TASCAM

SERVICE MANUAL

DA-3000

2ch Audio Recorder AD/DA Converter

CONTENTS

目次

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.

Effective : Apr, 2014

S-0248

1. Specifications

仕様

Media and formats

Recording media

SD cards	:	4 GB–32 GB SDHC supported Media ejection: push-push type
CF cards	:	1 GB–64 GB Type I supported
USB flash drives	:	2 GB–64 GB supported

Recording/playback formats

PCM mode

Fs	:	44.1, 48, 88.2, 96, 176.4 and 192 kHz
Bit depth	:	16 and 24-bit
Recording	:	BWF (.wav extension)
Playback	:	BWF and WAV (both .wav extension)

DSD mode

Fs	:	2.8224 and 5.6448 MHz
Playback and recording	:	DSDIFF (.dff extension) DSF (.dsf extension)

Number of channels

2 mono/1 stereo

Inputs and outputs

Analog inputs

Unbalanced

Connectors	:	RCA pin jacks
Reference input level	:	–10 dBV
Maximum input level	:	+6 dBV
Input impedance	:	22 kΩ or higher
Minimum input level	:	–22 dBV

Balanced

Connectors	:	XLR-3-31(1: GND, 2: HOT, 3: COLD)
Reference input level	:	+4 dBu or +6 dBu (only when maximum input level is +15 dBu)
Maximum input level	:	+24 dBu, +22 dBu, +20 dBu, +18 dBu or +15 dBu (use menu to set)
Input impedance	:	10 kΩ or higher
Minimum input level	:	–8 dBu or –6 dBu (only when maximum input level is +15 dBu)

Analog outputs

Unbalanced

Connectors	:	RCA pin jacks
Reference output level	:	–10 dBV
Maximum output level	:	+6 dBV
Output impedance	:	200 Ω or less

Balanced

Connector	:	XLR-3-32 (1: GND, 2: HOT, 3: COLD)
Reference output level	:	+4 dBu or +6 dBu (only when maximum input level is +15 dBu)
Maximum output level	:	+24 dBu, +22 dBu, +20 dBu, +18 dBu or +15 dBu (set in menu)
Output impedance	:	100 Ω or less

PHONES jack

Connector	:	6.3 mm (1/4") standard stereo jack
Maximum output	:	45 mW + 45 mW (32 Ω load, 0.1 % distortion)

定格

記録メディア

[SD]	：SDHCカード（4 GB～32 GBに対応） メディア排出方式：プッシュプッシュタイプ
[CF]	：CFカード（1 GB～64 GBに対応）Type I
[USB]	：USBメモリー（2 GB～64 GBに対応）

録音再生フォーマット

PCM時

Fs	：44.1/48/88.2/96/176.4/192 kHz
データ長	：16/24 bit
録音時	：BWF（拡張子：.wav）
再生時	：BWF（拡張子：.wav） およびWAV（拡張子：.wav）

DSD時

Fs	：2.8224/5.6448 MHz
録音時・再生時共通	：DSDIFF（拡張子：.dff）、DSF（拡張子：.dsf）

チャンネル数

2チャンネル（ステレオ／モノラル×2）

入出力定格

アナログ入力

アンバランス

コネクター	：RCAピンジャック
基準入力レベル	：-10 dBV
最大入力レベル	：+6 dBV
入力インピーダンス	：22 kΩ 以上
最小入力レベル	：-22 dBV

バランス

コネクター	：XLR-3-31（1：GND、2：HOT、3：COLD）
基準入力レベル	：+4 dBu、+6 dBu （最大入力レベルが+15 dBuのときのみ）
最大入力レベル	：+24 dBu、+22 dBu、+20 dBu、 +18 dBu、+15 dBu（メニュー切り換え）
入力インピーダンス	：10 kΩ 以上
最小入力レベル	：-8 dBu、-6 dBu （最大入力レベルが+15 dBuのときのみ）

アナログ出力

アンバランス

コネクター	：RCAピンジャック
基準出力レベル	：-10 dBV
最大出力レベル	：+6 dBV
出力インピーダンス	：200 Ω 以下

バランス

コネクター	：XLR-3-32（1：GND、2；HOT、3：COLD）
基準出力レベル	：+4 dBu、+6 dBu （最大入力レベルが+15 dBuのときのみ）
最大出力レベル	：+24 dBu、+22 dBu、+20 dBu、 +18 dBu、+15 dBu（メニュー切り換え）
出力インピーダンス	：100 Ω 以下

PHONES端子

コネクター	：6.3 mm（1/4'）ステレオ標準ジャック
最大出力	：45 mW+45 mW（32 Ω 負荷時、歪率：0.1 %）

Digital input

S/PDIF / CASCADE (unbalanced)

Connector	:	RCA pin jack
Format	:	IEC60958-3 (S/PDIF)
Input frequency	:	44.1, 48, 88.2, 96, 176.4 or 192 kHz (when SRC OFF) 32 kHz–216 kHz (when SRC ON)

Allowable frequency deviation: ±100 ppm (when SRC OFF)

AES/EBU (balanced)

Connector	:	XLR-3-31 (1: GND, 2: HOT, 3: COLD)
Format	:	AES3-2003/IEC60958-4 (AES/EBU)
Input frequency	:	44.1, 48, 88.2, 96, 176.4 and 192 kHz (when SRC OFF) 32–216 kHz (when SRC ON)

Allowable frequency deviation: ±100 ppm (when SRC OFF)

SDIF-3 (unbalanced)

Connectors	:	BNC connector × 2 (L, R)
Format	:	SONY SDIF-3/DSD-raw
Clock sync frequency	:	44.1 kHz (when 2.8 MHz or 5.6 MHz)

Digital output

S/PDIF / CASCADE (unbalanced)

Connector	:	RCA pin jack
Format	:	IEC60958-3 (S/PDIF)

AES/EBU (balanced)

Connector	:	XLR-3-32 (1: GND, 2: HOT, 3: COLD)
Format	:	AES3-2003/IEC60958-4 (AES/EBU)

SDIF-3 (unbalanced)

Connectors	:	BNC connector × 2 (L, R)
Format	:	SONY SDIF-3/DSD-raw
Clock sync frequency	:	44.1 kHz (when 2.8 MHz or 5.6 MHz)

Other connectors

WORD SYNC IN

Connector	:	BNC
Input level	:	equivalent to 5 V TTL
Input impedance	:	75 Ω ±10% (includes terminal on/off switch)
Input frequency	:	44.1, 48, 88.2, 96, 176.4 or 192 kHz

Allowable frequency deviation: ±100 ppm

WORD SYNC THRU/OUT

Connector	:	BNC
Output level	:	equivalent to 5 V TTL
Output impedance	:	75 Ω ±10 %
Output frequency	:	44.1, 48, 88.2, 96, 176.4 or 192 kHz (includes THRU/OUT on/off switch)
Frequency stability	:	±1 ppm or less (Ta=25 ºC)

USB (DEVICE)

Connector	:	USB A-type 4-pin
Protocol	:	USB 2.0 HIGH SPEED (480 Mbps)
Power supply rating	:	DC 5.0 V 0.5 A

USB (KEYBOARD)

Connector	:	USB A-type 4-pin
Protocol	:	USB 1.1 FULL SPEED (12 Mbps)
Power supply rating	:	DC 5.0 V 0.2 A

デジタル入力

S/PDIF ／ CASCADE（アンバランス）

コネクター	：RCA ピンジャック
フォーマット	：IEC60958-3（S/PDIF）
入力周波数	：44.1/48/88.2/96/176.4/192 kHz（SRC OFF 時） 32 kHz – 216 kHz（SRC ON 時）
許容周波数偏差	：±100 ppm（SRC OFF 時）

AES/EBU（バランス）

コネクター	：XLR-3-31（1：GND、2：HOT、3：COLD）
フォーマット	：AES3-2003/IEC60958-4（AES/EBU）
入力周波数	：44.1/48/88.2/96/176.4/192 kHz（SRC OFF 時） 32 – 216 kHz（SRC ON 時）
許容周波数偏差	：±100 ppm（SRC OFF 時）

SDIF-3（アンバランス）

コネクター	：BNC コネクター x2（L、R）
フォーマット	：SONY SDIF-3 / DSD-raw
クロック同期周波数	：44.1 kHz（2.8 MHz ／ 5.6 MHz）

デジタル出力

S/PDIF ／ CASCADE（アンバランス）

コネクター	：RCA ピンジャック
フォーマット	：IEC60958-3（S/PDIF）

AES/EBU（バランス）

コネクター	：XLR-3-32（1：GND、2：HOT、3：COLD）
フォーマット	：AES3-2003/IEC60958-4（AES/EBU）

SDIF-3（アンバランス）

コネクター	：BNC コネクター x2（L、R）
フォーマット	：SONY SDIF-3 / DSD-raw
クロック同期周波数	：44.1 kHz（2.8 MHz ／ 5.6 MHz）

その他のコネクター

WORD SYNC IN

コネクター	：BNC コネクター
入力レベル	：5 V TTL 相当
入力インピーダンス	：75 Ω±10% ※終端あり／なし切り換えスイッチ付き
入力周波数	：44.1/48/88.2/96/176.4/192 kHz
許容周波数偏差	：±100 ppm

WORD SYNC THRU/OUT

コネクター	：BNC コネクター
出力レベル	：5 V TTL 相当
出力インピーダンス	：75 Ω±10 %
出力周波数	：44.1/48/88.2/96/176.4/192 kHz ※THRU/OUT 切り換えスイッチ付き
周波数安定度	：±1 ppm 以下（Ta=25 ℃）

USB（DEVICE）

コネクター	：USB A タイプ 4ピン
プロトコル	：USB 2.0 HIGH SPEED（480 Mbps）
電源定格	：DC 5.0 V 0.5 A

USB（KEYBOARD）

コネクター	：USB A タイプ 4ピン
プロトコル	：USB 1.1 FULL SPEED（12 Mbps）
電源定格	：DC 5.0 V 0.2 A

Audio performance

Recording

Distortion (THD+N, 1 kHz)

PCM 24 bit mode and DSD mode

0.003% or less (Ref: –16 dB/BALANCED, JEITA)
0.005% or less (UNBALANCED, JEITA)

S/N

PCM 24 bit mode

113 dB or higher (Ref: –20 dB/BALANCED, JEITA)
111 dB or higher (UNBALANCED, JEITA)

DSD mode

106 dB or higher (Ref: -20 dB/BALANCED,AES-17 20 k LPF)
104 dB of higher (UNBALANCED, AES-17 20 k LPF)

Frequency response

PCM mode

Fs = 44.1 or 48 kHz
20 Hz–20 kHz: +0.1 dB, –0.5 dB (JEITA)
Fs = 88.2 or 96 kHz
20 Hz–40 kHz: +0.1 dB, –1 dB (JEITA)
Fs = 176.4 or 192 kHz
20 Hz–80 kHz: +0.1 dB, –6 dB (JEITA)

DSD mode

20 Hz–50 kHz: +0.1 dB, –3 dB (JEITA)
20 Hz–100 kHz: +0.1 dB, –12 dB (JEITA)

Crosstalk (1 kHz)

PCM 24 bit mode and DSD mode

105 dB or higher (JEITA)

Playback

Distortion (THD+N, 1 kHz)

PCM 24 bit mode and DSD mode

0.003 % or less (BALANCED, JEITA)
0.001 % or less (UNBALANCED, JEITA)

S/N

PCM 24 bit mode

118 dB or higher (Ref: –20 dB/BALANCED, JEITA)
116 dB or higher (UNBALANCED, JEITA)

DSD mode

116 dB or higher (Ref: -20 dB/BALANCED,AES-17 20 k LPF)
114 dB of higher (UNBALANCED, AES-17 20 k LPF)

Frequency response

PCM mode

Fs = 44.1 or 48 kHz
20 Hz–20 kHz: ±0.1 dB (JEITA)
Fs = 88.2 or 96 kHz
20 Hz–40 kHz: +0.1 dB, –0.3 dB (JEITA)
Fs = 176.4 or 192 kHz
20 Hz–80 kHz: +0.1 dB, –3 dB (JEITA)

DSD mode

20 Hz–50 kHz: +0.1 dB, –3 dB (JEITA)
20 Hz–100 kHz: +0.1 dB, –12 dB (JEITA)

Control input

Infrared sensor

RC-10 wireless remote control

オーディオ性能

録音

歪率（THD+N、1 kHz）

PCM 24 bitモード時、DSD時

0.003 %以下（Ref：-16 dB/BALANCED、JEITA）
0.005 %以下（UNBALANCED、JEITA）

S/N

PCM 24 bitモード時

113 dB以上（Ref：-20 dB/BALANCED、JEITA）
111 dB以上（UNBALANCED、JEITA）

DSD時

106 dB以上（Ref：-20 dB/BALANCED、AES-17 20 k LPF）
104 dB以上（UNBALANCED、AES-17 20 k LPF）

周波数特性

PCM 時

Fs = 44.1/48 kHz
20 Hz-20 kHz ：+0.1 dB、-0.5 dB（JEITA）
Fs = 88.2/96 kHz
20 Hz-40 kHz ：+0.1 dB、-1 dB（JEITA）
F = 176.4/192 kHz
20 Hz-80 kHz ：+0.1 dB、-6 dB（JEITA）

DSD時

20 Hz-50 kHz ：+0.1 dB、-3 dB（JEITA）
20 Hz-100 kHz：+0.1 dB、-12 dB（JEITA）

クロストーク（1 kHz）

PCM 24 bitモード時、DSD時

105 dB以上（JEITA）

再生

歪率（THD+N、1 kHz）

PCM 24 bitモード時、DSD時

0.003 %以下（BALANCED、JEITA）
0.001 %以下（UNBALANCED、JEITA）

S/N

PCM 24 bitモード時

118 dB以上（Ref：-20 dB/BALANCED、JEITA）
116 dB以上（UNBALANCED、JEITA）

DSD時

116 dB以上（Ref：-20 dB/BALANCED、AES-17 20 k LPF）
114 dB以上（UNBALANCED、AES-17 20 k LPF）

周波数特性

PCM時

Fs = 44.1/48 kHz
20 Hz-20 kHz ：±0.1 dB（JEITA）
Fs = 88.2/96 kHz
20 Hz-40 kHz ：+0.1 dB、-0.3 dB（JEITA）
Fs = 176.4/192 kHz
20 Hz-80 kHz ：+0.1 dB、-3 dB（JEITA）

DSD時

20 Hz-50 kHz ：+0.1 dB、-3 dB（JEITA）
20 Hz-100 kHz：+0.1 dB、-12 dB（JEITA）

コントロール入力

赤外線受光部

RC-10（ワイヤレスリモコン）

General

Power

AC 120 V, 60 Hz (U.S.A./Canada)
AC 220 V–240 V, 50 Hz–60 Hz (U.K./Europe/Australia)

Power consumption

24 W

Dimensions(W × H × D)

483 × 45 × 305 (mm) / 19 x 1.75 x 12 (in)

Weight

4.2 Kg (9.26 lb)

Operating temperature range

0–40 ℃ (32–104 °F)

一般

電源

AC 100 V、50/60 Hz

消費電力

24 W

外形寸法

483 x 45 x 305 mm（幅 x 高さ x 奥行き）

質量

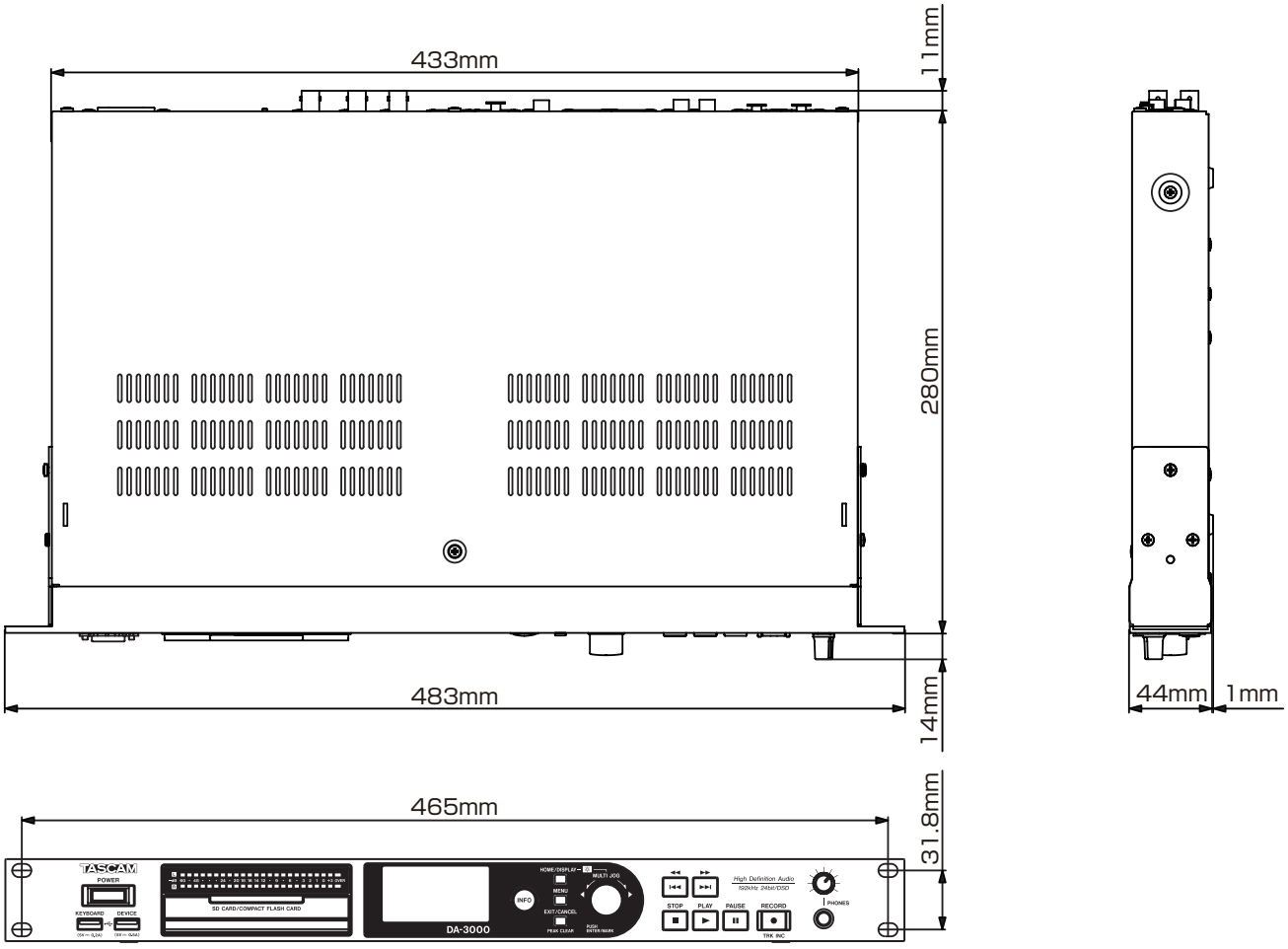
4.2 kg

動作温度

0～+40 ℃

2. Dimensional drawings

寸法図



3. Changing the battery for remote control

リモコン用電池の交換

Replace the battery with a new one if the remote control operation range is reduced or if the buttons become unresponsive.
Use a coin-shaped lithium battery (CR2025).

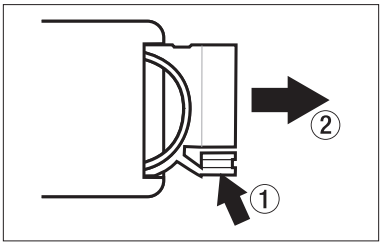
操作範囲が狭くなった、または操作ボタンを押しても動作しない場合は、新しい電池に交換してください。
電池は、コイン形リチウム電池（CR2025）をご使用ください。

1. How to change the battery

1) Remove the battery holder.
While pressing ①, pull in direction ②.

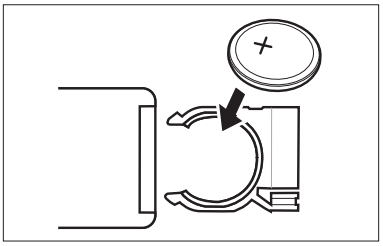
1. 電池の交換方法

1) リモコンから電池ホルダーを抜きます。
1の部分を押しながら2の方向へ引き抜きます。



2) Install a coin-shaped lithium battery (CR2025) into the holder with the correct ⊕/⊖ orientation..

2) ⊕、⊖ の向きに注意して、コイン形リチウム電池（CR2025）を電池ホルダーに入れます。



2. Warnings about battery use

Misuse of a battery could cause it to leak, rupture or otherwise be damaged. Please read and abide by the cautions related to batteries.

- Install the coin-shaped lithium battery with the correct orientation.
- Do not recharge the coin-shaped lithium battery.
- Do not heat or disassemble the coin-shaped lithium battery or put it into fire or water.
- Do not carry or store the coin-shaped lithium battery with small metal objects. Doing so could short the battery and cause leakage or rupture, for example.
- When storing or disposing of batteries, cover the contacts with tape to prevent them from touching other batteries or metal objects.
- Follow the disposal instructions written on the battery or given by the local government when you are done using it.
-

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.

2. 電池についての注意

電池を誤って使用すると、液漏れや破裂などの原因となることがあります。下記の注意をよく見てご使用ください。

- コイン形リチウム電池の向きを正しく入れてください。
- コイン形リチウム電池は、充電しないでください。
- コイン形リチウム電池を加熱したり、分解したり、火や水の中に入れないでください。
- コイン形リチウム電池を金属製の小物類と一緒に携帯、保管しないでください。電池がショートして液漏れや破裂などの原因となることがあります。
- 保管や廃棄をする場合は、他の電池や金属製の物と接触しないように、テープなどで端子を絶縁してください。
- 使い終わった電池は電池に記載された廃棄方法、もしくは各市町村の廃棄方法にしたがって捨ててください。

警告

リモコンの電池の交換は正しく行わない場合、破裂する恐れがあります。
同じ型番あるいは同等品のタイプのみが交換可能です。

4. Test Mode

テストモード

The test mode allows you to check the following.

1) EEPROM initialize setting and operation
2) RTC setting and operation
3) Various buttons and dial of front panel operation
4) OLED display and LED indications
5) Various buttons of remote control operation
6) Display of various versions

テストモードでは、以下の操作および確認をする事ができます。

1) EEPROMの初期化および動作確認
2) RTCの設定と動作確認
3) フロントパネルの各種ボタンとダイヤルの動作確認
4) OLEDディスプレイおよびLEDの表示確認
5) リモコンの各種ボタンの動作確認
6) 各種バージョンの表示

1. How to enter test mode

While holding down the **STOP**+**PLAY**+**REC** button of the front panel, switch the front panel power on.

Test mode is terminated when switching off the power.

1. テストモードの起動方法

フロントパネルの**STOP**+**PLAY**+**REC**ボタンを押しながら電源スイッチを入れます。

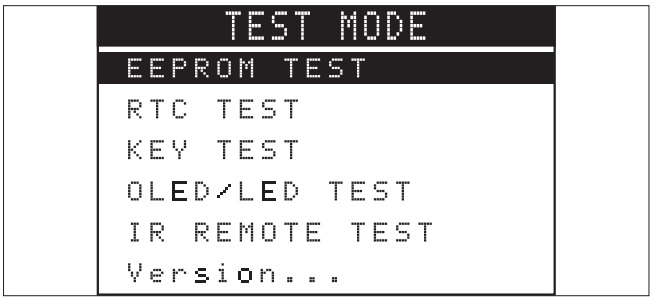
テストモードは電源OFFで終了します。

2. Test mode menu

Test mode menu are displayed the following on the display.

2. テストモードメニュー

画面に下記のテストモードメニューを表示します。



Select a test item by rotating the **MULTI JOG** dial and determine the selection by pushing.

1. **EEPROM TEST**
2. **RTC TEST**
3. **KEY TEST**
4. **OLED/LED TEST**
5. **IR REMOTE TEST**
6. **Version...**

MULTI JOGダイヤルでテスト項目を選択し、**MULTI JOG**ダイヤルを押して決定します。

1. **EEPROM TEST**
2. **RTC TEST**
3. **KEY TEST**
4. **OLED/LED TEST**
5. **IR REMOTE TEST**
6. **Version...**

3. Description of each test mode

1) **EEPROM TEST**

Select "**EEPROM TEST**" from the test mode menu and push the **MULTI JOG** dial.

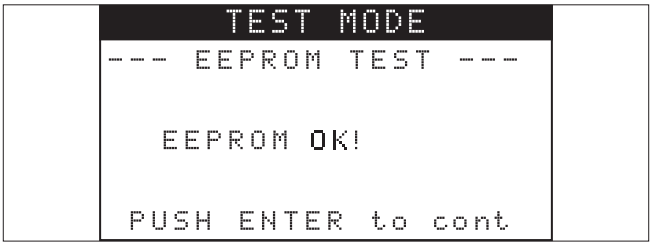
Initialization of EEPROM is started, and the following screen is displayed, when it finish.

3. 各テストモードの説明

1) **EEPROM TEST**

テストモードメニューから**"EEPROM TEST"**を選択し、**MULTI JOG**ダイヤルを押します。

EEPROMの初期化がスタートし、終わると下記を表示します。



Press the **MULTI JOG** dial again to the test mode menu.

2) **RTC TEST**

Select "**RTC TEST**" from the test mode menu and push the **MULTI JOG** dial.

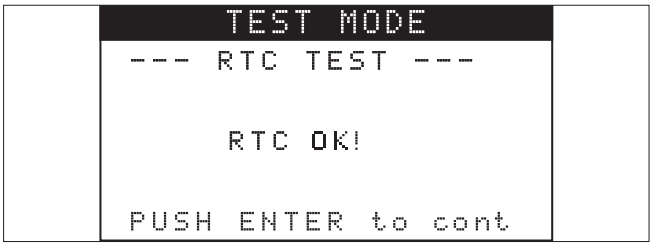
After the display to go for 3 seconds by 1 second during "**2013/01/01 00:00.02**" from "**2012/12/31 23:59.58**", the following screen is displayed.

再度、**MULTI JOG**ダイヤルを押すとテストモードメニューに戻ります。

2) **RTC TEST**

テストモードメニューから**"RTC TEST"**を選択し、**MULTI JOG**ダイヤルを押します。

"2012/12/31 23:59.58"～**"2013/01/01 00:00.02"**の間、1秒ずつ3秒間進む表示をした後、次の表示をします。



Press the MULTI JOG dial again, the test mode menu reappears.

3) **KEY TEST**

Select "**KEY TEST**" from the test mode menu and push the **MULTI JOG** dial.

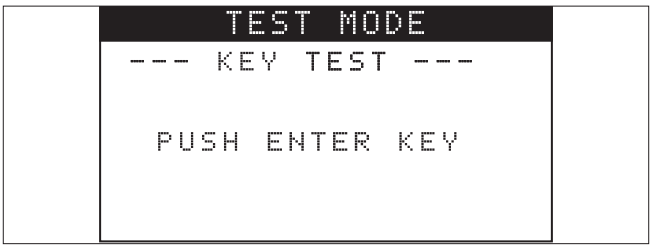
After the following screen is displayed, **KEY TEST** will start press the **MULTI JOG** dial again.

再度、**MULTI JOG**ダイヤルを押すとテストモードメニューに戻ります。

3) **KEY TEST**

テストモードメニューから**"KEY TEST**"を選択し、**MULTI JOG**ダイヤルを押します。

下記の画面が表示されて、再度**MULTI JOG**ダイヤルを押すと、**KEY TEST**がスタートします。



Confirm by pressing each buttons in order of front panel following the instructions on the screen.

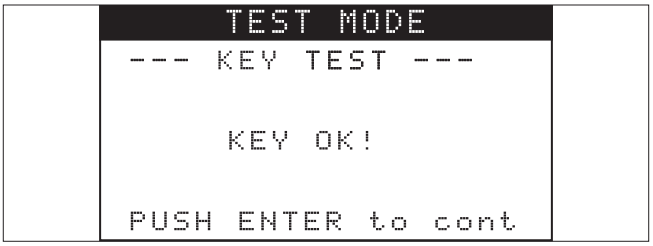
画面の指示に従ってフロントパネルの各ボタンを以下の順番に押して、確認していきます。

Order	Operation target button	Instruction on Display
1	INFO button	PUSH INFO KEY
2	HOME/DISPLAY button	PUSH HOME KEY
3	MENU button	PUSH MENU KEY
4	EXIT/CANCEL button	PUSH EXIT KEY
5	ENTER button	PUSH ENTER KEY
6	◀◀ (I◀◀) button	PUSH PREV KEY
7	▶▶ (▶▶I) button	PUSH NEXT KEY
8	STOP (■) button	PUSH STOP KEY
9	PLAY (▶) button	PUSH PLAY KEY
10	PAUSE (❚❚) button	PUSH PAUSE KEY
11	RECORD [(●)TRK INC] button	PUSH REC KEY
12	MULTI JOG dial(>)	ROTATE JOG +(Count:0->24)
13	MULTI JOG dial(<)	ROTATE JOG - (Count:24->0)

順番	操作対象ボタン	表示される指示
1	INFO ボタン	PUSH INFO KEY
2	HOME/DISPLAY ボタン	PUSH HOME KEY
3	MENU ボタン	PUSH MENU KEY
4	EXIT/CANCEL ボタン	PUSH EXIT KEY
5	ENTER ボタン	PUSH ENTER KEY
6	◀◀ (I◀◀) ボタン	PUSH PREV KEY
7	▶▶ (▶▶I) ボタン	PUSH NEXT KEY
8	STOP (■) ボタン	PUSH STOP KEY
9	PLAY (▶) ボタン	PUSH PLAY KEY
10	PAUSE(❚❚) ボタン	PUSH PAUSE KEY
11	RECORD [(●)TRK INC] ボタン	PUSH REC KEY
12	MULTI JOGダイヤル(>)	ROTATE JOG +(Count:0→24)
13	MULTI JOGダイヤル(<)	ROTATE JOG ー (Count:24→0)

The following screen will display after finishing the operation of all buttons, press the **MULTI JOG** dial to return to the test mode menu.

すべてのボタンの操作を終えると下記の画面が表示され、**MULTI JOG**ダイヤルを押すと、テストモードメニューに戻ります。



- It is not possible to stop in the middle of the **KEY TEST**.
- If you press the button that is not indicated, it does not proceed.

・**KEY TEST**を途中で止めることはできません。

・指示されたボタン以外を押した場合、先に進みません。

4) **OLED/LED TEST**

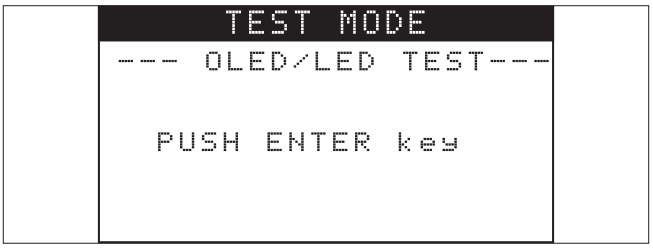
Select **"OLED/LED TEST"** from the test mode menu and push the **MULTI JOG** dial.

After the following screen is displayed, **OLED/LED TEST** will start.

4) **OLED/LED TEST**

テストモードメニューから**"OLED/LED TEST**"を選択し、**MULTI JOG**ダイヤルを押します。

次の画面が表示され、再度**MULTI JOG**ダイヤルを押すと、**OLED/LED TEST**がスタートします。



OLED/LED are checked by the operating the buttons in the following order.

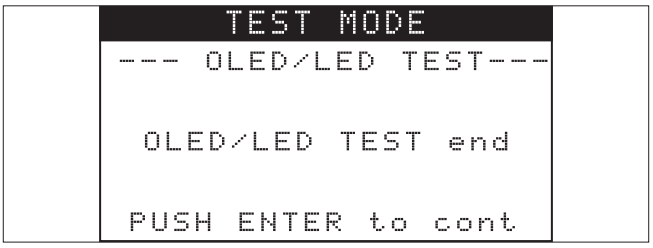
Order	State of target (OLED/LED)
1	All OLED and LED are turn off.
2	All dots of OLED are turn on. All LED are turn off.
3	All LED of the meter are turn on. (REFERENCE LEVEL is -20 dB. The next instruction is displayed on OLED.)
4	Position of the REFERENCE LEVEL changes to -9 dB from the state of above 3.
5	LED of REC, PLAY, and INFO(BLUE) are turn on. (Other LED are turn off. The next instruction is displayed on OLED.)
6	LED of PAUSE and INFO(RED) are turn on. (Other LED are turn off. The next instruction is displayed on OLED.)
7	All LED are turn on. (The next instruction is displayed on OLED.)

After finishing the operation of all buttons, the following screen is displayed, press the **MULTI JOG** dial to the TEST MODE MENU.

以下の順番で指示に従い操作をして、各OLED/LEDを確認していきます。

順番	対象(OLED/LED)の状態
1	OLED/LEDのすべてが消灯
2	OLEDの全トッドが点灯/LEDのすべては消灯
3	メーターの全LEDが点灯(リファレンスレベルは-20 dB) OLED上は、次の操作指示を表示)
4	上記3の状態から、リファレンスレベルを-9 dBに変更(OLED上は、次の操作指示を表示)
5	RECボタン、PLAYボタン、INFOボタン(青LED)のみ点灯(他のLEDは消灯、OLED上には次の操作指示を表示)
6	PAUSEボタン、INFOボタン(赤LED)のみ点灯(他のLEDは消灯、OLED上には次の操作指示を表示)
7	LEDのすべてが点灯(OLED上には次の操作指示を表示)

すべてのボタンの操作を終えると下記の画面が表示され、**MULTI JOG**ダイヤルを押してテストモードメニューに戻ります。



5) IR REMOTE TEST

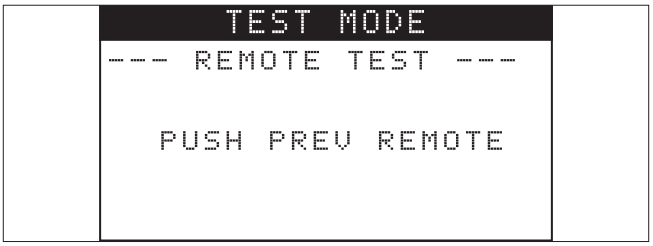
Select "IR REMOTE TEST" from the test mode menu and push the MULTI JOG dial.

After the following screen is displayed, press the MULTI JOG dial again, IR REMOTE TEST will start.

5) **IR REMOTE TEST**

テストモードメニューから**"IR REMOTE TEST**"を選択し、**MULTI JOG**ダイヤルを押します。

下記の画面が表示されて、再度**MULTI JOG**ダイヤルを押すと、**IR REMOTE TEST**をスタートします。



Confirm by pressing each buttons in order of remote control following the instructions on the screen.

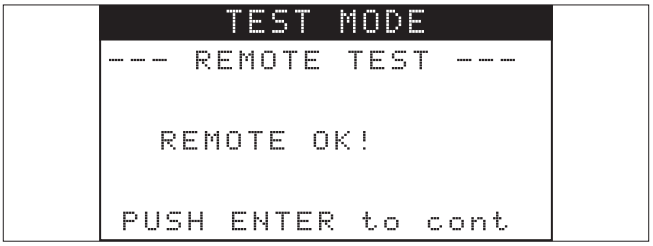
Order	Operation target button	Instruction on Display
1	◄◄ (I◄◄) button	PUSH PREV KEY
2	►► (►►I) button	PUSH NEXT KEY
3	STOP (■) button	PUSH STOP KEY
4	PLAY (►) button	PUSH PLAY KEY
5	RECORD (●) button	PUSH REC KEY
6	MARK button	PUSH MARK KEY
7	F1 button	PUSH F1 KEY
8	F3 button	PUSH F3 KEY
9	F2 button	PUSH F2 KEY
10	F4 button	PUSH F4 KEY

The following screen will display after finishing the operation of all buttons, press the **MULTI JOG** dial to return to the test mode menu.

画面の指示に従ってリモコンの各ボタンを以下の順番に押して、確認していきます。

順番	操作対象ボタン	表示される指示
1	◄◄ (I◄◄) ボタン	PUSH PREV KEY
2	►► (►►I) ボタン	PUSH NEXT KEY
3	STOP (■) ボタン	PUSH STOP KEY
4	PLAY (►) ボタン	PUSH PLAY KEY
5	RECORD (●) ボタン	PUSH REC KEY
6	MARK ボタン	PUSH MARK KEY
7	F1 ボタン	PUSH F1 KEY
8	F3 ボタン	PUSH F3 KEY
9	F2 ボタン	PUSH F2 KEY
10	F4 ボタン	PUSH F4 KEY

すべてのボタンの操作を終えると下記の画面が表示され、**MULTI JOG**ダイヤルを押すと、テストモードメニューに戻ります。



6) **Version...**

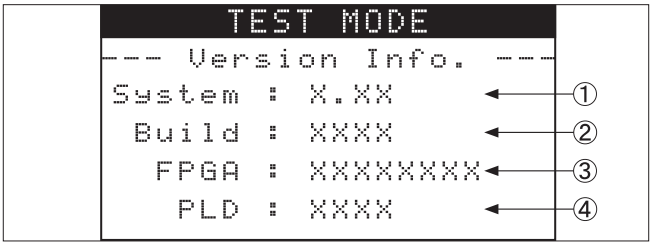
Select "**Version...**" from the test mode menu and push the **MULTI JOG** dial.

The following screen is displayed :

6) **Version...**

テストモードメニューから**"Version..."**を選択し、**MULTI JOG**ダイヤルを押します。

下記の各バージョン情報が表示されます。



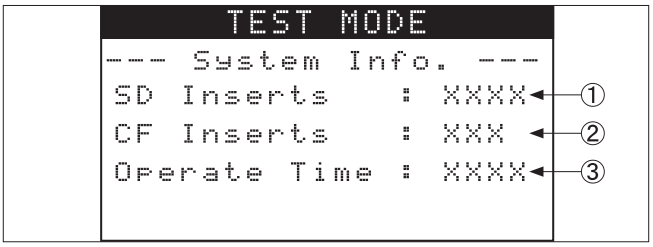
①	Firmware version	ファームウェアバージョン
②	Firmware build number	ファームウェアビルド番号
③	FPGA version	FPGAバージョン
④	PLD version	PLDバージョン

Press the **STOP** button to return to the test mode menu.

Further, when the display state as described above, press **MULTI JOG** dial, each system information is displayed as shown below.

STOPボタンを押すと、テストモードメニューに戻ります。

さらに、上記の表示状態のときに、**MULTI JOG**ダイヤルを押すと、下記の各システム情報が表示されます。



①	Total number of times SD card is inserted	SDカード挿入回数
②	Total number of times CF card is inserted	CFカード挿入回数
③	System operating time	システム稼働時間

Press the **STOP** button to return to the test mode menu.

STOPボタンを押すと、テストモードメニューに戻ります。

5. Updating of Firmware

ファームウェアーのアップデート

Checking the firmware version

Confirm the firmware version of your DA-3000 before updating its firmware.

1) Turn the unit's power ON.
2) Check the "Ver." (firmware version) shown below the "DA-3000" model name on the startup screen.

If the "Ver." shown here are the same or newer than the firmware versions that you plan to update to, then there is no update the firmware.

Preparation and Entering Update mode

1. Creating a compact flash card for update

1) Get ready a compact flash card formatted in FAT format and prepare an environment that can make data writing.
2) Download the latest version of the firmware to be updated from a specific location and get that into PC.
3) Write the update file into the compact flash card.
   - Firmware updating file name
     "DA-3000.xxx"

CAUTION

Be careful not to accidentally interrupt the power supply in the updating process. If this happens, there may be no way of restarting the unit and the flash ROM in the unit may have to be replaced.

2. Starting Update mode

1) While holding down the **PAUSE** and **RECORD** buttons, press the front panel POWER switch to turn the power on. The screen shown below will appear.
   - Continue to press the buttons even after the startup screen appears until the **"Firmware Update"** is shown.

ファームウェアバージョンの確認

ファームウェアアップデート作業前に、DA-3000のファームウェアバージョンを確認します。

1) 本体の電源を入れてください。
2) 起動画面の機種名表示”DA-3000”の下側に表示される”Ver.”（ファームウェアバージョン）を確認してください。

ここで表示される”Ver.”が、これからアップデートしようとしているファームウェアバージョンと同じ、または新しい場合はアップデートの必要はありません。

準備とアップデートモードの起動

1. アップデート用コンパクトフラッシュカードの作成

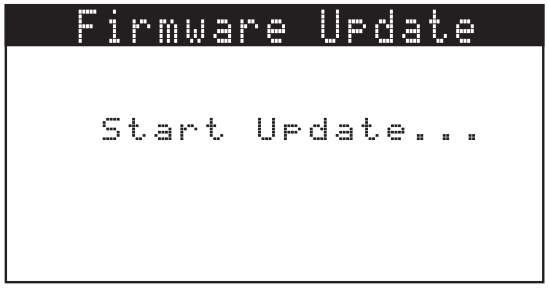
1) FAT形式でフォーマットされたコンパクトフラッシュカードと、データの書き込みができる環境を用意します。
2) アップデートする最新バージョンのファームウェアを所定の場所からダウンロードし、PCに取り込みます。
3) アップデートファイルをコンパクトフラッシュカードに書き込みます。
   - ファームウェアアップデートファイル名
     「DA-3000.xxx」

注意

ファームウェアのアップデート中に不用意に電源が切れてしまわないよう十分注意してください。アップデート中に電源が切れると再起動出来なくなり、本体内のFLASH ROMの交換が必要となる可能性があります。

2. アップデートモードの起動

1) **PAUSE / RECORD**ボタンを押しながら、フロントパネルの電源スイッチを入れます。下記の画面が表示されます。
   - 起動画面を表示後、**"Firmware Update"**画面が表示されるまで、電源スイッチを押したままにしてください。



Firmware Update

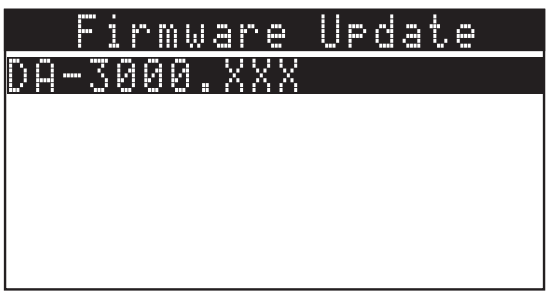
1. Firmware Update Procedure

1) Insert the compact flash card slot compact flash card copied the firmware that you downloaded. The screen shown below will appear.
   (**"XXX"** is the firmware version.)

ファームウェア アップデート

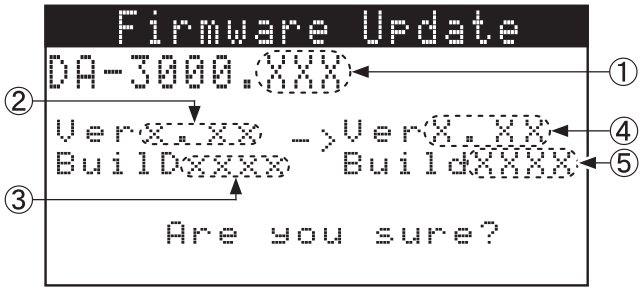
1. ファームウェアアップデート手順

1) ダウンロードしたファームウェアをコピーしたコンパクトフラッシュカードをCFカードスロットに挿入します。下記の画面が表示されます。
   (**"XXX"**はファームウェアバージョン)



2) Push the **MULTI JOG dial**.
The screen shown below will appear.
.

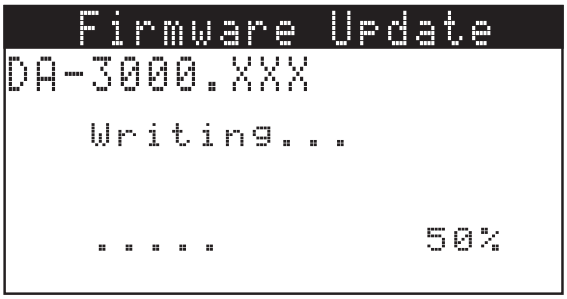
2) **MULTI JOG** ダイヤルを押します。
下記の画面が表示されます。



①	Firmware version	ファームウェアバージョン
②	Old firmware version	現行ファームウェアバージョン
③	Old firmware build number	現行ファームウェアビルド番号
④	New firmware version	変更用ファームウェアバージョン
⑤	New firmware build number	変更用ファームウェアビルド番号

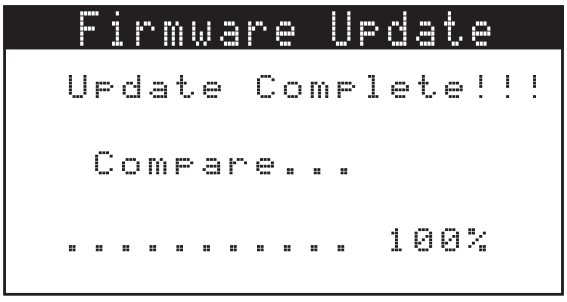
3) Push the **MULTI JOG** dial and **"Writing..."** is displayed and the updating process starts.

3) **MULTI JOG** ダイヤルを押すと、**"Writing..."** が表 示され、アップデートの実行を開始します。



Upon completion of the updating process, **"Update Complete!!!"** is displayed.

アップデートが完了したら、**"Update Complete!!!"** を表示します。



4) When the update is completed, restart the unit by recycling the power.

4) バージョンアップ後、電源を入れ直して再起動してください。

2. Firmware Update Confirmation

1) Press the power switch of front panel to turn the power on.

2) The firmware version and build number of startup screen on the display appear as shown below.

2. ファームウェアアップデートの確認

1) フロントパネルの電源スイッチを入れます。

2) 下記のように表示される起動画面に、ファームウェアのバージョンおよびビルド番号が表示されます。

6. Messages Explained

メッセージ一覧

Error messages

If one of the following error messages appears in a pop-up on the display, press the **MULTI JOG** dial (or remote control **ENTER** button) to close the message.

エラーメッセージ

以下のエラーメッセージが画面にポップアップ表示されたときは、本体の**MULTI JOG**ダイヤル(リモコンの場合、**ENTER**ボタン)を押して、メッセージ表示を閉じてから原因を解消してください。

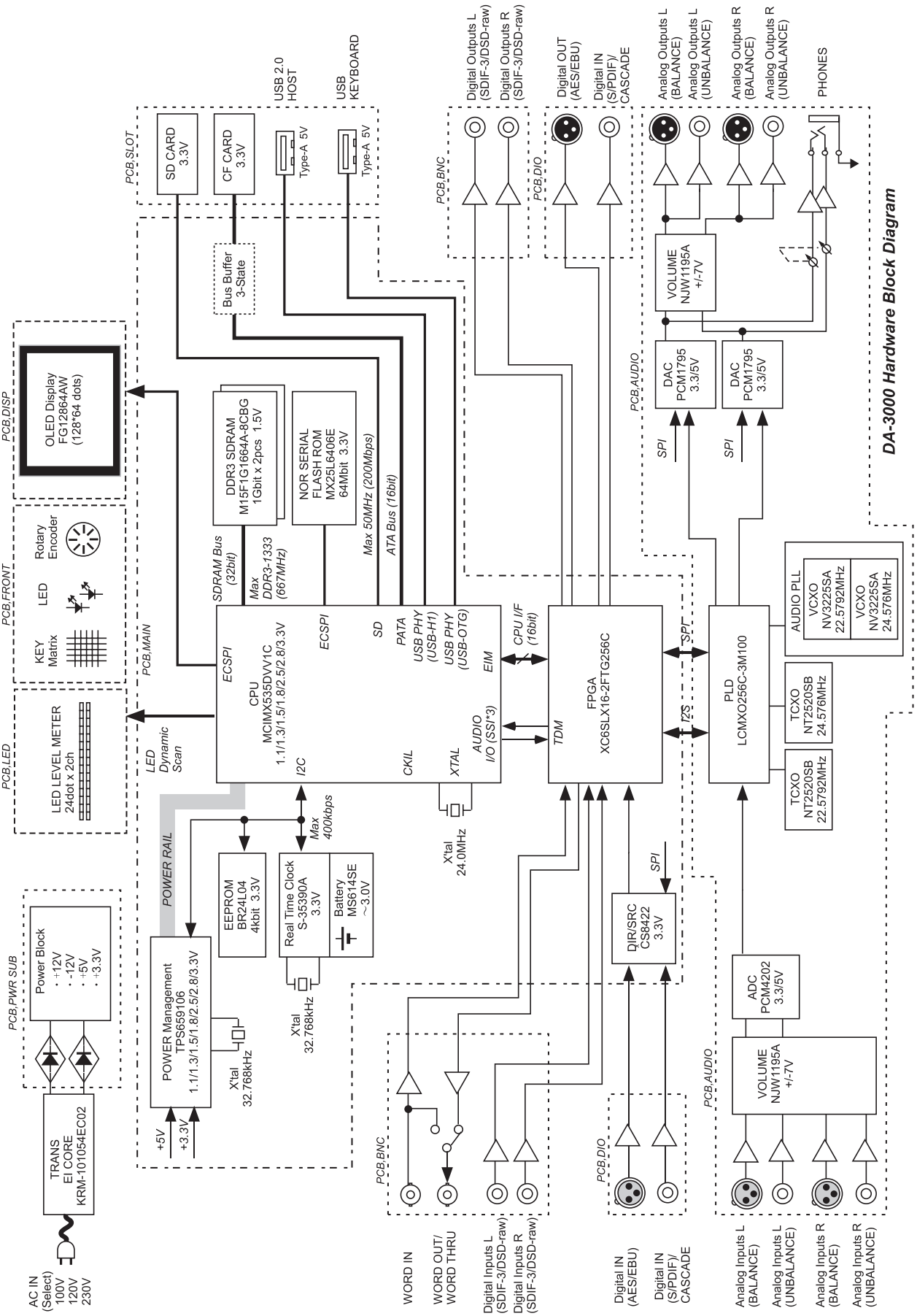
Messages (メッセージ)	**Meaning** (内容)
Cannot set Mark. Limit reached.	The maximum number of marks that can be set has been reached, so a new mark cannot be added.
	設定可能なマーク数の上限に達したので、マークを設定できません。
Create Playlist failed.	The creation of a new playlist failed.
	プレイリストの新規作成に失敗しました。
Divide failed.	Division was not possible.
	分割を実行できませんでした。
Operation Failed.	The execution of some operation failed.
	各種機能の実行に失敗しました。
Operation Failed. Folder limit.	The maximum number of folders has been reached so a new folder could not be created.
	フォルダー数の上限に達したので、フォルダーを作成できません。
Operation Failed. long name Path Name is too long.	The total number of characters in the full file path and file name exceeds 255.
	フルパスとファイル名が合わせて255文字を超えています。
Rename failed.	The RENAME operation could not be executed.
	RENAMEを実行できませんでした。
SD Card Locked.	The SD card is locked.
	SDカードがプロテクトされています。
This file already exists.	When RENAME or another operation was conducted, another file with the same name already existed.
	RENAMEなどを実行した際、同じ名称のファイルなどがすでに存在しています。
This folder already exists.	When RENAME or another operation was conducted, another folder with the same name already existed.
	RENAMEなどを実行した際、同じ名称のフォルダーなどがすでに存在しています。
Un/Redo failed.	The REDO operation failed.
	REDOに失敗しました。
CLOCK LOST ..... Switched to internal.	Master clock synchronization became unlocked. The unit switched to its internal clock.
	マスタークロックの同期が外れました。内部クロックに切り換えます。
- CANNOT COPY - Not Enough space on Media.	Not enough open space is available on the media, so copying is not possible.
	メディアの残り容量が足りないためコピーできません。
- CANNOT INC. - Media full or too short interval.	Incrementing the track was not possible because either the interval was too short or the media does not have enough space.
	インターバルが短い、またはメディアの空き容量がないため、トラックインクリメントができません。
- CANNOT MOVE - Mono file is not supported.	Moving mono ×2 files is not supported, so moving is not possible.
	モノラルx2のファイルに対応していないため、移動できません。
- CANNOT MOVE - This name already exists.	Moving is not possible because another file already has the same name.
	同じ名称のファイルがあるため、移動できません。
--- CAUTION --- Cannot execute. Media Full.	Editing is not possible because the media does not have enough open space.
	メディアの容量に空きがないため、編集できません。
--- CAUTION --- Formatting not optimal for Recording/Search	This media format is not recommended.
	メディアのフォーマットが推奨外です。
--- CAUTION --- Not possible now Please Stop first.	Stop the unit before executing this function
	この機能は、停止状態から実行してください。
--- CAUTION --- Not recommended type for Recording/Search	This media is not recommended.
	このメディアは、推奨外です。

Messages (メッセージ)	Meaning (内容)
--- CAUTION --- RECORD stopped. ABS time limit.	Recording stopped because more than 24 hours elapsed.
	24時間を超えたため、録音を停止しました。
--- CAUTION --- RECORD stopped. Media Full.	Recording stopped because the media ran out of open space.
	メディアの容量に空きがなくなったため、録音を停止しました。
-- COPY FAILED --	Copying failed.
	コピーに失敗しました。
- DEVICE ERROR -	An error occurred with the device.
	デバイスにエラーが発生しました。
-- DIN ERROR --	An error occurred during digital input.
	デジタル入力時にエラーが発生しました。
--- ERROR --- INFO WRITING.	An error occurred at the end of recording.
	録音終了処理でエラーが発生しました。
--- ERROR --- General Error needs to STOP.	A general error occurred.
	一般エラーが発生しました。
--- ERROR --- Unsupported File. (too many tracks)	This file is not supported.
	このファイルは、サポートされていません。
--- ERROR --- Unsupported Fs.	The sampling rate is not supported.
	このファイルは、サポートされていません。このファイルは、サポートされていません。
- MEDIA ERROR -	A media error occurred.
	メディアエラーが発生しました。
-- PLAY ERROR --	A playback error occurred.
	再生エラーが発生しました。
-- PLAY ERROR -- Buffer underrun.	A buffer underrun error occurred.
	バッファーアンダーエラーが発生しました。
-- READ ERROR --	An error occurred while reading.
	読み込み中にエラーが発生しました。
-- REC ERROR --	Recording stopped because an error occurred during recording.
	録音中にエラーが発生したため、録音を停止しました。
-- REC ERROR -- Buffer overflow.	Recording stopped because a buffer overflow error occurred.
	バッファーオーバーフローエラーが発生したため、録音を停止しました。
- WRITE ERROR -	An error occurred while writing.
	書き込み中にエラーが発生しました。
- CANNOT DIVIDE - Duplicate name error.	Division was not possible because a file already exists with a name that would be used by a new file after division.
	分割後のファイル名がすでに存在するため、分割を実行できませんでした。
-CANNOT RECORD- Media Full.	Recording is not possible because there is no open space on the media.
	メディアに容量に空きがないため、録音できません。
-CANNOT RECORD- Take limit reached.	Recording is not possible because the maximum number of files has been reached
	ファイル数の上限に達したため、録音できません。
- PLAYLIST ERROR - There are some unusable entries	There is a problem with the playlist entry information.
	プレイリストの登録情報に問題があります。
--- CAUTION --- Cannot play while input monitoring.	When the Input signal monitoring function is ON, and ADDA Direct mode is also ON, it is not possible to Play any tracks.
	入力信号モニター機能の設定がオンの場合とADDA DIRECTモード設定がオンの場合は再生ができません。
--- CAUTION --- Cannot turn on. Cascade mode is not off.	When Cascade mode is ON, this function is unavailable (ADDA Direct Mode)
	カスケードモードがオンの時は、この機能はオンにできません。（ADDA DIRECTモード）

Messages （メッセージ）	**Meaning** （内容）
--- CAUTION --- **Cannot select as cascade mode.** **ADDA DIRECT - ON.**	The Cascade Mode cannot be turned ON because ADDA Direct Mode is already ON.
	ADDA DIRECTモードがオンのため、カスケードモードは使えません。
--- CAUTION --- **There is no entry.**	The unit attempted to Play, etc, but the Playlist has no entries in it, so there is nothing to play.
	再生などしようとしましたが、プレイリストに1曲も登録されていません。
--- CAUTION --- **Cannot select as master clock.** **Fs convert on.**	The Sample Rate Converter (SRC) is already ON, so the Digital Input (DIN) cannot be selected as the Master Clock.
	サンプリングレートコンバーター（SRC）がオンのため、マスタークロックに **“DIN”** を選択できません。
--- CAUTION --- **Cannot turn on.** **D-IN is already Master Clock.**	The Master Clock is already set to the Digital Input "DIN", so the Sample Rate Converter cannot be enabled.
	マスタークロックに **“DIN”** が選択されていますので、サンプリングレートコンバーター（SRC）はオンにできません。
--- CAUTION --- **Must stop first.**	This function or setting cannot be changed right now. Please STOP the unit, then it can be changed.
	機能を使う前にSTOPしてください。

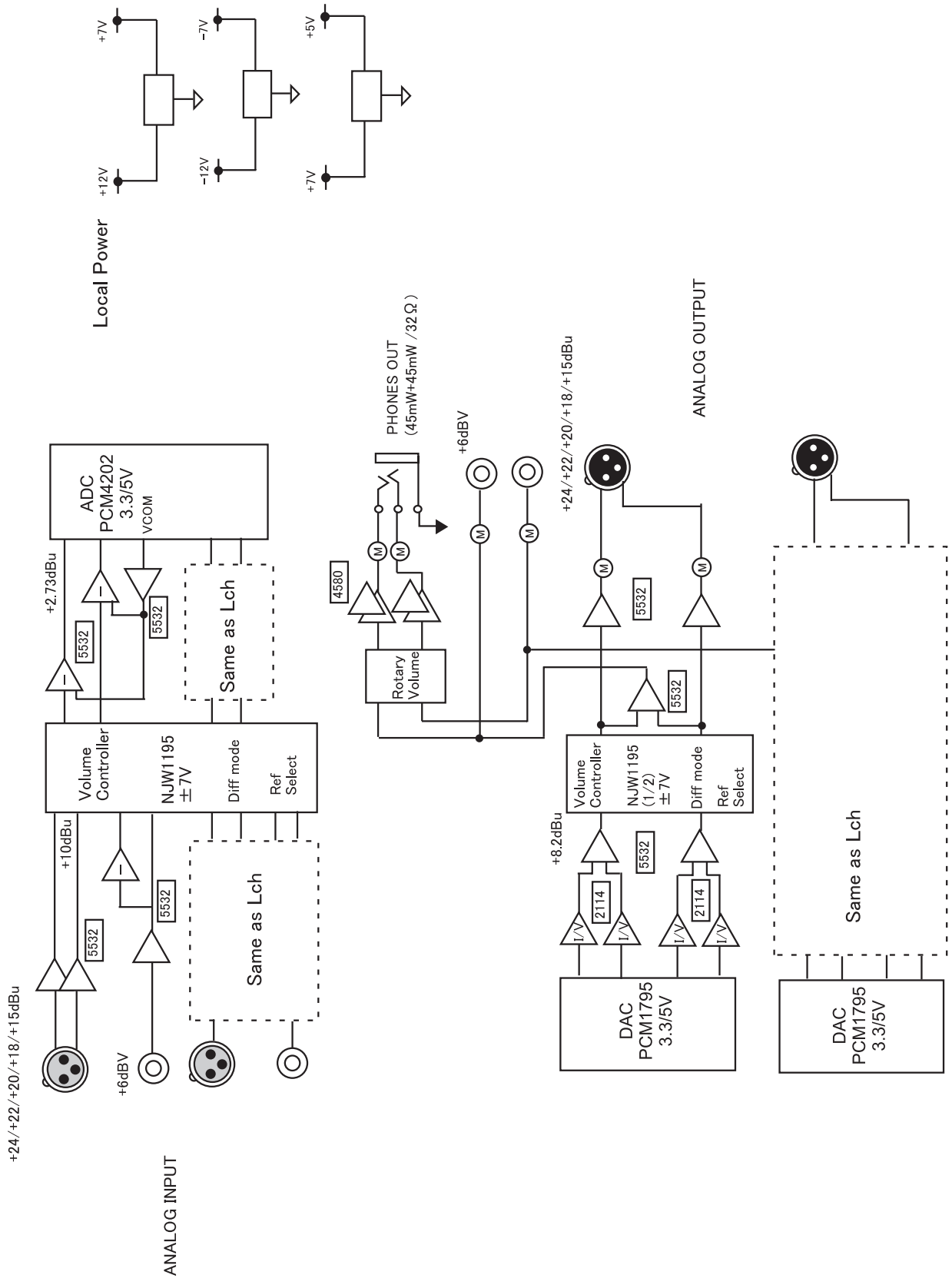
7. Block Diagram(All System)

ブロックダイアグラム (システム全体)



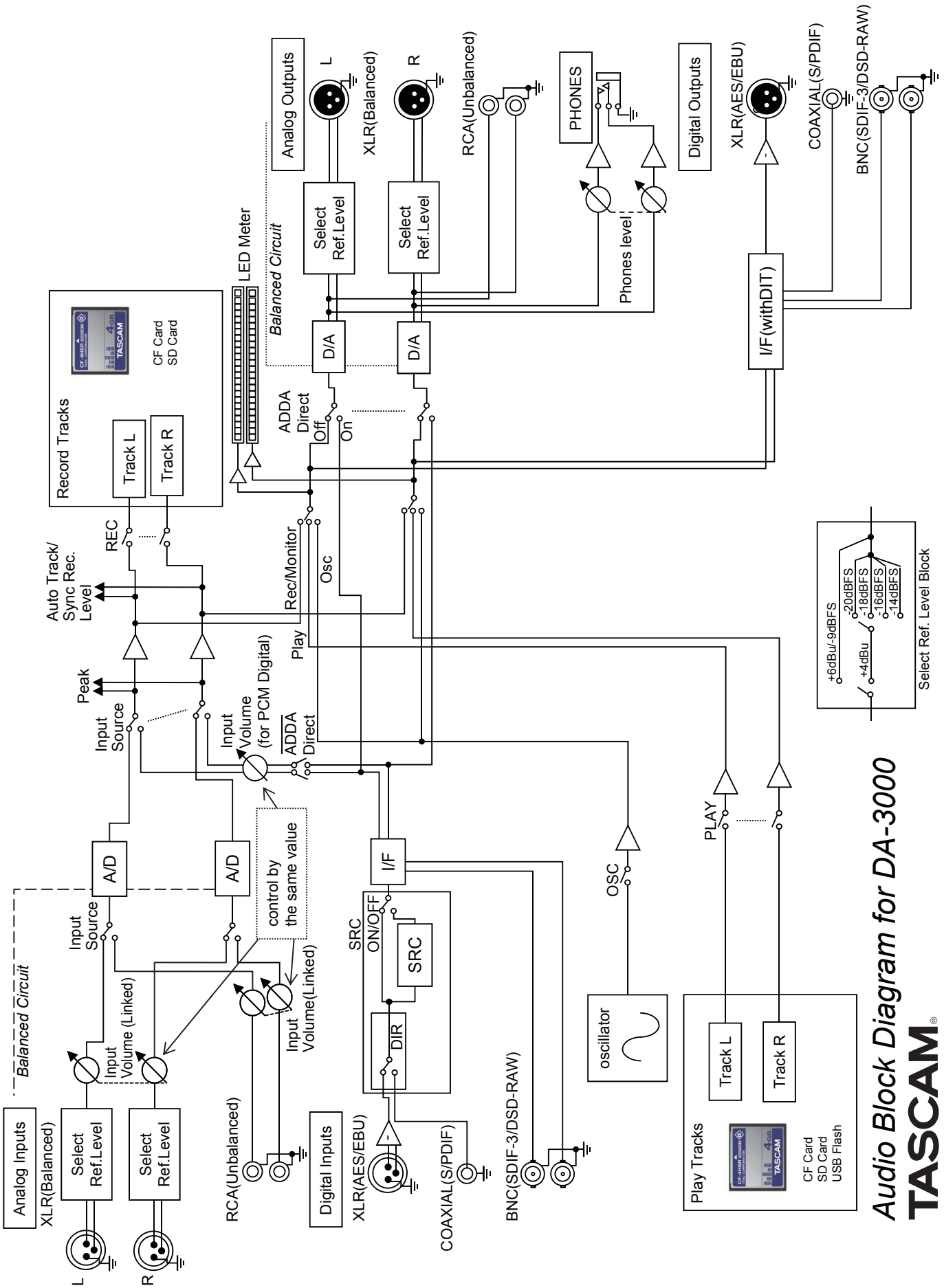
Block Diagram(Audio Block)

ブロックダイアグラム (オーディオ部)



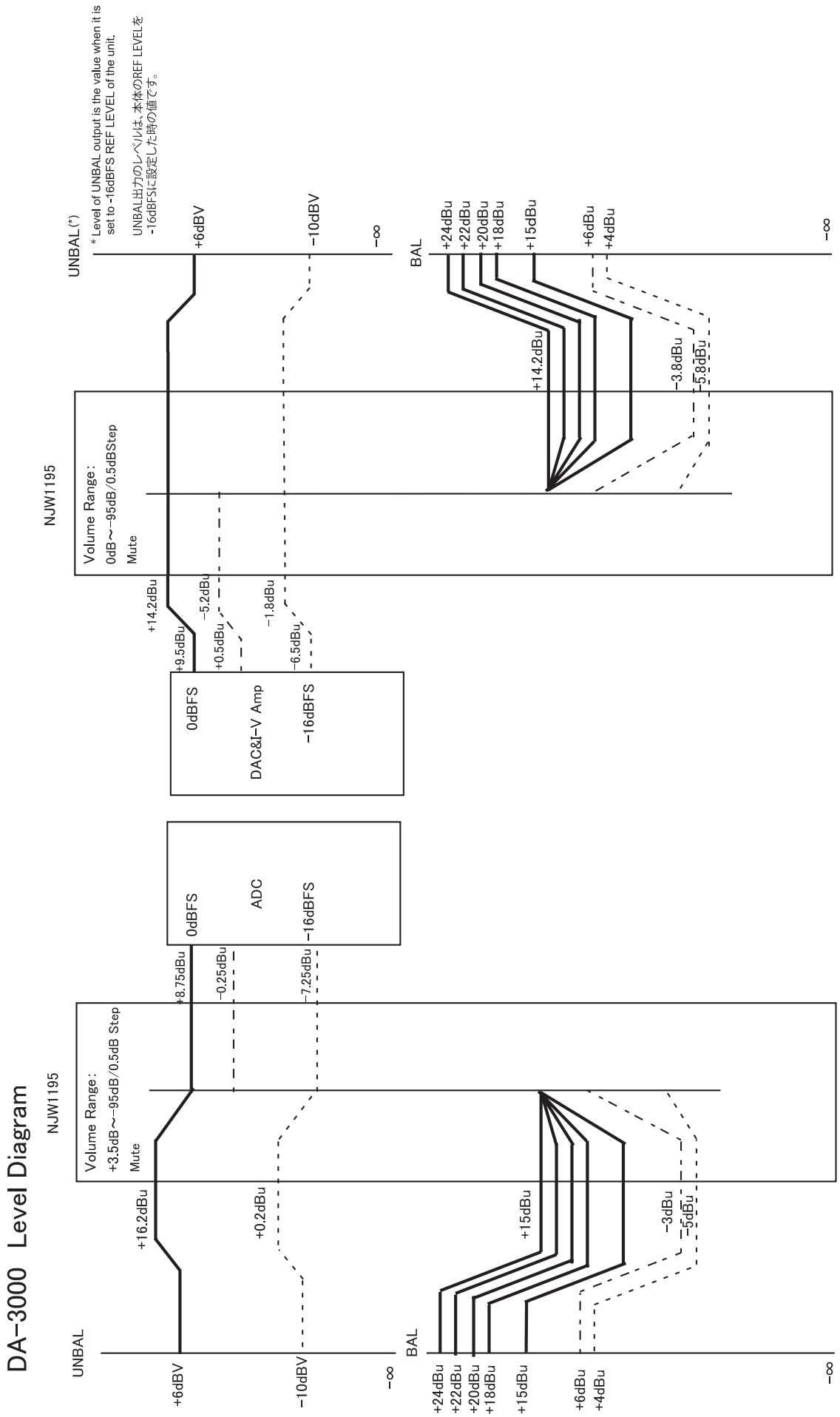
Block Diagram(Audio Signal)

ブロックダイアグラム (オーディオ信号)



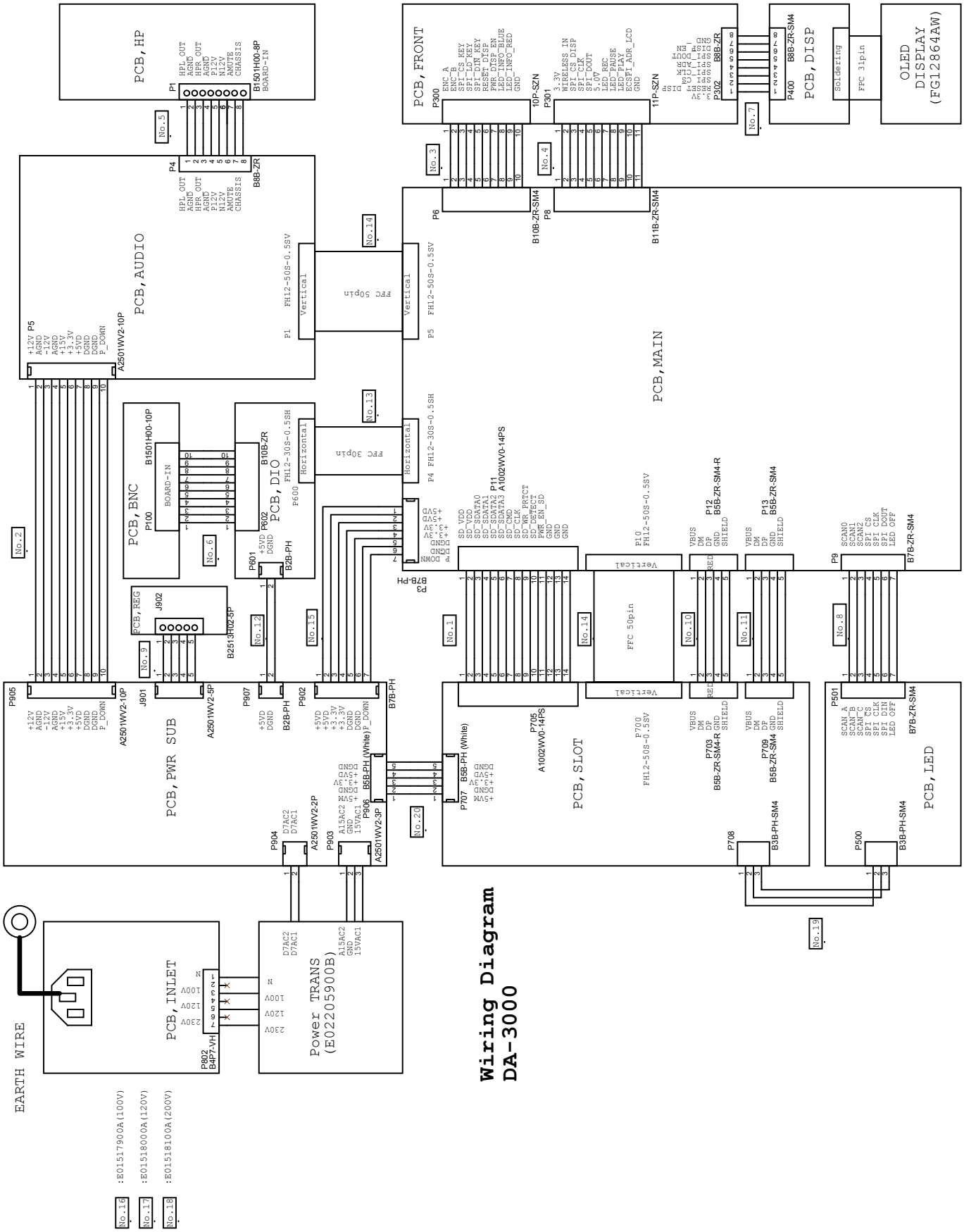
8. Level Diagram

レベルダイアグラム



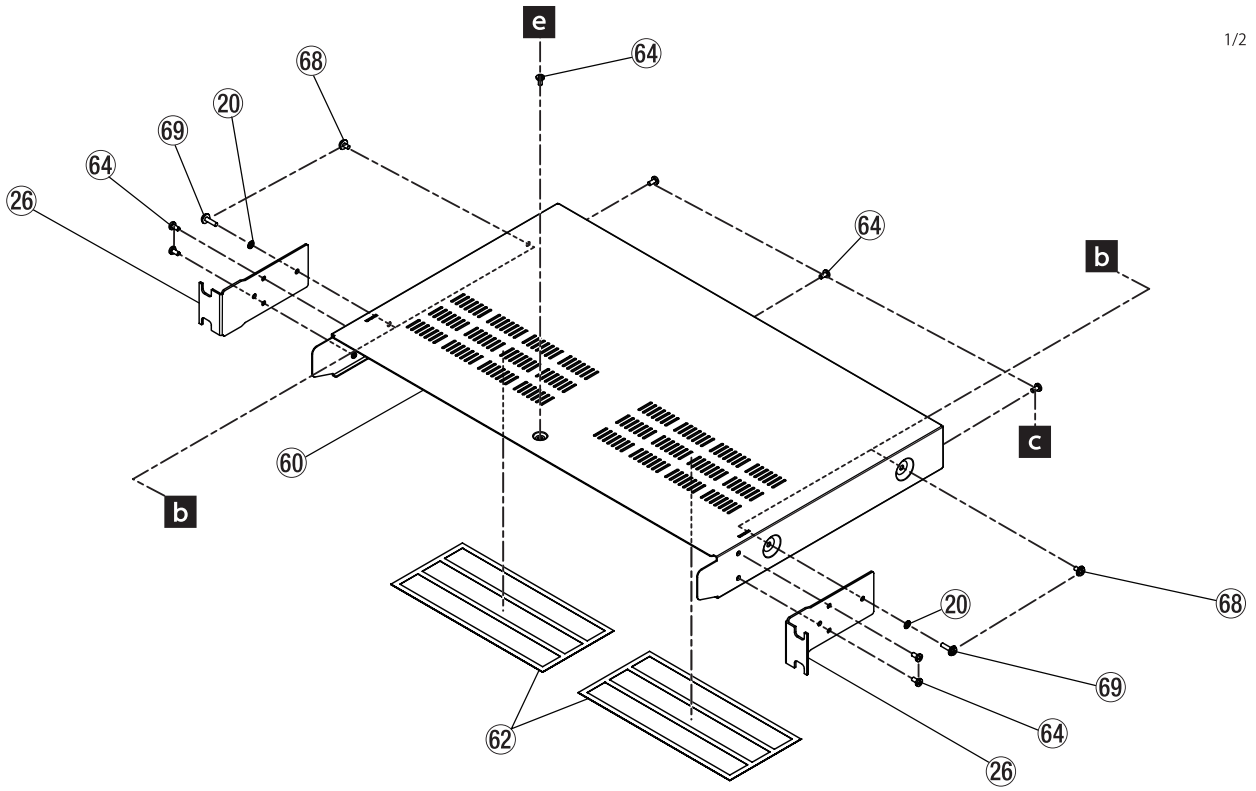
9. Wiring Diagram

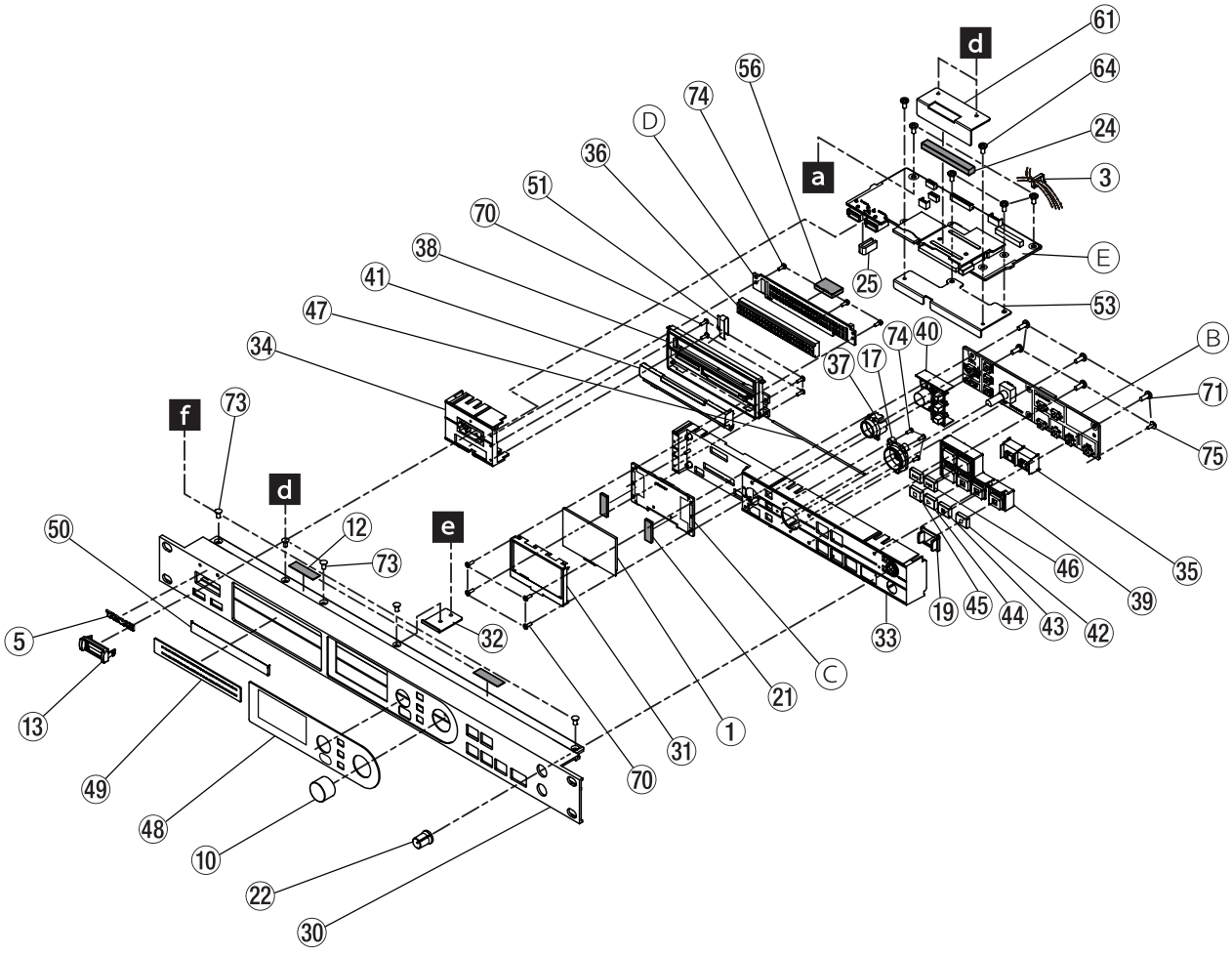
結線図



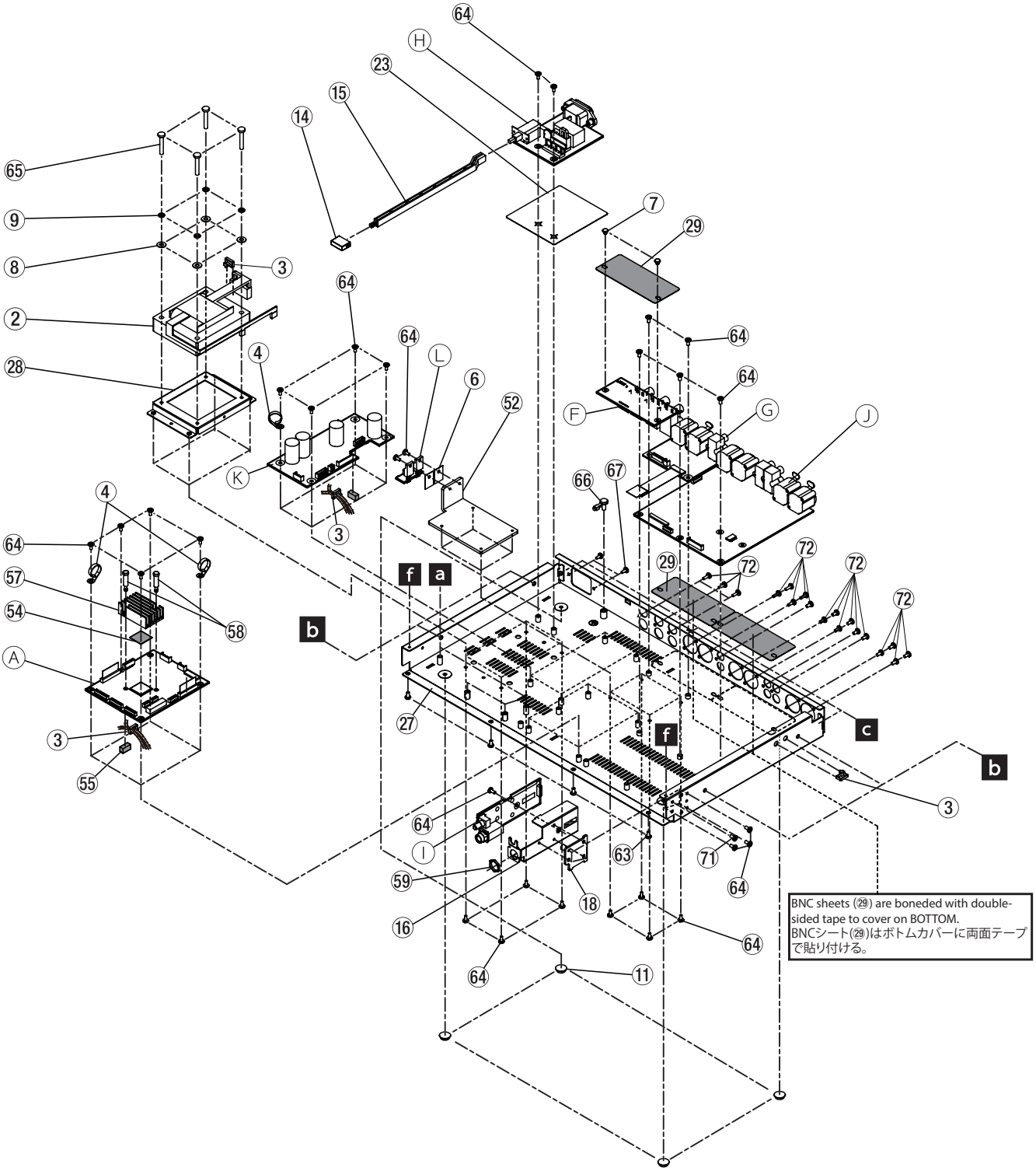
10. Exploded Views and Parts List

分解図とパーツリスト





2/2


BNC sheets (29) are boneded with double-sided tape to cover on BOTTOM.
BNCシート(29)はボトムカバーに両面テープで貼り付ける。

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	E0220530	LED DISPLAY,FG12864AW G	1	
2	E02205900B	TRANS,DA-3000 G	1	⚠
3	3M000870	CABL BAND,100MM DS-8432-G	5	
4	3M0102200A	WIRE CLAMP WL4-50T G	3	
5	3M0134900A	BADGE TASCAM SILVER G	1	
6	3M0144100A	SILICON INSULATOR TO-220G	2	
7	3M0195700A	SNAP RIVET(SR3-3.5) X-9G	2	
8	3M0261900A	SPRING WASHER M4	4	
9	3M0266900A	FW WASHER 4.5D*10D*T1.5 G	4	
10	M01224320B	KNOB,D16 JOG BLACK G	1	
11	M01267300A	FOOT,D12.7H3.6 3M3J5012 G	4	
12	M01643200A	SHEET,PANEL FRONT G	2	
13	M01890701A	ESCUTCHEON,PWR FLAT 632 G	1	
14	M01891201A	BUTTON,POWER FLAT 632 G	1	
15	M02675800A	LINK,PWRSW 1641 G	1	
16	M02676000C	BRACKET,HP 1641 G	1	
17	M02718310A	SLEEVE,KNOB DA-3K G	1	
18	M02718800C	SPACER,PHONE HD-R1 G	1	
19	M02722910A	BUTTON,REC GUARD DA-3K G	1	
20	M02788000A	T LK WSHR,3D G	2	
21	M03055700A	SPACER,LCD HSP82 G	2	
22	M03219100A	KNOB,MIX US1K G	1	
23	M03339400A	SHEET,POWER SSR2 G	1	
24	M03421800A	CUSHION,USB SD CFD G	1	
25	M03459700B	CUSHION,GASKET 2*5.5*L30	1	
26	M03488900A	ANGLE,1U AVP G	2	
27	M03521400D	CHAS,BOTTOM DA-3000 G	1	
28	M03521500A	BRACKET,TRANS DA-3K G	1	
29	M03521700A	SHEET,BNC DA-3000 G	3	
30	M03521800C	PANEL,FRONT DA-3000 G	1	
31	M03521900A	BRACKET,DIS DA-3000 G	1	
32	M03526100A	BRACKET,BONNET DA-3K G	1	
33	M03526300B	ESCUTCHEON,R DA-3K G	1	
34	M03526500B	ESCUTCHEON,L DA-3K G	1	
35	M03526700B	ESCUTCHEON,LED1 DA-3K G	1	
36	M03526800B	ESCUTCHEON,LED2 DA-3K G	1	
37	M03527000B	ESCUTCHEON,INFO DA-3K G	1	
38	M03527100A	ESCUTCHEON,DOOR DA-3K G	1	
39	M03527200A	BUTTON,BASE DA-3K G	1	
40	M03527300A	BUTTON,INFO DA-3K G	1	

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
41	M03527400B	DOOR,DA-3K G	1	
42	M03527510B	BUTTON TOP,PLAY DA-3K G	1	
43	M03527520B	BUTTON TOP,REDY DA-3K G	1	
44	M03527530B	BUTTON TOP,REC DA-3K G	1	
45	M03527540B	BUTTON TOP,STOP DA-3K G	1	
46	M03527550B	BUTTON TOP,SKIP-R DA-3K G	2	
47	M03527600A	SHAFT,DOOR DA-3K G	1	
48	M03527700B	WINDOW,DIS DA-3000 G	1	
49	M03527800A	WINDOW,LED DA-3000 G	1	
50	M03527900B	SHEET,LED DA-3K G	1	
51	M03536700A	LEAF SPRING,DA-3K G	1	
52	M03545900A	HEATSINK,12V DA-3K G	1	
53	M03560800A	BRACKET,SLOT DA-3K G	1	
54	M03570800A	SHEET,CPVS-0.5F 18*18 G	1	
55	M0357490	RUBBER FOOT,SF120565 G	2	
56	M0357500	RUBBER FOOT,SF1252035 G	1	
57	M03575600A	HEATSINK,DA-3K G	1	
58	M0357570	FAN SNAP RIVEF,HSR-11 G	2	
59	M0358050	NUT,M12*2.3 G	1	
60	M03580800A	BONNET,DA-3K G	1	
61	M03580900A	BRACKET,CF DA-3K G	1	
62	M03581000A	NET,BONNET DA-3K G	2	
63	B00171404A	SCREW,BPA 3*4 FZB G	4	
64	B00171406A	SCREW,BPA 3*6 FZB G	44	
65	B00171530A	SCREW,BPA 4*30 FZB G	4	
66	B00174108A	SCREW,BPA 4*8FZC G	1	
67	B00192710A	SCREW,BPP 3*10 FZB G	2	
68	B00197606A	SCREW,PPSU 3*6 FZB G	2	
69	B00197612A	SCREW,PPSU 3*12 FZB G	2	
70	B00198806A	SCREW,BPP M2*6 FZC G	8	
71	B00199008A	SCREW,BPP 3*8 FZC G	6	
72	B00208008A	SCREW,BPBR3*8 FZB G	18	
73	B0025240	SCREW,FPA 3*6 FNI	5	
74	B00303605A	SCREW,MPBR 2*5FNI G	6	
75	B00328205A	SCREW,PPPU 2*5FZC G	1	

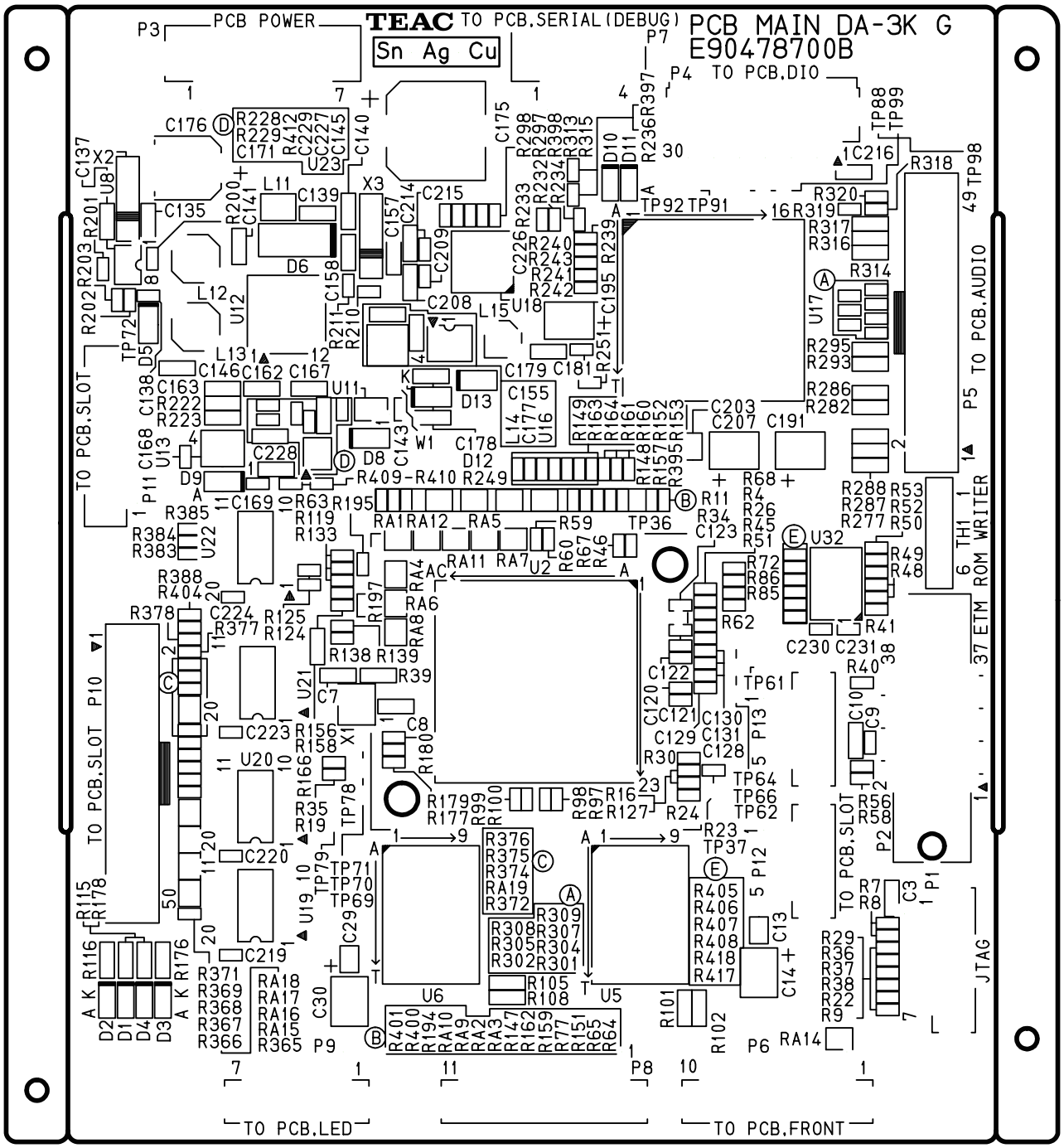
CAUTION Part with numbers in parentheses ( ) cannot be ordered.
注 意 "( )"付き品番は、発注できません。

REF. NO.	PARTS NO.	DESCRIPTION	Qty.	REMARKS
A	E95478700A	PCB ASSY,MAIN DA-3K G	1	Refer to page 34 (PCB, MAIN DA-3K G)
B	(E95481100A)	PCB ASSY,FRONT DA-3K G	1	Refer to page 34 (GATHER PCB, FRONT DA-3K G)
C	(E95481200A)	PCB ASSY,DISP DA-3K G	1	Refer to page 34 (GATHER PCB, FRONT DA-3K G)
D	(E95481300A)	PCB ASSY,LED DA-3K G	1	Refer to page 34 (GATHER PCB, FRONT DA-3K G)
E	(E95481400A)	PCB ASSY,SLOT DA-3K G	1	Refer to page 34 (GATHER PCB, FRONT DA-3K G)
F	(E95481500A)	PCB ASSY,DIO DA-3K G	1	Refer to page 34 (GATHER PCB, REAR DA-3K G)
G	(E95481600A)	PCB ASSY,BNC DA-3K G	1	Refer to page 34 (GATHER PCB, REAR DA-3K G)
H	(E95481700A)	PCB ASSY,INLET DA-3K G	1	Refer to page 34 (GATHER PCB, REAR DA-3K G)
I	(E95481800A)	PCB ASSY,HP DA-3K G	1	Refer to page 34 (GATHER PCB, REAR DA-3K G)
J	(E95481900A)	PCB ASSY,AUDIO DA-3K G	1	Refer to page 34 (GATHER PCB, AUDIO DA-3K G)
K	(E95482000A)	PCB ASSY,PWR SUB DA-3K G	1	Refer to page 34 (GATHER PCB, AUDIO DA-3K G)
L	(E95482100A)	PCB ASSY,REG DA-3K G	1	Refer to page 34 (GATHER PCB, AUDIO DA-3K G)

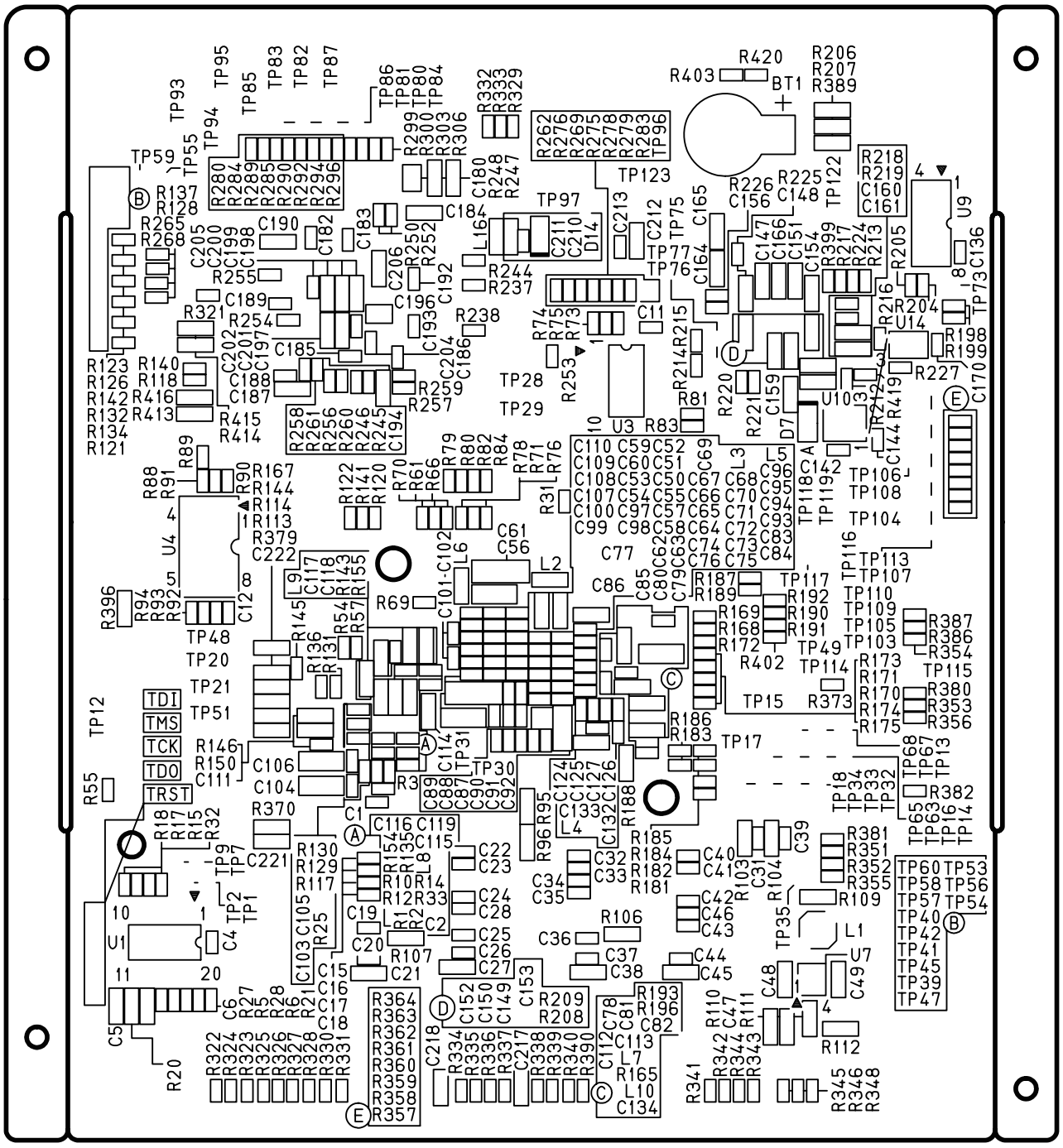
11. PC Boards and Parts List

基板図とパーツリスト

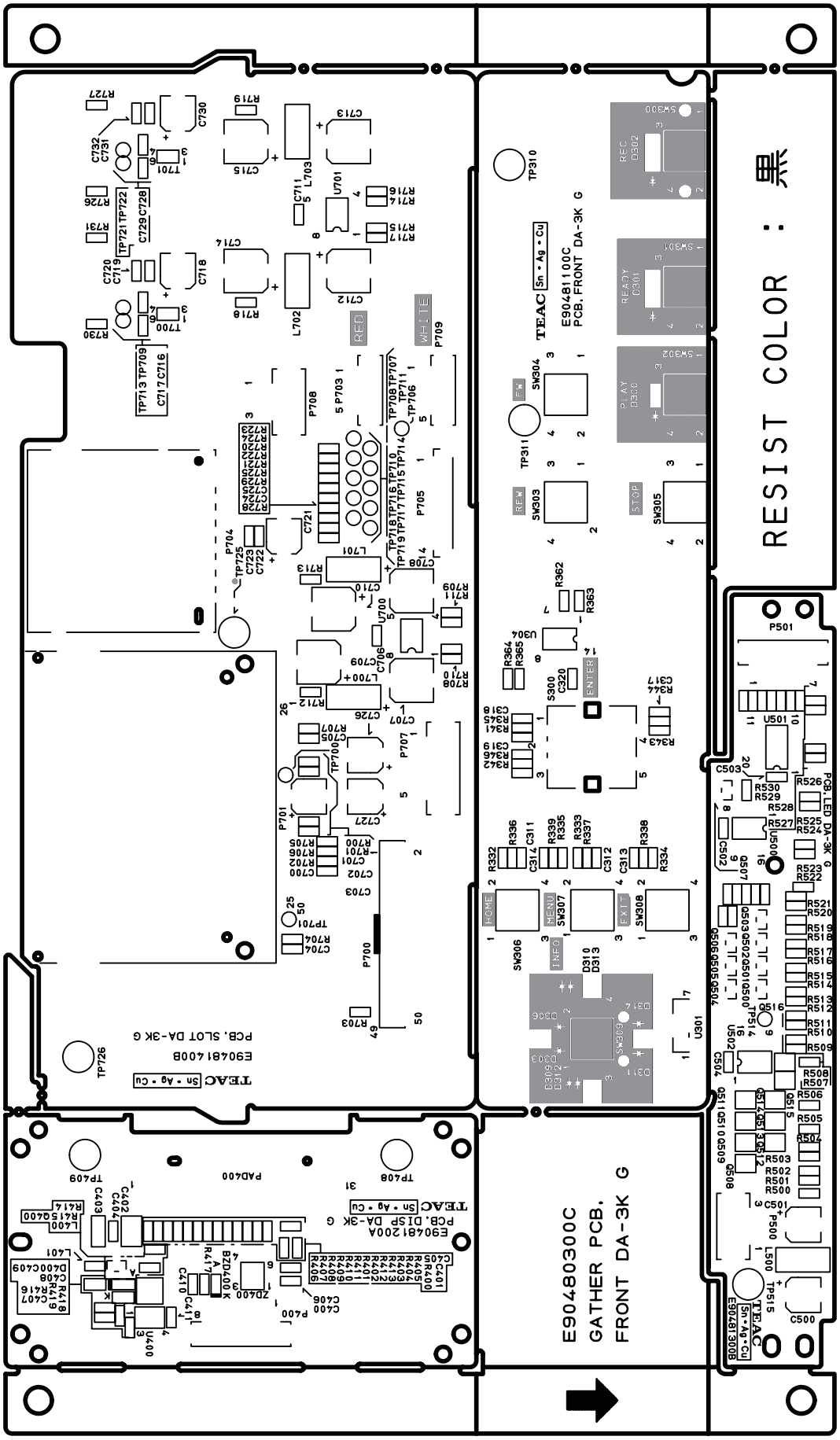
PCB, MAIN DA-3K G (Side A)



PCB, MAIN DA-3K G (Side B)



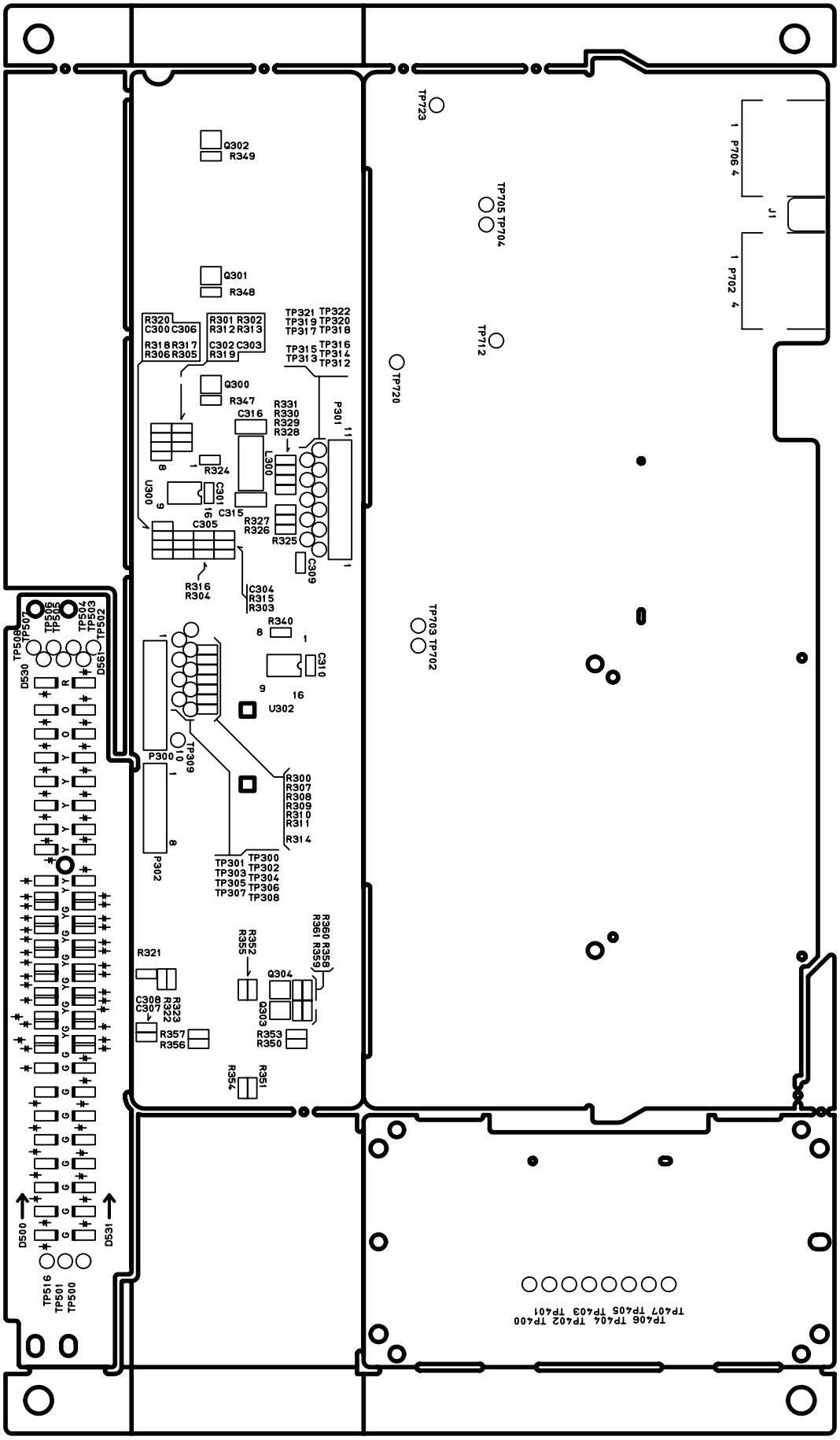
GATHER PCB, FRONT DA-3K G (Side A)



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。

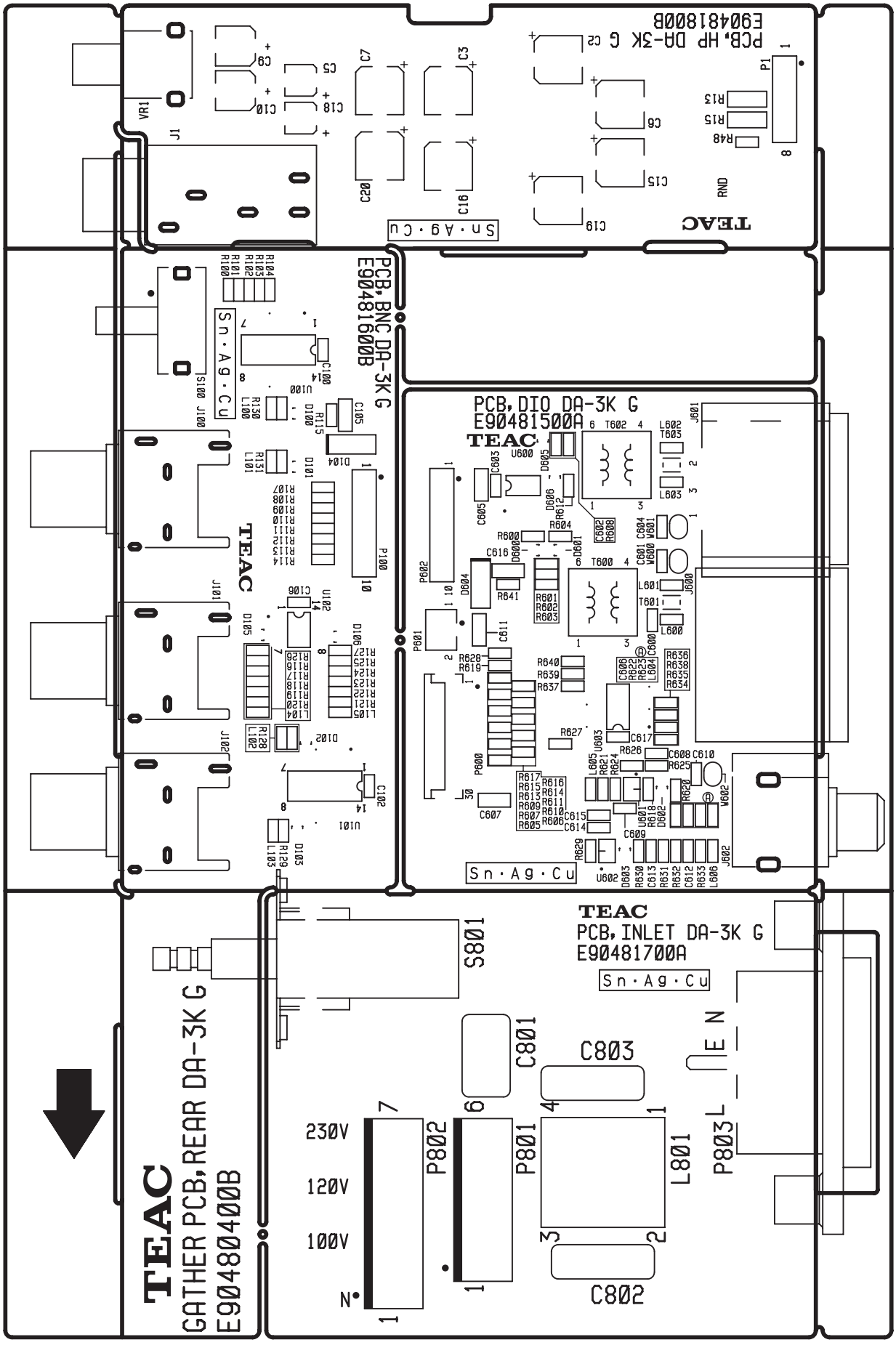
GATHER PCB, FRONT DA-3K G (Side B)



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。

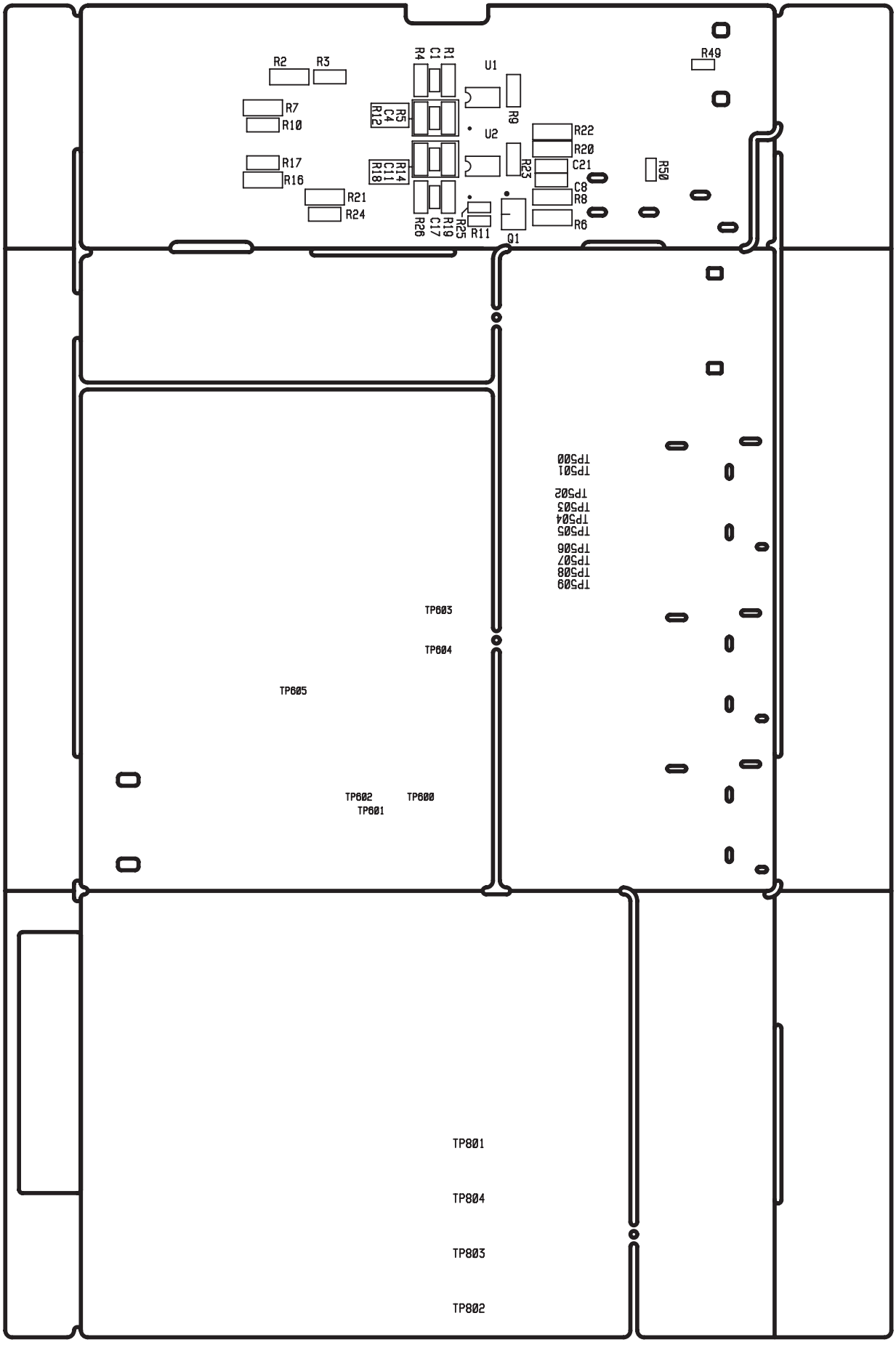
GATHER PCB, REAR DA-3K G (Side A)



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。

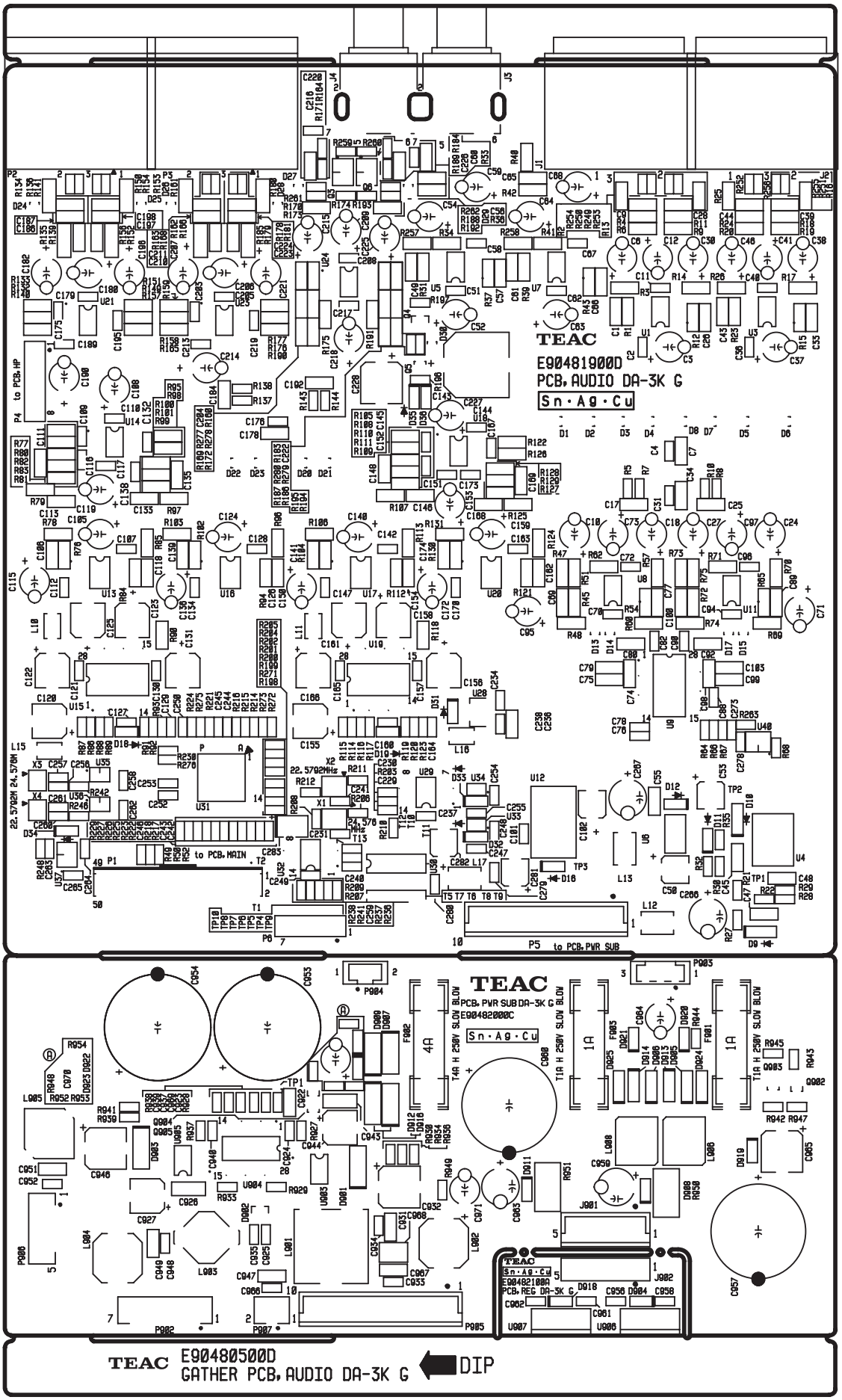
GATHER PCB, REAR DA-3K G (Side B)



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。

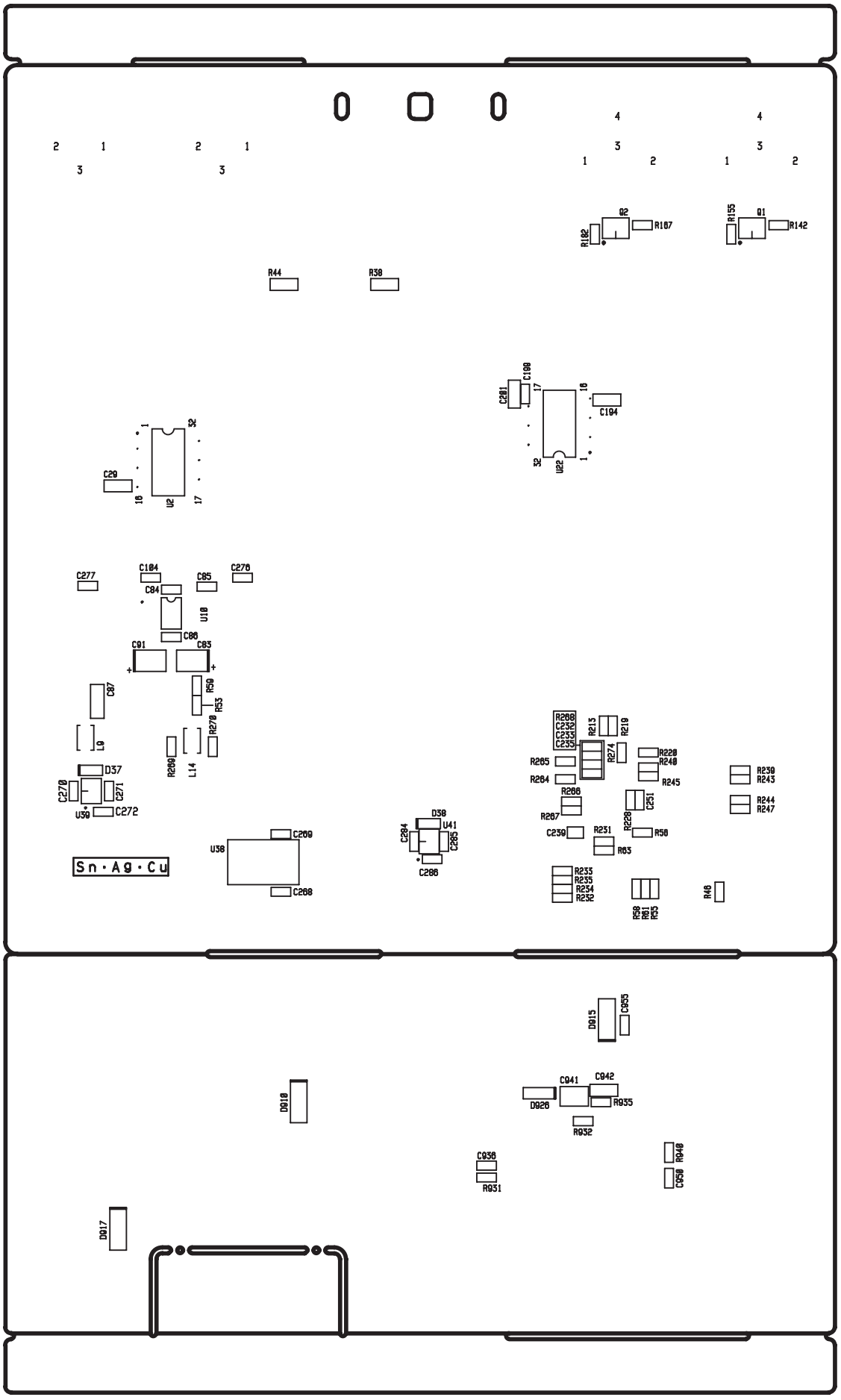
GATHER PCB, AUDIO DA-3K G (Side A)



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, AUDIO DA-3K 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。

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, MAIN DA-3K G
メイン 基板

PARTS NO.	DESCRIPTION	REMARKS
E95478700A	PCB ASSY,MAIN DA-3K G	
E95478754A	PCB ASSY,MAIN DA-3K CHI G	[CHI]

GATHER PCB, FRONT DA-3K G
フロント 基板

PARTS NO.	DESCRIPTION	REMARKS
E95480300A	GATHER PCBA,FRONT DA-3K G	
E95480354A	GA PCBA,FRONT DA-3K CHI G	[CHI]
(E95481100A)	PCB ASSY,FRONT DA-3K G	
(E95481200A)	PCB ASSY,DISP DA-3K G	
(E95481300A)	PCB ASSY,LED DA-3K G	
(E95481400A)	PCB ASSY,SLOT DA-3K G	

GATHER PCB, REAR DA-3K G
リア 基板

PARTS NO.	DESCRIPTION	REMARKS
E95480400A	GATHER PCBA,REAR DA-3K G	
E95480454A	GA PCBA,REAR DA-3K CHI G	[CHI]
(E95481500A)	PCB ASSY,DIO DA-3K G	
(E95481600A)	PCB ASSY,BNC DA-3K G	
(E95481700A)	PCB ASSY,INLET DA-3K G	
(E95481800A)	PCB ASSY,HP DA-3K G	

GATHER PCB, AUDIO DA-3K G
オーディオ 基板

PARTS NO.	DESCRIPTION	REMARKS
E95480500A	GATHER PCBA,AUDIO DA-3K G	
E95480554A	GA PCBA,AUDIO DA-3K CHI G	[CHI]
(E95481900A)	PCB ASSY,AUDIO DA-3K G	
(E95482000A)	PCB ASSY,PWR SUB DA-3K G	
(E95482100A)	PCB ASSY,REG DA-3K G	

12. Safety parts
安全部品

Items

REF. NO.	PARTS NO.	DESCRIPTION	Qty.	REMARKS
F901	**E0143720**	FUSE,1A 250V 215 001P G	1	⚠
F902	**E0152140**	FUSE 4A 250V 215004P G	1	⚠
F903	**E0143720**	FUSE,1A 250V 215 001P G	1	⚠

13. Included Accessories

付属品

Included Accessories

REF.NO.	PARTS NO.	DESCRIPTION.	REMARKS
	3E014150	POWER CORD,UL-G	⚠ [JPN] [T/C]
	E0168660	AC PLUG,WS-037-A PSE G	⚠ [JPN]
	3E014160	POWER CORD,EUR-G	⚠ [EUR]
	3E014180	POWER CORD,AUS	⚠ [AUS]
	3E039940	POWER CORD,TM G	⚠ [TM]
	E0147010	POWER CORD,UE-96S-239 G	⚠ [CHI]
	E0178290	POWER CORD,KOR C13 1.8M G	⚠ [KOR]
	E01785800A	RMT CONT,RC-10 G	Wireless remote control unit (TASCAM RC-10)
		Lithium coin cell battery for remote control	⚠ CR2025 pre installed in remote control
	3M0028300A	ASSY,RACK MOUNT SCREW KIT	
	D01173700A	WARR CARD,TASCAM G	
	D01211700A	SHEET,INSERT JE DA-3K G	
	D01185401A	OWNERS MNL,(J) DA-3K G	[JPN]
	D01185420A	OWNERS MNL,(E) DA-3K G	[T/C] [KOR] [EUR] [AUS] [TM] [CHI]
	D01185454A	OWNERS MNL,(C) DA-3K G	[CHI]
	D01185480A	OWNERS MNL,(G) DA-3K G	[EUR]
	D01185481A	OWNERS MNL,(F) DA-3K G	[EUR]
	D01185482A	OWNERS MNL,(I) DA-3K G	[EUR]
	D01185483A	OWNERS MNL,(S) DA-3K G	[EUR]

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
[AUS] : AUSTRALIA [TM] :TAIWAN
[CHI] : CHINA

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
[AUS] : AUSTRALIA [TM] :TAIWAN
[CHI] : CHINA

TASCAM

SCHEMATIC DIAGRAM

回路図

2ch Audio Recorder AD/DA Converter
DA-3000

CONTENTS 目次

1st Issue, : Apr, 2014

MAIN PCB (1/8)

1 2 3 4 5 6 7 8

A B C D E

JTAG
JTAG TP (Bottom)
P1
DB(B7B-ZR-SM4)
C3 10u_6.3V
C4 0.1u(05)
C5 100p
C6 100p
R20 68
R21 47(05)
U1 SN74LV245APWR "DIR" L:B->A
R27 R5 R28 R6 R7 R8 R29 R9 R36 R42
TP1 TP7 TP2 TP9
TDI TMS TCK TRST
DB_TRST DB_TDI DB_TMS DB_TCK DB_TDO
DB_RTCK TP12
Reserve (ROM Write from P1)
R37 47(05) R38 NM(05)

ETM
P2
DB(767054-1)
R55 10k(05) R56 10k(05) R58 10k(05) C9 0.1u(05) C10 10u_6.3V
R40 10k(05)
Guard with GND pattern
DB_TRACECLK R41 22(05)
DB_TRACE_D3 R48 DB_TRACE_D2 R49 DB_TRACE_D1 R50 DB_TRACE_D0 R52 22(05)
DB_TRACECTRL R53 22(05)
U32 DB(SN74AVC8T245RHLR)
C231 0.1u(05) C230 0.1u(05)
R418 82(05) R417 82(05)
ETM_RESET DE_B TDO_CPU

U2C
i.MX53 - CONTROL PINS
MCIMX535DVV1C
CPU
RESET/POR : Low voltage (2.8V) Cap : Close to i.MX535
[Boot Mode[1..0]] 00 -> Internal Boot
C1 1000p(05) C2 1000p(05)
R1 47(05) R2 47(05) R3 NM(05) R25 10k(05)
NVCC_LCD
R10 R12 R30 NM(05) R14 R33 R16 R34 10k(05) 6.8k(05)
TP121 TP120 JTAG_MOD
BOOT_MODE0 BOOT_MODE1 TEST_MODE
RESET_IN POR
PMIC_STBY_REQ PMIC_ON_REQ R19 R35 47(05)
R23 R24 0(05)
CKIH1 CKIH2
Guard with GND pattern
C7 10p R39 470 XTAL C8 8p
X1 NX3225GA 24MHz
XTAL EXTAL
TP15 CKIL CLK32KOUT_LV
CKIL ECKIL
NVCC_RESET NVCC_SRTC NVCC_CKIH NVCC_XTAL NVCC_SRTC

GPIO
SSI_EXT1_CLK CCM_CLKO R4 47(05) R26 10k(05) R11 47(05) CPU_CLKO
GPIO_2 GPIO_4 GPIO_6 CSI0_DAT11 CSI0_PIXCLK KEY_ROW4 KEY_COL4 KEY_COL2 CCM_CLKO2 UART5_RTS UART5_CTS SPDIF_PLOCK
R31 47(05)
AMUTE DIR_GPO0 FPGA_PROG_B RESET_CF CF_DETECT PMIC_INT_OUT PMIC_SLEEP PWR_HOLD FPGA_CONFIG_CS FPGA_CONFIG_RDWR WLESS_RMT_IN
NVCC_GPIO
GPIO_10 GPIO_11 GPIO_12 GPIO_13 GPIO_14 GPIO5_16
TP13 TP14 TP16 TP17 TP18

SPDIF
SPDIF_IN SPDIF_SRCLK SPDIF_OUT R46 47(05)
CPU_SPDIF_IN CPU_SPDIF_SRCLK CPU_SPDIF_OUT
to FPGA (SPDIF_OUT)

TRACE
ETM_TD0 ETM_TD1 ETM_TD2 ETM_TD3 R405 R406 R407 R408 22(05)
CSI0_VSYNC CSI0_DAT4 CSI0_DAT5 CSI0_DAT6 CSI0_DAT7 CSI0_DAT8 CSI0_DAT9 CSI0_DAT10 CSI0_DATA_EN CSI0_MCLK
ECSPI_CLK_ROM ECSPI_DOUT_ROM ECSPI_DIN_ROM
ETM_CLK ETM_CTRL R59 R60 22(05)
Guard with GND pattern
NVCC_CSI

I2C
TDO_FPGA TDO_CPU TCK TMS I2C_SCL I2C_SDA R63 R64 47(05)
I2C_SCL I2C_SDA

ECSPI
ECSPI_DIN ECSPI_DOUT R67 47(05)
ECSPI_MISO ECSPI_MOSI ECSPI_SCLK ECSPI_RDY ECSPI_SS0 ECSPI_SS1 ECSPI_SS2
ECSPI_CS2_FPGA ECSPI_CS_FPGA ECSPI_CS_LCD R68 R69 R71 R72 47(05) 10k(05)
Low Voltage(2.8V)

CSPI
CSPI_DIN_LV CSPI_DOUT CSPI_CLK CSPI_CS0 CSPI_CS1 CSPI_CS2 CSPI_CS3
R76 R77 R78 R79 R80 R82 R84 47(05) 10k(05)
CSPI_MISO CSPI_MOSI CSPI_SCLK CSPI_RDY CSPI_SS0 CSPI_SS1 CSPI_SS2 CSPI_SS3
[CSPI] Low Voltage(2.8V)
ECSPI_CLK_LCD ECSPI_CLK_FPGA R85 R86 47(05)

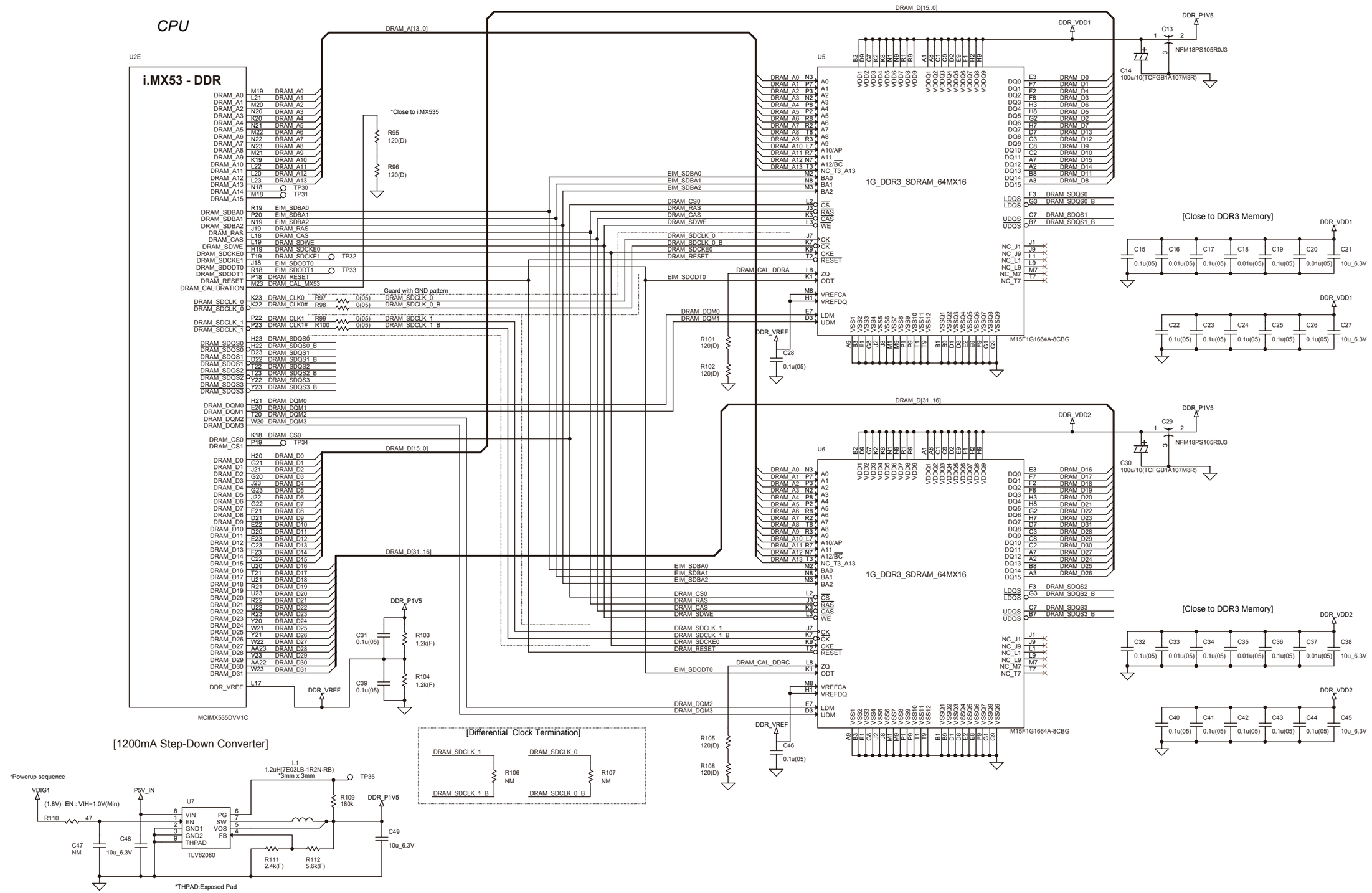
AUDMUX
Low Voltage(2.8V)
AUD4_TXFS AUD4_TXCLK AUD4_TXDATA AUD4_RXFS AUD4_RXCLK AUD4_RXDATA
C14 E13 D14 E14 C15 D13 TP20 TP21 R54 R57 47(05)
AUDIO1_DOUT AUDIO1_FS AUDIO1_BCK AUDIO1_DIN
AUD5_TXFS AUD5_TXCLK AUD5_TXDATA AUD5_RXFS AUD5_RXCLK AUD5_RXDATA
D1 F5 E1 F2 D6 TP22 R61 R62 47(05)
AUDIO2_DOUT AUDIO2_FS_LV AUDIO2_BCK_LV AUDIO2_DIN_LV
AUD6_TXFS AUD6_TXCLK AUD6_TXDATA AUD6_RXDATA
C2 E4 D3 D2 TP23 TP24 R65 R66 47(05)
AUDIO3_DOUT AUDIO3_DIN_LV

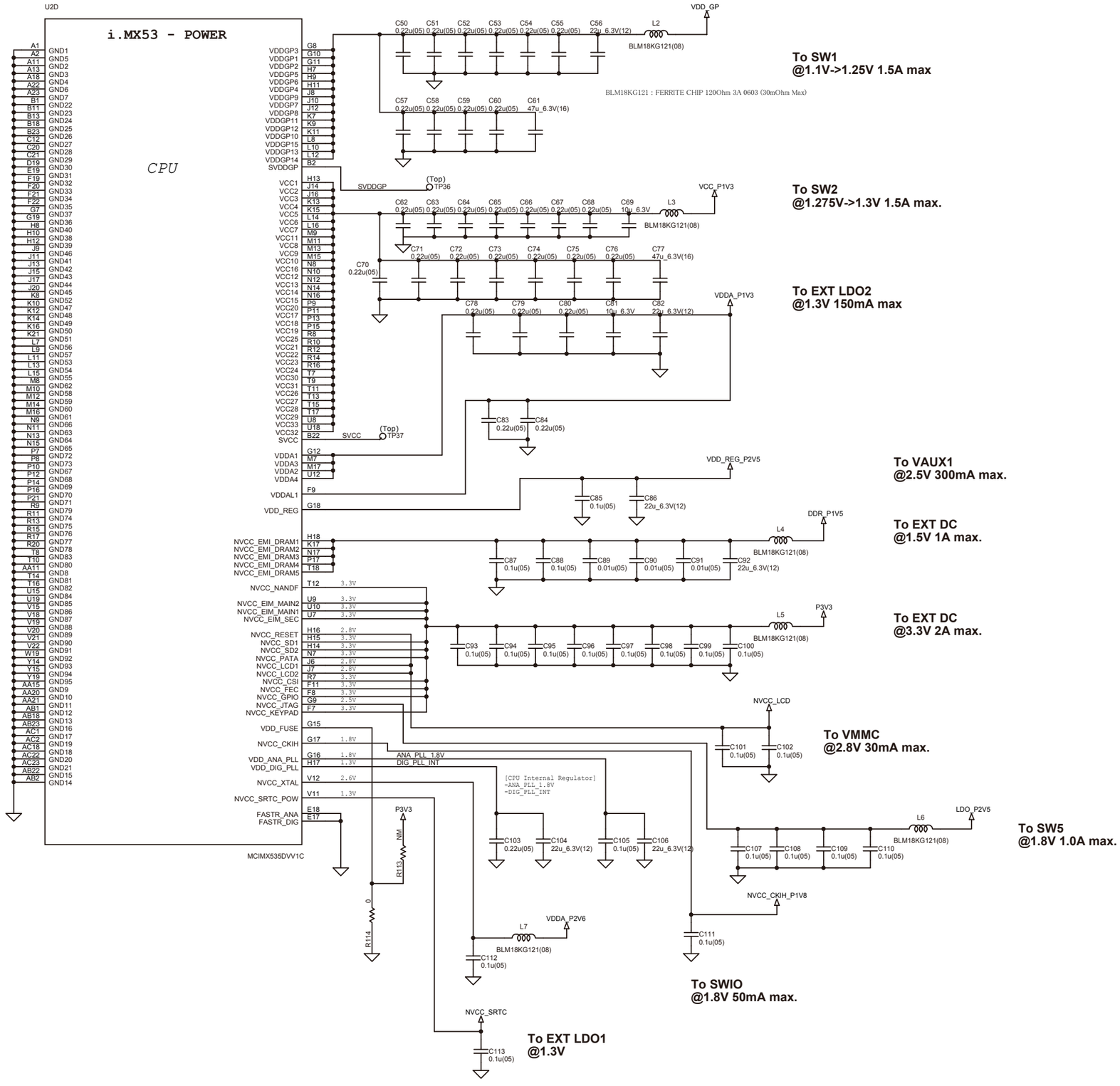
PWM
Low Voltage(2.8V)
PWM1_OUT PWM2_OUT G6 E2 R70 R395 47(05)
CPU_PWM RESET_FPGA

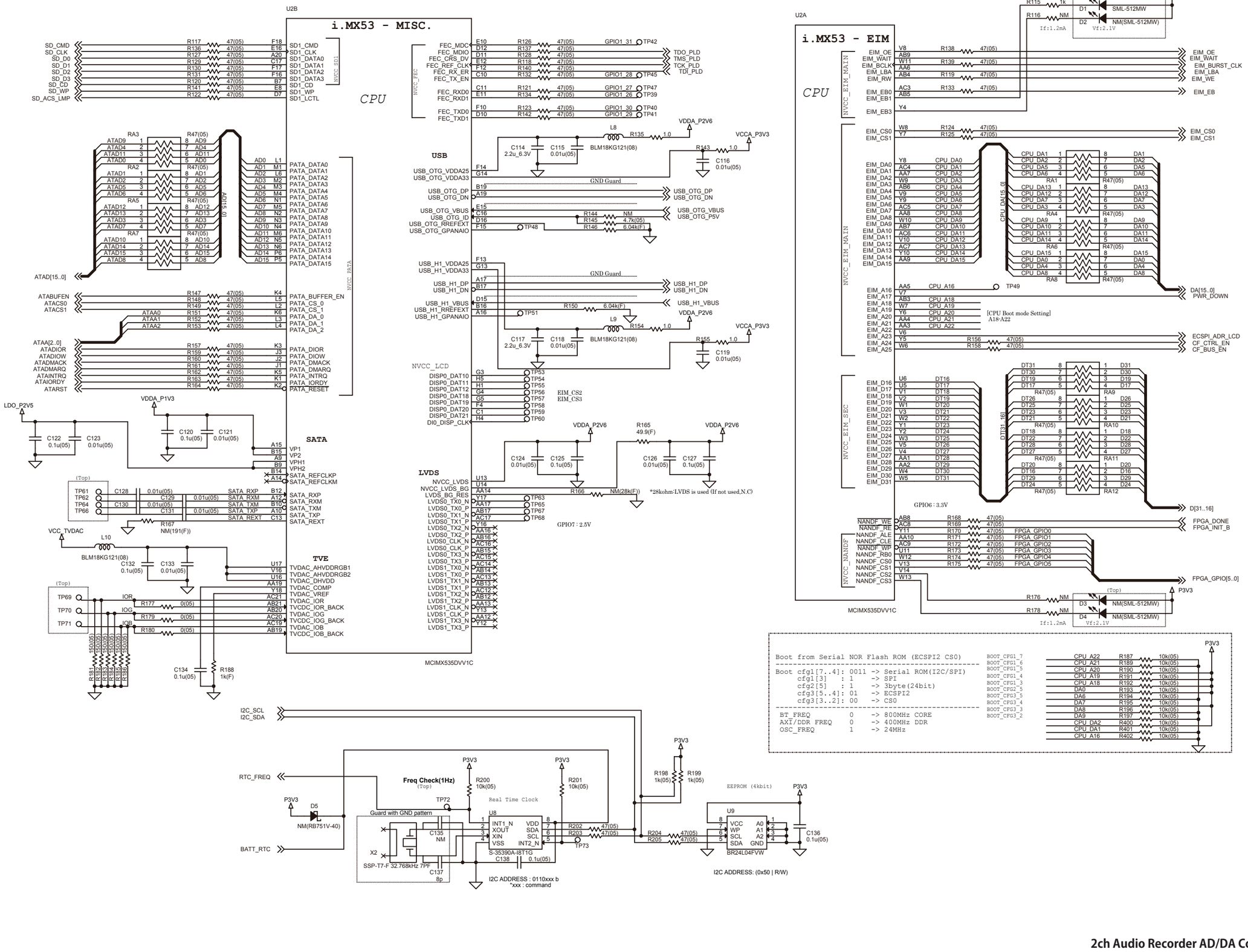
UART
UART4_RTS UART4_CTS UART4_TXD UART4_RXD T4 T5 T3 T6 TP26 TP27
UART4_TXD UART4_RXD
UART5_TXD UART5_RXD U1 U2
UART5_TXD UART5_RXD

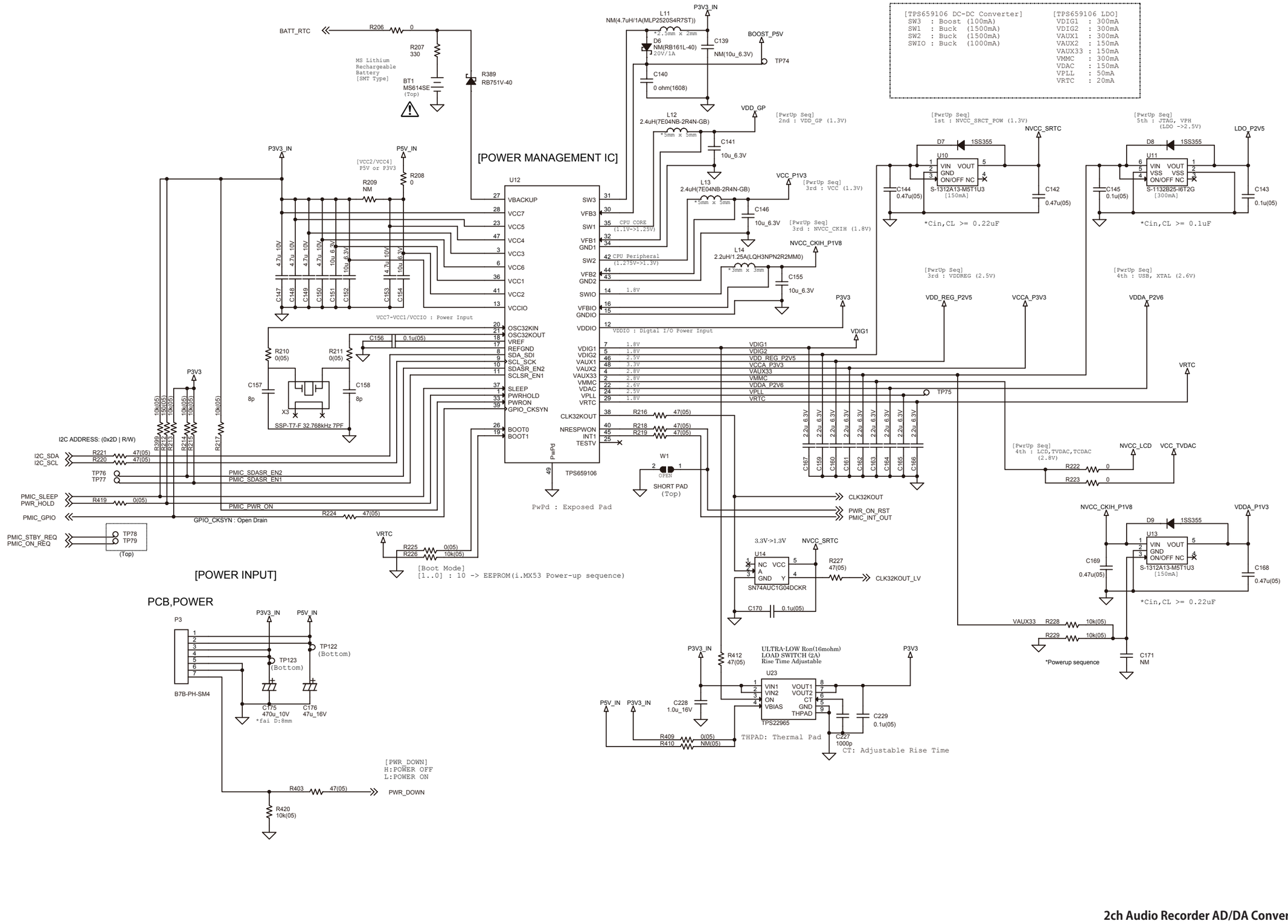
P3V3 R73 10k(05) NVCC_LCD
U3
CSPI_DIN_FPGA CSPI_DIN_DIR PWR_ON_RST AUDIO2_FS AUDIO2_BCK AUDIO2_DIN AUDIO3_DIN
R74 R75 47(05) R81 R83 47(05)
PWR_ON_RST_LV AUDIO2_FS_LV AUDIO2_BCK_LV AUDIO2_DIN_LV AUDIO3_DIN_LV
TP28 TP29
C11 0.1u(05) SN74LV245APWR "DIR" L:B->A

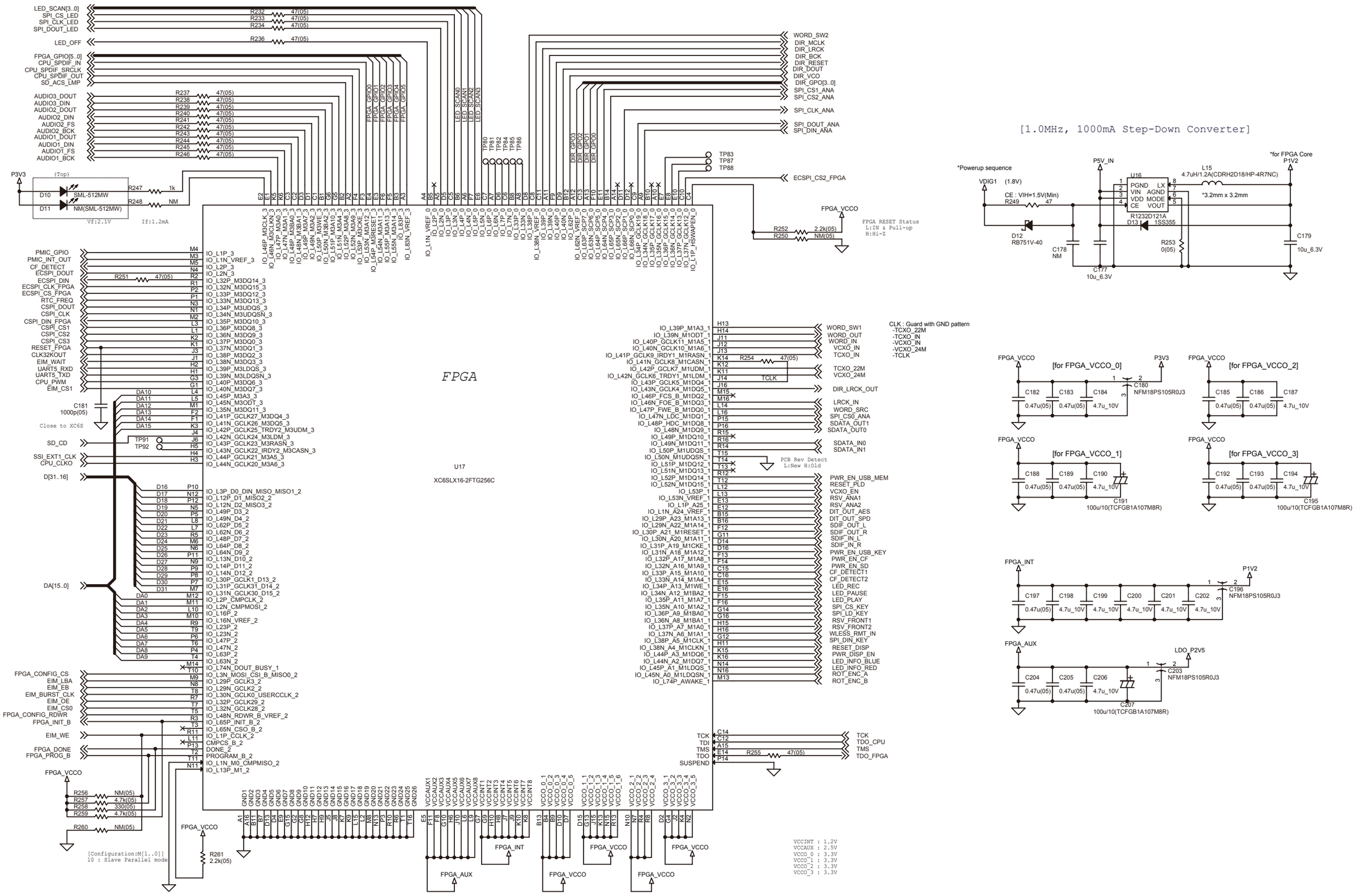
ROM WRITER TH1
SF_CON6
[Through-hole] P=1.27mm fai=0.8mm
P3V3_ROM R88 R89 R90 10k(05)
SERIAL FLASH ROM 8MByte(64Bit)
U4 MX25L6406EM2-12G
CS : Low Voltage(2.8V)
R91 47(05) R92 10k(05) R93 R94 47(05)
*CLK:Max 86MHz
*8-pin SOP (200mil)
C12 0.1u(05)
R396 0
ECSPI_DIN_ROM ECSPI_DOUT_ROM ECSPI_CLK_ROM ECSPI_CS_ROM

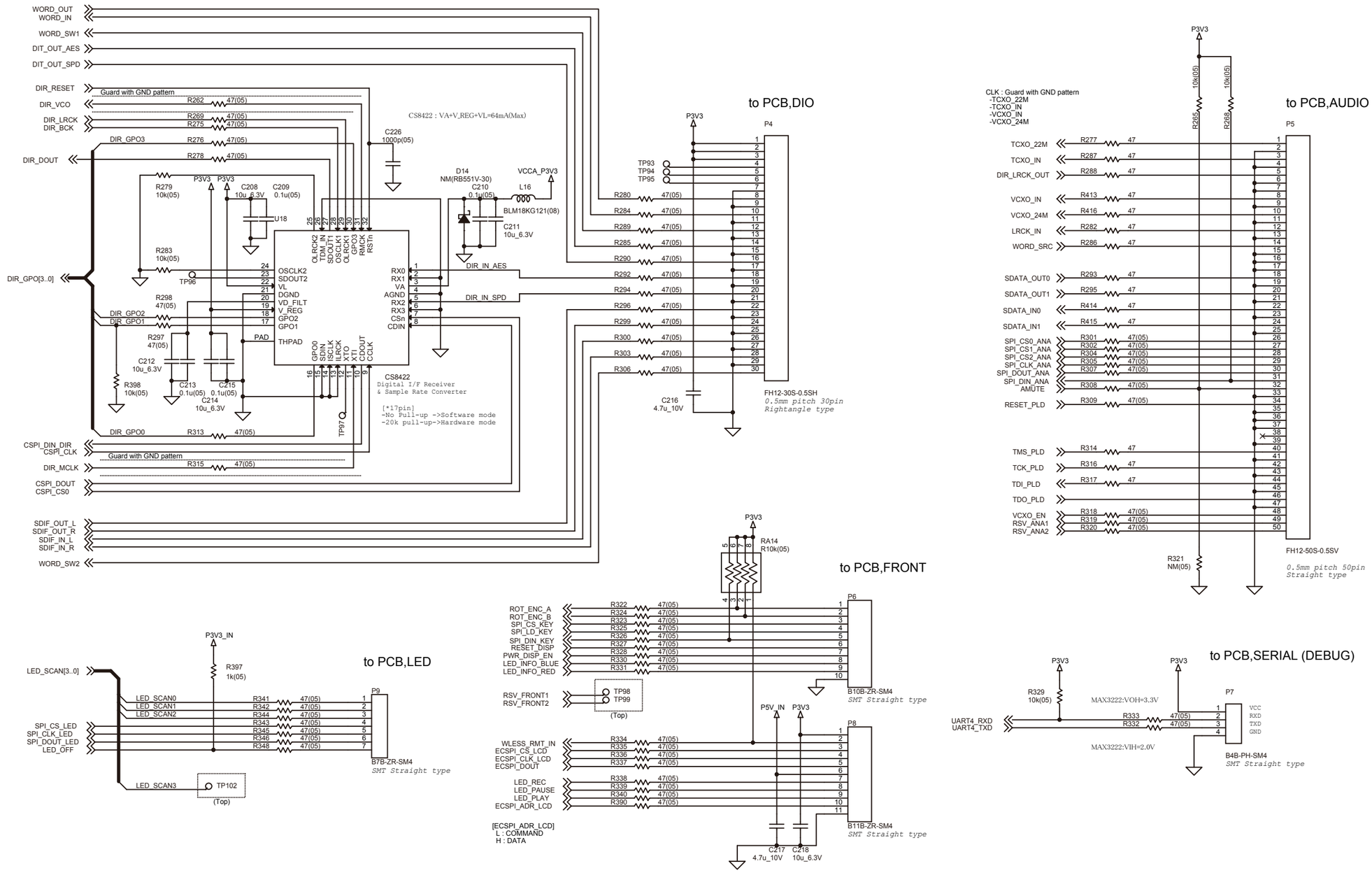

CPU
U2E
i.MX53 - DDR
MCIMX535DVV1C
DRAM_A[13..0]
DRAM_D[15..0]
DRAM_D[31..16]
DRAM_D[15..0]
DRAM_D[31..16]
*Close to i.MX535
R95 120(D)
R96 120(D)
Guard with GND pattern
DDR_VREF
DDR_P1V5
DDR_VDD1
DDR_VDD2
U5
U6
1G_DDR3_SDRAM_64MX16
M15F1G1664A-8CBG
C13
C14 100u/10(TCFGB1A107M8R)
NFM18PS105R0J3
C29
C30 100u/10(TCFGB1A107M8R)
[Close to DDR3 Memory]
C15 C16 C17 C18 C19 C20 C21 0.1u(05) 0.01u(05) 0.1u(05) 0.01u(05) 0.1u(05) 0.01u(05) 10u_6.3V
C22 C23 C24 C25 C26 C27 0.1u(05) 0.1u(05) 0.1u(05) 0.1u(05) 0.1u(05) 10u_6.3V
C32 C33 C34 C35 C36 C37 C38 0.1u(05) 0.01u(05) 0.1u(05) 0.01u(05) 0.1u(05) 0.01u(05) 10u_6.3V
C40 C41 C42 C43 C44 C45 0.1u(05) 0.1u(05) 0.1u(05) 0.1u(05) 0.1u(05) 10u_6.3V
C28 0.1u(05)
C46 0.1u(05)
R101 120(D)
R102 120(D)
R105 120(D)
R108 120(D)
C31 0.1u(05)
C39 0.1u(05)
R103 1.2k(F)
R104 1.2k(F)
[1200mA Step-Down Converter]
*Powerup sequence
VDIG1
(1.8V) EN : VIH=1.0V(Min)
P5V_IN
R110 47
U7
VIN
EN
GND1
GND2
THPAD
PG
SW
VOS
FB
TLV62080
C47 NM
C48 10u_6.3V
L1 1.2uH(7E03LB-1R2N-RB) *3mm x 3mm
TP35
R109 180k
DDR_P1V5
C49 10u_6.3V
R111 2.4k(F)
R112 5.6k(F)
*THPAD:Exposed Pad
[Differential Clock Termination]
DRAM_SDCLK_1
DRAM_SDCLK_1_B
DRAM_SDCLK_0
DRAM_SDCLK_0_B
R106 NM
R107 NM

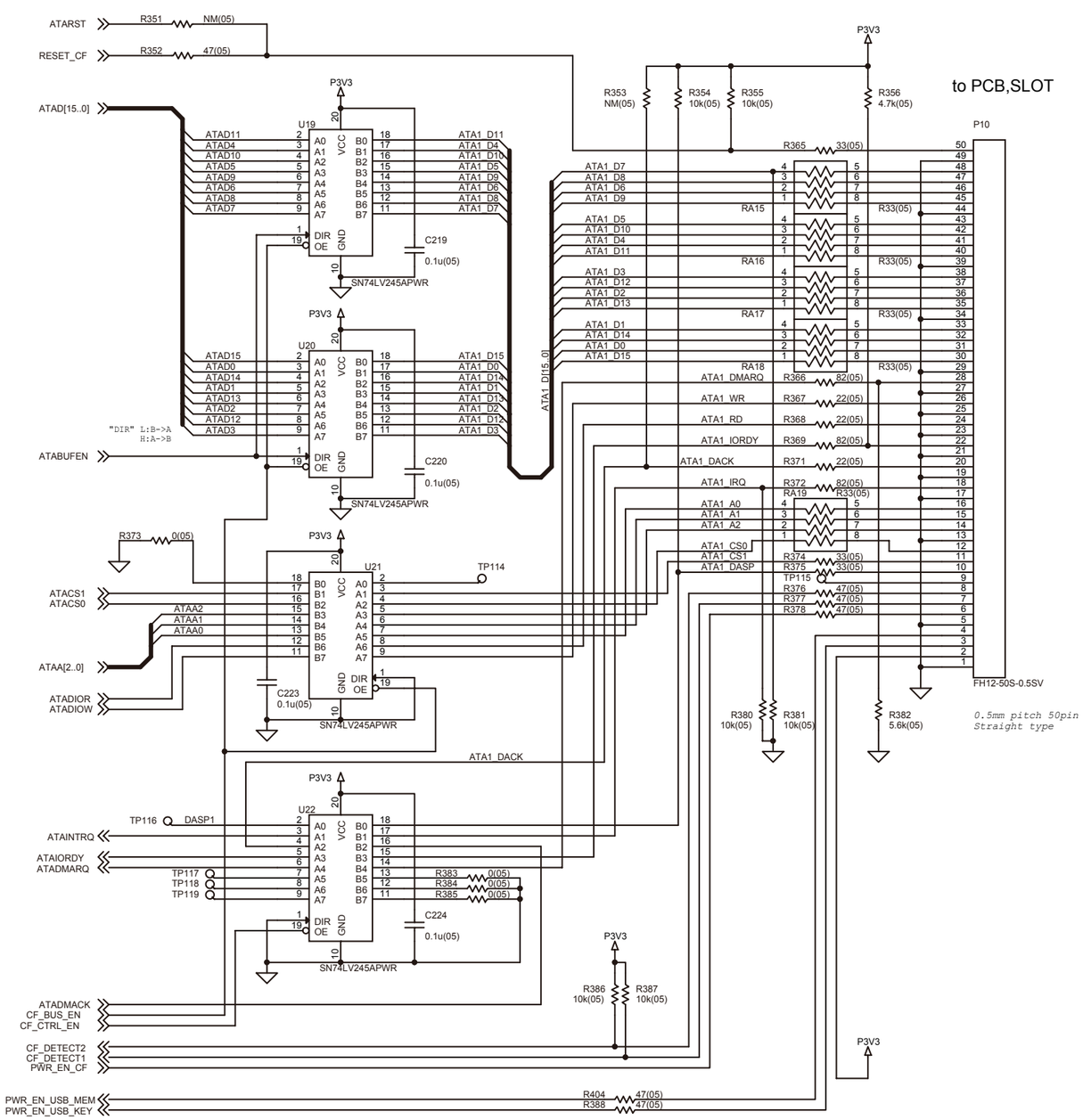

U2D
i.MX53 - POWER
CPU
MCIMX535DVV1C
VDD_GP
C50 0.22u(05) C51 0.22u(05) C52 0.22u(05) C53 0.22u(05) C54 0.22u(05) C55 0.22u(05) C56 22u_6.3V(12)
L2 BLM18KG121(08)
C57 0.22u(05) C58 0.22u(05) C59 0.22u(05) C60 0.22u(05) C61 47u_6.3V(16)
BLM18KG121 : FERRITE CHIP 120Ohm 3A 0603 (30mOhm Max)
To SW1
@1.1V->1.25V 1.5A max
SVDDGP
(Top) TP36
VCC_P1V3
C62 0.22u(05) C63 0.22u(05) C64 0.22u(05) C65 0.22u(05) C66 0.22u(05) C67 0.22u(05) C68 0.22u(05) C69 10u_6.3V
L3 BLM18KG121(08)
C71 0.22u(05) C72 0.22u(05) C73 0.22u(05) C74 0.22u(05) C75 0.22u(05) C76 0.22u(05) C77 47u_6.3V(16)
C70 0.22u(05)
To SW2
@1.275V->1.3V 1.5A max.
VDDA_P1V3
C78 0.22u(05) C79 0.22u(05) C80 0.22u(05) C81 10u_6.3V C82 22u_6.3V(12)
To EXT LDO2
@1.3V 150mA max
SVCC
(Top) TP37
C83 0.22u(05) C84 0.22u(05)
VDD_REG_P2V5
C85 0.1u(05) C86 22u_6.3V(12)
To VAUX1
@2.5V 300mA max.
DDR_P1V5
L4 BLM18KG121(08)
C87 0.1u(05) C88 0.1u(05) C89 0.01u(05) C90 0.01u(05) C91 0.01u(05) C92 22u_6.3V(12)
To EXT DC
@1.5V 1A max.
P3V3
L5 BLM18KG121(08)
C93 0.1u(05) C94 0.1u(05) C95 0.1u(05) C96 0.1u(05) C97 0.1u(05) C98 0.1u(05) C99 0.1u(05) C100 0.1u(05)
To EXT DC
@3.3V 2A max.
NVCC_LCD
C101 0.1u(05) C102 0.1u(05)
To VMMC
@2.8V 30mA max.
[CPU Internal Regulator]
-ANA_PLL 1.8V
-DIG_PLL_INT
ANA_PLL 1.8V
DIG_PLL_INT
LDO_P2V5
L6 BLM18KG121(08)
C107 0.1u(05) C108 0.1u(05) C109 0.1u(05) C110 0.1u(05)
To SW5
@1.8V 1.0A max.
NVCC_CKIH_P1V8
C111 0.1u(05)
To SWIO
@1.8V 50mA max.
VDDA_P2V6
L7 BLM18KG121(08)
C112 0.1u(05)
C103 0.22u(05) C104 22u_6.3V(12) C105 0.1u(05) C106 22u_6.3V(12)
P3V3
NM
R113
0
R114
NVCC_SRTC
C113 0.1u(05)
To EXT LDO1
@1.3V

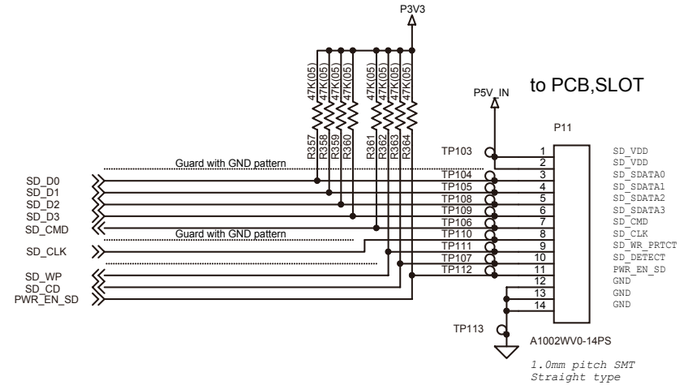

U2B
i.MX53 - MISC.
CPU
SD_CMD
SD_CLK
SD_D0
SD_D1
SD_D2
SD_D3
SD_CD
SD_WP
SD_ACS_LMP
SD1_CMD
SD1_CLK
SD1_DATA0
SD1_DATA1
SD1_DATA2
SD1_DATA3
SD1_CD
SD1_WP
SD1_LCTL
NVCC_SD1
ATAD[15..0]
PATA_DATA0
PATA_DATA1
PATA_DATA2
PATA_DATA3
PATA_DATA4
PATA_DATA5
PATA_DATA6
PATA_DATA7
PATA_DATA8
PATA_DATA9
PATA_DATA10
PATA_DATA11
PATA_DATA12
PATA_DATA13
PATA_DATA14
PATA_DATA15
NVCC_PATA
ATABUFEN
ATACS0
ATACS1
PATA_BUFFER_EN
PATA_CS_0
PATA_CS_1
PATA_DA_0
PATA_DA_1
PATA_DA_2
ATAA[2..0]
ATADIOR
ATADIOW
ATADMACK
ATADMARQ
ATAINTRQ
ATAIORDY
ATARST
PATA_DIOR
PATA_DIOW
PATA_DMACK
PATA_DMARQ
PATA_INTRQ
PATA_IORDY
PATA_RESET
LDO_P2V5
VDDA_P1V3
SATA
VP1
VP2
VPH1
VPH2
SATA_REFCLKP
SATA_REFCLKM
SATA_RXP
SATA_RXM
SATA_TXM
SATA_TXP
SATA_REXT
TVE
TVDAC_AHVDDRGB1
TVDAC_AHVDDRGB2
TVDAC_DHVDD
TVDAC_COMP
TVDAC_VREF
TVDAC_IOR
TVDCDC_IOR_BACK
TVDAC_IOG
TVDCDC_IOG_BACK
TVDAC_IOB
TVDCDC_IOB_BACK
VCC_TVDAC
BLM18KG121(08)
IOR
IOG
IOB
MCIMX535DVV1C
USB
USB_OTG_VDDA25
USB_OTG_VDDA33
USB_OTG_DP
USB_OTG_DN
USB_OTG_VBUS
USB_OTG_ID
USB_OTG_RREFEXT
USB_OTG_GPANAIO
USB_H1_VDDA25
USB_H1_VDDA33
USB_H1_DP
USB_H1_DN
USB_H1_VBUS
USB_H1_RREFEXT
USB_H1_GPANAIO
GND Guard
NVCC_LCD
DISP0_DAT10
DISP0_DAT11
DISP0_DAT12
DISP0_DAT18
DISP0_DAT19
DISP0_DAT20
DISP0_DAT21
DI0_DISP_CLK
EIM_CS2
EIM_CS3
LVDS
NVCC_LVDS
NVCC_LVDS_BG
LVDS_BG_RES
LVDS0_TX0_N
LVDS0_TX0_P
LVDS0_TX1_N
LVDS0_TX1_P
LVDS0_TX2_N
LVDS0_TX2_P
LVDS0_CLK_N
LVDS0_CLK_P
LVDS0_TX3_N
LVDS0_TX3_P
LVDS1_TX0_N
LVDS1_TX0_P
LVDS1_TX1_N
LVDS1_TX1_P
LVDS1_TX2_N
LVDS1_TX2_P
LVDS1_CLK_N
LVDS1_CLK_P
LVDS1_TX3_N
LVDS1_TX3_P
*28kohm:LVDS is used (If not used,N.C)
GPIO7 : 2.5V
NVCC_FEC
FEC_MDC
FEC_MDIO
FEC_CRS_DV
FEC_REF_CLK
FEC_RX_ER
FEC_TX_EN
FEC_RXD0
FEC_RXD1
FEC_TXD0
FEC_TXD1
GPIO1_31
GPIO1_28
GPIO1_27
GPIO1_26
GPIO1_30
GPIO1_29
TDO_PLD
TMS_PLD
TCK_PLD
TDI_PLD
VDDA_P2V6
VCCA_P3V3
U2A
i.MX53 - EIM
NVCC_EIM_MAIN
EIM_OE
EIM_WAIT
EIM_BCLK
EIM_LBA
EIM_RW
EIM_EB0
EIM_EB1
EIM_EB3
EIM_CS0
EIM_CS1
EIM_DA0
EIM_DA1
EIM_DA2
EIM_DA3
EIM_DA4
EIM_DA5
EIM_DA6
EIM_DA7
EIM_DA8
EIM_DA9
EIM_DA10
EIM_DA11
EIM_DA12
EIM_DA13
EIM_DA14
EIM_DA15
EIM_A16
EIM_A17
EIM_A18
EIM_A19
EIM_A20
EIM_A21
EIM_A22
EIM_A23
EIM_A24
EIM_A25
CPU_DA0
CPU_DA1
CPU_DA2
CPU_DA3
CPU_DA4
CPU_DA5
CPU_DA6
CPU_DA7
CPU_DA8
CPU_DA9
CPU_DA10
CPU_DA11
CPU_DA12
CPU_DA13
CPU_DA14
CPU_DA15
CPU_A16
CPU_A18
CPU_A19
CPU_A20
CPU_A21
CPU_A22
CPU_DA[15..0]
[CPU Boot mode Setting]
A18-A22
DA[15..0]
PWR_DOWN
ECSPI_ADR_LCD
CF_CTRL_EN
CF_BUS_EN
NVCC_EIM_SEC
EIM_D16
EIM_D17
EIM_D18
EIM_D19
EIM_D20
EIM_D21
EIM_D22
EIM_D23
EIM_D24
EIM_D25
EIM_D26
EIM_D27
EIM_D28
EIM_D29
EIM_D30
EIM_D31
DT31..16]
GPIO6 : 3.3V
D[31..16]
NVCC_NANDF
NANDF_WE
NANDF_RE
NANDF_ALE
NANDF_CLE
NANDF_WP
NANDF_RB0
NANDF_CS0
NANDF_CS1
NANDF_CS2
NANDF_CS3
FPGA_DONE
FPGA_INIT_B
FPGA_GPIO0
FPGA_GPIO1
FPGA_GPIO2
FPGA_GPIO3
FPGA_GPIO4
FPGA_GPIO5
FPGA_GPIO[5..0]
MCIMX535DVV1C
(Top)
P3V3
D1
SML-512MW
D2
NM(SML-512MW)
If:1.2mA
Vf:2.1V
D3
D4
Boot from Serial NOR Flash ROM (ECSPI2 CS0)
Boot cfg1[7..4]: 0011 -> Serial ROM(I2C/SPI)
cfg1[3] : 1 -> SPI
cfg2[5] : 1 -> 3byte(24bit)
cfg3[5..4]: 01 -> ECSPI2
cfg3[3..2]: 00 -> CS0
BT_FREQ 0 -> 800MHz CORE
AXI/DDR FREQ 0 -> 400MHz DDR
OSC_FREQ 1 -> 24MHz
I2C_SCL
I2C_SDA
RTC_FREQ
BATT_RTC
Freq Check(1Hz)
Real Time Clock
Guard with GND pattern
NM(RB751V-40)
S-35390A-I8T1G
SSP-T7-F 32.768kHz 7PF
I2C ADDRESS : 0110xxx b
*xxx : command
EEPROM (4kbit)
BR24L04FVW
I2C ADDRESS: (0x50 | R/W)

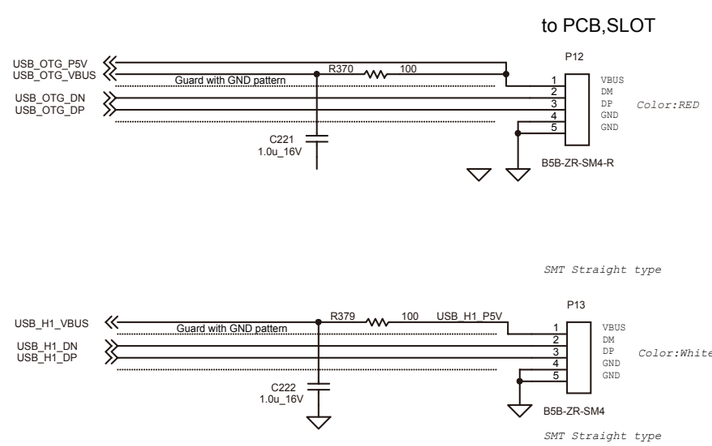

[TPS659106 DC-DC Converter]
SW3 : Boost (100mA)
SW1 : Buck (1500mA)
SW2 : Buck (1500mA)
SWIO : Buck (1000mA)
[TPS659106 LDO]
VDIG1 : 300mA
VDIG2 : 300mA
VAUX1 : 300mA
VAUX2 : 150mA
VAUX33 : 150mA
VMMC : 300mA
VDAC : 150mA
VPLL : 50mA
VRTC : 20mA
[POWER MANAGEMENT IC]
U12
TPS659106
PwPd : Exposed Pad
[Boot Mode]
[1..0] : 10 -> EEPROM(i.MX53 Power-up sequence)
I2C ADDRESS: (0x2D | R/W)
PMIC_SDASR_EN2
PMIC_SDASR_EN1
PMIC_PWR_ON
GPIO_CKSYN : Open Drain
[POWER INPUT]
PCB,POWER
B7B-PH-SM4
[PWR_DOWN]
H:POWER OFF
L:POWER ON
PWR_DOWN
ULTRA-LOW Ron(16mohm)
LOAD SWITCH (2A)
Rise Time Adjustable
U23
TPS22965
THPAD: Thermal Pad
CT: Adjustable Rise Time
SN74AUC1G04DCKR
S-1312A13-M5T1U3
[150mA]
S-1132B25-I6T2G
[300mA]
*Cin,CL >= 0.22uF
*Cin,CL >= 0.1uF
*Powerup sequence
SSP-T7-F 32.768kHz 7PF
SHORT PAD
(Top)
(Bottom)


FPGA
U17
XC6SLX16-2FTG256C
[1.0MHz, 1000mA Step-Down Converter]
*Powerup sequence
P5V_IN
*for FPGA Core
VDIG1 (1.8V)
CE : VIH=1.5V(Min)
R249 47
U16
L15
4.7uH/1.2A(CDRH2D18/HP-4R7NC)
PGND LX
VIN AGND
VDD MODE
CE VOUT
*3.2mm x 3.2mm
R1232D121A
D13 1SS355
D12
RB751V-40
C178
NM
C177
10u_6.3V
R253
0(05)
C179
10u_6.3V
FPGA_VCCO
[for FPGA_VCCO_0]
[for FPGA_VCCO_2]
[for FPGA_VCCO_1]
[for FPGA_VCCO_3]
C180
NFM18PS105R0J3
C182 C183 C184 4.7u_10V
C185 C186 C187 4.7u_10V
C188 C189 C190 4.7u_10V
C191
100u/10(TCFGB1A107M8R)
C192 C193 C194 4.7u_10V
C195
100u/10(TCFGB1A107M8R)
0.47u(05)
FPGA_INT
P1V2
C196
NFM18PS105R0J3
C197 C198 C199 C200 C201 C202 4.7u_10V
FPGA_AUX
LDO_P2V5
C203
NFM18PS105R0J3
C204 C205 C206 4.7u_10V
C207
100u/10(TCFGB1A107M8R)
CLK : Guard with GND pattern
-TCXO_22M
-TCXO_IN
-VCXO_IN
-VCXO_24M
-TCLK
VCCINT : 1.2V
VCCAUX : 2.5V
VCCO_0 : 3.3V
VCCO_1 : 3.3V
VCCO_2 : 3.3V
VCCO_3 : 3.3V


WORD_OUT
WORD_IN
WORD_SW1
DIT_OUT_AES
DIT_OUT_SPD
DIR_RESET
DIR_VCO
DIR_LRCK
DIR_BCK
DIR_DOUT
DIR_GPO3
DIR_GPO[3..0]
DIR_GPO2
DIR_GPO1
DIR_GPO0
CSPI_DIN_DIR
CSPI_CLK
DIR_MCLK
CSPI_DOUT
CSPI_CS0
SDIF_OUT_L
SDIF_OUT_R
SDIF_IN_L
SDIF_IN_R
WORD_SW2
Guard with GND pattern
CS8422 : VA+V_REG+VL=64mA(Max)
CS8422
Digital I/F Receiver
& Sample Rate Converter
[*17pin]
-No Pull-up ->Software mode
-20k pull-up->Hardware mode
DIR_IN_AES
DIR_IN_SPD
to PCB,DIO
FH12-30S-0.5SH
0.5mm pitch 30pin
Rightangle type
CLK : Guard with GND pattern
-TCXO_22M
-TCXO_IN
-VCXO_IN
-VCXO_24M
to PCB,AUDIO
FH12-50S-0.5SV
0.5mm pitch 50pin
Straight type
to PCB,FRONT
B10B-ZR-SM4
SMT Straight type
B11B-ZR-SM4
SMT Straight type
[ECSPI_ADR_LCD]
L : COMMAND
H : DATA
LED_SCAN[3..0]
SPI_CS_LED
SPI_CLK_LED
SPI_DOUT_LED
LED_OFF
to PCB,LED
B7B-ZR-SM4
SMT Straight type
to PCB,SERIAL (DEBUG)
MAX3222:VOH=3.3V
MAX3222:VIH=2.0V
B4B-PH-SM4
SMT Straight type


ATARST
RESET_CF
ATAD[15..0]
ATABUFEN
"DIR" L:B->A H:A->B
ATACS1
ATACS0
ATAA[2..0]
ATADIOR
ATADIOW
ATAINTRQ
ATAIORDY
ATADMARQ
ATADMACK
CF_BUS_EN
CF_CTRL_EN
CF_DETECT2
CF_DETECT1
PWR_EN_CF
PWR_EN_USB_MEM
PWR_EN_USB_KEY
R351 NM(05)
R352 47(05)
R353 NM(05)
R354 10k(05)
R355 10k(05)
R356 4.7k(05)
U19
U20
U21
U22
SN74LV245APWR
C219 0.1u(05)
C220 0.1u(05)
C223 0.1u(05)
C224 0.1u(05)
R373 0(05)
TP114
TP115
TP116 DASP1
TP117
TP118
TP119
R383 0(05)
R384 0(05)
R385 0(05)
R365 33(05)
RA15 R33(05)
RA16 R33(05)
RA17 R33(05)
RA18 R33(05)
RA19 R33(05)
R366 82(05)
R367 22(05)
R368 22(05)
R369 82(05)
R371 22(05)
R372 82(05)
R374 33(05)
R375 33(05)
R376 47(05)
R377 47(05)
R378 47(05)
R380 10k(05)
R381 10k(05)
R382 5.6k(05)
R386 10k(05)
R387 10k(05)
R404 47(05)
R388 47(05)
ATA1_DACK
ATA1_DMARQ
ATA1_WR
ATA1_RD
ATA1_IORDY
ATA1_DACK
ATA1_IRQ
ATA1_A0
ATA1_A1
ATA1_A2
ATA1_CS0
ATA1_CS1
ATA1_DASP
ATA1_D[15..0]
P10
FH12-50S-0.5SV
0.5mm pitch 50pin
Straight type
to PCB,SLOT
P3V3


P3V3
47K(05) R357
47K(05) R358
47K(05) R359
47K(05) R360
47K(05) R361
47K(05) R362
47K(05) R363
47K(05) R364
P5V_IN
to PCB,SLOT
P11
Guard with GND pattern
SD_D0
SD_D1
SD_D2
SD_D3
SD_CMD
SD_CLK
SD_WP
SD_CD
PWR_EN_SD
TP103
TP104
TP105
TP108
TP109
TP106
TP110
TP111
TP107
TP112
TP113
SD_VDD
SD_VDD
SD_SDATA0
SD_SDATA1
SD_SDATA2
SD_SDATA3
SD_CMD
SD_CLK
SD_WR_PRTCT
SD_DETECT
PWR_EN_SD
GND
GND
GND
A1002WV0-14PS
1.0mm pitch SMT
Straight type


to PCB,SLOT
USB_OTG_P5V
USB_OTG_VBUS
USB_OTG_DN
USB_OTG_DP
Guard with GND pattern
R370 100
P12
VBUS
DM
DP
GND
GND
Color:RED
C221 1.0u_16V
B5B-ZR-SM4-R
SMT Straight type
USB_H1_VBUS
USB_H1_DN
USB_H1_DP
Guard with GND pattern
R379 100 USB_H1_P5V
P13
VBUS
DM
DP
GND
GND
Color:White
C222 1.0u_16V
B5B-ZR-SM4
SMT Straight type

FRONT PCB

PCB,FRONT DA-3K

to PCB,MAIN

P300 — TP : Bottom

ENC_A	1	TP300		ENC_A
ENC_B	2	TP301		ENC_B
SPI_CS_KEY	3	TP302	R300 47	SPI_CS_KEY
SPI_LD_KEY	4	TP303	R307 47	SPI_LD_KEY
SPI_DIN_KEY	5	TP304	R308 47	SPI_DIN_KEY
RESET_DISP	6	TP305	R309 47	RESET_DISP
PWR_DISP_EN	7	TP306	R310 47	PWR_DISP_EN
LED_INFO_BLUE	8	TP307	R311 47	LED_INFO_BLUE
LED_INFO_RED	9	TP308	R314 47	LED_INFO_RED
GND	10	TP309		

SZN Board IN 10P

Board IN
E02208900X
HARN A,2H 10 #28 L100 BDG

[GND PAD & Through-hole]
-PAD : fai 4mm
-HOLE : fai 1.5mm

TP310 TP311

[Wireless Remote Receiver]

U301 RPM5338-H12 (VCC GND1 GND2 GND3 ROUT GND4 GND5 HLDR)

P3V3 R322 10k R321 0 C307 0.1u C308 10u_6.3V

WIRELESS_IN R323 47

to PCB,MAIN

P301 — TP : Bottom

3.3V	1	TP312		
WIRELESS_IN	2	TP313		
SPI_CS_DISP	3	TP314	R325 47	SPI_CS_DISP
SPI_CLK	4	TP315	R326 47	SPI_CLK_DISP
SPI_DOUT	5	TP316	R327 47	SPI_DOUT_DISP
5.0V	6	TP317		
LED_REC	7	TP318	R328 47	LED_REC
LED_PAUSE	8	TP319	R329 47	LED_PAUSE
LED_PLAY	9	TP320	R330 47	LED_PLAY
ECSPI_ADR_LCD	10	TP321	R331 47	SPI_ADR_DISP
GND	11	TP322		

SZN Board IN 11P

Board IN
E02208900X
HARN A,2H 11 #28 L140 BDG

C309 10u_6.3V

U304 SN74LV125APWR (1A 2A 3A 4A / 1Y 2Y 3Y 4Y / OE1 OE2 OE3 OE4 / VCC GND) C320 0.1u

R324 47 SPI_CLK_KEY

R362 47 SPI_CS_BUF
R363 47 SPI_CLK_BUF
R364 47 SPI_ADR_BUF
R365 47 SPI_DOUT_BUF

to PCB,DISP (Display)

P302

3.3V	1	
RESET_DISP	2	
SPI_CS	3	
SPI_CLK	4	
SPI_ADR	5	
SPI_DOUT	6	
PWR_DISP_EN	7	
GND	8	

B8B-ZR

U300 U302 — SN74LV165APWR (P_LD CLK E F G H QH GND VCC CS D C B A SIN QH)

R319 10k R340 10k C301 0.1u C310 0.1u

R312 R313 R315 R316 R317 R318 1k

R320 47

C302 C303 C304 C305 C306 C300 1000p

R301 R302 R303 R304 R305 R306 10k

R332 R333 R334 R335 10k

R336 R337 R338 R339 1k

C311 C312 C313 C314 1000p

SW300 SKHMQME010 REC
SW301 SKHMQME010 READY
SW302 SKHMQME010 PLAY
SW303 SKHMQME010 REW
SW304 SKHMQME010 FF
SW305 SKHMQME010 STOP
SW306 SKHMQME010 HOME
SW307 SKHMQME010 MENU
SW308 SKHMQME010 EXIT
SW309 SKHMQME010 INFO

ENTER

R341 R342 R343 10k

R344 R345 R346 1k

C317 1000p C318 4700p C319 4700p

S300 XRE012605PVB25 (FG1 FG2)

P5V

L300 22u_420mA(LQH43CN220K)

C315 22u_10V(3216) C316 22u_10V(3216)

VCC_LED

PLAY (GRN) Vf:3.0V	SML-E12EC6T	D300	220	R347	If:6.3mA
READY (YEL) Vf:2.2V	SML-012Y8T	D301	270	R348	If:8mA
REC (RED) Vf:2.2V	SML-012V8T	D302	180	R349	If:12mA
INFO (BLUE) Vf:2.9V	SML-E12BC7T	D303	100	R350	If:17mA
	SML-E12BC7T	D309	100	R351	
	SML-E12BC7T	D310	100	R352	
	SML-E12BC7T	D311	100	R356	
INFO (RED) Vf:2.2V	SML-E1218W	D306	330	R353	If:7.2mA
	SML-E1218W	D312	330	R354	
	SML-E1218W	D313	330	R355	
	SML-E1218W	D314	330	R357	

R358 6.8k R360 6.8k R359 10k R361 10k

Q300 DTC123EUA Q301 DTC123EUA Q302 DTC123EUA

Q303 2SC4081 Q304 2SC4081

PCB,DISP DA-3K

OLED Display

to PCB,FRONT

P400

B8B-ZR-SM4
SMT Type

TP : Bottom

3.3V
RESET_DISP
SPI_CS
SPI_CLK
SPI_ADR
SPI_DOUT
PWR_DISP_EN
GND

TP400 TP401 TP402 TP403 TP404 TP405 TP406 TP407

P3V3

C400 10u_6.3V

GND

R401 47 SPI_DOUT
R402 47 SPI_CLK
R403 47 DATA_CMD
R404 47 RESET
R405 47 SPI_CS

R400 10k

ZD400
RSA6.1U5

C401 1000p

R407 R408 R409 R410 R411 R412 R413 10k

C402 4.7u 50V(25)

R414 680k

R406 220k

C403 10u 25V(16)

C404 0.1u

C405 10u 6.3V

C406 0.1u

PWR_DISP P3V3

PAD400

1 NC(GND)
2 VCC
3 VCOMH
4 IREF
5 D7
6 D6
7 D5
8 D4
9 D3
10 D2
11 D1
12 D0
13 E/RD#
14 R/W#
15 D/C#
16 RES#
17 CS#
18 NC
19 BS2
20 BS1
21 VDD
22 NC
23 NC
24 NC
25 NC
26 NC
27 NC
28 NC
29 NC
30 VSS
31 NC(GND)

DISP_PAD

*910k

GND

BS[1..0]
00 : 4-Wire SPI

1.0mm pitch
not Connector, Soldering Pad.

[GND PAD & Through-hole]
-PAD : fai 4mm
-HOLE : fai 1.5mm

TP408 GND

TP409 GND

+13V

+13V/40mA

P3V3

R415 6.8k

L400
10uH_0.55A(LQH3NPN100MM0)
*3.0mm x 3.0mm

D400
RB551V-30
0.5A

Q400
2SB1197K

L401
BLM18PG471SN1D

PWR_DISP

U400
TPS61040DBVR
VIN SW FB EN GND

C408 1u_50V(12)

R416 100k(F)

C407 22p

C409 1u_50V(12)

R418 8.2k(F)

R419 2.2k(F)

R417 47

BZD400
NM(RSB5.6S)

C410 0.1u

C411 10u_6.3V

VOUT=1.233(1+(R1/R2))*
=13.089V

GND

LED PCB

PCB,LED DA-3K

L ch

R ch

to PCB,SLOT

to PCB,MAIN

PCB,SLOT DA-3K

TO PCB,MAIN

P700

FH12-50S-0.5SV

0.5mm pitch
50pin SMT

Vertical type

P701

ICM-MA2H-SS52-N11B
with Ejector(ICM-MAE-R32)

Compact Flash
Type1/Type2 Connector

R106=0ohm: MASTER
N.M: SLAVE

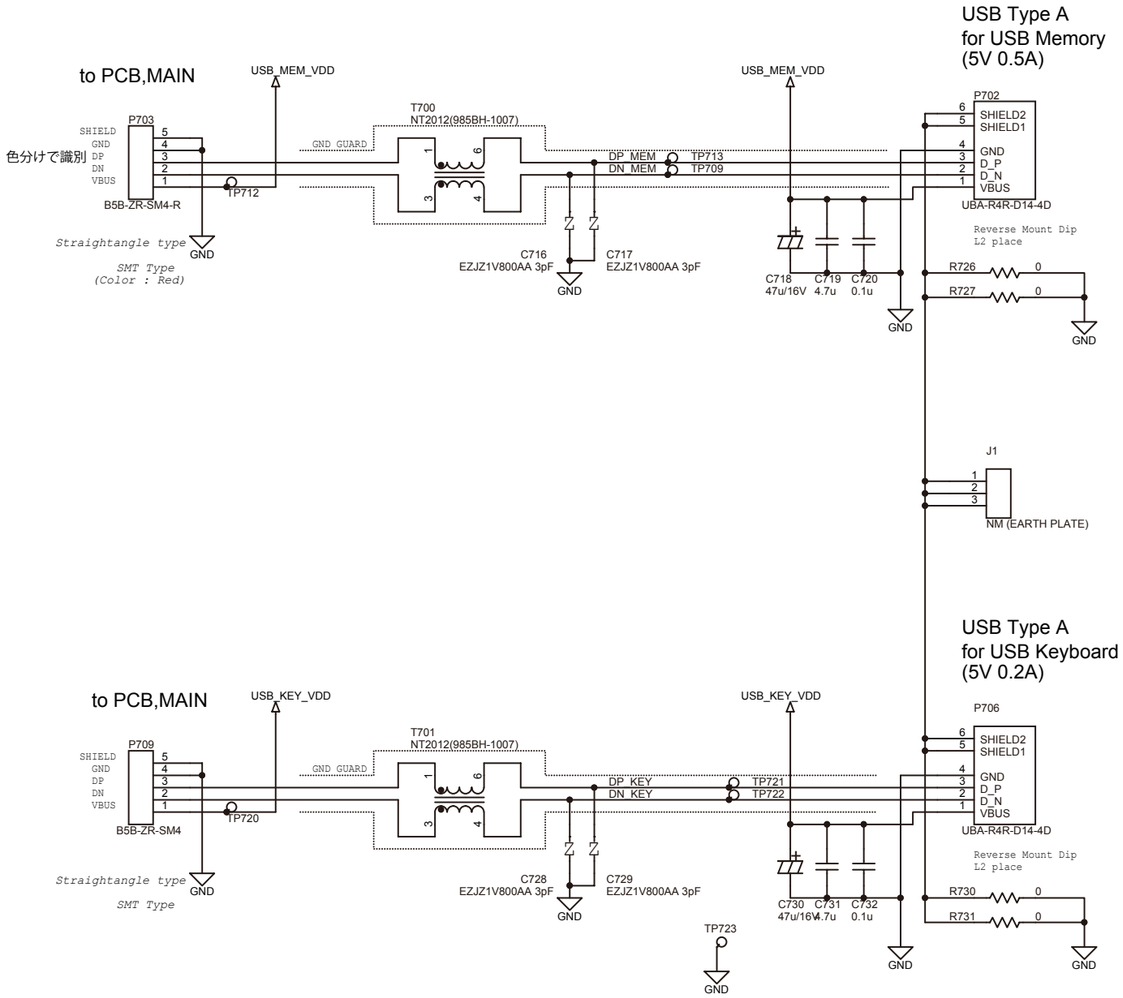
for EARTH RUG

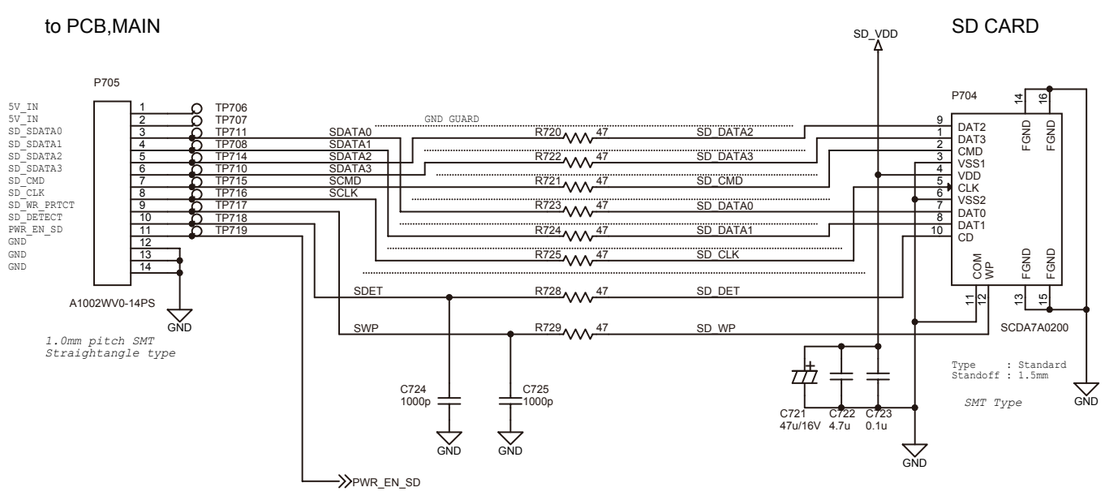
U700 AIC1526-0GSTR

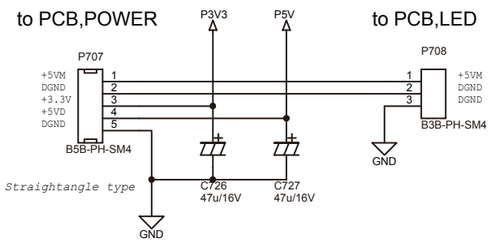
U701 AIC1526-0GSTR

[Bleeder Resistor]
5.9mA/19.4mW

[Bleeder Resistor]
5mA/25mW


to PCB,MAIN
USB_MEM_VDD
P703
SHIELD
GND
DP
DN
VBUS
色分けで識別
B5B-ZR-SM4-R
TP712
Straightangle type
SMT Type
(Color : Red)
GND
GND_GUARD
T700
NT2012(985BH-1007)
DP_MEM
DN_MEM
TP713
TP709
C716
EZJZ1V800AA 3pF
C717
EZJZ1V800AA 3pF
USB_MEM_VDD
C718
47u/16V
C719
4.7u
C720
0.1u
USB Type A
for USB Memory
(5V 0.5A)
P702
SHIELD2
SHIELD1
GND
D_P
D_N
VBUS
UBA-R4R-D14-4D
Reverse Mount Dip
L2 place
R726
0
R727
0
GND
GND
J1
NM (EARTH PLATE)
to PCB,MAIN
USB_KEY_VDD
P709
B5B-ZR-SM4
TP720
Straightangle type
SMT Type
GND
GND_GUARD
T701
NT2012(985BH-1007)
DP_KEY
DN_KEY
TP721
TP722
C728
EZJZ1V800AA 3pF
C729
EZJZ1V800AA 3pF
USB_KEY_VDD
C730
47u/16V
C731
4.7u
C732
0.1u
TP723
USB Type A
for USB Keyboard
(5V 0.2A)
P706
SHIELD2
SHIELD1
GND
D_P
D_N
VBUS
UBA-R4R-D14-4D
Reverse Mount Dip
L2 place
R730
0
R731
0
GND
GND


to PCB,MAIN
P705
5V_IN
5V_IN
SD_SDATA0
SD_SDATA1
SD_SDATA2
SD_SDATA3
SD_CMD
SD_CLK
SD_WR_PRTCT
SD_DETECT
PWR_EN_SD
GND
GND
GND
TP706
TP707
TP711
TP708
TP714
TP710
TP715
TP716
TP717
TP718
TP719
A1002WV0-14PS
1.0mm pitch SMT
Straightangle type
GND
GND_GUARD
SDATA0
SDATA1
SDATA2
SDATA3
SCMD
SCLK
SDET
SWP
R720
47
R722
47
R721
47
R723
47
R724
47
R725
47
R728
47
R729
47
SD_DATA2
SD_DATA3
SD_CMD
SD_DATA0
SD_DATA1
SD_CLK
SD_DET
SD_WP
C724
1000p
C725
1000p
GND
GND
PWR_EN_SD
SD_VDD
SD CARD
P704
DAT2
DAT3
CMD
VSS1
VDD
CLK
VSS2
DAT0
DAT1
CD
COM
WP
FGND
FGND
FGND
FGND
SCDA7A0200
Type : Standard
Standoff : 1.5mm
SMT Type
C721
47u/16V
C722
4.7u
C723
0.1u
GND
GND


to PCB,POWER
P3V3
P5V
to PCB,LED
P707
+5VM
DGND
+3.3V
+5VD
DGND
B5B-PH-SM4
Straightangle type
C726
47u/16V
C727
47u/16V
GND
P708
+5VM
DGND
DGND
B3B-PH-SM4
GND

DIO PCB

PCB,DIO KDV-CFY

to PCB,MAIN

P600
FH12-30S-0.5SH
0.5mm pitch 30pin Rightangle type

to PCB,PWR SUB

P601
B2B-PH

to PCB,BNC

P602
B10B-ZR
Straightangle type DIP type

U600 DS8921M
U601 SN74LVC2GU04DCK
U602 SN74LVC2GU04DCK
U603 SN74LV541APWR

AES/EBU IN

AES/EBU OUT

S/PDIF IN (Coaxial)

S/PDIF OUT (Coaxial)

PULSTRANS 400UH

BNC PCB

PCB,BNC KDV-CFY

to PCB,DIO

P100
B1501H00-10P
Board-IN
E02208100A
HARN A,A15 10 #28 L110BDG

5V
WORD_OUT
WORD_IN
SDIF_OUT_L
SDIF_OUT_R
SDIF_IN_L
SDIF_IN_R
WORD_SW1
WORD_SW2
GND

TP : Bottom
TP500
TP501 R107 47 WORD_OUT
TP502 R108 47 WORD_IN
TP503 R109 47 SDIF_OUT_L
TP504 R110 47 SDIF_OUT_R
TP505 R111 47 SDIF_IN_L
TP506 R112 47 SDIF_IN_R
TP507 R113 47 WORD_SW1
TP508 R114 47 WORD_SW2
TP509

U100A SN74S140NS
U100B SN74S140NS
U101A SN74S140NS
U101B SN74S140NS
U102A TC74VHCT00AFT
U102B TC74VHCT00AFT
U102C TC74VHCT00AFT
U102D TC74VHCT00AFT

C100 0.1u
C102 0.1u
C105 10u_10V(12)
C106 0.1u
D104 RB160L-60
R115 10k

D100 DAN217W
D101 DAN217W
D102 DAN217W
D103 DAN217W
D105 DAN217W
D106 DAN217W

R130 22
R131 22
R128 22
R129 22
R126 22
R127 22

S100 SSSF125800
R100 390
R101 390
R102 390
R103 390
R104 330

SLIDE SW

	WORD_SW1	WORD_SW2	75ohm	WORD
2-7	H	H	ON	OUT
3-8	L	H	OFF	OUT
4-9	H	L	OFF	THRU

L100 BLM18PG471SN1D
L101 BLM18PG471SN1D
L102 BLM18PG600SN1D
L103 BLM18PG600SN1D
L104 BLM18PG600SN1D
L105 BLM18PG600SN1D

R116 390
R117 390
R118 390
R119 390
R120 270
R121 390
R122 390
R123 390
R124 390
R125 270

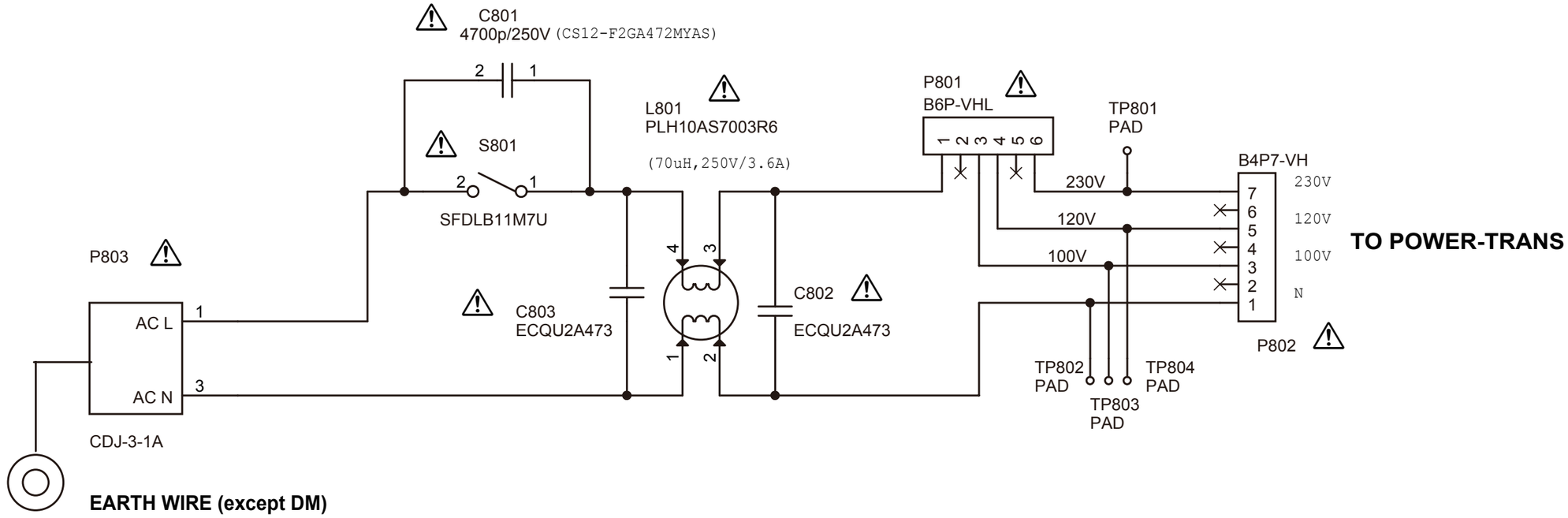
J100 P2498-AB
J101 P2498-AB
J102 P2498-AB

H2 SC FS2 FS1 H1

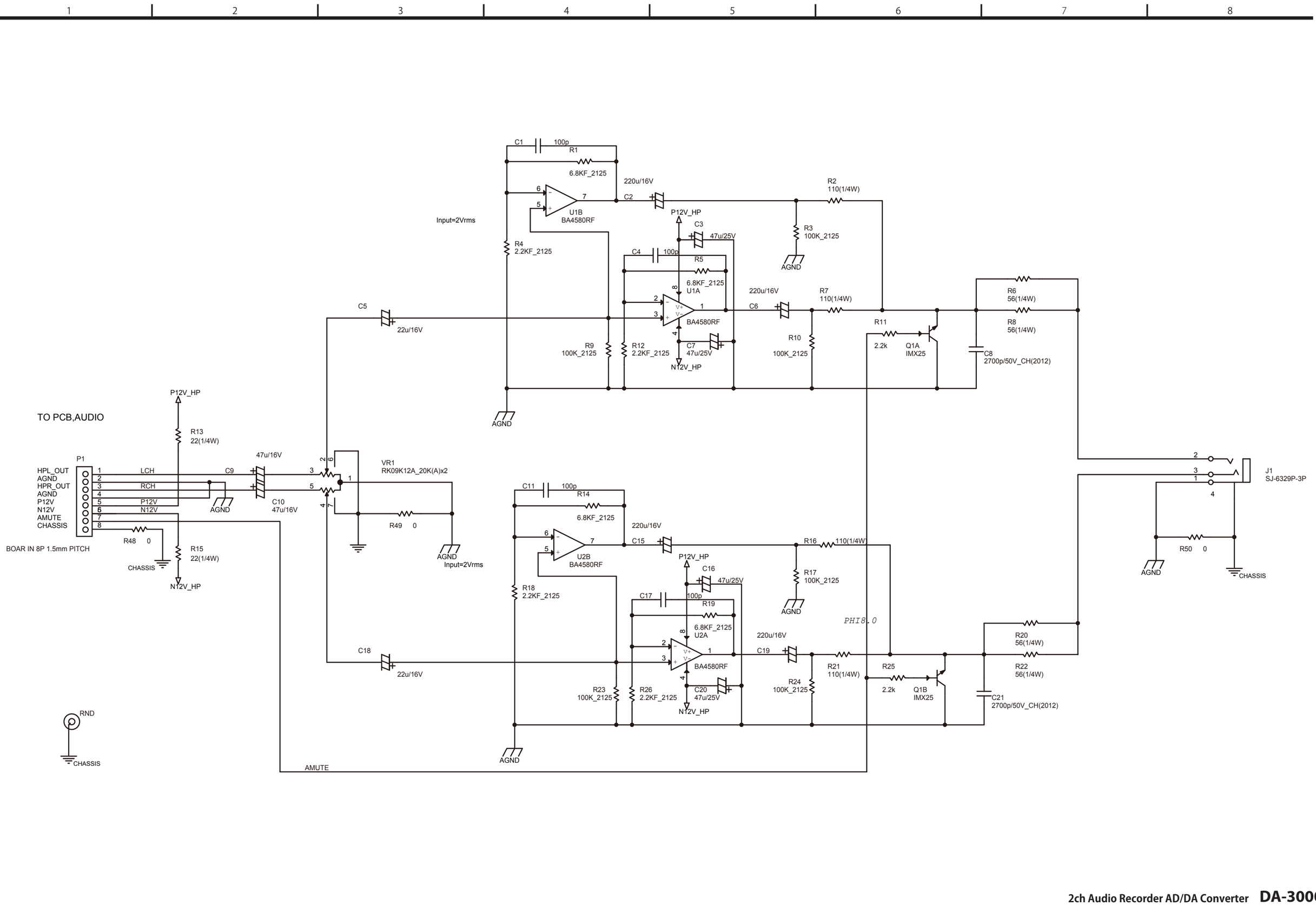
WORD IN
WORD OUT/THRU
SDIF-3 OUT L
SDIF-3 OUT R
SDIF-3 IN L
SDIF-3 IN R

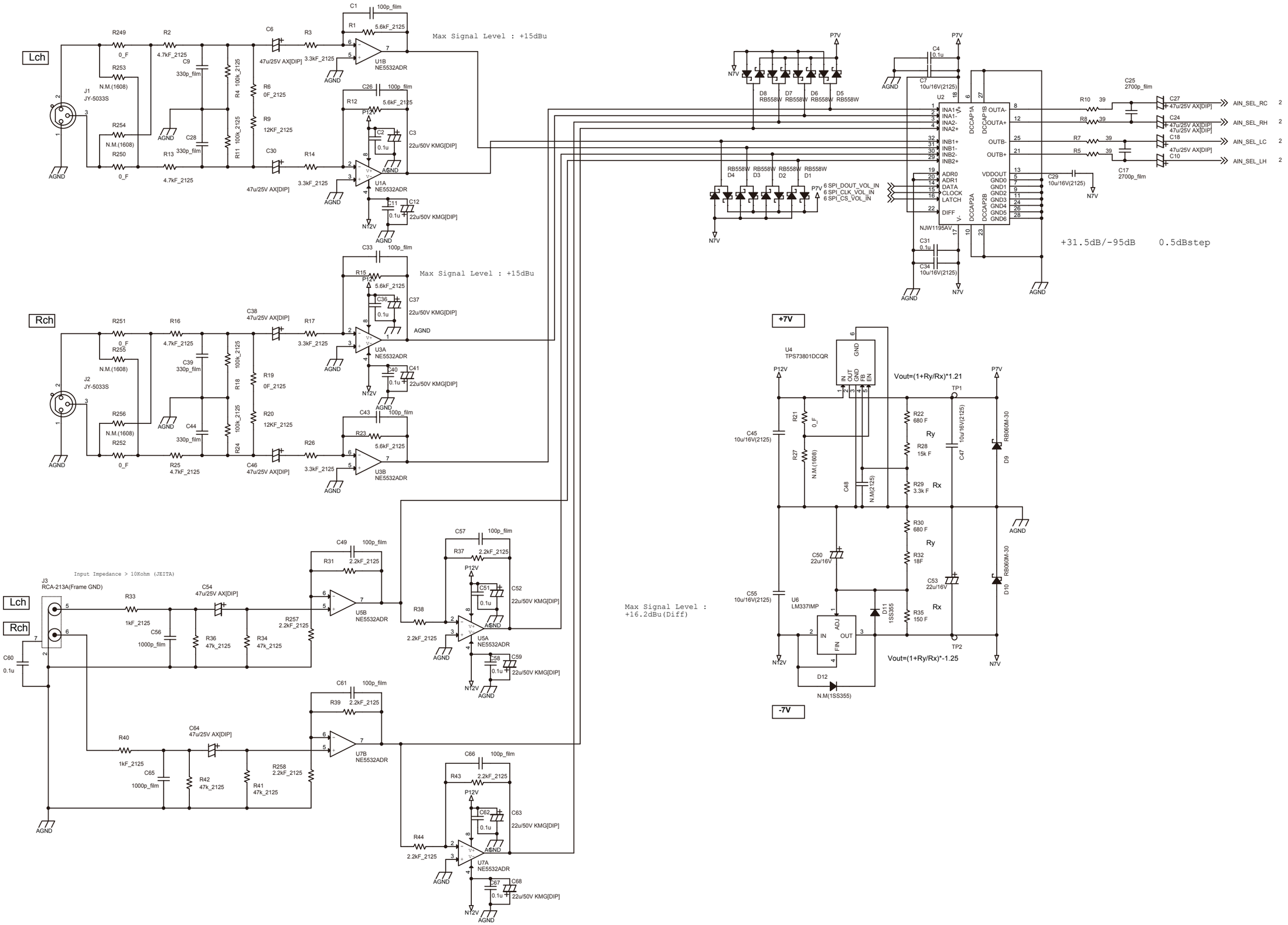
P5V
P5V_PROTECT
GND

INLET PCB

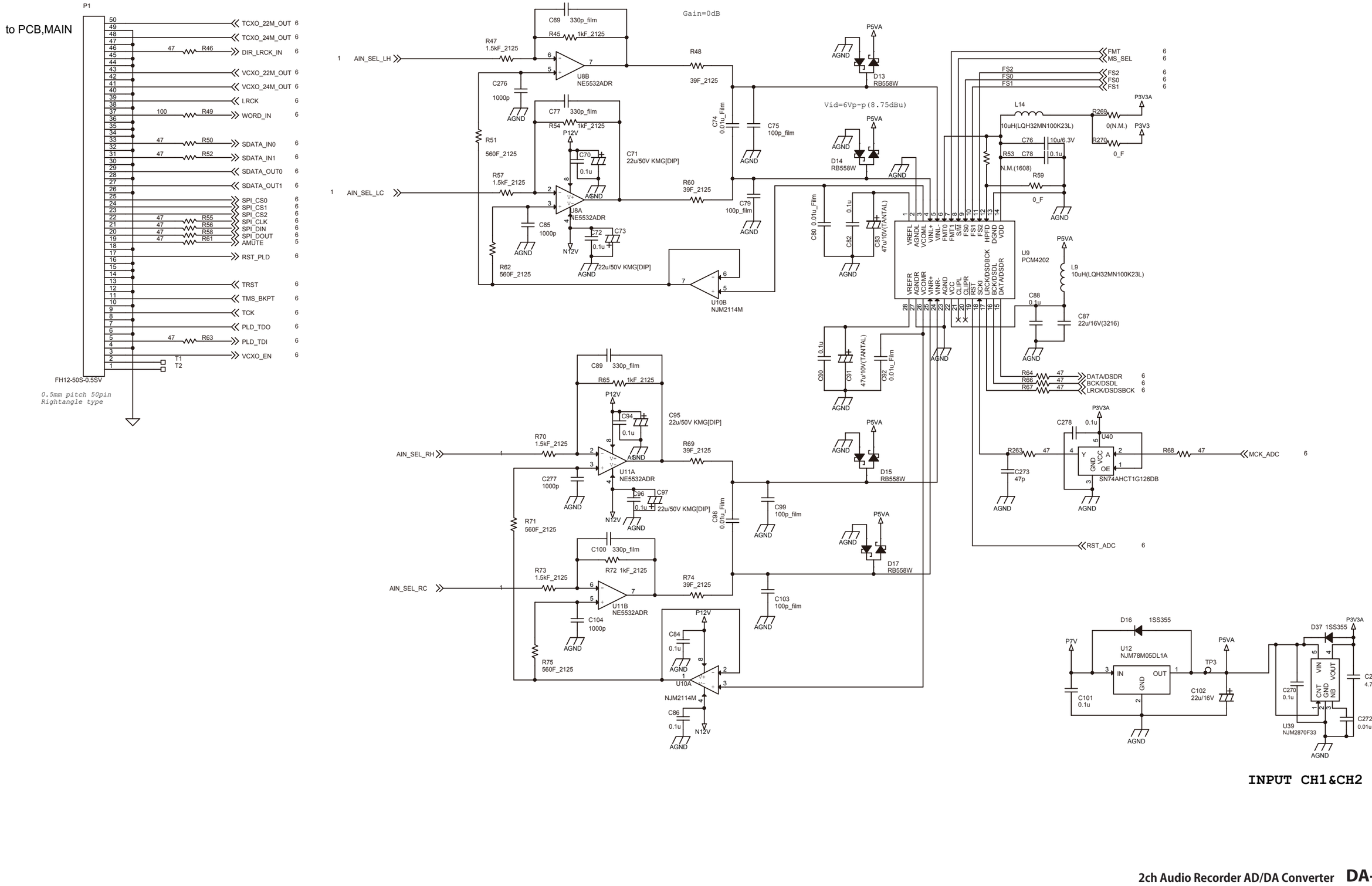

C801
4700p/250V (CS12-F2GA472MYAS)
S801
SFDLB11M7U
L801
PLH10AS7003R6
(70uH,250V/3.6A)
P801
B6P-VHL
TP801
PAD
B4P7-VH
230V
120V
100V
N
TO POWER-TRANS
P802
P803
AC L
AC N
CDJ-3-1A
C803
ECQU2A473
C802
ECQU2A473
TP802
PAD
TP803
PAD
TP804
PAD
EARTH WIRE (except DM)

HP PCB


C1 100p
R1 6.8KF_2125
220u/16V
C2
R2 110(1/4W)
U1B BA4580RF
Input=2Vrms
P12V_HP
C3 47u/25V
R3 100K_2125
AGND
R4 2.2KF_2125
C4 100p
R5 6.8KF_2125
U1A
C5
22u/16V
BA4580RF
C6
R7 110(1/4W)
R6 56(1/4W)
R8 56(1/4W)
R9 100K_2125
R12 2.2KF_2125
C7 47u/25V
N12V_HP
R10 100K_2125
R11 2.2k
Q1A IMX25
C8 2700p/50V_CH(2012)
TO PCB,AUDIO
R13 22(1/4W)
P1
HPL_OUT
AGND
HPR_OUT
AGND
P12V
N12V
AMUTE
CHASSIS
LCH
RCH
P12V
N12V
C9
47u/16V
C10 47u/16V
VR1 RK09K12A_20K(A)x2
R49 0
R48 0
R15 22(1/4W)
CHASSIS
BOAR IN 8P 1.5mm PITCH
C11 100p
R14 6.8KF_2125
220u/16V
C15
U2B BA4580RF
R16 110(1/4W)
R17 100K_2125
C16 47u/25V
R18 2.2KF_2125
C17 100p
R19 6.8KF_2125
U2A
C18
22u/16V
BA4580RF
C19
R21 110(1/4W)
R20 56(1/4W)
R22 56(1/4W)
R23 100K_2125
R26 2.2KF_2125
C20 47u/25V
N12V_HP
R24 100K_2125
R25 2.2k
Q1B IMX25
C21 2700p/50V_CH(2012)
PHI8.0
J1 SJ-6329P-3P
R50 0
RND
CHASSIS
AMUTE


Lch
Rch
Max Signal Level : +15dBu
Max Signal Level : +15dBu
Input Impedance > 10Kohm (JEITA)
J3
RCA-213A(Frame GND)
J1
JY-5033S
J2
JY-5033S
U1A NE5532ADR
U1B NE5532ADR
U3A NE5532ADR
U3B NE5532ADR
U5A NE5532ADR
U5B NE5532ADR
U7A NE5532ADR
U7B NE5532ADR
U2
NJW1195AV
U4 TPS73801DCQR
U6 LM337IMP
P7V
P12V
N7V
N12V
AGND
6 SPI_DOUT_VOL_IN
6 SPI_CLK_VOL_IN
6 SPI_CS_VOL_IN
+31.5dB/-95dB 0.5dBstep
Vout=(1+Ry/Rx)*1.21
Vout=(1+Ry/Rx)*-1.25
Max Signal Level : +16.2dBu(Diff)
+7V
-7V
AIN_SEL_RC 2
AIN_SEL_RH 2
AIN_SEL_LC 2
AIN_SEL_LH 2

AUDIO PCB (2/6)



INPUT CH1&CH2

DAC L ch

P3V3
L15
10uH(LQH32MN100K23L)
C120 47u/16V
D18
RB551V-30
P5VA
L10
10uH(LQH32MN100K23L)
C121 0.1u
C122 47u/16V
U15
PCM1795DBR
ZEROL VCC2L
ZEROR AGND3L
MSEL IOUTL-
LRCK IOUTL+
DATA AGND2
BCK Vcc1
SCK VCOML
DGND VCOMR
VDD IREF
MS AGND1
MDI IOUTR-
MC IOUTR+
MDO AGND3R
RST Vcc2R
4,6 DAC_LRCK
4,6 DOUT_DAC
4,6 DAC_SCK
4,6 DAC_MCK
R87 47
R86 47
R88 47
R89 100
6 SPI_CS_DAC_L
4,6 SPI_DOUT_DAC
4,6 SPI_CLK_DAC
6 SPI_DIN_DAC_L
4,6 RST_DAC
R91 47
R92 47
R93 47
C127 0.1u
C129 470p
C123 47u/16V
R90 10KF 2125
C125 47u/16V
C130 0.1u
C131 47u/16V
AGND
P12V
C106 1000p_film
C105 22u/50V KMG[DIP]
C107 0.1u
R76 820F_2125
U13A NJM2114M
C112 0.1u
C115 22u/50V KMG[DIP]
N12V
AGND
3.28Vp-p L_OUT_P
R78 560F_2125
C113 2700p_film
C118 1000p_film
R84 820F_2125
U13B NJM2114M
R85 560F_2125
C126 1000p_film
R94 820F_2125
U16B NJM2114M
3.28Vp-p L_OUT_N
R96 560F_2125
C133 2700p_film
C139 1000p_film
P12V
C124 22u/50V KMG[DIP]
C128 0.1u
R102 820F_2125
U16A NJM2114M
R103 560F_2125
C134 0.1u
C136 22u/50V KMG[DIP]
N12V
AGND
R79 680F_2125
R80 470F_2125
R77 1.2kF_2125
C109 680p_film
C111 2700p_film
R81 680F_2125
R82 470F_2125
C116 680p_film
R83 1.2kF_2125
P12V
C108 22u/50V KMG[DIP]
C110 0.1u
U14A NE5532ADR
C117 0.1u
C119 22u/50V KMG[DIP]
N12V
AGND
DAC_OUT_LH 5
R97 680F_2125
R98 470F_2125
R95 1.2kF_2125
C132 680p_film
C135 2700p_film
R99 680F_2125
R100 470F_2125
C138 680p_film
R101 1.2kF_2125
U14B NE5532ADR
DAC_OUT_LC 5

Max Signal Level :
+14.2dBu(Balanced)

DAC R ch

P3V3
L16
10uH(LQH32MN100K23L)
C155 47u/16V
D19
RB551V-30
P5VA
L11
10uH(LQH32MN100K23L)
C157
0.1u
C156
47u/16V
U19
PCM1795DBR
ZEROL
ZEROR
MSEL
LRCK
DATA
BCK
SCK
DGND
VDD
MS
MDI
MC
MDO
RST
VCC2L
AGND3L
IOUTL-
IOUTL+
AGND2
Vcc1
VCOML
VCOMR
IREF
AGND1
IOUTR-
IOUTR+
AGND3R
Vcc2R
3,6 DAC_LRCK
3,6 DOUT_DAC
3,6 DAC_SCK
3,6 DAC_MCK
R115 47
R114 47
R116 47
R117 180
6 SPI_CS_DAC_R
3,6 SPI_DOUT_DAC
3,6 SPI_CLK_DAC
6 SPI_DIN_DAC_R
3,6 RST_DAC
R119 47
R120 47
R123 47
C160 0.1u
C164 470p
C158 47u/16V
R118 10KF_2125
C161 47u/16V
C165 0.1u
C166 47u/16V
AGND
P12V
C140 22u/50V KMG[DIP]
C141 1000p_film
C142 0.1u
R104 820F_2125
U17A NJM2114M
3.28Vp-p R_OUT_P
R106 560F_2125
C147 0.1u
C150 22u/50V KMG[DIP]
N12V
AGND
C154 1000p_film
R112 820F_2125
U17B NJM2114M
R113 560F_2125
C162 1000p_film
R121 820F_2125
U20B NJM2114M
3.28Vp-p R_OUT_N
R124 560F_2125
C174 1000p_film
C159 22u/50V KMG[DIP]
C163 0.1u
R130 820F_2125
U20A NJM2114M
R131 560F_2125
C170 0.1u
C172 22u/50V KMG[DIP]
N12V
AGND
AGND
R107 680F_2125
R108 470F_2125
R105 1.2kF_2125
C146 2700p_film
C148 2700p_film
C145 680p_film
R109 680F_2125
R110 470F_2125
C152 680p_film
R111 1.2kF_2125
U18A NE5532ADR
P12V
C143 22u/50V KMG[DIP]
C144 0.1u
C151 0.1u
C153 22u/50V KMG[DIP]
N12V
AGND
DAC_OUT_RH 5
R125 680F_2125
R126 470F_2125
R122 1.2kF_2125
C168 2700p_film
C169 2700p_film
C167 680p_film
R127 680F_2125
R128 470F_2125
C173 680p_film
R129 1.2kF_2125
U18B NE5532ADR
DAC_OUT_RC 5

Max Signal Level :
+14.2dBu(Balanced)

AUDIO PCB (5/6)

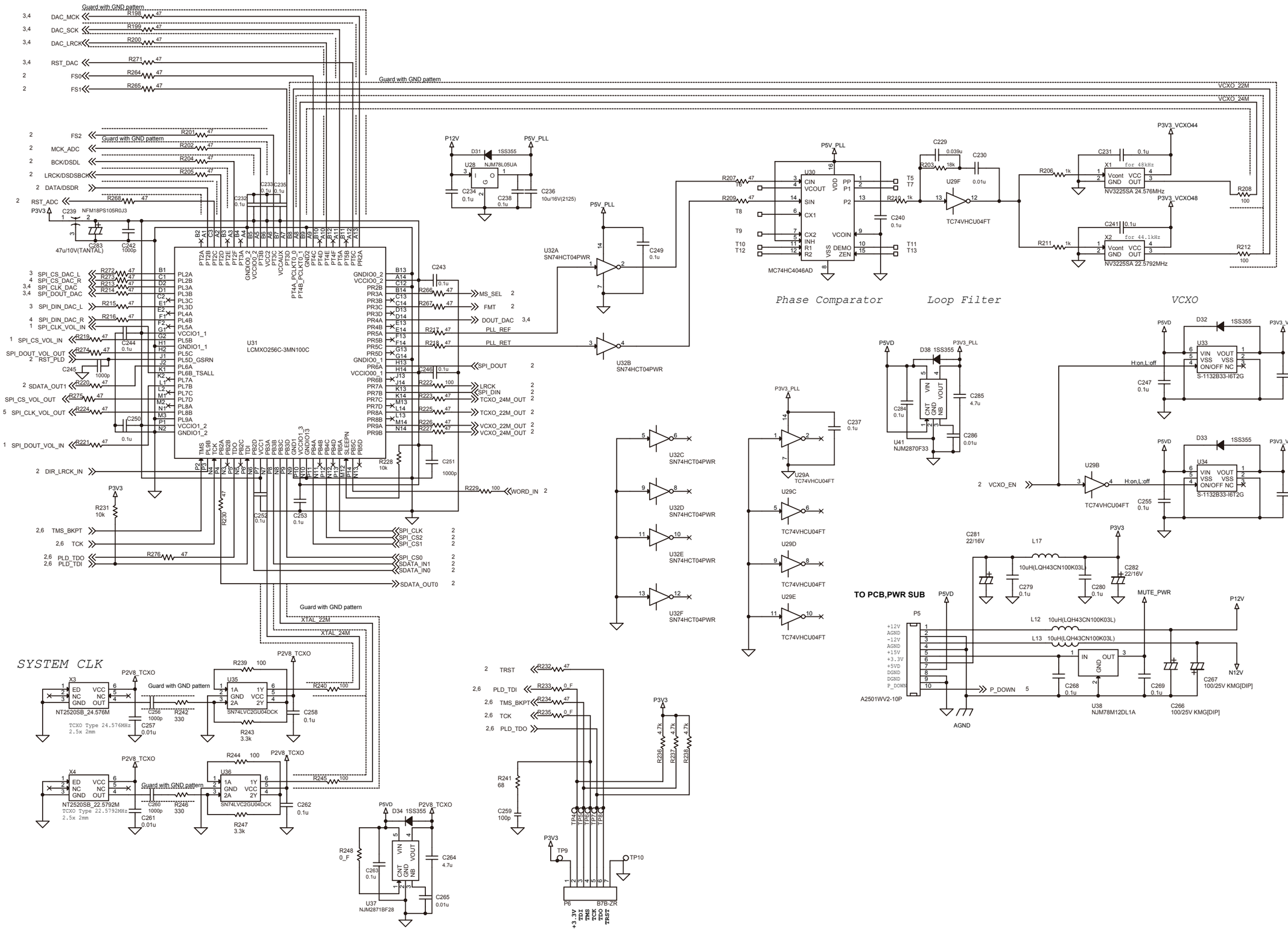
+31.5dB/-95dB 0.5dBstep

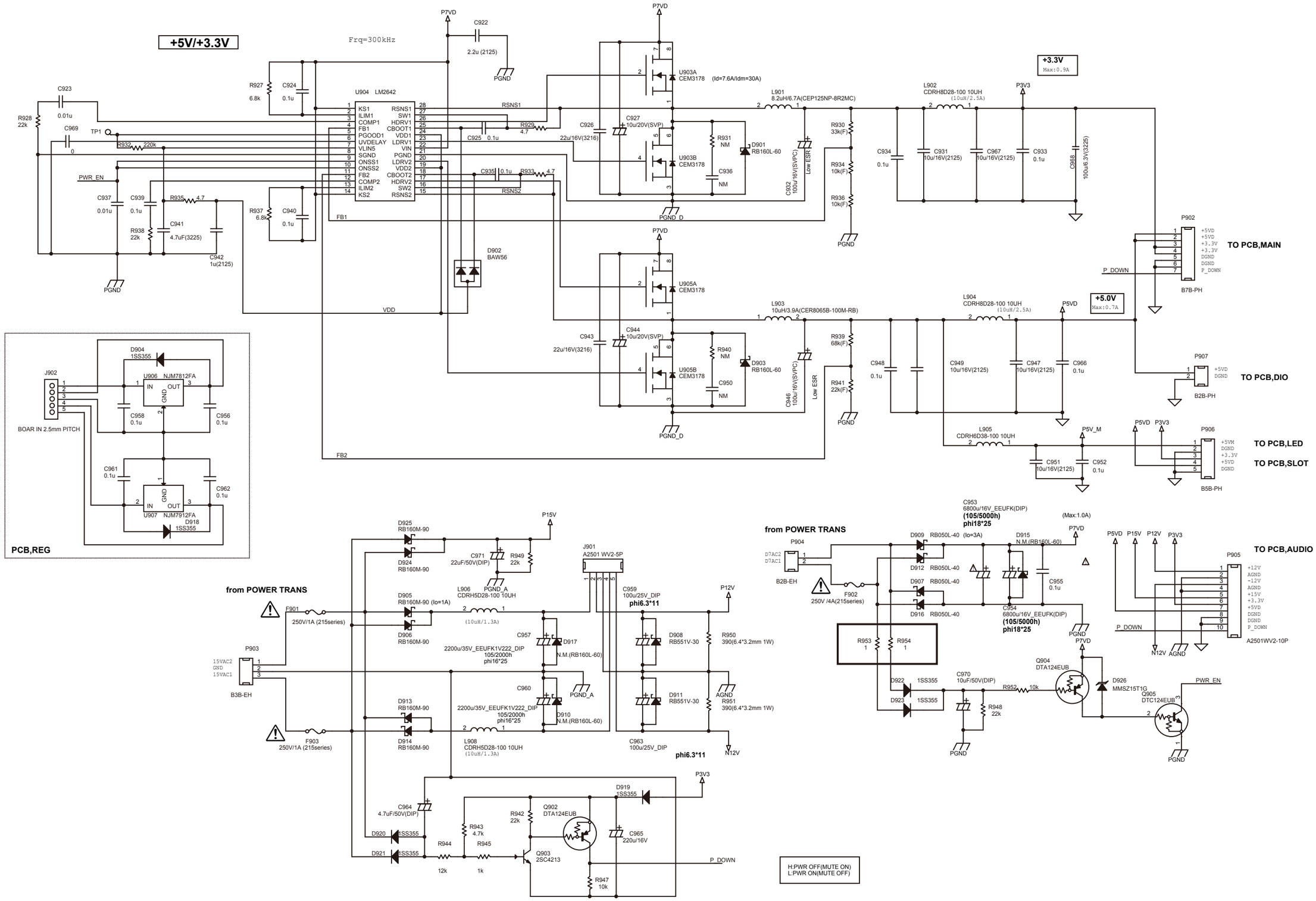
Max Level: 2Vrms

Max Level + 6dBV
Ref Level -10dBV

H:MUTE ON L:MUTE OFF

TO PCB,HP


Guard with GND pattern
DAC_MCK
DAC_SCK
DAC_LRCK
RST_DAC
FS0
FS1
FS2
MCK_ADC
BCK/DSDL
LRCK/DSDSBCK
DATA/DSDR
RST_ADC
P3V3
NFM18PS105R0J3
47u/10V(TANTAL)
U31
LCMXO256C-3MN100C
SPI_CS_DAC_L
SPI_CS_DAC_R
SPI_CLK_DAC
SPI_DOUT_DAC
SPI_DIN_DAC_L
SPI_DIN_DAC_R
SPI_CLK_VOL_IN
SPI_CS_VOL_IN
SPI_DOUT_VOL_OUT
RST_PLD
SDATA_OUT1
SPI_CS_VOL_OUT
SPI_CLK_VOL_OUT
SPI_DOUT_VOL_IN
DIR_LRCK_IN
TMS_BKPT
TCK
PLD_TDO
PLD_TDI
MS_SEL
FMT
DOUT_DAC
PLL_REF
PLL_RET
SPI_DOUT
LRCK
SPI_DIN
TCXO_24M_OUT
TCXO_22M_OUT
VCXO_22M_OUT
VCXO_24M_OUT
WORD_IN
SPI_CLK
SPI_CS2
SPI_CS1
SPI_CS0
SDATA_IN1
SDATA_IN0
SDATA_OUT0
P12V
P5V_PLL
D31 1SS355
U28 NJM78L05UA
U32A SN74HCT04PWR
U32B SN74HCT04PWR
U32C SN74HCT04PWR
U32D SN74HCT04PWR
U32E SN74HCT04PWR
U32F SN74HCT04PWR
U30 MC74HC4046AD
Phase Comparator
Loop Filter
VCXO
U29A TC74VHCU04FT
U29B TC74VHCU04FT
U29C TC74VHCU04FT
U29D TC74VHCU04FT
U29E TC74VHCU04FT
U29F TC74VHCU04FT
P3V3_VCXO44
P3V3_VCXO48
NV3225SA 24.576MHz
NV3225SA 22.5792MHz
VCXO_EN
H:on,L:off
S-1132B33-I6T2G
P5VD
P3V3_PLL
U41 NJM2870F33
SYSTEM CLK
X3 NT2520SB_24.576M
X4 NT2520SB_22.5792M
TCXO Type 24.576MHz 2.5x 2mm
TCXO Type 22.5792MHz 2.5x 2mm
P2V8_TCXO
U35 SN74LVC2GU04DCK
U36 SN74LVC2GU04DCK
U37 NJM2871BF28
XTAL_22M
XTAL_24M
TO PCB,PWR SUB
P5
A2501WV2-10P
P_DOWN
MUTE_PWR
U38 NJM78M12DL1A
AGND
N12V
TRST
TP9
TP10
P6
B7B-ZR
+3.3V
TDI
TMS
TCK
TDO
TRST


+5V/+3.3V
Frq=300kHz
U904 LM2642
KS1 ILIM1 COMP1 FB1 PGOOD1 UVDELAY VLIN5 SGND ONSS1 ONSS2 FB2 COMP2 ILIM2 KS2
RSNS1 SW1 HDRV1 CBOOT1 VDD1 LDRV1 VIN PGND LDRV2 VDD2 CBOOT2 HDRV2 SW2 RSNS2
U903A CEM3178 (Id=7.6A/Idm=30A)
U903B CEM3178
U905A CEM3178
U905B CEM3178
L901 8.2uH/6.7A(CEP125NP-8R2MC)
L902 CDRH8D28-100 10UH (10uH/2.5A)
L903 10uH/3.9A(CER8065B-100M-RB)
L904 CDRH8D28-100 10UH (10uH/2.5A)
L905 CDRH6D38-100 10UH
+3.3V Max:0.9A
+5.0V Max:0.7A
D901 RB160L-60
D902 BAW56
D903 RB160L-60
PWR_EN
P_DOWN
FB1
FB2
RSNS1
RSNS2
VDD
P902
B7B-PH
TO PCB,MAIN
P907
B2B-PH
TO PCB,DIO
P906
B5B-PH
TO PCB,LED
TO PCB,SLOT
J902
BOAR IN 2.5mm PITCH
PCB,REG
D904 1SS355
U906 NJM7812FA
U907 NJM7912FA
D918 1SS355
from POWER TRANS
P903
B3B-EH
F901 250V/1A (215series)
F903 250V/1A (215series)
D925 RB160M-90
D924 RB160M-90
D905 RB160M-90 (Io=1A)
D906 RB160M-90
D913 RB160M-90
D914 RB160M-90
L906 CDRH5D28-100 10UH
L908 CDRH5D28-100 10UH (10uH/1.3A)
J901 A2501 WV2-5P
2200u/35V_EEUFK1V222_DIP 105/2000h phi16*25
100u/25V_DIP phi6.3*11
D908 RB551V-30
D911 RB551V-30
D910 N.M.(RB160L-60)
D917 N.M.(RB160L-60)
R950 390(6.4*3.2mm 1W)
R951 390(6.4*3.2mm 1W)
P15V
P12V
N12V
AGND
PGND_A
D919 1SS355
D920 1SS355
D921 1SS355
Q902 DTA124EUB
Q903 2SC4213
C964 4.7uF/50V(DIP)
C965 220u/16V
R942 22k
R943 4.7k
R944 12k
R945 1k
R947 10k
P_DOWN
from POWER TRANS
P904
B2B-EH
F902 250V /4A(215series)
D909 RB050L-40 (Io=3A)
D912 RB050L-40
D907 RB050L-40
D916 RB050L-40
D915 N.M.(RB160L-60)
C953 6800u/16V_EEUFK(DIP) (105/5000h) phi18*25
C954 6800u/16V_EEUFK(DIP) (105/5000h) phi18*25
C955 0.1u
(Max:1.0A)
R953 1
R954 1
D922 1SS355
D923 1SS355
C970 10uF/50V(DIP)
R952 10k
R948 22k
Q904 DTA124EUB
Q905 DTC124EUB
D926 MMSZ15T1G
PWR_EN
P905
A2501WV2-10P
TO PCB,AUDIO
H:PWR OFF(MUTE ON)
L:PWR ON(MUTE OFF)

Updates

Always use the most recent firmware for this unit.

Please visit the TASCAM website (http://tascam.com/) to check for the latest firmware.

Maintenance items

V1.01 fixes

- When a DSF file was in playback standby, moving forward to a mark position was not possible. This has been fixed.
- If a file had a JPEG or another large tag frame*, the tag data could be broken. This has been fixed.

  *Used for album cover information, for example
- File information on the INFORMATION screen would not be refreshed. This has been fixed.
- When recording (or in recording standby) or monitoring with DSD, the meters would sometimes flicker. This has been fixed.
- A problem with not being able to show LATIN-1 (ISO8859) characters has been fixed.
- If there were character fonts not supported for display, the next character would be shown overlapping the previous character. This has been fixed.
- Japanese handakuten would not be shown with half-width kana. This has been fixed.
- Button operation response using the RC-10 has been improved.
- If the Unlock item on the Auto Mark screen was set to on, marks would be added even when not unlocked when recording DSD digital input. This has been fixed.
- When ADDA DIRECT mode was on, adding marks during recording was not possible. This has been fixed.
- Operation stability has been improved.

Checking the firmware version

Confirm the firmware version of your DA-3000 before updating its firmware.

1. Turn the unit's power ON.
2. Check the Ver. (firmware version) shown below the "DA-3000" model name on the startup screen.

   If the Ver. firmware versions shown here are the same or newer than the firmware versions that you plan to update to, then there is no need to update the firmware.

Firmware update procedures

1. Download the latest firmware from the TASCAM website (http://tascam.com/). If the downloaded file is in ZIP format or another compressed file type, decompress it.
2. Copy the downloaded firmware to the root directory (top level) of the CF card.
3. While the unit is off, press and hold the **PAUSE** and **RECORD** buttons and press the **POWER** switch to turn the unit on.

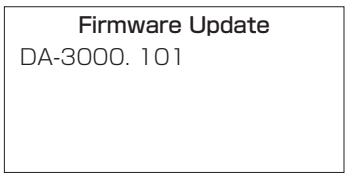
   The screen shown below will appear.

NOTE

Continue to press the buttons even after the startup screen appears until the "Firmware Update" screen is shown.

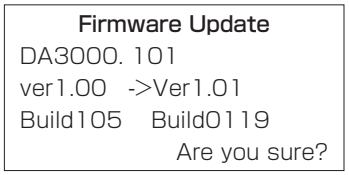
4. Insert the CF card that contains the downloaded firmware into the CF card slot.

   The screen shown below will appear.



5. Press the **MULTI JOG** dial.

   The screen shown below will appear.



NOTE

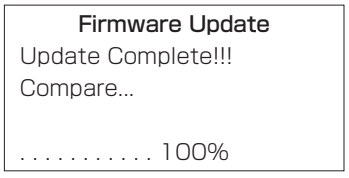
The screen shown above is an example. The actual appearance will differ.

6. Press the **MULTI JOG** dial to start the update.

CAUTION

- ***Be careful not to let the power be interrupted during the update.***
- ***If the power is interrupted during the update, the unit might become unstartable.***

7. When the update completes, the following screen will appear.



8. Press the **POWER** switch on the unit to turn the power off.
9. Refer to "Checking the firmware version" above and confirm that the Ver. versions are now the latest versions.

   This completes updating.
10. Delete firmware update files from the CF card.

Updates

Always use the most recent firmware for this unit.

Please visit the TASCAM website (http://tascam.com/) to check for the latest firmware.

New functions

V1.10 additions

- A new function has been added that allows the search speed to be increased from 10x to 100x. When searching forward or backward (pressing and holding the I◄◄ or ►►I button), press and hold the other search (I◄◄ or ►►I) button to increase the search speed to 100x.
- The peak hold indicator can now be set to display for a time of 1 to 10 seconds (in second increments).
- When the current media has only 10 minutes of remaining recording time, the **INFO** indicator now lights red as a warning.
- A PLAY MODE setting has been added to the PLAY FUNC page of the menu screen.

  Options

  CONTINUE (default): All playable files in the currently selected folder will be played.

  SINGLE: Only the selected file will be played.
- With the addition of the PLAY MODE setting, the repeat playback function has been changed.

  Options

  ON*

  OFF (default)

  *A file or files will be played back repeatedly according to the PLAY MODE setting.
- Mark information now appears in a pop-up whenever a mark is moved to or passed when searching.

Maintenance items

V1.10 fixes

- When using an AES/EBU connection, if the output is Dual Wire mode, the **INFO** indicator now lights red in warning as it should.
- When the input signal monitoring function is on, operation will now immediately reflect the FILE and SAMPLE settings on the REC FILE page as it should.

NOTE

When the input signal monitoring function is off, these settings will not be reflected until the* RECORD *button is pushed.

- If a USB flash drive that was not formatted by a DA-3000 is inserted into the unit, "Formatting not optimal. Format card? OK=ENTER" appeared in a pop-up message. This message has been changed to "Formatting not optimal."

NOTE

Please use media (USB flash drives, SD cards and CF cards) that have been formatted by this or another DA-3000 in this unit.

- A problem that prevented audio files larger than 64 MB from being copied between media has been fixed.
- When ADDA DIRECT mode is on, pressing the **PLAY** button causes this pop-up message to appear: "Cannot play while input monitoring." Now, pressing the **PAUSE** or I◄◄/►►I buttons, trying to add a mark or move to a mark position will also cause this message to appear.
- A problem that caused the reference level setting to change to –16 dB when the unit recovered from an external synchronization error has been fixed.
- During playback of a DSDIFF or DSF file, direct location with a USB keyboard would not work (specifically, after 12:41 when 5.6MHz and 25:21 when 2.8MHz). This has been fixed.
- When using a cascade connection, the counters for values less than a second shown on the home screens on the synchronized units differed. This has been fixed.
- When using a cascade connection, if the FILE TYPE screen setting was changed from DSDIFF or DSF to WAV-24 or WAV-16, the slave unit would sometimes fail to receive commands from the master unit. This has been fixed.

V1.01 fixes

- When a DSF file was in playback standby, moving forward to a mark position was not possible. This has been fixed.
- If a file had a JPEG or another large tag frame*, the tag data could be broken. This has been fixed.

  *Used for album cover information, for example
- File information on the INFORMATION screen would not be refreshed. This has been fixed.
- When recording (or in recording standby) or monitoring with DSD, the meters would sometimes flicker. This has been fixed.
- A problem with not being able to show LATIN-1 (ISO8859) characters has been fixed.
- If there were character fonts not supported for display, the next character would be shown overlapping the previous character. This has been fixed.
- Japanese handakuten would not be shown with half-width kana. This has been fixed.
- Button operation response using the RC-10 has been improved.
- If the Unlock item on the AUTO MARK screen was set to on, marks would be added even when not unlocked when recording DSD digital input. This has been fixed.
- When ADDA DIRECT mode was on, adding marks during recording was not possible. This has been fixed.
- Operation stability has been improved.

Checking the firmware version

Confirm the firmware version of your DA-3000 before updating its firmware.

1. Turn the unit's power ON.
2. Check the Ver. (firmware version) shown below the "DA-3000" model name on the startup screen.

   If the Ver. firmware versions shown here are the same or newer than the firmware versions that you plan to update to, then there is no need to update the firmware.

Firmware update procedures

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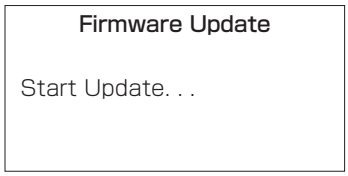
2. Copy the downloaded firmware to the root directory (top level) of the CF card.
3. While the unit is off, press and hold the **PAUSE** and **RECORD** buttons and press the **POWER** switch to turn the unit on.

   The screen shown below will appear.

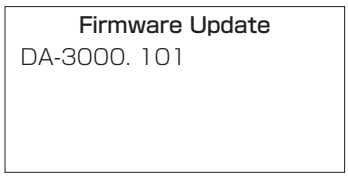


NOTE

Continue to press the buttons even after the startup screen appears until the "Firmware Update" screen is shown.

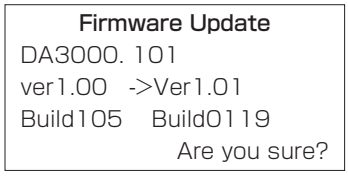
4. Insert the CF card that contains the downloaded firmware into the CF card slot.

   The screen shown below will appear.



5. Press the **MULTI JOG** dial.

   The screen shown below will appear.



NOTE

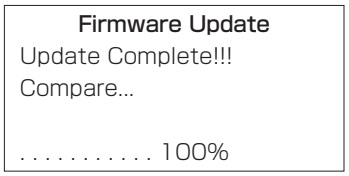
The screen shown above is an example. The actual appearance will differ.

6. Press the **MULTI JOG** dial to start the update.

CAUTION

- ***Be careful not to let the power be interrupted during the update.***
- ***If the power is interrupted during the update, the unit might become unstartable.***

7. When the update completes, the following screen will appear.



8. Press the **POWER** switch on the unit to turn the power off.
9. Refer to "Checking the firmware version" above and confirm that the Ver. versions are now the latest versions.

   This completes updating.
10. Delete firmware update files from the CF card.

Updates

Always use the most recent firmware for this unit.

Please visit the TEAC Global Site (http://teac-global.com/) to check for the latest firmware.

New functions

V1.10 additions

- A new function has been added that allows the search speed to be increased from 10x to 100x. When searching forward or backward (pressing and holding the I◄◄ or ►►I button), press and hold the other search (I◄◄ or ►►I) button to increase the search speed to 100x.
- The peak hold indicator can now be set to display for a time of 1 to 10 seconds (in second increments).
- When the current media has only 10 minutes of remaining recording time, the **INFO** indicator now lights red as a warning.
- A PLAY MODE setting has been added to the PLAY FUNC page of the menu screen.

  Options

  CONTINUE (default): All playable files in the currently selected folder will be played.

  SINGLE: Only the selected file will be played.
- With the addition of the PLAY MODE setting, the repeat playback function has been changed.

  Options

  ON*

  OFF (default)

  *A file or files will be played back repeatedly according to the PLAY MODE setting.
- Mark information now appears in a pop-up whenever a mark is moved to or passed when searching.

Maintenance items

V1.11 fixes

- The Analog input and output signal levels could be 0.5dB different from the specified reference level. This has been fixed.
- When the Input monitoring function is on (pressing the **RECORD** button with no media inserted into the currently selected device), changing settings on the REC FILE page would result in the output becoming silent. This has been fixed, this version now prevents settings on the REC FILE page from being changed in Input Monitor mode.
- When pressing the **MULTI JOG** dial for setting confirmation, the wheel may turn slightly left or right, resulting in an unexpected menu item. The sensitivity to such unwanted movements has been improved.

V1.10 fixes

- When using an AES/EBU connection, if the output is Dual Wire mode, the **INFO** indicator now lights red in warning as it should.
- When the input signal monitoring function is on, operation will now immediately reflect the FILE and SAMPLE settings on the REC FILE page as it should.

NOTE

When the input signal monitoring function is off, these settings will not be reflected until the* RECORD *button is pushed.

- If a USB flash drive that was not formatted by a DA-3000 is inserted into the unit, "Formatting not optimal. Format card? OK=ENTER" appeared in a pop-up message. This message has been changed to "Formatting not optimal."

NOTE

Please use media (USB flash drives, SD cards and CF cards) that have been formatted by this or another DA-3000 in this unit.

- A problem that prevented audio files larger than 64 MB from being copied between media has been fixed.
- When ADDA DIRECT mode is on, pressing the **PLAY** button causes this pop-up message to appear: "Cannot play while input monitoring." Now, pressing the **PAUSE** or I◄◄/►►I buttons, trying to add a mark or move to a mark position will also cause this message to appear.
- A problem that caused the reference level setting to change to –16 dB when the unit recovered from an external synchronization error has been fixed.
- During playback of a DSDIFF or DSF file, direct location with a USB keyboard would not work (specifically, after 12:41 when 5.6MHz and 25:21 when 2.8MHz). This has been fixed.
- When using a cascade connection, the counters for values less than a second shown on the home screens on the synchronized units differed. This has been fixed.
- When using a cascade connection, if the FILE TYPE screen setting was changed from DSDIFF or DSF to WAV-24 or WAV-16, the slave unit would sometimes fail to receive commands from the master unit. This has been fixed.

V1.01 fixes

- When a DSF file was in playback standby, moving forward to a mark position was not possible. This has been fixed.
- If a file had a JPEG or another large tag frame*, the tag data could be broken. This has been fixed.

  *Used for album cover information, for example
- File information on the INFORMATION screen would not be refreshed. This has been fixed.
- When recording (or in recording standby) or monitoring with DSD, the meters would sometimes flicker. This has been fixed.
- A problem with not being able to show LATIN-1 (ISO8859) characters has been fixed.
- If there were character fonts not supported for display, the next character would be shown overlapping the previous character. This has been fixed.
- Japanese handakuten would not be shown with half-width kana. This has been fixed.
- Button operation response using the RC-10 has been improved.
- If the Unlock item on the AUTO MARK screen was set to on, marks would be added even when not unlocked when recording DSD digital input. This has been fixed.

- When ADDA DIRECT mode was on, adding marks during recording was not possible. This has been fixed.
- Operation stability has been improved.

Checking the firmware version

Confirm the firmware version of your DA-3000 before updating its firmware.

1. Turn the unit's power ON.
2. Check the Ver. (firmware version) shown below the "DA-3000" model name on the startup screen.

   If the Ver. firmware versions shown here are the same or newer than the firmware versions that you plan to update to, then there is no need to update the firmware.

Firmware update procedures

1. Download the latest firmware from the TASCAM website (http://tascam.com/). If the downloaded file is in ZIP format or another compressed file type, decompress it.
2. Copy the downloaded firmware to the root directory (top level) of the CF card.
3. While the unit is off, press and hold the **PAUSE** and **RECORD** buttons and press the **POWER** switch to turn the unit on.

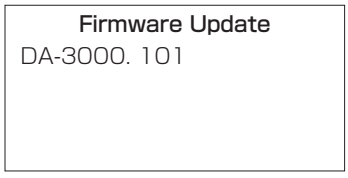
   The screen shown below will appear.

NOTE

Continue to press the buttons even after the startup screen appears until the "Firmware Update" screen is shown.

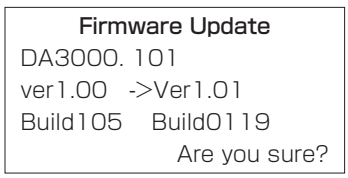
4. Insert the CF card that contains the downloaded firmware into the CF card slot.

   The screen shown below will appear.



5. Press the **MULTI JOG** dial.

   The screen shown below will appear.



NOTE

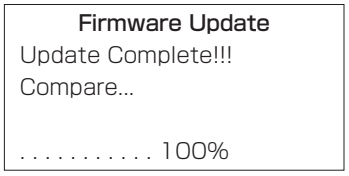
The screen shown above is an example. The actual appearance will differ.

6. Press the **MULTI JOG** dial to start the update.

CAUTION

- ***Be careful not to let the power be interrupted during the update.***
- ***If the power is interrupted during the update, the unit might become unstartable.***

7. When the update completes, the following screen will appear.



8. Press the **POWER** switch on the unit to turn the power off.
9. Refer to "Checking the firmware version" above and confirm that the Ver. versions are now the latest versions.

   This completes updating.
10. Delete firmware update files from the CF card.

Updates

Always use the most recent firmware for this unit.

Please visit the TASCAM website (http://tascam.com/) to check for the latest firmware.

New functions

V2.00 additions

- SDXC cards (up to 256 GB) are now supported.
- ERASE FORMAT for SD cards is now supported.
- Updating from SD cards and USB flash drives is now supported.

V1.10 additions

- A new function has been added that allows the search speed to be increased from 10x to 100x. When searching forward or backward (pressing and holding the I◄◄ or ►►I button), press and hold the other search (I◄◄ or ►►I) button to increase the search speed to 100x.
- The peak hold indicator can now be set to display for a time of 1 to 10 seconds (in second increments).
- When the current media has only 10 minutes of remaining recording time, the **INFO** indicator now lights red as a warning.
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- With the addition of the PLAY MODE setting, the repeat playback function has been changed.

  Options

  ON*

  OFF (default)

  *A file or files will be played back repeatedly according to the PLAY MODE setting.
- Mark information now appears in a pop-up whenever a mark is moved to or passed when searching.

Maintenance items

V.2.00 fixes

- The I/O SETTINGS page IN MONITOR item setting was not applied at startup. This has been fixed.
- Commands from remote controls other than an RC-10 could be received and cause the unit to operate improperly. This has been fixed.
- The compatibility of DSDIFF files created by this product has been improved so that they can be played using playback software made by even more companies.
- Locating to specified positions was not possible during cascade playback operations. This has been fixed.
- Operation stability has been improved.

V1.11 fixes

- The Analog input and output signal levels could be 0.5dB different from the specified reference level. This has been fixed.
- When the Input monitoring function is on (pressing the **RECORD** button with no media inserted into the currently selected device), changing settings on the REC FILE page would result in the output becoming silent. This has been fixed, this version now prevents settings on the REC FILE page from being changed in Input Monitor mode.
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V1.01 fixes

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  *Used for album cover information, for example
- File information on the INFORMATION screen would not be refreshed. This has been fixed.
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- If there were character fonts not supported for display, the next character would be shown overlapping the previous character. This has been fixed.
- Japanese handakuten would not be shown with half-width kana. This has been fixed.
- Button operation response using the RC-10 has been improved.
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- When ADDA DIRECT mode was on, adding marks during recording was not possible. This has been fixed.
- Operation stability has been improved.

Checking the firmware version

Confirm the firmware version of your DA-3000 before updating its firmware.

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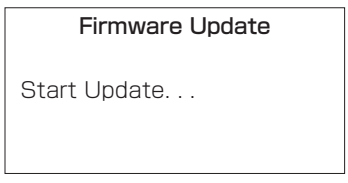
2. Copy the downloaded firmware to the root directory (top level) of the CF card.
3. While the unit is off, press and hold the **PAUSE** and **RECORD** buttons and press the **POWER** switch to turn the unit on.

   The screen shown below will appear.



NOTE

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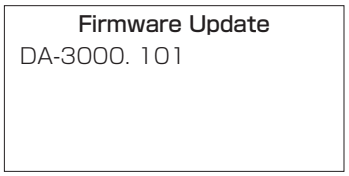
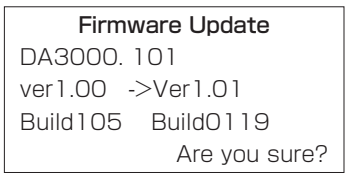
4. Insert the CF card that contains the downloaded firmware into the CF card slot.

   The screen shown below will appear.



5. Press the **MULTI JOG** dial.

   The screen shown below will appear.



NOTE

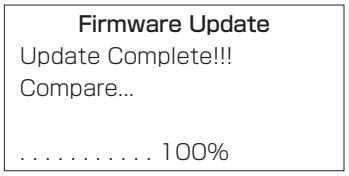
The screen shown above is an example. The actual appearance will differ.

6. Press the **MULTI JOG** dial to start the update.

CAUTION

- ***Be careful not to let the power be interrupted during the update.***
- ***If the power is interrupted during the update, the unit might become unstartable.***

7. When the update completes, the following screen will appear.



8. Press the **POWER** switch on the unit to turn the power off.
9. Refer to "Checking the firmware version" above and confirm that the Ver. versions are now the latest versions.

   This completes updating.
10. Delete firmware update files from the CF card.

TEAC

TECHNICAL INFORMATION

No. **1310**

TASCAM DA-3000, USB Key board check result

DATE 2nd Sep. 2013

DA-3000 USB key board check result

The followings are "**USB key board"** the operation had been checked for DA-3000.

Manufacturer	Model	Keyboard layout
SANWA SUPPLY	SKB-SL10	JPN(JIS)
SANWA SUPPLY	SKB-L1U	JPN(JIS)
BUFFALO	BSKBU02	JPN(JIS)
ELECOM	TK-FCM007	JPN(JIS)
Apple	A1048	JPN(JIS)
Apple	MB110J/B(A1243)	JPN(JIS)
Apple	MB110LL/B(A1243)	US
Dell	KB212-B	US/JPN(JIS)

The followings are "**USB numeric key pad"** the operation had been checked for DA-3000.

Manufacturer	Model
SANWA SUPPLY	NT-9UH2
BUFFALO	BTKU01
ELECOM	TK-TCM007
ELECOM	TK-TCM009
Targus	AKP10AP

TEAC

TECHNICAL INFORMATION

No. **1501**

TASCAM DA-3000, Countermeasure for battery life

DATE 20th Jan. 2015

Target model

DA-3000

Failure contents

Backup time for internal clock (RTC) is short, and it would be able to be kept only for a couple of weeks. For this cause, there are some cases that the time setting is displayed if customer turns on the power.

Cause

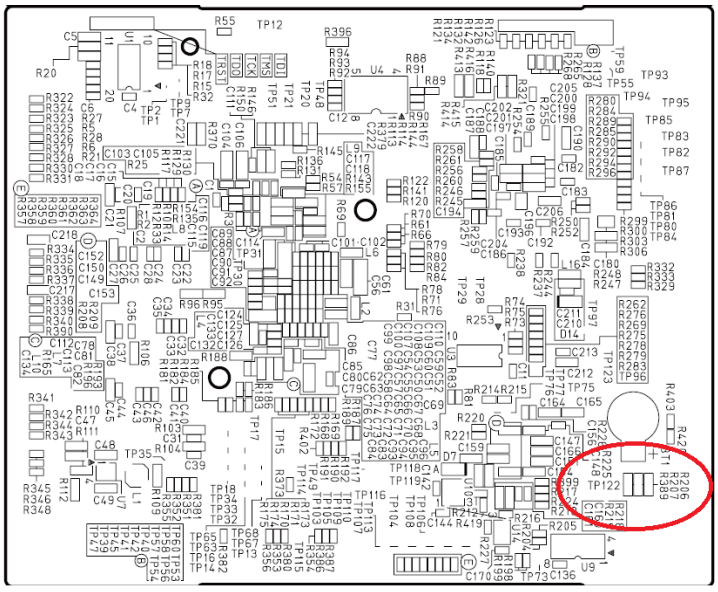
We found that backup time (For a couple of weeks) for internal clock (RTC) is shorter than our simulation.
We seek to improve long-life by the following countermeasure.

Market support

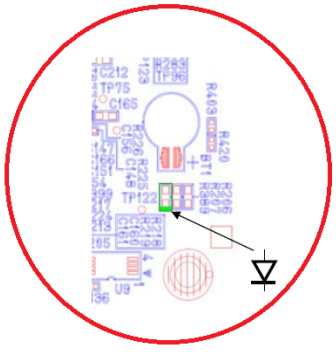
- Before change: Built-in RTC function in U12(TPS659106) is used.
- After change: RTC function of U8(S-35390A) is used.

For this change, the following part is changed because power supply to U12 from internal battery is stopped.

1) Firmware 1.01 or later is needed for this hardware change. Please update firmware to latest version.
2) R389: 0 ohm -> Schottky diode（RB751V-40）Parts Number S00067314
3) Please initialize EEPROM in TEST MODE of service manual.



[PCB ASSY,MAIN Soldering side]



Lower side is Cathode

Improved lot 08LOT～

TEAC **TECHNICAL INFORMATION**

No. **1511**

TASCAM DA-3000, DC OFFSET Confirmation

DATE 1st Apr. 2015

Target model

DA-3000

Failure Symptom

METER of -60dB portion is indicated even if any signal is not input when it is being monitored on DSD MODE.
The unit which problem is not able to be improved completely by replacing A/D CONVERTER IC was found.

Countermeasure

So the following check and countermeasure is performed so that DC OFFSET value can be checked on F/W(V61.11 Build0139).
***This F/W is used for checking F/W, so please make sure to update to the latest firmware after check.**

1. Press MENU button and enter MENU display, then change FILE to "DSDIFF".
2. Press MENU button and select INPUT VOL, then press ENTER.
3. If RECORD button is pressed, the following content is displayed on LCD, then check the value of right edge in LEVEL L and R.

Check the value

4. If the value of right edge in LEVEL L and R is between 0.04 and -0.04, it is judged as OK.
   If this value is 0.05 or more, and -0.05 or less, it is judged as NG, then countermeasure will be performed.
   ***In this time, check that METER LED of PCB,LED doesn't light as well.**

OK unit

Lch NG

NG unit

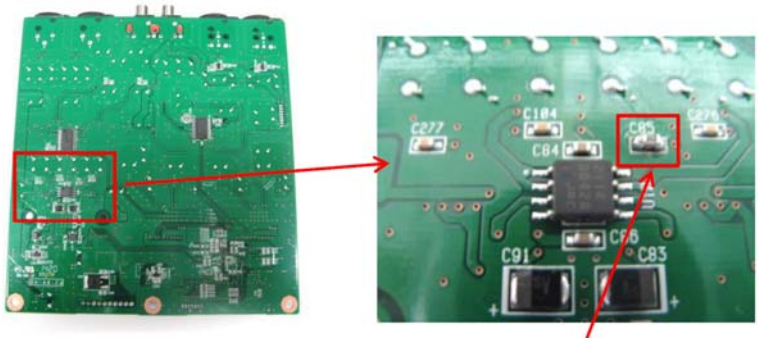
TEAC **TECHNICAL INFORMATION**

No. **1511**

TASCAM DA-3000, DC OFFSET Confirmation

DATE 1st Apr. 2015

5. Check the attached referencing table, and mount the resistance corresponding with the indicated value to specified location as addition.



- Location for added resistance
  Lch value +0.05 or more: C85
  Lch value -0.05 or less: C276
  Rch value +0.05 or more: C104
  Rch value -0.05 or less: C277

Lch value was 0.14, so mount 360k ohm on C85 as addition according to reference table.

6. Update to the latest F/W after checking if it is within standard, then please check that Bar METER is not indicated when there isn't any signal on DSD input.

Used resistance list

抵抗値	品番	品名
120kΩ（F LANK）	R0160174	RD,1/10W 120K OHMF0603G
130kΩ（F LANK）	R0160184	RD,1/10W 130K OHMF0603G
150kΩ（F LANK）	R0160194	RD,1/10W 150K OHMF0603G
160kΩ（F LANK）	R0160204	RD,1/10W 160K OHMF0603G
180kΩ（F LANK）	R0160214	RD,1/10W 180K OHMF0603G
200kΩ（F LANK）	R0160224	RD,1/10W 200K OHMF0603G
220kΩ（F LANK）	R0160234	RD,1/10W 220K OHMF0603G
240kΩ（F LANK）	R0160244	RD,1/10W 240K OHMF0603G
270kΩ（F LANK）	R0160254	RD,1/10W 270K OHMF0603G
300kΩ（F LANK）	R0160264	RD,1/10W 300K OHMF0603G
330kΩ（F LANK）	R0160274	RD,1/10W 330K OHMF0603G
360kΩ（F LANK）	R0160284	RD,1/10W 360K OHMF0603G
390kΩ（F LANK）	R0160294	RD,1/10W 390K OHMF0603G
430kΩ（F LANK）	R0160304	RD,1/10W 430K OHMF0603G
470kΩ（F LANK）	R0160314	RD,1/10W 470K OHMF0603G
510kΩ（F LANK）	R0160324	RD,1/10W 510K OHMF0603G
560kΩ（F LANK）	R0160334	RD,1/10W 560K OHMF0603G
620kΩ（F LANK）	R0160344	RD,1/10W 620K OHMF0603G
680kΩ（F LANK）	R0160354	RD,1/10W 680K OHMF0603G
1MΩ（F LANK）	R0160394	RD,1/10W 1.0M OHMF0603G

DA-3000 ADC(DSD) OFFSET Display value -> Addition resistance Reference table 1

OLED OFFSET Display value	L-CH		R-CH		
	C85 Parallel connection resistance value	C276 Parallel connection resistance value	C104 Parallel connection resistance value	C277 Parallel connection resistance value	
0.40	120kΩ		120kΩ		
0.39	120kΩ		120kΩ		
0.38	120kΩ		120kΩ		
0.37	130kΩ		130kΩ		
0.36	130kΩ		130kΩ		
0.35	130kΩ		130kΩ		
0.34	150kΩ		150kΩ		
0.33	150kΩ		150kΩ		
0.32	150kΩ		150kΩ		
0.31	160kΩ		160kΩ		
0.30	160kΩ		160kΩ		
0.29	160kΩ		160kΩ		
0.28	180kΩ		180kΩ		
0.27	180kΩ		180kΩ		
0.26	180kΩ		180kΩ		
0.25	180kΩ		180kΩ		
0.24	200kΩ		200kΩ		
0.23	200kΩ		200kΩ		Addition is needed
0.22	220kΩ		220kΩ		
0.21	240kΩ		240kΩ		
0.20	240kΩ		240kΩ		
0.19	270kΩ		270kΩ		
0.18	270kΩ		270kΩ		
0.17	300kΩ		300kΩ		
0.16	300kΩ		300kΩ		
0.15	330kΩ		330kΩ		
0.14	360kΩ		360kΩ		
0.13	390kΩ		390kΩ		
0.12	430kΩ		430kΩ		
0.11	470kΩ		470kΩ		
0.10	510kΩ		510kΩ		
0.09	560kΩ		560kΩ		
0.08	620kΩ		620kΩ		
0.07	680kΩ		680kΩ		
0.06	1MΩ		1MΩ		
0.05	1MΩ		1MΩ		
0.04					Addition is not needed
0.03					
0.02					
0.01					
0.00					

DA-3000 ADC(DSD) OFFSET Display value -> Addition resistance Reference table 2

OLED OFFSET Display value	L-CH		R-CH		
	C85 Parallel connection resistance value	C276 Parallel connection resistance value	C104 Parallel connection resistance value	C277 Parallel connection resistance value	
0.00					Addition is not needed
-0.01					
-0.02					
-0.03					
-0.04					
-0.05		1MΩ		1MΩ	Addition is needed
-0.06		1MΩ		1MΩ	
-0.07		680kΩ		680kΩ	
-0.08		620kΩ		620kΩ	
-0.09		560kΩ		560kΩ	
-0.10		510kΩ		510kΩ	
-0.11		470kΩ		470kΩ	
-0.12		430kΩ		430kΩ	
-0.13		390kΩ		390kΩ	
-0.14		360kΩ		360kΩ	
-0.15		330kΩ		330kΩ	
-0.16		300kΩ		300kΩ	
-0.17		300kΩ		300kΩ	
-0.18		270kΩ		270kΩ	
-0.19		270kΩ		270kΩ	
-0.20		240kΩ		240kΩ	
-0.21		240kΩ		240kΩ	
-0.22		220kΩ		220kΩ	
-0.23		200kΩ		200kΩ	
-0.24		200kΩ		200kΩ	
-0.25		180kΩ		180kΩ	
-0.26		180kΩ		180kΩ	
-0.27		180kΩ		180kΩ	
-0.28		180kΩ		180kΩ	
-0.29		160kΩ		160kΩ	
-0.30		160kΩ		160kΩ	
-0.31		160kΩ		160kΩ	
-0.32		150kΩ		150kΩ	
-0.33		150kΩ		150kΩ	
-0.34		150kΩ		150kΩ	
-0.35		130kΩ		130kΩ	
-0.36		130kΩ		130kΩ	
-0.37		130kΩ		130kΩ	
-0.38		120kΩ		120kΩ	
-0.39		120kΩ		120kΩ	
-0.40		120kΩ		120kΩ	

TEAC

TECHNICAL INFORMATION

TASCAM DA-3000, Countermeasure of failure when there are some cases of bad responce of remote control

No. **1613**

DATE 1st Nov. 2016

Target model

DA-3000

Failure content

It was confirmed that there are some cases of bad responce of remote control by noise of remote control signal line.

Countermeasure

R321 on PCB ASSY,FRONT DA-3K G of DA-3000 itself is changed to 10ohm from 0ohm.

Change procedure

1. Remove BONNET and ANGLE.
2. Remove FRONT PANEL ASSY with unplugging the wiring material connecting with FRONT PANEL ASSY.
3. Remove PCB ASSY,FRONT.
4. Perform reworking of the following part change.
5. Mount the reworked PCB ASSY,FRONT and assemble the unit.
6. Perform inspection later than electrical adjustment.
7. Mount BONNET and ANGLE.

Target PCBA
E95481100A PCB ASSY,FRONT DA-3K G

Part location: R321
R0233994 RD,1/10W 0 OHM J 16 HF -> R0156164 RD,1/10W 10 OHMJ0603G