

# TASCAM

## SERVICE MANUAL

# DP-24/32/32SD

## Digital Portastudio

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### INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

# 1. SAFETY INFORMATION

## 安全規格

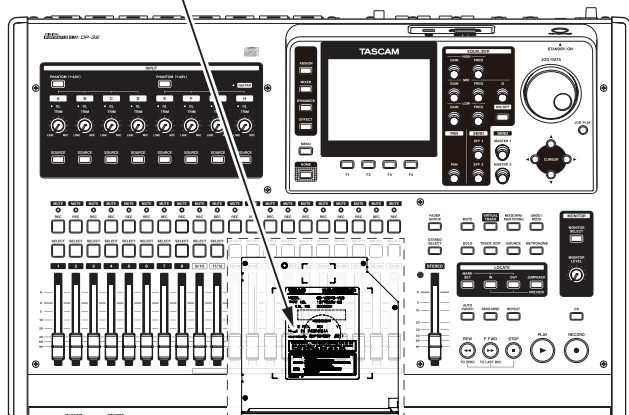
### ● CAUTIONS ABOUT LASER RADIATION

This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968," and is classified as a class 1 laser product. There is no hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings.

The label required in this regulation is shown at ①.

### ① For USA

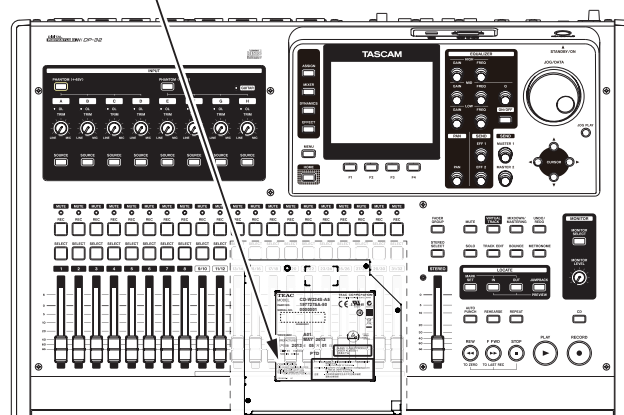
CERTIFICATION - THIS PRODUCT COMPLIES WITH 21 CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO.50, DATED JUNE 24, 2007.



CD-W224S-W50

### CERTIFICATION

THIS PRODUCT COMPLIES WITH 21 CFR 1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO.50, DATED JUNE 24, 2007.



CD-W224S-A5

### ● Cautions

- DO NOT REMOVE THE EXTERNAL CASES OR CABINETS TO EXPOSE THE ELECTRONICS. NO USER SERVICEABLE PARTS ARE INSIDE.
- IF YOU ARE EXPERIENCING PROBLEMS WITH THIS PRODUCT, CONTACT THE STORE WHERE YOU PURCHASED THE UNIT FOR A SERVICE REFERRAL. DO NOT USE THE PRODUCT UNTIL IT HAS BEEN REPAIRED.
- USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

Optical pickup :	Drive type	CD-W224S-W50 (Old)	CD-W224S-A5 (New)
	Type	SW651L	SW671L
	Manufacturer	Hitachi Media Electronics Co., Ltd.	Hitachi Media Electronics Co., Ltd.
	Laser output	Less than 95mW on the objective lens	Less than 130.7 mW on the objective lens
	Wavelength	785 nm (Typ.)	783 nm (Typ.)
	Standard	EC60825-1: 2007	IEC60825-1: 2007

### ● CAUTION for products that use replaceable lithium batteries:

There is danger of explosion if a battery is replaced with an incorrect type of battery.

Replace only with the same or equivalent type.

## 2. Specifications

### 仕様

#### Ratings

##### Recording media

SD card	: 512 MB - 2 GB
SDHC card	: 4 GB - 32 GB

##### File system

SD card (512 MB - 2 GB)	: FAT16
SDHC card (4 GB - 32 GB)	: FAT32

#### Analog audio Input/output ratings

##### INPUT A to H jack

Connector : XLR-3-31 [Balanced]  
(1 : GND, 2 : HOT, 3 : COLD)

Input impedance	: 2.4 k $\Omega$
Standard input level	: -14 dBu
Maximum input level	: +2 dBu

Connector : [6.3 mm (1/4") TRS standard jack]

Input impedance	: 22 k $\Omega$ or more
On <b>INPUT "H"</b> , when <b>LINE-GUITAR</b> switch is set to <b>[GUITAR]</b>	
Input impedance	: 1 M $\Omega$
Standard input level	: +4 dBu
Maximum input level	: +20 dBu

##### STEREO OUT jack

Connector	: RCA pin jack
Rated output level	: -10 dBV
Maximum output level	: +6 dBV
Output impedance	: 200 $\Omega$

##### EFFECT SENDS jack

Connector	: [6.3 mm (1/4") TS standard jack]
Rated output level	: -10 dBV
Maximum output level	: +6 dBV
Output impedance	: 200 $\Omega$

##### MONITOR OUT jack

Connector	: [6.3 mm (1/4") TRS standard jack]
Rated output level	: -2 dBu
Maximum output level	: +14 dBu
Output impedance	: 200 $\Omega$

##### PHONES jack

Connector	: [6.3 mm stereo jack]
Maximum output level	: 70 mW+70 mW or more (THD+N 0.1% or less, 32 $\Omega$ load)

#### Control input/output ratings

##### MIDI input (MIDI IN) \*1

Connector	: 5-pin DIN
Format	: Standard MIDI format

##### MIDI output (MIDI OUT)\*1

Connector	: 5-pin DIN
Format	: Standard MIDI format

Note) \*1 : Model DP-32SD is excluded.

##### USB port

Connector	: USB 4-pin mini-B type
Format	: Mass Storage Class USB 2.0 HIGH SPEED

##### REMOTE jack

Connector	: 2.5 mm TRS jack
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#### 定格

##### 記録メディア

SDカード	: 512MB - 2GB
SDHCカード	: 4GB - 32GB

##### ファイルシステム

SDカード (512MB - 2GB)	: FAT16
SDHCカード (4GB - 32GB)	: FAT32

#### アナログオーディオ入出力定格

##### INPUT A-H端子

コネクター : XLR-3-31 [BALANCED]  
(1 : GND、2 : HOT、3 : COLD)

入力インピーダンス	: 2.4 k $\Omega$
規定入力レベル	: -14 dBu
最大入力レベル	: +2 dBu

コネクター : [6.3 mm (1/4") TRS 標準ジャック]

入力インピーダンス	: 22 k $\Omega$ 以上
<b>INPUT "H"</b> で、 <b>LINE-GUITAR</b> スイッチを <b>[GUITAR]</b> に設定時	
入力インピーダンス	: 1M $\Omega$
規定入力レベル	: +4 dBu
最大入力レベル	: +20 dBu

##### STEREO OUT 端子

コネクター	: RCA ピンジャック
規定出力レベル	: -10 dBV
最大出力レベル	: +6 dBV
出力インピーダンス	: 200 $\Omega$

##### EFFECT SENDS 端子

コネクター	: [6.3 mm (1/4") TS 標準ジャック]
規定出力レベル	: -10 dBV
最大出力レベル	: +6 dBV
出力インピーダンス	: 200 $\Omega$

##### MONITOR OUT 端子

コネクター	: [6.3 mm (1/4") TRS 標準ジャック]
規定出力レベル	: -2 dBu
最大出力レベル	: +14 dBV
出力インピーダンス	: 200 $\Omega$

##### PHONES 端子

コネクター	: [6.3 mm (1/4") ステレオジャック]
最大出力レベル	: 70mW+70mW 以上 (THD+N 0.1%以下、32 $\Omega$ 負荷)

#### コントロール入出力定格

##### MIDI入力 (MIDI IN) \*1

コネクター	: DIN 5ピン
フォーマット	: 標準MIDIフォーマット

##### MIDI出力 (MIDI OUT) \*1

コネクター	: DIN 5ピン
フォーマット	: 標準MIDIフォーマット

注) \*1 : DP-32SDを除く。

##### USB 端子

コネクター	: USB Mini-B タイプ 4ピン
フォーマット	: USB 2.0 HIGH SPEED マスストレージクラス

##### REMOTE 端子

コネクター	: 2.5mmTRSジャック
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## Audio performance

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### Frequency response

INPUT (MIC/LINE)	: STEREO OUT/EFFECT SENDS
MONITOR OUT	: 20Hz – 20 kHz, +1dB/-1dB

### Distortion

INPUT (MIC/LINE)	: STEREO OUT / EFFECT SENDS
MONITOR OUT	: 0.01% or less

### S/N ratio

INPUT (MIC/LINE)	: STEREO OUT / EFFECT SENDS
MONITOR OUT	: 90 dB or more

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## Computer compatibility

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### Windows

Pentium 300 MHz or faster  
128 MB or more memory, USB port (USB 2.0 recommended)

### Macintosh

Power PC / iMac / G3 / G4 266 MHz or faster  
64 MB or more memory, USB port (USB 2.0 recommended)

### Recommended USB host controller

Intel chipset

### Supported OS

Windows	: Windows XP, Windows Vista, Windows 7, Windows 8
Macintosh	: Mac OS X 10.2 or later

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## General

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### Power

DP-24/32	AC adapter (TASCAM PS-1225L)
DP-32SD	AC adapter (GPE248-120200-Z)

### Power consumption

12 W (Phantom power ON)

### Dimensions (W x H x D)

DP-24/32	514 x 104 x 340 mm (Width x Height x Depth)
DP-32SD	514 x 100.4 x 336.9 mm (Width x Height x Depth)

### Weight

6.2 kg/13.67 lb

### Operating temperature range

5 to 35°C/41 to 95°F

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## オーディオ性能

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### 周波数特性

INPUT (MIC/LINE)	: STEREO OUT / EFFECT SENDS
MONITOR OUT	: 20Hz – 20 kHz、+1dB/-1dB

### 歪率

INPUT (MIC/LINE)	: STEREO OUT / EFFECT SENDS
MONITOR OUT	: 0.01% 以下

### S/N 比

INPUT (MIC/LINE)	: STEREO OUT / EFFECT SENDS
MONITOR OUT	: 90 dB 以上

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## 接続するパソコンの動作条件

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### Windows

Pentium 300MHz以上  
128MB 以上の Memory、USB ポート (推奨 : USB2.0)

### Macintosh

Power PC / iMac / G3 / G4 266MHz以上  
64MB 以上の Memory、USB ポート (推奨 : USB2.0)

### 推奨USBホストコントローラー数

Intel製チップセット

### サポートOS

Windows	: Windows XP、Windows Vista、Windows 7、Windows 8
Macintosh	: Mac OS X 10.2以上

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## 一般

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### 電源

DP-24/32	専用ACアダプター (TASCAM PS-1225L)
DP-32SD	専用ACアダプター (GPE248-120200-Z)

### 消費電力

12W (ファントム電源使用時)

### 外形寸法

DP-24/32	514×104×340mm (幅×高さ×奥行き)
DP-32SD	514×100.4×336.9mm (幅×高さ×奥行き)

### 質量

6.2kg

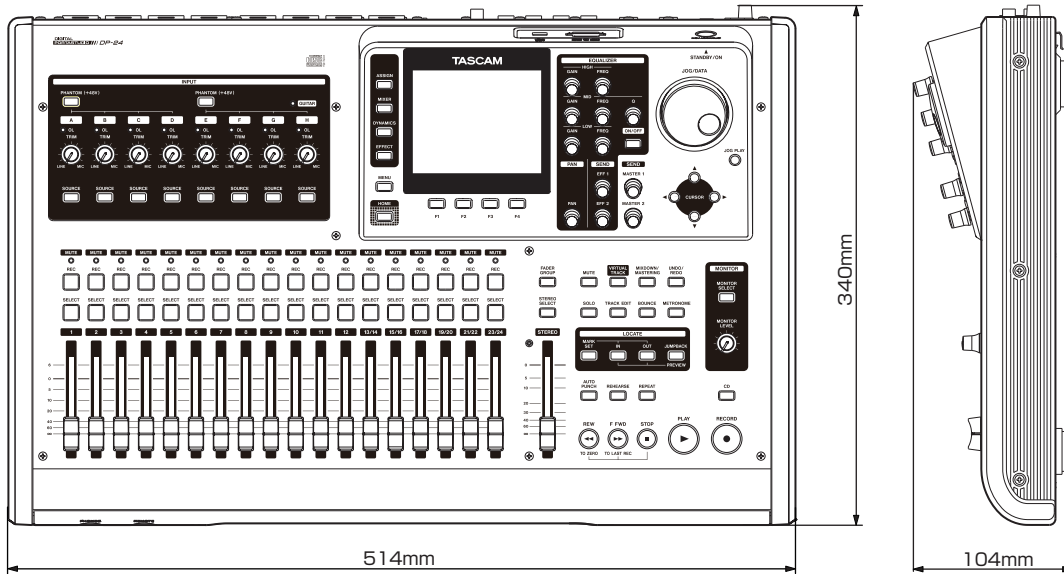
### 動作温度

5 – 35°C

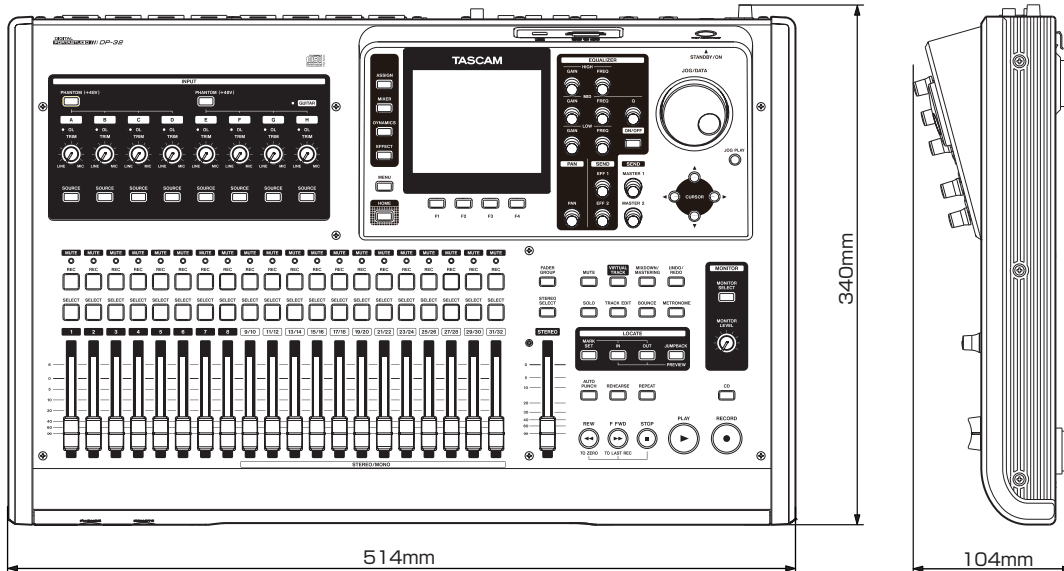
# 3. Dimensional drawings

寸法図

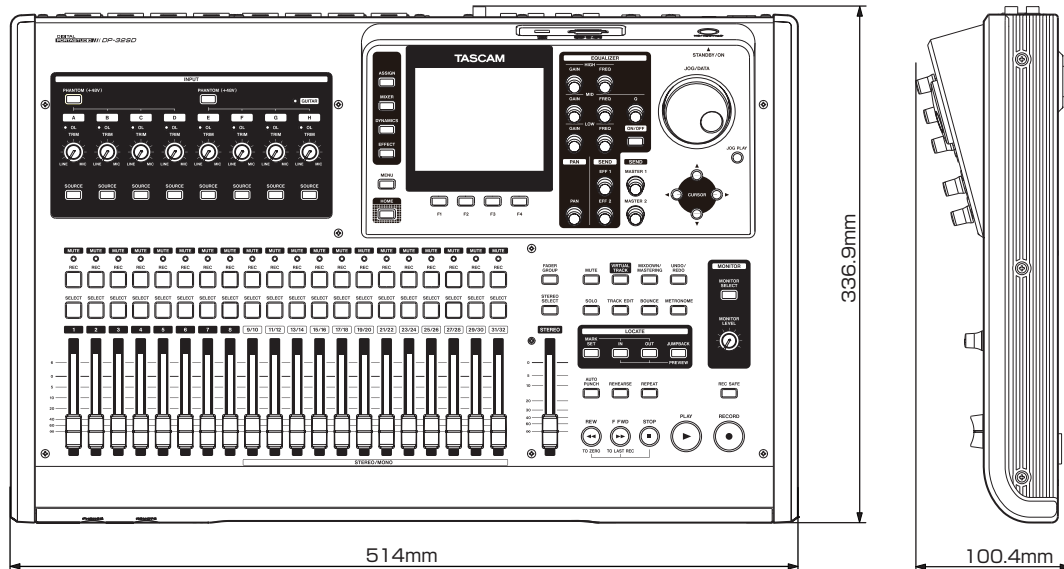
## DP-24



## DP-32



## DP-32SD



# 4. Initial operation check

## 初期動作確認

### 1. Preparation

#### 1-1 Prepare equipment

- 2 CD players
- L/R speakers with built-in amplifiers
- SD card included with unit
- CD-RW disc
- Mini-B type cable that supports USB 2.0 PC with Windows XP, Windows Vista or Windows 7 installed  
(Copy the distributed "DEMO SONG (\*1)" folder to this PC.)

Note) \*1 : There are different DP-24 and DP-32 (including DP-32SD) "DEMO SONG" folders for each type of unit. Prepare the correct one.

#### 1-2 Connecting equipment

- Connect the 2 CD players to the **A-B MIC/LINE INPUTS** using cords with standard 6.3mm TRS jacks. (Fig. 1-①)
- Use RCA cords to connect L/R speakers with built-in amplifiers to the L/R **STEREO OUT** jacks. (Fig. 1-②)

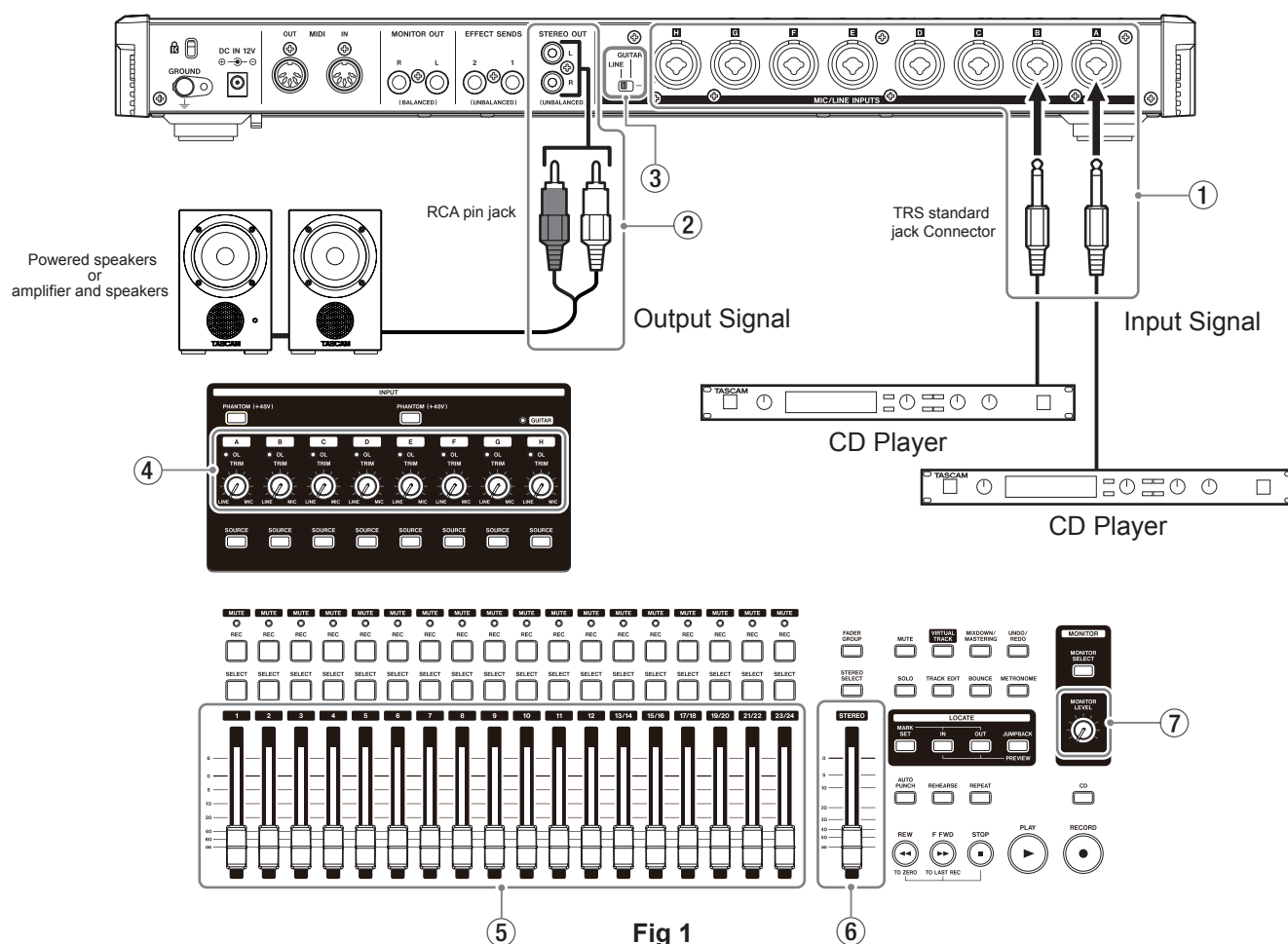


Fig 1

#### 1-3 Initial settings of switches, knobs and faders

- **LINE-GUITAR** switch : LINE (Fig. 1-③)
- **A-H INPUT TRIM** knobs : minimum position (LINE) (Fig. 1-④)
- **TRACK FADERS** : minimum position (Fig. 1-⑤)
- **STEREO FADERS** : minimum position (Fig. 1-⑥)
- **MONITOR LEVEL** knob : minimum position (Fig. 1-⑦)

### 1. 準備

#### 1-1 機材の準備

- CDプレーヤー 2台
- AMP内蔵スピーカー L/R
- 本機に同梱のSDカード
- CD-RW ディスク
- Mini-BタイプのUSB2.0対応ケーブル
- Windows XP、Windows Vista、Windows 7のいずれかのOSを搭載したPC  
(上記のPCには、配布済の[DEMO SONG (\*1)]フォルダーをコピーして用意しておく)

注) \*1 : [DEMO SONG] フォルダは、DP-24/DP-32(DP-32SDを含む)の機種毎にあるので、対象機種に合わせて準備してください。

#### 1-2 機器の接続

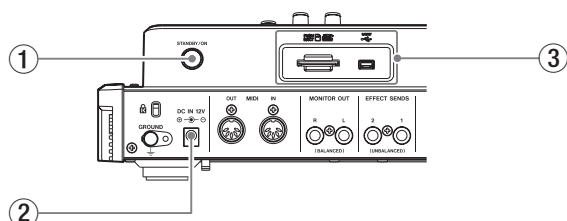
- **MIC/LINE INPUTS** 端子 **A-B**chにCDプレーヤー 2台を [6.3 mm TRS 標準ジャック] コードで、それぞれ接続する。(Fig1-①)
- **STEREO OUT** L/R端子にAMP内蔵スピーカー L/RをRCAコードで、それぞれ接続する。(Fig1-②)

#### 1-3 スイッチ・ノブ・フェーダーの初期設定

- **LINE-GUITAR** スイッチ : LINE側 (Fig1-③)
- **INPUT TRIM** ノブ **A-H** : 最小位置 (LINE側) (Fig1-④)
- **TRACK FADER** ノブ : 最小位置 (Fig1-⑤)
- **STEREO FADER** ノブ : 最小位置 (Fig1-⑥)
- **MONITOR LEVEL** ノブ : 最小位置 (Fig1-⑦)

## 2. Turning the main unit on and off

- Connect the included AC adapter to the **DC IN 12V** connector on the back of the unit (Fig. 2-②), and insert the SD card into the SD card slot (Fig. 2-③).
- Press and hold the **STANDBY/ON** button on the back of the unit (Fig. 2-①).
- When the unit completes starting up, the **HOME** screen appears on the LCD. (Fig. 2-④)
- To turn the unit off, press and hold the **STANDBY/ON** button on the back of the unit.



## 2. 本機の起動と終了方法

- 背面の **DC IN 12V** 端子 (Fig2-②) に、付属の AC アダプターを接続し、付属の SD カードスロット (Fig2-③) に SD カードを挿入する。
- 背面の **STANDBY/ON** ボタン (Fig2-①) を長押しする。
- 本機の起動が完了すると、LCD 画面に **[HOME]** 画面 (Fig2-④) が表示される。
- 終了する場合は、背面の **STANDBY/ON** ボタンを長押しする。

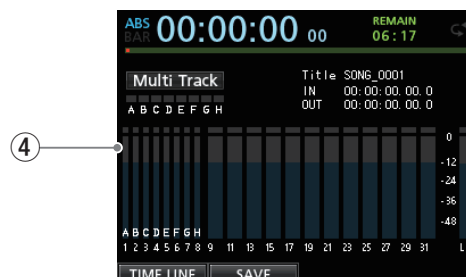


Fig 2

## 3. Checking main unit operations

### 3-1 Checking SD card formatting operations

- If the HOME screen is not open, press the **HOME** button to open the **HOME** screen. (Fig. 3-②)
- Next, press the **MENU** button (Fig. 3-①) to open the **MENU** screen (Fig. 3-⑤).
- Use the **JOG/DATA** dial (Fig. 3-④) to select the **"FORMAT"** icon (Fig. 3-⑥). After selection, press the **F4** button (Fig. 3-③), which corresponds to the [▶] icon at the bottom right of the screen, to open the format selection screen.

### CAUTION

If you insert an SD card that has not been previously used, **"Format Error"** will appear on the display (Fig. 3-⑦).

In this case, press the **F1** button (Fig. 3-③), which corresponds to the [◀] icon at the bottom left of the screen (Fig. 3-⑧), to close the error screen and return to the **HOME** screen.

After returning to the **HOME** screen, press the **MENU** button, and conduct the procedure described in **[3-2 Formatting an SD card]**.

## 3. 本機の動作確認

### 3-1 SDカードのフォーマット動作確認

- **[HOME]** 画面を表示していない場合は、**HOME** ボタン (Fig3-②) を押して、**[HOME]** 画面にする。
- 次に **MENU** ボタン (Fig3-①) を押して、**[MENU]** 画面 (Fig3-⑤) にする。
- カーソルを **JOG/DATA** ダイアル (Fig3-④) で操作し、**"FORMAT"** アイコン (Fig3-⑥) を選択する。選択後、画面右下の [▶] マークに対応する **F4** ボタン (Fig3-③) を押し、フォーマット選択画面に移動する。

### 注意

未使用のSDカードを挿入するとLCD画面に**"Format Error"** (Fig3-⑦) を表示します。

その場合、画面左下の [◀] マーク (Fig3-⑧) に対応する **F1** ボタン (Fig3-③) を押すとエラー画面を解除し、**[HOME]** 画面に復帰します。

**[HOME]** 画面に復帰後、**MENU** ボタンを押して、**[3-2 SDカードのフォーマットの実行]** を行ってください。

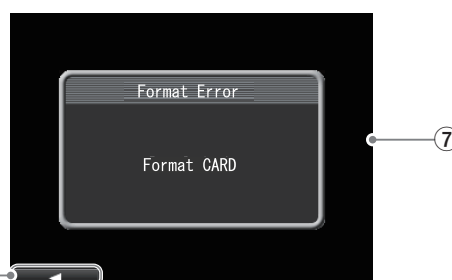
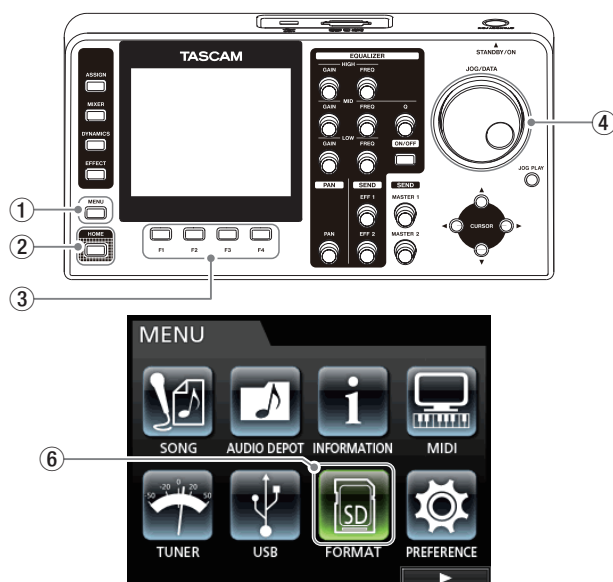


Fig 3

### 3-2 Formatting an SD card

- Open the format selection screen on the display (Fig. 4-①).
- Use the **JOG/DATA** dial to select the **"QUICK FORMAT"** icon (Fig. 4-②).

After selection, press the **F4** button (Fig. 3-③), which corresponds to the [▶] icon at the bottom right of the screen, to open the format confirmation screen (Fig. 4-③).

After opening the screen, press the **F2** button, which corresponds to the "YES" icon at the bottom left of the screen, to start formatting the card.

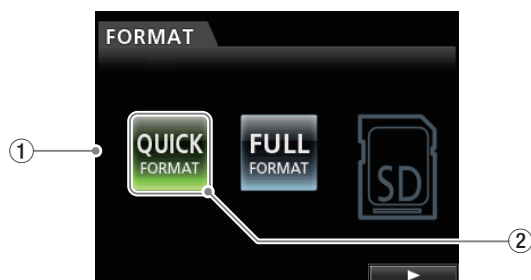


Fig 4

- During formatting, the screen shown in Fig. 5-① appears. After formatting completes, the screen shown in Fig. 5-② appears. After formatting, press the **F1** button, which corresponds to the [◀] icon at the bottom left of the screen.

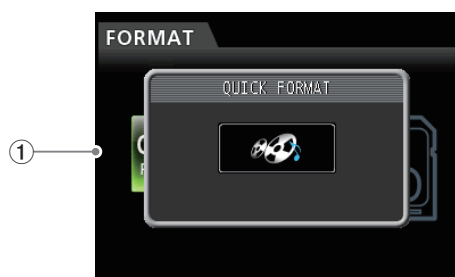


Fig 5

- When the format selection screen reopens, press the **HOME** button (Fig. 6-①) to return to the **HOME** screen (Fig. 6-②).

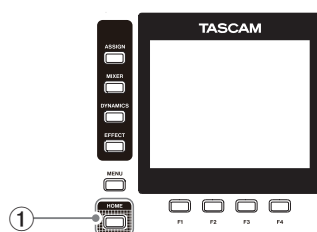
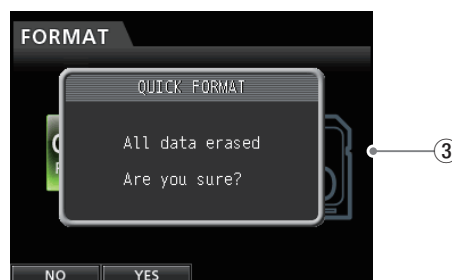


Fig 6

This completes **"Checking SD card formatting"** operations.

### 3-2 SDカードのフォーマットの実行

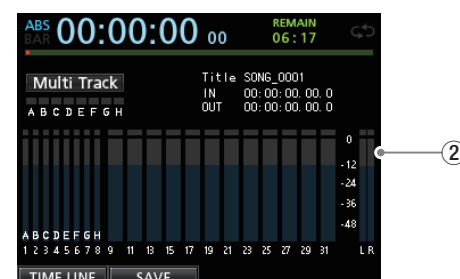
- LCD画面にフォーマット選択画面(Fig4-①)を表示する。
- カーソルを**JOG/DATA**ダイヤルで操作し、**"QUICK FORMAT"**アイコン(Fig4-②)を選択する。選択後、画面右下の[▶]マークに対応する**F4**ボタンを押し、フォーマット同意画面(Fig4-③)に移動する。移動後、画面左下の[YES]マークに対応する**F2**ボタンを押し、フォーマットを実行する。



- フォーマットの実行中は、画面(Fig5-①)を表示する。フォーマットの完了で、画面(Fig5-②)が表示される。完了後、画面左下の[◀]マークに対応する**F1**ボタンを押す。



- フォーマット選択画面に戻るので、**HOME**ボタン(Fig6-①)を押して、**[HOME]**画面(Fig6-②)に戻る。



以上で**[SDカードのフォーマット動作確認]**は完了です。

### 3-3 ASSIGN settings

- Press the **HOME** button to return to the **HOME** screen.
  - Insert a formatted SD card into the SD card slot on the back of the unit, and press the **ASSIGN** button (Fig. 7-①).
- The **ASSIGN** screen shown below appears (Fig. 7-②).

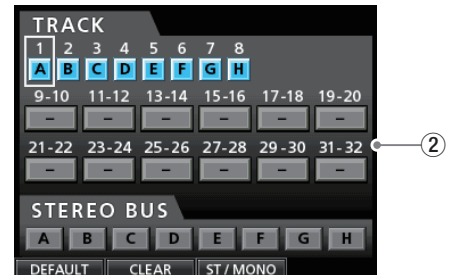
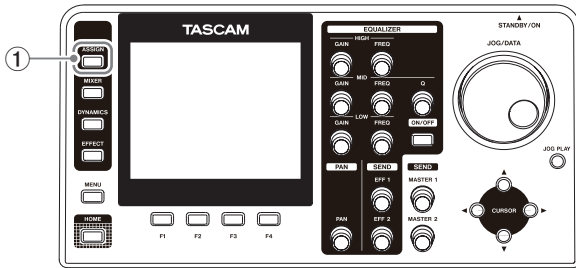


Fig 7

### CAUTION

The setting examples in this document use a "DP-32".  
The "DP-24" can be set in the same manner described below. However, use the following track numbers instead.

DP-32	DP-24
[TRACK 9-10]	[TRACK 13-14]
[TRACK 9/10]-SELECT button	[TRACK 12/14]-SELECT button
[TRACK 9/10]-REC button	[TRACK 13/14]-REC button

- Next, press the **TRACK 9/10-SELECT** button (Fig. 8-①) and set the input tracks (Fig. 8-②).

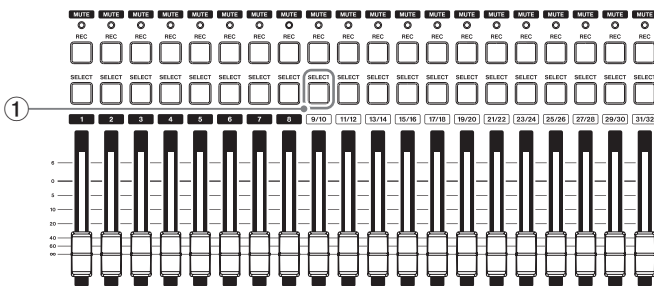


Fig 8

- Then, press **INPUT SOURCE-A** and **B** buttons (Fig. 9-①) to set the **TRACK 9-10** input signals to **MIC/LINE INPUTS A** and **B**.

After setting, A-B appears for **TRACK 9-10** on the display (Fig. 9-②).

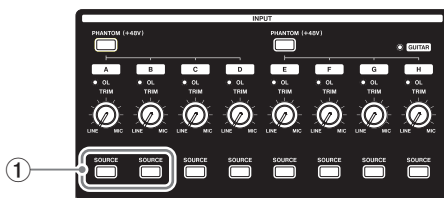


Fig 9

### 3-3 ASSIGNの設定

- **HOME** ボタンを押して、**[HOME]**画面に戻る。
- 背面のSDカードスロットにフォーマットしたSDカードを挿入して、**ASSIGN** ボタン (Fig7-①) を押す。下記の**[ASSIGN]**画面 (Fig7-②) が表示される。

### 注意

設定例として本文中は、[DP-32] で説明しています。  
[DP-24] で設定を行う場合、下記の名称を置き換えてください。

DP-32	DP-24
[TRACK 9-10]	[TRACK 13-14]
[TRACK 9/10]-SELECT ボタン	[TRACK 12/14]-SELECT ボタン
[TRACK 9/10]-REC ボタン	[TRACK 13/14]-REC ボタン

- 次に**[TRACK 9/10]-SELECT** ボタン (Fig8-①) を押し、入力トラック (Fig8-②) を設定する。



- 続いて**[TRACK 9-10]**の入力信号を **MIC/LINE INPUTS** 端子 **A-B** ch に設定するため、**[INPUT SOURCE]-[A]**、**[B]** ボタン (Fig9-①) を押す。

設定後、LCD画面に**[TRACK 9-10]**に**[A-B]** (Fig9-②) が表示される。



### 3-4 Checking recording

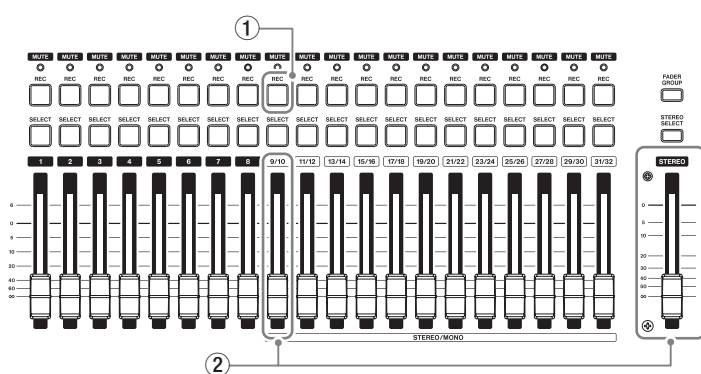
- First, follow the procedures in "3-3 ASSIGN settings".
- Insert a formatted SD card into the SD card slot on the back of the unit.
- Press the HOME button to return to the HOME screen.

#### 3-4-1 Press the TRACK 9/10-REC buttons (Fig. 10-①) to enable recording mode.

At this time, confirm that the REC button (Fig. 10-①) is blinking.

#### 3-4-2 Start playback of a music CD with the CD player, and input the music signals through the MIC/LINE INPUTS A-B jacks on the back of the unit.

- Confirm that the TRACK 9-10 (A-B) level meters (Fig. 10-③) on the HOME screen are moving.
- While gradually raising the TRACK 9/10 and STEREO FADERS (Fig. 10-②), confirm that sound is output from the speakers with built-in amplifiers that are connected to the STEREO OUT L/R jacks.



### 3-4 録音の確認

- 最初に [3-3 ASSIGN の設定] を実施する。
- 背面のSDカードスロットにフォーマットしたSDカードを挿入する。
- HOME ボタンを押して、[HOME]画面に戻る。

#### 3-4-1 [TRACK 9/10]-REC ボタン(Fig10-①) を押し、REC モードにする。

その際、REC ボタン(Fig10-①)の点滅を確認する。

#### 3-4-2 CDプレーヤーで音楽CDを再生させ、背面のMIC/LINE INPUTS 端子 A-Bch に音楽信号を入力する。

- [HOME]画面で[TRACK 9-10 (A-B)](Fig10-③)のレベルメーターが振れていることを確認する。
- TRACK FADER [9/10]と STEREO FADER(Fig10-②)のレベルをゆっくりと上げながら、STEREO OUT L/R端子に接続したAMP内蔵スピーカーから音が出ていることを確認する。

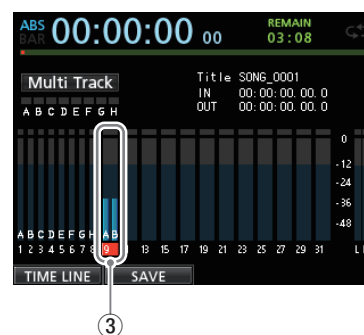


Fig 10

#### 3-4-3 Press the RECORD [●] button (Fig. 11-①) to start recording.

At the same time, confirm that the counter on the HOME screen (Fig. 11-②) is advancing.

At this time, confirm that the PLAY [▶] and RECORD [●] buttons are lit. (Fig. 11-①)

#### 3-4-3 RECORD[●] ボタン(Fig11-①) を押し、録音を開始する。それと同時に [HOME]画面のカウンター (Fig11-②) が進むこと確認する。

その際、PLAY[▶] ボタンと RECORD[●] ボタンが点灯していることも確認する。(Fig11-①)

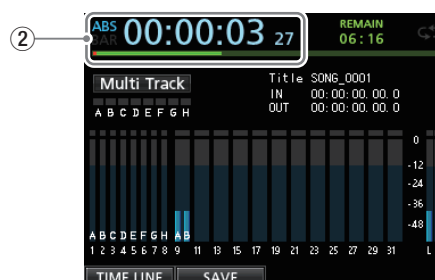
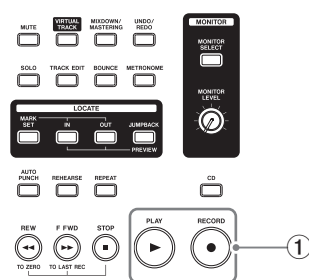


Fig 11

#### 3-4-4 After recording for 10 seconds, press the STOP [■] button to stop recording.

At the same time, confirm that the counter on the HOME screen has stopped.

At this time, confirm that the PLAY [▶] and RECORD [●] buttons blink for three seconds and then become unlit.

#### 3-4-5 Press the TRACK 9/10-REC buttons to disable recording mode.

- Confirm that the TRACK 9-10 (A-B) level meters on the HOME screen are not moving, and that no sound is coming from the speakers with built-in amplifiers.

#### 3-4-4 10秒程度録音が経過したら、STOP[■] ボタンを押して録音を停止する。

それと同時に [HOME]画面のカウンターが停止することを確認する。

その際、PLAY[▶] ボタンと RECORD[●] ボタンが3秒程度点滅後、両ボタンが消灯することを確認する。

#### 3-4-5 [TRACK 9/10]-REC ボタンを押して、RECモードを解除する。

- [HOME]画面で[TRACK 9-10 (A-B)]のレベルメーターが振れていないこと、AMP内蔵スピーカーから音が出ていないことを確認する。

以上で [録音動作確認] は完了です。

This completes "Checking recording" operations.

### 3-5 Checking playback

- Press the **HOME** button to return to the **HOME** screen.
- Insert the SD card that was used to record in **3-4 Checking recording** into the SD card slot on the back of the unit.
- In order to reset the counter (Fig. 12-②) to "00:00:00", press the **STOP [■]** and **REW [◀◀]** buttons at the same time. (Fig. 12-①)

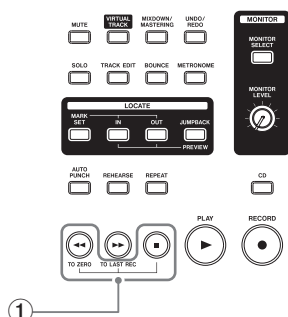


Fig 12

#### 3-5-1 Press the **PLAY [▶]** button to start playback.

- Confirm that the **TRACK 9-10 (A-B)** level meters on the **HOME** screen are moving.
- Confirm that sound is being output from the speakers with built-in amplifiers connected to the **STEREO OUT** L/R jacks.
- Press the **STOP [■]** button to stop playback.

This completes "**Checking playback**" operations.

### 3-6 Checking the USB port connection and SD card writing

- Press the **HOME** button (Fig. 13-②) to open the HOME screen.
- Use a USB cable to connect the PC prepared in "**1-1 Preparing equipment**" and this unit.
- Insert an SD card into the SD card slot on the back of the unit, and press the **MENU** button (Fig. 13-①).
- The **MENU** screen appears on the display (Fig. 13-⑤).
- Use the **JOG/DATA** dial (Fig. 13-④) to select the "**USB**" icon (Fig. 13-⑥).

After selection, press the **F4** button (Fig. 13-③), which corresponds to the [▶] icon at the bottom right of the screen, to open the USB connection selection screen.

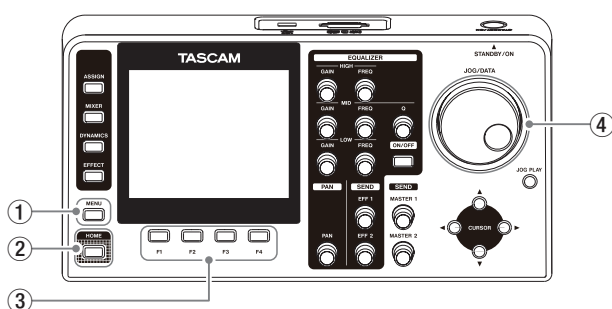
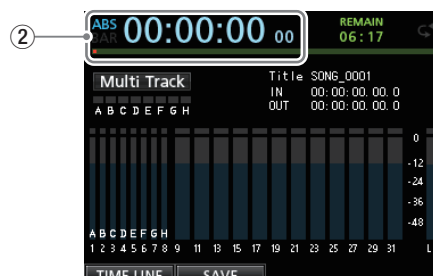


Fig 13

### 3-5 再生の確認

- **HOME** ボタンを押して、**[HOME]**画面に戻る。
- 背面のSDカードスロットに**[3-4 録音の確認]**で録音したSDカードを挿入する。
- カウンター (Fig12-②)を"00:00:00"表示に戻すため、**STOP[■]**ボタンと**REW[◀◀]**ボタンを同時に押して、カウンターリセットを行う。(Fig12-①)



#### 3-5-1 **PLAY[▶]** ボタンを押して、再生する。

- **[HOME]**画面で**[TRACK 9-10 (A-B)]**のレベルメーターが振れていることを確認する。
- **STEREO OUT** L/R端子に接続したAMP内蔵スピーカーから音が出ていることを確認する。
- **STOP[■]**ボタンで停止する。

以上で**[再生動作確認]**は完了です。

### 3-6 USBポートの接続とSDカード書き込み確認

- **HOME** ボタン (Fig13-②)を押して、**[HOME]**画面にする。
- **[1-1 機材の準備]**で用意したPCと本機をUSBケーブルで接続する。
- 背面のSDカードスロットにSDカードを挿入して、**MENU** ボタン (Fig13-①)を押す。
- LCD画面に**[MENU]**画面 (Fig13-⑤)が表示される。
- カーソルを**JOG/DATA**ダイヤル (Fig13-④)で操作し、"**USB**"アイコン (Fig13-⑥)を選択する。

選択後、画面右下の**[▶]**マーク (Fig13-⑦)に対応する**F4**ボタン (Fig13-③)を押し、USB接続選択画面に移動する。



- 3-6-1 After opening the USB connection selection screen (Fig. 14-①), press the **F2** button (Fig. 14-③), which corresponds to the "YES" icon at the bottom left of the screen (Fig. 14-②), to enable the USB connection.

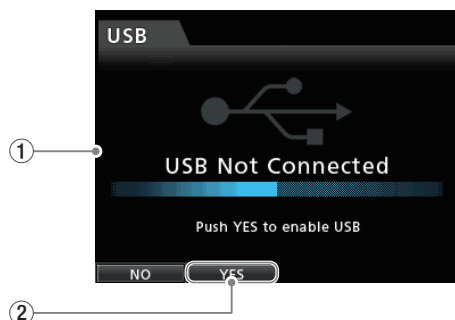
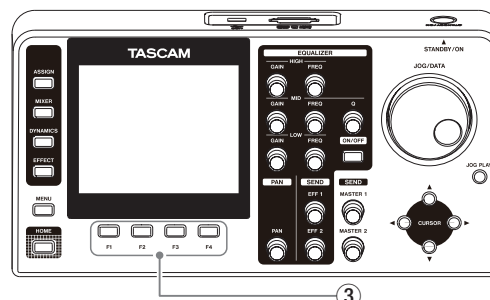
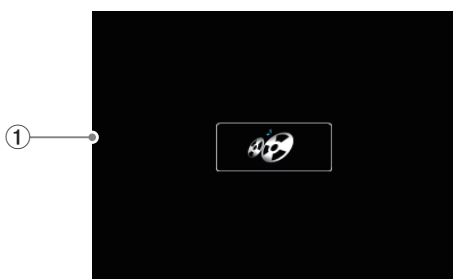


Fig 14

- 3-6-2 While connecting by USB, the in-progress indicator shown in Fig. 15-① will appear. When this unit is connected by USB, "USB Connected" (Fig. 15-②) will appear.



- 3-6-2 USB接続処理中の画面(Fig15-①)を表示後、本機がUSB接続準備状態になると"USB Connected"(Fig15-②)を表示する。



Fig 15

When the PC and this unit have been successfully connected by USB, the "DP-32" (or "DP-24") will appear as a removable disk in My Computer (Windows XP).

#### CAUTION

If "DP-32" (or "DP-24") does not appear in My Computer (Windows XP), check the connections of the USB ports on the PC and this unit, try using a different USB cable, and then repeat the connection procedures in "3-6 Checking the USB port connection" again.

- 3-6-3 If you open the "DP-32" (or "DP-24") drive as a removable hard disk on the PC, "MUSIC", "UTILITY" and "AudioDepot" folders will be shown.  
Copy the "DEMO SONG" folder that you prepared in "1-1 Preparing equipment" to the "MUSIC" folder.
- 3-6-4 After copying completes, close the "DP-32" (or "DP-24") removable disk drive on the PC and disconnect this unit from the PC.

#### CAUTION

When disconnecting the unit from the PC, use "Safely Remove Hardware" from the PC system tray.

PCと本機が問題なくUSB接続を完了すると、PCのマイコンピュータ (Windows XP の場合)のリムーバブルディスクに[DP-32(またはDP-24)]をドライブとして表示する。

#### 注意

PCのマイコンピュータ (Windows XP の場合)に[DP-32(またはDP-24)]が表示されない場合、PCと本機のUSBポートを確認し、USBケーブルを他のケーブルに交換して、**[3-6 USBポートの確認]**からもう一度、接続を行ってください。

- 3-6-3 PCのリムーバブルディスク[DP-32(またはDP-24)]のドライブを開くと"MUSIC"、"UTILITY"、"AudioDepot"の各フォルダを表示する。  
その中の"MUSIC"フォルダに[1-1 機材の準備]で用意したPC内にある[DEMO SONG]フォルダをコピーする。
- 3-6-4 コピー完了後、PCのリムーバブルディスク[DP-32(またはDP-24)]のドライブを閉じ、本機とPCの切り離しを行う。

#### 注意

PCと切り離しを行う際、PCのシステムトレイから**[ハードウェアの安全な取り外し]**を実行してください。

### 3-6-5 After completing the disconnection from the PC, the USB connection will also close on this unit.

On the **"USB Connected"** screen (Fig. 16-①), press the **F2** button, which corresponds to the **"YES"** icon (Fig. 16-②), to return to the USB connection selection screen (Fig. 16-③). Press the **F1** button, which corresponds to the **"NO"** icon (Fig. 16-④), to end USB connection and return to the **MENU** screen.

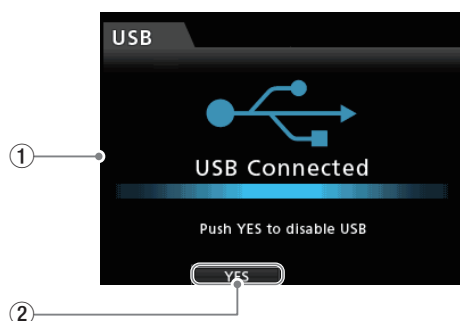


Fig 16

### 3-6-6 Checking the "DEMO SONG" folder on the unit's SD card.

Press the **MENU** button to open the **MENU** screen (Fig. 17-①), and use the **JOG/DATA** dial to select the **"SONG"** icon (Fig. 17-②).

After selection, press the **F4** button (Fig. 17-④), which corresponds to the **[▶]** icon at the bottom right of the screen (Fig. 17-③), to open the **"SONG LIST"** screen.

Confirm that the folder copied from the PC appears on the **"SONG LIST"** screen.

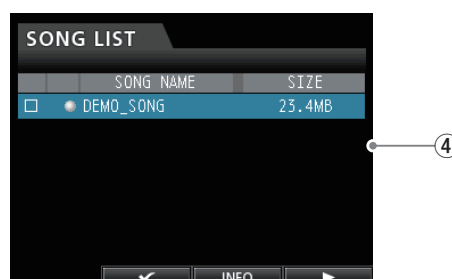


Fig 17

This completes **"Checking the USB port connection and SD card writing"**.

### 3-6-5 PC側の切り離し完了後、本機側もUSB接続を終了する。

**"USB Connected"**(Fig16-①)の表示画面から、**[YES]**マーク(Fig16-②)に対応する**F2**ボタンを押し、USB接続選択画面(Fig16-③)に移動する。

**[NO]**マーク(Fig16-④)に対応する**F1**ボタンを押し、USB接続を解除して**[MENU]**画面に移動する。

### 3-6-6 本機のSDカードに取り込んだ、**[DEMO SONG]**フォルダーを確認する。

**MENU** ボタンを押し、画面に**[MENU]**画面(Fig17-①)を表示させ、カーソルを**JOG/DATA**ダイヤルで操作し、**"SONG"**アイコン(Fig17-②)を選択する。

選択後、画面右下の**[▶]**マーク(Fig17-③)に対応する**F4**ボタンを押し、**[SONG LIST]**選択画面(Fig17-④)に移動する。

**[SONG LIST]**選択画面にPCからコピーしたフォルダー名があることを確認する。

以上で**[USBポートの接続とSDカード書き込み確認]**は、完了です。

### 3-8 Checking CD writing (does not apply to DP-32SD)

- Press the **HOME** button to return to the **HOME** screen.
- Press the **CD** button (Fig. 18-①) to open the **CD menu** (Fig. 18-②).
- Use the **JOG/DATA** dial to select **"MASTER WRITE"** from the **CD menu** (Fig. 18-③).
- Press the CD drive EJECT button to open the CD tray. Then, load the CD-RW disc that you prepared in **"1-1 Preparing equipment"**.

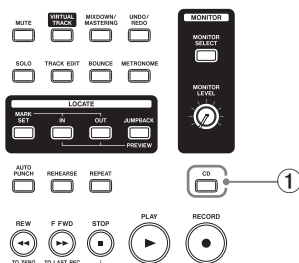
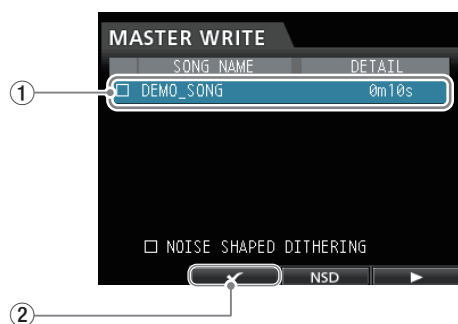


Fig 18

- 3-8-1 After loading the CD-RW disc, press the **F4** button (Fig. 18-④), which corresponds to the [▶] icon at the bottom right of the screen, to open the **"MASTER WRITE"** screen (Fig. 19-①).

Press the **F2** button, which corresponds to the "✓" icon (Fig. 19-②), to put a check in the check box for the **"DEMO SONG"** on the MASTER WRITE screen.

After checking the "✓" icon (Fig. 19-③), press the **F4** button that corresponds to the [▶] icon (Fig. 19-④).



- 3-8-1 CD-RWディスク挿入後、画面右下の[▶]マーク (Fig18-④)に対応する**F4**ボタンを押し、**[MASTER WRITE]**リスト画面 (Fig19-①)に移動する。

**[MASTER WRITE]**リスト画面の**[DEMO SONG]**のチェックBOXに[✓]マークに対応する**F2**ボタン (Fig19-②)を押し。

[✓]マーク (Fig19-③)を確認後、[▶]マーク (Fig19-④)に対応する**F4**ボタンを押し。



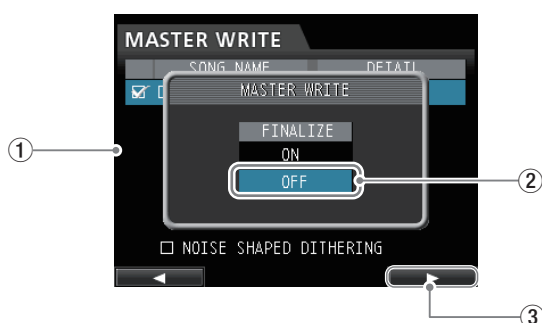
Fig 19

- 3-8-2 The **MASTER WRITE** menu opens (Fig. 20-①). Use the **JOG/DATA** dial to select **"OFF"** from the **MASTER WRITE** menu (Fig. 20-②).

After selection, press the **F4** button, which corresponds to the [▶] icon at the bottom right of the screen (Fig. 20-③).

After the CD drive recognizes the disc, **"Burning to CD. Are you sure?"** will appear as a confirmation message (Fig. 20-④).

Press the **F2** button, which corresponds to the "YES" icon (Fig. 20-⑤), to start writing.



- 3-8-2 **MASTER WRITE MENU** (Fig20-①)が表示される。**MASTER WRITE MENU**上のカーソルを**JOG/DATA**ダイヤルで操作し、**"OFF"** (Fig20-②)を選択する。

選択後、画面右下の[▶]マーク (Fig20-③)に対応する**F4**ボタンを押し。

CDドライブがディスクを認識すると、書き込み確認のメッセージ**"Burning to CD. Are you sure?"** (Fig20-④)を表示するので、[YES]マーク (Fig20-⑤)に対応する**F2**ボタンを押し、書き込みを開始する。

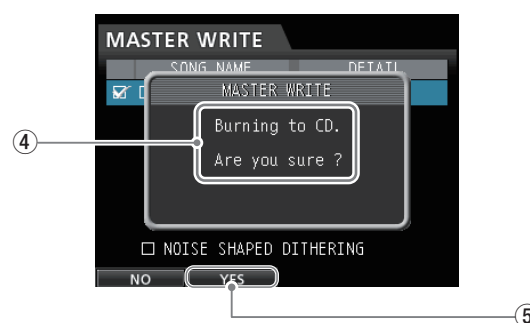


Fig 20

3-8-3 While the CD-RW disc is being written, an in-progress indicator will appear as shown in Fig. 21-①.

After writing completes, "MASTER WRITE Completed." will appear on the display for 2-3 seconds (Fig. 21-②), and then the "MASTER WRITE" screen (Fig. 21-③) will open.

At this time, writing the "DEMO SONG" has completed. Confirm that the check box no longer has a check mark (Fig. 21-④).

This completes "Checking CD writing".

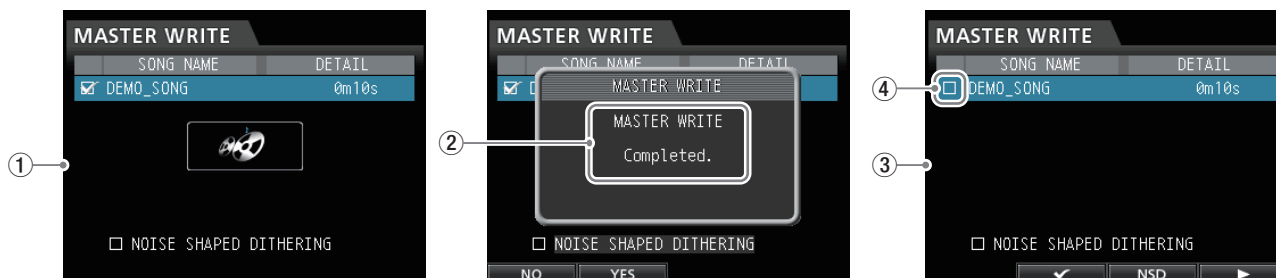


Fig 21

### 3-9 Checking CD playback (does not apply to DP-32SD)

- Connect headphones to the **PHONES** jack on the front of the unit.
- Press the **CD** button (Fig. 22-①) to open the **CD menu** (Fig. 22-②).
- Load the CD-RW disc that you prepared in "3-8 Checking CD writing" into the CD drive.
- Use the **JOG/DATA** dial to select **PLAY/IMPORT** from the **CD menu** (Fig. 22-③).

After selection, press the **F4** button, which corresponds to the [▶] icon at the bottom right of the screen (Fig. 22-④), to open the **CD PLAY/IMPORT** screen (Fig. 22-⑤).

- Select the track written to the CD-RW disc from the list on the **CD PLAY/IMPORT** screen (Fig. 22-⑥).

At this time, confirm that the check box next to the selected track is unchecked.

If the box is checked, press the **F2** button, which corresponds to the "✓" icon (Fig. 22-⑦), to remove the check mark.

3-8-3 CD-RWディスクの書き込み中は、[処理中]画面 (Fig21-①)を表示する。

書き込みが完了すると、メッセージ"MASTER WRITE Completed." (Fig21-②)を2~3秒表示後、[MASTER WRITE]リスト画面 (Fig21-③)が表示される。

その際、[DEMO SONG]の書き込み完了で、チェックBOXの[✓]マークが解除するのでチェックBOXを確認する。(Fig21-④)

以上で[CDの書き込み確認]は、完了です。

### 3-9 CDの再生確認 (DP-32SDを除く)

- 本機前面の **PHONES** 端子にヘッドホンセットする。
- **CD** ボタン (Fig22-①) を押して、**CD MENU** (Fig22-②) を表示させる。
- [3-8 CDの書き込み確認] で作成した、CD-RWディスクをCDドライブに挿入する。
- カーソルを **JOG/DATA** ダイアルで操作し、**CD MENU** 上の "**PLAY/IMPORT**" (Fig22-③) を選択する。  
選択後、画面右下の [▶] マーク (Fig22-④) に対応する **F4** ボタンを押して、[**CD PLAY/IMPORT**] リスト画面 (Fig22-⑤) に移動する。
- [**CD PLAY/IMPORT**] リスト画面からCD-RWディスクに書き込んだ **TRACK** (Fig22-⑥) を選択する。  
その際、選択した **TRACK** のチェックBOXに [✓] マークが入っていないことを確認する。  
[✓] マークが入っていた場合、[✓] マーク (Fig22-⑦) に対応する **F2** ボタンを押して、[✓] マークを解除する。

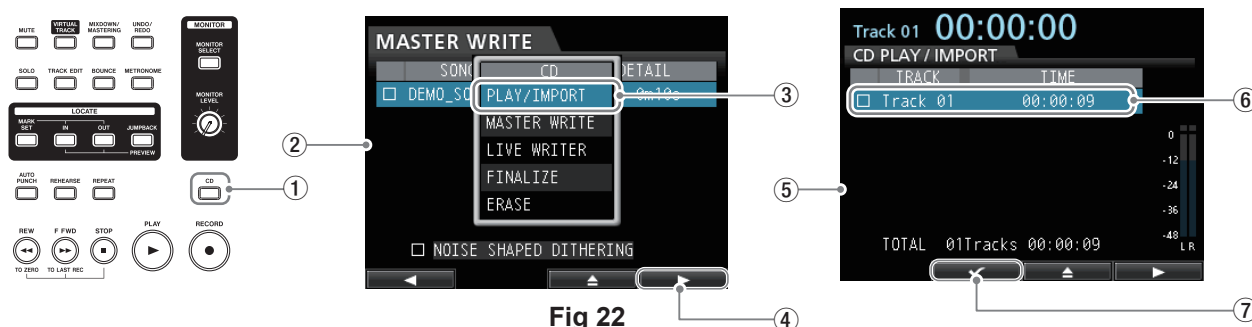


Fig 22

3-9-1 Press the **PLAY** [▶] button (Fig. 23-③) to start playback of the track selected on the **CD PLAY/IMPORT** screen.

Turn the **MONITOR LEVEL** knob on the right side of the top of the main unit (Fig. 23-②) to the right, and use the headphones to confirm that the track is playing back.

At this time, confirm that the access indicator on the front of the CD drive is lit or blinking and that the level meters (Fig. 23-⑤) on the **CD PLAY/IMPORT** screen (Fig. 23-④) are moving.

3-9-2 Press the **STOP** [■] button (Fig. 23-①) to stop playback.

Press the **F3** button, which corresponds to the [▲] icon (Fig. 23-⑥) at the bottom right of the **CD PLAY/IMPORT** screen, and remove the CD-RW disc from the CD drive.

Press the **HOME** button to return to the **HOME** screen, and close the CD drive tray.

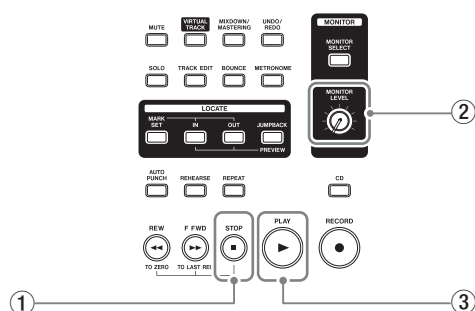


Fig 23

This completes "**Checking CD playback**".

#### CAUTION

After removing the CD-RW disc from the CD drive, closing the CD tray while the **CD PLAY/IMPORT** screen is open will cause the unit to check the CD drive. Since it will be unable to verify a loaded disc, "**Insert Audio CD**" will appear on the display. This message will appear even if the C drive is opened and closed again. For this reason, always press the **HOME** button to open the **HOME** screen before closing the CD tray.

3-9-1 **PLAY**[▶] ボタン(Fig23-③)を押して、**[CD PLAY/IMPORT]** リスト画面で選択したTRACKを再生する。

本機上面右側の**MONITOR LEVEL**ノブ(Fig23-②)を右に回し、ヘッドホンで曲の再生を確認する。

その際、CDドライブ前面のアクセスランプの点灯・点滅と**[CD PLAY/IMPORT]** リスト画面(Fig23-④)のレベルメーター(Fig23-⑤)が振れていることを確認する。

3-9-2 **STOP**[■] ボタン(Fig23-①)を押して、再生を停止する。

**[CD PLAY/IMPORT]** リスト画面の右下の[▲]マーク(Fig23-⑥)に対応する**F3**ボタンを押して、CDドライブからCD-RWディスクを取り出す。

**HOME** ボタンを押して、**[HOME]** 画面に戻り、CDドライブのCDトレイを閉じる。



以上で**[CDの再生確認]**は完了です。

#### 注意

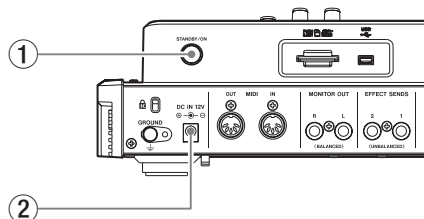
**[CD PLAY/IMPORT]** リスト画面でCDドライブからCD-RWディスクを取り出した後、その画面でCDトレイを閉じるとCDドライブが、ディスク確認を実行し、ディスク確認ができない場合、"**Insert Audio CD**"のメッセージを表示し、ディスク挿入の要求を繰り返し行うので、必ず**HOME** ボタンを押して、**[HOME]** 画面を表示後にCDトレイを閉じてください。

# 5. Test Mode

## テストモード

### 1. How to enter test mode

- Connect the included AC adapter to the **DC IN 12V** jack on the back of the unit (Fig. 1-②).
- While pressing the **INPUT SOURCE-D-SOURCE** button (Fig. 1-③) and **TRACK 1-REC** button (Fig. 1-④) on the top of the unit, press and hold the **STANDBY/ON** button on the back of the unit (Fig. 1-①).
- The **TEST MODE** screen will appear on the display.
- To exit this mode, press and hold the **STANDBY/ON** button on the back of the unit.



### 1. テストモードの起動と終了方法

- 背面の **DC IN 12V** 端子 (Fig1-②) に、付属の AC アダプターを接続する。
- TOP パネルの **[INPUT SOURCE]-[D-SOURCE]** ボタン (Fig1-③) と **[TRACK 1]-REC** ボタン (Fig1-④) を押しながら、背面の **STANDBY/ON** ボタン (Fig1-①) を長押しする。
- LCD 画面に **[TEST MODE]** 画面が表示される。
- 終了する場合は、背面の **STANDBY/ON** ボタンを長押しする。

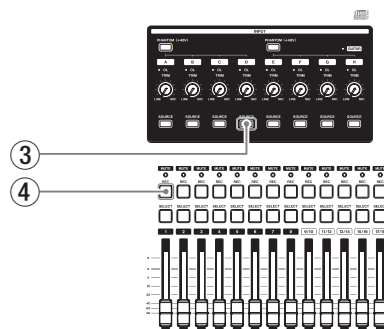


Fig 1

### 2. [TEST MODE] Displays explained

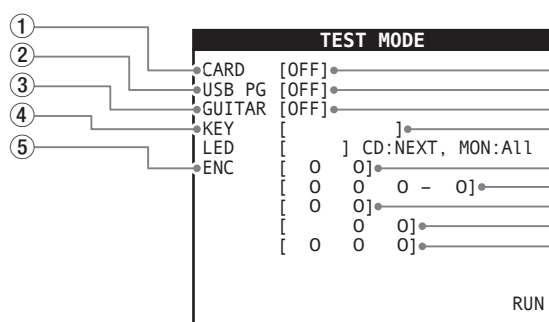


Fig 2

### 2. [TEST MODE] 画面の説明と動作確認

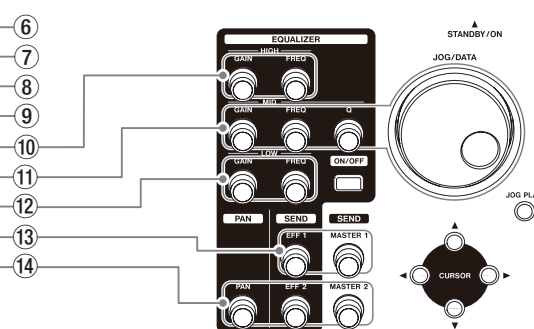


Fig 2	SD card slot display :
①	Shows whether or not an SD card is loaded in the SD card slot. SDカードスロットのカード有/無状態を表示する。
<b>USB port display :</b>	
②	Shows the USB port connection status. USB端子の接続状態を表示する。
<b>LINE-GUITAR switch :</b>	
③	Shows the LINE-GUITAR switch setting. LINE-GUITARスイッチの切替状態を表示する。
<b>Each button / switch display :</b>	
④	Shows the on/off status of the button/switch. 各ボタン・スイッチのオン/オフ状態を表示する。
<b>ENCODER display :</b>	
⑤	Shows the encoder values. 各エンコーダー値を表示する。
<b>SD card slot Inserted / not inserted :</b>	
⑥	Card inserted: <b>ON</b> / Card not inserted: <b>OFF</b> Note: <b>"Write-Protected"</b> will appear if a locked SD card is inserted. カード有: <b>"ON"</b> / カード無: <b>"OFF"</b> *LOCK状態のSDカードを挿入すると <b>"Write-Protected"</b> を表示する。
<b>USB port Plug-in / Plug-out :</b>	
⑦	<b>"ON"</b> appears when a USB device is connected to the USB port. USB端子にUSBデバイスを接続すると <b>"ON"</b> を表示する。
<b>LINE-GUITAR switch ON / OFF :</b>	
⑧	<b>"ON"</b> appears when the LINE-GUITAR switch is set to <b>GUITAR</b> . LINE-GUITARスイッチを <b>GUITAR</b> 側にする <b>"ON"</b> を表示する。

Fig 2	Each button / switch name display:
⑨	Use a button or switch to show its name. 各ボタン・スイッチを操作すると対応する名称を表示する。
<b>EQUALIZER [HIGH] knob :</b>	
⑩	Shows the encoder values of the <b>HIGH</b> equalizer knobs. Left: <b>GAIN</b> / Right: <b>FREQ</b> <b>HIGH</b> イコライザーノブのエンコーダー値を表示する。 左: <b>GAIN</b> / 右: <b>FREQ</b>
<b>EQUALIZER [MID] knob + JOG/DATA dial :</b>	
⑪	Shows the <b>MID</b> equalizer knob and <b>JOG/DATA</b> dial encoder values. Left: <b>GAIN</b> / Left middle: <b>FREQ</b> / Right middle: <b>Q</b> / Right: <b>JOG/DATA</b> dial <b>MID</b> イコライザーノブと <b>JOG/DATA</b> ダイアルのエンコーダー値を表示する。 左: <b>GAIN</b> / 中1: <b>FREQ</b> / 中2: <b>Q</b> / 右: <b>JOG/DATA</b> ダイアル
<b>EQUALIZER [LOW] knob :</b>	
⑫	Shows the encoder values of the <b>LOW</b> equalizer knobs. Left: <b>GAIN</b> / Right: <b>FREQ</b> <b>LOW</b> イコライザーノブのエンコーダー値を表示する。 左: <b>GAIN</b> / 右: <b>FREQ</b>
<b>SEND knob [EFF 1] + [MASTER 1] :</b>	
⑬	Shows the encoder values of the <b>SEND</b> knobs. Left: <b>EFF 1</b> / Right: <b>MASTER 1</b> <b>SEND</b> ノブのエンコーダー値を表示する。 左: <b>EFF 1</b> / 右: <b>MASTER 1</b>
<b>PAN knob + SEND knob [EFF 1] + [MASTER 1] :</b>	
⑭	Shows the encoder values of the <b>PAN</b> and <b>SEND</b> knobs. Left: <b>PAN</b> / Middle: <b>EFF 2</b> / Right: <b>MASTER 2</b> <b>PAN</b> ノブと <b>SEND</b> ノブのエンコーダー値を表示する。 左: <b>PAN</b> / 中: <b>EFF 2</b> / 右: <b>MASTER 2</b>

## 2-1 Checking the SD CARD

Insert an SD card that has its write-protection locked into the SD card slot on the back of the unit (Fig. 3-①), and confirm that "ON" appears with "Write-Protected" to its right on the **TEST MODE** screen (Fig. 3-③).

## 2-2 Checking the USB port

Connect a PC or other device to the USB port on the back of the unit (Fig. 3-①), and confirm that "ON" appears on the **TEST MODE** screen (Fig. 3-③).

## 2-3 Checking the LINE-GUITAR switch

Set the **LINE-GUITAR** switch (Fig. 3-②) to **GUITAR**, and confirm that "ON" appears on the **TEST MODE** screen (Fig. 3-③).

At this time, confirm that the **GUITAR** indicator (Fig. 3-④) on the top of the unit lights.

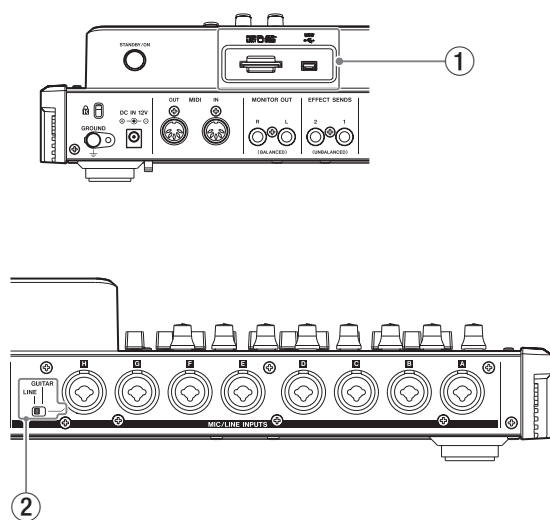


Fig 3

## 2-1 SD CARD 確認

背面のSDカードスロット (Fig3-①) にプロテクトをロック状態にしたSDカードを挿入し、**[TEST MODE]**画面 (Fig3-③) に "ON" を表示して、その右側に "Write-Protected" を表示することを確認する。

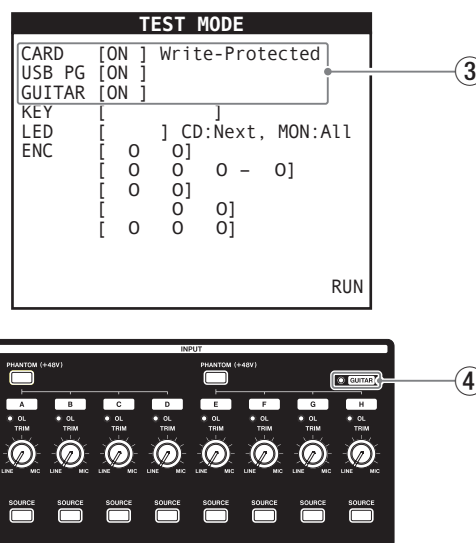
## 2-2 USB ポート 確認

背面のUSB端子 (Fig3-①) にUSBデバイス (PCなど) を接続して、**[TEST MODE]**画面 (Fig3-③) に "ON" を表示することを確認する。

## 2-3 LINE-GUITAR スイッチ 確認

**LINE-GUITAR** スイッチ (Fig3-②) を **GUITAR** 側に切替えて、**[TEST MODE]**画面 (Fig3-③) に "ON" を表示することを確認する。

その際、TOPパネルの **GUITAR** インジケータ (Fig3-④) が点灯することを確認する。



## 2-4 Checking the ENCODER

The ENC rows on the **TEST MODE** screen (Fig. 4-①, 2-⑥) are arranged to correspond to the positions of the actual **encoder** knobs. Turning an encoder knob right will cause the value inside the corresponding ENC row brackets [ ] to increase, and turning the knob left will cause the value to decrease.

## 2-4 エンコーダー 確認

**[TEST MODE]**画面に表示するENC欄 (Fig4-①、②~⑥) の配列が、実際の **ENCODER** ノブと同じ位置に対応しているので、ENC欄の対応する "[ ]" 内の数字が、各 **ENCODER** ノブを右回転させると増加し、左回転すると減少することを確認する。

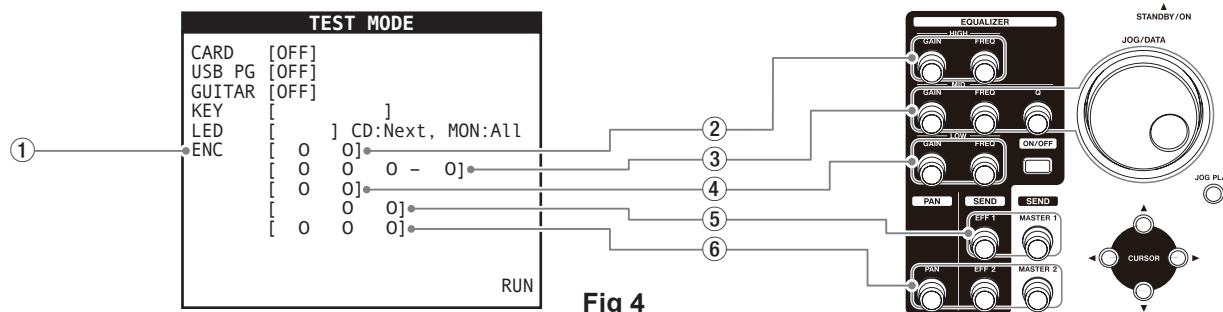


Fig 4

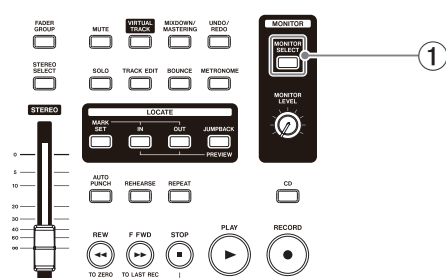
## 2-5 Checking the turning on and off of illuminated buttons and LEDs.

Press the **MONITOR SELECT** button in the function button panel on the top of the unit (Fig. 5-①) to make all the illuminated buttons and indicator LEDs on the unit light.

Confirm that there are no irregularities in the colors among the buttons and LEDs.

Press the **MONITOR SELECT** button again to turn them off.

At this time, while pressing the **MONITOR SELECT** button, Confirm that **[MONITORSSEL]** appears on the **TEST MODE** screen (Fig. 5-②).



## 2-5 照光式ボタン・LED 点灯/消灯 確認

TOPパネルの機能ボタンパネルの**MONITOR SELECT**ボタン(Fig5-①)を押すと、全ての照光式ボタンとインジケータLEDが点灯する。

点灯中のボタンとLEDの色合いに不揃いが無いことを確認する。

もう一度、**MONITOR SELECT**ボタンを押すと消灯する。

その際、**MONITOR SELECT**ボタンを押している間は、**[TEST MODE]**画面(Fig5-②)に**[MONITORSSEL]**を表示することを確認する。

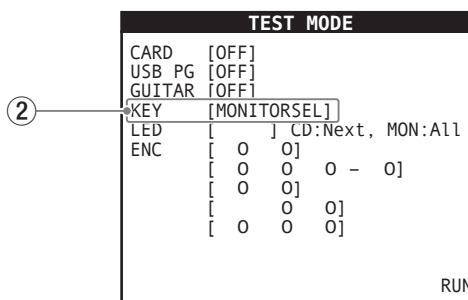


Fig 5

## 2-6 Checking the names of buttons and lit colors of illuminated buttons

Press each button on the top of the unit in order, and check its name and its lit color if it is an illuminated button in the KEY row on the **TEST MODE** screen.

At this time, you can also confirm that the pressed illuminated button blinks with the designated color.

Refer to the following illustration for the locations of the various buttons (Fig. ⑥).

## 2-6 各ボタンの名称、照光式ボタンの点灯色 確認

TOPパネルの各ボタンを押して、**[TEST MODE]**画面の**KEY**欄に表示する各ボタン名と照光式ボタンの点灯色を次項の表から確認する。

その際、押した照光式ボタンが指定色で点滅することも確認する。

各ボタンの配置は下図(Fig6)を参照。

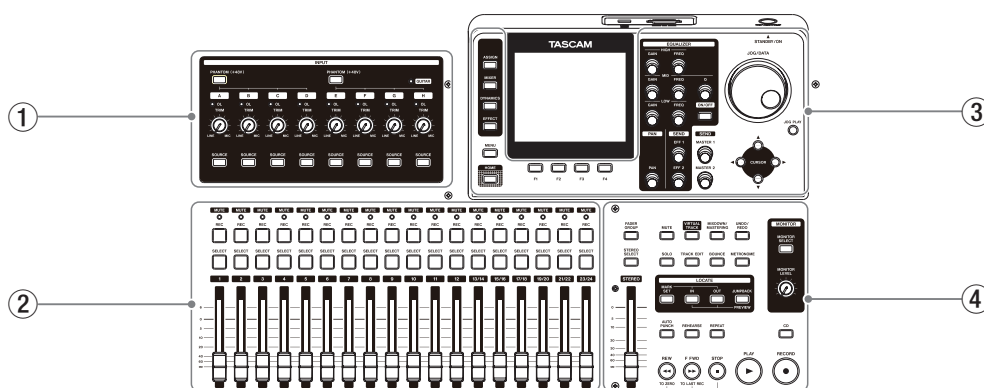


Fig 6

Names and colors of buttons as shown on the LCD screen

各ボタンの LCD 画面表記名、点灯色

Button	Position	DP-24	DP-32/DP-32SD	Lighting color
		KEY display		
PHANTOM (+48V)	Fig-6-①	PHANTOM_AD	PHANTOM_AD	Red
		PHANTOM_EH	PHANTOM_EH	Red
SOURCE A-H	Fig-6-①	INPUT_A	INPUT_A	Green
		INPUT_B	INPUT_B	
		INPUT_C	INPUT_C	
		INPUT_D	INPUT_D	
		INPUT_E	INPUT_E	
		INPUT_F	INPUT_F	
		INPUT_G	INPUT_G	
		INPUT_H	INPUT_H	

## 各ボタンの LCD 画面表記名、点灯色

## 各ボタンの LCD 画面表記名、点灯色

Button	Position	DP-24		DP-32/DP-32SD		Lighting color
		Channel name	KEY display	Channel name	KEY display	
REC CH-1-24 [DP-24] REC CH-1-32 [DP-32/DP-32SD]	Fig-6-②	CH-1	REC_F1	CH-1	REC_F1	Red
		CH-2	REC_F2	CH-2	REC_F2	
		CH-3	REC_F3	CH-3	REC_F3	
		CH-4	REC_F4	CH-4	REC_F4	
		CH-5	REC_F5	CH-5	REC_F5	
		CH-6	REC_F6	CH-6	REC_F6	
		CH-7	REC_F7	CH-7	REC_F7	
		CH-8	REC_F8	CH-8	REC_F8	
		CH-9	REC_F9	CH-9/10	REC_F0910	
		CH-10	REC_F10	CH-11/12	REC_F1112	
		CH-11	REC_F11	CH-13/14	REC_F1314	
		CH-12	REC_F12	CH-15/16	REC_F1516	
		CH-13/14	REC_F1314	CH-17/18	REC_F1718	
		CH-15/16	REC_F1516	CH-19/20	REC_F1920	
		CH-17/18	REC_F1718	CH-21/22	REC_F2122	
		CH-19/20	REC_F1920	CH-23/24	REC_F2324	
		CH-21/22	REC_F2122	CH-25/26	REC_F2526	
		CH-23/24	REC_F2324	CH-27/28	REC_F2728	
			CH-29/30	REC_F2930		
			CH-31/32	REC_F3132		

Button	Position	DP-24		DP-32/DP-32SD		Lighting color
		Channel name	KEY display	Channel name	KEY display	
SELECT CH-1-24 [DP-24] SELECT CH-1-32 [DP-32/DP-32SD]	Fig-6-②	CH-1	SEL_1	CH-1	SEL_1	Green
		CH-2	SEL_2	CH-2	SEL_2	
		CH-3	SEL_3	CH-3	SEL_3	
		CH-4	SEL_4	CH-4	SEL_4	
		CH-5	SEL_5	CH-5	SEL_5	
		CH-6	SEL_6	CH-6	SEL_6	
		CH-7	SEL_7	CH-7	SEL_7	
		CH-8	SEL_8	CH-8	SEL_8	
		CH-9	SEL_9	CH-9/10	SEL_0910	
		CH-10	SEL_10	CH-11/12	SEL_1112	
		CH-11	SEL_11	CH-13/14	SEL_1314	
		CH-12	SEL_12	CH-15/16	SEL_1516	
		CH-13/14	SEL_1314	CH-17/18	SEL_1718	
		CH-15/16	SEL_1516	CH-19/20	SEL_1920	
		CH-17/18	SEL_1718	CH-21/22	SEL_2122	
		CH-19/20	SEL_1920	CH-23/24	SEL_2324	
		CH-21/22	SEL_2122	CH-25/26	SEL_2526	
		CH-23/24	SEL_2324	CH-27/28	SEL_2728	
			CH-29/30	SEL_2930		
			CH-31/32	SEL_3132		

## 各ボタンの LCD 画面表記名、点灯色

## 各ボタンの LCD 画面表記名、点灯色

Button	Position	DP-24	DP-32	DP-32SD	Lighting color
		KEY display			
ASSIGN	Fig-6-③		ASSIGN		Orange
MIXER			MIXER		
DYNAMICS			DYNAMICS		
EFFECT			EFFECT		
HOME			HOME		
F1			F1		
F2			F2		
F3			F3		
F4			F4		
ON/OFF			EQ		
CURSOR ▲			UP		
▼			DOWN		
◀			LEFT		
▶			RIGHT		
JOE PLAY		JOE			

Button	Position	DP-24	DP-32	DP-32SD	Lighting color	
		KEY display				
FADER GROUP	Fig-6-④		GROUP		Green	
STEREO SELECT			STEREOSEL		Green	
MUTE			MUTE		Orange	
VIRTUAL TRACK			V.TRACK			
MIXDOWN/MASTERING			MIXDOWN			
UNDO/REDO			UNDO			
SOLO			SOLO		Orange	
TRACK EDIT			TRACKEDIT			
BOUNCE			BOUNCE		Orange	
METRONOME			METRONOME		Orange	
MARK SET			MARKSET		Orange	
IN			IN			
OUT			OUT		Orange	
JUMPBACK			JUMPBACK			
AUTO PUNCH			AUTOPUNCH		Orange	
REHEARSE			REHEARSE			
REPEAT			REPEAT		Orange	
MONITOR SELECT			MONITORSEL			
CD (DP-24/DP-32)			CD	CD		Orange
REC SAFE (DP-32SD)					REC SAFE	
REW				REW		Orange
F FWD				FWD		
STOP				STOP		Orange
PLAY				PLAY		
RECORD			REC		Red	

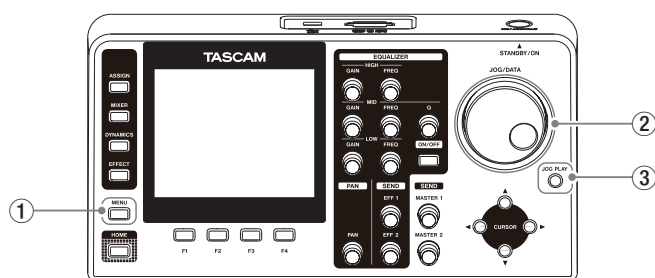
### 3. [TEST MENU] Displays explained

When the **"TEST MODE"** screen is open, press the **MENU** button at the bottom left of the screen (Fig. 1-①).

The **"TEST MENU"**\* screen opens on the display.

Note)\*: The **"TEST MENU"** screen shown below is for the DP-24/DP-32. For the DP-32SD, **"ATAPI"**(Fig. 1-⑫) is replaced by **"VERSION"** (Fig. 1-7).

The following explanations of the **"TEST MENU"** screen use the DP-24/DP-32.



### 3. [TEST MENU] 画面の説明と動作確認

[**TEST MODE**]画面の表示中にLCD画面左下の**"MENU"**ボタン(Fig1-①)を押す。

LCD画面に[**TEST MENU \***]画面が表示される。

注)\*: 下記[**TEST MENU**]画面は、DP-24/DP-32の画面になります。DP-32SDの場合は、**"ATAPI"**(Fig1-⑫)の表示が**"VERSION"**(Fig1-⑦)表示になります。以降、[**TEST MENU**]画面説明は、DP-24/DP-32で説明します。

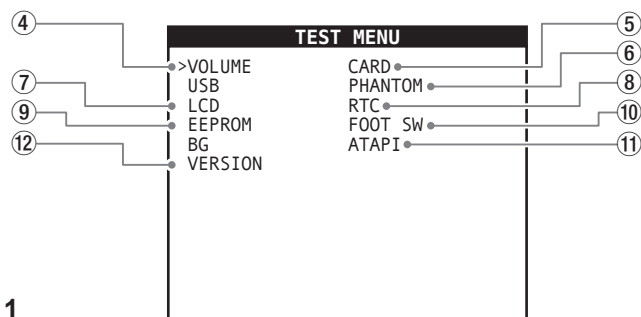


Fig 1

MENU	(Fig1-①)
Use to switch between the <b>"TEST MODE"</b> and <b>"TEST MENU"</b> screens. Use this also to return to the <b>"TEST MODE"</b> screen from MENU item destinations.	
[ <b>TEST MODE</b> ]画面と[ <b>TEST MENU</b> ]画面の切換え時に使用する。また、各MENU項目の移動先から[ <b>TEST MENU</b> ]画面に復帰する際に使用する。	
JOG/DATA dial	(Fig1-②)
Use to move the cursor among <b>"TEST MENU"</b> items. Turn clockwise to move the cursor to the next item or counterclockwise to move to the previous item.	
[ <b>TEST MENU</b> ]項目を移動する際に使用する。カーソルが時計方向で次項目に進み、反時計方向で前項目に戻る。	
JOG/PLAY	(Fig1-③)
Use to confirm a <b>"TEST MENU"</b> item or to confirm a menu item on a destination page.	
[ <b>TEST MENU</b> ]項目を確定する時、または移動先の各MENUを確定する際に使用する。	
VOLUME	(Fig1-④)
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the TRACK FADER/STEREO FADER/MONITOR LEVEL operation confirmation screen.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、TRACK FADER / STEREO FADER / MONITOR LEVELの動作確認画面に移動する。	
CARD	(Fig1-⑤)
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the SD card information and function and confirmation screen.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、SDカードの情報と機能確認画面に移動する。	
PHANTOM	(Fig1-⑥)
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the PHANTOM (+48V) power output test screen.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、PHANTOM (+48V)電源の出力テスト画面に移動する。	

LCD	(Fig1-⑦)
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the LCD function test screen.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、LCD画面の機能テスト画面に移動する。	
RTC	(Fig1-⑧)
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the real-time clock confirmation screen.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、リアルタイムクロック確認画面に移動する。	
EEPROM	(Fig1-⑨)
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the <b>EEPROM</b> operation confirmation screen.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、EEPROMの動作確認画面に移動する。	
FOOT SW	(Fig1-⑩)
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the operation confirmation screen for the control switches of the <b>RC-3F</b> or <b>RC-20</b> connected to the remote jack on the front of the unit.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、本機正面のリモート端子に接続した[ <b>RC-3F</b> ]または[ <b>RC-20</b> ]のコントロールスイッチの動作確認画面に移動する。	
<b>ATAPI</b> : (DP-24/DP-32)	(Fig1-⑪)
<b>VERSION</b> : (DP-32SD)	
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the built-in optical drive information confirmation screen.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、内蔵光学ドライブの情報確認画面に移動する。	
<b>VERSION</b> : (DP-24/DP-32)	(Fig1-⑫)
<b>Do not display</b> : (DP-32SD)	
When the cursor (>) is at this position, press the <b>JOG/PLAY</b> button (Fig. 1-③) to open the main unit firmware information confirmation screen.	
カーソル">"がこの位置で <b>JOG/PLAY</b> ボタン(Fig1-③)を押すと、本機のファームウェア情報確認画面に移動する。	

### 3-1 TRACK FADER / STEREO FADER / MONITOR LEVEL

- Use the **JOG/DATA** dial (Fig. 2-a②) to select the **"VOLUME"** item (Fig. 2-a④).
- Press the **JOG/PLAY** button (Fig. 2-a①) to open the **"VOLUME CHECK"** screen (Fig. 2-b①).

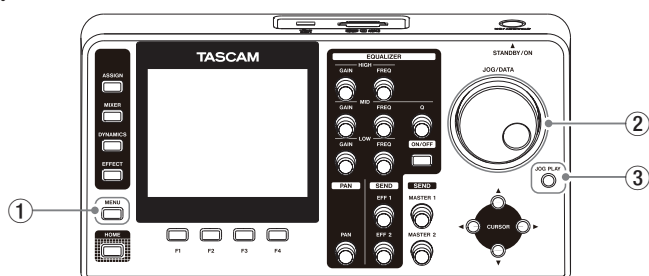


Fig 2-a

### 3-1 TRACK FADER / STEREO FADER / MONITOR LEVEL 確認

- カーソルを **JOG/DATA** ダイアル (Fig2-a②) で操作し、**[VOLUME]** 項目 (Fig2-a④) を選択する。
- **JOG/PLAY** ボタン (Fig2-a①) を押し、**[VOLUME CHECK]** 画面 (Fig2-b①) に移動する。

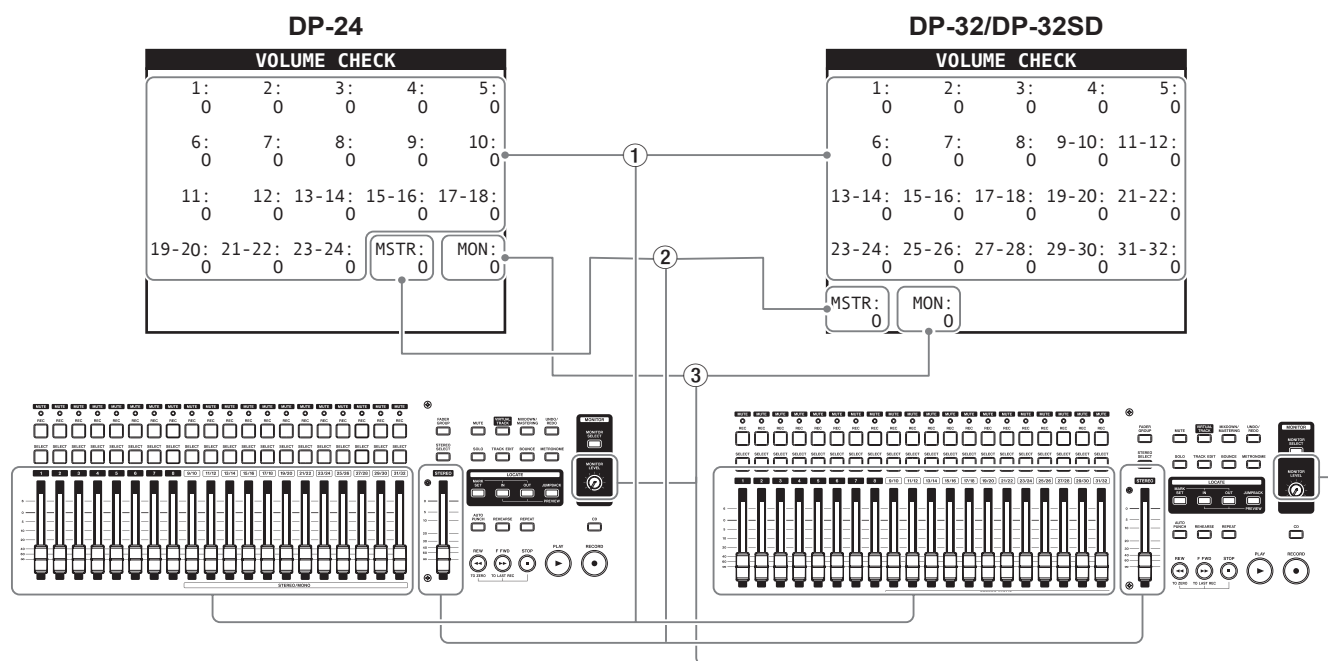
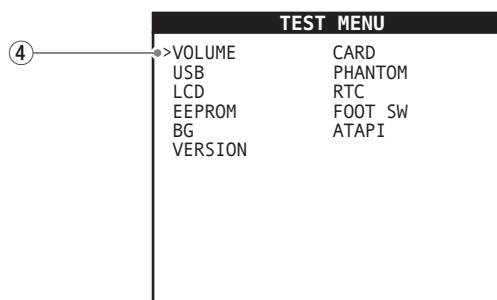


Fig 2-b

#### Checking TRACK FADERS

The numbers shown on the **"VOLUME CHECK"** screen (Fig. 2-b①) correspond to TRACK FADER channel numbers **"1-24 (DP-24) or 1-32 (DP-32/DP-32SD)"**. While sliding a fader, confirm that the number beneath the corresponding channel changes between the minimum (0 or 1) and the maximum (126 or 127).

#### Checking the STEREO FADER

The item shown on the **"VOLUME CHECK"** screen (Fig. 2-b②) corresponds to the STEREO FADER. While sliding this fader, confirm that the number beneath **"MSTR"** changes between the minimum (0 or 1) and the maximum (126 or 127).

#### Checking the MONITOR LEVEL

The item shown on the **"VOLUME CHECK"** screen (Fig. 2-b③) corresponds to the MONITOR LEVEL. While turning this knob, confirm that the number beneath **"MON"** changes between the minimum (0 or 1) and the maximum (126 or 127).

#### NOTE

While checking the **TRACK FADERS**, **STEREO FADER** and **MONITOR LEVEL**, you can also confirm that the values of the other unused faders and knobs are not changing.

After you complete checking, press the **MENU** button (Fig. 2-a①) to close the **"VOLUME CHECK"** screen and return to the **"TEST MENU"** screen.

#### TRACK FADER 確認

**[VOLUME CHECK]** 画面に表示する [Fig2-b①] の配列は、各TRACK FADERのCH番号に対応しているため、FADERをスライドさせて対応するCH番号 **"1-24 (DP-24) / 1-32 (DP-32/DP-32SD)"** 表示下の数字が、[最小: 0 or 1~最大: 126 or 127] に変化することを確認する。

#### STEREO FADER 確認

**[VOLUME CHECK]** 画面に表示する [Fig2-b②] の配列は、STEREO FADERに対応しているため、FADERをスライドさせて **"MSTR"** 表示下の数字が、[最小: 0 or 1~最大: 126 or 127] に変化することを確認する。

#### MONITOR LEVEL 確認

**[VOLUME CHECK]** 画面に表示する [Fig2-b③] の配列は、MONITOR LEVELに対応しているため、ノブを回して **"MON"** 表示下の数字が、[最小: 0 or 1~最大: 126 or 127] に変化することを確認する。

#### 注意

TRACK FADER / STEREO FADER / MONITOR LEVEL の確認中に、操作しているフェーダーやノブ以外の数値が変化しないことも確認する。

確認完了後、**MENU** ボタン (Fig2-a①) を押し **[VOLUME CHECK]** 画面から **[TEST MENU]** 画面に戻る。

### 3-2 SD card information

- Use the **JOG/DATA** dial to select the **"CARD"** item (Fig. 3-①). Press the **JOG/PLAY** button to open the **"CARD"** screen (Fig. 3-②).
- On the **"CARD"** screen, press the **JOG/PLAY** button to open **"Identify"** (Fig. 3-③) and show the following information about the card (Fig. 3-④).

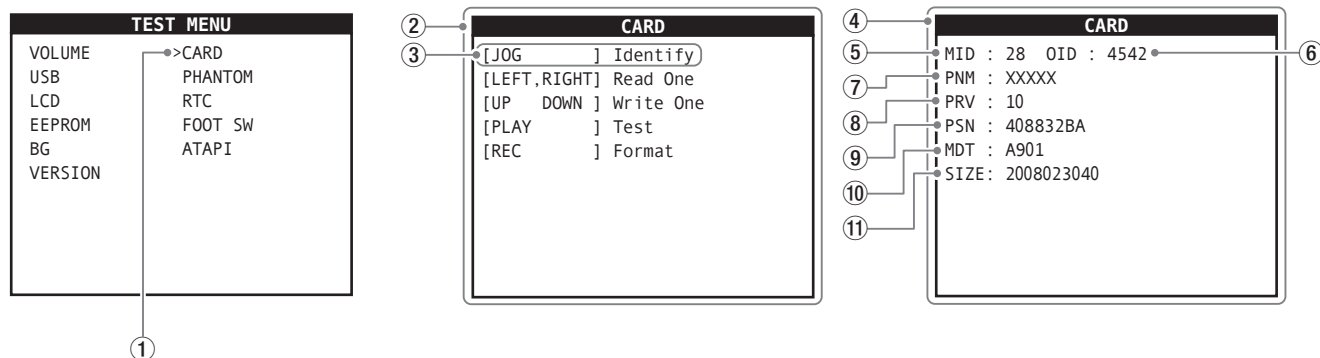


Fig 3

<b>Status check of card Display screen :</b>	(Fig3-②)
Card information and operation test screen	
カードの情報と動作テスト確認画面。	
<b>[ JOG ] Identify :</b>	(Fig3-③)
Press the <b>JOG/PLAY</b> button to open the SD card information screen.	
<b>JOG/PLAY</b> ボタンを押すと、SD カードの情報画面に移動する。	
<b>Confirmation of card information Display screen :</b>	(Fig3-④)
SD card information screen	
SD カードの情報画面	
<b>MID :</b>	(Fig3-⑤)
SD card manufacturer ID	
SD カードのメーカー ID	
<b>OID :</b>	(Fig3-⑥)
SD card OEM/application ID	
SD カードのOEM/アプリケーションID	

<b>PNM :</b>	(Fig3-⑦)
SD card product name	
SD カードの製品名	
<b>PRV :</b>	(Fig3-⑧)
SD card product revision	
SD カードの製品リビジョン	
<b>PSN :</b>	(Fig3-⑨)
SD card serial number	
SD カードのシリアル番号	
<b>MDT :</b>	(Fig3-⑩)
SD card manufacturing date	
SD カードの製造日付	
<b>SIZE :</b>	(Fig3-⑪)
Card capacity	
カード容量	

After you complete checking, press the **MENU** button to close the **"CARD"** screen and return to the **"TEST MENU"** screen.

確認完了後、**MENU** ボタンを押して**[CARD]**画面から**[TEST MENU]**画面に戻る。

### 3-3 Checking PHANTOM power

- Use the **JOG/DATA** dial to select the **"PHANTOM"** item (Fig. 4-a-①).
- Press the **JOG/PLAY** button to open the **"PHANTOM"** Check screen (Fig. 4-b-①).

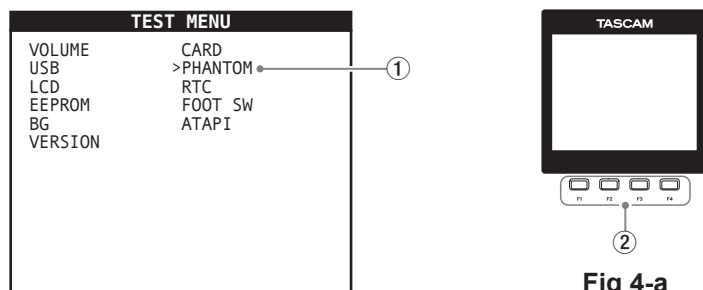
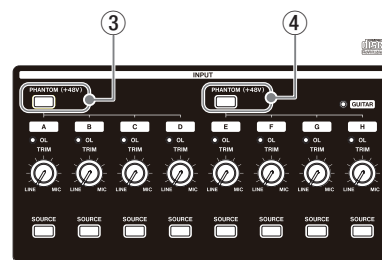


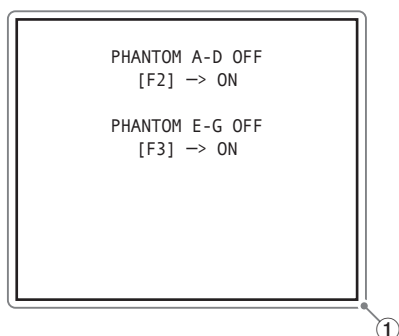
Fig 4-a

### 3-3 PHANTOM 電源出力確認

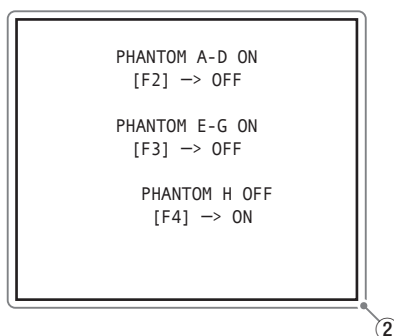
- カーソルを**JOG/DATA**ダイヤルで操作し、**[PHANTOM]**項目 (Fig4-a-①) を選択する。
- **JOG/PLAY** ボタンを押して、**[PHANTOM Check]**画面 (Fig4-b-①) に移動する。



PHANTOM Check screen



[F2],[F3] -&gt; ON



[F4] -&gt; ON

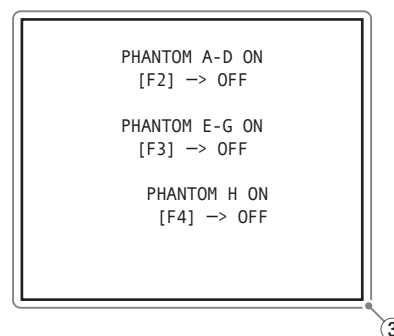


Fig 4-b

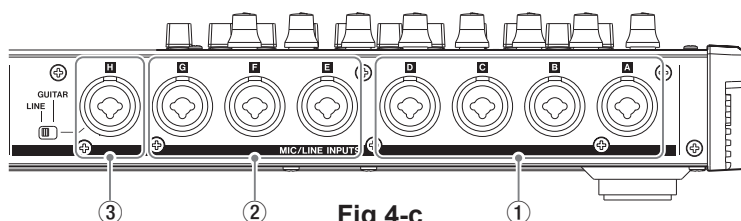


Fig 4-c

3-3-1 Confirm that **"PHANTOM X-X OFF"** appears on the screen (Fig. 4-b-①).

- This confirms with a tester that PHANTOM power is not being supplied between HOT and GND and between COLD and GND of the **A** XLR jack on the back of the unit (Fig. 4-c-①).

3-3-2 Next, press the **F2** button (Fig. 4-a-②) to turn PHANTOM power (+48V) ON.

Confirm that **"PHANTOM X-X ON"** appears on the screen (Fig. 4-b-②) and that the indicator lights (Fig. 4-a-③) is being.

- This confirms with a tester that phantom power (+48V) is being supplied between HOT and GND and between COLD and GND of the **A** XLR jack on the back of the unit (Fig. 4-c-①).

3-3-3 Press the **F2** button again to turn PHANTOM power OFF.

Confirm that **"PHANTOM X-X OFF"** appears on the screen (Fig. 4-b-①).

You can also conduct steps 1-3 to confirm the **B-D** XLR jacks (Fig. 4-c-①).

3-3-4 You can also check PHANTOM power for XLR jacks **E-G** (Fig. 4-c-②) by following the "3-3-1" - "3-3-3" procedures above, but use the **F3** button instead of the **F2** button, the **E** channel instead of the **A** channel, and the Fig. 4-a-④ indicator instead of the Fig. 4-a-③ indicator.

3-3-1 画面表示が**"PHANTOM X-X OFF"** (Fig4-b-①) になっていることを確認する。

- この時、背面のXLR端子 **A**ch (Fig4-c-①) の[HOT-GND]間と[COLD-GND]間にテスターでPHANTOM電源が供給されていないことを確認する。

3-3-2 次に**F2**ボタン (Fig4-a-②) を押して、PHANTOM電源 (+48V) をONにする。

画面表示が**"PHANTOM X-X ON"** (Fig4-b-②) になり、インジケータ (Fig4-a-③) が点灯することを確認する。

- この時、背面のXLR端子 **A**ch (Fig4-c-①) の[HOT-GND]間と[COLD-GND]間にテスターでPHANTOM電源 (+48V) が供給されていることを確認する。

3-3-3 もう一度、**F2**ボタンを押して、PHANTOM電源をOFFにする。

画面表示が**"PHANTOM X-X OFF"** (Fig4-b-①) になっていることを確認する。

上記の1)~3)の確認をXLR端子 **B** ~ **D**ch (Fig4-c-①) も行う。

3-3-4 XLR端子 **E** ~ **G**ch (Fig4-c-②) についても、上記の3-3-1 ~ 3-3-3の手順で[F2ボタン → F3ボタン]、[Ach → Ech]、[インジケータ (Fig4-a-③) → (Fig4-a-④)]に置き換えて、PHANTOM電源の確認を行う。

3-3-5 To check the **H** XLR jack (Fig. 4-c-③) PHANTOM power, after pressing the **F3** button to turn PHANTOM power ON for the **E-G** channels (Fig. 4-b-②) conduct steps "3-3-1" – "3-3-3" of the procedures above, but use the **F4** button instead of the **F2** button and the **H** channel instead of the **A** channel.

Press the **F4** button to switch from "PHANTOM X OFF" (Fig. 4-b-②) to "PHANTOM X ON" (Fig. 4-b-③).

After you complete checking, press the **MENU** button to close the "PHANTOM Check" screen and return to the "TEST MENU" screen.

### 3-4 LCD Confirmation

- Use the **JOG/DATA** dial to select the "LCD" item (Fig. 5-a-①).
- Press the **JOG/PLAY** button to open the "LCD check" screen (Fig. 5-a-②).

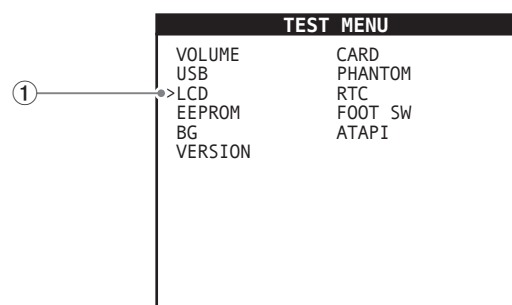


Fig 5-a

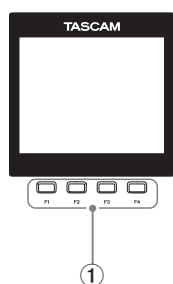
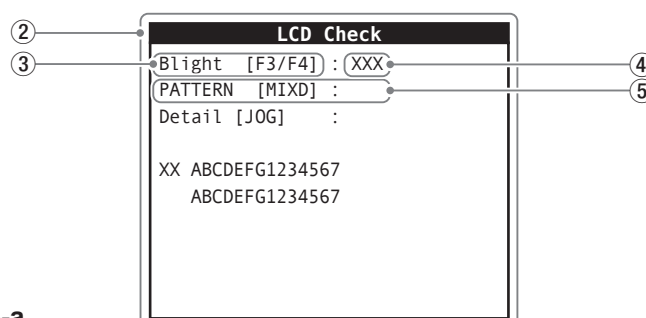
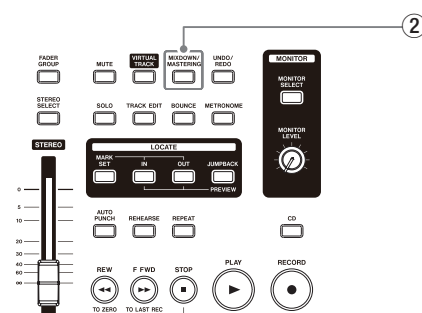


Fig 5-b



#### Bright Confirmation (Fig5-a-③)

Use the **F3/F4** buttons (Fig. 5-b-①) to adjust the brightness value shown as "XXX" next to the "Bright" item (Fig. 5-a-④). Press the **F3** button to decrease it, and press the **F4** button to increase it. Confirm that the display brightness can be changed in one step at a time from "0 (dark)" to "100 (bright)".

(One step is an interval of 10.)

#### PATTERN Confirmation (Fig5-a-⑤)

\* This content is the inspection at time of production.

Use it for reference during product operation confirmation.

Press the **MIXDOWN/MASTERING** button (Fig. 5-b-②) repeatedly to confirm that the display cycles through "white", "red", "green", "blue" and "black (unlit)".

At this time, on each color screen, check whether any LCD pixels are missing with the following conditions.

- On the "white/red/green/blue" screens, there should be no more than two unlit black pixels on the LCD.
- On the "black (unlit)" screen, there should be no more than one illuminated pixel on the LCD.

After you complete checking, press the **MENU** button to return to the LCD check screen (Fig. 5-a-②).

Press the **MENU** button again to return to the "TEST MENU" screen.

3-3-5 XLR端子 **H**ch (Fig4-c-③)は、**F3**ボタンを押して、**E**～**G**chのPHANTOM電源をONの状態 (Fig4-b-②)にし、上記の3-3-1～3-3-3の手順で [**F2**ボタン→**F4**ボタン]、 [**A**ch→**H**ch]に置き換えてPHANTOM電源の確認を行う。

**F4**ボタンを押すと、画面表示が"PHANTOM X OFF" (Fig4-b-②)から"PHANTOM X ON" (Fig4-b-③)に切り替わる。

確認完了後、**MENU**ボタンを押して [PHANTOM Check]画面から [TEST MENU]画面に戻る。

### 3-4 LCD確認

- カーソルを **JOG/DATA** ダイアルを操作で、 [**LCD**] 項目 (Fig5-a-①) を選択する。
- **JOG/PLAY** ボタンを押して、 [**LCD check**] 画面 (Fig5-a-②) に移動する。

#### • Bright確認 (Fig5-a-③)

**F3/F4** ボタン (Fig5-b-①) で、"Bright" 表示横の "XXX" (Fig5-a-④) 数値が **F3** ボタンを押すと減少し、**F4** ボタンで増加する。

LCD画面が [0 (暗)] から [100 (明)] の間で、1STEP 毎に変化することを確認する。(1STEPは"10")

#### PATTERN確認 (Fig5-a-⑤)

\* 本項目は、生産時の検査内容です。  
製品動作確認時の参考としてください。

**MIXDOWN/MASTERING** ボタン (Fig5-b-②) を押す毎に、LCD画面が、"白→赤→緑→青→黒(消灯)"に変化することを確認する。

その際、各画面でLCDのDOT抜けが無いか下記の条件で確認する。

- "白/赤/緑/青"では、LCDに発光しない黒いDOTが2個以下であること。
- "黒(消灯)"では、LCDに発光する明るいDOTが1個以下であること。

確認完了後、**MENU**ボタンを押すと、 [**LCD check**] 画面 (Fig5-a-②) に移動する。

もう一度、**MENU**ボタンを押すと、 [**TEST MENU**] 画面に戻る。

### 3-5 RTC Confirmation

- Use the **JOG/DATA** dial to select the **"RTC"** item (Fig. 6-1).
- Press the **JOG/PLAY** button to open the **"RTC check"** screen (Fig. 6-2).
- On the **"RTC check"** screen, confirm that the **"TIME"** item (Fig. 6-3) seconds unit changes one "second" at a time.

After you complete checking, press the **MENU** button to close the **"RTC Check"** screen and return to the **"TEST MENU"** screen.

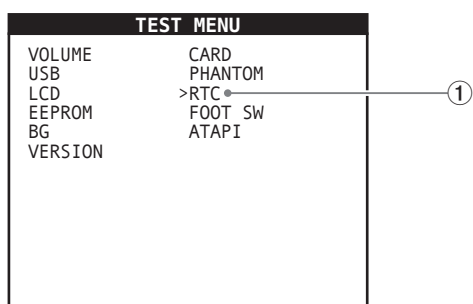
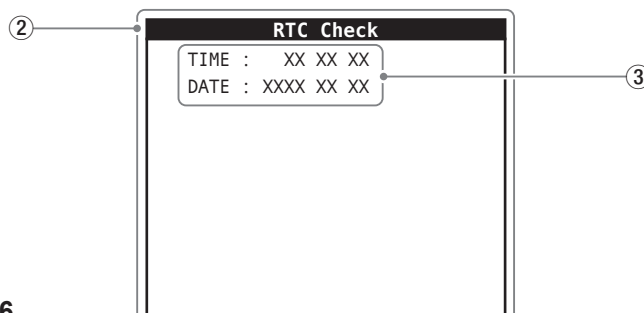


Fig 6

### 3-5 RTC確認

- カーソルを **JOG/DATA** ダイアルで操作し、**[RTC]** 項目 (Fig6-①) を選択する。
- **JOG/PLAY** ボタンを押して、**[RTC check]** 画面 (Fig6-②) に移動する。
- **[RTC check]** 画面で **"TIME"** 表示 (Fig6-③) の [秒] 位が1秒毎に変化していることを確認する。

確認完了後、**MENU** ボタンを押して **[RTC check]** 画面から **[TEST MENU]** 画面に戻る。



### 3-6 EEPROM Confirmation

- Use the **JOG/DATA** dial to select the **"EEPROM"** item (Fig. 7-1).
- Press the **JOG/PLAY** button to open the **"EEPROM check"** screen (Fig. 7-2).

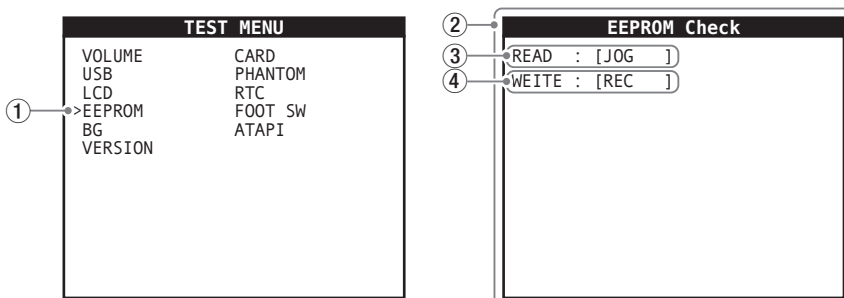
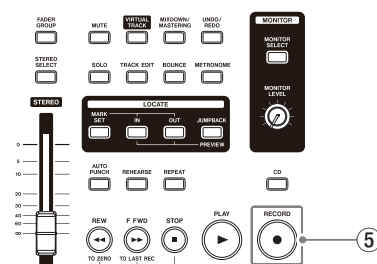


Fig 7

### 3-6 EEPROM確認

- カーソルを **JOG/DATA** ダイアルで操作し、**[EEPROM]** 項目 (Fig7-①) を選択する。
- **JOG/PLAY** ボタンを押して、**[EEPROM check]** 画面 (Fig7-②) に移動する。



#### READ Confirmation (Fig7-③)

Press the **JOG/PLAY** button to start the **"READ check"**. If no problems occur during EEPROM reading, **"OK"** will appear on the LCD screen.

#### WRITE Confirmation (Fig7-④)

Press the **REC** button (Fig. 7-⑤). **"Are You Sure?"** will appear on the LCD screen.

Press the **JOG/PLAY** button to conduct the write confirmation. If no problems occur during EEPROM writing, **"OK"** will appear on the LCD screen.

After you complete checking, press the **MENU** button to close the **"EEPROM Check"** screen and return to the **"TEST MENU"** screen.

#### READ確認 (Fig7-③)

**JOG/PLAY** ボタンを押すと **[READ check]** を開始し、EEPROMからの読み込みに問題なければ、LCD画面に **"OK"** を表示する。

#### WRITE確認 (Fig7-④)

**REC** ボタン (Fig7-⑤) を押すと LCD画面に **"Are You Sure?"** を表示する。書き込み検査を行う場合、**JOG/PLAY** ボタンを押す。EEPROMの書き込みに問題なければ、LCD画面に **"OK"** を表示する。

確認完了後、**MENU** ボタンを押して **[EEPROM check]** 画面から **[TEST MENU]** 画面に戻る。

### 3-7 FOOT SW Confirmation

- Use the **JOG/DATA** dial to select the **"FOOT SW"** item (Fig. 8-a-①).
- Press the **JOG/PLAY** button to open the **"REMOTE"** screen (Fig. 8-a-②).

Prepare an **RC-3F** or **RC-20** remote unit.

(Refer to Fig. 8-b.)

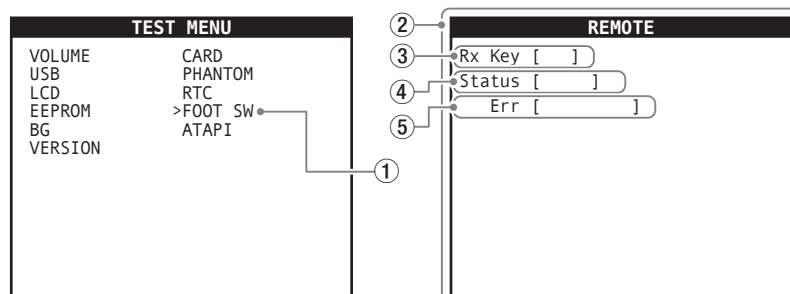


Fig 8-a

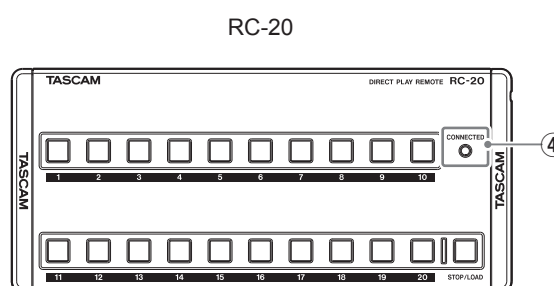
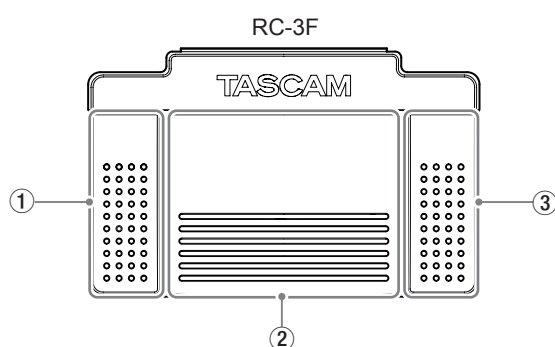
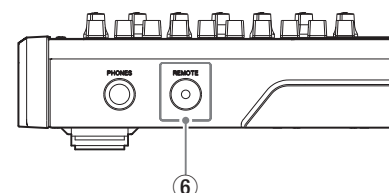


Fig 8-b

#### RC-3F Inspection (Fig8-b)

Connect the **RC-3F** remote unit to the **REMOTE** jack on the front of the main unit.

Press the **RC-3F** REW SW (Fig. 8-b-①), PLAY SW (Fig. 8-b-②) and FWD SW (Fig. 8-b-③) switches, and confirm their operation on the **"REMOTE"** screen.

- The name of each switch is shown in the brackets "[ ]" next to **"Rx Key"** (Fig. 8-a-③).  
REW SW : **Rx Key [REW]**  
PLAY SW : **Rx Key [PLAY]**  
FWD SW : **Rx Key [FWD]**

The information shown on the display will not change until you press the next switch.

- While a switch is being pressed, **"REPEAT"** appears in the brackets "[ ]" next to **"Status"**(Fig. 8-a-④).  
**"OFF"** appears here when a switch is released.

The information shown on the display will not change until you press the next switch.

- If there is no problem with the **REMOTE** jack, nothing will appear in the brackets "[ ]" next to **"Err"** (Fig. 8-a-⑤).

After you complete checking, disconnect the **RC-3F** from the **REMOTE** jack.

#### RC-20 Inspection (Fig8-b)

Connect the **RC-20** remote unit to the **REMOTE** jack on the front of the main unit. Confirm that the **CONNECTED** light on the **RC-20** (Fig. 8-b-④) lights.

After you complete checking, disconnect the **RC-20** from the **REMOTE** jack.

After you complete checking the **RC-3F/RC-20**, press the **MENU** button to close the **"REMOTE"** screen and return to the **"TEST MENU"** screen.

### 3-7 FOOT SW 確認

- カーソルを **JOG/DATA** ダイアルで操作し、**[FOOT SW]** 項目 (Fig8-a-①) を選択する。
- **JOG/PLAY** ボタンを押して、**[REMOTE]** 画面 (Fig8-a-②) に移動する。

リモートユニットの **RC-3F**、**RC-20** を用意する。

(Fig8-b 参照)

#### RC-3F 確認 (Fig8-b)

リモートユニット **RC-3F** を前面の **REMOTE** 端子に接続する。

**RC-3F** の REW SW (Fig8-b-①)/PLAY SW (Fig8-b-②)/FWD SW (Fig8-b-③) の各スイッチを押して、**[REMOTE]** 画面で動作確認を行う。

- **"Rx Key"**(Fig8-a-③)の "[ ]" 欄に各スイッチ名を表示する。  
REW SW : **Rx Key [REW]**  
PLAY SW : **Rx Key [PLAY]**  
FWD SW : **Rx Key [FWD]**

次のスイッチを押されるまで、表示は保持される。

- **"Status"**(Fig8-a-④)の "[ ]" 欄は、各スイッチを押している間は **"REPEAT"** と表示する。スイッチを離すと **"OFF"** と表示する。

次のスイッチを押されるまで、表示は保持される。

- **"Err"**(Fig8-a-⑤)の "[ ]" 欄は、**REMOTE** 端子に問題なければ何も表示しない。

確認完了後、**RC-3F** を **REMOTE** 端子から取り外す。

#### RC-20確認 (Fig8-b)

リモートユニット **RC-20** を前面の **REMOTE** 端子に接続する。

**RC-20** の **CONNECTED** ランプ (Fig8-b-④) が点灯することを確認する。

確認完了後、**RC-20** を **REMOTE** 端子から取り外す。

**RC-3F/RC-20** 確認完了後、**MENU** ボタンを押して **[REMOTE]** 画面から **[TEST MENU]** 画面に戻る。

### 3-8 Checking optical drive information (does not apply to DP-32SD)

- Use the **JOG/DATA** dial to select the "**ATAPI**" item (Fig. 9-a-①).
- Press the **JOG/PLAY** button to open the "**ATA Check**" screen (Fig. 9-a-②).

On the "**ATA Check**" screen, press the **F1** button (Fig. 9-b-①) to open the optical drive information screen (Fig. 9-b-②)

"[**VENDOR**]" : optical drive supplier

"[**PRODUCT**]" : optical drive model name

"[**REV.**]" : optical drive revision number

After you complete checking, press the **MENU** button to close the "**ATA Check**" screen and return to the **TEST MENU** screen.

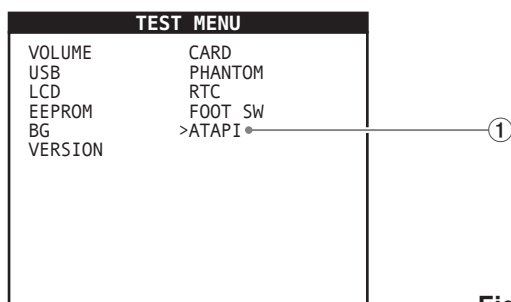


Fig 9-a

### 3-8 光学ドライブ情報確認 (DP-32SDを除く)

- カーソルを**JOG/DATA**ダイヤルで操作し、**[ATAPI]**項目 (Fig9-a-①)を選択する。
- **JOG/PLAY**ボタンを押して、**[ATA check]**画面 (Fig9-a-②)に移動する。

**[ATA check]**画面で**F1**ボタン (Fig9-b-①)を押して、光学ドライブの情報画面 (Fig9-b-②)に移動する。

"[**VENDOR**]" : 光学ドライブの供給元

"[**PRODUCT**]" : 光学ドライブのモデル名

"[**REV.**]" : 光学ドライブのRevision番号

確認完了後、**MENU**ボタンを押して**[ATA check]**画面から**[TEST MENU]**画面に戻る。

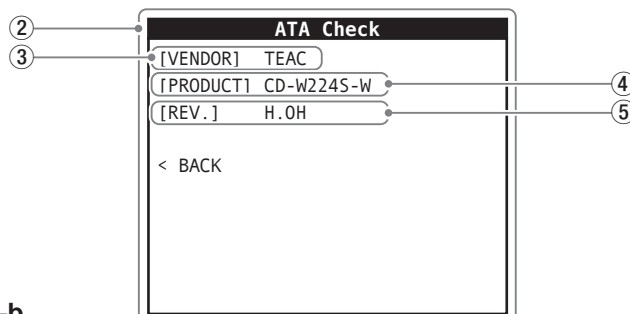
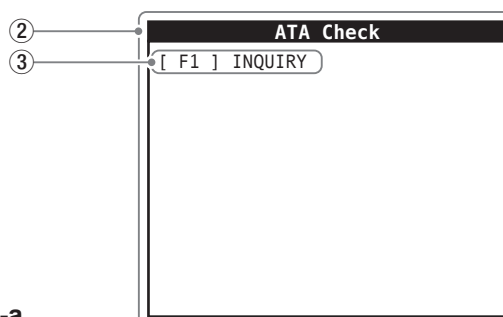
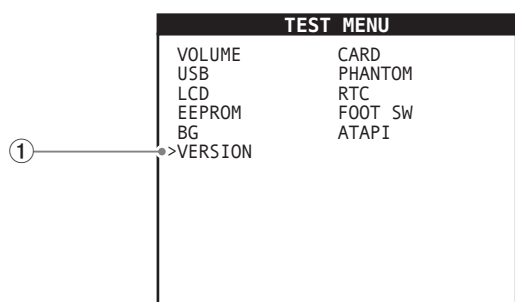


Fig 9-b

### 3-9 Checking the firmware version

- Use the **JOG/DATA** dial to select the "**VERSION**" item (Fig. 10-a-①).
- Press the **JOG/PLAY** button to open the "**VERSION check**" screen (Fig. 10-a-②).



### 3-9 ファームウェア VERSION 確認

- カーソルを**JOG/DATA**ダイヤルで操作し、**[VERSION]**項目 (Fig10-①)を選択する。
- **JOG/PLAY**ボタンを押して、**[VERSION check]**画面 (Fig10-②)に移動する。

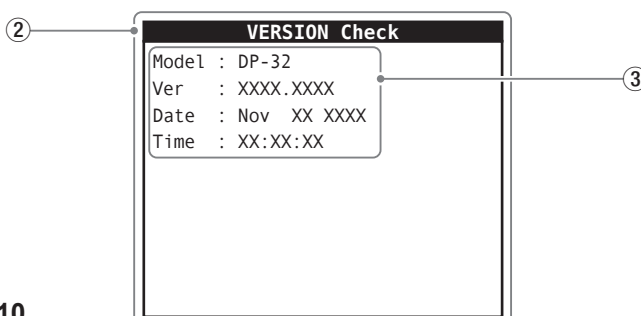


Fig 10

Firmware information

Model : product name

Ver : firmware version

Date : month, day, year of update

Time : time of update

Confirm that it is the latest firmware.

If it is not the latest firmware, follow the procedures in "**7. Firmware update**".

After you complete checking, press the **MENU** button to close the "**VERSION Check**" screen and return to the **TEST MENU** screen.

This completes the "**Operation tests**".

ファームウェアの情報

Model : 製品名

Ver : ファームウェアバージョン

Date : 更新年月日

Time : 更新時間

最新ファームウェアであることを確認する。

ファームウェアが最新ではない場合、**[7. Firmware update]**を実施してください。

確認完了後、**MENU**ボタンを押して**[VERSION check]**画面から**[TEST MENU]**画面に戻る。

以上で**[動作テスト]**は完了です。

# 6. Electrical inspection

## 電気検査

### 1. Preparation

#### CAUTION

This chapter contains the contents of the electrical inspection at time of DP-24/32/32SD production.

Use it for reference during product operation confirmation.

#### 1-1 Measuring equipment preparation

Analyzer, signal generator, tester, etc.

#### 1-2 Default settings of switches, knobs and faders

- **LINE-GUITAR** switch : LINE (Fig. 1-④)
- **A-H INPUT TRIM** KNOBS : maximum position (MIC) (Fig. 1-⑤)
- **TRACK FADERS** : minimum position (Fig. 1-⑥)
- **STEREO FADER** : minimum position (Fig. 1-⑦)
- **MONITOR LEVEL** KNOB : minimum position (Fig. 1-⑧)

#### 1-3 Put the main unit into test mode.

- Refer to "5. Test Mode"->"1. How to enter test mode" and start the unit in "TEST MODE".

### 1. 準備

#### 注意

本項目はDP-24/32/32SD生産時の電気検査内容です。製品動作確認時の参考としてください。

#### 1-1 測定器の準備

アナライザ、信号発生器、テスター等

#### 1-2 スイッチ・ノブ・フェーダーの初期設定

- **LINE-GUITAR**スイッチ : LINE側 (Fig1-④)
- **INPUT TRIM**ノブ [A]-[H] : 最大位置 (MIC側) (Fig1-⑤)
- **TRACK FADER**ノブ : 最小位置 (Fig1-⑥)
- **STEREO FADER**ノブ : 最小位置 (Fig1-⑦)
- **MONITOR LEVEL**ノブ : 最小位置 (Fig1-⑧)

#### 1-3 本機をテストモードにする。

- [5. テストモード]-[1. テストモードの起動方法]を参照して、本機を[TEST MODE]で起動する。

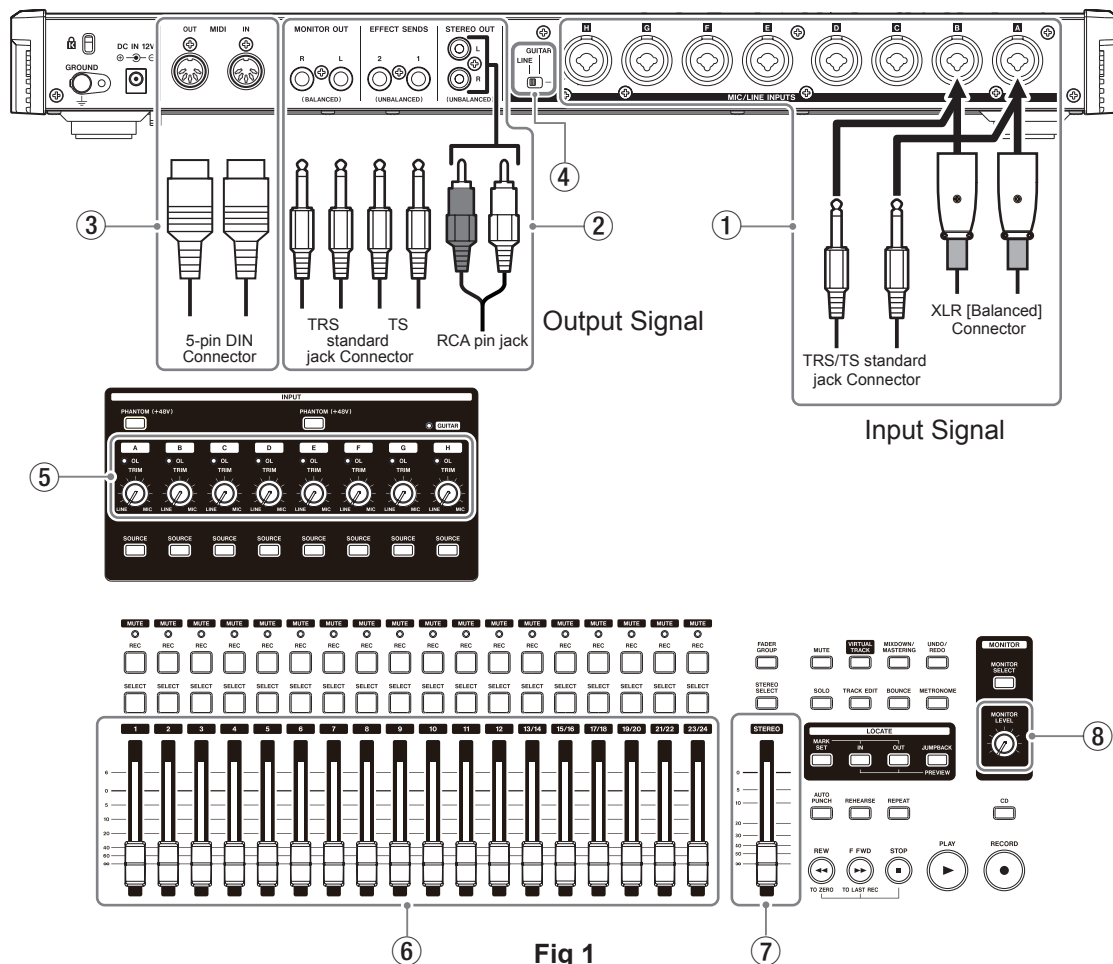


Fig 1

## 2. XLR type connector inspection

- **LINE-GUITAR** switch: LINE (Fig. 1-④)
- Connect XLR (BALANCED) cords to the **MIC/LINE INPUTS A-B** jacks (Fig. 1-①).
- Connect RCA cords to the **STEREO OUT** L/R jacks (Fig. 1-②).

### 2-1 LEVEL confirmation -1

Set the **A-H INPUT TRIM** knobs to the maximum positions, and conduct the following inspections.

- Input "1kHz/-57dBu" signals into the **A-B MIC/LINE INPUTS** jacks.  
At this time, confirm that the output from the **STEREO OUT** L/R jacks is "-10dBV±3dB".
- Check the other **MIC/LINE INPUTS (C-D/E-F/G-H)** in the same manner.

### 2-2 Residual NOISE confirmation -1

Set the **A-B INPUT TRIM** knobs to the maximum positions, set the other **(C-H)** knobs to the minimum positions and conduct the following inspections.

- Prepare termination resistance (TERMINATE) connectors that have XLR jack plug 1 (GND) and 2 (HOT) connected with 150Ω resistance, and connect them to the **A-B MIC/LINE INPUTS**.  
At this time, confirm that the **STEREO OUT** residual noise is "-75 dBV" or less.  
At this time, confirm that no strange sounds are audible.
- Check the other **MIC/LINE INPUTS (C-D/E-F/G-H)** in the same manner.  
(Set the **INPUT TRIM** knobs for the channels not being tested to the minimum positions.)

### 2-3 LEVEL confirmation -2

Set the **A-H INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input "1kHz/-14dBu" signals into the **A-B MIC/LINE INPUTS** jacks.  
At this time, confirm that the output from the **STEREO OUT** L/R jacks is "-10dBV±3dB".
- Check the other **MIC/LINE INPUTS (C-D/E-F/G-H)** in the same manner.

### 2-4 Frequency response

Set the **A-H INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input "20Hz/-14dBu" and "22kHz/-14dBu" signals into the **A-B MIC/LINE INPUTS** jacks.  
When inputting each signal, confirm that the output of the **STEREO OUT** L/R jacks for the "**4-2-3 LEVEL confirmation -2**" output signal (-10dBV±3dB) is "+1dB" at "20 Hz" and "-1dB" at "22 kHz".
- Check the other **MIC/LINE INPUTS (C-D/E-F/G-H)** in the same manner.

### 2-5 Distortion confirmation

Set the **A-H INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Connect a "20kHz" LPF (low pass filter) to the **STEREO OUT** L/R jacks.
- Input "1kHz/+1dBu" signals into the **A-B MIC/LINE INPUTS** jacks.  
At this time, confirm that the distortion from the **STEREO OUT** L/R jacks is "0.01%" or less.
- Check the other **MIC/LINE INPUTS (C-D/E-F/G-H)** in the same manner.

## 2. XLR端子検査

- **LINE-GUITAR** スイッチ : **LINE** 側 (Fig1-④)
- **MIC/LINE INPUTS** 端子 **A-B**ch に XLR (BALANCED) 端子コードを接続する。(Fig1-①)
- **STEREO OUT** L/R 端子に、RCAコードを接続する。(Fig1-②)

### 2-1 LEVEL 確認-1

**INPUT TRIM** ノブ **A-H** を最大位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **A-B**ch に [1kHz/-57dBu] の信号を入力する。  
その時、**STEREO OUT** L/R 端子の出力が [-10dBV±3dB] になることを確認する。
- 他の **MIC/LINE INPUTS** 端子 **C-D/E-F/G-H**ch についても同様に確認する。

### 2-2 残留 NOISE 確認-1

**INPUT TRIM** ノブ **A-B** を最大位置にし、他の **C-H** は最少位置にして下記の検査を実施する。

- XLR 端子のプラグ側の1番 (GND) と2番 (HOT) を 150Ω の抵抗で接続した終端抵抗 (TERMINATE) 端子を用意して、**MIC/LINE INPUTS** 端子 **A-B**ch に接続する。  
その時、**STEREO OUT** の残留 NOISE が、[-75dBV 以下] になることを確認する。  
その際、聴感上異音が無いことを確認する。
- 他の **MIC/LINE INPUTS** 端子 **C-D/E-F/G-H**ch についても同様に確認する。  
(対象 ch 以外の **INPUT TRIM** ノブは、最少位置にする。)

### 2-3 LEVEL 確認-2

**INPUT TRIM** ノブ **A-H** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **A-B**ch に [1kHz/-14dBu] の信号を入力する。  
その時、**STEREO OUT** L/R 端子の出力が [-10dBV±3dB] になることを確認する。
- 他の **MIC/LINE INPUTS** 端子 **C-D/E-F/G-H**ch についても同様に確認する。

### 2-4 周波数特性

**INPUT TRIM** ノブ **A-H** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **A-B**ch に [20Hz、22kHz/-14dBu] の信号を入力する。  
それぞれの信号を入力した際に、**STEREO OUT** L/R 端子の出力は、[**4-2-3 LEVEL 確認-2**] の出力信号 (-10dBV±3dB) に対して、[20Hz] 時は [+1dB]、[22kHz] 時は [-1dB] になることを確認する。
- 他の **MIC/LINE INPUTS** 端子 **C-D/E-F/G-H**ch についても同様に確認する。

### 2-5 歪率確認

**INPUT TRIM** ノブ **A-H** を最小位置にして、下記の検査を実施する。

- **STEREO OUT** L/R 端子に [20kHz] の LPF (Low pass filter) を接続する。
- **MIC/LINE INPUTS** 端子 **A-B**ch に [1kHz/+1dBu] の信号を入力する。  
その時、**STEREO OUT** L/R 端子の歪率が [0.01%] 以下になることを確認する。
- 他の **MIC/LINE INPUTS** 端子 **C-D/E-F/G-H**ch についても同様に確認する。

## 2-6 Residual NOISE confirmation -2

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Connect a "20kHz" LPF (low pass filter) and a sound level meter (for A-weighted sound pressure level measurement) to the **STEREO OUT** L/R jacks.
- Prepare termination resistance (TERMINATE) connectors that have XLR jack plug 1 (GND) and 2 (HOT) connected with 150Ω resistance, and connect them to the **(A)-(B) MIC/LINE INPUTS**. At this time, confirm that the **STEREO OUT** residual noise is "-84 dBV" or less.
- Check the other **MIC/LINE INPUTS (C-D/E-F/G-H)** in the same manner.

## 3. TRS type connector inspection

- **LINE-GUITAR** switch: **LINE** (Fig. 1-④)
- Connect cords with standard 6.3mm TRS plugs to the **(A)-(B) MIC/LINE INPUTS** jacks. (Fig. 1-①)
- Connect RCA cords to the **STEREO OUT** L/R jacks. (Fig. 1-②)
- 

### 3-1 LEVEL confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input "1kHz/+4dBu" signals into the **(A)-(B) MIC/LINE INPUTS** jacks. At this time, confirm that the output from the **STEREO OUT** L/R jacks is "-10dBV±3dB".
- Check the other **MIC/LINE INPUTS (C-D/E-F/G-H)** in the same manner.

## 4. EFFECT SENDS connector inspection

- **LINE-GUITAR** switch: **LINE** (Fig. 1-④)
- Connect standard 6.3mm TS cords to the **EFFECT SENDS 1-2** jacks. (Fig. 1-②)
- Disconnect the RCA cords from the **STEREO OUT** L/R jacks. (Fig. 1-②)

### 4-1 LEVEL confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input "1kHz/+4dBu" signals into the **(G)-(H) MIC/LINE INPUTS** jacks. At this time, confirm that the output from each of the **EFFECT SENDS 1-2** jacks is "-10dBV±3dB".

### 4-2 Frequency response

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input "20Hz/+4dBu" and "22kHz/+4dBu" signals into the **(G)-(H) MIC/LINE INPUTS** jacks. When inputting each signal, confirm that the output of the **EFFECT SENDS 1-2** jacks for the "**4-4-1 LEVEL confirmation**" output signal (-10dBV±3dB) is "+1dB" at "20 Hz" and "-1dB" at "22 kHz".

### 4-2 Distortion confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Connect a "20kHz" LPF (low pass filter) to the **EFFECT SENDS 1-2** jacks.
- Input "1kHz/+19dBu" signals into the **(G)-(H) MIC/LINE INPUTS** jacks. At this time, confirm that the distortion from the **EFFECT SENDS 1-2** jacks is "0.01%" or less.

## 2-6 残留 NOISE 確認-2

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **STEREO OUT** L/R 端子に [20kHz] の LPF (Low pass filter) と騒音計 [A 特性音圧レベル (A weighted sound pressure level) 測定用] を接続する。
- XLR 端子のプラグ側の 1 番 (GND) と 2 番 (HOT) を 150Ω の抵抗で接続した終端抵抗 (TERMINATE) 端子を用意して、**MIC/LINE INPUTS** 端子 **(A)-(B)** ch に接続する。その時、**STEREO OUT** の残留 NOISE が、[-84dBV 以下] になることを確認する。
- 他の **MIC/LINE INPUTS** 端子 **(C-D/E-F/G-H)** ch についても同様に確認する。

## 3. TRS 端子検査

- **LINE-GUITAR** スイッチ : **LINE** 側 (Fig1-④)
- **MIC/LINE INPUTS** 端子 **(A)-(B)** ch に [6.3 mm TRS 標準ジャック] コードを接続する。 (Fig1-①)
- **STEREO OUT** L/R 端子に、RCA コードを接続する。 (Fig1-②)

### 3-1 LEVEL 確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **(A)-(B)** ch に [1kHz/+4dBu] の信号を入力する。その時、**STEREO OUT** L/R 端子の出力が [-10dBV±3dB] になることを確認する。
- 他の **MIC/LINE INPUTS** 端子 **(C-D/E-F/G-H)** ch についても同様に確認する。

## 4. EFFECT SENDS 端子検査

- **LINE-GUITAR** スイッチ : **LINE** 側 (Fig1-④)
- **EFFECT SENDS 1-2** 端子に [6.3 mm TS 標準ジャック] コードを接続する。 (Fig1-②)
- **STEREO OUT** L/R 端子の RCA コードを取り外す。 (Fig1-②)

### 4-1 LEVEL 確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **(G)-(H)** ch に [1kHz/+4dBu] の信号を入力する。その時、**EFFECT SENDS 1-2** 端子の出力がそれぞれ、[-10dBV±3dB] になることを確認する。

### 4-2 周波数特性

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **(G)-(H)** ch に [20Hz、22kHz/+4dBu] の信号を入力する。それぞれの信号を入力した際に、**EFFECT SENDS 1-2** 端子の出力は、[**4-4-1 LEVEL 確認**] の出力信号 (-10dBV±3dB) に対して、[20Hz] 時は [+1dB]、[22kHz] 時は [-1dB] になることを確認する。

### 4-3 歪率確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **EFFECT SENDS 1-2** 端子に [20kHz] の LPF (Low pass filter) を接続する。
- **MIC/LINE INPUTS** 端子 **(G)-(H)** ch に [1kHz/+19dBu] の信号を入力する。その時、**EFFECT SENDS 1-2** 端子の歪率が [0.01%] 以下になることを確認する。

#### 4-4 Distortion confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Connect a "20kHz" LPF (low pass filter) and a sound level meter (for A-weighted sound pressure level measurement) to the **EFFECT SENDS 1-2** jacks.
- Prepare termination resistance (TERMINATE) connectors that have TRS jack tip (T) and sleeve (S) connected with 150Ω resistance, and connect them to the **(G)-(H) MIC/LINE INPUTS**. At this time, confirm that the **EFFECT SENDS 1-2** residual noise is "-84 dBV" or less.  
At this time, confirm that no strange sounds are audible.

### 5. MONITOR OUT connector inspection

- **LINE-GUITAR** switch : **LINE** (Fig. 1-④)
- Connect standard 6.3mm TS cords to the **MONITOR OUT** L/R jacks. (Fig. 1-②)
- Disconnect the standard 6.3mm TS cords from the **EFFECT SENDS 1-2** jacks. (Fig. 1-②)

#### 5-1 LEVEL confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input "1kHz/+4dBu" signals into the **(G)-(H) MIC/LINE INPUTS** jacks.  
At this time, confirm that the output from the **MONITOR OUT** L/R jacks is "-4.2dBV±3dB".

#### 5-2 Frequency response

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input "20Hz/+4dBu" and "22kHz/+4dBu" signals into the **(G)-(H) MIC/LINE INPUTS** jacks.  
When inputting each signal, confirm that the output of the **MONITOR OUT** L/R jacks for the "**4-5-2 LEVEL confirmation**" output signal (-4.2dBV±3dB) is "±1dB" at "20 Hz" and "+1dB/-1.5dB" at "22 kHz".

#### 5-3 Distortion confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Connect a "20kHz" LPF (low pass filter) to the **MONITOR OUT** L/R jacks.
- Input "1kHz/+19dBu" signals into the **(G)-(H) MIC/LINE INPUTS** jacks.  
At this time, confirm that the distortion from the **MONITOR OUT** L/R jacks is "0.01%" or less.

#### 5-4 Residual NOISE confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Connect a "20kHz" LPF (low pass filter) and a sound level meter (for A-weighted sound pressure level measurement) to the **MONITOR OUT** L/R jacks.
- Prepare termination resistance (TERMINATE) connectors that have TRS jack tip (T) and sleeve (S) connected with 150Ω resistance, and connect them to the **(G)-(H) MIC/LINE INPUTS**. At this time, confirm that the **MONITOR OUT L/R** residual noise is "-78.2 dBV" or less.  
At this time, confirm that no strange sounds are audible.

#### 4-4 残留 NOISE 確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **EFFECT SENDS 1-2** 端子に [20kHz] の LPF (Low pass filter) と騒音計 [A 特性音圧レベル (A weighted sound pressure level) 測定用] を接続する。
- TRS 端子のジャックプラグのチップ (T) とスリーブ (S) に 150Ω の抵抗で接続した終端抵抗 (TERMINATE) 端子を用意して、**MIC/LINE INPUTS** 端子 **(G)-(H)** ch に接続する。その時、**EFFECT SENDS 1-2** 端子の残留 NOISE が、[-84dBV 以下] になることを確認する。  
その際、聴感上異音が無いことを確認する。

### 5. MONITOR OUT 端子検査

- **LINE-GUITAR** スイッチ : **LINE** 側 (Fig1-④)
- **MONITOR OUT** L/R 端子に [6.3 mm TS 標準ジャック] コードを接続する。 (Fig1-②)
- **EFFECT SENDS 1-2** 端子の [6.3 mm TS 標準ジャック] コードを取り外す。 (Fig1-②)

#### 5-1 LEVEL 確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **(G)-(H)** ch に [1kHz/+4dBu] の信号を入力する。  
その時、**MONITOR OUT** L/R 端子の出力が [-4. 2dBV±3dB] になることを確認する。

#### 5-2 周波数特性

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **(G)-(H)** ch に [20Hz、22kHz/+4dBu] の信号を入力する。  
それぞれの信号を入力した際に、**MONITOR OUT** L/R 端子の出力は、[**4-5-2 LEVEL 確認**] の出力信号 (-4. 2dBV±3dB) に対して、[20Hz] 時は [±1dB]、[22kHz] 時は [+1/-1.5dB] になることを確認する。

#### 5-3 歪率確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MONITOR OUT** L/R 端子に [20kHz] の LPF (Low pass filter) を接続する。
- **MIC/LINE INPUTS** 端子 **(G)-(H)** ch に [1kHz/+19dBu] の信号を入力する。  
その時、**MONITOR OUT** L/R 端子の歪率が [0.01%] 以下になることを確認する。

#### 5-4 残留 NOISE 確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MONITOR OUT** L/R 端子に [20kHz] の LPF (Low pass filter) と騒音計 [A 特性音圧レベル (A weighted sound pressure level) 測定用] を接続する。
- TRS 端子のジャックプラグのチップ (T) とスリーブ (S) に 150Ω の抵抗で接続した終端抵抗 (TERMINATE) 端子を用意して、**MIC/LINE INPUTS** 端子 **(G)-(H)** ch に接続する。その時、**MONITOR OUT** L/R 端子の残留 NOISE が、[-78.2dBV 以下] になることを確認する。  
その際、聴感上異音が無いことを確認する。

## 6. TS connector inspection

- **LINE-GUITAR** switch: GUITAR (Fig. 1-④)
- Disconnect the standard 6.3mm TRS cords from the **G-H MIC/LINE INPUTS** jacks, and connect a standard 6.3mm TS cord to the **H** channel. (Fig. 1-①)

### 6-1 LEVEL confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input a "1kHz/-4dBu" signal into the **H MIC/LINE INPUTS** jack.  
At this time, confirm that the output from the **MONITOR OUT** L/R jacks is "-4.2dBV±3dB".

## 7. PHONE connector inspection

- **LINE-GUITAR** switch : **LINE** (Fig. 1-④)
- Disconnect the standard 6.3mm TS cords from the **MONITOR OUT** L/R jacks. (Fig. 1-②)
- Disconnect the standard 6.3mm TS cord from the **H MIC/LINE INPUTS** jack, and connect standard 6.3mm TRS cords to the **G-H** channels. (Fig. 1-①)
- Connect a 6.3mm stereo cord with 32Ω load to the **PHONE OUT** jack.

### 7-1 Distortion confirmation

Set the **(A)-(H) INPUT TRIM** knobs to the minimum positions, and conduct the following inspections.

- Input "1kHz/+6dBu" signals into the **G-H MIC/LINE INPUTS** jacks.  
At this time, confirm that the **PHONE OUT** jack distortion is 0.1% or less and that the signal output is at least 1.2 V.

## 8. MIDI connector inspection

- Connect a MIDI keyboard or similar device to the **MIDI IN** jack, and a MIDI sound module to the **OUT** jack. (Fig. 1-③)

### 8-1 IN PUT/OUT PUT confirmation

- Confirm that when you play keys on the MIDI keyboard, for example, sound is output from the **MIDI** sound module connected to the **MIDI OUT** jack.

This completes the "**Electrical inspection**".

## 6. TS 端子検査

- **LINE-GUITAR** スイッチ : **GUITAR** 側 (Fig1-④)
- **MIC/LINE INPUTS** 端子 **G-H**ch の [6.3 mm TRS 標準ジャック] コードを取り外し、**H**ch に [6.3 mm TS 標準ジャック] コードを接続する。 (Fig1-①)

### 6-1 LEVEL 確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **H**ch に [1kHz/-4dBu] の信号を入力する。  
その時、**MONITOR OUT** L/R 端子の出力が [-4.2dBV±3dB] になることを確認する。

## 7. PHONE 端子検査

- **LINE-GUITAR** スイッチ : **LINE** 側 (Fig1-④)
- **MONITOR OUT** L/R 端子の [6.3 mm TS 標準ジャック] コードを取り外す。 (Fig1-②)
- **MIC/LINE INPUTS** 端子 **H**ch の [6.3 mm TS 標準ジャック] コードを取り外し、**G-H**ch に [6.3 mm TRS 標準ジャック] コードを接続する。 (Fig1-①)
- **PHONE OUT** 端子に 32Ω 負荷の [6.3 mm ステレオジャック] コードを接続する。

### 7-1 歪率確認

**INPUT TRIM** ノブ **(A)-(H)** を最小位置にして、下記の検査を実施する。

- **MIC/LINE INPUTS** 端子 **G-H**ch に [1kHz/+6dBu] の信号を入力する。  
その時、**PHONE OUT** 端子の歪率が [0.1%] 以下、信号出力は 1.2V 以上であることを確認する。

## 8. MIDI 端子検査

- **MIDI** の IN 端子に **MIDI KEYBOARD** 等を接続し、OUT 端子に **MIDI** 音源モジュールを接続する。 (Fig1-③)

### 8-1 入出力確認

- **MIDI KEYBOARD** 等の **KEY** を操作した際、**MIDI** の OUT 端子接続した **MIDI** 音源モジュールから音が出ることを確認する。

以上で【**電気検査**】は完了です。

# 7. Firmware update

## ファームウェアアップデート

### 1. Prepare an SD card for the update

#### 1-1 Preparing equipment

- SD card included with this unit Mini-B type USB 2.0 cable
- Update files
  - For the main unit : This can be downloaded from the TASCAM website (<http://tascam.jp/>).
  - For the optical drive : This can be downloaded from the service website (<https://service1.teac.co.jp/>). (does not apply to the DP-32SD)
- PC with Windows XP, Windows Vista or Windows 7 installed (Copy the update files to this PC in advance)

#### CAUTION

If the included SD card is not available, use a different SD card, and format that card as explained in "4. Initial operation check - 3. Checking main unit operations".

You can check a list of SD cards that have been confirmed for operation on the TASCAM website (<http://tascam.jp/>).

#### 1-2 Connecting equipment

- Use a USB cable to connect the unit with the PC.
- Press and hold the **STANDBY/ON** button on the back of the unit (Fig. 1-①).
- After starting the unit, insert an SD card into the SD card slot on the back of the unit (Fig. 1-④), and press the **MENU** button (Fig. 1-②).
- Use the **JOG/DATA** dial (Fig. 1-⑤) to select the **USB** icon (Fig. 1-⑦).
- After selection, press the **F4** button (Fig. 1-③), which corresponds to the [▶] icon at the bottom right of the screen (Fig. 1-⑧), to open the USB connection selection screen.

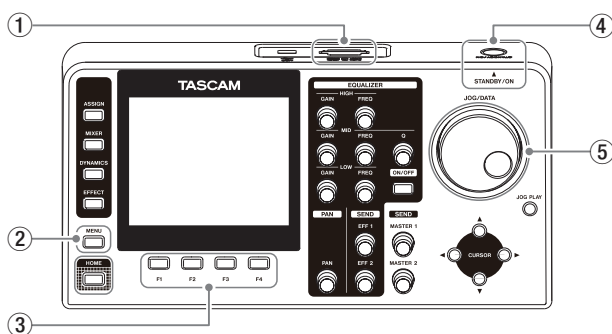


Fig 1

- 1-2-1 After opening the USB connection selection screen (Fig. 2-①), press the **F2** button (Fig. 2-③), which corresponds to the YES icon at the bottom left of the screen (Fig. 2-②), to enable the USB connection.

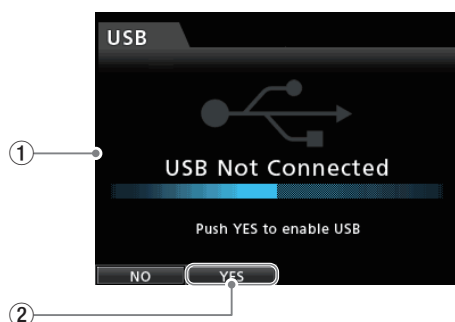


Fig 2

### 1. アップデート用SDカード作成

#### 1-1 機材の準備

- 本機に同梱のSDカードとMini-BタイプのUSB2.0対応ケーブル
- アップデートファイル
  - 本体用 : TASCAMのウェブサイト (<http://tascam.jp/>) から入手可能。
  - 光学ドライブ用 : サービス用ウェブサイト (<https://service1.teac.co.jp/>) から入手可能。(DP-32SDは除く)
- Windows XP、Windows Vista、Windows 7 のいずれかのOSを搭載したPC (上記のPCに、アップデートファイルをコピーして用意しておく)

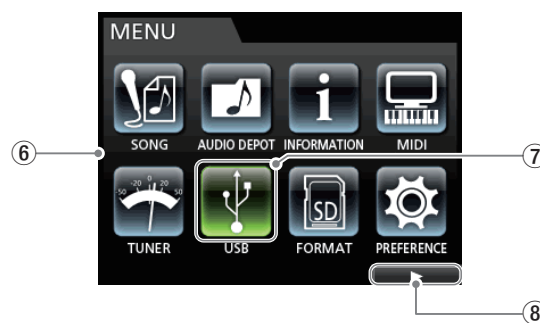
#### 注意

同梱のSDカードが無い場合は、別のSDカードを用意し、[4. 初期動作確認-3. 本機の動作確認]で、SDカードのフォーマットを実行してください。

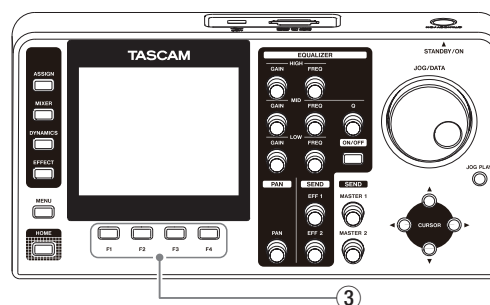
動作確認済みのSDカードは、TASCAMのウェブサイト (<http://tascam.jp/>) で確認できます。

#### 1-2 機器の接続

- PCと本機をUSBケーブルで接続する。
  - 本機背面の**STANDBY/ON**ボタン(Fig1-①)を長押しする。
  - 本機が起動後、背面のSDカードスロット(Fig1-④)にSDカードを挿入して、**MENU**ボタン(Fig1-②)を押す。
  - LCD画面に[MENU]画面(Fig1-⑥)]が表示される。
  - カーソルを**JOG/DATA**ダイヤル(Fig1-⑤)で操作し、"USB"アイコン(Fig1-⑦)を選択する。
- 選択後、画面右下の[▶]マーク(Fig1-⑧)に対応する**F4**ボタン(Fig1-③)を押し、USB接続選択画面に移動する。

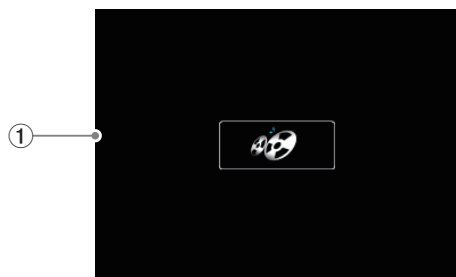


- 1-2-1 USB接続選択画面(Fig2-①)に移動後、画面左下の[YES]マーク(Fig2-②)に対応する**F2**ボタン(Fig2-③)を押し、USB接続を実行する。



- 1-2-2 While connecting by USB, the in-progress indicator shown in Fig. 3-① will appear. When this unit is connected by USB, "USB Connected" (Fig. 3-②) will appear.

When the PC and this unit have been successfully connected by USB, the "DP-32" (or "DP-24") will appear as a removable disk in My Computer (Windows XP).



- 1-2-2 USB接続処理中の画面(Fig3-①)を表示後、本機がUSB接続準備状態になると"USB Connected"(Fig3-②)が表示される。

PCと本機が問題なくUSB接続を完了すると、PCのマイコンピュータ(Windows XPの場合)のリムーバブルディスクに[DP-32(またはDP-24)]をドライブとして表示する。

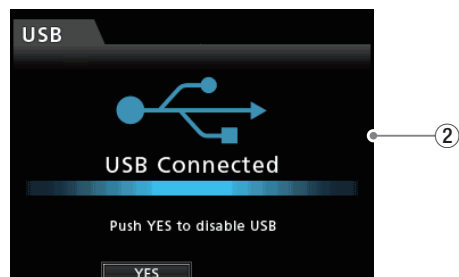


Fig 3

- 1-2-3 If you open the "DP-32" (or "DP-24") drive as a removable hard disk on the PC, "MUSIC", "UTILITY" and "AudioDepot" folders will be shown.

Copy the latest update files that you prepared in "1-1 Preparing equipment" to the "UTILITY" folder. These files are the updater for the main unit and the updater for the optical drive (unless the unit is a DP-32SD).

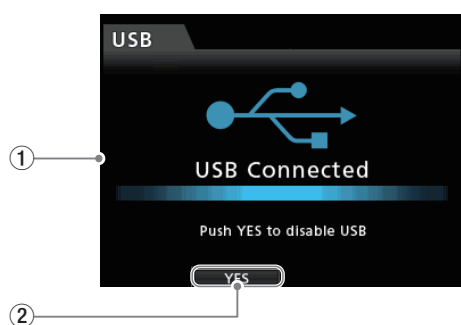
- 1-2-4 After copying completes, close the "DP-32" (or "DP-24") removable disk drive on the PC and disconnect the unit from the PC.

#### CAUTION

When disconnecting the unit from the PC, use "Safely Remove Hardware" from the PC system tray.

- 1-2-5 After completing the disconnection from the PC, close the USB connection from this unit.

On the "USB Connected" screen (Fig. 4-①), press the **F2** button, which corresponds to the "YES" icon (Fig. 4-②), to return to the **HOME** screen (Fig. 4-③).



- 1-2-3 PCのリムーバブルディスク[DP-32(またはDP-24)]のドライブを開くと"MUSIC"、"UTILITY"、"AudioDepot"の各フォルダを表示する。

その中の"UTILITY"フォルダに[1-1 機材の準備]で用意した最新のアップデートファイル[本体用/光ドライブ用(DP-32SDは除く)]をコピーする。

- 1-2-4 コピー完了後、PCのリムーバブルディスク[DP-32(またはDP-24)]のドライブを閉じ、本機とPCの切り離しを行う。

#### 注意

PCと切り離しを行う際、PCのシステムトレイから[ハードウェアの安全な取り外し]を実行してください。

- 1-2-5 PC側の切り離し完了後、本機側もUSB接続を終了する。"USB Connected"(Fig4-①)の表示画面から、[YES]マーク(Fig4-②)に対応する**F2**ボタンを押すと[HOME]画面(Fig4-③)に移動する。

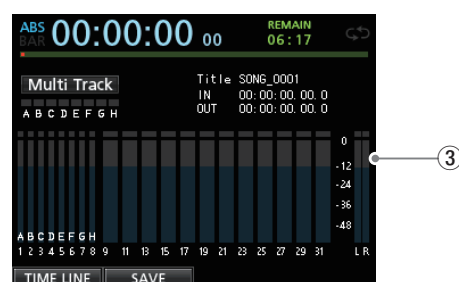


Fig 4

- 1-2-6 Press and hold the **STANDBY/ON** button on the back of the unit.

After turning the unit off, remove the SD card from the SD slot on the back of the unit.

This SD card will be used later as a card for updating.

- 1-2-6 本機背面の**STANDBY/ON**ボタンを長押しする。本機の電源がオフしてから、背面のSDカードスロットのSDカードを取り出す。

このSDカードをアップデート専用カードとして、今後のアップデートでも扱う。

## 2. Updating the main unit

### 2-1 Preparing equipment

- Update SD card  
Ready the SD card that you created in "**1. Prepare an SD card for the update**".

### 2-1 Connecting equipment

- Insert the update SD card into the SD card slot on the back of the unit (Fig. 1-③).
- While pressing the MUTE and UNDO/REDO buttons (Fig. 1-①), press and hold the **STANDBY/ON** button on the back of the unit (Fig. 1-②) to start the unit.

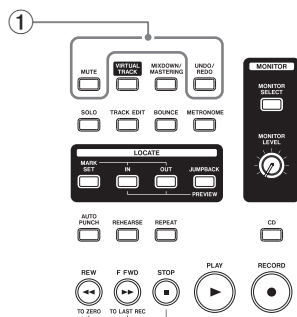


Fig 1

### 2-3 Starting the update

- When this unit is started in update mode, an update file selection screen opens (Fig. 2-①).
- Confirm the update file on the screen (Fig. 2-②). If multiple files are shown, use the **JOG/DATA** dial to select the update file (for the main unit) to use.
- After selection, press the **F4** button (Fig. 2-④), which corresponds to the [▶] icon at the bottom right of the screen (Fig. 2-③), to open the update starting screen.
- To start the update, press the **F2** button, which corresponds to the "YES" icon (Fig. 2-⑤).

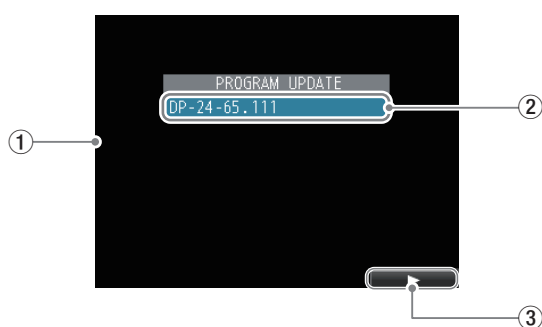


Fig 2

Explanation of the update starting screen

from X.XX	to X.XX
Current firmware version	Firmware version after update

### 2-3 Completing the update

- When the update completes, "**Complete.**" appears on the screen, and then the unit turns off automatically.
- Remove the update SD card from the SD card slot on the back of the unit, and insert the SD card that was included with the unit.
- Check the updated firmware version as explained in "**3. TEST MENU screen explanation and operation confirmation - 3-9. Checking the firmware version**".

This completes "**Updating the main unit firmware**".

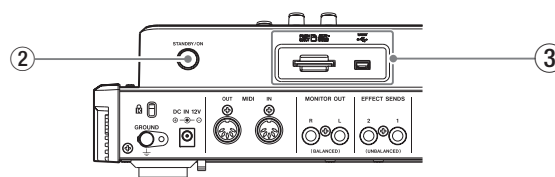
## 2. 本体のアップデート方法

### 2-1 機材の準備

- アップデート専用SDカード  
[**1. アップデート用SDカード作成**]で作成したSDカードを用意する。

### 2-2 機器の接続

- 背面のSDカードスロット (Fig1-③) にアップデート専用SDカードを挿入する。
- MUTEボタンとUNDO/REDOボタン (Fig1-①) を押しながら、本機背面の **STANDBY/ON** ボタン (Fig1-②) を長押しして、本機を起動する。



### 2-3 アップデートの開始

- 本機がアップデートモードで起動するとアップデートファイル選択画面 (Fig2-①) に移動する。
- 画面上のアップデートファイル (Fig2-②) を確認し、ファイルが複数表示されている場合は、カーソルを **JOG/DATA** ダイアルで操作し、目的のアップデートファイル [本体用] を選択する。
- 選択後、画面右下の [▶] マーク (Fig2-③) に対応する **F4** ボタンを押し、アップデートファイル開始画面 (Fig2-④) に移動する。
- アップデートを開始する場合は、[YES] マーク (Fig2-⑤) に対応する **F2** ボタンを押す。



アップデートファイル開始画面の説明

from X.XX	to X.XX
現在のファームウェアバージョン	変更後のファームウェアバージョン

### 2-4 アップデートの終了

- アップデートが完了すると画面に "**Complete.**" と表示した後、自動的に電源が切れる。
- 背面のSDカードスロットからアップデート専用SDカードを取り出し、本機に同梱のSDカードを挿入する。
- [**3. [TEST MENU] 画面の説明と動作確認-3-9 ファームウェア VERSION 確認**] でアップデートしたファームウェアバージョンを確認する。

以上で [**本体のファームウェアアップデート**] は完了です。

### 3. Updating the optical drive (does not apply to the DP-32SD)

#### 3-1 Preparing equipment

- Update SD card  
Ready the SD card that you created in "**1. Prepare an SD card for the update**".

#### 3-2 Connecting equipment

- Insert the update SD card into the SD card slot on the back of the unit (Fig. 1-③).
- While pressing the CD and **UNDO/REDO** buttons (Fig. 1-①), press and hold the **STANDBY/ON** button on the back of the unit (Fig. 1-②) to start the unit.

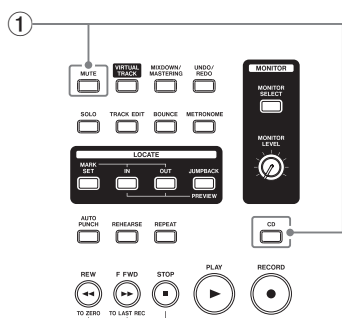


Fig 1

#### 3-3 Starting the update

- When this unit is started in update mode, an update file selection screen opens (Fig. 2-①).
  - Confirm the update file on the screen (Fig. 2-②). If multiple files are shown, use the **JOG/DATA** dial to select the update file (for the optical drive) to use.
  - After selection, press the **F4** button (Fig. 2-③), which corresponds to the [▶] icon at the bottom right of the screen (Fig. 2-④), to open the update starting screen.
- At this time, if the current firmware version and the firmware version after update are the same on the update starting screen, updating is unnecessary.

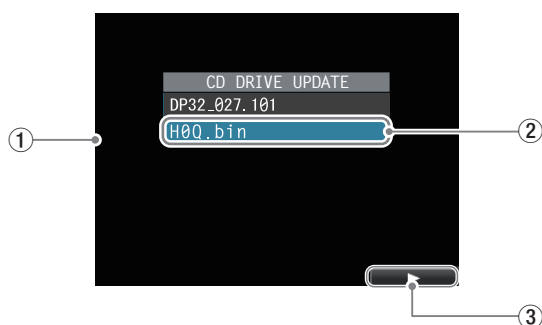


Fig 2

Explanation of the update starting screen

[BOOT]/[MAIN] X.XX	to X.XX
Current firmware version	Firmware version after update

- To start the update, press the **F2** button, which corresponds to the "YES" icon (Fig. 2-⑤).

#### 3-4 Completing the update

- When the update completes, "**Complete.**" appears on the screen, and then the unit turns off automatically.
- Remove the update SD card from the SD card slot on the back of the unit, and insert the SD card that was included with the unit.

This completes "Updating the optical drive firmware".

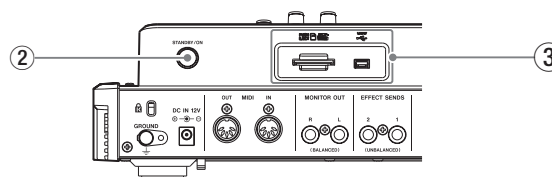
### 3. 光学ドライブのアップデート方法 (DP-32SDは除く)

#### 3-1 機材の準備

- アップデート専用SDカード  
[**1. アップデート用SDカード作成**]で作成したSDカードを用意する。

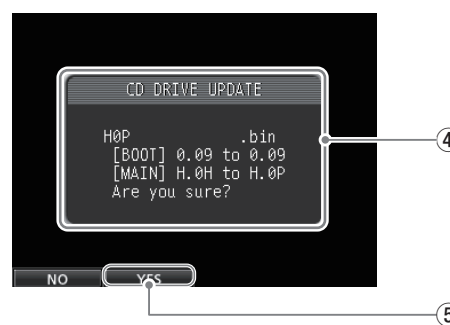
#### 3-2 機器の接続

- 背面のSDカードスロット (Fig1-③) にアップデート専用SDカードを挿入する。
- CDボタンと**UNDO/REDO**ボタン (Fig1-①) を押しながら、本機背面の**STANDBY/ON**ボタン (Fig1-②) を長押しして、本機を起動する。



#### 3-3 アップデートの開始

- 本機がアップデートモードで起動するとアップデートファイル選択画面 (Fig2-①) に移動する。
  - 画面上的アップデートファイル (Fig2-②) を確認し、ファイルが複数表示されている場合は、カーソルを**JOG/DATA**ダイヤルで操作し、目的のアップデートファイル [光学ドライブ用] を選択する。
  - 選択後、画面右下の [▶] マーク (Fig2-③) に対応する**F4**ボタンを押し、アップデートファイル開始画面 (Fig2-④) に移動する。
- この時、下記のアップデートファイル開始画面で、[現在のファームウェアバージョン] と [変更後のファームウェアバージョン] が同じ場合、アップデートは不要です。



アップデートファイル開始画面の説明

[BOOT]/[MAIN] X.XX	to X.XX
現在のファームウェアバージョン	変更後のファームウェアバージョン

- アップデートを開始する場合は、[YES] マーク (Fig2-⑤) に対応する**F2**ボタンを押す。

#### 3-4 アップデートの終了

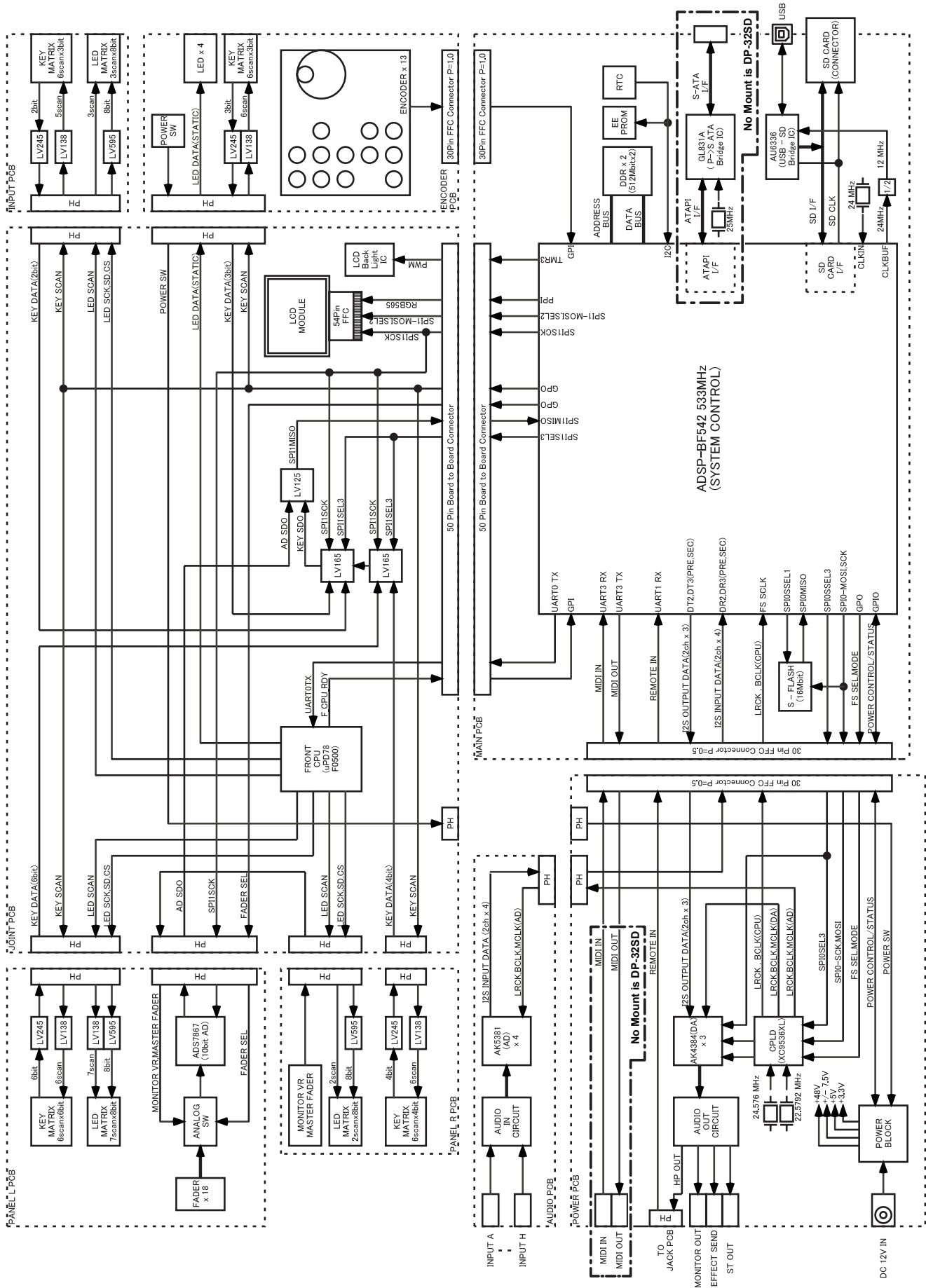
- アップデートが完了すると画面に "**Complete.**" と表示した後、自動的に電源が切れる。
- 背面のSDカードスロットからアップデート専用SDカードを取り出し、本機に同梱のSDカードを挿入する。

以上で [**光学ドライブのファームウェアアップデート**] は完了です。

# 8. Block Diagram

ブロックダイアグラム

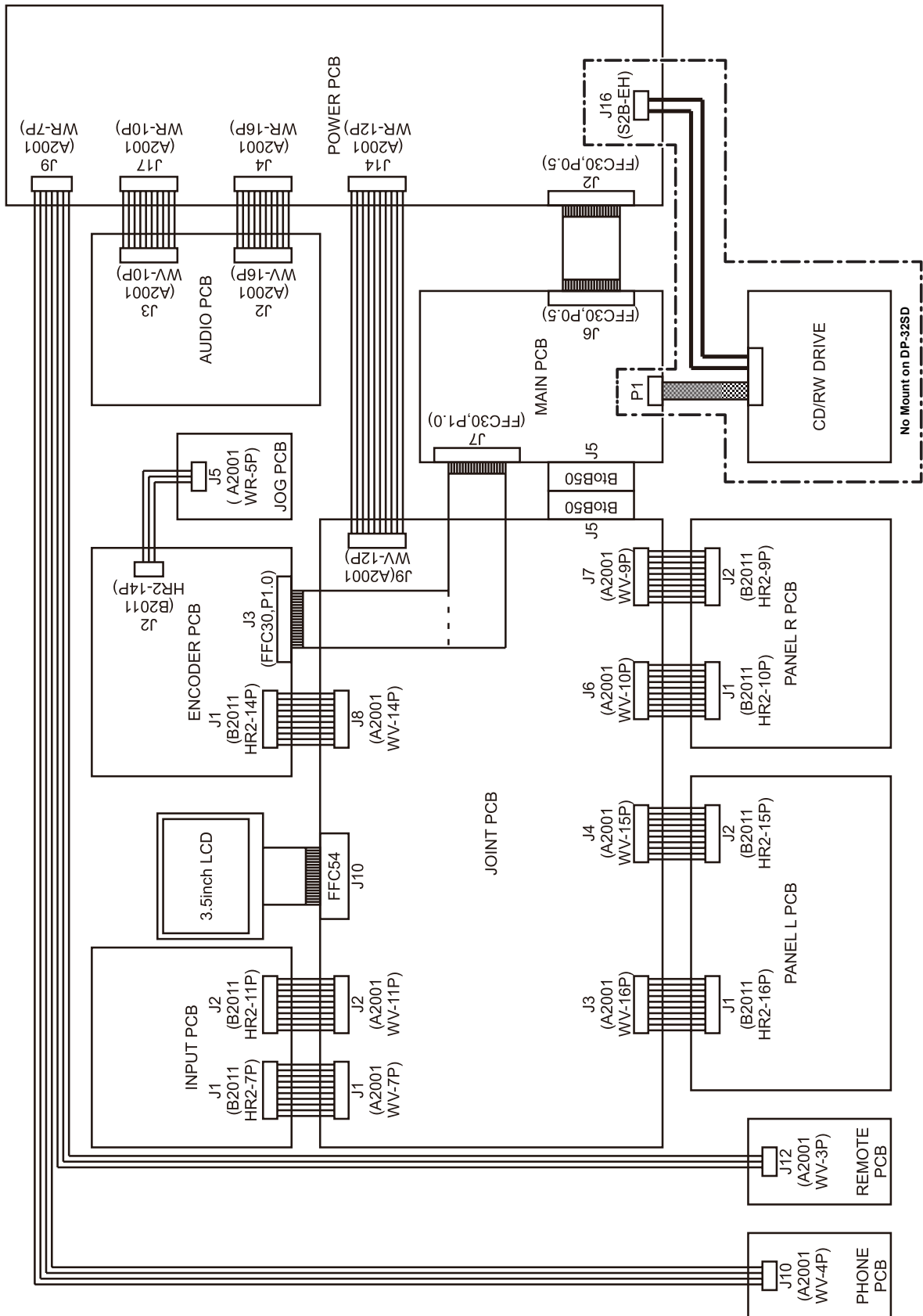
## DP-24 / 32 / 32SD BLOCK DIAGRAM



# 9. WIRING Diagram

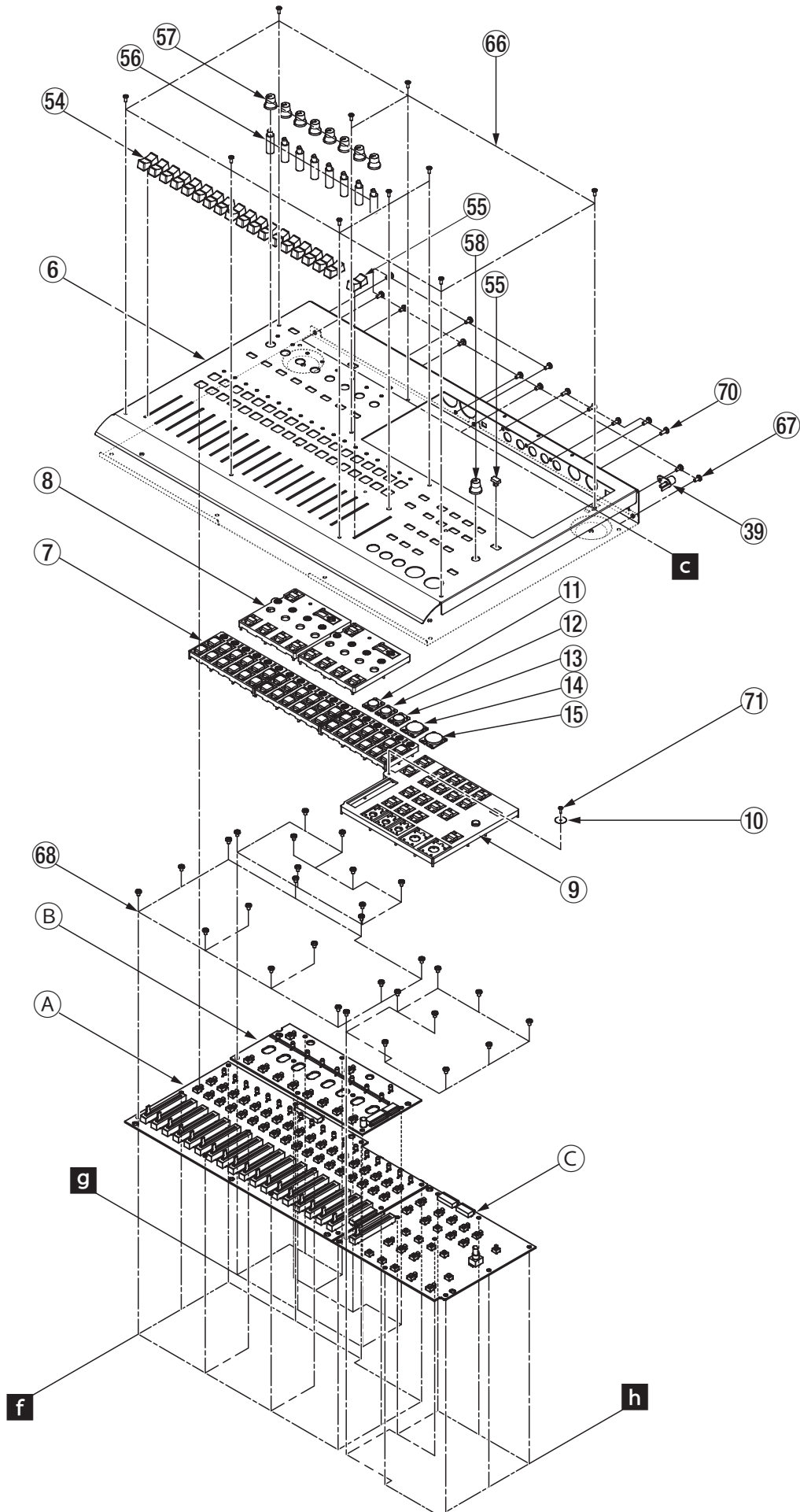
ワイヤーダイアグラム

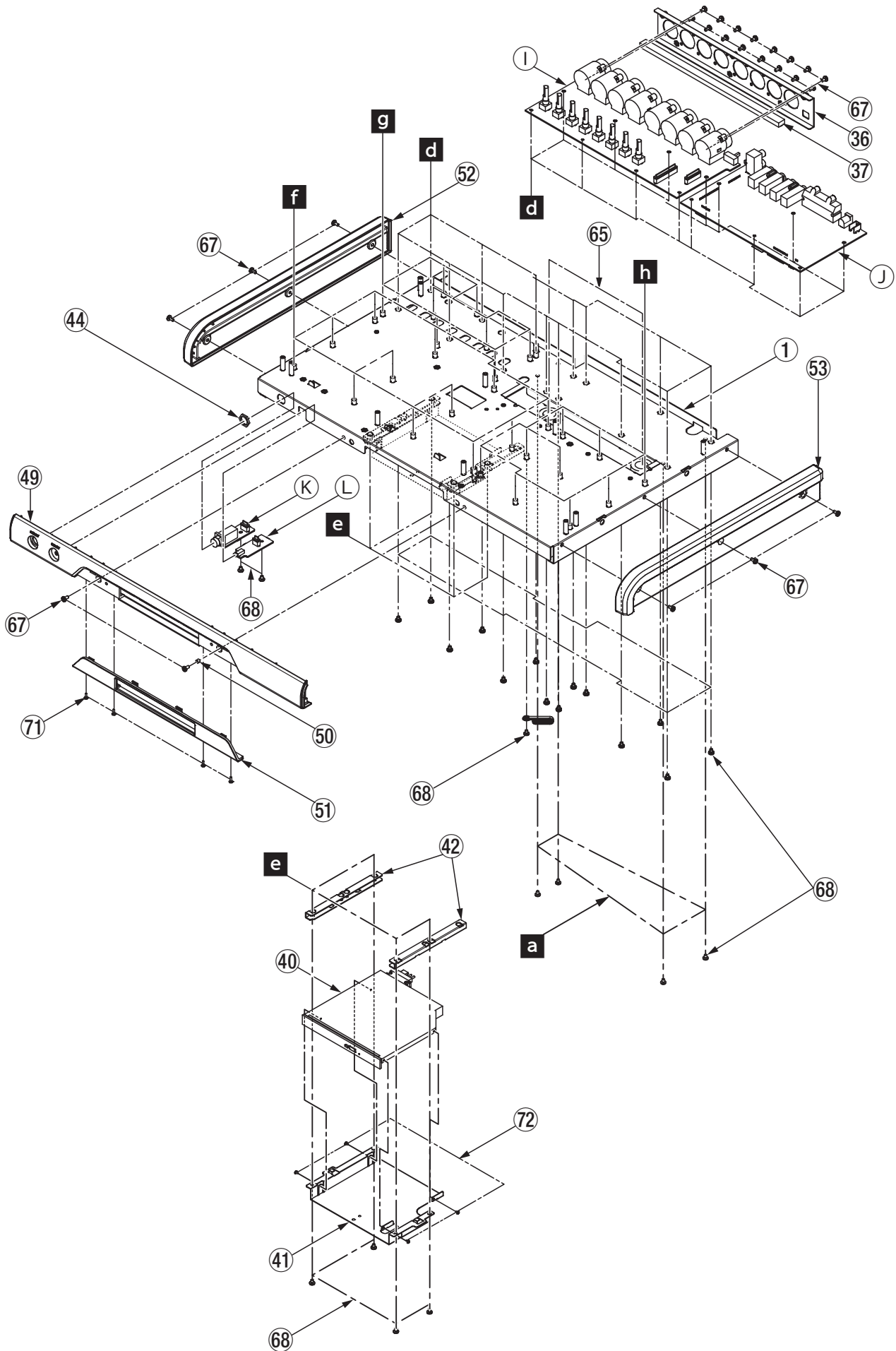
## DP-24 / 32 / 32SD WIRING DIAGRAM

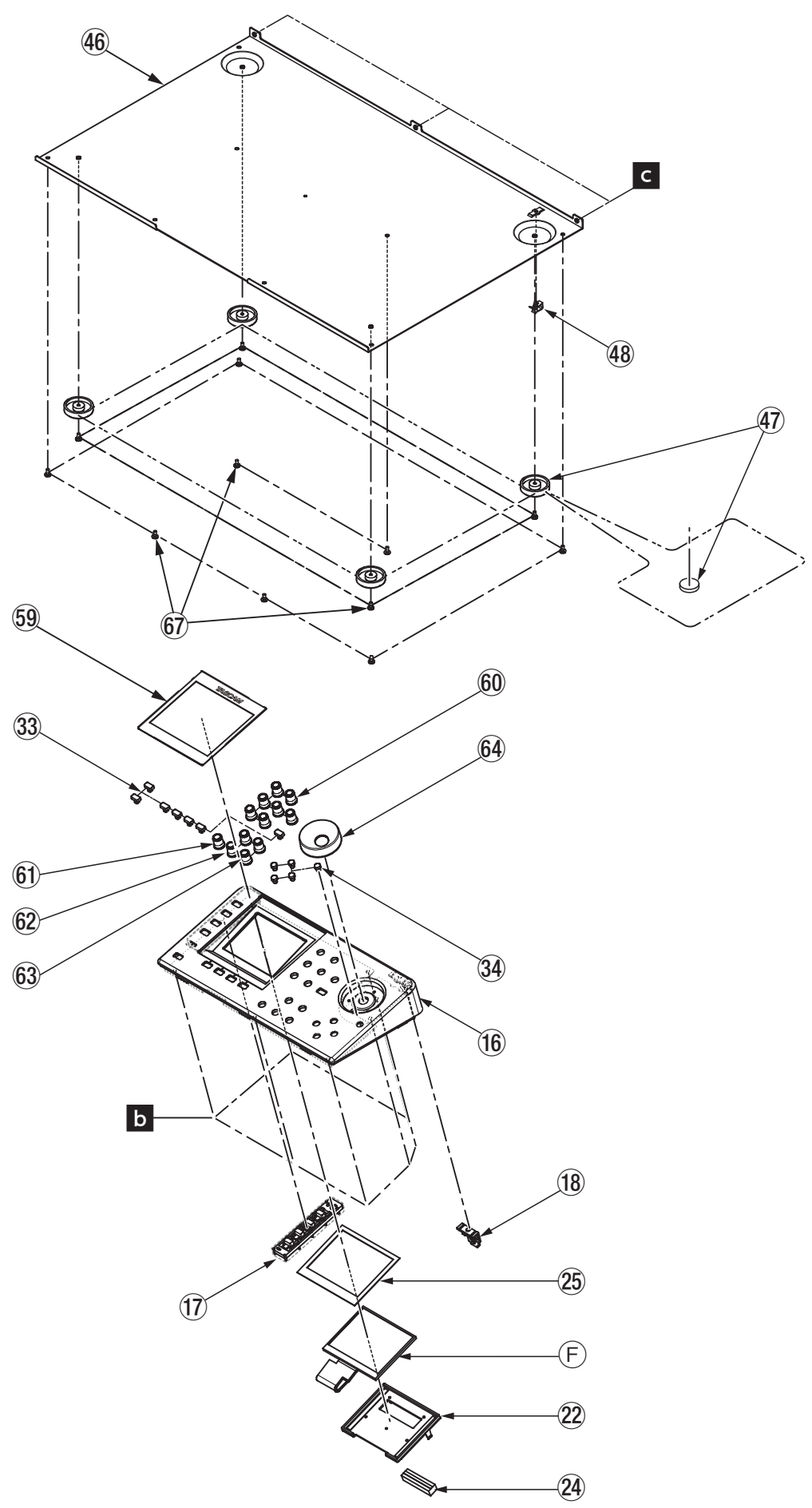


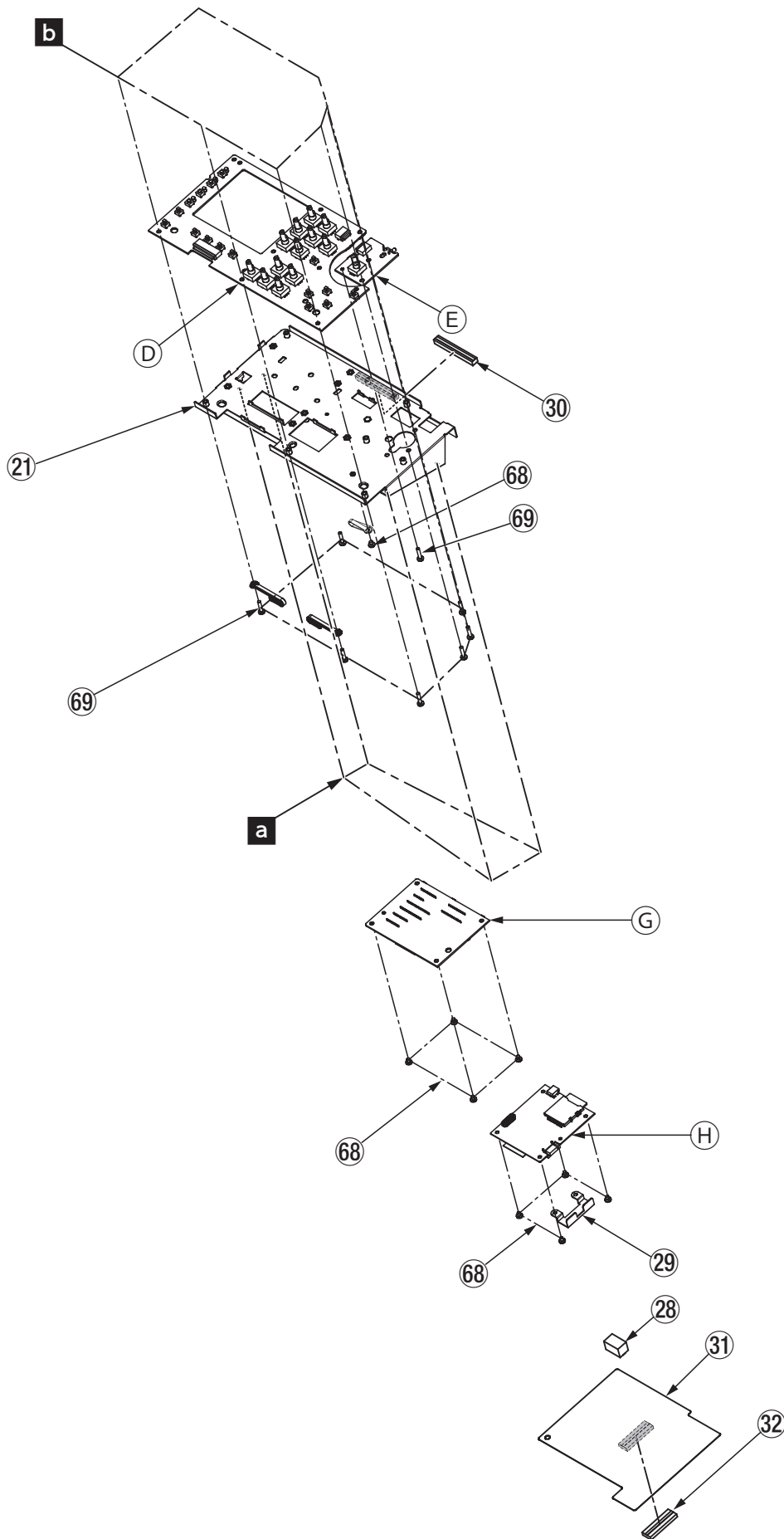
# 10. Exploded Views and Parts List

分解図とパーツリスト









**CAUTION** Part with numbers in parentheses ( ) cannot be ordered.**注意** "()"付き品番は、発注できません。

REF.NO.	PARTS NO.	DESCRIPTION .	Qty.	REMARKS
1	M03349700D	CHASSIS,CENTER CFD G	1	
2	[Unused]			
3	[Unused]			
4	[Unused]			
5	[Unused]			
6	M03351300C	TOP PANEL,CFD G	1	DP-24 Only
	M03351310B	TOP PANEL,CGO G	1	DP-32 Only
	M03351320B	TOP PANEL,32SD G	1	DP-32SD Only
7	M03349900B	BUTTON,6+6 CFD G	3	DP-24 Only
	M03477200A	BUTTON,5+5 CGO G	4	DP-32, 32SD Only
8	M03350000C	BUTTON,4+1 CFD G	2	
9	M03350200A	BUTTON,OPE CFD G	1	
10	M03440700A	SHIELD SHEET,BUTTON G	1	
11	M02686700A	BUTTON,COVER 12 REW G	3	
12	M02686701A	BUTTON,COVER 12 FF G	3	
13	M02686702A	BUTTON,COVER 12 STOP G	3	
14	M02699800B	BUTTON,COVER 19 PLAY G	2	
15	M02699801B	BUTTON,COVER 19 REC G	2	
16	M03350700C	PANEL,LCD CFD G	1	DP-24, 32 Only
	M03350710A	PANEL,LCD 32SD G	1	DP-32SD Only
17	M03350800A	BUTTON,LCD CFD G	1	
18	M03217200A	BUTTON,STANDBY DP03 G	1	
19	[Unused]			
20	[Unused]			
21	M03350400B	CHASSIS,LCD CFD G	1	
22	M03350600A	BRACKET,LCD CFD G	1	
23	[Unused]			
24	M03439500A	CUSHION,LCD CFD G	1	
25	M03369200A	SHEET,LCD CFD G	1	
26	[Unused]			
27	[Unused]			
28	M03445100A	CUSHION,CONN SATA G	1	DP-24, 32 Only
29	M03277800A	BRACKET,SATA G	1	DP-24, 32 Only
30	M03421800A	CUSHION,USB SD CFD G	1	
31	M03440600A	SHIELD SHEET,MAIN CFD G	1	DP-24, 32 Only
32	M03440000A	CUSHION,BR SATA G	1	DP-24, 32 Only
33	M03362000A	BUTTON,100*55 BLK G	8	
34	M03088800A	BUTTON,DIA64_B	5	
35	[Unused]			
36	M03362100A	BRACKET,COMBO CFD G	1	
37	M03420400A	CUSHION,AUDIO CFD G	1	
38	[Unused]			
39	3E017240G	GND TERMINAL G	1	DP-24, 32 Only
40	M03649700B	DRIVE ASSY,W224S A5 G	1	DP-24, 32 Only
41	M03218101A	BRACKET,CDRW DP24 G	1	DP-24, 32 Only
42	M03369300A	BRACKET,DRIVE CFD G	2	DP-24, 32 Only
43	[Unused]			
44	M0358050	NUT,M12X2.3-G	1	
45	[Unused]			
46	M03351900B	BOTTOM PANEL,CFD G	1	Old Type (Bottom plate is painted.) : DP-24, 32 Only
	M03351910A	BOTTOM PANEL,32SD G	1	New Type (Bottom plate is not painted.)
47	3M0214500A	FOOT, FF1009 2488	4	Old Type : DP-24, 32 Only
	M03254700A	FOOT, RCHS20PD	4	New Type

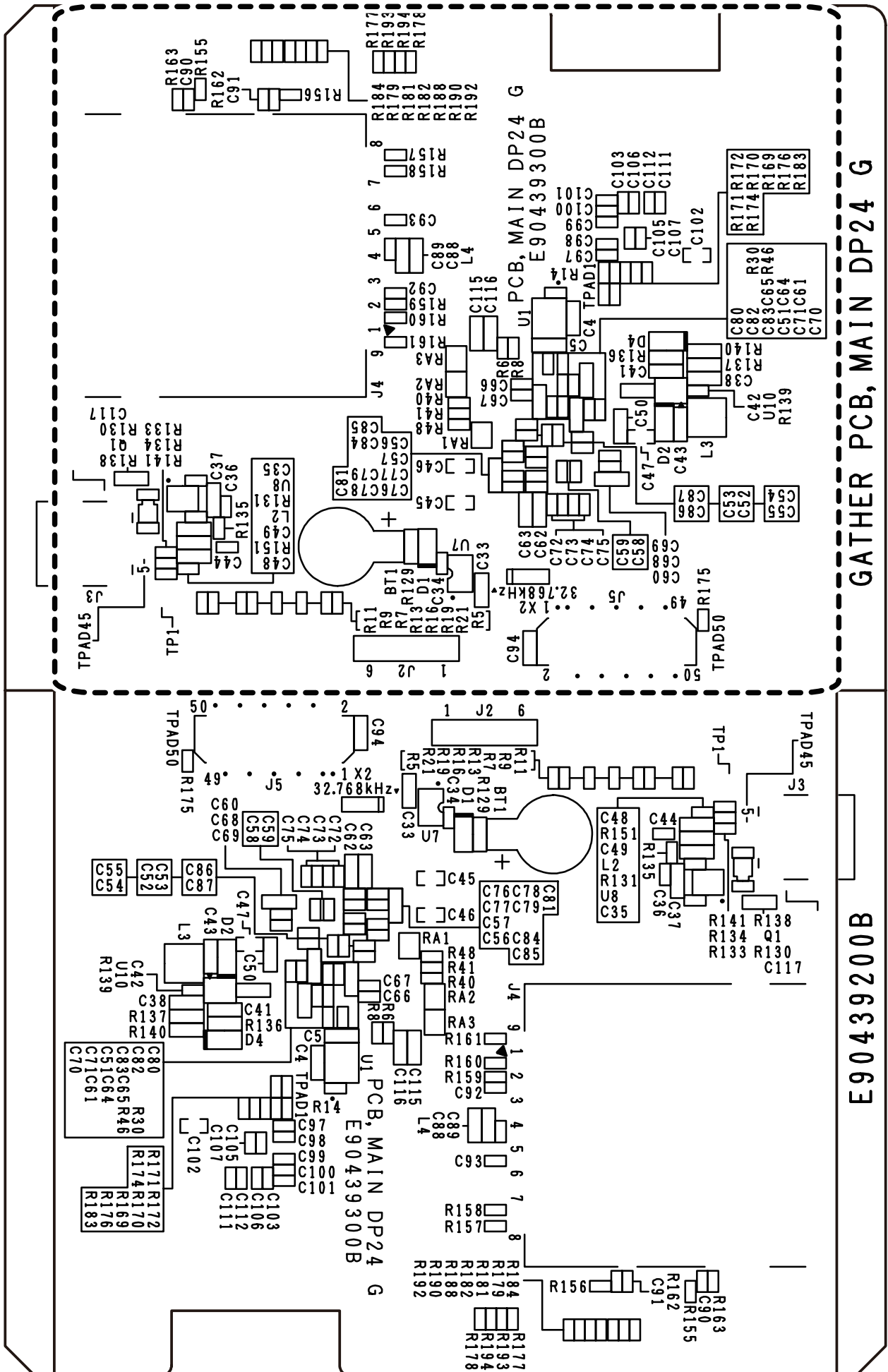
**CAUTION** Part with numbers in parentheses ( ) cannot be ordered.**注意** "()"付き品番は、発注できません。

REF.NO.	PARTS NO.	DESCRIPTION .	Qty.	REMARKS
48	3M0199300A	CLAMP SH3 US-428 HK\$0.28	1	DP-24, 32 Only
49	M03352000B	FRONT PANEL,CFD G	1	DP-24 Only
	M03352010B	FRONT PANEL,CGO G	1	DP-32 Only
	M03352020A	FRONT PANEL,32SD G	1	DP-32SD Only
50	M03421500B	SPACER,3*4*3 G	1	
51	M03362200A	ESC,FRONT CFD G	1	DP-24, 32 Only
	M03362210A	ESC,FRONT 32SD G	1	DP-32SD Only
52	M03352100B	SIDE PANEL,L CFD G	1	DP-24 Only
	M03352110B	SIDE PANEL,L CGO G	1	DP-32 Only
	M03352120A	SIDE PANEL,L 32SD G	1	DP-32SD Only
53	M03352200B	SIDE PANEL,R CFD G	1	DP-24 Only
	M03352210B	SIDE PANEL,R CGO G	1	DP-32 Only
	M03352220A	SIDE PANEL,R 32SD G	1	DP-32SD Only
54	M03352300B	KNOB,FADER CFD GRY/BLK G	26	[DP-24 : Qty 18], [DP-32, 32SD : Qty 8]
	M03352302A	KNOB,FADER CGO BLU/BLK G	12	DP-32, 32SD Only
55	M03352301B	KNOB,FADER CFD RED/BLK G	1	
56	M03352500B	JOINT,CFD G	8	
57	M03217403A	KNOB,ROTARY RED/BLK G	8	
58	M03217402A	KNOB,ROTARY ORG/BLK G	1	
59	M03352600A	WINDOW,CFD G	1	
60	M03353800B	KNOB,JOG EQ BLU/BLK G	7	
61	M03353801B	KNOB,JOG EQ YEL/BLK G	1	
62	M03353802B	KNOB,JOG EQ GRN/BLK G	2	
63	M03353803B	KNOB,JOG EQ GLY/BLK G	2	
64	M01352904A	KNOB,JOG CFD G	1	
65	E0152130	FLTR,CORE B18T 25X12X15 G	2	
66	B00171106A	SCREW,DPA 3*6FZB G	9	
67	B00198606A	SCREW,BPS 3*6 FZB G	46	
68	B00174004A	SCREW,BPA 3*4 FZC G	66	
69	B00192714A	SCREW,BPP 3*14 FZB G	8	
70	B00199708A	SCREW,BPB 3*8 FZB G	5	
71	B00287306A	SCREW,BPP 2X6 FZB G	5	
72	B00298803A	SCREW,BPAA 2*3 FZC G	4	
A	E95439400B	PCBA,PANEL L DP24 G	1	Refer to page 62 (PCB,PANEL L DP24 G)
	E95462200B	PCBA,PANEL L DP32 G	1	Refer to page 62 (PCB,PANEL L DP32 G)
B	E95439600B	PCBA,INPUT DP24 G	1	Refer to page 62 (PCB,INPUT DP24 G)
C	E95439500B	PCBA,PANEL R DP24 G	1	Refer to page 62 (PCB,PANEL R DP24 G)
D	E95439700B	PCBA,ENCODER DP24 G	1	Refer to page 62 (PCB,ENCODER DP24 G)
E	(E95438900A)	PCBA,JOG DP24 G	1	Refer to page 61 (GATHER PCBA,BOTTOM DP24 G)
F	E0179460	LCD,CT00350DE0000N G	1	
G	(E95438800A)	PCBA,JOINT DP24 G	1	Refer to page 61 (GATHER PCBA,BOTTOM DP24 G)
H	E95439300A	PCBA,MAIN DP24 G	1	Refer to page 61 (GATHER PCBA,MAIN DP24 G)
I	(E95438600A)	PCBA,AUDIO DP24 G	1	Refer to page 61 (GATHER PCBA,BOTTOM DP24 G)
J	(E95438700B)	PCBA,POWER DP24 G	1	Refer to page 61 (GATHER PCBA,BOTTOM DP24 G)
	(E95438720A)	PCBA,POWER DP32SD G	1	Refer to page 61 (GATHER PCBA,BOTTOM DP24 G)
K	(E95439100A)	PCBA,PHONE DP24 G	1	Refer to page 61 (GATHER PCBA,BOTTOM DP24 G)
L	(E95439000A)	PCBA,REMOTE DP24 G	1	Refer to page 61 (GATHER PCBA,BOTTOM DP24 G)

# 11. PC Boards and Parts List

基板図とパーツリスト

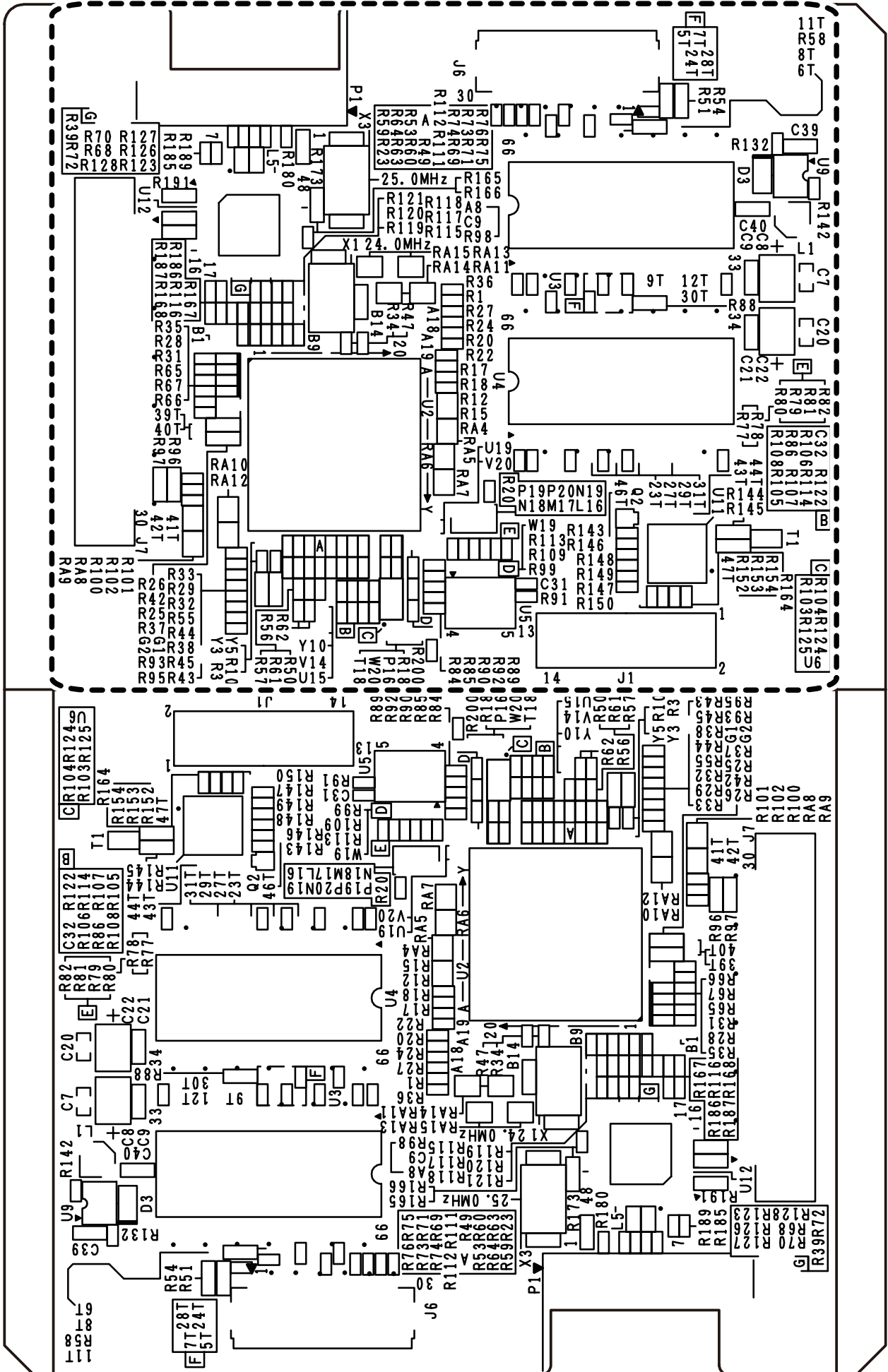
GATHER PCB, MAIN DP24 G (Side A)



**CAUTION** The portion in the dashed box consists of service parts that need to be ordered using part numbers in Bold.

**注意** 破線部分は、太字品番で発注する補修部品になります。

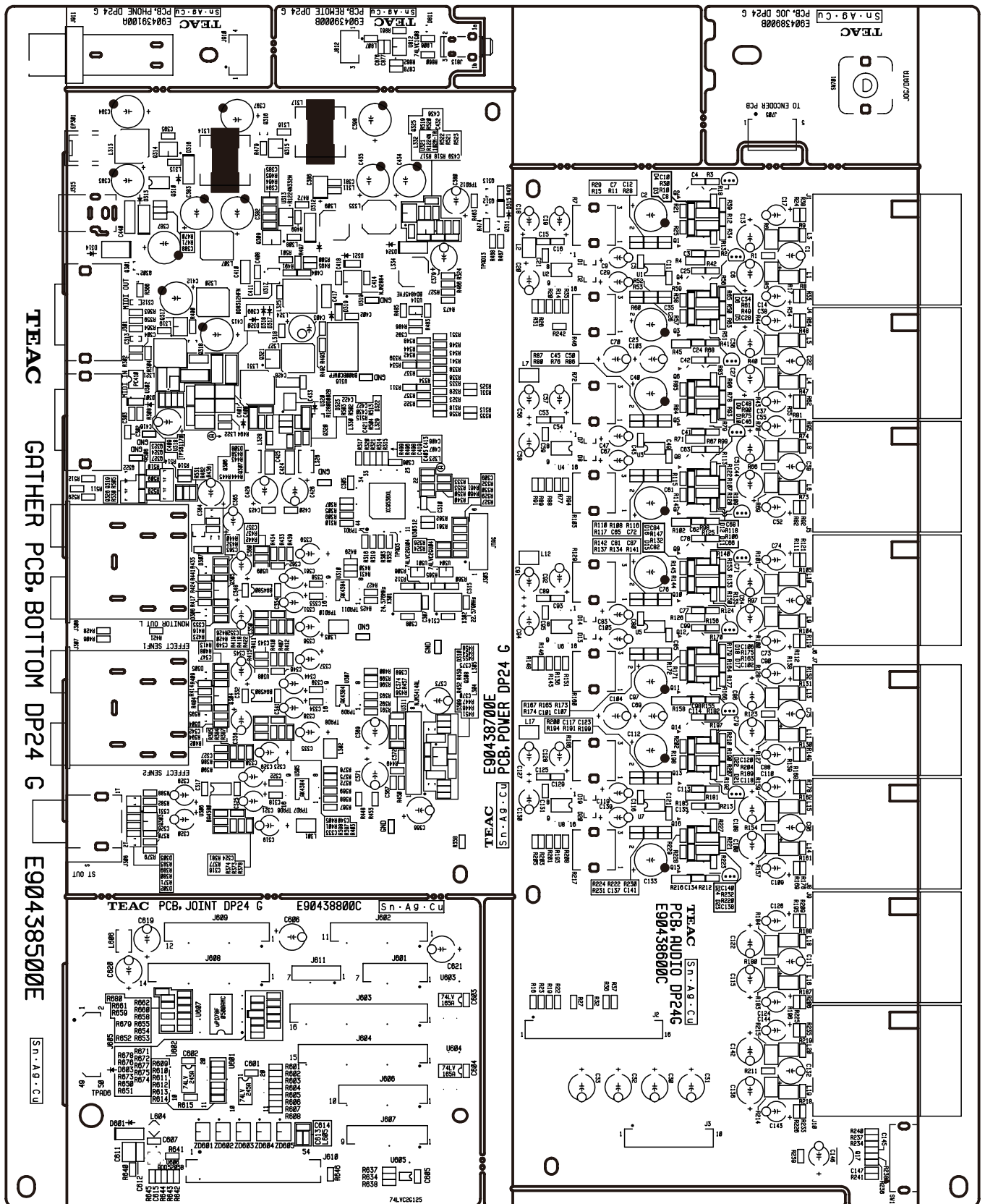
GATHER PCB, MAIN DP24 G (Side B)



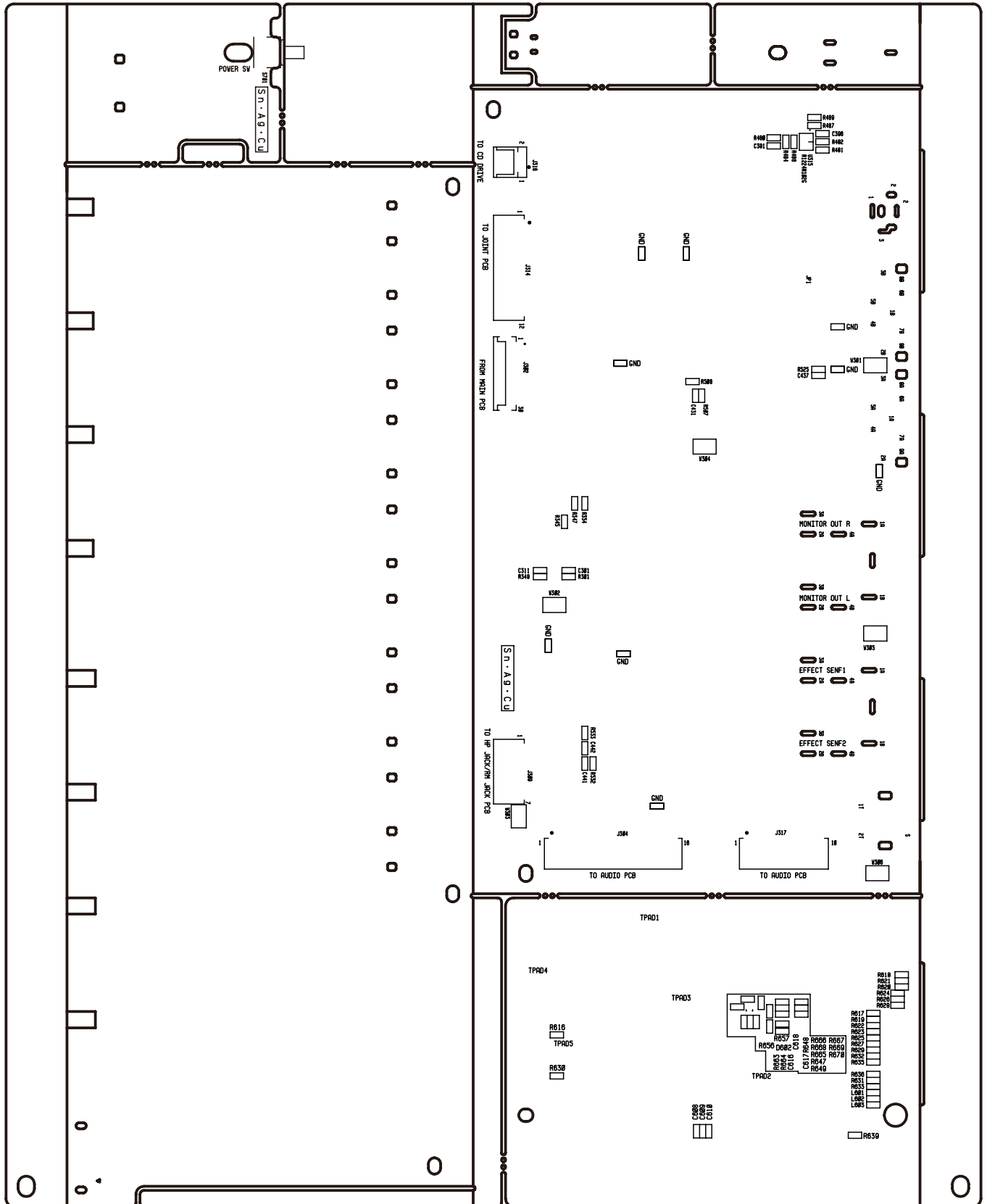
**CAUTION** The portion in the dashed box consists of service parts that need to be ordered using part numbers in Bold.

**注意** 破線部分は、太字品番で発注する補修部品になります。

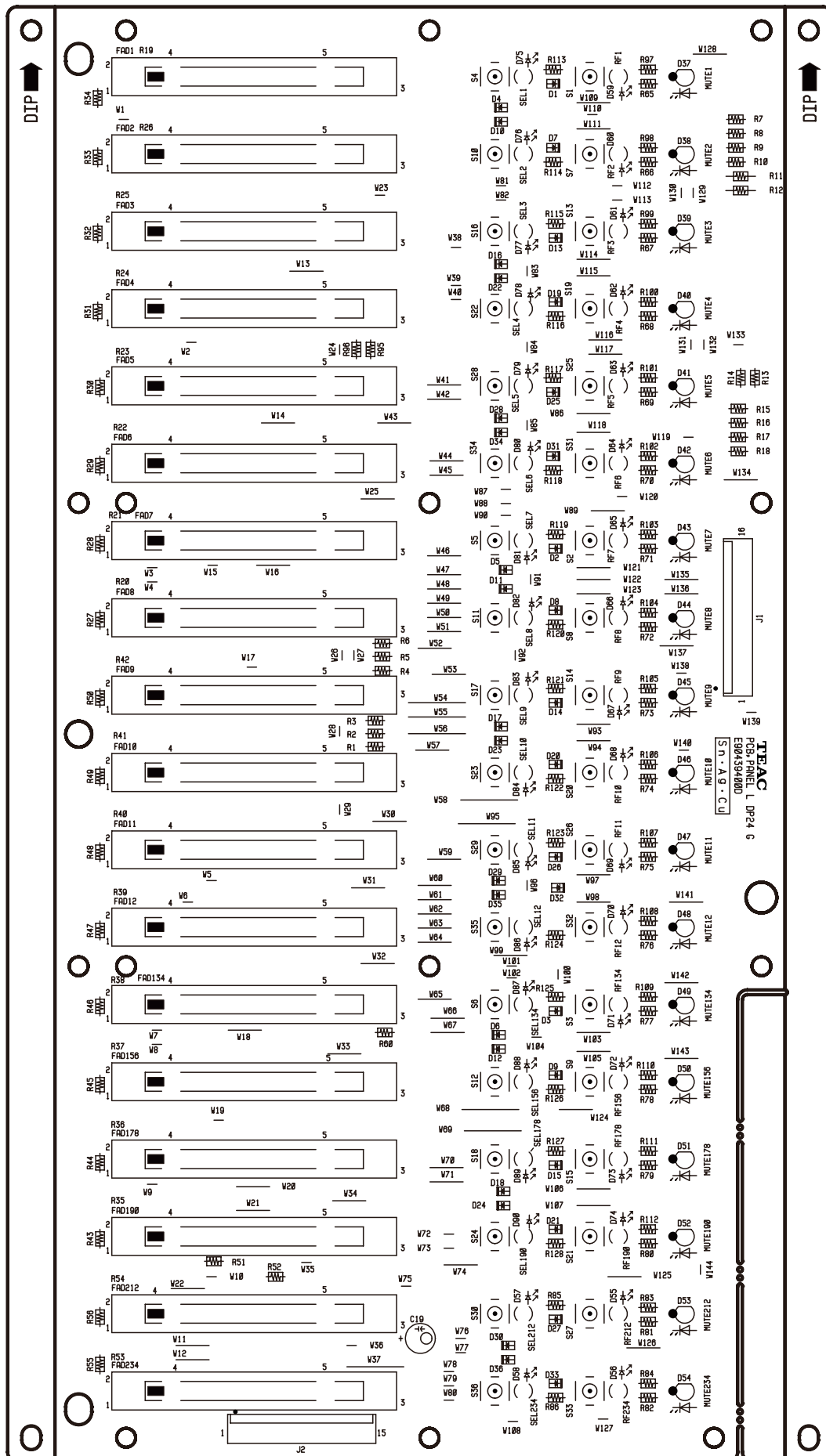
GATHER PCB, BOTTOM DP24 G (Side A)



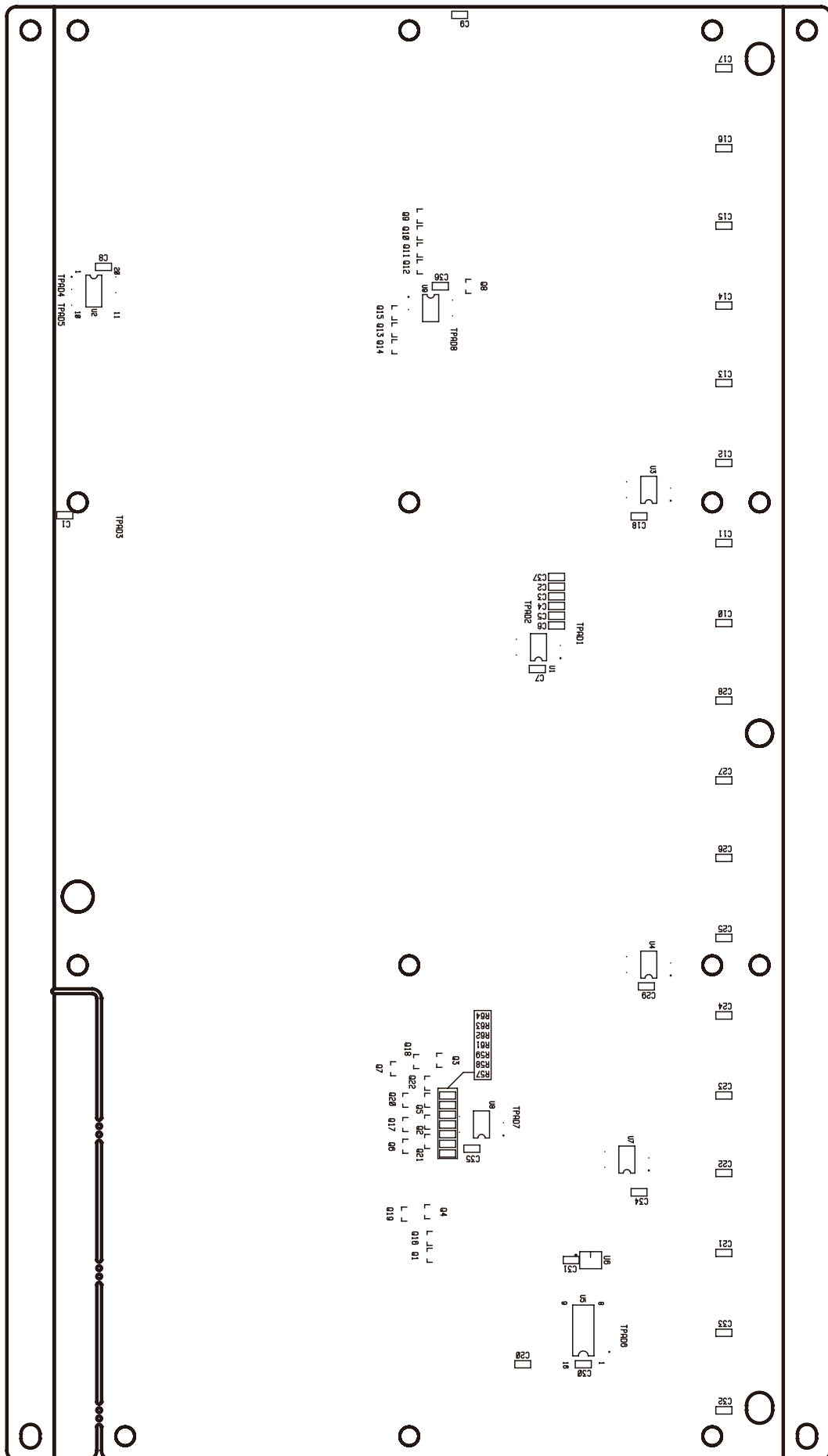
GATHER PCB, BOTTOM DP24 G (Side B)



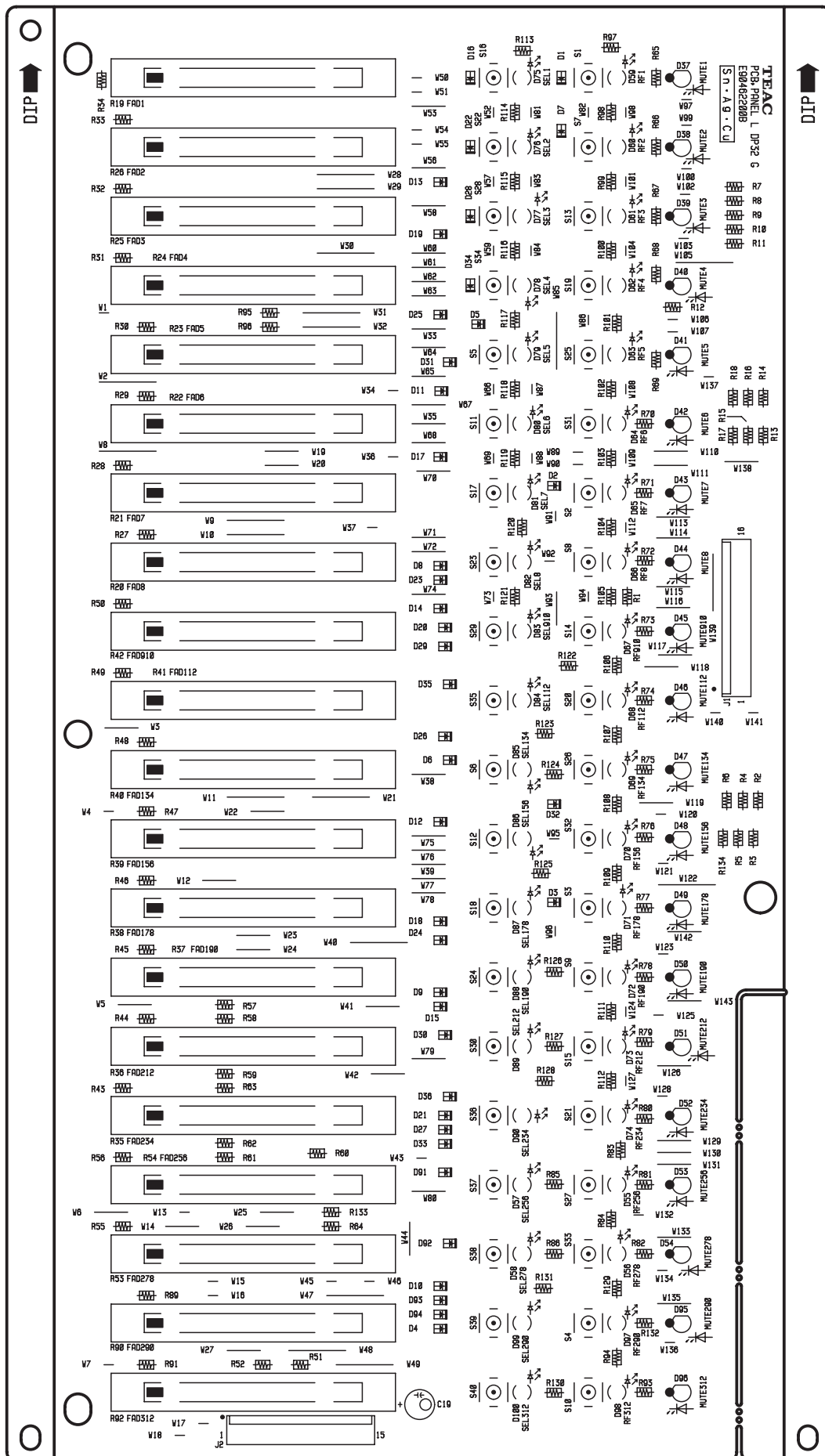
PCB, PANEL L DP24 G (Side A)



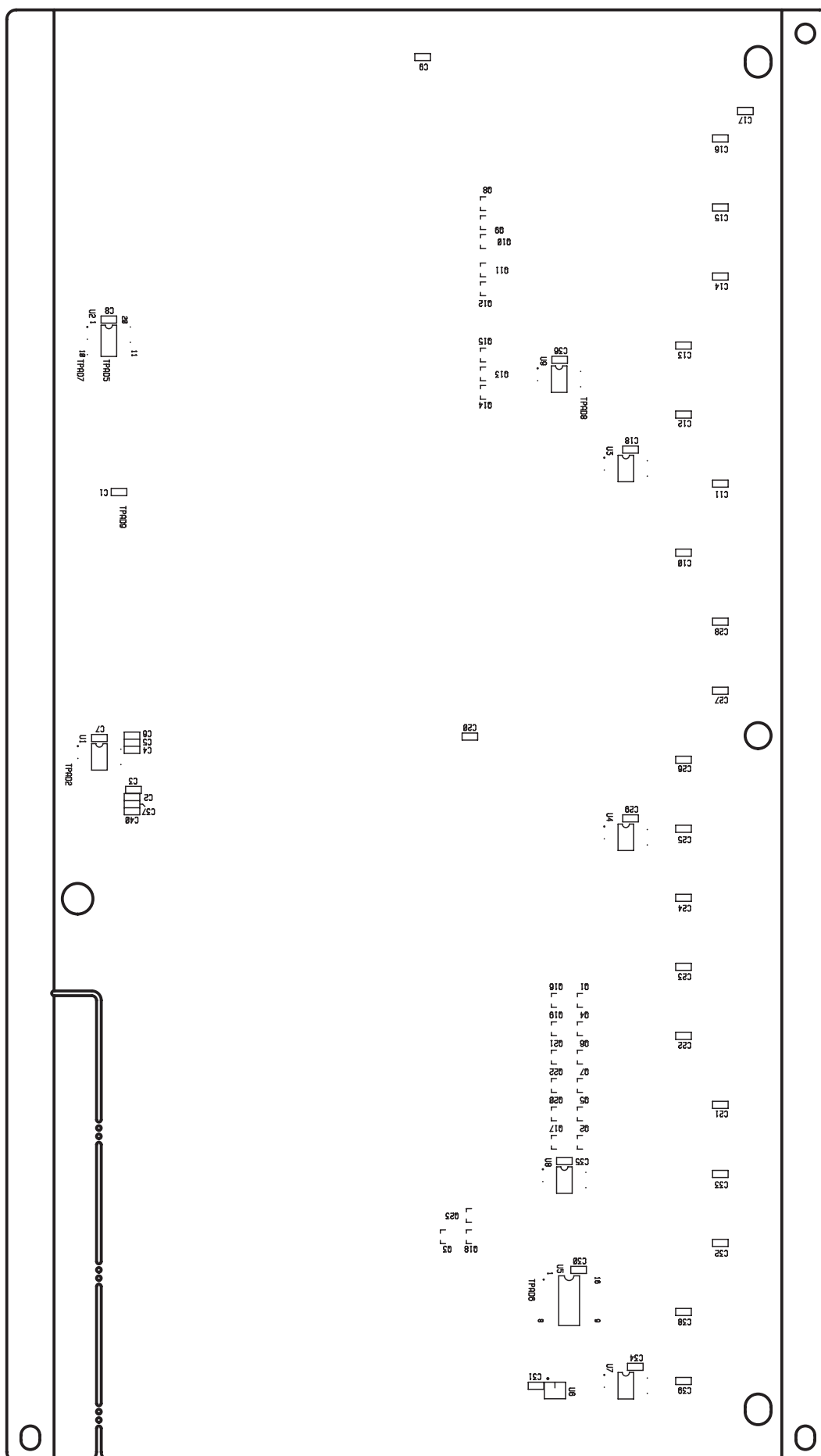
PCB, PANEL L DP24 G (Side B)



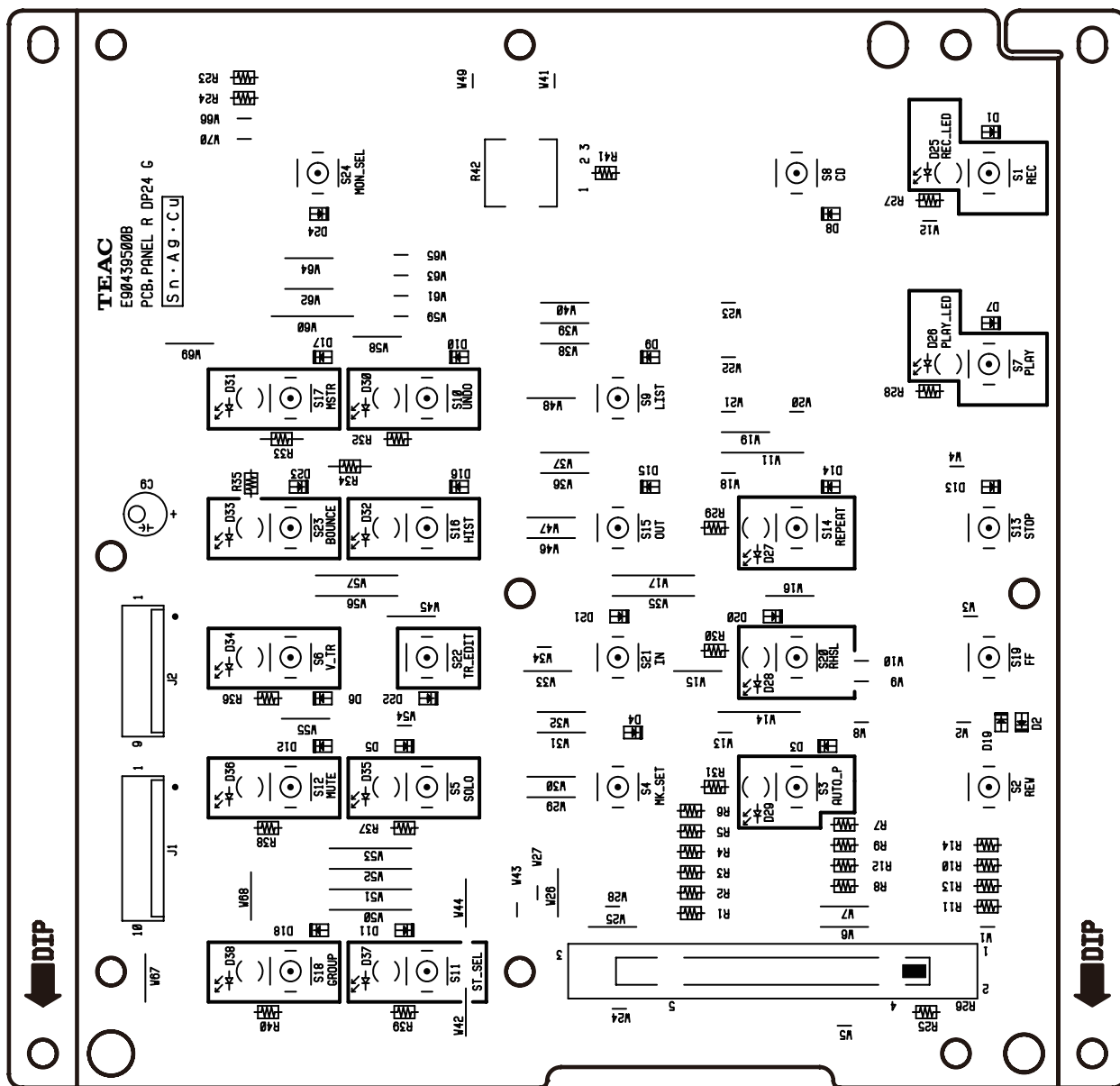
PCB, PANEL L DP32 G (Side A)



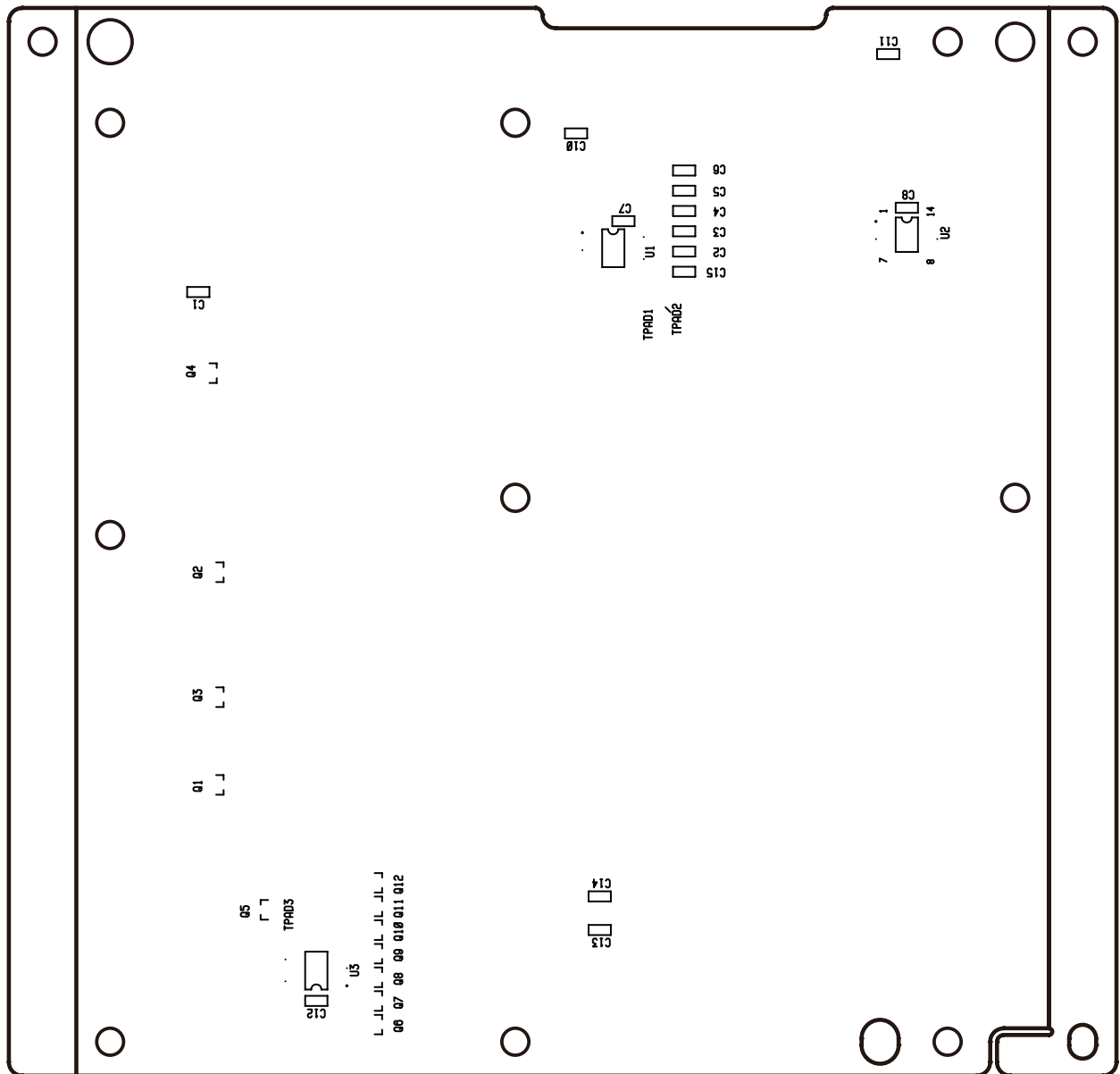
PCB, PANEL L DP32 G (Side B)



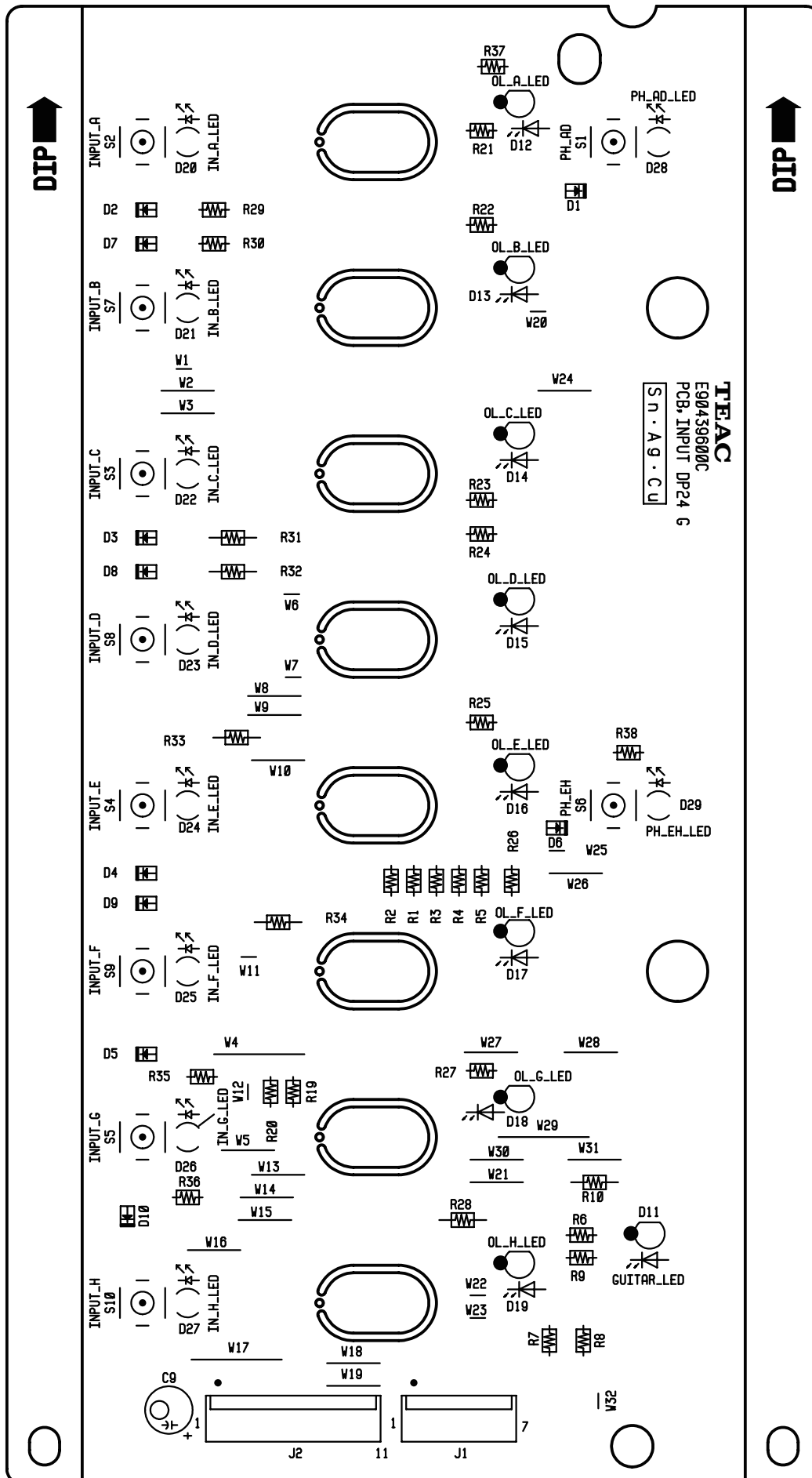
PCB, PANEL R DP24 G (Side A)



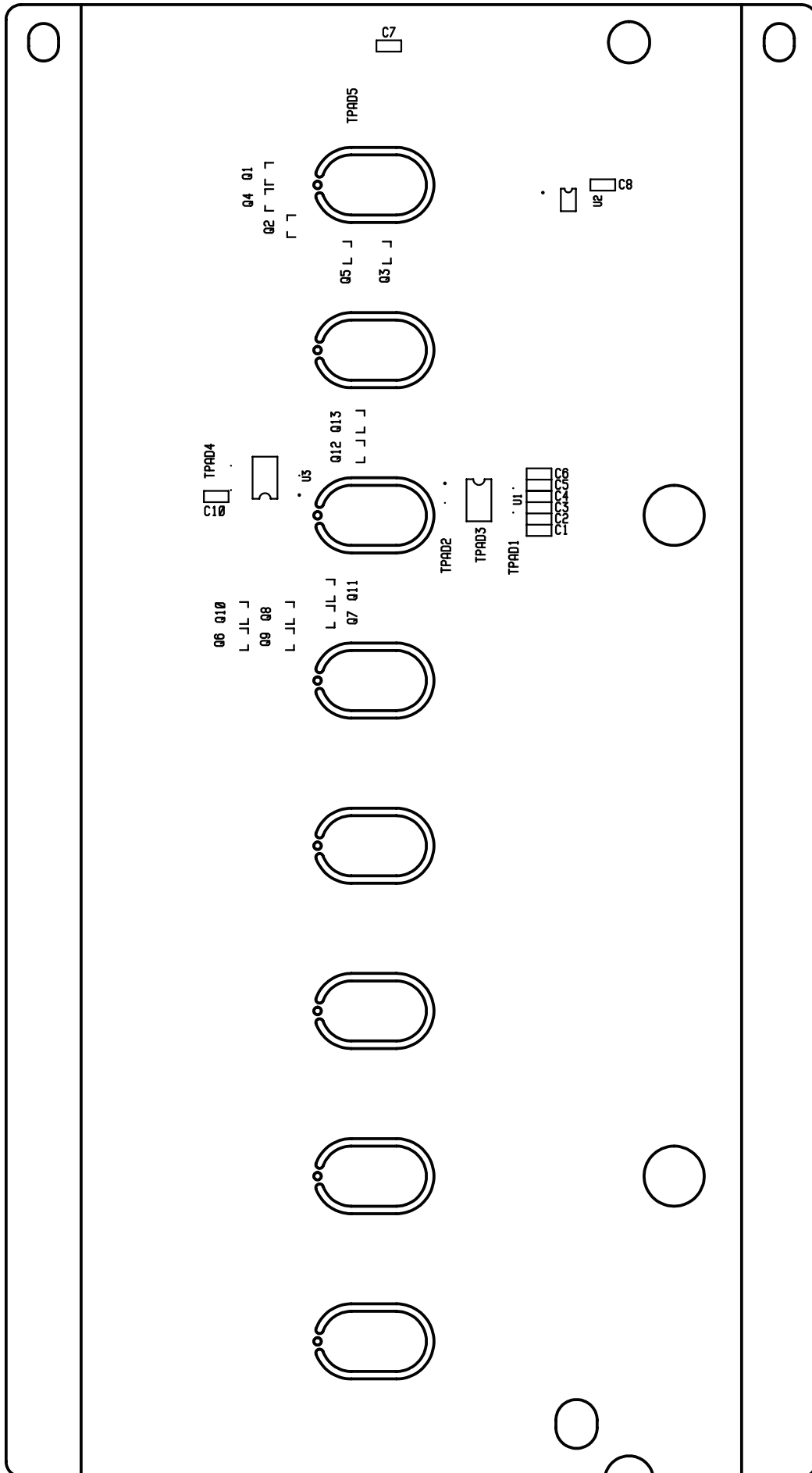
PCB, PANEL R DP24 G (Side B)



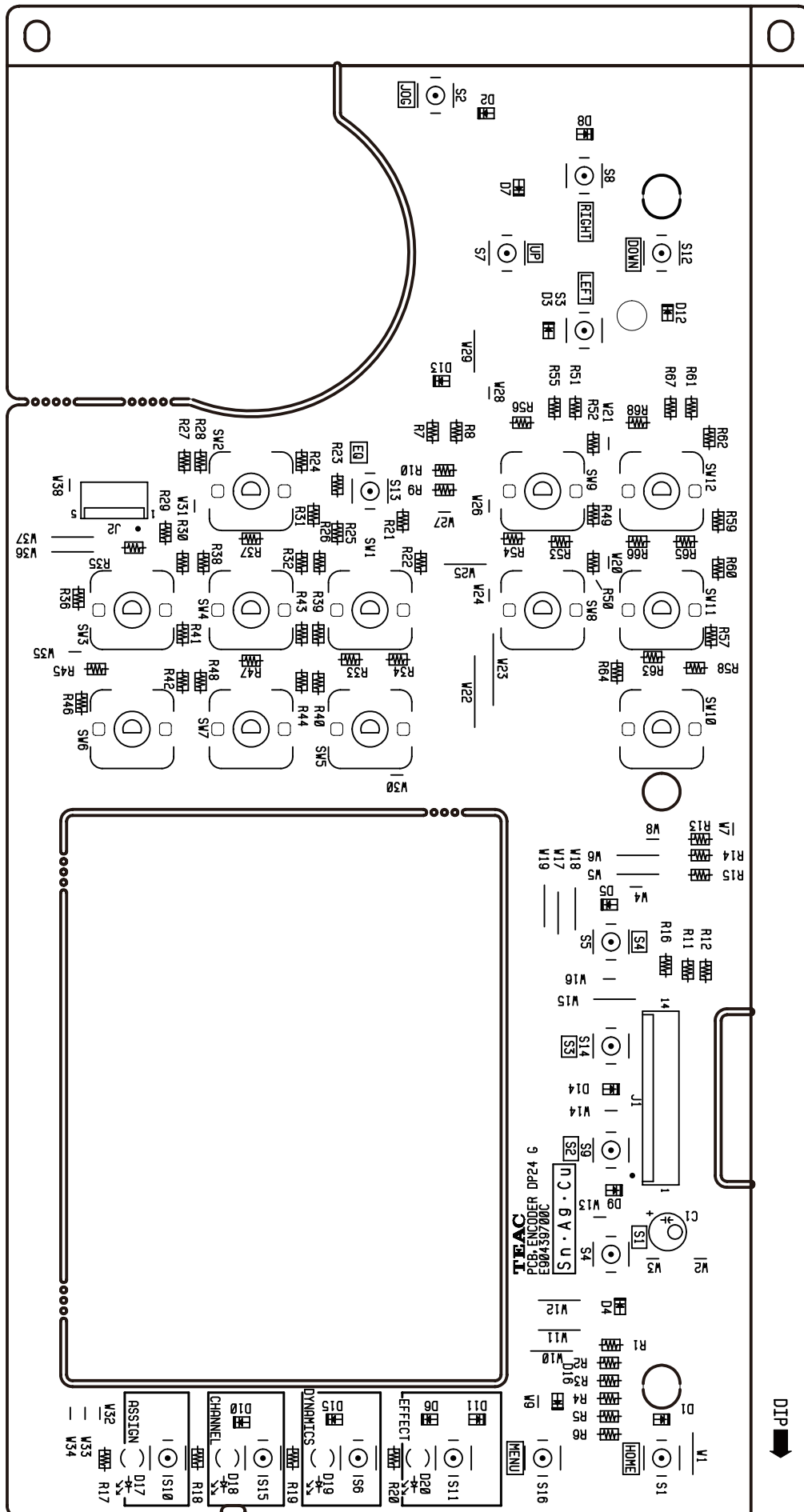
PCB, INPUT DP24 G (Side A)



PCB, INPUT DP24 G (Side B)



PCB, ENCODER DP24 G (Side A)

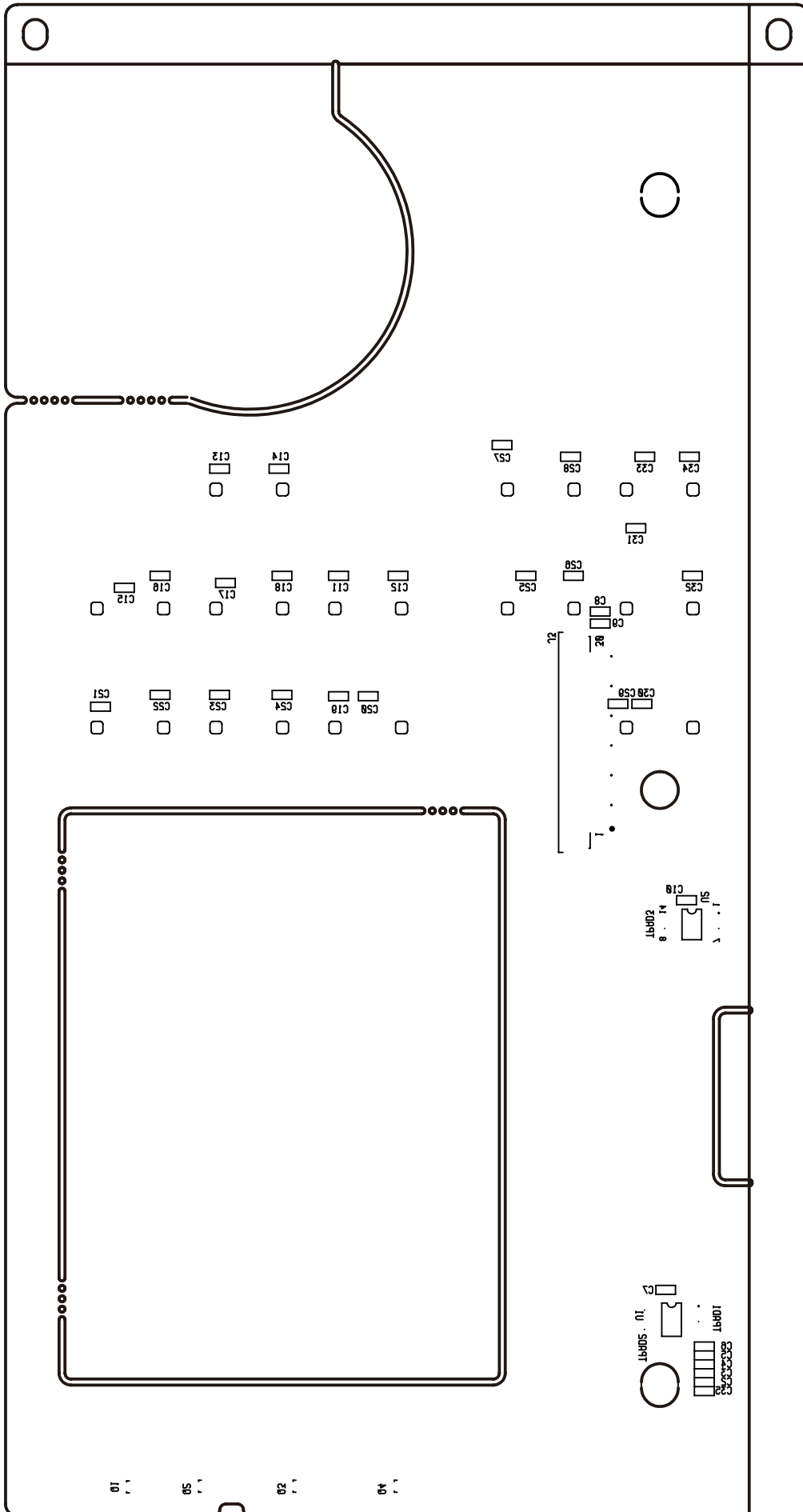


**CAUTION** The portion in the dashed box consists of service parts that need to be ordered using part numbers in Bold.

**CAUTION** Part with numbers in parentheses ( ) cannot be ordered. If you want to order service parts, be sure to use "Child" part numbers (numbers in Bold), which refer to individual parts of a parent part.

**注意** "()"付き品番は、発注できません。補修部品を発注する際は、太字品番で発注してください。

**PCB, ENCODER DP24 G(Side B)**



**CAUTION** Part with numbers in parentheses ( ) cannot be ordered. If you want to order service parts, be sure to use "Child" part numbers (numbers in Bold), which refer to individual parts of a parent part.

**注意** "()"付き品番は、発注できません。補修部品を発注する際は、太字品番で発注してください。

### GATHER PCBA,MAIN DP24 G

#### メイン基板

REF.NO.	PARTS NO.	DESCRIPTION.	REMARKS
DP-24	(E95439200A)	GATHER PCBA,MAIN DP24 G	[KOR], [JPN], [T/C], [AUS], [EUR]
	(E95439254A)	GA PCBA,MAIN CHI DP24 G	[CHI]
	<b>E95439300A</b>	PCBA,MAIN DP24 G	
DP-32	(E95439210A)	GATHER PCBA,MAIN DP32 G	[KOR], [JPN], [T/C], [AUS], [EUR]
	(E95439255A)	GA PCBA,MAIN CHI DP32 G	[CHI]
	<b>E95439310A</b>	PCBA,MAIN DP32 G	
DP-32SD	(E95439220A)	GATHER PCBA,MAIN DP32SD G	
	<b>E95439320A</b>	PCBA,MAIN DP32SD G	

### GATHER PCBA,BOTTOM DP24 G

#### 集合基板

REF.NO.	PARTS NO.	DESCRIPTION.	REMARKS
DP-24 / 32	<b>E95438500B</b>	GATHER PCBA,BOTTOM DP24 G	[KOR], [JPN], [T/C], [AUS], [EUR]
	<b>E9543854B</b>	GA PCBA,BOTTOM CHI DP24 G	[CHI]
	(E95438600A)	PCBA,AUDIO DP24 G	
	(E95438700B)	PCBA,POWER DP24 G	*1
	(E95438800A)	PCBA,JOINT DP24 G	
	(E95438900A)	PCBA,JOG DP24 G	
	(E95439000A)	PCBA,REMOTE DP24 G	
	(E95439100A)	PCBA,PHONE DP24 G	
DP-32SD	<b>E95438520A</b>	GA PCBA,BOTTOM DP32SD G	
	(E95438600A)	PCBA,AUDIO DP24 G	
	(E95438720A)	PCBA,POWER DP32SD G	*1
	(E95438800A)	PCBA,JOINT DP24 G	
	(E95438900A)	PCBA,JOG DP24 G	
	(E95439000A)	PCBA,REMOTE DP24 G	
	(E95439100A)	PCBA,PHONE DP24 G	

#### CAUTION

- \*1: If replaced the (E95438720A or E95438700B) POWER PCBA.  
If AC adapter "PS-1225L (Old Type)" is used, connector J315 on POWER PCBA has to be replaced to the following part.
- (E0140880 JACK, POWER DJ-0702-020 G)

#### 注意

- \*1: POWER PCBA (E95438700BまたはE95438720A)を交換した場合  
ACアダプターが"PS-1225L (Old Type)"の場合は、PCBA上のJ315を下記の部品に交換してください。
- "E0140880 JACK,POWER DJ-0702-020 G"

**CAUTION** Part with numbers in parentheses ( ) cannot be ordered. If you want to order service parts, be sure to use "Child" part numbers (numbers in Bold), which refer to individual parts of a parent part.

**注意** "()"付き品番は、発注できません。補修部品を発注する際は、太字品番で発注してください。

**PCB,INPUT DP24 G**

入力基板

REF.NO.	PARTS NO.	DESCRIPTION.	REMARKS
	<b>E95439600A</b>	PCBA,INPUT DP24 G	[KOR], [JPN], [T/C], [AUS], [EUR]
	<b>E95439654A</b>	PCBA,INPUT CHI DP24 G	[CHI]

**PCB,PANEL L DP24 G**

パネルL基板

REF.NO.	PARTS NO.	DESCRIPTION.	REMARKS
DP-24	<b>E95439400A</b>	PCBA,PANEL L DP24 G	[KOR], [JPN], [T/C], [AUS], [EUR]
	<b>E95439454A</b>	PCBA,PANEL L CHI DP24 G	[CHI]

**PCB,PANEL L DP32 G**

パネルL基板

REF.NO.	PARTS NO.	DESCRIPTION.	REMARKS
DP-32 / 32SD	<b>E95462200B</b>	PCBA,PANEL L DP32 G	[KOR], [JPN], [T/C], [AUS], [EUR]
	<b>E95462254B</b>	PCBA,PANEL L CHI DP32 G	[CHI]

**PCB,PANEL R DP24 G**

パネルR基板

REF.NO.	PARTS NO.	DESCRIPTION.	REMARKS
	<b>E95439500A</b>	PCBA,PANEL R DP24 G	[KOR], [JPN], [T/C], [AUS], [EUR]
	<b>E95439554A</b>	PCBA,PANEL R CHI DP24 G	[CHI]

**PCB,ENCODER DP24 G**

エンコーダー基板

REF.NO.	PARTS NO.	DESCRIPTION.	REMARKS
	<b>E95439700A</b>	PCBA,ENCODER DP24 G	[KOR], [JPN], [T/C], [AUS], [EUR]
	<b>E95439754A</b>	PCBA,ENCODER CHI DP24 G	[CHI]

# 12. Included Accessories

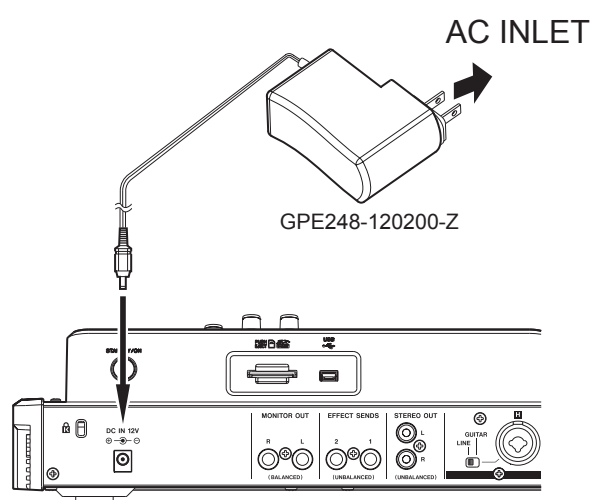
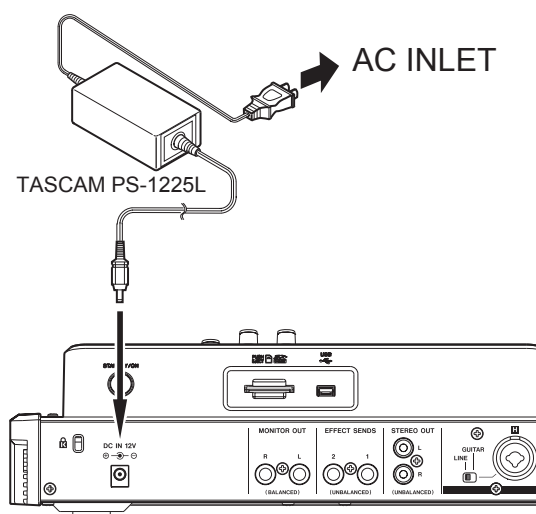
付属品

## Included Accessories-1

REF.NO.	PARTS NO.	DESCRIPTION .	REMARKS
DP-24 / 32 A (Old Type)	E1376900C	AC ADAPTER, PS--1225L G	MAIN UNIT
	E0174350	POWER CORD,KOR C7 1.8M G	POWER CORD by [KOR]
	3E035950	POWER CORD,UL G	POWER CORD by [JPN], [T/C]
	3E035960	POWER CORD,AUS G	POWER CORD by [AUS]
	3E035940	POWER CORD,EUR G	POWER CORD by [EUR]
	E0174340	POWER CORD,CHI C7 1.8M G	POWER CORD by [CHI]
	E0152590	POWER CORD,UK G	POWER CORD by [EUR]
DP-24 / 32 / 32SD B (New Type)	3E084210	ADAPTER GPE248 KOR(KS) PLUG BLACK G	[KOR]
	3E083110	ADAPTER GPE248 USA/PSE/ PLUG BLACK G	[JPN], [T/C]
	E0222000	ADAPTER,GPE248 AUS PLUGBG	[AUS]
	3E083120	ADAPTER GPE248 EUR PLUG BLACK G	[EUR]
	3E083180	ADAPTER GPE248 CCC PLUG BLACK G	[CHI]
	3E083130	ADAPTER GPE248 UK PLUG BLACK G	[EUR]

REF.NO. A (Old Type)

REF.NO. B (New Type)



## Included Accessories-2

REF.NO.	PARTS NO.	DESCRIPTION .	REMARKS
	E01892100A	USB CABLE,FMT-11-054 0.8M	
	D01173700A	WARR CARD,TASCAM G	DP-24, DP-32 Only
	T0018460	SD CARD,BHA02GMBF90SD G	
DP-24	D01159001D	OWNERS MNL,DP24 J G	[JPN]
	D01159020F	OWNERS MNL,DP24 E G	[T/C], [EUR], [KOR], [AUS]
	D01159054A	OWNERS MNL,DP24 C G	[CHI]
	D01159080B	OWNERS MNL,DP24 G G	[EUR]
	D01159081B	OWNERS MNL,DP24 F G	[EUR]
	D01159082B	OWNERS MNL,DP24 I G	[EUR]
	D01159083B	OWNERS MNL,DP24 S G	[EUR]
DP-32	D01175101B	OWNERS MNL,DP32 J G	[JPN]
	D01175120B	OWNERS MNL,DP32 E G	[T/C], [EUR], [KOR], [AUS]
	D01175154A	OWNERS MNL,DP32 C G	[CHI]
	D01175180B	OWNERS MNL,DP32 G G	[EUR]
	D01175181B	OWNERS MNL,DP32 F G	[EUR]
	D01175182B	OWNERS MNL,DP32 I G	[EUR]
	D01175183B	OWNERS MNL,DP32 S G	[EUR]
DP-32SD	D01219420A	OWNERS MNL,32SD E G	[T/C]

## NOTES

- PC boards shown are viewed from parts side.
- Parts marked with \* require longer delivery time.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.  
[ JPN ] : JAPAN [ T/C ] : U.S.A./CANADA [ KOR ] : KOREA  
[ EUR ] : EUROPE [ UK ] : U.K.  
[ AUS ] : AUSTRALIA [ TM ] : TAIWAN  
[ CHI ] : CHINA [ EX/BR ] : BRAZIL

## 注意

- プリント基板図は部品面を示しています。
- \*印の部品は納期が若干かかります。あらかじめご了承ください。
- 分解図に部番のない部品および品番のない部品は供給できません。
- 標準の抵抗、コンデンサーは省略してあります。回路図を参照してください。
- ⚠ 印は安全重要部品です。交換する時は必ず指定の部品を使用してください。
- 仕向先  
[ JPN ] : JAPAN [ T/C ] : U.S.A./CANADA [ KOR ] : KOREA  
[ EUR ] : EUROPE [ UK ] : U.K.  
[ AUS ] : AUSTRALIA [ TM ] : TAIWAN  
[ CHI ] : CHINA [ EX/BR ] : BRAZIL



# TECHNICAL INFORMATION

## TASCAM DR Series, OS Operation check

No. 1305

DATE 17th April. 2013

### OS operation check result

■ Operation check had been done. The result is shown below.

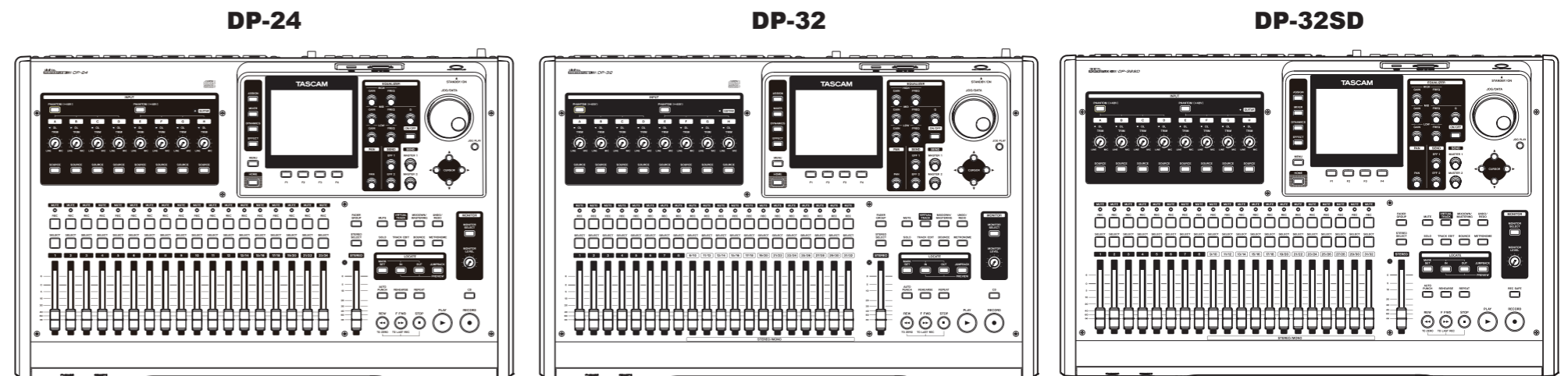
### OS operation check: Mac Mountain Lion/Windows8

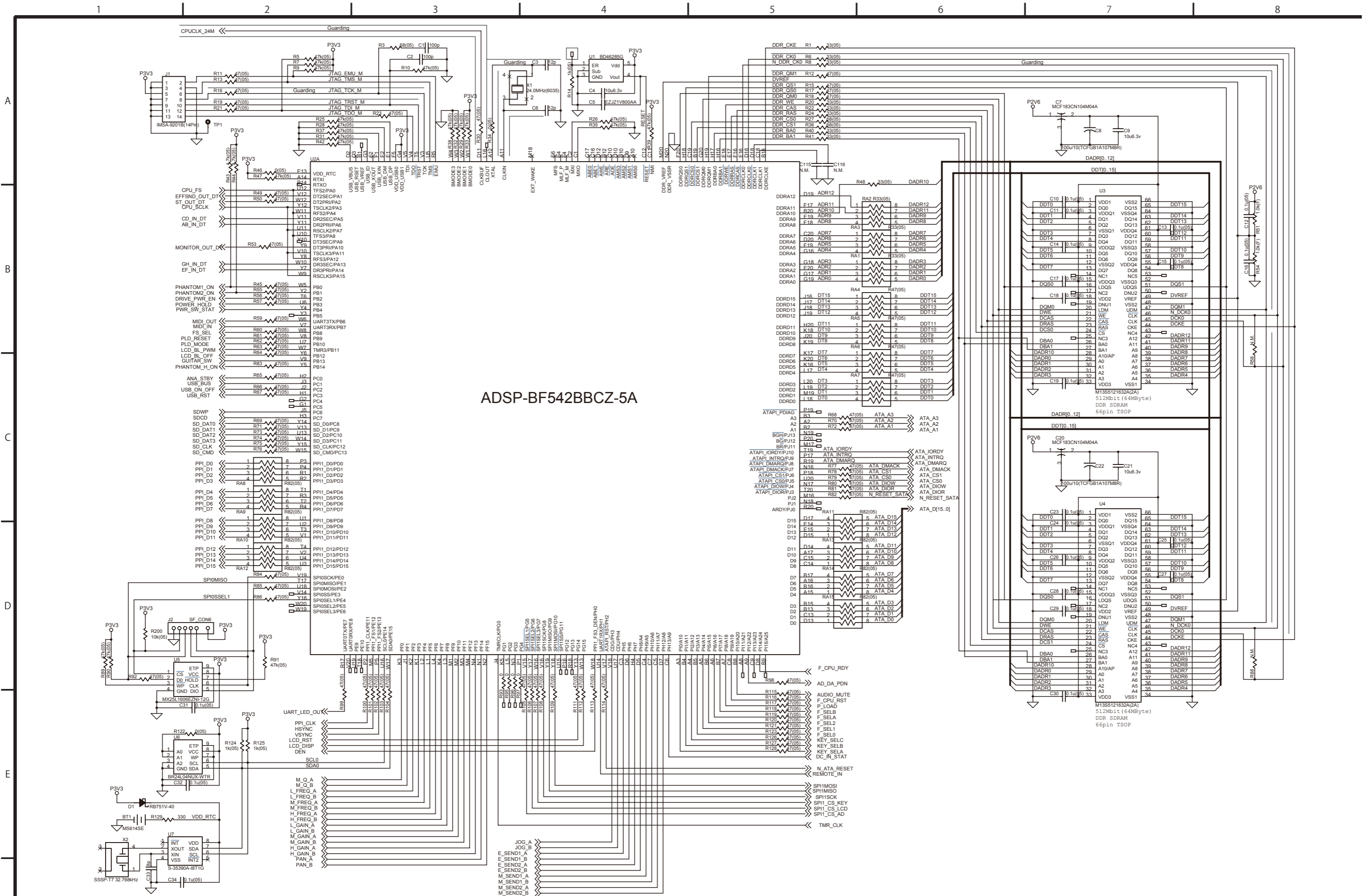
April 15th, 2013

	Model name	Mac Mountain Lion	Windows8	Note
1	DP-03	ok	ok	
2	DR-05	ok	ok	
3	DR-07MK2	ok	ok	
4	DR-2d	ok	ok	
5	DR-100MK2	ok	ok	
6	DR-40	ok	ok	
7	DR-08	ok	ok	
8	DR-60D	ok	ok	
9	DR-680	ok	ok	
10	DR-V1HD	ok	ok	Playback sound isn't output because WindowsMediaPlayer doesn't support 24bit sound on movie playback. OK on QuickTime.
11	DP-24	ok	ok	
12	DP-32	ok	ok	
13	DP-004	ok	ok	
14	DP-008	ok	ok	
15	DP-006	ok	ok	
16	DP-008EX	ok	ok	

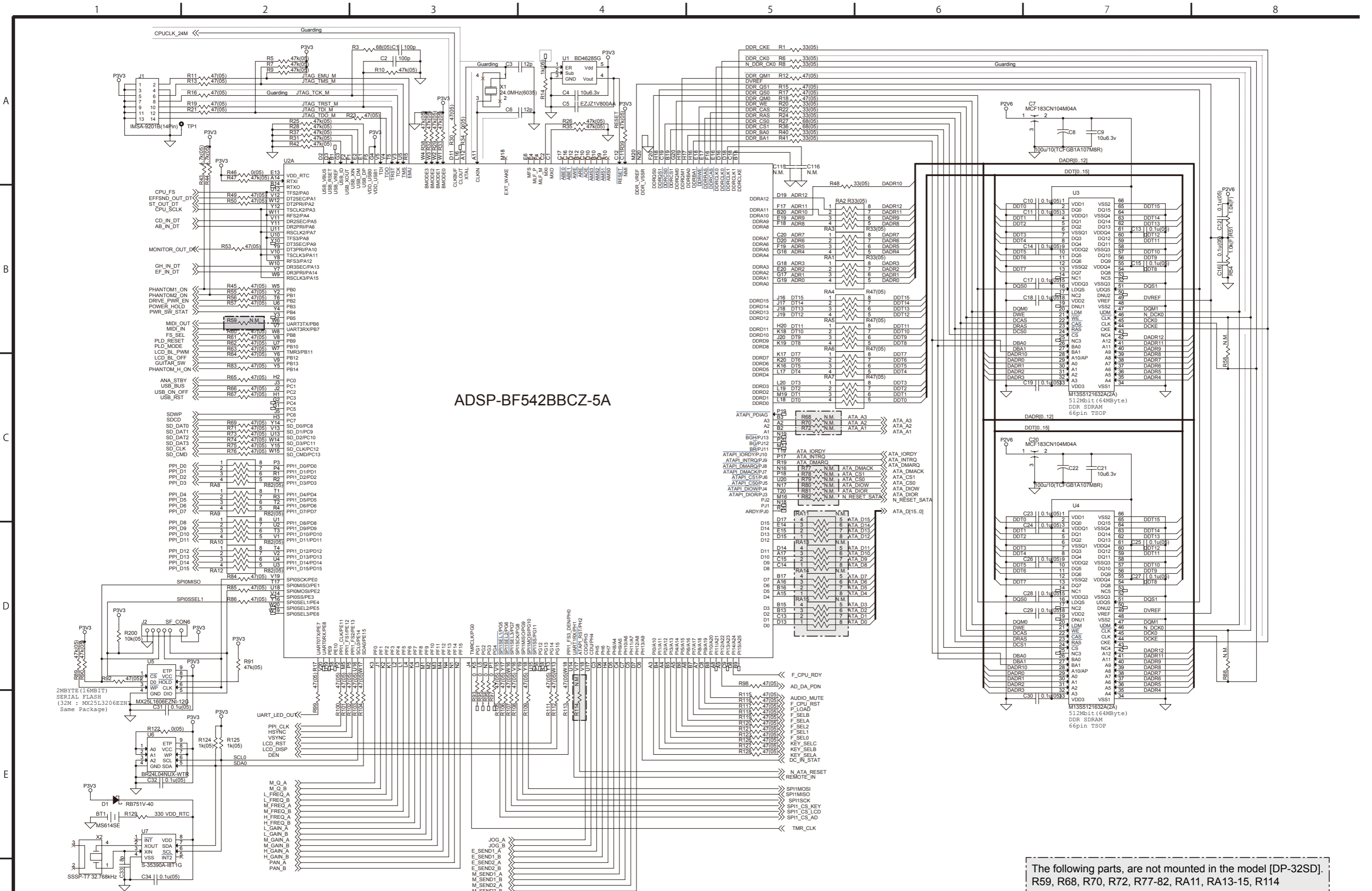
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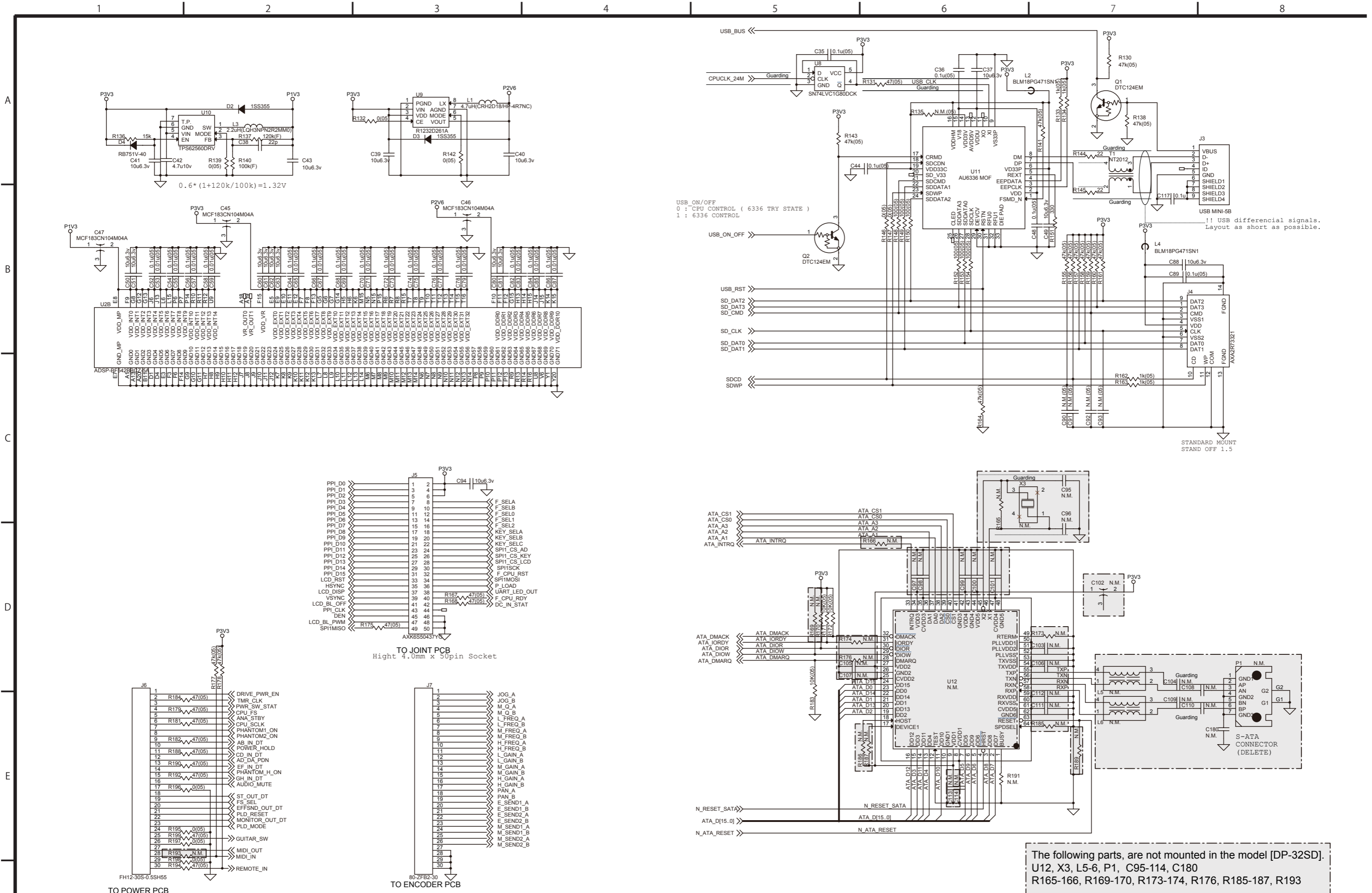




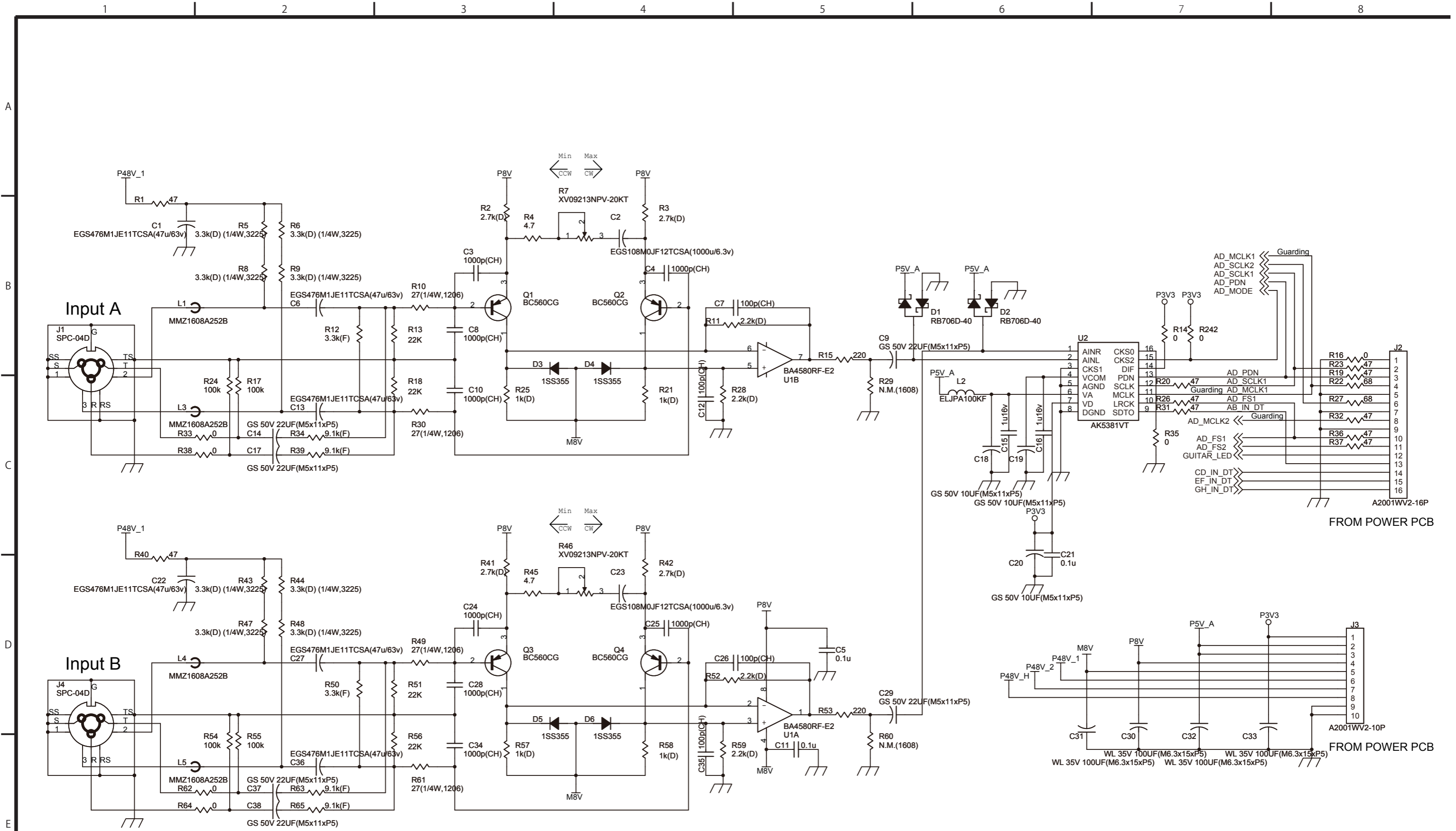


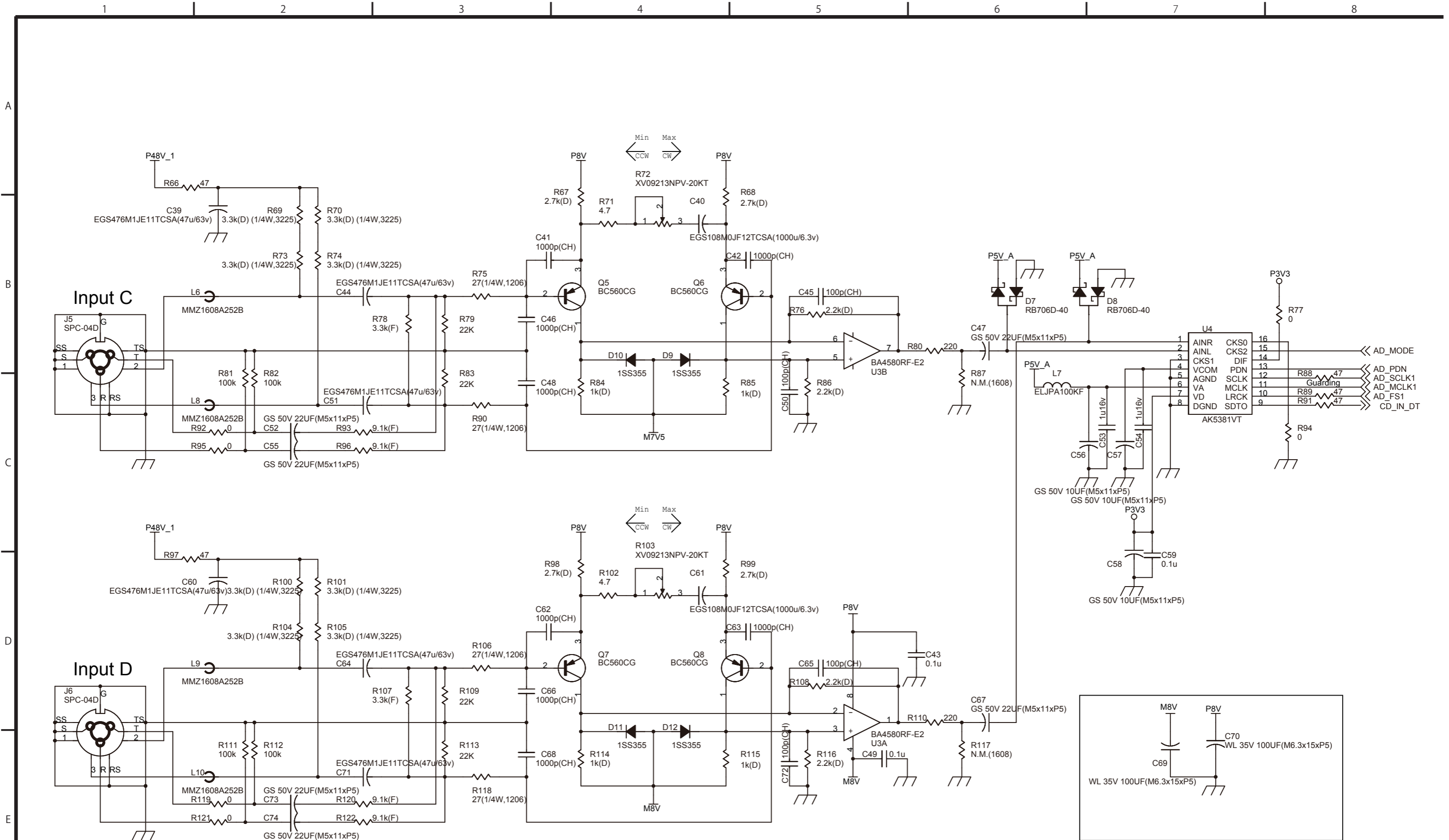


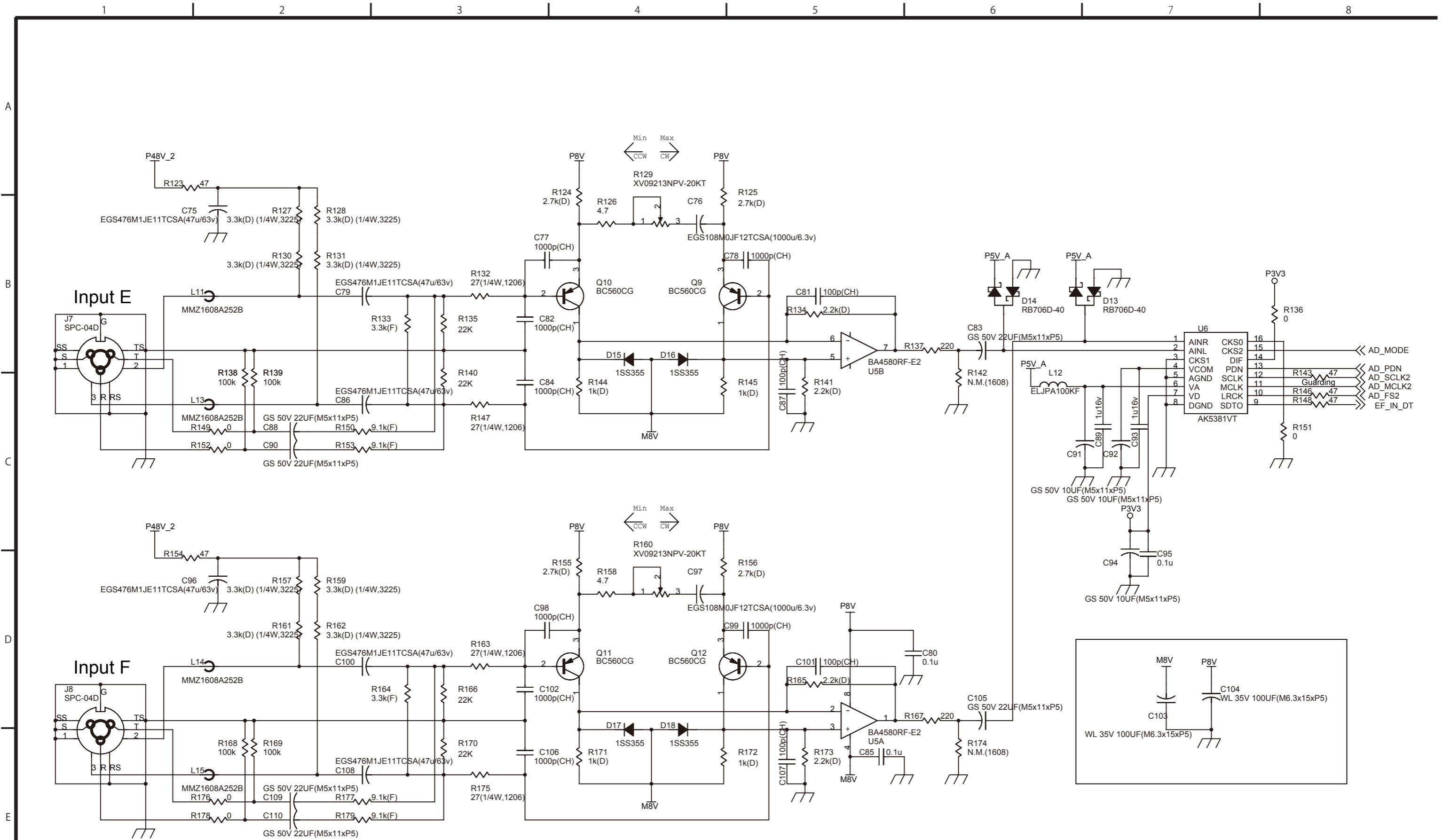
The following parts, are not mounted in the model [DP-32SD].  
 R59, R68, R70, R72, R77-82, RA11, RA13-15, R114

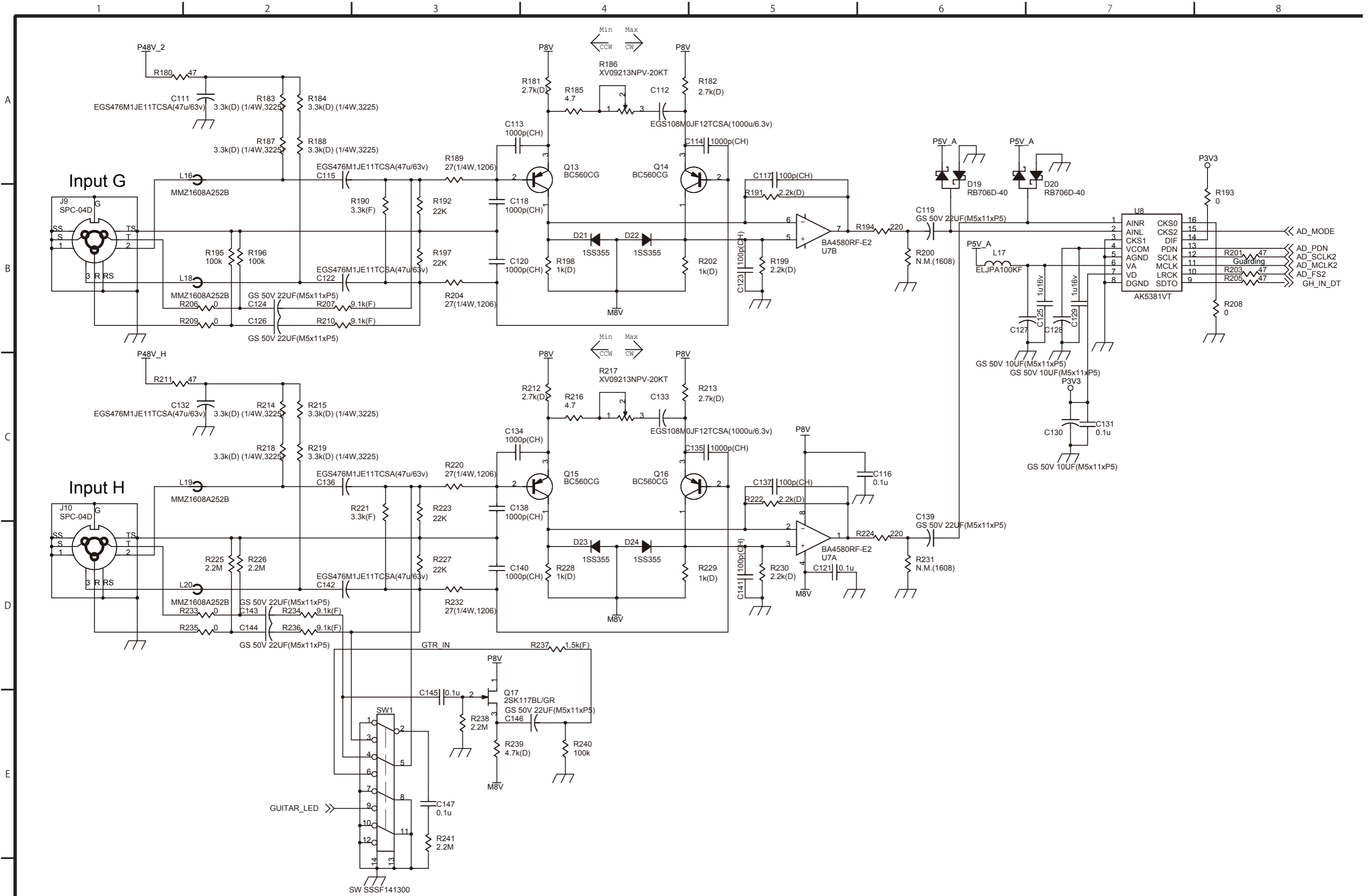


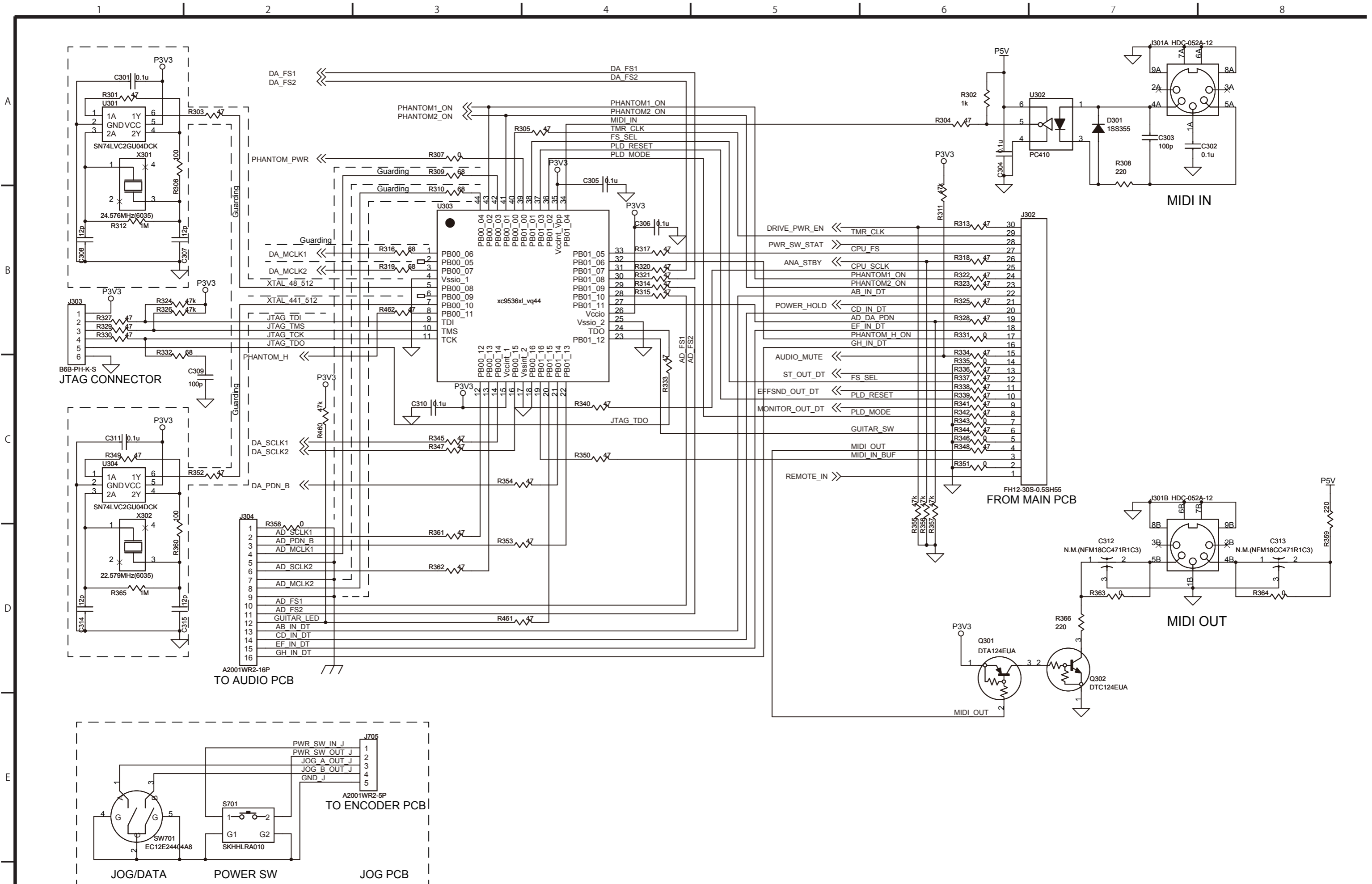
The following parts, are not mounted in the model [DP-32SD].  
 U12, X3, L5-6, P1, C95-114, C180  
 R165-166, R169-170, R173-174, R176, R185-187, R193











1 2 3 4 5 6 7 8

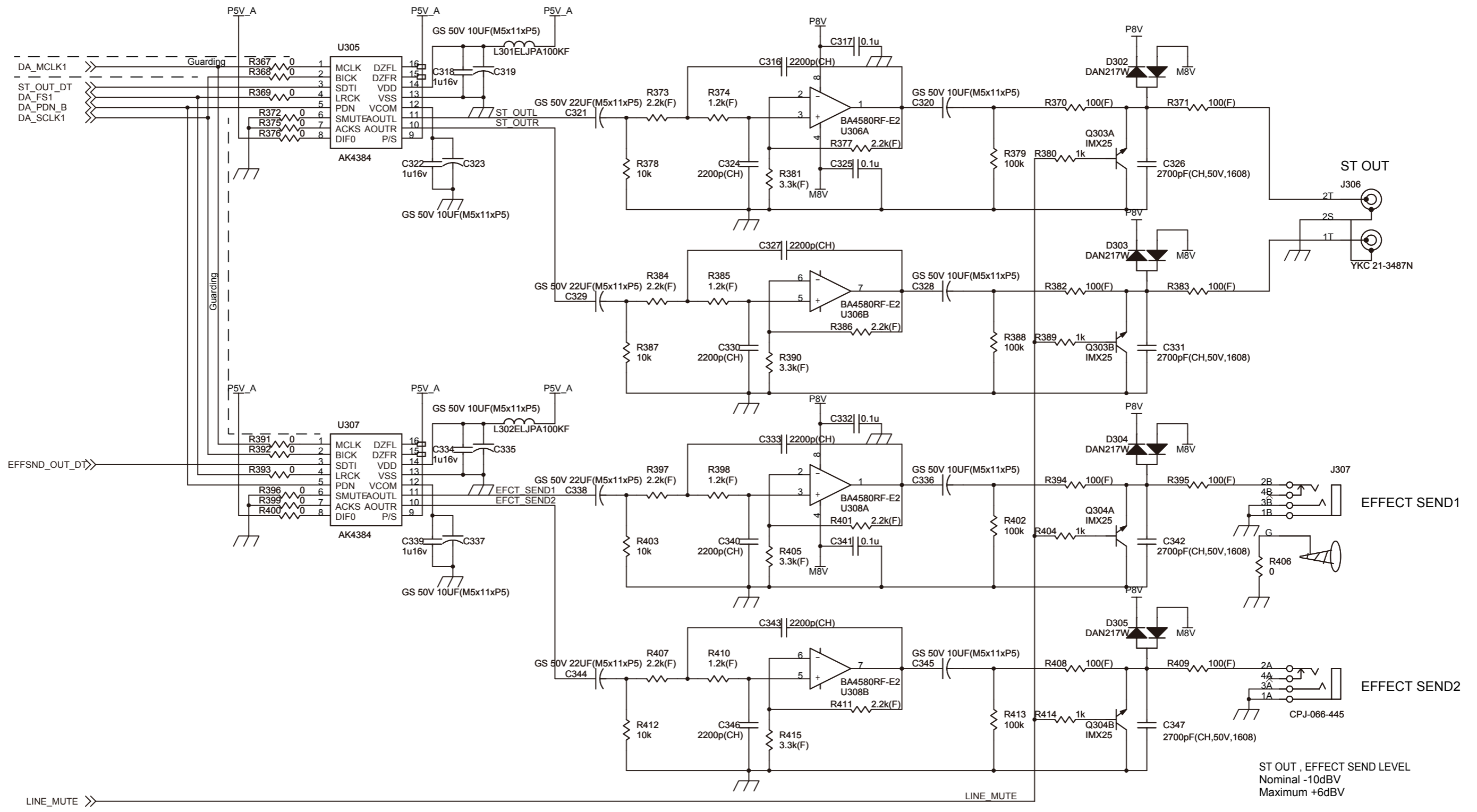
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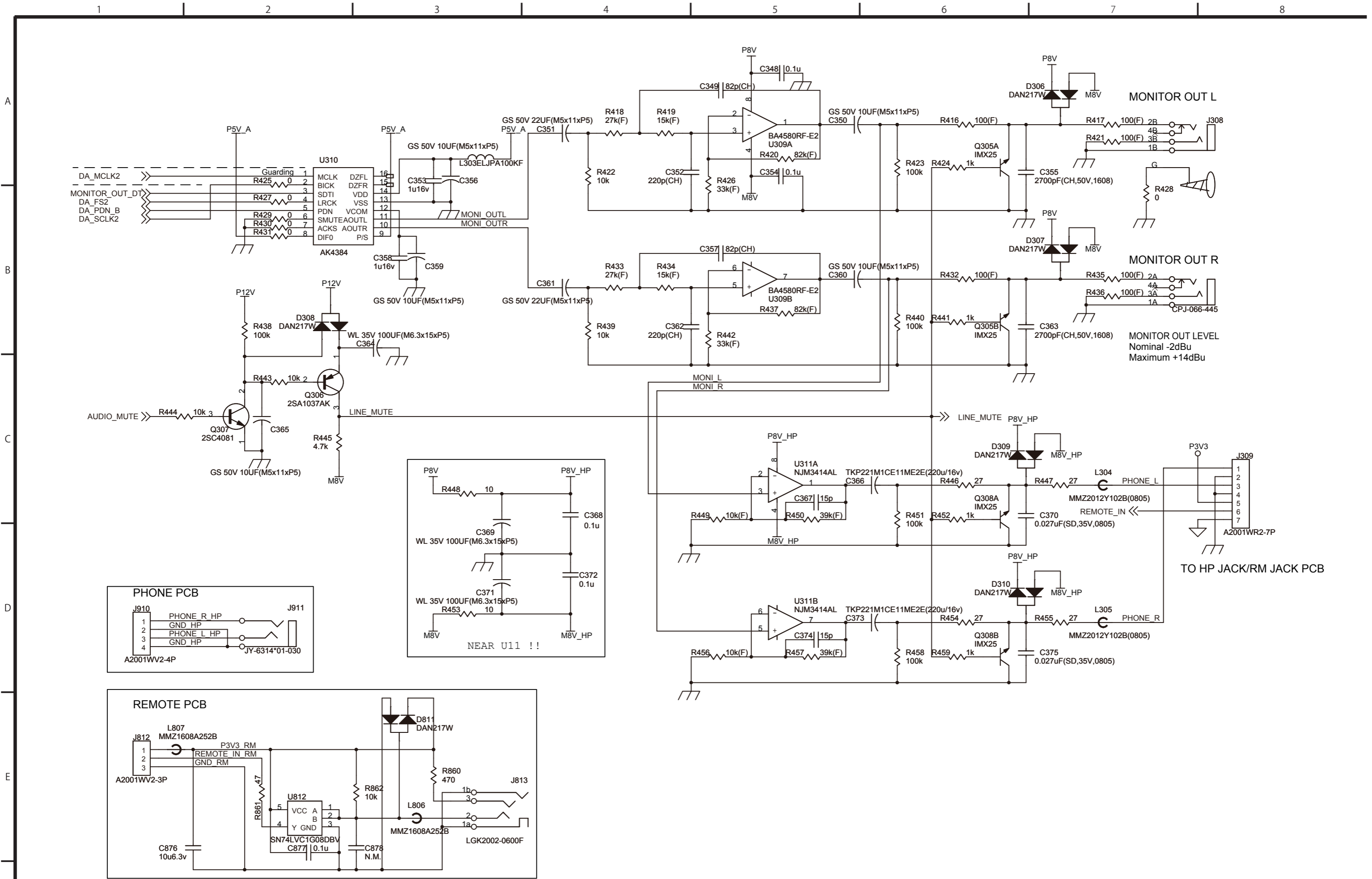
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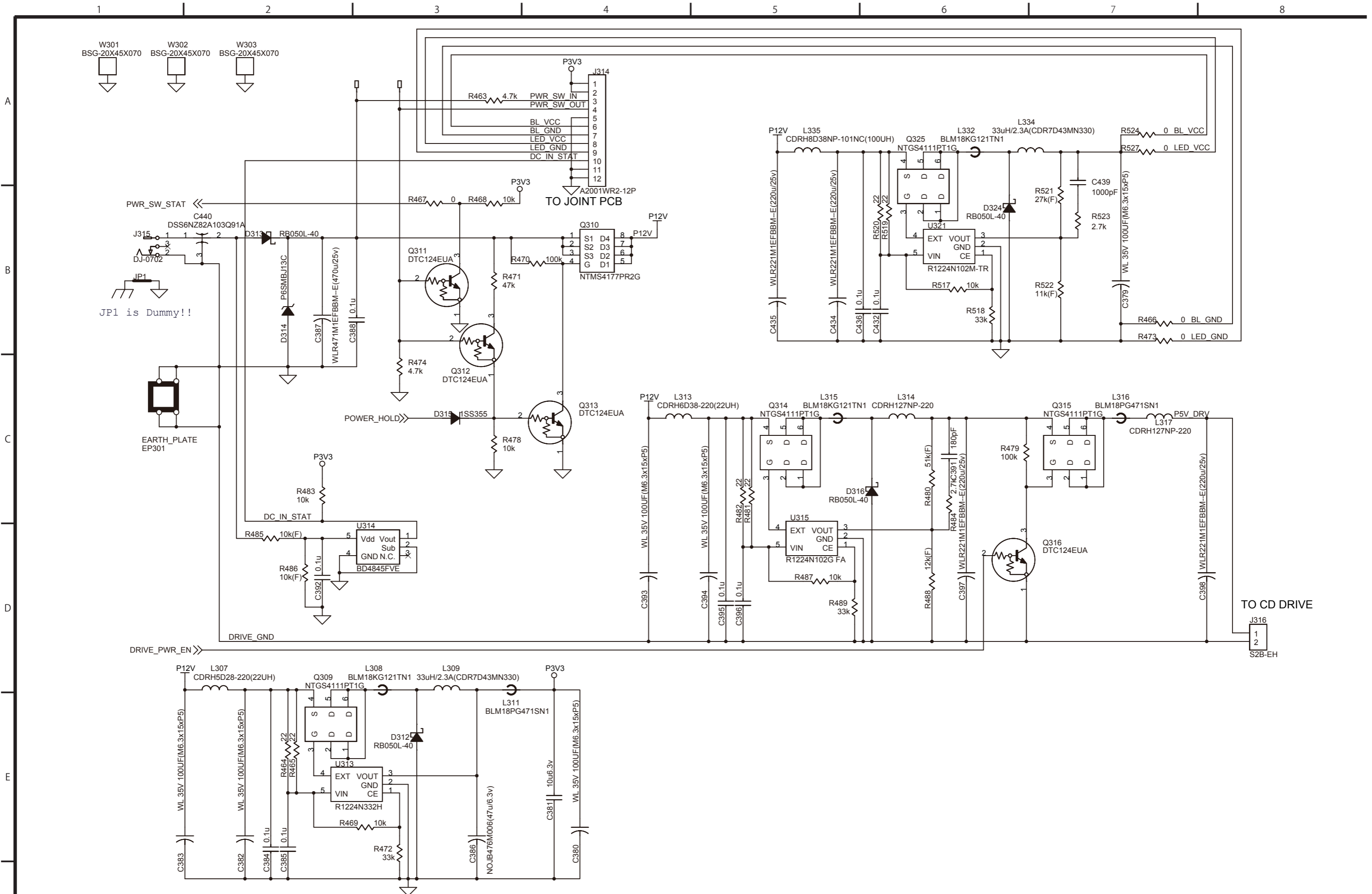
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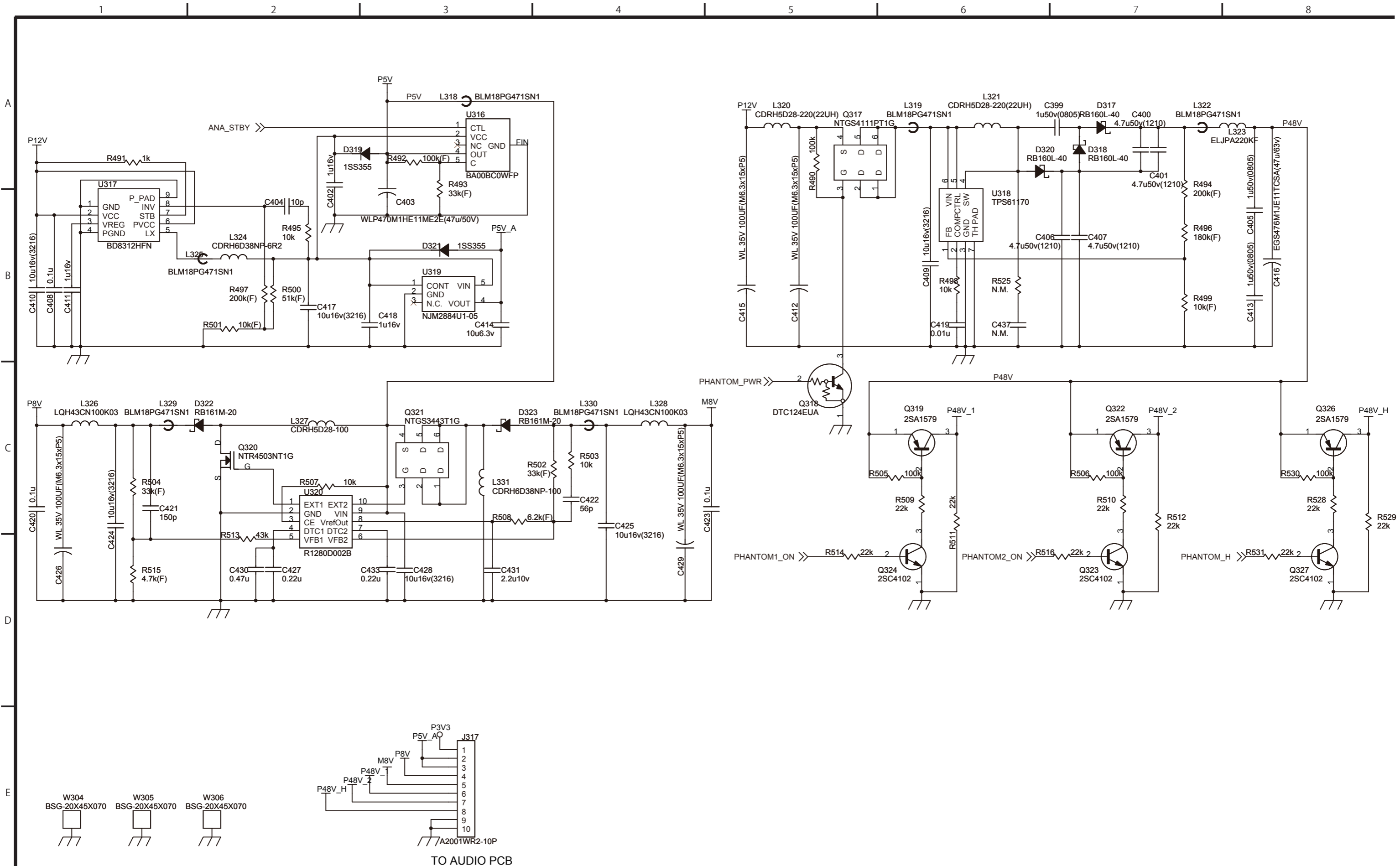
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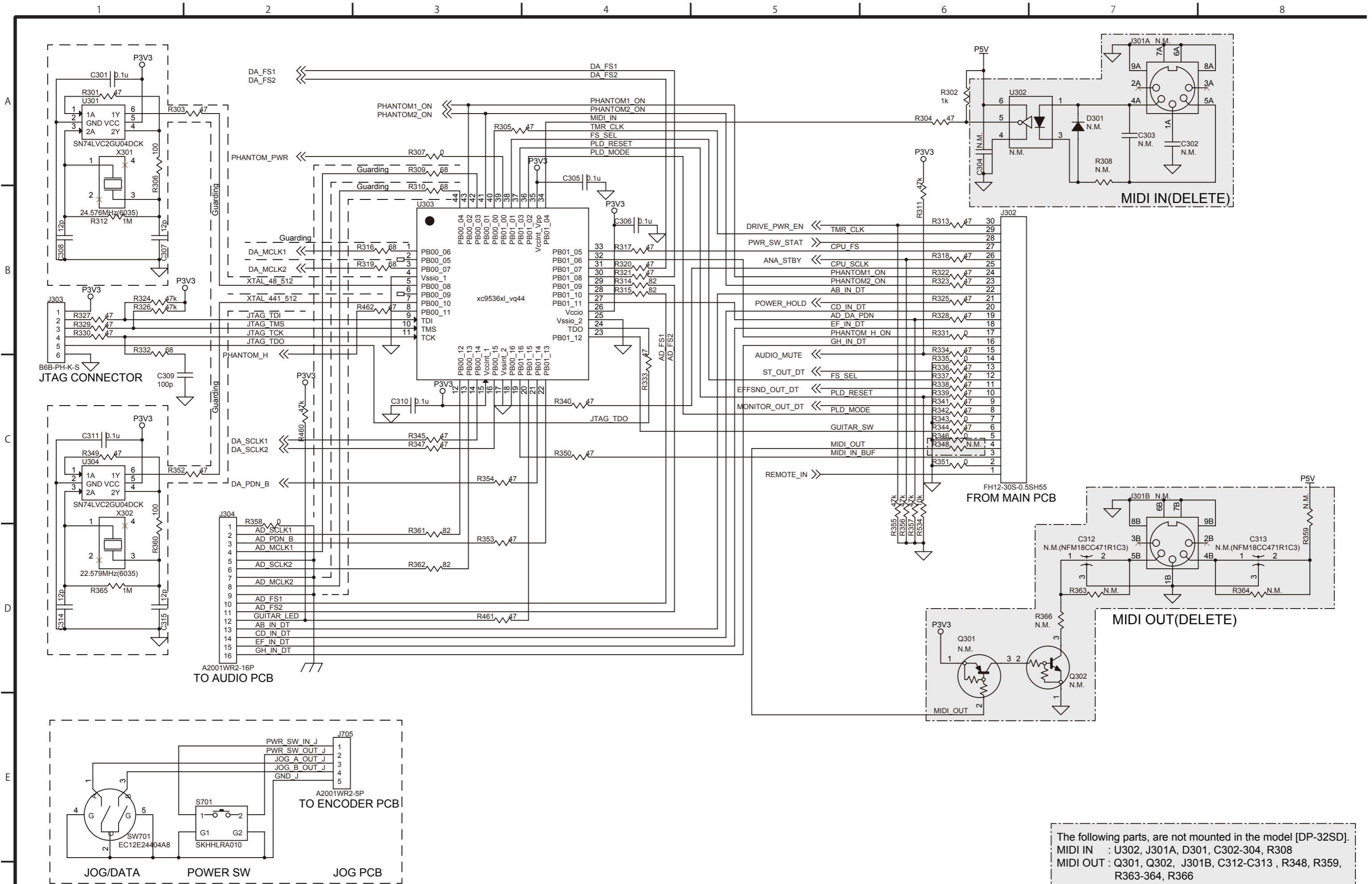
E











The following parts, are not mounted in the model [DP-32SD].  
MIDI IN : U302, J301A, D301, C302-304, R308  
MIDI OUT : Q301, Q302, J301B, C312-C313, R348, R359, R363-364, R366

1 2 3 4 5 6 7 8

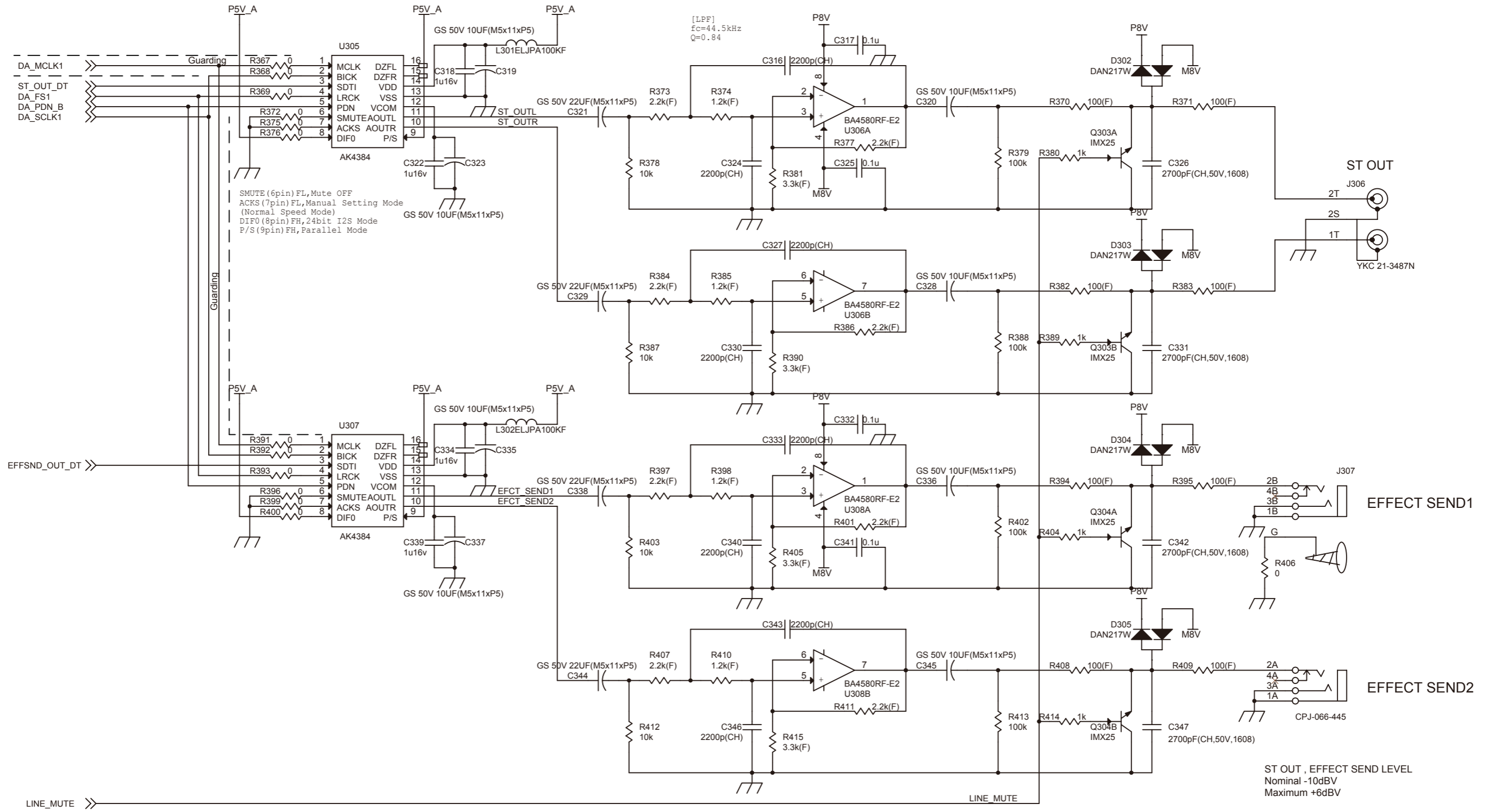
A

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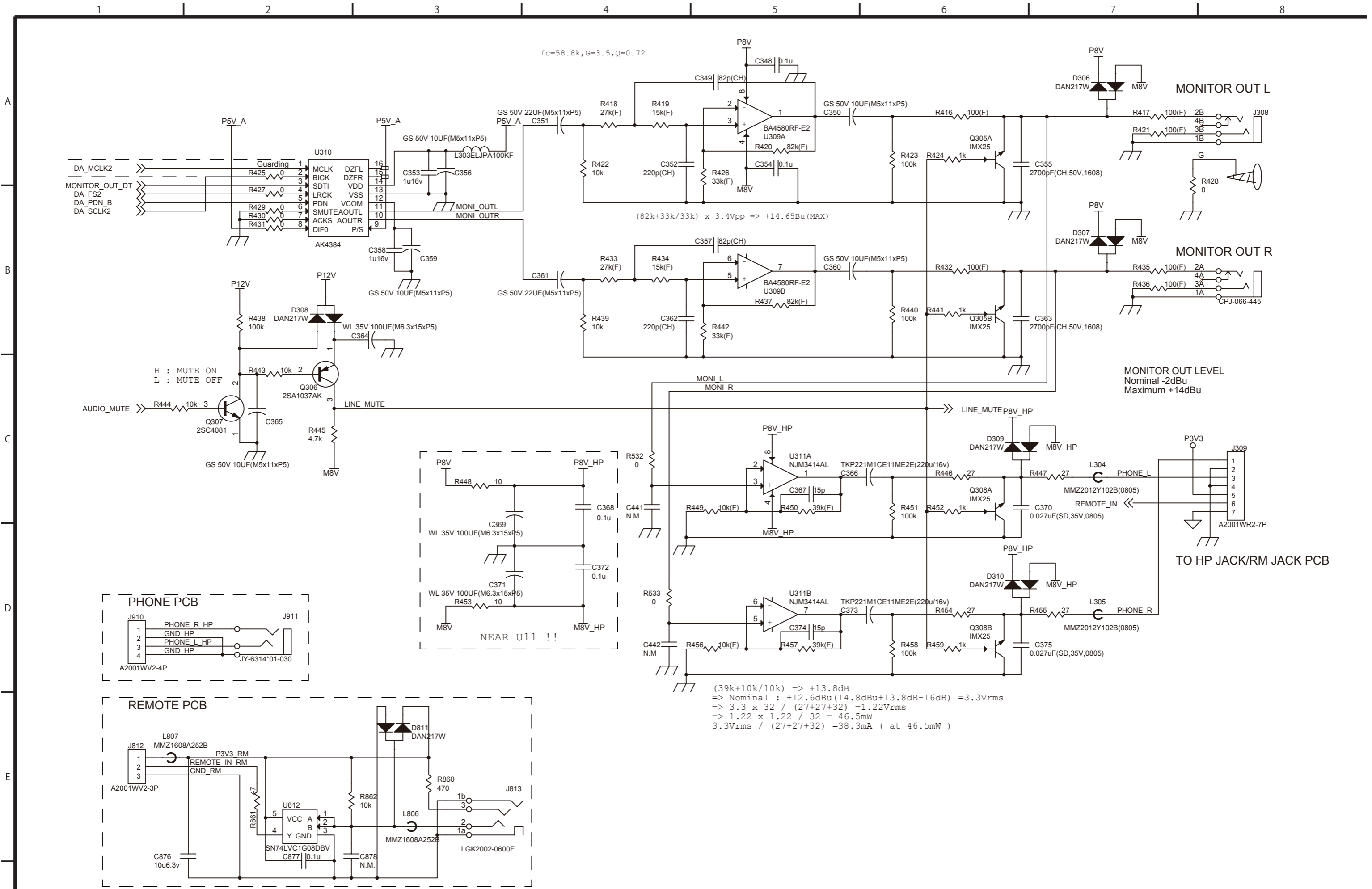
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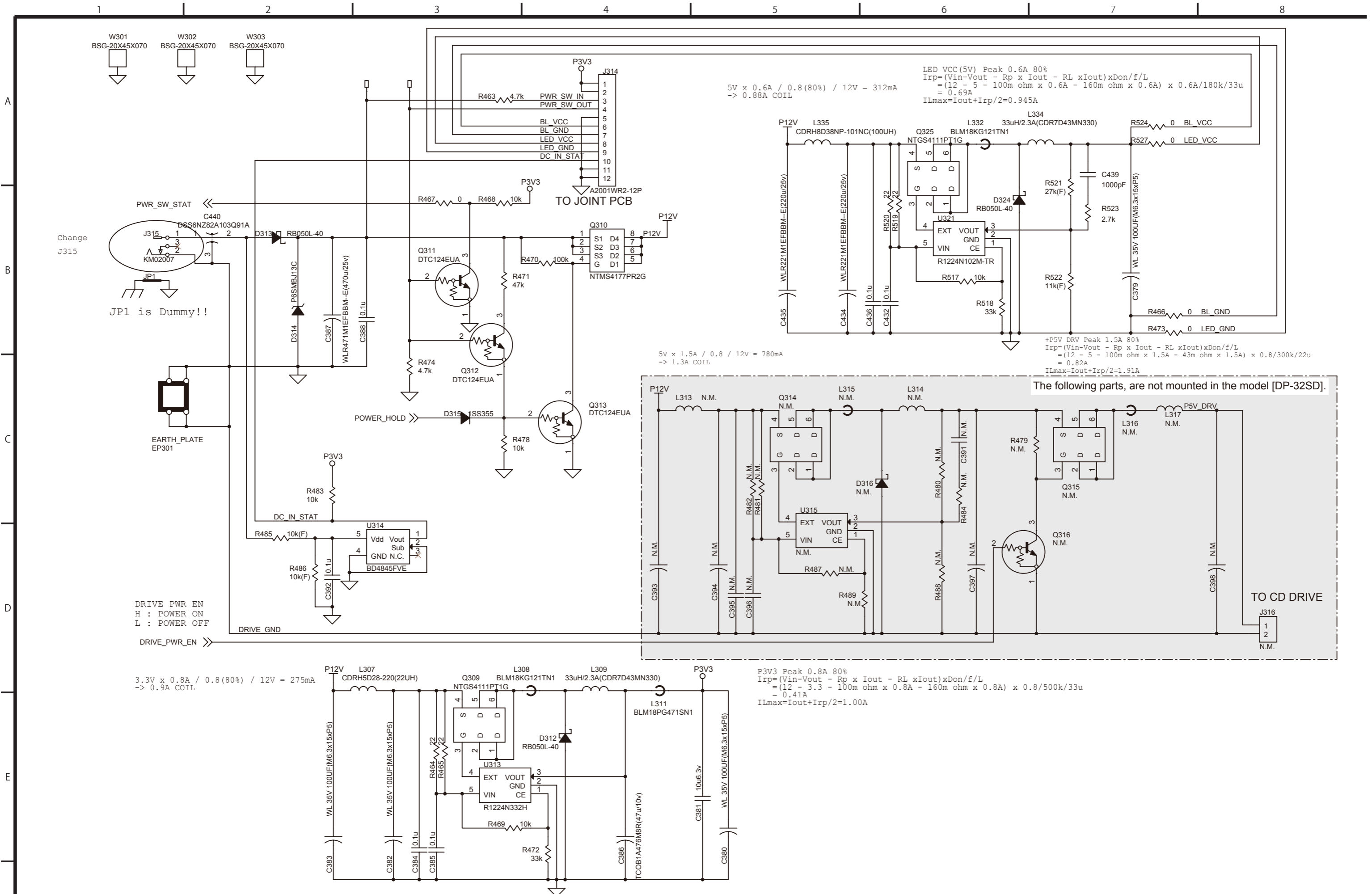
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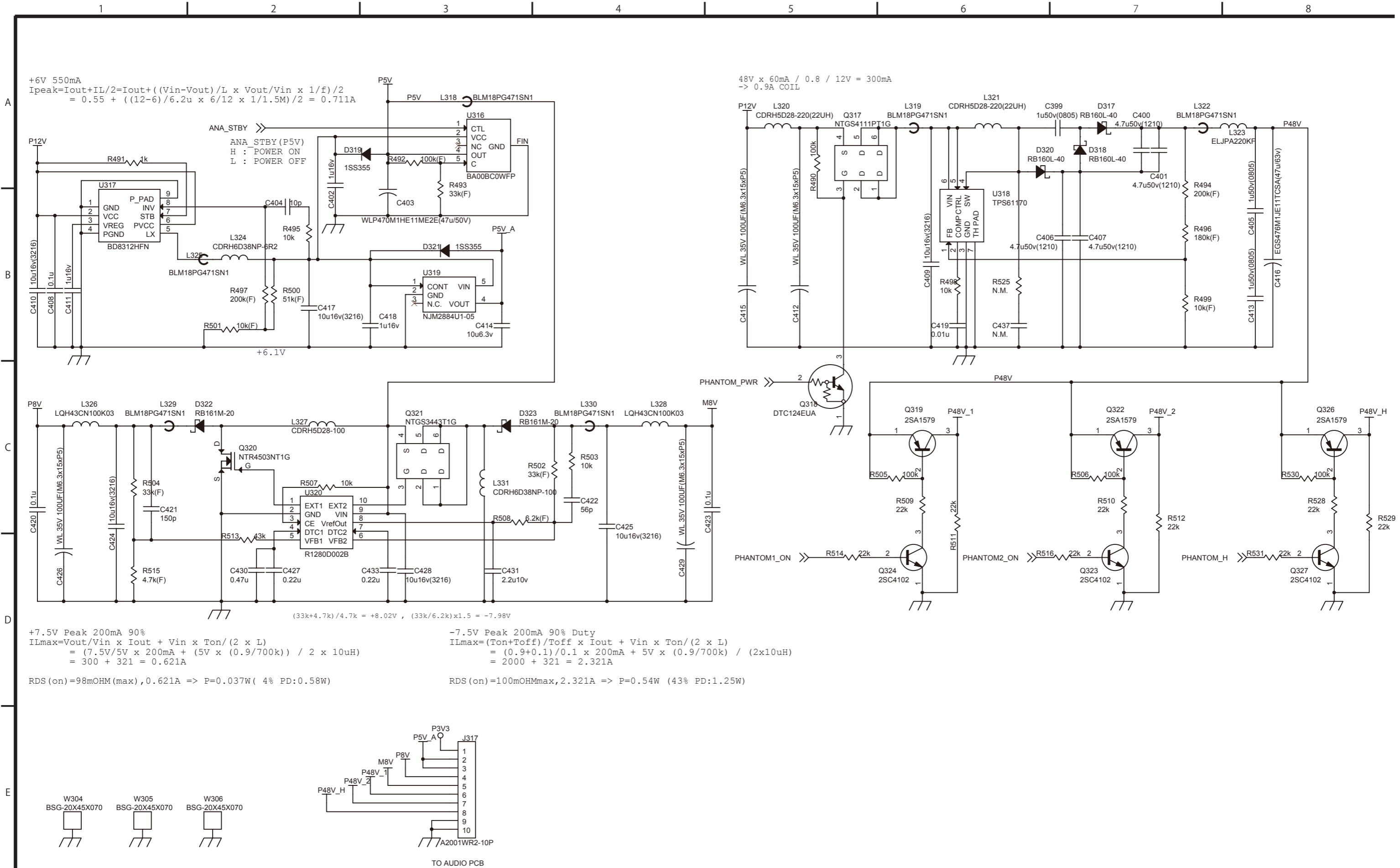


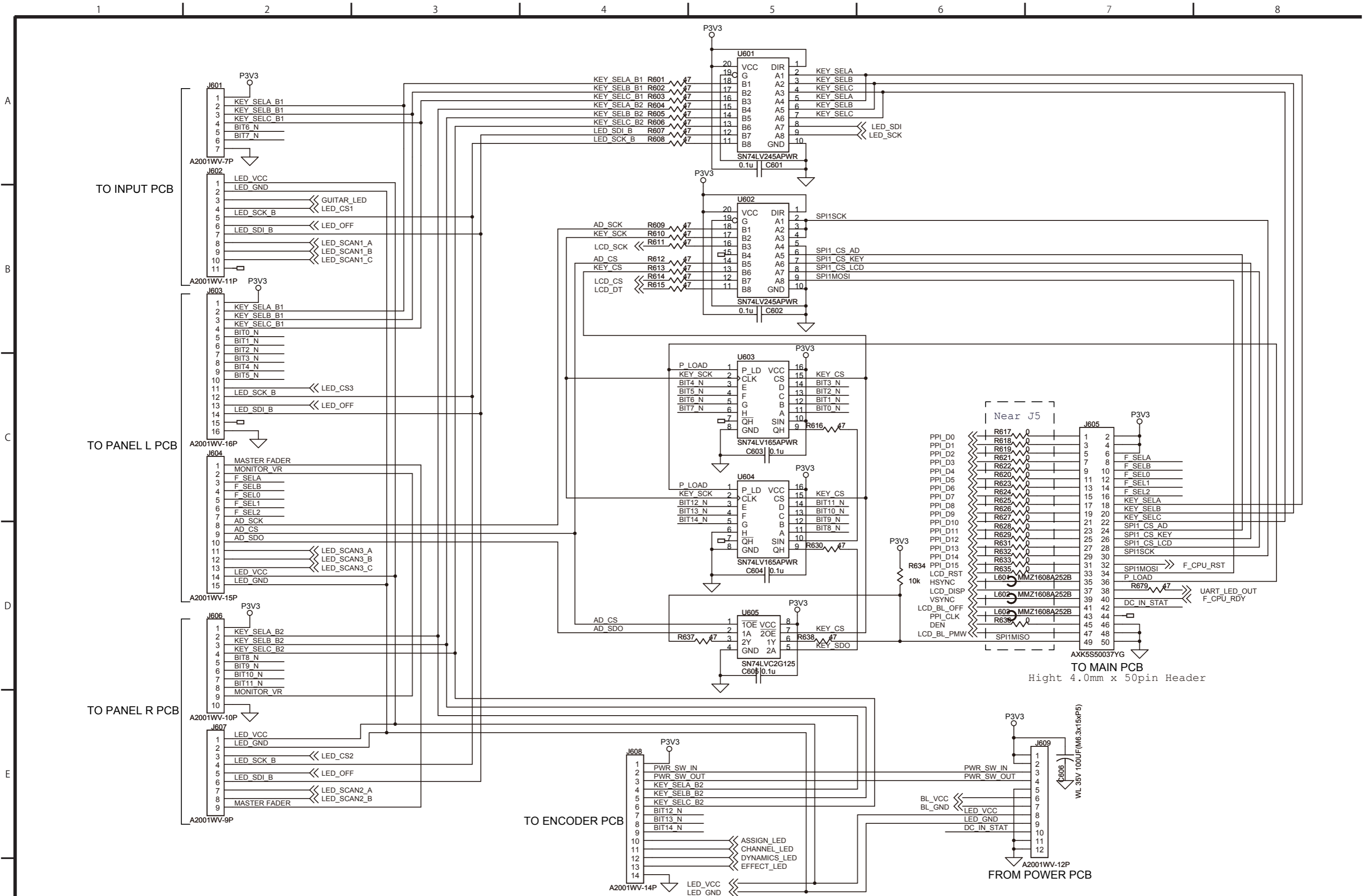
$(3.3k+2.2k/3.3k) \times 3.4V_{pp} \Rightarrow 6dBV$

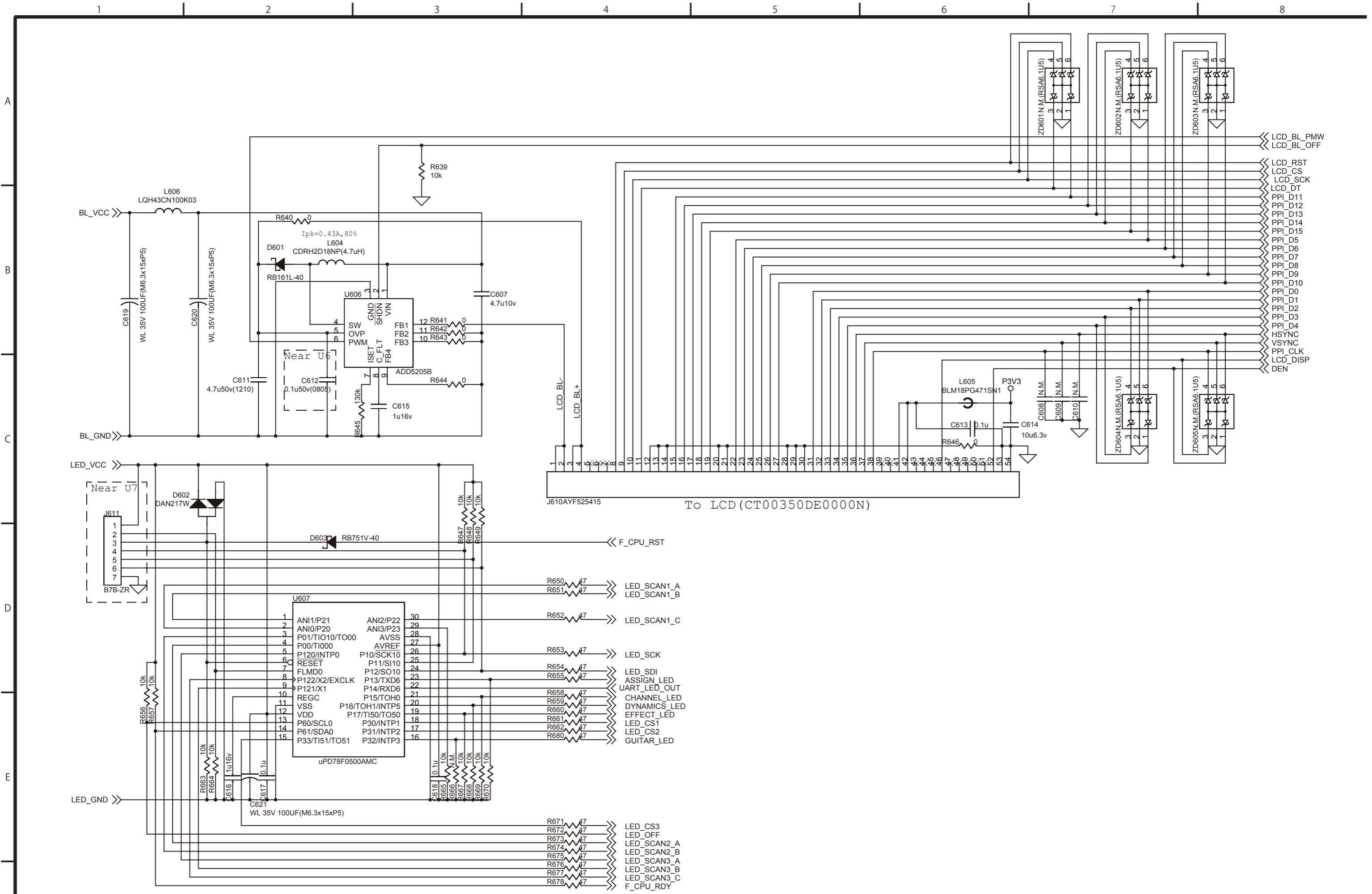
ST OUT , EFFECT SEND LEVEL  
Nominal -10dBV  
Maximum +6dBV

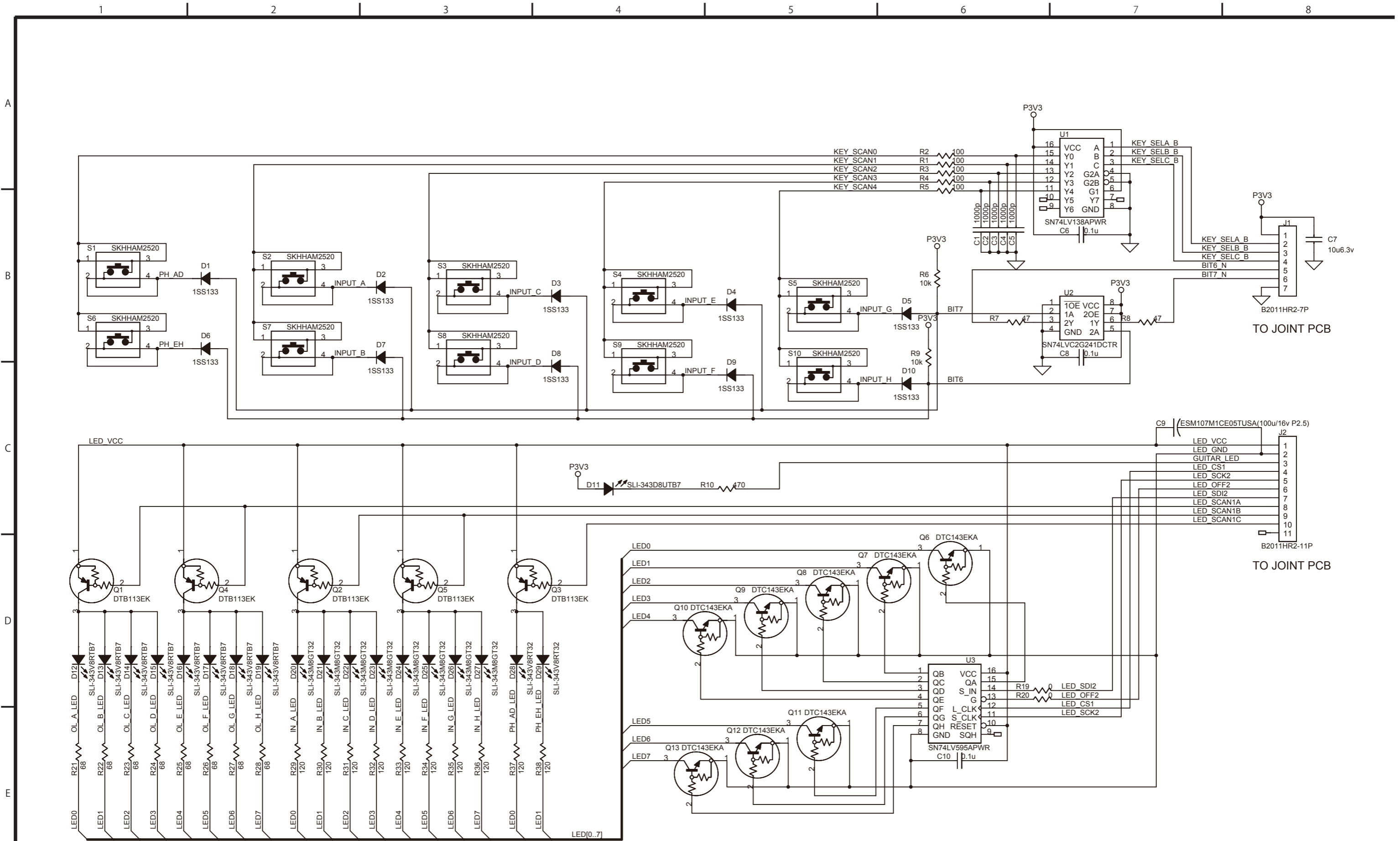


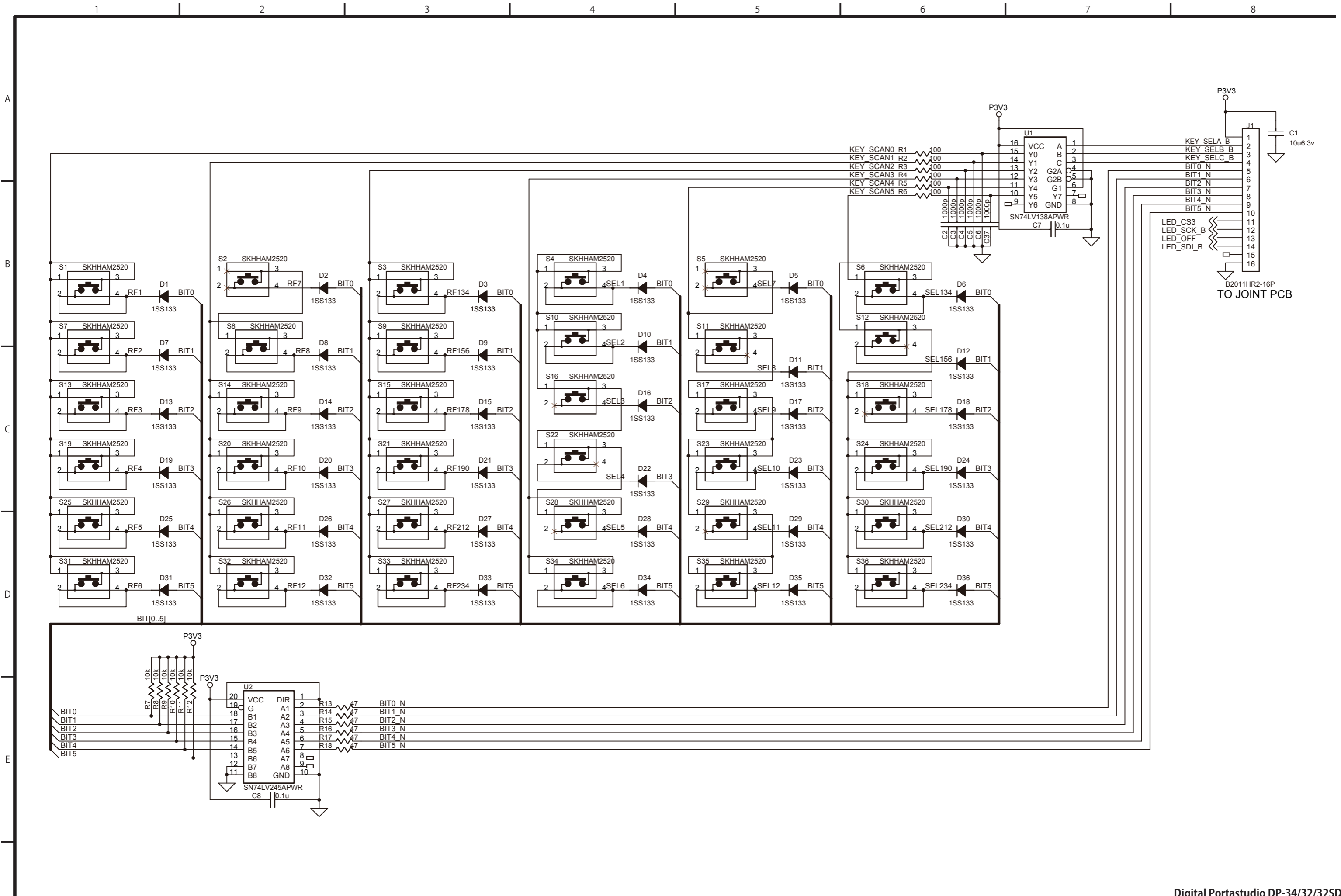


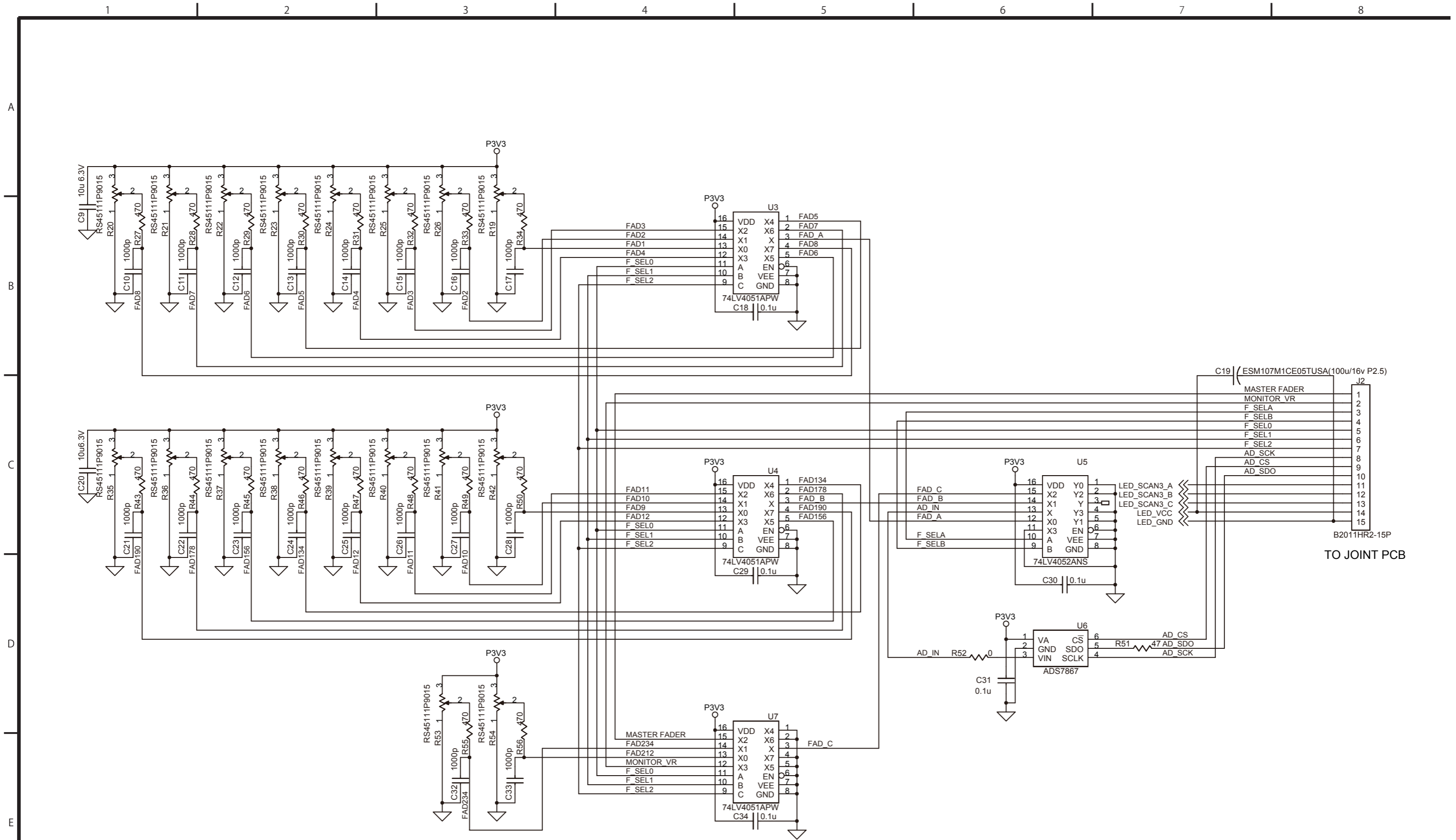


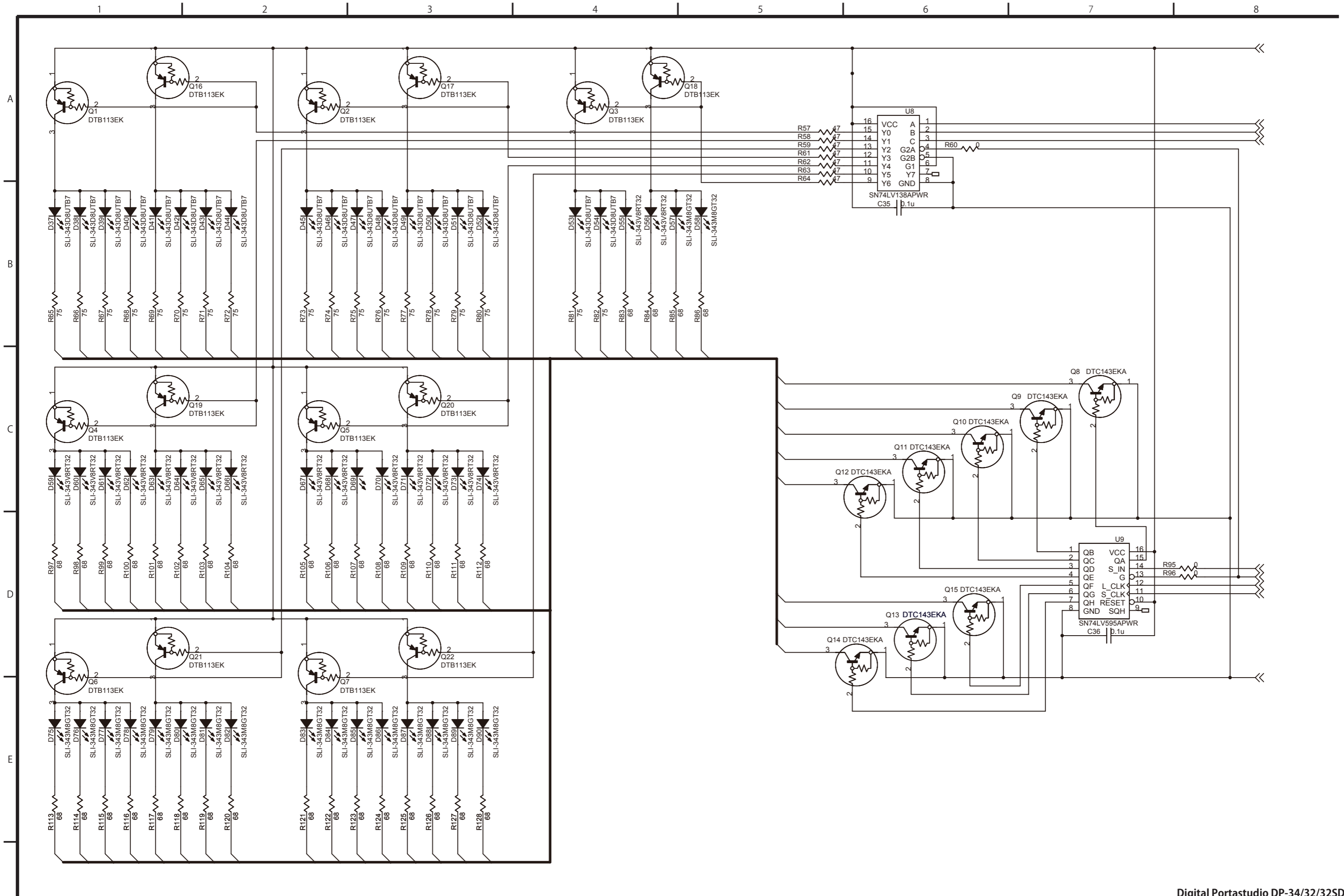




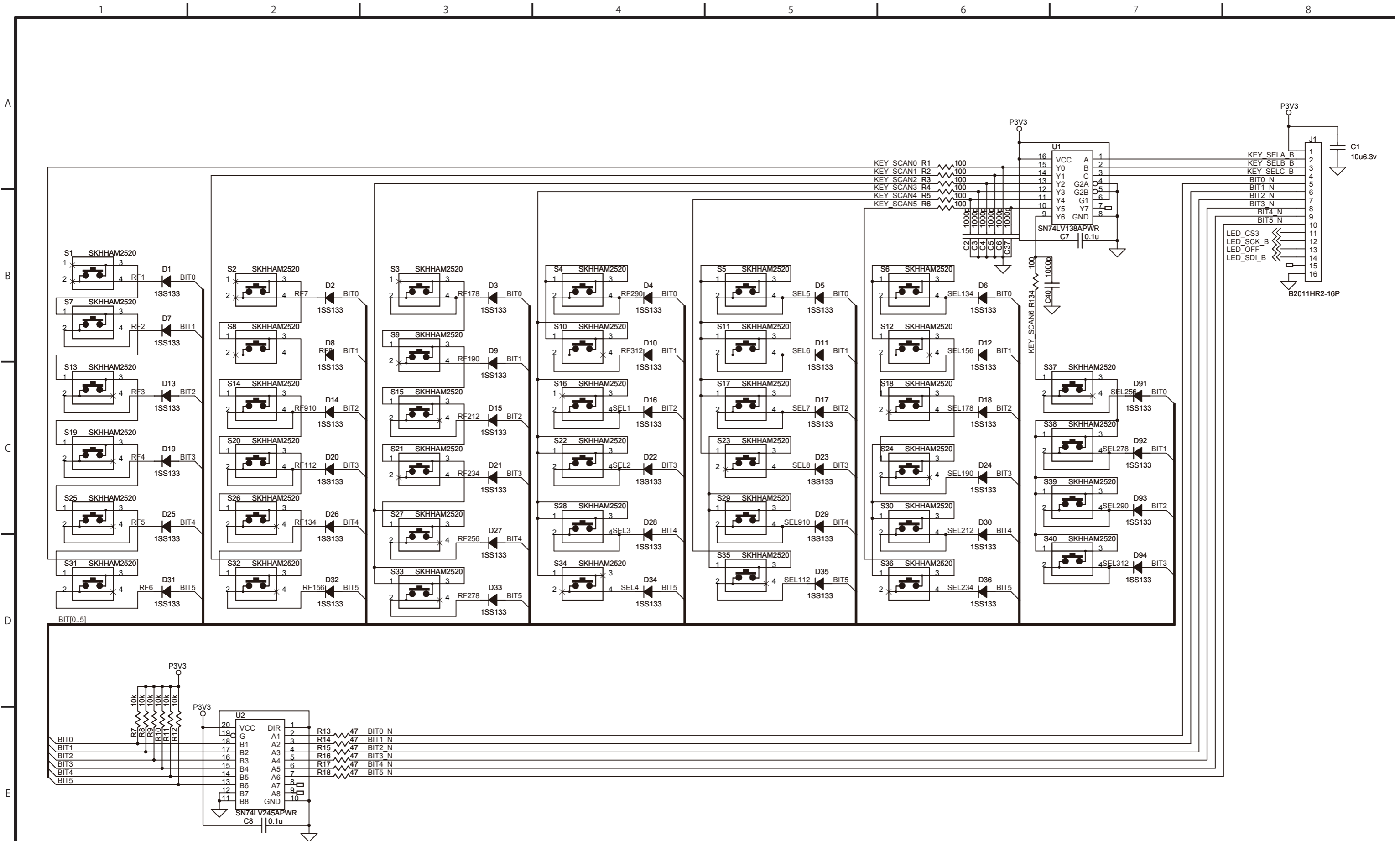


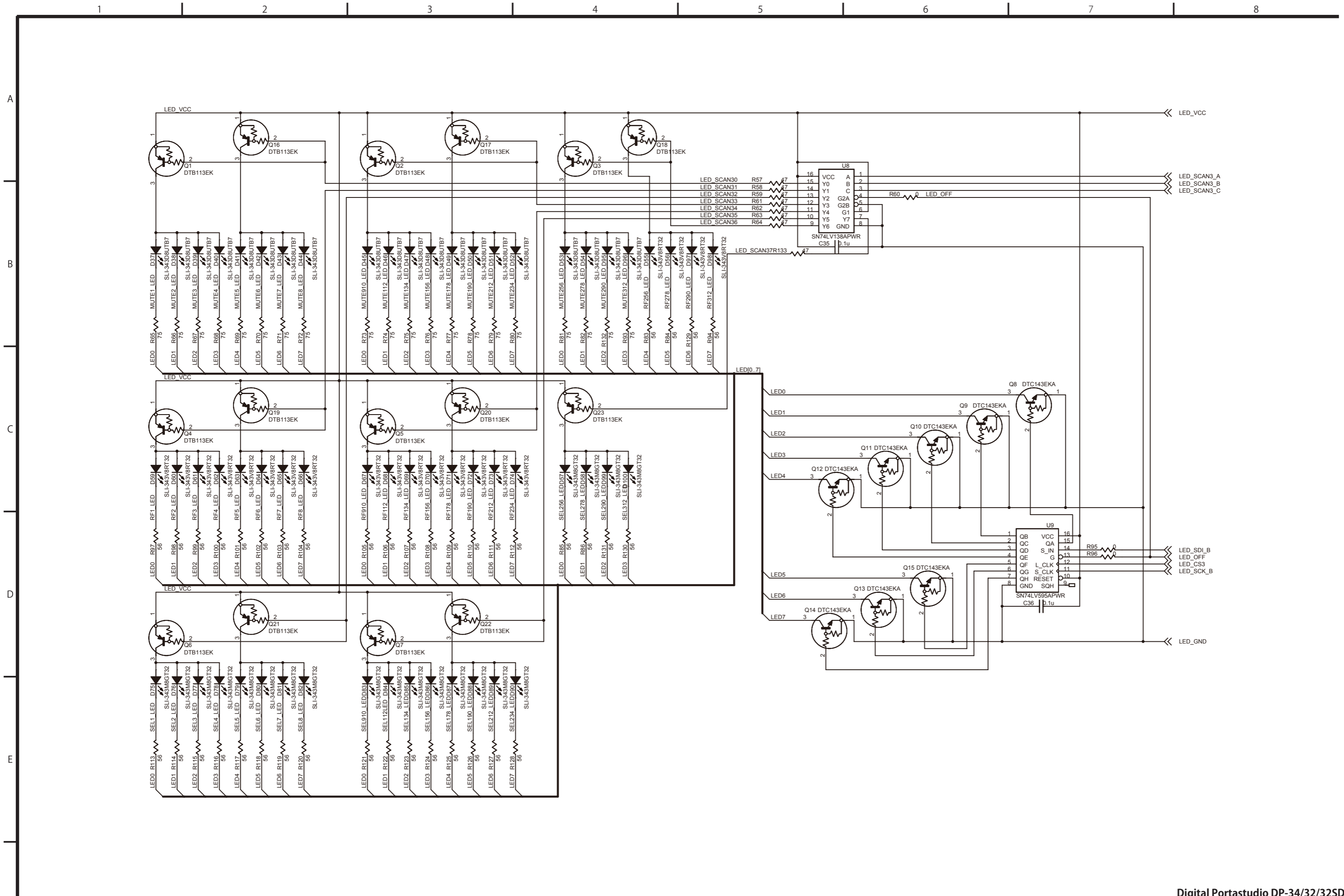












1 2 3 4 5 6 7 8

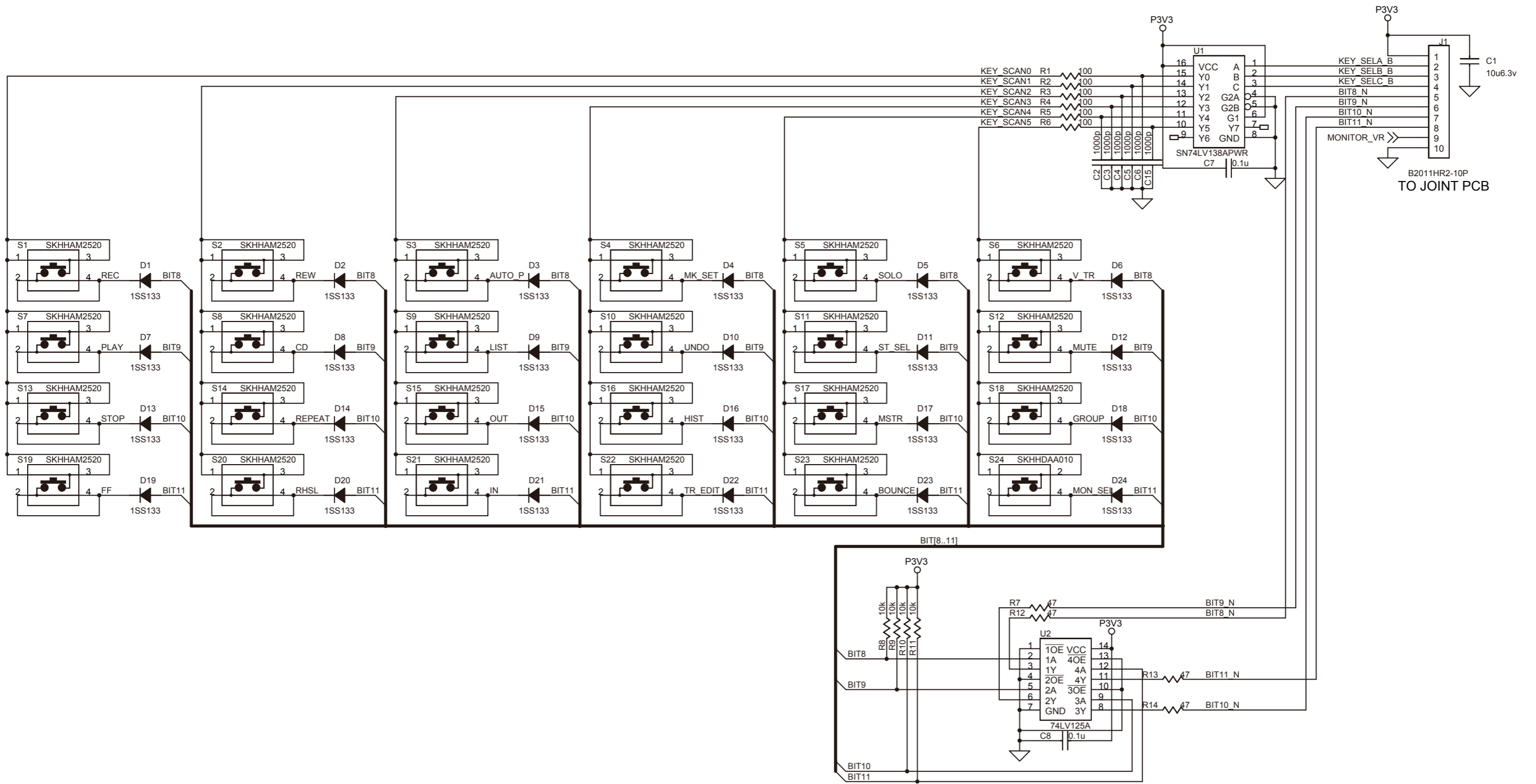
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E



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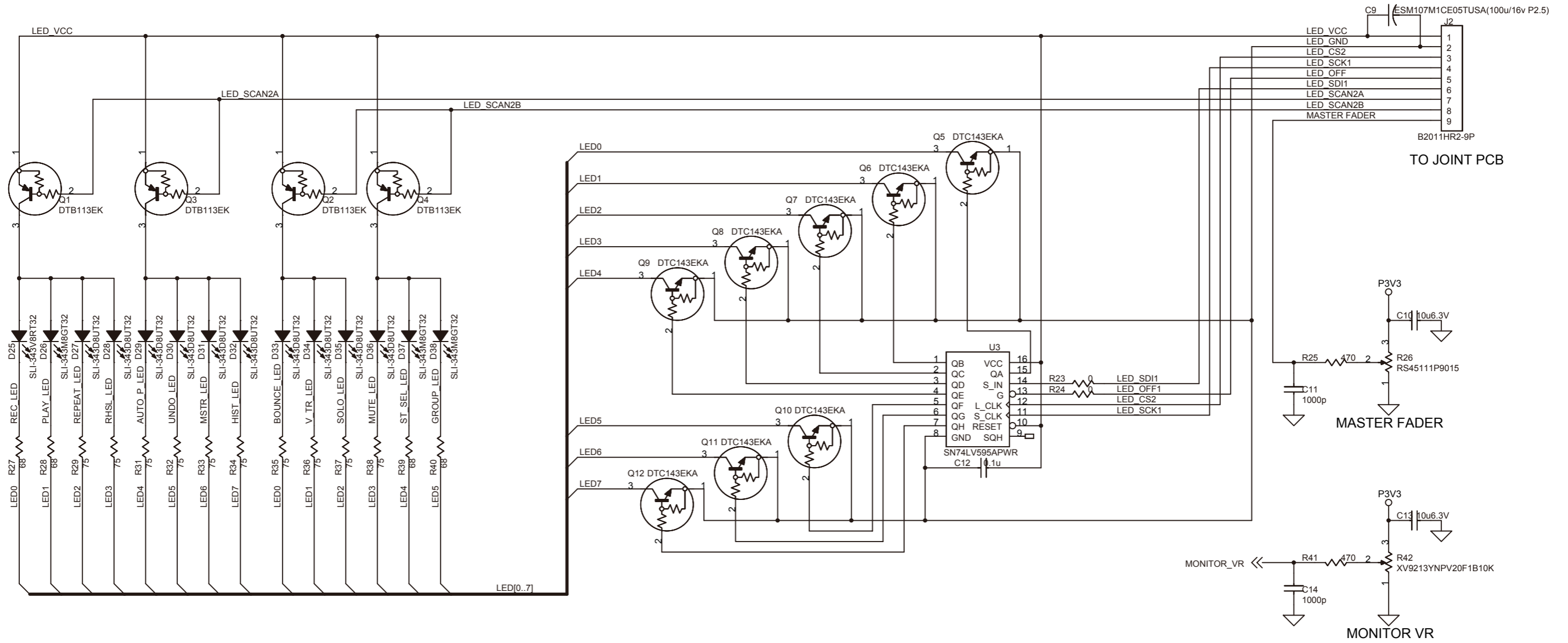
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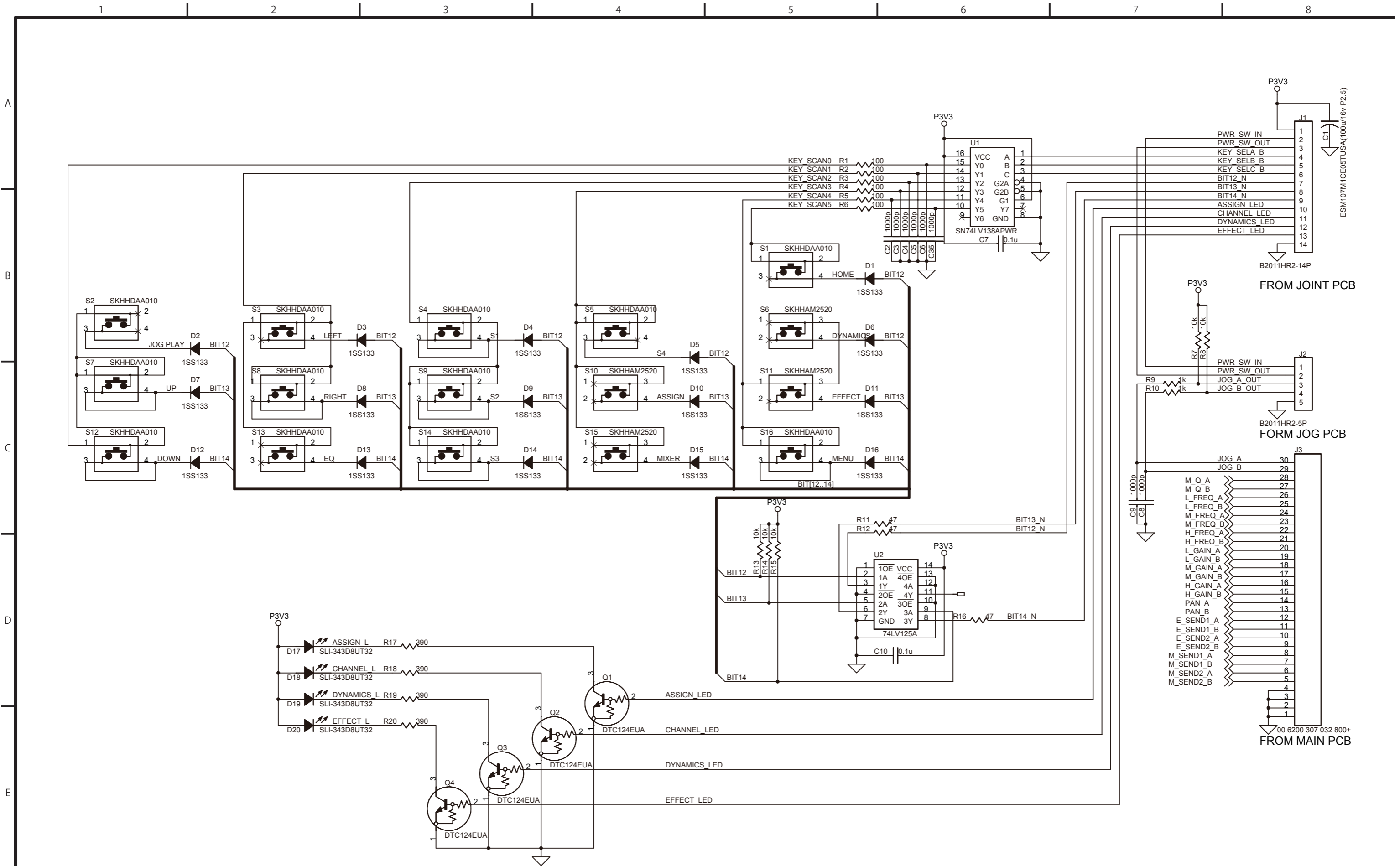
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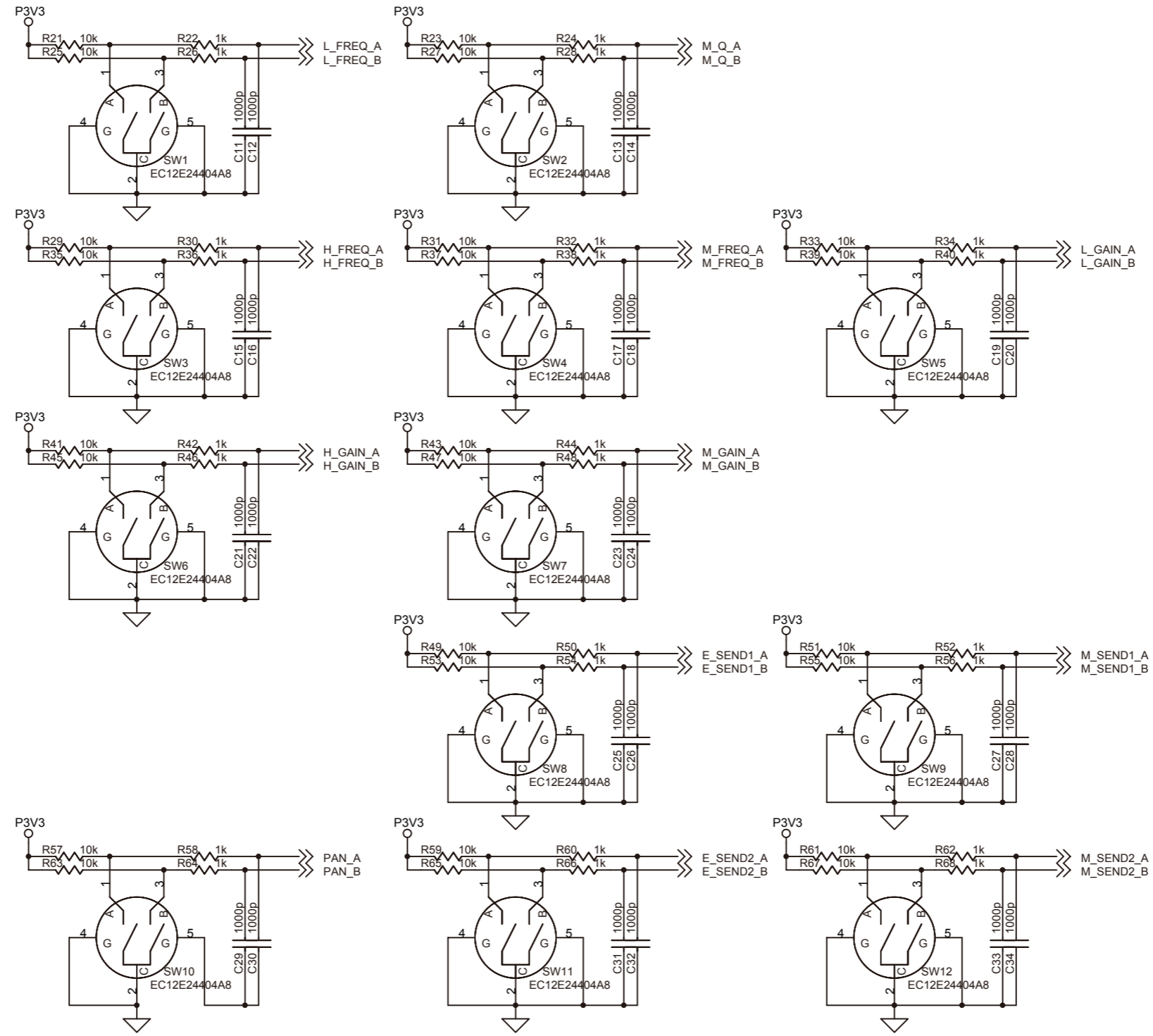
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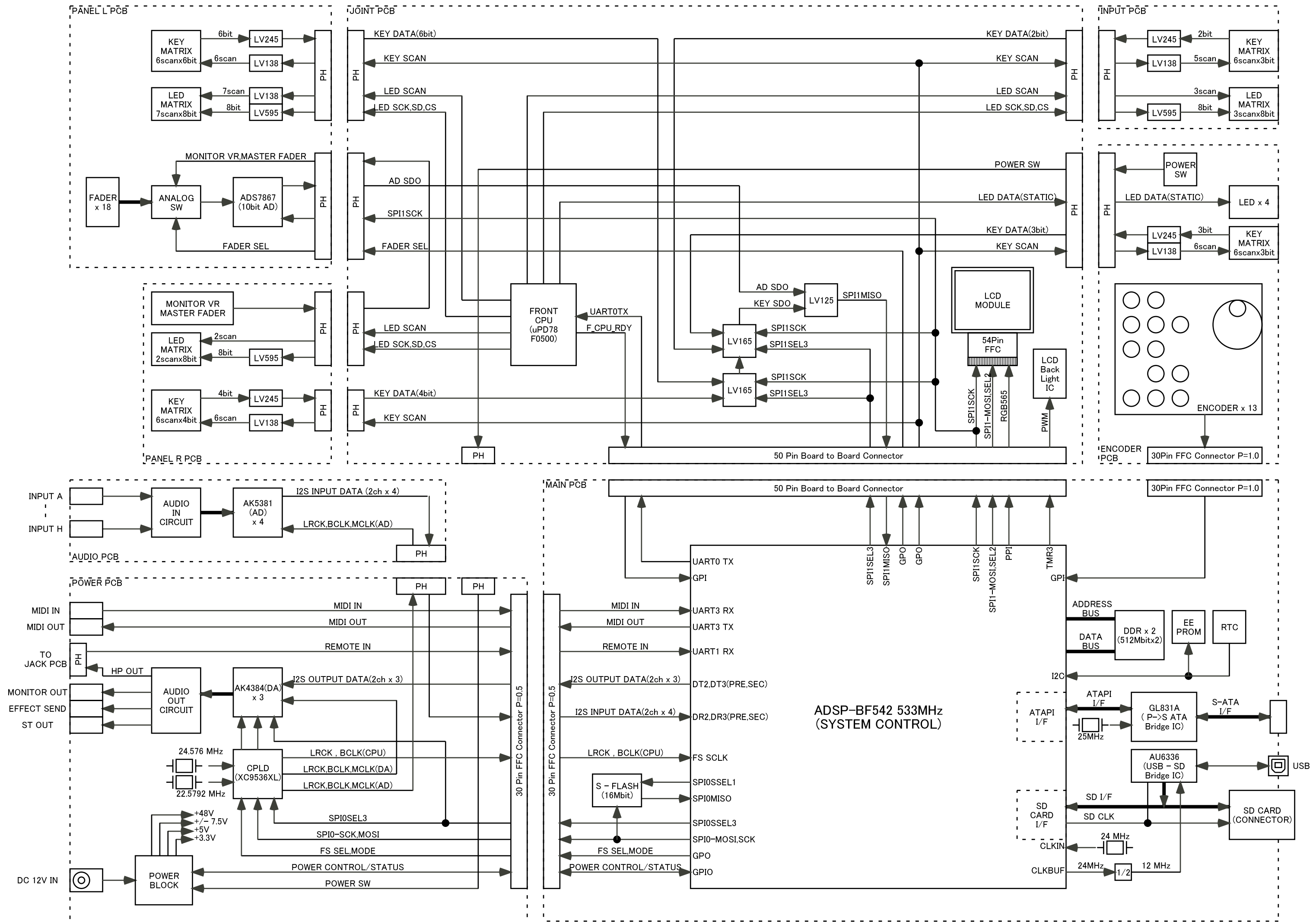
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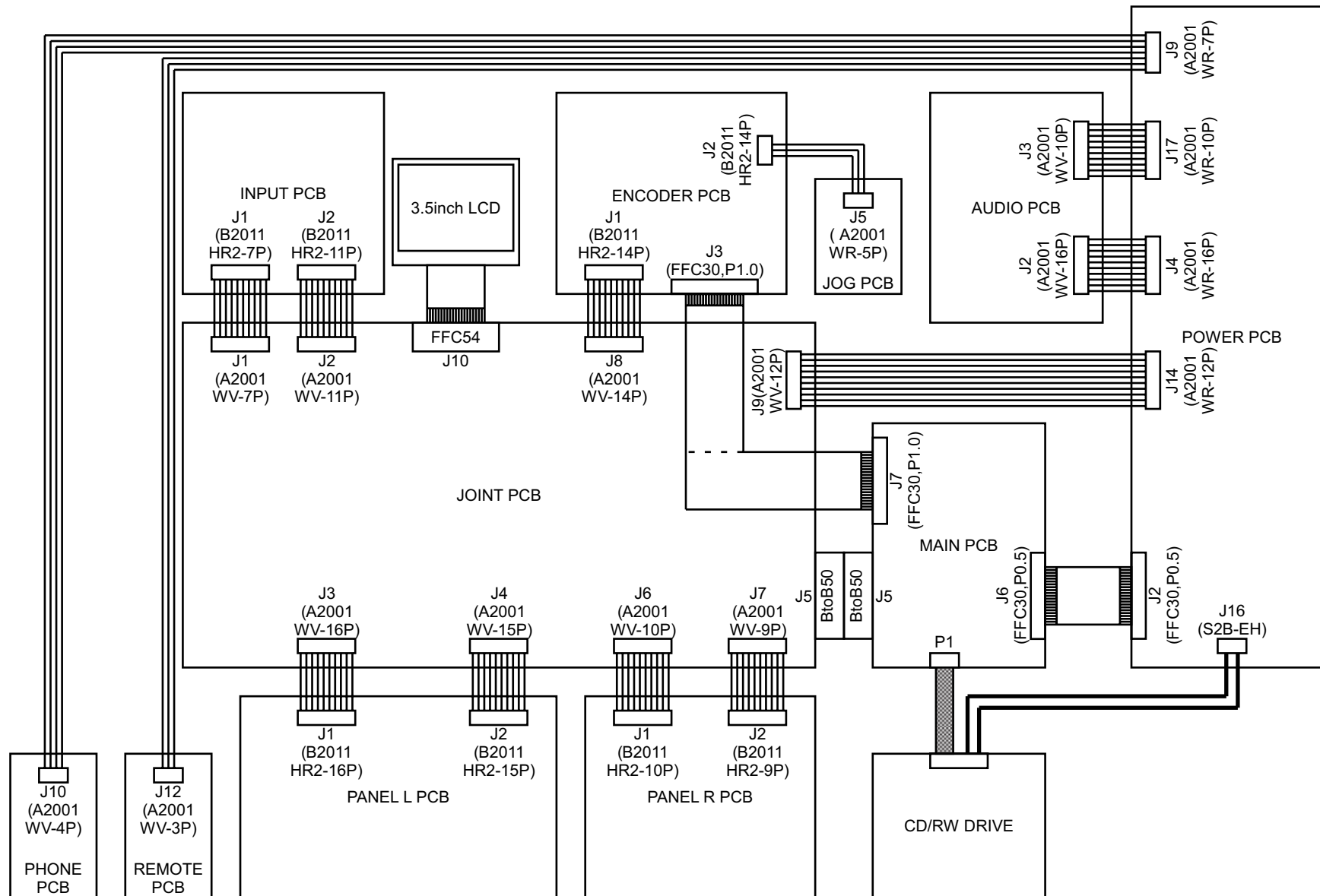
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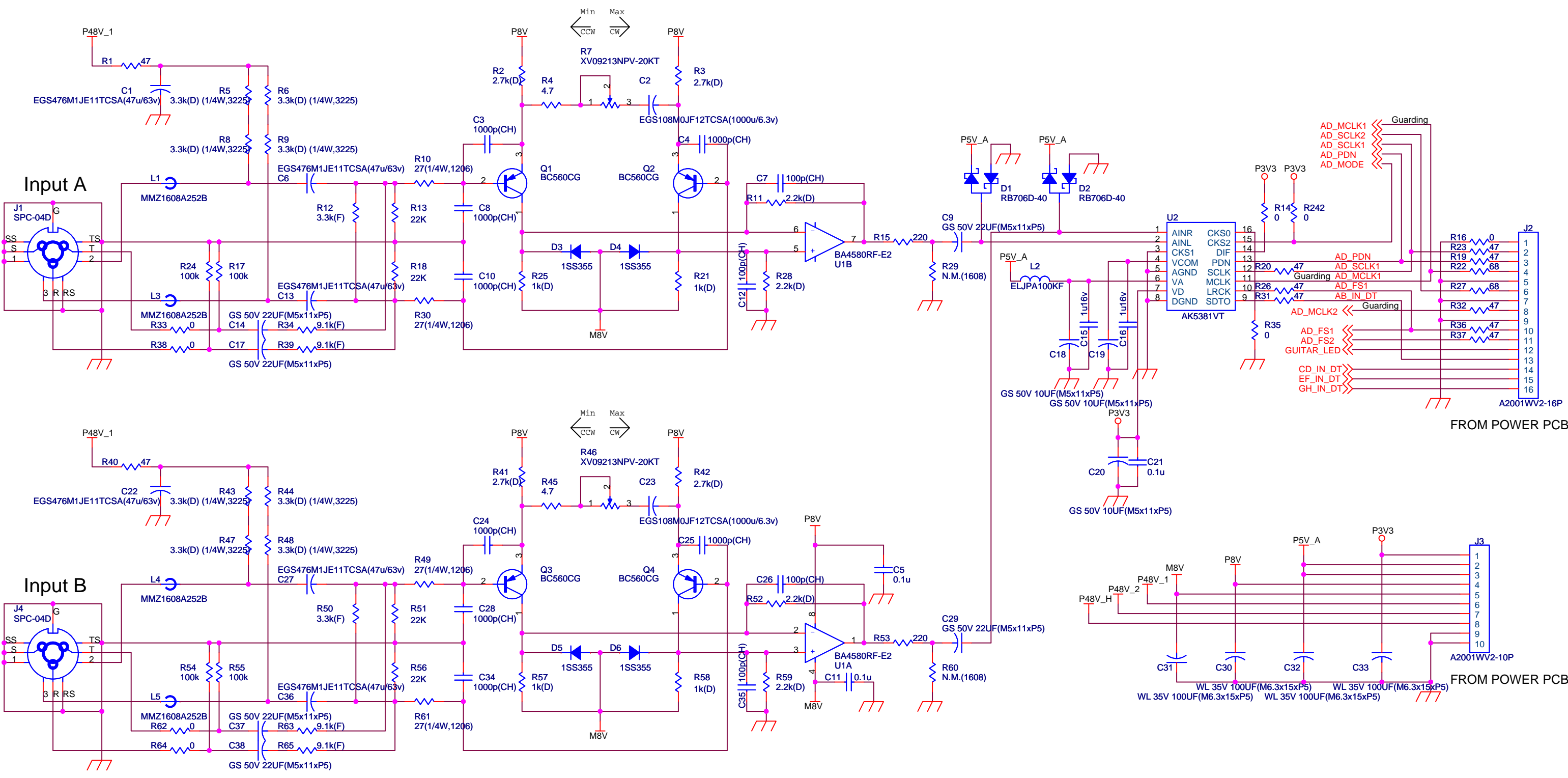




DP-24 H/W BLOCK DIAGRAM

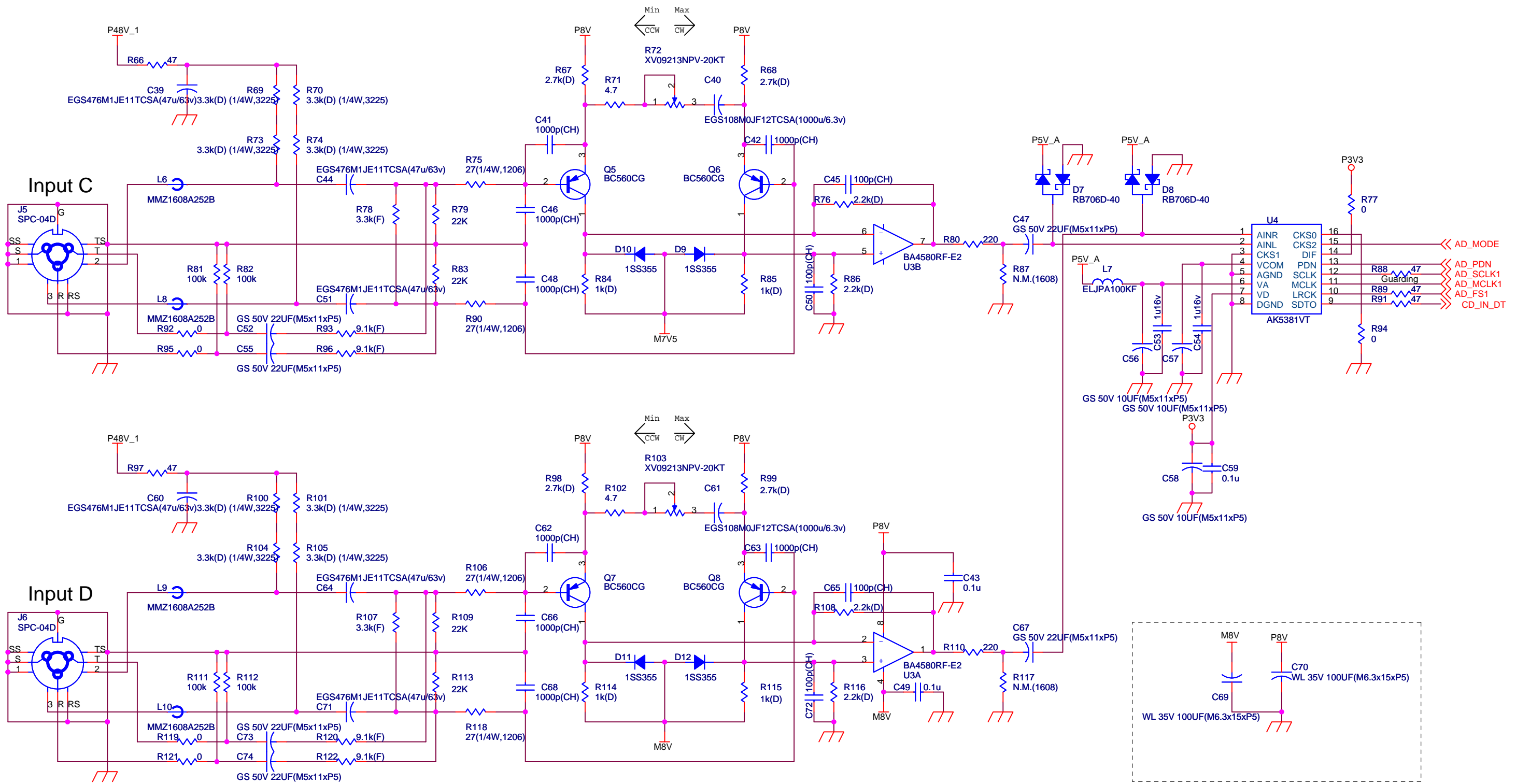


DP-24 WIRING DIAGRAM



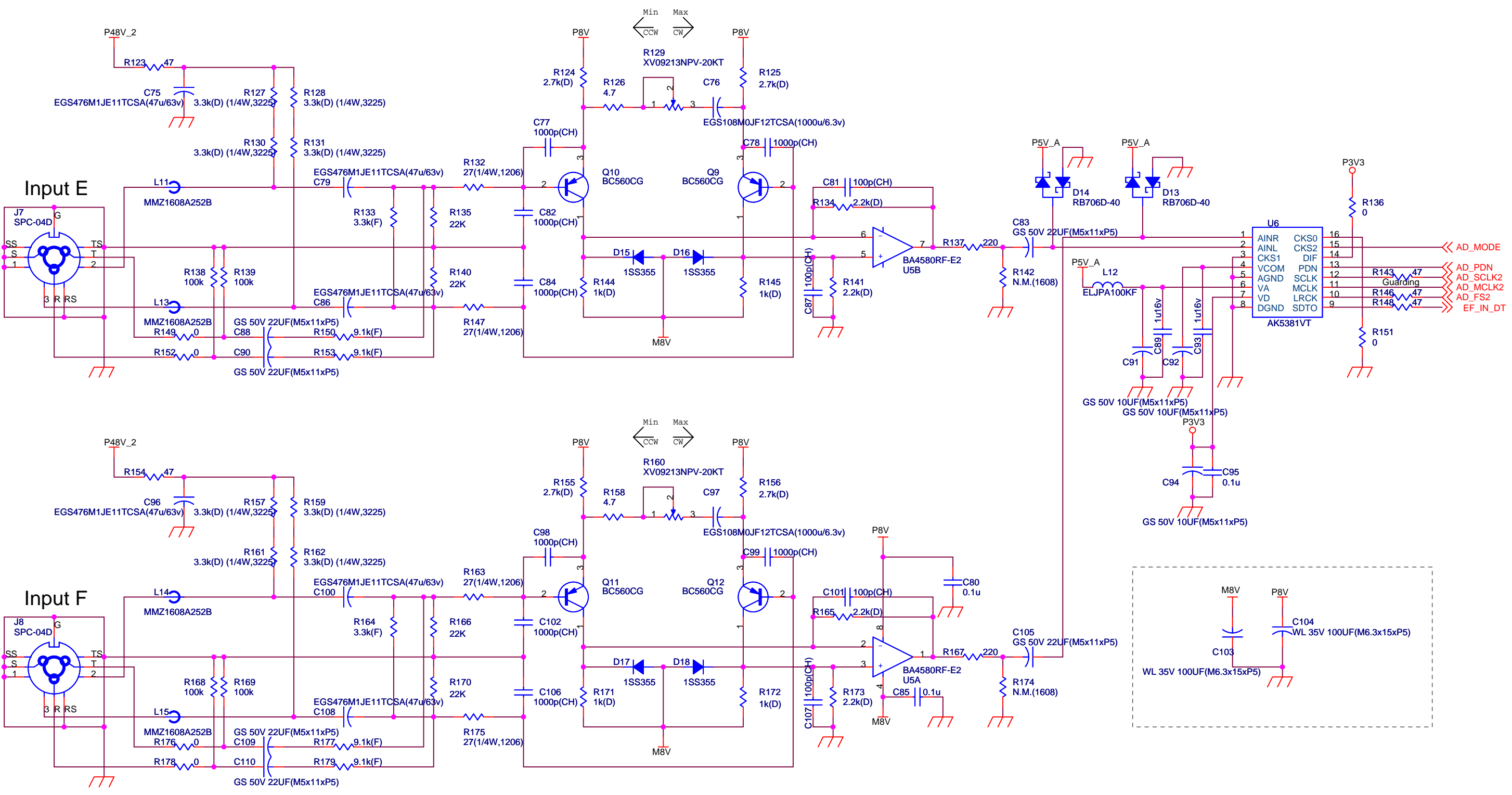
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REV	E.C.N. NO.	DATE	PLANNED	APPROVED	TS-E		PCB,AUDIO DP24 G	
APPROVED		. .	UNIT mm		DWG TITLE			
CHECKED		. .	ANGLE		図名 SCHEMATIC,PCB AUDIO DP24 G			
PLANNED	shida	12.03.21	SCALE		DWG NO.		DWG CODE	
DRAWN	shida	12.03.21			図番		B	

D002590-01A



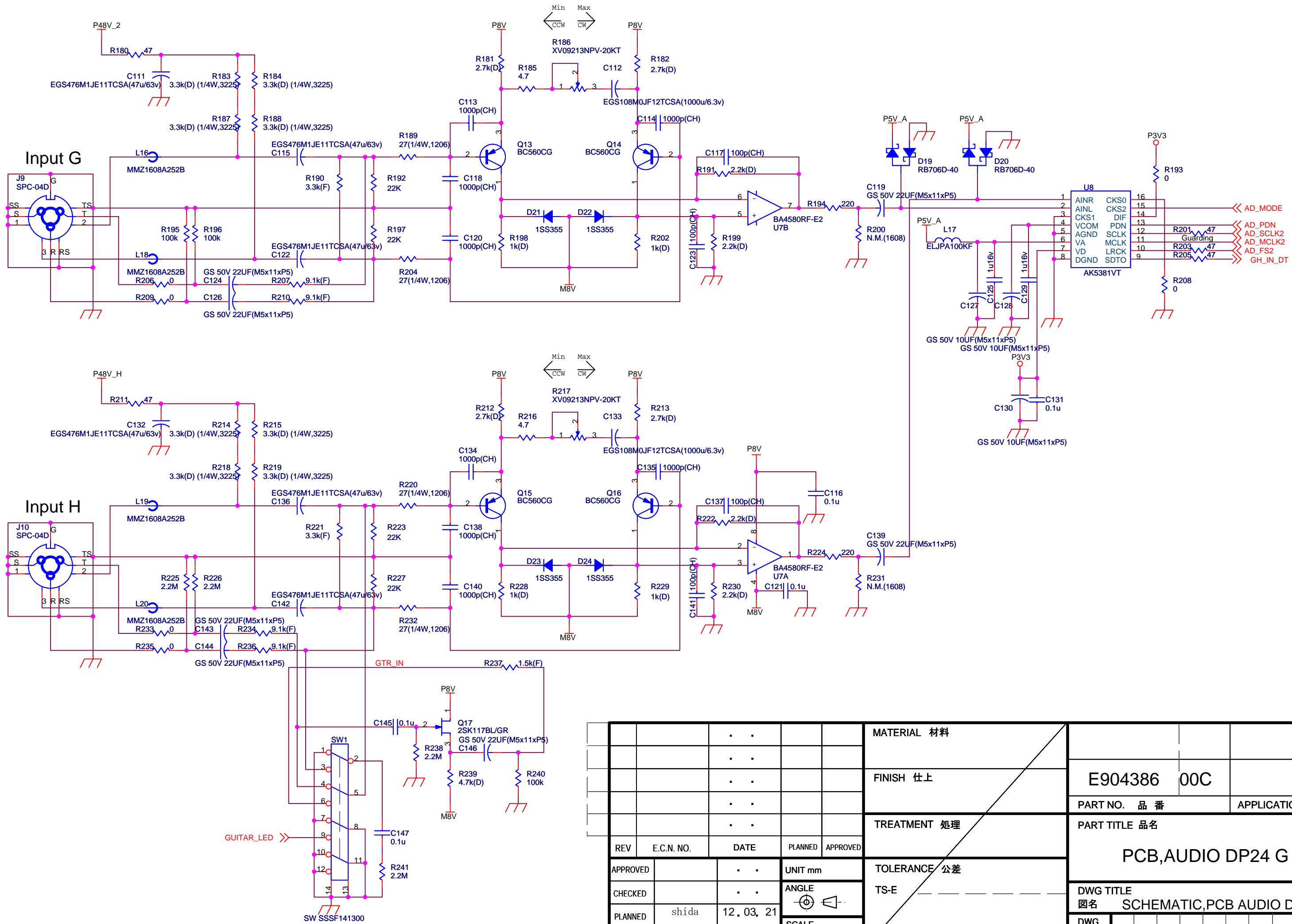
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REV	E.C.N. NO.	DATE	PLANNED	APPROVED	PCB,AUDIO DP24 G		
APPROVED			UNIT mm		DWG TITLE		
CHECKED			ANGLE		図名 SCHEMATIC,PCB AUDIO DP24 G		
PLANNED	shida	12.03.21	SCALE		DWG NO.		DWG CODE
DRAWN	shida	12.03.21			図番		<b>B</b>

D002590-01A



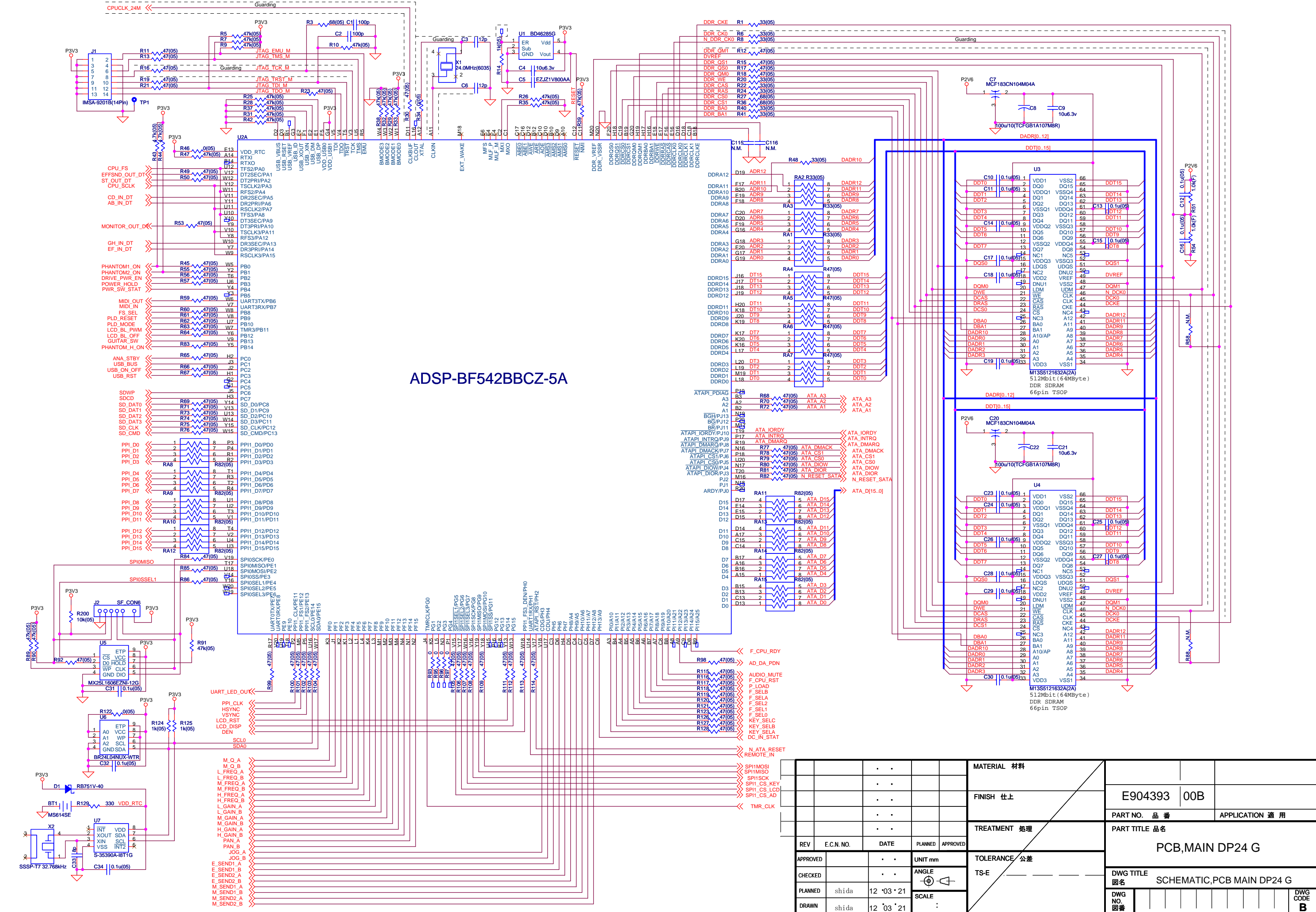
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					TOLERANCE 公差		PART TITLE 品名	
REV	E.C.N. NO.	DATE	PLANNED	APPROVED	TS-E		PCB,AUDIO DP24 G	
APPROVED			UNIT mm		DWG TITLE		図名 SCHEMATIC,PCB AUDIO DP24 G	
CHECKED			ANGLE		DWG NO.		図番	
PLANNED	shida	12.03.21	SCALE		DWG CODE		B	
DRAWN	shida	12.03.21						

D002590-01A



					MATERIAL 材料			
					FINISH 仕上		E904386 00C	
					TREATMENT 処理		PART NO. 品番 APPLICATION 適用	
					TOLERANCE 公差		PART TITLE 品名	
					TS-E		PCB,AUDIO DP24 G	
					DWG TITLE		図名 SCHEMATIC,PCB AUDIO DP24 G	
					DWG NO. 図番		DWG CODE	
							B	

REV	E.C.N. NO.	DATE	PLANNED	APPROVED
APPROVED		. .	UNIT mm	
CHECKED		. .	ANGLE	
PLANNED	shida	12.03.21	SCALE	
DRAWN	shida	12.03.21		

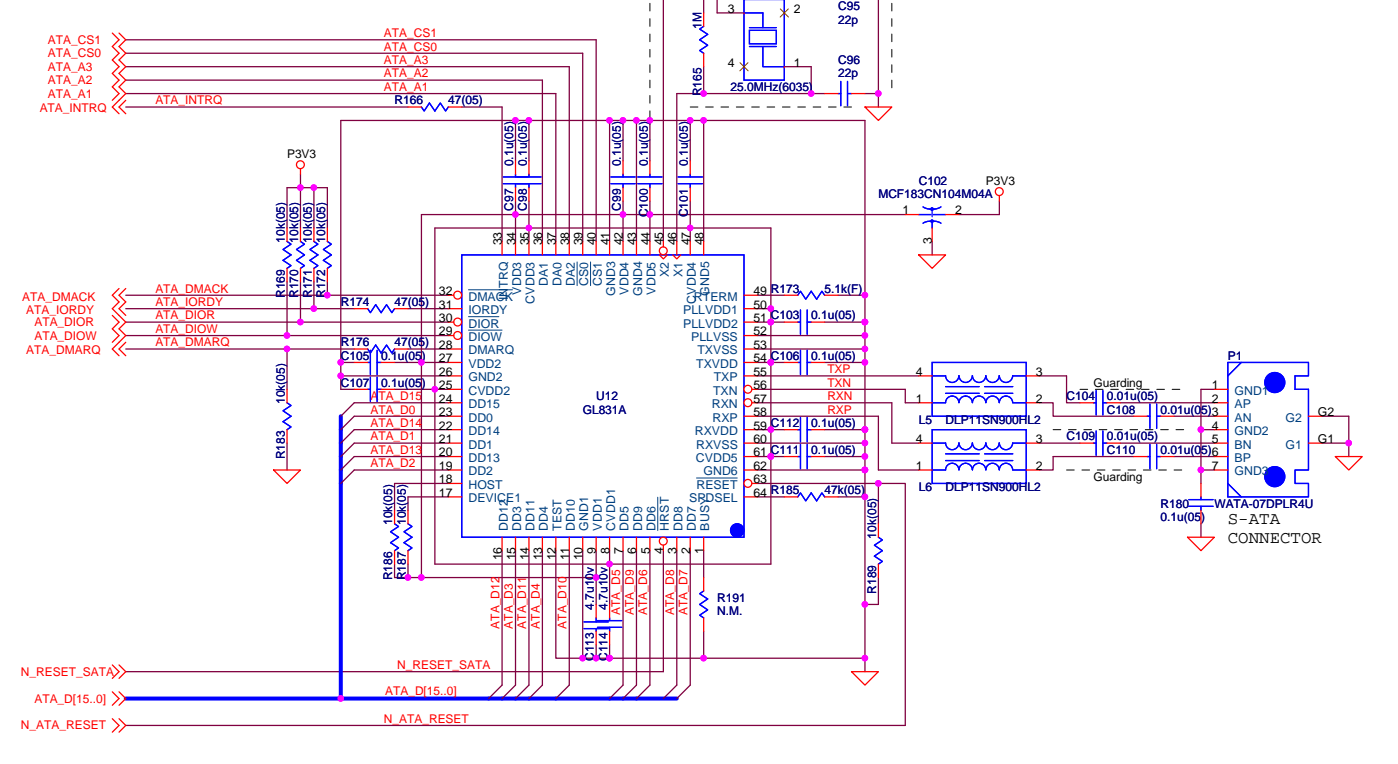
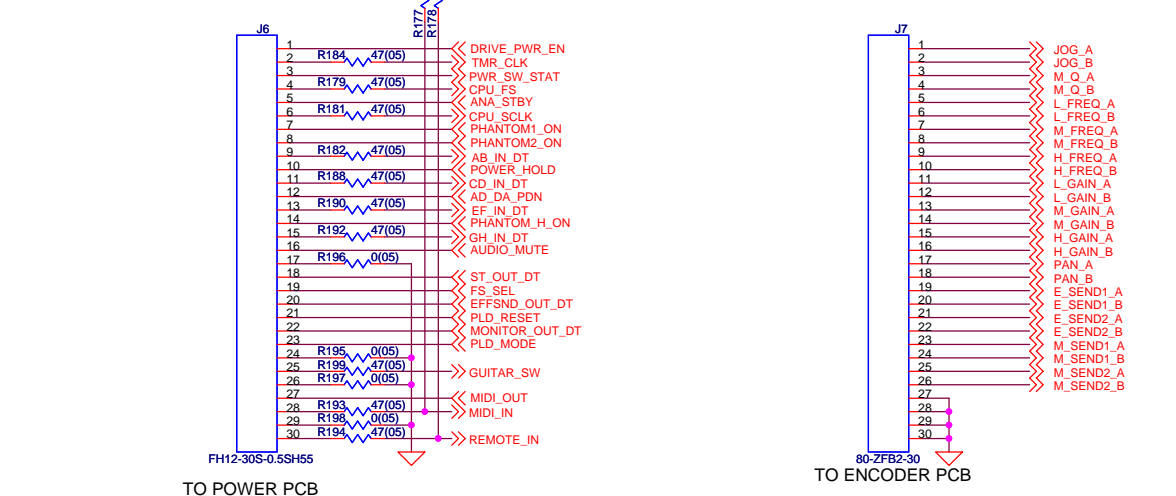
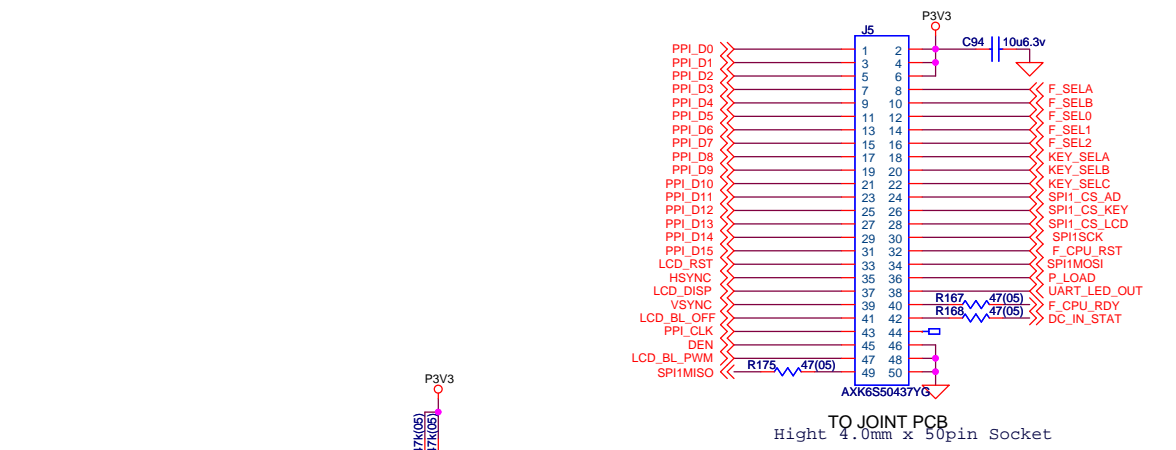
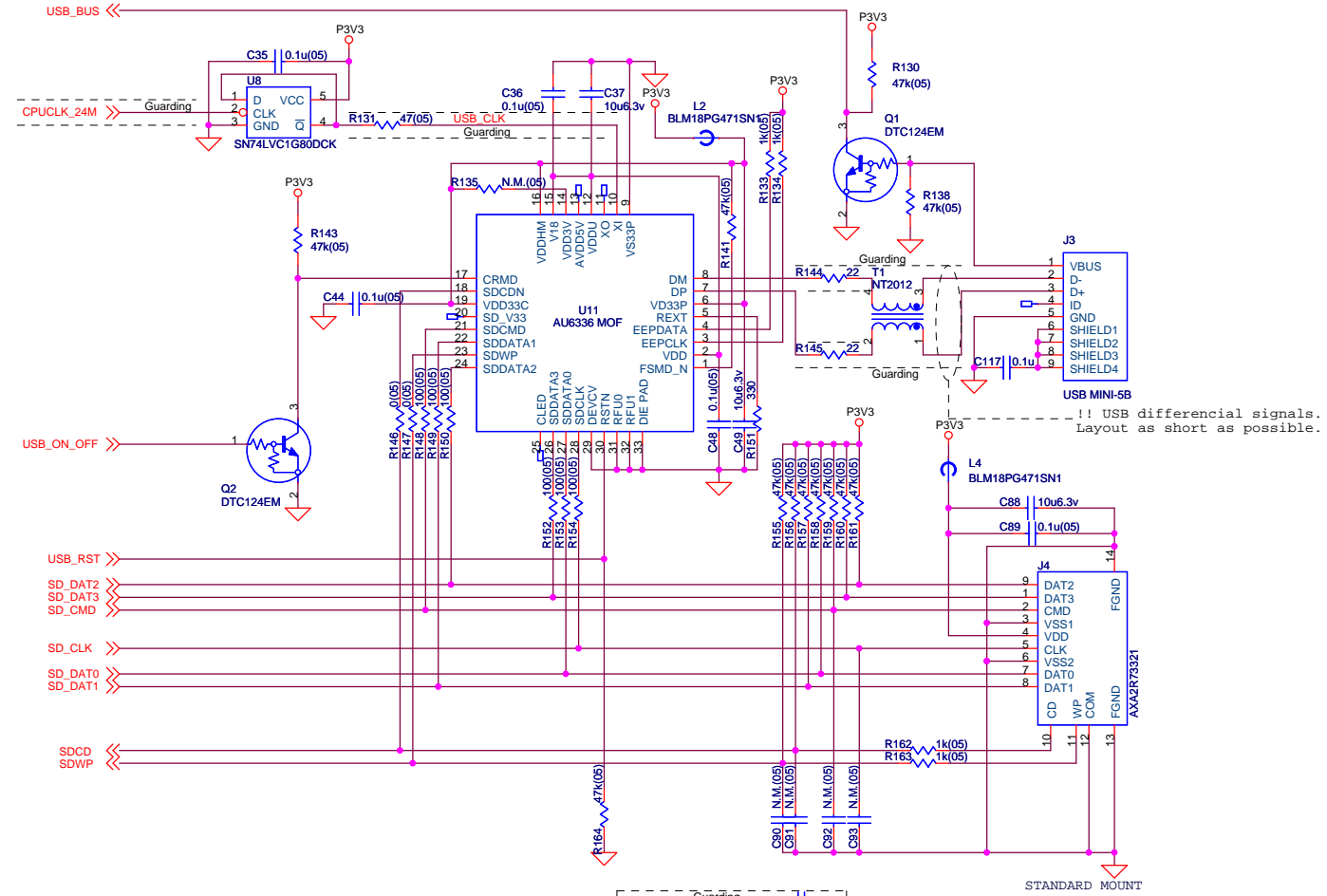
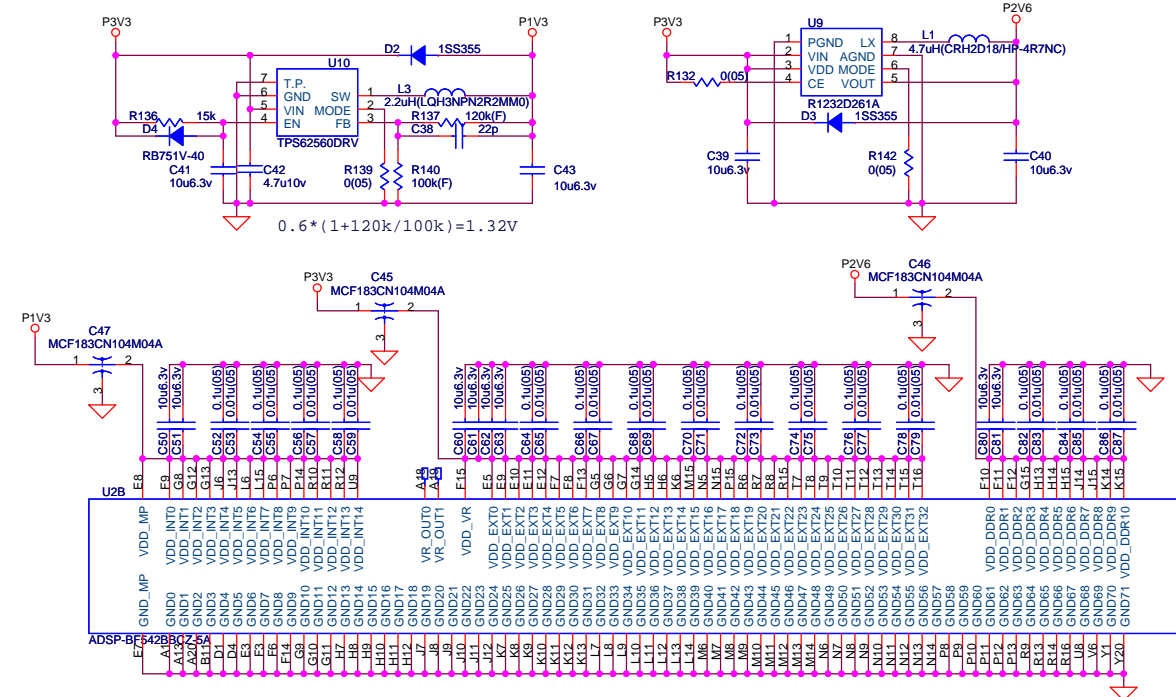


ADSP-BF542BBCZ-5A

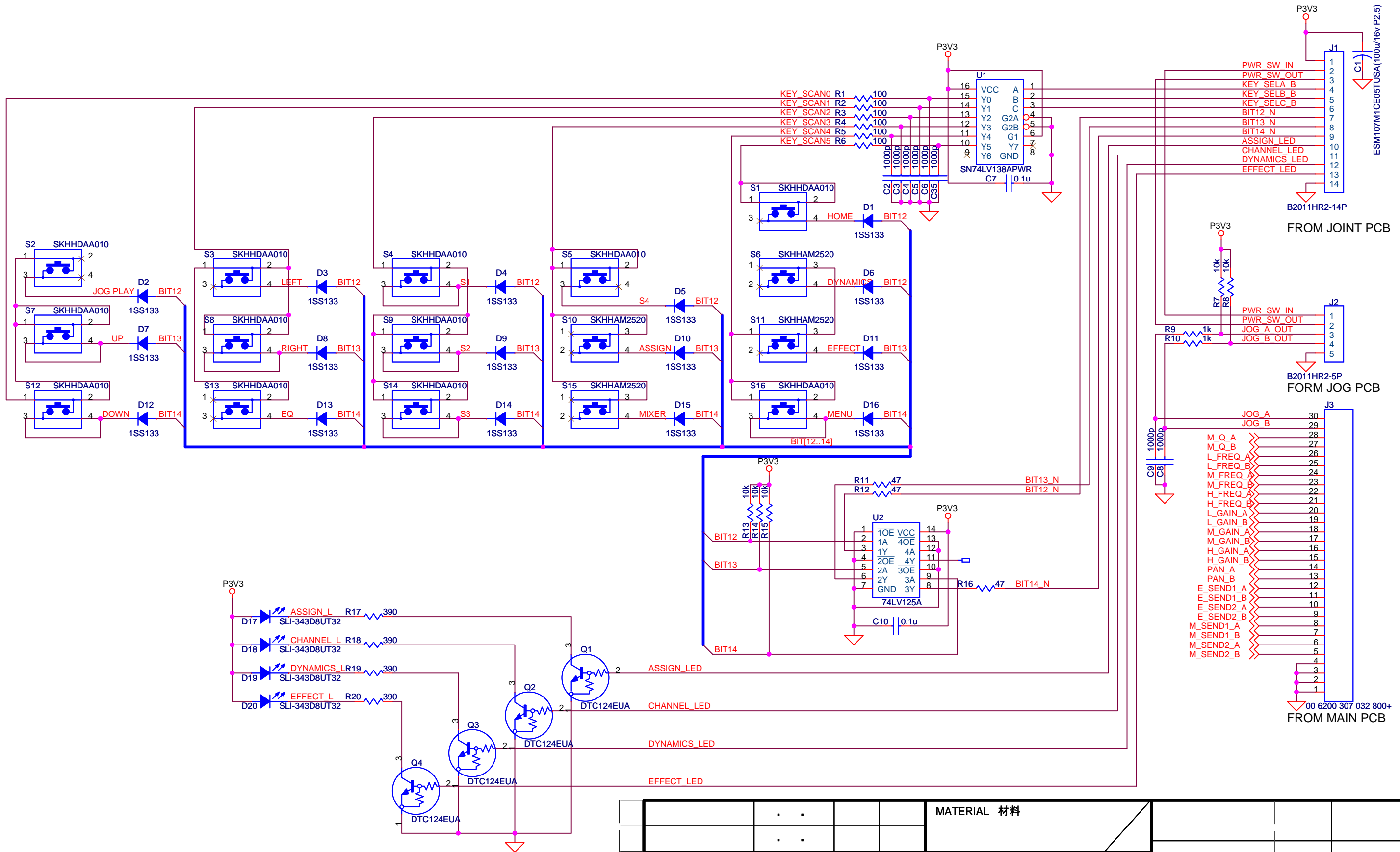
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				DWG TITLE 図名		SCHEMATIC,PCB MAIN DP24 G	
				DWG NO. 図番		DWG CODE	
						B	

REV	E.C.N. NO.	DATE	PLANNED	APPROVED	UNIT mm
APPROVED					ANGLE
CHECKED					SCALE
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DRAWN	shida	12 '03 '21			

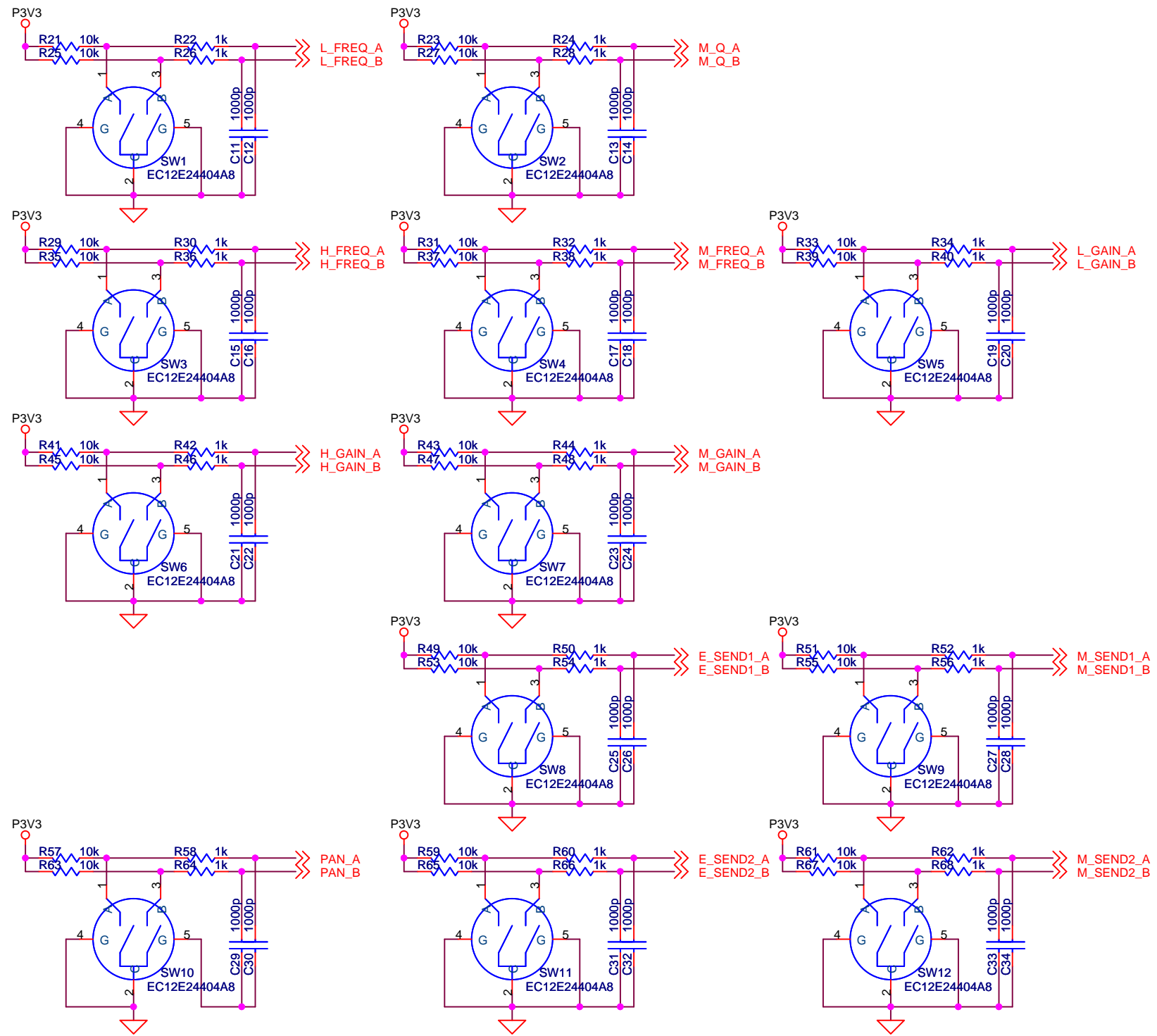


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REV				E.C.N. NO.	DATE	PCB,MAIN DP24 G	
APPROVED				UNIT mm	PLANNED	DWG TITLE 図名	
CHECKED				ANGLE	APPROVED	SCHEMATIC,PCB MAIN DP24 G	
PLANNED				SCALE	shida	DWG NO. 図番	
DRAWN					shida	DWG CODE	
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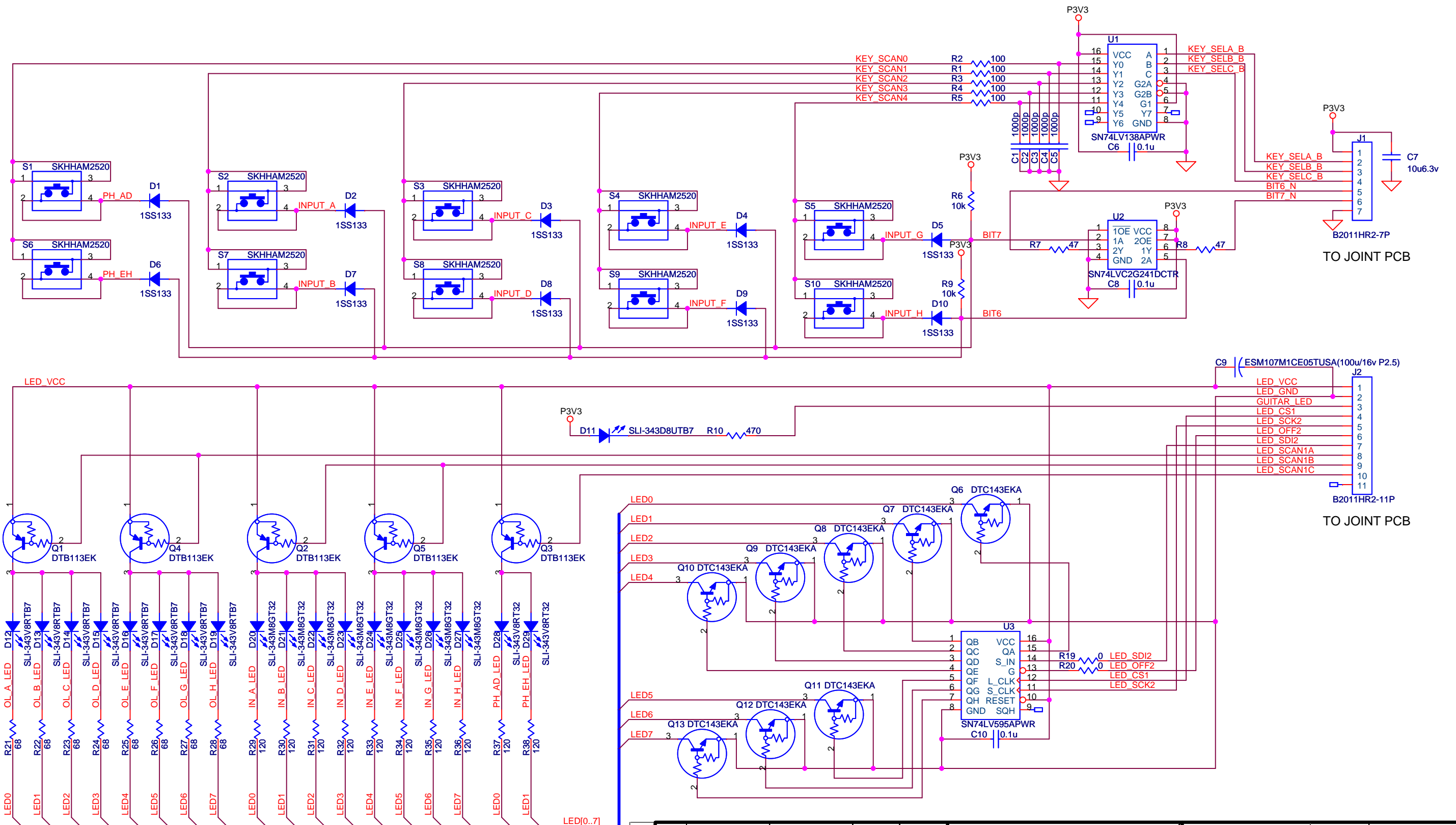


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APPROVED			UNIT mm		DWG TITLE		
CHECKED			ANGLE		図名 SCHEMATIC,PCB ENCODER DP24 G		
PLANNED	shida	12.03.21	SCALE		DWG NO.		DWG CODE
DRAWN	shida	12.03.21			図番		<b>B</b>

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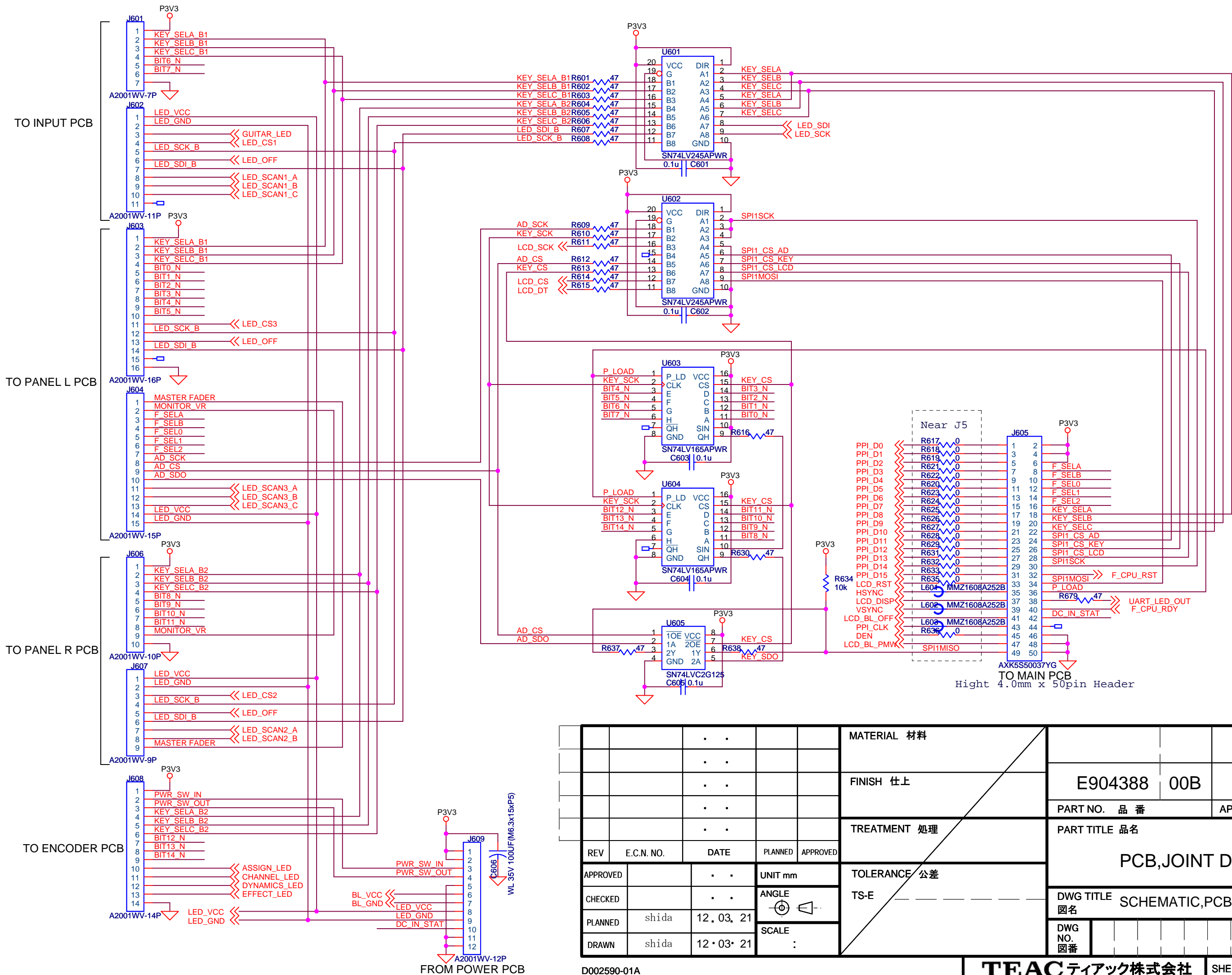


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REV	E.C.N. NO.	DATE	PLANNED	APPROVED	TS-E		PCB,ENCODER DP24 G	
APPROVED			UNIT mm		DWG TITLE 図名 SCHEMATIC,PCB ENCODER DP24 G DWG NO. 図番 DWG CODE <b>B</b>			
CHECKED			ANGLE					
PLANNED	shida	12.03.21	SCALE					
DRAWN	shida	12.03.21						



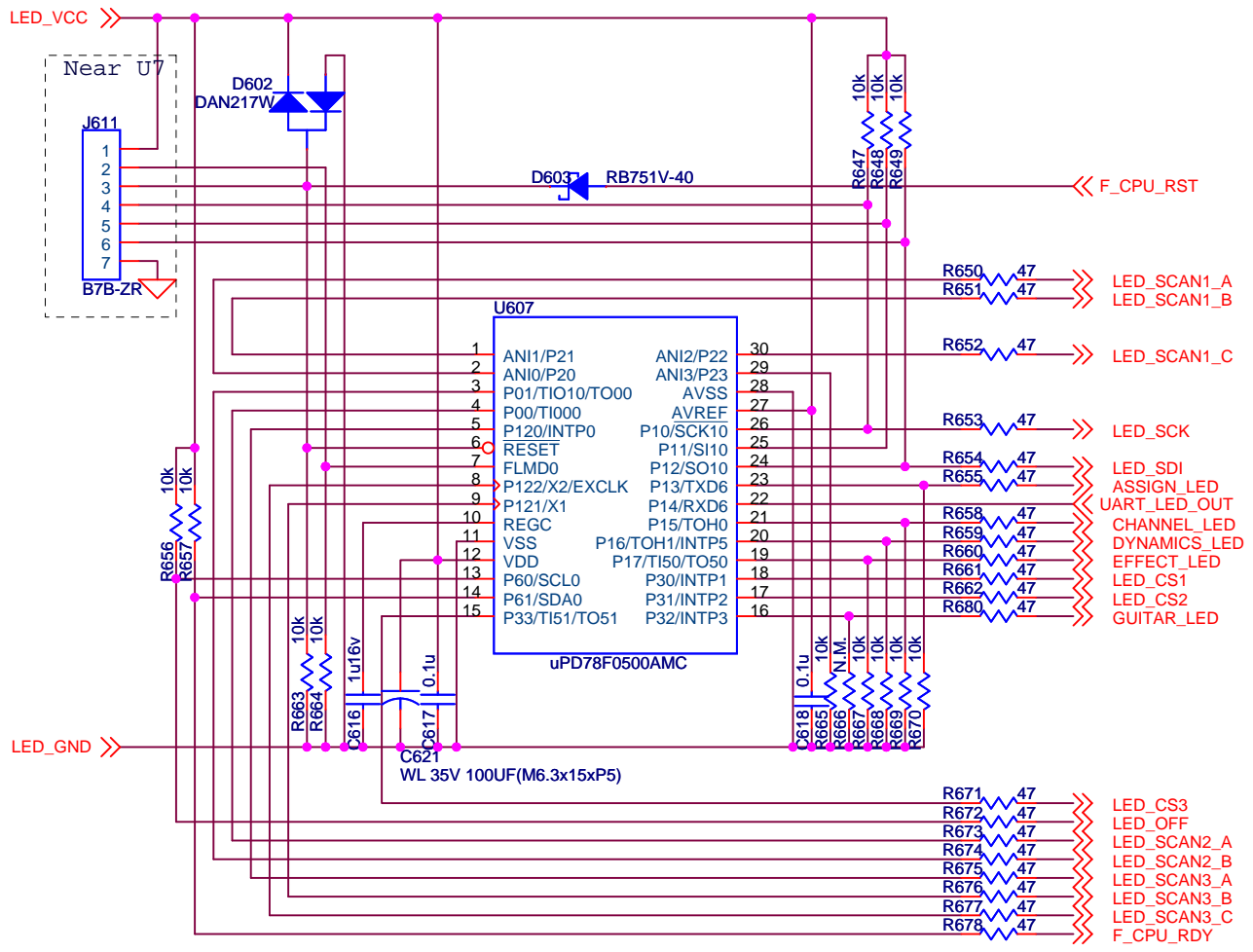
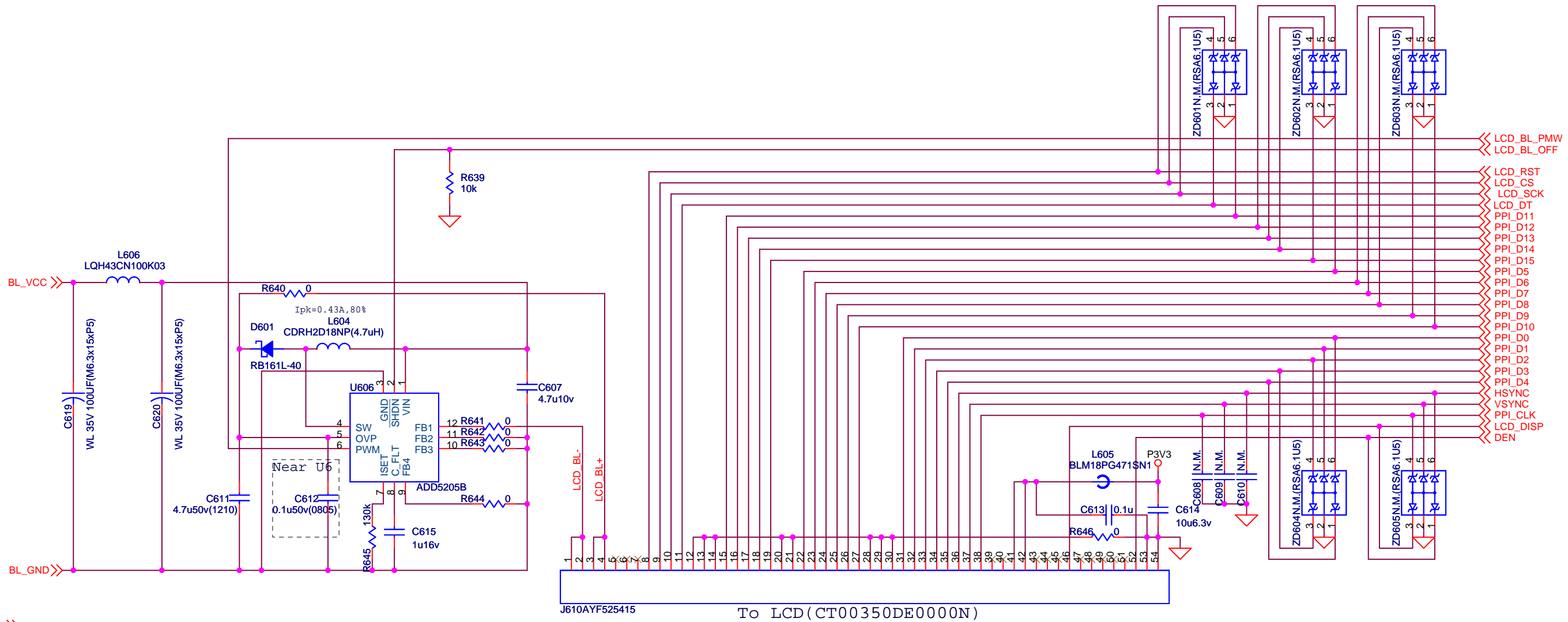
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REV	E.C.N. NO.	DATE	PLANNED	APPROVED	DWG TITLE 図名 SCHEMATIC, PCB INPUT DP24 G			
APPROVED		. .	UNIT mm		DWG NO. 図番			
CHECKED		. .	ANGLE		DWG CODE			
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DRAWN	shida	12.03.21						

D002590-01A



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					DWG TITLE 図名		SCHEMATIC,PCB JOINT DP24 G	
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REV	E.C.N. NO.	DATE	PLANNED	APPROVED	UNIT mm			
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CHECKED					SCALE			
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DRAWN	shida	12.03.21						

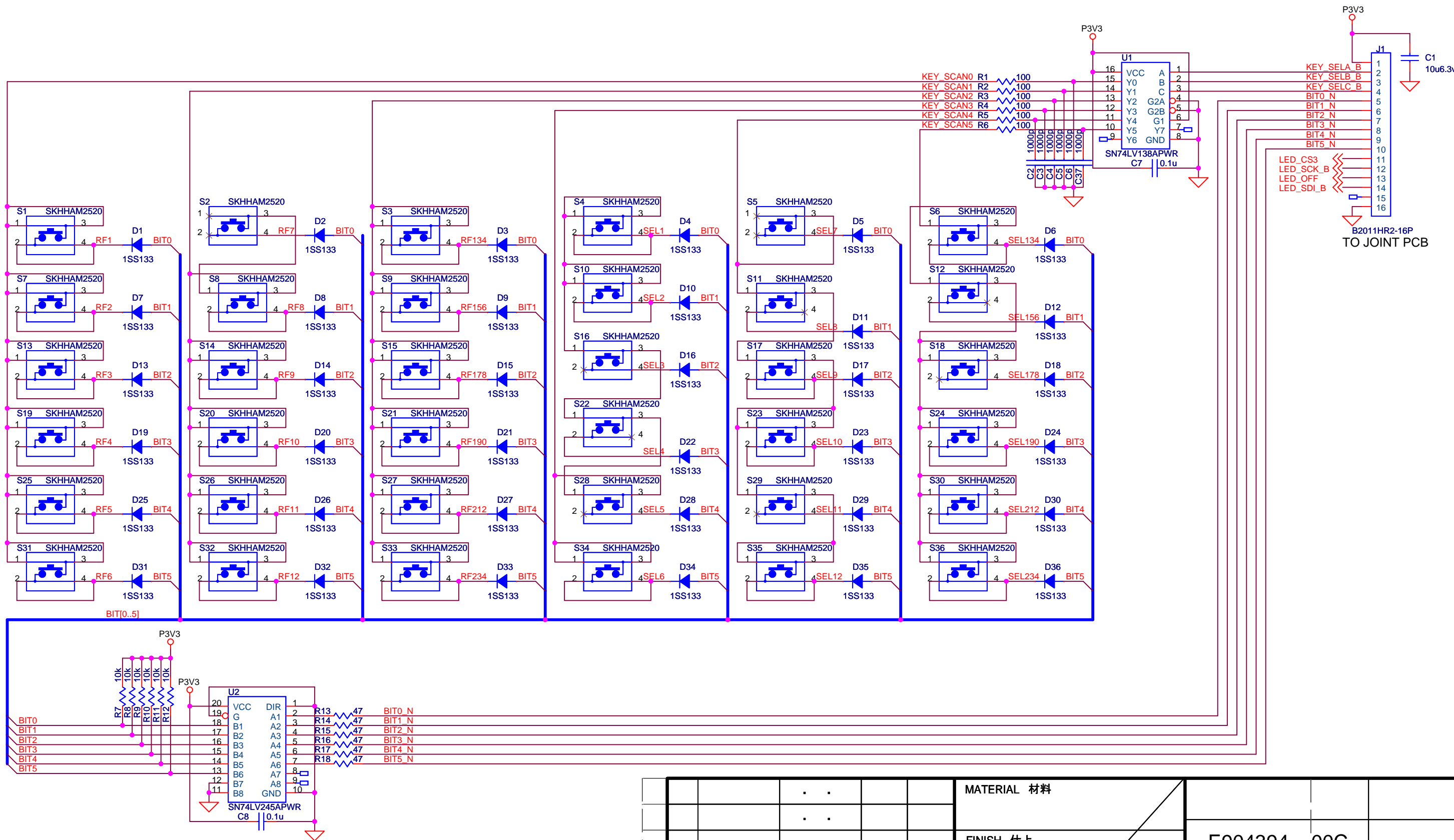
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REV	E.C.N. NO.	DATE	PLANNED	APPROVED
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DRAWN	shida	12.03.21		

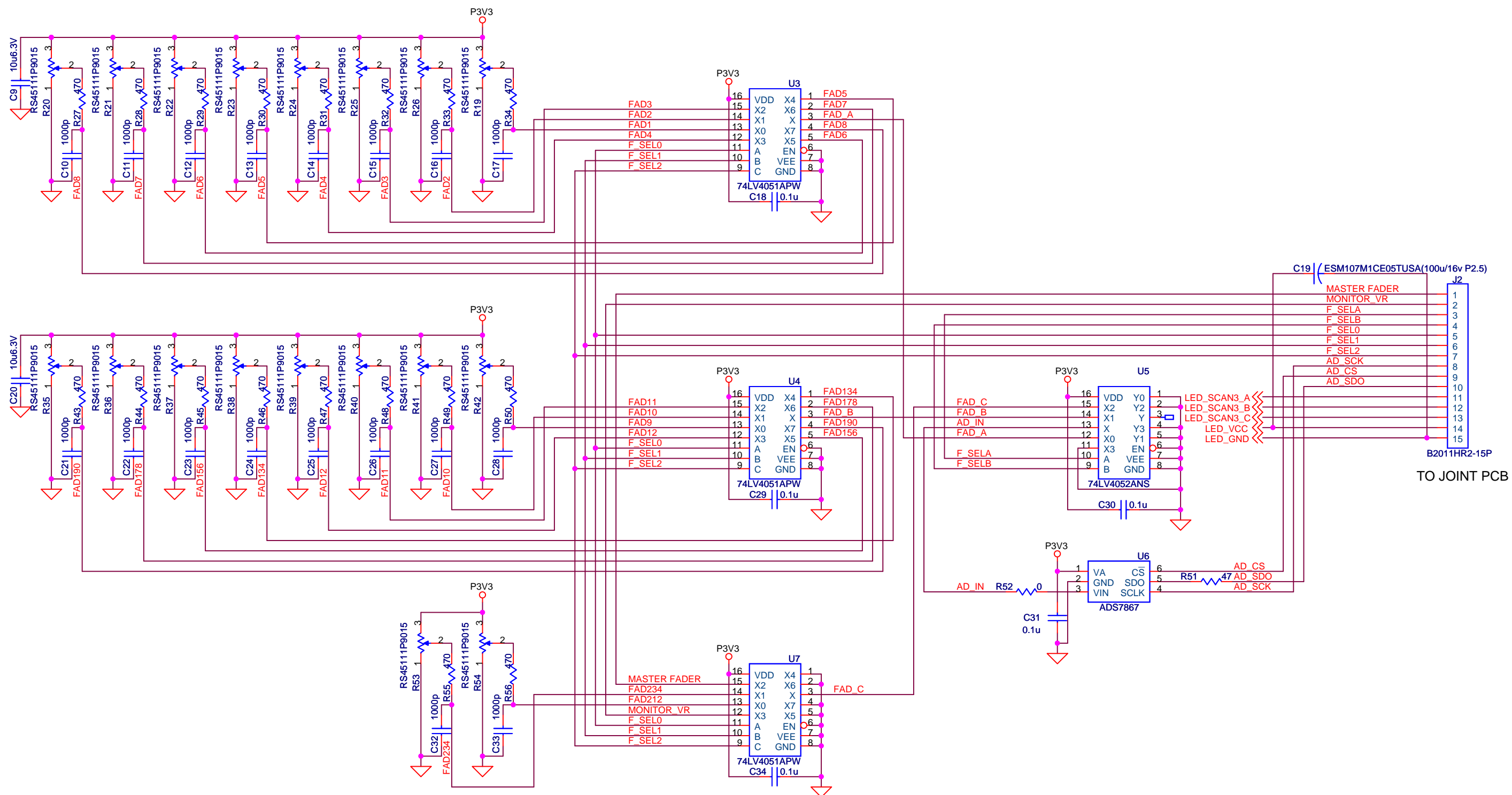
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E904388	00B
PART NO. 品番	APPLICATION 適用
PART TITLE 品名	
PCB,JOINT DP24 G	
DWG TITLE 図名	
SCHEMATIC,PCB JOINT DP24 G	
DWG NO. 図番	DWG CODE
	B



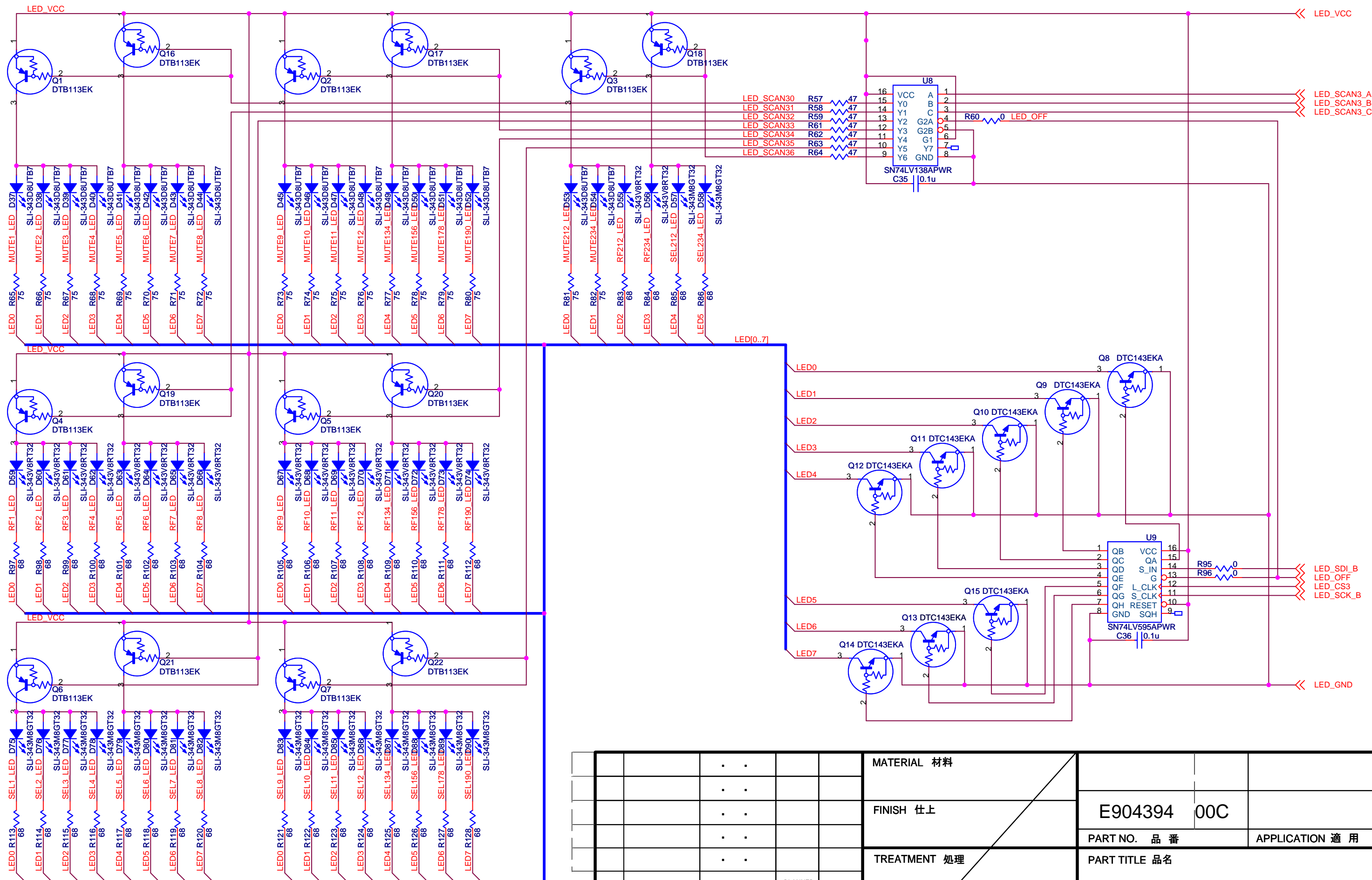
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					DWG TITLE		SCHEMATIC,PCB PANEL L DP24 G	
					DWG NO. 図番		DWG CODE	
					B			

REV	E.C.N. NO.	DATE	PLANNED	APPROVED
APPROVED			UNIT mm	
CHECKED			ANGLE	
PLANNED	shida	12.03.21	SCALE	
DRAWN	shida	12.03.21		

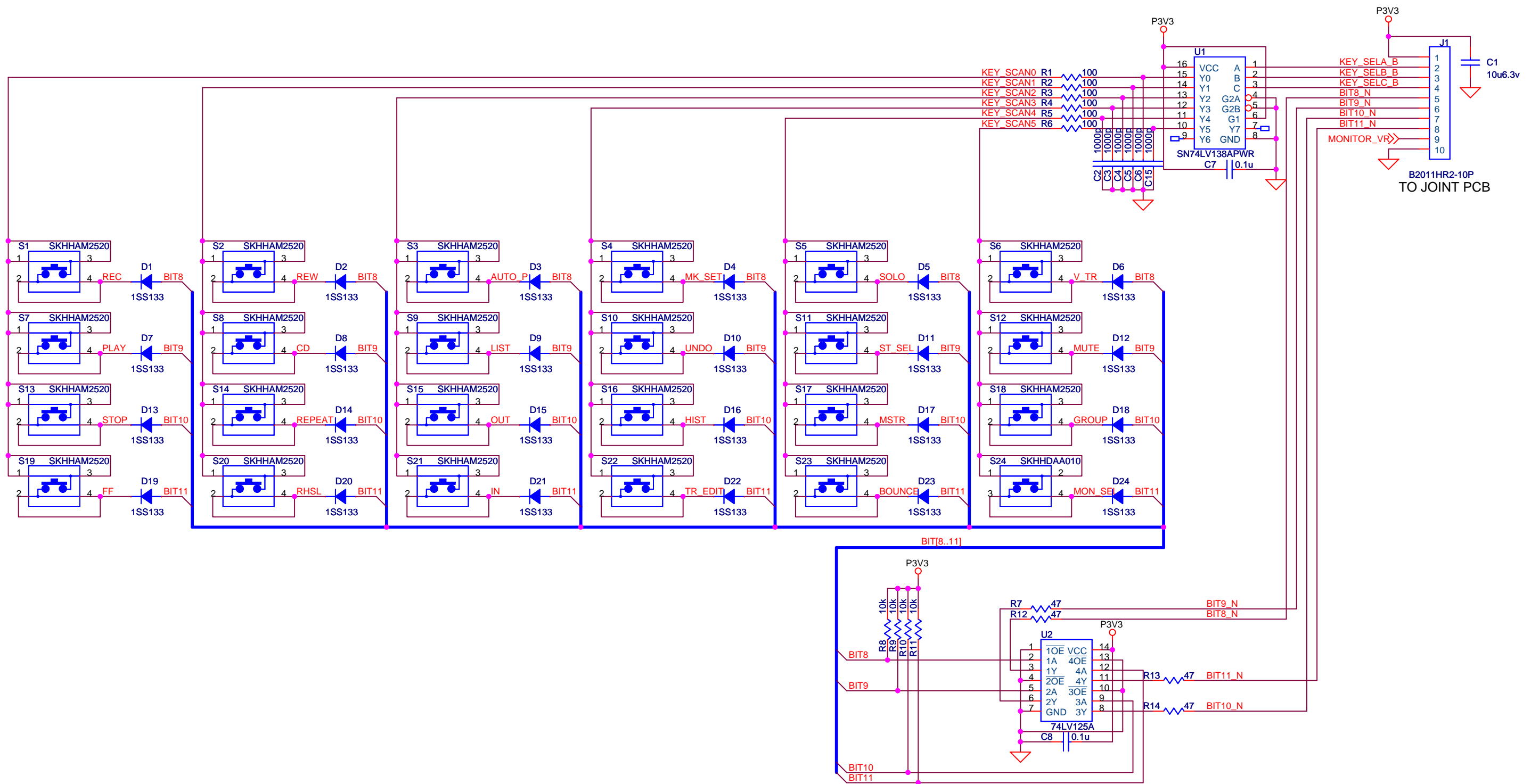


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					TOLERANCE 公差		PART TITLE 品名	
REV	E.C.N. NO.	DATE	PLANNED	APPROVED	TS-E		PCB,PANEL L DP24 G	
APPROVED			UNIT mm		DWG TITLE		SCHEMATIC,PCB PANEL L DP24 G	
CHECKED			ANGLE		DWG NO.		DWG CODE	
PLANNED	shida	12.03.21	SCALE		図番		B	
DRAWN	shida	12.03.21						

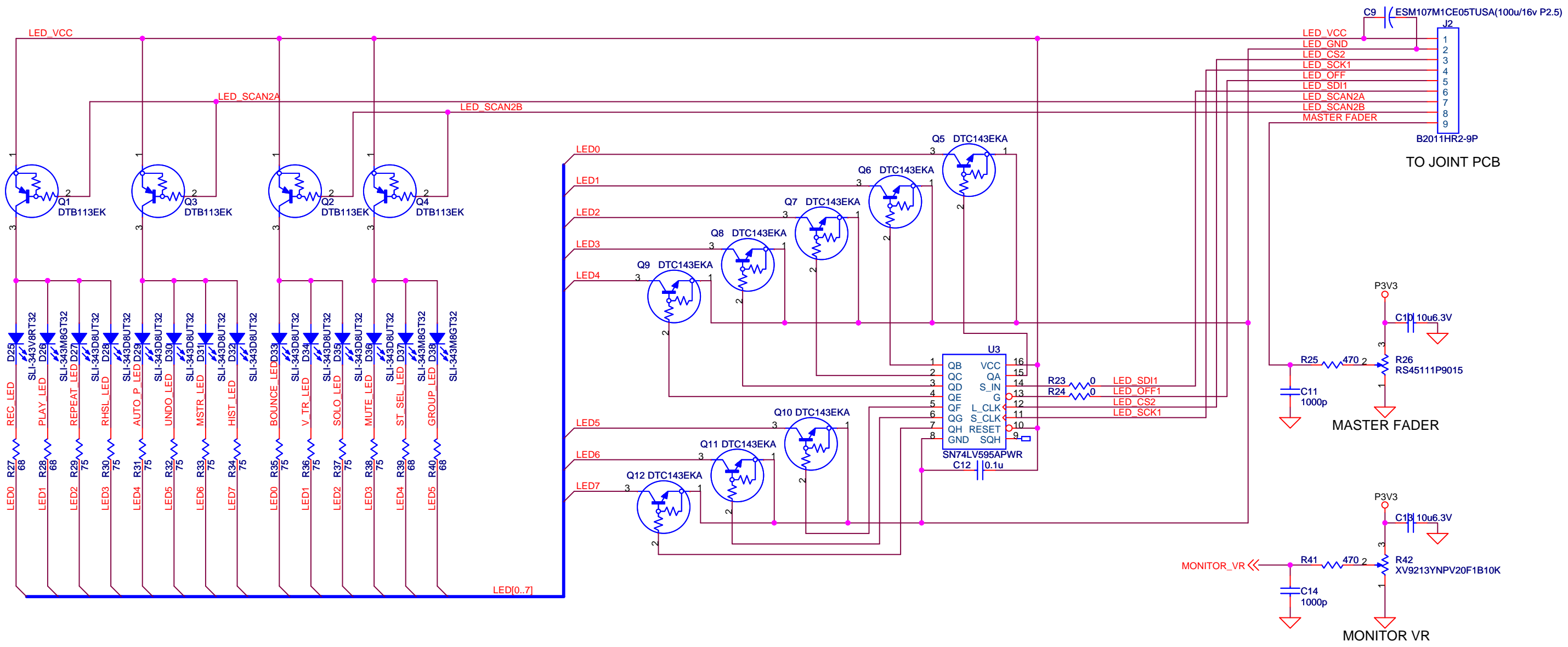
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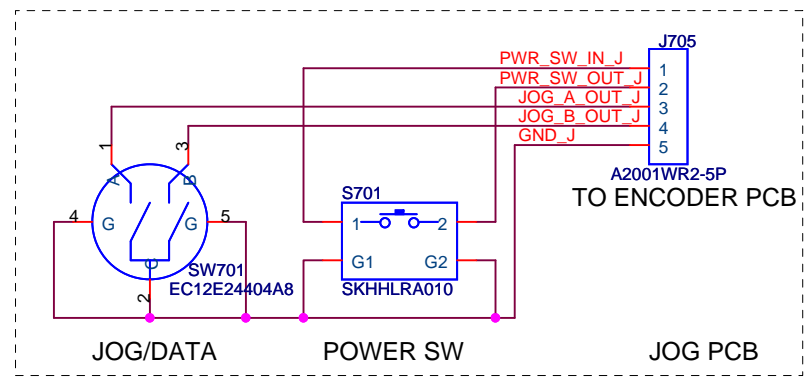
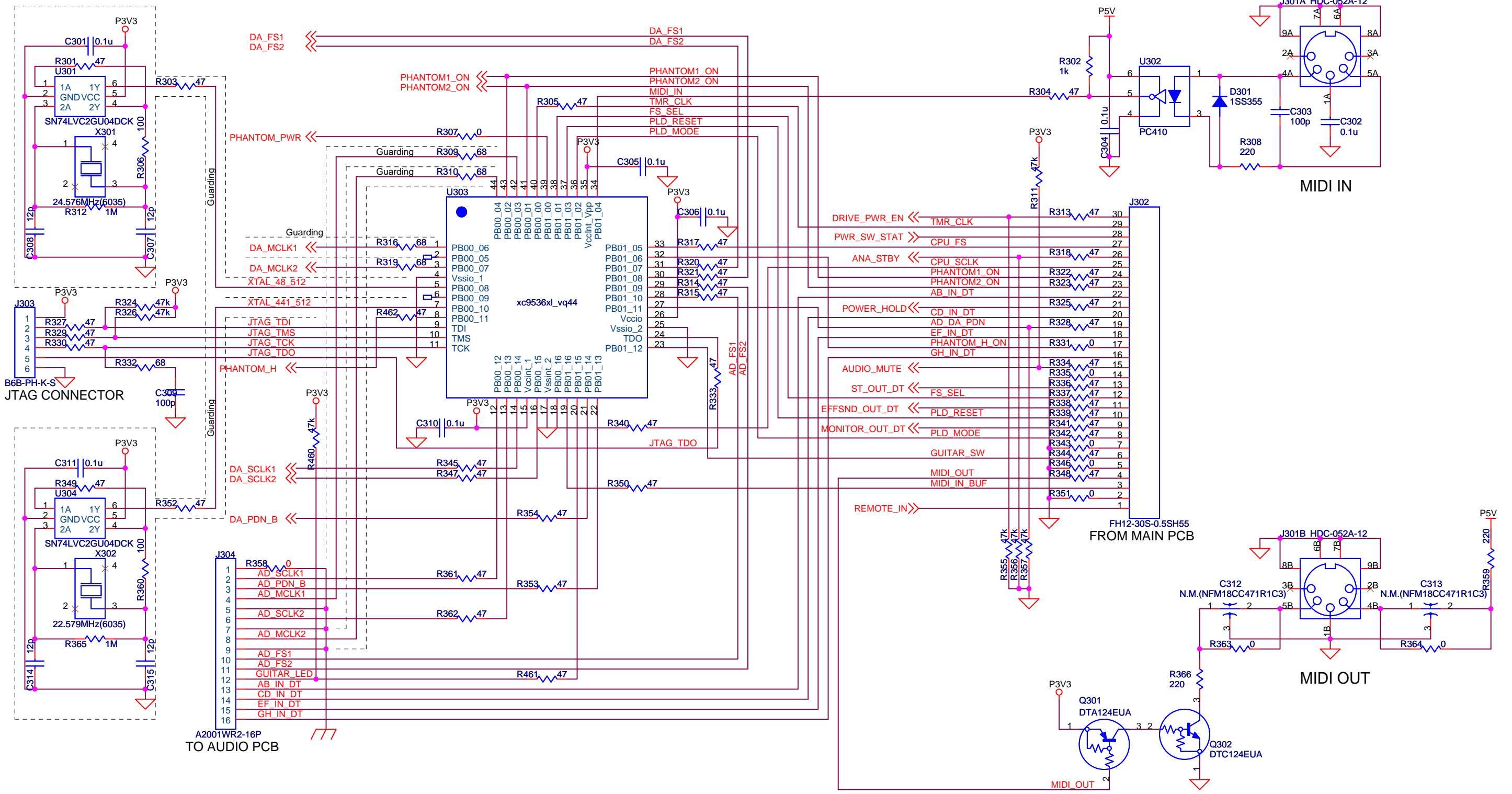
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CHECKED		. .	ANGLE		図名 SCHEMATIC,PCB PANEL L DP24 G			
PLANNED	shida	12.03.21	SCALE		DWG NO.			
DRAWN	shida	12.03.21			図番			
					TS-E		DWG CODE	
							B	



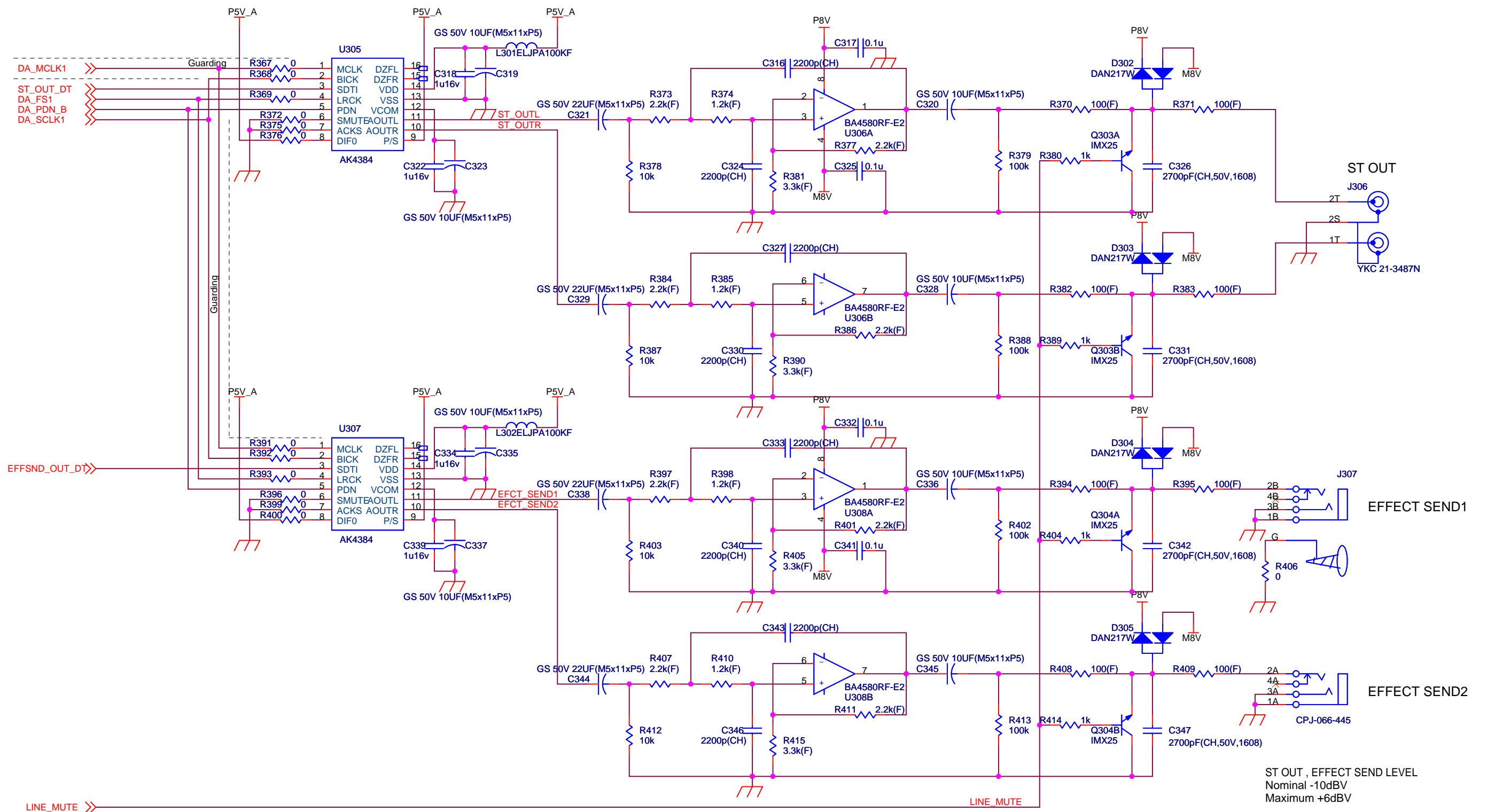
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CHECKED		. .	ANGLE		DWG TITLE		
PLANNED	shida	12.03.21	SCALE		図名 SCHEMATIC,PCB PANEL R DP24 G		
DRAWN	shida	12.03.21			DWG NO. 図番		DWG CODE B



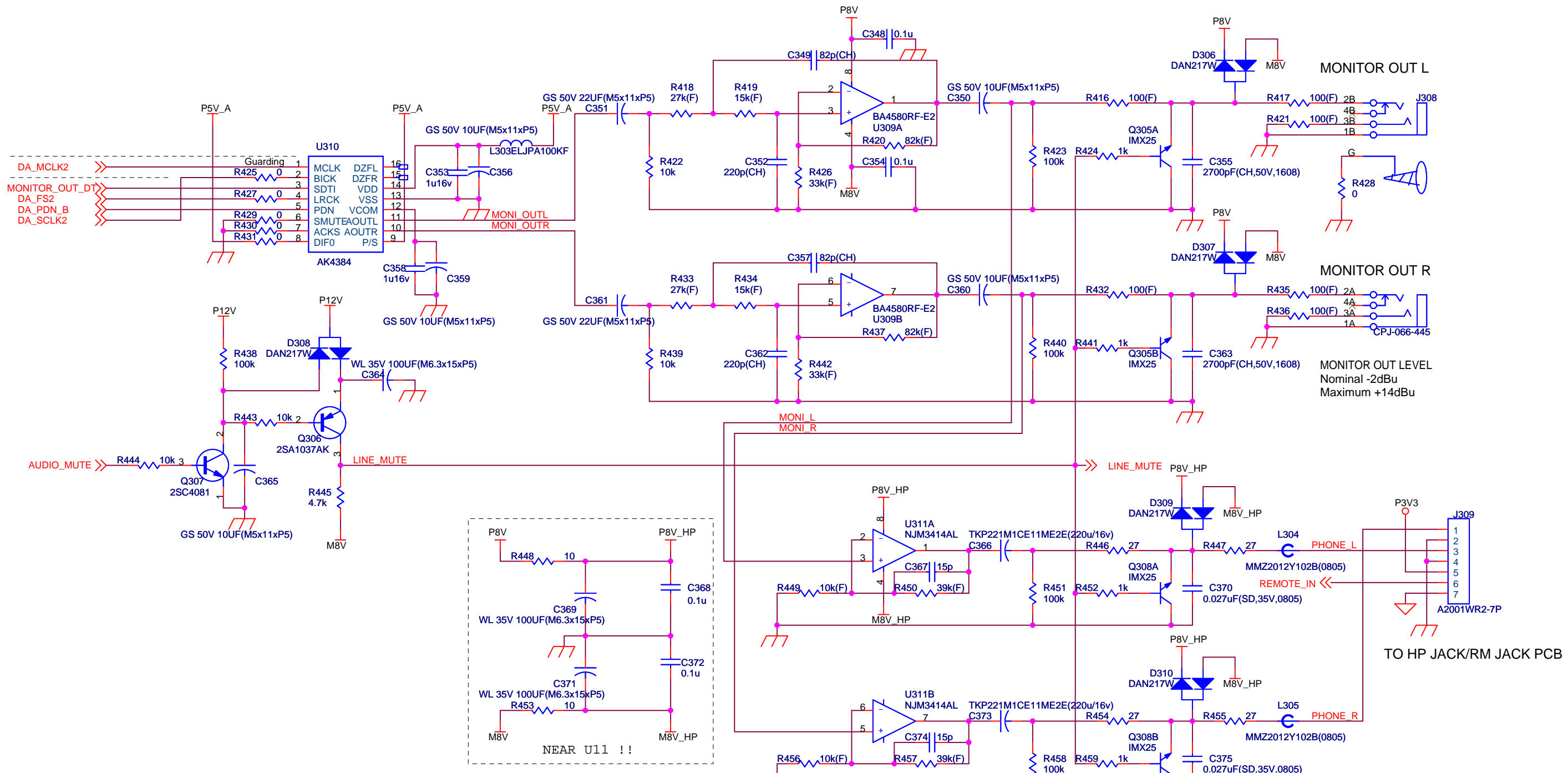
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CHECKED		. .	ANGLE		DWG TITLE		
PLANNED	shida	12.03.21	SCALE		図名 SCHEMATIC,PCB PANEL R DP24 G		
DRAWN	shida	12.03.21			DWG NO. 図番		DWG CODE B



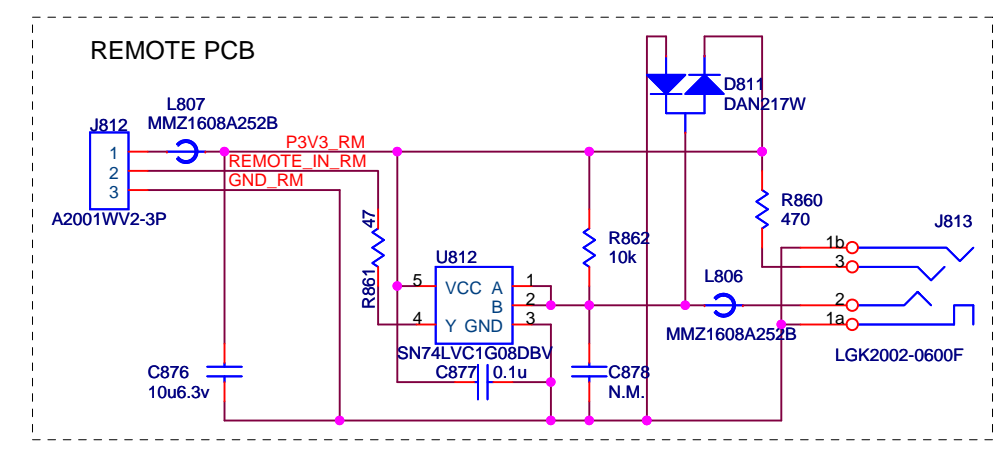
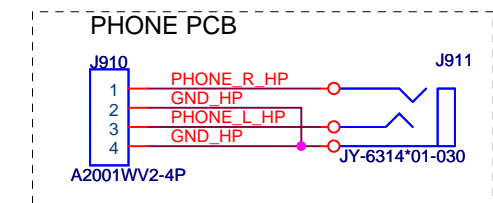
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REV	E.C.N. NO.	DATE	PLANNED	APPROVED	DWG TITLE				
APPROVED			UNIT mm		図名 SCHEMATIC,PCB POWER DP24 G				
CHECKED			ANGLE		DWG NO.				
PLANNED	shida	12.03.21	SCALE		図番				
DRAWN	shida	12.03.21			DWG CODE				
								B	



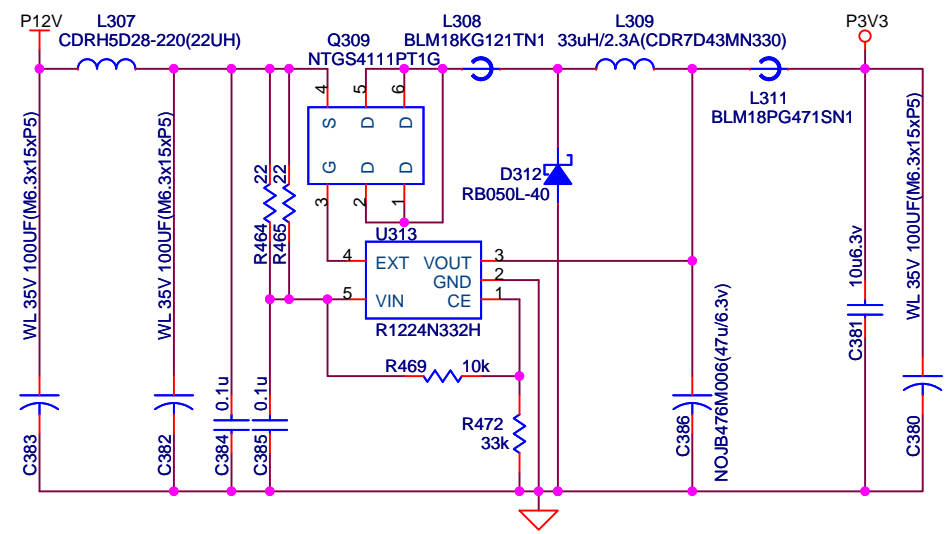
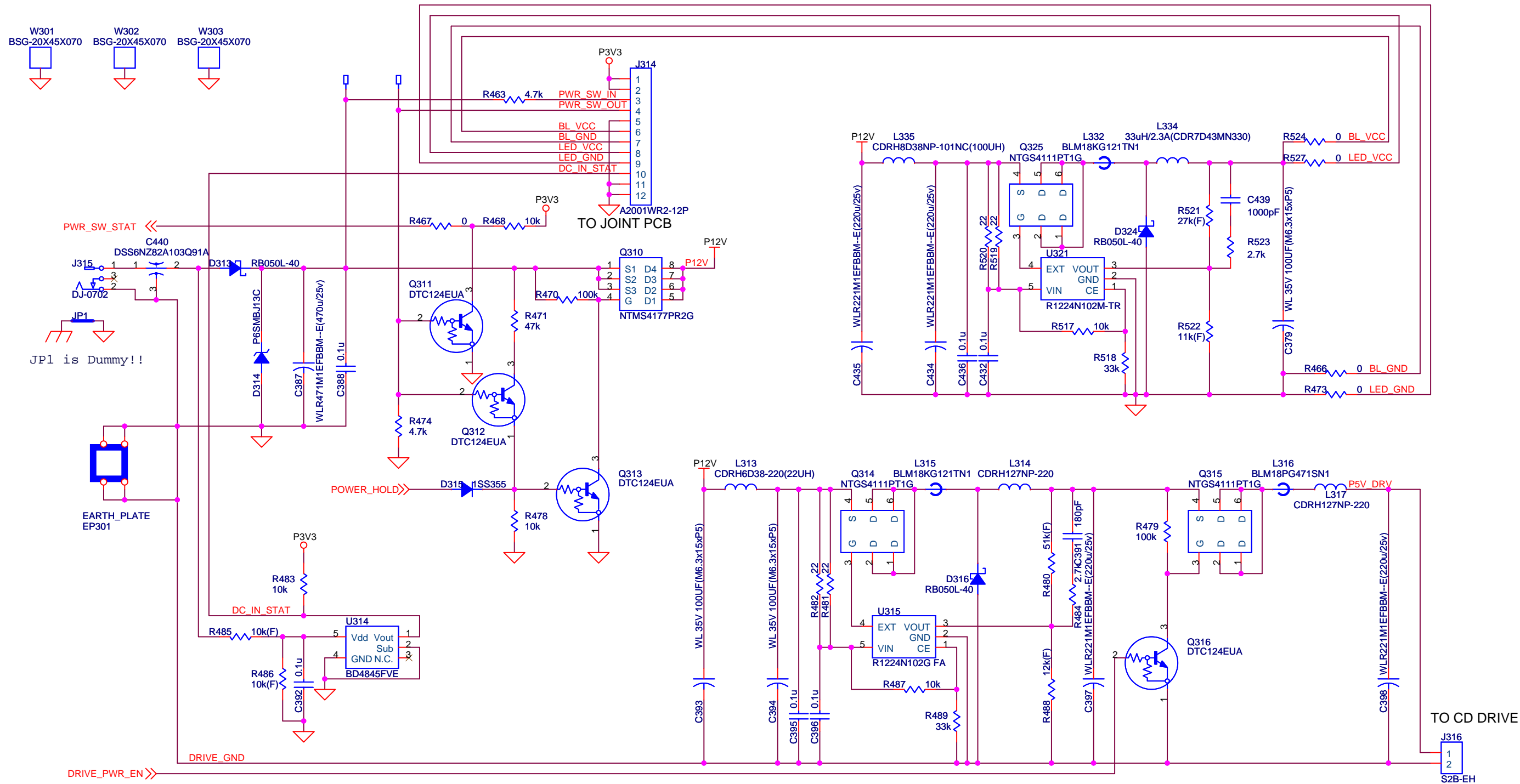
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APPROVED					UNIT mm		DWG TITLE	
CHECKED					ANGLE		図名 SCHEMATIC,PCB POWER DP24 G	
PLANNED	shida	12.03.21			SCALE		DWG NO.	
DRAWN	shida	12.03.21					図番	
							DWG CODE	
							B	



MONITOR OUT LEVEL  
Nominal -2dBu  
Maximum +14dBu

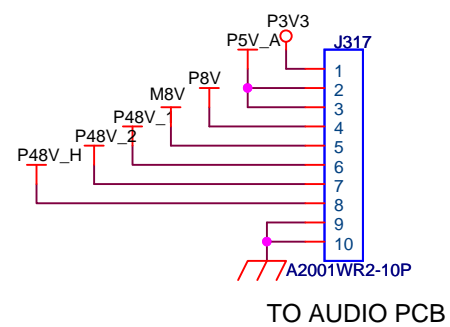
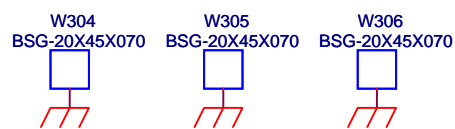
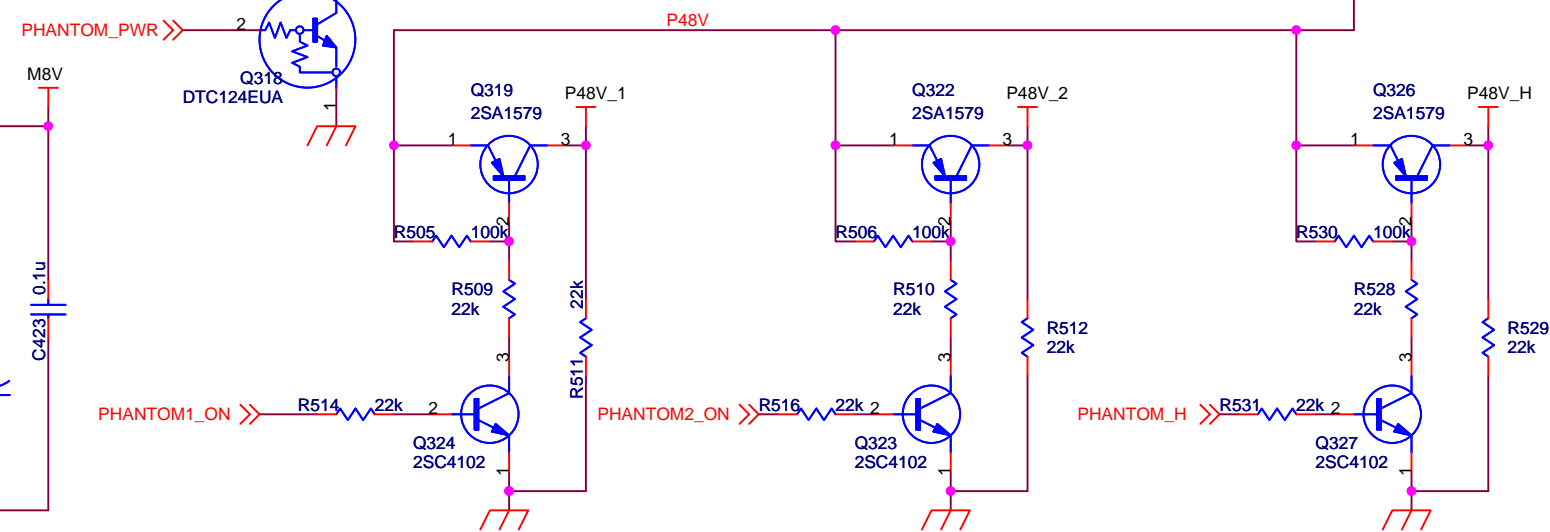
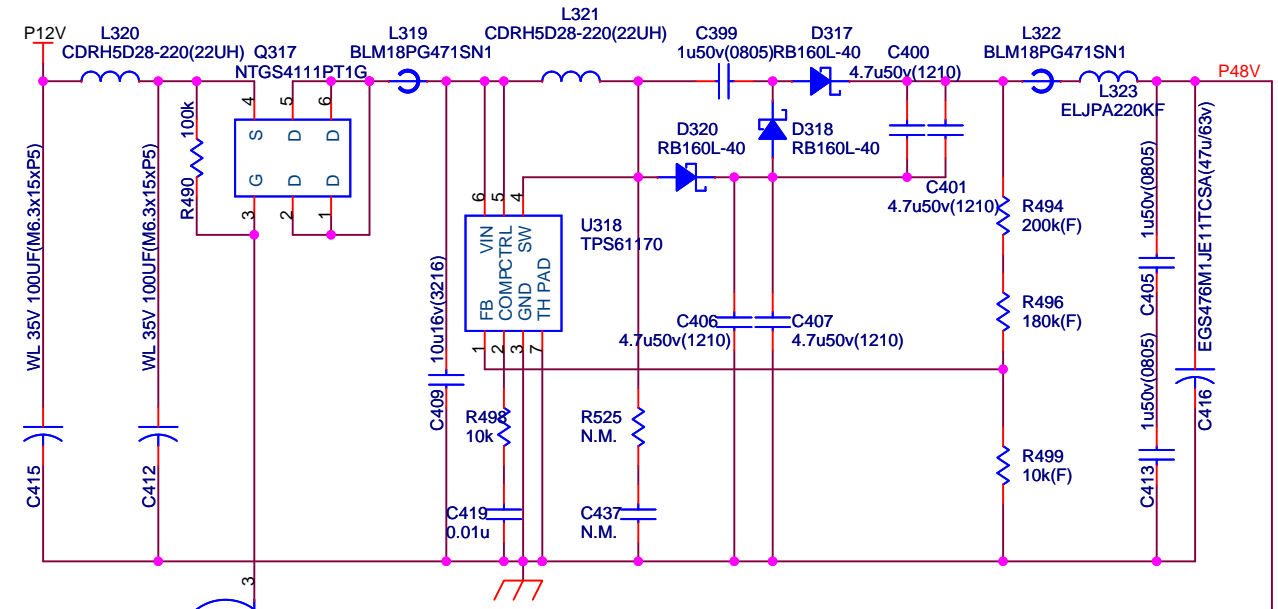
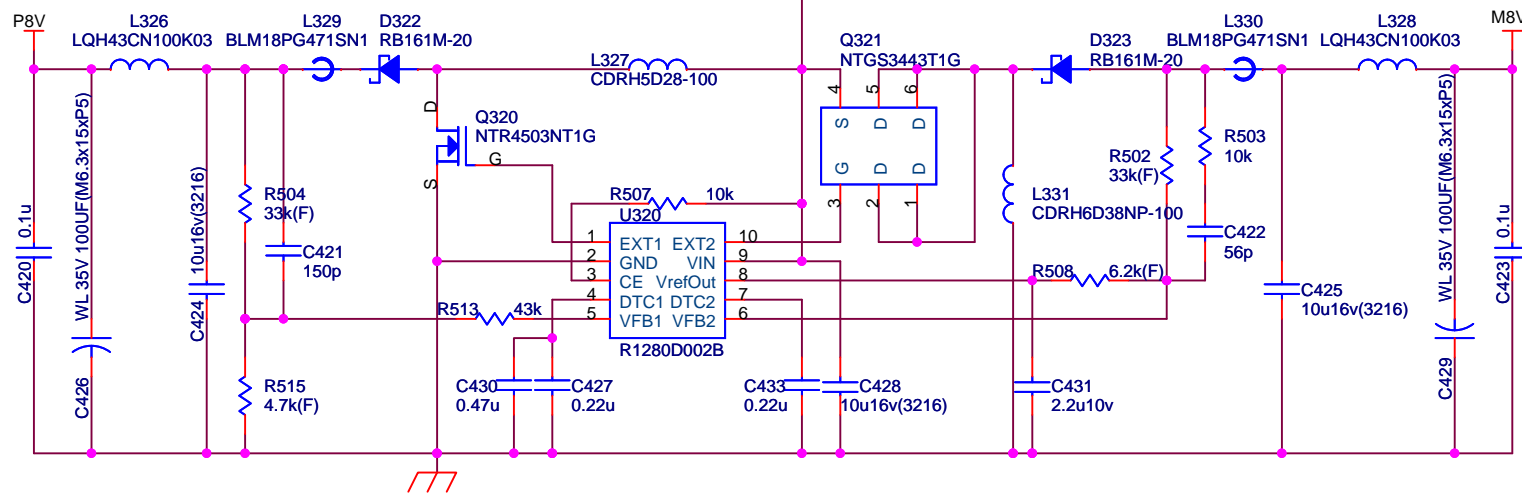
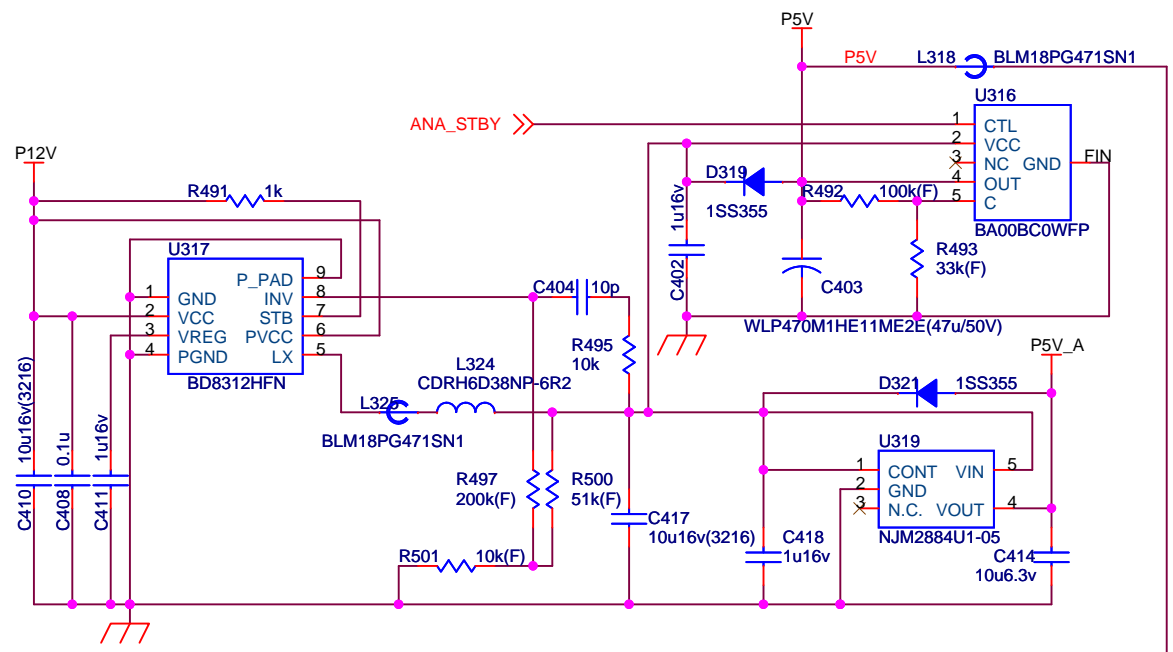


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					SCALE		B	
REV	E.C.N. NO.	DATE	PLANNED	APPROVED				
APPROVED			UNIT mm					
CHECKED			ANGLE					
PLANNED	shida	12.03.21	SCALE					
DRAWN	shida	12.03.21						



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					DWG TITLE 図名		SCHEMATIC,PCB POWER DP24 G	
					DWG NO. 図番		DWG CODE	
							B	

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					TOLERANCE 公差		PART TITLE 品名	
REV	E.C.N. NO.	DATE	PLANNED	APPROVED	TS-E		PCB,POWER DP24 G	
APPROVED		.	UNIT mm		DWG TITLE		図名 SCHEMATIC,PCB POWER DP24 G	
CHECKED		.	ANGLE		DWG NO.		図番	
PLANNED	shida	12.03.21	SCALE		DWG CODE		B	
DRAWN	shida	12.03.21						

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## Notice

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Always use the most recent firmware for this device. Please visit the TASCAM web site (<http://tascam.com>) to check for the latest firmware.

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## New functions

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### V1.10 addition

- 24-bit songs can now be used to write CD-DA discs. When you select a 24-bit master file, it will automatically be converted to 16-bit when writing a CD-DA.
- 48kHz songs can now be used to write CD-DA discs. Inclusion of the TASCAM Multi-Stage Sampling rate converter (TMSS) enables the creation of high-quality CD-DA discs. When you select a 48kHz master file, it will automatically be converted to 44.1kHz when writing a CD-DA.
- A meter peak hold function has been added. The addition of peak level hold indications enables you to check levels visually with greater ease.
- Track editing in subframe units is now possible. You can locate and set IN and OUT points using subframe units.
- This model can now read songs created by a DP-32. However, when a song created by a DP-32 is loaded, only tracks 1–24 will be loaded.
- In order to comply with the European Standby Power Regulation (ErP), an automatic power saving function has been added. By default, the automatic power saving function is set to 30 minutes, and the unit will automatically turn OFF (enter standby) after 30 minutes pass without operation or other use.

For details about using these new functions, see the DP-24 Owner's Manual addenda.

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## Maintenance items

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### V1.12 changes

- When using the LIVE WRITER function, CDs were not created properly sometimes. This has been fixed.
  - On the track editing screen, the subframe (1/10 frame) positions of IN, OUT and TO points were not displayed correctly. This has been fixed.
- 

### V1.11 changes

- Under the following conditions, the input, track and equalizer settings would be initialized. This has been fixed.
  - When saving from the Home Screen

- When shutting down (including by the automatic power saving function)
  - When switching to mixdown mode
  - When making a USB connection
  - When executing an item from the SONG menu
  - When executing an item from the CD menu
  - When loading a song created in a version before version 1.10
  - With certain equalizer settings, the frequency display could become abnormal on the Mixer screen. This has been fixed.
  - After deleting a virtual track from a stereo track (13/14–23/24), using the undo function did not restore the state before it was deleted. This has been fixed.
- 

### V1.10 changes

- Accurate measurement was not possible when you tried to use the tuner function when a song with a 48kHz sampling rate was loaded. This has been fixed.
  - If you stopped recording immediately after punching in, the unit would freeze sometimes. This has been fixed.
  - Operation stability has been improved.
- 

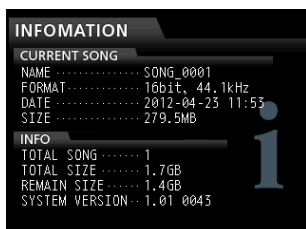
### V1.02 changes

- Some WAV format files were not recognized. This has been fixed.
- When MMC mode was set to SLAVE, MMC REC commands were not always received. This has been fixed.
- When the MIDI GENERATOR was set to MTC, synchronization was sometimes lost. The stability of MTC GENERATOR output has been improved.
- Playback could become unstable after recording a 24-bit, 44.1kHz song using punch-in and punch-out. This has been fixed.
- When using CD Writer to change song order, sometimes canceling a change would not be reflected correctly in the track order. This has been fixed.
- The REMAIN indicator shown in Mixdown and Mastering modes is now calculated for recording stereo WAV Files.
- Waveforms were not always displayed correctly when zoomed in or out. This has been fixed.
- Values shown in the EQ pop-up were sometimes incorrect. This has been fixed.
- On the MIXER screen, more effects could be added then are supported by the unit. This has been fixed.
- In addition, other improvements to operation stability have been made.

## Checking the firmware version

Check the firmware version of your DP-24 before conducting a firmware update.

1. Turn the unit's power ON.
2. Press the **MENU** button to open the MENU screen.
3. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **INFORMATION** menu (selected item appears green), and press the **F4** (▶) button to open the **INFORMATION** screen.



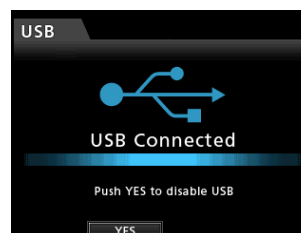
You do not need to update the unit's firmware if the **SYSTEM VERSION** shown here is the same as or newer than the version that you intend to use for the update.

## Firmware updating procedures

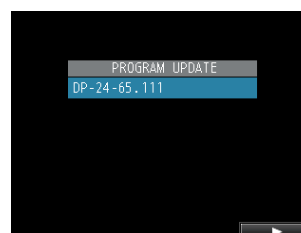
1. Download the most recent firmware from the TASCAM web site (<http://tascam.com>). If the file is downloaded in a compressed format such as ZIP, uncompress the file.
2. Use the USB cable to connect the unit with the computer and turn the power ON.
3. Press the **MENU** button to open the MENU screen.
4. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **USB** menu (selected item appears green), and press the **F4** (▶) button to open the **USB** screen.



5. Press the **F2** (**YES**) button to connect the unit with the computer by USB. The following USB screen appears on the unit, and the unit should be recognized by the computer as an external drive (storage device).



6. Copy the downloaded firmware (the V1.11 file is named "DP-24-65.111") to the **UTILITY** folder on the DP-24.
7. After the file has been copied, press the **F2** (**YES**) button to end the USB connection with the computer. The Home screen automatically reopens after the connection ends.
8. Turn the unit's power OFF.
9. While pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the power ON again. The unit starts in update mode, and the file that will be used for the update is shown on the screen.



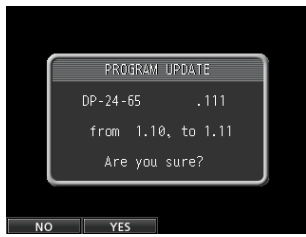
### CAUTION

- If this screen does not appear, turn the power OFF. Then, while pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the unit's power ON again. Continue to press and hold the **MUTE** and **UNDO/REDO** buttons firmly until this screen appears.
- When firmware has been copied to this unit's **UTILITY** folder from a Mac, in addition to the firmware file itself, another file with "\_" added to the beginning of the firmware name is also shown. Use the file without the "\_" at the beginning of the name.

### NOTE

- This screen shows a list of the firmware update files inside the **UTILITY** folder of the unit, including the firmware copied in step 6 above. If there is no update file in the **UTILITY** folder, "No Update File" appears.
- The screen shown above is an example. The actual display might differ.

10. Use the **JOG** dial to select the firmware, and press the **F4 (▶)** button to open the following screen.



The current version appears on the left and the updated version appears on the right.

**NOTE**

- *The screen shown above is an example. The actual display might differ.*
11. Press the **F2 (YES)** button to start the update.
  12. When the update finishes, "Complete." appears on the screen and the power turns OFF automatically. Turn the power ON again.
  13. Refer to "Checking the firmware version" above and confirm that the **SYSTEM VERSION** is the latest firmware.  
This completes the procedure for updating this unit.
  14. Connect to a computer with USB and delete the firmware update from the unit's **UTILITY** folder.

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## Notice

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Always use the most recent firmware for this device. Please visit the TEAC Global Site (<http://teac-global.com/>) to check for the latest firmware.

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## New functions

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### V1.10 addition

- 24-bit songs can now be used to write CD-DA discs. When you select a 24-bit master file, it will automatically be converted to 16-bit when writing a CD-DA.
- 48kHz songs can now be used to write CD-DA discs. Inclusion of the TASCAM Multi-Stage Sampling rate converter (TMSS) enables the creation of high-quality CD-DA discs. When you select a 48kHz master file, it will automatically be converted to 44.1kHz when writing a CD-DA.
- A meter peak hold function has been added. The addition of peak level hold indications enables you to check levels visually with greater ease.
- Track editing in subframe units is now possible. You can locate and set IN and OUT points using subframe units.
- This model can now read songs created by a DP-32. However, when a song created by a DP-32 is loaded, only tracks 1–24 will be loaded.
- In order to comply with the European Standby Power Regulation (ErP), an automatic power saving function has been added. By default, the automatic power saving function is set to 30 minutes, and the unit will automatically turn OFF (enter standby) after 30 minutes pass without operation or other use.

For details about using these new functions, see the DP-24 Owner's Manual addenda.

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## Maintenance items

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### V1.14 change

- MIDI time code would be output 1 frame late in some cases. This has been fixed.

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### V1.12 changes

- When using the LIVE WRITER function, CDs were not created properly sometimes. This has been fixed.
- On the track editing screen, the subframe (1/10 frame) positions of IN, OUT and TO points were not displayed correctly. This has been fixed.

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### V1.11 changes

- Under the following conditions, the input, track and equalizer settings would be initialized. This has been fixed.
  - When saving from the Home Screen
  - When shutting down (including by the automatic power saving function)
  - When switching to mixdown mode
  - When making a USB connection
  - When executing an item from the SONG menu
  - When executing an item from the CD menu
  - When loading a song created in a version before version 1.10
- With certain equalizer settings, the frequency display could become abnormal on the Mixer screen. This has been fixed.
- After deleting a virtual track from a stereo track (13/14–23/24), using the undo function did not restore the state before it was deleted. This has been fixed.

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### V1.10 changes

- Accurate measurement was not possible when you tried to use the tuner function when a song with a 48kHz sampling rate was loaded. This has been fixed.
- If you stopped recording immediately after punching in, the unit would freeze sometimes. This has been fixed.
- Operation stability has been improved.

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### V1.02 changes

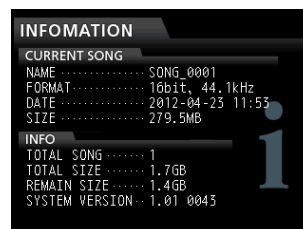
- Some WAV format files were not recognized. This has been fixed.
- When MMC mode was set to SLAVE, MMC REC commands were not always received. This has been fixed.

- When the MIDI GENERATOR was set to MTC, synchronization was sometimes lost. The stability of MTC GENERATOR output has been improved.
- Playback could become unstable after recording a 24-bit, 44.1kHz song using punch-in and punch-out. This has been fixed.
- When using CD Writer to change song order, sometimes canceling a change would not be reflected correctly in the track order. This has been fixed.
- The REMAIN indicator shown in Mixdown and Mastering modes is now calculated for recording stereo WAV Files.
- Waveforms were not always displayed correctly when zoomed in or out. This has been fixed.
- Values shown in the EQ pop-up were sometimes incorrect. This has been fixed.
- On the MIXER screen, more effects could be added than are supported by the unit. This has been fixed.
- In addition, other improvements to operation stability have been made.

## Checking the firmware version

Check the firmware version of your DP-24 before conducting a firmware update.

1. Turn the unit's power ON.
2. Press the **MENU** button to open the MENU screen.
3. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **INFORMATION** menu (selected item appears green), and press the **F4** (▶) button to open the **INFORMATION** screen.



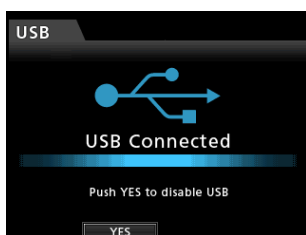
You do not need to update the unit's firmware if the **SYSTEM VERSION** shown here is the same as or newer than the version that you intend to use for the update.

## Firmware updating procedures

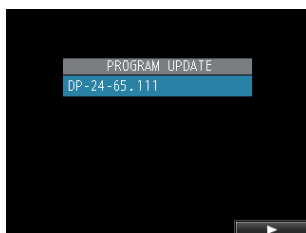
1. Download the most recent firmware from the TEAC Global Site (<http://teac-global.com/>). If the file is downloaded in a compressed format such as ZIP, uncompress the file.
2. Use the USB cable to connect the unit with the computer and turn the power ON.
3. Press the **MENU** button to open the MENU screen.
4. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **USB** menu (selected item appears green), and press the **F4** (▶) button to open the **USB** screen.



- Press the **F2 (YES)** button to connect the unit with the computer by USB.  
The following USB screen appears on the unit, and the unit should be recognized by the computer as an external drive (storage device).



- Copy the downloaded firmware (the V1.11 file is named "DP-24-65.111") to the UTILITY folder on the DP-24.
- After the file has been copied, press the **F2 (YES)** button to end the USB connection with the computer.  
The Home screen automatically reopens after the connection ends.
- Turn the unit's power OFF.
- While pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the power ON again. The unit starts in update mode, and the file that will be used for the update is shown on the screen.



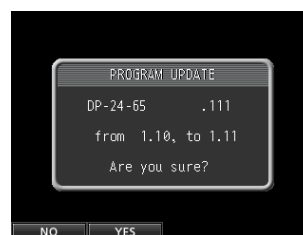
### CAUTION

- If this screen does not appear, turn the power OFF. Then, while pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the unit's power ON again. Continue to press and hold the **MUTE** and **UNDO/REDO** buttons firmly until this screen appears.
- When firmware has been copied to this unit's UTILITY folder from a Mac, in addition to the firmware file itself, another file with "\_" added to the beginning of the firmware name is also shown. Use the file without the "\_" at the beginning of the name.

### NOTE

- This screen shows a list of the firmware update files inside the UTILITY folder of the unit, including the firmware copied in step 6 above. If there is no update file in the UTILITY folder, "No Update File" appears.
- The screen shown above is an example. The actual display might differ.

- Use the **JOG** dial to select the firmware, and press the **F4 (▶)** button to open the following screen.



The current version appears on the left and the updated version appears on the right.

### NOTE

- The screen shown above is an example. The actual display might differ.
- Press the **F2 (YES)** button to start the update.
  - When the update finishes, "Complete." appears on the screen and the power turns OFF automatically. Turn the power ON again.
  - Refer to "Checking the firmware version" above and confirm that the **SYSTEM VERSION** is the latest firmware.  
This completes the procedure for updating this unit.
  - Connect to a computer with USB and delete the firmware update from the unit's UTILITY folder.

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## Notice

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Always use the most recent firmware for this device. Please visit the TEAC Global Site (<http://teac-global.com/>) to check for the latest firmware.

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## New functions

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### V1.10 addition

- 24-bit songs can now be used to write CD-DA discs. When you select a 24-bit master file, it will automatically be converted to 16-bit when writing a CD-DA.
- 48kHz songs can now be used to write CD-DA discs. Inclusion of the TASCAM Multi-Stage Sampling rate converter (TMSS) enables the creation of high-quality CD-DA discs. When you select a 48kHz master file, it will automatically be converted to 44.1kHz when writing a CD-DA.
- A meter peak hold function has been added. The addition of peak level hold indications enables you to check levels visually with greater ease.
- Track editing in subframe units is now possible. You can locate and set IN and OUT points using subframe units.
- This model can now read songs created by a DP-32. However, when a song created by a DP-32 is loaded, only tracks 1–24 will be loaded.
- In order to comply with the European Standby Power Regulation (ErP), an automatic power saving function has been added. By default, the automatic power saving function is set to 30 minutes, and the unit will automatically turn OFF (enter standby) after 30 minutes pass without operation or other use.

For details about using these new functions, see the DP-24 Owner's Manual addenda.

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## Maintenance items

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### V1.15 changes

- In auto punch mode, recording sometimes started before the IN point. This has been fixed.
- A very brief noise sometimes occurred after editing. This has been fixed.
- When files created on different devices were imported, a noise sometimes occurred at their ends. This has been fixed.
- Noise sometimes occurred during playback depending on the playback starting point. This has been fixed.
- When set to BAR display, editing would sometimes result in the beat becoming inaccurate. This has been fixed.
- An insufficient space error would sometimes occur when exporting and importing even though an SD card had sufficient open space. This has been fixed.
- Operation stability has been improved.

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### V1.14 change

- MIDI time code would be output 1 frame late in some cases. This has been fixed.

---

### V1.12 changes

- When using the LIVE WRITER function, CDs were not created properly sometimes. This has been fixed.
- On the track editing screen, the subframe (1/10 frame) positions of IN, OUT and TO points were not displayed correctly. This has been fixed.

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### V1.11 changes

- Under the following conditions, the input, track and equalizer settings would be initialized. This has been fixed.
  - When saving from the Home Screen
  - When shutting down (including by the automatic power saving function)
  - When switching to mixdown mode
  - When making a USB connection
  - When executing an item from the SONG menu
  - When executing an item from the CD menu
  - When loading a song created in a version before version 1.10
- With certain equalizer settings, the frequency display could become abnormal on the Mixer screen. This has been fixed.
- After deleting a virtual track from a stereo track (13/14–23/24), using the undo function did not restore the state before it was deleted. This has been fixed.

## V1.10 changes

- Accurate measurement was not possible when you tried to use the tuner function when a song with a 48kHz sampling rate was loaded. This has been fixed.
- If you stopped recording immediately after punching in, the unit would freeze sometimes. This has been fixed.
- Operation stability has been improved.

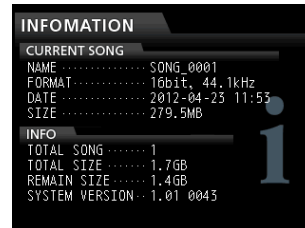
## V1.02 changes

- Some WAV format files were not recognized. This has been fixed.
- When MMC mode was set to **SLAVE**, MMC REC commands were not always received. This has been fixed.
- When the MIDI GENERATOR was set to **MTC**, synchronization was sometimes lost. The stability of MTC GENERATOR output has been improved.
- Playback could become unstable after recording a 24-bit, 44.1kHz song using punch-in and punch-out. This has been fixed.
- When using CD Writer to change song order, sometimes canceling a change would not be reflected correctly in the track order. This has been fixed.
- The **REMAIN** indicator shown in **Mixdown** and **Mastering** modes is now calculated for recording stereo WAV Files.
- Waveforms were not always displayed correctly when zoomed in or out. This has been fixed.
- Values shown in the EQ pop-up were sometimes incorrect. This has been fixed.
- On the **MIXER** screen, more effects could be added than are supported by the unit. This has been fixed.
- In addition, other improvements to operation stability have been made.

## Checking the firmware version

Check the firmware version of your DP-24 before conducting a firmware update.

1. Turn the unit's power ON.
2. Press the **MENU** button to open the **MENU** screen.
3. Use the **JOG/DATA** dial or **CURSOR** (**▲**/**▼**/**◀**/**▶**) buttons to select the **INFORMATION** menu (selected item appears green), and press the **F4** (**▶**) button to open the **INFORMATION** screen.



You do not need to update the unit's firmware if the **SYSTEM VERSION** shown here is the same as or newer than the version that you intend to use for the update.

## Firmware updating procedures

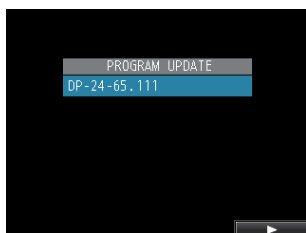
1. Download the most recent firmware from the TEAC Global Site (<http://teac-global.com/>). If the file is downloaded in a compressed format such as ZIP, uncompress the file.
2. Use the USB cable to connect the unit with the computer and turn the power ON.
3. Press the **MENU** button to open the **MENU** screen.
4. Use the **JOG/DATA** dial or **CURSOR** (**▲**/**▼**/**◀**/**▶**) buttons to select the **USB** menu (selected item appears green), and press the **F4** (**▶**) button to open the **USB** screen.



- Press the **F2 (YES)** button to connect the unit with the computer by USB.  
The following USB screen appears on the unit, and the unit should be recognized by the computer as an external drive (storage device).



- Copy the downloaded firmware (the V1.11 file is named "DP-24-65.111") to the UTILITY folder on the DP-24.
- After the file has been copied, press the **F2 (YES)** button to end the USB connection with the computer.  
The Home screen automatically reopens after the connection ends.
- Turn the unit's power OFF.
- While pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the power ON again. The unit starts in update mode, and the file that will be used for the update is shown on the screen.



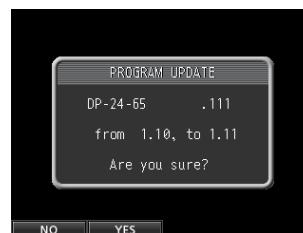
### CAUTION

- If this screen does not appear, turn the power OFF. Then, while pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the unit's power ON again. Continue to press and hold the **MUTE** and **UNDO/REDO** buttons firmly until this screen appears.
- When firmware has been copied to this unit's UTILITY folder from a Mac, in addition to the firmware file itself, another file with "\_" added to the beginning of the firmware name is also shown. Use the file without the "\_" at the beginning of the name.

### NOTE

- This screen shows a list of the firmware update files inside the UTILITY folder of the unit, including the firmware copied in step 6 above. If there is no update file in the UTILITY folder, "No Update File" appears.
- The screen shown above is an example. The actual display might differ.

- Use the **JOG** dial to select the firmware, and press the **F4 (▶)** button to open the following screen.



The current version appears on the left and the updated version appears on the right.

### NOTE

- The screen shown above is an example. The actual display might differ.
- Press the **F2 (YES)** button to start the update.
  - When the update finishes, "Complete." appears on the screen and the power turns OFF automatically. Turn the power ON again.
  - Refer to "Checking the firmware version" above and confirm that the **SYSTEM VERSION** is the latest firmware.  
This completes the procedure for updating this unit.
  - Connect to a computer with USB and delete the firmware update from the unit's UTILITY folder.

## TASCAM DP-24 Release Notes

### < Maintenance items >

#### ■ V1.02(Build#0051) fixes

- When the recording starts from other than 00:00, it's stopped recording if the recording mode is set to "44.1kHz/24bit". This has been fixed.
- The slave side occasionally stops caused by the timing of MTC output messed up. This has been fixed.
- Can't read some WAV files. This has been fixed.
- Performance has been more stabilized.

## Listado de funciones añadidas

Las funciones siguientes han sido añadidas en la versión de firmware V1.10.

- Nuevos elementos del ajuste PREFERENCE
  - Función de mantenimiento de picos
  - Función de ahorro de energía automático
- La unidad admite ahora subsecuencias en la edición de pista
- Función de conversión de frecuencia de muestreo
- Verificación del modulador de ruido (dithering de modulación de ruido)
- Uso del modulador de ruido (dithering de modulación de ruido)

## Nuevos elementos del ajuste PREFERENCE

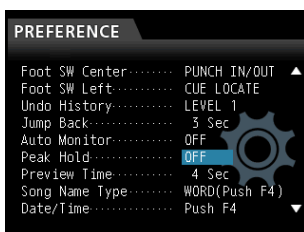
Han sido añadidos elementos de ajuste con las siguientes funciones a la pantalla PREFERENCE. (Vea la sección Configuración (PREFERENCE) en 11-Funciones diversas del Manual de instrucciones).



- Mantenimiento de picos (Peak Hold)
- Ahorro de energía automático (Auto Power Save)

## Función de mantenimiento de picos

Use esta función para ajustar el modo de indicación de mantenimiento de picos para los medidores de nivel que aparece, por ejemplo, en la Pantalla inicial. Use los botones **CURSOR** (▲/▼) para elegir (resaltar en azul) el elemento **Peak Hold** y use el dial **JOG/DATA** para ajustar el modo.



Las opciones y el valor por defecto son los siguientes.

Opción	Función
OFF (por defecto)	El valor de picos no es visualizado.
1Sec	El valor de picos aparece durante 1 segundo.
KEEP	El valor de picos aparece de forma continua. En todos los modos de grabadora que no sean el modo <b>Mastering</b> , pulse el botón <b>F3</b> (PEAK CLEAR) para eliminar el valor de picos. En el modo <b>Mastering</b> , el valor desaparece al realizar un proceso de localización.

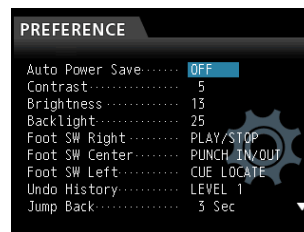
## NOTA

- El ajuste **KEEP** resulta muy útil para verificar el valor máximo que se ha producido hasta el momento activo cuando no pueda monitorizar continuamente los medidores (por ejemplo, mientras esté tocando durante una sesión de grabación).
- Durante la reproducción de CD, pulse el botón **F1** (PEAK CLEAR) para eliminar el valor de picos.

## Función de ahorro de energía automático

Hemos añadido una función de ahorro de energía automático en la versión V1.10 para cumplir con lo estipulado en la Directiva europea sobre productos que suponen un consumo de energía (ErP). Con el ajuste por defecto de esta función de 30 minutos, la unidad entrará automáticamente en el modo standby tras 30 minutos de inactividad desde la última operación. Siga las instrucciones de abajo para cambiar este ajuste.

Use los botones **CURSOR** (▲/▼) para elegir (resaltar en azul) el elemento **Auto Power Save** y use el dial **JOG/DATA** para ajustar el tiempo que quiera que transcurra hasta que la unidad entre en el modo standby de forma automática.



Las opciones y el valor por defecto son los siguientes.

Opciones: OFF, 3Min, 5Min, 10Min, 30Min (por defecto)

## NOTA

La función de ahorro de energía automático quedará desactivada en las condiciones siguientes.

- Durante la grabación o reproducción
- Cuando el metrónomo esté en uso
- Cuando la función de grabación esté en ON
- Cuando esté siendo emitida una señal desde la toma **STEREO OUT**

## La unidad admite ahora subsecuencias en la edición de pista

En la Pantalla inicial, si pulsa el botón **JOG PLAY** para acceder al modo de búsqueda, aparecerán las subsecuencias (1/10 de secuencia) en el contador de tiempo.

Cuando la escala horizontal (tiempo) sea maximizada, podrá girar el dial **JOG** para realizar una función de localización en base a unidades de subsecuencias (1/10 de secuencia).

También puede ajustar los puntos IN y OUT en unidades de subsecuencias y editar las pistas con esa precisión.

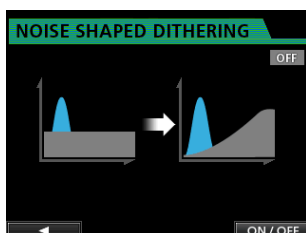
## Función de conversión de frecuencia de muestreo

Los CD audio standard están en el formato de 16 bits, 44.1 kHz. En la creación de un CD audio, la conversión de frecuencia de muestreo convertirá de forma automática cualquier canción que use unos valores distintos a estos 16 bits, 44.1 kHz. No obstante, esto no cambiará los ficheros máster originales.

## Verificación del modulador de ruido (dithering de modulación de ruido)

En el firmware V1.10, la función de modulación de ruido usada durante la masterización ha sido modificada. En lugar de verse reflejada directamente en los ficheros máster, ahora puede verificar de antemano el efecto que tendrá el uso de este modulador a la hora de crear un CD audio (vea "Uso del modulador del ruido" en 10 - Remezcla y masterización de pistas del Manual de instrucciones).

1. Con la pantalla `Mastering` activa, pulse el botón **F3 (NSD)** para acceder a la pantalla `NOISE SHAPED DITHERING`.



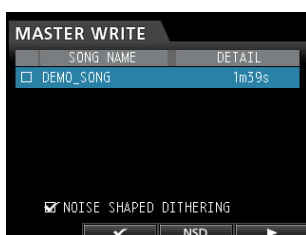
2. Pulse el botón **F4 (ON/OFF)** para activar la función de modulador de ruido (ON).
3. Pulse el botón **F1 (◀)** para volver a la pantalla `Mastering`.

### NOTA

*Incluso cuando el modulador de ruidos de la pantalla `Mastering` esté ajustado a ON, no se verá reflejado sobre los ficheros máster. Además, incluso cuando este modulador esté activo, no tendrá efecto sobre las canciones a 16 bits.*

## Uso del modulador de ruido (dithering de modulación de ruido)

En el firmware V1.10, ha sido añadido un botón de modulador de ruidos a las pantallas `MASTER WRITE` y `LIVE WRITER`. Puede usar este modulador de ruidos durante la creación de un CD audio a partir de ficheros máster creados desde canciones a 24 bits. Para usar el modulador de ruidos, elija el elemento `MASTER WRITE` del menú `CD` para acceder a la pantalla `MASTER WRITE` y pulse el botón **F3 (NSD)**.



### NOTA

*El modulador de ruidos será aplicado a todas las canciones grabadas en el CD. No obstante, no tendrá ningún efecto sobre las canciones a 16 bits. Además, el efecto de este modulador de ruidos solo se verá reflejado sobre el CD audio, no sobre los ficheros máster.*

## List of added functions

The following functions have been added in firmware V1.10.

- New PREFERENCE setting items
  - Peak hold function
  - Automatic power saving function
- Support for subframes in track editing
- Sampling rate converter function
- Checking the noise shaper (noise shaped dithering)
- Using the noise shaper (noise shaped dithering)

## New PREFERENCE setting items

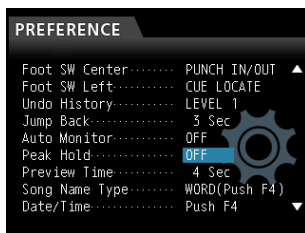
Setting items with the following functions have been added to the PREFERENCE screen. (See the Setup (PREFERENCE) section in 11–Various Other Functions of the Owner's Manual.)



- Peak Hold function (Peak Hold)
- Auto Power Save function (Auto Power Save)

### Peak Hold function

Use the Peak Hold function to set the peak hold indication mode for the level meters shown on, for example, the Home Screen. Use the **CURSOR** (▲/▼) buttons to select (highlight blue) the Peak Hold item, and use the **JOG/DATA** dial to set the hold display mode.



The options and default value are as follows.

Option	Function
OFF (default value)	The peak value is not shown.
1Sec	The peak value is shown for about one second.
KEEP	The peak value is retained and shown continuously. In every recorder mode other than Mastering mode, press the <b>F3</b> (PEAK CLEAR) button to clear the peak value. In Mastering mode, the peak value is cleared when you locate.

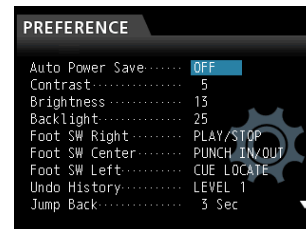
### NOTE

- The **KEEP** setting is useful for checking the maximum value that has occurred up until the current time when you are unable to continuously monitor the meters (for example, when you are performing while recording).
- During CD playback, press the **F1** (PEAK CLEAR) button to clear the peak value.

### Automatic power saving function

An automatic power saving function has been added in V1.10 to comply with the European Energy-related Products Directive (ErP). With the default automatic power saving function setting of 30 minutes, the power will turn off automatically if 30 minutes elapse without any operation or activity. Follow the instructions below to change the automatic power saving function setting.

Use the **CURSOR** (▲/▼) buttons to select (highlight blue) the Auto Power Save item, and use the **JOG/DATA** dial to set the time until the power automatically turns off.



The options and default value are as follows.

Options: OFF, 3Min, 5Min, 10Min, 30Min (default value)

### NOTE

The Auto Power Save Function is disabled under the following conditions.

- During recording or playback
- When the metronome is in use
- When the record function is ON
- When a signal is output from the STEREO OUT

### Support for subframes in track editing

On the Home Screen, if you press the **JOG PLAY** button to enter search mode, the subframe (1/10 frame) will be shown in the time counter.

When the horizontal (time) scale is maximized, you can turn the **JOG** dial to locate in subframe (1/10 frame) units.

You can also set IN and OUT points by subframe units and edit tracks with subframe precision.

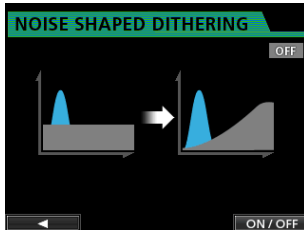
### Sampling rate converter function

Standard audio CDs are in 16-bit, 44.1kHz format. When creating an audio CD, sampling rate conversion will automatically convert any songs that use different settings to 16-bit, 44.1kHz. This will not, however, change the original master files.

## Checking the noise shaper (noise shaped dithering)

In firmware V1.10, the noise shaper function used when mastering has been changed. Instead of it being reflected in master files, you can now check in advance the effect that using the noise shaper will have when creating an audio CD (see "Using the noise shaper (Noise Shaped Dithering)" in 10 - Mixing Down and Mastering Tracks of the Owner's Manual).

1. When the **Mastering** screen is displayed, press the **F3 (NSD)** button to open the **NOISE SHAPED DITHERING** screen.



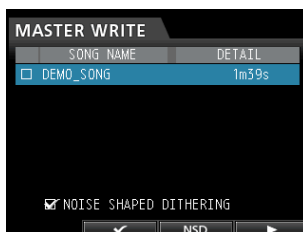
2. Press the **F4 (ON/OFF)** button to set the noise shaper function to **ON**.
3. Press the **F1 (◀)** button to return to the **Mastering** screen.

### NOTE

*Even when the noise shaper on the Mastering screen is ON, it will not be reflected in master files. Furthermore, even when the noise shaper is ON, it will have no effect on 16-bit songs.*

## Using the noise shaper (noise shaped dithering)

In firmware V1.10, a noise shaper button has been added to the **MASTER WRITE** and **LIVE WRITER** screens. You can use the noise shaper when creating an audio CD from master files made from 24-bit songs. To use the noise shaper, select the **MASTER WRITE** item from the **CD** menu to open the **MASTER WRITE** screen and press the **F3 (NSD)** button.



### NOTE

*The noise shaper will be applied to all the songs written to the CD. It will have no effect, however, on 16-bit songs. Furthermore, the effect of the noise shaper will only be reflected on the audio CD. It will not be reflected by master files.*

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## Notice

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Always use the most recent firmware for this device. Please visit the TASCAM web site (<http://tascam.com>) to check for the latest firmware.

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## Maintenance items

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### V1.02 changes

- Some WAV format files were not recognized. This has been fixed.
- When MMC mode was set to SLAVE, MMC REC commands were not always received. This has been fixed.
- When the MIDI GENERATOR was set to MTC, synchronization was sometimes lost. The stability of MTC GENERATOR output has been improved.
- Playback could become instable after recording a 24-bit, 44.1kHz song using punch-in and punch-out. This has been fixed.
- When using CD Writer to change song order, sometimes canceling a change would not be reflected correctly in the track order. This has been fixed.
- The REMAIN indicator shown in Mixdown and Mastering modes is now calculated for recording stereo WAV Files.
- Waveforms were not always displayed correctly when zoomed in or out. This has been fixed.
- Values shown in the EQ pop-up were sometimes incorrect. This has been fixed.
- On the MIXER screen, more effects could be added then are supported by the unit. This has been fixed.
- In addition, other improvements to operation stability have been made.

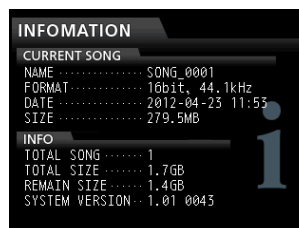
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## Checking the firmware version

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Check the firmware version of your DP-24 before conducting a firmware update.

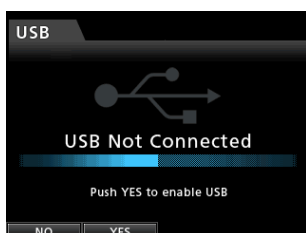
1. Turn the unit's power ON.
2. Press the **MENU** button to open the MENU screen.
3. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **INFORMATION** menu (selected item appears green), and press the **F4** (▶) button to open the **INFORMATION** screen.



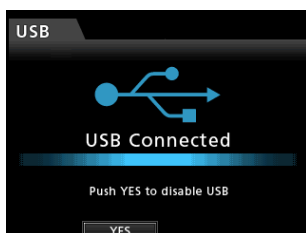
You do not need to update the unit's firmware if the **SYSTEM VERSION** shown here is the same as or newer than the version that you intend to use for the update.

## Firmware updating procedures

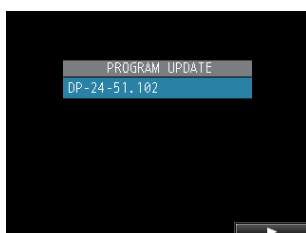
1. Download the most recent firmware from the TASCAM web site (<http://tascam.com>). If the file is downloaded in a compressed format such as ZIP, uncompress the file.
2. Use the USB cable to connect the unit with the computer and turn the power ON.
3. Press the **MENU** button to open the MENU screen.
4. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **USB** menu (selected item appears green), and press the **F4** (▶) button to open the **USB** screen.



5. Press the **F2** (YES) button to connect the unit with the computer by USB. The following USB screen appears on the unit, and the unit should be recognized by the computer as an external drive (storage device).



6. Copy the downloaded firmware (the V1.02 file is named "DP-24-51.102") to the UTILITY folder on the DP-24.
7. After the file has been copied, press the **F2** (YES) button to end the USB connection with the computer. The Home screen automatically reopens after the connection ends.
8. Turn the unit's power OFF.
9. While pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the power ON again. The unit starts in update mode, and the file that will be used for the update is shown on the screen.



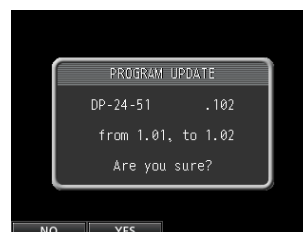
### CAUTION

- If this screen does not appear, turn the power OFF. Then, while pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the unit's power ON again. Continue to press and hold the **MUTE** and **UNDO/REDO** buttons firmly until this screen appears.
- When firmware has been copied to this unit's **UTILITY** folder from a Mac, in addition to the firmware file itself, another file with "\_" added to the beginning of the firmware name is also shown. Use the file without the "\_" at the beginning of the name.

### NOTE

- This screen shows a list of the firmware update files inside the **UTILITY** folder of the unit, including the firmware copied in step 6 above. If there is no update file in the **UTILITY** folder, "No Update File" appears.
- The screen shown above is an example. The actual display might differ.

10. Use the **JOG** dial to select the firmware, and press the **F4** (▶) button to open the following screen.



The current version appears on the left and the updated version appears on the right.

### NOTE

- The screen shown above is an example. The actual display might differ.
11. Press the **F2** (YES) button to start the update.
  12. When the update finishes, "Complete." appears on the screen and the power turns OFF automatically. Turn the power ON again.
  13. Refer to "Checking the firmware version" above and confirm that the **SYSTEM VERSION** is the latest firmware. This completes the procedure for updating this unit.
  14. Connect to a computer with USB and delete the firmware update from the unit's **UTILITY** folder.

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## Notice

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Always use the most recent firmware for this device. Please visit the TASCAM web site (<http://tascam.com>) to check for the latest firmware.

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## Maintenance items

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### V1.02 changes

- Some WAV format files were not recognized. This has been fixed.
- When MMC mode was set to SLAVE, MMC REC commands were not always received. This has been fixed.
- When the MIDI GENERATOR was set to MTC, synchronization was sometimes lost. The stability of MTC GENERATOR output has been improved.
- Playback could become unstable after recording a 24-bit, 44.1kHz song using punch-in and punch-out. This has been fixed.
- When using CD Writer to change song order, sometimes canceling a change would not be reflected correctly in the track order. This has been fixed.
- The REMAIN indicator shown in Mixdown and Mastering modes is now calculated for recording stereo WAV Files.
- Waveforms were not always displayed correctly when zoomed in or out. This has been fixed.
- Values shown in the EQ pop-up were sometimes incorrect. This has been fixed.
- On the MIXER screen, more effects could be added then are supported by the unit. This has been fixed.
- In addition, other improvements to operation stability have been made.

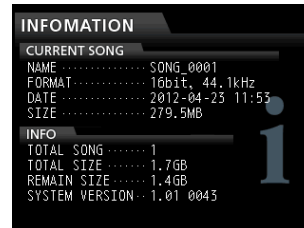
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## Checking the firmware version

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Check the firmware version of your DP-24 before conducting a firmware update.

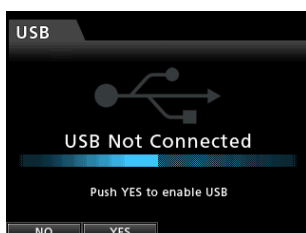
1. Turn the unit's power ON.
2. Press the **MENU** button to open the MENU screen.
3. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **INFORMATION** menu (selected item appears green), and press the **F4** (▶) button to open the **INFORMATION** screen.



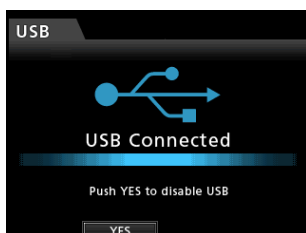
You do not need to update the unit's firmware if the **SYSTEM VERSION** shown here is the same as or newer than the version that you intend to use for the update.

## Firmware updating procedures

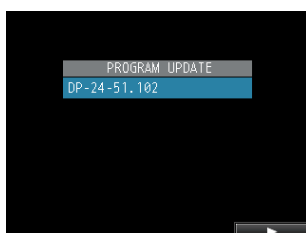
1. Download the most recent firmware from the TASCAM web site (<http://tascam.com>). If the file is downloaded in a compressed format such as ZIP, uncompress the file.
2. Use the USB cable to connect the unit with the computer and turn the power ON.
3. Press the **MENU** button to open the MENU screen.
4. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **USB** menu (selected item appears green), and press the **F4** (▶) button to open the **USB** screen.



5. Press the **F2 (YES)** button to connect the unit with the computer by USB. The following USB screen appears on the unit, and the unit should be recognized by the computer as an external drive (storage device).



6. Copy the downloaded firmware (the V1.02 file is named "DP-24-51.102") to the UTILITY folder on the DP-24.
7. After the file has been copied, press the **F2 (YES)** button to end the USB connection with the computer. The Home screen automatically reopens after the connection ends.
8. Turn the unit's power OFF.
9. While pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the power ON again. The unit starts in update mode, and the file that will be used for the update is shown on the screen.



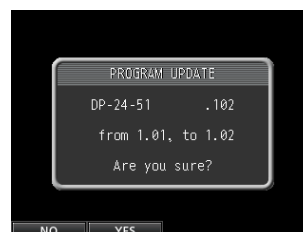
### CAUTION

- If this screen does not appear, turn the power OFF. Then, while pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the unit's power ON again. Continue to press and hold the **MUTE** and **UNDO/REDO** buttons firmly until this screen appears.
- When firmware has been copied to this unit's **UTILITY** folder from a Mac, in addition to the firmware file itself, another file with "\_" added to the beginning of the firmware name is also shown. Use the file without the "\_" at the beginning of the name.

### NOTE

- This screen shows a list of the firmware update files inside the **UTILITY** folder of the unit, including the firmware copied in step 6 above. If there is no update file in the **UTILITY** folder, "No Update File" appears.
- The screen shown above is an example. The actual display might differ.

10. Use the **JOG** dial to select the firmware, and press the **F4** (▶) button to open the following screen.



The current version appears on the left and the updated version appears on the right.

### NOTE

- The screen shown above is an example. The actual display might differ.
11. Press the **F2 (YES)** button to start the update.
  12. When the update finishes, "Complete." appears on the screen and the power turns OFF automatically. Turn the power ON again.
  13. Refer to "Checking the firmware version" above and confirm that the **SYSTEM VERSION** is the latest firmware. This completes the procedure for updating this unit.
  14. Connect to a computer with USB and delete the firmware update from the unit's **UTILITY** folder.

## Notice

Always use the most recent firmware for this device. Please visit the TASCAM web site (<http://tascam.com>) to check for the latest firmware.

## New functions

### V1.10 addition

- 24-bit songs can now be used to write CD-DA discs. When you select a 24-bit master file, it will automatically be converted to 16-bit when writing a CD-DA.
- 48kHz songs can now be used to write CD-DA discs. Inclusion of the TASCAM Multi-Stage Sampling rate converter (TMSS) enables the creation of high-quality CD-DA discs. When you select a 48kHz master file, it will automatically be converted to 44.1kHz when writing a CD-DA.
- A meter peak hold function has been added. The addition of peak level hold indications enables you to check levels visually with greater ease.
- Track editing in subframe units is now possible. You can locate and set IN and OUT points using subframe units.
- This model can now read songs created by a DP-32. However, when a song created by a DP-32 is loaded, only tracks 1–24 will be loaded.
- In order to comply with the European Standby Power Regulation (ErP), an automatic power saving function has been added. By default, the automatic power saving function is set to 30 minutes, and the unit will automatically turn OFF (enter standby) after 30 minutes pass without operation or other use.

For details about using these new functions, see the DP-24 Owner's Manual addenda.

## Maintenance items

### V1.10 changes

- Accurate measurement was not possible when you tried to use the tuner function when a song with a 48kHz sampling rate was loaded. This has been fixed.
- If you stopped recording immediately after punching in, the unit would freeze sometimes. This has been fixed.
- Operation stability has been improved.

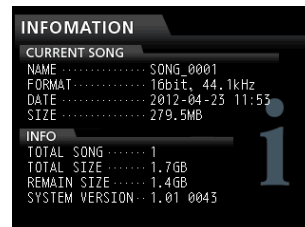
### V1.02 changes

- Some WAV format files were not recognized. This has been fixed.
- When MMC mode was set to SLAVE, MMC REC commands were not always received. This has been fixed.
- When the MIDI GENERATOR was set to MTC, synchronization was sometimes lost. The stability of MTC GENERATOR output has been improved.
- Playback could become unstable after recording a 24-bit, 44.1kHz song using punch-in and punch-out. This has been fixed.
- When using CD Writer to change song order, sometimes canceling a change would not be reflected correctly in the track order. This has been fixed.
- The REMAIN indicator shown in Mixdown and Mastering modes is now calculated for recording stereo WAV Files.
- Waveforms were not always displayed correctly when zoomed in or out. This has been fixed.
- Values shown in the EQ pop-up were sometimes incorrect. This has been fixed.
- On the MIXER screen, more effects could be added then are supported by the unit. This has been fixed.
- In addition, other improvements to operation stability have been made.

## Checking the firmware version

Check the firmware version of your DP-24 before conducting a firmware update.

1. Turn the unit's power ON.
2. Press the **MENU** button to open the MENU screen.
3. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **INFORMATION** menu (selected item appears green), and press the **F4** (▶) button to open the **INFORMATION** screen.



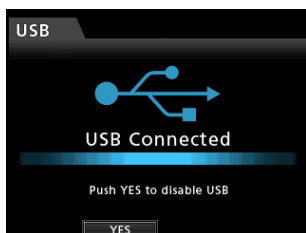
You do not need to update the unit's firmware if the **SYSTEM VERSION** shown here is the same as or newer than the version that you intend to use for the update.

## Firmware updating procedures

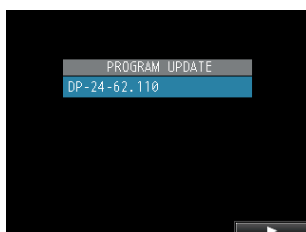
1. Download the most recent firmware from the TASCAM web site (<http://tascam.com>). If the file is downloaded in a compressed format such as ZIP, uncompress the file.
2. Use the USB cable to connect the unit with the computer and turn the power ON.
3. Press the **MENU** button to open the MENU screen.
4. Use the **JOG/DATA** dial or **CURSOR** (▲ / ▼ / ◀ / ▶) buttons to select the **USB** menu (selected item appears green), and press the **F4** (▶) button to open the USB screen.



5. Press the **F2** (YES) button to connect the unit with the computer by USB. The following USB screen appears on the unit, and the unit should be recognized by the computer as an external drive (storage device).



6. Copy the downloaded firmware (the V1.10 file is named "DP-24-62.110") to the UTILITY folder on the DP-24.
7. After the file has been copied, press the **F2** (YES) button to end the USB connection with the computer. The Home screen automatically reopens after the connection ends.
8. Turn the unit's power OFF.
9. While pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the power ON again. The unit starts in update mode, and the file that will be used for the update is shown on the screen.



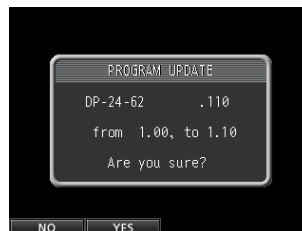
### CAUTION

- If this screen does not appear, turn the power OFF. Then, while pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the unit's power ON again. Continue to press and hold the **MUTE** and **UNDO/REDO** buttons firmly until this screen appears.
- When firmware has been copied to this unit's UTILITY folder from a Mac, in addition to the firmware file itself, another file with "\_" added to the beginning of the firmware name is also shown. Use the file without the "\_" at the beginning of the name.

### NOTE

- This screen shows a list of the firmware update files inside the UTILITY folder of the unit, including the firmware copied in step 6 above. If there is no update file in the UTILITY folder, "No Update File" appears.
- The screen shown above is an example. The actual display might differ.

10. Use the **JOG** dial to select the firmware, and press the **F4** (▶) button to open the following screen.



The current version appears on the left and the updated version appears on the right.

### NOTE

- The screen shown above is an example. The actual display might differ.

11. Press the **F2** (YES) button to start the update.
12. When the update finishes, "Complete." appears on the screen and the power turns OFF automatically. Turn the power ON again.
13. Refer to "Checking the firmware version" above and confirm that the **SYSTEM VERSION** is the latest firmware. This completes the procedure for updating this unit.
14. Connect to a computer with USB and delete the firmware update from the unit's UTILITY folder.

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## Notice

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Always use the most recent firmware for this device. Please visit the TASCAM web site (<http://tascam.com>) to check for the latest firmware.

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## New functions

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### V1.10 addition

- 24-bit songs can now be used to write CD-DA discs. When you select a 24-bit master file, it will automatically be converted to 16-bit when writing a CD-DA.
- 48kHz songs can now be used to write CD-DA discs. Inclusion of the TASCAM Multi-Stage Sampling rate converter (TMSS) enables the creation of high-quality CD-DA discs. When you select a 48kHz master file, it will automatically be converted to 44.1kHz when writing a CD-DA.
- A meter peak hold function has been added. The addition of peak level hold indications enables you to check levels visually with greater ease.
- Track editing in subframe units is now possible. You can locate and set IN and OUT points using subframe units.
- This model can now read songs created by a DP-32. However, when a song created by a DP-32 is loaded, only tracks 1–24 will be loaded.
- In order to comply with the European Standby Power Regulation (ErP), an automatic power saving function has been added. By default, the automatic power saving function is set to 30 minutes, and the unit will automatically turn OFF (enter standby) after 30 minutes pass without operation or other use.

For details about using these new functions, see the DP-24 Owner's Manual addenda.

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## Maintenance items

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### V1.11 changes

- Under the following conditions, the input, track and equalizer settings would be initialized. This has been fixed.
  - When saving from the Home Screen
  - When shutting down (including by the automatic power saving function)
  - When switching to mixdown mode
  - When making a USB connection
  - When executing an item from the SONG menu
  - When executing an item from the CD menu
  - When loading a song created in a version before version 1.10

- With certain equalizer settings, the frequency display could become abnormal on the Mixer screen. This has been fixed.
  - After deleting a virtual track from a stereo track (13/14–23/24), using the undo function did not restore the state before it was deleted. This has been fixed.
- 

### V1.10 changes

- Accurate measurement was not possible when you tried to use the tuner function when a song with a 48kHz sampling rate was loaded. This has been fixed.
  - If you stopped recording immediately after punching in, the unit would freeze sometimes. This has been fixed.
  - Operation stability has been improved.
- 

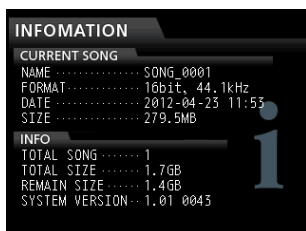
### V1.02 changes

- Some WAV format files were not recognized. This has been fixed.
- When MMC mode was set to SLAVE, MMC REC commands were not always received. This has been fixed.
- When the MIDI GENERATOR was set to MTC, synchronization was sometimes lost. The stability of MTC GENERATOR output has been improved.
- Playback could become unstable after recording a 24-bit, 44.1kHz song using punch-in and punch-out. This has been fixed.
- When using CD Writer to change song order, sometimes canceling a change would not be reflected correctly in the track order. This has been fixed.
- The REMAIN indicator shown in Mixdown and Mastering modes is now calculated for recording stereo WAV Files.
- Waveforms were not always displayed correctly when zoomed in or out. This has been fixed.
- Values shown in the EQ pop-up were sometimes incorrect. This has been fixed.
- On the MIXER screen, more effects could be added then are supported by the unit. This has been fixed.
- In addition, other improvements to operation stability have been made.

## Checking the firmware version

Check the firmware version of your DP-24 before conducting a firmware update.

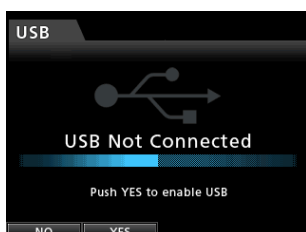
1. Turn the unit's power ON.
2. Press the **MENU** button to open the MENU screen.
3. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **INFORMATION** menu (selected item appears green), and press the **F4** (▶) button to open the **INFORMATION** screen.



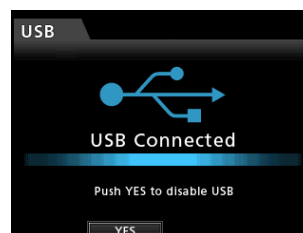
You do not need to update the unit's firmware if the **SYSTEM VERSION** shown here is the same as or newer than the version that you intend to use for the update.

## Firmware updating procedures

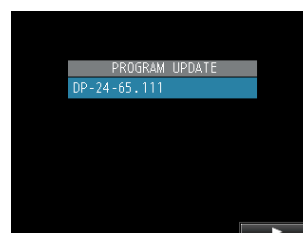
1. Download the most recent firmware from the TASCAM web site (<http://tascam.com>). If the file is downloaded in a compressed format such as ZIP, uncompress the file.
2. Use the USB cable to connect the unit with the computer and turn the power ON.
3. Press the **MENU** button to open the MENU screen.
4. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **USB** menu (selected item appears green), and press the **F4** (▶) button to open the **USB** screen.



5. Press the **F2** (**YES**) button to connect the unit with the computer by USB. The following USB screen appears on the unit, and the unit should be recognized by the computer as an external drive (storage device).



6. Copy the downloaded firmware (the V1.11 file is named "DP-24-65.111") to the **UTILITY** folder on the DP-24.
7. After the file has been copied, press the **F2** (**YES**) button to end the USB connection with the computer. The Home screen automatically reopens after the connection ends.
8. Turn the unit's power OFF.
9. While pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the power ON again. The unit starts in update mode, and the file that will be used for the update is shown on the screen.



### CAUTION

- If this screen does not appear, turn the power OFF. Then, while pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the unit's power ON again. Continue to press and hold the **MUTE** and **UNDO/REDO** buttons firmly until this screen appears.
- When firmware has been copied to this unit's **UTILITY** folder from a Mac, in addition to the firmware file itself, another file with "\_" added to the beginning of the firmware name is also shown. Use the file without the "\_" at the beginning of the name.

### NOTE

- This screen shows a list of the firmware update files inside the **UTILITY** folder of the unit, including the firmware copied in step 6 above. If there is no update file in the **UTILITY** folder, "No Update File" appears.
- The screen shown above is an example. The actual display might differ.

10. Use the **JOG** dial to select the firmware, and press the **F4 (▶)** button to open the following screen.



The current version appears on the left and the updated version appears on the right.

**NOTE**

- *The screen shown above is an example. The actual display might differ.*
11. Press the **F2 (YES)** button to start the update.
  12. When the update finishes, "Complete." appears on the screen and the power turns OFF automatically. Turn the power ON again.
  13. Refer to "Checking the firmware version" above and confirm that the **SYSTEM VERSION** is the latest firmware.  
This completes the procedure for updating this unit.
  14. Connect to a computer with USB and delete the firmware update from the unit's **UTILITY** folder.

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## Notice

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Always use the most recent firmware for this device. Please visit the TEAC Global Site (<http://teac-global.com/>) to check for the latest firmware.

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## Maintenance items

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### V1.01 changes

- When files created on different devices were imported, a noise sometimes occurred at their ends. This has been fixed.
- Noise sometimes occurred during playback depending on the playback starting point. This has been fixed.
- When set to BAR display, editing would sometimes result in the beat becoming inaccurate. This has been fixed.
- An insufficient space error would sometimes occur when exporting and importing even though an SD card had sufficient open space. This has been fixed.
- Operation stability has been improved.

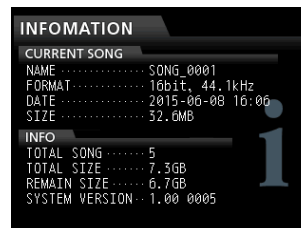
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## Checking the firmware version

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Check the firmware version of your DP-24SD before conducting a firmware update.

1. Turn the unit's power ON.
2. Press the **MENU** button to open the MENU screen.
3. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **INFORMATION** menu (selected item appears green), and press the **F4** (▶) button to open the **INFORMATION** screen.



You do not need to update the unit's firmware if the **SYSTEM VERSION** shown here is the same as or newer than the version that you intend to use for the update.

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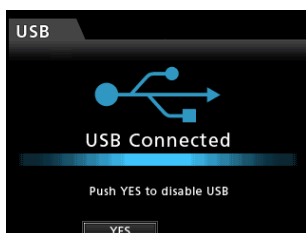
## Firmware updating procedures

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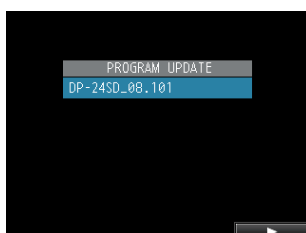
1. Download the most recent firmware from the TEAC Global Site (<http://teac-global.com/>). If the file is downloaded in a compressed format such as ZIP, uncompress the file.
2. Use the USB cable to connect the unit with the computer and turn the power ON.
3. Press the **MENU** button to open the MENU screen.
4. Use the **JOG/DATA** dial or **CURSOR** (▲/▼/◀/▶) buttons to select the **USB** menu (selected item appears green), and press the **F4** (▶) button to open the **USB** screen.



- Press the **F2 (YES)** button to connect the unit with the computer by USB.  
The following USB screen appears on the unit, and the unit should be recognized by the computer as an external drive (storage device).



- Copy the downloaded firmware (the V1.01 file is named "DP-24SD\_08.101") to the UTILITY folder on the DP-24SD.
- After the file has been copied, press the **F2 (YES)** button to end the USB connection with the computer.  
The Home screen automatically reopens after the connection ends.
- Turn the unit's power OFF.
- While pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the power ON again. The unit starts in update mode, and the file that will be used for the update is shown on the screen.



### CAUTION

- If this screen does not appear, turn the power OFF. Then, while pressing and holding both the **MUTE** and **UNDO/REDO** buttons, turn the unit's power ON again. Continue to press and hold the **MUTE** and **UNDO/REDO** buttons firmly until this screen appears.
- When firmware has been copied to this unit's UTILITY folder from a Mac, in addition to the firmware file itself, another file with "\_" added to the beginning of the firmware name is also shown. Use the file without the "\_" at the beginning of the name.

### NOTE

- This screen shows a list of the firmware update files inside the UTILITY folder of the unit, including the firmware copied in step 6 above. If there is no update file in the UTILITY folder, "No Update File" appears.
- The screen shown above is an example. The actual display might differ.

- Use the **JOG** dial to select the firmware, and press the **F4 (▶)** button to open the following screen.



The current version appears on the left and the updated version appears on the right.

### NOTE

- The screen shown above is an example. The actual display might differ.
- Press the **F2 (YES)** button to start the update.
  - When the update finishes, "Complete." appears on the screen and the power turns OFF automatically.  
Turn the power ON again.
  - Refer to "Checking the firmware version" above and confirm that the **SYSTEM VERSION** is the latest firmware.  
This completes the procedure for updating this unit.
  - Connect to a computer with USB and delete the firmware update from the unit's UTILITY folder.