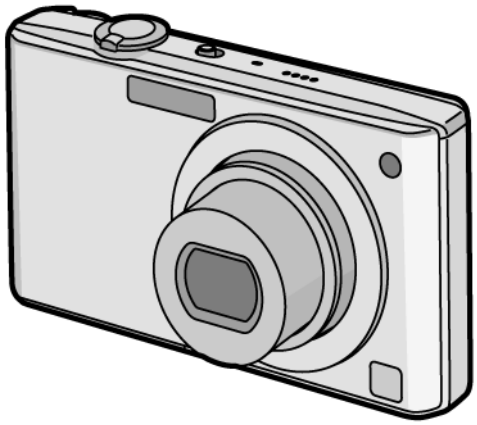
ORDER NO. DSC0802016CE
B26

Service Manual

Digital Camera

LUMIX



Model No. **DMC-FX35P**
DMC-FX35PC
DMC-FX35PL
DMC-FX35E
DMC-FX35EB
DMC-FX35EE
DMC-FX35EF
DMC-FX35EG
DMC-FX35SG
DMC-FX36GC
DMC-FX36GD
DMC-FX36GK
DMC-FX36GN
DMC-FX36GT
DMC-FX36GJ

Vol. 2

Colour
(S).....Silver Type
(K).....Black Type
(P).....Pink Type (only PL/SG/GC/GK/GT/GJ)
(A).....Blue Type (only P/PC/E/EE/EF/EG)
(W).....White Type (except P/PC/PL/EB/GD/GN)
(N).....Gold Type (only E/EE/EG/SG/GC/GK/GJ)

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

TABLE OF CONTENTS

1 Safety Precaution

1.1. General Guidelines

1. **IMPORTANT SAFETY NOTICE**
   There are special components used in this equipment which are important for safety. These parts are marked by

   ⚠ in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-RADIATION, shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.
2. An Isolation Transformer should always be used during the servicing of AC Adaptor whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks. It will also protect AC Adaptor from being damaged by accidental shorting that may occur during servicing.
3. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
4. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
5. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.2. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1 MΩ and 5.2 MΩ. When the exposed metal does not have a return path to the chassis, the reading must be infinity.

1.3. Leakage Current Hot Check (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5 kΩ, 10 W resistor, in parallel with a 0.15 μF capacitor, between each exposed metallic part on the set and a good earth ground, as shown in Figure 1.
3. Use an AC voltmeter, with 1 kΩ/V or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 V RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 mA. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

Hot-Check Circuit

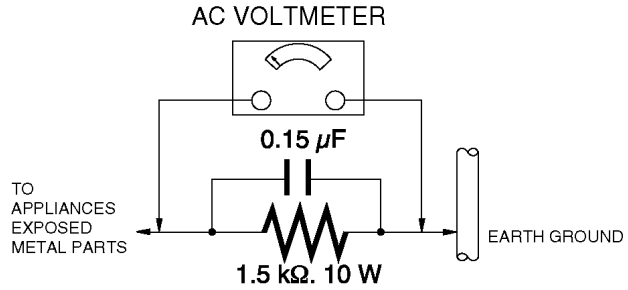


Figure. 1

1.4. How to Discharge the Capacitor on Flash Top PCB

CAUTION:

1. **Be sure to discharge the capacitor on FLASH TOP PCB.**
2. **Be careful of the high voltage circuit on FLASH TOP PCB when servicing.**

[Discharging Procedure]

1. Refer to the disassemble procedure and Remove the necessary parts/unit.
2. Put the insulation tube onto the lead part of Resistor (ERG5SJ102:1kΩ /5W).
   (an equivalent type of resistor may be used.)
3. Put the resistor between both terminals of capacitor on FLASH TOP PCB for approx. 5 seconds.
4. After discharging confirm that the capacitor voltage is lower than 10V using a voltmeter.

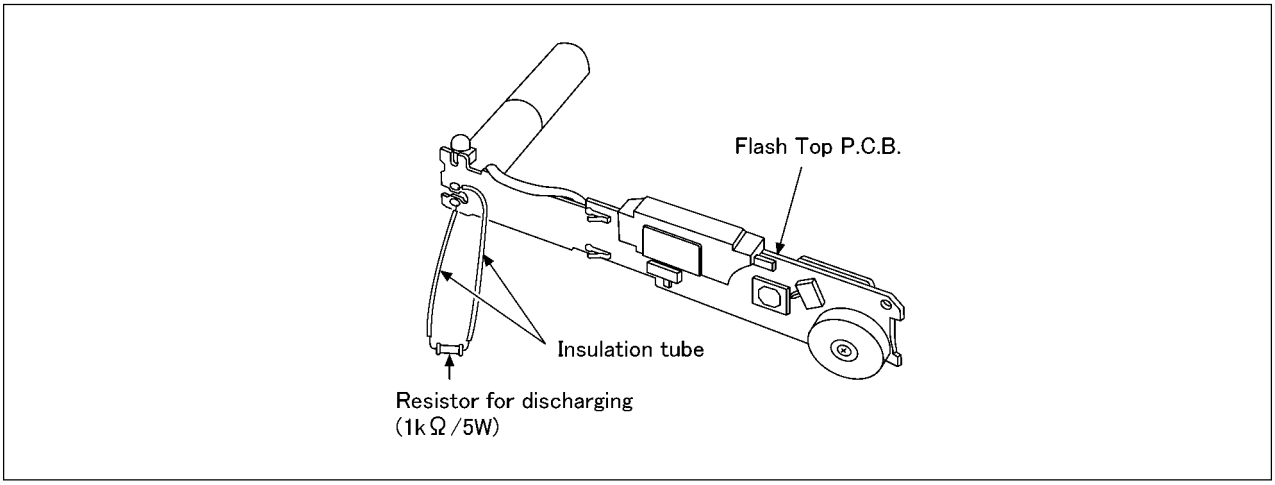


Fig. F1

2 Warning

2.1. Prevention of Electrostatic Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices.

> Examples of typical ES devices are CCD image sensor, IC (integrated circuits) and some field-effect transistors and semiconductor “chip” components.

The following techniques should be used to help reduce the incidence of component damage caused by electrostatic discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION :
   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

2.2. How to Recycle the Lithium Ion Battery (U.S. Only)

ENGLISH

A lithium ion battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battery.

FRANÇAIS

L’appareil que vous vous êtes procuré est alimenté par une batterie au lithium-ion recyclable. Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8-BATTERY.

2.3. Caution for AC Cord (For EB/GC/SG)

2.3.1. Information for Your Safety

IMPORTANT

Your attention is drawn to the fact that recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

WARNING

To reduce the risk of fire or shock hazard, do not expose this equipment to rain or moisture.

CAUTION

To reduce the risk of fire or shock hazard and annoying interference, use the recommended accessories only.

FOR YOUR SAFETY

DO NOT REMOVE THE OUTER COVER

To prevent electric shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

2.3.2. Caution for AC Mains Lead

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three-pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amperes and it is approved by ASTA or BSI to BS1362
Check for the ASRA mark or the BSI mark on the body of the fuse.

ASTA mark	BSI mark

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.

If the fitted moulded plug is unsuitable for the socket outlet in your home then the fuse should be removed and the plug cut off and disposed of safety.
There is a danger of severe electrical shock if the cut off plug is inserted into any 13-ampere socket.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt, please consult a qualified electrician.

2.3.2.1. Important

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

Blue	Neutral
Brown	Live

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

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

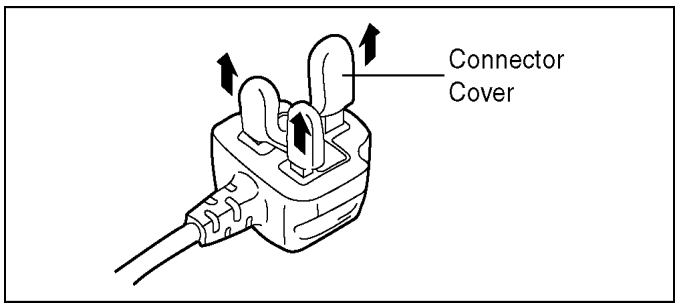
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol.

Earth Symbol	⏚

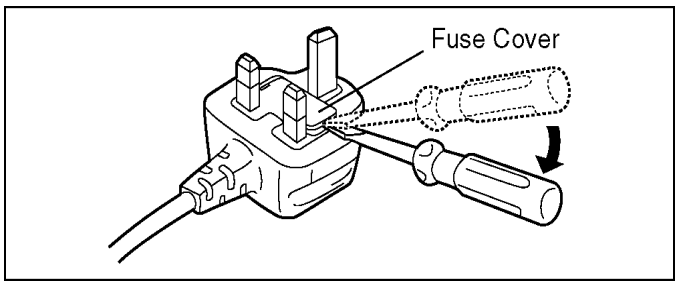
2.3.2.2. Before Use

Remove the Connector Cover as follows.

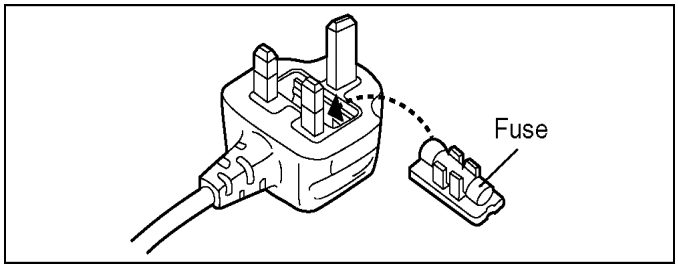


2.3.2.3. How to Replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



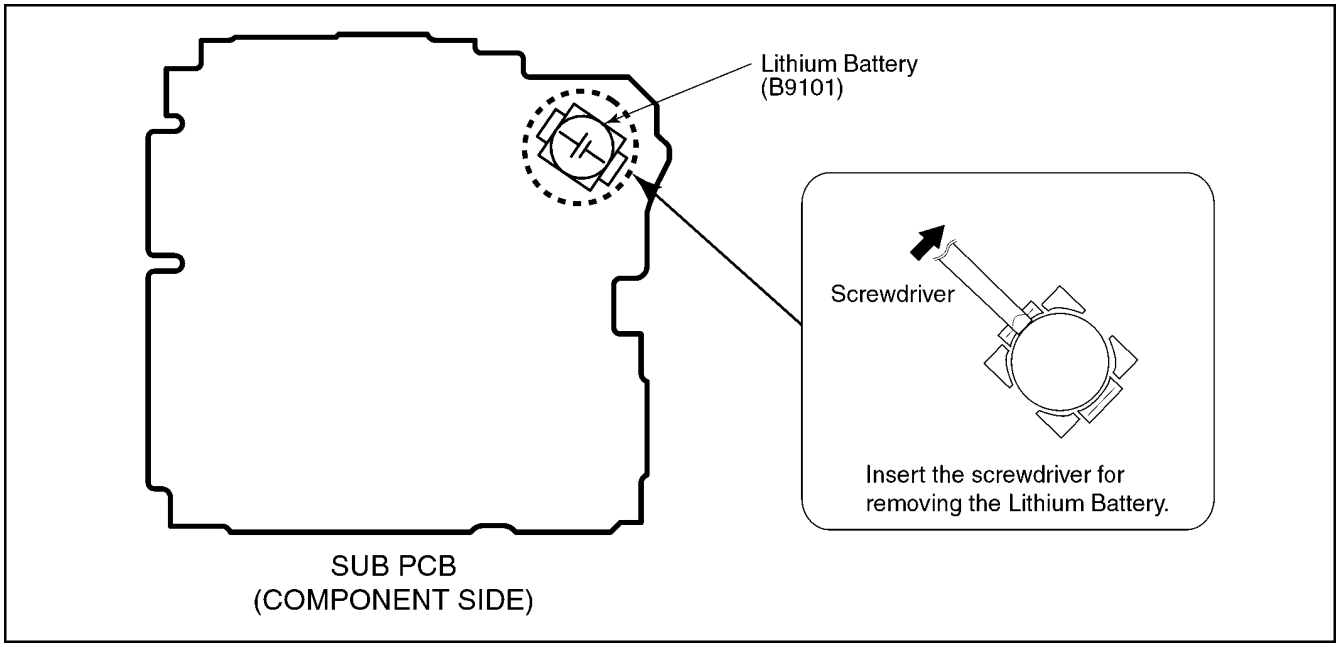
2. Replace the fuse and attach the Fuse cover.



2.4. How to Replace the Lithium Battery

2.4.1. Replacement Procedure

1. Remove the SUB PCB. (Refer to Disassembly Procedures.)
2. Remove the Lithium battery (Ref. No. “B9101” at component side of SUB PCB) and then replace it into new one.



NOTE:

This Lithium battery is a critical component.
(Type No.: ML421S/ZT **Manufactured by Matsushita Battery Industrial Co.,Ltd.**)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in requirement designed specifically for its use.
Replacement batteries must be of same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

(For English)

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacturer’s instructions.

(For German)

ACHTUNG

Explosionsgefahr bei falschem Anbringen der Batterie. Ersetzen Sie nur mit einem äquivalentem vom Hersteller empfohlenem Typ.
Behandeln Sie gebrauchte Batterien nach den Anweisungen des Herstellers.

(For French)

MISE EN GARDE

Une batterie de remplacement inappropriée peut exploser. Ne remplacez qu’avec une batterie identique ou d’un type recommandé par le fabricant. L’élimination des batteries usées doit être faite conformément aux instructions du manufacturier.

NOTE:

Above caution is applicable for a battery pack which is for DMC-FX35/FX36 series, as well.

3 Service Navigation

3.1. Introduction

This service manual contains technical information, which allow service personnel's to understand and service this model.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, the information will be followed by service manual to be controlled with original service manual.

3.2. General Description About Lead Free Solder (PbF)

The lead free solder has been used in the mounting process of all electrical components on the printed circuit boards used for this equipment in considering the globally environmental conservation.
The normal solder is the alloy of tin (Sn) and lead (Pb). On the other hand, the lead free solder is the alloy mainly consists of tin (Sn), silver (Ag) and Copper (Cu), and the melting point of the lead free solder is higher approx.30°C (86°F) more than that of the normal solder.

Distinction of PCB Lead Free Solder being used

The letter of "PbF" is printed either foil side or components side on the PCB using the lead free solder.(See right figure)	PbF

Service caution for repair work using Lead Free Solder (PbF)

- The lead free solder has to be used when repairing the equipment for which the lead free solder is used. (Definition: The letter of "PbF" is printed on the PCB using the lead free solder.)
- To put lead free solder, it should be well molten and mixed with the original lead free solder.
- Remove the remaining lead free solder on the PCB cleanly for soldering of the new IC.
- Since the melting point of the lead free solder is higher than that of the normal lead solder, it takes the longer time to melt the lead free solder.
- Use the soldering iron (more than 70W) equipped with the temperature control after setting the temperature at 350±30°C (662±86°F).

Recommended Lead Free Solder (Service Parts Route.)

- The following 3 types of lead free solder are available through the service parts route.
  RFKZ03D01K----------(0.3mm 100g Reel)
  RFKZ06D01K----------(0.6mm 100g Reel)
  RFKZ10D01K----------(1.0mm 100g Reel)

Note

* Ingredient: tin (Sn) 96.5%, silver (Ag) 3.0%, Copper (Cu) 0.5%, Cobalt (Co) / Germanium (Ge) 0.1 to 0.3%

3.3. How to Define the Model Suffix (NTSC or PAL model)

There are eight kinds of DMC-FX35/FX36, regardless of the colours.

- a) DMC-FX35 (Japan domestic model)
- b) DMC-FX35P/PC
- c) DMC-FX35E/EB/EF/EG
- d) DMC-FX36GN
- e) DMC-FX35EE
- f) DMC-FX36GD
- g) DMC-FX36GT/GK
- h) DMC-FX35PL/SG, FX36GC/GJ

What is the difference is that the “INITIAL SETTINGS” data which is stored in Flash ROM mounted on Main PCB.

3.3.1. Defining methods:

To define the model suffix to be serviced, refer to the nameplate which is putted on the bottom side of the Unit.

a) DMC-FX35 (Japan domestic model)

The nameplate for this model show the following Safety registration mark.

b) DMC-FX35P/PC

The nameplate for these models show the following Safety registration mark.

c) DMC-FX35E/EB/EF/EG

The nameplate for these models show the following Safety registration mark.

d) DMC-FX36GN

The nameplate for this model show the following Safety registration mark.

e) DMC-FX35EE

The nameplate for this model show the following Safety registration mark.

f) DMC-FX36GD

The nameplate for this model show the following Safety registration mark.

g) DMC-FX36GT/GK

The nameplate for these models show full model number. (with suffix)

h) DMC-FX35PL/SG, FX36GC/GJ

The nameplate for these models do not show any above Safety registration marks.

NOTE:

After replacing the MAIN PCB, be sure to achieve adjustment.

The adjustment instruction is available at “software download” on the “Support Information from NWBG/VDBG-PAVC” web-site in “TSN system”, together with Maintenance software.

3.3.2. INITIAL SETTINGS:

When you replace the Main PCB, be sure to perform the initial settings after achieving the adjustment by ordering the following procedure in accordance with model suffix of the unit.

1. IMPORTANT NOTICE:

Before proceeding Initial settings, be sure to read the following CAUTIONS.

CAUTION 1 (Initial Settings)

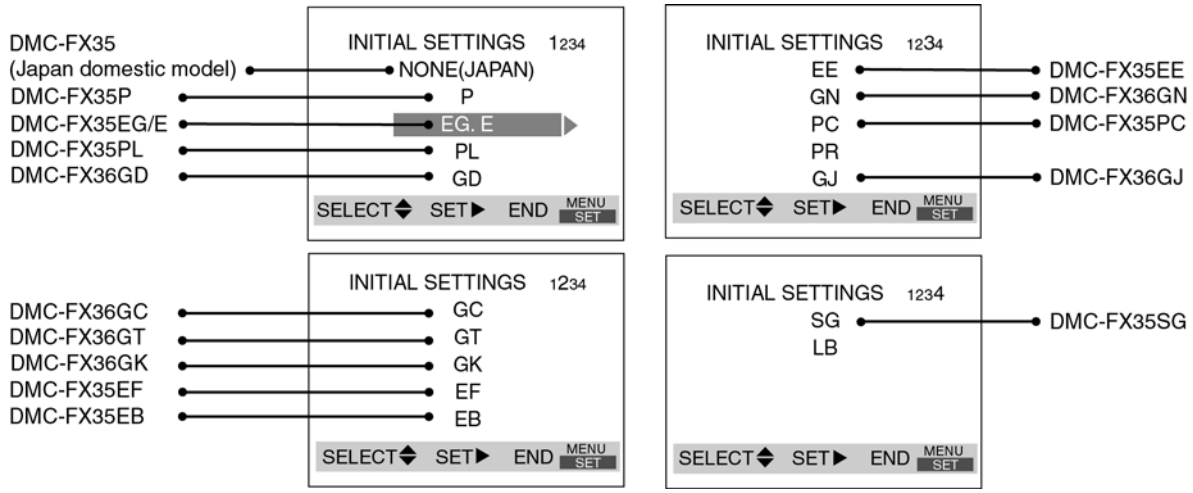
DO NOT select "NONE(JAPAN)" or "P"(North America) if need to select "EG/E/PL/GC/GD/GT/GK/GJ/EF/EB/EE/GN/SG and PC".
Otherwise, once "NONE(JAPAN)" or "P"(North America) are selected, "EG/E/PL/GC/GD/GT/GK/GJ/EF/EB/EE/GN/SG and PC" will not displayed, thus, RE-Settings (changing area) can not be made.

CAUTION 2 (Picture back up from "Built-in Memory")

This unit employs "Built-in Memory" for picture image data recording.(Approx. 50MB)
Be sure to make picture data back up (i.e., Copying to SD memory card), before proceeding "INITIAL SETTINGS".
Once "INITIAL SETTINGS" has been carried out, all image data stored at "Built-in Memory" is erased.

2. PROCEDURES:

- Precautions: Proceed the picture back up from the unit. (Refer to above "CAUTION 2")
- Preparation. Set the Mode dial to "Normal Picture Mode" (Red camera mark).
- **Step 1. The temporary cancellation of initial setting:**
  Set the [REC]/[PLAYBACK] selector switch to “[REC] (Red camera mark)”.
  While keep pressing [DISPLAY] and “[UP] of Cursor buttons” simultaneously, turn the Power on.
- **Step 2. The cancellation of initial setting:**
  Set the [REC]/[PLAYBACK] selector switch to “[PALYBACK]”.
  Press [DISPLAY] and “[UP] of Cursor buttons” simultaneously, then turn the Power off.
- **Step 3. Turn the Power on:**
  Set the [REC]/[PLAYBACK] selector switch to “[REC] (Red camera mark)”, and then turn the Power on.
- **Step 4. Display the INITIAL SETTING:**
  While keep pressing [MENU/SET] and “[RIGHT] of Cursor buttons” simultaneously, turn the Power off.



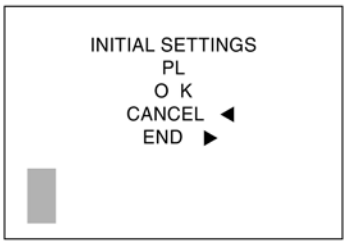
• **Step 5. Set the INITIAL SETTING: (Refer to “CAUTION 1”)**

[Caution for befor settings]

Once "NONE(JAPAN)" (Area for Japan) or "P" (Area for Noth America) is selected with "INITIAL SETTINGS", other areas will not displayed even if "INITIAL SETTINGS" menu is displayed again, thus, the area can not be changed.

Select the area carefully.

Select the area with pressing “[UP] / [DOWN] of Cursor buttons”, and then press the “[RIGHT] of Cursor buttons”.



The only set area is displayed, and then press the “[RIGHT] of Cursor buttons” after confirmation.

(The unit is powered off automatically.)

Confirm the display of “PLEASE SET THE CLOCK” in English when the unit is turned on again.

• **Step 6. CONFIRMATION:**

The display shows “PLEASE SET THE CLOCK” when turn the Power on again.

When the unit is connected to PC with USB cable, it is detected as removable media.

(When the “GT” or “GK” model suffix is selected, the display shows “PLEASE SET THE CLOCK” in Chinese.)

1) As for your reference Default setting condition is given in the following table.

• **Default setting (After “INITIAL SETTINGS”)**

	MODEL	VIDEO OUTPUT	LANGUAGE	DATE	REMARKS
a)	DMC-FX35 (Japan domestic model)	NTSC	Japanese	Year/Month/Date	
b)	DMC-FX35P/PC/PL	NTSC	English	Month/Date/Year	
c)	DMC-FX35E/EB/EG/SG, FX36GC/GN	PAL	English	Date/Month/Year	
d)	DMC-FX35EF	PAL	French	Date/Month/Year	
e)	DMC-FX35EE	PAL	Russian	Date/Month/Year	
f)	DMC-FX36GK	PAL	Chinese (simplified)	Year/Month/Date	
g)	DMC-FX36GT	NTSC	Chinese (traditional)	Year/Month/Date	
h)	DMC-FX36GD	NTSC	Korean	Year/Month/Date	
i)	DMC-FX36GJ	PAL	Thai	Date/Month/Year	

4 Specifications

Digital Camera: Information for your safety

Power Source:	DC 5.1 V
Power Consumption:	1.5 W (When recording) 0.8 W (When playing back)

Camera effective pixels: 10,100,000 pixels
Image sensor: 1/2.33" CCD, total pixel number 10,700,000 pixels, Primary color filter
Lens: Optical 4×zoom, f=4.4 mm to 17.6 mm (35 mm film camera equivalent: 25 mm to 100 mm)/F2.8 to F5.6
Digital zoom: Max. 4×
Extended optical zoom: Max. 7.1×
Focus: Normal/Macro/Face detection/9-area-focusing/3-area-focusing (High speed)/1-area-focusing (High speed)/1-area-focusing/Spot-focusing
Focus range: Normal: 50 cm (1.64 feet) to ∞
Macro/Intelligent auto/Clipboard mode:
5 cm (0.17 feet) (Wide)/50 cm (1.64 feet) (Tele) to ∞
Scene mode: There may be differences in the above settings.
Shutter system: Electronic shutter+Mechanical shutter
Motion picture recording: When the aspect ratio setting is [4:3]
640×480 pixels (30 frames/second, 10 frames/second, only when using a Card)
320×240 pixels (30 frames/second, 10 frame/second)
When the aspect ratio setting is [16:9]
848×480 pixels (30 frames/second, 10 frames/second, only when using a Card)
1280×720 pixels (30 frames/second, 15 frames/second, only when using a Card)
With audio
Burst recording
Burst speed: 2.5 pictures/second (Normal), Approx. 2 pictures/second (Unlimited)
Number of recordable pictures: Max. 5 pictures (Standard), max. 3 pictures (Fine), Depends on the remaining capacity of the built-in memory or the card (Unlimited).
(Performance in burst recording is only with SD Memory Card/SDHC Memory Card. MultiMediaCard performance will be less.)
Hi-speed burst
Burst speed: Approx. 6 pictures/second
(2M (4:3), 2.5M (3:2) or 2M (16:9) is selected as the picture size.)
Number of recordable pictures: When using the built-in memory:
Approx. 20 pictures (immediately after formatting)
When using a Card: Max. 100 pictures (differs depending on the type of Card and the recording conditions)
ISO sensitivity: AUTO/100/200/400/800/1600
[HIGH SENS.] mode: 1600 to 6400
Shutter speed: 8 seconds to 1/2000th of a second
[STARRY SKY] mode: 15 seconds, 30 seconds, 60 seconds
White balance: Auto white balance/Daylight/Cloudy/Shade/Halogen/White set
Exposure (AE): Program AE
Exposure compensation (1/3 EV Step, −2 EV to +2 EV)
Metering mode: Multiple
LCD monitor: 2.5″ TFT LCD
(Approx. 230,000 dots) (field of view ratio about 100%)
Flash: Flash range: [ISO AUTO]
Approx. 60 cm (1.97 feet) to 6.0 m (19.7 feet) (Wide)
AUTO, AUTO/Red-eye reduction, Forced flash ON (Forced ON/Red-eye reduction), Slow sync./Red-eye reduction, Forced flash OFF

Microphone: Monaural
Speaker: Monaural
Recording media: Built-in Memory (Approx. 50 MB)/SD Memory Card/SDHC Memory Card/MultiMediaCard (Still pictures only)
Picture size
Still picture: When the aspect ratio setting is [4:3]
3648×2736 pixels, 3072×2304 pixels, 2560×1920 pixels, 2048×1536 pixels, 1600×1200 pixels, 640×480 pixels
When the aspect ratio setting is [3:2]
3648×2432 pixels, 3072×2048 pixels, 2560×1712 pixels, 2048×1360 pixels
When the aspect ratio setting is [16:9]
3648×2056 pixels, 3072×1728 pixels, 2560×1440 pixels, 1920×1080 pixels
Motion pictures: When the aspect ratio setting is [4:3]
640×480 pixels (Only when using a Card), 320×240 pixels
When the aspect ratio setting is [16:9]
1280×720 pixels (Only when using a Card)
848×480 pixels (Only when using a Card)
Quality: Fine/Standard
Recording file format
Still Picture: JPEG (based on "Design rule for Camera File system", based on "Exif 2.21" standard)/DPOF corresponding
Pictures with audio: JPEG (based on "Design rule for Camera File system", based on "Exif 2.21" standard)+"QuickTime" (pictures with audio)
Motion pictures: "QuickTime Motion JPEG" (motion pictures with audio)
Interface
Digital: "USB 2.0" (High Speed)
Analog video/audio: NTSC/PAL Composite (Switched by menu), Component
Audio line output (monaural)
Terminal
[COMPONENT OUT]: Dedicated jack (10 pin)
[AV OUT/DIGITAL]: Dedicated jack (8 pin)
[DC IN]: Dedicated jack (2 pin)
Dimensions: Approx. 94.7 mm (W)×51.9 mm (H)×22.0 mm (D)
[3 3/4" (W)×2 1/16"(H)×7/8" (D)] (excluding the projecting parts)
Mass (weight): Approx. 125 g/4.41 oz (excluding card and battery)
Approx. 146 g/5.15 oz (with card and battery)
Operating temperature: 0 °C to 40 °C (32 °F to 104 °F)
Operating humidity: 10% to 80%

Battery Charger
(Panasonic DE-A39B): Information for your safety

Input:	110 V to 240 V~50/60 Hz, 0.2 A
Output:	CHARGE 4.2 V⎓0.8 A

Equipment mobility: Movable

Battery Pack (lithium-ion)
(Panasonic DMW-BCE10PP): Information for your safety

Voltage/capacity:	3.6 V, 1000 mAh

5 Service Fixture & Tools

5.1. When Replacing the Main PCB

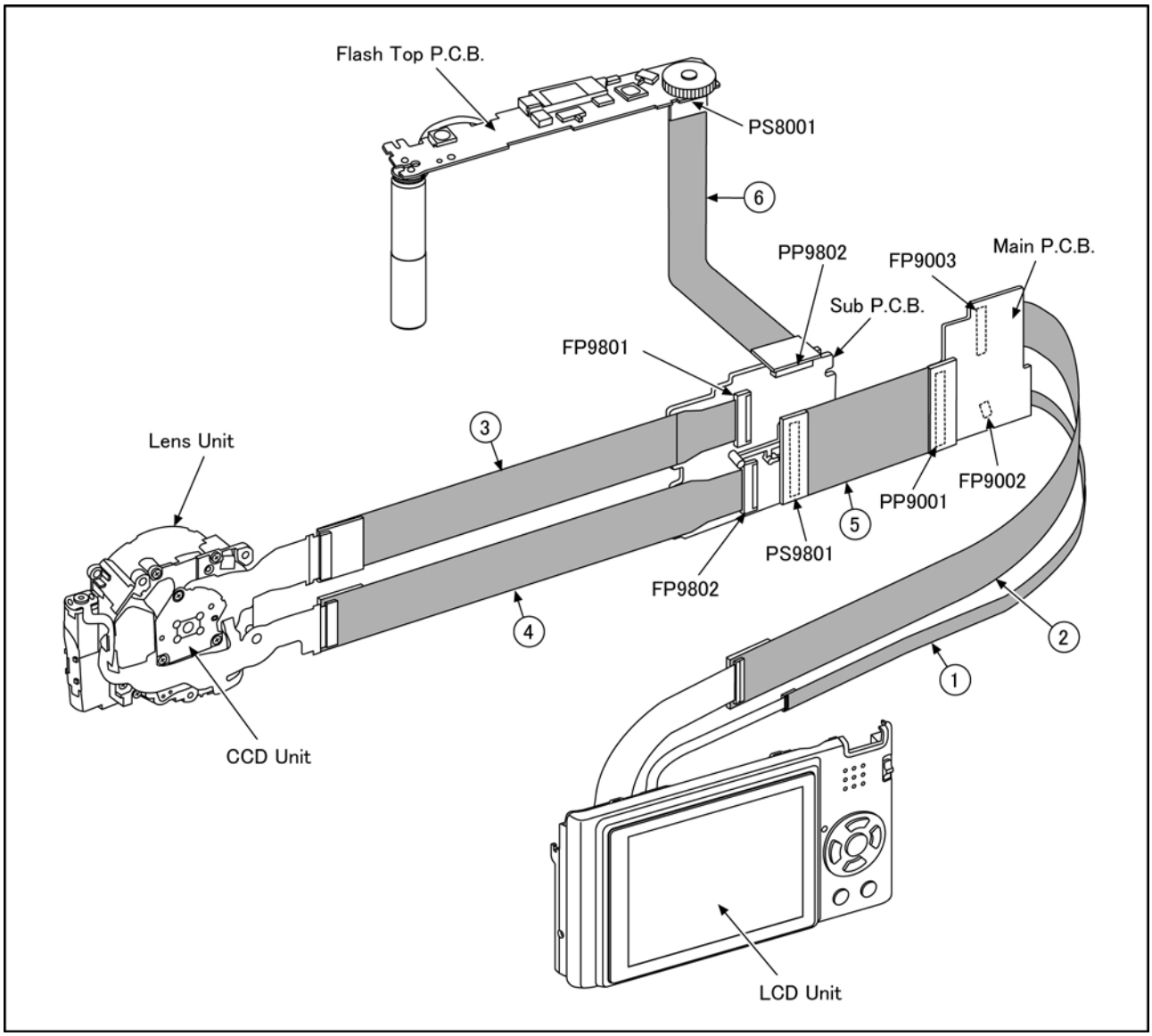
After replacing the MAIN PCB, be sure to achieve adjustment.
The adjustment instruction is available at “software download” on the “Support Information from NWBG/VDBG-PAVC” web-site in “TSN system”, together with Maintenance software.

5.2. Service Position

This Service Position is used for checking and replacing parts. Use the following Extension cables for servicing.

Table S1 Extension Cable List

No.	Parts No.	Connection	Form
1	VFK1974	FP9002 (MAIN) - LCD UNIT	4PIN 0.5 FFC
2	RFKZ0354	FP9003 (MAIN) - LCD UNIT	37PIN 0.3 FFC
3	RFKZ0416	FP9801 (SUB) - CCD UNIT	41PIN 0.3 FFC
4	RFKZ0477	FP9802 (SUB) - LENS UNIT	45PIN 0.3 FFC
5	RFKZ0445	PP9001 (MAIN) - PS9801 (SUB)	100PIN B to B
6	RFKZ0418	PP9802 (SUB) - PS8001 (FLASH TOP)	30PIN B to B



CAUTION-1. (When servicing FLASH TOP PCB)

1. Be sure to discharge the capacitor on FLASH TOP PCB.
   Refer to “HOW TO DISCHARGE THE CAPACITOR ON FLASH TOP PCB”.
   The capacitor voltage is not lowered soon even if the AC Cord is unplugged or the battery is removed.
2. Be careful of the high voltage circuit on FLASH TOP PCB.
3. DO NOT allow other parts to touch the high voltage circuit on FLASH TOP PCB.

6 Maintenace

6.1. Cleaning Lens and LCD Panel

Do not touch the surface of lens and LCD Panel with your hand.
When cleaning the lens, use air-Blower to blow off the dust.
When cleaning the LCD Panel, dampen the lens cleaning paper with lens cleaner, and the gently wipe the their surface.
Note:

The Lens Cleaning KIT ; VFK1900BK (Only supplied as 10 set/Box) is available as Service Aid.

DSC0802016CE

Service Manual

Diagrams and Replacement Parts List

Digital Camera

Model No.

DMC-FX35P
DMC-FX35PC
DMC-FX35PL
DMC-FX35E
DMC-FX35EB
DMC-FX35EE
DMC-FX35EF
DMC-FX35EG
DMC-FX35SG
DMC-FX36GC
DMC-FX36GD
DMC-FX36GK
DMC-FX36GN
DMC-FX36GT
DMC-FX36GJ

Vol. 2
Colour
(S).....Silver Type
(K).....Black Type
(P).....Pink Type (only PL/SG/GC/GK/GT/GJ)
(A).....Blue Type (only P/PC/E/EE/EF/EG)
(W).....White Type (except P/PC/PL/EB/GD/GN)
(N).....Gold Type (only E/EE/EG/SG/GC/GK/GJ)

Table of contents

S1. About Indication of The Schematic Diagram

S1.1. Important Safety Notice

COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS USE ONLY THE SAME TYPE.

1.Although reference number of the parts is indicated on the P.C.B. drawing and/or schematic diagrams, it is NOT mounted on the P.C.B. when it is displayed with "$" mark.

2.It is only the "Test Round" and no terminal (Pin) is available on the P.C.B. when the TP (Test Point) indicated as "●" mark.

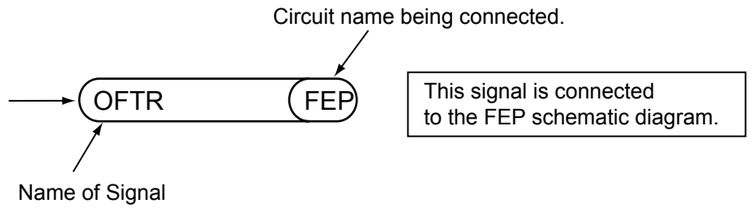
3.The voltage being indicated on the schematic diagram is measured in "Standard-Playback" mode when there is no specify mode is mentioned.

4.Although the voltage and waveform available on here is measured with standard frame, it may be differ from actual measurement due to modification of circuit and so on.

5.The voltage being indicated here may be include observational-error (deviation) due to internal-resistance and/or reactance of equipment. Therefore, handle the value indicated on here as reference.

6.Use the parts number indicated on the Replacement Parts List .

7.Indication on Schematic diagrams:



S2. Voltage Chart

Note) Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard.
Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

S2.1. Main P.C.B.

REF No.	PIN No.	POWER ON
IC2102	1	0
IC2102	2	0
IC2102	3	0
IC2102	4	-7.3
IC2102	5	0
IC2102	6	0
IC2102	7	0
IC2102	8	0
IC2102	9	3.7
IC2102	10	0
IC2102	11	0
IC2102	12	3.7
IC2102	13	0
IC2102	14	0
IC2102	15	0
IC2102	16	-7.3
QR7131	1	0
QR7131	2	0
QR7131	3	2.6
QR7131	4	0
QR7131	5	0
QR7131	6	2.5
QR6001	E	0
QR6001	C	3.2
QR6001	B	0
QR9501	E	0
QR9501	C	1.5
QR9501	B	0

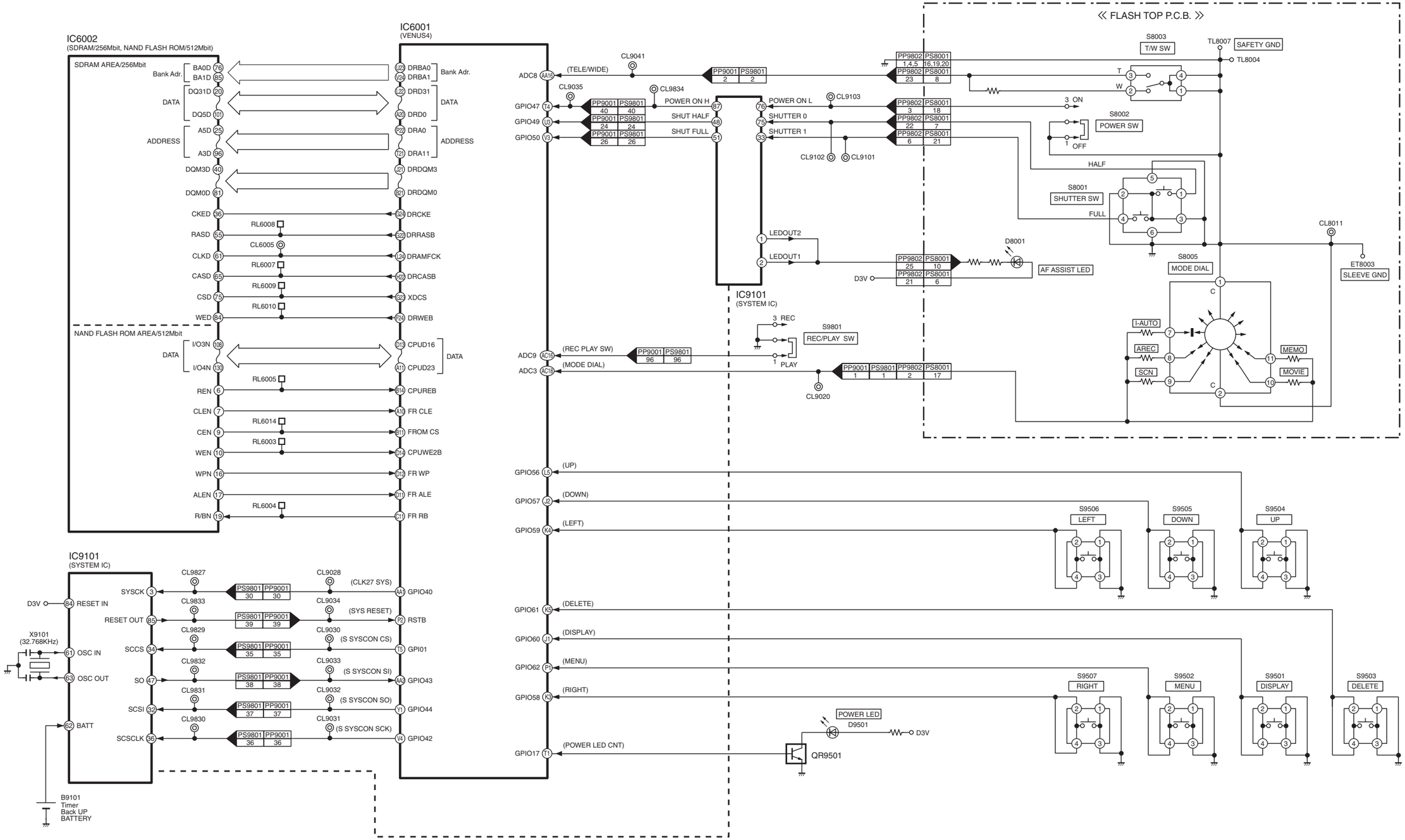
S2.2. Sub P.C.B.

REF No.	PIN No.	POWER ON
IC1001	1	2.7
IC1001	2	4.6
IC1001	3	4
IC1001	4	4.6
IC1001	5	2.2
IC1001	6	0
IC1001	7	1.6
IC1001	8	4.6
IC1001	9	4.6
IC1001	10	4.6
IC1001	11	6.7
IC1001	12	3
IC1001	13	3.5
IC1001	14	0
IC1001	15	3.4
IC1001	16	4.6
IC1001	17	0
IC1001	18	3.7
IC1001	19	4.2
IC1001	20	1
IC1001	21	1
IC1001	22	1
IC1001	23	0.8
IC1001	24	0
IC1001	25	4.3
IC1001	26	0
IC1001	27	1.6
IC1001	28	0
IC1001	29	4.6
IC1001	30	5.8
IC1001	31	6.7
IC1001	32	3.1
IC1001	33	1.6
IC1001	34	0
IC1001	35	0.3
IC1001	36	0.2
IC1001	37	0.3
IC1001	38	1.9
IC1001	39	4.6
IC1001	40	4.6
IC1001	41	4.6
IC1001	42	4.6
IC1001	43	0
IC1001	44	4.6
IC1210	1	3.4
IC1210	2	0
IC1210	3	2.8
IC1210	4	3.8
IC3002	1	3.6
IC3002	2	0
IC3002	3	3.6
IC3002	4	4.2
Q1040	1	0
Q1040	2	0
Q1040	3	2
Q1040	4	0
Q1040	5	0
Q1040	6	2.4
Q1050	1	4.1
Q1050	2	0
Q1050	3	-7.4
Q1050	4	0.1
Q1050	5	0.1
Q1050	6	0.1
Q1101	S	0
Q1101	D	0

REF No.	PIN No.	POWER ON
Q1101	G	3.8
Q1102	E	0
Q1102	C	3.8
Q1102	B	0
QR1101	E	0
QR1101	C	0
QR1101	B	4.6
QR1102	E	0
QR1102	C	2.5
QR1102	B	0.3

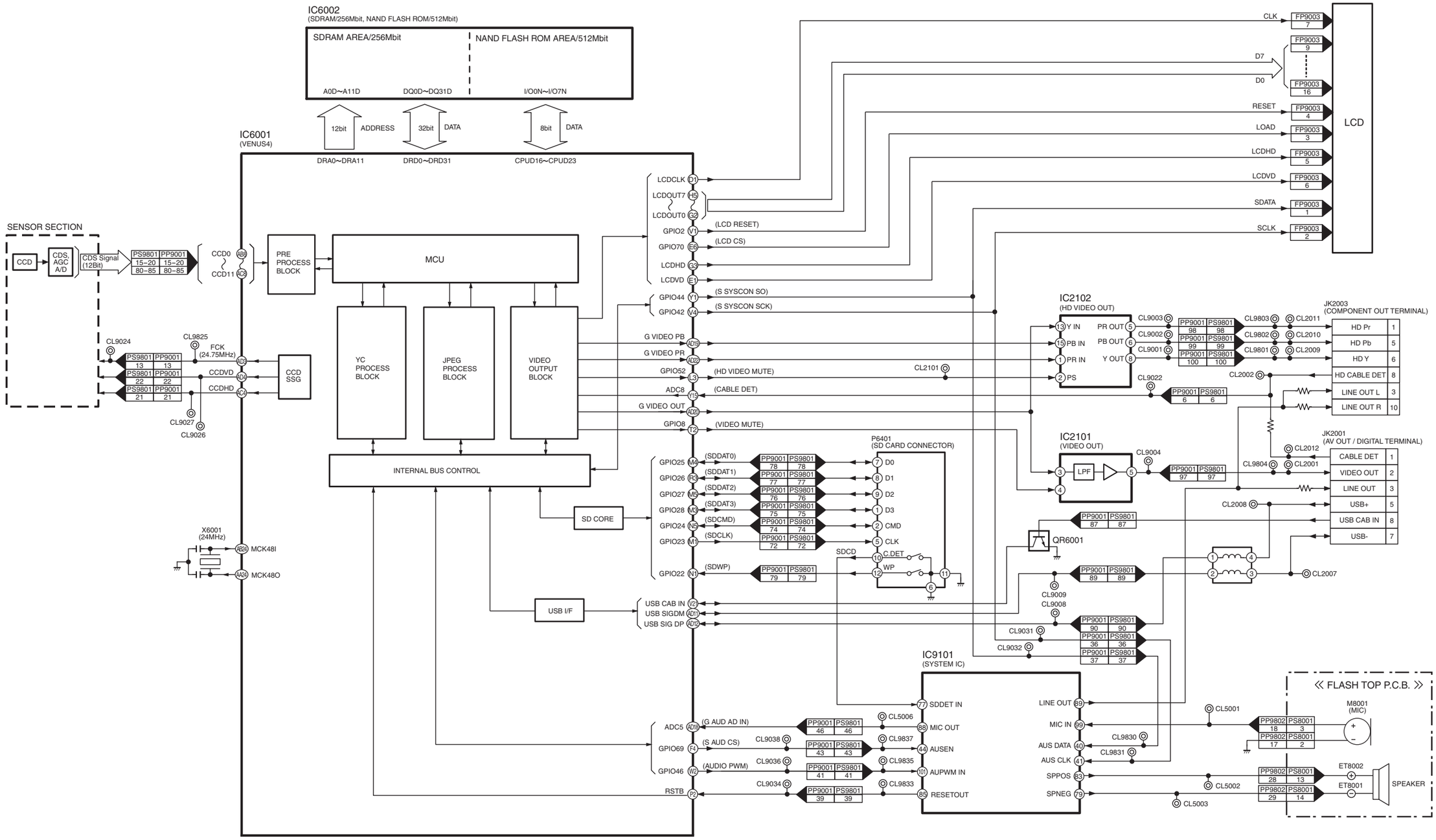
S3. Block Diagram

S3.1. System Control Block Diagram



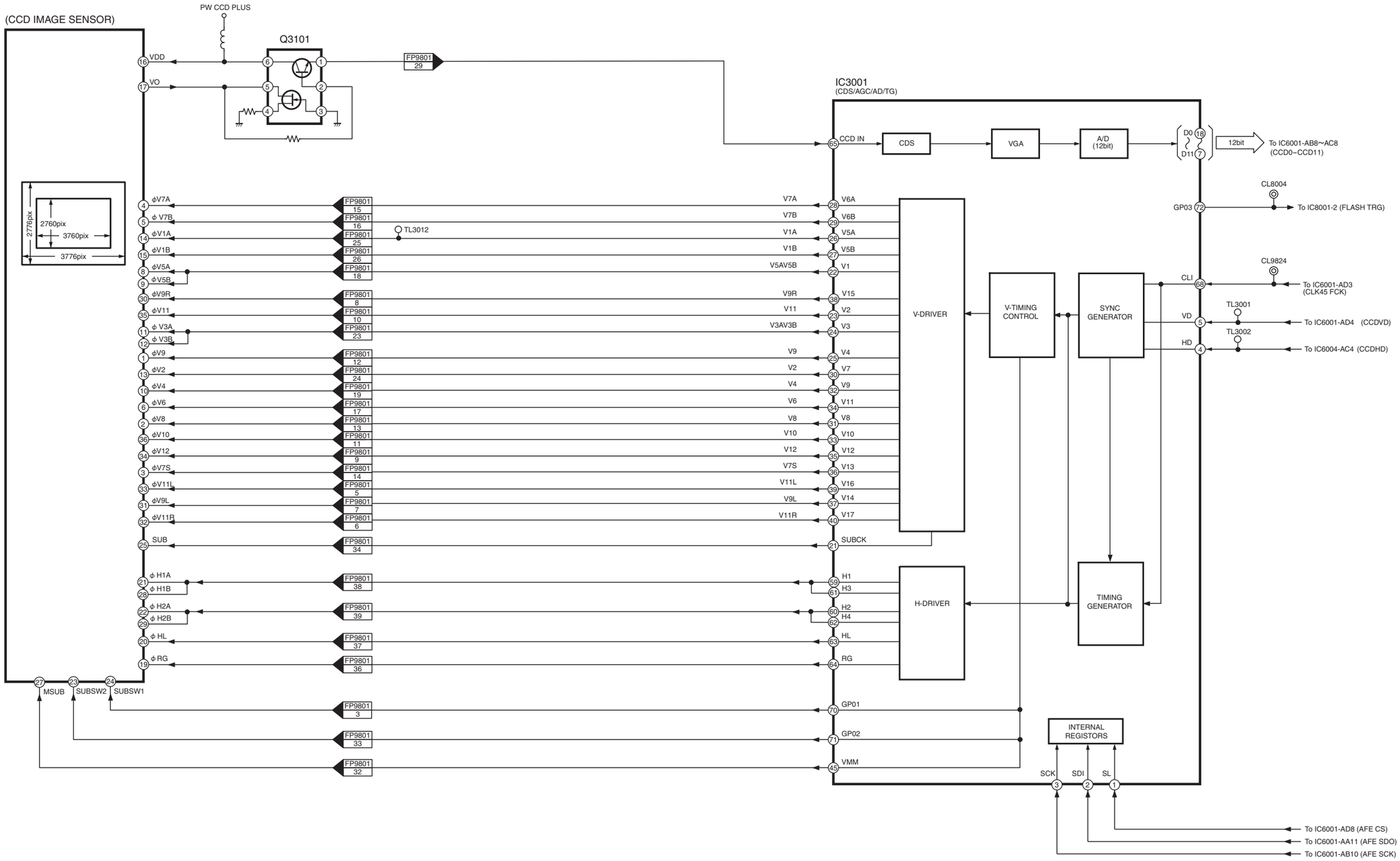
DMC-FX35/FX36 SYSTEM CONTROL BLOCK DIAGRAM

S3.2. Video/Audio Process Block Diagram



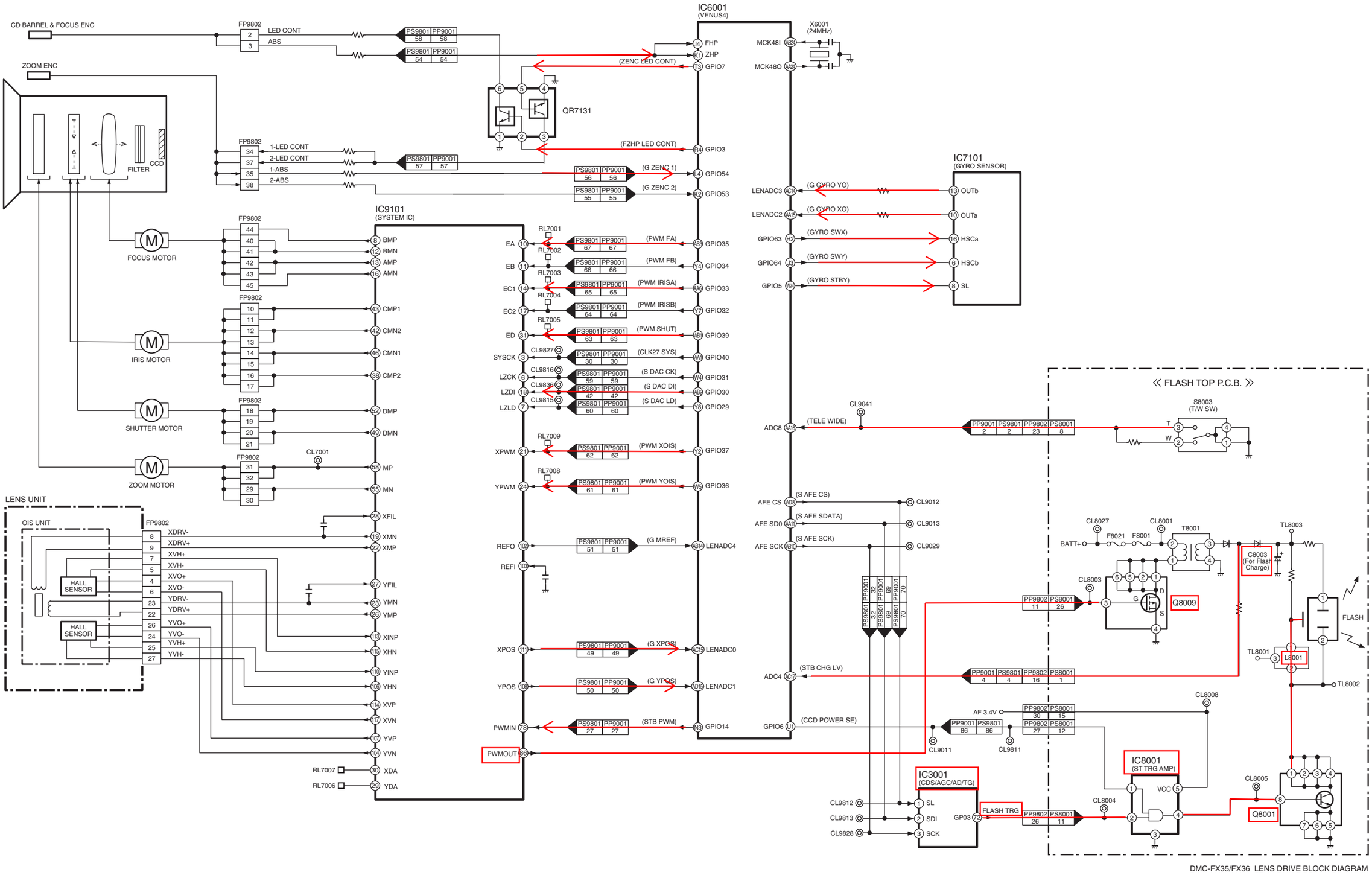
DMC-FX35/FX36 VIDEO/AUDIO PROCESS BLOCK DIAGRAM

S3.3. Sensor Block Diagram



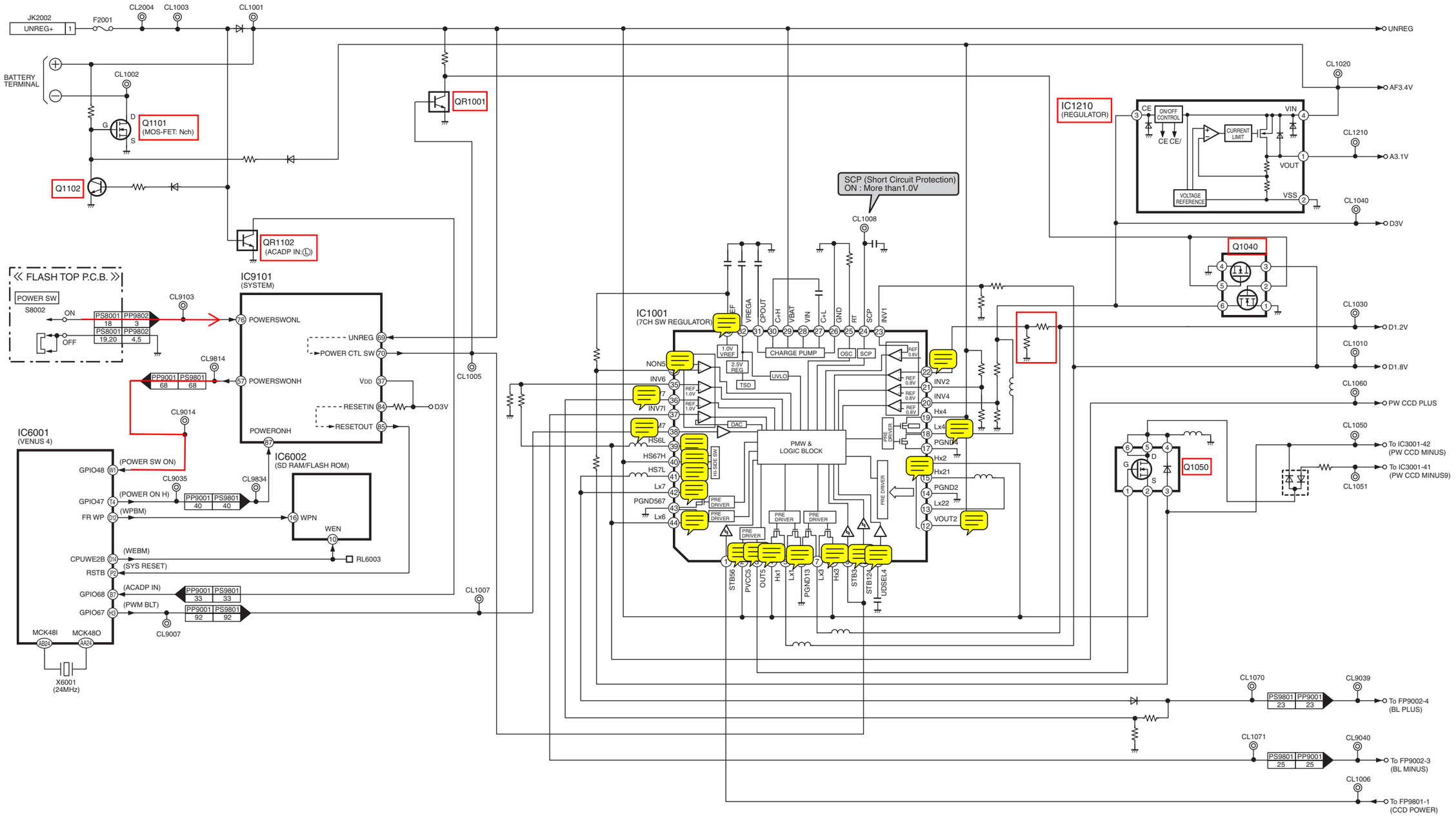
DMC-FX35/FX36 SENSOR BLOCK DIAGRAM

S3.4. Lens Drive Block Diagram



DMC-FX35/FX36 LENS DRIVE BLOCK DIAGRAM

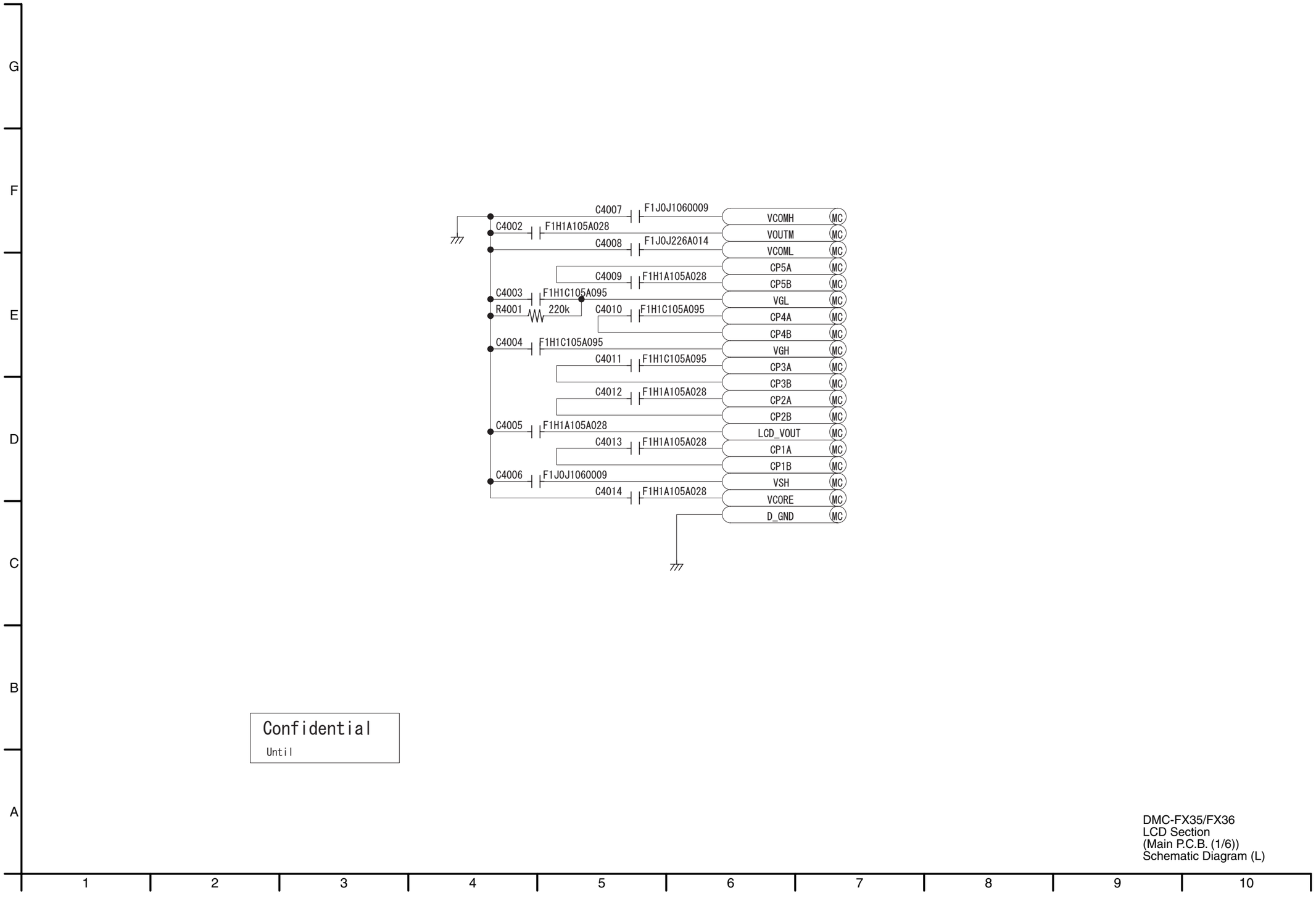
S3.5. Power Block Diagram



DMC-FX35/FX36 POWER BLOCK DIAGRAM

S4. Schematic Diagram

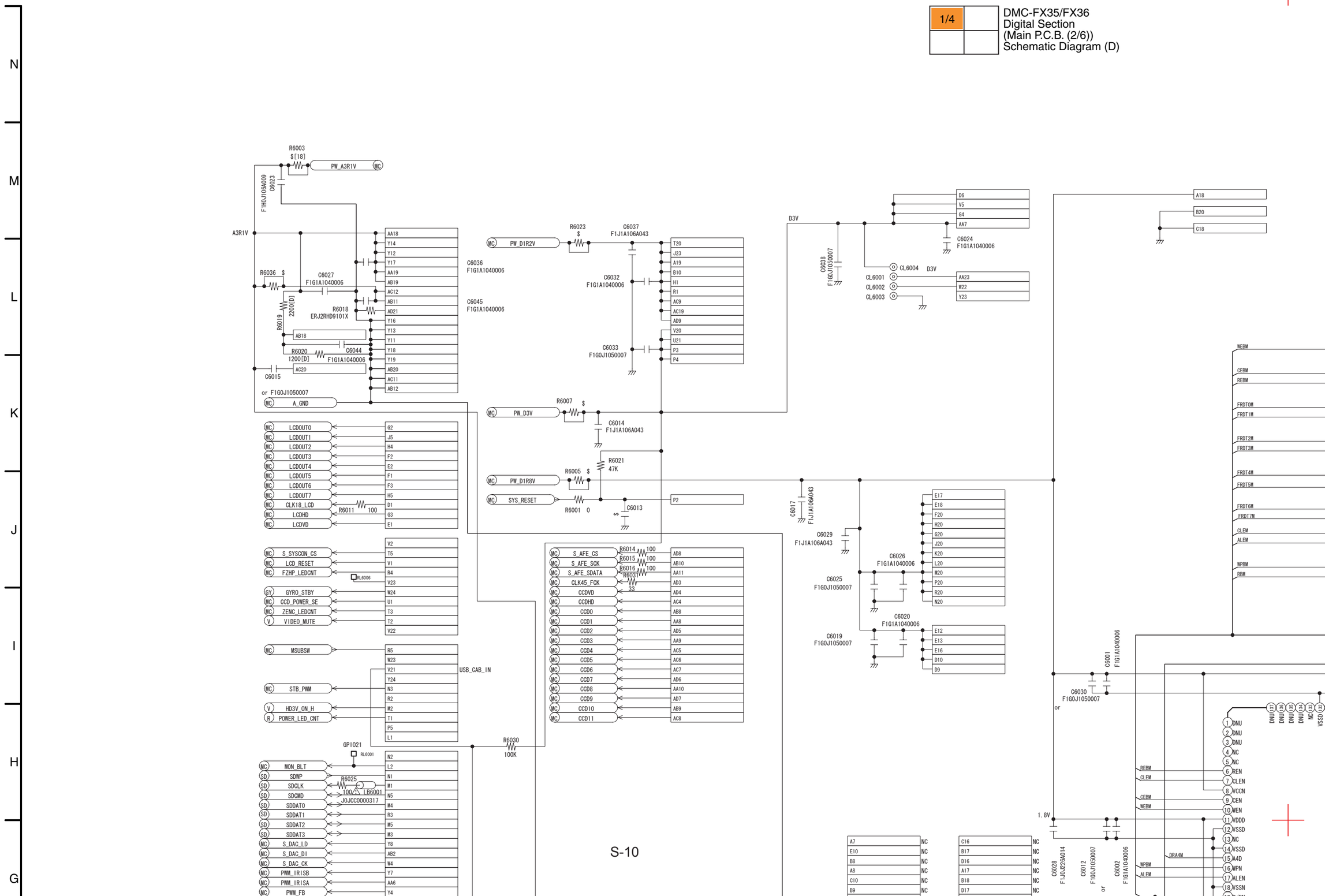
S4.1. LCD (L) Schematic Diagram

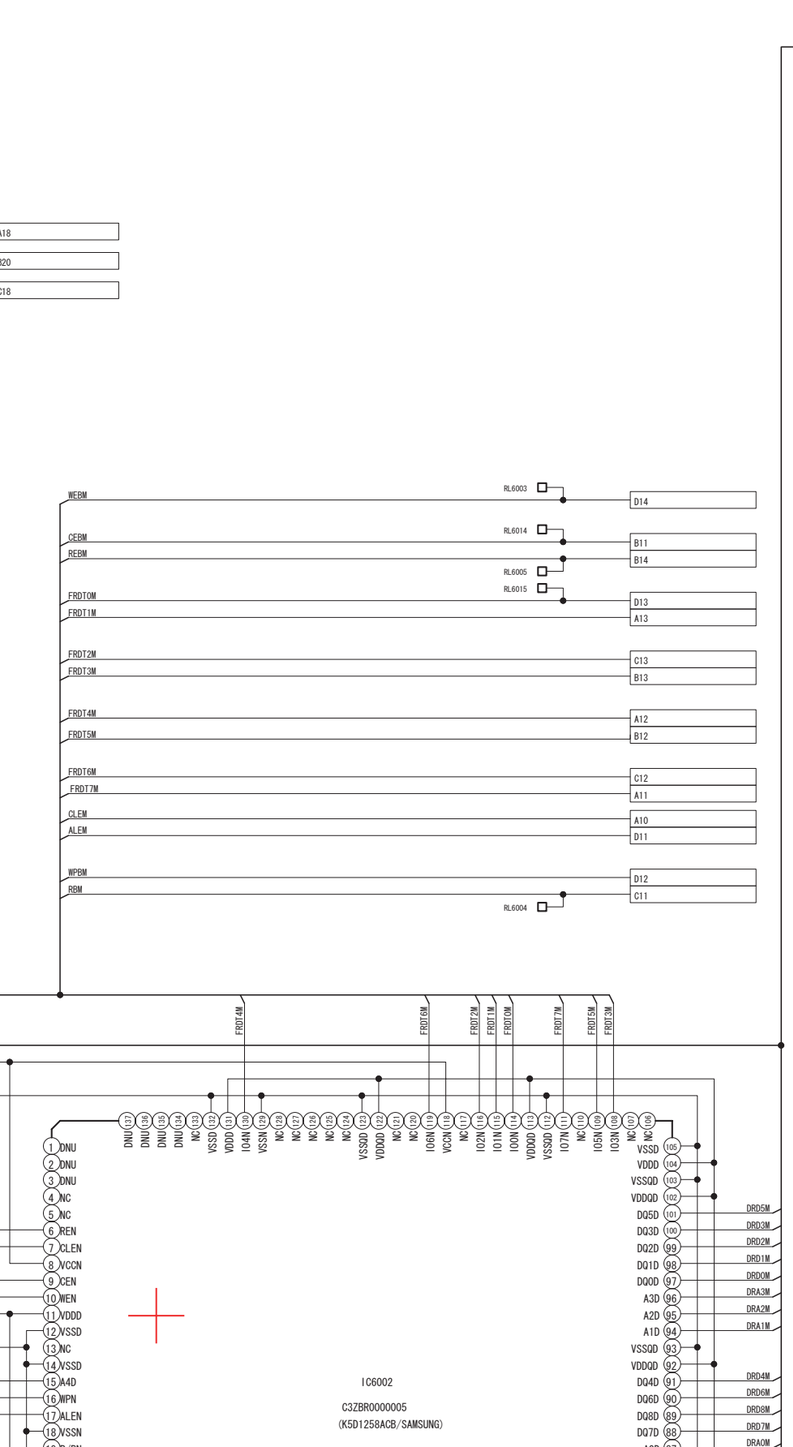


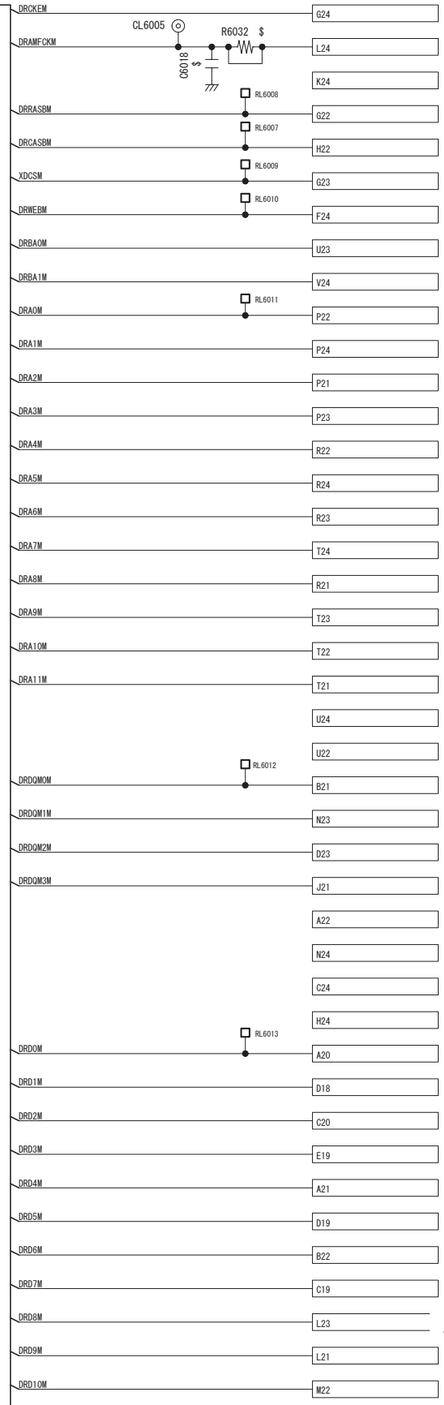
S4.2. Digital (D) Schematic Diagram

1/4	

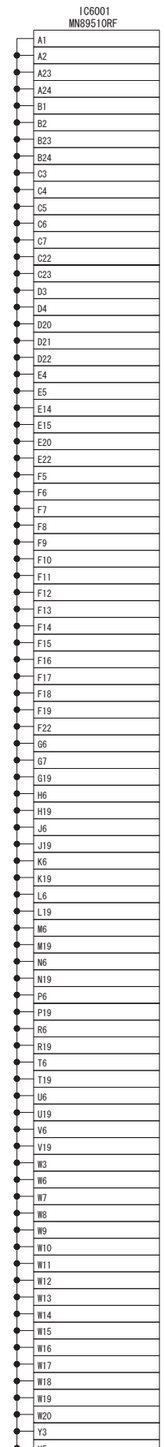
DMC-FX35/FX36
Digital Section
(Main P.C.B. (2/6))
Schematic Diagram (D)

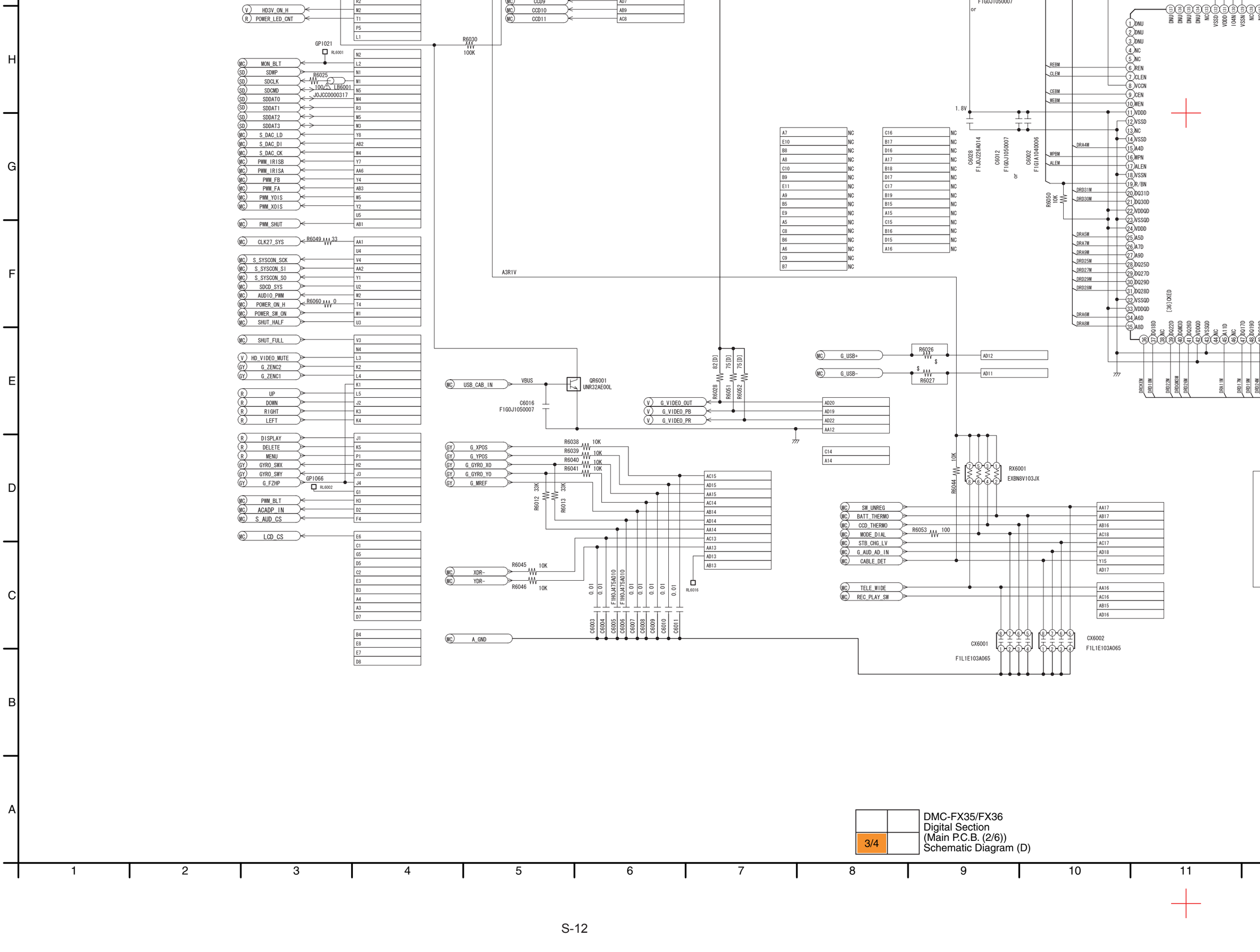


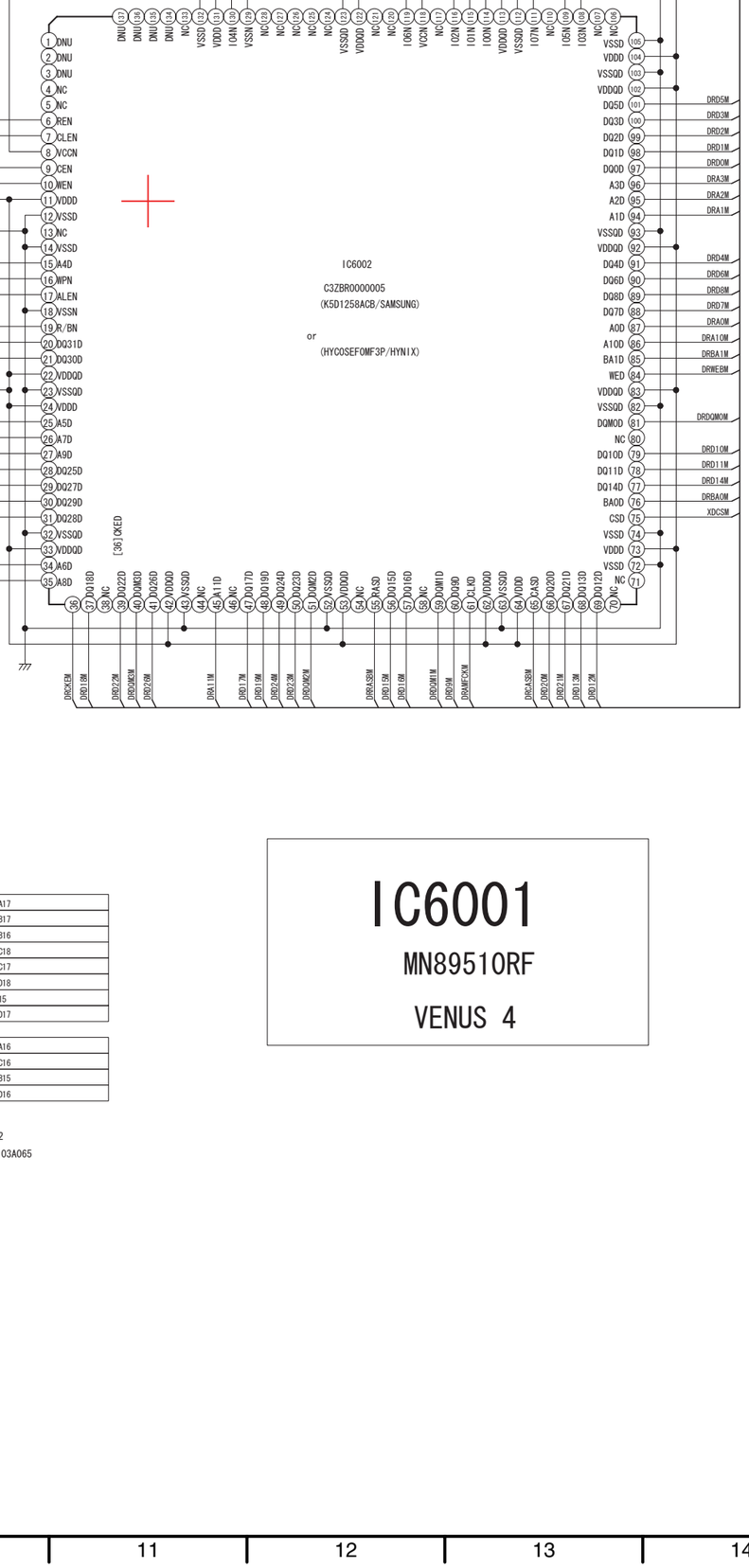

A18
A20
C18
WEBM
CEBM
REBM
FRDT0M
FRDT1M
FRDT2M
FRDT3M
FRDT4M
FRDT5M
FRDT6M
FRDT7M
CLEM
ALEM
WPBM
RBM
RL6003
RL6014
RL6005
RL6015
RL6004
D14
B11
B14
D13
A13
C13
B13
A12
B12
C12
A11
A10
D11
D12
C11
IC6002
C3ZBR0000005
(K5D1258ACB/SAMSUNG)
1 DNU
2 DNU
3 DNU
4 NC
5 NC
6 REN
7 CLEN
8 VCCN
9 CEN
10 WEN
11 VDDD
12 VSSD
13 NC
14 VSSD
15 A4D
16 WPN
17 ALEN
18 VSSN
105 VSSD
104 VDDD
103 VSSQD
102 VDDQD
101 DQ5D
100 DQ3D
99 DQ2D
98 DQ1D
97 DQ0D
96 A3D
95 A2D
94 A1D
93 VSSQD
92 VDDQD
91 DQ4D
90 DQ6D
89 DQ8D
88 DQ7D
DRD5M
DRD3M
DRD2M
DRD1M
DRD0M
DRA3M
DRA2M
DRA1M
DRD4M
DRD6M
DRD8M
DRD7M
DRA0M


DRCKEM
DRAMFCKM
CL6005
C6018
R6032
DRRASBM
DRCASBM
XDCSM
DRWEBM
DRBA0M
DRBA1M
DRA0M
DRA1M
DRA2M
DRA3M
DRA4M
DRA5M
DRA6M
DRA7M
DRA8M
DRA9M
DRA10M
DRA11M
DRDQM0M
DRDQM1M
DRDQM2M
DRDQM3M
DRD0M
DRD1M
DRD2M
DRD3M
DRD4M
DRD5M
DRD6M
DRD7M
DRD8M
DRD9M
DRD10M
RL6008
RL6007
RL6009
RL6010
RL6011
RL6012
RL6013
G24
L24
K24
G22
H22
G23
F24
U23
V24
P22
P24
P21
P23
R22
R24
R23
T24
R21
T23
T22
T21
U24
U22
B21
N23
D23
J21
A22
N24
C24
H24
A20
D18
C20
E19
A21
D19
B22
C19
L23
L21
M22


R6004
10K
R6006
ERJ2RKF5901X
U20
W21
AC10
AC21
AD10


IC6001
MN89510RF
A1
A2
A23
A24
B1
B2
B23
B24
C3
C4
C5
C6
C7
C22
C23
D3
D4
D20
D21
D22
E4
E5
E14
E15
E20
E22
F5
F6
F7
F8
F9
F10
F11
F12
F13
F14
F15
F16
F17
F18
F19
F22
G6
G7
G19
H6
H19
J6
J19
K6
K19
L6
L19
M6
M19
N6
N19
P6
P19
R6
R19
T6
T19
U6
U19
V6
V19
W3
W6
W7
W8
W9
W10
W11
W12
W13
W14
W15
W16
W17
W18
W19
W20
Y3


HD3V_ON_H
POWER_LED_CNT
GP1021
R6030
100K
MON_BLT
SDWP
SDCLK
SDCMD
SDDAT0
SDDAT1
SDDAT2
SDDAT3
S_DAC_LD
S_DAC_DI
S_DAC_CK
PWM_IRISB
PWM_IRISA
PWM_FB
PWM_FA
PWM_YOIS
PWM_XOIS
PWM_SHUT
R6025
100K
LB6001
J0JCC0000317
CLK27_SYS
R6049
33
S_SYSCON_SCK
S_SYSCON_SI
S_SYSCON_SO
SDCD_SYS
AUDIO_PWM
POWER_ON_H
POWER_SW_ON
SHUT_HALF
R6060
0
SHUT_FULL
HD_VIDEO_MUTE
G_ZENC2
G_ZENC1
UP
DOWN
RIGHT
LEFT
DISPLAY
DELETE
MENU
GYRO_SWX
GYRO_SWY
G_FZHP
GP1066
PWM_BLT
ACADP_IN
S_AUD_CS
LCD_CS
CCD9
CCD10
CCD11
A3R1V
1.8V
C6028
F1J0J226A014
C6012
F1G0J1050007
C6002
F1G1A1040006
F1G0J1050007
or
R6050
10K
NC
REBM
CLEM
CEBM
WEBM
WPBM
ALEM
DRA4M
DRD31M
DRD30M
DRA5M
DRA7M
DRA9M
DRD25M
DRD27M
DRD29M
DRD28M
DRA6M
DRA8M
DNU
VSSD
VDDD
IOWN
VSSN
[36]OKED
USB_CAB_IN
VBUS
QR6001
UNR32AE00L
C6016
F1G0J1050007
82[D]
75[D]
R6028
R6051
R6052
G_VIDEO_OUT
G_VIDEO_PB
G_VIDEO_PR
G_USB+
G_USB-
R6026
R6027
AD12
AD11
AD20
AD19
AD22
AA12
C14
A14
G_XPOS
G_YPOS
G_GYRO_XO
G_GYRO_YO
G_MREF
R6038
R6039
R6040
R6041
10K
33K
R6012
R6013
XDR-
YDR-
R6045
R6046
10K
0.01
F1H0J475A010
C6003
C6004
C6005
C6006
C6007
C6008
C6009
C6010
C6011
RL6016
A_GND
R6044
10K
RX6001
EXBN8V103JX
SW_UNREG
BATT_THERMO
CCD_THERMO
MODE_DIAL
STB_CHG_LV
G_AUD_AD_IN
CABLE_DET
R6053
100
TELE_WIDE
REC_PLAY_SW
CX6001
F1L1E103A065
CX6002
F1L1E103A065
3/4
DMC-FX35/FX36
Digital Section
(Main P.C.B. (2/6))
Schematic Diagram (D)



IC6001

MN89510RF

VENUS 4

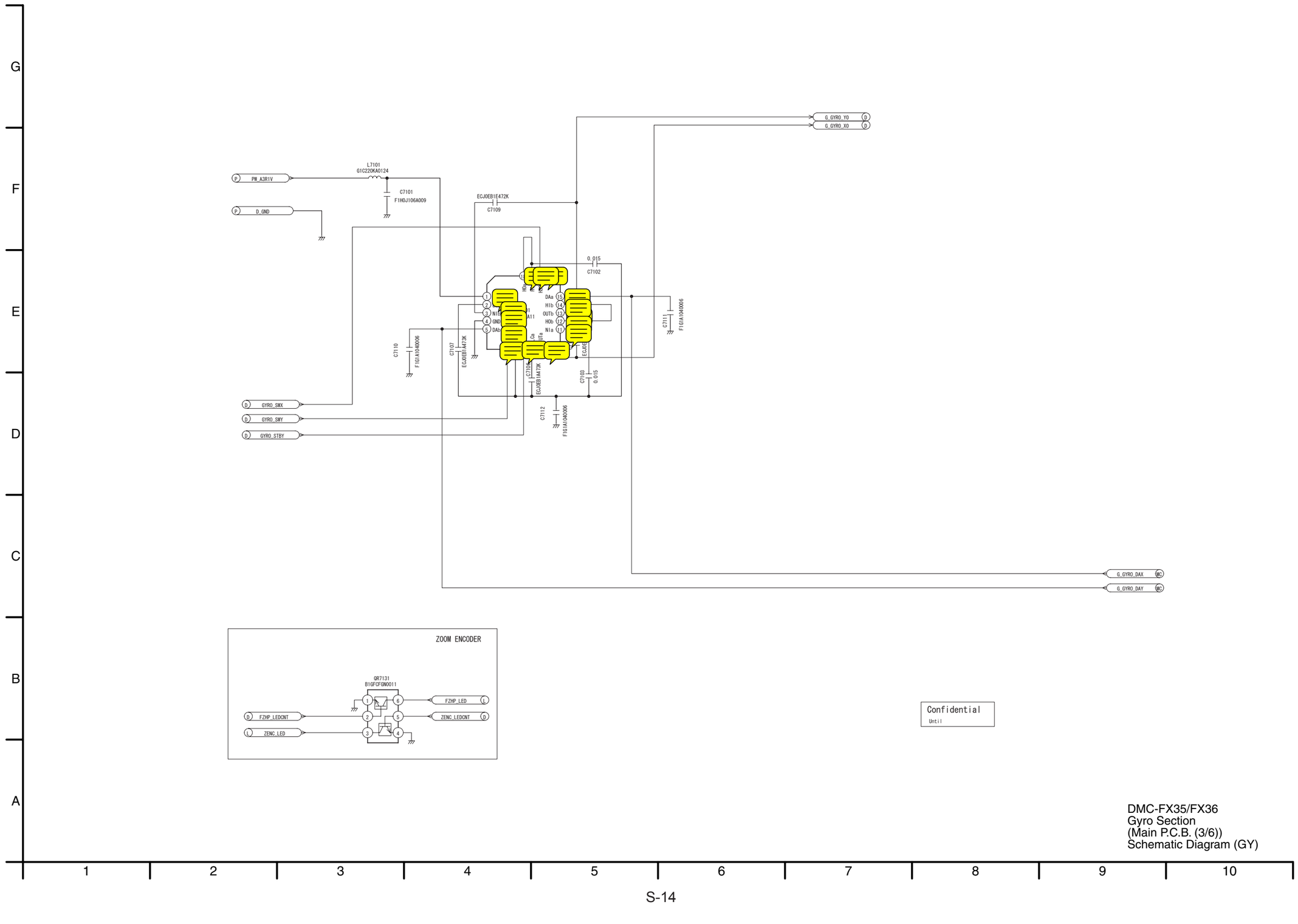
Confidential

Until

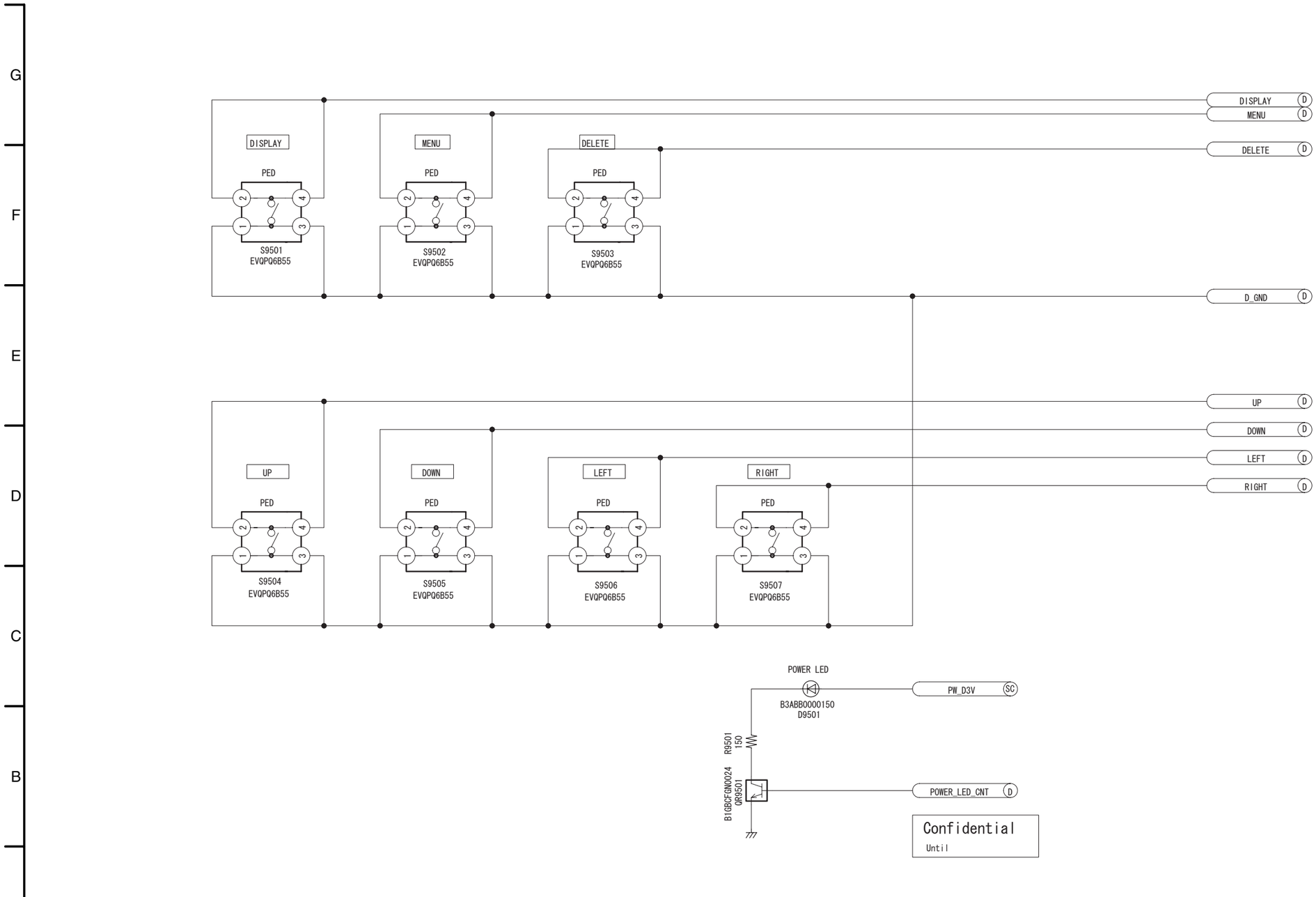
DMC-FX35/FX36
Digital Section
(Main P.C.B. (2/6))
Schematic Diagram (D)

4/4

S4.3. Gyro (GY) Schematic Diagram

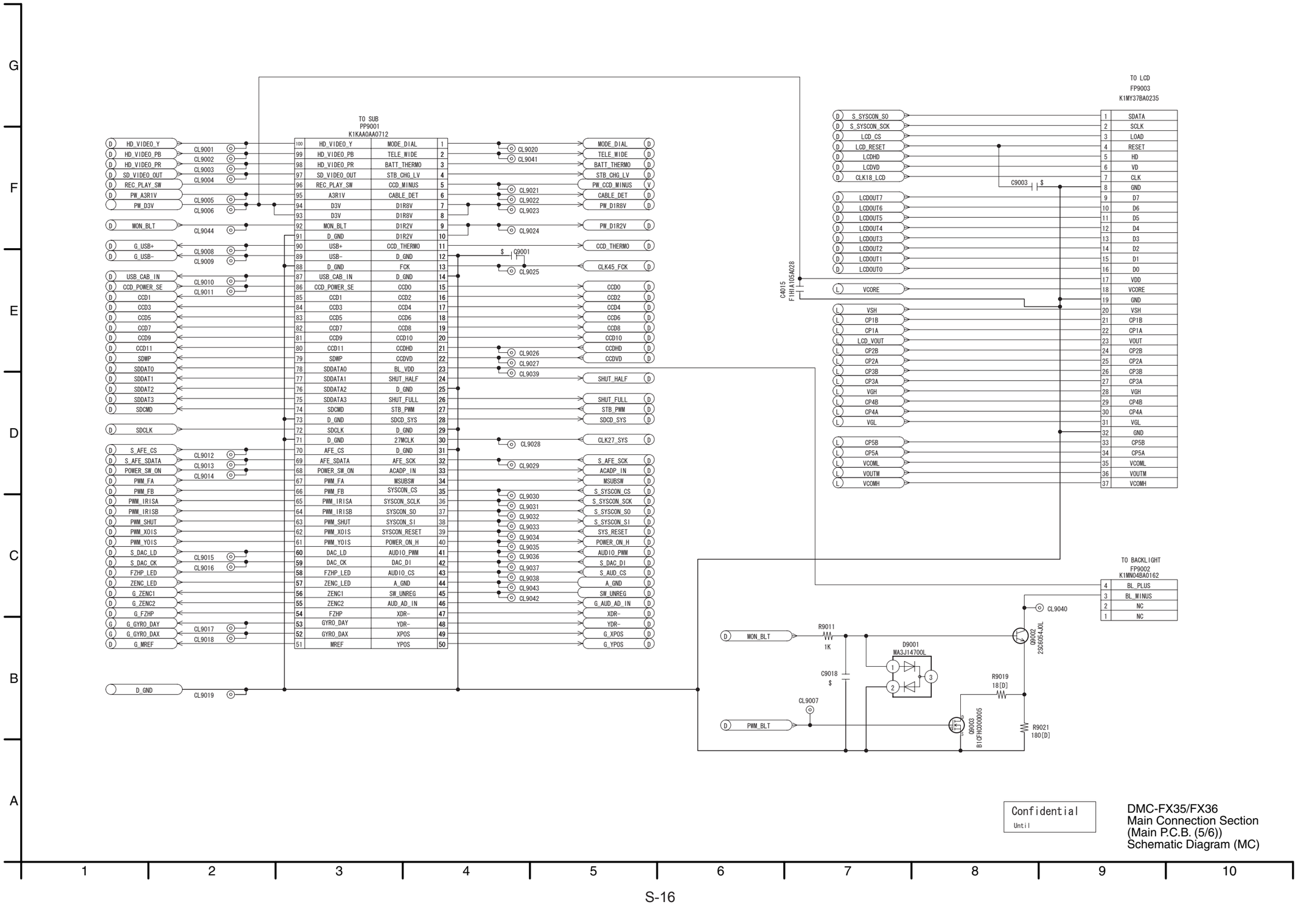


S4.4. Rear Operation (R) Schematic Diagram



DMC-FX35/FX36
Rear Operation Section
(Main P.C.B. (4/6))
Schematic Diagram (R)

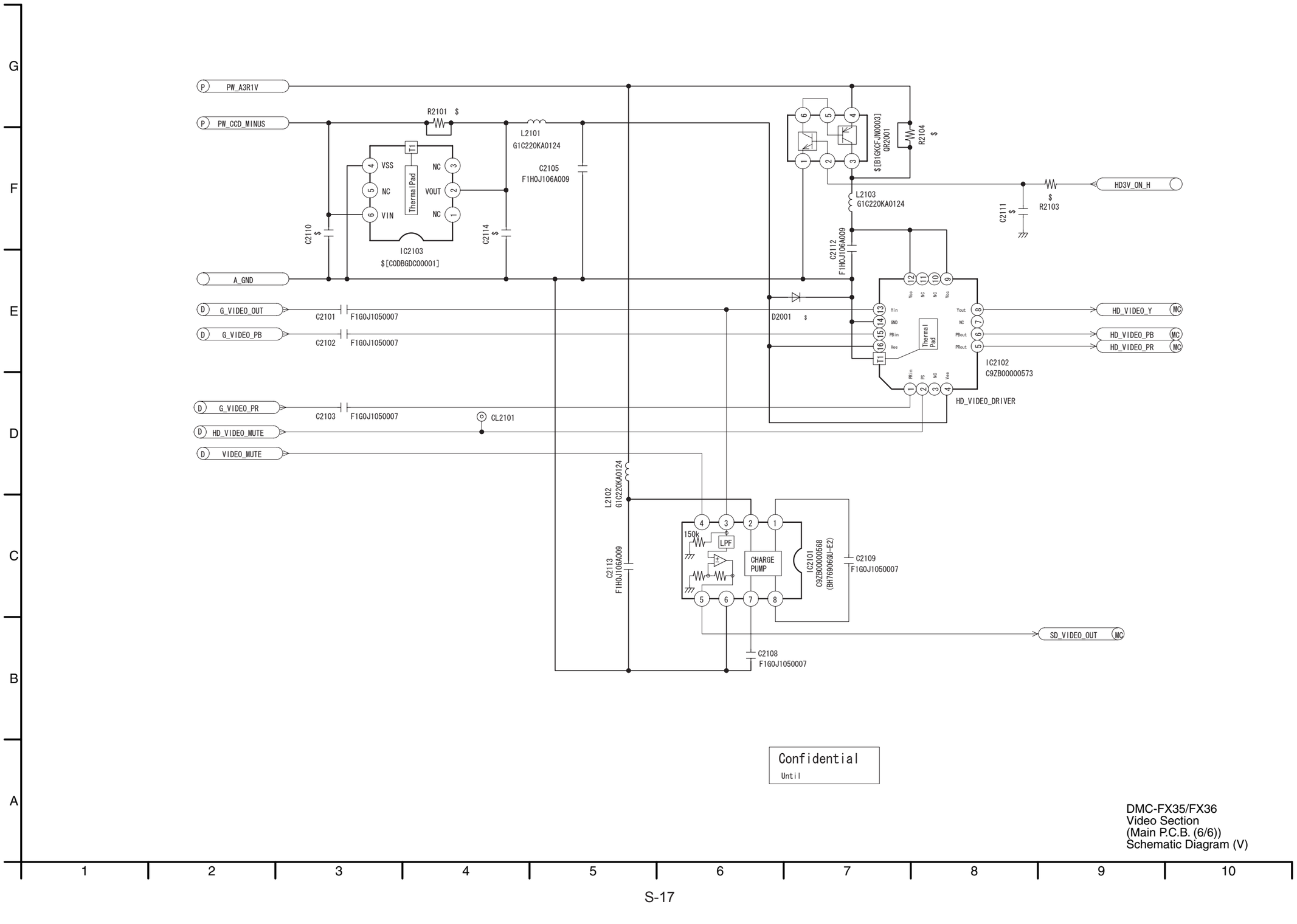
S4.5. Main Connection (MC) Schematic Diagram



Confidential
Until

DMC-FX35/FX36
Main Connection Section
(Main P.C.B. (5/6))
Schematic Diagram (MC)

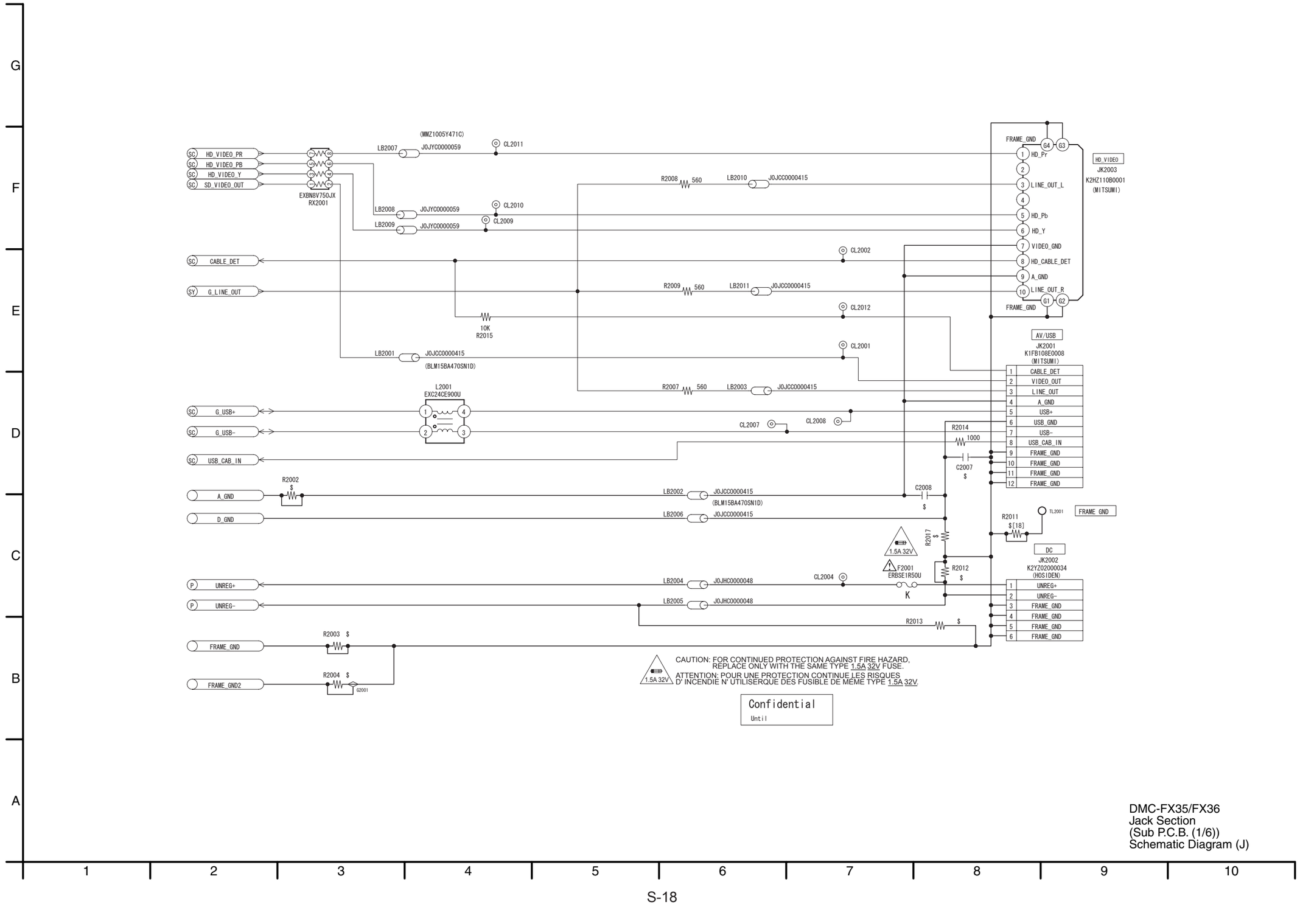
S4.6. Video (V) Schematic Diagram



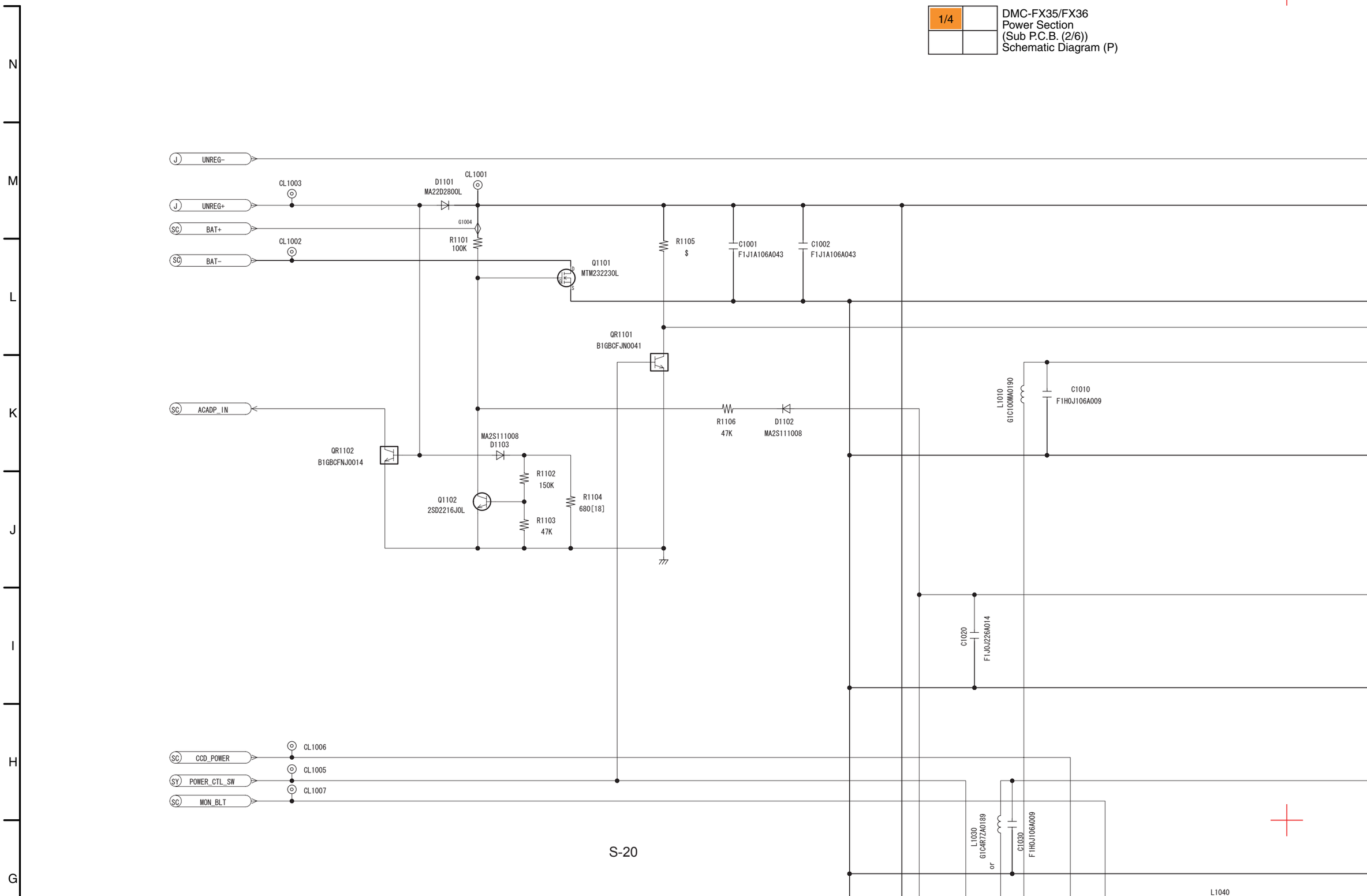
Confidential
Until

DMC-FX35/FX36
Video Section
(Main P.C.B. (6/6))
Schematic Diagram (V)

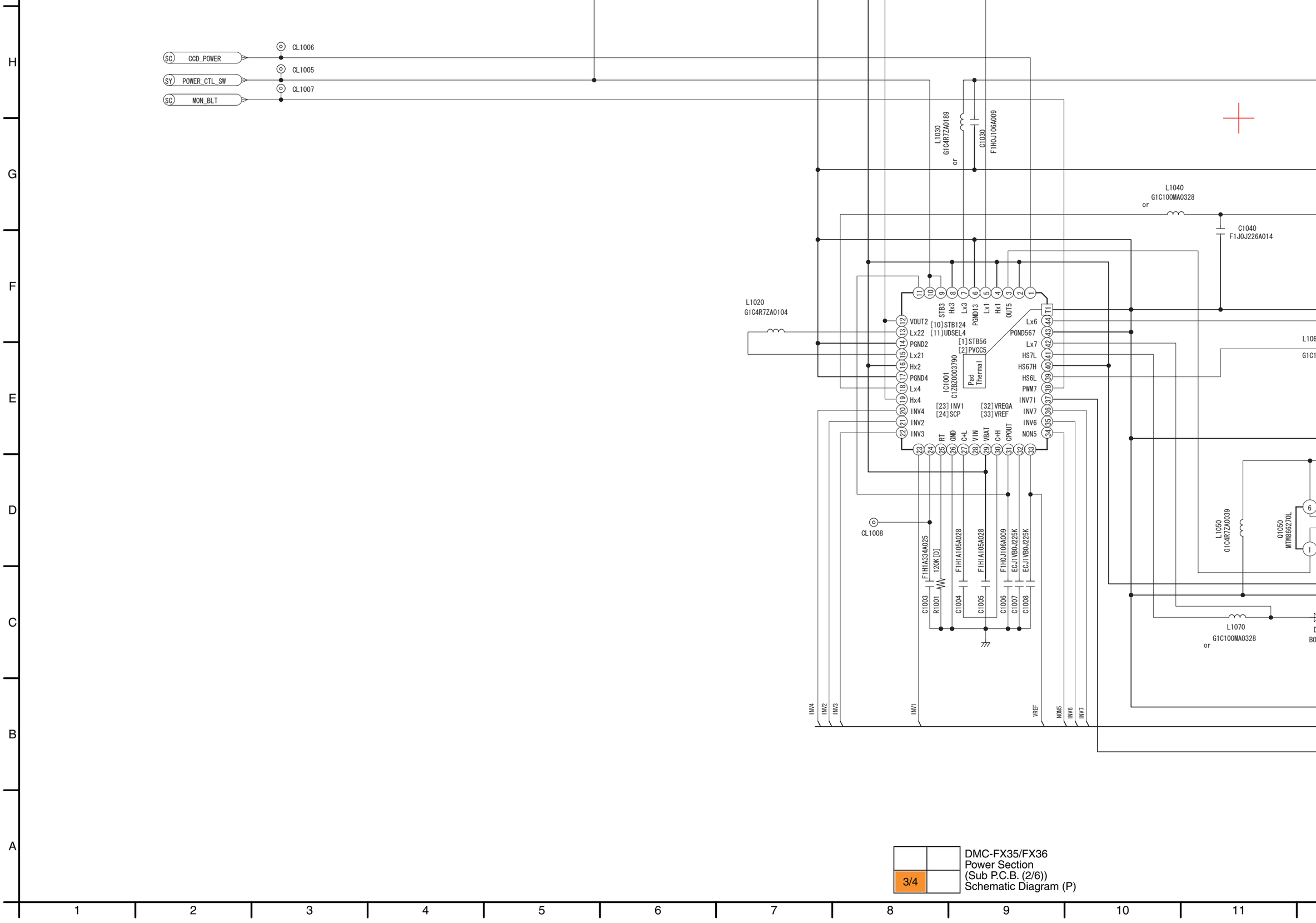
S4.7. Jack (J) Schematic Diagram



S4.8. Power (P) Schematic Diagram

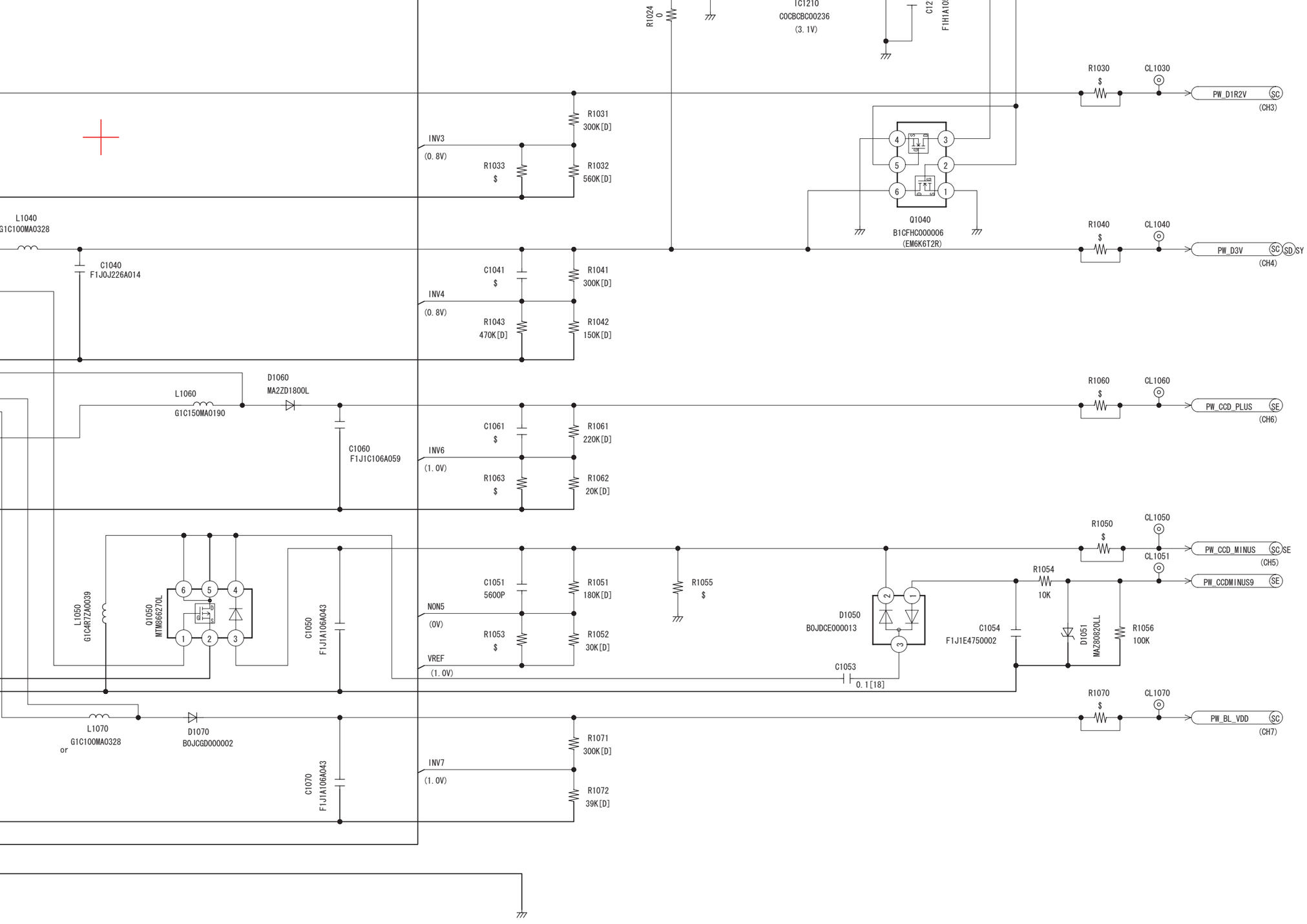


CL1004
G1001
G1002
G1003
A_GND SC J
D_GND SC SY J SD
UNREG_GND SC
UNREG SC SY
P_CTL_OFF_H SY
R1010 $
CL1010
PW_D1R8V SC
(CH1)
R1011 160K[D]
INV1 (0.8V)
R1013 $
R1012 120K[D]
R1020 $
CL1020
PW_AF3R4V SC SY SE
(CH2)
C1021 $
R1021 560K[D]
INV2 (0.8V)
R1023 330K[D]
R1022 360K[D]
R1210 $
CL1210
PW_A3R1V SC SY
(REG)
R1025 $
R1024 0
IC1210
C0CBCBC00236
(3.1V)
C1210
F1H1A105A028
R1030 $
CL1030
PW_D1R2V SC
(CH3)
R1031 300K[D]
INV3 (0.8V)
R1033 $
R1032 560K[D]
S-21
Q1040
L1040



DMC-FX35/FX36
Power Section
(Sub P.C.B. (2/6))
Schematic Diagram (P)

3/4

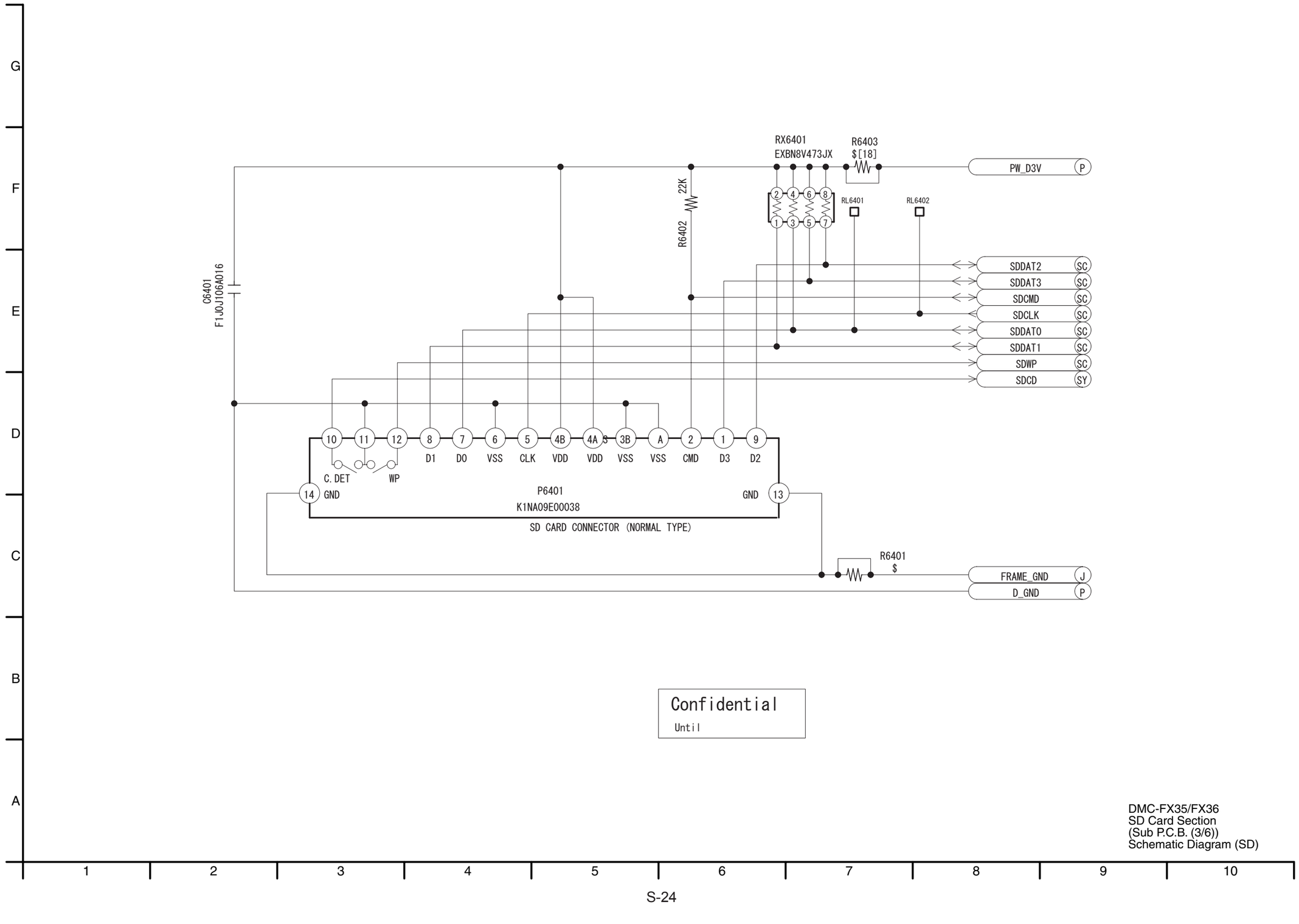


Confidential
Until

DMC-FX35/FX36
Power Section
(Sub P.C.B. (2/6))
Schematic Diagram (P)
4/4

11 12 13 14 15 16 17 18 19 20 21

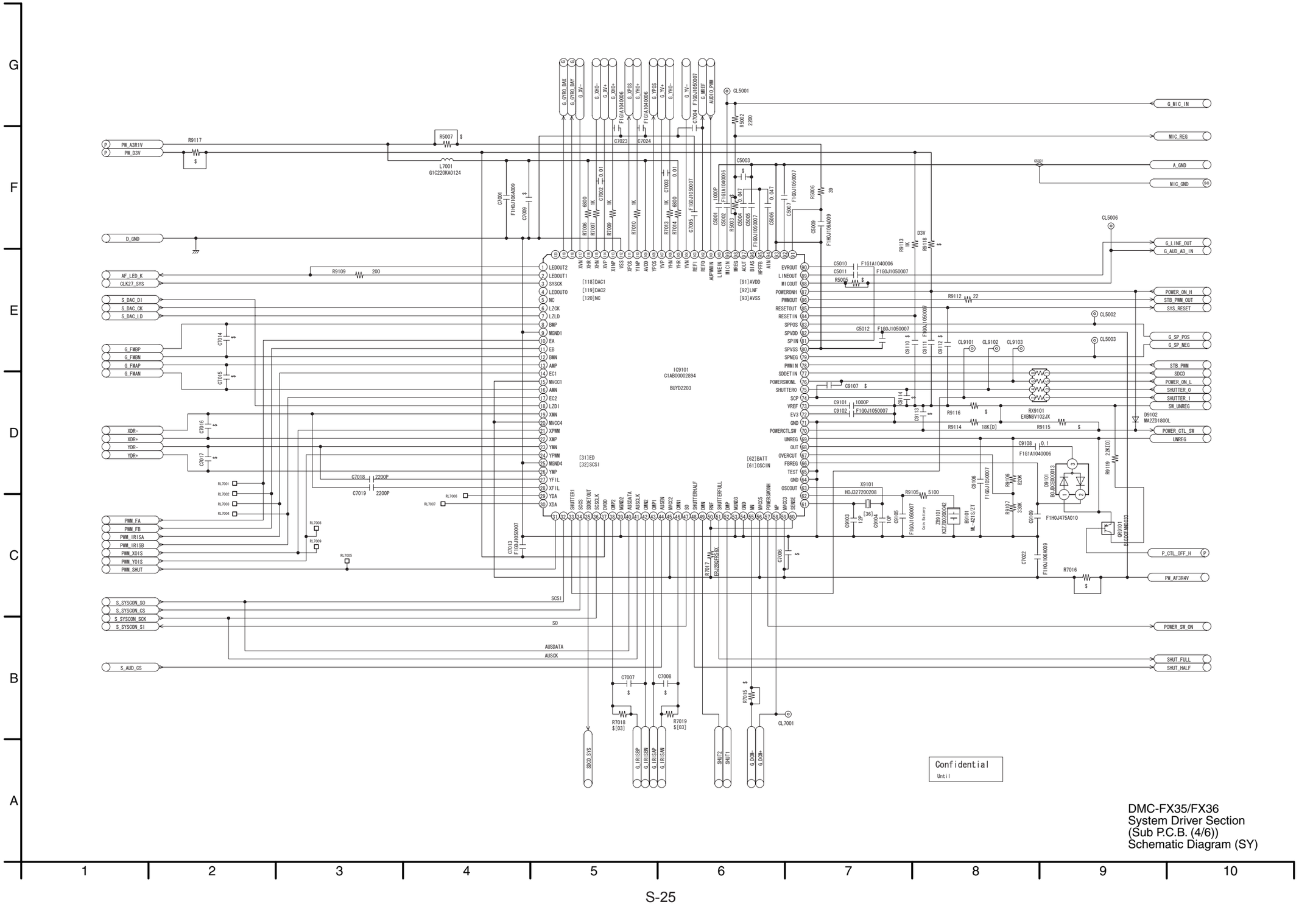
S4.9. SD Card (SD) Schematic Diagram



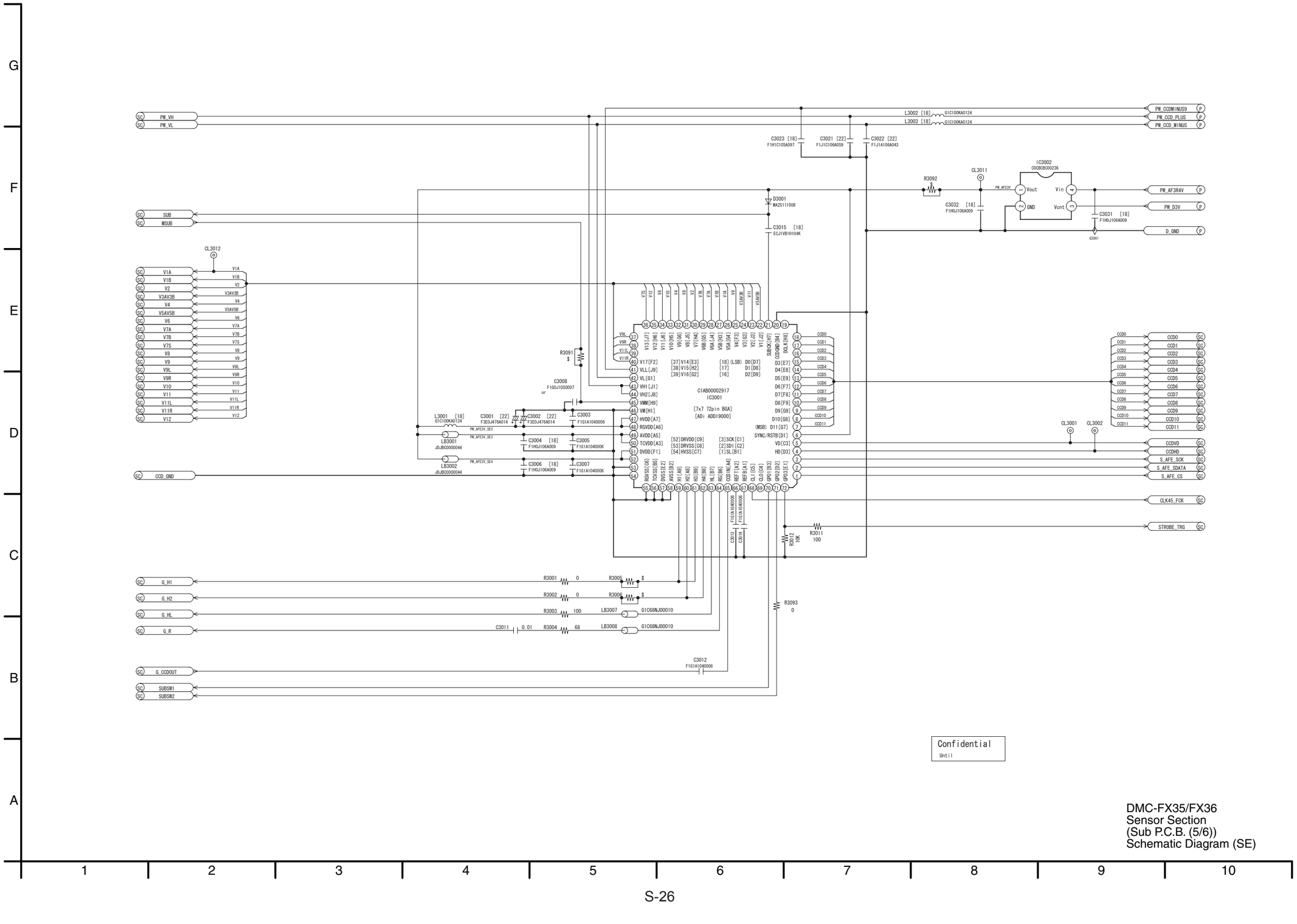
Confidential
Until

DMC-FX35/FX36
SD Card Section
(Sub P.C.B. (3/6))
Schematic Diagram (SD)

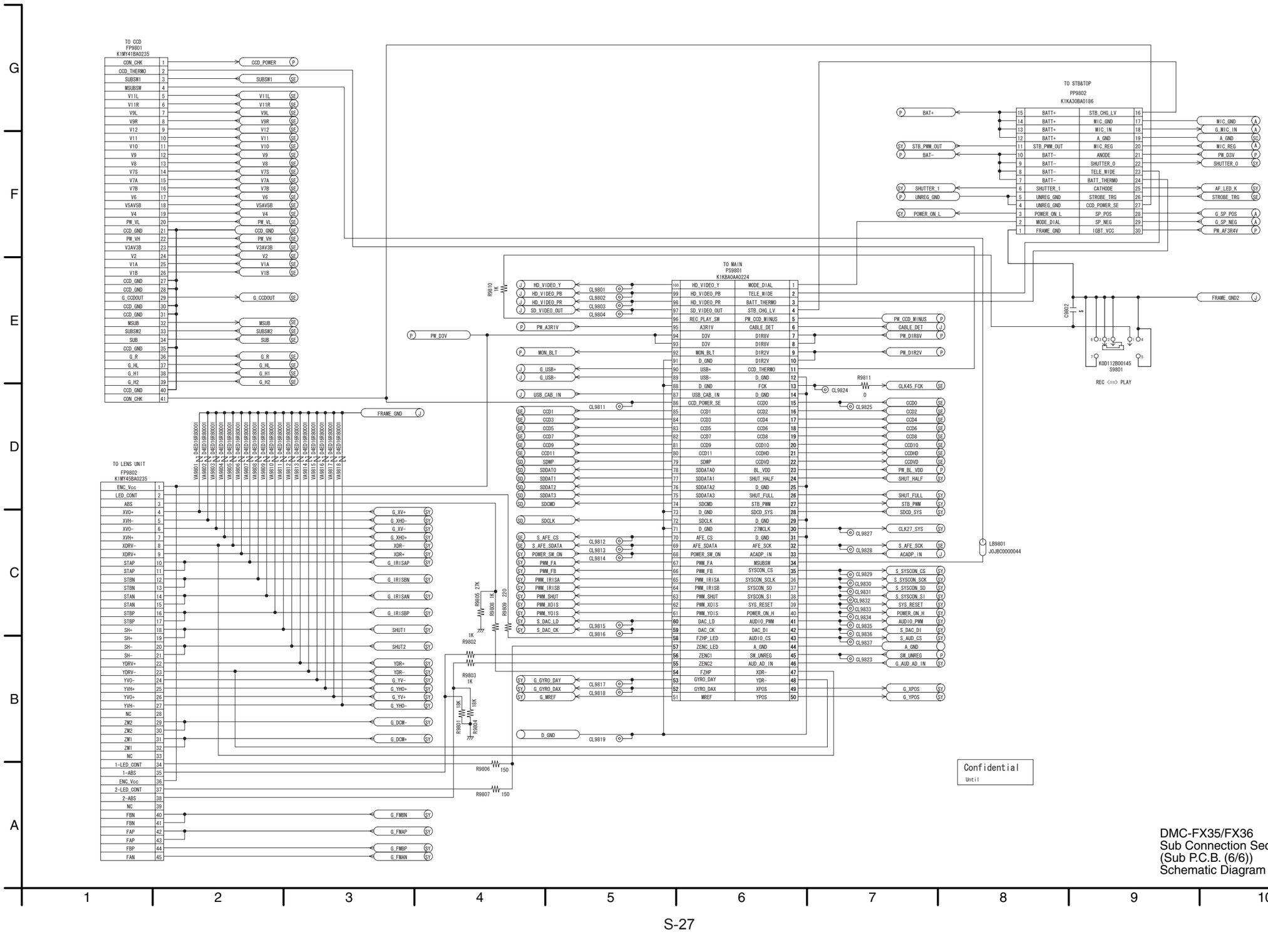
S4.10. System Driver (SY) Schematic Diagram



S4.11. Sensor (SE) Schematic Diagram



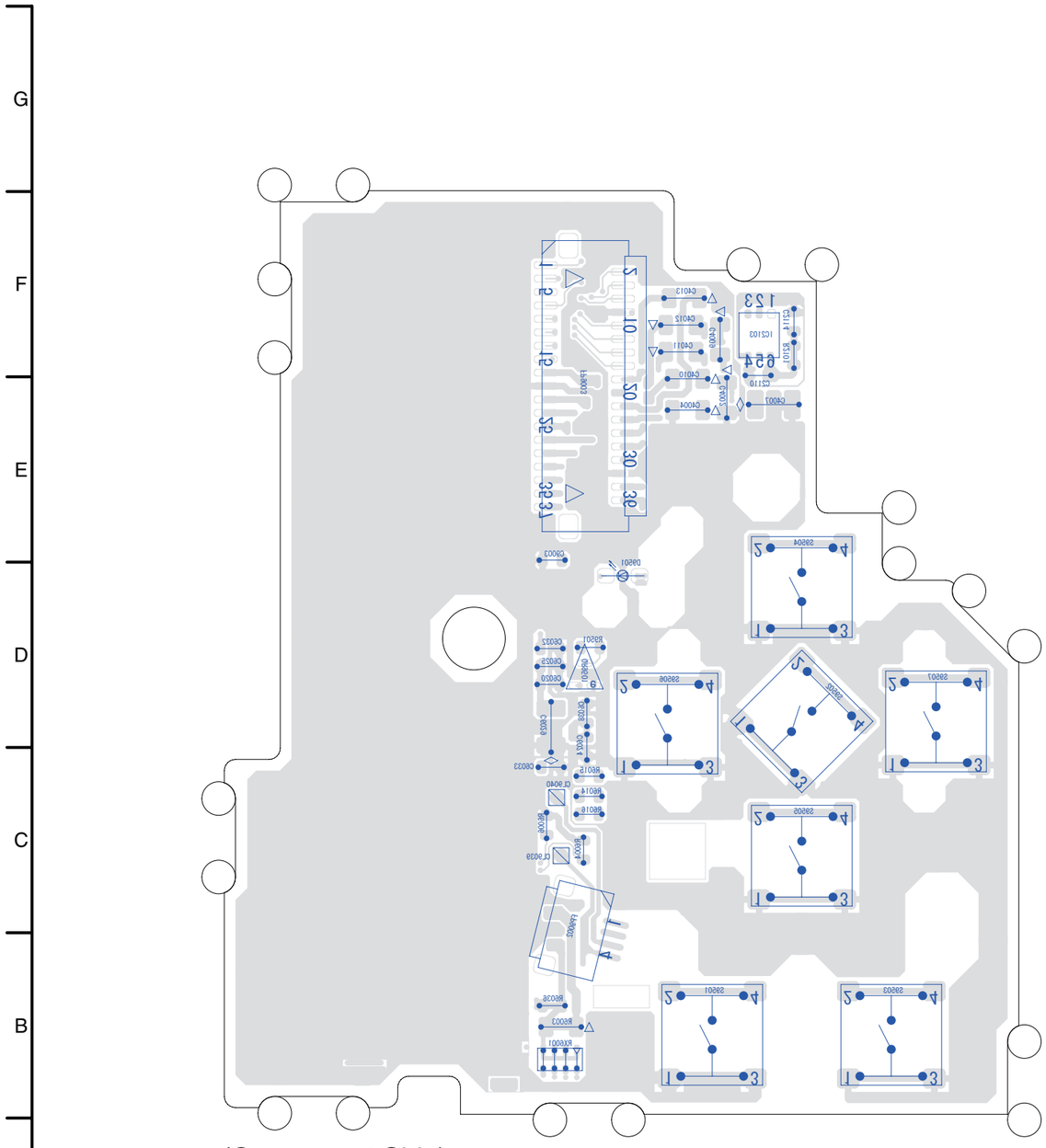
S4.12. Sub Connection (SC) Schematic Diagram



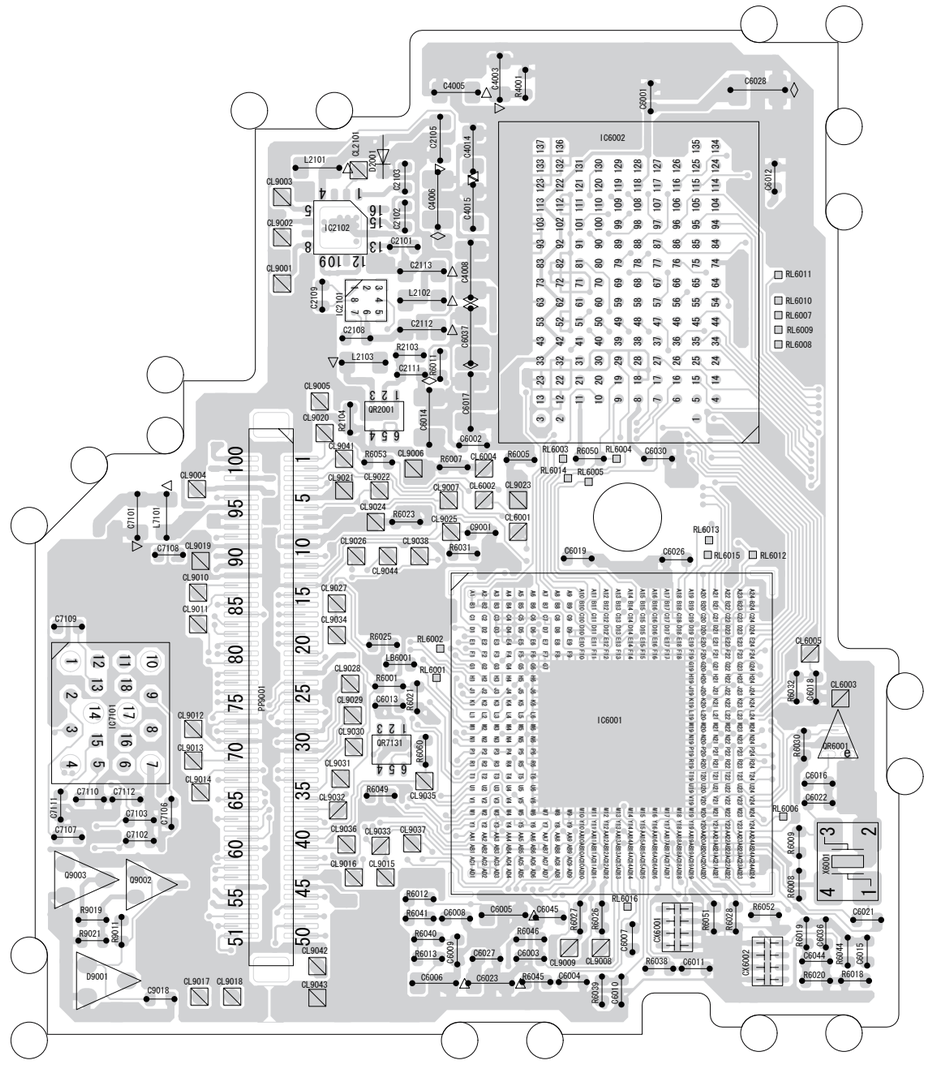
S5. Print Circuit Board

S5.1. Main P.C.B.

S5.1.1. Main P.C.B.



(Component Side)



(Foil Side)

DMC-FX35/FX36
Main P.C.B.

S5.1.2. Main P.C.B. Address Information

Main P.C.B.

Integrated Circuit		
IC2101	E-8	F
IC2102	E-8	F
IC2103	F-4	C
IC6001	C-9	F
IC6002	F-9	F
IC7101	C-7	F

Transistor		
Q9002	B-7	F
Q9003	B-7	F

Transistor-resistor		
QR2001	E-8	F
QR6001	C-10	F
QR7131	C-8	F
QR9501	D-3	C

Test Point		
CL2101	F-8	F
CL6001	D-9	F
CL6002	D-8	F
CL6003	C-10	F
CL6004	D-8	F
CL6005	C-10	F
CL9001	E-8	F
CL9002	F-8	F
CL9003	F-8	F
CL9004	D-7	F
CL9005	E-8	F
CL9006	D-8	F
CL9007	D-8	F
CL9008	B-9	F
CL9009	B-9	F
CL9010	D-7	F
CL9011	D-7	F
CL9012	C-7	F
CL9013	C-7	F
CL9014	C-7	F
CL9015	B-8	F
CL9016	B-8	F
CL9017	B-7	F
CL9018	B-7	F
CL9019	D-7	F
CL9020	E-8	F
CL9021	D-8	F
CL9022	D-8	F
CL9023	D-9	F
CL9024	D-8	F
CL9025	D-8	F
CL9026	D-8	F
CL9027	D-8	F
CL9028	C-8	F
CL9029	C-8	F
CL9030	C-8	F
CL9031	C-8	F
CL9032	C-8	F
CL9033	C-8	F
CL9034	D-8	F
CL9035	C-8	F
CL9036	C-8	F
CL9037	C-8	F
CL9038	D-8	F
CL9039	C-3	C
CL9040	C-3	C
CL9041	D-8	F
CL9042	B-8	F
CL9043	B-8	F
CL9044	D-8	F
RL6001	C-8	F
RL6002	C-8	F
RL6003	D-9	F
RL6004	D-9	F
RL6005	D-9	F
RL6006	C-10	F
RL6007	E-10	F
RL6008	E-10	F
RL6009	E-10	F
RL6010	E-10	F
RL6011	E-10	F
RL6012	D-10	F
RL6013	D-10	F
RL6014	D-9	F
RL6015	D-10	F
RL6016	B-9	F

Connector		
FP9002	C-3	C
FP9003	E-3	C
PP9001	C-7	F

Diode		
D2001	F-8	F
D9001	B-7	F
D9501	D-4	C

Crystal Oscillator		
X6001	B-10	F

Coil		
L2101	F-8	F
L2102	E-8	F
L2103	E-8	F
L7101	D-7	F
LB6001	C-8	F

Capacitor		
C2101	E-8	F
C2102	F-8	F
C2103	F-8	F
C2105	F-8	F
C2108	E-8	F
C2109	E-8	F
C2110	F-4	C
C2111	E-8	F
C2112	E-8	F
C2113	E-8	F
C2114	F-4	C
C4002	E-4	C
C4003	F-9	F
C4004	E-4	C
C4005	F-8	F
C4006	F-8	F
C4007	E-4	C
C4008	E-8	F
C4009	F-4	C
C4010	F-4	C
C4011	F-4	C
C4012	F-4	C
C4013	F-4	C
C4014	F-8	F
C4015	F-8	F
C6001	F-9	F
C6002	D-8	F
C6003	B-9	F
C6004	B-9	F
C6005	B-9	F
C6006	B-8	F
C6007	B-9	F
C6008	B-8	F
C6009	B-8	F
C6010	B-9	F
C6011	B-9	F
C6012	F-10	F
C6013	C-8	F
C6014	E-8	F
C6015	B-10	F
C6016	C-10	F
C6017	E-8	F
C6018	C-10	F
C6019	D-9	F
C6020	D-3	C
C6021	B-10	F
C6022	C-10	F
C6023	B-8	F
C6024	D-3	C
C6025	D-3	C
C6026	D-9	F
C6027	B-8	F
C6028	F-10	F
C6029	D-3	C
C6030	D-9	F
C6032	D-3	C
C6033	C-3	C
C6036	B-10	F
C6037	E-8	F
C6038	D-3	C
C6044	B-10	F
C6045	B-9	F
C7101	D-7	F
C7102	B-7	F
C7103	C-7	F
C7106	C-7	F
C7107	B-7	F
C7108	D-7	F
C7109	D-7	F
C7110	C-7	F
C7111	C-6	F
C7112	C-7	F
C9001	D-8	F
C9003	E-3	C
C9018	B-7	F
CX6001	B-9	F
CX6002	B-10	F

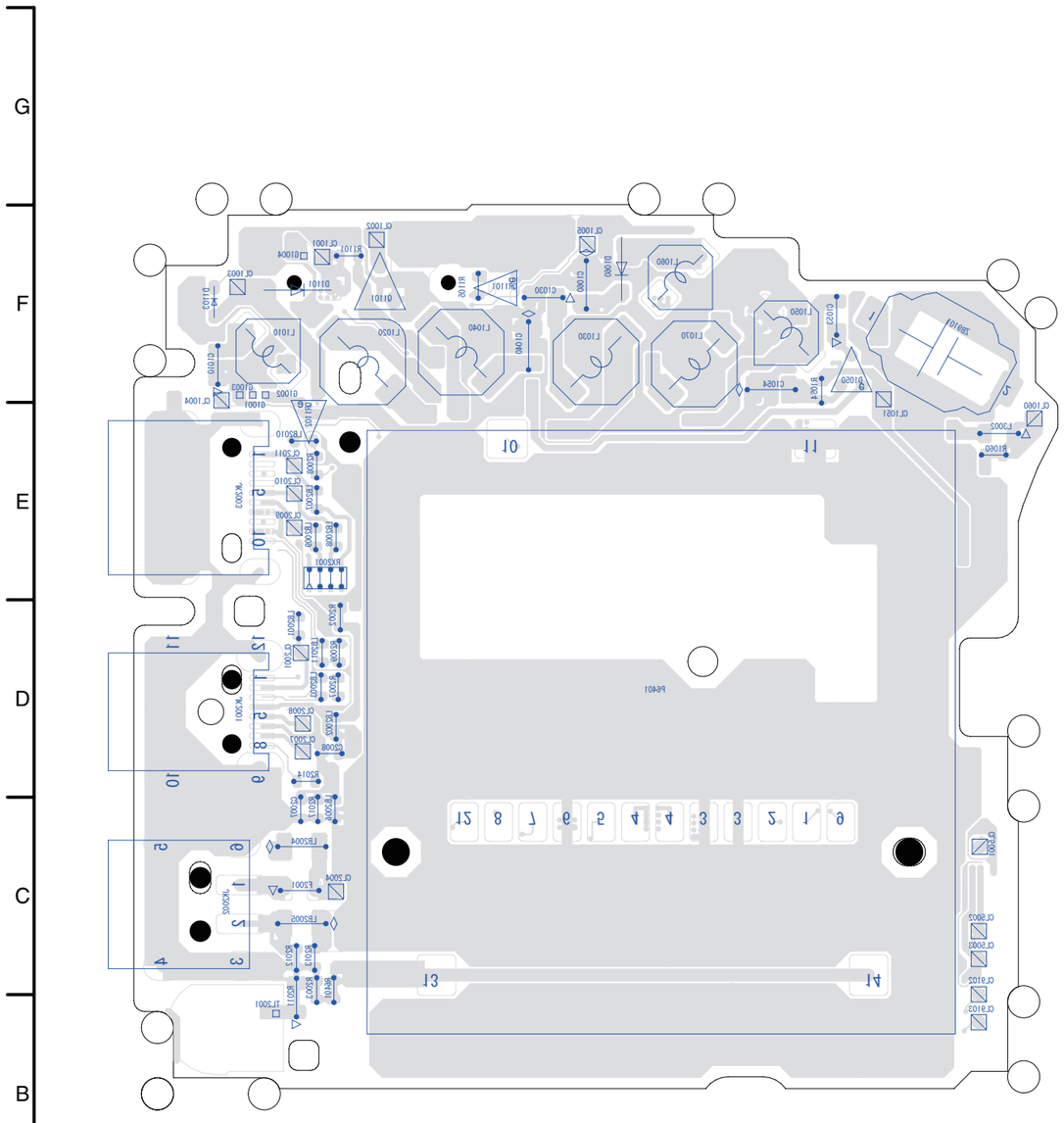
Resistor		
R2101	F-4	C
R2103	E-8	F
R2104	E-8	F
R4001	F-9	F
R6001	C-8	F
R6003	B-3	C
R6004	C-3	C
R6005	D-9	F
R6006	C-3	C
R6007	D-8	F
R6008	B-10	F
R6009	B-10	F
R6011	E-8	F
R6012	B-8	F
R6013	B-8	F
R6014	C-3	C
R6015	C-3	C
R6016	C-3	C
R6018	B-10	F
R6019	B-10	F
R6020	B-10	F
R6021	C-8	F
R6023	D-8	F
R6025	C-8	F
R6026	B-9	F
R6027	B-9	F
R6028	B-10	F
R6030	C-10	F
R6031	D-8	F
R6032	C-10	F
R6036	B-3	C
R6038	B-9	F
R6039	B-9	F
R6040	B-8	F
R6041	B-8	F
R6044	B-10	F
R6045	B-9	F
R6046	B-9	F
R6049	C-8	F
R6050	D-9	F
R6051	B-10	F
R6052	B-10	F
R6053	D-8	F
R6060	C-8	F
R9011	B-7	F
R9019	B-7	F
R9021	B-7	F
R9501	D-3	C
RX6001	B-3	C

Switch		
S9501	B-4	C
S9502	D-5	C
S9503	B-5	C
S9504	D-4	C
S9505	C-4	C
S9506	D-4	C
S9507	D-5	C

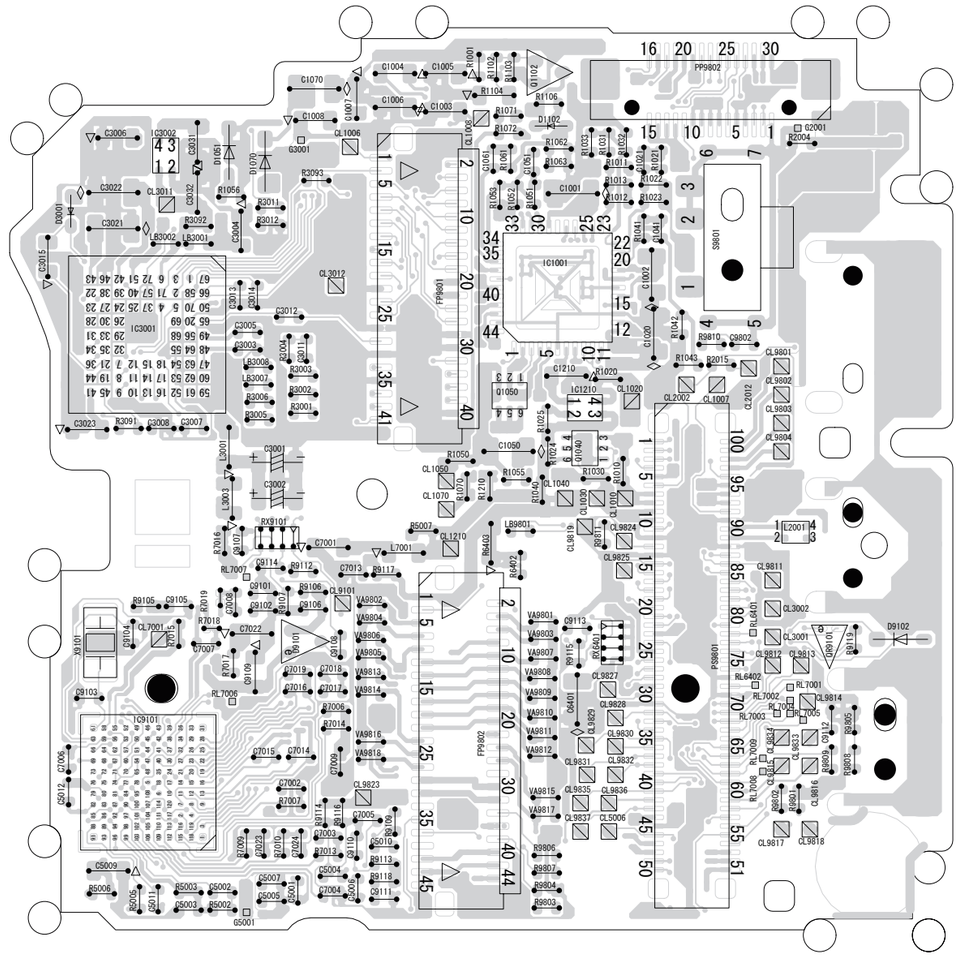
Address Information
C.....Component Side
F.....Foil Side

S5.2. Sub P.C.B.

S5.2.1. Sub P.C.B.



(Component Side)



(Foil Side)

DMC-FX35/FX36
Sub P.C.B.

S5.2.2. Sub P.C.B. Address Information

Sub P.C.B.

Integrated Circuit		
IC1001	E-9	F
IC1210	E-9	F
IC3001	E-7	F
IC3002	F-7	F
IC9101	C-7	F

Transistor		
Q1040	D-9	F
Q1050	E-8	F
Q1101	F-2	C
Q1102	F-9	F

Transistor-resistor		
QR1101	F-3	C
QR1102	E-2	C
QR9101	C-10	F

Test Point		
CL1001	F-2	C
CL1002	F-2	C
CL1003	F-2	C
CL1004	E-1	C
CL1005	F-3	C
CL1006	F-8	F
CL1007	E-9	F
CL1008	F-8	F
CL1010	D-9	F
CL1020	E-9	F
CL1030	D-9	F
CL1040	D-9	F
CL1050	D-8	F
CL1051	E-5	C
CL1060	E-5	C
CL1070	D-8	F
CL1210	D-8	F
CL2001	D-2	C
CL2002	E-9	F
CL2004	C-2	C
CL2007	D-2	C
CL2008	D-2	C
CL2009	E-2	C
CL2010	E-2	C
CL2011	E-2	C
CL2012	E-9	F
CL3001	C-10	F
CL3002	D-10	F
CL3011	F-7	F
CL3012	E-8	F
CL5001	C-5	C
CL5002	C-5	C
CL5003	C-5	C
CL5006	C-9	F
CL7001	C-7	F
CL9101	D-8	F
CL9102	C-5	C
CL9103	B-5	C
CL9801	E-10	F
CL9802	E-10	F
CL9803	E-10	F
CL9804	D-10	F
CL9811	D-10	F
CL9812	C-10	F
CL9813	C-10	F
CL9814	C-10	F
CL9815	C-10	F
CL9816	C-10	F
CL9817	C-10	F
CL9818	C-10	F
CL9819	D-9	F
CL9823	C-8	F
CL9824	D-9	F
CL9825	D-9	F
CL9827	C-9	F
CL9828	C-9	F
CL9829	C-9	F
CL9830	C-9	F
CL9831	C-9	F
CL9832	C-9	F
CL9833	C-10	F
CL9834	C-10	F
CL9835	C-9	F
CL9836	C-9	F
CL9837	C-9	F
RL6401	C-10	F
RL6402	C-10	F
RL7001	C-10	F
RL7002	C-10	F
RL7003	C-10	F
RL7004	C-10	F
RL7005	C-10	F
RL7006	C-7	F
RL7007	D-7	F
RL7008	C-10	F
RL7009	C-10	F
TL2001	B-2	C

Connector		
FP9801	E-8	F
FP9802	C-8	F
JK2001	D-1	C
JK2002	C-1	C
JK2003	E-1	C
P6401	D-4	C
PP9802	F-9	F
PS9801	C-9	F

Fuse		
F2001	C-2	C

Diode		
D1050	F-5	C
D1051	F-7	F
D1060	F-3	C
D1070	F-7	F
D1101	F-2	C
D1102	F-9	F
D1103	F-1	C
D3001	F-6	F
D9101	C-7	F
D9102	C-10	F

Crystal Oscillator		
X9101	C-6	F

Coil		
L1010	F-2	C
L1020	F-2	C
L1030	F-3	C
L1040	F-3	C
L1050	F-4	C
L1060	F-4	C
L1070	F-4	C
L2001	D-10	F
L3001	D-7	F
L3002	E-5	C
L3003	D-7	F
L7001	D-8	F
LB2001	D-2	C
LB2002	D-2	C
LB2003	D-2	C
LB2004	C-2	C
LB2005	C-2	C
LB2006	C-2	C
LB2007	E-2	C
LB2008	E-2	C
LB2009	E-2	C
LB2010	E-2	C
LB2011	D-2	C
LB3001	E-7	F
LB3002	E-7	F
LB3007	E-7	F
LB3008	E-7	F
LB9801	D-8	F

Capacitor		
C1001	F-9	F
C1002	E-9	F
C1003	F-8	F
C1004	F-8	F
C1005	F-8	F
C1006	F-8	F
C1007	F-8	F
C1008	F-7	F
C1010	F-1	C
C1020	E-9	F
C1021	F-9	F
C1030	F-3	C
C1040	F-3	C
C1041	E-9	F
C1050	D-8	F
C1051	F-8	F
C1053	F-4	C
C1054	F-4	C
C1060	F-3	C
C1061	F-8	F
C1070	F-7	F
C1210	E-9	F
C2007	C-2	C
C2008	D-2	C
C3001	D-7	F
C3002	D-7	F
C3003	E-7	F
C3004	E-7	F
C3005	E-7	F
C3006	F-6	F
C3007	E-7	F
C3008	E-7	F
C3011	E-7	F
C3012	E-7	F
C3013	E-7	F
C3014	E-7	F
C3015	E-6	F
C3021	E-6	F
C3022	F-6	F
C3023	E-6	F
C3031	F-7	F
C3032	F-7	F
C5001	B-7	F
C5002	B-7	F
C5003	B-7	F
C5004	B-8	F
C5005	B-7	F
C5006	B-8	F
C5007	B-7	F
C5009	B-6	F
C5010	B-8	F
C5011	B-7	F
C5012	C-6	F
C6401	C-9	F
C7001	D-7	F
C7002	C-7	F
C7003	B-7	F
C7004	B-8	F
C7005	C-8	F
C7006	C-6	F
C7007	C-7	F
C7008	D-7	F
C7009	C-8	F
C7013	D-8	F
C7014	C-7	F
C7015	C-7	F
C7016	C-7	F
C7017	C-8	F
C7018	C-8	F
C7019	C-7	F
C7022	C-7	F
C7023	B-7	F
C7024	B-7	F
C9101	D-7	F
C9102	D-7	F
C9103	C-6	F
C9104	C-7	F
C9105	D-7	F
C9106	D-7	F
C9107	D-7	F
C9108	C-8	F
C9109	C-7	F
C9110	B-8	F
C9111	B-8	F
C9112	C-10	F
C9113	D-9	F
C9114	D-7	F
C9802	E-9	F

Resistor		
R1001	F-8	F
R1010	D-9	F
R1011	F-9	F
R1012	F-9	F
R1013	F-9	F
R1020	E-9	F
R1021	F-9	F
R1022	F-9	F
R1023	F-9	F
R1024	D-9	F
R1025	E-9	F
R1030	D-9	F
R1031	F-9	F
R1032	F-9	F
R1033	F-9	F
R1040	D-9	F
R1041	E-9	F
R1042	E-9	F
R1043	E-9	F
R1050	D-8	F
R1051	F-8	F
R1052	F-8	F
R1053	F-8	F
R1054	F-4	C
R1055	D-8	F
R1056	F-7	F
R1060	E-5	C
R1061	F-8	F
R1062	F-9	F
R1063	F-9	F
R1070	D-8	F
R1071	F-8	F
R1072	F-8	F
R1101	F-2	C
R1102	F-8	F
R1103	F-8	F
R1104	F-8	F
R1105	F-3	C
R1106	F-9	F
R1210	D-8	F
R2002	D-2	C
R2003	C-2	C
R2004	F-10	F
R2007	D-2	C
R2008	E-2	C
R2009	D-2	C
R2011	B-2	C
R2012	C-2	C
R2013	C-2	C
R2014	D-2	C
R2015	E-9	F
R2017	C-2	C
R3001	E-7	F
R3002	E-7	F
R3003	E-7	F
R3004	E-7	F
R3005	E-7	F
R3006	E-7	F
R3011	F-7	F
R3012	F-7	F
R3091	E-7	F
R3092	F-7	F
R3093	F-7	F
R5002	B-7	F
R5003	B-7	F
R5005	B-7	F
R5006	B-6	F
R5007	D-8	F
R6401	C-2	C
R6402	D-8	F
R6403	D-8	F
R7006	C-8	F
R7007	C-7	F
R7009	B-7	F
R7010	B-7	F
R7013	B-7	F
R7014	C-8	F
R7015	C-7	F
R7016	D-7	F
R7017	C-7	F
R7018	D-7	F
R7019	D-7	F
R9105	D-7	F
R9106	D-7	F
R9107	D-7	F
R9109	C-8	F
R9112	D-7	F
R9113	B-8	F
R9114	C-7	F
R9115	C-9	F
R9116	C-8	F
R9117	D-8	F
R9118	B-8	F
R9119	C-10	F
R9801	C-10	F
R9802	C-10	F
R9803	B-9	F
R9804	B-9	F
R9805	C-10	F
R9806	B-9	F
R9807	B-9	F
R9808	C-10	F
R9809	C-10	F
R9810	E-9	F
R9811	D-9	F
RX2001	E-2	C
RX6401	C-9	F
RX9101	D-7	F

Varistor		
VA9801	D-9	F
VA9802	D-8	F
VA9803	C-9	F
VA9804	D-8	F
VA9805	C-8	F
VA9806	C-8	F
VA9807	C-9	F
VA9808	C-9	F
VA9809	C-9	F
VA9810	C-9	F
VA9811	C-9	F
VA9812	C-9	F
VA9813	C-8	F
VA9814	C-8	F
VA9815	C-9	F
VA9816	C-8	F
VA9817	C-9	F
VA9818	C-8	F

Backup Battery		
ZB9101	F-5	C

Ground Terminal		
G1001	E-2	C
G1002	F-2	C
G1003	F-2	C
G1004	F-2	C
G2001	F-10	F
G3001	F-7	F
G5001	B-7	F

Switch		
S9801	E-9	F

Address Information
C.....Component Side
F.....Foil Side

S6. Replacement Parts List

Note: 1.* Be sure to make your orders of replacement parts according to this list.

2. IMPORTANT SAFETY NOTICE
   Components identified with the mark ⚠ have the special characteristics for safety.
   When replacing any of these components, use only the same type.
3. Unless otherwise specified,
   All resistors are in OHMS, K=1,000 OHMS. All capacitors are in MICRO-FARADS (uf), P=uuF.
4. The marking (RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.
5. Supply of CD-ROM, in accordance with license protection, is allowable as replacement parts only for customers who accidentally damaged or lost their own.

E.S.D. standards for Electrostatically Sensitive Devices, refer to PREVENTION OF ELECTROSTATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES section.

Definition of Parts supplier:

1. **Parts marked with [MBI] in the remarks column are supplied from Matsushita Battery Industrial Co., Ltd.**

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
		------ P.C.B. LIST ------		
##	VEP56060A	MAIN P.C.B.	1	(RTL) E.S.D.
##	VEP51019A	SUB P.C.B.	1	(RTL) E.S.D.
		--- INDIVIDUAL PARTS ---		
		--- ELEC. COMPONENTS ---		
##	VEP56060A	MAIN P.C.B.		(RTL) E.S.D.
C2101	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C2102	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C2103	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C2105	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C2108	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C2109	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C2110	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C2112	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C2113	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C2114	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C4002	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C4003	ECJ1VB1C105K	C.CAPACITOR CH 16V 1U	1	
C4004	ECJ1VB1C105K	C.CAPACITOR CH 16V 1U	1	
C4005	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C4006	F1J0J1060009	C.CAPACITOR CH 6.3V 10U	1	
C4007	F1J0J1060009	C.CAPACITOR CH 6.3V 10U	1	
C4008	F1J0J226A014	C.CAPACITOR CH 6.3V 22U	1	
C4009	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C4010	ECJ1VB1C105K	C.CAPACITOR CH 16V 1U	1	
C4011	ECJ1VB1C105K	C.CAPACITOR CH 16V 1U	1	
C4012	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C4013	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C4014	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C4015	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C6001	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6002	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6003	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6004	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6005	F1H0J475A010	C.CAPACITOR CH 6.3V 4.7U	1	
C6006	F1H0J475A010	C.CAPACITOR CH 6.3V 4.7U	1	
C6007	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6008	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6009	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6010	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6011	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C6012	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6014	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	
C6015	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6016	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6017	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	
C6019	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6020	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6021	ECJ0EC1H100D	C.CAPACITOR CH 50V 10P	1	
C6022	ECJ0EC1H090D	C.CAPACITOR CH 50V 9P	1	
C6023	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C6024	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6025	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6026	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6027	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6028	F1J0J226A014	C.CAPACITOR CH 6.3V 22U	1	
C6029	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	
C6030	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6032	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6033	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6036	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6037	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C6038	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6044	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C6045	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C7101	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C7102	ECJ0EB1C153K	C.CAPACITOR CH 16V 0.015U	1	
C7103	ECJ0EB1C153K	C.CAPACITOR CH 16V 0.015U	1	
C7106	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C7107	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C7108	ECJ0EB1E472K	C.CAPACITOR CH 25V 4700P	1	
C7109	ECJ0EB1E472K	C.CAPACITOR CH 25V 4700P	1	
C7110	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C7111	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C7112	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
CX6001	F1L1E103A065	C.CAPACITOR CH 25V 0.01U	1	
CX6002	F1L1E103A065	C.CAPACITOR CH 25V 0.01U	1	
D9001	MA147TX	DIODE	1	E.S.D.
D9501	B3ABB0000150	DIODE	1	E.S.D.
FP9002	K1MN04BA0162	CONNECTOR 4P	1	
FP9003	K1MY37BA0235	CONNECTOR 37P	1	
IC2101	C9ZB00000568	IC	1	E.S.D.
IC2102	C9ZB00000576	IC	1	E.S.D.
IC6001	MN89510RF	IC	1	E.S.D.
IC6002	RS10080	IC	1	E.S.D.
IC7101	EWTS98LA1A	IC	1	E.S.D.
L7101	G1C220KA0124	CHIP INDUCTOR 22UH	1	
⚠ LB6001	J0JCC0000317	FILTER	1	
PP9001	K1KAA0AA0712	CONNECTOR 100P	1	
Q9002	2SC6054J0L	TRANSISTOR	1	E.S.D.
Q9003	B1CFHC000005	TRANSISTOR	1	E.S.D.
QR6001	UNR32AE00L	TRANSISTOR-RESISTOR	1	E.S.D.
QR7131	B1GFCFGN0011	TRANSISTOR-RESISTOR	1	E.S.D.
QR9101	B1GDCFNN0033	TRANSISTOR-RESISTOR	1	E.S.D.
QR9501	B1GBCFGN0024	TRANSISTOR-RESISTOR	1	E.S.D.
R2105	ERJ3GEY0R00V	M.RESISTOR CH 1/10W 0	1	
R2107	ERJ3GEY0R00V	M.RESISTOR CH 1/10W 0	1	
R2106	ERJ3GEY0R00V	M.RESISTOR CH 1/10W 0	1	
R4001	ERJ2GEJ224	M.RESISTOR CH 1/16W 220K	1	
R6001	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R6004	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6006	ERJ2RKF5901	M.RESISTOR CH 1/16W	1	
R6008	ERJ2GEJ105	M.RESISTOR CH 1/16W 1M	1	
R6009	ERJ2GEJ122	M.RESISTOR CH 1/16W 1.2K	1	
R6011	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6012	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R6013	ERJ2GEJ333	M.RESISTOR CH 1/16W 33K	1	
R6014	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6015	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6016	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6018	ERJ2RHD9101	M.RESISTOR CH 1/16W	1	
R6019	ERJ2RHD222	M.RESISTOR CH 1/16W 2.2K	1	
R6020	ERJ2RHD122	M.RESISTOR CH 1/16W 1.2K	1	
R6021	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R6025	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6028	ERJ2RKD820	M.RESISTOR CH 1/16W 82	1	
R6030	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R6031	ERJ2RKD330	M.RESISTOR CH 1/16W 33	1	
R6038	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6039	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6040	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6041	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6044	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6045	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6046	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6049	ERJ2RKD330	M.RESISTOR CH 1/16W 33	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R6050	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R6051	ERJ2RKD750	M.RESISTOR CH 1/16W 75	1	
R6052	ERJ2RKD750	M.RESISTOR CH 1/16W 75	1	
R6053	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R6060	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R9011	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R9019	ERJ2RKD180X	M.RESISTOR CH 1/16W 18	1	
R9021	ERJ2RHD181	M.RESISTOR CH 1/16W 180	1	
R9501	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
RX6001	EXBN8V103J	RESISTOR ARRAY 1/16W 10K	1	
S9501	EVQPQ6B55	SWITCH	1	
S9502	EVQPQ6B55	SWITCH	1	
S9503	EVQPQ6B55	SWITCH	1	
S9504	EVQPQ6B55	SWITCH	1	
S9505	EVQPQ6B55	SWITCH	1	
S9506	EVQPQ6B55	SWITCH	1	
S9507	EVQPQ6B55	SWITCH	1	
X6001	H0J240500026	CRYSTAL OSCILLATOR	1	
##	VEP51019A	SUB P.C.B.		(RTL) E.S.D.
C1001	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	
C1002	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	
C1003	ECJ1VB1A334K	C.CAPACITOR CH 10V 0.33U	1	
C1004	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C1005	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C1006	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C1007	ECJ1VB0J225K	C.CAPACITOR CH 6.3V 2.2U	1	
C1008	ECJ1VB0J225K	C.CAPACITOR CH 6.3V 2.2U	1	
C1010	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C1020	F1J0J226A014	C.CAPACITOR CH 6.3V 22U	1	
C1030	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C1040	F1J0J226A014	C.CAPACITOR CH 6.3V 22U	1	
C1050	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	
C1051	ECJ0EB1C562K	C.CAPACITOR CH 16V 5600P	1	
C1053	ECJ1XB1C104K	C.CAPACITOR CH 16V 0.1U	1	
C1054	F1J1E4750002	C.CAPACITOR CH 25V 4.7U	1	
C1060	F1J1C106A059	C.CAPACITOR CH 16V 10U	1	
C1070	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	
C1210	ECJ1VB1A105K	C.CAPACITOR CH 10V 1U	1	
C3001	F3E0J476A014	E.CAPACITOR CH 6.3V 47U	1	
C3002	F3E0J476A014	E.CAPACITOR CH 6.3V 47U	1	
C3003	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C3004	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C3005	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C3006	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C3007	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C3008	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C3011	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C3012	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C3013	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C3014	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C3015	ECJ1VB1H104K	C.CAPACITOR CH 50V 0.1U	1	
C3021	F1J1C106A059	C.CAPACITOR CH 16V 10U	1	
C3022	F1J1A106A043	C.CAPACITOR CH 10V 10U	1	
C3023	F1H1C105A097	C.CAPACITOR CH 16V 1U	1	
C3031	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C3032	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C5001	F1G1H1020008	C.CAPACITOR CH 50V 1000P	1	
C5002	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C5004	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C5005	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C5006	ECJ0EB1A473K	C.CAPACITOR CH 10V 0.047U	1	
C5007	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C5009	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C5010	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C5011	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C5012	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C6401	ECJ2FB0J106M	C.CAPACITOR CH 6.3V 10U	1	
C7001	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C7002	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	
C7003	ECJ0EB1C103K	C.CAPACITOR CH 16V 0.01U	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
C7004	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C7005	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C7013	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C7018	ECJ0EB1E222K	C.CAPACITOR CH 25V 2200P	1	
C7019	ECJ0EB1E222K	C.CAPACITOR CH 25V 2200P	1	
C7022	F1H0J106A009	C.CAPACITOR CH 6.3V 10U	1	
C7023	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C7024	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C9101	F1G1H1020008	C.CAPACITOR CH 50V 1000P	1	
C9102	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C9103	ECJ0EC1H120J	C.CAPACITOR CH 50V 12P	1	
C9104	ECJ0EC1H100D	C.CAPACITOR CH 50V 10P	1	
C9105	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C9106	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
C9108	F1G1A1040006	C.CAPACITOR CH 10V 0.1U	1	
C9109	F1H0J475A010	C.CAPACITOR CH 6.3V 4.7U	1	
C9111	F1G0J1050007	C.CAPACITOR CH 6.3V 1U	1	
D1050	B0JDCE000013	DIODE	1	E.S.D.
D1051	MA8082LTX	DIODE	1	E.S.D.
D1060	MA2ZD1800L	DIODE	1	E.S.D.
D1070	B0JCGD000002	DIODE	1	E.S.D.
D1101	MA22D2800L	DIODE	1	E.S.D.
D1102	MA2S111008	DIODE	1	E.S.D.
D1103	MA2S111008	DIODE	1	E.S.D.
D3001	MA2S111008	DIODE	1	E.S.D.
D9101	B0JDCE000013	DIODE	1	E.S.D.
D9102	MA2ZD1800L	DIODE	1	E.S.D.
⚠ F2001	ERBSE1R50U	FUSE 32V 1.5A	1	
FP9801	K1MY41BA0235	CONNECTOR 41P	1	
FP9802	K1MY45BA0235	CONNECTOR 45P	1	
IC1001	VUEALLPT015	IC	1	E.S.D.
IC1210	C0CBCBC00236	IC	1	E.S.D.
IC3001	C1AB00002917	IC	1	E.S.D.
IC3002	C0CBCBC00236	IC	1	E.S.D.
IC9101	C1AB00002894	IC	1	E.S.D.
JK2001	K1FB108E0008	CONNECTOR 12P	1	
JK2002	K2YZ02000039	CONNECTOR 6P	1	
JK2003	K2HZ110B0001	CONNECTOR 10P	1	
L1010	G1C100MA0190	CHIP INDUCTOR 10UH	1	
L1020	G1C4R7ZA0104	CHIP INDUCTOR 4.7UH	1	
L1030	G1C4R7ZA0189	CHIP INDUCTOR 4.7UH	1	
L1040	G1C100MA0328	CHIP INDUCTOR 1UH	1	
L1050	G1C4R7ZA0039	CHIP INDUCTOR 4.7UH	1	
L1060	G1C150MA0190	CHIP INDUCTOR 15UH	1	
L1070	G1C100MA0328	CHIP INDUCTOR 1UH	1	
L2001	EXC24CE900U	COMMON MODE NOISE FILTER	1	
L3001	G1C100KA0124	CHIP INDUCTOR 10UH	1	
L3002	G1C100KA0124	CHIP INDUCTOR 10UH	1	
L3003	G1C100KA0124	CHIP INDUCTOR 10UH	1	
L7001	G1C220KA0124	CHIP INDUCTOR 22UH	1	
LB2001	J0JCC0000415	FILTER	1	
LB2002	J0JCC0000415	FILTER	1	
LB2003	J0JCC0000415	FILTER	1	
LB2004	J0JHC0000048	FILTER	1	
LB2005	J0JHC0000048	FILTER	1	
LB2006	J0JCC0000415	FILTER	1	
LB2007	J0JYC0000059	FILTER	1	
LB2008	J0JYC0000059	FILTER	1	
LB2009	J0JYC0000059	FILTER	1	
LB2010	J0JCC0000415	FILTER	1	
LB2011	J0JCC0000415	FILTER	1	
LB3001	J0JBC0000044	FILTER	1	
LB3002	J0JBC0000044	FILTER	1	
LB3007	G1C68NJ00010	CHIP INDUCTOR 68UH	1	
LB3008	G1C68NJ00010	CHIP INDUCTOR 68UH	1	
LB9801	J0JBC0000044	FILTER	1	
P6401	K1NA09E00038	CONNECTOR 9P	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
PP9802	K1KA30BA0186	CONNECTOR 30P	1	
PS9801	K1KBA0AA0224	CONNECTOR 100P	1	
Q1040	B1CFHC000006	TRANSISTOR	1	E.S.D.
Q1050	MTM866270L	TRANSISTOR	1	E.S.D.
Q1101	MTM232230L	TRANSISTOR	1	E.S.D.
Q1102	2SD2216J0L	TRANSISTOR	1	E.S.D.
QR1101	B1GBCFJN0041	TRANSISTOR-RESISTOR	1	E.S.D.
QR1102	B1GBCFNJ0014	TRANSISTOR-RESISTOR	1	E.S.D.
R1001	ERJ2RKD124	M.RESISTOR CH 1/16W 120K	1	
R1011	ERJ2RKD164	M.RESISTOR CH 1/16W 160K	1	
R1012	ERJ2RKD124	M.RESISTOR CH 1/16W 120K	1	
R1021	ERJ2RKD564	M.RESISTOR CH 1/16W 560K	1	
R1022	ERJ2RKD364	M.RESISTOR CH 1/16W 360K	1	
R1023	ERJ2RKD334	M.RESISTOR CH 1/16W 330K	1	
R1024	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R1031	ERJ2RKD304	M.RESISTOR CH 1/16W 300K	1	
R1032	ERJ2RKD564	M.RESISTOR CH 1/16W 560K	1	
R1041	ERJ2RKD304	M.RESISTOR CH 1/16W 300K	1	
R1042	ERJ2RKD154	M.RESISTOR CH 1/16W 150K	1	
R1043	ERJ2RKD474X	M.RESISTOR CH 1/16W 470K	1	
R1051	ERJ2RKD184	M.RESISTOR CH 1/16W 180K	1	
R1052	ERJ2RHD303	M.RESISTOR CH 1/16W 30K	1	
R1054	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R1056	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R1061	ERJ2RKD224	M.RESISTOR CH 1/16W 220K	1	
R1062	ERJ2RHD203	M.RESISTOR CH 1/16W 20K	1	
R1071	ERJ2RKD304	M.RESISTOR CH 1/16W 300K	1	
R1072	ERJ2RHD393	M.RESISTOR CH 1/16W 39K	1	
R1101	ERJ2GEJ104	M.RESISTOR CH 1/16W 100K	1	
R1102	ERJ2GEJ154	M.RESISTOR CH 1/16W 150K	1	
R1103	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R1104	ERJ3GEYJ681	M.RESISTOR CH 1/10W 680	1	
R1106	ERJ2GEJ473	M.RESISTOR CH 1/16W 47K	1	
R2007	ERJ2GEJ561	M.RESISTOR CH 1/16W 560	1	
R2008	ERJ2GEJ561	M.RESISTOR CH 1/16W 560	1	
R2009	ERJ2GEJ561	M.RESISTOR CH 1/16W 560	1	
R2014	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R2015	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3001	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R3002	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R3003	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3004	ERJ2GEJ680	M.RESISTOR CH 1/16W 68	1	
R3011	ERJ2GEJ101	M.RESISTOR CH 1/16W 100	1	
R3012	ERJ2GEJ103	M.RESISTOR CH 1/16W 10K	1	
R3093	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
R5002	ERJ2GEJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5006	ERJ2GEJ390	M.RESISTOR CH 1/16W 39	1	
R6402	ERJ2GEJ223	M.RESISTOR CH 1/16W 22K	1	
R7006	ERJ2RHD682X	M.RESISTOR CH 1/16W 6.8K	1	
R7007	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R7009	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R7010	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R7013	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R7014	ERJ2RHD682X	M.RESISTOR CH 1/16W 6.8K	1	
R7017	ERJ2BQFR56	M.RESISTOR CH 1/16W 0.56	1	
R9105	ERJ2GEJ512X	M.RESISTOR CH 1/16W 5.1K	1	
R9106	ERJ2GEJ824	M.RESISTOR CH 1/16W 820K	1	
R9107	ERJ2GEJ334	M.RESISTOR CH 1/16W 330K	1	
R9109	ERJ2GEJ201	M.RESISTOR CH 1/16W 200	1	
R9112	ERJ2GEJ220	M.RESISTOR CH 1/16W 22	1	
R9113	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R9114	ERJ2RHD183	M.RESISTOR CH 1/16W 18K	1	
R9119	ERJ2RHD223	M.RESISTOR CH 1/16W 22K	1	
R9801	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R9802	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R9803	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R9804	ERJ2GEJ183	M.RESISTOR CH 1/16W 18K	1	
R9805	ERJ2GED273X	M.RESISTOR CH 1/16W 27K	1	
R9806	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R9807	ERJ2GEJ151	M.RESISTOR CH 1/16W 150	1	
R9808	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	

Ref.No.	Part No.	Part Name & Description	Pcs	Remarks
R9809	ERJ2GEJ221	M.RESISTOR CH 1/16W 220	1	
R9810	ERJ2GEJ102X	M.RESISTOR CH 1/16W 1K	1	
R9811	D0YAR0000007	M.RESISTOR CH 1/16W 0	1	
RX2001	EXBN8V750J	RESISTOR ARRAY 1/16W 75	1	
RX6401	EXBN8V473J	RESISTOR ARRAY 1/16W 47K	1	
RX9101	EXBN8V102J	RESISTOR ARRAY 1/16W 1K	1	
S9801	K0D112B00145	SWITCH	1	
VA9801	D4ED16R80001	VARISTORS	1	
VA9802	D4ED16R80001	VARISTORS	1	
VA9803	D4ED16R80001	VARISTORS	1	
VA9804	D4ED16R80001	VARISTORS	1	
VA9805	D4ED16R80001	VARISTORS	1	
VA9806	D4ED16R80001	VARISTORS	1	
VA9807	D4ED16R80001	VARISTORS	1	
VA9808	D4ED16R80001	VARISTORS	1	
VA9809	D4ED16R80001	VARISTORS	1	
VA9810	D4ED16R80001	VARISTORS	1	
VA9811	D4ED16R80001	VARISTORS	1	
VA9812	D4ED16R80001	VARISTORS	1	
VA9813	D4ED16R80001	VARISTORS	1	
VA9814	D4ED16R80001	VARISTORS	1	
VA9815	D4ED16R80001	VARISTORS	1	
VA9816	D4ED16R80001	VARISTORS	1	
VA9817	D4ED16R80001	VARISTORS	1	
VA9818	D4ED16R80001	VARISTORS	1	
X9101	H0J327200208	CRYSTAL OSCILLATOR	1	
ZB9101	K3ZZ00200042	BATTERY HOLDER	1	