
Service Manual

Model

D1624

D824

&

MODEL 8345 TC/SYNC CARD

MODEL 5042 / 5043 BALANCE I/O CARD

MODEL 8350 AES/EBU CARD

16TRACK DIGITAL RECORDER

8TRACK DIGITAL RECORDER

Fostex®



CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION:

TO PREVENT ELECTRIC SHOCK, MATCH
WIDE BLADE OF PLUG TO WIDE SLOT,
FULLY INSERT.

ATTENTION:

POUR ÉVITER LES CHOCS ÉLECTRIQUES,
INTRODUIRE LA LAME LA PLUS LARGE DE
LA FICHE DANS LA BORNE CORRE-
SPONDANTE DE LA PRISE ET POUSSER
JUSQU' AU FOND.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

“WARNING”

“TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOIS-
TURE.”

SAFETY INSTRUCTIONS

1. Read instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain instructions - The safety and operating instructions should be retained for future reference.
3. Heed warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow instructions - All operating and use instructions should be followed.
5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
12. Power Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. Damage requiring Service - The appliance should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.



An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

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NOTES

* Service mode, exploded view, PCB assembly, parts list and circuit diagrams are given in this manual to assist the service technician in maintaining the Model D1624 / D824.

* The following accessories are supplied with D1624 / D824 as the standard accessories.

| | |
|--------------------------------------|--------------|
| D1624 / D824 English owner's manual | : 8288461000 |
| D1624 / D824 Japanese owner's manual | : 8288462000 |
| D1624 / D824 English quick guide | : 8288463000 |
| D1624 / D824 Japanese quick guide | : 8288464000 |

* Following is the packing material for the Model D1624 / D824.

| | |
|--------------------------------|--------------|
| Carton, inner, D1624 | : 8228731000 |
| Carton, outer, D1624 | : 8228910000 |
| Carton, inner, D824 | : 8228736000 |
| Carton, outer, D824 | : 8228914000 |
| Packing, side, L, D1624 / D824 | : 8228430001 |
| Packing, side, R, D1624 / D824 | : 8228430002 |
| Packing, case, D1624 / D824 | : 8228435000 |

CAUTION

△ Parts marked with this sign are safety critical components. They must always be replaced with identical components. Refer to the Fostex Parts List and ensure exact replacement.

1. SPECIFICATIONS

D824 / D1624

INPUT & OUTPUT

INPUT (1 ~ 8)

| | |
|------------------------|-----------------------|
| Connector | RCA pin jack (x 8) |
| Input Level | -10 dBV |
| Input Impedance | 10 k Ω or more |

OUTPUT (D824: 1 ~ 8, D1624: 1 ~ 16)

| | |
|-----------------------|---------------------------------------|
| Connector | RCA pin jack (x 8: D824, x 16: D1624) |
| Output Level | -10 dBV |
| Load Impedance | 10 k Ω or more |

DATA IN / OUT (D824: 1 ~ 8, D1624: 1 ~ 8 & 9 ~ 16)

| | |
|------------------|--|
| Connector | Square shape optical |
| Format | IEC consumer optical standard (IEC 60958 Part 3) Alesis Proprietary Multichannel Optical Digital Interface (ADAT format does not comply to 96 kHz sampling frequency.) |

MIDI IN / OUT / THRU

| | |
|------------------|-------------------------|
| Connector | DIN 5-pin |
| Format | Comply to MIDI standard |

WORD IN / OUT

| | |
|------------------|-----------|
| Connector | BNC |
| Level | TTL level |

REMOTE IN / THRU

| | |
|------------------------|----------------------------------|
| Connector | D-SUB 9-pin |
| Transfer Format | RS-422 |
| Protocol | Sony 9-pin (P2) protocol, ES bus |

SCSI

| | |
|---------------------------------|------------------------------------|
| Connector | D-SUB 50-pin (half pitch) |
| Protocol | SCSI-2, unbalanced transfer method |
| Transfer Type | Asynchronous |
| Number of Unit Connected | 1 |

PUNCH IN / OUT

| | |
|------------------|--|
| Connector | \varnothing 6 mm phone jack |
| Level | CMOS (HIGH: 3.5 ~ 5 V, LOW: 0 ~ 1.5 V) |

RECORD & PLAYBACK

| | |
|---|---|
| Recording Medium | Internal 3.5" E-IDE hard disk drive (optional) |
| Backup Medium | External fixed / removable SCSI-2 SCSI device (backup only) |
| Standard | SCSI-2 or better |
| Sampling Frequency | 44.1 kHz, 48 kHz, 96 kHz (Switchable by Disk Format) |
| Quantization | 16-bit linear, 24-bit linear (Switchable by Disk Format) |
| A-to-D Converter | 24-bit delta-sigma 128 times over sampling |
| D-to-A Converter | 24-bit delta-sigma 128 times over sampling |
| Recording Format | FDMS-3 Version 2 |
| Emphasis | Not available |
| Recording Time (mono track min.) | About 18 min. / 100 MB at maximum (at 44.1 kHz) |
| Number of Tracks | 24 tracks (D824: 8 + 16 additional tracks, D1624: 16 + 8 additional tracks) |
| Number of Recording Tracks at a Time | |
| D824 | 8 |
| D1624 | 16 (when using DATA IN), 8 (Analog only or at 24-bit / 96 kHz) |

| | |
|---|--|
| Number of playback tracks at a time | |
| D824 | 8 |
| D1624 | 16, 8 (at 24-bit / 96 kHz) |
| No. of Programs | 99 |
| Pitch Control | ± 6.0 % (0.1 % step) |
| Crossfade | 10 msec (at 44.1 / 48 kHz), 5 msec (at 96 kHz) |
| Overall Frequency Response | 20 ~ 20 kHz ± 1 dB (at 44.1 / 48 kHz) |
| | 20 ~ 43 kHz ± 2 dB (at 96 kHz) |
| Signal to Noise Ratio | 100 dB or more (between ADC and DAC, 24-bit) |
| Dynamic Range | 100 dB or more (between ADC and DAC, 24-bit) |
| T.H.D. | 0.01 % or less (at 1 kHz, -10 dBV, 24-bit) |
| Channel Separation | 80 dB or more (at 1 kHz, 0 dB, 24-bit) |
| Phase difference between channels | 20 ° or less (at 20 kHz) |
| OPERATION | |
| Shuttle Speed | 8 steps (7 steps for FWD direction) |
| CUE ON | ± 1 ~ 8 times (FWD: ± 1 ~ 7 times) |
| CUE OFF | ± 1 ~ 64 times |
| FFWD / REW Speed | |
| CUE ON | ± 3 times |
| CUE OFF | ± 32 times |
| Digital Scrubbing (JOG) | 0 ~ 1 times (Envelope can be displayed when selecting only one track.) |
| Locate Memory | 6 (7 including [LOCATE] key temporary memory) + 99 |
| Level Indication | |
| Type | FL Bargraph |
| Number of Indicated Levels | 11 dots (-∞, -42, -30, -24, -18, -12, -9, -6, -3, 0, OVER) |
| Reference Level (-10 dBV) Indication | - 12 dB |
| Full Scale Output Level | + 2 dBV ± 1 dB |
| GENERAL | |
| Dimensions | 482 (W) x 148 (H) x 381 (D) mm |
| Weight | 7.0 kg |
| Power Supply | |
| JPN | 100 V AC |
| USA / CND | 120 V AC |
| EUR / UK | 230 V AC |
| Power Consumption | |
| D824 | Approx. 30 W |
| D1624 | Approx. 35 W |
| Standard Environment | |
| Standard Temperature | 20 ± 2 °C |
| Standard Humidity | 65 ± 5 % |
| ENVIRONMENT CONDITION (W/O HD) | |
| Characteristics Guaranteed | |
| Temperature | + 5 ~ + 40 °C |
| Humidity | 30 ~ 70 % |
| AC voltage deviation | ± 5 % or less |
| Operation Guaranteed | |
| Temperature | 0 ~ + 45 °C |
| Humidity | 85 % or less |
| AC voltage deviation | ± 10 % or less |

8345**INPUT & OUTPUT****TIME CODE INPUT**

| | |
|-----------------------------|---|
| Format | SMPTE/EBU |
| Connector | XLR-3-31 type (Pin 1: GND, Pin 2: HOT, Pin 3: COLD) |
| Standard Input Level | 2 V p-p |
| Minimum Input Level | 0.25 V p-p |
| Input Impedance | 20 k Ω or more |

TIME CODE OUTPUT

| | |
|------------------------------|---|
| Format | SMPTE/EBU |
| Connector | XLR-3-32 type (Pin 1: GND, Pin 2: HOT, Pin 3: COLD) |
| Standard Output Level | 2 V p-p |
| Minimum Output Level | 0.25 V p-p |
| Load Impedance | 20 k Ω or more |

VIDEO INPUT

| | |
|-----------------------------|---|
| Format | Composite (Applied video signal must comply to PAL or NTSC standard and be interlace type.) |
| Connector | BNC |
| Frame Pulse | 24, 25, 29.97, 30 Hz (\pm 1000 ppm) |
| Field Pulse | 48, 50, 59.94, 60 Hz (\pm 1000 ppm) |
| Standard Input Level | 1 V p-p |
| Input Impedance | 75 Ω (ON / OFF by terminator SW) |

VIDEO THRU

| | |
|---------------------|--|
| Connector | BNC |
| Output Level | Direct output of signal fed to Video Input connector |

WORD INPUT

| | |
|-----------------------------|---|
| Connector | BNC |
| Frequency | 44.1 kHz, 48 kHz |
| Standard Input Level | TTL level |
| Input Impedance | 75 Ω (ON / OFF by terminator SW) |

WORD OUTPUT

| | |
|------------------------------|-------------|
| Connector | BNC |
| Standard Output Level | TTL level |
| Load Impedance | 75 Ω |

GENERAL

| | |
|---------------------|-------------------------|
| Dimensions | 215 (W) x 80 (D) mm |
| Power Supply | Supplied from main unit |
| Digital | DC + 5 V |
| Analog | DC + 19 V / - 15 V |

5042 / 5043

INPUT & OUTPUT

INPUT (1 ~ 8)

Connector D-SUB 25-pin
Standard Input Level + 4 dBu
Input Impedance 10 kΩ or more

OUTPUT (1 ~ 8)

Connector D-SUB 25-pin
Output Level + 4 dBu
Load Impedance 600 Ω or more

OUTPUT (9 ~ 16, Model 5043 only)

Connector D-SUB 25-pin
Output Level + 4 dBu
Load Impedance 600 Ω or more

GENERAL

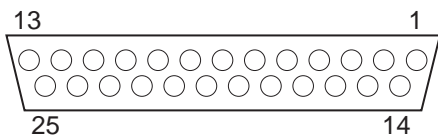
DIMENSIONS 270 (W) x 70 (D) mm

POWER SUPPLY DC + 15 V (Supplied from main unit)

8350

Connector D-SUB 25-pin
Format IEC958 PART 3 (AES/EBU)
Pin assignment Indicated below
Recommended cable AES/EBU digital audio transfer cable from Hosa Technology Inc.
 DBK-258 (DB-25 (male) ↔ 4 x XLR (male) & 4 x XLR (female))

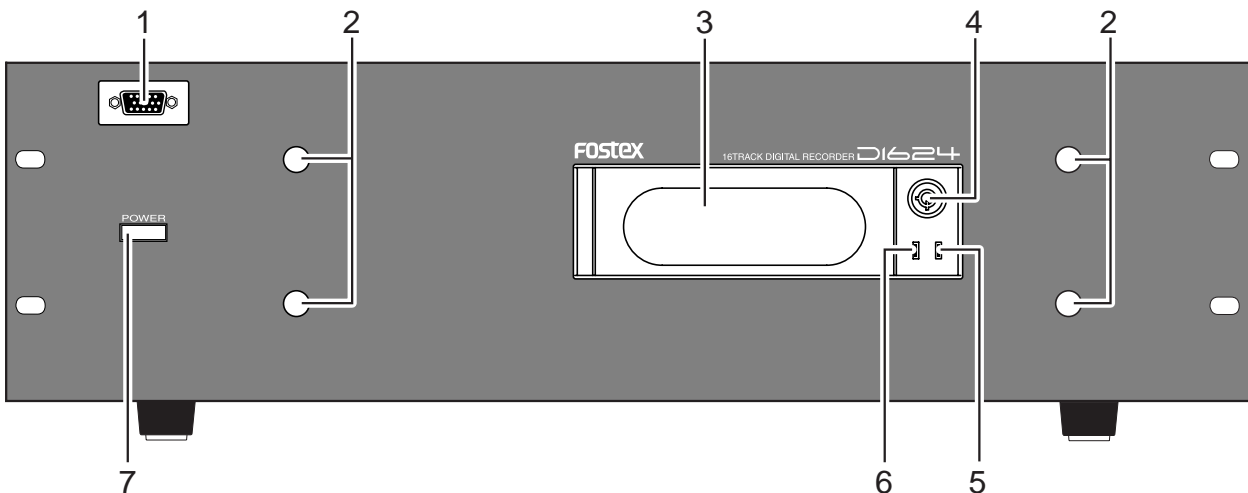
[D-SUB 25-pin Assignment]
 (Seen from rear panel side)



| SIGNAL | HOT | COLD |
|------------|-------------------------------|------|
| Input 1/2 | 1 | 14 |
| Input 3/4 | 2 | 15 |
| Input 5/6 | 3 | 16 |
| Input 7/8 | 4 | 17 |
| Output 1/2 | 5 | 18 |
| Output 3/4 | 6 | 19 |
| Output 5/6 | 7 | 20 |
| Output 7/8 | 8 | 21 |
| Frame GND | 10, 12, 13, 22, 23, 24, 25 | |
| Open | 9, 11 | |

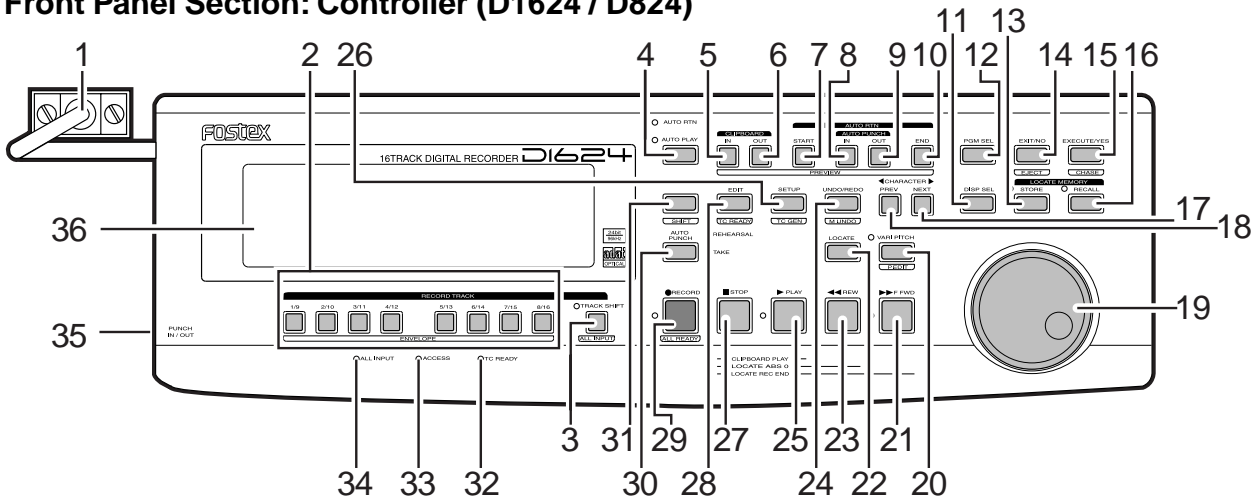
2. CONTROLS, INDICATORS & CONNECTORS

Front Panel Section: Main Unit (D1624 / D824)



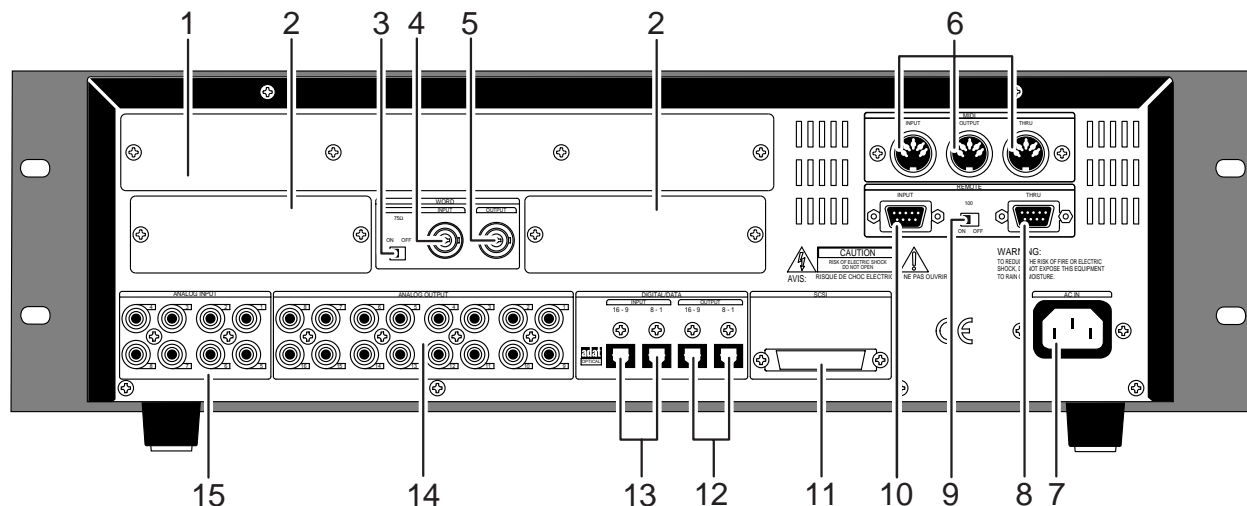
- | | |
|---------------------------------------|------------------------|
| 1. Detachable Controller connector | 5. Hard disk power LED |
| 2. Controller mounter | 6. Access LED |
| 3. Removable hard disk cartridge slot | 7. Power switch |
| 4. Lock/Unlock key | |

Front Panel Section: Controller (D1624 / D824)

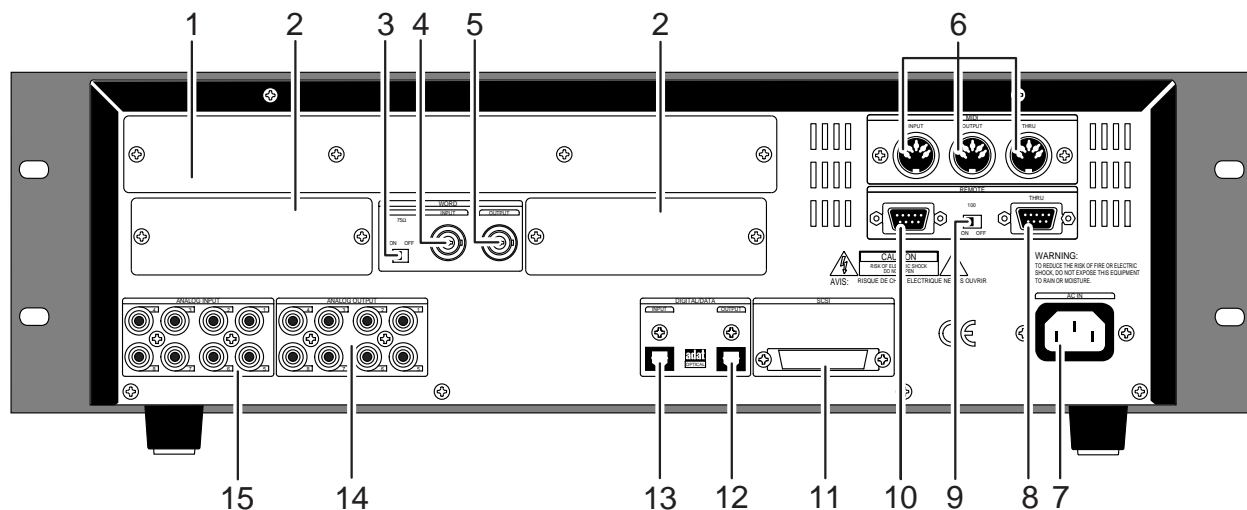


- | | |
|--|---|
| 1. Controller Connection Cable | 19. Jog/Shuttle dial |
| 2. Record Track Select / <u>Envelope</u> key | 20. Vari-pitch / <u>Pitch Edit</u> key |
| 3. Track Shift / <u>All Input</u> key | 21. Fast Forward key |
| 4. Auto Play/Auto Return key | 22. Locate key |
| 5. Clipboard In / <u>Preview</u> key | 23. Rewind key |
| 6. Clipboard Out / <u>Preview</u> key | 24. Undo/Redo / <u>Multi Undo</u> key |
| 7. Auto Return Start / <u>Preview</u> key | 25. Play key |
| 8. Auto Punch In / <u>Preview</u> key | 26. Setup / <u>TC Generator Setup</u> key |
| 9. Auto Punch Out / <u>Preview</u> key | 27. Stop key |
| 10. Auto Return End / <u>Preview</u> key | 28. Edit / <u>TC Ready</u> key |
| 11. Display Select key | 29. Record / <u>All Ready</u> key |
| 12. Program select key | 30. Auto Punch Mode On/Off key |
| 13. Store key | 31. <u>Shift</u> key |
| 14. Exit/No / <u>Eject</u> key | 32. TC ready LED |
| 15. Execute/Yes / <u>Chase</u> key | 33. Access LED |
| 16. Recall key | 34. All Input LED |
| 17. NEXT key | 35. Punch In/Out jack |
| 18. Previous key | 36. Meter display |

Rear Panel Section (D1624)

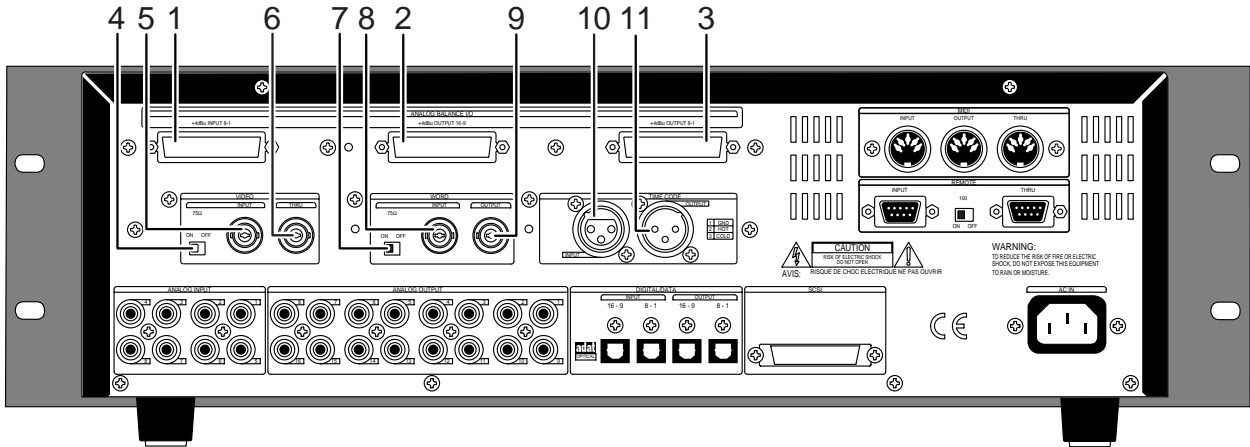


Rear Panel Section (D824)



- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Panel A for an optional card 2. Panel B for an optional card 3. WORD IN terminating switch 4. WORD INPUT connector [BNC] 5. WORD OUTPUT connector [BNC] 6. MIDI Input/Output/Thru connector 7. AC IN connector 8. REMOTE THRU connector | <ol style="list-style-type: none"> 9. REMOTE INPUT terminating switch 10. REMOTE INPUT connector 11. SCSI connector [half-pitch 50-pin] 12. Digital/Data Output connector [OPTICAL] 13. Digital/Data Input connector [OPTICAL] 14. Analog Output jack [RCA pin] 15. Analog Input jack [RCA pin] |
|---|--|

Rear Panel Section (D1624 with Model 5043 and 8345)



[MODEL 5043]

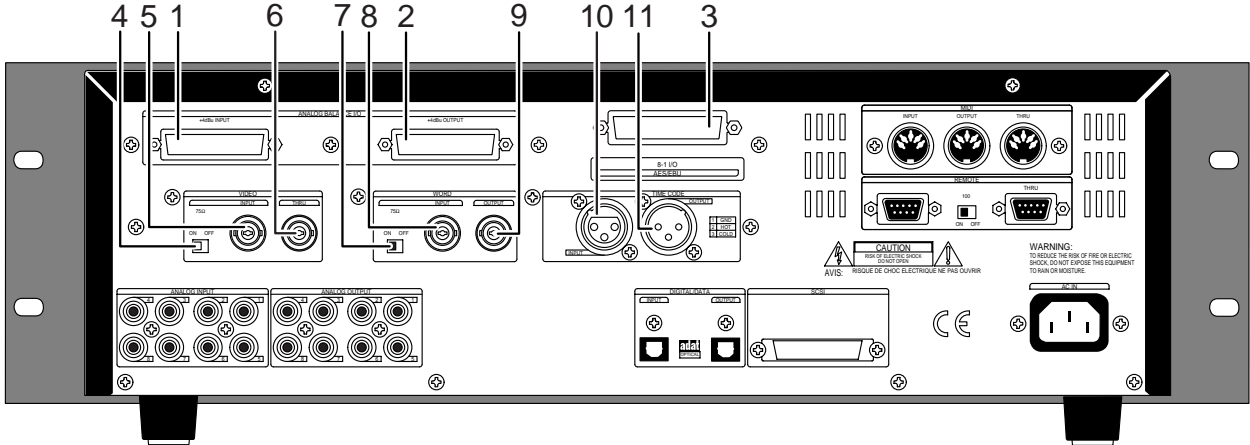
- 1. Balanced input connector
- 2. Balanced output connector (9 - 16)
- 3. Balanced output connector (1 - 8)

[MODEL 8345]

- 4. Video input terminating switch
- 5. Video input connector
- 6. Video thru connector

- 7. Word input terminating switch
- 8. Word input connector
- 9. Word output connector
- 10. Time code input connector
- 11. Time code output connector

Rear Panel Section (D824 with Model 5042, 8345 and 8350)



[MODEL 5042]

- 1. Balanced input connector
- 2. Balanced output connector

[MODEL 8350]

- 3. Digital input & output connector

[MODEL 8345]

- 4. Video input terminating switch

- 5. Video input connector
- 6. Video thru connector
- 7. Word input terminating switch
- 8. Word input connector
- 9. Word output connector
- 10. Time code input connector
- 11. Time code output connector

3. SOFTWARE UPDATE

Since the 8Mbit flash ROM is mounted on the MAIN PCB assy, the D1624/D824 software can be updated through the SCSI port. Please refer to the following explanation for correct software updating procedures.

3-1. Required Tools

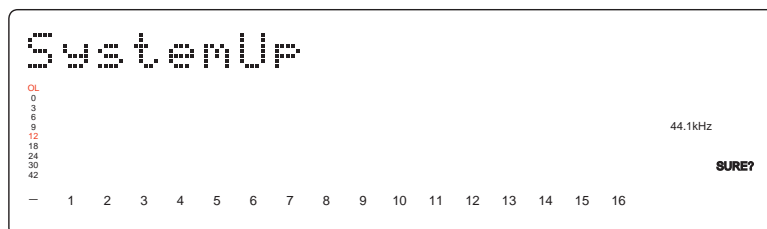
The following tools/equipment are required to update the D1624/D824 software.

1. IBM PC/AT compatible computer with SCSI board
2. Removable type SCSI drive
3. Cable between the removable type SCSI drive and the SCSI board
4. Cable between the removable type SCSI drive and the D1624/D824 (D-SUB half-pitch 50-pin)
5. A Utility software to extract the WinZip compressed file

3-2. Software Updating Procedures

Presuming that the updated software is correctly sent to you via email and is copied into your computer.

1. Connect the removable type SCSI drive to the IBM PC/AT compatible computer SCSI port.
2. Insert the diskette to the removable type SCSI drive and format it by the computer on which Windows 95/98 is running.
3. Using the utility software, extract the WinZip compressed software file. The extracted file name is “d1624mvX.XX”. (X.XX indicates the version number. For example, if the software version number is V1.06, the file name is d1624mv1.06.)
3. Copy the updated software file “d1624mvX.XX” to the removable type SCSI drive (diskette).
4. Set the removable type SCSI drive ID to 6 and connect to the D1624/D824 SCSI port (D-SUB half-pitch 50-pin).
5. Turn on the power of removable drive and then D1624/D824.
6. Insert the diskette with updated software file.
7. The D1624/D824 automatically finds the software update file in the SCSI drive/disk and is put into the software update mode. In this condition, “SystemUp” is displayed and “SURE?” is blinking on the FL display.

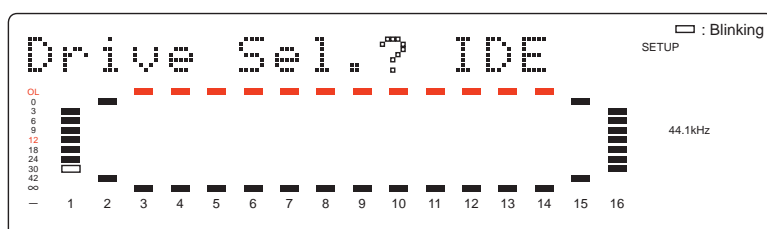


8. Press the [EXECUTE/YES] key to start updating the software.
9. The D1624/D824 FL display shows “Loading !”, “Writing !”, etc and after a while, “SystemUp” appears on the FL display again. This indicates that the software is correctly updated. Press the [STOP] key or [EXIT/NO] key to eject the disk.
10. Turn off the D1624/D824 and the connected SCSI drive.
11. Disconnect the SCSI drive from the D1624/D824 and power on the D1624/D824 again.
12. Confirm the software version number and the programming date while in the boot up procedures. For your information, they can also be checked by the Service Mode explained later.

[CAUTION]

In case the D1624/D824 does not find the software update file in the external SCSI drive by itself, please follow the procedures below.

- 1.6. Same as the before mentioned procedures.
7. Press the [SETUP] key.
8. Rotate the jog wheel, select the “Drive Sel?” menu and press the [EXECUTE/YES] key.



9. Select “SCSI-6” and press the [EXECUTE/YES] key.



10. The D1624/D824 recognizes the software file in the connected SCSI drive/diskette and is automatically put into the software update mode.
11. Press the [EXECUTE/YES] key to start updating the software.
12. The D1624/D824 FL display shows “Initial...”, name of the drive, “Loading...” and “Writing...” in order and after a while, “SURE?” will start blinking again. This indicates that the software is correctly updated. Press the [STOP] key or [EXIT/NO] key to eject the disk.
13. Turn off the D1624/D824 and the connected SCSI drive.
14. Disconnect the SCSI drive from the D1624/D824 and power on the D1624/D824 again.
15. Confirm the software version number and the programming date while in the boot up procedures. They can also be checked by the Service Mode explained later.

4. SERVICE MODE

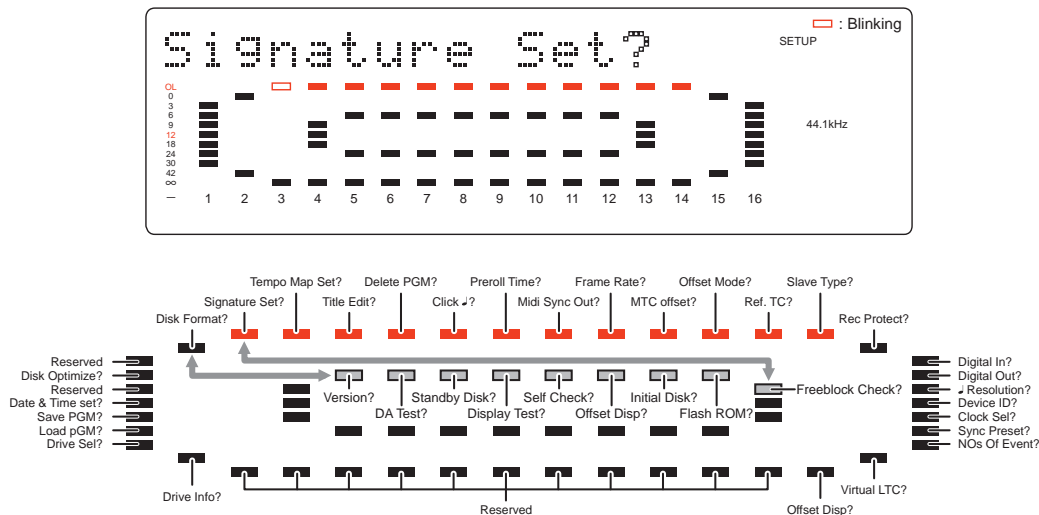
There are various optional modes available in the D1624/D824 Service Mode. Please utilize them when servicing the unit.

4-1. Putting D1624/D824 into Service Mode

The way of putting the D1624/D824 into Service Mode is as follow.

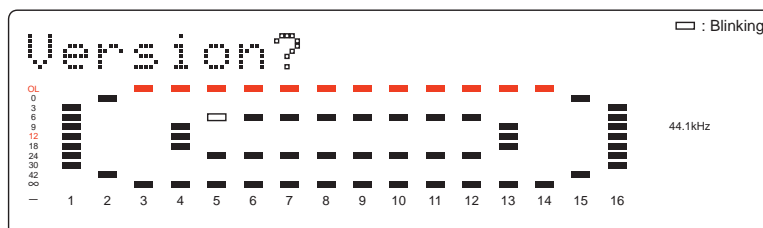
1. Plug a 3.5” E-IDE HDD caddy into the D1624/D824 HD bay and lock it using the HD key.
2. Power on the D1624/D824.
3. While holding down the [STOP] key and [TRACK SHIFT/ALL INPUT] key, press the [SETUP] key.

As shown below, by rotating the jog dial C.W. or C.C.W., various optional modes will be displayed in addition to the general SETUP menus. In order to select a certain optional mode, press the [EXECUTE/YES] key while the menu is displayed.

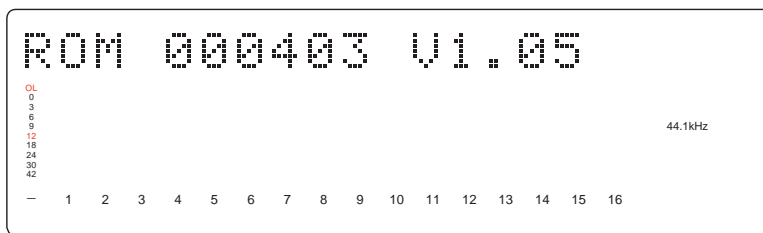


4-2. Flash ROM (software) version

This mode is used to check the Flash ROM (software) versions currently installed in the unit.



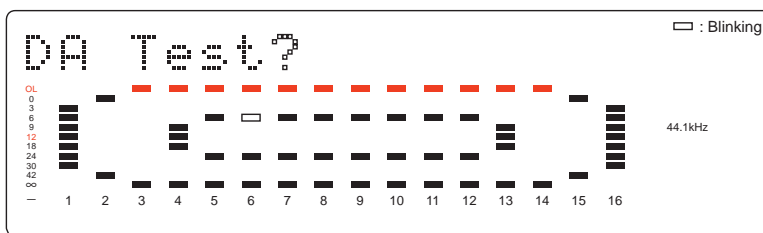
In order to check the version number, press the [EXECUTE/YES] key while “?” is blinking.



The example on the above indicates that the Flash ROM version is V1.05 and its programming date is April 3, 2000.

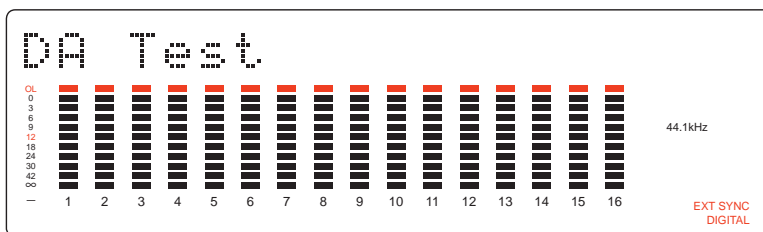
4-3. DA Test

This mode tests the signal flow from the DATA INPUT jack to the D/A converter. A S/P DIF digital signal (Fs: 44.1kHz) must be input to the DATA INPUT jack to execute this test. Then, press the [EXECUTE/YES] key while “?”



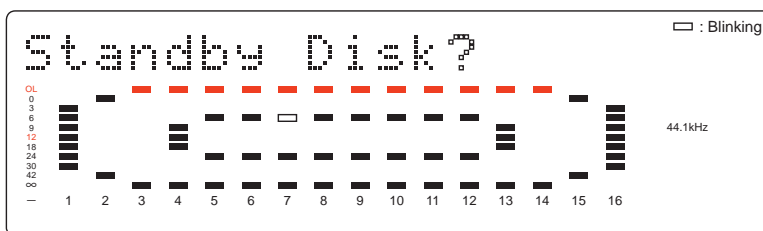
is blinking. If the D1624/D824 is in a normal condition, “44.1kHz” and “DIGITAL” will be lit solid. The odd (1, 3, 5, 7, 9, 11, 13, 15) and even (2, 4, 6, 8, 10, 12, 14, 16) channels indicate the left and right input level of S/P DIF digital signal fed to the DATA INPUT jack respectively.

If the D1624/D824 is not in a normal condition, “DIGITAL” and “EXT SYNC” on the display will blink and the bargraph meter will not indicate any level.



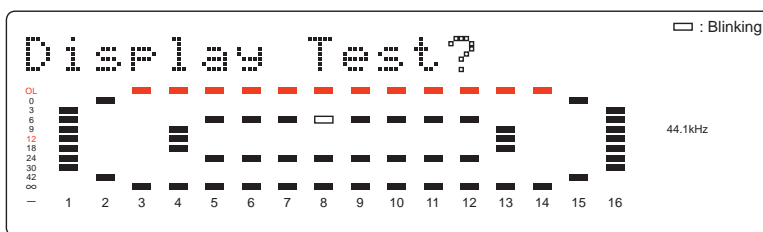
4-4. Standby Disk

This mode stops spinning the internal hard disk for purposes such as “shock” test. If the [EXECUTE/YES] key is pressed when “?” is blinking, “SURE?” will start blinking. If you would like to go on, press the [EXECUTE/YES] key once again. The internal hard disk will stop spinning.

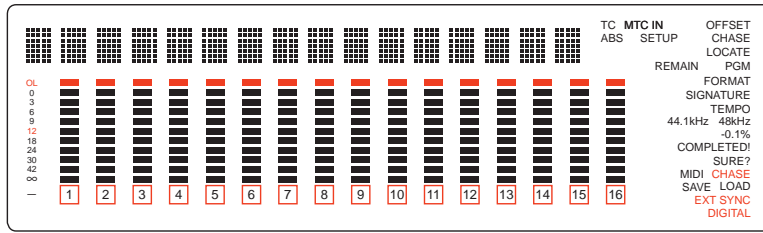


4-4. Display/Key Test

This mode tests if all the segments on the FL display, LEDs and keys (switches) on the D1624/D824 controller are correctly working or not. To execute this test, press the [EXECUTE/YES] key while “?” is blinking.



If the D1624/D824 is in a normal condition, all the segments on the FL display will be lit solid, dot matrix and bargraph meter sections on the FL display and all the LEDs on the top panel will start blinking. If the D1624/D824 is not in a normal condition, faulty segments on the LCD display, dot matrix and/or LEDs on the top panel will remain unlit.



In this condition, if the [EXECUTE/YES] key is pressed one more time, the Key Test can be executed. The Key Test checks if each key and jog dial are working properly or not. The display below indicates that the [PLAY] key is pressed and held down.



The table below shows the relationship between the key/button/jog dial and the corresponding numbers appear on the FL display.

In order to quit the Button Test, turn the jog dial C.W. or C.C.W. further after “51” or “49” is displayed respectively.

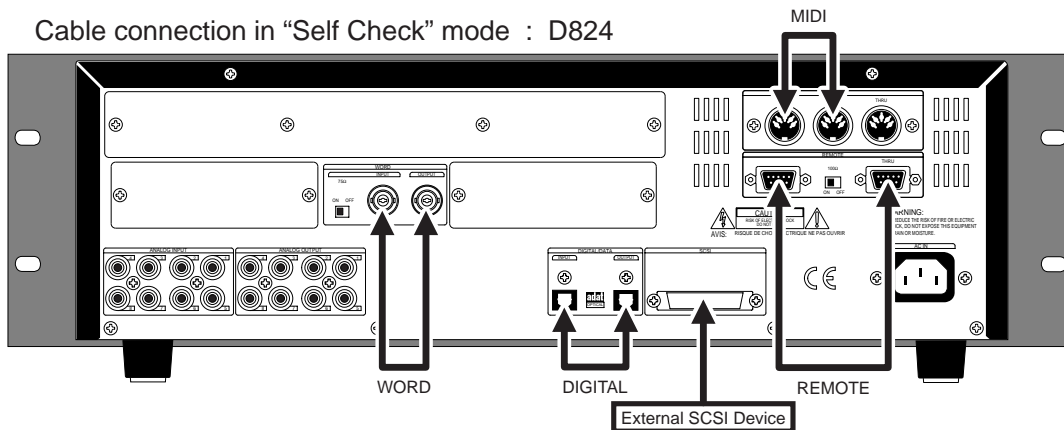
| Key/Button | No. | Key/Button | No. | Key/Button | No. |
|----------------|-----|----------------|-----|----------------|-------|
| AUTO RTN/PLAY | 01 | ERASE | 14 | RECORD TRACK 5 | 27 |
| CLIPBOARD IN | 02 | UNDO | 15 | RECORD TRACK 6 | 28 |
| CLIPBOARD OUT | 03 | REDO | 16 | RECORD TRACK 7 | 29 |
| AUTO RTN START | 04 | HOLD/ | 17 | RECORD TRACK 8 | 30 |
| AUTO PUNCH IN | 05 | STORE | 18 | SHIFT | 31 |
| AUTO PUNCH OUT | 06 | RECALL | 19 | RECORD | 32 |
| AUTO RTN END | 07 | AUTO PUNCH | 20 | STOP | 33 |
| DISP SEL | 08 | LOCATE | 21 | PLAY | 34 |
| EXECUTE/YES | 09 | VARI PITCH | 22 | REWIND | 35 |
| EXIT/NO | 10 | RECORD TRACK 1 | 23 | F. FWD | 36 |
| COPY | 11 | RECORD TRACK 2 | 24 | SHUTTLE | 00-07 |
| MOVE | 12 | RECORD TRACK 3 | 25 | JOG (C.W.) | 51 |
| PASTE | 13 | RECORD TRACK 4 | 26 | JOG (C.C.W.) | 49 |

4-5. Self Check

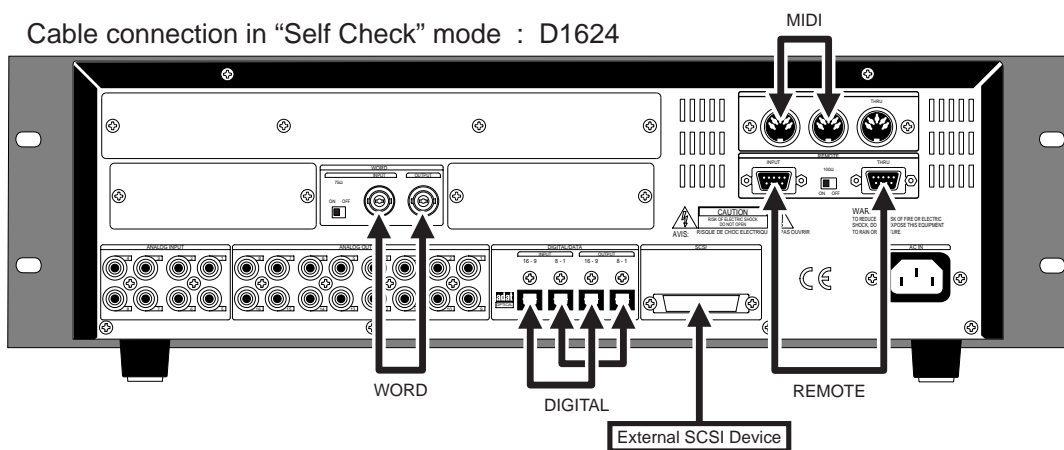
This mode automatically tests the following points in order.

1. SCSI port → 2. ATA (E-IDE) bus → 3. Option (Model 8345) bus → 4. MIDI in/out circuit → 5. S/P DIF digital signal in/out → 6. ADAT digital signal in/out → 7. 8345 vari-pitch circuit → 8. Vari-pitch circuit → 9. External Time Clock Check → 10. Internal Time Clock Check → 11. Remote in/out circuit → 12. Word In/Out circuit → 13. A/D and D/A circuit (Input Monitor)

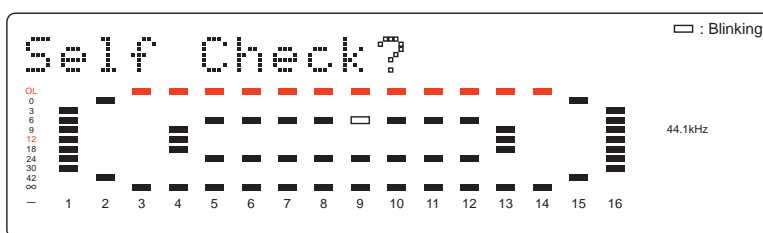
Cable connection in “Self Check” mode : D824



Cable connection in "Self Check" mode : D1624

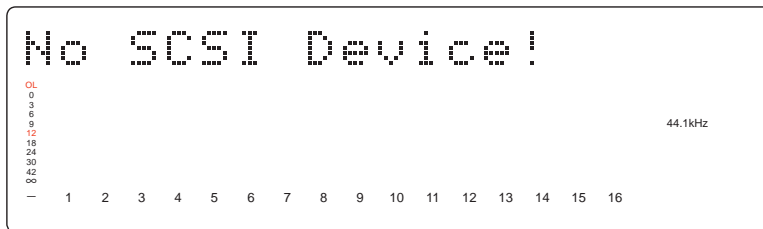


CAUTION: In order not to form a MIDI signal loop, connect the MIDI cable after putting the D1624/D824 into the Service Mode.



4-5-1. SCSI Port Check

If the D1624/D824 does not recognize a connected SCSI device, the prompt below will be displayed.



The following is considered to be the cause of problem.

- Bad cable connection, bad cable contact and / or the power of SCSI device is being turned off.
- SCSI device ID is not set to 6.
- U9, U64, J16, etc and / or surrounding circuit are defective.
- If a removable type SCSI drive is connected and in case a disk is not inserted into the drive, the following prompt will be displayed.



Fs, DIGITAL IN, DIGITAL OUT and SLAVE MODE settings on the internal hard disk to be used when the Self Check test is executed should be as follow.

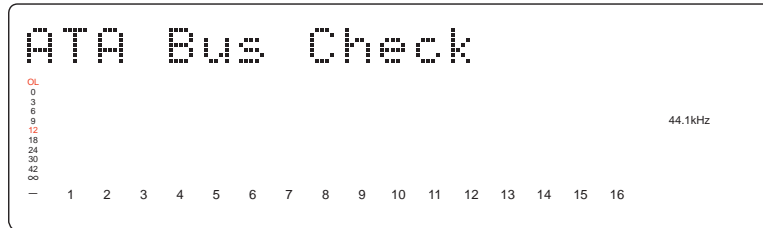
- * Fs: 44.1kHz
- * DIGITAL IN: OFF (L: -, R: -)
- * DIGITAL OUT: ADAT
- * SLAVE MODE: OFF

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

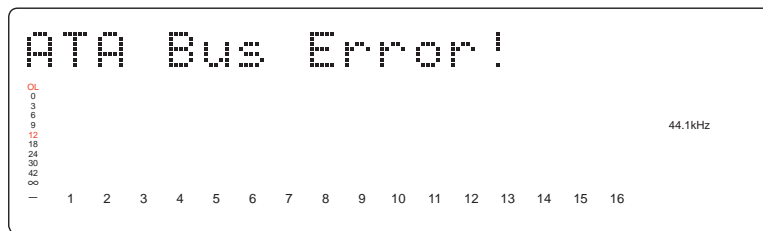
4-5-2. ATA (E-IDE) Bus Check

This test checks if data can be properly read out from the preformatted internal hard disk.

If the “ALTERNATE STATUS” which indicates the hard disk condition cannot be read out, the prompt below will be displayed.



If the data (SYSTEM ID) written by formatting the disk cannot read out correctly, the prompt below will be displayed.



The following is considered to be the cause of problem.

- Breaking, shortage and / or bad contact of flat cable W12.
- U1, U9, etc and / or surrounding circuit are defective.

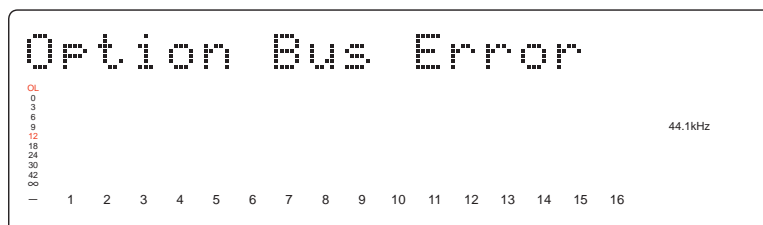
Fs, DIGITAL IN, DIGITAL OUT and SLAVE MODE settings on the internal hard disk to be used when the Self Check test is executed should be as follow.

- * Fs: 44.1kHz
- * DIGITAL IN: OFF (L: -, R: -)
- * DIGITAL OUT: ADAT
- * SLAVE MODE: OFF

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test. If the [EXECUTE/YES] key is pressed with the “ATA Bus Check” message displayed, checking the SYSTEM ID on the SCSI device will be executed. The current drive setting after the Self Check test will become “SCSI”.

4-5-3. Option (Model 8345) Bus Check

This test checks if the option bus (J18 on the MAIN PCB) to which the Model 8345 is connected is working properly or not. If reading out and / or writing in data are not correctly executed, the prompt below will be displayed.



The following is considered to be the cause of problem.

- Bad connection and / or wrongly connected J18.
- J18, U67, U75, etc and / or surrounding circuit are defective.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

4-5-4. MIDI In/Out Check

By connecting the MIDI IN and OUT ports, this test checks if the reply against the ID inquiry is correctly received. If not, the prompt below will be displayed.



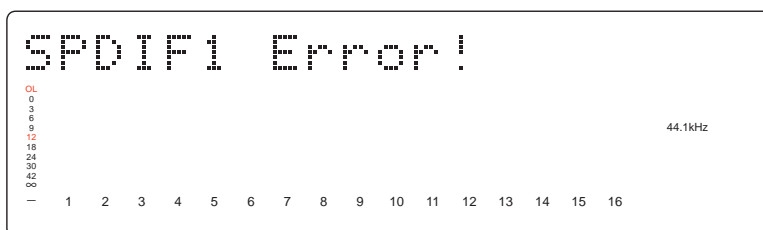
The following is considered to be the cause of problem.

- J7, U28, U29 (MAIN PCB), J201, J202 (MIDI PCB), J301, J304 (RS422 PCB), etc and / or surrounding circuit are defective.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

4-5-5. S/P DIF In/Out Check

By connecting the DATA IN and OUT terminals, this test checks if the S/P DIF signal output by itself is correctly received. If the PLL circuit is not in a “LOCKED” condition, the prompt below will be displayed.



The following is considered to be the cause of problem.

- No oscillation of resonator X1.
- J11, J12, J20, J21, U4, U5, U17, U19, U24, U62, etc and / or surrounding circuit are defective.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

4-5-6. Adat In/Out Check

By connecting the DATA IN and OUT terminals, this test checks if the ADAT digital signal output by itself is correctly received. If the PLL circuit is not in a “LOCKED” condition, the prompt below will be displayed.



The following is considered to be the cause of problem.

- No oscillation of resonator X2.
- J11, J12, J20, J21, U4, U5, U17, U19, U24, U62, etc and / or surrounding circuit are defective.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

4-5-7. 8345 Vari-Pitch Circuit Check

The master clock is generated using the Model 8345 LRCK (J1 pin-24: EXT_LRCK). In the meantime, the adat digital signal is generated based on this master clock. This test checks if the adat digital signal output by itself is correctly received. If not, it means that the vari-pitch circuit does not work correctly. As a result, the prompt below will be displayed.



If “adat error” is displayed in the before mentioned Adat In/Out Check test, the above error prompt will be displayed. If the Model 8345 is not installed in the D1624/D824, this test will be skipped.

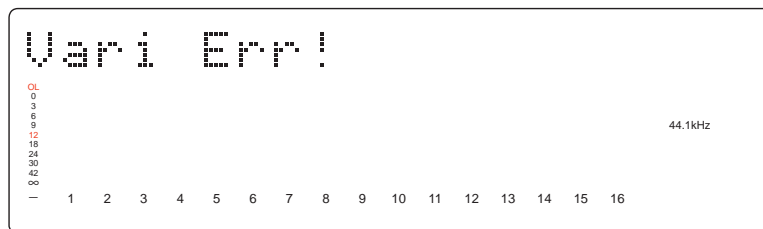
The following is considered to be the cause of problem.

- Wrongly connected flat cable to J18 on the MAIN PCB.
- J18, U67, U75, etc and / or surrounding circuit are defective.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

4-5-8. D1624/D824 Vari-Pitch Circuit Check

Using the master clock generated through the D1624/D824 vari-pitch circuit on the MAIN PCB, the adat digital signal is output. This test checks if the adat digital signal output by itself is correctly received. If not, it means that the vari-pitch circuit does not work correctly. As a result, the prompt below will be displayed.



If “adat error” is displayed in the before mentioned Adat In/Out Check test, the above error prompt will be displayed. If the Model 8345 is not installed in the D1624/D824, this test will be skipped.

The following is considered to be the cause of problem.

- U1, U2, U17, etc and / or surrounding circuit are defective.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

4-5-9. External Time Clock Check

This mode checks the internal RTC (Real Time Clock) controlling circuit when the power is at OFF condition.

The following is considered to be the cause of problem.

- Defects on the U86.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

4-5-10. Internal Time Clock Check

This mode checks the internal RTC (Real Time Clock) controlling circuit when the power is at ON condition.

The following is considered to be the cause of problem.

- Defects on the U1.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.

4-5-11. Remote

This mode checks the remote circuit.

The following is considered to be the cause of problem.

- Defects on the U86.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.



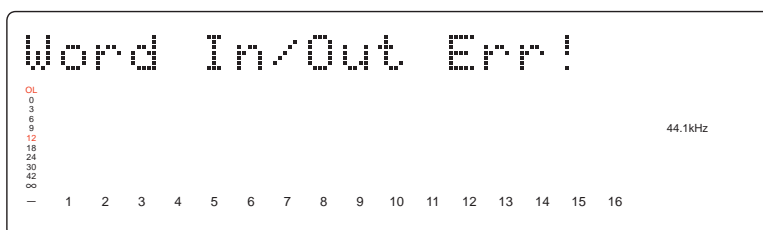
4-5-12. Word In/Out

This mode can be checked only when the Model 8345 is not installed. In other words, if this test is executed with the Model 8345 installed, the following error message will be displayed.

The following is considered to be the cause of problem.

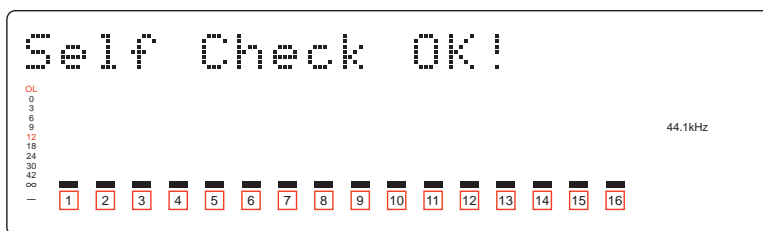
- Defects on the U1.

Even if the before mentioned prompt is displayed, pressing the [EXECUTE/YES] key would reach the next test.



4-5-13. A/D and D/A Circuit Check (Input Monitoring)

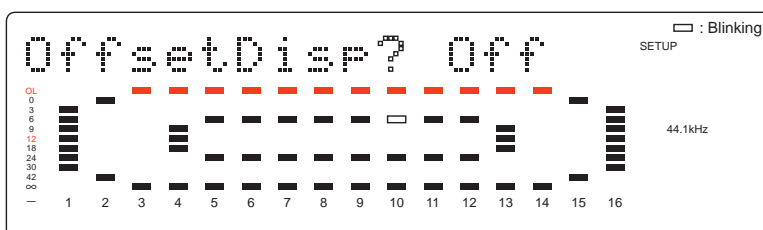
The D1624/D824 automatically checks the before mentioned points in the Self Check mode. If the D1624/D824 is working properly, the following appears on the display with REC LED blinking.



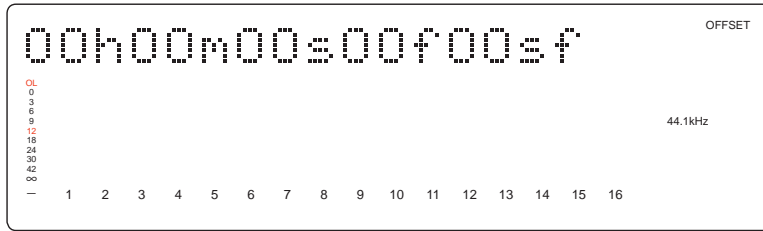
In order to go back to the normal display, press the [EXIT/NO] key or STOP button.

4-6. Offset Display

This mode determines if the offset value against a master machine should be displayed when the D1624/D824 is working as a slave machine. If you would like to turn ON the offset display, press the [EXECUTE/YES] key while “?” is blinking. (The default setting is “off”.) Then, turn the jog dial C.W. to change the display to “ON” and press the [EXECUTE/YES] key.



In order to check the offset value, select the “MTC” time base and the “REMAINING TIME” display. The display below is an example of offset display. This mode is identical to the one when the normal SETUP menu “Offset Disp?” is selected.

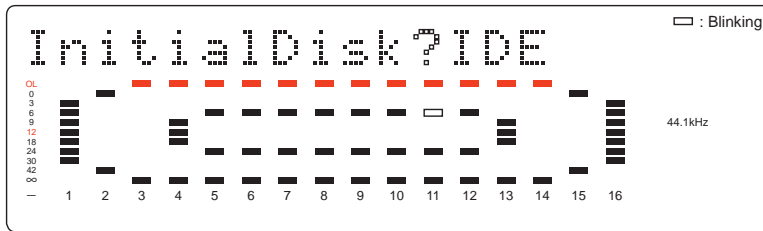


4-7. Initializing Disk

This is the mode to initialize a 3.5” internal E-IDE hard disk drive or an external SCSI device connected to the SCSI port.

CAUTION: If both the external SCSI drive and the internal 3.5” E-IDE hard disk drive are connected at the same time, currently selected drive by the SETUP menu “Drive_Sel?” will be initialized.

After pressing the [EXECUTE/YES] key, “SURE?” will start blinking on the FL display. In this condition, pressing the [EXECUTE/YES] key one more time would initialize the recognized disk drive. This mode puts the disk back to the condition originally formatted. This mode is exclusively designed for our manufacturer. To initialize the disk, use the ERASE function in the Format SETUP menu.



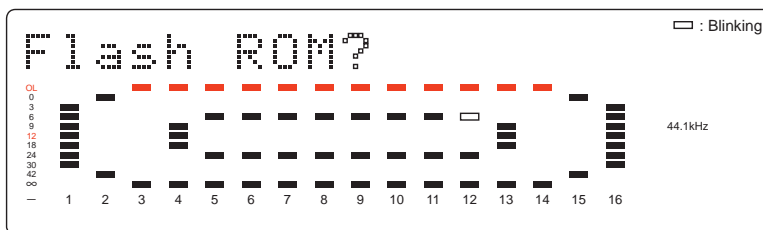
4-8. Flash ROM

This mode is used when copying the system software from EPROMs to Flash ROM. As mentioned in the section “3. SOFTWARE UPDATE” (page 11), the D1624/D824 software inside the Flash ROM can be updated through the SCSI port. However, if something wrong happens when updating the software (e.g. A blackout occurred while updating the software.), the D1624/D824 might not be able to boot up using the system software inside the Flash ROM.

In this case, the following procedures must be taken.

1. Turn off the power of D1624/D824 and disconnect the AC cable from the AC IN socket.
2. Plug the D1624/D824 EPROMs into the ROM CARD PCB assy sockets (U1 and U2). The SW on the ROM CARD PCB assy must be set to “EPROM” side.
3. Open up the top cover, loosen 4 screws fixing the HD bay to the HD bracket and move the bay to the front side, so that the ROM CARD PCB assy can be plugged into the 50-pin connector J5 on the MAIN PCB assy vertically.
4. Connect the AC cable and turn on the power of D1624/D824.

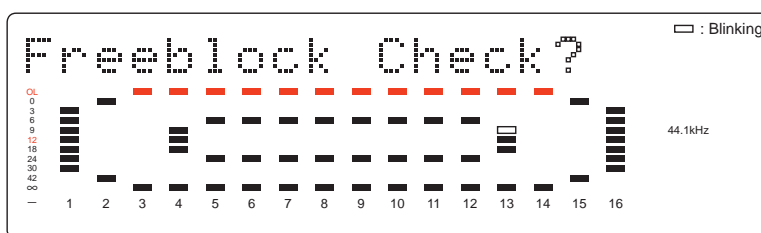
In this condition, the D1624/D824 is booted up using the system software inside the EPROMs. The next procedures to take are as follows.



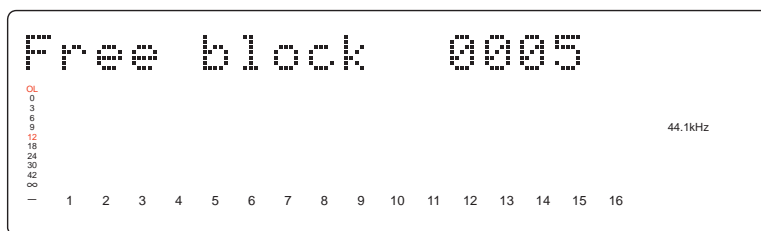
5. Put the D1624/D824 into the Service Mode, rotate the jog dial, select “FlashROM” menu and press [EXECUTE/YES] key. (“SURE?” is blinking in this condition.)
6. Change the SW setting on the ROM CARD PCB assy from “EPROM” side to “FLASH” side while “SURE?” is blinking and then press the [EXECUTE/YES] key to copy the system software from EPROMs to Flash ROM. The display shows “Erase ROM”, “Write ROM” and then “COMPLETED!” in order.
7. In order to confirm that the D1624/D824 is correctly booted up using the system software inside the Flash ROM, turn off the power, disconnect the ROM CARD PCB assy and turn the power back on again.
8. After the boot up confirmation, referring to the section “3. SOFTWARE UPDATE” (page 11), update the system software inside the Flash ROM through SCSI port again.

4-9. Free Block Check

This mode is used to check the condition of the diskette inserted into an external SCSI drive connected to the D1624/D824 or the internal E-IDE hard disk drive. The drive to be checked is the one currently selected drive by the SETUP menu “Drive_Sel?”.



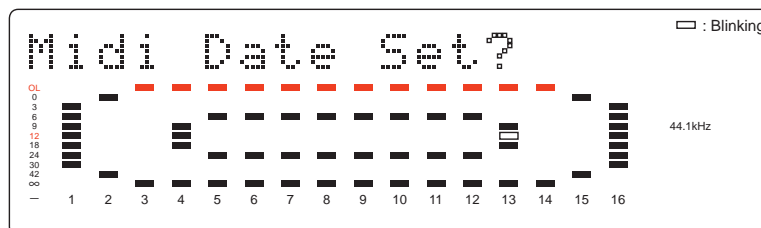
Press the [EXECUTE/YES] key when “?” is blinking. The display indicates the free audio file numbers.



If the Free Block indicates a large number even after formatting and no signal is recorded or recorded signal on the E-IDE HDD is frequently skipped, the diskette / hard disk drive can be judged to be in a bad condition.

4-10. MIDI Date Set

This mode is mainly designed for our manufacturer. When this menu is selected, pressing the [EXECUTE/YES] key would output the current time information in the shape of FEX (Fostex System Exclusive message) from MIDI OUT port. The internal RTC on the D1624/D824 which receives the information can be set to the current time.



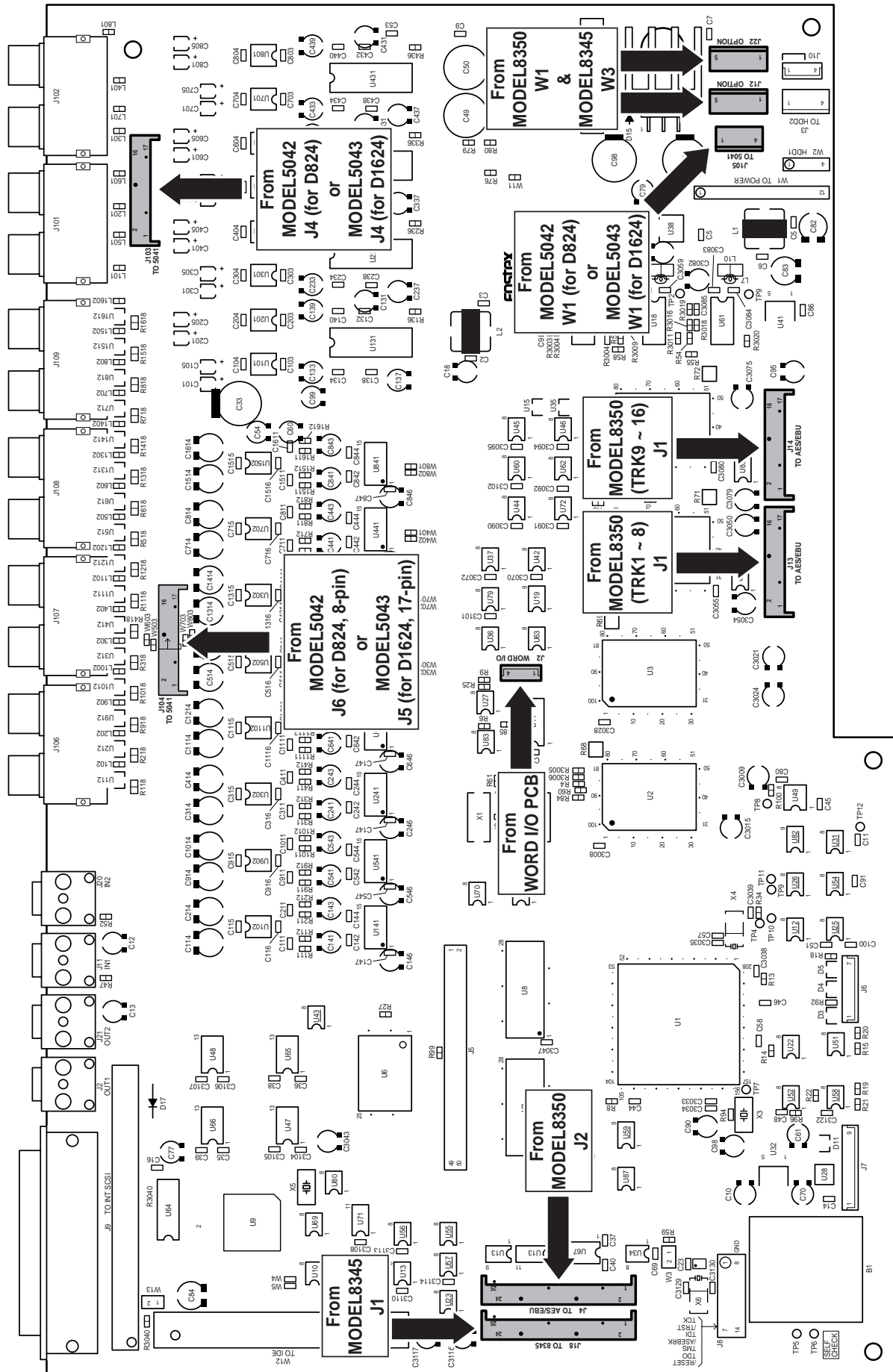
5. ERROR CODE LIST

The chart below indicates the error code number and corresponding description. Since the error code list is basically designed for our engineers to improve the software, the description is quite technical. If you find the D1624/D824 with one of the error codes displayed, we encourage you to update the software first. In case updating the software does not solve the problem, we would like you to inform us about details.

| D1624/D824 ERROR CODE LIST | |
|-----------------------------------|---|
| ERROR CODE | DESCRIPTION |
| 1 | D-108 tries to access the address which does not exist. |
| 9 | When saving system region sector, its address is registered in Free_block File during Free block File checking procedure. |
| 10 | Link_pointer which links Audio File indicates smaller address (out of region) than Link_File address region in RAM. |
| 11 | Link_pointer indicates larger address (out of region) than Link_File address region in RAM. |
| 12 | "Pointer_adre" calculation of Link_Pointer is not correct. |
| 14 | Link_Pointer during recording/reproducing indicates smaller address (out of region) than actual Link_File address region. |
| 15 | Link_Pointer during recording/reproducing indicates larger address (out of region) than actual Link_File address region. |
| 16 | "Pointer_adre" calculation of Link_Pointer during recording/reproducing is not correct. |
| 20 | src_cash_load: Improper access of link address occurred while PASTE editing. |
| 21 | bak_cash_load: Program link during PASTE/MOVE editing is incorrect. |
| 22 | bak_cash_load: Incompatibility problem occurred on program link during PASTE/MOVE editing. |
| 30 | Error when executing MOVE editing. Improper Link Pointer. Error in "bak_cash_load" function. |
| 31 | Error when executing MOVE editing. Improper Link Pointer. Error in "bak_cash_load" function. |
| 32 | Error when executing MOVE editing. Improper Link Pointer. Error in "bak_cash_load" function. |
| 35 | Backup_Save: Error occurred when saving data to SCSI device. |
| 36 | Backup_Load: Error occurred when loading data from SCSI device. |
| 40 | dis_cah_load: Improper access occurred when recording/reproducing. |
| 41 | dis_cah_load: Improper access occurred when recording/reproducing. |
| 42 | dis_cah_load: Improper access occurred when recording/reproducing. |
| 45 | get_non_des_block: Remaining disk capacity is insufficient. |
| 52 | non_des_cash_save_sub: Improper access occurred when recording/reproducing. |
| 60 | remake_free_block: There was improper access to program management region. |
| 61 | remake_free_block: There was improper access to program management region. |
| 62 | remake_free_block: Number of manageable events exceeds limit. |
| 63 | remake_free_block: There was improper access to program management region. |
| 64 | remake_free_block: There is an overlapping section in program management region. |
| 71 | There is no enough region to accommodate history of multiple undo file list. |
| 73 | File cannot be correctly read when optimizing disk. |
| 96 | There was improper access to program management region. |
| 97 | There was improper access to program management region when saving System File. |
| 99 | There was improper access when fading in/out. |

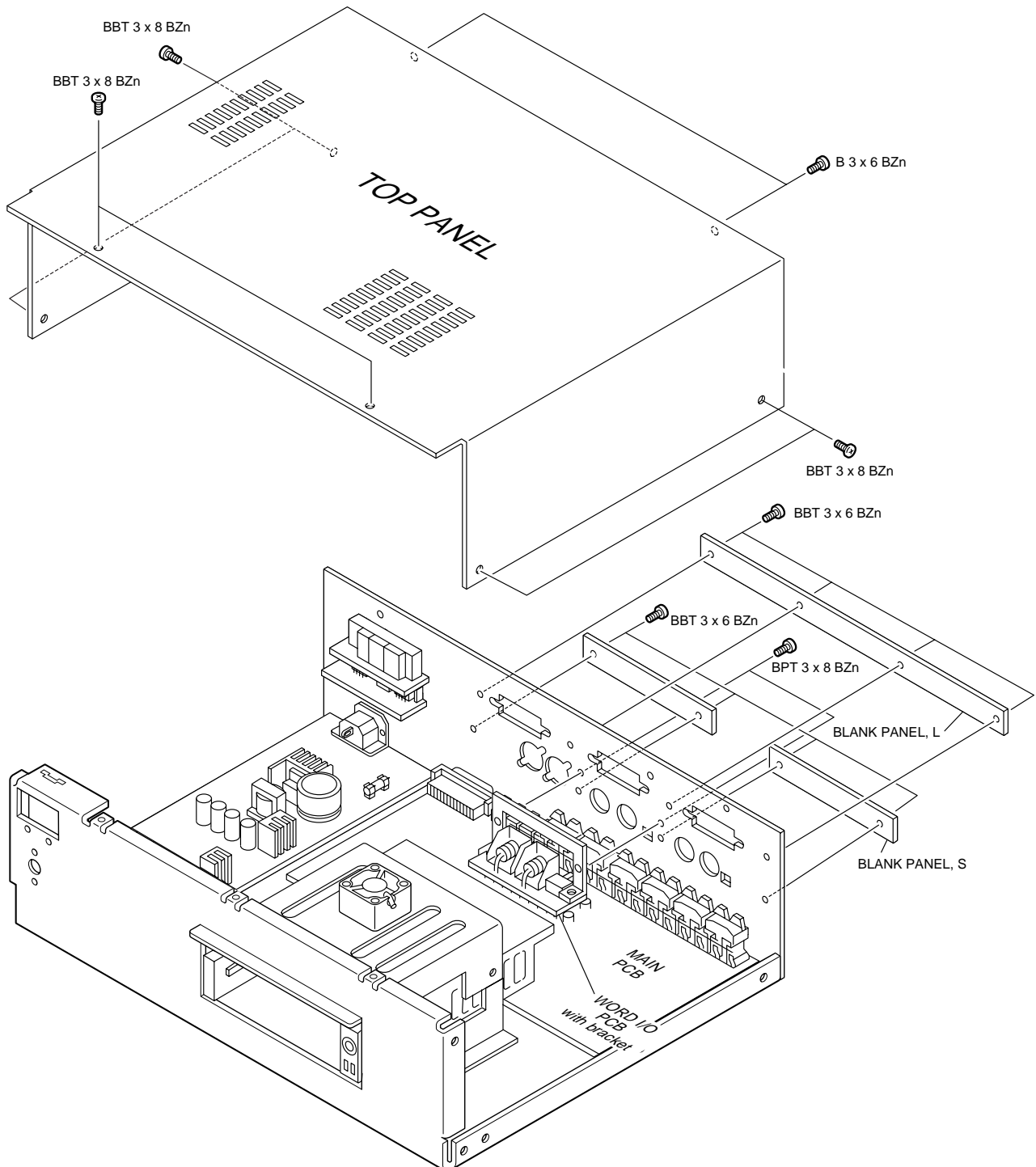
6. MODEL 8345/5042/5043/8350 INSTALLING PROCEDURES

6-1. Connector Location on MAIN PCB



6-2. Removing Top Cover & Blank Panels

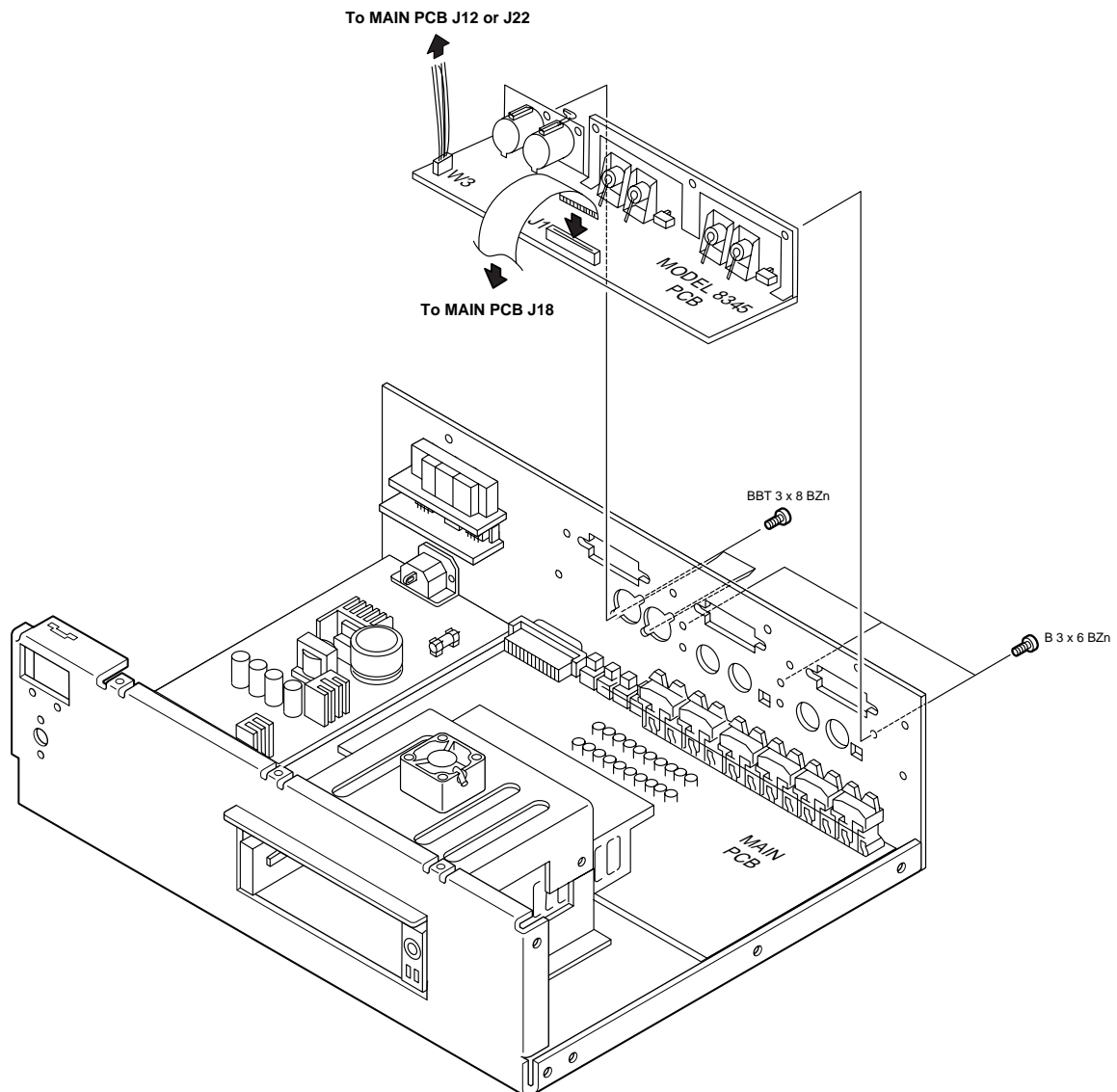
- 1) Open up the top panel by loosening the following screws.
 - 4 x BBT 3 x 8 screws on both sides of top panel
 - 2 x BBT 3 x 8 screws on the top of top panel
 - 2 x B 3 x 6 screws on the rear side of top panel
- 2) Remove the 2 x small blank panels by loosening 4 x BBT 3 x 6 screws.
- 3) Remove the large blank panel by loosening 2 x BBT 3 x 6 screws.
- 4) Remove the WORD I/O bracket by loosening 2 x BBT 3 x 8 screws and the 4-pin cable connected to the J2 on the MAIN PCB assy.



6-3. Installing MODEL 8345

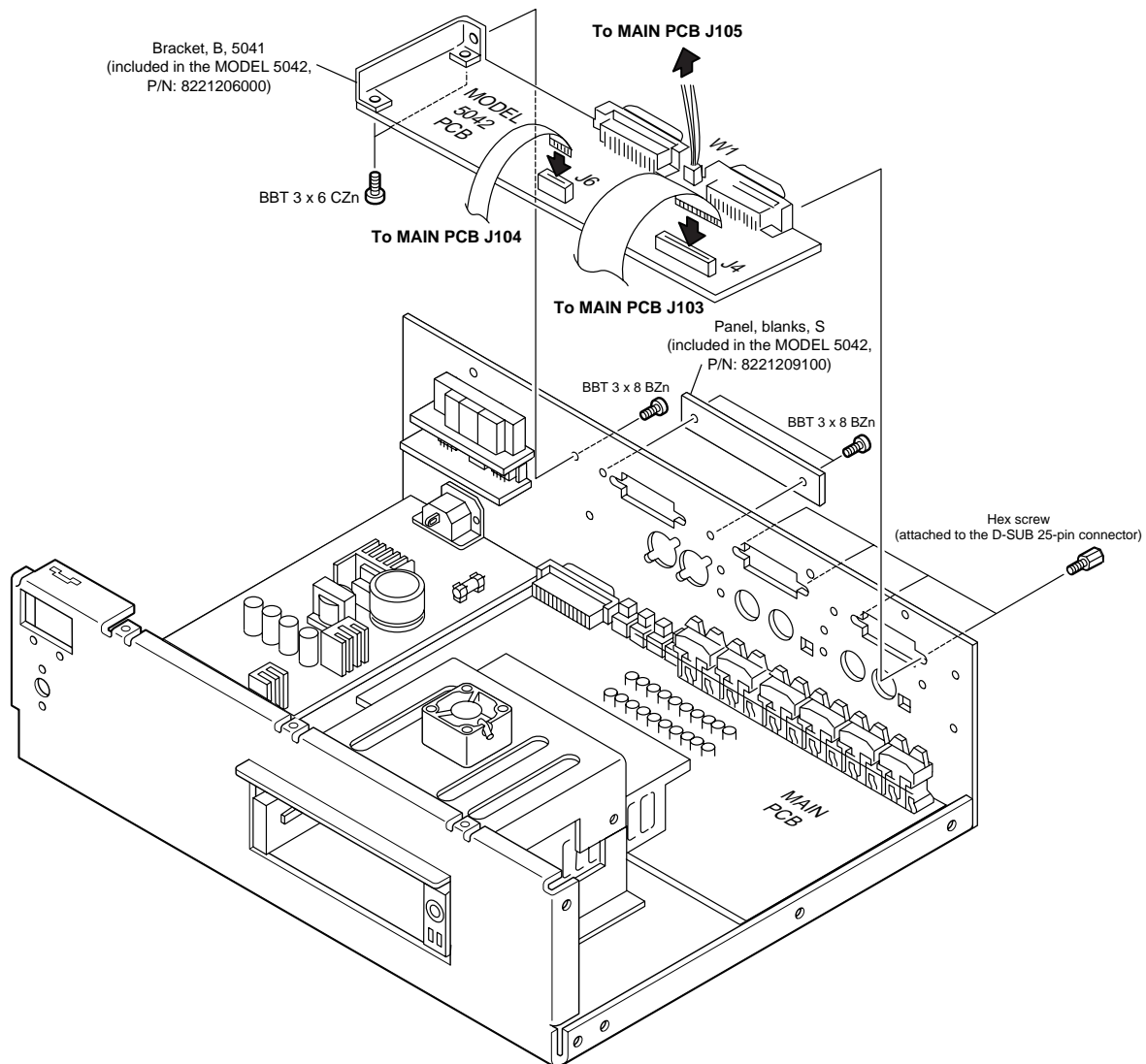
CAUTION: When retrofitting both the MODEL 8345 and MODEL 5042/5043 to the D1624/D824, make sure that the MODEL 8345 will be the one to retrofit first. However, flat cables for MODEL 5042 / 5043 (MODEL 5043: 2 x 17-pin flat cables, MODEL 5042: 1 x 17-pin and 1 x 8-pin flat cables) must be plugged into the connector J103 and J104 on the MAIN PCB assy before the MODEL 8345 is fixed at the rear panel.

- 1) Fix the MODEL 8345 to the D1624/D824 rear panel by the following screws.
 - 3 x B 3 x 6 BZn screws included in the MODEL 8345 package - Bracket section
 - 4 x BBT 3 x 8 BZn screws included in the MODEL 8345 package - XLR connector section
- 2) Connect the following cables.
 - 25-pin flat cable from the connector J18 on the D1624/D824 MAIN PCB assy to the connector J1 on the MODEL 8345 PCB assy
 - 5-pin connector cable W3 on the MODEL 8345 PCB assy to the connector J12 or J22 on the D1624/D824 MAIN PCB assy



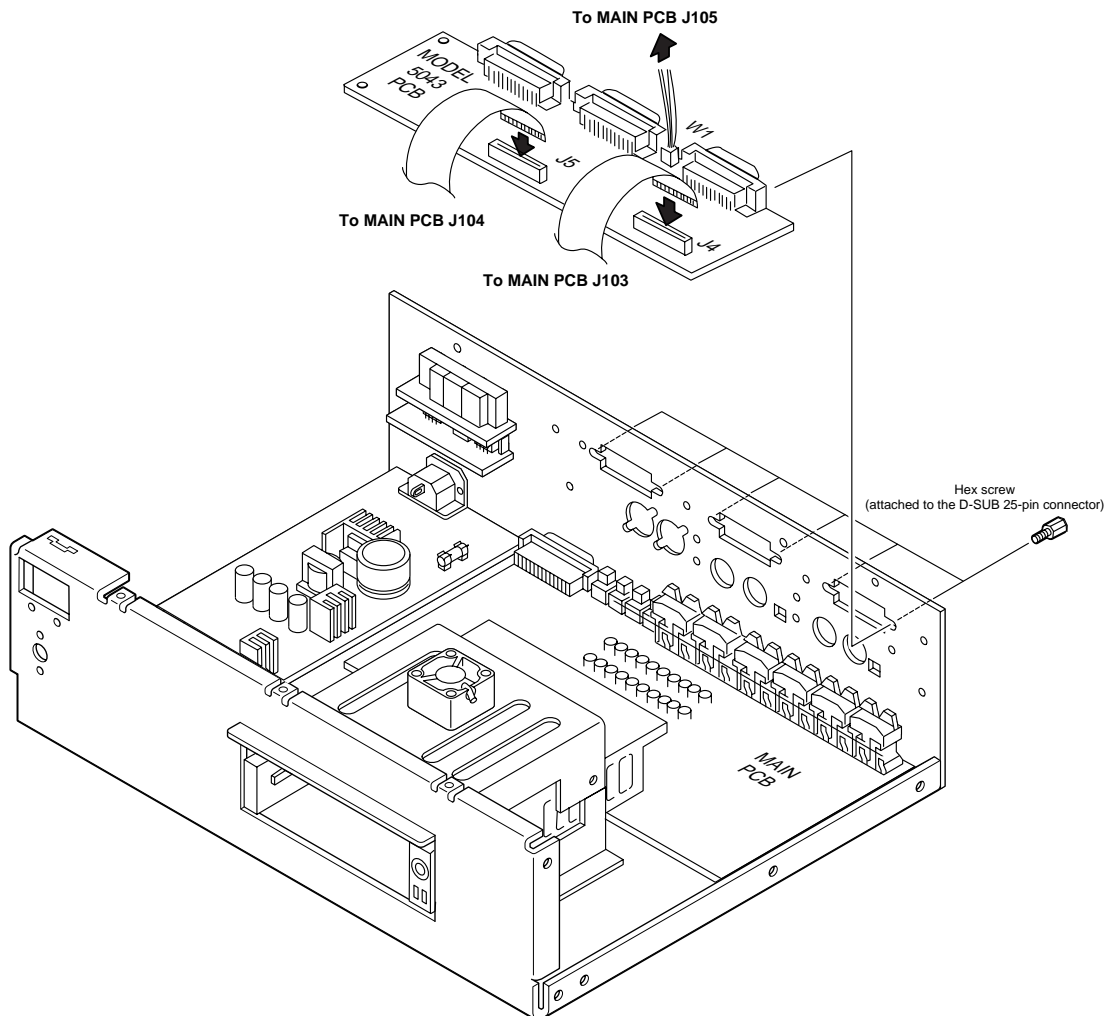
6-4. Installing MODEL 5042

- 1) Before fixing the MODEL 5042 to the D824 rear panel, plug in the 8-pin and 17-pin flat cables to the D824 MAIN PCB assy connector J104 and J103 respectively.
- 2) Remove 4 x hex screws originally attached to the MODEL 5042 D-SUB connectors.
- 3) Fix the bracket, B, 5041 (P/N: 8221206000) included in the MODEL 5042 package to the MODEL 5042 PCB assy using 2 x BBT 3 x 6 CZn screws.
- 4) Fix the MODEL 5042 to the D824 rear panel by the following screws.
 - 1 x B 3 x 6 BZn screws included in the MODEL 5042 package - Bracket section
 - 4 x hex screws originally attached to the D-SUB connector - D-SUB connector section
- 5) Connect the following cables.
 - 17-pin flat cable from the connector J103 on the D824 MAIN PCB assy to the connector J4 on the MODEL 5042 PCB assy
 - 8-pin flat cable from the connector J104 on the D824 MAIN PCB assy to the connector J6 on the MODEL 5042 PCB assy
 - 4-pin connector cable W1 on the MODEL 5042 PCB assy to the connector J105 on the D824 MAIN PCB assy
- 5) Fix the Panel, Blank, S (P/N: 8221209100) to the rear panel to hide the D-SUB connector hole using 2 x BBT 3 x 8 BZn screws.



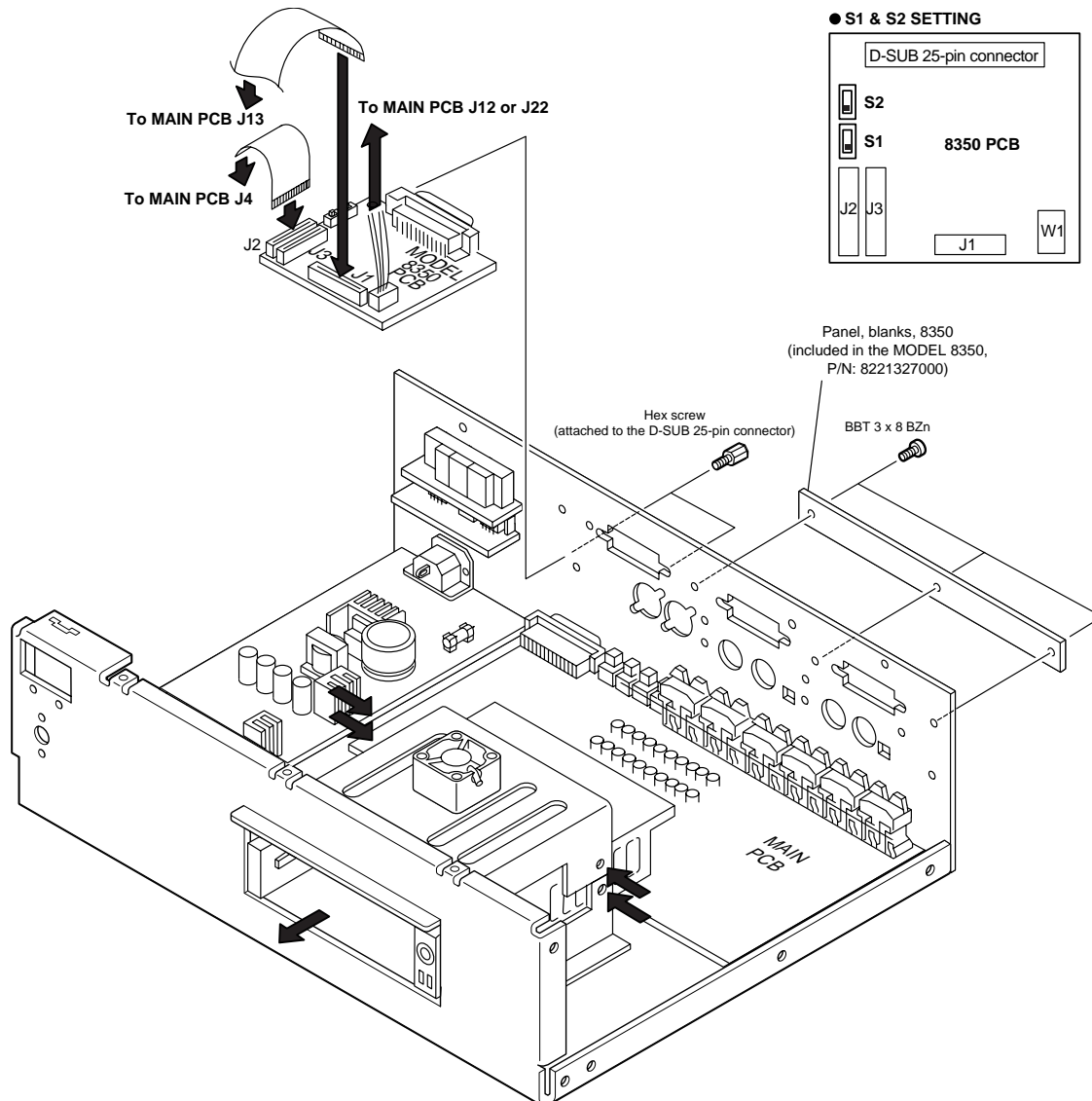
6-5. Installing MODEL 5043

- 1) Before fixing the MODEL 5043 to the D1624 rear panel, plug in the 2 x 17-pin flat cables to the D1624 MAIN PCB assy connector J104 and J103 respectively.
- 2) Remove 6 x hex screws originally attached to the MODEL 5043 D-SUB connectors.
- 3) Fix the MODEL 5043 to the D1624 rear panel by the following screws.
 - 6 x hex screws originally attached to the D-SUB connector - D-SUB connector section
- 4) Connect the following cables.
 - 17-pin flat cable from the connector J103 on the D1624 MAIN PCB assy to the connector J4 on the MODEL 5043 PCB assy
 - 17-pin flat cable from the connector J104 on the D1624 MAIN PCB assy to the connector J5 on the MODEL 5043 PCB assy
 - 4-pin connector cable W1 on the MODEL 5043 PCB assy to the connector J105 on the D824 MAIN PCB assy



6-6. Installing 1 x MODEL 8350

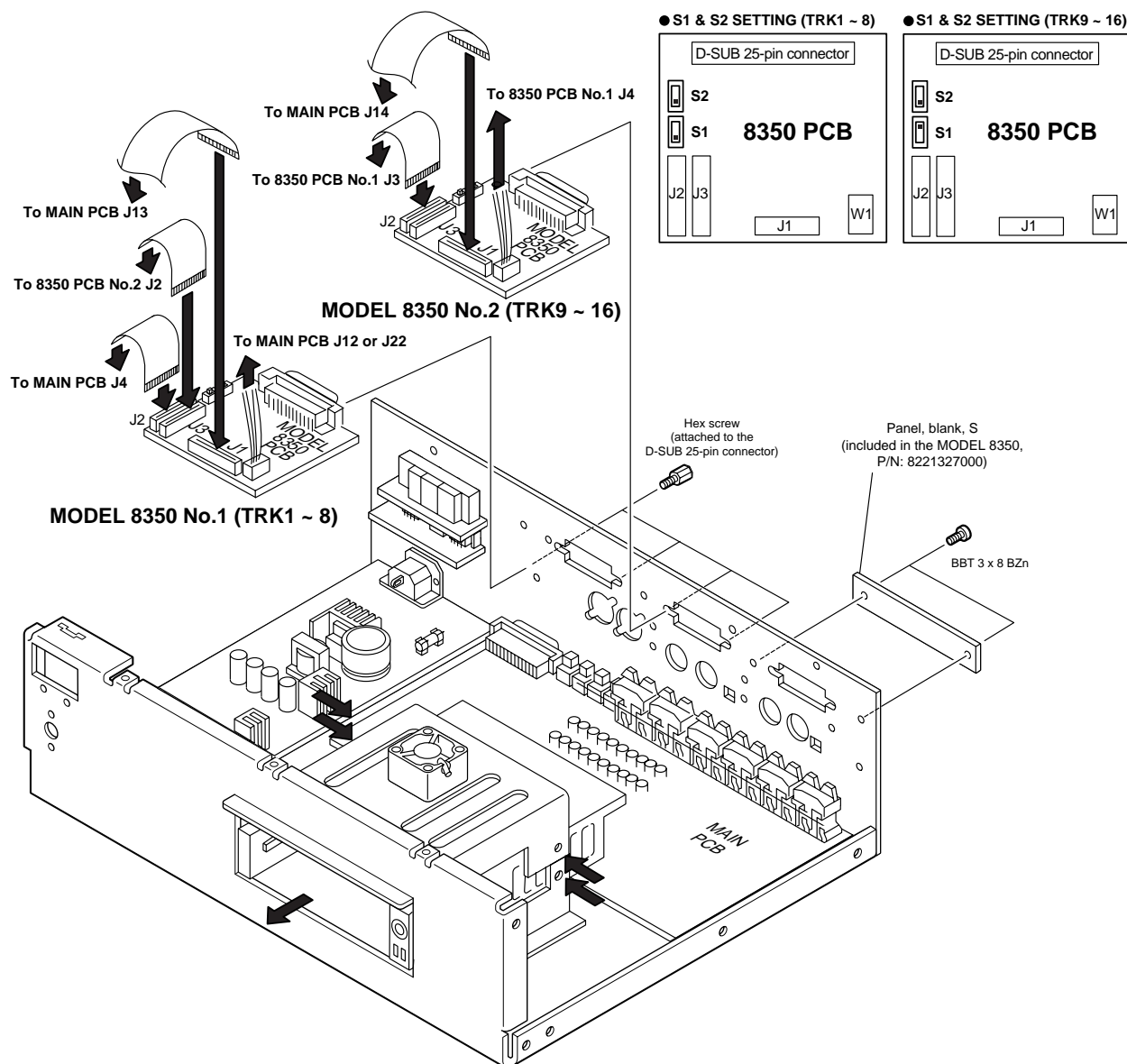
- 1) Before fixing the MODEL 8350 to the D1624/D824 rear panel, loosen 4 x screws fixing the HD bay to the HD bracket and move the HD bay to the front side, so that the flat cables can be plugged into the connector J13 on the D1624/D824 PCB assy.
- 2) Remove 2 x hex screws originally attached to the MODEL 8350 D-SUB connectors.
- 3) Fix the MODEL 8350 to the D824 rear panel by the following screws.
 - 2 x hex screws originally attached to the D-SUB connector - D-SUB connector section
- 5) Connect the following cables.
 - 17-pin flat cable from the connector J13 on the D1624/D824 MAIN PCB assy to the connector J1 on the MODEL 8350 PCB assy
 - 25-pin flat cable from the connector J4 on the D1624/D824 MAIN PCB assy to the connector J2 on the MODEL 8350 PCB assy
 - 5-pin connector cable W1 on the MODEL 8350 PCB assy to the connector J12 or J22 on the D1624/D824 MAIN PCB assy
- 6) Fix the Panel, Blank, 8350 (P/N: 8221327000) to the rear panel to hide the D-SUB connector hole using 3 x BBT 3 x 8 BZn screws.



6-7. Installing 2 x MODEL 8350s

CAUTION: The MODEL 5043 and MODEL 8350 cannot be installed into the D1624 together. You need to select either the MODEL 5043 or 2 x MODEL 8350.

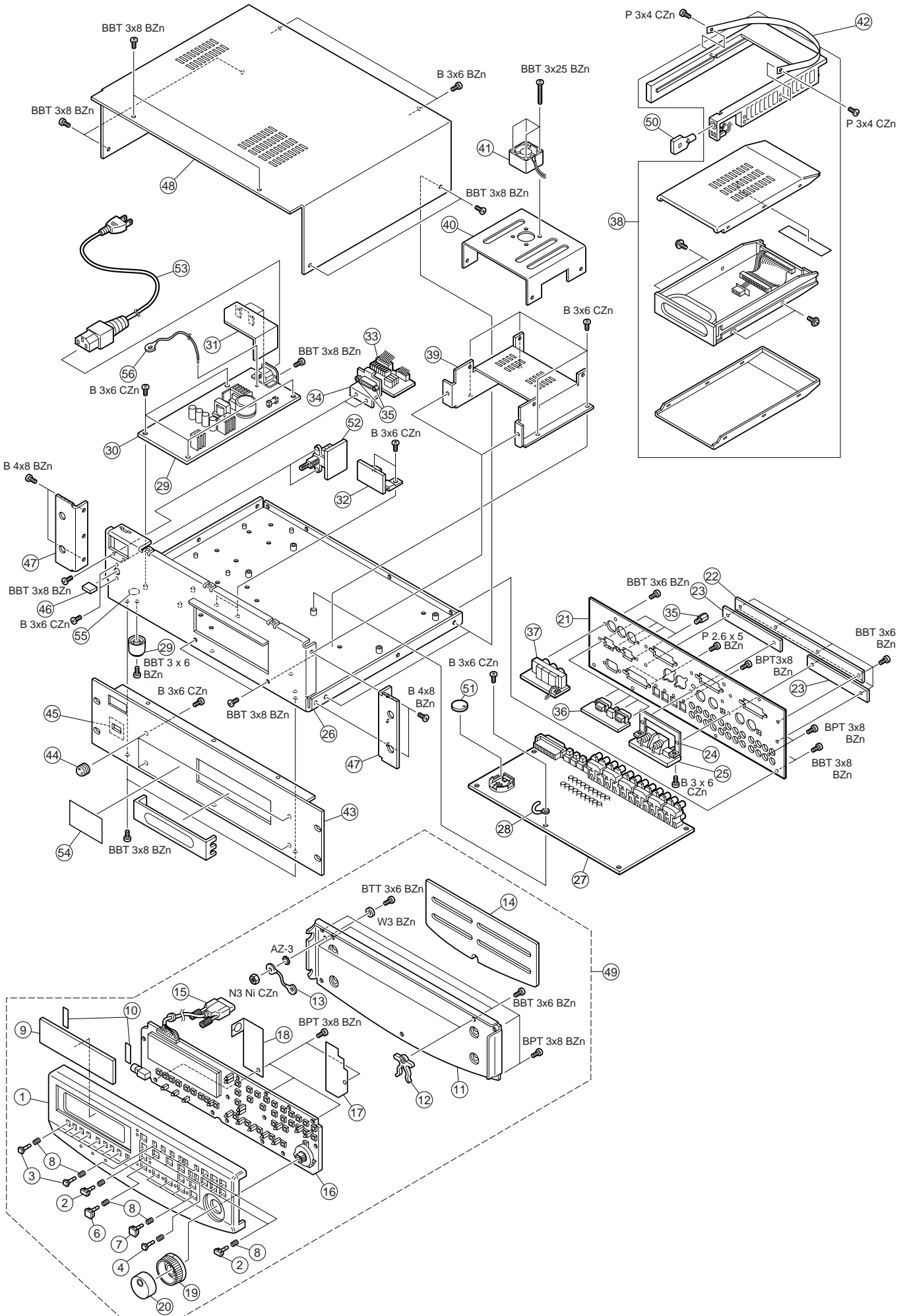
- 1) Before fixing the MODEL 8350s to the D1624 rear panel, loosen 4 x screws fixing the HD bay to the HD bracket and move the HD bay to the front side, so that the flat cables can be plugged into the connector J13 on the D1624 PCB assy.
- 2) Remove 2 of each hex screws originally attached to the MODEL 8350 D-SUB connectors.
- 3) Fix the MODEL 8350s to the D1624 rear panel by the following screws.
 - 2 of each hex screws originally attached to the D-SUB connector - D-SUB connector section
- 5) Connect the following cables.
 - 17-pin flat cable from the connector J13 on the D1624 MAIN PCB assy to the connector J1 on the MODEL 8350 PCB assy No.1 (TRK1 ~ 8)
 - 17-pin flat cable from the connector J14 on the D1624 MAIN PCB assy to the connector J1 on the MODEL 8350 PCB assy No.2 (TRK9 ~ 16)
 - 25-pin flat cable from the connector J4 on the D1624 MAIN PCB assy to the connector J2 on the MODEL 8350 PCB assy No.1
 - 25-pin flat cable from the connector J3 on the MODEL 8350 PCB assy No.1 to the connector J2 on the MODEL 8350 PCB assy No.2
 - 5-pin connector cable W1 on the MODEL 8350 PCB assy No.1 to the connector J12 or J22 on the D1624 MAIN PCB assy
 - 5-pin connector cable W1 on the MODEL 8350 PCB assy No.2 to the connector J4 on the MODEL 8350 PCB assy No.1
- 6) Fix the Panel, Blank, S (P/N: 8221209100) to the rear panel to hide the D-SUB connector hole using 2 x BBT 3 x 8 BZn screws.



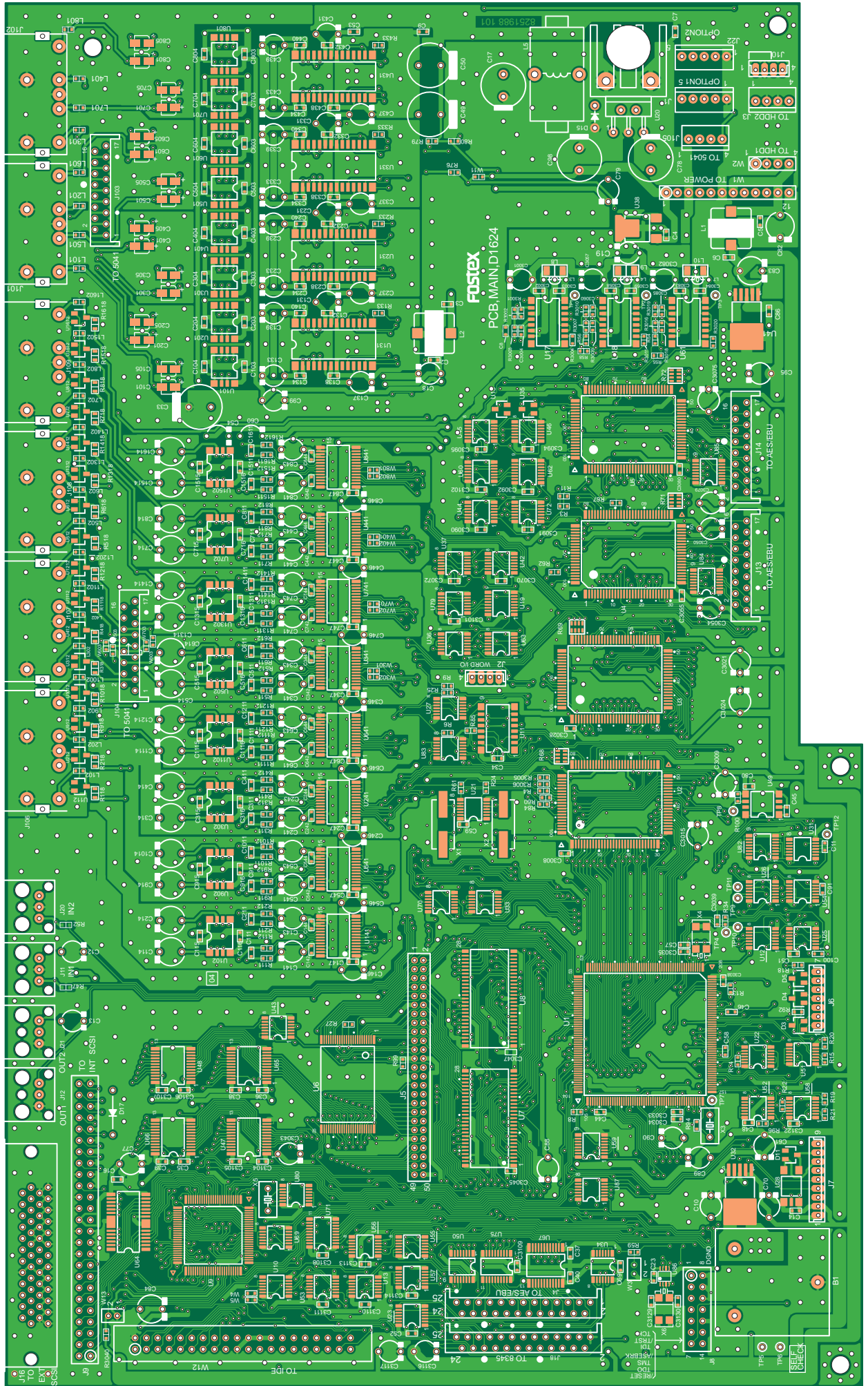
5. EXPLODED VIEW, PCB ASSEMBLY & PARTS LIST

● D1624 / D824 OVERALL EXPLODED VIEW & PARTS LIST

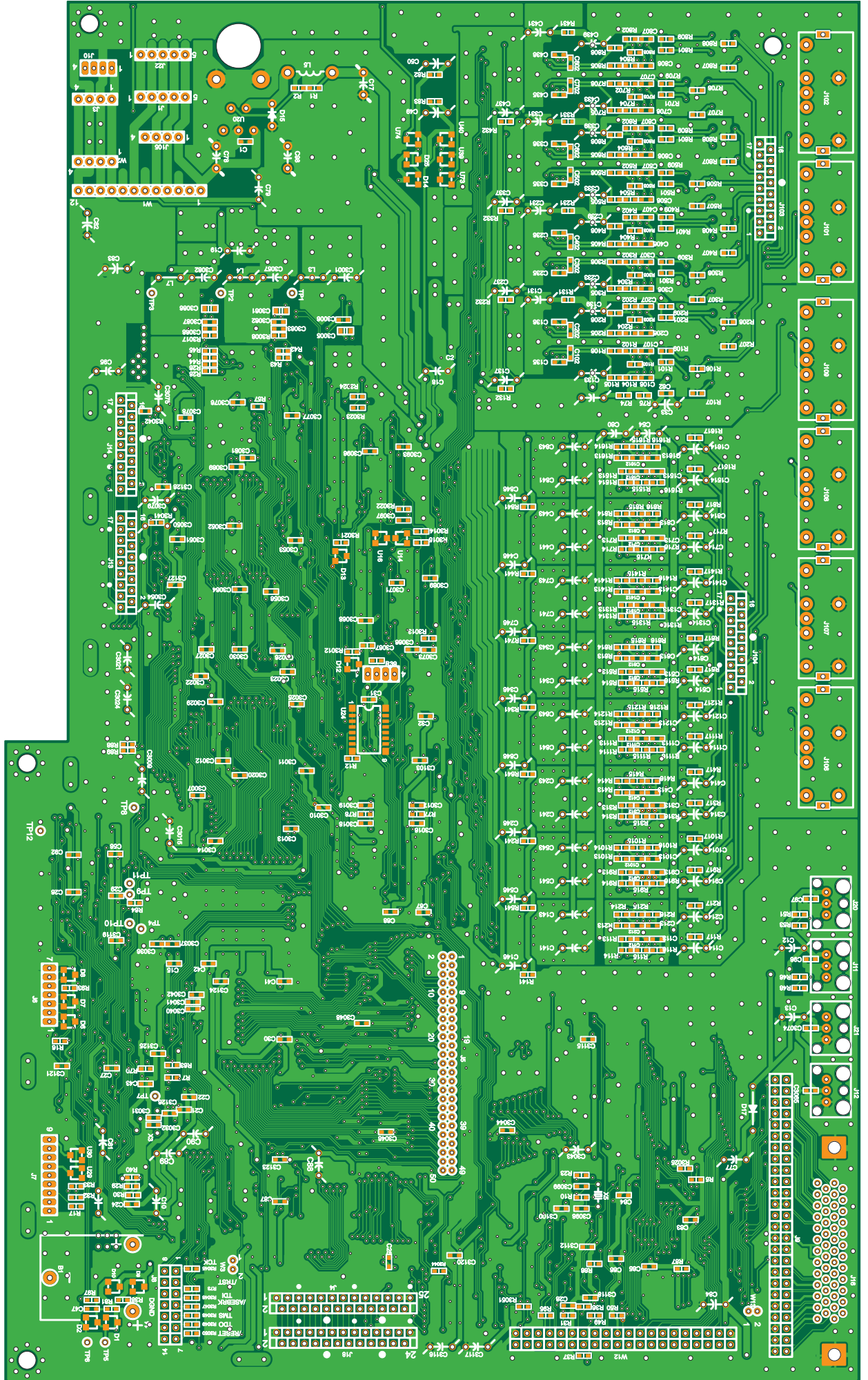
| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|--------------|---|----------|--------------|---|
| 1 | 8212 5811 04 | Panel, controller, D1624/D824 | 45 | 8226 0191 00 | Escutcheon, B |
| 2 | 8226 1852 07 | Button, 11 x 5, N3 | 46 | 8226 0130 04 | Button, push, B, N8 |
| 3 | 8226 1842 09 | Button, 6 x 6, N3 | 47 | 8221 1730 00 | Angle, back, 133 |
| 4 | N/A | | 48 | 8221 2140 00 | Panel, top, D-series |
| 5 | N/A | | 49 | 8260 5650 00 | Controller assy, D1624 |
| 6 | 8226 1831 05 | Button, 11 x 11, E | | 8260 5720 00 | Controller assy, D824 |
| 7 | 8226 1831 08 | Button, 11 x 11, N3 | 50 | 8207 0116 00 | Key, HD, D-series |
| 8 | 8214 2700 00 | Spring, 8 x 3, 0.2 | 51 | 8239 1200 00 | Battery, 3V, CR2032 (Included in the Main PCB assy) |
| 9 | 8212 5830 03 | Window, FL, D1624 | | | |
| | 8212 5830 04 | Window, FL, D824 | △ 52 | 8274 2240 00 | PCB assy, Power SW, D1624/D824 |
| 10 | N/A | Both-sided tape, 10mm x 40mm | △ 53 | 8276 8010 00 | Cord, power, UL/CSA, VM0033-0089, USA/CSA/CND |
| 11 | 8221 1740 01 | Panel, rear, remote, D1624/D824 | | 8276 8021 00 | Cord, power, CEE, 0309B-0310B, EUR |
| 12 | 8212 5820 00 | Lock, controller, D-series | | 8276 8000 00 | Cord, power, DM, VM1292-1298, JPN |
| 13 | 8277 3530 10 | Cable assy, earth lug, D3-D3, #20, L100 | | 8276 9170 00 | Cord, power, BS, 3C, KP610-KS31A, UK |
| 14 | 8216 6281 00 | Pad, controller, D-series | | | |
| 15 | 8277 4092 01 | Cable assy, remote, D1624/D824 | 54 | 8218 7760 02 | Label, caution, HD, N3 |
| 16 | 8274 2260 00 | PCB assy, Display, D1624/D824 | 55 | 8218 2630 00 | Sticker, GND |
| 17 | 8216 6290 00 | Sheet, remote controller, D-series | 56 | 8277 4790 40 | Cable assy, earthlug, D4, L400 |
| 18 | 8216 6310 00 | Sheet, remote controller, B, D-series | | | |
| 19 | 8226 1702 01 | Knob, shuttle, N3, D1624/D824 | | | |
| 20 | 8226 1711 03 | Knob, jog, N3, D1624/D824 | | | |
| 21 | 8221 2980 00 | Panel, rear, D1624 | | | |
| | 8221 3180 00 | Panel, rear, D824 | | | |
| 22 | 8221 2101 00 | Panel, blank, L | | | |
| 23 | 8221 2091 00 | Panel, blank, S | | | |
| 24 | 8221 3200 00 | Bracket, word, D1624/D824 | | | |
| 25 | 8274 2580 00 | PCB assy, Word I/O, D1624/D824 | | | |
| 26 | 8221 3020 00 | Chassis, D1624/D824 | | | |
| 27 | 8274 2200 00 | PCB assy, Main, D1624 | | | |
| | 8274 2590 00 | PCB assy, Main, D824 | | | |
| 28 | 8207 0117 01 | Holder, cord, CS-1 | | | |
| 29 | 8207 0130 00 | Foot, FF1011 | | | |
| △ 30 | 8274 2230 00 | PCB assy, Power, D1624/D824 | | | |
| 31 | 8221 3320 00 | Shield, power, D1624/D824 | | | |
| 32 | 8274 2250 00 | PCB assy, Regulator, D1624/D824 | | | |
| 33 | 8274 2210 00 | PCB assy, Connect, D1624/D824 | | | |
| 34 | 8221 1710 00 | Bracket, D-SUB, D-series | | | |
| 35 | N/A | (Included in the D-SUB connector) | | | |
| 36 | 8274 2570 00 | PCB assy, RS422, D1624/D824 | | | |
| 37 | 8274 2220 00 | PCB assy, MIDI, D1624/D824 | | | |
| 38 | 8260 5240 00 | Bay assy, HDD | | | |
| 39 | 8221 2130 00 | Bracket, HD, D1624/D824 | | | |
| 40 | 8221 3210 00 | Bracket, fan, D1624/D824 | | | |
| 41 | 8249 0440 00 | Motor, fan, DC12V, 40 x 40 | | | |
| 42 | 8216 6561 00 | Belt, HD, D-series | | | |
| 43 | 8221 1671 05 | Panel, dress, D1624 | | | |
| | 8221 1671 06 | Panel, dress, D824 | | | |
| 44 | 8223 2942 00 | Hook, controller, D-series | | | |



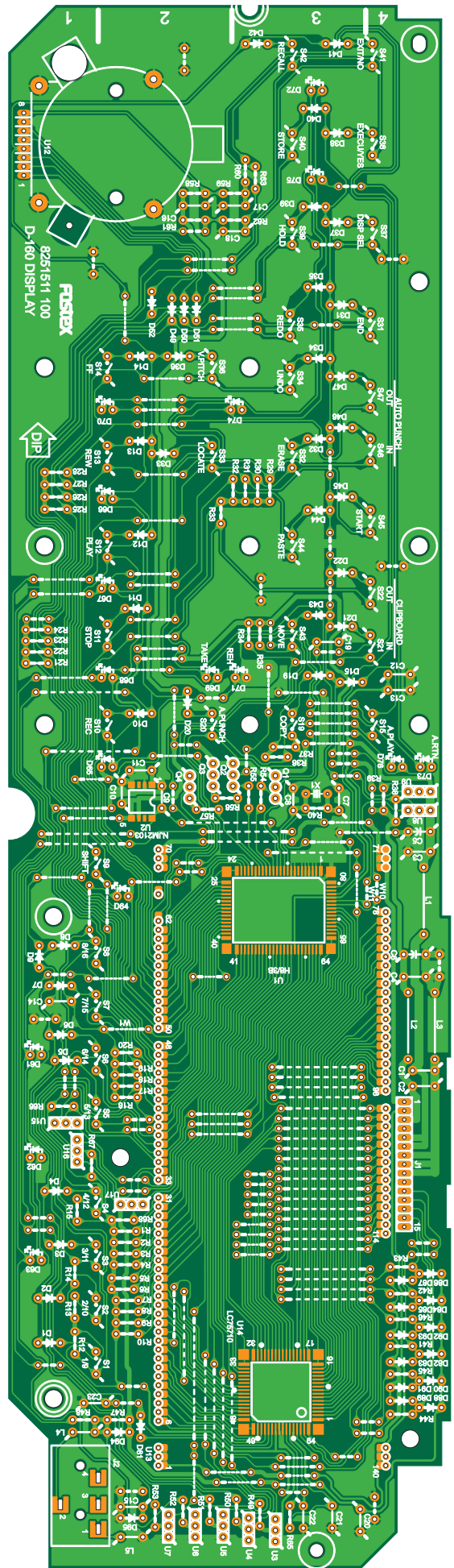
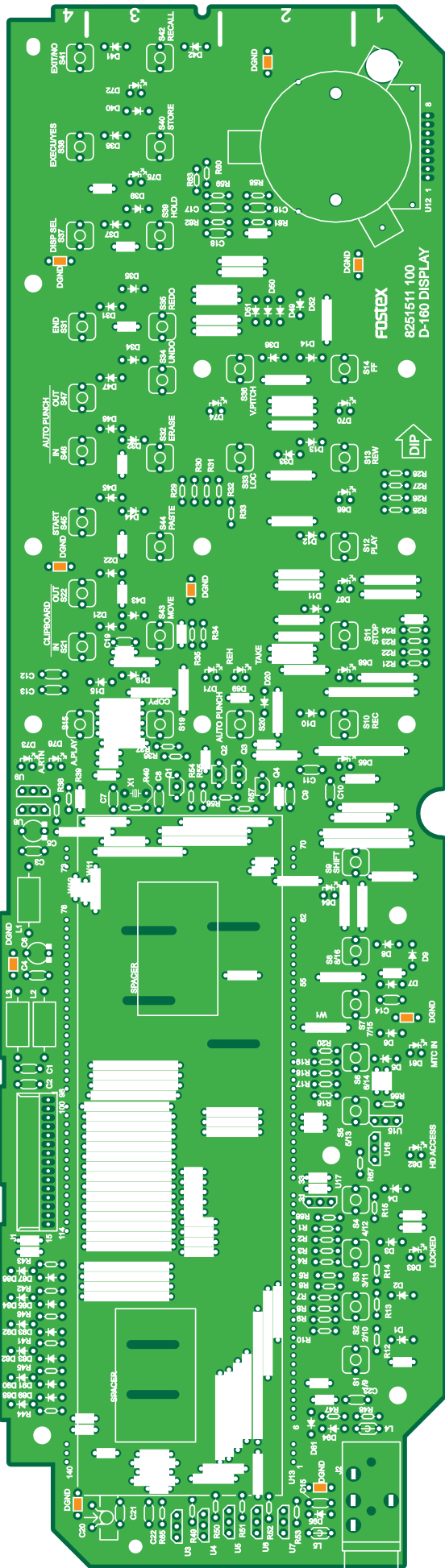
- D1624 / D824 PCB ASSEMBLIES
- Parts Side of MAIN PCB



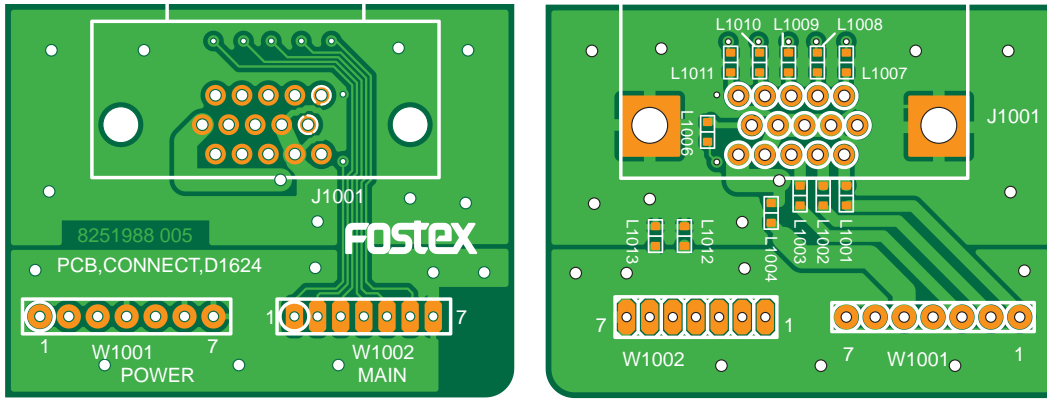
• Foil Side of MAIN PCB



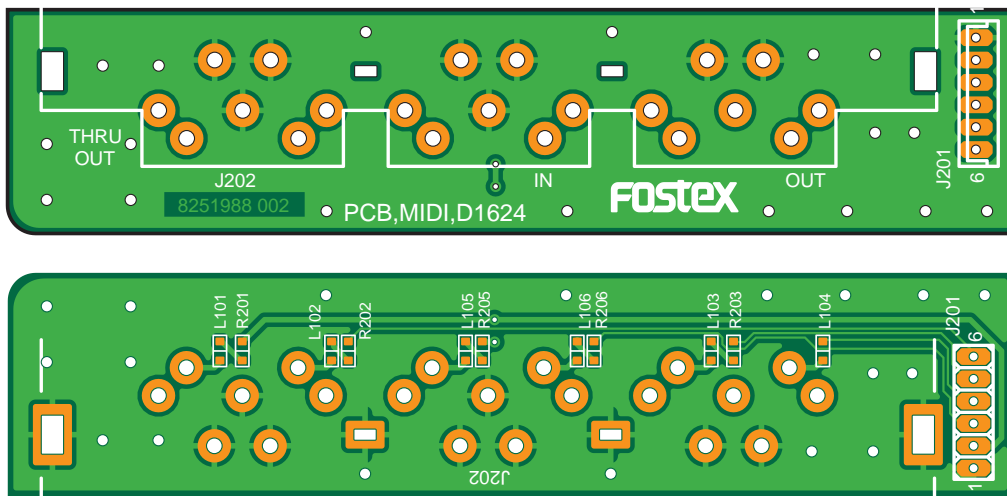
• Parts & Foil Side of KEY & DISPLAY PCB



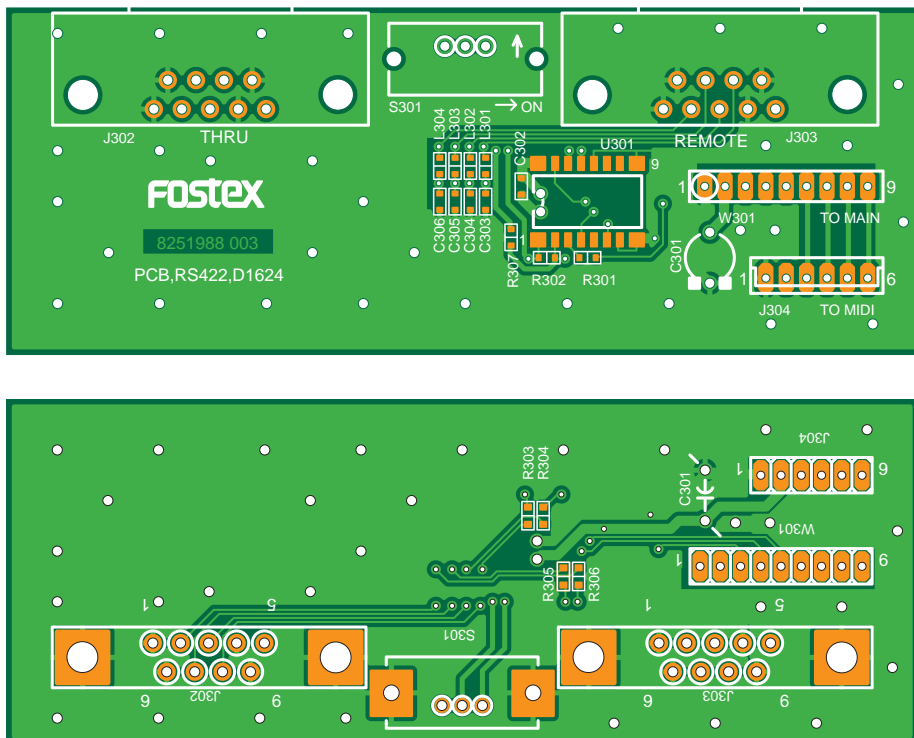
• Parts & Foil Side of CONNECT PCB



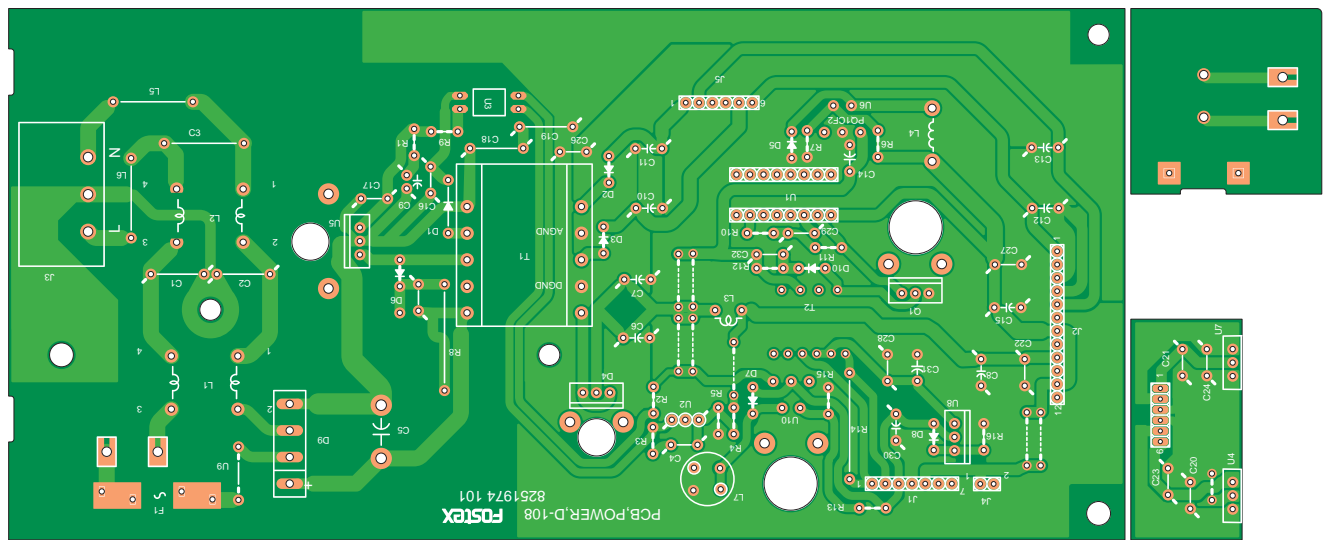
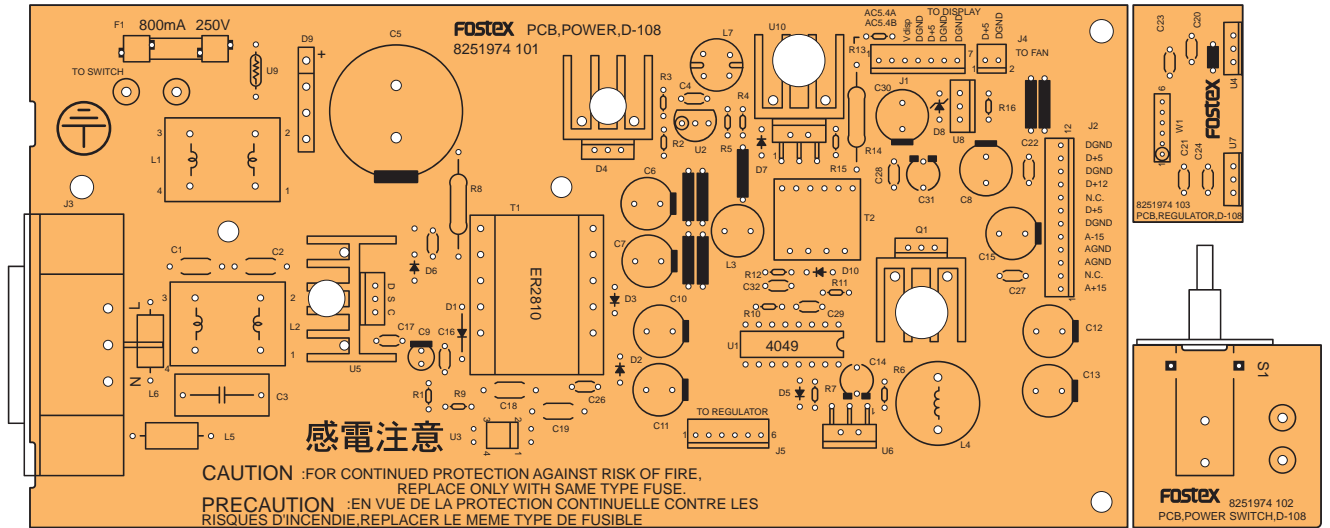
• Parts & Foil Side of MIDI PCB



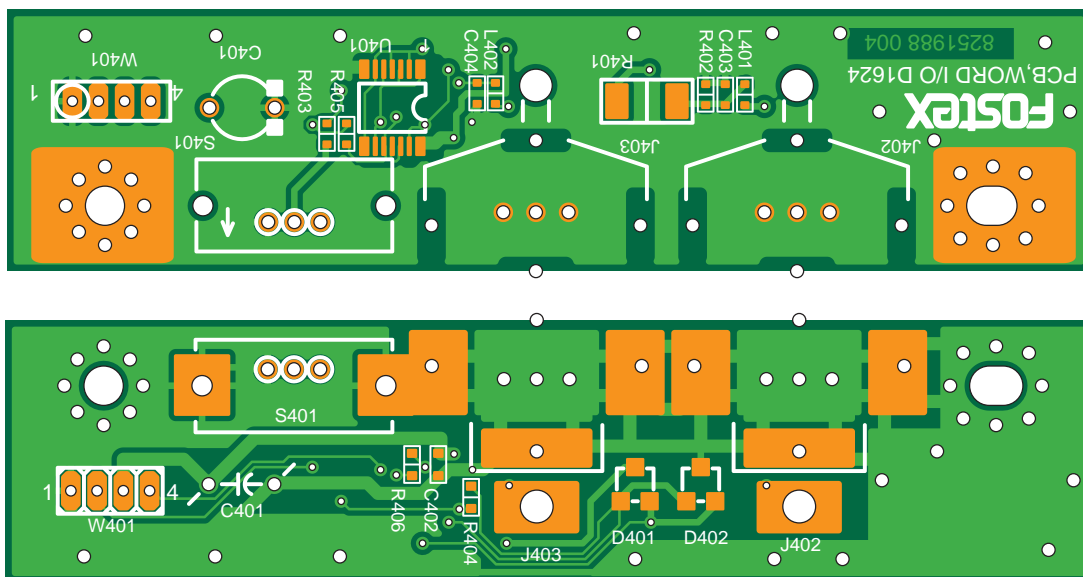
• Parts & Foil Side of RS422 PCB



• Parts & Foil Side of POWER/REGULATOR/POWER SW PCBs



• Parts & Foil Side of WORD I/O PCB



● D1624 Parts List

• Main PCB assy

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|------------|--------------|--------------------------------------|------------------|--------------|--|
| | 8274 2200 00 | PCB Assy, Main, D1624 | U060 | 8236 5450 00 | ST, TSSOP, 74VHC00 |
| | 8251 9881 01 | Plain PCB, Main, D1624/D824 | U061 | 8236 5034 00 | ST, DG, VCO, TC9246F |
| ICs | | | | | |
| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
| U001 | 8236 0848 10 | QFP, DG, CPU, SH7709A, HD6417709A | U062 | 8236 5451 61 | ST, TSSOP, 74VHC161 |
| U002, 003 | 8236 0851 00 | QFP, DG, gate array, SPPS | U063 | 8236 5450 86 | ST, TSSOP, 74VHC86 |
| U004, 005 | 8236 0850 00 | QFP, DG, gate array, DIF | U064 | 8236 0829 00 | SOP, DG, SCSI terminate, BH9595FP-Y |
| U006 | 8236 0847 00 | TSOP, DG, FROM, M29W800AT | U065 | 8236 5641 00 | ST, SSOP, 74LVXC3245FS |
| U007, 008 | 8236 0866 00 | TSOP, DG, SDRAM, MB81F641642D-102 | U066 | 8236 5641 00 | ST, SSOP, 74LVXC3245FS |
| U009 | 8236 0828 00 | QFP, DG, SCSI, MB86604L | U067 | 8236 5641 00 | ST, SSOP, 74LVXC3245FS |
| U010 | 8236 5450 10 | ST, TSSOP, 74VHC10 | U069 | 8236 5440 04 | ST, TSSOP, 74VHCT04 |
| U011 | 8236 5601 51 | ST, DG, 74HC151 | U070 | 8236 5440 08 | ST, TSSOP, 74VHCT08 |
| U012, 013 | 8236 5450 00 | ST, TSSOP, 74VHC00 | U071 | 8236 5445 41 | ST, TSSOP, 74VHCT541 |
| U014, 015 | 8236 5704 01 | ST, DG, driver, DTA114EK | U072 | 8236 5450 86 | ST, TSSOP, 74VHC86 |
| U016 | 8236 5701 01 | ST, DG, driver, DTC114EK | U073 | 8236 5701 01 | ST, DG, driver, DTC114EK |
| U017, 018 | 8236 5034 00 | ST, DG, VCO, TC9246 | U074 | 8236 5708 03 | ST, DG, driver, DTB114EK |
| U019 | 8236 5451 61 | ST, TSSOP, 74VHC161 | U075 | 8236 5445 41 | ST, TSSOP, 74VHCT541 |
| U020 | 8236 0853 00 | V, AN, DC-DC, PQ1CF2 | U079 | 8236 5450 00 | ST, TSSOP, 74VHC00 |
| U021 | 8236 5459 04 | ST, TSSOP, 74VHC04 | U080 | 8236 5459 04 | ST, TSSOP, 74VHC04 |
| U022 | 8236 5440 32 | ST, TSSOP, 74VHCT32 | U082 | 8236 5451 61 | ST, TSSOP, 74VHC161 |
| U023 | 8236 5450 11 | ST, TSSOP, 74VHC11 | U083 | 8236 5450 04 | ST, TSSOP, 74VHC04 |
| U024 | 8236 5601 51 | ST, DG, 74HC151 | U084, 085 | 8236 5451 57 | ST, TSSOP, 74VHC157 |
| U025 | 8236 5450 14 | ST, TSSOP, 74VHC14 | U086 | 8236 5642 00 | ST, DG, TIMER, NJU6350R |
| U026 | 8236 5450 32 | ST, TSSOP, 74VHC32 | U087 | 8236 5440 32 | ST, TSSOP, 74VHCT32 |
| U027 | 8236 5450 00 | ST, TSSOP, 74VHC00 | U1..801 | 8236 5050 11 | ST, AN, op amp, NJM2115M (TEI) |
| U028 | 8234 5047 00 | OPT, ST, photo, PC410T | U102 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U029, 030 | 8236 5701 01 | ST, DG, driver, DTC114EK | U1..1612 | 8236 5702 01 | ST, DG, driver, DTC314TK |
| U031 | 8236 5450 74 | ST, TSSOP, 74VHC74 | U1..431 | 8236 5424 00 | ST, DG, AD, AK5393VS-E2 |
| U032 | 8236 5419 00 | ST, AN, regulator, PQ7VZ5U | U1..841 | 8236 5422 00 | ST, DG, DA, AK4393VF-E2 |
| U033, 034 | 8236 5440 08 | ST, TSSOP, 74VHCT08 | U302 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U035 | 8236 5701 01 | ST, DG, driver, DTC114EK | U502 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U036, 037 | 8236 5450 74 | ST, TSSOP, 74VHC74 | U702 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U038 | 8236 5403 01 | ST, AN, regulator, L78M05T-TL | U902 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U039 | 8236 5701 01 | ST, DG, driver, DTC114EK | U1102 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U040 | 8236 5708 03 | ST, DG, driver, DTB114EK | U1302 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U041 | 8236 5414 00 | PT, AN, REG, PQ3DZ53U | U1502 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U042 | 8236 5450 74 | ST, TSSOP, 74VHC74 | DIODES | | |
| U043 | 8236 5450 00 | ST, TSSOP, 74VHC00 | Ref. No. | Part No. | Description |
| U044~046 | 8236 5450 74 | ST, TSSOP, 74VHC74 | D001~005 | 8234 5028 00 | ST, DAN202K |
| U047, 048 | 8236 5641 00 | ST, SSOP, 74LVXC3245FS | D006~008 | 8234 5029 00 | ST, DAP202K-T146 |
| U049 | 8236 5025 00 | ST, AN, RESET, NJM2103M | D009, 010 | 8234 5021 00 | ST, SCHOTTKY, SB05-05CP |
| U050 | 8236 5441 38 | ST, TSSOP, 74VHCT138 | D011~014 | 8234 5028 00 | ST, DAN202K |
| U051 | 8236 5440 08 | ST, TSSOP, 74VHCT08 | D015 | 8234 1084 00 | VT, SCHOTTKY, EK03W |
| U052, 053 | 8236 5450 04 | ST, TSSOP, 74VHC04 | D017 | 8234 1050 00 | VF, SCHOTTKY, EK13 |
| U054 | 8236 5450 74 | ST, TSSOP, 74VHC74 | D025 | 8234 7506 00 | ST, RB400D |
| U055 | 8236 5450 08 | ST, TSSOP, 74VHC08 | RESISTORS | | |
| U056, 057 | 8236 5450 04 | ST, TSSOP, 74VHC04 | Ref. No. | Part No. | Description |
| U058 | 8236 5450 08 | ST, TSSOP, 74VHC08 | R001 | 8230 5103 02 | ST, carbon, 1/15W, 3k Ω , 5% |
| U059 | 8236 5451 57 | ST, TSSOP, 74VHC157 | R002 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% |
| | | | R003, 004 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% |
| | | | R005 | | N/A |

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|-----------|--------------|--------------------------------|-----------|--------------|------------------------------|
| R006 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R086, 087 | 8230 5104 72 | ST, carbon, 1/15W, 4.7kΩ, 5% |
| R007 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 | R088, 089 | 8230 5104 73 | ST, carbon, 1/15W, 47kΩ, 5% |
| R008 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R092, 093 | 8230 5104 73 | ST, carbon, 1/15W, 47kΩ, 5% |
| R009 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 | R094 | 8230 5100 00 | ST, carbon, 1/15W, 0Ω, 5% |
| R010 | 8230 5101 05 | ST, carbon, 1/15W, 1MΩ, 5% | R095 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% |
| R011 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R096 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R012 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R097 | 8230 5103 31 | ST, carbon, 1/15W, 330Ω, 5% |
| R013~022 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R099 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R023, 024 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R1..801 | 8230 5101 33 | ST, carbon, 1/15W, 13kΩ, 5% |
| R025 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 | R1..802 | 8230 5109 12 | ST, carbon, 1/15W, 9.1kΩ, 5% |
| R026 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R1..803 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R027 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R1..804 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R028 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R1..805 | 8230 5103 31 | ST, carbon, 1/15W, 330Ω, 5% |
| R029 | 8230 5101 12 | ST, carbon, 1/15W, 1.1kΩ, 5% | R1..806 | 8230 5103 31 | ST, carbon, 1/15W, 330Ω, 5% |
| R030 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% | R1..807 | 8230 5101 04 | ST, carbon, 1/15W, 100kΩ, 5% |
| R031 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R1..808 | 8230 5101 04 | ST, carbon, 1/15W, 100kΩ, 5% |
| R032, 033 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% | R1..809 | 8230 5101 33 | ST, carbon, 1/15W, 13kΩ, 5% |
| R034 | | N/A | R1..1611 | 8230 5101 12 | ST, carbon, 1/15W, 1.1kΩ, 5% |
| R036 | 8230 5100 00 | ST, carbon, 1/15W, 0Ω, 5% | R1..1612 | 8230 5101 12 | ST, carbon, 1/15W, 1.1kΩ, 5% |
| R037 | | N/A | R1..1613 | 8230 5108 21 | ST, carbon, 1/15W, 820Ω, 5% |
| R038 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R1..1614 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% |
| R039 | | N/A | R1..1615 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% |
| R040 | 8230 5101 12 | ST, carbon, 1/15W, 1.1kΩ, 5% | R1..1616 | 8230 5108 21 | ST, carbon, 1/15W, 820Ω, 5% |
| R042~045 | | N/A | R1..1617 | 8230 5104 73 | ST, carbon, 1/15W, 47kΩ, 5% |
| R046 | 8230 5103 32 | ST, carbon, 1/15W, 3.3kΩ, 5% | R1..1618 | 8230 5001 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R047 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R1..431 | 8230 5101 00 | ST, carbon, 1/15W, 10Ω, 5% |
| R048 | 8230 5102 22 | ST, carbon, 1/15W, 2.2kΩ, 5% | R1..432 | 8230 5101 00 | ST, carbon, 1/15W, 10Ω, 5% |
| R049 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% | R1..433 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R050 | 8230 5105 62 | ST, carbon, 1/15W, 5.6kΩ, 5% | R1..841 | 8230 5101 00 | ST, carbon, 1/15W, 10Ω, 5% |
| R051 | 8230 5103 32 | ST, carbon, 1/15W, 3.3kΩ, 5% | R3001 | 8230 5101 52 | ST, carbon, 1/15W, 1.5kΩ, 5% |
| R052 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R3002 | 8230 5102 24 | ST, carbon, 1/15W, 220kΩ, 5% |
| R053 | 8230 5102 22 | ST, carbon, 1/15W, 2.2kΩ, 5% | R3003 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R054 | 8230 5104 72 | ST, carbon, 1/15W, 4.7kΩ, 5% | R3004 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 |
| R055 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R3005 | 8230 5100 00 | ST, carbon, 1/15W, 0Ω, 5% |
| R056 | 8230 5104 72 | ST, carbon, 1/15W, 4.7kΩ, 5% | R3006 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R057 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R3007 | 8230 5105 62 | ST, carbon, 1/15W, 5.6kΩ, 5% |
| R058 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R3008 | 8230 5103 31 | ST, carbon, 1/15W, 330Ω, 5% |
| R059 | 8230 5102 23 | ST, carbon, 1/15W, 22kΩ, 5% | R3009, 10 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R060, 061 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R3011 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 |
| R062 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R3012 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R063 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% | R3013 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% |
| R064 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R3014, 15 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R067 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R3016 | 8230 5105 62 | ST, carbon, 1/15W, 5.6kΩ, 5% |
| R068, 069 | 8230 5081 01 | ST, array, 100Ω x 4, 5%, CN1J4 | R3017 | 8230 5103 31 | ST, carbon, 1/15W, 330Ω, 5% |
| R070 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R3018, 19 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R071, 072 | 8230 5081 01 | ST, array, 100Ω x 4, 5%, CN1J4 | R3020 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 |
| R073 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R3021 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R074, 075 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% | R3022 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% |
| R076 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R3023, 24 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R077, 078 | 8230 5101 05 | ST, carbon, 1/15W, 1MΩ, 5% | R3025 | 8230 5100 00 | ST, carbon, 1/15W, 0Ω, 5% |
| R079, 080 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R3040 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R081 | 8230 5101 52 | ST, carbon, 1/15W, 1.5kΩ, 5% | R3041, 42 | 8230 5104 73 | ST, carbon, 1/15W, 47kΩ, 5% |
| R082, 083 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | R3043, 44 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R084 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | R3051 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R085 | | N/A | | | |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|-----------|--------------|-------------------------------------|-----------|--------------|-----------------------------------|
| C001~009 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C1..1613 | 8233 5131 02 | ST, CER, 50V, 0.001μF, 15%, CC11R |
| C010 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C1..1614 | 8232 1431 07 | VT, ALU, 16V, 100μF, 20%, SME-VB |
| C011 | 8233 5131 01 | ST, CER, 50V, 100μF, 15%, CC11R | C115, 116 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C012, 013 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C1..431 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C014~016 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1..432 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C017 | 8232 3574 77 | VT, ALU, 16V, 470μF, 20%, LXV, D10 | C1..433 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C018 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C1..434 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C019 | 8232 3631 27 | VT, ALU, 6.3V, 120μF, 20%, LXV, DS | C1..435 | 8233 5172 24 | ST, CER, 16V, 0.22μF, 20%, KC11E |
| C021~027 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1..436 | 8233 5172 24 | ST, CER, 16V, 0.22μF, 20%, KC11E |
| C028 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R | C1..437 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C029~032 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1..438 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C033 | 8232 1424 77 | VT, ALU, 10V, 470μF, 20%, SME-VB | C1..439 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C034~044 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1..440 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C045 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C1..841 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C046 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R | C1..842 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C047, 048 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1..843 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB |
| C049, 050 | 8232 1441 07 | VT, ALU, 25V, 100μF, 20%, SME-VB | C1..844 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C051, 052 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1..846 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C053 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C1..847 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C054 | 8232 3711 87 | VT, ALU, 16V, 180μF, 20%, LXV, D6.3 | C315, 316 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C056 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C515, 516 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C057, 058 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R | C715, 716 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C059 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C915, 916 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C060 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB | C1115, 16 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C061 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C1315, 16 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C062~069 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1515, 16 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C070 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C3001 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C077 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C3002~04 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C078 | 8232 3574 77 | VT, ALU, 16V, 470μF, 20%, LXV, D10 | C3005 | 8233 5164 74 | ST, CER, 16V, 0.47μF, 20%, KC20E |
| C079 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C3006 | 8233 5121 50 | ST, CER, 50V, 15pF, 5%, CC11SL |
| C080 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C3007, 08 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C082, 083 | 8232 1421 07 | VT, ALU, 10V, 100μF, 20%, SME-VB | C3009 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C084 | 8232 1431 07 | VT, ALU, 16V, 100μF, 20%, SME-VB | C3010~14 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C086 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C3015 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C087 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C3016~19 | 8233 5122 20 | ST, CER, 50V, 22pF, 5%, CC11SL |
| C088 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C3020 | | N/A |
| C089, 090 | 8232 3631 27 | VT, ALU, 6.3V, 120μF, 20%, LXV, DS | C3021 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C091, 092 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C3022, 23 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C095 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C3024 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C096, 097 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C3025~29 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C098 | 8232 3574 77 | VT, ALU, 16V, 470μF, 20%, LXV, D10 | C3030 | | N/A |
| C099 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB | C3031, 32 | 8233 5123 30 | ST, CER, 50V, 33pF, 5%, CC11SL |
| C100 | | N/A | C3033~35 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R |
| C101~801 | 8233 0491 06 | ST, ALU, 16V, 10μF, 20%, MV | C3036, 37 | 8233 5121 80 | ST, CER, 50V, 18pF, 5%, CC11SL |
| C102~802 | 8233 5132 22 | ST, CER, 50V, 0.0022μF, 5%, CC11R | C3038 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C103~803 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C3039~42 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R |
| C104~804 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C3043 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C105~805 | 8233 0491 06 | ST, ALU, 16V, 10μF, 15%, MV | C3044~48 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C106~806 | | N/A | C3050 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C107~807 | | N/A | C3051~53 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C1..1611 | 8233 5133 32 | ST, CER, 50V, 0.0033μF, 15%, CC11R | C3054 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C1..1612 | 8233 5131 02 | ST, CER, 50V, 0.001μF, 15%, CC11R | C3055, 56 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| | | | C3057 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| | | | C3058~60 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| | | | C3061 | 8233 5164 74 | ST, CER, 16V, 0.47μF, 20%, KC20E |

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------------------|--------------|---|-----------|--------------|---|
| C3062 | 8233 5121 50 | ST, CER, 50V, 15pF, 5%, CC11SL | J008, 009 | | N/A |
| C3063 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | J010 | 8245 5470 02 | Connector, PI, jack, PH, 2P |
| C3064 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R | J011 | 8245 5530 10 | Connector, opt, GPIF37R1 |
| C3065 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | J012 | 8245 5520 10 | Connector, opt, GPIF38T2 |
| C3066~68 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | J013, 014 | 8245 2720 17 | Connector, PI, jack, FPC 17P |
| C3069 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R | J016 | 8245 3290 50 | Connector, PL, D-SUB, 50P, P1.27, ECI2 |
| C3070 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | J018 | 8245 2720 25 | Connector, PI, jack, FPC, 25P |
| C3071 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R | J020 | 8245 5530 10 | Connector, opt, GPIF37R1 |
| C3072 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | J021 | 8245 5520 10 | Connector, opt, GPIF38T2 |
| C3073 | 8233 5124 70 | ST, CER, 50V, 47pF, 5%, CC11SL | J022 | 8245 0530 05 | Connector, PI, jack, 8263, 5P, WHT |
| C3074 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | J101, 102 | 8245 2860 00 | Connector, PL, jack, RCA, 4P, YKC21-3077 |
| C3075 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | J103, 104 | 8245 2720 17 | Connector, PI, jack, FPC 17P |
| C3076~78 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | J105 | 8245 0530 04 | Connector, PI, jack, 8263, 4P, WHT |
| C3079 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | J106~109 | 8245 2860 00 | Connector, PL, jack, RCA, 4P, YKC21-3077 |
| C3080, 81 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | L001, 002 | 8242 5025 60 | Core, ST, CDRH104, 56μH |
| C3082 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | L003, 004 | | N/A |
| C3083~85 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | L005 | 8242 2640 01 | Coil, DC-DC, R17, 256μH |
| C3086 | 8233 5164 74 | ST, CER, 16V, 0.47μF, 20%, KC20E | L007 | | N/A |
| C3087 | 8233 5121 50 | ST, CER, 50V, 15pF, 5%, CC11SL | L008~010 | 8242 5000 21 | Coil, ST, 22μH, LFC32 |
| C3088 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | L1..801 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| C3089 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R | L1..1602 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| C3090~92 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | W001 | 8276 7360 40 | Cable assy, 12P, 8263, WHT-5395, #22, L400 |
| C3093 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R | W002 | 8277 3184 30 | Cable assy, 4P, 5395-CNC, L300 |
| C3094, 95 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | W003 | 8245 3590 02 | Pin header, 2P, P2.0, 9210B-1 |
| C3096 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R | W004 | | N/A |
| C3097 | 8233 5124 70 | ST, CER, 50V, 47pF, 5%, CC11SL | W005 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| C3098, 99 | 8233 5123 30 | ST, CER, 50V, 33pF, 5%, CC11SL | W011 | | N/A |
| C3100~15 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | W012 | 8277 4771 22 | Cable assy, FC, 40P, /B-/F, L220, core, reverse |
| C3116, 17 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | W013 | 8245 3590 02 | Pin header, 2P, P2.0, 9210B-1 |
| C3118~28 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | W301 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| C3129, 30 | | N/A | W302 | | N/A |
| MISCELLANEOUS | | | | | |
| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
| E2301 | | N/A (TP001) | W401 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| E2302 | | N/A (TP002) | W402 | | N/A |
| E2303 | | N/A (TP003) | W503, 603 | | N/A |
| E2304 | | N/A (TP004) | W701 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| E2305, 06 | 8276 0010 00 | Pin, header (TP005) | W702, 703 | | N/A |
| E2306 | 8276 0010 00 | Pin, header (TP006) | W801 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| E2307 | | N/A (TP007) | W802, 803 | | N/A |
| E2308 | | N/A (TP008) | X001 | 8256 1700 01 | Resonator, ST, XTL, 22.579MHz, FUP-FBB3A |
| E2309 | | N/A (TP009) | JX002 | 8256 1700 02 | Resonator, ST, XTL, 24.576MHz, FUP-FBB3A |
| E2310 | | N/A (TP010) | X003 | 8256 1790 04 | Resonator, PT, CER, 11.00MHz, F5, EF0EN |
| E2311 | | N/A (TP011) | X004 | 8256 1850 00 | Resonator, ST, XTL, 32.768KHz, DMX-26 |
| E2312 | | N/A (TP012) | X005 | 8256 1710 01 | Resonator, PT, CER, 20.00MHz, KBR |
| E2315 | 8239 1200 00 | Battery, 3V, CR2032 | X006 | 8256 1850 00 | Resonator, ST, XTL, 32.768KHz, DMX-26 |
| E2316 | 8239 1210 00 | Holder, battery, BCR20H4 | | | |
| J001 | 8245 0530 05 | Connector, PI, jack, 8263, 5P, WHT | | | |
| J002 | 8245 1711 04 | Connector, PI, jack, 8283, 4P, WHT | | | |
| J003 | 8245 0530 04 | Connector, PI, jack, 8263, 4P, WHT | | | |
| J004 | 8245 2720 25 | Connector, PI, jack, FPC, 25P | | | |
| J005 | 8245 3220 50 | Connector, PI, header, 50P, P2.0, 9210B | | | |
| J006 | 8245 1711 07 | Connector, PI, jack, 8283, 7P, WHT | | | |
| J007 | 8245 1711 09 | Connector, PI, jack, 8283, 9P, WHT | | | |

• **Connect PCB assy**

| Ref. No. | Part No. | Description |
|----------|--------------|--------------------------------|
| | 8274 2210 00 | PCB Assy, Connect, D1624/D824 |
| | 8251 9880 05 | Plain PCB, Connect, D1624/D824 |

| Ref. No. | Part No. | Description |
|----------|--------------|---|
| J1001 | 8245 2960 00 | Connector, PL, jack, D-SUB/F, 15P-HD |
| L1001~13 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| W1001 | 8276 7310 20 | Cable assy, 7P, 8263, WHT-5395, #22, L200 |
| W1002 | 8276777035 | Cable assy, 7P, WHTMT/F-MT/BS, L350 |

• **MIDI PCB assy**

| Ref. No. | Part No. | Description |
|----------|--------------|-----------------------------|
| | 8274 2220 00 | PCB Assy, MIDI, D1624/D824 |
| | 8251 9880 02 | Plain PCB, MIDI, D1624/D824 |

| Ref. No. | Part No. | Description |
|----------|--------------|--|
| J201 | 8276 7760 15 | Cable assy, 6P, WHTMT/F-MT/BS, L150 |
| J202 | 8245 2970 00 | Connector, PL, jack, DIN, 5P, YKF51-5040 |
| L101~106 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| R201~206 | 8230 5102 21 | Resistor, ST, carbon, 1/15W, 220Ω, 5% |

• **Power PCB assy**

| Ref. No. | Part No. | Description |
|----------|--------------|------------------------------|
| | 8274 2230 00 | PCB Assy, Power, D1624/D824 |
| | 8251 9744 01 | Plain PCB, Power, D1624/D824 |

ICs

| Ref. No. | Part No. | Description |
|-----------|--------------|-------------------------------|
| U001 | 8236 0028 01 | DIP, DG, CMOS, 4049UB |
| U002 | 8236 5409 00 | VT, AN, regulator, AN1431T |
| U003 | 8234 1081 00 | OPT, H, photo coupler, ON3171 |
| U004 | | N/A |
| U005 | 8236 5410 06 | V, AN, power, MIP166 |
| U006 | 8236 0859 00 | V, AN, DC-DC, PQ1CF1 |
| U007, 009 | | N/A |
| U010 | 8236 0853 00 | V, AN, DC-DC, PQ1CF2 |

TRANSISTORS

| Ref. No. | Part No. | Description |
|----------|--------------|----------------------------|
| Q001 | 8234 1094 03 | V, FET, 2SK2661, TO-22ONIS |
| Q002 | 8234 1034 00 | V, PNP, 2SA1606, A/E |

DIODEs

| Ref. No. | Part No. | Description |
|-----------|--------------|---------------------------|
| D001 | 8234 1079 00 | HT, 80V, 0.2A, MA171 |
| D002, 003 | 8234 1085 00 | HT, fast recovery, D1NL40 |
| D004 | 8234 1080 00 | V, 200V, 5.0A, MA649 |
| D005 | 8234 1084 00 | VT, SCHOTTKY, EK03W |

| Ref. No. | Part No. | Description |
|----------|--------------|------------------------------|
| D006 | 8234 1078 00 | HT, 600V, 1.0A, D1N60-4084 |
| D007 | 8234 1085 00 | HT, fast recovery, D1NL40 |
| D008 | 8234 5039 34 | HT, zener, MTZ J 6.8 |
| D009 | 8234 1077 00 | Stack, 600VAC, 1.5A, D2SBA60 |
| D010 | 8234 5052 00 | V, 600V, 1.7A, S2V60-4002 |
| D011 | 8234 5007 00 | HT, 1SS136 |
| D012 | 8234 5039 27 | HT, zener, MTZ J 5.6B |

RESISTORS

| Ref. No. | Part No. | Description |
|----------|--------------|---|
| R001 | 8230 1386 29 | HT, carbon, 1/4W, 6.2Ω, 5% |
| R002 | 8230 1383 31 | HT, carbon, 1/4W, 330Ω, 5% |
| R003 | 8230 1381 01 | HT, carbon, 1/4W, 100Ω, 5% |
| R004 | 8230 1388 22 | HT, carbon, 1/4W, 8.2kΩ, 5% |
| R005 | 8230 1382 02 | HT, carbon, 1/4W, 2kΩ, 5% |
| R006 | 8230 1484 72 | HT, metal, 1/4W, 4.7kΩ, 1% |
| R007 | 8230 1481 52 | HT, metal, 1/4W, 1.5kΩ, 1% |
| R008 | 8230 1251 04 | H, metal, 2W, 100kΩ, 5%, F20, RSS |
| R009 | 8230 1386 29 | HT, carbon, 1/4W, 6.2Ω, 5% |
| R010 | 8230 1381 03 | HT, carbon, 1/4W, 10kΩ, 5% |
| R011 | 8230 1384 72 | HT, carbon, 1/4W, 4.7kΩ, 5% |
| R012 | 8230 5094 72 | HT, non-flammable, 1/4W, 4.7kΩ, 5%, MHT |
| R013 | 8230 1382 02 | HT, carbon, 1/4W, 2kΩ, 5% |
| R014 | 8230 1251 01 | H, metal, 2W, 100Ω, 5%, F20, RSS |
| R015 | 8230 1384 73 | HT, carbon, 1/4W, 47kΩ, 5% |
| R016 | 8230 1382 23 | HT, carbon, 1/4W, 22kΩ, 5% |
| R017 | 8230 1381 03 | HT, carbon, 1/4W, 10kΩ, 5% |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

PES = Mylar type

| Ref. No. | Part No. | Description |
|-----------|--------------|---|
| C001, 002 | 8232 3542 22 | VT, CER, 250V, 0.0022μF, 20%, ECK-ZNS |
| C003 | 8232 3521 04 | V, PES, 250VAC, 0.1μF, 20%, ECQ-UMV |
| C004 | 8232 8181 04 | VT, CER, 25V, 0.1μF, +80-20%, YF |
| C005 | 8232 3241 07 | V, ALU, 400V, 100μF, 20%, SMH-VNSN, D2 |
| C006~008 | 8232 3584 77 | VT, ALU, 25V, 470μF, 20%, LXV, D10 |
| C009 | 8232 0964 76 | V, ALU, 25V, 47μF, 20%, SME |
| C010~013 | 8232 3584 77 | VT, ALU, 25V, 470μF, 20%, LXV, D10 |
| C014 | 8232 1441 07 | VT, ALU, 25V, 100μF, 20%, SME-VB |
| C015 | 8232 3584 77 | VT, ALU, 25V, 470μF, 20%, LXV, D10 |
| C016, 017 | 8232 8181 04 | VT, CER, 25V, 0.1μF, +80-20%, YF |
| C018, 019 | 8232 3542 22 | VT, CER, 250V, 0.0022μF, 20%, ECK-ZNS |
| C022 | 8232 8031 03 | VT, CER, 50V, 0.01 F, +80-20%, YF |
| C025 | 8232 3491 03 | VT, PES, SEMKO, TLAG, 0.8A, 250V, TR5-T |

MISCELLANEOUS

| Ref. No. | Part No. | Description |
|-----------|--------------|---|
| J001 | 8245 0530 07 | Connector, PI, jack, 8263, 7P, WHT |
| J002 | 8245 0530 12 | Connector, PI, jack, 8263, 12P, WHT |
| J003 | 8245 3210 00 | Connector, PL, jack, AC INLET, 3P, 0714-FR7 |
| J004 | 8245 0530 02 | Connector, PI, jack, 8263, 2P, WHT |
| J005 | 8245 0530 06 | Connector, PI, jack, 8263, 6P, WHT |
| L001 | 8242 2491 93 | Filter, line, 19mH, 0.5A, ELFI5NOO5A |
| L002 | 8242 2491 02 | Filter, line, 1mH, 2.2A, ELFI5NO22A |
| L003 | 8242 2501 03 | Coil, PV, 10μH, 2A, ELC |
| L004 | 8242 2640 01 | Coil, DC-DC, R17, 256μH |
| L005, 006 | 8242 1340 01 | Filter, EMI, 6HOLE |
| L007 | 8242 2620 00 | Coil, DC-DC, RCH110, 180μH |
| T001 | 8242 2580 00 | Transformer, SW, POWER, ER2810, 12-18 |
| T002 | 8242 2600 00 | Transformer, DC-DC, EE1605, AC5CT-30 |
| Y501 | 8207 0126 02 | Heat sink, 17PB23, L25, B |
| Y502~504 | 8207 0015 00 | Heat sink, OSH-1625-SP |

• Power SW PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|---------------------------------|
| | 8274 2240 00 | PCB Assy, Power SW, D1624/D824 |
| | 8251 9743 02 | Plain PCB, Power SW, D1624/D824 |

| Ref. No. | Part No. | Description |
|-----------|--------------|---------------------------------|
| S1001 | 8253 4610 02 | SW, P, push, power, SDDL1-B1-F2 |
| W1001, 02 | 8277 1620 40 | Cable assy, SIN1.8-SIN1.8, 400 |

• Regulator PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|----------------------------------|
| | 8274 2250 00 | PCB Assy, Regulator, D1624/D824 |
| | 8251 9743 03 | Plain PCB, Regulator, D1624/D824 |

| Ref. No. | Part No. | Description |
|-----------|--------------|--|
| U001 | 8236 0321 06 | IC, 220, AN, regulator, 7815FA |
| U002 | 8236 0348 06 | IC, 220, AN, regulator, 7915FA |
| C001~004 | 8232 8031 03 | Capacitor, VT, CER, 50V, 0.01μF, +80-20%, YF |
| C005, 006 | 8232 1431 06 | Capacitor, VT, ALU, 16V, 10μF, 20%, SME-VB |
| W001 | 8276 7300 20 | Cable assy, 6P, 8263WHT-5395, L200 |

• Display PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|--------------------------------|
| | 8274 2260 00 | PCB Assy, Display, D1624/D824 |
| | 8251 5111 00 | Plain PCB, Display, D1624/D824 |

ICs

| Ref. No. | Part No. | Description |
|-----------|--------------|--|
| U001 | 8236 0704 03 | QFP, DG, CPU, HD6433723, DISP, FL-CTRL |
| U002 | 8236 5025 00 | ST, AN, reset, NJM2103M |
| U003~006 | 8236 0781 01 | PT, DG, driver, DTC114ES |
| U008, 009 | 8236 0782 01 | PT, DG, driver, DTA114ESA |
| U012 | 8256 1090 01 | Module, shuttle, SRGPHJ-A-3-2 |
| U013 | 8256 1730 00 | Module, display, FL, CM1538D |
| U014 | 8236 0830 01 | QFP, DG, VFD, driver, LC75710NE |
| U015~017 | 8236 0782 01 | PT, DG, driver, DTA114ESA |

TRANSISTORS

| Ref. No. | Part No. | Description |
|----------|--------------|-------------------|
| Q001~004 | 8234 1008 02 | VT, PNP, 2SA1150Y |

DIODES

| Ref. No. | Part No. | Description |
|----------|--------------|---------------------------|
| D001~015 | 8234 5007 00 | HT, 1SS136 |
| D019~022 | 8234 5007 00 | HT, 1SS136 |
| D031~047 | 8234 5007 00 | HT, 1SS136 |
| D049~052 | 8234 5007 00 | HT, 1SS136 |
| D061 | 8234 0100 00 | OPT, V, LED, org, GL-2HD6 |
| D062~064 | 8234 0191 00 | OPT, V, LED, grn, GL-2EG6 |
| D065 | 8234 0100 00 | OPT, V, LED, org, GL-2HD6 |
| D066~068 | 8234 0191 00 | OPT, V, LED, org, GL-2EG6 |
| D069 | 8234 0100 00 | OPT, V, LED, org, GL-2HD6 |
| D070~076 | 8234 0191 00 | OPT, V, LED, grn, GL-2EG6 |
| D081~083 | | N/A |
| D084~095 | 8234 5007 00 | HT, 1SS136 |

RESISTORS

| Ref. No. | Part No. | Description |
|-----------|--------------|-----------------------------|
| R001~010 | 8230 1381 54 | HT, carbon, 1/4W, 150kΩ, 5% |
| R012~037 | 8230 1381 54 | HT, carbon, 1/4W, 150kΩ, 5% |
| R038, 039 | 8230 1381 54 | HT, carbon, 1/4W, 150kΩ, 5% |
| R040 | 8230 1381 05 | HT, carbon, 1/4W, 1MΩ, 5% |
| R042~046 | 8230 1381 01 | HT, carbon, 1/4W, 100Ω, 5% |
| R047 | 8230 1481 52 | HT, carbon, 1/4W, 1.5kΩ, 1% |
| R048 | 8230 1381 01 | HT, carbon, 1/4W, 100Ω, 5% |
| R049~052 | 8230 1383 90 | HT, carbon, 1/4W, 39Ω, 5% |
| R054~057 | 8230 1381 02 | HT, carbon, 1/4W, 1kΩ, 5% |
| R058, 061 | 8230 1382 23 | HT, carbon, 1/4W, 22kΩ, 5% |
| R059, 062 | 8230 1381 03 | HT, carbon, 1/4W, 10kΩ, 5% |
| R060, 063 | 8230 1381 04 | HT, carbon, 1/4W, 100kΩ, 5% |
| R065 | 8230 1381 03 | HT, carbon, 1/4W, 10kΩ, 5% |
| R066~068 | 8230 1381 54 | HT, carbon, 1/4W, 150kΩ, 5% |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

| Ref. No. | Part No. | Description |
|-----------|--------------|-----------------------------------|
| C001, 003 | 8232 8181 04 | VT, CER, 25V, 0.1μF, +80-20%, YF |
| C002, 004 | 8232 8181 04 | VT, CER, 25V, 0.1μF, +80-20%, YF |
| C005, 006 | 8232 1461 06 | VT, ALU, 50V, 10μF, 20%, SME-VB |
| C007, 008 | 8232 8013 00 | VT, CER, 50V, 30pF, 5%, SL |
| C009 | 8232 8031 03 | VT, CER, 50V, 0.01μF, +80-20%, YF |
| C010, 011 | 8232 8181 04 | VT, CER, 25V, 0.1μF, +80-20%, YF |
| C012, 013 | 8232 8181 04 | VT, CER, 25V, 0.1μF, +80-20%, YF |
| C014 | 8232 8031 04 | VT, CER, 50V, 0.1μF, +80-20%, YF |
| C015 | 8232 8031 03 | VT, CER, 50V, 0.01μF, +80-20%, YF |
| C016 | 8232 8181 04 | VT, CER, 25V, 0.1μF, +80-20%, YF |
| C017, 018 | 8232 8031 03 | VT, CER, 50V, 0.01μF, +80-20%, YF |
| C019 | 8232 8014 71 | VT, CER, 50V, 470pF, 5%, SL |
| C020 | 8232 8181 04 | VT, CER, 25V, 0.1μF, +80-20%, YF |
| C021 | 8232 8013 00 | VT, CER, 50V, 30pF, 5%, SL |
| C022 | 8232 8031 04 | VT, CER, 50V, 0.1μF, +80-20%, YF |
| C023 | 8232 8014 71 | VT, CER, 50V, 470pF, 5%, SL |

MISCELLANEOUS

| Ref. No. | Part No. | Description |
|-----------|--------------|--|
| J001 | 8245 1721 15 | Connector, PL, jack, 8283, 15P, WHT |
| J002 | 8245 2980 00 | Connector, PL, jack, phone, LGR4609-7000 |
| L001~003 | 8242 1340 01 | Filter, EMI, 6HOLE |
| L004, 005 | 8242 1860 13 | Filter, T, EMI, LFW7B-M3R2T |
| S000~015 | 8253 1350 02 | SW, PT, tact, SKQNAB |
| S019~022 | 8253 1350 02 | SW, PT, tact, SKQNAB |
| S031~047 | 8253 1350 02 | SW, PT, tact, SKQNAB |
| X001 | 8256 1340 03 | Resonator, PF, CER, 8.00MHz, F5, EFOEN |
| Y701 | 8207 0100 11 | Spacer, LED, 11 |
| Y702 | 8207 0100 09 | Spacer, LED, 9 |
| Y703 | 8216 5910 00 | Spacer, FL, DMT-8/D1624/D824 |

• RS422 PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|------------------------------|
| | 8274 2570 00 | PCB Assy, RS422, D1624/D824 |
| | 8251 9880 03 | Plain PCB, RS422, D1624/D824 |

| Ref. No. | Part No. | Description |
|-----------|--------------|--|
| U301 | 8236 5426 00 | IC, ST, transceiver, SN75C1168 |
| R301 | 8230 5101 01 | Resistor, ST, carbon, 1/15W, 100Ω, 5% |
| R302 | 8230 5101 03 | Resistor, ST, carbon, 1/15W, 10kΩ, 5% |
| R303, 304 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| R305, 306 | 8230 5104 70 | Resistor, ST, carbon, 1/15W, 47Ω, 5% |
| R307 | 8230 5101 01 | Resistor, ST, carbon, 1/15W, 100Ω, 5% |
| C301 | 8232 1431 06 | Capacitor, VT, ALU, 16V, 10μF, 20%, SME-VB |

| Ref. No. | Part No. | Description |
|-----------|--------------|---|
| C302 | 8233 5131 03 | Capacitor, ST, CER, 50V, 0.01μF, 15%, CC11R |
| C303~306 | | N/A |
| J301 | 8276 7790 30 | Cable assy, 9P, WHTMT/F-MT/BS, L300 |
| J302, 303 | 8245 5460 11 | Connector, PL, jack, D-SUB, 9P, #4-40 |
| J304 | 8245 1711 06 | Connector, PL, jack, 8283, 6P, WHT |
| L301~304 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| S301 | 8253 6550 04 | SW, PI, slide, 1-2, non-shortening, SSSF1 |
| W301 | 8276 7790 25 | Cable assy, 9P, WHTMT/F-MT/BS, L250 |

• WORD I/O PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|---------------------------------|
| | 8274 2580 00 | PCB Assy, WORD I/O, D1624/D824 |
| | 8251 9880 04 | Plain PCB, WORD I/O, D1624/D824 |

| Ref. No. | Part No. | Description |
|-----------|--------------|---|
| U401 | 8236544004 | IC, ST, TSSOP, 74VHCT04 |
| D401 | 8234 5028 00 | Diode, ST, DAN202K |
| D402 | 8234 5029 00 | Diode, ST, DAP202K-T146 |
| R401 | 8230 5031 00 | Resistor, ST, carbon, 1/2W, 10Ω, 5% |
| R402 | 8230 5101 02 | Resistor, ST, carbon, 1/15W, 1kΩ, 5% |
| R403 | 8230510750 | Resistor, ST, carbon, 1/15W, 75Ω, 5% |
| R404, 405 | 8230510101 | Resistor, ST, carbon, 1/15W, 100Ω, 5% |
| R406 | 8230510105 | Resistor, ST, carbon, 1/15W, 1MΩ, 5% |
| C401 | 8232 1431 06 | Capacitor, VT, ALU, 16V, 10μF, 20%, SME-VB |
| C402 | 8233 5131 03 | Capacitor, ST, CER, 50V, 0.01μF, 15%, CC11R |
| C403, 404 | 8233 5124 70 | Capacitor, ST, CER, 50V, 47pF, 5%, CC11SL |
| J401 | 8276 7741 25 | Cable assy, 4P, red, 8283/F-9073/BS, L250 |
| J402, 403 | 8245 3000 00 | Connector, PL, jack, BNC, 01K0083 |
| L401, 402 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| S401 | 8253655004 | SW, PI, slide, 1-2, non-shortening, SSSF1 |
| W401 | 8276774020 | Cable assy, 4P, WHTMT/F-MT/BS, L200 |

● **D824 Parts List**

• **Main PCB assy**

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|-----------|--------------|--------------------------------------|---------------|--------------|--|
| | 8274 2590 00 | PCB Assy, Main, D824 | U056, 057 | 8236 5450 04 | ST, TSSOP, 74VHC04 |
| | 8251 9881 01 | Plain PCB, Main, D1624/D824 | U058 | 8236 5450 08 | ST, TSSOP, 74VHC08 |
| | | | U059 | 8236 5451 57 | ST, TSSOP, 74VHC157 |
| | | | U060~62 | | N/A |
| | | | U063 | 8236 5450 86 | ST, TSSOP, 74VHC86 |
| | | | U064 | 8236 0829 00 | SOP, DG, SCSI terminate, BH9595FP-Y |
| | | ICs | U065 | 8236 5641 00 | ST, SSOP, 74LVXC3245FS |
| Ref. No. | Part No. | Description | U066 | 8236 5641 00 | ST, SSOP, 74LVXC3245FS |
| U001 | 8236 0848 10 | QFP, DG, CPU, SH7709A, HD6417709A | U067 | 8236 5641 00 | ST, SSOP, 74LVXC3245FS |
| U002 | 8236 0851 00 | QFP, DG, gate array, SPPS | U069 | 8236 5440 04 | ST, TSSOP, 74VHCT04 |
| U003 | | N/A | U070 | 8236 5440 08 | ST, TSSOP, 74VHCT08 |
| U004 | 8236 0850 00 | QFP, DG, gate array, DIF | U071 | 8236 5445 41 | ST, TSSOP, 74VHCT541 |
| U005 | | N/A | U072 | | N/A |
| U006 | 8236 0847 00 | TSOP, DG, FROM, M29W800AT | U073 | 8236 5701 01 | ST, DG, driver, DTC114EK |
| U007, 008 | 8236 0866 00 | TSOP, DG, SDRAM, MB81F641642D-102 | U074 | 8236 5708 03 | ST, DG, driver, DTB114EK |
| U009 | 8236 0828 00 | QFP, DG, SCSI, MB86604L | U075 | 8236 5445 41 | ST, TSSOP, 74VHCT541 |
| U010 | 8236 5450 10 | ST, TSSOP, 74VHC10 | U079 | 8236 5450 00 | ST, TSSOP, 74VHC00 |
| U011 | 8236 5601 51 | ST, DG, 74HC151 | U080 | 8236 5459 04 | ST, TSSOP, 74VHC04 |
| U012, 013 | 8236 5450 00 | ST, TSSOP, 74VHC00 | U082 | 8236 5451 61 | ST, TSSOP, 74VHC161 |
| U014 | 8236 5704 01 | ST, DG, driver, DTA114EK | U083 | 8236 5450 04 | ST, TSSOP, 74VHC04 |
| U015 | | N/A | U084 | 8236 5451 57 | ST, TSSOP, 74VHC157 |
| U016 | 8236 5701 01 | ST, DG, driver, DTC114EK | U085 | | N/A |
| U017, 018 | 8236 5034 00 | ST, DG, VCO, TC9246 | U086 | 8236 5642 00 | ST, DG, TIMER, NJU6350R |
| U019 | 8236 5451 61 | ST, TSSOP, 74VHC161 | U087 | 8236 5440 32 | ST, TSSOP, 74VHCT32 |
| U020 | 8236 0853 00 | V, AN, DC-DC, PQ1CF2 | U101~801 | 8236 5050 11 | ST, AN, op amp, NJM2115M (TEI) |
| U021 | 8236 5459 04 | ST, TSSOP, 74VHC04 | U102 | | N/A |
| U022 | 8236 5440 32 | ST, TSSOP, 74VHCT32 | U112~412 | | N/A |
| U023 | 8236 5450 11 | ST, TSSOP, 74VHC11 | U512~812 | 8236 5702 01 | ST, DG, driver, DTC314TK |
| U024 | 8236 5601 51 | ST, DG, 74HC151 | U912~1212 | | N/A |
| U025 | 8236 5450 14 | ST, TSSOP, 74VHC14 | U13..1612 | 8236 5702 01 | ST, DG, driver, DTC314TK |
| U026 | 8236 5450 32 | ST, TSSOP, 74VHC32 | U1..431 | 8236 5424 00 | ST, DG, AD, AK5393VS-E2 |
| U027 | 8236 5450 00 | ST, TSSOP, 74VHC00 | U141, 241 | | N/A |
| U028 | 8234 5047 00 | OPT, ST, photo, PC410T | U341, 441 | 8236 5422 00 | ST, DG, DA, AK4393VF-E2 |
| U029, 030 | 8236 5701 01 | ST, DG, driver, DTC114EK | U541, 641 | | N/A |
| U031 | 8236 5450 74 | ST, TSSOP, 74VHC74 | U741, 841 | 8236 5422 00 | ST, DG, DA, AK4393VF-E2 |
| U032 | 8236 5419 00 | ST, AN, regulator, PQ7VZ5U | U302 | | N/A |
| U033, 034 | 8236 5440 08 | ST, TSSOP, 74VHCT08 | U502 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U035 | | N/A | U702 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U036, 037 | 8236 5450 74 | ST, TSSOP, 74VHC74 | U902 | | N/A |
| U038 | 8236 5403 01 | ST, AN, regulator, L78M05T-TL | U1102 | | N/A |
| U039 | 8236 5701 01 | ST, DG, driver, DTC114EK | U1302 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U040 | 8236 5708 03 | ST, DG, driver, DTB114EK | U1502 | 8236 5405 00 | ST, AN, NJM2068MD (TEI) |
| U041 | 8236 5414 00 | PT, AN, REG, PQ3DZ53U | | | |
| U042 | 8236 5450 74 | ST, TSSOP, 74VHC74 | | | |
| U043 | 8236 5450 00 | ST, TSSOP, 74VHC00 | | | |
| U044~046 | | N/A | | | |
| U047, 048 | 8236 5641 00 | ST, SSOP, 74LVXC3245FS | | | |
| U049 | 8236 5025 00 | ST, AN, RESET, NJM2103M | | | |
| U050 | 8236 5441 38 | ST, TSSOP, 74VHCT138 | | | |
| U051 | 8236 5440 08 | ST, TSSOP, 74VHCT08 | | | |
| U052, 053 | 8236 5450 04 | ST, TSSOP, 74VHC04 | | | |
| U054 | 8236 5450 74 | ST, TSSOP, 74VHC74 | | | |
| U055 | 8236 5450 08 | ST, TSSOP, 74VHC08 | | | |
| | | | DIODEs | | |
| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
| | | | D001~005 | 8234 5028 00 | ST, DAN202K |
| | | | D006~008 | 8234 5029 00 | ST, DAP202K-T146 |
| | | | D009, 010 | 8234 5021 00 | ST, SCHOTTKY, SB05-05CP |
| | | | D011, 012 | 8234 5028 00 | ST, DAN202K |
| | | | D013 | | N/A |
| | | | D011~014 | 8234 5028 00 | ST, DAN202K |

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|------------------|--------------|--|-----------|--------------|---------------------------------------|
| D015 | 8234 1084 00 | VT, SCHOTTKY, EK03W | R074, 075 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% |
| D017 | 8234 1050 00 | VF, SCHOTTKY, EK13 | R076 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% |
| D025 | 8234 7506 00 | ST, RB400D | R077, 078 | 8230 5101 05 | ST, carbon, 1/15W, 1M Ω , 5% |
| RESISTORS | | | | | |
| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
| R001 | 8230 5103 02 | ST, carbon, 1/15W, 3k Ω , 5% | R079, 080 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% |
| R002 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% | R081 | 8230 5101 52 | ST, carbon, 1/15W, 1.5k Ω , 5% |
| R003, 004 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% | R082, 083 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% |
| R005 | | N/A | R084 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% |
| R006 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% | R085 | 8230 5104 73 | ST, carbon, 1/15W, 47k Ω , 5% |
| R007 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 | R086, 087 | 8230 5104 72 | ST, carbon, 1/15W, 4.7k Ω , 5% |
| R008 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% | R088, 089 | 8230 5104 73 | ST, carbon, 1/15W, 47k Ω , 5% |
| R009 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 | R092, 093 | 8230 5104 73 | ST, carbon, 1/15W, 47k Ω , 5% |
| R010 | 8230 5101 05 | ST, carbon, 1/15W, 1M Ω , 5% | R094 | 8230 5100 00 | ST, carbon, 1/15W, 0 Ω , 5% |
| R011 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% | R095 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% |
| R012 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R096 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% |
| R013~022 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% | R097 | 8230 5103 31 | ST, carbon, 1/15W, 330 Ω , 5% |
| R023, 024 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R099, 100 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% |
| R025 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 | R1..801 | 8230 5101 33 | ST, carbon, 1/15W, 13k Ω , 5% |
| R026 | | N/A | R1..802 | 8230 5109 12 | ST, carbon, 1/15W, 9.1k Ω , 5% |
| R027 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% | R1..803 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% |
| R028 | | N/A | R1..804 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% |
| R029 | 8230 5101 12 | ST, carbon, 1/15W, 1.1k Ω , 5% | R1..805 | 8230 5103 31 | ST, carbon, 1/15W, 330 Ω , 5% |
| R030 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% | R1..806 | 8230 5103 31 | ST, carbon, 1/15W, 330 Ω , 5% |
| R031 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% | R1..807 | 8230 5101 04 | ST, carbon, 1/15W, 100k Ω , 5% |
| R032, 033 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% | R1..808 | 8230 5101 04 | ST, carbon, 1/15W, 100k Ω , 5% |
| R034 | | N/A | R1..809 | 8230 5101 33 | ST, carbon, 1/15W, 13k Ω , 5% |
| R036 | 8230 5100 00 | ST, carbon, 1/15W, 0 Ω , 5% | R111~411 | | N/A |
| R037 | | N/A | R511~811 | 8230 5101 12 | ST, carbon, 1/15W, 1.1k Ω , 5% |
| R038 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% | R911~1211 | | N/A |
| R039 | | N/A | R13..1611 | 8230 5101 12 | ST, carbon, 1/15W, 1.1k Ω , 5% |
| R040 | 8230 5101 12 | ST, carbon, 1/15W, 1.1k Ω , 5% | R112~412 | | N/A |
| R042~045 | | N/A | R512~812 | 8230 5101 12 | ST, carbon, 1/15W, 1.1k Ω , 5% |
| R046 | 8230 5103 32 | ST, carbon, 1/15W, 3.3k Ω , 5% | R912~1212 | | N/A |
| R047 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R13..1612 | 8230 5101 12 | ST, carbon, 1/15W, 1.1k Ω , 5% |
| R048 | 8230 5102 22 | ST, carbon, 1/15W, 2.2k Ω , 5% | R113~413 | | N/A |
| R049 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% | R513~813 | 8230 5108 21 | ST, carbon, 1/15W, 820 Ω , 5% |
| R050 | 8230 5105 62 | ST, carbon, 1/15W, 5.6k Ω , 5% | R913~1213 | | N/A |
| R051~055 | | N/A | R13..1613 | 8230 5108 21 | ST, carbon, 1/15W, 820 Ω , 5% |
| R056 | 8230 5104 72 | ST, carbon, 1/15W, 4.7k Ω , 5% | R114~414 | | N/A |
| R057 | | N/A | R514~814 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% |
| R058 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% | R914~1214 | | N/A |
| R059 | 8230 5102 23 | ST, carbon, 1/15W, 22k Ω , 5% | R13..1614 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% |
| R060, 061 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | R115~415 | | N/A |
| R062 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% | R515~815 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% |
| R063 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% | R915~1215 | | N/A |
| R064 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% | R13..1615 | 8230 5101 02 | ST, carbon, 1/15W, 1k Ω , 5% |
| R067 | 8230 5101 01 | ST, carbon, 1/15W, 100 Ω , 5% | R116~416 | | N/A |
| R068 | 8230 5081 01 | ST, array, 100 Ω x 4, 5%, CN1J4 | R516~816 | 8230 5108 21 | ST, carbon, 1/15W, 820 Ω , 5% |
| R069 | | N/A | R916~1216 | | N/A |
| R070 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% | R13..1616 | 8230 5108 21 | ST, carbon, 1/15W, 820 Ω , 5% |
| R071 | 8230 5081 01 | ST, array, 100 Ω x 4, 5%, CN1J4 | R117~417 | | N/A |
| R072 | | N/A | R517~817 | 8230 5104 73 | ST, carbon, 1/15W, 47k Ω , 5% |
| R073 | 8230 5101 03 | ST, carbon, 1/15W, 10k Ω , 5% | R917~1217 | | N/A |
| | | | R13..1617 | 8230 5104 73 | ST, carbon, 1/15W, 47k Ω , 5% |
| | | | R118~418 | | N/A |
| | | | R518~818 | 8230 5001 01 | ST, carbon, 1/15W, 100 Ω , 5% |

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|-----------|--------------|------------------------------|-----------|--------------|------------------------------------|
| R918~1218 | | N/A | C056 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| R13..1618 | 8230 5001 01 | ST, carbon, 1/15W, 100Ω, 5% | C057, 058 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R |
| R1..431 | 8230 5101 00 | ST, carbon, 1/15W, 10Ω, 5% | C059 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| R1..432 | 8230 5101 00 | ST, carbon, 1/15W, 10Ω, 5% | C060 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB |
| R1..433 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | C061 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| R141, 241 | | N/A | C062~069 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| R341, 441 | 8230 5101 00 | ST, carbon, 1/15W, 10Ω, 5% | C070 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| R541, 641 | | N/A | C077 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| R741, 841 | 8230 5101 00 | ST, carbon, 1/15W, 10Ω, 5% | C078 | 8232 3574 77 | VT, ALU, 16V, 470μF, 20%, LXV, D10 |
| R3001 | 8230 5101 52 | ST, carbon, 1/15W, 1.5kΩ, 5% | C079 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| R3002 | 8230 5102 24 | ST, carbon, 1/15W, 220kΩ, 5% | C080 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| R3003 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | C082, 083 | 8232 1421 07 | VT, ALU, 10V, 100μF, 20%, SME-VB |
| R3004 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | C084 | 8232 1431 07 | VT, ALU, 16V, 100μF, 20%, SME-VB |
| R3005 | 8230 5100 00 | ST, carbon, 1/15W, 0Ω, 5% | C086 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| R3006 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | C087 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| R3007 | 8230 5105 62 | ST, carbon, 1/15W, 5.6kΩ, 5% | C088 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| R3008 | 8230 5103 31 | ST, carbon, 1/15W, 330Ω, 5% | C089, 090 | 8232 3631 27 | VT, ALU, 6.3V, 120μF, 20%, LXV, DS |
| R3009, 10 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% | C091, 092 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| R3011 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 | C095 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| R3012 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | C096 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| R3013 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% | C097 | | N/A |
| R3014, 15 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | C098 | 8232 3574 77 | VT, ALU, 16V, 470μF, 20%, LXV, D10 |
| R3016~24 | | N/A | C099 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB |
| R3025 | 8230 5100 00 | ST, carbon, 1/15W, 0Ω, 5% | C100 | | N/A |
| R3040 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | C101~801 | 8233 0491 06 | ST, ALU, 16V, 10μF, 20%, MV |
| R3041 | 8230 5104 73 | ST, carbon, 1/15W, 47kΩ, 5% | C102~802 | 8233 5132 22 | ST, CER, 50V, 0.0022μF, 5%, CC11R |
| R3042 | | N/A | C103~803 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| R3043, 44 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | C104~804 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| R3051 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% | C105~805 | 8233 0491 06 | ST, ALU, 16V, 10μF, 15%, MV |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|-----------|--------------|-------------------------------------|-----------|--------------|------------------------------------|
| C001~009 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C911~1211 | | N/A |
| C010 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C13..1611 | 8233 5133 32 | ST, CER, 50V, 0.0033μF, 15%, CC11R |
| C011 | 8233 5131 01 | ST, CER, 50V, 100μF, 15%, CC11R | C112~412 | | N/A |
| C012 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C512~812 | 8233 5131 02 | ST, CER, 50V, 0.001μF, 15%, CC11R |
| C013 | | N/A | C912~1212 | | N/A |
| C014~016 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C13..1612 | 8233 5131 02 | ST, CER, 50V, 0.001μF, 15%, CC11R |
| C017 | 8232 3574 77 | VT, ALU, 16V, 470μF, 20%, LXV, D10 | C113~413 | | N/A |
| C018 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C513~813 | 8233 5131 02 | ST, CER, 50V, 0.001μF, 15%, CC11R |
| C019 | 8232 3631 27 | VT, ALU, 6.3V, 120μF, 20%, LXV, DS | C913~1213 | | N/A |
| C021~027 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C13..1613 | 8233 5131 02 | ST, CER, 50V, 0.001μF, 15%, CC11R |
| C028 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R | C114~414 | | N/A |
| C029~032 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C514~814 | 8232 1431 07 | VT, ALU, 16V, 100μF, 20%, SME-VB |
| C033 | 8232 1424 77 | VT, ALU, 10V, 470μF, 20%, SME-VB | C914~1214 | | N/A |
| C034~044 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C13..1614 | 8232 1431 07 | VT, ALU, 16V, 100μF, 20%, SME-VB |
| C045 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C115, 116 | | N/A |
| C046 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R | C1..431 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C047, 048 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1..432 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C049, 050 | 8232 1441 07 | VT, ALU, 25V, 100μF, 20%, SME-VB | C1..433 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C051, 052 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C1..434 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C053 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C1..435 | 8233 5172 24 | ST, CER, 16V, 0.22μF, 20%, KC11E |
| C054 | 8232 3711 87 | VT, ALU, 16V, 180μF, 20%, LXV, D6.3 | C1..436 | 8233 5172 24 | ST, CER, 16V, 0.22μF, 20%, KC11E |
| | | | C1..437 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|-----------|--------------|----------------------------------|-----------|--------------|----------------------------------|
| C1.438 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | C3057 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C1.439 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%,SME-VB | C3058~60 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C1.440 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C3061 | 8233 5164 74 | ST, CER, 16V, 0.47μF, 20%, KC20E |
| C141, 241 | | N/A | C3062 | 8233 5121 50 | ST, CER, 50V, 15pF, 5%, CC11SL |
| C341, 441 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C3063 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C541, 641 | | N/A | C3064 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R |
| C741, 841 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C3065 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C142, 242 | | N/A | C3066~68 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C342, 442 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C3069 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R |
| C542, 642 | | N/A | C3070 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C742, 842 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C3071 | 8233 5131 01 | ST, CER, 50V, 100pF, 15%, CC11R |
| C143, 243 | | N/A | C3072 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C343, 443 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB | C3073 | 8233 5124 70 | ST, CER, 50V, 47pF, 5%, CC11SL |
| C543, 643 | | N/A | C3074~97 | | N/A |
| C743, 843 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB | C3098, 99 | 8233 5123 30 | ST, CER, 50V, 33pF, 5%, CC11SL |
| C144, 244 | | N/A | C3100, 01 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C344, 444 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C3102 | | N/A |
| C544, 644 | | N/A | C3103~15 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C744, 844 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F | C3116, 17 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB |
| C146, 246 | | N/A | C3118~27 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R |
| C346, 446 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | C3129, 30 | | N/A |
| C546, 646 | | N/A | | | |
| C746, 846 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | | | |
| C147, 247 | | N/A | | | |
| C347, 447 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C547, 647 | | N/A | | | |
| C747, 847 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C315, 316 | | N/A | | | |
| C515, 516 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C715, 716 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C915, 916 | | N/A | | | |
| C1115, 16 | | N/A | | | |
| C1315, 16 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C1515, 16 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C3001 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | | | |
| C3002~04 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C3005 | 8233 5164 74 | ST, CER, 16V, 0.47μF, 20%, KC20E | | | |
| C3006 | 8233 5121 50 | ST, CER, 50V, 15pF, 5%, CC11SL | | | |
| C3007, 08 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C3009 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | | | |
| C3010~14 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C3015 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | | | |
| C3016~19 | 8233 5122 20 | ST, CER, 50V, 22pF, 5%, CC11SL | | | |
| C3020..30 | | N/A | | | |
| C3031, 32 | 8233 5123 30 | ST, CER, 50V, 33pF, 5%, CC11SL | | | |
| C3033~35 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R | | | |
| C3036, 37 | 8233 5121 80 | ST, CER, 50V, 18pF, 5%, CC11SL | | | |
| C3038 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C3039~42 | 8233 5134 71 | ST, CER, 50V, 470pF, 15%, CC11R | | | |
| C3043 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | | | |
| C3044~48 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C3050 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | | | |
| C3051~53 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |
| C3054 | 8232 1431 06 | VT, ALU, 16V, 10μF, 20%, SME-VB | | | |
| C3055, 56 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 15%, CC11R | | | |

| MISCELLANEOUS | | | | | |
|----------------------|--------------|---|----------|----------|-------------|
| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
| E2501 | | N/A (TP001) | | | |
| E2502 | | N/A (TP002) | | | |
| E2503 | | N/A (TP003) | | | |
| E2504 | | N/A (TP004) | | | |
| E2505 | 8276 0010 00 | Pin, header (TP005) | | | |
| E2506 | 8276 0010 00 | Pin, header (TP006) | | | |
| E2507 | | N/A (TP007) | | | |
| E2508 | | N/A (TP008) | | | |
| E2509 | | N/A (TP009) | | | |
| E2510 | | N/A (TP010) | | | |
| E2511 | | N/A (TP011) | | | |
| E2512 | | N/A (TP012) | | | |
| E2515 | 8239 1200 00 | Battery, 3V, CR2032 | | | |
| E2516 | 8239 1210 00 | Holder, battery, BCR20H4 | | | |
| J001 | 8245 0530 05 | Connector, PI, jack, 8263, 5P, WHT | | | |
| J002 | 8245 1711 04 | Connector, PI, jack, 8283, 4P, WHT | | | |
| J003 | | N/A | | | |
| J004 | 8245 2720 25 | Connector, PI, jack, FPC, 25P | | | |
| J005 | 8245 3220 50 | Connecotr, PI, header, 50P, P2.0, 9210B | | | |
| J006 | 8245 1711 07 | Connector, PI, jack, 8283, 7P, WHT | | | |
| J007 | 8245 1711 09 | Connector, PI, jack, 8283, 9P, WHT | | | |
| J008, 009 | | N/A | | | |
| J010 | 8245 5470 02 | Connector, PI, jack, PH, 2P | | | |
| J011 | 8245 5530 10 | Connector, opt, GPIF37R1 | | | |
| J012 | 8245 5520 10 | Connector, opt, GPIF38T2 | | | |
| J013 | 8245 2720 17 | Connector, PI, jack, FPC 17P | | | |
| J014 | | N/A | | | |
| J016 | 8245 3290 50 | Connector, PL, D-SUB, 50P, P1.27, EC12 | | | |
| J018 | 8245 2720 25 | Connector, PI, jack, FPC, 25P | | | |
| J020, 021 | | N/A | | | |

| Ref. No. | Part No. | Description |
|-----------|--------------|---|
| J022 | 8245 0530 05 | Connector, PI, jack, 8263, 5P, WHT |
| J101, 102 | 8245 2860 00 | Connector, PL, jack, RCA, 4P, YKC21-3077 |
| J103 | 8245 2720 17 | Connector, PI, jack, FPC 17P |
| J104 | 8245 2720 08 | Connector, PI, jack, FPC 8P |
| J105 | 8245 0530 04 | Connector, PI, jack, 8263, 4P, WHT |
| J106, 107 | | N/A |
| J108, 109 | 8245 2860 00 | Connector, PL, jack, RCA, 4P, YKC21-3077 |
| L001, 002 | 8242 5025 60 | Core, ST, CDRH104, 56μH |
| L003, 004 | | N/A |
| L005 | 8242 2640 01 | Coil, DC-DC, R17, 256μH |
| L007 | | N/A |
| L008, 009 | 8242 5000 21 | Coil, ST, 22μH, LFC32 |
| L010 | | N/A |
| L1..801 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| L102~402 | | N/A |
| L502~802 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| L902~1202 | | N/A |
| L13..1602 | 8242 5041 21 | Filter, ST, EMI, EXC3BP, 121 |
| W001 | 8276 7360 40 | Cable assy, 12P, 8263, WHT-5395, #22, L400 |
| W002 | 8277 3184 30 | Cable assy, 4P, 5395-CNC, L300 |
| W003 | 8245 3590 02 | Pin header, 2P, P2.0, 9210B-1 |
| W004 | | N/A |
| W005 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| W011 | | N/A |
| W012 | 8277 4771 22 | Cable assy, FC, 40P, /B-/F, L220, core, reverse |
| W013 | 8245 3590 02 | Pin header, 2P, P2.0, 9210B-1 |
| W301 | | N/A |
| W302 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| W401 | | N/A |
| W402 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| W503, 603 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| W701 | | N/A |
| W702, 703 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| W801 | | N/A |
| W802, 803 | 8230 5100 00 | Resistor, ST, carbon, 1/15W, 0Ω, 5% |
| X001 | 8256 1700 01 | Resonator, ST, XTL, 22.579MHz, FUP-FBB3A |
| X002 | 8256 1700 02 | Resonator, ST, XTL, 24.576MHz, FUP-FBB3A |
| X003 | 8256 1790 04 | Resonator, PT, CER, 11.00MHz, F5, EFOEN |
| X004 | 8256 1850 00 | Resonator, ST, XTL, 32.768KHz, DMX-26 |
| X005 | 8256 1710 01 | Resonator, PT, CER, 20.00MHz, KBR |
| X006 | 8256 1850 00 | Resonator, ST, XTL, 32.768KHz, DMX-26 |

• **Connect PCB assy (P/N: 8274221000)**

Refer to the D1624 Parts List page 41.

• **MIDI PCB assy (P/N: 8274222000)**

Refer to the D1624 Parts List page 41.

• **Power PCB assy (P/N: 8274223000)**

Refer to the D1624 Parts List page 41 ~ 42.

• **Power SW PCB assy (P/N: 8274224000)**

Refer to the D1624 Parts List page 42.

• **Regulator PCB assy (P/N: 8274225000)**

Refer to the D1624 Parts List page 42.

• **Display PCB assy (P/N: 8274226000)**

Refer to the D1624 Parts List page 42 ~ 43.

• **RS422 assy (P/N: 8274257000)**

Refer to the D1624 Parts List page 43.

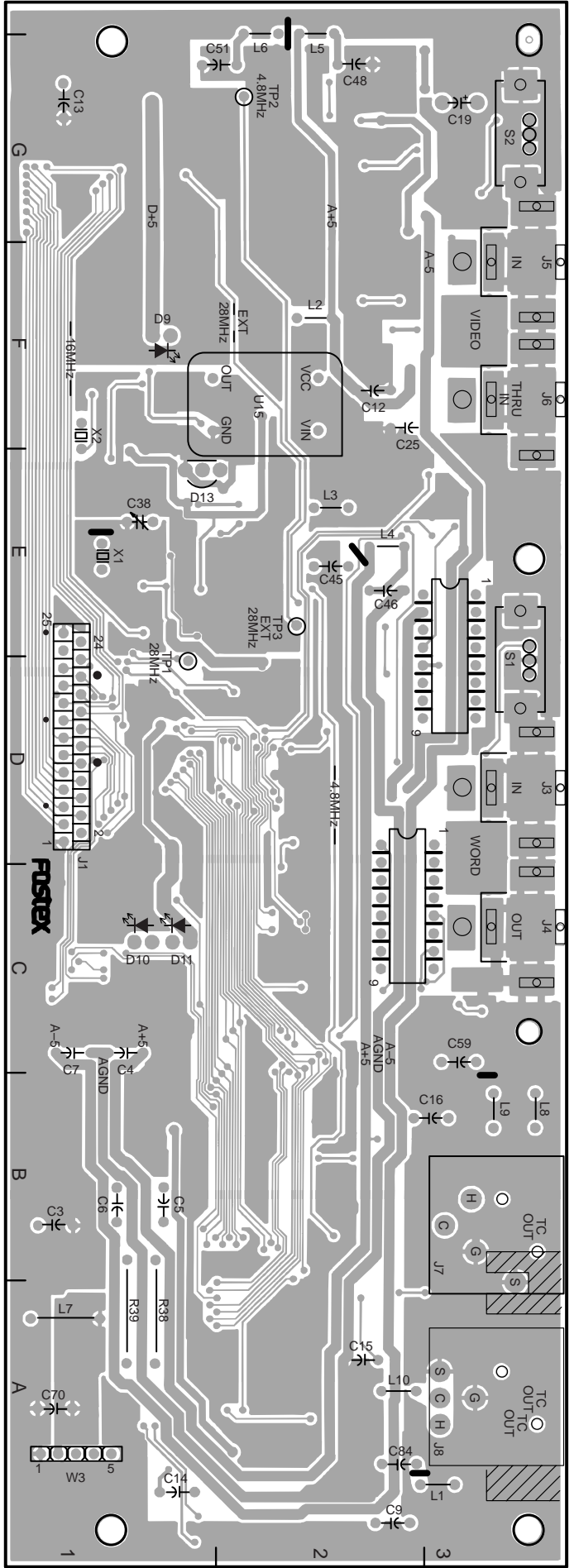
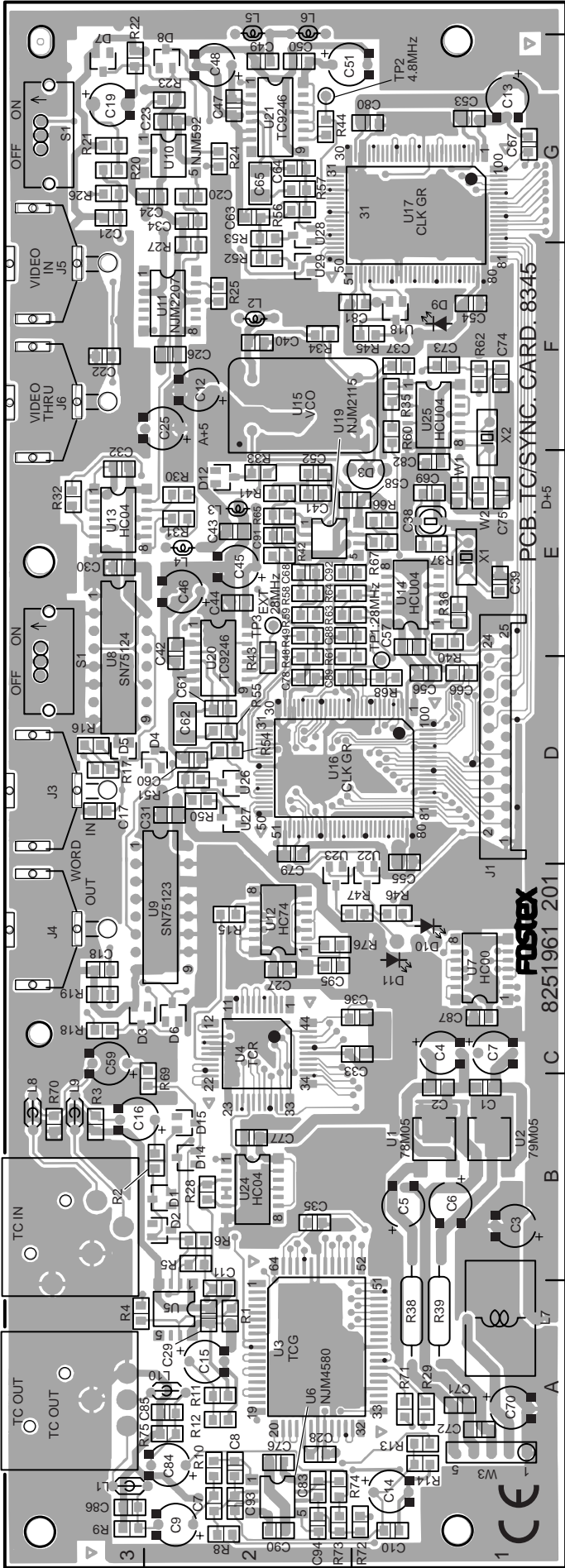
• **WORD I/O assy (P/N: 8274258000)**

Refer to the D1624 Parts List page 43.

● **Abbreviation**

- S: Surface mount
- V: Vertical mount
- P: Penetrate mount
- T: Taping device
- F: Forming device
- L: L form
- I: I form
- QFP: Quad Flat Package
- TSOP: Thin Small Outline Package
- TSSOP: Thin Shrink Small Outlint Package
- DIP: Dual In-line Package
- 220: TO-220 type
- DG: Digital
- AN: Analog

● MODEL 8345 PCB ASSEMBLIES



● 8345 Parts List

• 8345 PCB assy

| Ref. No. | Part No. | Description | Ref. No. | Part No. | Description |
|----------|--------------|-----------------|-----------|--------------|------------------------------|
| | N/A | PCB assy, 8345 | R010 | 8230 5001 51 | ST, carbon, 1/10W, 150Ω, 5% |
| B101 | 8251 9612 01 | Plain PCB, 8345 | R011, 012 | 8230 5001 02 | ST, carbon, 1/10W, 1kΩ, 5% |
| | | | R013, 014 | 8230 5004 72 | ST, carbon, 1/10W, 4.7kΩ, 5% |
| | | | R015, 016 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R017 | 8230 5007 50 | ST, carbon, 1/10W, 75Ω, 5% |
| | | | R018 | 8230 5001 00 | ST, carbon, 1/10W, 10Ω, 5% |
| | | | R019, 020 | 8230 5001 02 | ST, carbon, 1/10W, 1kΩ, 5% |
| | | | R021 | 8230 5001 04 | ST, carbon, 1/10W, 100kΩ, 5% |
| | | | R022, 023 | 8230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |
| | | | R024 | 8230 5003 32 | ST, carbon, 1/10W, 3.3kΩ, 5% |
| | | | R025 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R026 | 8230 5007 50 | ST, carbon, 1/10W, 75Ω, 5% |
| | | | R027, 028 | 8230 5001 05 | ST, carbon, 1/10W, 1MΩ, 5% |
| | | | R029~032 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R033 | 8230 5002 22 | ST, carbon, 1/10W, 2.2kΩ, 5% |
| | | | R034 | 8230 5006 81 | ST, carbon, 1/10W, 680Ω, 5% |
| | | | R035 | 8230 5001 05 | ST, carbon, 1/10W, 1MΩ, 5% |
| | | | R036 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R037 | 8230 5001 05 | ST, carbon, 1/10W, 1MΩ, 5% |
| | | | R038, 039 | 8230 4001 00 | H, metal, 1W, 10Ω, 5% |
| | | | R040 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R041 | 8230 5001 02 | ST, carbon, 1/10W, 1kΩ, 5% |
| | | | R042 | 8230 5001 52 | ST, carbon, 1/10W, 1.5kΩ, 5% |
| | | | R043, 044 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R045, 046 | 8230 5002 71 | ST, carbon, 1/10W, 270Ω, 5% |
| | | | R047 | | N/A |
| | | | R048, 049 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R050~053 | 8230 5001 52 | ST, carbon, 1/10W, 1.5kΩ, 5% |
| | | | R054 | 8230 5002 24 | ST, carbon, 1/10W, 220kΩ, 5% |
| | | | R055 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R056 | 8230 5002 24 | ST, carbon, 1/10W, 220kΩ, 5% |
| | | | R057 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R058, 059 | 8230 5004 72 | ST, carbon, 1/10W, 4.7kΩ, 5% |
| | | | R060 | 8230 5003 31 | ST, carbon, 1/10W, 330Ω, 5% |
| | | | R061 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R062 | | N/A |
| | | | R063 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R064 | 8230 5001 05 | ST, carbon, 1/10W, 1MΩ, 5% |
| | | | R065 | | N/A |
| | | | R066, 067 | 8230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |
| | | | R068 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R069 | 8230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |
| | | | R070 | 8230 5001 04 | ST, carbon, 1/10W, 100kΩ, 5% |
| | | | R071 | 8230 5001 01 | ST, carbon, 1/10W, 100Ω, 5% |
| | | | R072 | 8230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |
| | | | R073 | 8230 5002 02 | ST, carbon, 1/10W, 2kΩ, 5% |
| | | | R074 | 8230 5001 51 | ST, carbon, 1/10W, 150Ω, 5% |
| | | | R075 | 8230 5004 73 | ST, carbon, 1/10W, 47kΩ, 5% |
| | | | R076 | 230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |

| ICs | | |
|-----------|--------------|---|
| Ref. No. | Part No. | Description |
| U001 | 8236 5403 01 | ST, AN, regulator, NJM78M05DLA |
| U002 | 8236 5404 01 | ST, AN, regulator, NJM78M05DLA |
| U003 | 8236 0619 00 | QFP, DG, gate array, TCG |
| U004 | 8236 0762 00 | QFP, DG, gate array, TCR |
| U005 | 8236 5055 00 | ST, AN, comparator, NJM311M |
| U006 | 8236 5031 00 | ST, AN, op amp, NJM4580E |
| U007 | 8236 5600 00 | ST, DG, 74HC00 |
| U008 | 8236 0185 00 | DIP, DG, TTL, SN75124 |
| U009 | 8236 0793 00 | DG, line IF, SN75123 |
| U010 | 8236 7210 00 | ST, AN, NJM592M |
| U011 | 8234 7211 00 | ST, AN, NJM2207M |
| U012 | 8236 5600 74 | ST, DG, 74HC74 |
| U013 | 8236 5600 14 | ST, DG, 74HC14 |
| U014 | 8236 5610 04 | ST, DG, 74HCU04 |
| U015 | 8236 1780 00 | Module, VCO, 28.224MHz, F100 |
| U016, 017 | 8236 8200 00 | QFP, DG, gate array, μPD65640GF-215-3BNEC, NEWCLK |
| U018 | 8236 5701 01 | ST, DG, driver, DTC114EK |
| U019 | 8236 5050 11 | ST, AN, op amp, NJM2115M (TEI) |
| U020, 021 | 8236 5034 00 | ST, DG, VCO, TC9246F |
| U023 | 8236 5701 01 | ST, DG, driver, DTC114EK |
| U024 | 8236 5600 04 | ST, DG, 74HC04 |
| U025 | 8236 5610 04 | ST, DG, 74HCU04 |
| U026 | 8236 5701 01 | ST, DG, driver, DTC114EK |
| U027 | 8236 5704 01 | ST, DG, driver, DTA114EK |
| U028 | 8236 5701 01 | ST, DG, driver, DTC114EK |
| U029 | 8236 5704 01 | ST, DG, driver, DTA114EK |

| DIODES | | |
|-----------|--------------|--------------------------|
| Ref. No. | Part No. | Description |
| D001~008 | 8234 5028 00 | ST, DAN202K |
| D009, 010 | 8234 2024 01 | Opt., LED, red, SLR-40VR |
| D011~013 | | N/A |
| D014, 015 | 8234 5028 00 | ST, DAN202K |

| RESISTORS | | |
|-----------|--------------|------------------------------|
| Ref. No. | Part No. | Description |
| R001 | 8230 5002 72 | ST, carbon, 1/10W, 2.7kΩ, 5% |
| R002 | 8230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |
| R003 | 8230 5001 04 | ST, carbon, 1/10W, 100kΩ, 5% |
| R004 | 8230 5001 05 | ST, carbon, 1/10W, 1MΩ, 5% |
| R005, 006 | 8230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |
| R007 | 8230 5002 02 | ST, carbon, 1/10W, 2kΩ, 5% |
| R008 | 8230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |
| R009 | 8230 5004 73 | ST, carbon, 1/10W, 47kΩ, 5% |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

| Ref. No. | Part No. | Description |
|-----------|--------------|--|
| C001, 002 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C003 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C004 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C005, 006 | 8232 1461 05 | VT, ALU, 50V, 1 μ F, 20%, SME-VB |
| C007 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C008 | 8233 5105 62 | ST, CER, 50V, 5600pF, 10%, CC20B |
| C009 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C010, 011 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C012~016 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C017, 018 | 8233 5004 70 | ST, CER, 50V, 47pF, 5%, CC20SL |
| C019 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C020 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C021, 022 | 8233 5004 70 | ST, CER, 50V, 47pF, 5%, CC20SL |
| C023, 024 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C025 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C026~033 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C034 | 8233 5002 21 | ST, CER, 50V, 220pF, 5%, CC20SL |
| C035, 036 | 8233 5001 01 | ST, CER, 50V, 100pF, 5%, CC20SL |
| C037 | 8233 5005 60 | ST, CER, 50V, 56pF, 5%, CC20SL |
| C038 | 8233 5003 00 | ST, CER, 50V, 30pF, 5%, CC20SL |
| C039 | 8233 5002 20 | ST, CER, 50V, 22pF, 5%, CC20SL |
| C040~044 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C045, 046 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C047 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C048 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C049, 050 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C051 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C052 | 8233 5021 04 | ST, CER, 50V, 0.1 μ F, +80-20, CC20R |
| C053~058 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C059 | 8232 1431 06 | VT, ALU, 16V, 10 μ F, 20%, SME-VB |
| C060 | 8233 5001 50 | ST, CER, 50V, 15pF, 5%, CC20SL |
| C061 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C062 | 8233 5094 74 | ST, CER, 25V, 0.47 μ F, 20%, KC30E |
| C063 | 8233 5001 50 | ST, CER, 50V, 15pF, 5%, CC20SL |
| C064 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C065 | 8233 5094 74 | ST, CER, 25V, 0.47 μ F, 20%, KC30E |
| C066, 067 | 8233 5004 71 | ST, CER, 50V, 470pF, 5%, CC20SL |
| C068 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C069 | 8233 5002 20 | ST, CER, 50V, 22pF, 5%, CC20SL |
| C070 | 8232 1431 07 | VT, ALU, 16V, 100 μ F, 20%, SME-VB |
| C071, 072 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C073~075 | | N/A |
| C076~082 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C083 | 8233 5105 62 | ST, CER, 50V, 5600pF, 10%, CC20B |
| C084 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C085, 086 | 8233 5004 70 | ST, CER, 50V, 47pF, 5%, CC20SL |
| C087 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C088, 089 | 8233 5004 71 | ST, CER, 50V, 470pF, 5%, CC20SL |

| Ref. No. | Part No. | Description |
|----------|--------------|--|
| C090 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C091~094 | | N/A |
| C095 | 8233 5002 22 | ST, CER, 50V, 0.0022 μ F, 5%, CC20SL |

MISCELLANEOUS

| Ref. No. | Part No. | Description |
|-----------|--------------|---------------------------------------|
| J001 | 8245 2720 25 | Connector, PI, jack, FPC, 25P |
| J002 | | N/A |
| J003~006 | 8245 3000 00 | Connector, jack, BNC, 01K0083 |
| J007 | 8245 2680 02 | Connector, PL, jack, XLR31, NC3FAH2 |
| J008 | 8245 2670 02 | Connector, PL, jack, XLR31, NC3MAH |
| L001 | 8242 1860 13 | Filter, T, EMI, LFW7B-M3R2T |
| L002~006 | 8242 1962 23 | Coil, PVT, 22 μ H, 5%, LF5.0F |
| L007 | 8242 1350 01 | Coil, 50 μ H, SKP-2-30 |
| L008~010 | 8242 1860 13 | Filter, T, EMI, LFW7B-M3R2T |
| S001, 002 | 8253 6550 04 | SW, slide, 1-2, non shortening, SSSF1 |
| TP001~003 | | N/A |

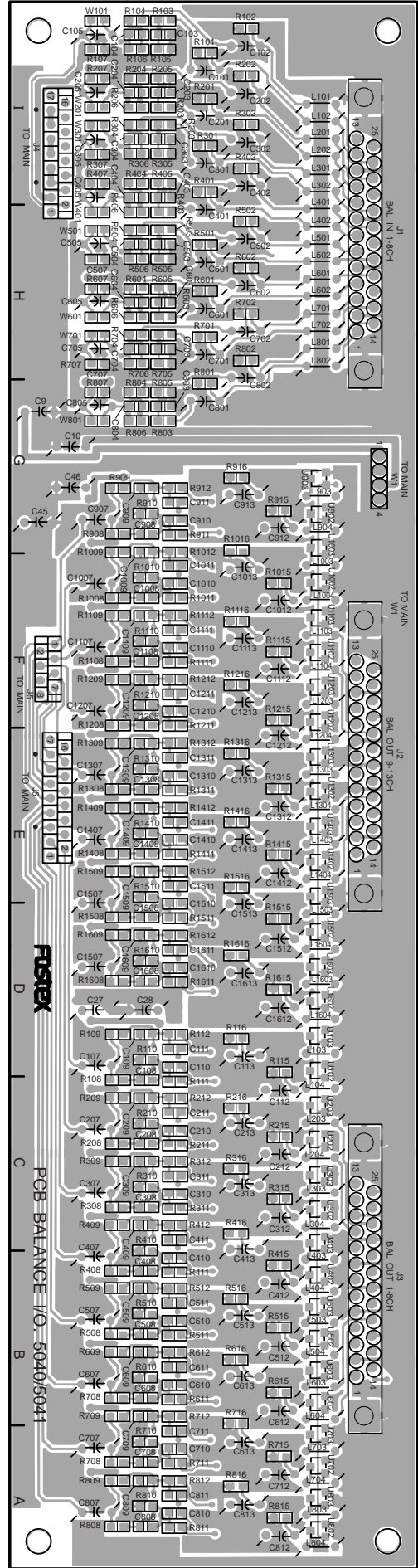
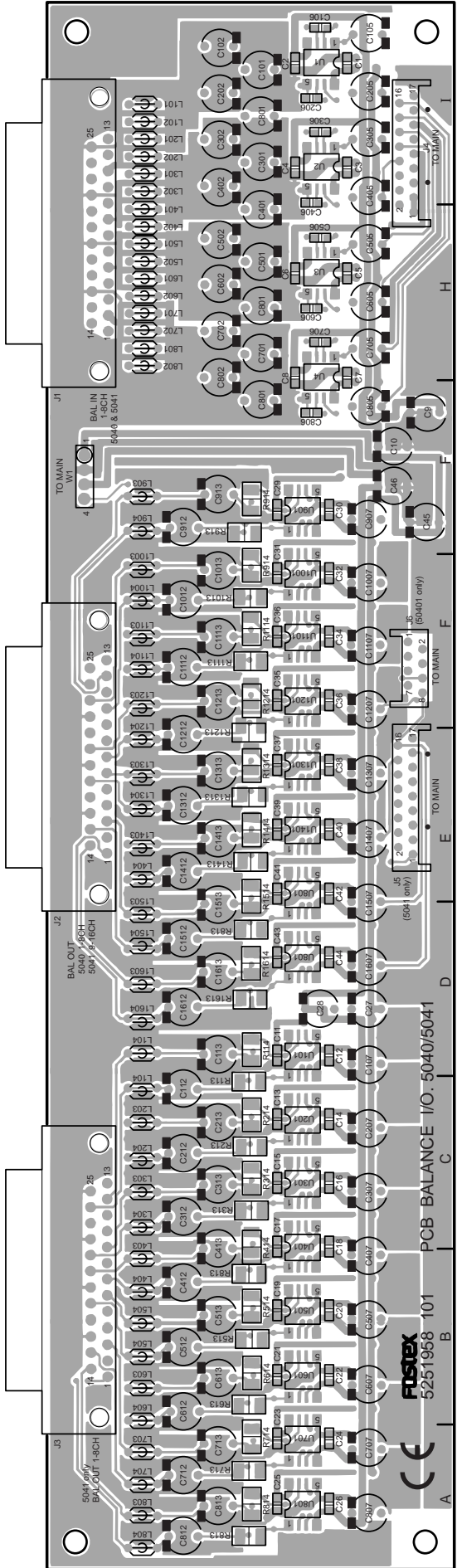
ACCESSORIES

| Ref. No. | Part No. | Description |
|----------|--------------|-----------------------------|
| Y101 | 8221 2150 00 | Bracket, 8345 |
| Y102 | 8288 4010 00 | Owner's manual, 8345, multi |
| Y103 | 8216 6510 00 | Shield, EMI, 8345 |
| Y104 | 8218 7610 00 | Label, TC IN, 8345 |
| W101 | 8276 8404 30 | Cable, flat, FFC, 25P, L300 |

● Abbreviation

| | |
|------|----------------------|
| S: | Surface mount |
| P: | Penetrate mount |
| T: | Taping device |
| F: | Forming device |
| L: | L form |
| I: | I form |
| V: | Vertical mount |
| QFP: | Quad Flat Package |
| DIP: | Dual In-line Package |
| 220: | TO-220 type |
| DG: | Digital |
| AN: | Analog |

● MODEL 5042/5043 PCB ASSEMBLIES



● 5043 Parts List

• BALANCE I/O PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|------------------------------|
| | N/A | PCB assy, Balance I/O, 5040 |
| B101 | 8251 9581 01 | Plain PCB, Balance I/O, 5040 |

ICs

| Ref. No. | Part No. | Description |
|------------|--------------|--------------------------|
| U0001~0004 | 8236 5412 00 | ST, AN, op amp, NJM4565M |
| U0101~1601 | 8236 5031 00 | ST, AN, op amp, NJM4580E |
| U0102~1602 | 8236 5702 01 | ST, DG, driver, DTC314TK |
| U0103~1603 | 8236 5702 01 | ST, DG, driver, DTC314TK |

RESISTORS

| Ref. No. | Part No. | Description |
|------------|--------------|---------------------------------------|
| R0101~0801 | 8230 5001 04 | ST, carbon, 1/10W, 100k Ω , 5% |
| R0102~0802 | 8230 5001 04 | ST, carbon, 1/10W, 100k Ω , 5% |
| R0103~0803 | 8230 5002 23 | ST, carbon, 1/10W, 22k Ω , 5% |
| R0104~0804 | 8230 5002 23 | ST, carbon, 1/10W, 22k Ω , 5% |
| R0105~0805 | 8230 5005 62 | ST, carbon, 1/10W, 5.6k Ω , 5% |
| R0106~0806 | 8230 5005 62 | ST, carbon, 1/10W, 5.6k Ω , 5% |
| R0107~0807 | | N/A |
| R0108~1608 | 8230 5004 72 | ST, carbon, 1/10W, 4.7k Ω , 5% |
| R0109~1609 | 8230 5004 72 | ST, carbon, 1/10W, 4.7k Ω , 5% |
| R0110~1610 | 8230 5001 03 | ST, carbon, 1/10W, 10k Ω , 5% |
| R0111~1611 | 8230 5009 12 | ST, carbon, 1/10W, 9.1k Ω , 5% |
| R0112~1612 | 8230 5009 12 | ST, carbon, 1/10W, 9.1k Ω , 5% |
| R0113~1613 | 8230 5021 01 | ST, carbon, 1/4W, 100 Ω , 5% |
| R0114~1614 | 8230 5021 01 | ST, carbon, 1/4W, 100 Ω , 5% |
| R0115~1615 | 8230 5001 04 | ST, carbon, 1/10W, 100k Ω , 5% |
| R0116~1616 | 8230 5001 04 | ST, carbon, 1/10W, 100k Ω , 5% |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

PES = Mylar type

| Ref. No. | Part No. | Description |
|-------------|--------------|--|
| C0001~0008 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C0009, 0010 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C0011~0026 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C0027, 0028 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C0029~0044 | 8233 5041 03 | ST, CER, 25V, 0.01 μ F, 10%, CC20R |
| C0045, 0046 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C0101~0801 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C0102~0802 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C0103~0803 | 8233 5004 70 | ST, CER, 50V, 47pF, 5%, CC20SL |
| C0104~0804 | 8233 5004 70 | ST, CER, 50V, 47pF, 5%, CC20SL |
| C0105~0805 | | N/A |
| C0106~0806 | | N/A |
| C0107~1607 | 8232 1434 76 | VT, ALU, 16V, 47 μ F, 20%, SME-VB |
| C0108~1608 | | N/A |
| C0109~1609 | | N/A |
| C0110~1610 | 8233 5001 01 | ST, CER, 50V, 100pF, 5%, CC20SL |

| Ref. No. | Part No. | Description |
|------------|--------------|--|
| C0111~1611 | 8233 5001 01 | ST, CER, 50V, 100pF, 5%, CC20SL |
| C0112~1612 | 8232 1422 27 | VT, ALU, 10V, 220 μ F, 20%, SME-VB |
| C0113~1613 | 8232 1422 27 | VT, ALU, 10V, 220 μ F, 20%, SME-VB |

MISCELLANEOUS

| Ref. No. | Part No. | Description |
|-------------|--------------|--|
| J0001~0003 | 8245 3120 05 | Connector, PL, jack, D-SUB, 25P, 70057-025, EMIFIL |
| J0004, 0005 | 8245 2720 17 | Connector, PI, jack, FPC, 17P |
| L0101~0801 | | N/A |
| L0102~0802 | | N/A |
| L0103~1603 | | N/A |
| L0104~1604 | | N/A |
| W0001 | 8276 7280 30 | Cable assy, 4P, 8263WHT-5395, #22, L300 |
| W0002~0007 | | N/A |
| W0101~0801 | 8230 5000 00 | Resistor, ST, carbon, 1/10W, 0 Ω |

ACCESSORIES

| Ref. No. | Part No. | Description |
|----------|--------------|----------------------------------|
| Y103 | 8288 3941 00 | Owner's manual, 5040/5041, multi |
| W001 | 8276 8387 25 | Cable, flat, FFC, 8P, L250 |
| W002 | 8276 8396 15 | Cable, flat, FFC, 17P, L150 |

● 5042 Parts List

• BALANCE I/O PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|------------------------------|
| | N/A | PCB assy, Balance I/O, 5040 |
| B101 | 8251 9581 01 | Plain PCB, Balance I/O, 5040 |

ICs

| Ref. No. | Part No. | Description |
|------------|--------------|--------------------------|
| U0001~0004 | 8236 5412 00 | ST, AN, op amp, NJM4565M |
| U0101~0801 | | N/A |
| U0102~0802 | | N/A |
| U0103~0803 | | N/A |
| U0901~1601 | 8236 5031 00 | ST, AN, op amp, NJM4580E |
| U0902~1602 | 8236 5702 01 | ST, DG, driver, DTC314TK |
| U0903~1603 | 8236 5702 01 | ST, DG, driver, DTC314TK |

RESISTORS

| Ref. No. | Part No. | Description |
|------------|--------------|---------------------------------------|
| R0101~0801 | 8230 5001 04 | ST, carbon, 1/10W, 100k Ω , 5% |
| R0102~0802 | 8230 5001 04 | ST, carbon, 1/10W, 100k Ω , 5% |
| R0103~0803 | 8230 5002 23 | ST, carbon, 1/10W, 22k Ω , 5% |

| Ref. No. | Part No. | Description |
|------------|--------------|------------------------------|
| R0104~0804 | 8230 5002 23 | ST, carbon, 1/10W, 22kΩ, 5% |
| R0105~0805 | 8230 5005 62 | ST, carbon, 1/10W, 5.6kΩ, 5% |
| R0106~0806 | 8230 5005 62 | ST, carbon, 1/10W, 5.6kΩ, 5% |
| R0107~0807 | | N/A |
| R0108~0808 | | N/A |
| R0109~0809 | | N/A |
| R0110~0810 | | N/A |
| R0111~0811 | | N/A |
| R0112~0812 | | N/A |
| R0113~0813 | | N/A |
| R0114~0814 | | N/A |
| R0115~0815 | | N/A |
| R0116~0816 | | N/A |
| R0908~1608 | 8230 5004 72 | ST, carbon, 1/10W, 4.7kΩ, 5% |
| R0909~1609 | 8230 5004 72 | ST, carbon, 1/10W, 4.7kΩ, 5% |
| R0910~1610 | 8230 5001 03 | ST, carbon, 1/10W, 10kΩ, 5% |
| R0911~1611 | 8230 5009 12 | ST, carbon, 1/10W, 9.1kΩ, 5% |
| R0912~1612 | 8230 5009 12 | ST, carbon, 1/10W, 9.1kΩ, 5% |
| R0913~1613 | 8230 5021 01 | ST, carbon, 1/4W, 100Ω, 5% |
| R0914~1614 | 8230 5021 01 | ST, carbon, 1/4W, 100Ω, 5% |
| R0915~1615 | 8230 5001 04 | ST, carbon, 1/10W, 100kΩ, 5% |
| R0916~1616 | 8230 5001 04 | ST, carbon, 1/10W, 100kΩ, 5% |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

| Ref. No. | Part No. | Description |
|-------------|--------------|-------------------------------------|
| C0001~0008 | 8233 5041 03 | ST, CER, 25V, 0.01μF, 10%, CC20R |
| C0009, 0010 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB |
| C0011~0026 | | N/A |
| C0027, 0028 | | N/A |
| C0029~0044 | 8233 5041 03 | ST, CER, 25V, 0.01μF, 10%, CC20R |
| C0045, 0046 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB |
| C0101~0801 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB |
| C0102~0802 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB |
| C0103~0803 | 8233 5004 70 | ST, CER, 50V, 47pF, 5%, CC20SL |
| C0104~0804 | 8233 5004 70 | ST, CER, 50V, 47pF, 5%, CC20SL |
| C0105~0805 | | N/A |
| C0106~0806 | | N/A |
| C0107~0807 | | N/A |
| C0108~0808 | | N/A |
| C0109~0809 | | N/A |
| C0110~0810 | | N/A |
| C0111~0811 | | N/A |
| C0112~0812 | | N/A |
| C0113~0813 | | N/A |
| C0907~1607 | 8232 1434 76 | VT, ALU, 16V, 47μF, 20%, SME-VB |
| C0108~1608 | | N/A |
| C0109~1609 | | N/A |
| C0910~1610 | 8233 5001 01 | ST, CER, 50V, 100pF, 5%, CC20SL |
| C0911~1611 | 8233 5001 01 | ST, CER, 50V, 100pF, 5%, CC20SL |

| Ref. No. | Part No. | Description |
|------------|--------------|----------------------------------|
| C0912~1612 | 8232 1422 27 | VT, ALU, 10V, 220μF, 20%, SME-VB |
| C0913~1613 | 8232 1422 27 | VT, ALU, 10V, 220μF, 20%, SME-VB |
| C0110~1610 | 8233 5001 01 | ST, CER, 50V, 100pF, 5%, CC20SL |
| C0111~1611 | 8233 5001 01 | ST, CER, 50V, 100pF, 5%, CC20SL |
| C0112~1612 | 8232 1422 27 | VT, ALU, 10V, 220μF, 20%, SME-VB |
| C0113~1613 | 8232 1422 27 | VT, ALU, 10V, 220μF, 20%, SME-VB |

MISCELLANEOUS

| Ref. No. | Part No. | Description |
|-------------|--------------|---|
| J0001, 0002 | 8245 3120 05 | Connector, PL, jack, D-SUB, 25P, 70057-025, EMIFIL |
| J0003 | | N/A |
| J0004 | 8245 2720 17 | Connector, PI, jack, FPC, 17P |
| J0005 | 8245 2720 08 | Connector, PI, jack, FPC, 8P |
| L0101~0801 | | N/A |
| L0102~0802 | | N/A |
| L0103~1603 | | N/A |
| L0104~1604 | | N/A |
| W0001 | 8276 7280 30 | Cable assy, 4P, 8263WHT-5395, #22, L300 |
| W0002~0007 | | N/A |
| W0101~0801 | 8230 5000 00 | Resistor, ST, carbon, 1/10W, 0Ω |

ACCESSORIES

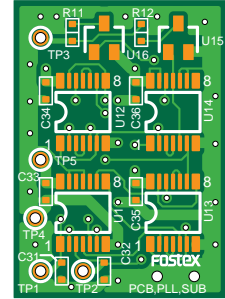
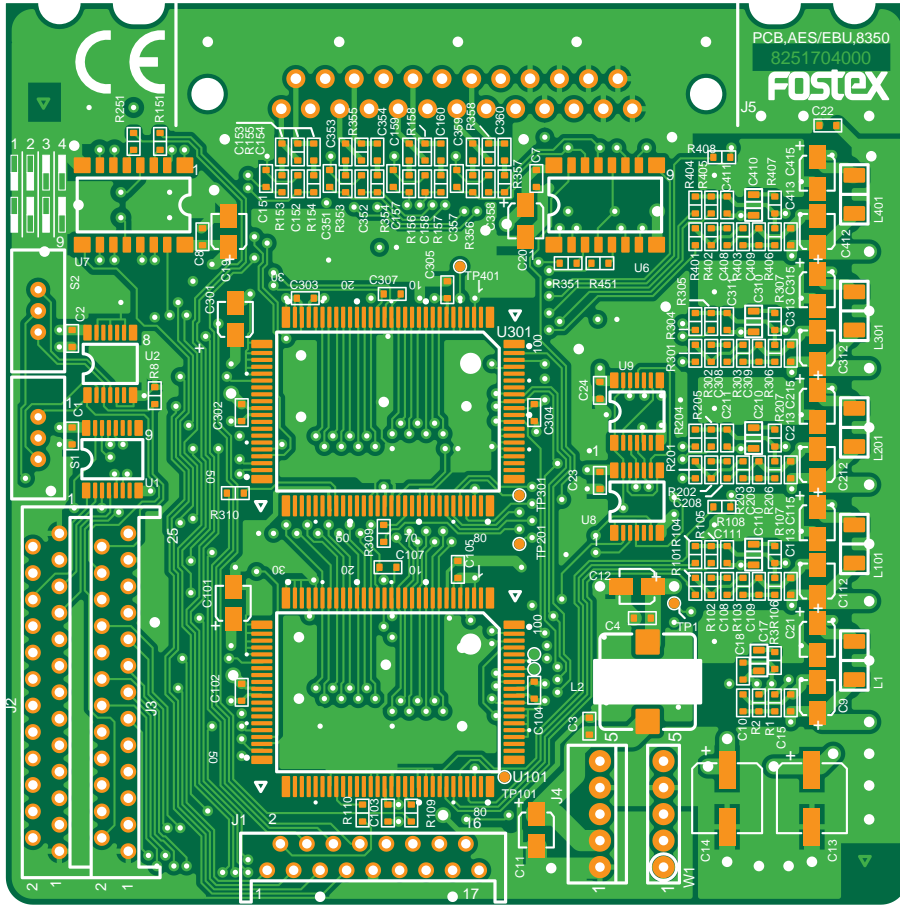
| Ref. No. | Part No. | Description |
|----------|--------------|----------------------------------|
| Y102 | 8221 2060 00 | Bracket, B, 5041 |
| Y103 | 8288 3941 00 | Owner's manual, 5040/5041, multi |
| Y209 | 8221 2091 00 | Panel, blank, S |
| W001 | 8276 8387 25 | Cable, flat, FFC, 8P, L250 |
| W002 | 8276 8396 15 | Cable, flat, FFC, 17P, L150 |

● **Abbreviation**

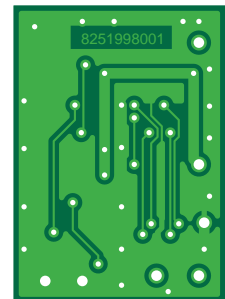
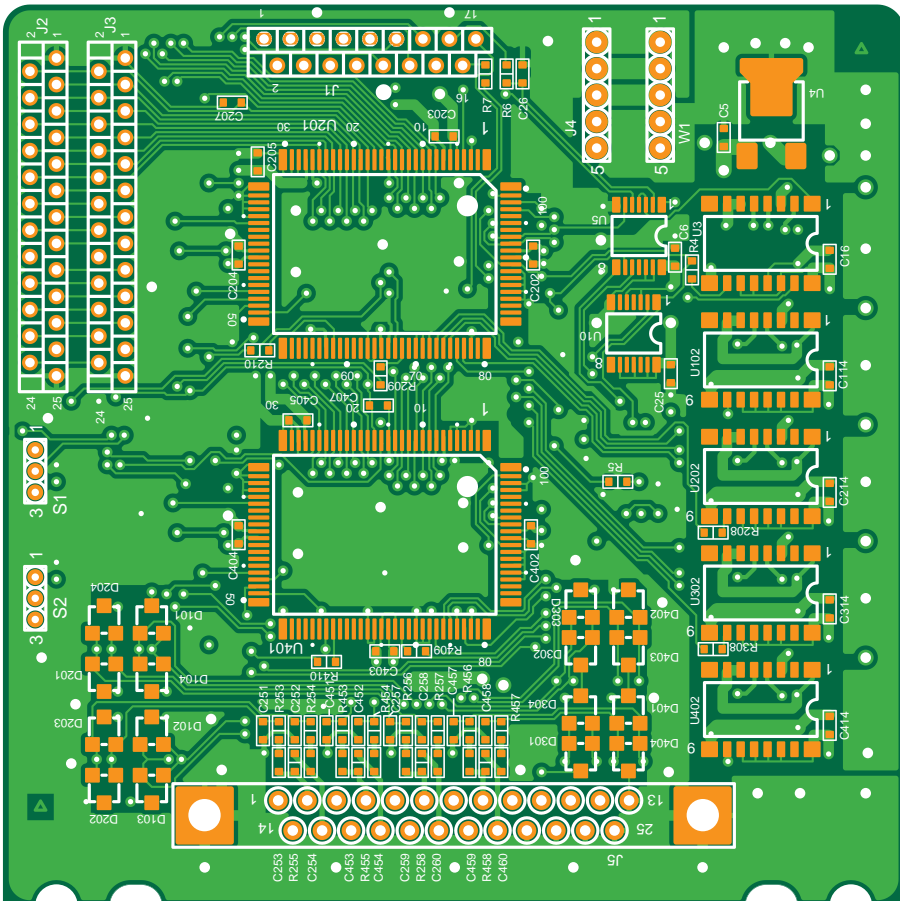
- S: Surface mount
- P: Penetrate mount
- T: Taping device
- F: Forming device
- L: L form
- I: I form
- V: Vertical mount
- DG: Digital
- AN: Analog

● MODEL 8350 PCB ASSEMBLIES

• Parts side of AES/EBU & PLL PCB assys



• Foil side of AES/EBU & PLL PCB assys



● 8350 Parts List

• AES/EBU PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|--------------------------|
| | N/A | PCB assy, AES/EBU, 8350 |
| B101 | 8251 7040 00 | Plain PCB, AES/EBU, 8350 |

ICs

| Ref. No. | Part No. | Description |
|-----------|--------------|-------------------------------|
| U001 | 8236 5451 38 | ST, TSSOP, 74VHC138 |
| U002 | 8236 5450 04 | ST, TSSOP, 74VHC04 |
| U003 | 8236 5034 00 | ST, DG, VCO, TC9246F |
| U004 | 8236 5403 01 | ST, AN, regulator, L78M05T-TL |
| U005 | 8236 5450 32 | ST, TSSOP, 74VHC32 |
| U006, 007 | 8236 5426 00 | ST, transceiver, SN75C1168NSR |
| U008, 009 | 8236 5450 74 | ST, TSSOP, 74VHC74 |
| U010 | 8236 5459 04 | ST, TSSOP, 74VHCU04 |
| U101~401 | 8236 0850 00 | QFP, DG, gate array, DIF |
| U102~402 | 8236 5034 00 | ST, DG, VCO, TC9246F |

DIODES

| Ref. No. | Part No. | Description |
|----------|--------------|-------------|
| D101~401 | 8234 5028 00 | ST, DAN202K |
| D102~402 | 8234 5029 00 | ST, DAP202K |
| D103~403 | 8234 5028 00 | ST, DAN202K |
| D104~404 | 8234 5029 00 | ST, DAP202K |

RESISTORS

| Ref. No. | Part No. | Description |
|----------|--------------|------------------------------|
| R001 | N/A | |
| R002 | 8230 5102 24 | ST, carbon, 1/15W, 220kΩ, 5% |
| R003 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R004 | 8242 5051 02 | Filter, ST, EMI, EXC3BB, 102 |
| R005~007 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R008 | 8230 5104 73 | ST, carbon, 1/15W, 47kΩ, 5% |
| R101~401 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R102~402 | 8230 5103 31 | ST, carbon, 1/15W, 330Ω, 5% |
| R103~403 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R104~404 | 8230 5104 72 | ST, carbon, 1/15W, 4.7kΩ, 5% |
| R105~405 | 8230 5101 03 | ST, carbon, 1/15W, 10kΩ, 5% |
| R106~406 | 8230 5105 62 | ST, carbon, 1/15W, 5.6kΩ, 5% |
| R107~407 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R108~408 | 8230 5101 02 | ST, carbon, 1/15W, 1kΩ, 5% |
| R109~409 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R110~410 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R151~451 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R153~453 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R154~454 | 8230 5101 01 | ST, carbon, 1/15W, 100Ω, 5% |
| R155~455 | 8230 5101 11 | ST, carbon, 1/15W, 110Ω, 5% |
| R156~456 | 8230 5102 20 | ST, carbon, 1/15W, 22Ω, 5% |
| R157~457 | 8230 5102 20 | ST, carbon, 1/15W, 22Ω, 5% |
| R158~458 | 8230 5103 31 | ST, carbon, 1/15W, 330Ω, 5% |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

| Ref. No. | Part No. | Description |
|-----------|--------------|----------------------------------|
| C001, 002 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C003~005 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C006~008 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C009 | 8233 0491 06 | ST, ALU, 16V, 10μF, 20%, MV |
| C010 | 8233 5121 50 | ST, CER, 50V, 15pF, 5%, CC11SL |
| C011, 012 | 8233 0491 06 | ST, ALU, 16V, 10μF, 20%, MV |
| C013, 014 | 8233 3221 07 | ST, ALU, 100μF, 20%, MVY |
| C015, 016 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C017 | 8233 5164 74 | ST, CER, 0.47μF, 20%, KC20E |
| C018 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C019~021 | 8233 0491 06 | ST, ALU, 16V, 10μF, 20%, MV |
| C022 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C023~025 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C026 | 8233 5123 90 | ST, CER, 50V, 39pF, 5%, CC11SL |
| C101, 301 | 8233 0491 06 | ST, ALU, 16V, 10μF, 20%, MV |
| C102~402 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C103~403 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C104~404 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C105~405 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C107~407 | 8233 5131 01 | ST, CER, 50V, 100pF, 10%, CC11R |
| C108~408 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C109~409 | 8233 5121 50 | ST, CER, 50V, 15pF, 5%, CC11SL |
| C110~410 | 8233 5164 74 | ST, CER, 16V, 0.47μF, 20%, KC20E |
| C111~411 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C112~412 | 8233 0491 06 | ST, ALU, 16V, 10μF, 20%, MV |
| C113~413 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C114~414 | 8233 5131 03 | ST, CER, 50V, 0.01μF, 10%, CC11R |
| C115~415 | 8233 0491 06 | ST, ALU, 16V, 10μF, 20%, MV |
| C151~451 | 8233 5124 70 | ST, CER, 50V, 47pF, 5%, CC11SL |
| C152~452 | 8233 5124 70 | ST, CER, 50V, 47pF, 5%, CC11SL |
| C153~453 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C154~454 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C157~457 | 8233 5124 70 | ST, CER, 50V, 47pF, 5%, CC11SL |
| C158~458 | 8233 5124 70 | ST, CER, 50V, 47pF, 5%, CC11SL |
| C159~459 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |
| C160~460 | 8233 5151 04 | ST, CER, 25V, 0.1μF, +80, CC11F |

MISCELLANEOUS

| Ref. No. | Part No. | Description |
|-----------|--------------|--|
| J001 | 8245 2720 17 | Connector, PI, jack, FPC, 17P |
| J002, 003 | 8245 2720 25 | Connector, PI, jack, FPC, 25P |
| J004 | 8245 0530 05 | Connector, PI, jack, 8263, 5P, WHT |
| J005 | 8245 3120 05 | Connector, PL, jack, D-SUB, 25P, 70057-025, EMIFIL |
| L001 | 8242 5000 21 | Coil, SVT, 22μH, LEC32 |
| L002 | 8242 5025 60 | Core, ST, CDRH104, 56μH |

| Ref. No. | Part No. | Description |
|-----------|--------------|--|
| L101~401 | 8242 5000 21 | Coil, SVT, 22 μ H, LEC32 |
| S001, 002 | 8253 4570 02 | SW, ST, slide, 1-3, non-shortening, SSSS91, L4 |
| W001 | 8276 7290 30 | Cable assy, 5P, 8263WHT-5395, #22, L300 |

• PLL SUB PCB assy

| Ref. No. | Part No. | Description |
|----------|--------------|--------------------------|
| | N/A | PCB assy, PLL Sub, 8350 |
| B101 | 8251 9980 01 | Plain PCB, PLL Sub, 8350 |

ICs

| Ref. No. | Part No. | Description |
|----------|--------------|--------------------------|
| U011 | 8236 5450 04 | ST, TSSOP, 74VHC04 |
| U012~014 | 8236 5450 00 | ST, TSSOP, 74VHC00 |
| U015 | 8236 5701 01 | ST, DG, driver, DTC114EK |
| U016 | 8236 5704 01 | ST, DG, driver, DTA114EK |

RESISTORS

| Ref. No. | Part No. | Description |
|-----------|--------------|---------------------------------------|
| R011, 012 | 8230 5101 52 | ST, carbon, 1/15W, 1.5k Ω , 5% |
| R012 | 8230 5102 24 | ST, carbon, 1/15W, 220k Ω , 5% |

CAPACITORS

ALU = Electrolytic type

CER = Ceramic type

| Ref. No. | Part No. | Description |
|----------|--------------|--|
| C033~036 | 8233 5131 03 | ST, CER, 50V, 0.01 μ F, 10%, CC11R |

ACCESSORIES

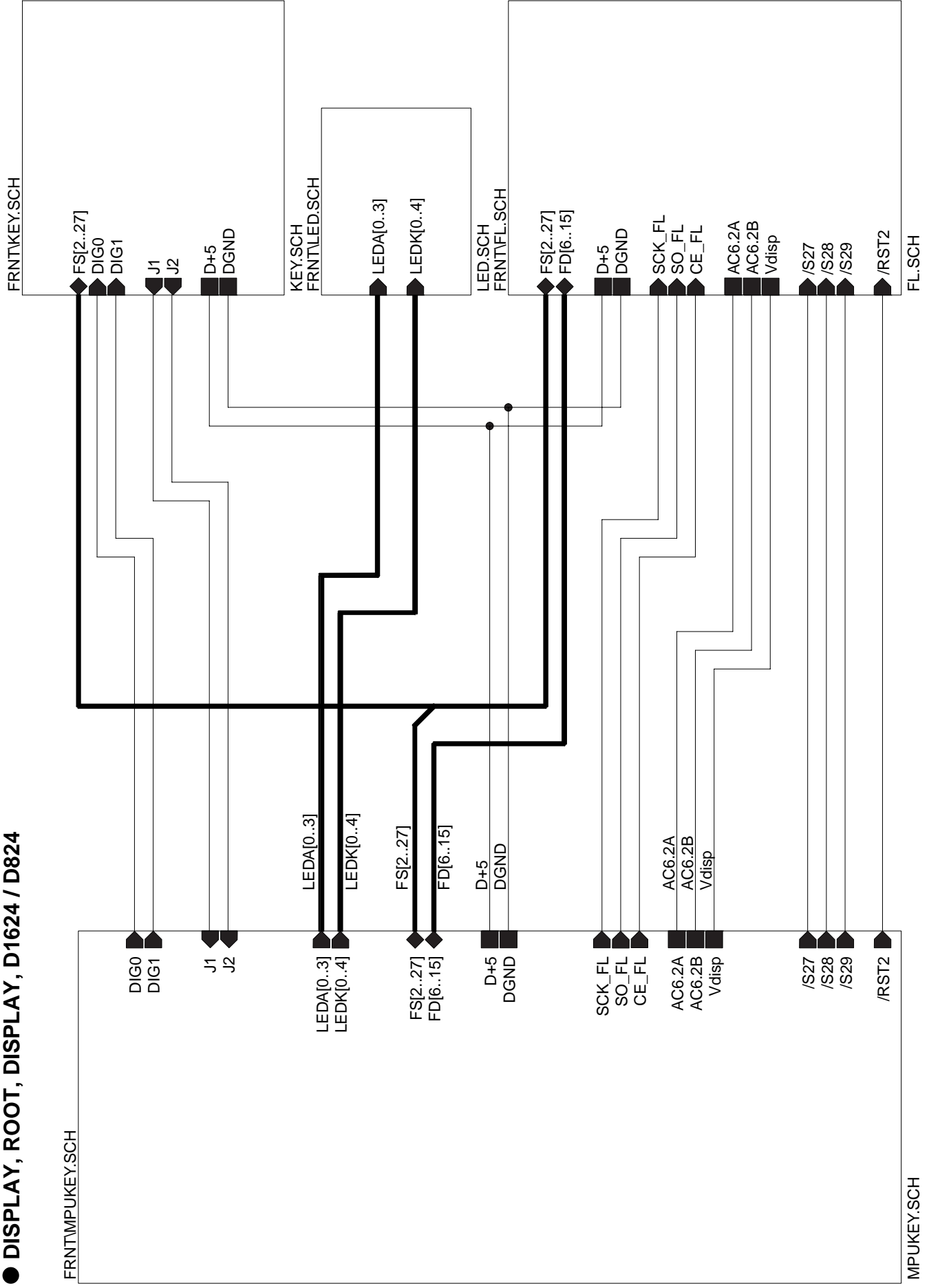
| Ref. No. | Part No. | Description |
|----------|--------------|-----------------------------|
| Y104 | 8221 2091 00 | Panel, blank, S |
| Y105 | 8221 3270 00 | Panel, blank, 8350 |
| Y205 | 8288 4650 00 | Owner's manual, 8350, mlt |
| W101 | 8276 8396 30 | Cable, flat, FFC, 17P, L300 |
| W102 | 8276 8404 20 | Cable, flat, FFC, 25P, L200 |

● Abbreviation

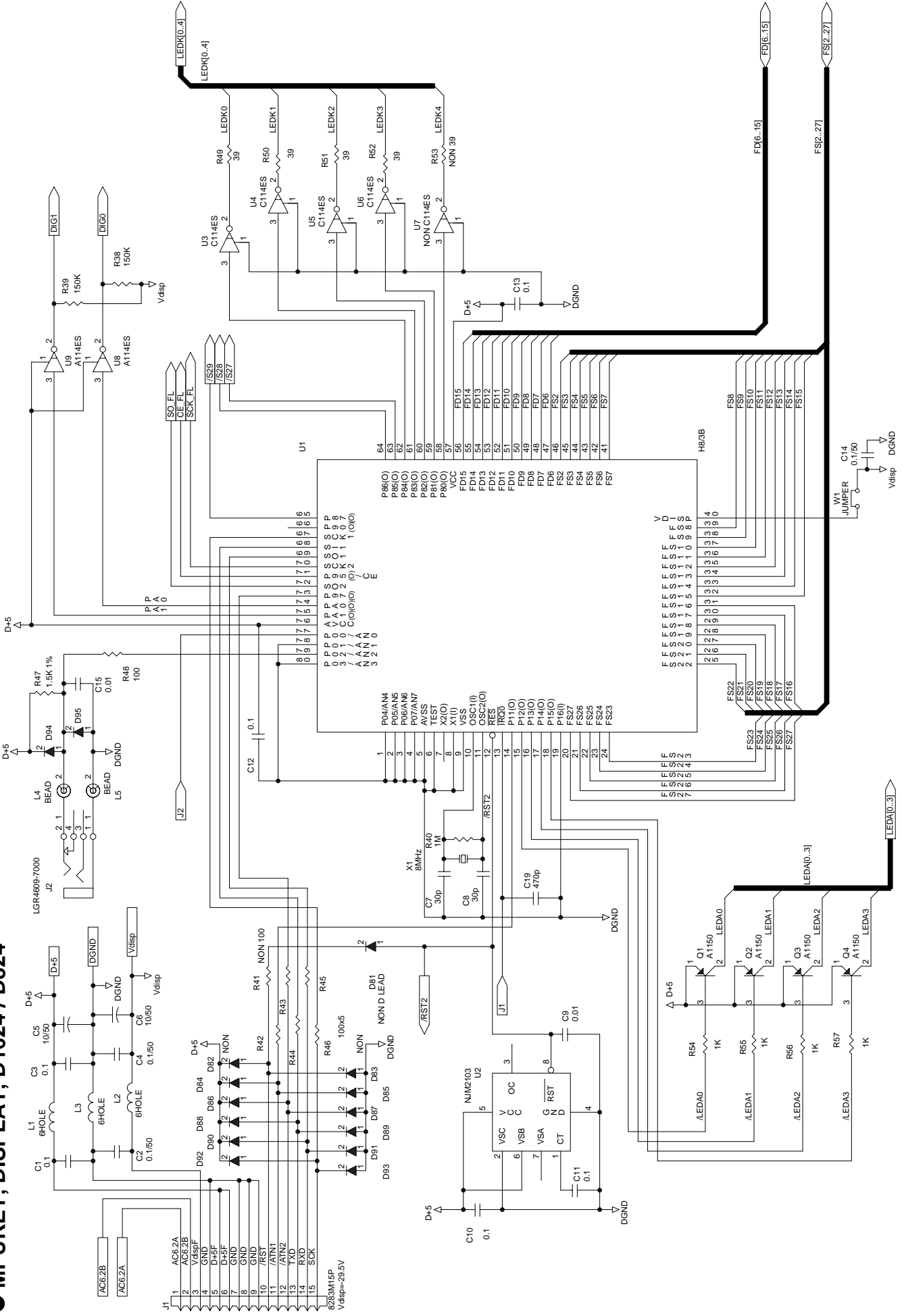
| | |
|-----|-----------------|
| S: | Surface mount |
| P: | Penetrate mount |
| T: | Taping device |
| F: | Forming device |
| L: | L form |
| I: | I form |
| V: | Vertical mount |
| DG: | Digital |
| AN: | Analog |

5. CIRCUIT & BLOCK DIAGRAMS

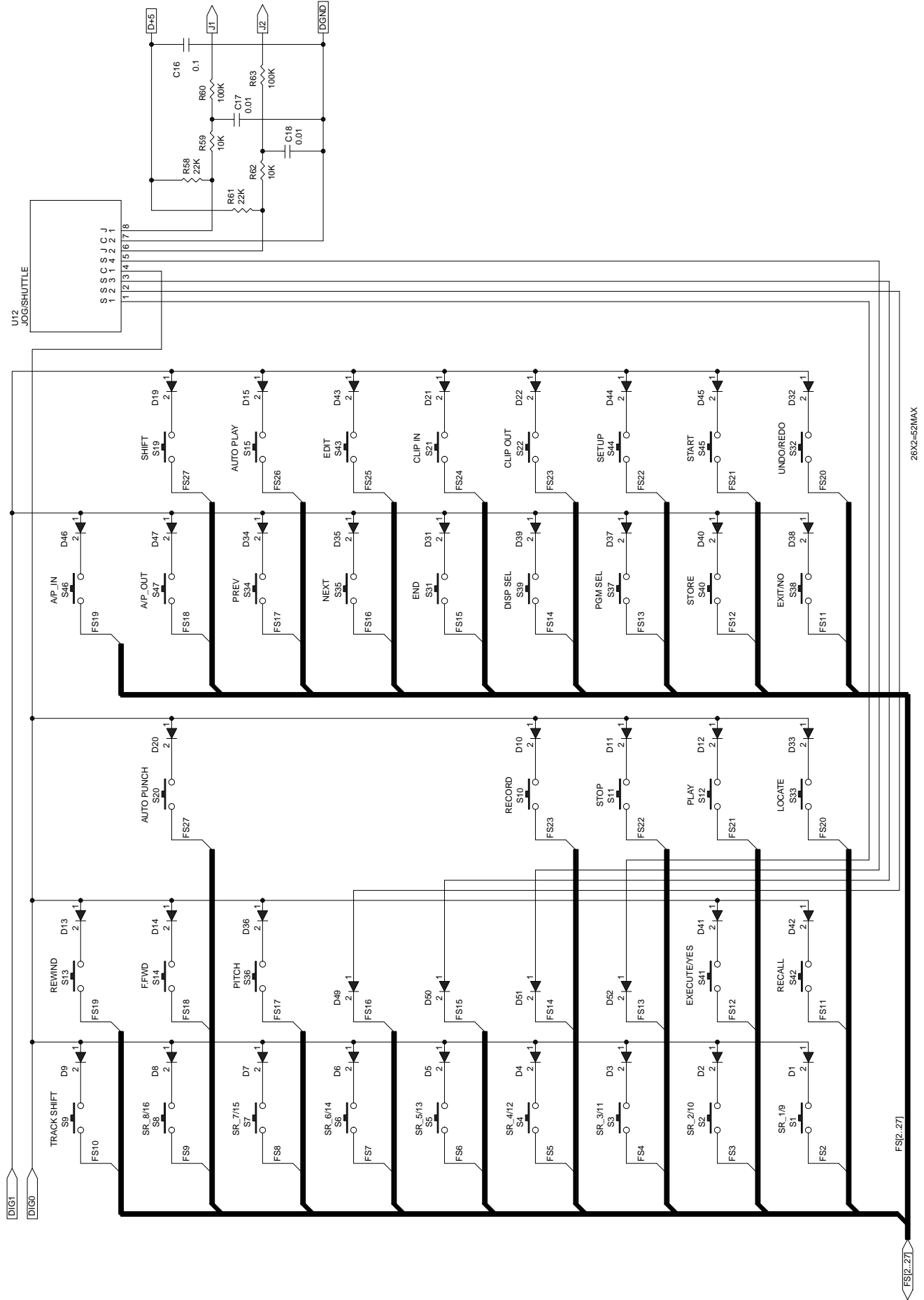
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● MPUKEY, DISPLAY, D1624 / D824



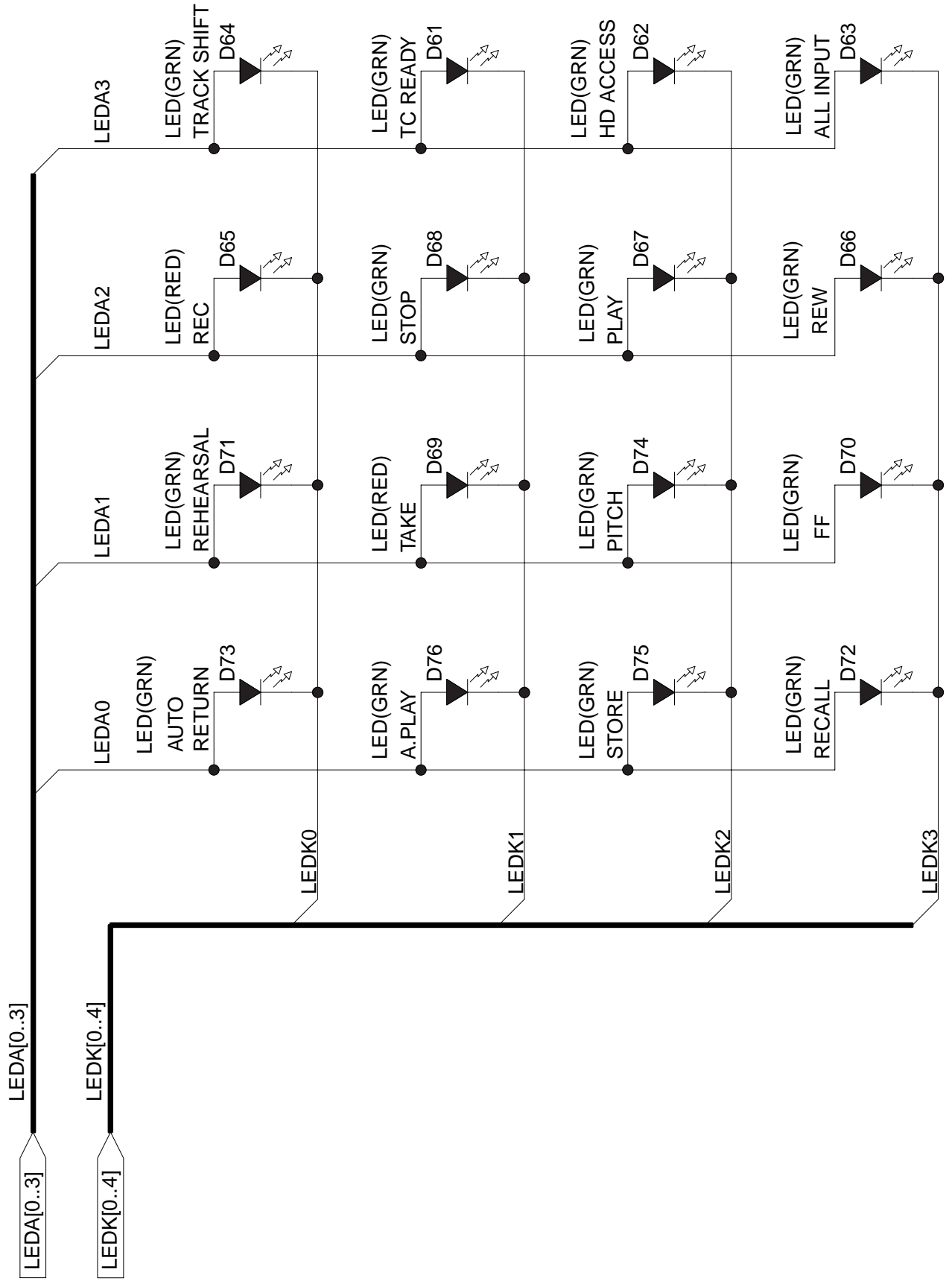
● KEY, DISPLAY, D1624 / D824



26X2=52MAX

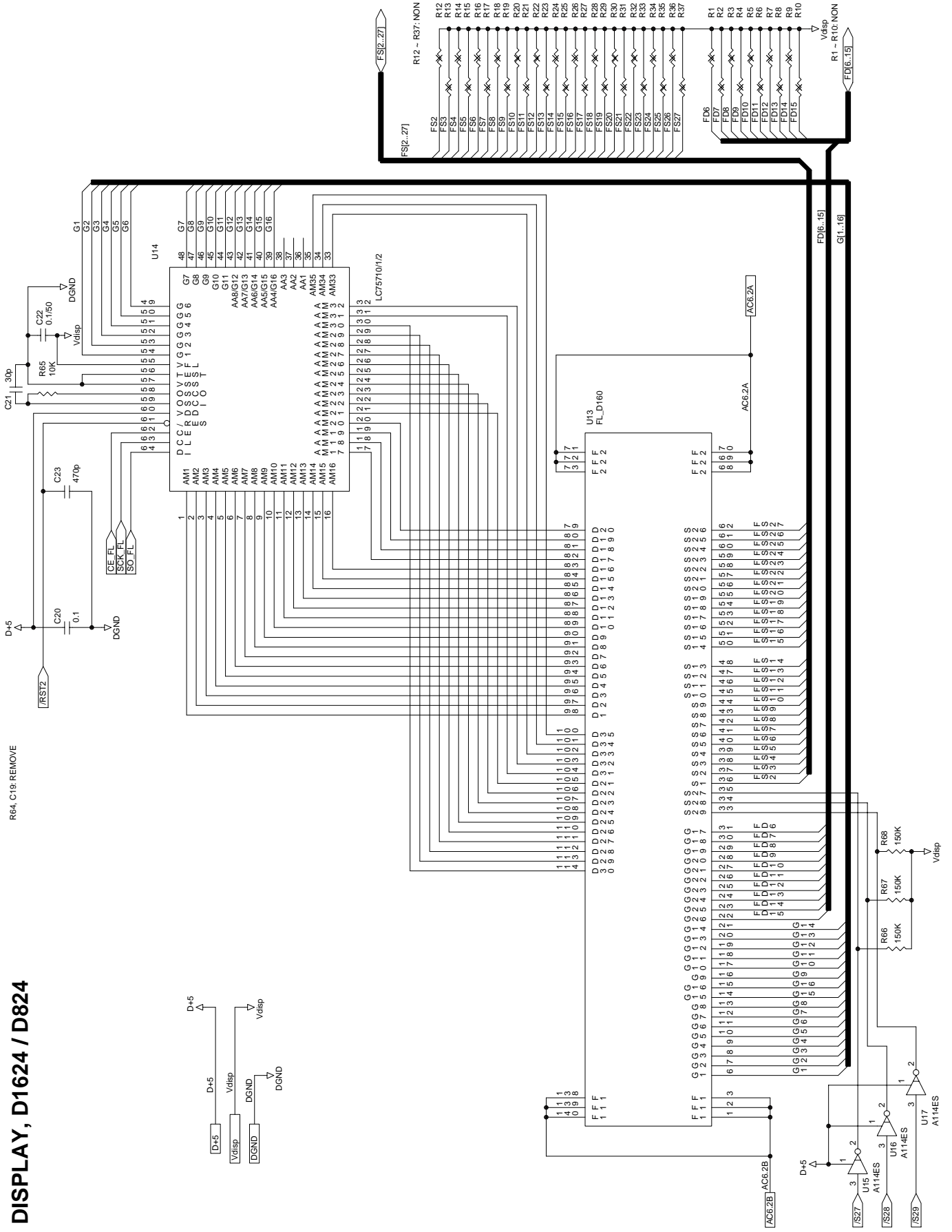
FS12..27

● LED, DISPLAY, D1624 / D824

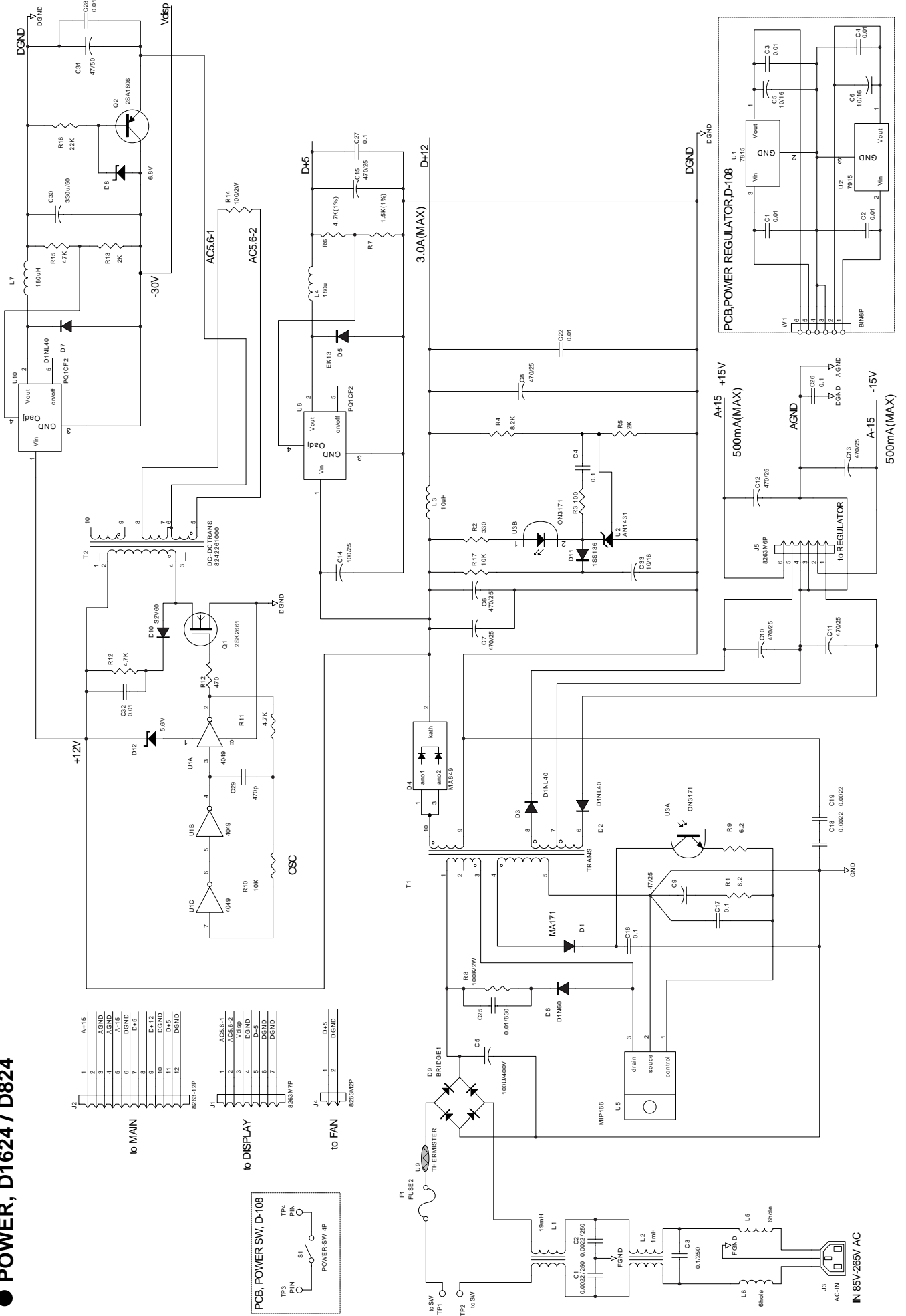


● FL, DISPLAY, D1624 / D824

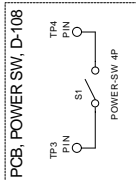
R64, C19: REMOVE



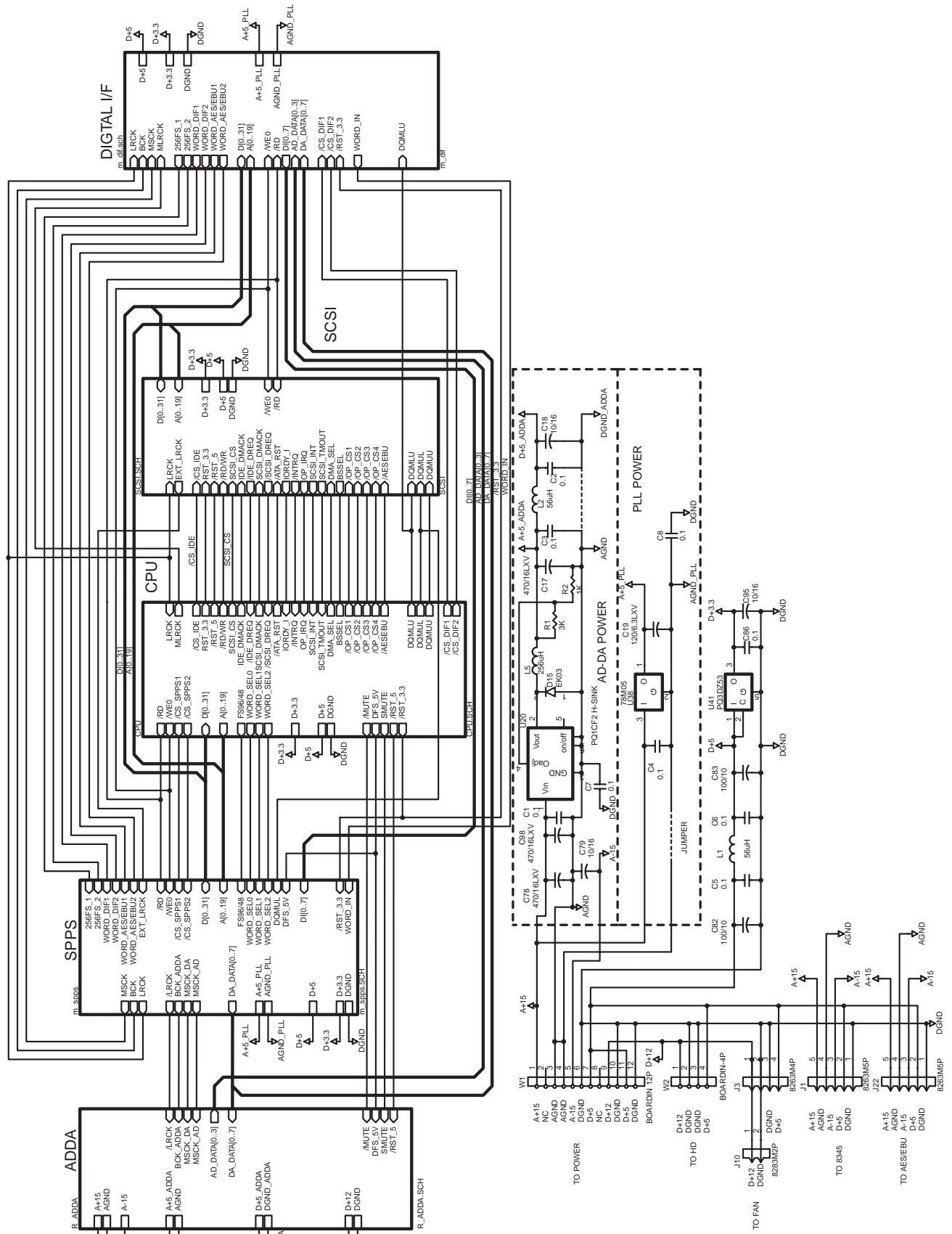
● POWER, D1624 / D824



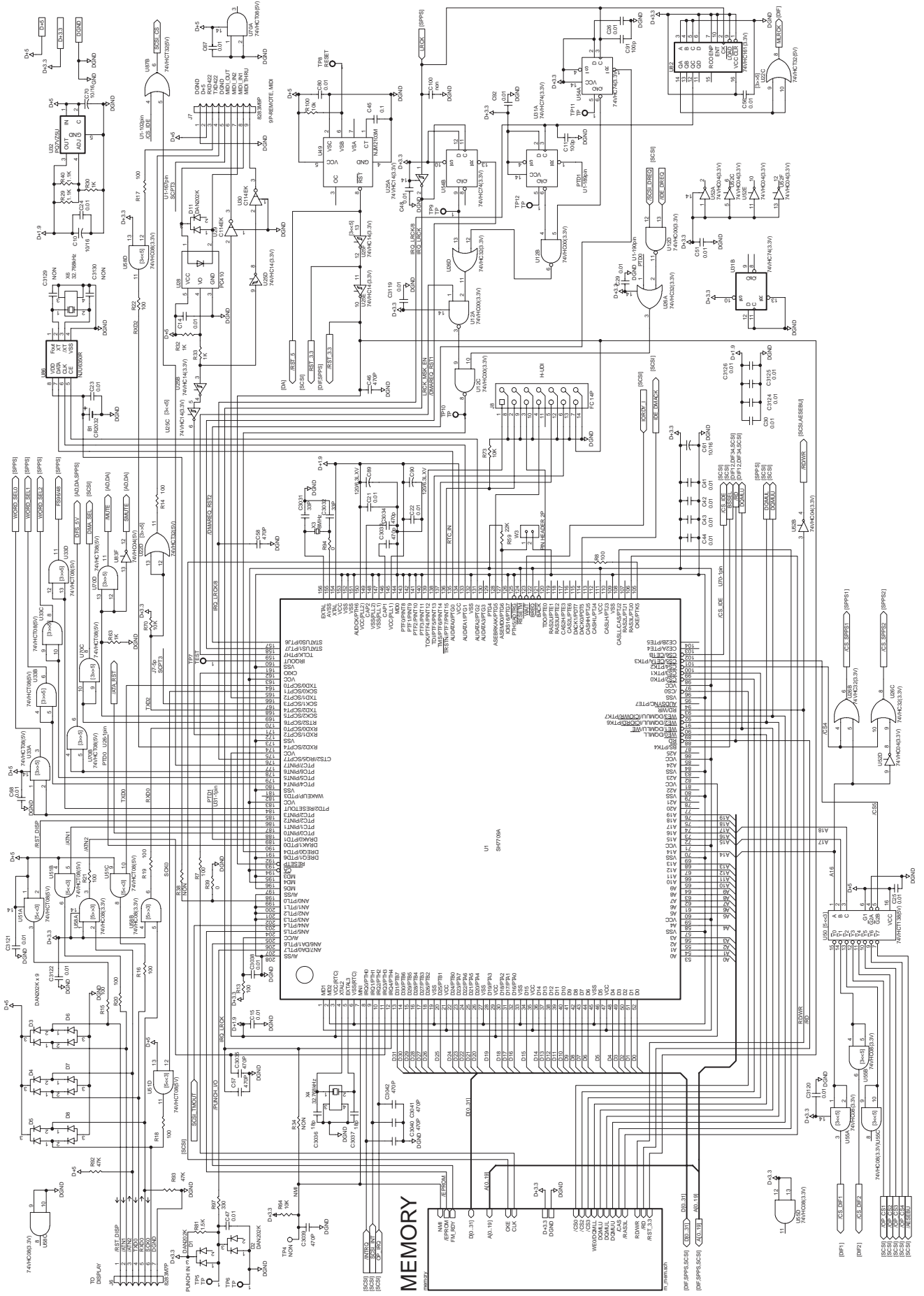
- J2 1 A+15
 - 2 AGND
 - 3 AGND
 - 4 AGND
 - 5 A-15
 - 6 A-15
 - 7 D+5
 - 8 D+5
 - 9 D+12
 - 10 DGND
 - 11 D+5
 - 12 DGND
- to MAIN
- J1 1 ACS5.6-1
 - 2 ACS5.6-2
 - 3 D+5
 - 4 DGND
 - 5 D+5
 - 6 DGND
 - 7 DGND
- to DISPLAY
- J4 1 D+5
 - 2 DGND
- to FAN



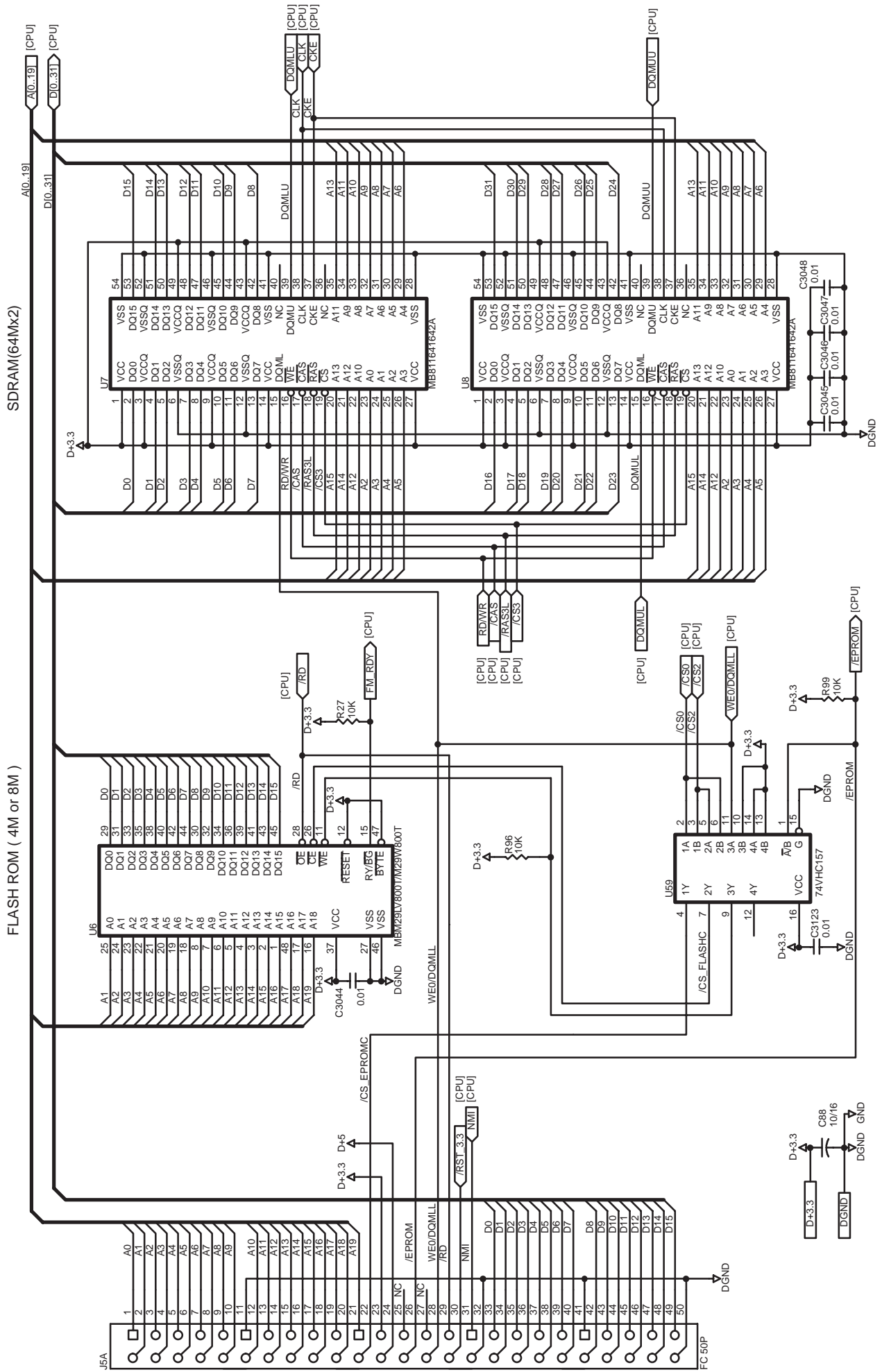
● ROOT, MAIN, D1624 / D824



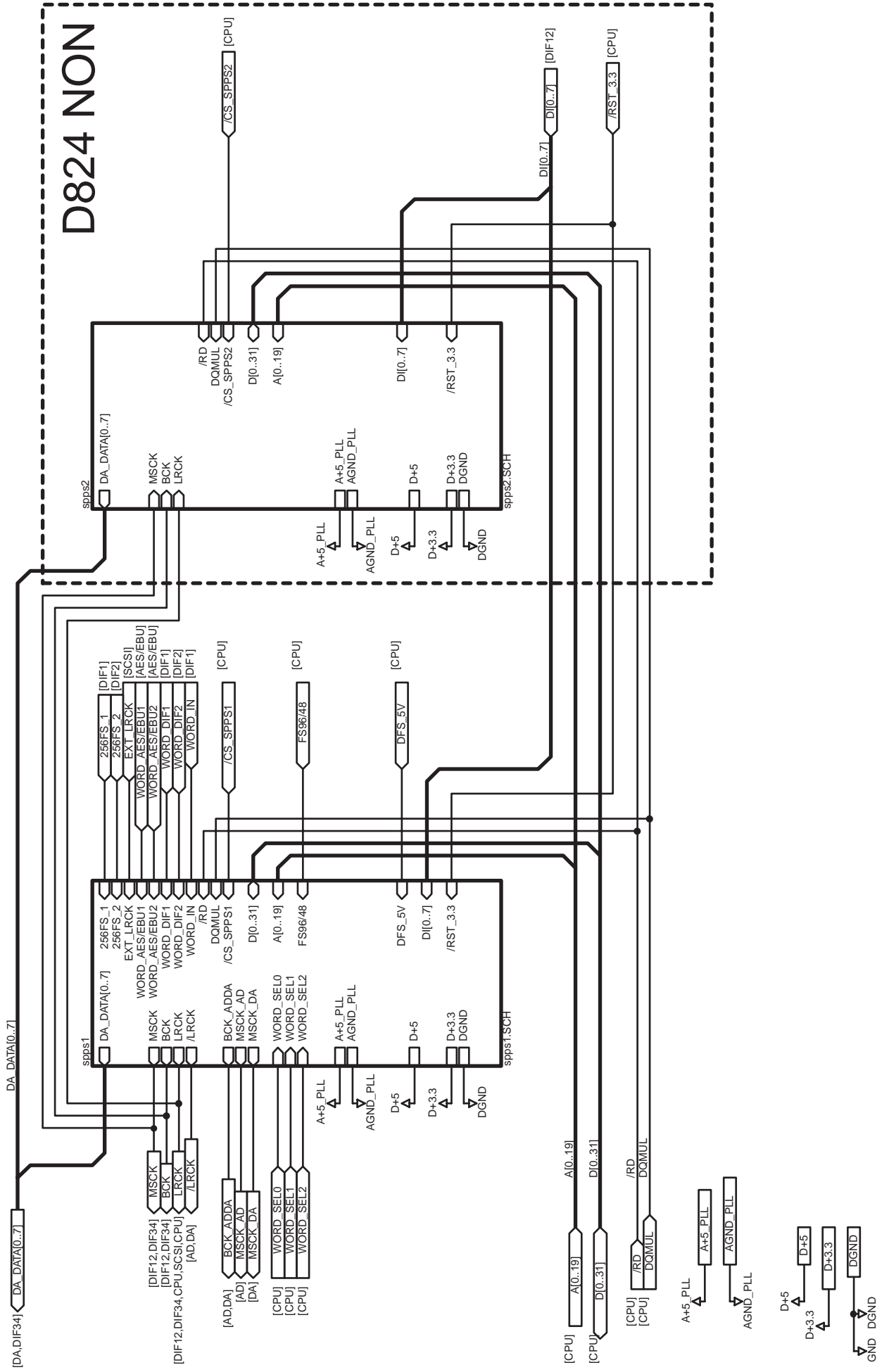
● CPU, MAIN, D1624 / D824



● MEMORY, CPU, MAIN, D1624 / D824

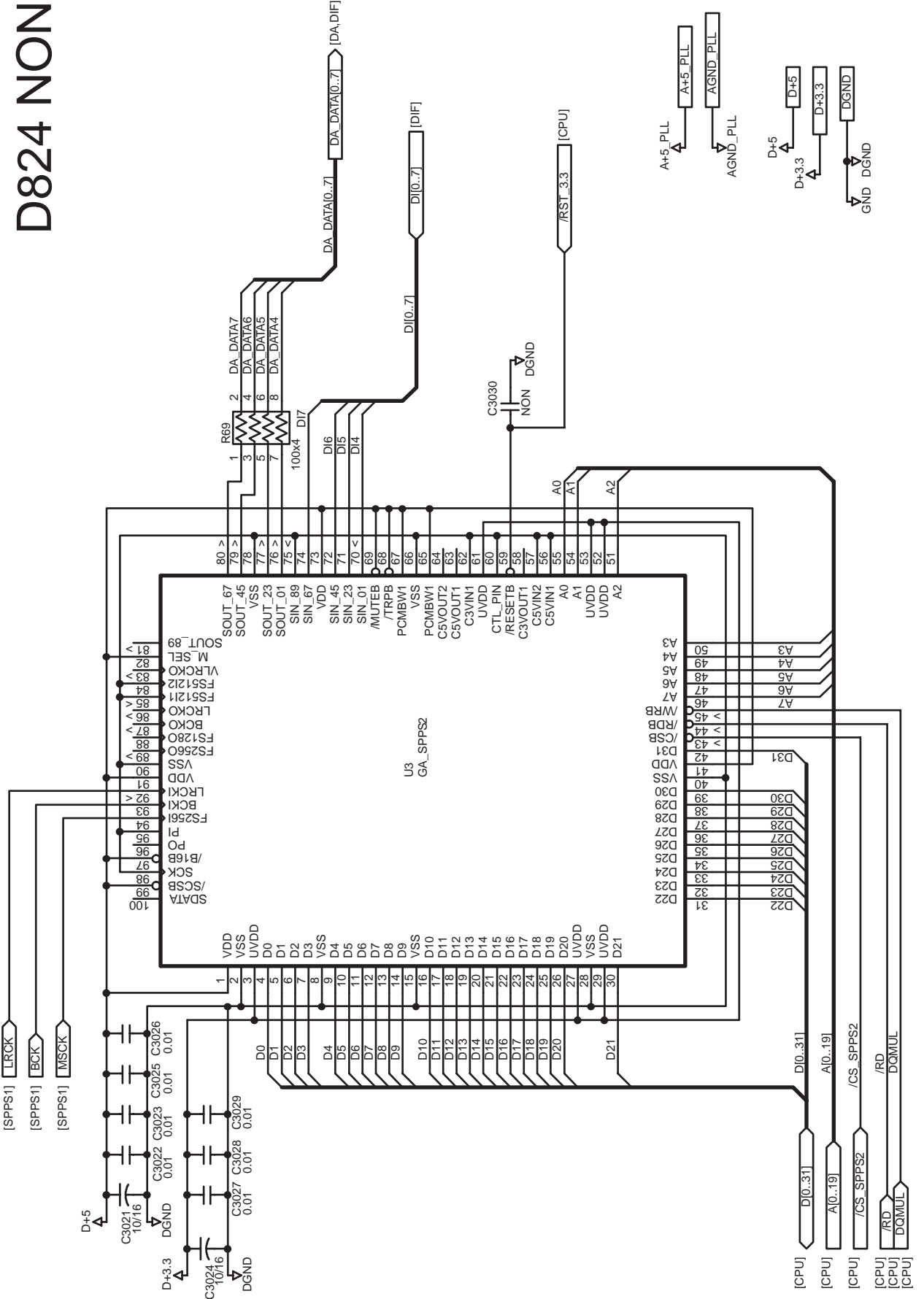


● ROOT, SPPS (Serial-Parallel, Parallel-Serial), MAIN

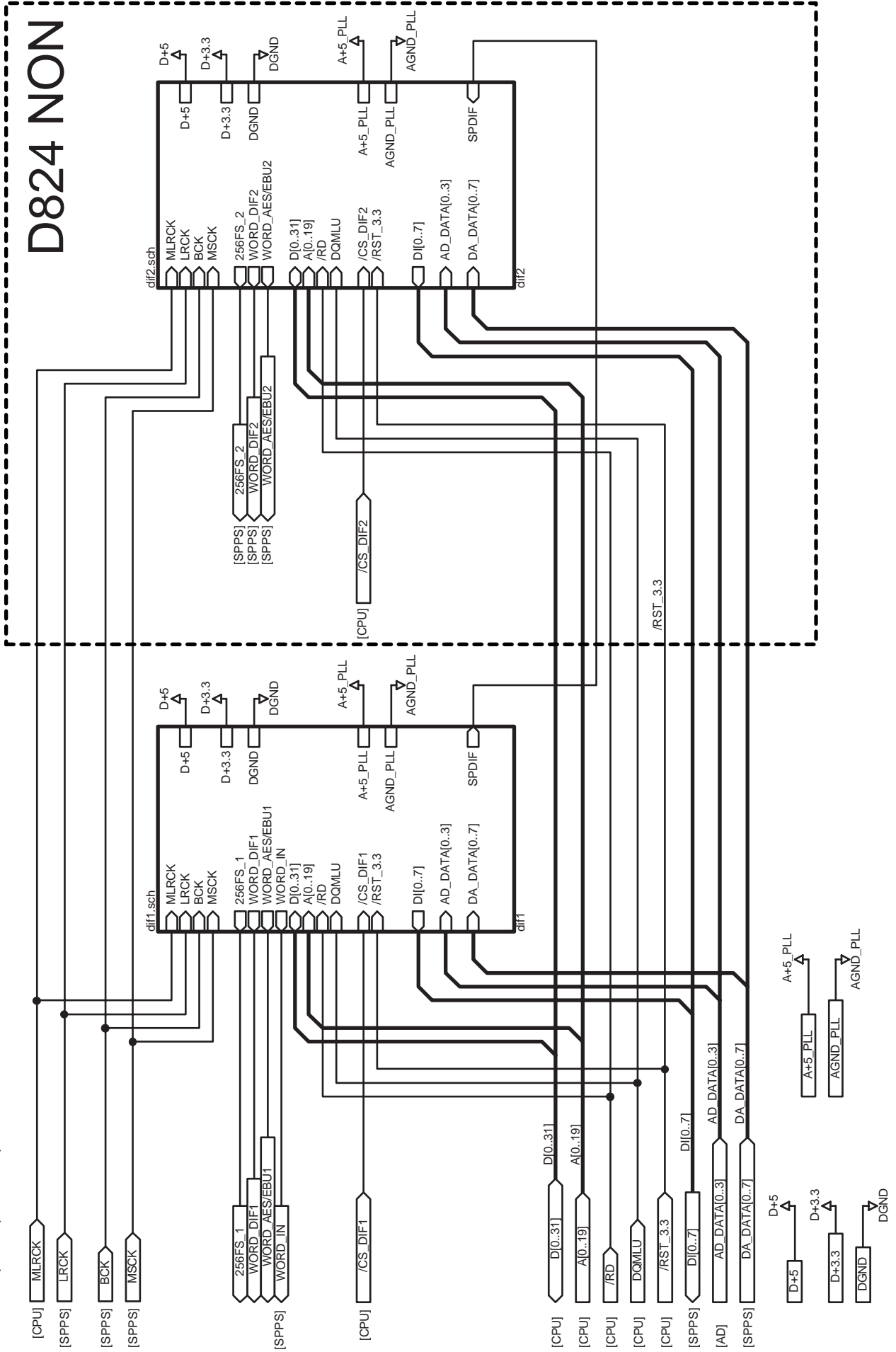


● SPPS2, MAIN, D1624 / D824

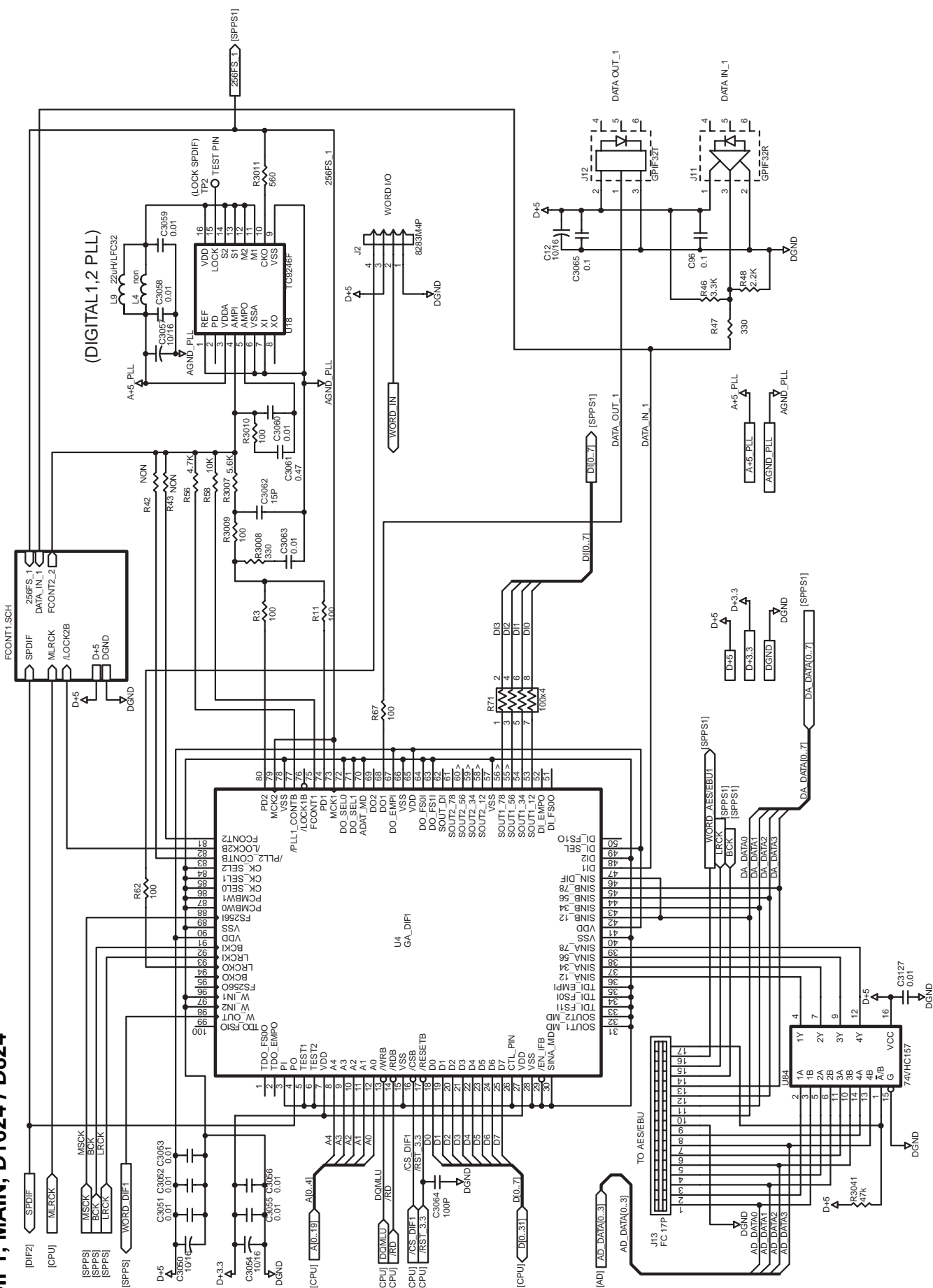
D824 NON



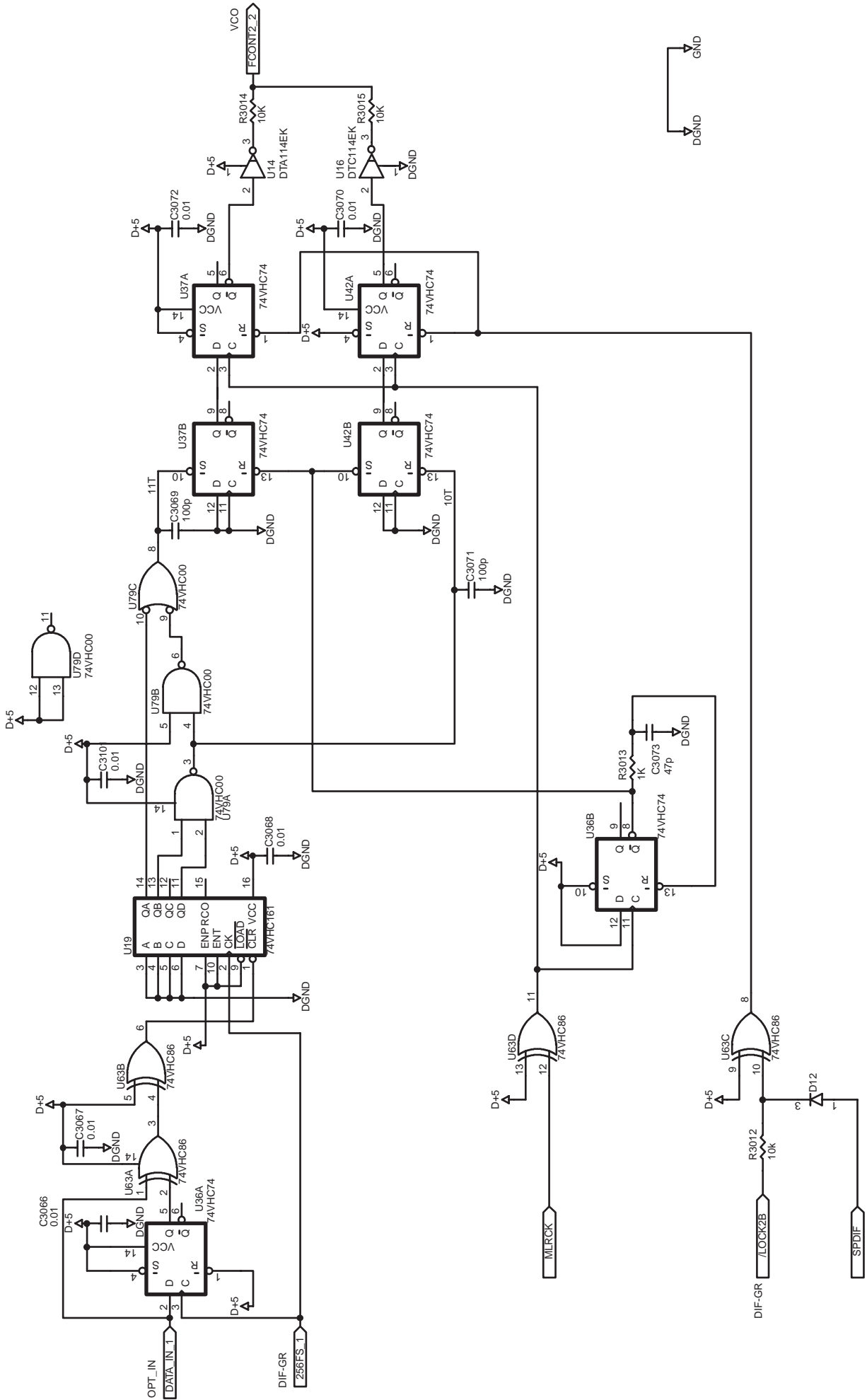
● ROOT, DIF, MAIN, D1624 / D824



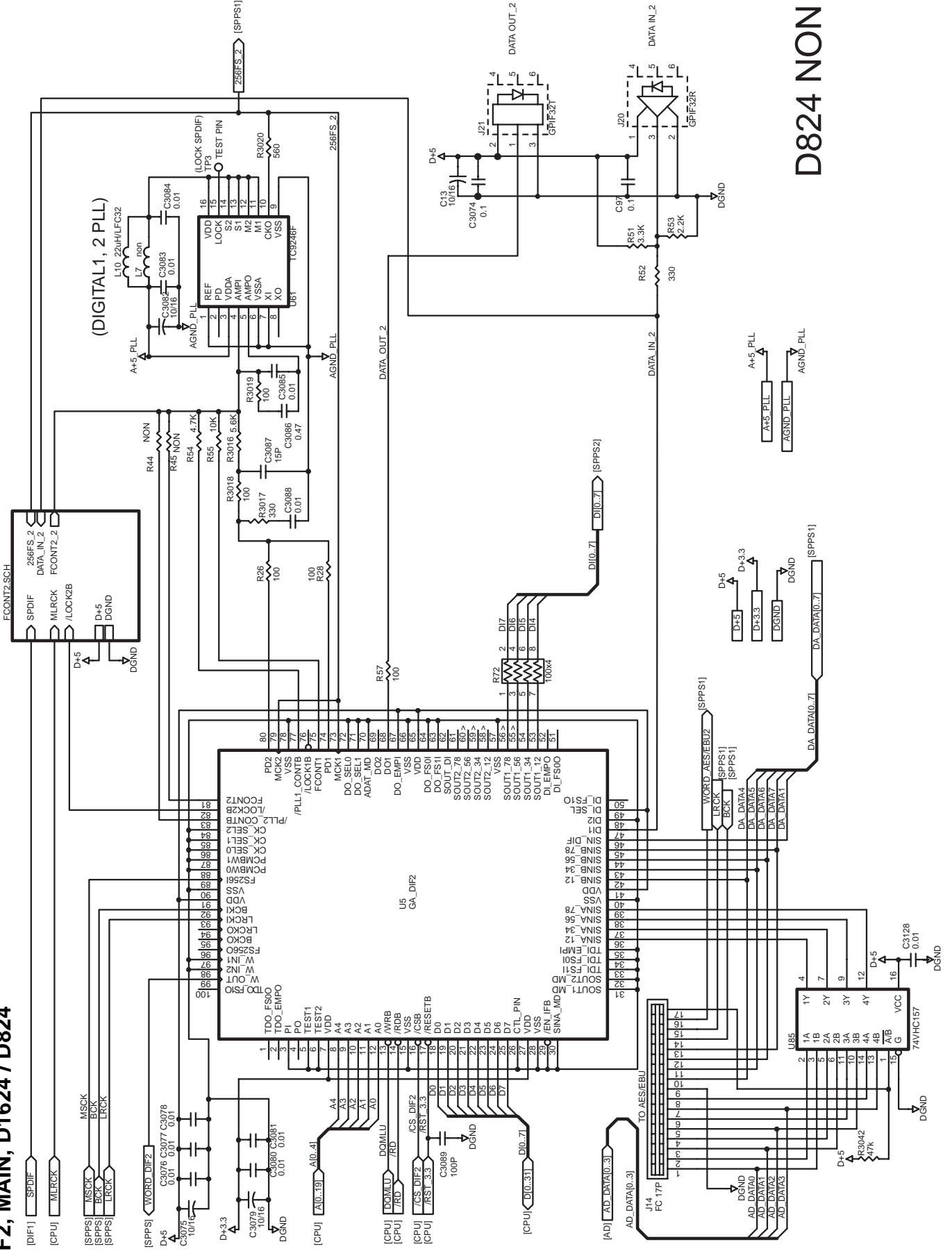
● DIF1, MAIN, D1624 / D824



● FCONT1, DIF1, MAIN, D1624 / D824



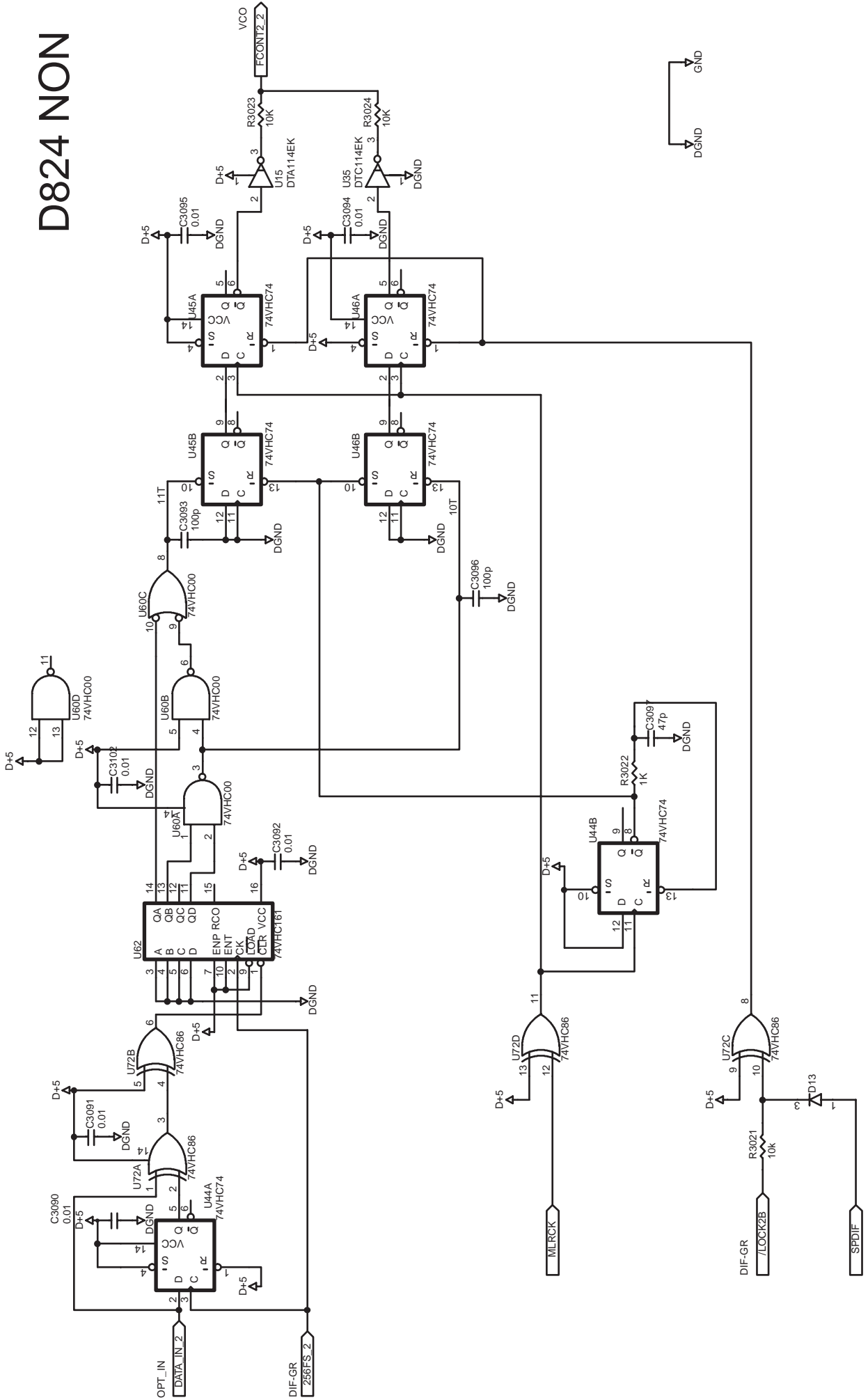
● DIF2, MAIN, D1624 / D824



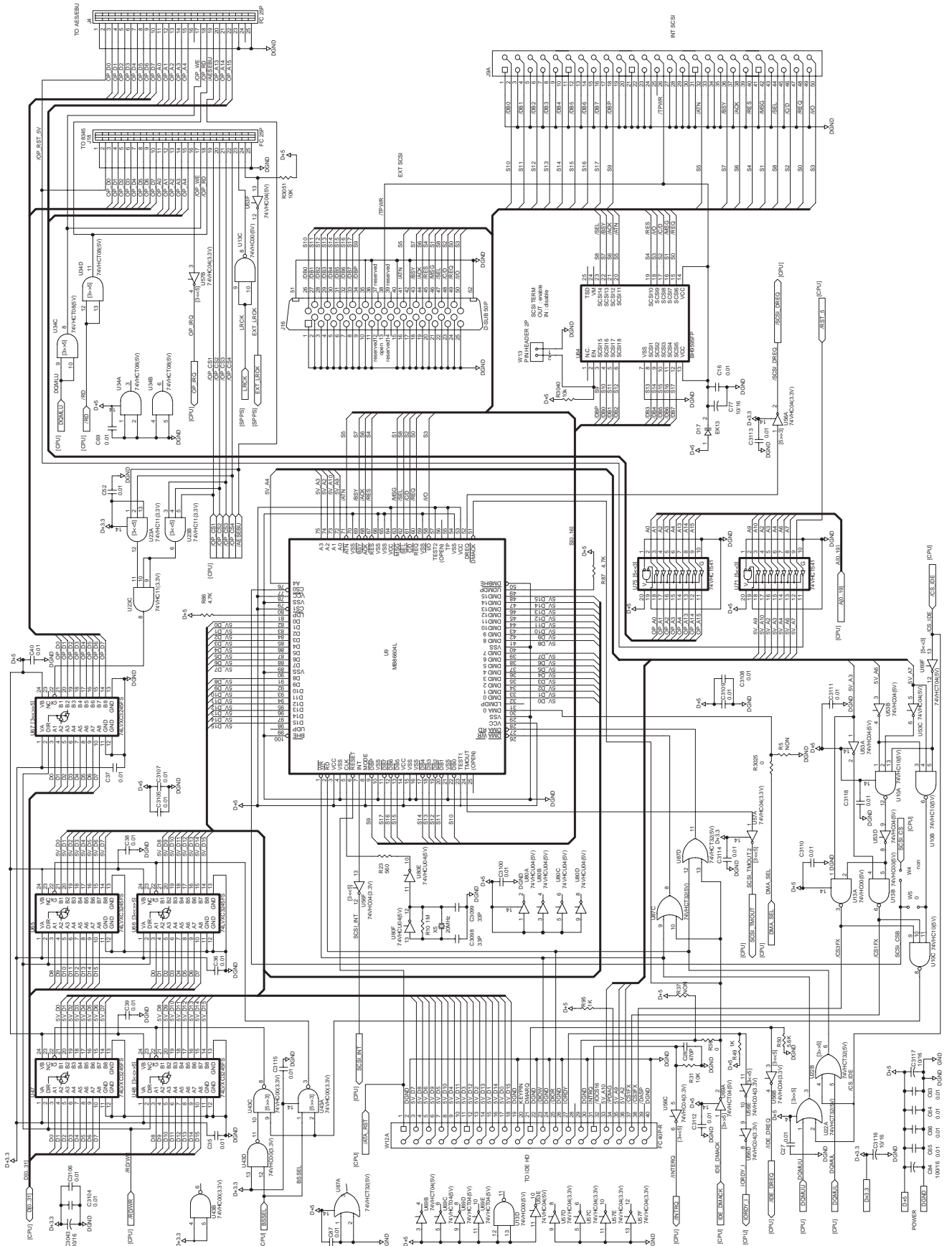
D824 NON

● FCONT2, DIF2, MAIN, D1624 / D824

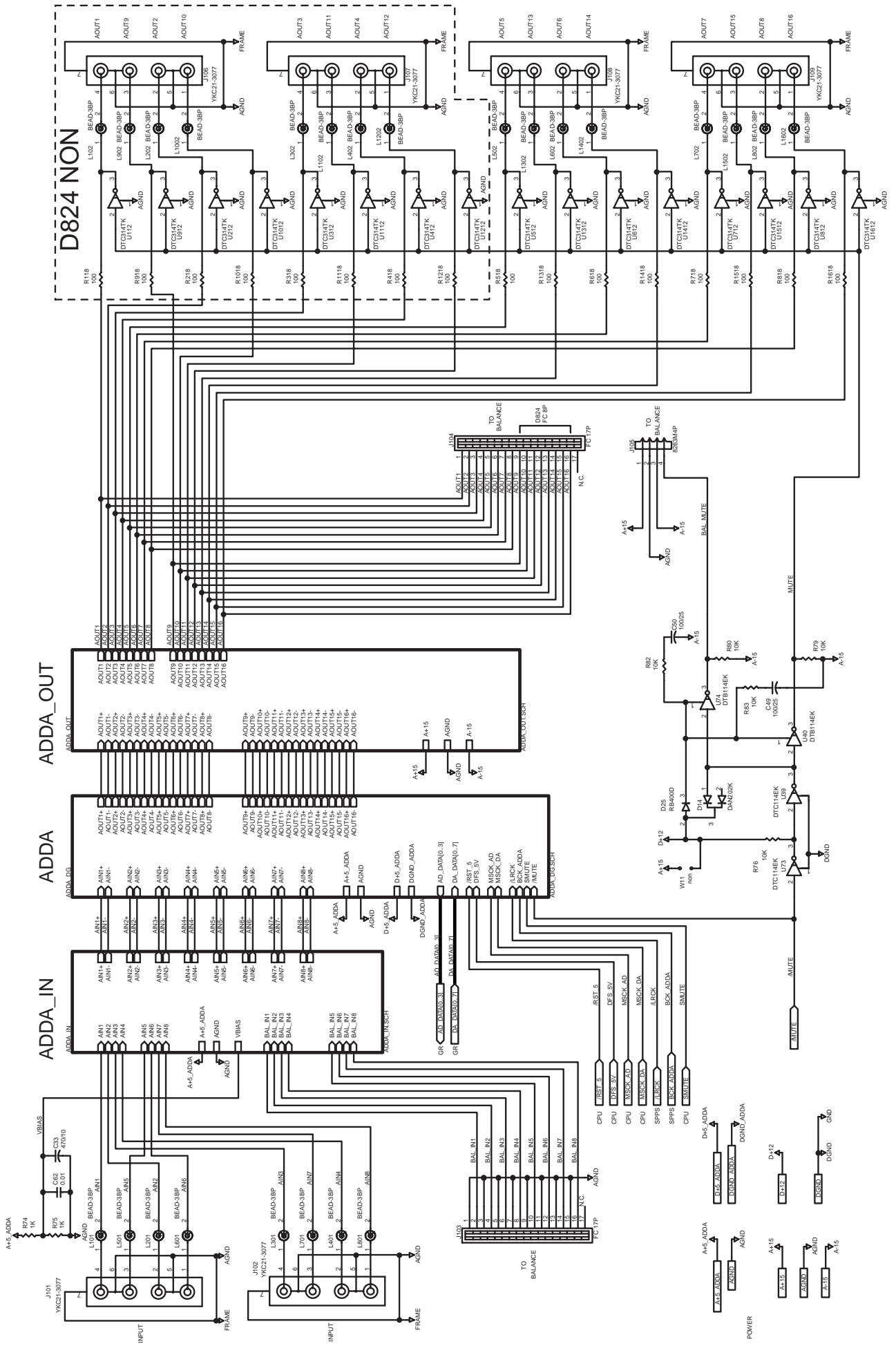
D824 NON



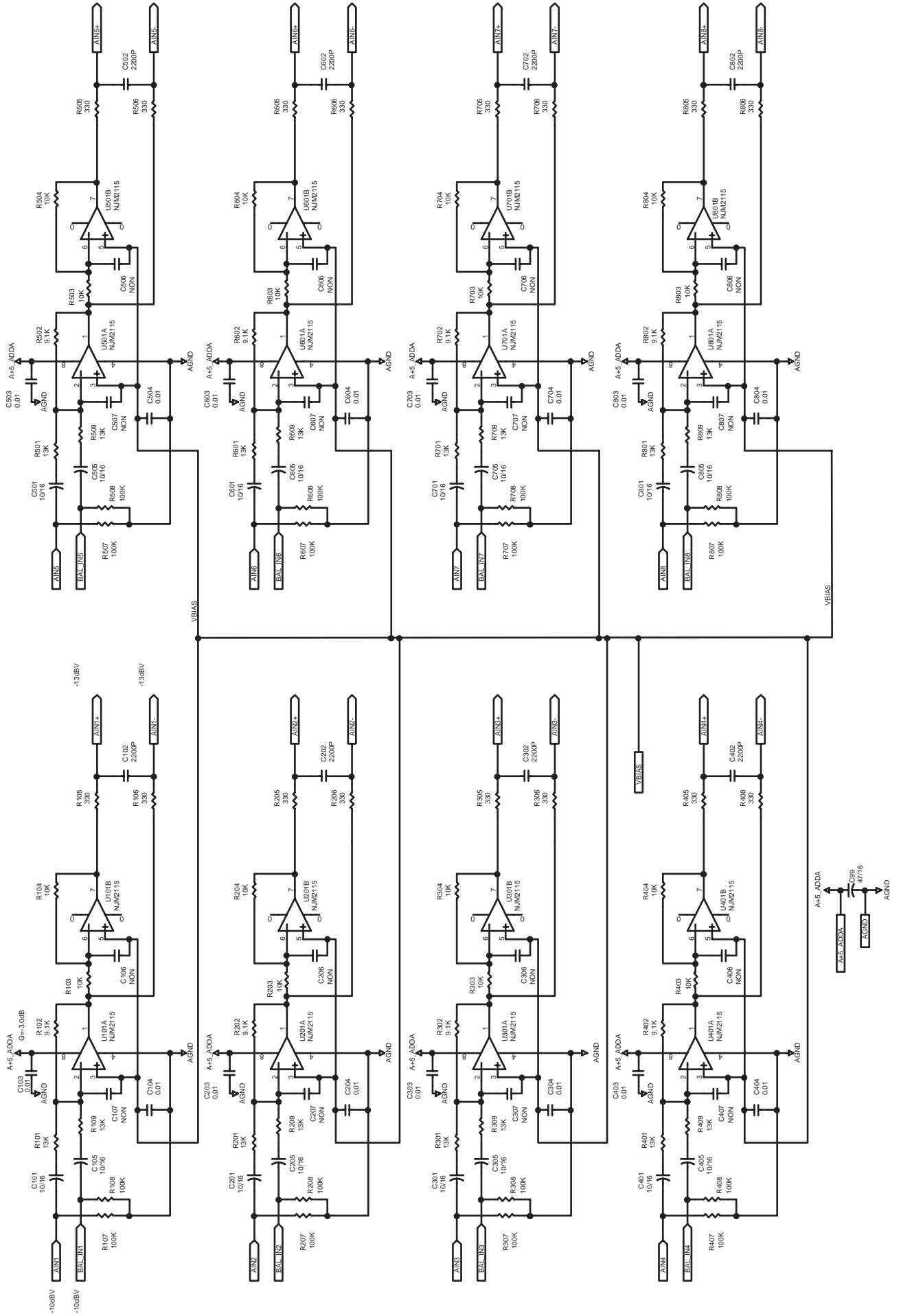
● SCSI I/F, MAIN, D1624 / D824



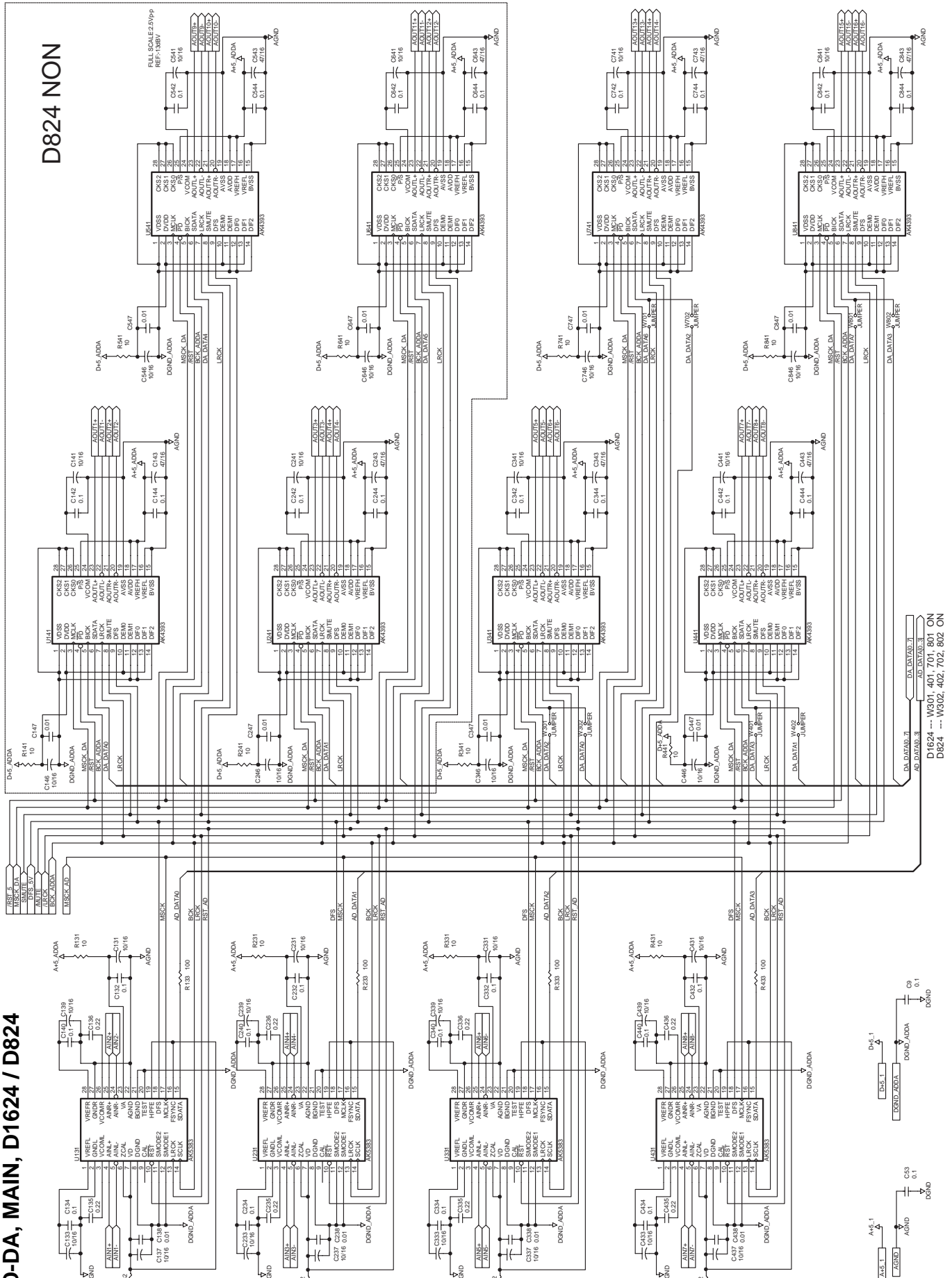
● ROOT, AD-DA, MAIN, D1624 / D824



● ANALOG IN, MAIN, D1624 / D824



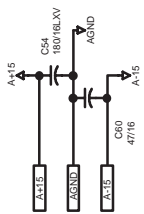
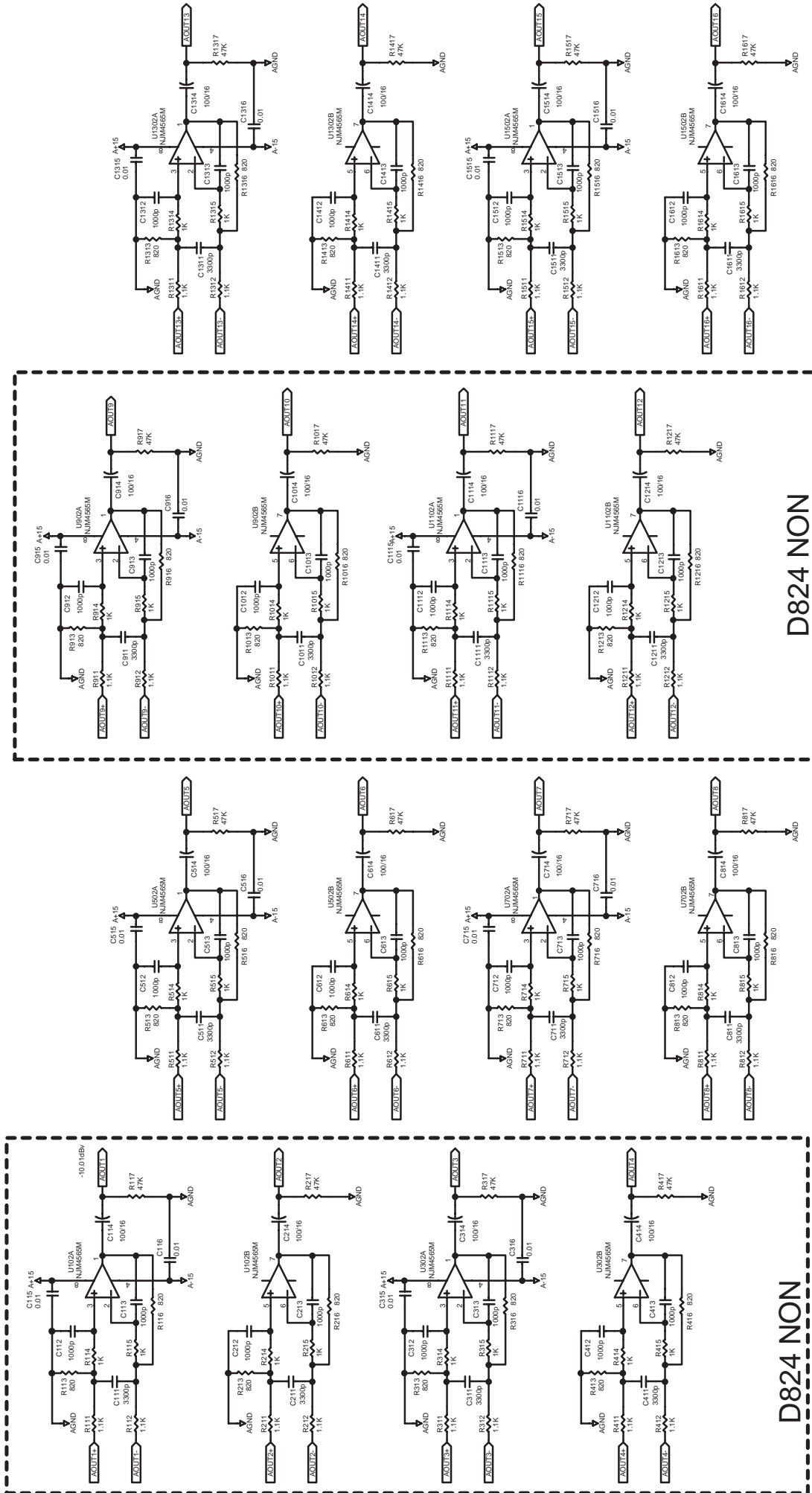
● AD-DA, MAIN, D1624 / D824



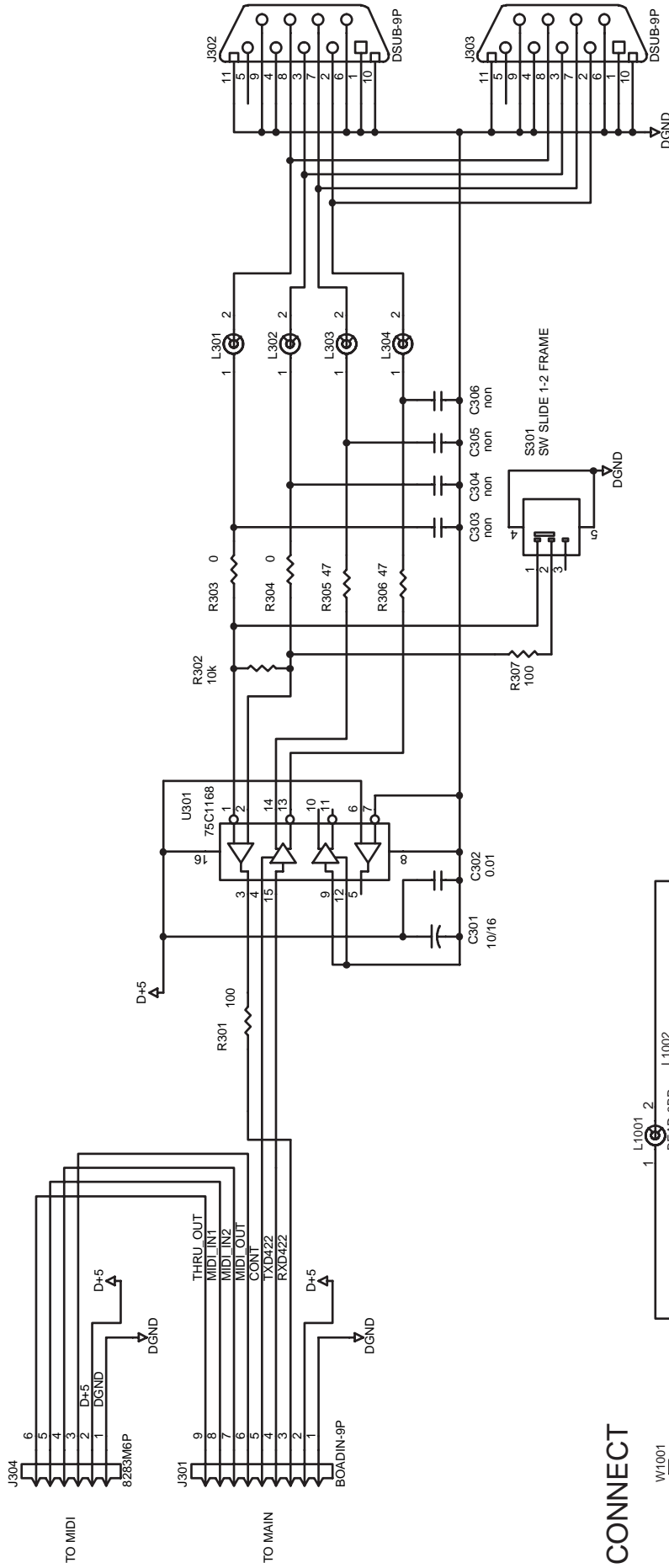
D824 NON

D1624 --- W301, 401, 701, 801 ON
D824 --- W302, 402, 702, 802 ON

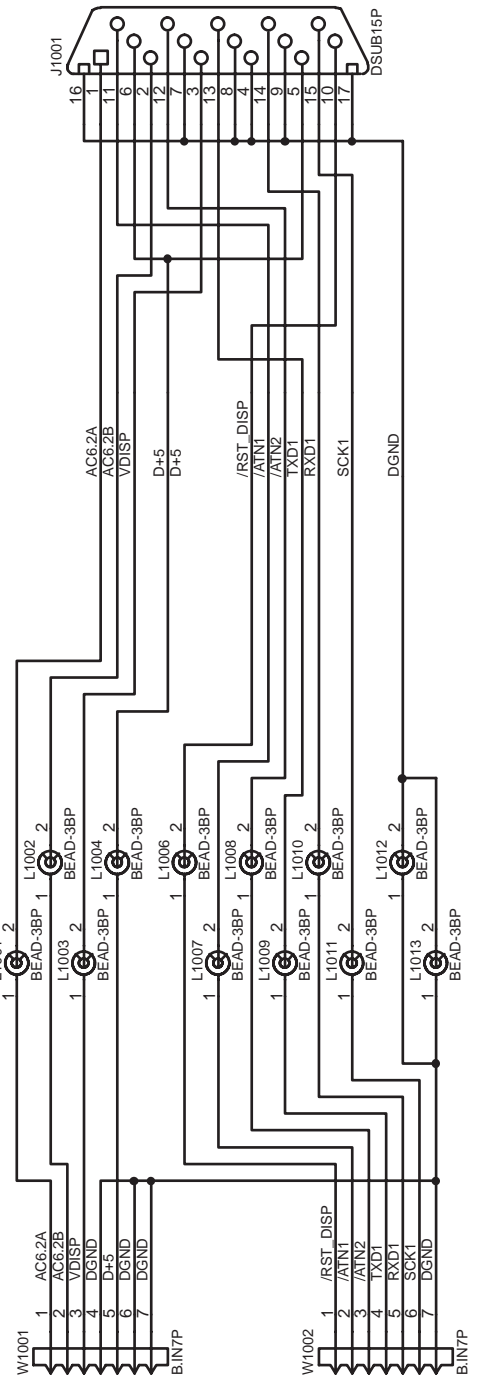
● ANALOG OUT, MAIN, D1624 / D824



● RS-422 & CONNECT, D1624 / D824
RS422

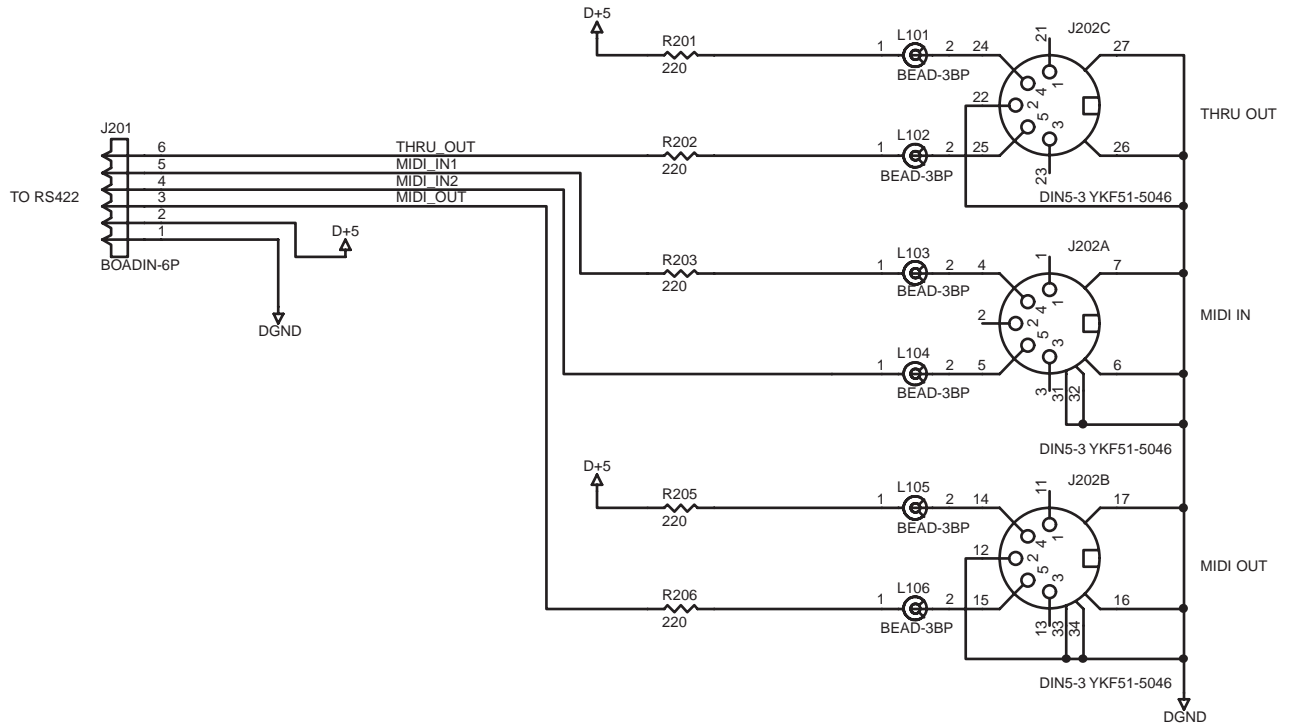


CONNECT

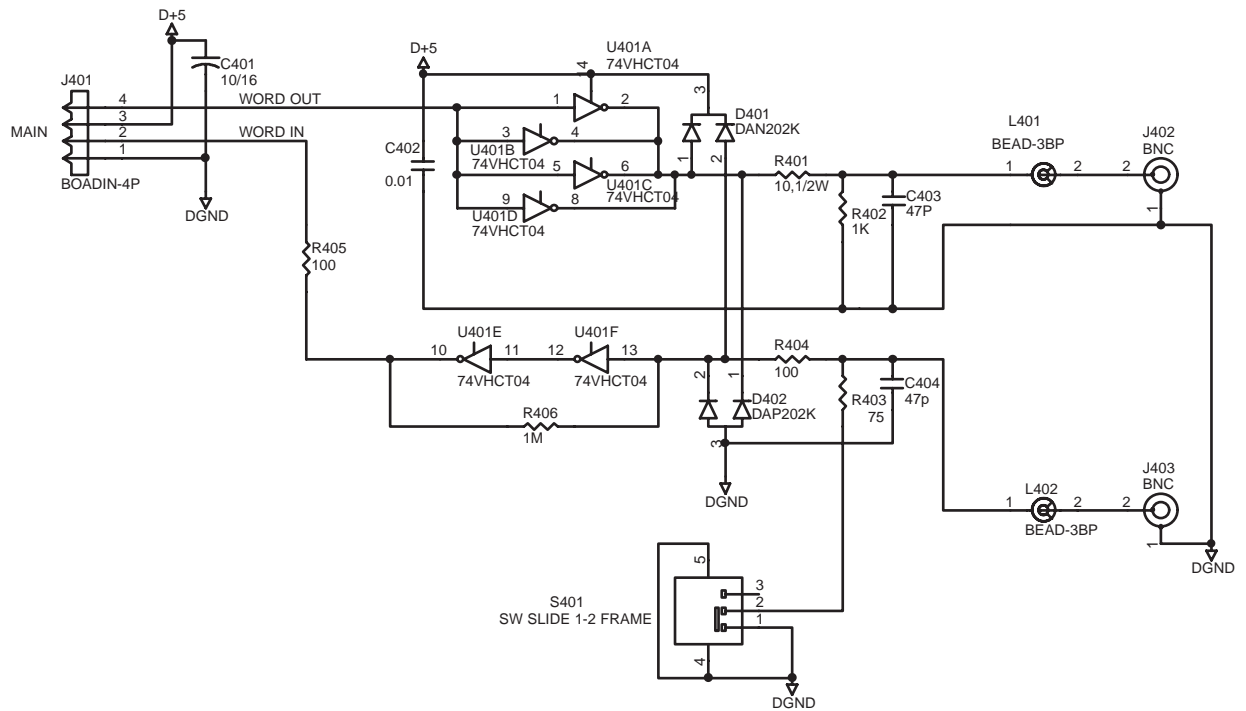


● MIDI & WORD I/O, D1624 / D824

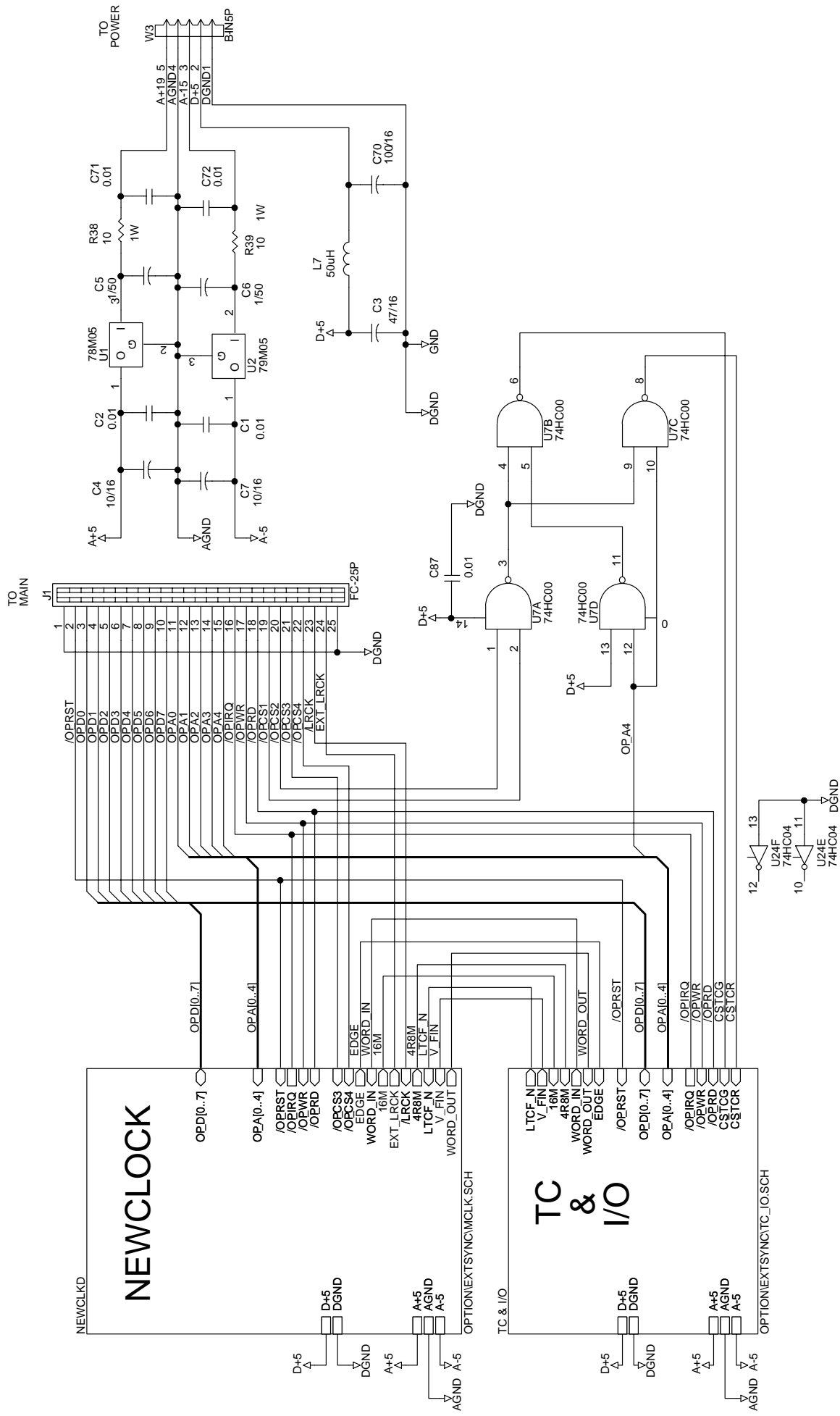
MIDI



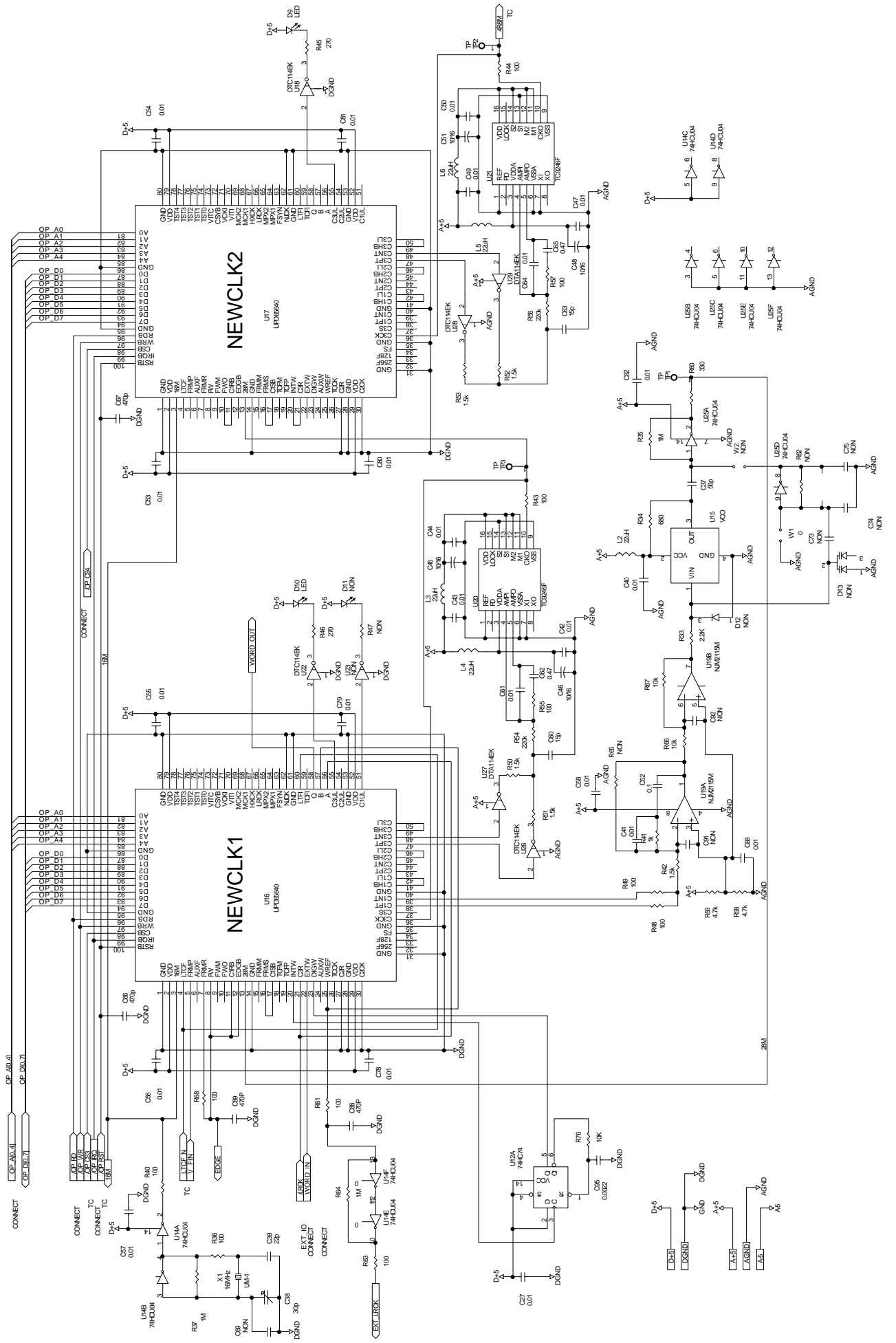
WORD I/O



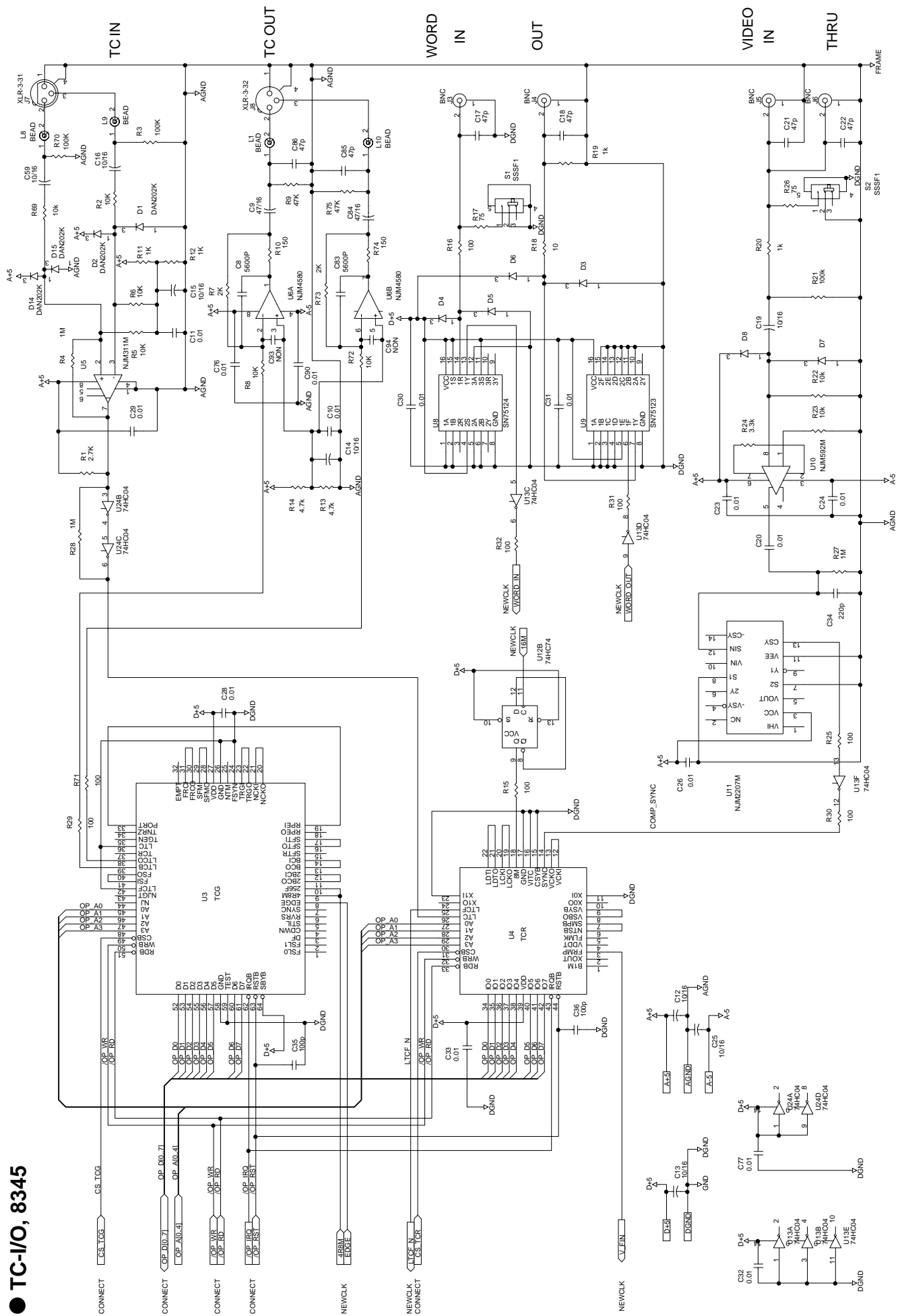
● ROOT, 8345



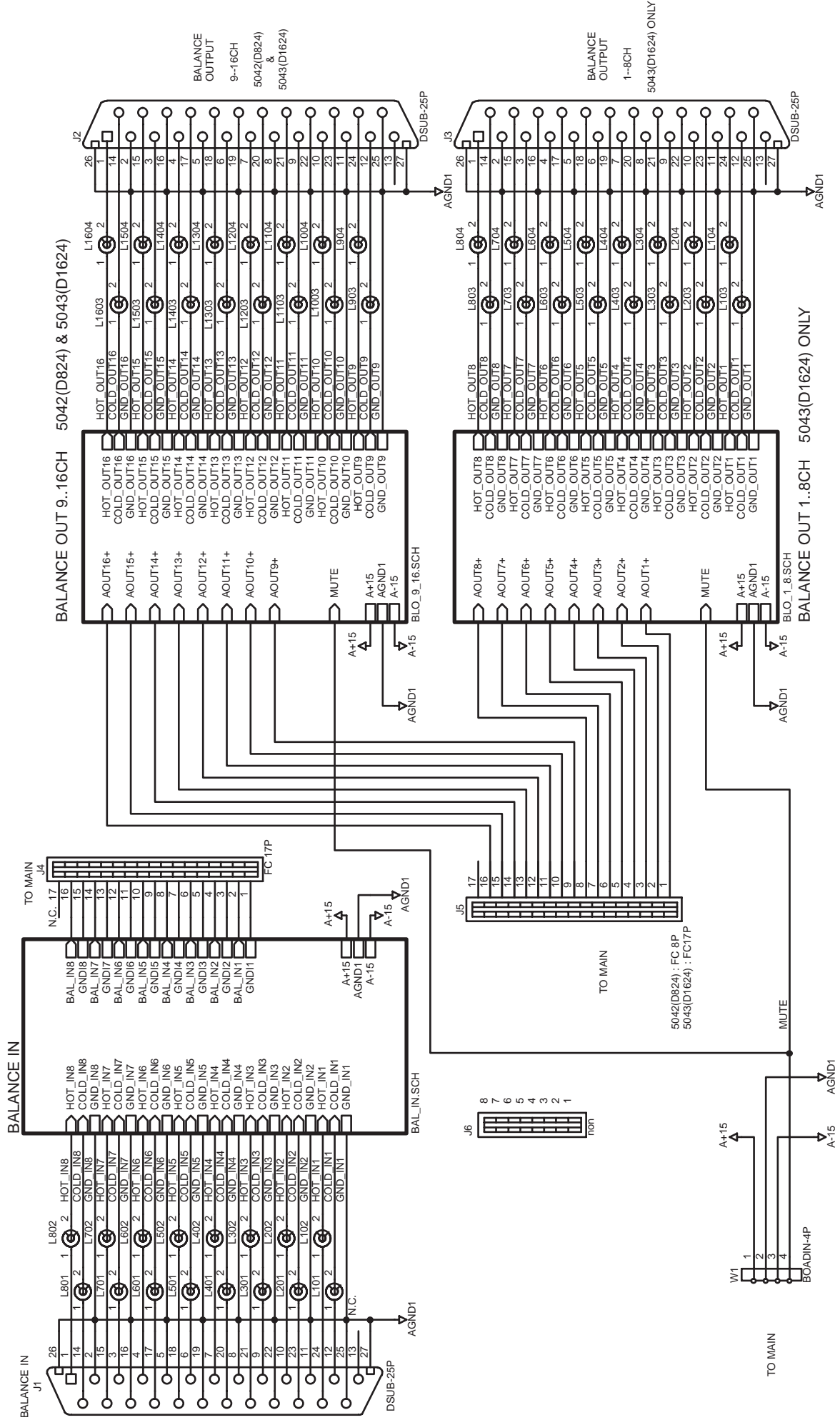
● MCLK, 8345



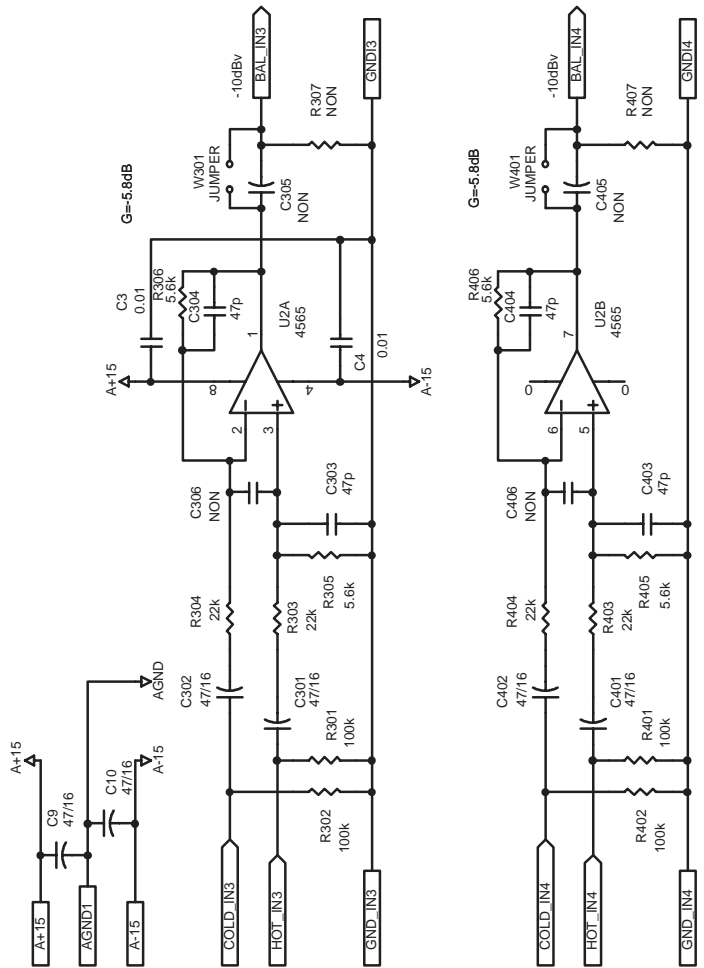
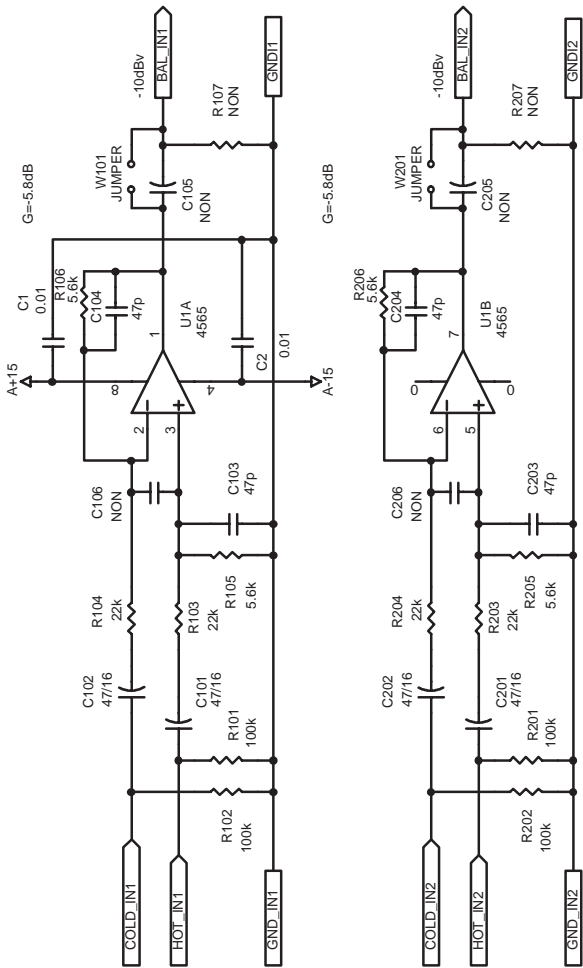
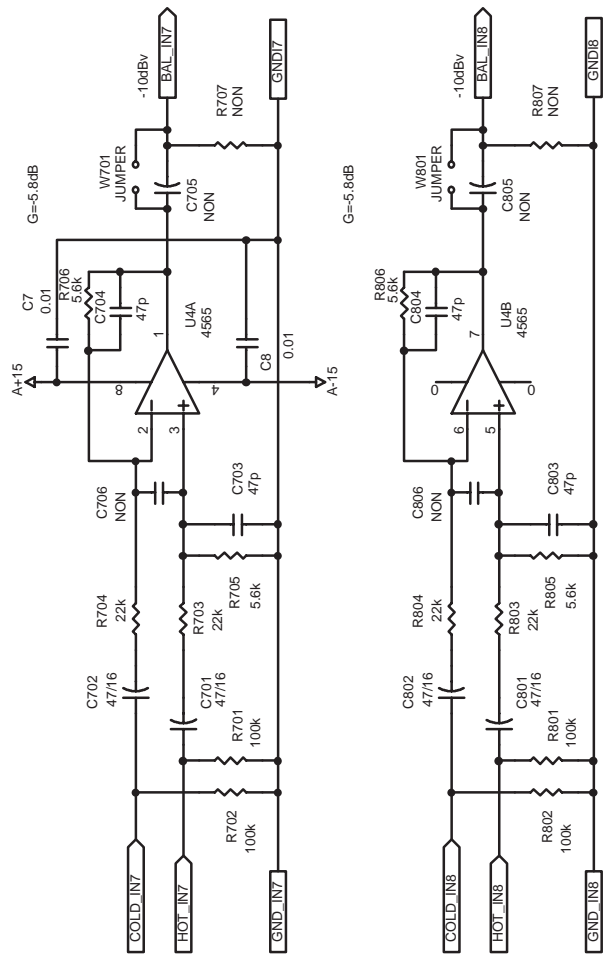
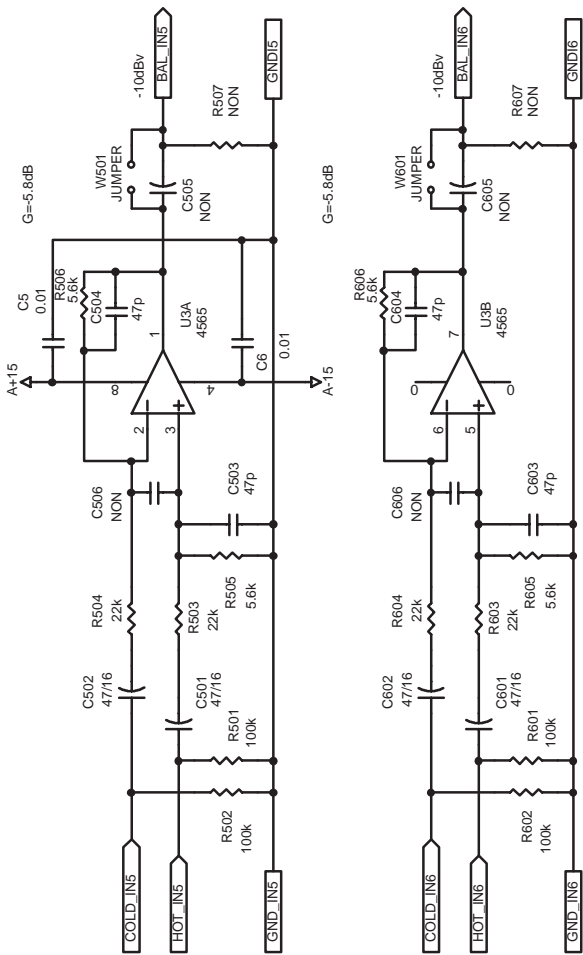
● TC-I/O, 8345



● ROOT, 5042 / 5043

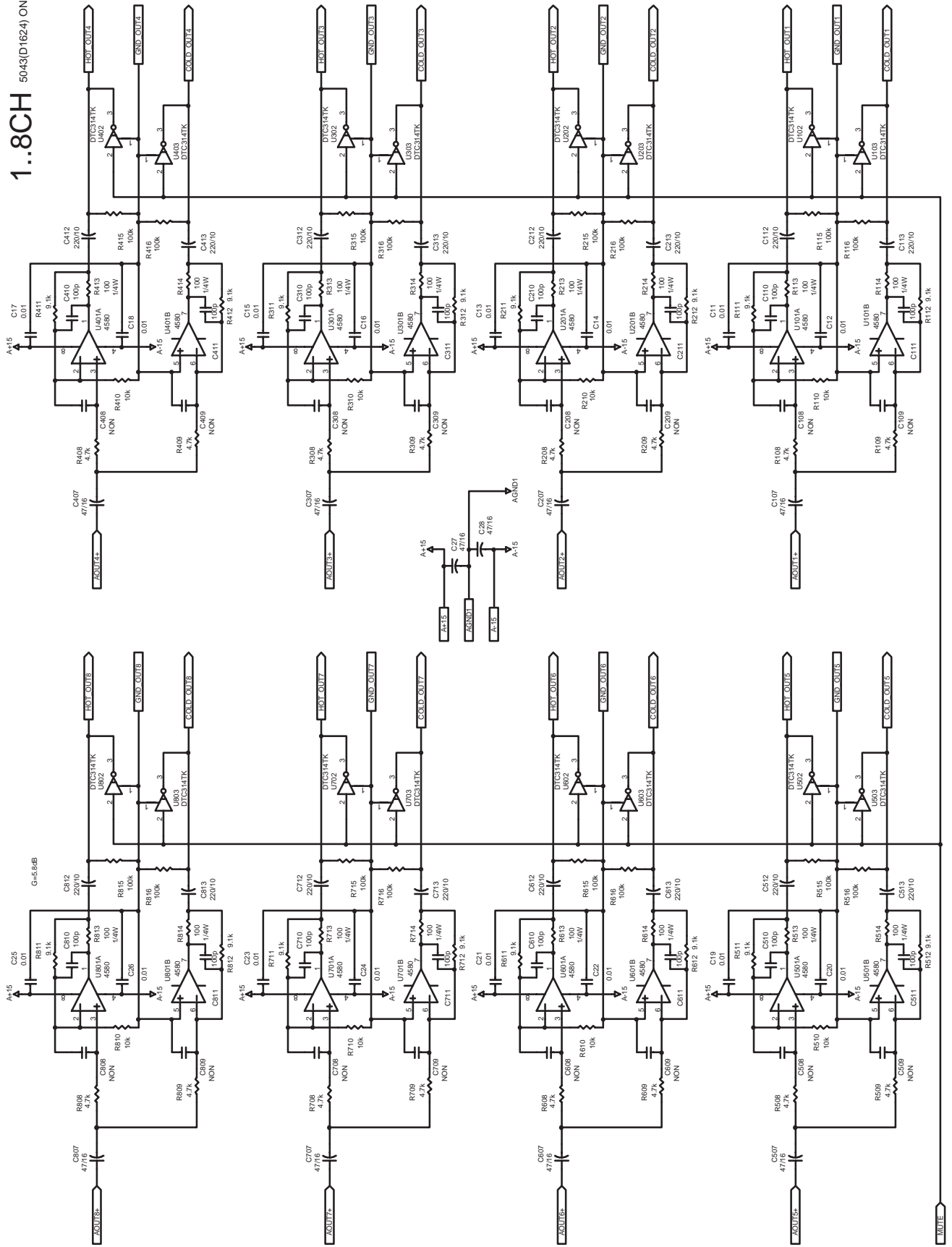


● BALANCE IN, 5042 / 5043

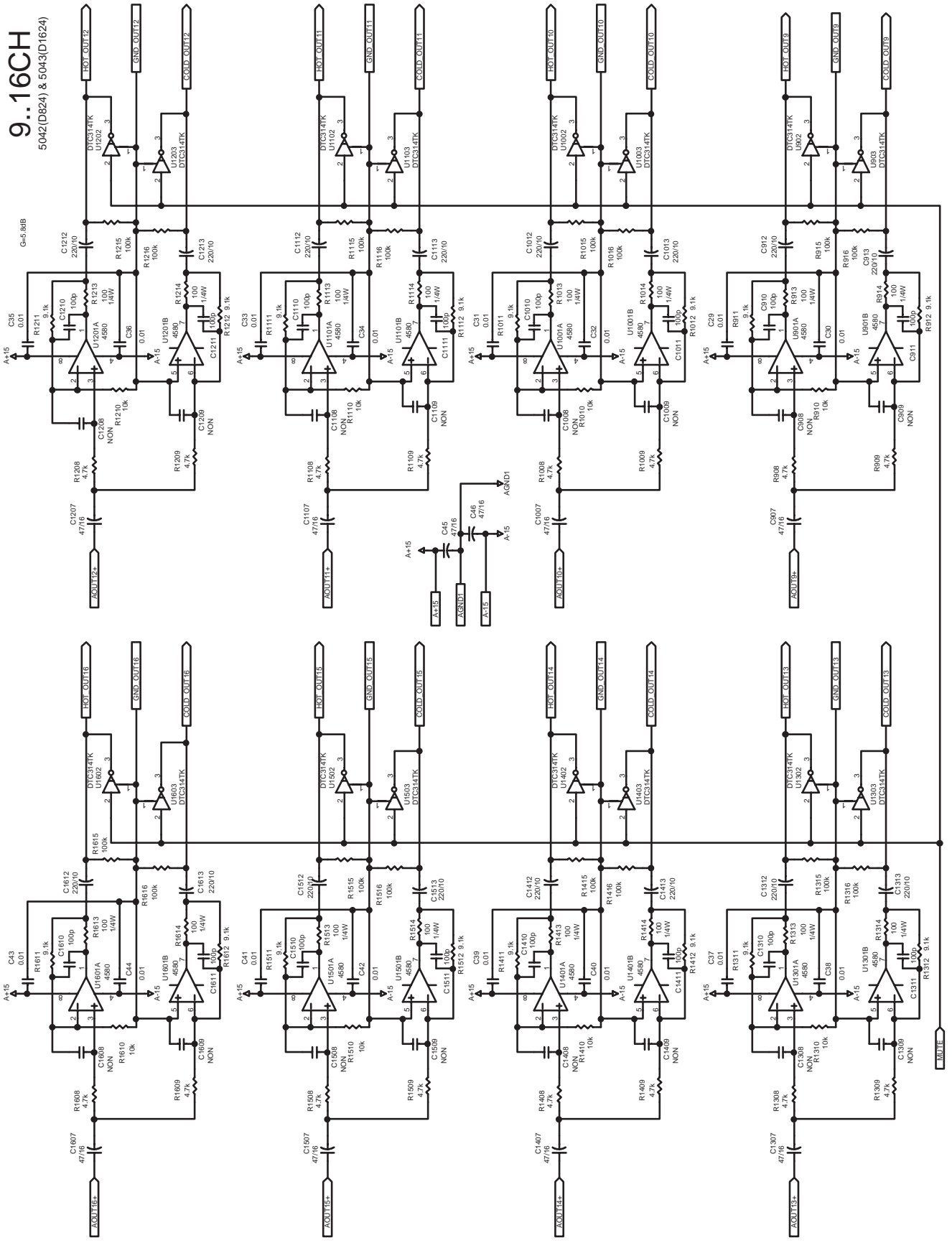


● BALANCE OUT 1 - 8CH, 5042 / 5043

1..8CH 5043(D1624) ONLY



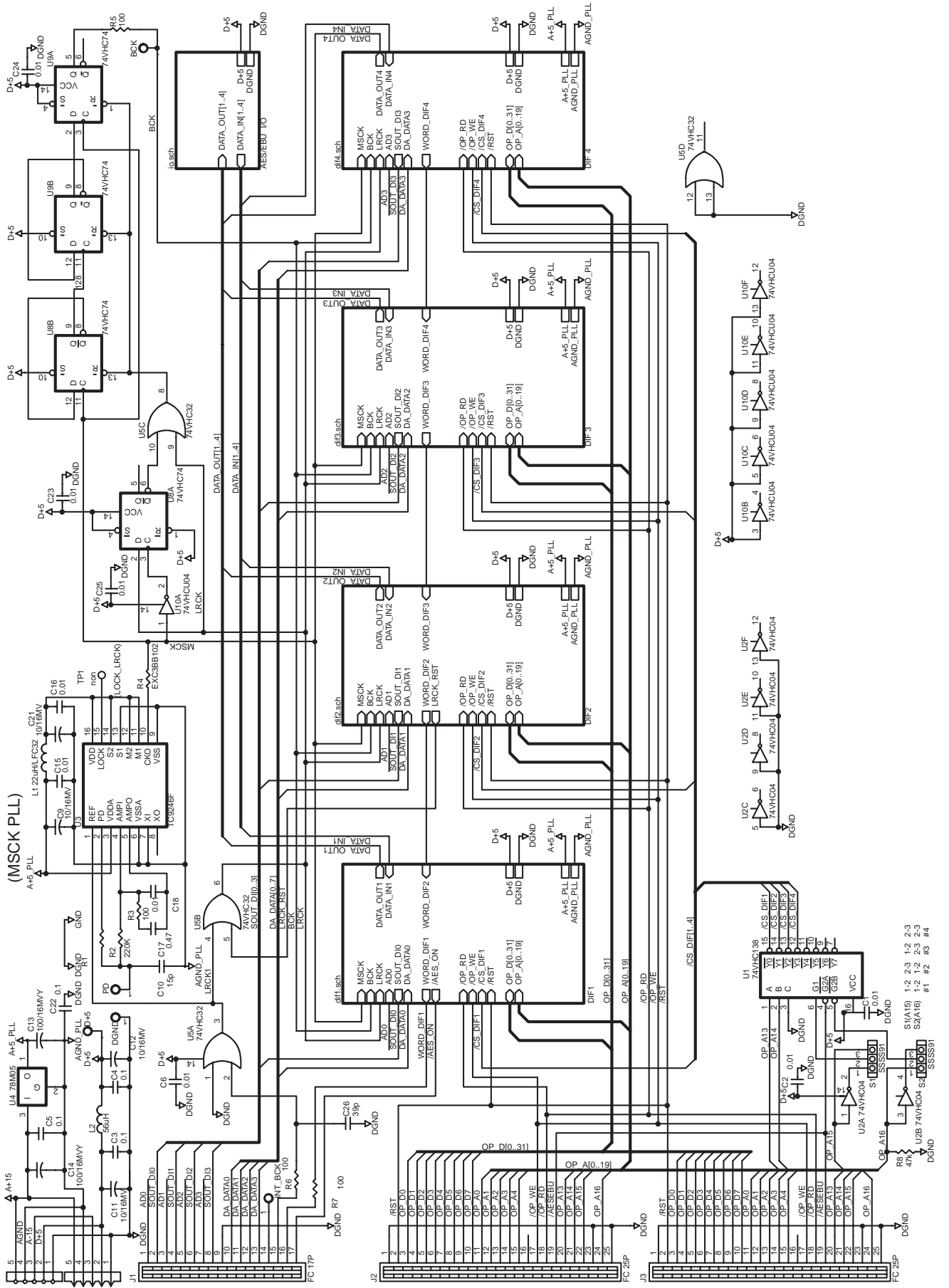
● BALANCE OUT 9 - 16CH, 5042 / 5043



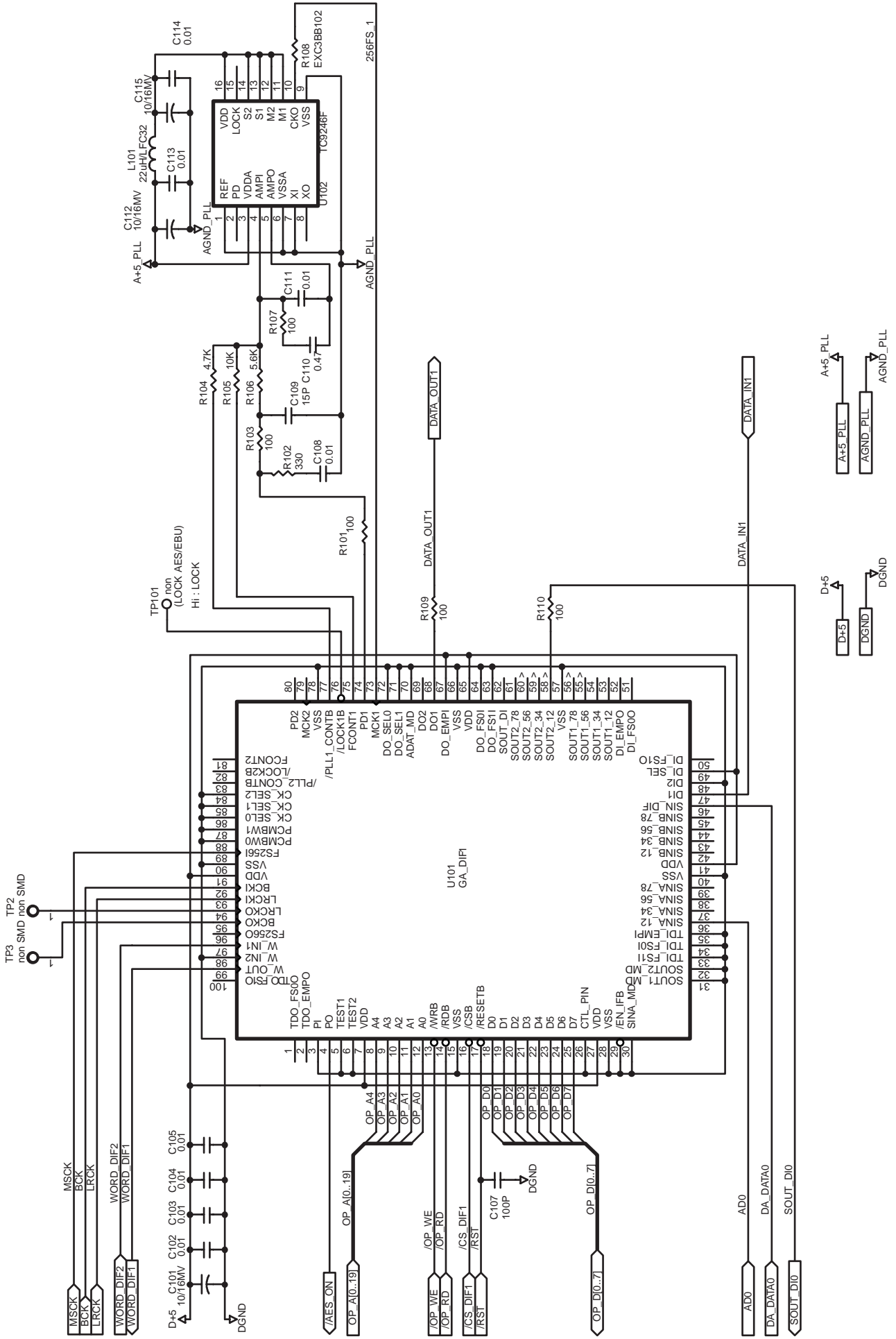
9.16CH

5042(D824) & 5043(D1624)

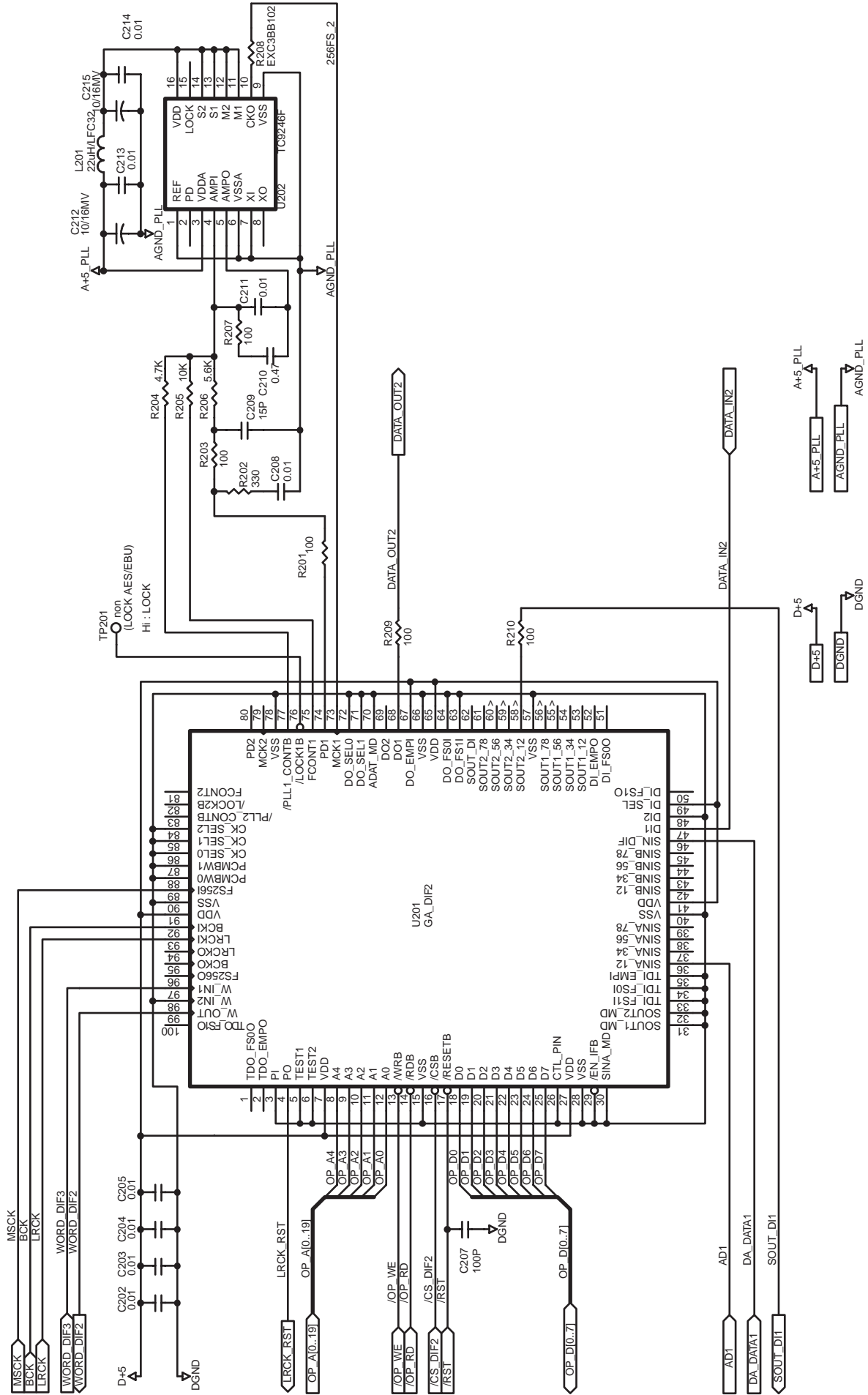
● ROOT, 8350



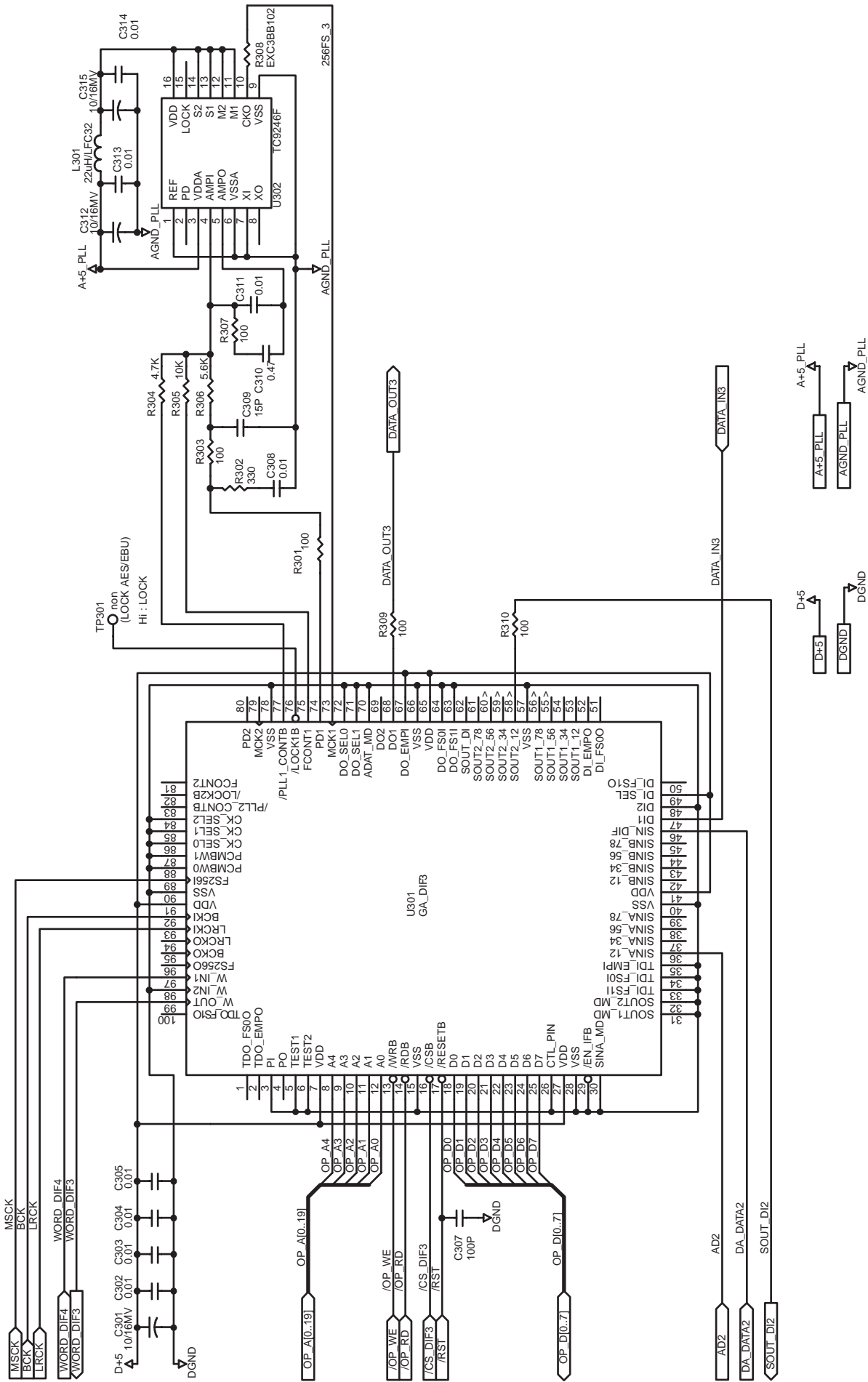
● DIF1, 8350



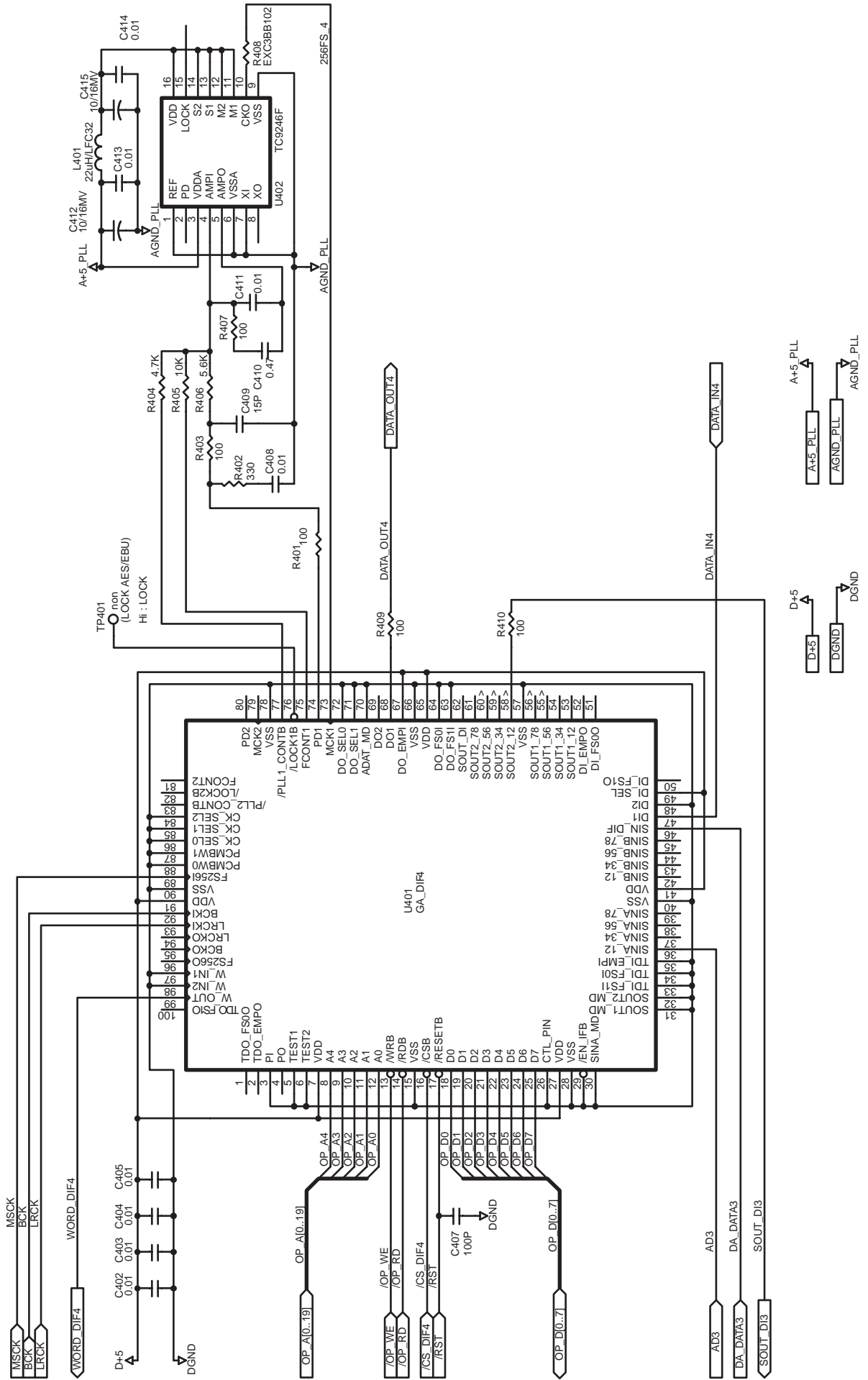
● DIF2, 8350



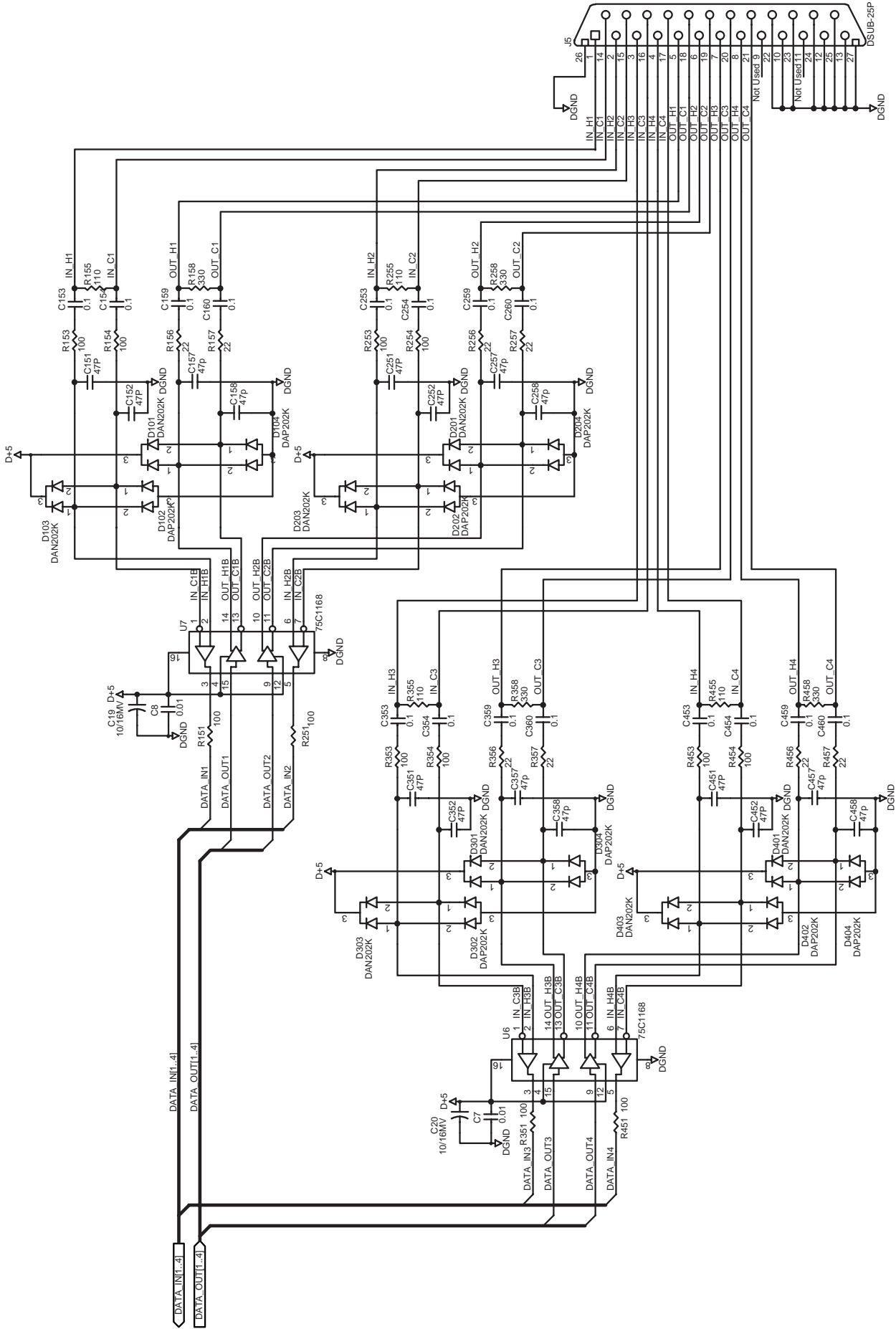
● DIF3, 8350



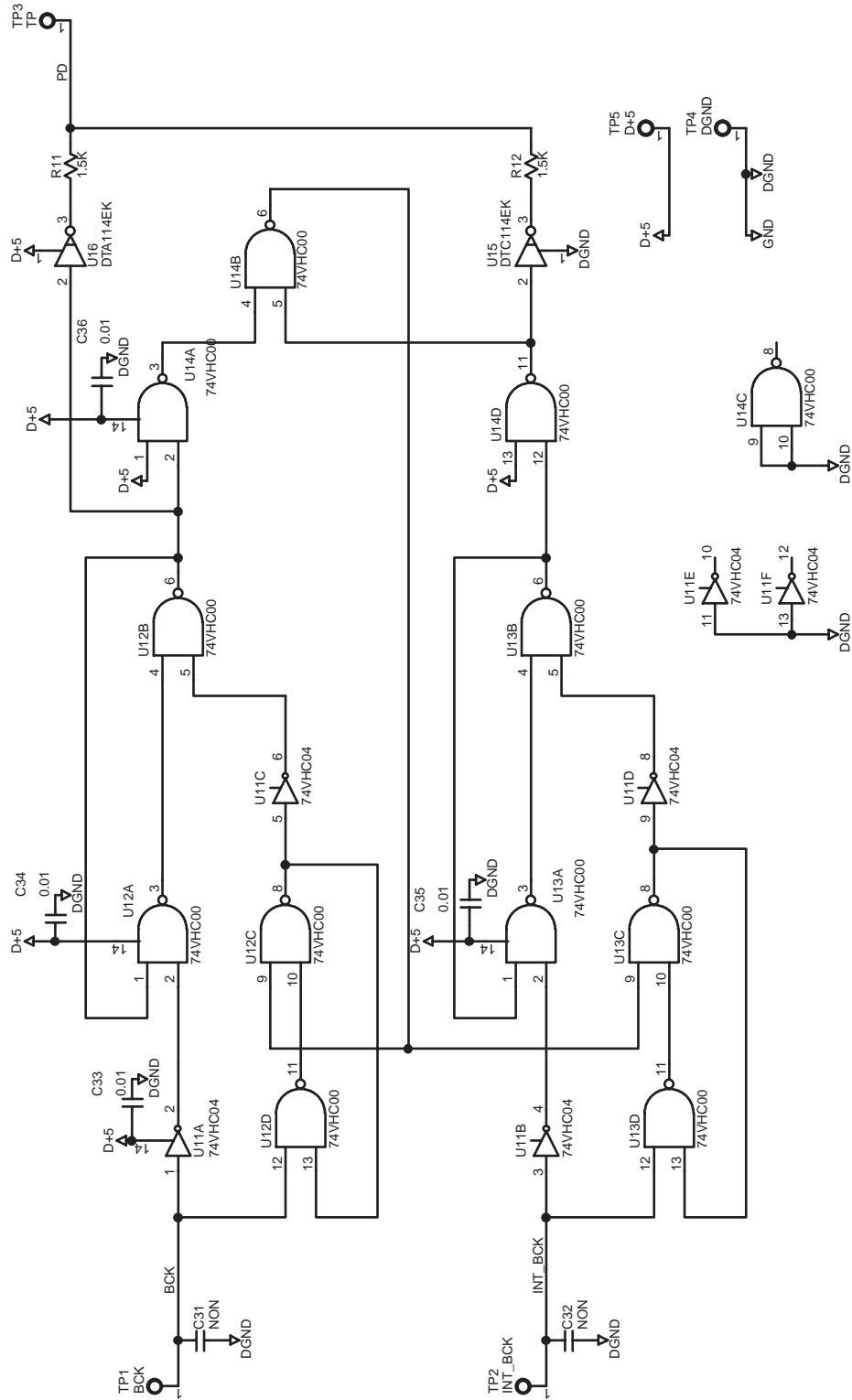
● DIF4, 8350



● I/O, 8350



● PLL, 8350



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