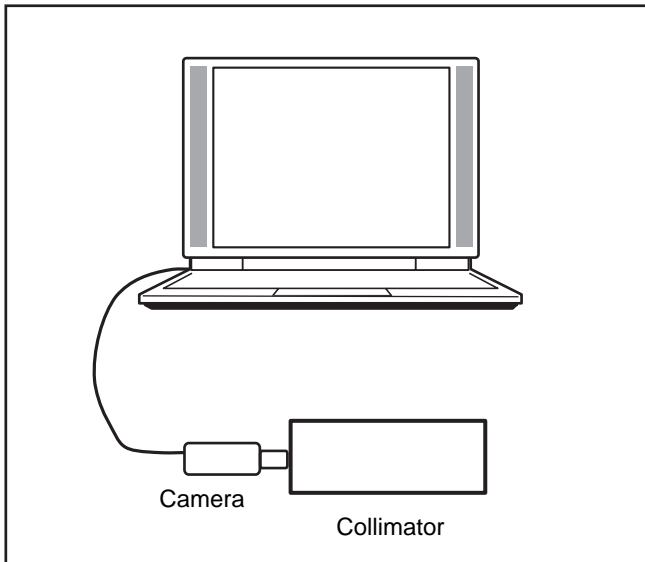
Measuring location: Computer screen

Measuring equipment:

Adjusting method:

1. Set a distance of 0.5 - 1.0 cm between the pattern box and the camera.
2. Connect the camera's USB terminal to the computer's USB connector.
3. It turns on power while pushing the FAR button and the SET button of the operation panel.
4. Double-click on the DscCalDi.exe.
5. Select "CCD Black" on the LCD "Test", and click the "Yes".
6. After the adjustment is completed, the number of defect will appear.
7. Click the OK.

5. Focus Assistance Drive Adjustment



Adjustment location: Focus of computer screen

Measuring location: Computer screen

Measuring equipment:

Subject: Note:

Do not vibrate during the adjustment.

Lens is set on TELE edge.

If using a ready-made collimator, set to infinity.

Adjustment method:

1. Connect the camera's USB terminal to the computer's USB connector.
2. It turns on power while pushing the FAR button and the SET button of the operation panel.
3. Double-click on the DscCalDi.exe.
4. Click the "Focus", and Click the "Yes".
5. Lens adjustment value will appear on the screen.
6. Click the OK.

Adjustment value determination is effectuated using below values.

The adjustment values fulfill the conditions below, they are determined as within specifications.

Adjustment value determination

AF_I_WIDE = 0 ± 2500 , AF_I_MID1 = Reference value,
AF_I_MID2 = 0, AF_I_MID3 = 0, AF_I_MID4 = 0,
AF_I_MID5 = 0, AF_I_MID6 = 0, AF_I_TELE = 0,
QR_Z_WIDE = 0, QR_F_I_WIDE = 0, QR_F_I_TELE = 0,
QR_Z_AORI = 0, QR_F_I_AORI = 0, IRIS_GAIN = 0,
IRIS_OFFSET = 0

2-6. Overwriting firmware from the calibration software

Preparation:

PC with overwriting firmware copied to the preferred folder in the HD.

Data: s32xxxxx.BIN (xxxxx: version)

Overwriting method:

1. Connect the camera's USB terminal to the computer's USB connector.
2. It turns on power while pushing the FAR button and the SET button of the operation panel.
3. Double-click on the DscCalDi.exe.
4. Click the Firmware.
5. Choose the firmware file to use for overwriting, and click the Yes.
6. Update is starting. The message will appear, and choose OK.
7. After the update is complete, disconnect the USB cable and turn the camera's power off.

Note:

Do not turn off the camera's power while the firmware is being updated.

3. PARTS LIST ^(R)

LOCATION	PARTS NO.	DESCRIPTION
ACCESSORIES & PACKING MATERIALS		
5101	613 220 6952	PAD,BOTTOM-L5DE2 (CUSHIONING SHEET)
5102	613 221 1260	ACCESSORY,WRENCH-L5DC2 (HEXAGONAL WRENCH)
9110	613 220 7560	INST MANUAL,SETUP A6,English,French, Spanish,German,Chinese (Simplified)
9111	613 222 0422	INST MANUAL,SUMMARY A6,English,French, Spanish,German,Chinese (Simplified),Japanese
9112	613 220 7584	INST MANUAL,VA-85BX A6,BASE BRACKET, English,French,Spanish,German, Chinese (Simplified)
9121	613 221 0591	LEAFLET,A6,PATTERN SHEET
9130	613 220 5931	CAUTION SHEET,COMPLIAN A6
9220	645 099 7884	PLUG,5P (CONNECTOR)
9250	645 094 6691	CORE,CLAMP,VDC-HD3500P ONLY
9801	645 101 7161	DISC,CD-ROM L5DE2 PC SOFT WARE, INSTRUCTION MANUAL (N.S.P)
5105	613 221 6968	CUSHION TOP
5106	613 221 6975	CUSHION BOTTOM
7001	613 220 8215	CARTON CASE INNER
7003	613 220 8239	REINFORCEMENT,PAD
7032	613 211 2352	CUSHION,SHEET,COVER TOP-LENS

LOCATION	PARTS NO.	DESCRIPTION
CABINET & CHASSIS PARTS		
5003	613 220 7836	COVER,INNER-L5DE2
5004	613 220 7843	HOLDER SAFETY-L5DE2
5010	613 211 1577	LABEL,CABLE AUDIO
5011	613 221 0614	LABEL,CABLE A-L5DE2
5012	613 221 0621	LABEL,CABLE B-L5DE2
5018	613 184 2717	LABEL,CAUTION(US), UL CAUTION,VDC-HD3500 ONLY
5201	613 220 6433	GASKET,DOME-L5DC2
5202	613 220 6426	COVER,DOME-L5DC2
5203	613 220 6525	CABINET,TOP-L5DE2
5204	412 079 5907	SPECIAL SCREW-4.0X20
5205	613 220 6563	MOUNTING,DOME-L5DE2
5206	411 126 4702	SCR PAN+SW+W 3X6
5207	613 220 6556	GASKET,TOP-L5DE2
5208	613 220 6532	CABINET,BOTTOM-L5DE2
6001	613 220 7805	ARM,PAN-L5DE2
6002	613 220 7812	HOLDER PWB L5DE2
6003	613 220 7829	HOLDER CA2 L5DE2
6005	613 220 7768	HOLDER LENS-L5DE2
6006	613 220 7782	HOLDER CA4-L5DE2
6007	613 220 7799	HOLDER CAMERA-L5DE2
6009	613 201 0016	PIPE
6010	613 201 0016	PIPE
6011	645 063 7421	GASKET,O RING(D2.8)
6012	645 101 7697	SPACER
6013	613 221 1673	HEAT SINK TAPE CMOS-L5DE2
6014	613 221 2748	SPACER LENS-L5DE2
6032	613 221 9198	HEAT SINK RUB CA2-L5DE2
6033	613 221 9204	HEAT SINK RUB CA3-A-L5DE2
6034	613 221 9211	HEAT SINK RUB CA3-B-L5DE2
6102	613 221 0515	HOLDER SAFETY SCREW-L5DE2
6103	613 221 0522	FIXER,CABLE-L5DE2
8000	645 101 6744	ASSY,LENS
8001	613 222 1238	ASSY,UNIT,L5DE
8002	613 222 4369	COMPL PWB,CA-2&CA-5 MAC
8020	613 220 8802	ASSY,FAD-L5DE
8050	613 220 6877	LID,FAD-L5DE
8070	613 220 6907	GEAR,FAD-L5DE
8080	613 220 5979	GEAR HELICAL
8100	645 084 4027	ASSY,MOTOR DN
8110	613 221 2434	SPACER SPRING-L5DE
8120	613 221 2427	SPRING LENS-L5DE
9210	613 209 0698	ASSY,WIRE,VIDEO CABLE
W4002	613 210 5576	ASSY,WIRE ,CN201,AD OUT
W4003	613 215 5540	ASSY,WIRE,CN202,MIC IN
W4004	613 220 5245	ASSY,SHIELD,WIRE L5DE2
W4005	613 220 4965	ASSY,WIRE,CN401
W4006	613 220 4972	ASSY,WIRE,CN403-CN882
W4007	613 220 4989	ASSY,WIRE,CN106
W4008	613 220 4996	ASSY,WIRE,CN972-CN173
W4009	645 099 7891	SOCKET,5P,W4005
CA3	613 220 3906	COMPL PWB,CA-3
CA4	613 220 3913	COMPL PWB,CA-4
NJ501	411 041 5204	SCR PAN 3X4
NJ611	411 030 5406	SCR BIN 2X4
NJ612	411 214 8308	SCR S-TPG BIN 2X4
NJ613	411 179 8801	SCR S-TPG BIN 3X10
NJ614	411 031 6600	SCR BIN 3X4
NJ616	411 197 2607	SCR BIN 3X6
NJ617	411 219 7900	SCR S-TPG PAN+FLG 2X6
NJ618	411 219 8006	SCR S-TPG BIN 3X4
NJ620	411 192 1407	SCR BIN 2X3
NJ622	411 031 8604	SCR BIN 3X6
NJ623	411 098 1006	SCR S-TPG BIN 3X6
NJ625	411 031 8604	SCR BIN 3X6
NJ645	312 057 3805	SPECIAL WASHER 43X0.2
NJ810	411 187 6509	SCR S-TPG PAN PCS 1.4X4
NJ820	411 191 1309	SCR S-TPG PAN PCS 2X5
NJ830	411 188 7901	SCR PAN PCS 1.7X2

ELECTRICAL PARTS

Note:

1. Materials of Capacitors and Resistors are abbreviated as follows ;

Resistors
MT-FILM Metallized Film Resistor
MT-GLAZE Metallized Glaze Resistor
OXIDE-MT Oxide Metallized Film Resistor

Capacitors
MT-POLYEST Metallized Polyester Capacitor
MT-COMPO Metallized Composite Capacitor
TA-SOLID Tantalum Solid Capacitor
AL-SOLID Aluminum Solid Capacitor
NP-ELECT Non-Polarized Electrolytic Capacitor
OS-SOLID Aluminum Solid Capacitors with Organic Semiconductive Electrolytic Capacitor
DL-ELECT Double Layered Electrolytic Capacitor
POS-SOLID Polymerized Organic Semiconductor Capacitor

2. Tolerance of Capacitor (10pF over) and Resistor are noted with follow symbols.

F1% G2% J5% K10%
M20% N30% Z+80% ~ -20%

3. Capacitors

U : μ F P : pF

4. Inductors

UH : μ H MH : mH

5. N.S.P. : Not available as service parts.

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
COMPL PWB,CA-3			D4301	307 229 6807	DIODE RSX101M-30
	613 220 3906		D4302	307 229 6807	DIODE RSX101M-30
		(SEMICONDUCTORS)	D4303	407 266 2104	DIODE SK34A
Q4101	305 216 6502	TR 2SK3979-TL	D4311	408 064 9807	DIODE XBS104S13-R
Q4102	305 014 4403	TR 2SC2412K-Q	D4312	307 222 1007	ZENER DIODE UDZS4.3B
Q4103	305 092 4104	TR 2SC4081-R	D4313	408 064 9807	DIODE XBS104S13-R
Q4141	305 092 4104	TR 2SC4081-R	D4401	307 239 5005	DIODE RF071M2S PMDU
Q4142	305 199 2102	TR 2SJ632	OR	407 256 1001	DIODE DG1N15A
Q4301	405 218 5104	TR SSM6J50TU	D4402	407 266 2104	DIODE SK34A
Q9701	305 168 4502	TR 2SA2029-R	D4403	407 264 4209	DIODE SJPB-H9
OR	305 168 4601	TR 2SA2029-S			(INDUCTORS)
Q9702	305 168 4502	TR 2SA2029-R	L4001	945 030 5901	INDUCTOR,600 OHM
OR	305 168 4601	TR 2SA2029-S	L4002	945 030 5901	INDUCTOR,600 OHM
Q9703	305 172 8800	TR 2SC5658-R	L4003	645 030 5917	INDUCTOR,1000 OHM
OR	305 172 8909	TR 2SC5658-S	L4004	645 030 5917	INDUCTOR,1000 OHM
OR	305 186 7707	TR 2SC5609 00	L4201	945 060 2208	IMPEDANCE,220 OHM P
Q9704	305 172 8800	TR 2SC5658-R	L4301	645 101 6805	INDUCTOR,10U M
OR	305 172 8909	TR 2SC5658-S	L4302	945 060 2208	IMPEDANCE,220 OHM P
OR	305 186 7707	TR 2SC5609 00	L9701	645 018 3553	INDUCTOR,1000 OHM
Q9705	305 014 4502	TR 2SC2412K-R	L9702	645 018 3553	INDUCTOR,1000 OHM
		(INTEGRATED CIRCUITS)	L9703	645 018 3553	INDUCTOR,1000 OHM
IC401	309 614 8601	IC XC61CN1502N	L9704	645 018 3553	INDUCTOR,1000 OHM
IC411	309 614 8601	IC XC61CN1502N			(TRANSFORMER)
IC412	409 695 2502	IC LM5073MHX/NOPB	T4001	645 100 9289	TRANS,POWER,PULSE
IC413	309 506 8900	IC FA7700V			(CAPACITORS)
IC421	309 531 0900	IC TA76432	C4001	303 357 3305	CERAMIC 0.01U K 630V
IC422	309 544 6609	IC SI-3012KS-TL	C4002	303 376 9302	CERAMIC 0.047U K 250V
IC431	409 688 5701	IC XC9220C09AE	C4003	303 357 3305	CERAMIC 0.01U K 630V
IC432	309 614 8601	IC XC61CN1502N	C4004	303 379 0405	CERAMIC 4700P K 630V
IC433	309 531 8500	IC MC78L12ABD	C4005	303 445 5204	ELECT 1800U M 50V
IC971	409 678 8309	IC UPC358GR-9LG-A	C4006	303 376 9302	CERAMIC 0.047U K 250V
IC975	309 362 1107	IC BA6287F	C4007	303 445 5204	ELECT 1800U M 50V
IC981	309 577 8304	IC LB1906CL-E	C4081	303 070 0902	CERAMIC 0.1U K 50V
		(DIODES)	C4101	303 409 3406	CERAMIC 0.1U K 16V
D4001	407 264 2700	DIODE SJPB-L6	C4103	303 376 9302	CERAMIC 0.047U K 250V
D4002	307 239 5005	DIODE RF071M2S PMDU	C4104	303 409 3406	CERAMIC 0.1U K 16V
OR	407 256 1001	DIODE DG1N15A	C4105	303 409 3406	CERAMIC 0.1U K 16V
D4003	307 239 5005	DIODE RF071M2S PMDU	C4106	303 346 9806	CERAMIC 0.047U K 10V
OR	407 256 1001	DIODE DG1N15A	C4107	403 470 9205	EP-ELECT 3.9U M 63V
D4004	407 264 2700	DIODE SJPB-L6	C4109	303 342 3303	CERAMIC 0.1U K 25V
D4081	307 206 6301	ZENER DIODE UDZS5.1B-TE17	C4111	303 383 5205	CERAMIC 4.7U K 6.3V
D4082	307 206 5403	ZENER DIODE UDZS8.2B	C4115	303 452 7901	CERAMIC 2.2U K 100V
D4083	307 238 3705	PHOTO COUPLE PS2701-AL	C4116	303 409 3406	CERAMIC 0.1U K 16V
D4110	407 264 9907	ZENER DIODE RKZ36BKG	C4119	303 397 7608	CERAMIC 1U K 25V
D4111	407 264 9907	ZENER DIODE RKZ36BKG	C4120	303 378 6309	CERAMIC 470P J 100V
D4113	407 265 0002	ZENER DIODE RKZ15B2KG	C4121	303 376 9302	CERAMIC 0.047U K 250V
D4114	408 064 9807	DIODE XBS104S13-R	C4209	303 281 2405	CERAMIC 0.22U K 16V
D4115	307 206 5403	ZENER DIODE UDZS8.2B	C4211	303 429 3202	CERAMIC 22U M 6.3V
D4116	307 210 1903	DIODE 1SS400	C4212	303 155 1800	CERAMIC 0.01U K 25V
OR	307 226 4806	DIODE BAS516	C4213	303 414 9905	NIObIUM 33U M 6.3V
D4120	307 238 3705	PHOTO COUPLE PS2701-AL	C4214	303 387 8707	CERAMIC 10U K 10V
D4204	307 206 6301	ZENER DIODE UDZS5.1B-TE17	C4215	303 384 6508	CERAMIC 10U K 6.3V
			C4301	403 467 8600	DL-ELECT 2.2F M 2.5V
			C4302	403 467 8600	DL-ELECT 2.2F M 2.5V

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
COMPL PWB,CA-2 F/W MAC (N.S.P)					
	613 221 1819				
		(BATTERY)			
Z3501	△ 645 098 0015	BATTERY,RECHARGE			
		(VARISTORS)			
VA101	308 050 1504	VARIATOR AVR-M1608C220KT	D2004	307 210 1101	ZENER DIODE UDZS7.5B
VA102	308 050 1504	VARIATOR AVR-M1608C220KT	D3003	307 201 7600	LED SML-310MT,
VA103	308 050 1504	VARIATOR AVR-M1608C220KT	D3501	307 232 6009	DIODE SB05-05C-E
VA104	308 050 1504	VARIATOR AVR-M1608C220KT	D3518	408 064 9807	DIODE XBS104S13-R
VA112	308 050 2006	VARIATOR AVR-M1608C270MT	D3519	408 064 9807	DIODE XBS104S13-R
		(SEMICONDUCTORS)	D3520	408 064 9807	DIODE XBS104S13-R
Q1002	405 218 3902	TR UP0431300	D5331	307 229 6807	DIODE RSX101M-30
OR	305 167 0406	TR EMD12	D6001	408 064 9807	DIODE XBS104S13-R
OR	305 216 2108	TR RN4984FE	D6201	307 210 5406	DIODE RB551V-30
Q1003	305 138 6703	TR DTC144EKA	D6803	407 266 0704	ZENER DIODE RSBC6.8CS
Q1004	405 218 2707	TR UPA650TT-A	D6804	407 266 0704	ZENER DIODE RSBC6.8CS
Q1005	305 092 4104	TR 2SC4081-R	D6850	407 259 7802	LED SML-E12U8W
Q1081	305 137 2003	TR 2SA1576A-R	D6851	307 210 5406	DIODE RB551V-30
Q1082	305 131 4508	TR 2SD1767Q	D9901	307 236 0904	DIODE DSH015-TLE
Q1083	305 131 4508	TR 2SD1767Q			(OSCILLATORS)
Q3004	305 186 7301	TR UP04213 00	X1102	645 094 0170	OSC,CRYSTAL 48.00000MHZ
OR	305 181 1205	TR NSBC144EDXV6T5	X3001	945 046 1416	OSC,CERAMIC 4.00MHZ
OR	305 173 4009	TR PEMH2	X3501	913 109 0973	OSC,CRYSTAL 32KHZ
OR	305 166 9509	TR EMH2	X3502	645 053 8483	OSC,CERAMIC 10.000MHZ
Q3006	405 220 8308	TR MCH6428-E	X6021	645 092 2763	OSC,CRYSTAL 27MHZ
Q3501	305 137 2003	TR 2SA1576A-R	X6022	645 090 3007	OSC,CRYSTAL 12MHZ
Q5201	305 184 6009	TR UP03396	X6851	645 092 2770	OSC,CRYSTAL 25MHZ
Q5301	305 184 6009	TR UP03396			(TRIMMER)
Q5331	405 218 5104	TR SSM6J50TU	CT351	645 069 5070	TRIMMER,10PF
Q5332	305 092 4104	TR 2SC4081-R			(INDUCTORS)
Q6001	405 218 5104	TR SSM6J50TU	L1001	945 053 5476	IMPEDANCE,240 OHM P
Q6002	305 092 4104	TR 2SC4081-R	L1002	945 048 5757	IMPEDANCE,120 OHM P
Q6003	405 218 5104	TR SSM6J50TU	L1003	945 066 4718	IMPEDANCE,60 OHM P
Q6201	305 083 5202	TR DTC343TK	L1004	945 066 4718	IMPEDANCE,60 OHM P
Q6202	305 133 8900	TR DTC114EUA	L1005	945 061 7417	INDUCTOR,47U M
Q6852	305 133 8900	TR DTC114EUA	L1081	945 020 1906	INDUCTOR,120 OHM
		(INTEGRATED CIRCUITS)	L1082	945 020 1906	INDUCTOR,120 OHM
IC101	409 696 4802	IC EV3HB,BGA (N.S.P)	L1083	945 020 1906	INDUCTOR,120 OHM
IC102	410 671 3802	IC K4X51323PG-8GC8 (N.S.P)	L1084	945 020 1906	INDUCTOR,120 OHM
IC103	410 671 3802	IC K4X51323PG-8GC8 (N.S.P)	L1101	945 020 1906	INDUCTOR,120 OHM
IC104	309 526 1400	IC NC7SB3157P6	L2001	645 039 1842	INDUCTOR,2500 OHM
IC106	410 695 7008	IC M95128-WMMN6P	L2002	645 039 1842	INDUCTOR,2500 OHM
IC107	409 694 3005	IC AK8128	L2003	945 048 5757	IMPEDANCE,120 OHM P
IC108	409 700 5702	IC FSUSB42MX	L3501	945 048 5757	IMPEDANCE,120 OHM P
IC110	309 526 1400	IC NC7SB3157P6	L5201	645 098 4594	INDUCTOR,4.7U N
IC111	409 690 8707	IC ADV7393BCPZ	L5202	645 098 4822	INDUCTOR,2.0U M
IC112	309 638 7604	IC BH76806FVM	L5203	645 098 4594	INDUCTOR,4.7U N
IC121	409 695 1604	IC S29PL064J60BF120# (N.S.P)	L5204	645 098 4594	INDUCTOR,4.7U N
IC201	309 584 2609	IC LA6458M-TE-L-E	L5301	645 098 4822	INDUCTOR,2.0U M
IC301	410 619 9804	IC LC87F2832AUFL68TBM-E,BGA (N.S.P)	L5331	945 048 5757	IMPEDANCE,120 OHM P
IC303	409 684 6801	IC XC61GN2502H-	L5332	645 098 4594	INDUCTOR,4.7U N
IC351	309 585 7504	IC BD5226G-TR	L6001	945 048 5757	IMPEDANCE,120 OHM P
IC352	310 588 6203	IC UPD78F0512GA(T)-8EU-A (N.S.P)	L6007	945 048 5757	IMPEDANCE,120 OHM P
IC353	409 684 6801	IC XC61GN2502H-	L6008	945 048 5757	IMPEDANCE,120 OHM P
IC521	409 689 2709	IC XC9235A18CE	L6009	945 048 5757	IMPEDANCE,120 OHM P
IC522	409 686 6205	IC SC4624MLT	L6010	945 048 5757	IMPEDANCE,120 OHM P
IC523	409 689 2709	IC XC9235A18CE	L6011	945 048 5757	IMPEDANCE,120 OHM P
IC524	409 689 2709	IC XC9235A18CE	L6012	945 048 5757	IMPEDANCE,120 OHM P
IC525	409 695 6906	IC NJM2877F3-27	L6013	945 048 5757	IMPEDANCE,120 OHM P
IC531	409 686 6205	IC SC4624MLT	L6014	645 094 0521	IMPEDANCE,33 OHM P
IC532	409 689 2709	IC XC9235A18CE	L6015	945 048 5757	IMPEDANCE,120 OHM P
IC602	309 588 5002	IC NC7WZ16P6X	L6016	945 048 5757	IMPEDANCE,120 OHM P
IC603	409 700 3500	IC MG3500A3-376B,BGA (N.S.P)	L6017	945 048 5757	IMPEDANCE,120 OHM P
IC604	410 649 0703	IC AT24C128B-TH-T	L6018	945 048 5757	IMPEDANCE,120 OHM P
OR	410 670 4602	IC CAT24C128YI-GT3	L6019	945 048 5757	IMPEDANCE,120 OHM P
OR	410 672 7106	IC M24128-BWDW6TP	L6020	945 048 5757	IMPEDANCE,120 OHM P
OR	410 678 2303	IC M24128-BRDW6TP	L6021	945 048 5757	IMPEDANCE,120 OHM P
IC605	410 691 4803	IC MT47H32M16HR-25E (N.S.P)	L6022	945 048 5757	IMPEDANCE,120 OHM P
IC606	410 691 4803	IC MT47H32M16HR-25E (N.S.P)	L6023	945 053 5476	IMPEDANCE,240 OHM P
IC607	410 698 1201	IC TC58NVG0S3CTA00 (N.S.P)	L6024	945 053 5476	IMPEDANCE,240 OHM P
IC621	309 674 2908	IC AK4633VN-L	L6201	645 039 1842	INDUCTOR,2500 OHM
IC685	409 700 3609	IC KSZ8041TL	L6202	645 039 1842	INDUCTOR,2500 OHM
		(DIODES)	L6203	945 048 5757	IMPEDANCE,120 OHM P
D2001	307 210 1101	ZENER DIODE UDZS7.5B	L6204	945 048 5757	IMPEDANCE,120 OHM P
D2002	307 210 1101	ZENER DIODE UDZS7.5B	L6801	645 059 7596	IMPEDANCE,90 OHM P
D2003	307 210 1101	ZENER DIODE UDZS7.5B	L6802	645 059 7596	IMPEDANCE,90 OHM P
			L6851	945 048 5757	IMPEDANCE,120 OHM P
			L6852	945 048 5757	IMPEDANCE,120 OHM P
			L6853	945 048 5757	IMPEDANCE,120 OHM P
			L6854	945 048 5757	IMPEDANCE,120 OHM P
			T6801	645 101 1961	TRANS,LAN

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
		(CAPACITORS)			
C1001	303 384 6409	CERAMIC 4.7U K 6.3V	C2005	303 433 1102	CERAMIC 1U K 10V
C1002	303 384 6409	CERAMIC 4.7U K 6.3V	C2006	303 294 6100	CERAMIC 100P J 50V
C1004	303 276 1307	CERAMIC 1000P K 50V	C2007	303 333 0601	CERAMIC 2700P K 50V
C1005	303 384 6409	CERAMIC 4.7U K 6.3V	C2008	303 338 0309	CERAMIC 0.1U K 10V
C1006	303 338 0309	CERAMIC 0.1U K 10V	C2009	303 391 0506	CERAMIC 10U K 6.3V
C1007	303 338 0309	CERAMIC 0.1U K 10V	C2010	303 433 1102	CERAMIC 1U K 10V
C1008	303 338 0309	CERAMIC 0.1U K 10V	C3012	303 376 9401	CERAMIC 1U K 6.3V
C1010	303 338 0309	CERAMIC 0.1U K 10V	C3015	303 276 1307	CERAMIC 1000P K 50V
C1012	303 381 8109	CERAMIC 1U K 6.3V	C3017	303 376 9401	CERAMIC 1U K 6.3V
C1013	303 381 8109	CERAMIC 1U K 6.3V	C3018	303 276 1307	CERAMIC 1000P K 50V
C1014	303 338 0309	CERAMIC 0.1U K 10V	C3020	303 276 1307	CERAMIC 1000P K 50V
C1016	303 338 0309	CERAMIC 0.1U K 10V	C3021	303 276 1307	CERAMIC 1000P K 50V
C1020	303 338 0309	CERAMIC 0.1U K 10V	C3022	303 376 9401	CERAMIC 1U K 6.3V
C1021	303 384 6409	CERAMIC 4.7U K 6.3V	C3023	303 376 9401	CERAMIC 1U K 6.3V
C1022	303 338 0309	CERAMIC 0.1U K 10V	C3024	303 276 1307	CERAMIC 1000P K 50V
C1023	303 338 0309	CERAMIC 0.1U K 10V	C3501	303 338 0309	CERAMIC 0.1U K 10V
C1025	303 338 0309	CERAMIC 0.1U K 10V	C3502	303 276 1307	CERAMIC 1000P K 50V
C1026	303 381 8109	CERAMIC 1U K 6.3V	C3503	303 276 1307	CERAMIC 1000P K 50V
C1027	303 381 8109	CERAMIC 1U K 6.3V	C3504	303 155 4207	CERAMIC 15P J 50V
C1028	303 338 0309	CERAMIC 0.1U K 10V	C3506	303 229 4102	CERAMIC 8P C 50V
C1029	303 338 0309	CERAMIC 0.1U K 10V	C3508	303 276 1307	CERAMIC 1000P K 50V
C1030	303 338 0309	CERAMIC 0.1U K 10V	C3509	303 113 3808	CERAMIC 1000P K 50V
C1033	303 384 6409	CERAMIC 4.7U K 6.3V	C3511	303 433 1102	CERAMIC 1U K 10V
C1036	303 381 8109	CERAMIC 1U K 6.3V	C3512	303 338 0309	CERAMIC 0.1U K 10V
C1038	303 338 0309	CERAMIC 0.1U K 10V	C3513	303 391 0506	CERAMIC 10U K 6.3V
C1039	303 409 3406	CERAMIC 0.1U K 16V	C3514	303 391 0506	CERAMIC 10U K 6.3V
C1040	303 338 0309	CERAMIC 0.1U K 10V	C3515	303 338 0309	CERAMIC 0.1U K 10V
C1041	303 338 0309	CERAMIC 0.1U K 10V	C3517	303 419 8903	CERAMIC 10U M 6.3V
C1042	303 384 6409	CERAMIC 4.7U K 6.3V	C3518	303 276 1307	CERAMIC 1000P K 50V
C1043	303 384 6409	CERAMIC 4.7U K 6.3V	C3519	303 391 0506	CERAMIC 10U K 6.3V
C1044	303 338 0309	CERAMIC 0.1U K 10V	C3520	303 338 0309	CERAMIC 0.1U K 10V
C1048	303 338 0309	CERAMIC 0.1U K 10V	C3521	303 338 0309	CERAMIC 0.1U K 10V
C1049	303 381 8109	CERAMIC 1U K 6.3V	C3522	303 391 0506	CERAMIC 10U K 6.3V
C1051	303 338 0309	CERAMIC 0.1U K 10V	C3523	303 323 6309	CERAMIC 0.1U K 16V
C1052	303 338 0309	CERAMIC 0.1U K 10V	C3524	303 393 2607	CERAMIC 22U M 6.3V
C1053	303 338 0309	CERAMIC 0.1U K 10V	C3525	303 393 2607	CERAMIC 22U M 6.3V
C1054	303 338 0309	CERAMIC 0.1U K 10V	C3526	303 376 9401	CERAMIC 1U K 6.3V
C1055	303 381 8109	CERAMIC 1U K 6.3V	C3527	303 421 0209	CERAMIC 47U M 6.3V
C1056	303 380 6601	CERAMIC 0.22U K 6.3V	C5201	303 384 6409	CERAMIC 4.7U K 6.3V
C1057	303 338 0309	CERAMIC 0.1U K 10V	C5202	303 338 0309	CERAMIC 0.1U K 10V
C1058	303 338 0309	CERAMIC 0.1U K 10V	C5203	303 338 0309	CERAMIC 0.1U K 10V
C1059	303 380 6601	CERAMIC 0.22U K 6.3V	C5204	303 346 9806	CERAMIC 0.047U K 10V
C1062	303 419 8903	CERAMIC 10U M 6.3V	C5205	303 384 6508	CERAMIC 10U K 6.3V
C1063	303 338 0309	CERAMIC 0.1U K 10V	C5207	303 381 8109	CERAMIC 1U K 6.3V
C1064	303 338 0309	CERAMIC 0.1U K 10V	C5208	303 393 2607	CERAMIC 22U M 6.3V
C1065	303 338 0309	CERAMIC 0.1U K 10V	C5209	303 384 6409	CERAMIC 4.7U K 6.3V
C1066	303 338 0309	CERAMIC 0.1U K 10V	C5210	303 276 2106	CERAMIC 3P C 50V
C1067	303 338 0309	CERAMIC 0.1U K 10V	C5211	303 393 2607	CERAMIC 22U M 6.3V
C1068	303 338 0309	CERAMIC 0.1U K 10V	C5212	303 308 3408	CERAMIC 390P K 50V
C1081	303 276 1307	CERAMIC 1000P K 50V	C5213	303 320 0706	CERAMIC 270P J 25V
C1082	303 276 1307	CERAMIC 1000P K 50V	C5214	303 384 6508	CERAMIC 10U K 6.3V
C1083	303 276 1307	CERAMIC 1000P K 50V	C5215	303 384 6409	CERAMIC 4.7U K 6.3V
C1084	303 276 1307	CERAMIC 1000P K 50V	C5216	303 376 9401	CERAMIC 1U K 6.3V
C1085	303 113 3808	CERAMIC 1000P K 50V	C5217	303 384 6508	CERAMIC 10U K 6.3V
C1101	303 384 6409	CERAMIC 4.7U K 6.3V	C5218	303 215 2204	CERAMIC 0.01U K 50V
C1102	303 384 6409	CERAMIC 4.7U K 6.3V	C5219	303 376 9401	CERAMIC 1U K 6.3V
C1103	303 338 0309	CERAMIC 0.1U K 10V	C5301	303 338 0309	CERAMIC 0.1U K 10V
C1104	303 338 0309	CERAMIC 0.1U K 10V	C5302	303 346 9806	CERAMIC 0.047U K 10V
C1105	303 320 0607	CERAMIC 220P J 25V	C5303	303 338 0309	CERAMIC 0.1U K 10V
C1106	303 338 0309	CERAMIC 0.1U K 10V	C5304	303 381 8109	CERAMIC 1U K 6.3V
C1107	403 467 2905	CERAMIC 0.012U G 50V	C5305	303 393 2607	CERAMIC 22U M 6.3V
C1108	303 338 0309	CERAMIC 0.1U K 10V	C5307	303 276 2106	CERAMIC 3P C 50V
C1109	303 384 6409	CERAMIC 4.7U K 6.3V	C5308	303 393 2607	CERAMIC 22U M 6.3V
C1110	403 467 2400	CERAMIC 0.15U J 10V	C5309	303 308 3408	CERAMIC 390P K 50V
C1111	303 384 6409	CERAMIC 4.7U K 6.3V	C5310	303 320 0706	CERAMIC 270P J 25V
C1112	303 381 8109	CERAMIC 1U K 6.3V	C5331	303 384 6409	CERAMIC 4.7U K 6.3V
C1113	303 384 6409	CERAMIC 4.7U K 6.3V	C5332	303 323 6309	CERAMIC 0.1U K 16V
C1114	303 433 1102	CERAMIC 1U K 10V	C5333	303 384 6409	CERAMIC 4.7U K 6.3V
C1115	303 381 8109	CERAMIC 1U K 6.3V	C5334	303 323 6309	CERAMIC 0.1U K 16V
C1121	303 311 7806	CERAMIC 8P D 50V	C5335	303 384 6409	CERAMIC 4.7U K 6.3V
C1122	303 311 7806	CERAMIC 8P D 50V	C5336	303 384 6508	CERAMIC 10U K 6.3V
C1201	303 338 0309	CERAMIC 0.1U K 10V	C6001	303 323 6309	CERAMIC 0.1U K 16V
C1202	303 338 0309	CERAMIC 0.1U K 10V	C6002	303 276 2106	CERAMIC 3P C 50V
C1203	303 294 6100	CERAMIC 100P J 50V	C6003	303 276 2106	CERAMIC 3P C 50V
C2001	303 276 1307	CERAMIC 1000P K 50V	C6004	303 338 0309	CERAMIC 0.1U K 10V
C2002	303 276 1307	CERAMIC 1000P K 50V	C6005	303 338 0309	CERAMIC 0.1U K 10V
C2004	303 433 1102	CERAMIC 1U K 10V	C6006	303 338 0309	CERAMIC 0.1U K 10V
			C6007	303 338 0309	CERAMIC 0.1U K 10V

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
C6008	303 381 8109	CERAMIC 1U K 6.3V	C6211	303 155 2302	CERAMIC 4700P K 50V
C6009	303 393 2607	CERAMIC 22U M 6.3V	C6212	303 338 0309	CERAMIC 0.1U K 10V
C6021	303 338 0309	CERAMIC 0.1U K 10V	C6213	303 276 1307	CERAMIC 1000P K 50V
C6022	303 391 0506	CERAMIC 10U K 6.3V	C6214	303 391 0506	CERAMIC 10U K 6.3V
C6023	303 391 0506	CERAMIC 10U K 6.3V	C6801	303 338 0309	CERAMIC 0.1U K 10V
C6024	303 338 0309	CERAMIC 0.1U K 10V	C6802	303 338 0309	CERAMIC 0.1U K 10V
C6025	303 276 1307	CERAMIC 1000P K 50V	C6803	303 215 2907	CERAMIC 0.022U K 25V
C6026	303 409 3406	CERAMIC 0.1U K 16V	C6851	303 393 2607	CERAMIC 22U M 6.3V
C6027	303 409 3406	CERAMIC 0.1U K 16V	C6852	303 338 0309	CERAMIC 0.1U K 10V
C6028	303 419 8903	CERAMIC 10U M 6.3V	C6853	303 338 0309	CERAMIC 0.1U K 10V
C6029	303 409 3406	CERAMIC 0.1U K 16V	C6854	303 294 6100	CERAMIC 100P J 50V
C6030	303 409 3406	CERAMIC 0.1U K 16V	C6855	303 155 4207	CERAMIC 15P J 50V
C6031	303 381 8109	CERAMIC 1U K 6.3V	C6856	303 419 8903	CERAMIC 10U M 6.3V
C6032	303 409 3406	CERAMIC 0.1U K 16V	C6857	303 155 4207	CERAMIC 15P J 50V
C6033	303 381 8109	CERAMIC 1U K 6.3V	C6858	303 338 0309	CERAMIC 0.1U K 10V
C6034	303 409 3406	CERAMIC 0.1U K 16V	C6859	303 338 0309	CERAMIC 0.1U K 10V
C6035	303 419 8903	CERAMIC 10U M 6.3V	C6860	303 338 0309	CERAMIC 0.1U K 10V
C6036	303 419 8903	CERAMIC 10U M 6.3V	C9901	303 276 1307	CERAMIC 1000P K 50V
C6037	303 419 8903	CERAMIC 10U M 6.3V			(RESISTOR PACKS)
C6038	303 409 3406	CERAMIC 0.1U K 16V	RB106	945 037 0817	R-NETWORK 0X4 1/16W
C6039	303 409 3406	CERAMIC 0.1U K 16V	RB108	645 078 4224	R-NETWORK 0X2 0.063W
C6040	303 409 3406	CERAMIC 0.1U K 16V	RB109	645 093 1550	R-NETWORK 10KX4 0.031W
C6041	303 409 3406	CERAMIC 0.1U K 16V	RB110	645 078 4224	R-NETWORK 0X2 0.063W
C6042	303 409 3406	CERAMIC 0.1U K 16V	RB111	645 078 4224	R-NETWORK 0X2 0.063W
C6043	303 419 8903	CERAMIC 10U M 6.3V	RB113	645 078 4224	R-NETWORK 0X2 0.063W
C6044	303 409 3406	CERAMIC 0.1U K 16V	RB114	645 088 6959	R-NETWORK 39X2 1/16W
C6045	303 409 3406	CERAMIC 0.1U K 16V	RB601	945 037 0817	R-NETWORK 0X4 1/16W
C6046	303 409 3406	CERAMIC 0.1U K 16V			(RESISTORS)
C6047	303 286 1403	CERAMIC 10P D 50V	R1001	301 224 9009	MT-GLAZE 10K JA 1/16W
C6048	303 419 8903	CERAMIC 10U M 6.3V	R1002	301 224 9009	MT-GLAZE 10K JA 1/16W
C6049	303 419 8903	CERAMIC 10U M 6.3V	R1003	301 224 9009	MT-GLAZE 10K JA 1/16W
C6050	303 409 3406	CERAMIC 0.1U K 16V	R1004	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6051	303 409 3406	CERAMIC 0.1U K 16V	R1005	301 258 6609	MT-GLAZE 10K DC 1/16W
C6052	303 409 3406	CERAMIC 0.1U K 16V	R1006	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6053	303 409 3406	CERAMIC 0.1U K 16V	R1007	301 241 5404	MT-GLAZE 12K DC 1/16W
C6054	303 409 3406	CERAMIC 0.1U K 16V	R1008	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6055	303 419 8903	CERAMIC 10U M 6.3V	R1010	301 225 1309	MT-GLAZE 470 JA 1/16W
C6056	303 419 8903	CERAMIC 10U M 6.3V	R1011	301 224 9009	MT-GLAZE 10K JA 1/16W
C6057	303 409 3406	CERAMIC 0.1U K 16V	R1012	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6058	303 409 3406	CERAMIC 0.1U K 16V	R1013	301 224 8903	MT-GLAZE 100K JA 1/16W
C6059	303 409 3406	CERAMIC 0.1U K 16V	R1014	301 224 9702	MT-GLAZE 22 JA 1/16W
C6060	303 409 3406	CERAMIC 0.1U K 16V	R1016	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
C6061	303 409 3406	CERAMIC 0.1U K 16V	R1018	301 225 1804	MT-GLAZE 47 JA 1/16W
C6062	303 433 1102	CERAMIC 1U K 10V	R1019	301 262 1706	MT-GLAZE 2.7K DC 1/16W
C6063	303 338 0309	CERAMIC 0.1U K 10V	R1020	301 225 1804	MT-GLAZE 47 JA 1/16W
C6064	303 338 0309	CERAMIC 0.1U K 10V	R1021	301 225 1804	MT-GLAZE 47 JA 1/16W
C6065	303 338 0309	CERAMIC 0.1U K 10V	R1022	301 225 1804	MT-GLAZE 47 JA 1/16W
C6066	303 338 0309	CERAMIC 0.1U K 10V	R1023	301 224 8804	MT-GLAZE 100 JA 1/16W
C6067	303 338 0309	CERAMIC 0.1U K 10V	R1024	301 225 1804	MT-GLAZE 47 JA 1/16W
C6068	303 381 8109	CERAMIC 1U K 6.3V	R1025	301 225 1804	MT-GLAZE 47 JA 1/16W
C6069	303 381 8109	CERAMIC 1U K 6.3V	R1026	301 225 1804	MT-GLAZE 47 JA 1/16W
C6070	303 381 8109	CERAMIC 1U K 6.3V	R1027	301 225 1804	MT-GLAZE 47 JA 1/16W
C6071	303 381 8109	CERAMIC 1U K 6.3V	R1028	301 225 1804	MT-GLAZE 47 JA 1/16W
C6072	303 381 8109	CERAMIC 1U K 6.3V	R1029	301 225 1804	MT-GLAZE 47 JA 1/16W
C6073	303 381 8109	CERAMIC 1U K 6.3V	R1030	301 225 1804	MT-GLAZE 47 JA 1/16W
C6074	303 419 8903	CERAMIC 10U M 6.3V	R1031	301 225 1804	MT-GLAZE 47 JA 1/16W
C6075	303 381 8109	CERAMIC 1U K 6.3V	R1032	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6076	303 381 8109	CERAMIC 1U K 6.3V	R1033	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6077	303 381 8109	CERAMIC 1U K 6.3V	R1034	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6078	303 381 8109	CERAMIC 1U K 6.3V	R1035	301 225 1804	MT-GLAZE 47 JA 1/16W
C6079	303 381 8109	CERAMIC 1U K 6.3V	R1036	301 225 1804	MT-GLAZE 47 JA 1/16W
C6080	303 381 8109	CERAMIC 1U K 6.3V	R1037	301 225 1804	MT-GLAZE 47 JA 1/16W
C6081	303 419 8903	CERAMIC 10U M 6.3V	R1038	301 225 1804	MT-GLAZE 47 JA 1/16W
C6082	303 338 0309	CERAMIC 0.1U K 10V	R1039	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6083	303 338 0309	CERAMIC 0.1U K 10V	R1040	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6084	303 419 8903	CERAMIC 10U M 6.3V	R1041	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6085	303 338 0309	CERAMIC 0.1U K 10V	R1043	301 225 0500	MT-GLAZE 33K JA 1/16W
C6086	303 419 8903	CERAMIC 10U M 6.3V	R1044	301 224 9900	MT-GLAZE 22K JA 1/16W
C6087	303 338 0309	CERAMIC 0.1U K 10V	R1045	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6201	303 276 1000	CERAMIC 0.01U K 16V	R1046	301 225 1309	MT-GLAZE 470 JA 1/16W
C6202	303 433 1102	CERAMIC 1U K 10V	R1049	301 225 8100	MT-GLAZE 10 JA 1/16W
C6203	303 433 1102	CERAMIC 1U K 10V	R1050	301 225 8100	MT-GLAZE 10 JA 1/16W
C6204	303 391 0506	CERAMIC 10U K 6.3V	R1051	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6205	303 338 0309	CERAMIC 0.1U K 10V	R1056	301 224 9108	MT-GLAZE 150 JA 1/16W
C6207	303 391 0506	CERAMIC 10U K 6.3V	R1057	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
C6208	303 391 0506	CERAMIC 10U K 6.3V	R1058	301 269 3901	MT-GLAZE 4.7K DC 1/16W
C6209	303 338 0309	CERAMIC 0.1U K 10V	R1059	301 290 2706	MT-GLAZE 3K DC 1/16W
C6210	303 338 0309	CERAMIC 0.1U K 10V	R1060	301 262 2307	MT-GLAZE 1.0K DC 1/16W

LOCATION	PARTS NO.	DESCRIPTION	LOCATION	PARTS NO.	DESCRIPTION
R1061	301 288 6303	MT-GLAZE 1.1K DC 1/16W	R3038	301 225 1408	MT-GLAZE 47K JA 1/16W
R1066	301 262 2604	MT-GLAZE 120 DC 1/16W	R3039	301 262 0600	MT-GLAZE 22K DC 1/16W
R1067	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3040	301 234 4902	MT-GLAZE 150K JA 1/16W
R1068	301 224 9306	MT-GLAZE 1K JA 1/16W	R3042	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R1069	301 224 9306	MT-GLAZE 1K JA 1/16W	R3043	301 225 1408	MT-GLAZE 47K JA 1/16W
R1070	301 262 1607	MT-GLAZE 2.2K DC 1/16W	R3045	301 224 9306	MT-GLAZE 1K JA 1/16W
R1071	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3047	301 224 9306	MT-GLAZE 1K JA 1/16W
R1072	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3048	301 224 9009	MT-GLAZE 10K JA 1/16W
R1073	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3049	301 225 7905	MT-GLAZE 220 JA 1/16W
R1074	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3053	301 225 0203	MT-GLAZE 3.3K JA 1/16W
R1075	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3054	301 225 0203	MT-GLAZE 3.3K JA 1/16W
R1076	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3056	301 225 0203	MT-GLAZE 3.3K JA 1/16W
R1081	301 037 5403	MT-GLAZE 1K JA 1/10W	R3057	301 225 0203	MT-GLAZE 3.3K JA 1/16W
R1082	301 037 5403	MT-GLAZE 1K JA 1/10W	R3058	301 225 0203	MT-GLAZE 3.3K JA 1/16W
R1083	301 224 9009	MT-GLAZE 10K JA 1/16W	R3059	301 225 0203	MT-GLAZE 3.3K JA 1/16W
R1084	301 224 9009	MT-GLAZE 10K JA 1/16W	R3062	301 225 1408	MT-GLAZE 47K JA 1/16W
R1085	301 224 9306	MT-GLAZE 1K JA 1/16W	R3067	301 225 1200	MT-GLAZE 4.7K JA 1/16W
R1086	301 105 3300	MT-GLAZE 2.7K JA 1/16W	R3069	301 225 1200	MT-GLAZE 4.7K JA 1/16W
R1087	301 105 3300	MT-GLAZE 2.7K JA 1/16W	R3071	301 225 1200	MT-GLAZE 4.7K JA 1/16W
R1091	301 225 1200	MT-GLAZE 4.7K JA 1/16W	R3073	301 225 0203	MT-GLAZE 3.3K JA 1/16W
R1092	301 225 1408	MT-GLAZE 47K JA 1/16W	R3074	301 225 0500	MT-GLAZE 33K JA 1/16W
R1093	301 225 0500	MT-GLAZE 33K JA 1/16W	R3081	301 225 1408	MT-GLAZE 47K JA 1/16W
R1101	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3089	301 224 8903	MT-GLAZE 100K JA 1/16W
R1102	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3091	301 224 9108	MT-GLAZE 150 JA 1/16W
R1103	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3092	301 224 9108	MT-GLAZE 150 JA 1/16W
R1104	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3093	301 224 9108	MT-GLAZE 150 JA 1/16W
R1105	301 283 7107	MT-GLAZE 100 DC 1/16W	R3094	301 224 9108	MT-GLAZE 150 JA 1/16W
R1106	301 258 0706	MT-GLAZE 3.9K DC 1/16W	R3095	301 224 8903	MT-GLAZE 100K JA 1/16W
R1107	301 290 1402	MT-GLAZE 300 DC 1/16W	R3501	301 105 0606	MT-GLAZE 10K JA 1/16W
R1108	301 261 6207	MT-FILM 160 DU 1/16W	R3503	301 105 0408	MT-GLAZE 100 JA 1/16W
R1109	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3504	301 224 9009	MT-GLAZE 10K JA 1/16W
R1110	301 290 1402	MT-GLAZE 300 DC 1/16W	R3505	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R1111	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3507	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R1112	301 224 8804	MT-GLAZE 100 JA 1/16W	R3508	301 224 9405	MT-GLAZE 1.0M JA 1/16W
R1113	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3509	301 105 0606	MT-GLAZE 10K JA 1/16W
R1114	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3510	301 105 0606	MT-GLAZE 10K JA 1/16W
R1115	301 275 5906	MT-GLAZE 10 DD 1/16W	R3511	301 224 9009	MT-GLAZE 10K JA 1/16W
R1116	301 290 1402	MT-GLAZE 300 DC 1/16W	R3512	301 105 0507	MT-GLAZE 1K JA 1/16W
R1117	301 224 9009	MT-GLAZE 10K JA 1/16W	R3513	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R1118	301 224 9009	MT-GLAZE 10K JA 1/16W	R3514	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R1119	301 224 9009	MT-GLAZE 10K JA 1/16W	R3515	301 224 9009	MT-GLAZE 10K JA 1/16W
R1120	301 259 2105	MT-GLAZE 1 JA 1/16W	R3516	301 224 9009	MT-GLAZE 10K JA 1/16W
R1121	301 262 2307	MT-GLAZE 1.0K DC 1/16W	R3517	301 224 9009	MT-GLAZE 10K JA 1/16W
R1122	301 224 9405	MT-GLAZE 1.0M JA 1/16W	R3518	301 224 9009	MT-GLAZE 10K JA 1/16W
R1123	301 275 6101	MT-GLAZE 18 DD 1/16W	R3520	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R1124	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3525	301 224 9306	MT-GLAZE 1K JA 1/16W
R1125	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3526	301 275 2608	MT-GLAZE 560 DC 1/16W
R1126	301 328 1305	MT-GLAZE 75 JA 1/10W	R3527	301 224 9009	MT-GLAZE 10K JA 1/16W
R1127	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3528	301 224 9009	MT-GLAZE 10K JA 1/16W
R1133	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3529	301 224 9009	MT-GLAZE 10K JA 1/16W
R1134	301 275 1908	MT-GLAZE 2K DC 1/16W	R3530	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R1136	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3531	301 105 6509	MT-GLAZE 680 JA 1/16W
R1139	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3532	301 224 9009	MT-GLAZE 10K JA 1/16W
R1203	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R3535	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R2002	301 224 9504	MT-GLAZE 2.2K JA 1/16W	R3536	301 224 9009	MT-GLAZE 10K JA 1/16W
R2004	301 224 9009	MT-GLAZE 10K JA 1/16W	R3537	301 275 2608	MT-GLAZE 560 DC 1/16W
R2005	301 224 9306	MT-GLAZE 1K JA 1/16W	R3538	301 105 1009	MT-GLAZE 1.2K JA 1/16W
R2006	301 225 0203	MT-GLAZE 3.3K JA 1/16W	R3539	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R2007	301 224 8903	MT-GLAZE 100K JA 1/16W	R3542	301 224 9306	MT-GLAZE 1K JA 1/16W
R2008	301 224 9009	MT-GLAZE 10K JA 1/16W	R3543	301 105 0606	MT-GLAZE 10K JA 1/16W
R2009	301 224 9009	MT-GLAZE 10K JA 1/16W	R3544	301 258 6609	MT-GLAZE 10K DC 1/16W
R3001	301 224 9009	MT-GLAZE 10K JA 1/16W	R3545	301 262 2307	MT-GLAZE 1.0K DC 1/16W
R3002	301 224 9306	MT-GLAZE 1K JA 1/16W	R3546	301 224 9009	MT-GLAZE 10K JA 1/16W
R3007	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R5201	301 224 8903	MT-GLAZE 100K JA 1/16W
R3008	301 226 1506	MT-GLAZE 0.000 ZA 1/16W	R5202	301 224 9009	MT-GLAZE 10K JA 1/16W
R3017	301 225 1408	MT-GLAZE 47K JA 1/16W	R5203	301 262 8804	MT-GLAZE 51K DC 1/16W
R3018	301 225 1408	MT-GLAZE 47K JA 1/16W	R5204	301 274 9707	MT-GLAZE 24K DC 1/16W
R3019	301 225 1408	MT-GLAZE 47K JA 1/16W	R5205	301 275 5906	MT-GLAZE 10 DD 1/16W
R3020	301 225 1408	MT-GLAZE 47K JA 1/16W	R5206	301 224 9504	MT-GLAZE 2.2K JA 1/16W
R3021	301 225 1408	MT-GLAZE 47K JA 1/16W	R5207	301 224 8903	MT-GLAZE 100K JA 1/16W
R3022	301 225 1408	MT-GLAZE 47K JA 1/16W	R5208	301 224 9009	MT-GLAZE 10K JA 1/16W
R3025	301 225 0500	MT-GLAZE 33K JA 1/16W	R5209	301 258 6906	MT-GLAZE 20K DC 1/16W
R3027	301 225 0203	MT-GLAZE 3.3K JA 1/16W	R5210	301 275 2004	MT-GLAZE 30K DC 1/16W
R3028	301 224 9306	MT-GLAZE 1K JA 1/16W	R5211	301 258 6906	MT-GLAZE 20K DC 1/16W
R3029	301 224 8903	MT-GLAZE 100K JA 1/16W	R5212	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R3030	301 224 9009	MT-GLAZE 10K JA 1/16W	R5213	301 262 1300	MT-GLAZE 2.4K DC 1/16W
R3034	301 035 4101	MT-GLAZE 0.000 ZA 1/8W	R5214	301 225 1408	MT-GLAZE 47K JA 1/16W
R3037	301 226 2404	MT-GLAZE 560 JA 1/16W	R5215	301 224 9504	MT-GLAZE 2.2K JA 1/16W

LOCATION	PARTS NO.	DESCRIPTION
R5216	301 224 8903	MT-GLAZE 100K JA 1/16W
R5217	301 224 9504	MT-GLAZE 2.2K JA 1/16W
R5218	301 224 9306	MT-GLAZE 1K JA 1/16W
R5219	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R5220	301 224 9009	MT-GLAZE 10K JA 1/16W
R5221	301 224 9009	MT-GLAZE 10K JA 1/16W
R5222	301 105 2006	MT-GLAZE 1.8K JA 1/16W
R5302	301 262 8804	MT-GLAZE 51K DC 1/16W
R5303	301 274 9707	MT-GLAZE 24K DC 1/16W
R5304	301 275 5906	MT-GLAZE 10 DD 1/16W
R5305	301 258 6906	MT-GLAZE 20K DC 1/16W
R5306	301 262 0600	MT-GLAZE 22K DC 1/16W
R5307	301 258 6906	MT-GLAZE 20K DC 1/16W
R5308	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R5309	301 262 1300	MT-GLAZE 2.4K DC 1/16W
R5310	301 225 1408	MT-GLAZE 47K JA 1/16W
R5311	301 224 9306	MT-GLAZE 1K JA 1/16W
R5312	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R5331	301 105 0705	MT-GLAZE 100K JA 1/16W
R5332	301 105 5403	MT-GLAZE 47K JA 1/16W
R5333	301 105 5403	MT-GLAZE 47K JA 1/16W
R5334	301 224 9009	MT-GLAZE 10K JA 1/16W
R5335	301 224 9504	MT-GLAZE 2.2K JA 1/16W
R6001	301 225 1408	MT-GLAZE 47K JA 1/16W
R6002	301 105 0705	MT-GLAZE 100K JA 1/16W
R6003	301 225 1408	MT-GLAZE 47K JA 1/16W
R6004	301 224 9405	MT-GLAZE 1.0M JA 1/16W
R6005	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6006	301 262 2307	MT-GLAZE 1.0K DC 1/16W
R6007	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6008	301 262 2307	MT-GLAZE 1.0K DC 1/16W
R6010	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6011	301 263 1903	MT-GLAZE 3.3K DC 1/16W
R6012	301 283 7107	MT-GLAZE 100 DC 1/16W
R6013	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6014	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6016	301 225 1408	MT-GLAZE 47K JA 1/16W
R6018	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6021	301 229 3903	MT-GLAZE 180 JA 1/16W
R6022	301 229 3903	MT-GLAZE 180 JA 1/16W
R6023	301 229 3903	MT-GLAZE 180 JA 1/16W
R6024	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6025	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6026	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6039	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6040	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6041	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6042	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6043	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6044	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6045	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6046	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6047	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6050	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6051	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6052	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6053	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6054	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6055	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6056	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6057	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6060	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6061	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6062	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6063	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6064	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6065	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6066	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6067	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6068	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6070	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6071	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6078	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6079	301 224 9009	MT-GLAZE 10K JA 1/16W
R6080	301 224 9009	MT-GLAZE 10K JA 1/16W
R6081	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6082	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6083	301 226 1506	MT-GLAZE 0.000 ZA 1/16W

LOCATION	PARTS NO.	DESCRIPTION
R6084	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6085	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6086	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6087	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6088	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6089	301 225 1200	MT-GLAZE 4.7K JA 1/16W
R6090	301 225 1200	MT-GLAZE 4.7K JA 1/16W
R6091	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6092	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6093	301 224 9009	MT-GLAZE 10K JA 1/16W
R6094	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6097	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6098	301 224 9702	MT-GLAZE 22 JA 1/16W
R6099	301 278 1707	MT-GLAZE 56 DD 1/16W
R6100	301 278 1707	MT-GLAZE 56 DD 1/16W
R6101	301 225 8100	MT-GLAZE 10 JA 1/16W
R6102	301 225 8100	MT-GLAZE 10 JA 1/16W
R6103	301 225 8100	MT-GLAZE 10 JA 1/16W
R6104	301 225 8100	MT-GLAZE 10 JA 1/16W
R6105	301 225 8100	MT-GLAZE 10 JA 1/16W
R6106	301 225 8100	MT-GLAZE 10 JA 1/16W
R6107	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6108	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6111	301 225 8100	MT-GLAZE 10 JA 1/16W
R6112	301 225 8100	MT-GLAZE 10 JA 1/16W
R6113	301 225 8100	MT-GLAZE 10 JA 1/16W
R6114	301 225 8100	MT-GLAZE 10 JA 1/16W
R6115	301 225 8100	MT-GLAZE 10 JA 1/16W
R6116	301 225 8100	MT-GLAZE 10 JA 1/16W
R6117	301 225 8100	MT-GLAZE 10 JA 1/16W
R6118	301 225 8100	MT-GLAZE 10 JA 1/16W
R6119	301 225 8100	MT-GLAZE 10 JA 1/16W
R6120	301 225 8100	MT-GLAZE 10 JA 1/16W
R6121	301 225 8100	MT-GLAZE 10 JA 1/16W
R6122	301 225 8100	MT-GLAZE 10 JA 1/16W
R6123	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6124	301 262 2307	MT-GLAZE 1.0K DC 1/16W
R6125	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6126	301 262 2307	MT-GLAZE 1.0K DC 1/16W
R6127	301 283 7107	MT-GLAZE 100 DC 1/16W
R6128	301 283 7107	MT-GLAZE 100 DC 1/16W
R6129	301 283 7107	MT-GLAZE 100 DC 1/16W
R6130	301 283 7107	MT-GLAZE 100 DC 1/16W
R6131	301 283 7107	MT-GLAZE 100 DC 1/16W
R6132	301 283 7107	MT-GLAZE 100 DC 1/16W
R6133	301 224 9009	MT-GLAZE 10K JA 1/16W
R6134	301 224 9009	MT-GLAZE 10K JA 1/16W
R6135	301 224 9009	MT-GLAZE 10K JA 1/16W
R6136	301 224 8804	MT-GLAZE 100 JA 1/16W
R6137	301 224 8804	MT-GLAZE 100 JA 1/16W
R6138	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6139	301 224 8804	MT-GLAZE 100 JA 1/16W
R6140	301 224 8804	MT-GLAZE 100 JA 1/16W
R6141	301 224 8804	MT-GLAZE 100 JA 1/16W
R6142	301 224 8804	MT-GLAZE 100 JA 1/16W
R6143	301 224 8804	MT-GLAZE 100 JA 1/16W
R6144	301 224 9009	MT-GLAZE 10K JA 1/16W
R6145	301 224 9009	MT-GLAZE 10K JA 1/16W
R6146	301 224 9009	MT-GLAZE 10K JA 1/16W
R6147	301 224 9009	MT-GLAZE 10K JA 1/16W
R6148	301 224 9009	MT-GLAZE 10K JA 1/16W
R6149	301 224 9009	MT-GLAZE 10K JA 1/16W
R6150	301 224 9009	MT-GLAZE 10K JA 1/16W
R6151	301 224 9009	MT-GLAZE 10K JA 1/16W
R6153	301 224 9009	MT-GLAZE 10K JA 1/16W
R6154	301 224 9009	MT-GLAZE 10K JA 1/16W
R6156	301 224 9009	MT-GLAZE 10K JA 1/16W
R6157	301 224 9009	MT-GLAZE 10K JA 1/16W
R6158	301 224 9009	MT-GLAZE 10K JA 1/16W
R6162	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6201	301 225 1200	MT-GLAZE 4.7K JA 1/16W
R6202	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6203	301 226 2404	MT-GLAZE 560 JA 1/16W
R6204	301 224 9900	MT-GLAZE 22K JA 1/16W
R6205	301 226 2404	MT-GLAZE 560 JA 1/16W
R6207	301 224 9009	MT-GLAZE 10K JA 1/16W
R6208	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6209	301 226 1506	MT-GLAZE 0.000 ZA 1/16W

LOCATION	PARTS NO.	DESCRIPTION
R6210	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6211	301 105 7902	MT-GLAZE 0.000 ZA 1/16W
R6212	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6801	301 341 0606	MT-GLAZE 49.9 FA 1/16W
R6802	301 341 0606	MT-GLAZE 49.9 FA 1/16W
R6803	301 341 0606	MT-GLAZE 49.9 FA 1/16W
R6804	301 341 0606	MT-GLAZE 49.9 FA 1/16W
R6806	301 037 5007	MT-GLAZE 0.000 ZA 1/10W
R6812	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6813	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6814	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6815	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6852	301 225 1200	MT-GLAZE 4.7K JA 1/16W
R6853	301 226 1506	MT-GLAZE 0.000 ZA 1/16W
R6854	301 224 9306	MT-GLAZE 1K JA 1/16W
R6855	301 225 1200	MT-GLAZE 4.7K JA 1/16W
R6856	301 267 1008	MT-GLAZE 6.2K DC 1/16W
R6857	301 285 1509	MT-GLAZE 270 DC 1/16W
R6858	301 329 5302	MT-GLAZE 20 DD 1/16W
R6859	301 224 9306	MT-GLAZE 1K JA 1/16W
R6861	301 224 9009	MT-GLAZE 10K JA 1/16W
R6862	301 224 9405	MT-GLAZE 1.0M JA 1/16W
R6863	301 225 1606	MT-GLAZE 390 JA 1/16W
(THERMISTOR)		
TH301	308 054 7700	TH NCP15WF104F03-RC
(SWITCHES)		
S3008	945 024 3852	SWITCH,PUSH
S9901	945 024 3852	SWITCH,PUSH
S9902	945 024 3852	SWITCH,PUSH
S9903	945 024 3852	SWITCH,PUSH
S9904	945 024 3852	SWITCH,PUSH
S9909	945 024 3852	SWITCH,PUSH
(FUSES)		
F5201	△ 323 031 1700	FUSE 32V 2A
F5301	△ 323 031 1700	FUSE 32V 2A
(MISCELLANEOUS)		
	411 214 2207	SCR BIN 2X4
	613 221 0508	COVER,CA5-L5DE2
Y6801	613 220 7775	EARTH,LAN-L5DE2
Y6802	613 220 7775	EARTH,LAN-L5DE2
Y8801	613 220 7751	HOLDER LAN-L5DE2
(CONNECTORS)		
CN102	645 072 3674	SOCKET,USB 5P (N.S.P)
CN104	645 100 1542	SOCKET,PWB-WIRE 4(N.S.P)
CN106	645 074 0336	PLUG,SIDE-ZR-SM4 (N.S.P)
CN111	945 074 0382	PLUG,2P (N.S.P)
CN201	645 074 0169	PLUG,SIDE-ZR-SM4 (N.S.P)
CN202	645 074 0152	PLUG,SIDE-ZR-SM4 (N.S.P)
CN302	645 075 5033	PLUG,6P (N.S.P)
CN351	645 075 5040	PLUG,8P (N.S.P)
CN521	645 045 7746	PLUG,PWB-PWB 30P (N.S.P)
CN522	645 045 7746	PLUG,PWB-PWB 30P (N.S.P)
CN547	645 059 7718	TERMINAL,EARTH (N.S.P)
CN604	645 092 8185	SOCKET,CARD(SD)12(N.S.P)
CN605	645 093 2762	PLUG,20P (N.S.P)

LOCATION	PARTS NO.	DESCRIPTION
(CAPACITORS)		
C8851	303 428 3609	CERAMIC 0.01U K 350V
C8852	303 428 3609	CERAMIC 0.01U K 350V
C8853	303 428 3609	CERAMIC 0.01U K 350V
C8854	303 379 7107	CERAMIC 1000P K 630V
C8855	303 428 3609	CERAMIC 0.01U K 350V
(RESISTORS)		
R8851	301 038 9509	MT-GLAZE 75 JA 1/10W
R8852	301 038 9509	MT-GLAZE 75 JA 1/10W
R8853	301 038 9509	MT-GLAZE 75 JA 1/10W
R8854	301 038 9509	MT-GLAZE 75 JA 1/10W
(JACK)		
JK881	645 101 1985	JACK,MODULAR 8P
(CONNECTORS)		
CN881	645 101 1480	PLUG,HEADER 8P (N.S.P)
CN882	645 074 0152	PLUG,SIDE-ZR-SM4 (N.S.P)

COMPL PWB,CA-5 (N.S.P)

613 220 3920

(DIODES)		
D8851	307 239 5005	DIODE RF071M2S PMDU
OR	407 256 1001	DIODE DG1N15A
D8852	307 239 5005	DIODE RF071M2S PMDU
OR	407 256 1001	DIODE DG1N15A
D8853	307 239 5005	DIODE RF071M2S PMDU
OR	407 256 1001	DIODE DG1N15A
D8854	307 239 5005	DIODE RF071M2S PMDU
OR	407 256 1001	DIODE DG1N15A
D8855	307 239 5005	DIODE RF071M2S PMDU
OR	407 256 1001	DIODE DG1N15A
D8856	307 239 5005	DIODE RF071M2S PMDU
OR	407 256 1001	DIODE DG1N15A
D8857	307 239 5005	DIODE RF071M2S PMDU
OR	407 256 1001	DIODE DG1N15A
D8858	307 239 5005	DIODE RF071M2S PMDU
OR	407 256 1001	DIODE DG1N15A

CIRCUIT DIAGRAMS & PRINTED WIRING BOARDS

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CA-1 P.W.B. (SIDE A & B)	C21
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CA-5 P.W.B. (SIDE A & B)	

NOTES:

1. All resistance values in "OHMS" unless otherwise noted.
(K=1,000 ; M=1,000,000)
2. All capacitance values in " μ F" unless otherwise noted.
p=pico farad ; n=nano farad ; μ ,u or U=micro farad
3. All inductance values in " μ H" unless otherwise noted.
 μ ,u or U=micro henry ; m=milli henry

Figure of printed wiring boards

Multilayer board:


"Side A" means the view from A side of the board.

"Side B" means the view from B side of the board.

Singlelayer board:

View from the copper-foil side of the board, otherwise noted.

PRODUCT SAFETY NOTICE

THE COMPONENTS DESIGNATED BY A SYMBOL () IN THIS SCHEMATIC DIAGRAM DESIGNATES COMPONENTS WHOSE VALUE ARE OF SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. SHOULD ANY COMPONENT DESIGNATED BY A SYMBOL NEED TO BE REPLACED, USE ONLY THE PART DESIGNATED IN THE PARTS LIST. DO NOT DEVIATE FROM THE RESISTANCE, WATTAGE AND VOLTAGE RATINGS SHOWN.

EXPLANATORY NOTES (EXAMPLES)

Resistor 10K:1/16J means 10kilo ohm $\pm 5\%$, 1/16watt max.
1M:1/10D means 1mega ohm $\pm 0.5\%$, 1/10watt max.
(Tolerance K: $\pm 10\%$, J: $\pm 5\%$, G: $\pm 2\%$, F: $\pm 1\%$, D: $\pm 0.5\%$)

Capacitor 0.047:F means 0.047micro farad, Ftype.

Electrolytic capacitor
10:16 means 10micro farad, 16volt max.

Inductor 330:J means 330micro henry $\pm 5\%$
470:K means 470micro henry $\pm 10\%$
No description J or K means $\pm 5\%$

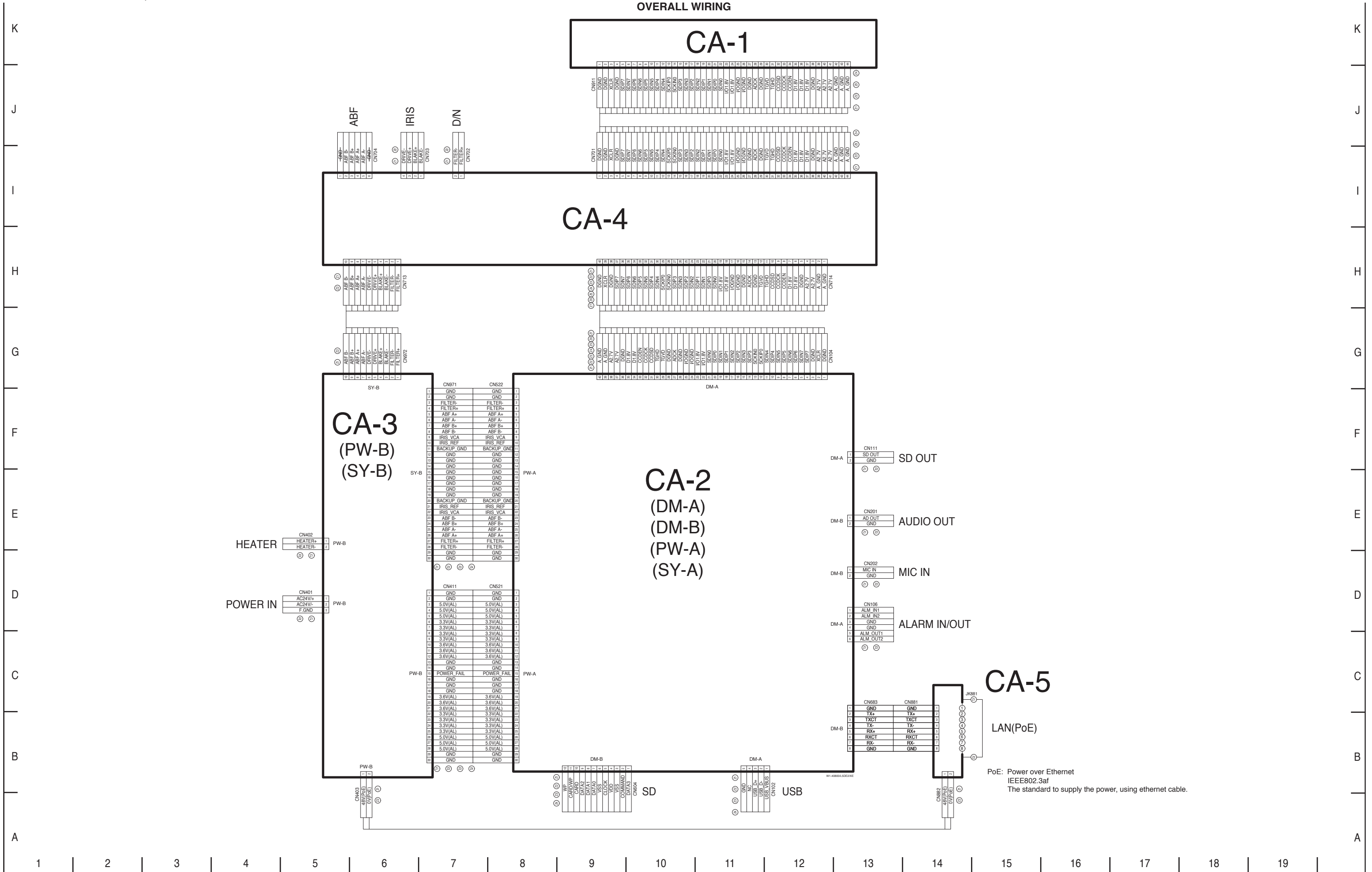
The number of "H=##" written in slant character, shows the voltage.

The number of "H=##" written in upright character, shows the height of the parts.

PAL-H-EX

OVERALL WIRING, BLOCK DIAGRAM & CIRCUIT DIAGRAMS

OVERALL WIRING

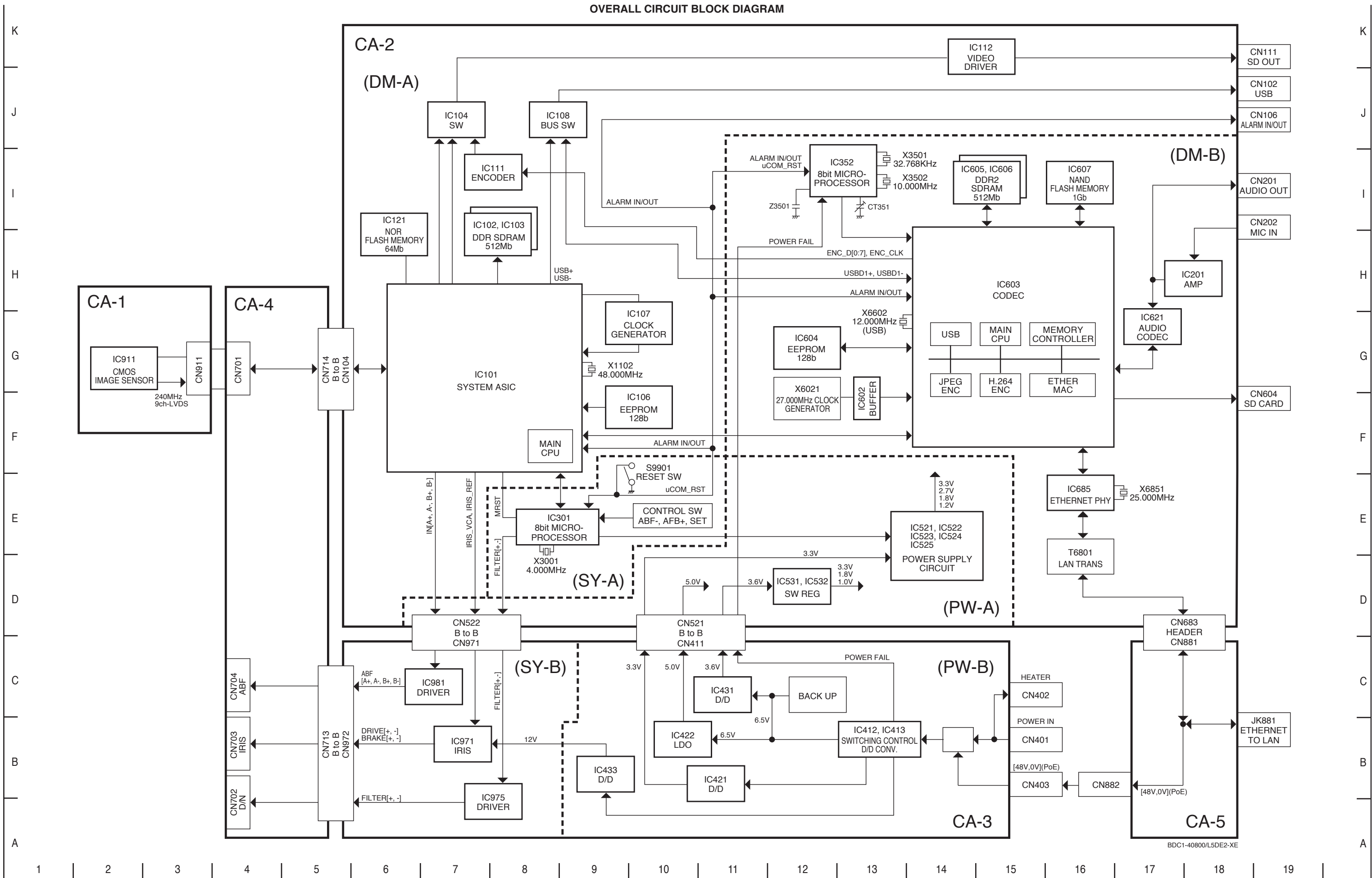


CA-5

LAN(PoE)

PoE: Power over Ethernet
IEEE802.3af
The standard to supply the power, using ethernet cable.

OVERALL CIRCUIT BLOCK DIAGRAM

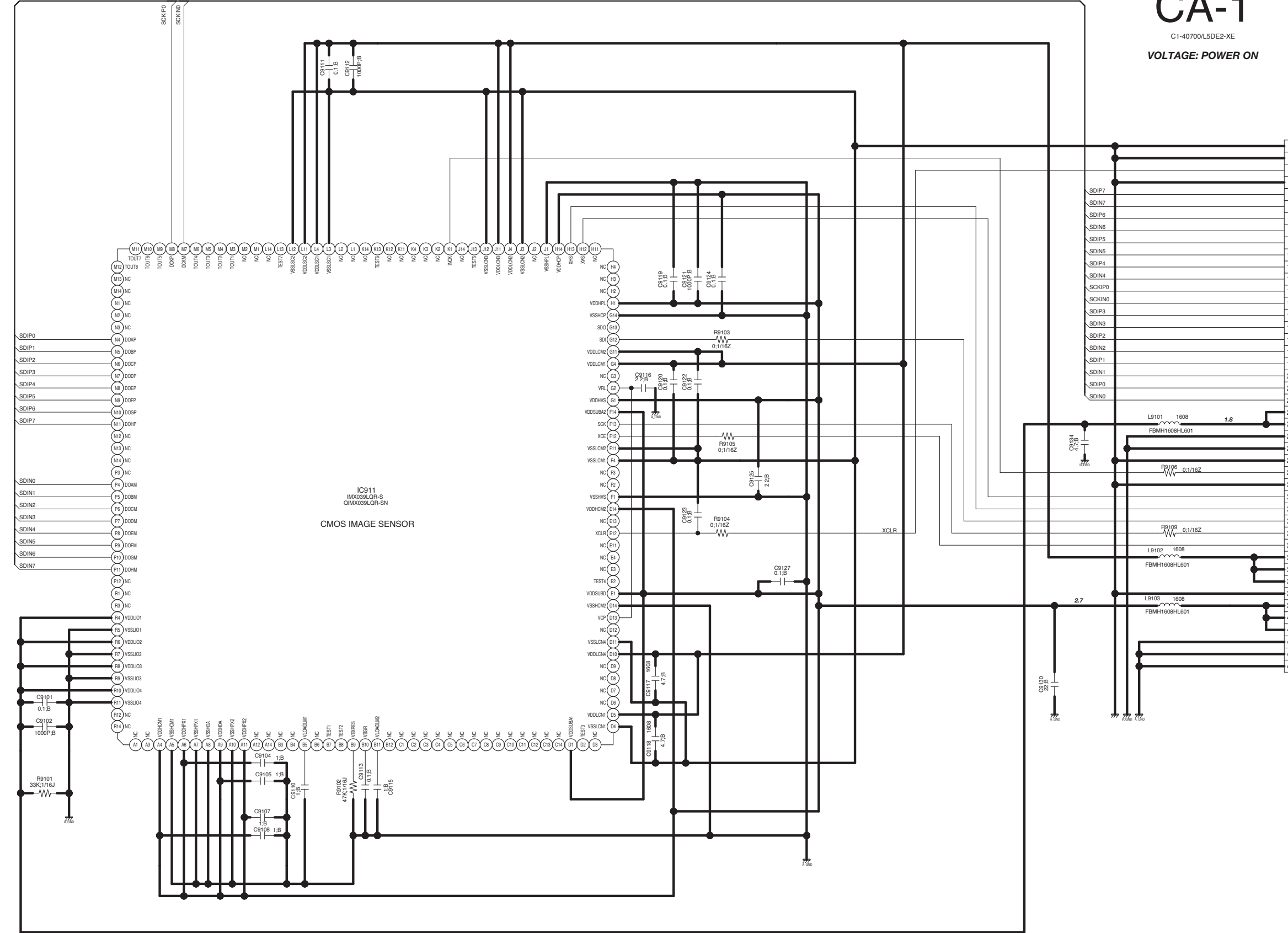


CA-1 BOARD CMOS IMAGE SENSOR

CA-1

C1-40700L5DE2-XE

VOLTAGE: POWER ON



CN911	
44	
1	DGND
2	DGND
3	XCLR
4	DGND
5	SDIP7
6	SDIN7
7	SDIP6
8	SDIN6
9	SDIP5
10	SDIN5
11	SDIP4
12	SDIN4
13	SCKIP0
14	SCKIN0
15	SDIP3
16	SDIN3
17	SDIP2
18	SDIN2
19	SDIP1
20	SDIN1
21	SDIP0
22	SDIN0
23	I/O1.8V
24	I/O1.8V
25	I/OGND
26	I/OGND
27	DGND
28	ADCK
29	DGND
30	TGVD
31	TGHD
32	CCDSD
33	CCDCK
34	CCDEN
35	D1.8V
36	D1.8V
37	D1.8V
38	DGND
39	A2.7V
40	A2.7V
41	A2.7V
42	A_GND
43	A_GND
44	A_GND

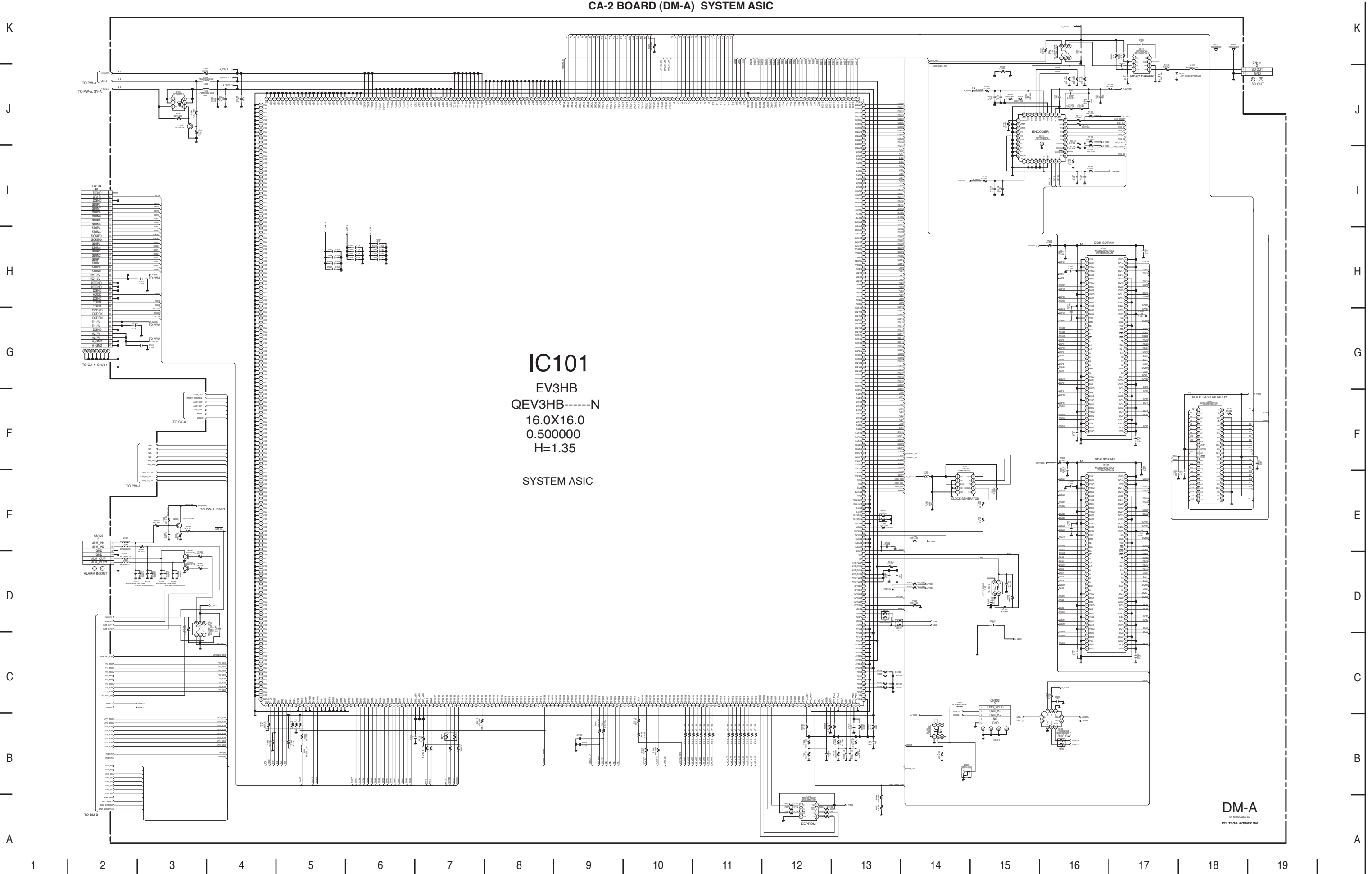
TO CA-4 CN701

K
J
I
H
G
F
E
D
C
B
A

K
J
I
H
G
F
E
D
C
B
A

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

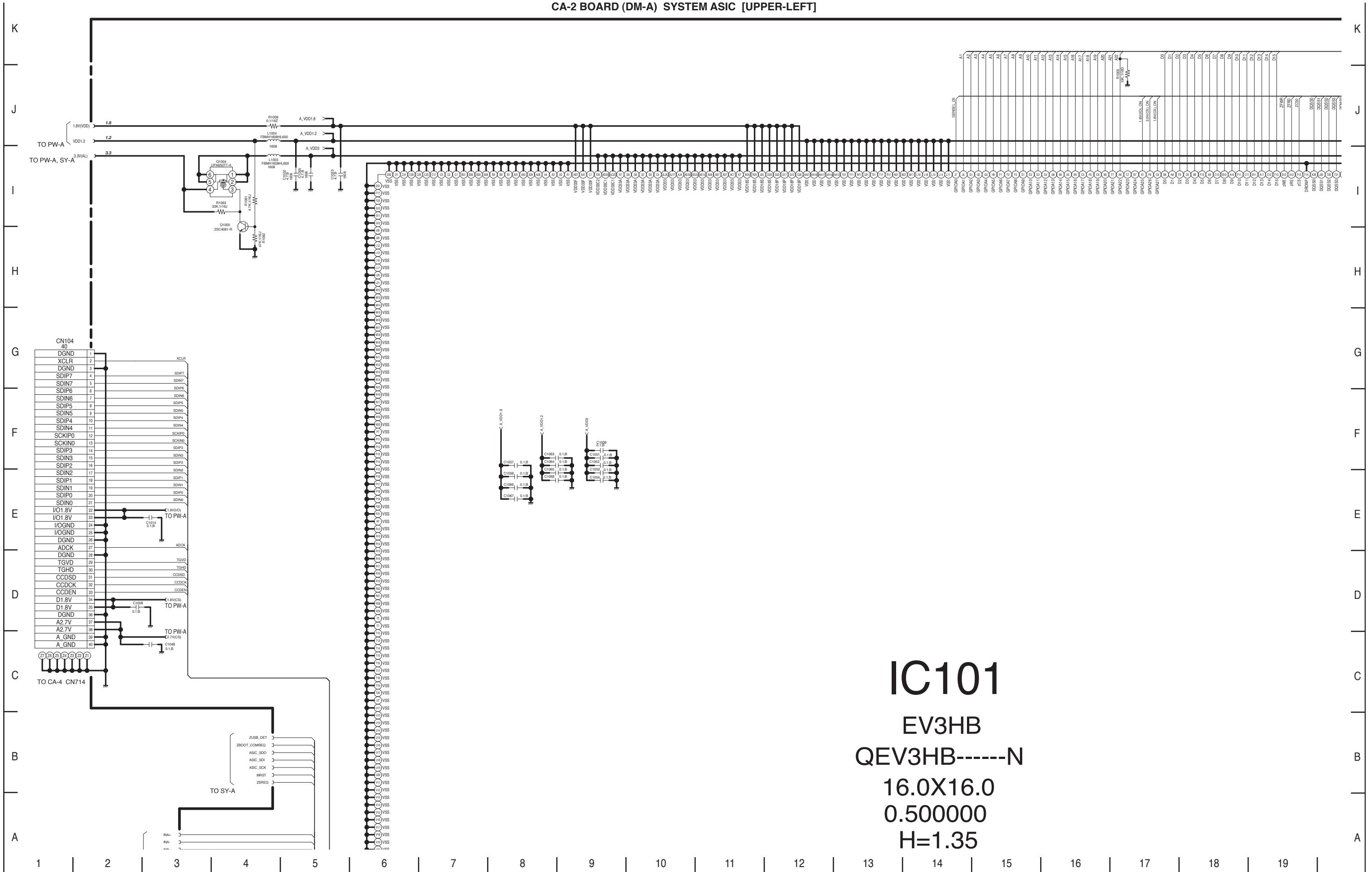
CA-2 BOARD (DM-A) SYSTEM ASIC



IC101
EV3HB
QE33HB-----N
16.0X16.0
0.500000
H=1.35
SYSTEM ASIC

DM-A
VOLTAGE: POWER ON

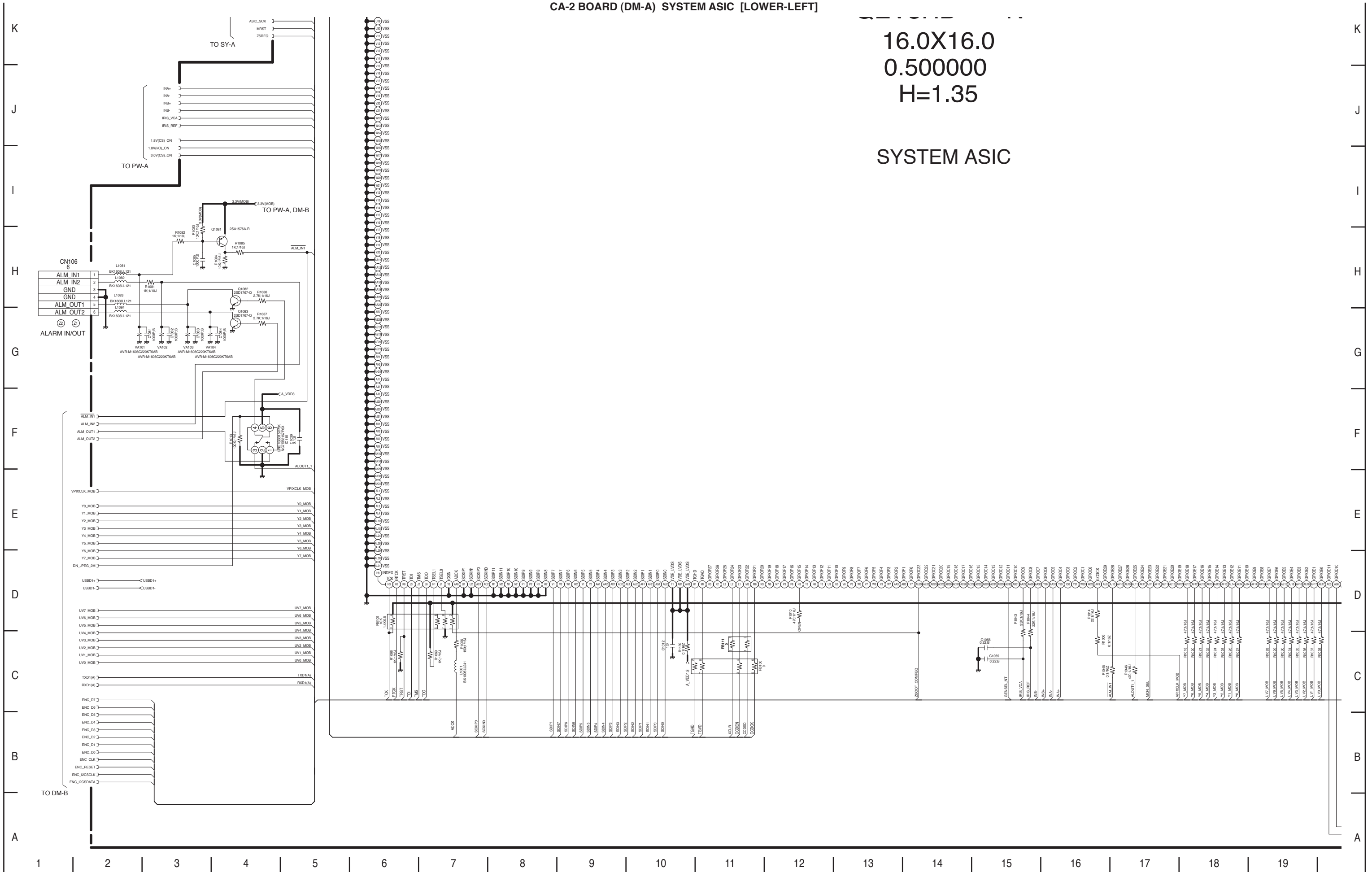
CA-2 BOARD (DM-A) SYSTEM ASIC [UPPER-LEFT]



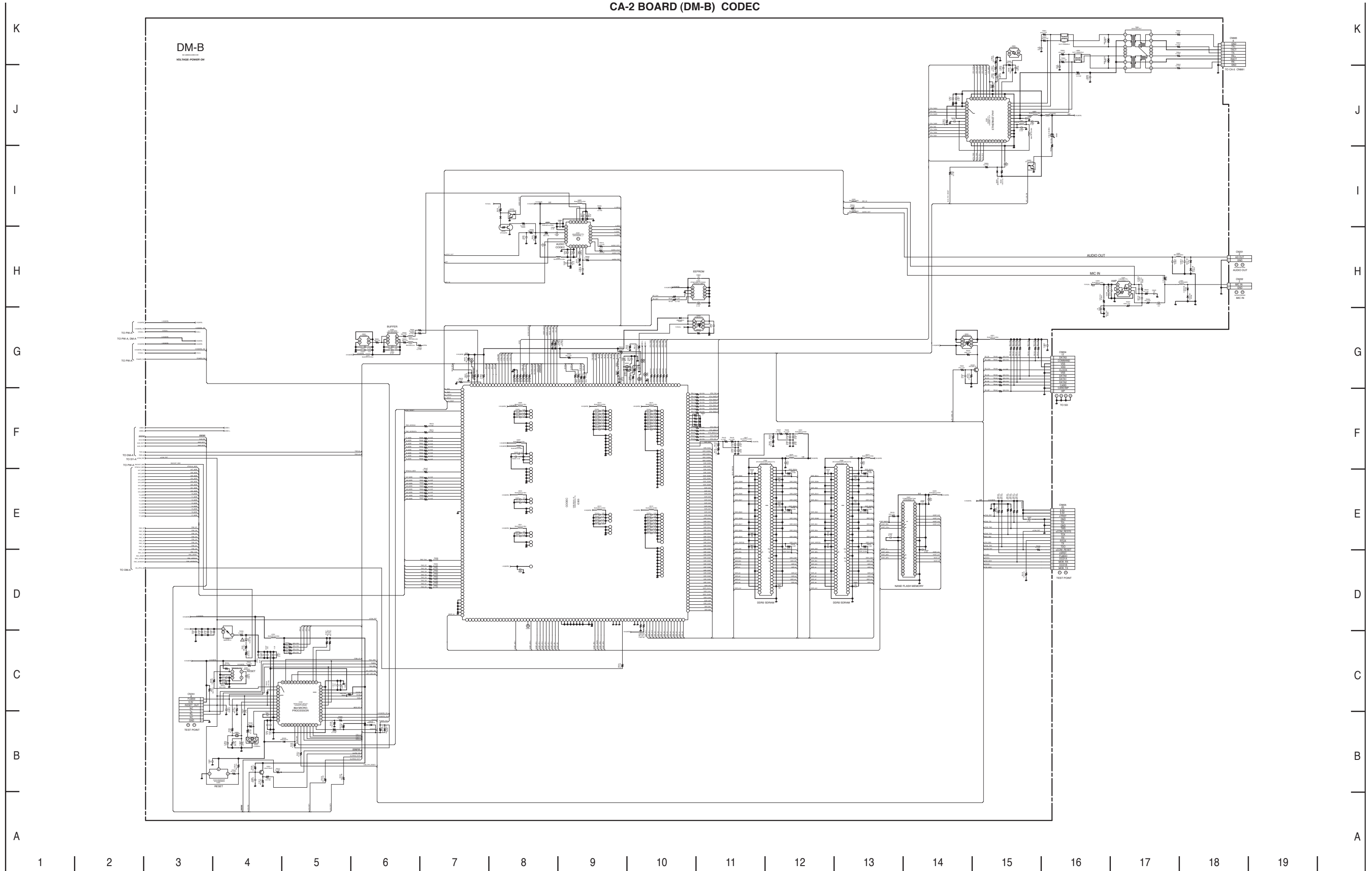
CA-2 BOARD (DM-A) SYSTEM ASIC [LOWER-LEFT]

16.0X16.0
0.50000
H=1.35

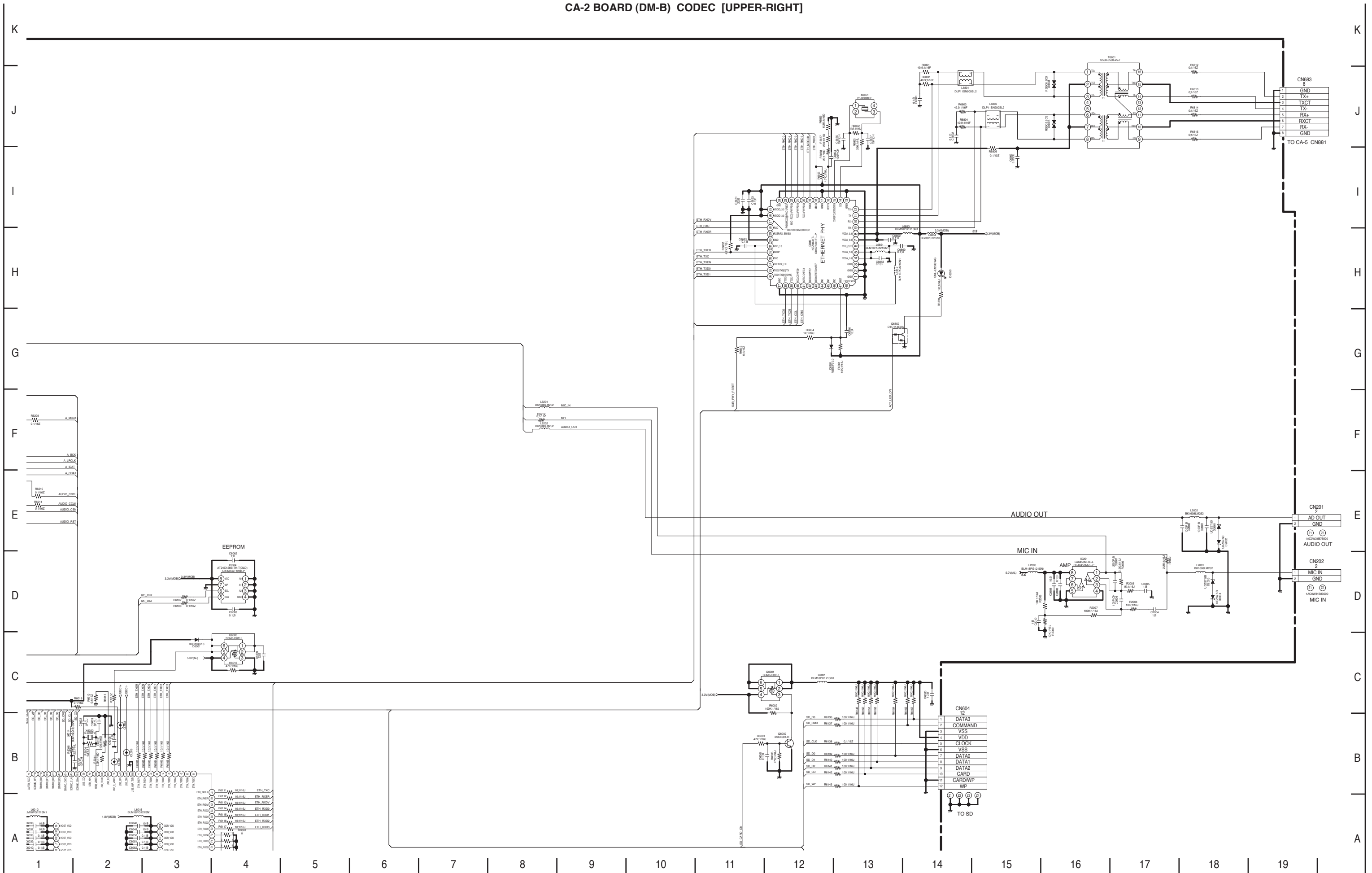
SYSTEM ASIC



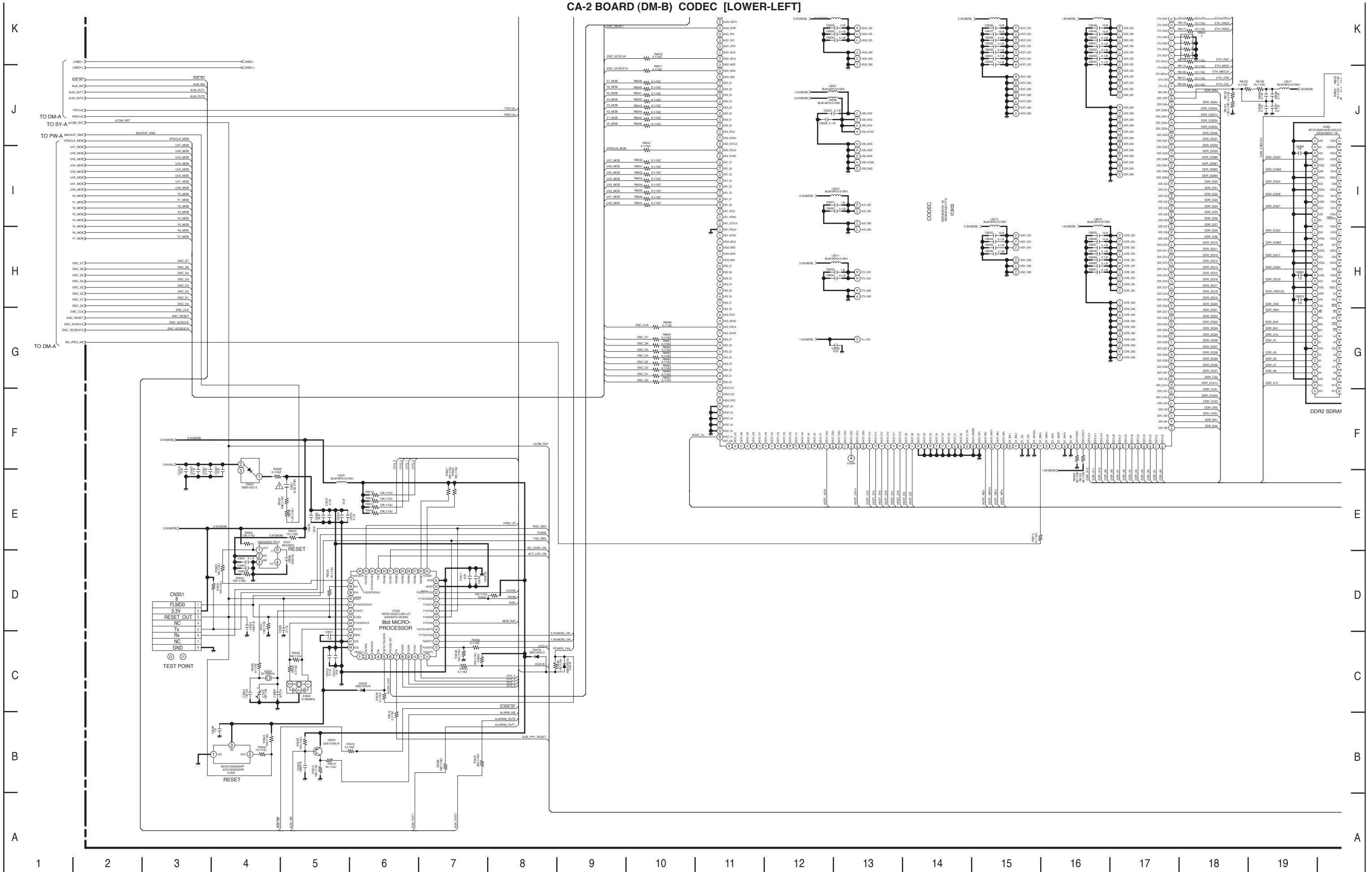
CA-2 BOARD (DM-B) CODEC



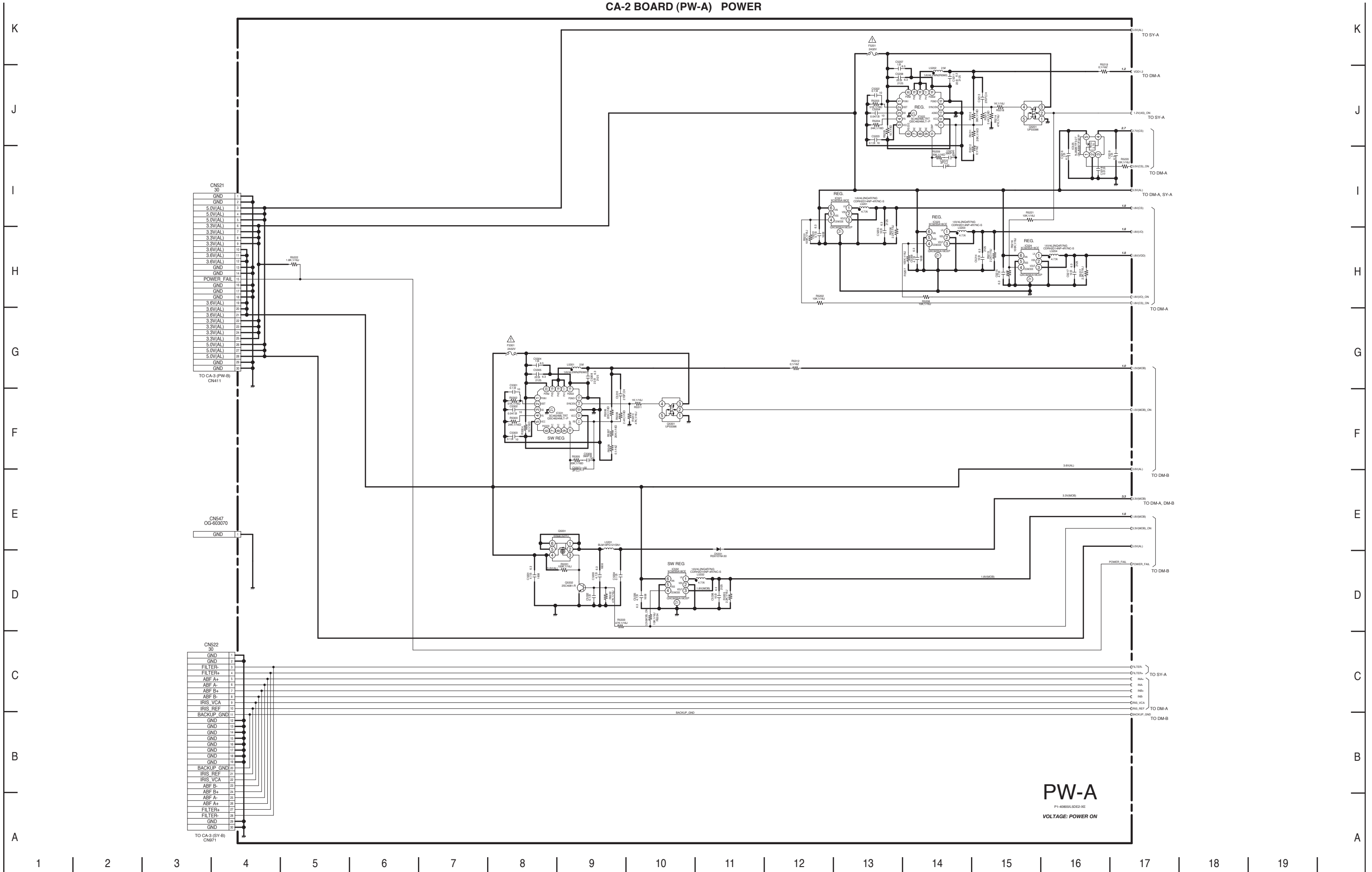
CA-2 BOARD (DM-B) CODEC [UPPER-RIGHT]



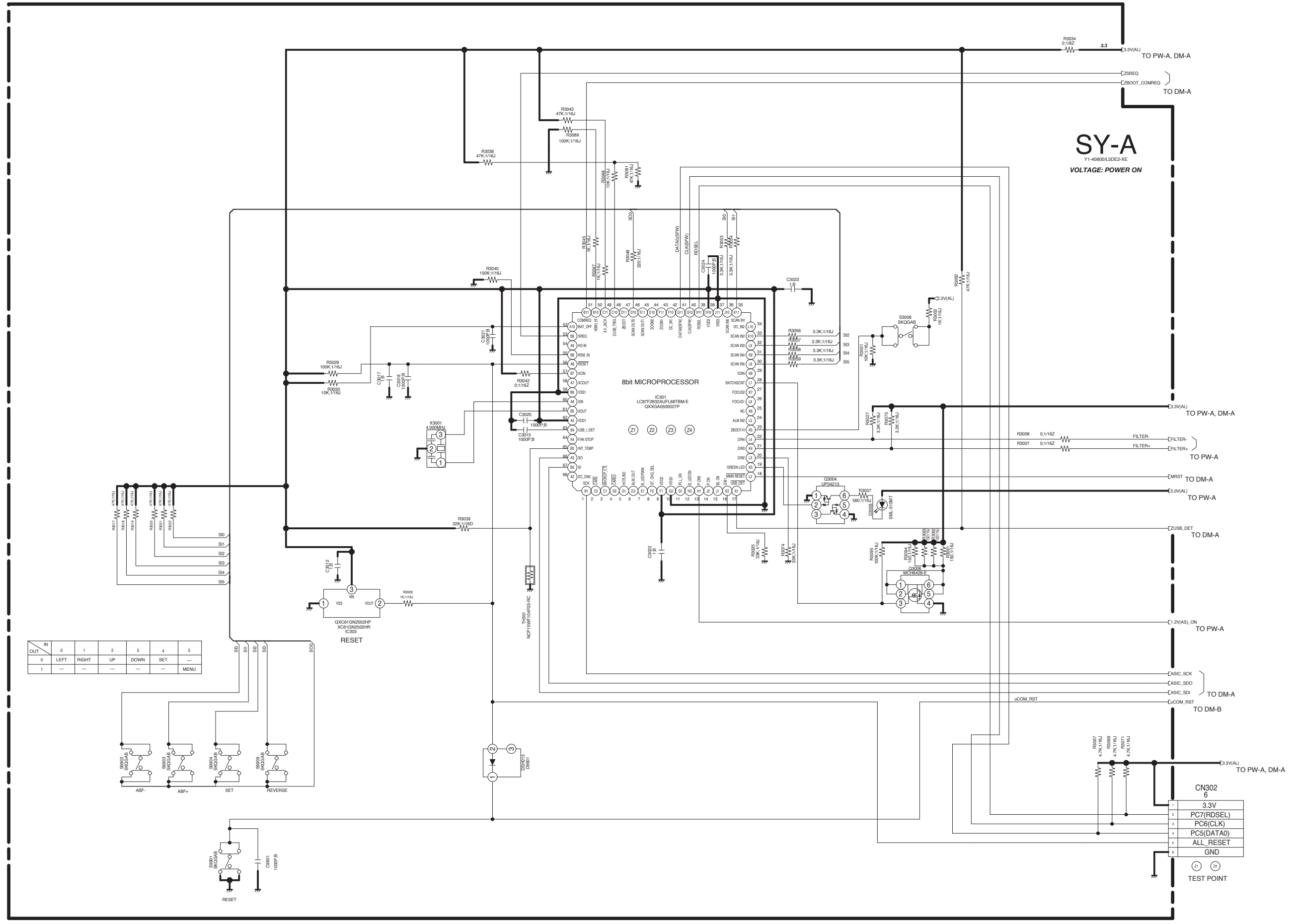
CA-2 BOARD (DM-B) CODEC [LOWER-LEFT]



CA-2 BOARD (PW-A) POWER



CA-2 BOARD (SY-A) SYSTEM CONTROL



IN	0	1	2	3	4	5
OUT	LEFT	RIGHT	UP	DOWN	SET	—
	—	—	—	—	—	MENU

SY-A
Y1-40800LSD2-XE
VOLTAGE: POWER ON

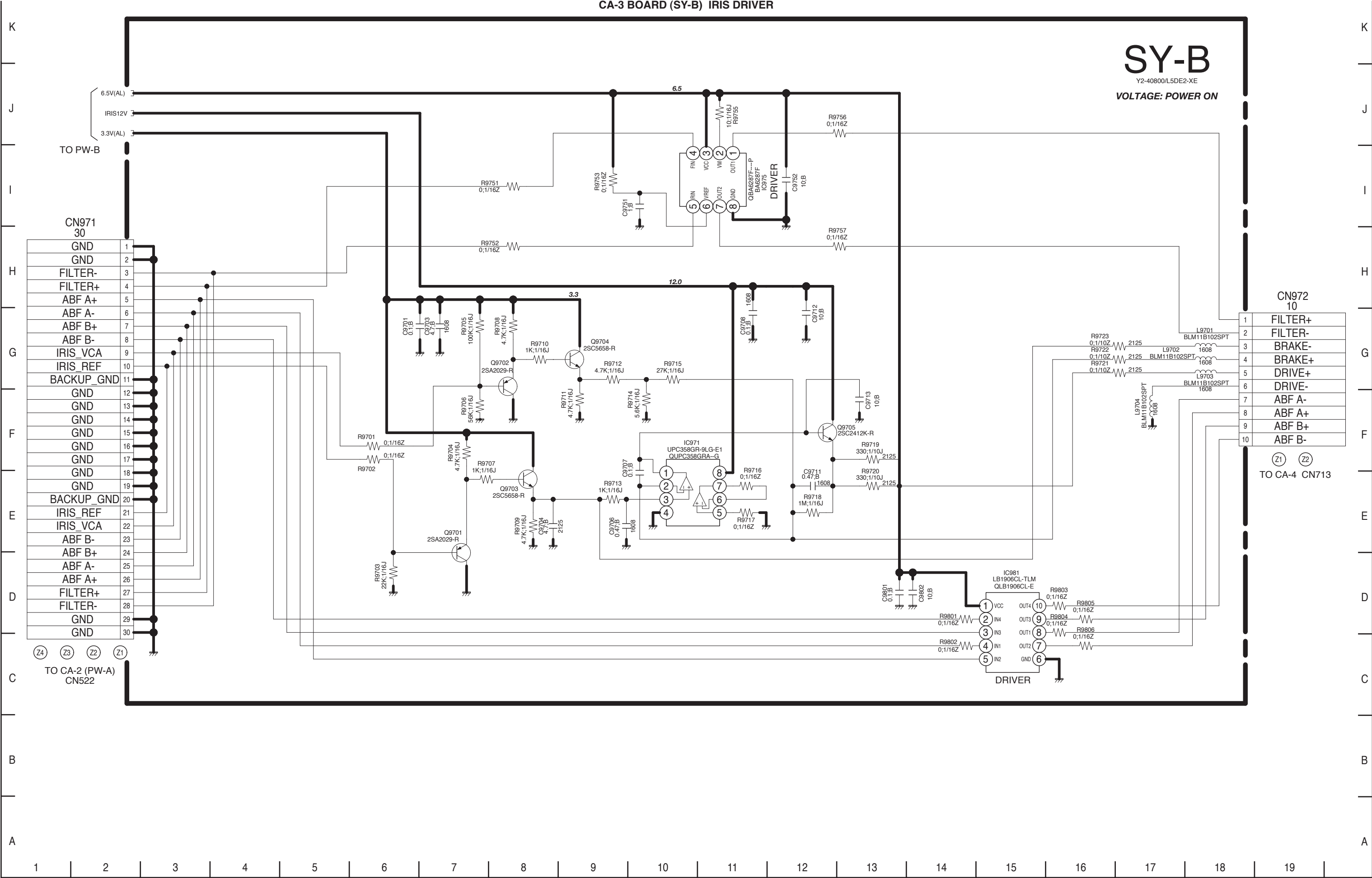
CN302
6

1	3.3V
2	PC7(RDSEL)
3	PC6(CLK)
4	PC5(DATA0)
5	ALL_RESET
6	GND

TEST POINT

CA-3 BOARD (SY-B) IRIS DRIVER

SY-B
Y2-40800/L5DE2-XE
VOLTAGE: POWER ON



CN971
30

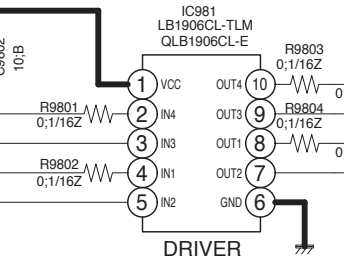
GND	1
GND	2
FILTER-	3
FILTER+	4
ABF A+	5
ABF A-	6
ABF B+	7
ABF B-	8
IRIS_VCA	9
IRIS_REF	10
BACKUP_GND	11
GND	12
GND	13
GND	14
GND	15
GND	16
GND	17
GND	18
GND	19
BACKUP_GND	20
IRIS_REF	21
IRIS_VCA	22
ABF B-	23
ABF B+	24
ABF A-	25
ABF A+	26
FILTER+	27
FILTER-	28
GND	29
GND	30

CN972
10

1	FILTER+
2	FILTER-
3	BRAKE-
4	BRAKE+
5	DRIVE+
6	DRIVE-
7	ABF A-
8	ABF A+
9	ABF B+
10	ABF B-

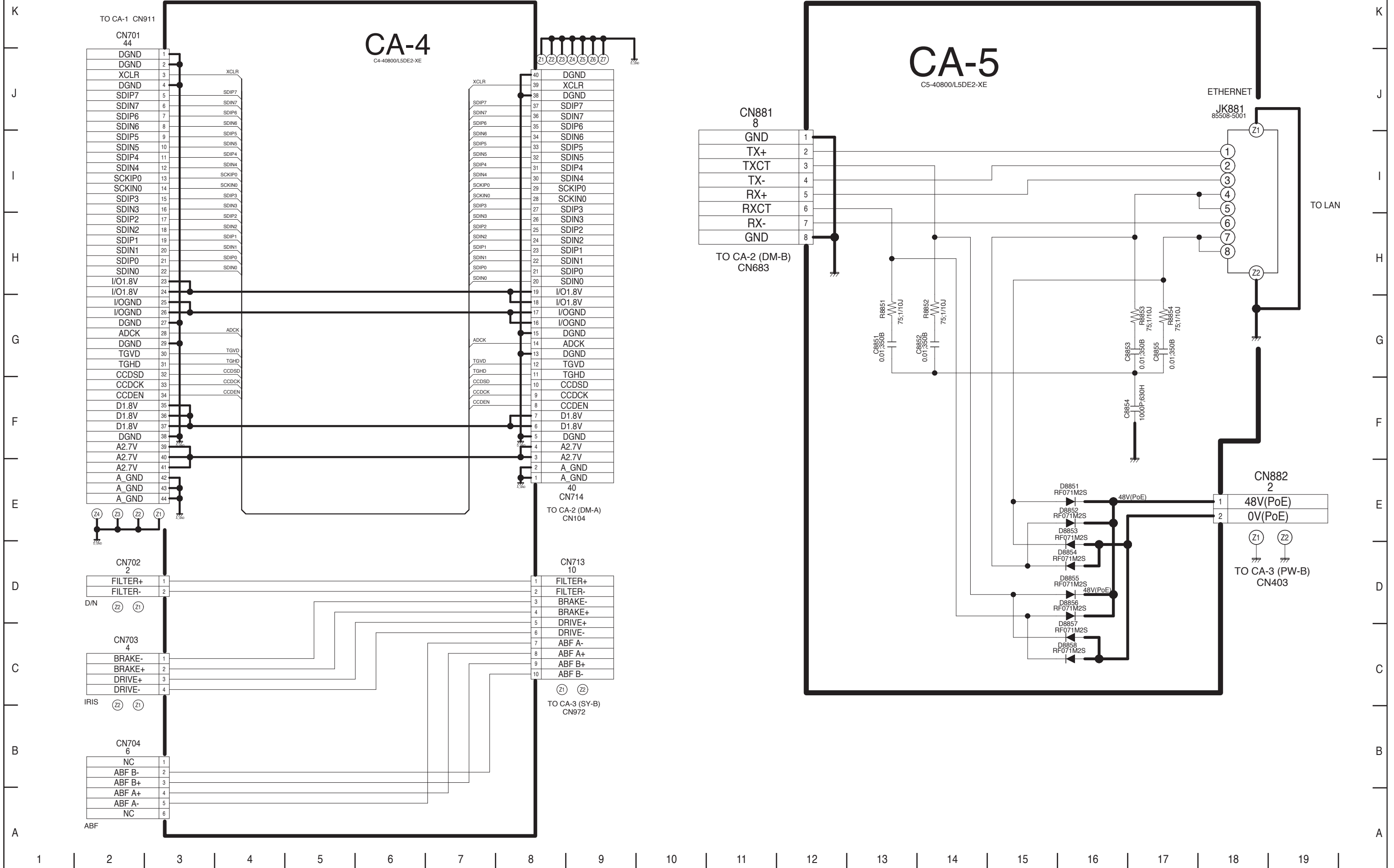
Z4 Z3 Z2 Z1
TO CA-2 (PW-A)
CN522

Z1 Z2
TO CA-4 CN713



CA-4 BOARD D/N, IRIS, ABF, CMOS IMAGE SENSOR CONNECTOR

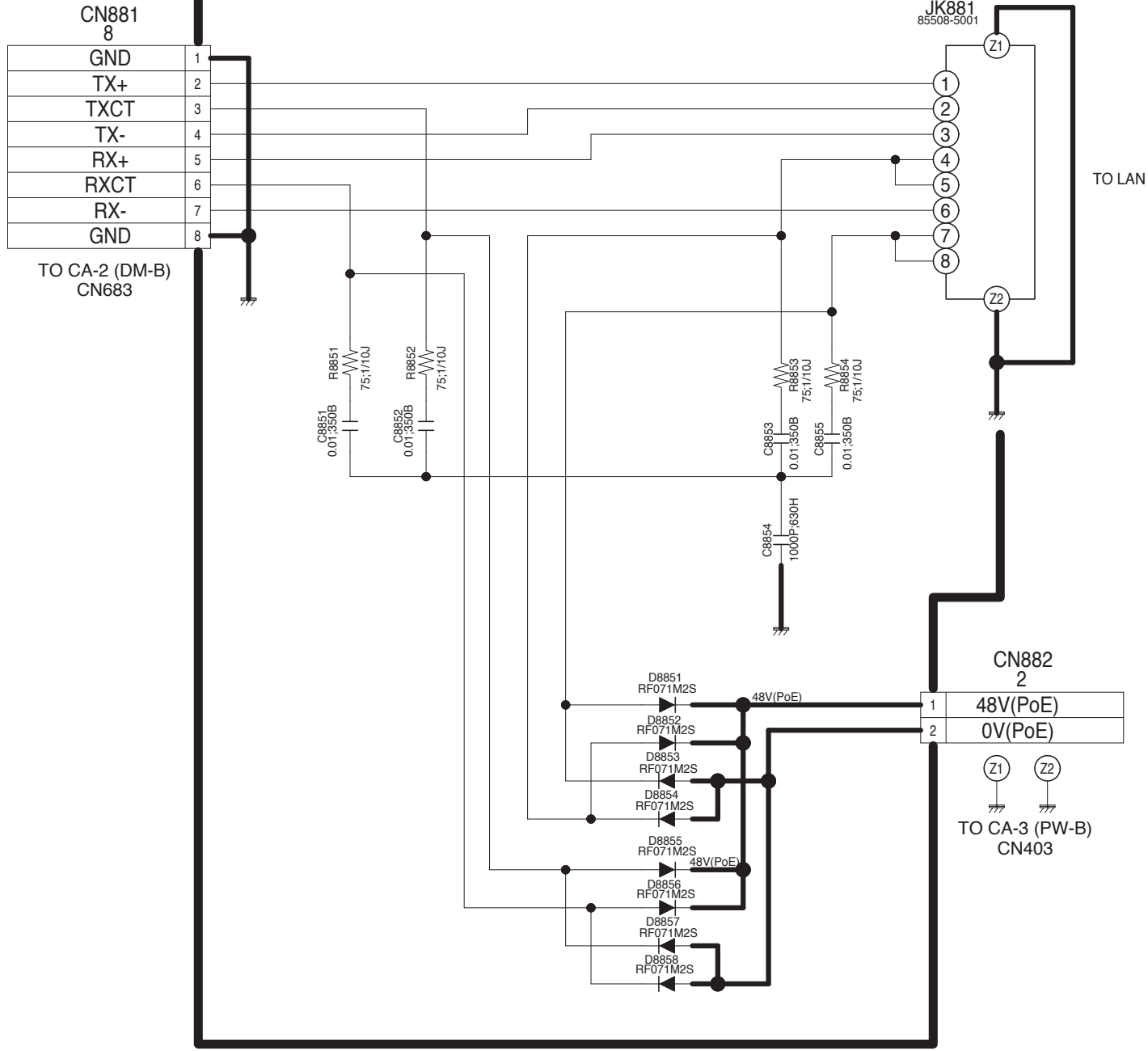
CA-5 BOARD ETHERNET



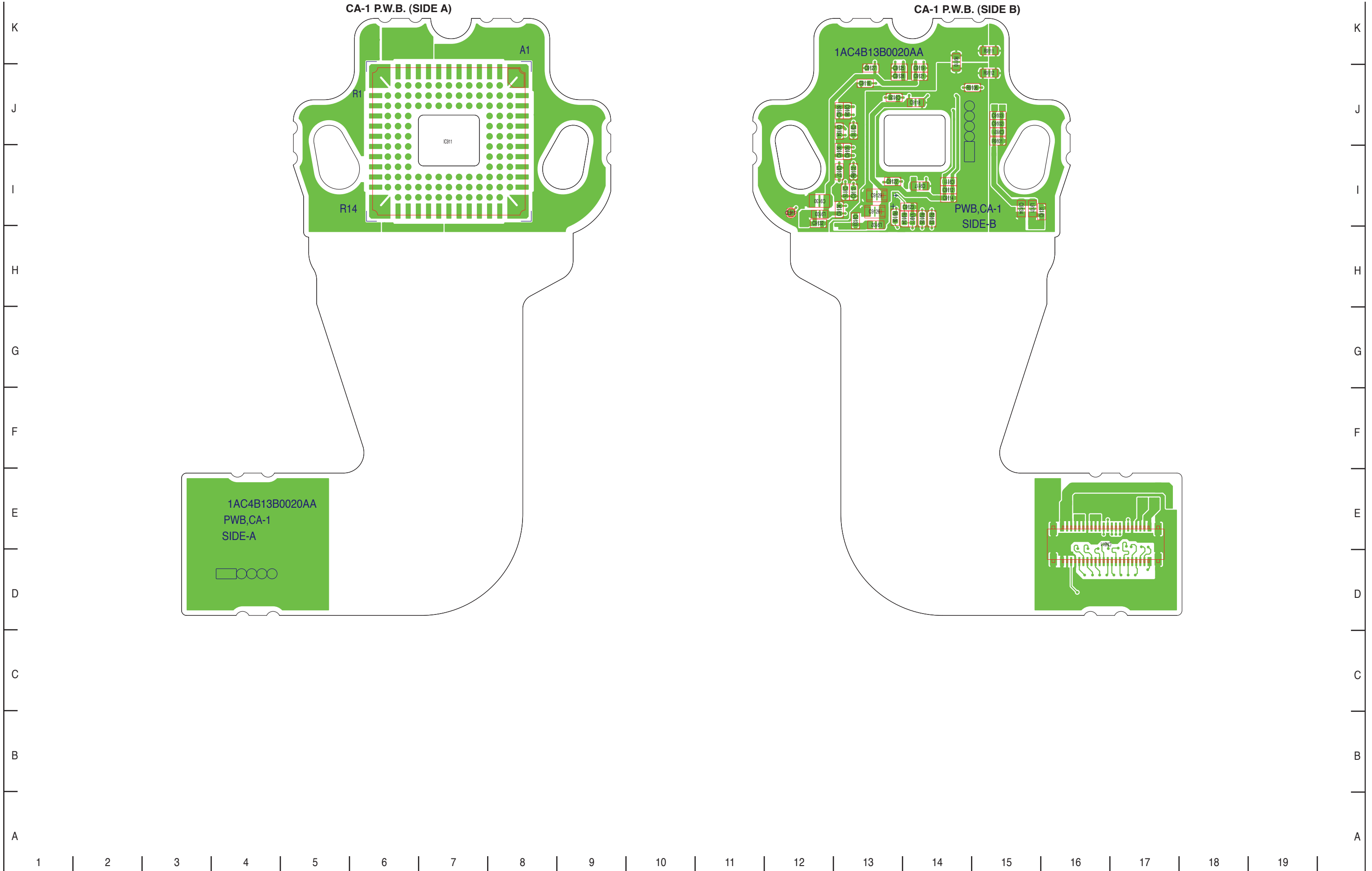
CA-4
C4-40800/L5DE2-XE

CA-5
C5-40800/L5DE2-XE

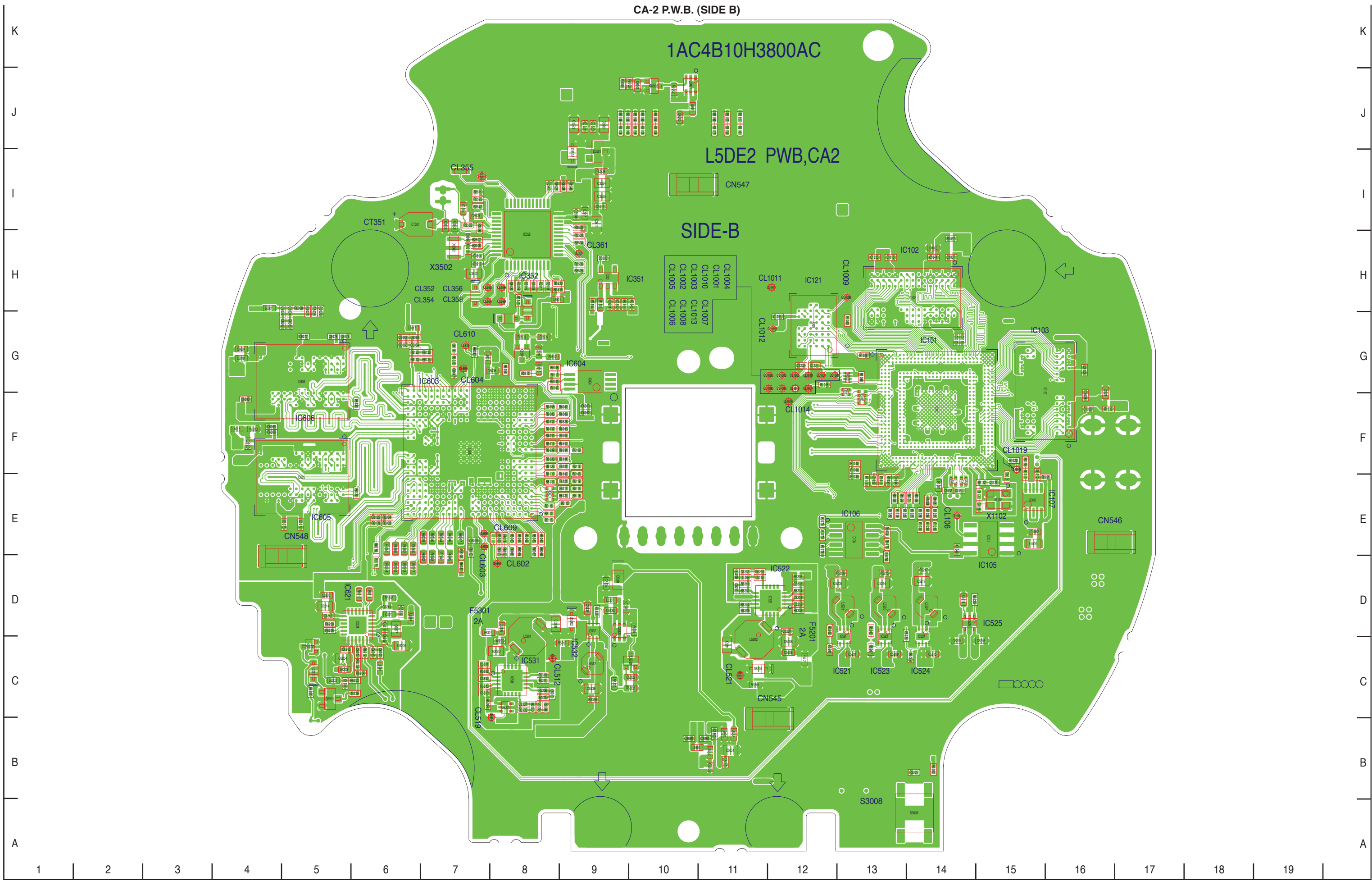
TO CA-1 CN911			
CN701 44	1 DGND	40 DGND	
	2 DGND	39 XCLR	
	3 XCLR	38 DGND	
	4 DGND	37 SDIP7	
	5 SDIP7	36 SDIN7	
	6 SDIN7	35 SDIP6	
	7 SDIP6	34 SDIN6	
	8 SDIN6	33 SDIP5	
	9 SDIP5	32 SDIN5	
	10 SDIN5	31 SDIP4	
	11 SDIP4	30 SDIN4	
	12 SDIN4	29 SCKIP0	
	13 SCKIP0	28 SCKIN0	
	14 SCKIN0	27 SDIP3	
	15 SDIP3	26 SDIN3	
	16 SDIN3	25 SDIP2	
	17 SDIP2	24 SDIN2	
	18 SDIN2	23 SDIP1	
	19 SDIP1	22 SDIN1	
	20 SDIN1	21 SDIP0	
	21 SDIP0	20 SDIN0	
	22 SDIN0	19 I/O1.8V	
	23 I/O1.8V	18 I/O1.8V	
	24 I/O1.8V	17 I/OGND	
	25 I/OGND	16 I/OGND	
	26 I/OGND	15 DGND	
	27 DGND	14 ADCK	
	28 ADCK	13 TGVD	
	29 DGND	12 TGHD	
	30 TGVD	11 TGHD	
	31 TGHD	10 CCDS	
	32 CCDS	9 CCDC	
	33 CCDC	8 CCDE	
	34 CCDE	7 D1.8V	
	35 D1.8V	6 D1.8V	
	36 D1.8V	5 DGND	
	37 D1.8V	4 A2.7V	
	38 DGND	3 A2.7V	
	39 A2.7V	2 A_GND	
	40 A2.7V	1 A_GND	
	41 A2.7V		
	42 A_GND		
	43 A_GND		
	44 A_GND		
		40 CN714	
		TO CA-2 (DM-A) CN104	
		CN702 2	
		1 FILTER+	
		2 FILTER-	
		CN703 4	
		1 BRAKE-	
		2 BRAKE+	
		3 DRIVE+	
		4 DRIVE-	
		CN704 6	
		1 NC	
		2 ABF B-	
		3 ABF B+	
		4 ABF A+	
		5 ABF A-	
		6 NC	
		CN713 10	
		1 FILTER+	
		2 FILTER-	
		3 BRAKE-	
		4 BRAKE+	
		5 DRIVE+	
		6 DRIVE-	
		7 ABF A-	
		8 ABF A+	
		9 ABF B+	
		10 ABF B-	
		TO CA-3 (SY-B) CN972	



PRINTED WIRING BOARDS (P.W.B.)



CA-2 P.W.B. (SIDE B)

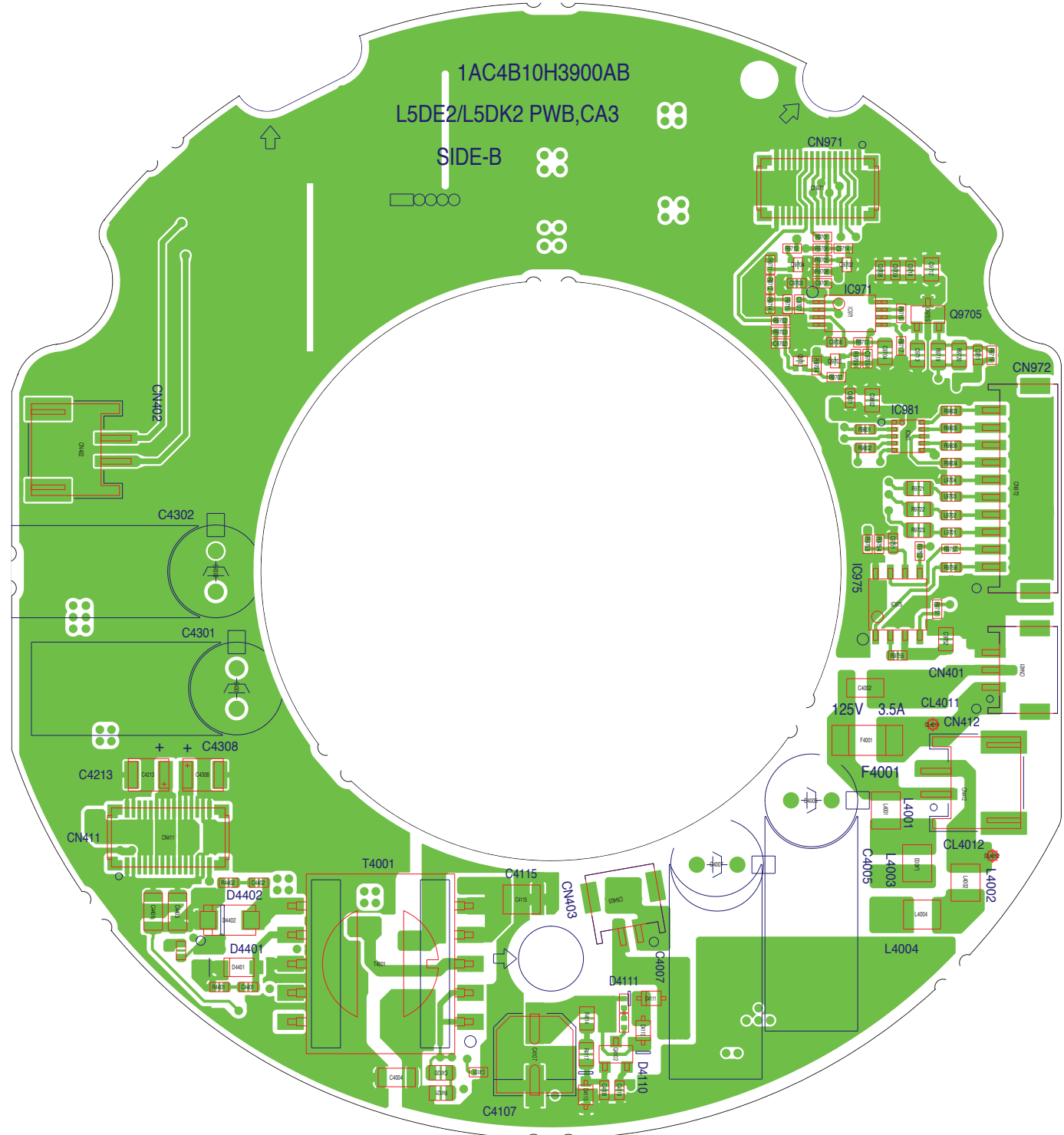
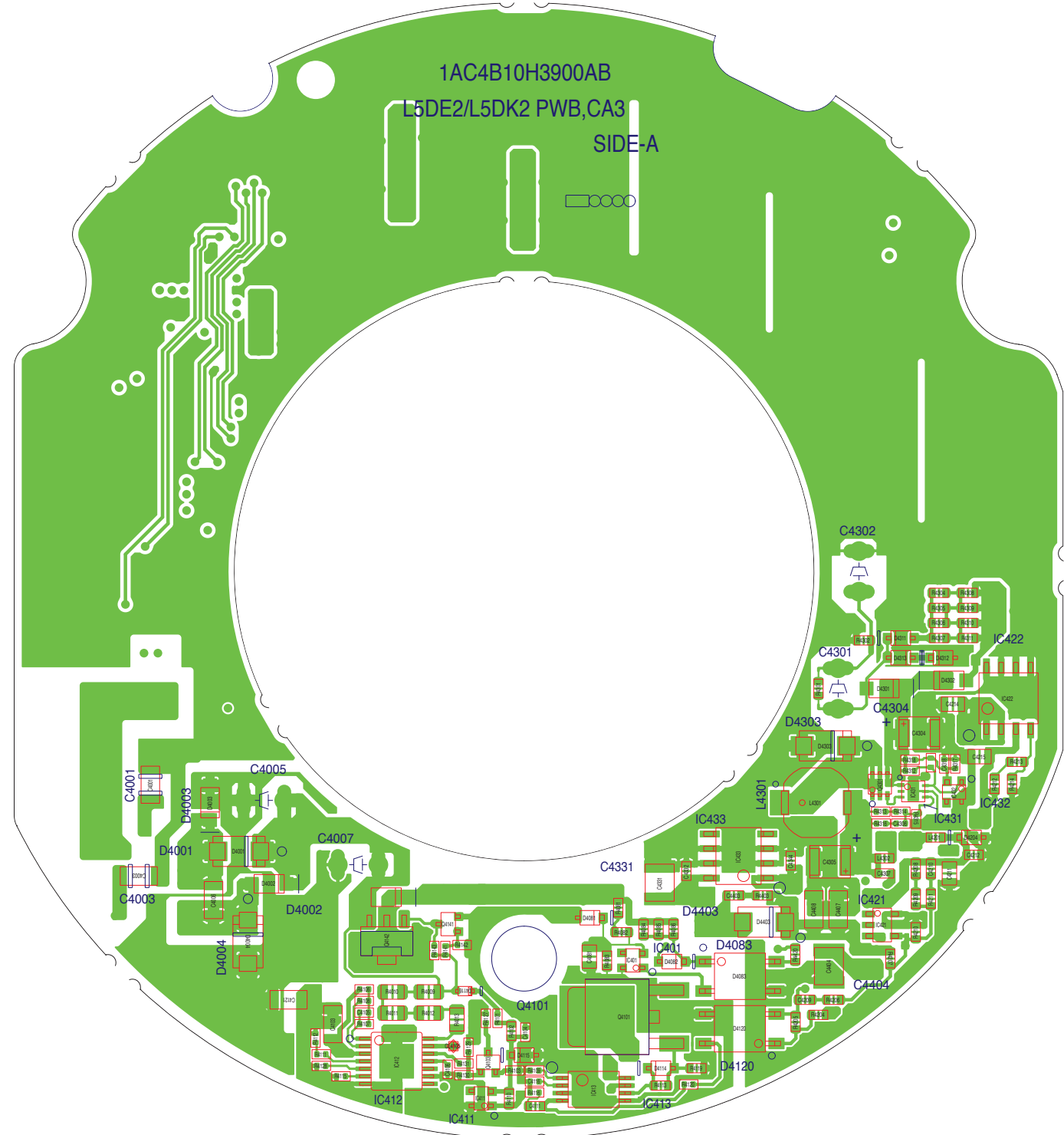


CA-3 P.W.B. (SIDE A)

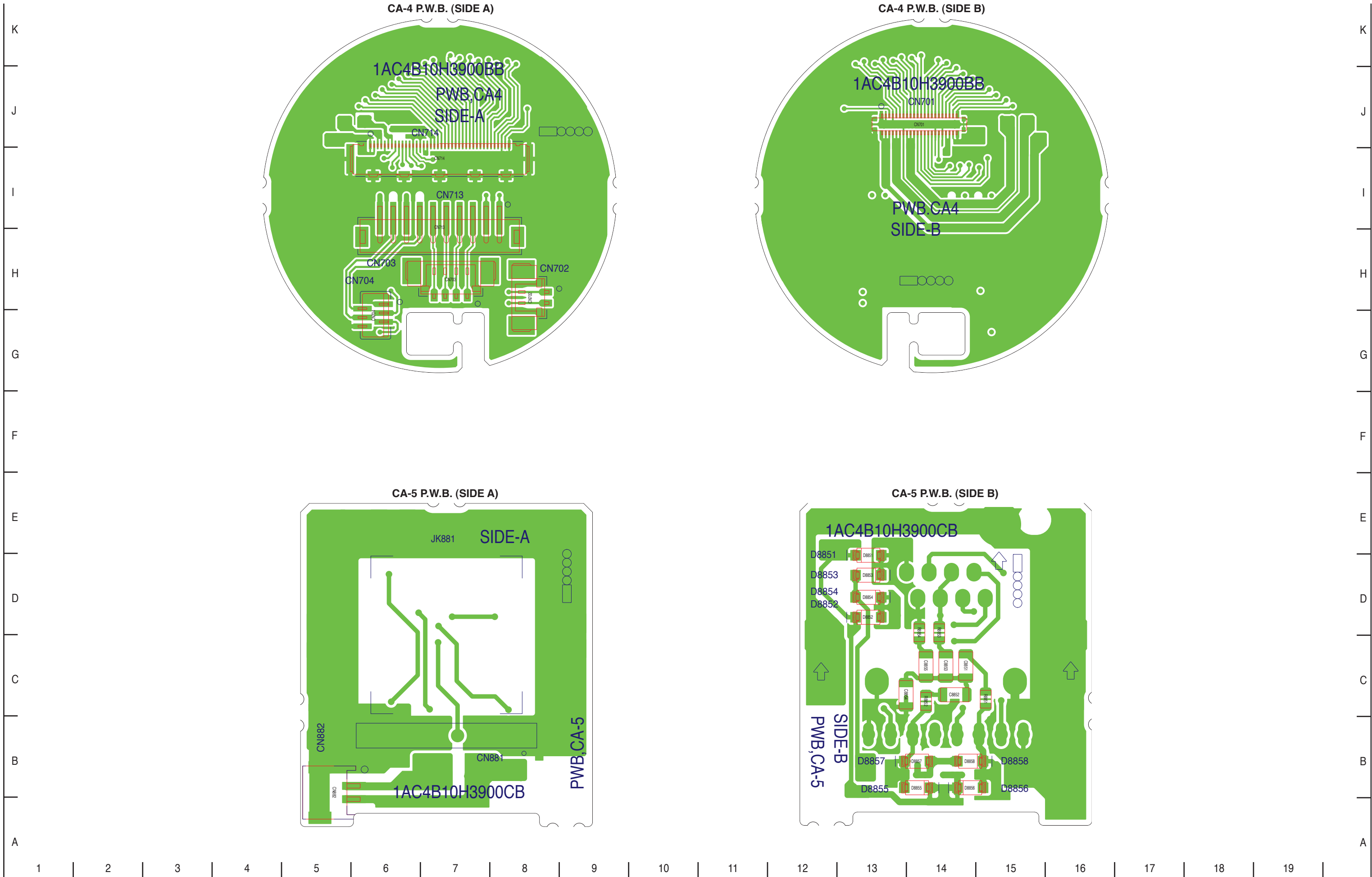
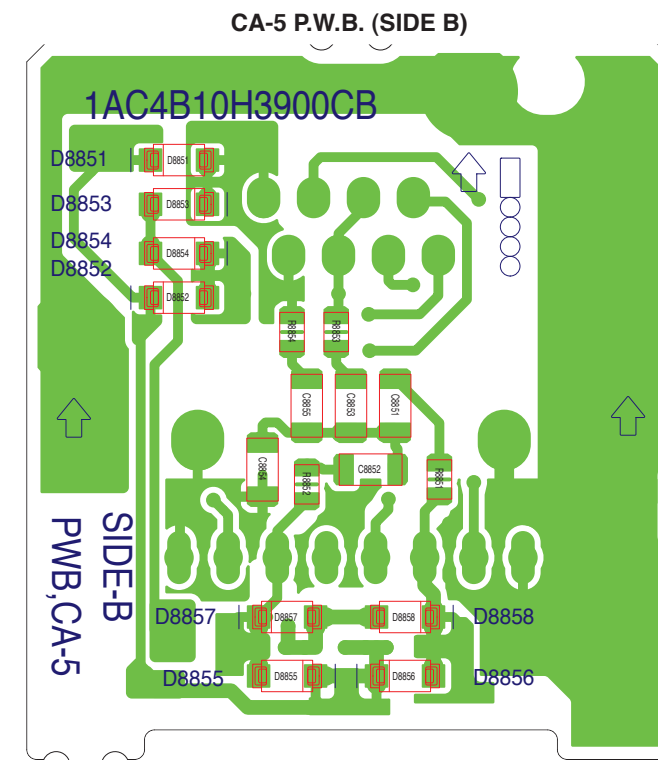
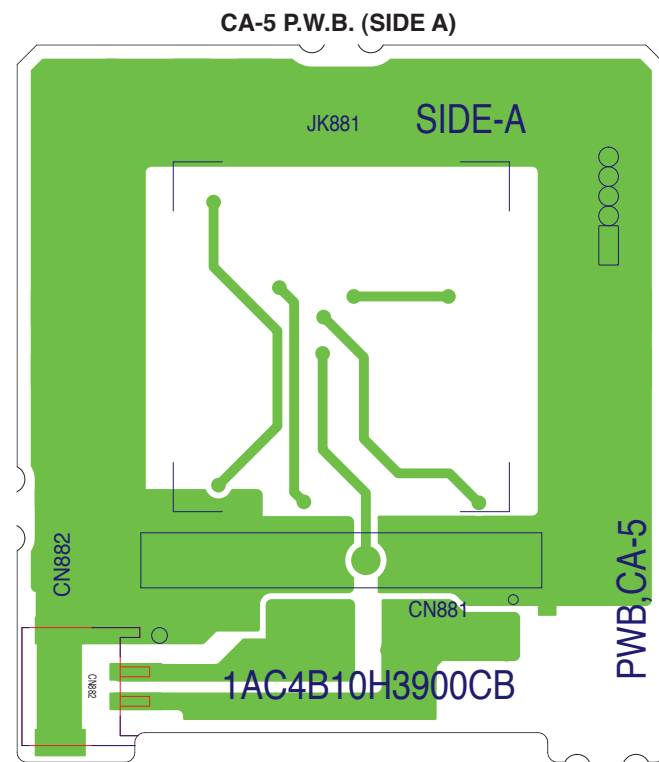
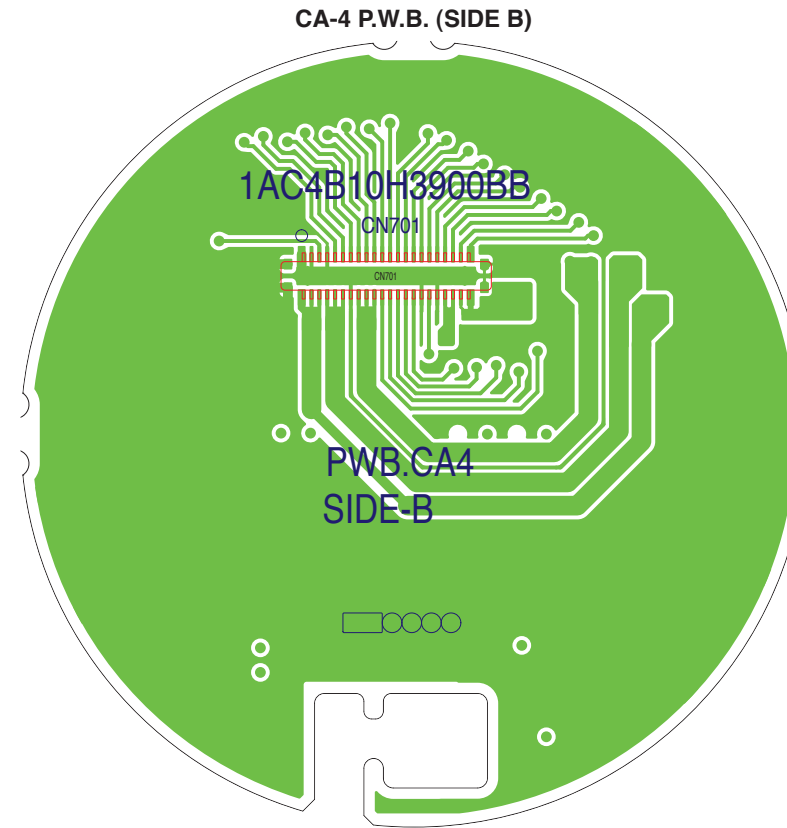
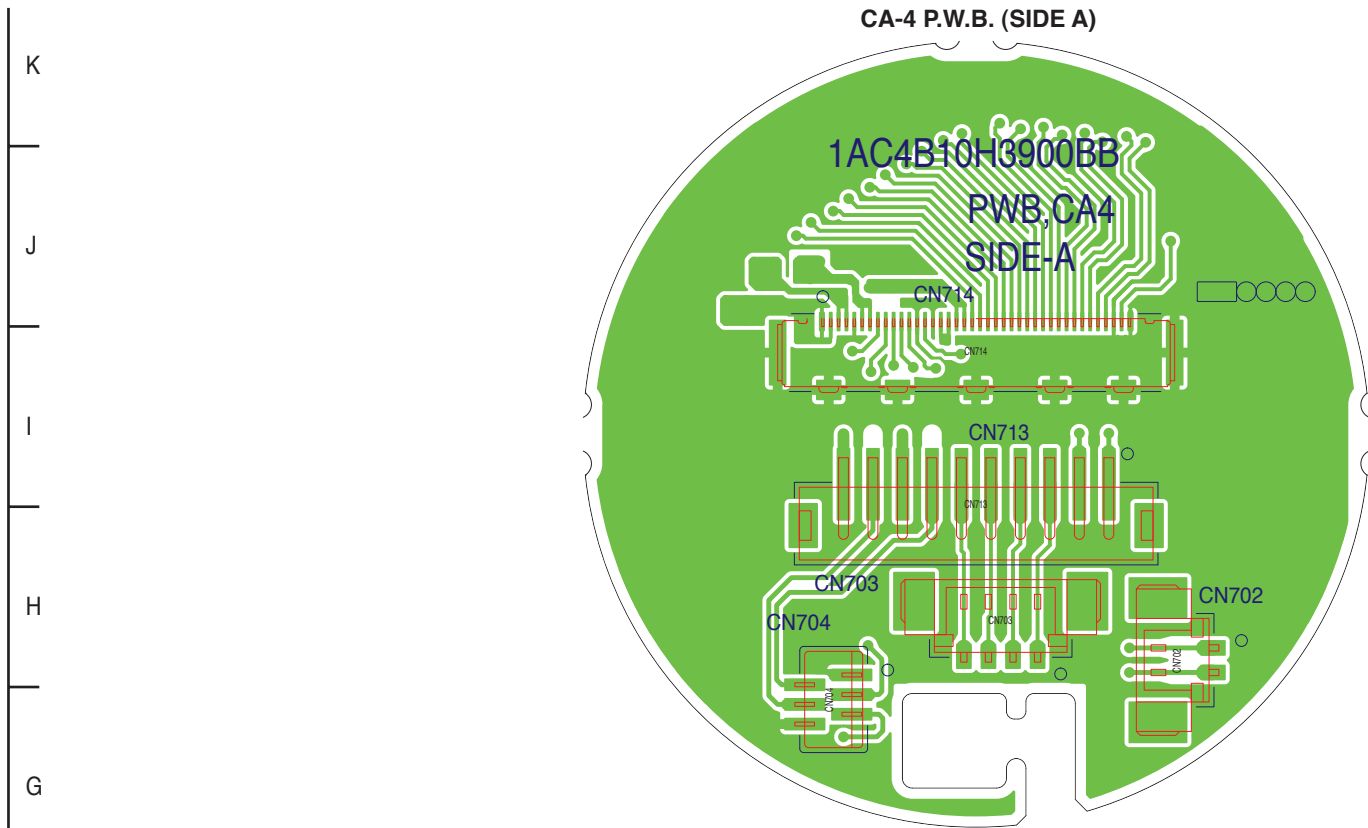
CA-3 P.W.B. (SIDE B)

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SANYO Electric Co., Ltd.
Osaka, Japan