SHARP SERVICE MANUAL

No. S08S1LC52DH65

LCD COLOUR TELEVISION

MODELS LC-52DH65E/S LC-52DH66E

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

CONTENTS

SAFETY PRECAUTION
IMPORTANT SERVICE SAFETY PRECAUTION i
Precautions for using lead-free solder ii
End of life disposal iii

CHAPTER 1. OPERATION MANUAL
[1] SPECIFICATIONS 1-1
[2] OPERATION MANUAL 1-2
[3] DIMENSIONS 1-7

CHAPTER 2. REMOVING OF MAJOR PARTS
[1] REMOVING OF MAJOR PARTS (LC-52DH65E/S, LC-52DH66E) 2-1

CHAPTER 3. ADJUSTMENT PROCEDURE
[1] ADJUSTMENT PROCEDURE 3-1

CHAPTER 4. TROUBLESHOOTING TABLE
[1] TROUBLESHOOTING TABLE 4-1
[2] LED flashing specification at the time of the error 4-14

CHAPTER 5. BLOCK DIAGRAM/WIRING DIAGRAM
[1] MAIN BLOCK DIAGRAM 5-1
[2] SYSTEM BLOCK DIAGRAM 5-3
[3] OVERALL WIRING DIAGRAM 5-4

CHAPTER 6. PRINTED WIRING BOARD
[1] MAIN UNIT PRINTED WIRING BOARD 6-1
[2] LED UNIT PRINTED WIRING BOARD 6-5
[3] KEY UNIT PRINTED WIRING BOARD 6-6

CHAPTER 7. SCHEMATIC DIAGRAM
[1] DESCRIPTION OF SCHEMATIC DIAGRAM 7-1
[2] SCHEMATIC DIAGRAM 7-2

Parts Guide

Parts marked with " ⚠ " are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

SAFETY PRECAUTION

IMPORTANT SERVICE SAFETY PRECAUTION

■ **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the** servicing guidelines which follow:

■ WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

CAUTION:
FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE FUSE.

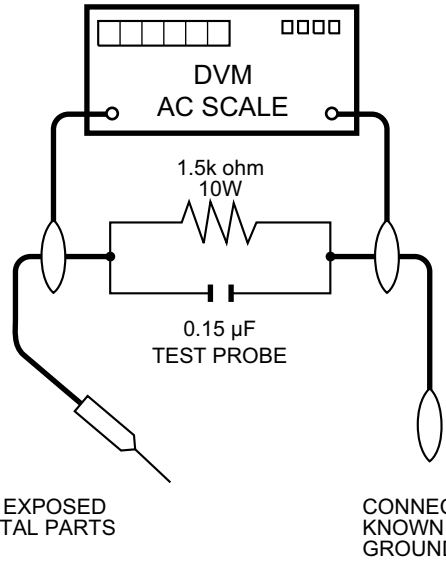
F7000 (4A/250V)
F7001 (4A/250V)

■ BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

Before returning the receiver to the user, perform the following safety checks:

3. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
4. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
5. To be sure that no shock hazard exists, check for leakage current in the following manner.

- Plug the AC cord directly into a 220~240 volt AC outlet.
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15μF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.
  All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)
  Any reading of 1.05 V peak (this corresponds to 0.7 mA peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



SAFETY NOTICE

Many electrical and mechanical parts in LCD color television have special safety-related characteristics.

These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the Replacement Parts List and Schematic Diagrams.

For continued protection, replacement parts must be identical to those used in the original circuit.

The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

Precautions for using lead-free solder

■Employing lead-free solder

- "PWBs" of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

  Example:

Indicates lead-free solder of tin, silver and copper.

Indicates lead-free solder of tin, silver and copper.

■Using lead-free wire solder

- When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.

  As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40 °C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

■Soldering

- As the melting point of lead-free solder (Sn-Ag-Cu) is about 220 °C which is higher than the conventional lead solder by 40 °C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, Since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.

  Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.

  If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.

  When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

- Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

Part No.	★	Description	Code
ZHNDAi123250E	J	ϕ0.3mm 250g (1roll)	BL
ZHNDAi126500E	J	ϕ0.6mm 500g (1roll)	BK
ZHNDAi12801KE	J	ϕ1.0mm 1kg (1roll)	BM

End of life disposal

Attention: Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a separate collection system for these products.

A. Information on Disposal for Users (private households)

1. In the European Union

Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.
Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge*. In some countries* your local retailer may also take back your old product free of charge if you purchase a similar new one.
*) Please contact your local authority for further details.

If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

2. In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

For Switzerland: Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the homepage of www.swico.ch or www.sens.ch.

B. Information on Disposal for Business Users

1. In the European Union

If the product is used for business purposes and you want to discard it:

Please contact your SHARP dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain: Please contact the established collection system or your local authority for take-back of your used products.

2. In other Countries outside the EU

If you wish to discard of this product, please contact your local authorities and ask for the correct method of disposal.

Information on Battery Disposal

For EU: The crossed-out wheeled bin implies that used batteries should not be put to the general household waste! There is a separate collection system for used batteries, to allow proper treatment and recycling in accordance with legislation. Please contact your local authority for details on the collection and recycling schemes.

For Switzerland: The used battery is to be returned to the selling point.

For other non-EU countries: Please contact your local authority for correct method of disposal of the used battery.

CHAPTER 1. OPERATION MANUAL

[1] SPECIFICATIONS

Item			52" LCD COLOUR TV, Model: LC-52DH65E, LC-52DH65S, LC-52DH66E
LCD panel			52" Advanced Super View & BLACK TFT LCD
Resolution			2,073,600 pixels (1,920 × 1,080)
Video Colour System			PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60
TV Function	TV-Standard	Analogue	CCIR (B/G, I, D/K, L/L')
		Digital	DVB-T (2K/8K OFDM)
	Receiving Channel	VHF/UHF	E2–E69 ch, F2–F10 ch, I21–I69 ch, IR A–IR J ch (Digital: IR A ch–E69 ch)
		CATV	Hyper-band, S1–S41 ch
	TV-Tuning System		Auto Preset 999 ch: non-Nordic / 9999 ch: Nordic (ATV: 99 ch), Auto Label, Auto Sort
	STEREO/BILINGUAL		NICAM/A2
Brightness			450 cd/m^2
Viewing angles			H: 176°,V: 176°
Audio amplifier			10 W × 2
Speaker			(40 mm × 110 mm) × 2
Terminals	Antenna		UHF/VHF 75 Ω Din type (Analogue & Digital)
	RS-232C		D-Sub 9 pin male connector
	EXT1		SCART (AV input, Y/C input, RGB input, TV output)
	EXT2		SCART (AV input/monitor output, Y/C input, AV Link, RGB input)
	EXT3		COMPONENT IN: Y/P_B(C_B)/P_R(C_R), RCA pin (AUDIO R/L)
	EXT4		15 pin mini D-sub, Ø 3.5 mm jack*
	HDMI1 (EXT5)		HDMI
	HDMI2 (EXT6)		HDMI, Ø 3.5 mm jack*
	HDMI3 (EXT7)		HDMI
	EXT8		RCA pin (AV input)
	USB		USB 2.0
	DIGITAL AUDIO OUTPUT		Optical SPDIF Digital audio output
	C. I. (Common Interface)		EN50221, R206001
	OUTPUT		RCA pin (AUDIO R/L)
	Headphones		Ø 3.5 mm jack (Audio output)
OSD language			Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Russian, Slovak, Slovene, Spanish, Swedish, Turkish, Ukrainian
Power Requirement			AC 220–240 V, 50 Hz
Power Consumption (Method IEC62087)			269 W (0.5 W Standby)
Weight			24.7 kg (Without stand), 28.3 kg (With stand)
Operating temperature			0 °C to +40 °C

* The HDMI2 and EXT4 terminals can both use the same audio input terminal.

- As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

NOTE

- Refer to the inside back cover for dimensional drawings.

Optional accessory

The listed optional accessories are available for this LCD colour TV. Please purchase them at your nearest shop.

- Additional optional accessories may be available in the near future. When purchasing, please read the newest catalogue for compatibility and check the availability

No.	Part name	Part number
1	Wall mount bracket (LC-52DH65E, LC-52DH65S, LC-52DH66E)	AN-52AG4

Remote control unit

1 ⏻ | **(Standby/On)**

2 **Buttons for useful operations**

(Teletext)
ATV: Display analogue teletext.
DTV: Select MHEG-5 and teletext for DTV.

(Reveal hidden Teletext)

(Subtitle)
Switch subtitle languages on/off.

(Freeze/Hold)
Press to freeze a moving image on the screen.
Teletext: Stop updating teletext pages automatically or release the hold mode.

(Subpage)

(Top/Bottom/Full)
Set the area of magnification in teletext mode.

3 **0–9 numeric buttons**
Set the channel.
Enter desired numbers.
Set the page in teletext mode.
- When the five Nordic countries (Sweden, Norway, Finland, Denmark, or Iceland) are selected in the country setting from “Auto Installation”, DTV services are four digits. When another country is selected, DTV services are three digits.

4 **(Flashback)**
Press to return to the previously selected channel or external input.

5 **DTV**
Press to access digital TV mode.

6 **ATV**
Press to access conventional analogue TV mode.

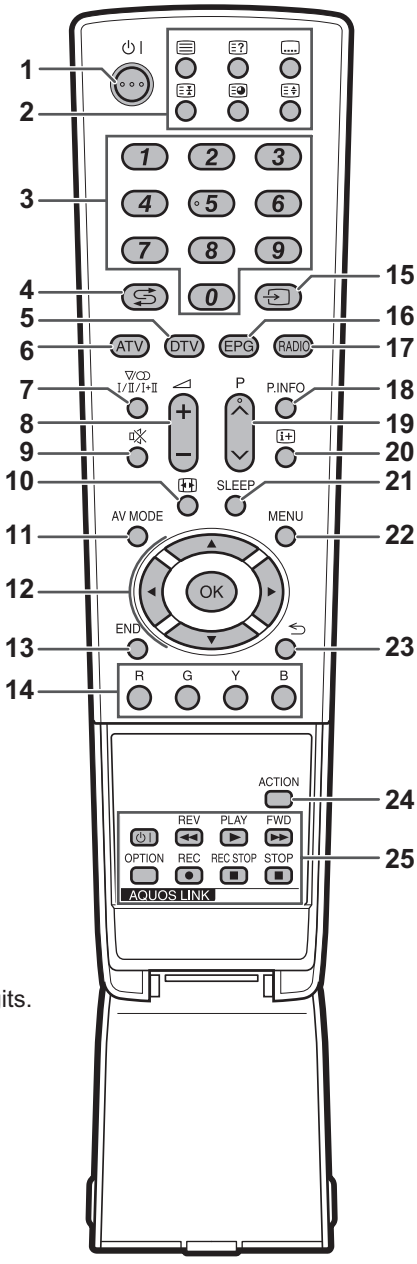
7 **(Sound mode)**
Select a sound multiplex mode.

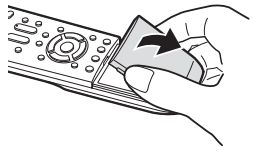
8 **+ / – (Volume)**
Increase/decrease TV volume.

9 **(Mute)**
TV sound on/off.

10 **(WIDE MODE)**
Select a wide mode.

11 **AV MODE**
Select a video setting.





12 **▲/▼/◀/▶ (Cursor)**
Select a desired item on the setting screen.

OK
Execute a command within the “MENU” screen.
ATV/DTV: Display the programme list when no other “MENU” screen is running.

13 **END**
Exit the “MENU” screen.

14 **R/G/Y/B (Colour) buttons**
The coloured buttons are correspondingly used to select the coloured items on the screen (e.g. EPG, MHEG-5, Teletext).

15 **(INPUT SOURCE)**
Select an input source.

16 **EPG**
DTV: Display the EPG screen.

17 **RADIO**
DTV: Switch between Radio and Data mode.
- When only data broadcasting (no radio broadcasting) is transmitted by DVB, the radio broadcasting will be skipped.

18 **P. INFO**
Press to display programme information which is transmitted through digital video broadcasting in the upper left corner of the screen (DTV only).

19 **P ∧/ ∨**
Select the TV channel.

20 **(Display information)**
Press to display the station information (channel number, signal, etc.) in the upper right corner of the screen.

21 **SLEEP**
Press to schedule a time for the TV to automatically standby.

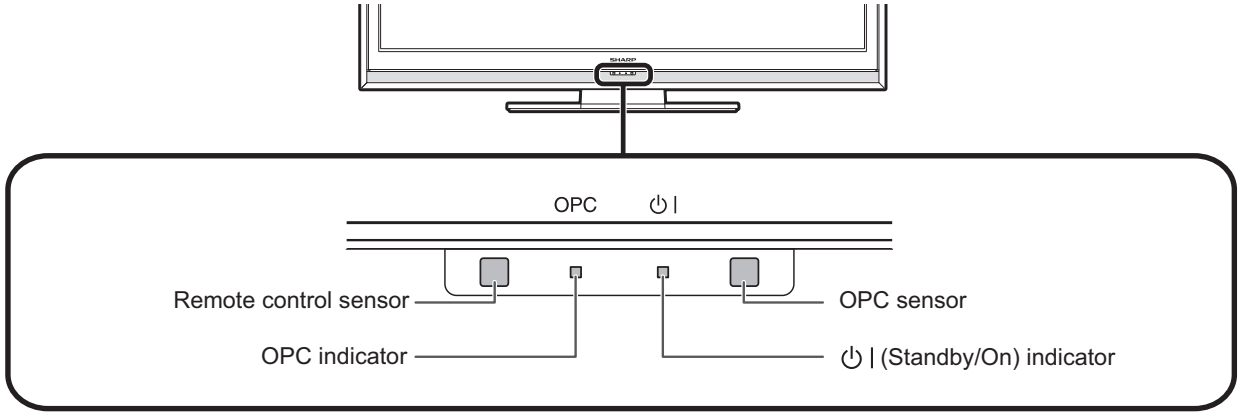
22 **MENU**
“MENU” screen on/off.

23 **(Return)**
Return to the previous “MENU” screen.

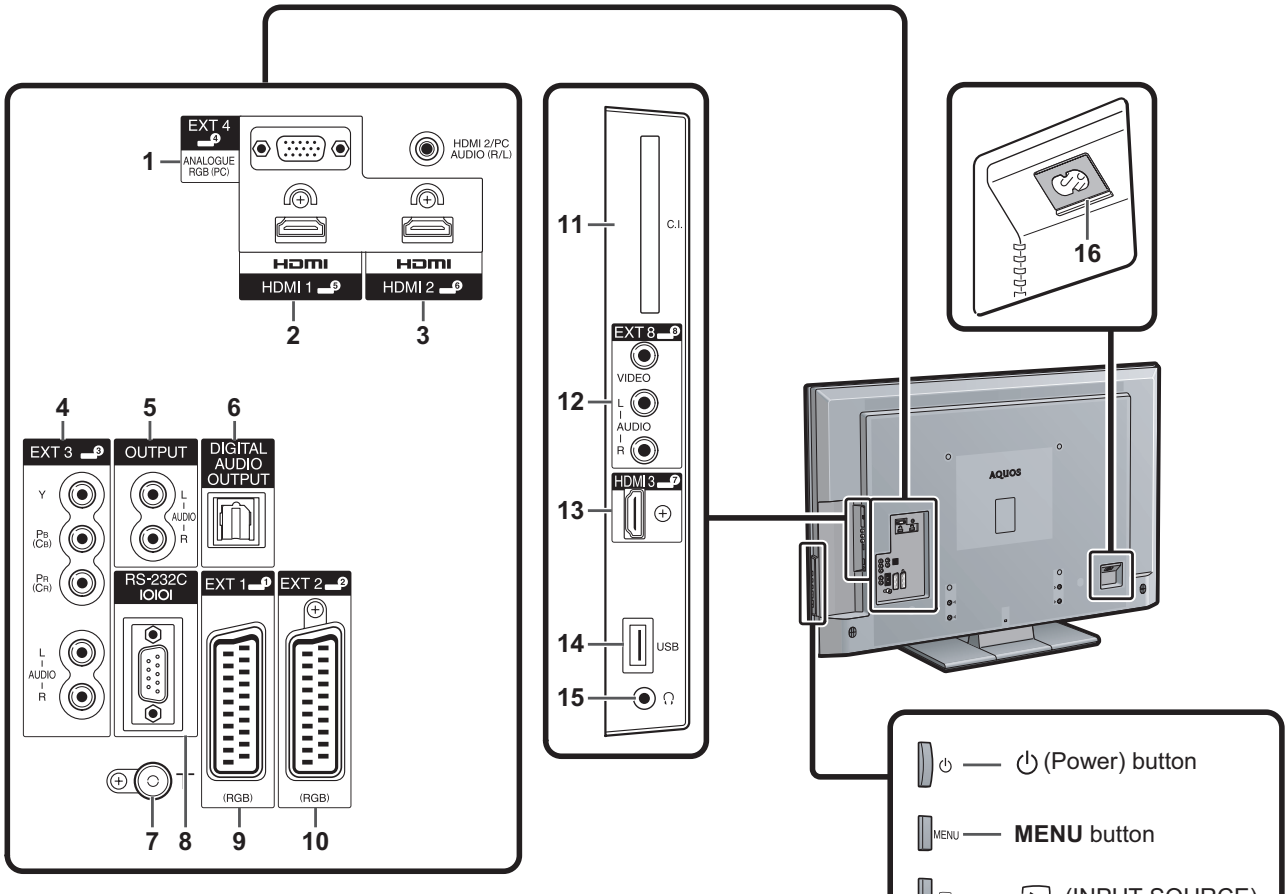
24 **ACTION (Action Mode)**
This key does not work on this model.

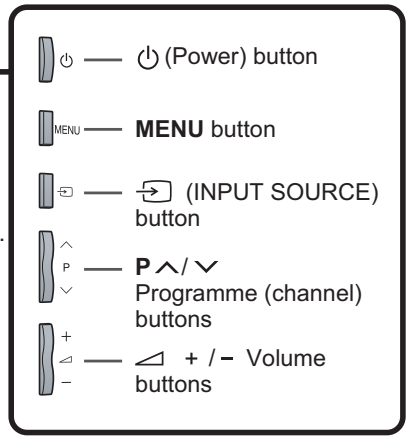
25 **AQUOS LINK buttons**
If external equipment such as a AQUOS BD Player is connected via HDMI cables and is AQUOS LINK compatible, you can use these AQUOS LINK buttons.

TV (Front view)



TV (Rear view)





WARNING:
Excessive sound pressure from earphones and headphones can cause hearing loss.

1 EXT4 (ANALOGUE RGB/AUDIO) terminals*
2 HDMI1 (HDMI) terminal
3 HDMI2 (HDMI/AUDIO) terminals*
4 EXT3 (COMPONENT/AUDIO) terminals
5 OUTPUT (AUDIO) terminals
6 DIGITAL AUDIO OUTPUT terminal
7 Antenna terminal
8 RS-232C terminal
9 EXT1 (RGB) terminal
10 EXT2 (RGB) terminal
11 COMMON INTERFACE slot
12 EXT8 terminals
13 HDMI3 (HDMI) terminal
14 USB terminal
15 Headphones
16 AC INPUT terminal

* The HDMI2 and EXT4 terminals can both use the same audio input terminal. However, the proper item must be selected in the “PC Audio Select” menu.

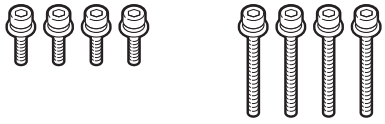
Attaching the stand unit

- Before attaching (or detaching) the stand, unplug the AC cord from the AC INPUT terminal.
- Before performing work, spread cushioning over the surface on which you will be laying the TV. This will prevent it from being damaged.

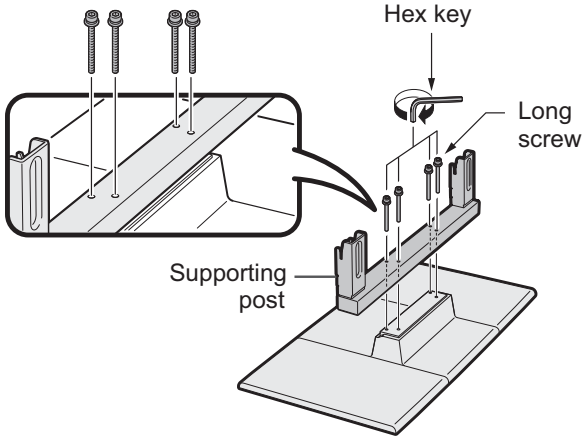
CAUTION

- **Attach the stand in the correct direction.**
- **Be sure to follow the instructions. Incorrect installation of the stand may result in the TV falling over.**

1 Confirm that there are 8 screws (4 short screws and 4 long screws) with the stand unit.



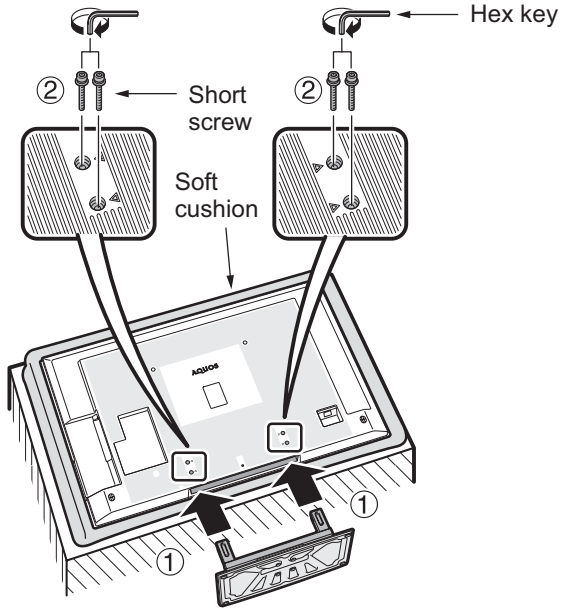
2 Attach the supporting post for the stand unit onto the base using the 4 long screws with the hex key (supplied) as shown.



3 Inserting the stand.

① Insert the stand into the openings on the bottom of the TV (Hold the stand so it will not drop from the edge of the base area).

② Insert and tighten the 4 short screws into the 4 holes on the rear of the TV.



NOTE

- To detach the stand unit, perform the steps in reverse order.

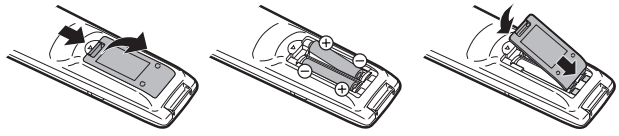
Inserting the batteries

Before using the TV for the first time, insert two supplied “AAA” size alkaline batteries. When the batteries become depleted and the remote control unit fails to operate, replace the batteries with new “AAA” size batteries.

1 Open the battery cover.

2 Insert two supplied “AAA” size alkaline batteries.
- Place batteries with their terminals corresponding to the (+) and (-) indications in the battery compartment.

3 Close the battery cover.



CAUTION

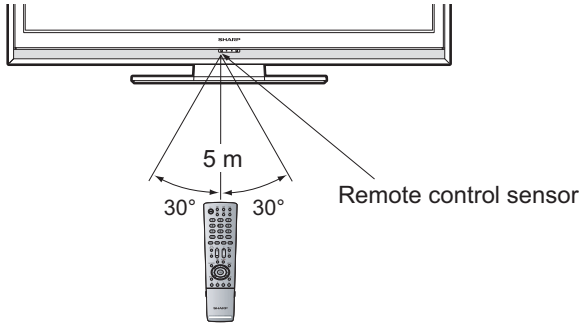
Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.
- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as they have worn out. Chemicals that leak from batteries can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control unit for an extended period of time, remove the batteries from it.
- When replacing the batteries, use alkaline batteries instead of zinc-carbon ones.

Note on disposing batteries:

The batteries provided contain no harmful materials such as cadmium, lead or mercury.
Regulations concerning used batteries stipulate that batteries may no longer be thrown out with the household rubbish. Deposit any used batteries free of charge into the designated collection containers set up at commercial businesses.

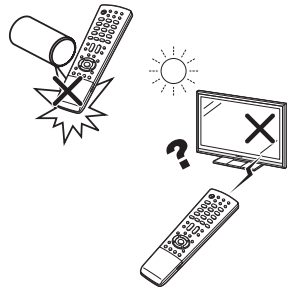
Using the remote control unit

Use the remote control unit by pointing it towards the remote control sensor. Objects between the remote control unit and sensor may prevent proper operation.



Cautions regarding the remote control unit

- Do not expose the remote control unit to shock. In addition, do not expose the remote control unit to liquids, and do not place in an area with high humidity.
- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the unit.
- The remote control unit may not work properly if the remote control sensor of the TV is under direct sunlight or strong lighting. In such cases, change the angle of the lighting or the TV, or operate the remote control unit closer to the remote control sensor.



Troubleshooting

Problem	Possible Solution
• No power.	• Check if you pressed ⏻ on the remote control unit. If the indicator on the TV lights up red, press ⏻ . • Is the AC cord disconnected? • Check if you pressed ⏻ on the TV.
• The TV cannot be operated.	• External influences such as lightning, static electricity, etc., may cause improper operation. In this case, operate the TV after first turning off the power, or unplugging the AC cord and re-plugging it in after one or two minutes.
• Remote control unit does not operate.	• Are batteries inserted with polarity (+, -) aligned? • Are batteries worn out? (Replace with new batteries.) • Are you using it under strong or fluorescent lighting? • Is a fluorescent light illuminating to the remote control sensor?
• Picture is cut off.	• Is the image position correct? • Are screen mode adjustments (WIDE MODE) such as picture size made correctly?
• Strange colour, light colour, or dark colour, or colour misalignment.	• Adjust the picture tone. • Is the room too bright? The picture may look dark in a room that is too bright. • Check the “Colour System” setting.
• Power is suddenly turned off.	• The TV’s internal temperature has increased. Remove any objects blocking the vent or clean. • Is the “Sleep Timer” set? Select “Off” from the “Sleep Timer” menu. • Is “No Signal Off” or “No Operation Off” activated?
• No picture.	• Are connections to external equipment correct? • Is the input signal type selected correctly after connection? • Is the correct input source selected? • Is a non-compatible signal being input? • Is the picture adjustment correct? • Is the antenna connected properly? • Is “On” selected in “Audio Only”?
• No sound.	• Is the volume too low? • Make sure that headphones are not connected. • Check if you pressed 🔇 on the remote control unit. • Is the proper item selected in the “PC Audio Select” menu when connecting devices to the HDMI2 terminal or the EXT4 terminal?
• The TV sometimes makes a cracking sound.	• This is not a malfunction. This happens when the cabinet slightly expands and contracts according to changes in temperature. This does not affect the TV’s performance.

Cautions regarding use in high and low temperature environments

- When the TV is used in a low temperature space (e.g. room, office), the picture may leave trails or appear slightly delayed. This is not a malfunction, and the TV will recover when the temperature returns to normal.
- Do not leave the TV in a hot or cold location. Also, do not leave the TV in a location exposed to direct sunlight or near a heater, as this may cause the cabinet to deform and the LCD panel to malfunction.
  Storage temperature: +5 °C to +35 °C.

Information on the software license for this product

Software composition

The software included in this product is comprised of various software components whose individual copyrights are held by SHARP or by third parties.

Software developed by SHARP and open source software

The copyrights for the software components and various relevant documents included with this product that were developed or written by SHARP are owned by SHARP and are protected by the Copyright Act, international treaties, and other relevant laws. This product also makes use of freely distributed software and software components whose copyrights are held by third parties. These include software components covered by a GNU General Public License (hereafter GPL), a GNU Lesser General Public License (hereafter LGPL) or other license agreement.

Obtaining source code

Some of the open source software licensors require the distributor to provide the source code with the executable software components. GPL and LGPL include similar requirements. For information on obtaining the source code for the open source software and for obtaining the GPL, LGPL, and other license agreement information, visit the following website:
http://www.sharp-eu.com/gpl/

We are unable to answer any questions about the source code for the open source software. The source code for the software components whose copyrights are held by SHARP is not distributed.

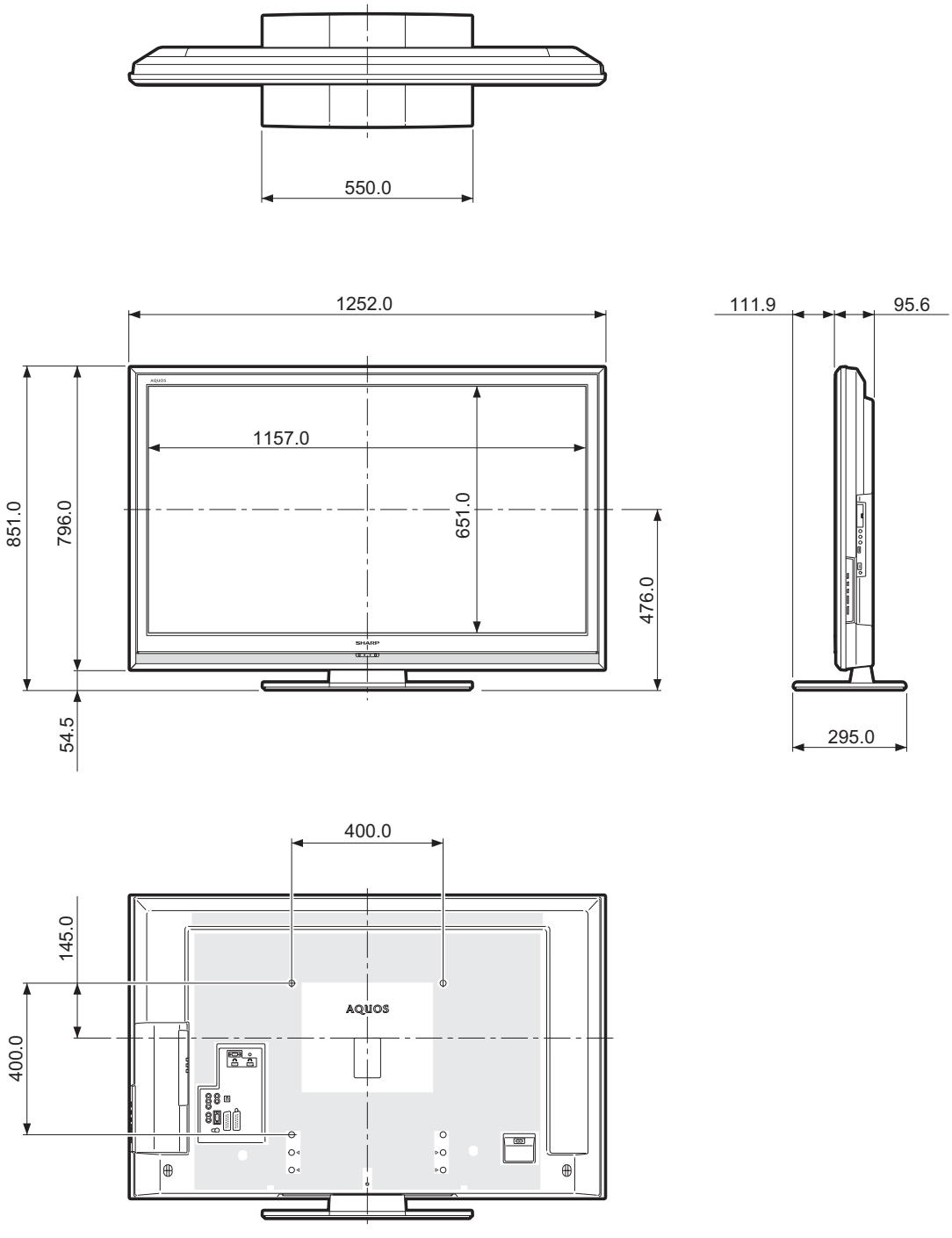
Acknowledgements

The following open source software components are included in this product:

• linux kernel • busy box • uClibc • zlib • libpng • libjpeg

[3] DIMENSIONS

Unit: mm

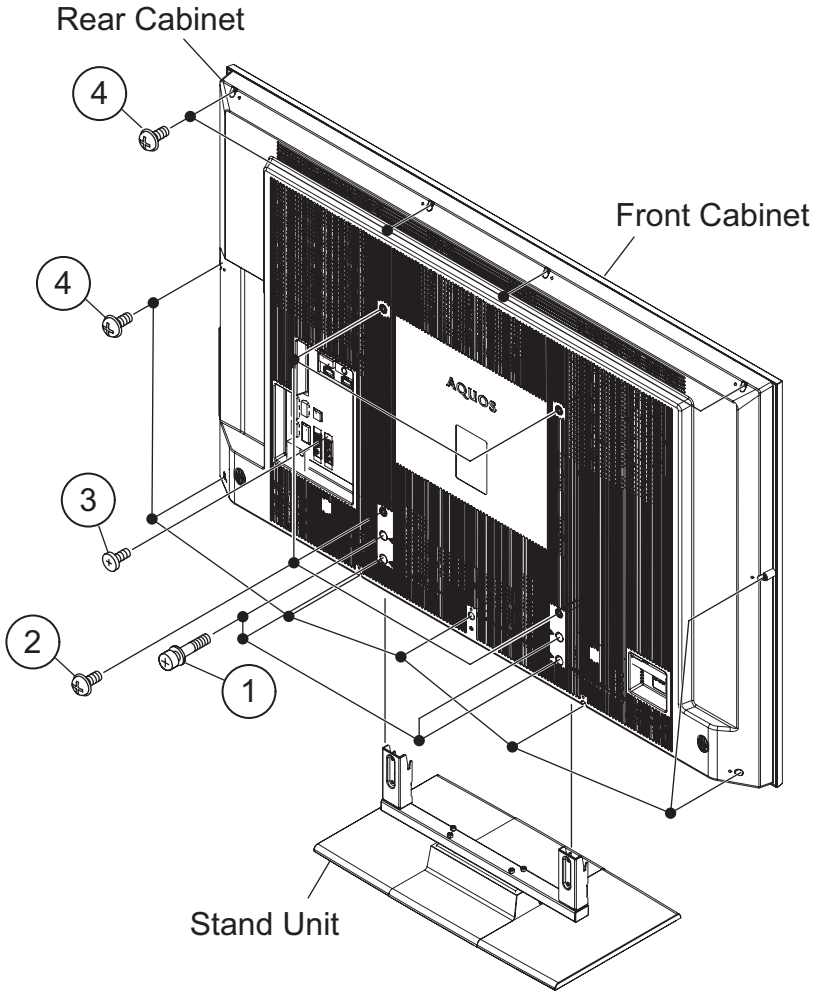


CHAPTER 2. REMOVING OF MAJOR PARTS

[1] REMOVING OF MAJOR PARTS

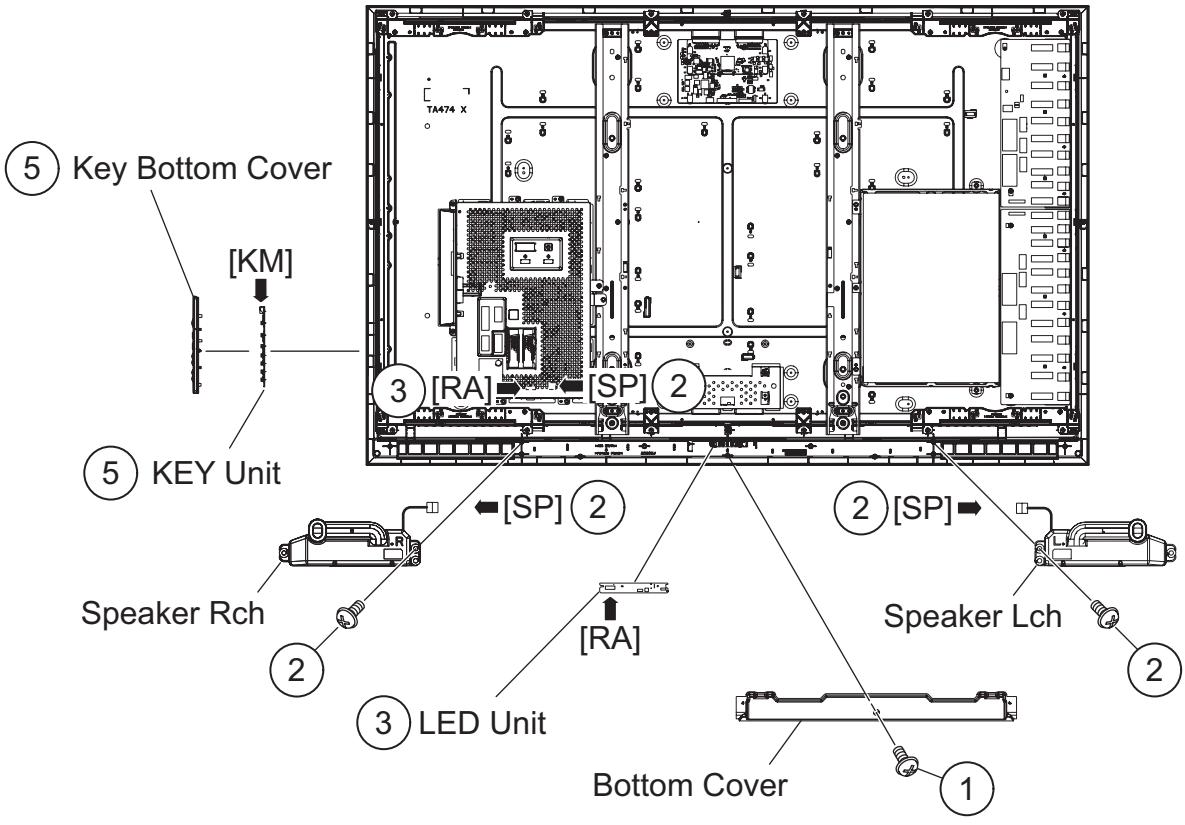
1. Removing of Stand Unit and Rear Cabinet

1. Remove the 4 lock screws and detach the Stand Unit.
2. Remove the 4 lock screws.
3. Remove the 1 lock screw.
4. Remove the 11 lock screws and detach the Rear Cabinet.



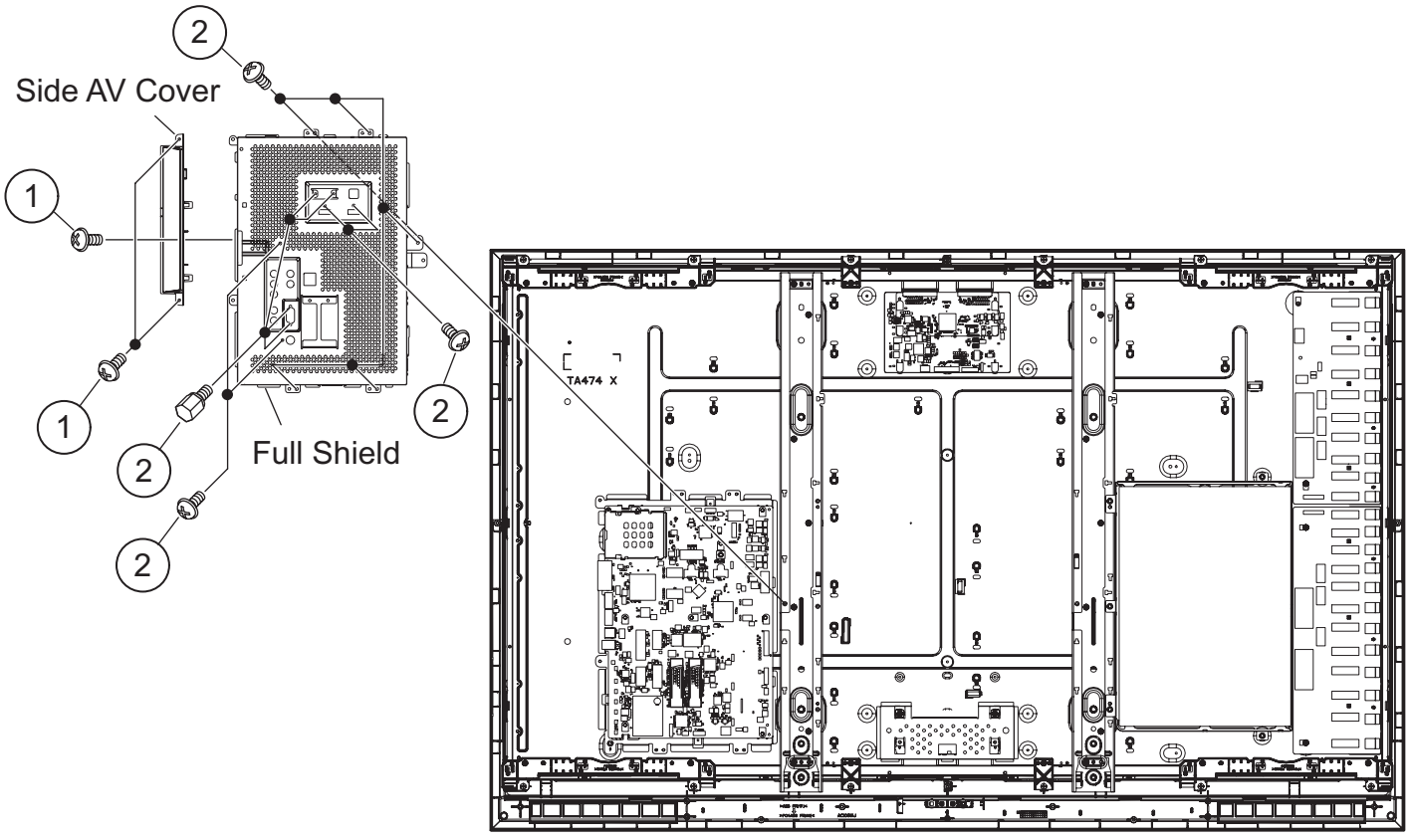
2. Removing of Bottom Cover, Speakers, LED Unit and KEY Unit

1. Remove the 1 lock screw and detach the Bottom Cover.
2. Disconnect SP-Wire. Remove the 2 lock screws. Detach the Speaker-L/R.
3. Detach the R/C, LED Unit, and disconnect RA-Wire.
4. Detach the KEY Unit Ass'y.
5. Detach the KEY Unit from the KEY Button Cover, and disconnect KM-Wire.



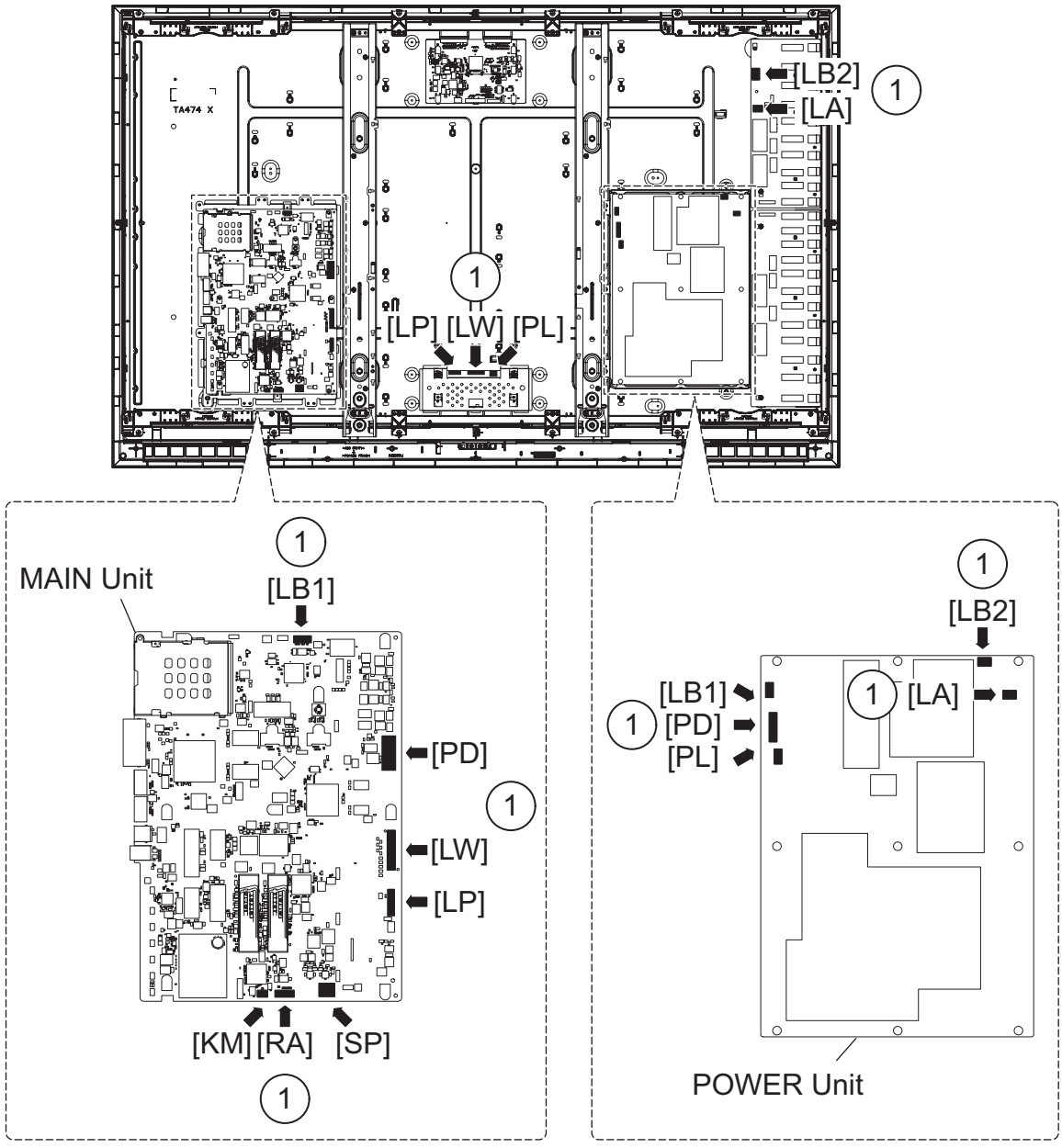
3. Removing of Full Shield and Side AV Cover

1. Remove the 3 lock screws and detach the Side AV Cover.
2. Remove the 9 lock screws, 4 lock shafts and detach the Full Shield.



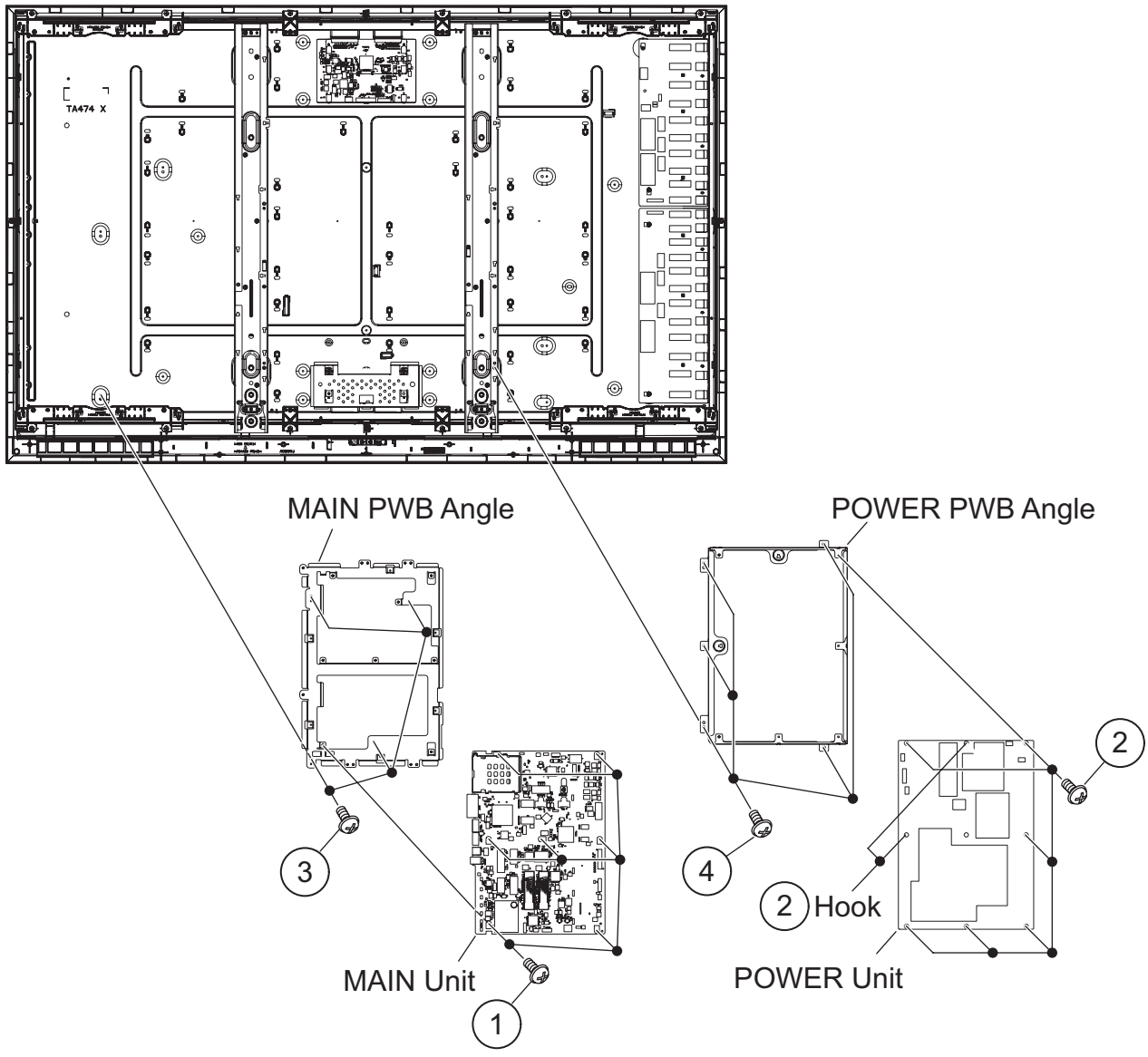
4. Removing of Connectors

1. Disconnect all the connectors from all the PWBs.



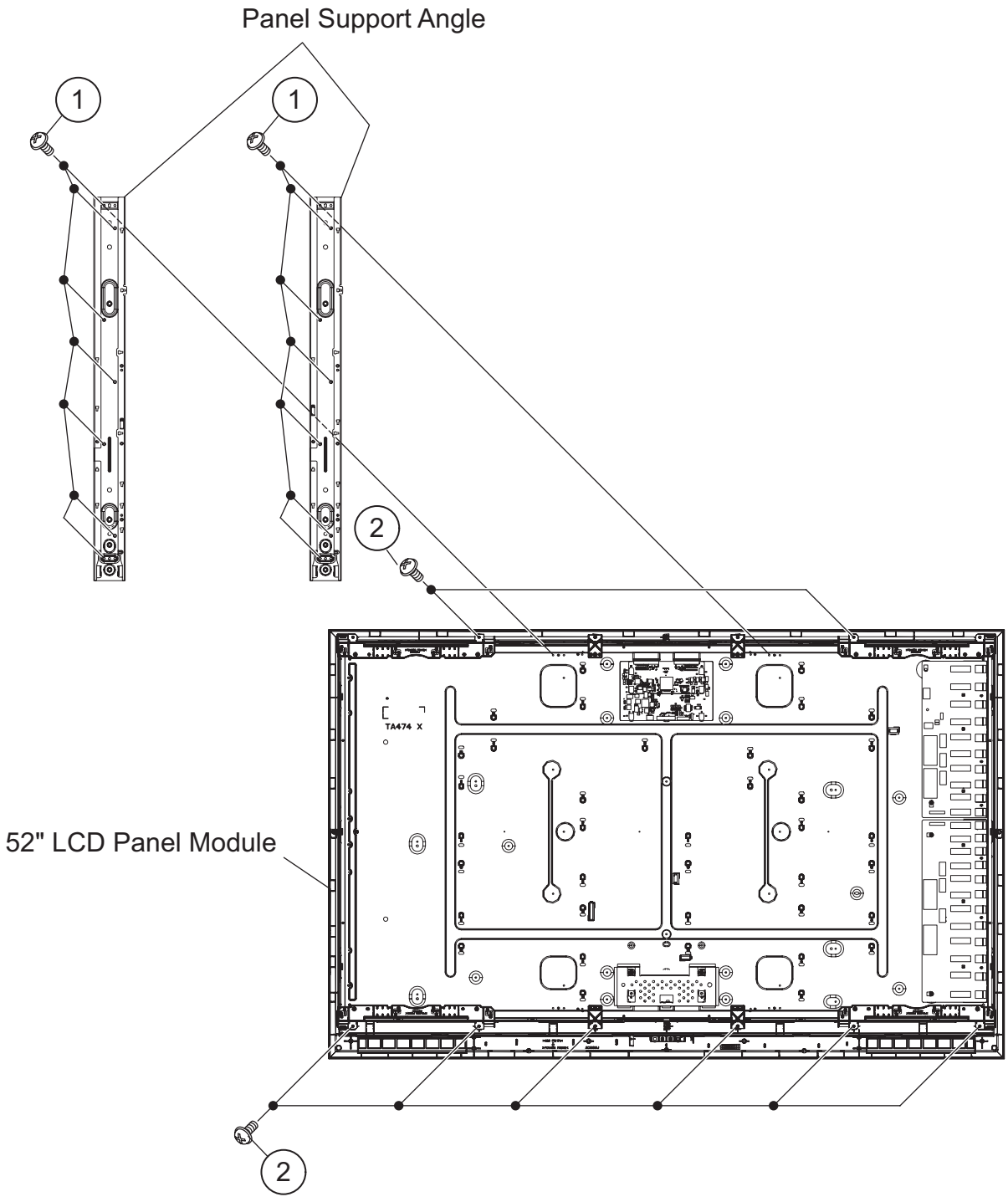
5. Removing of MAIN Unit, POWER Unit and Power PWB Angle

1. Remove the 7 lock screws and detach the MAIN Unit.
2. Remove the 6 lock screws and 2 Hooks. Detach the POWER Unit.
3. Remove the 4 lock screws and detach the MAIN PWB Angle.
4. Remove the 5 lock screws. Detach the Power PWB Angle.



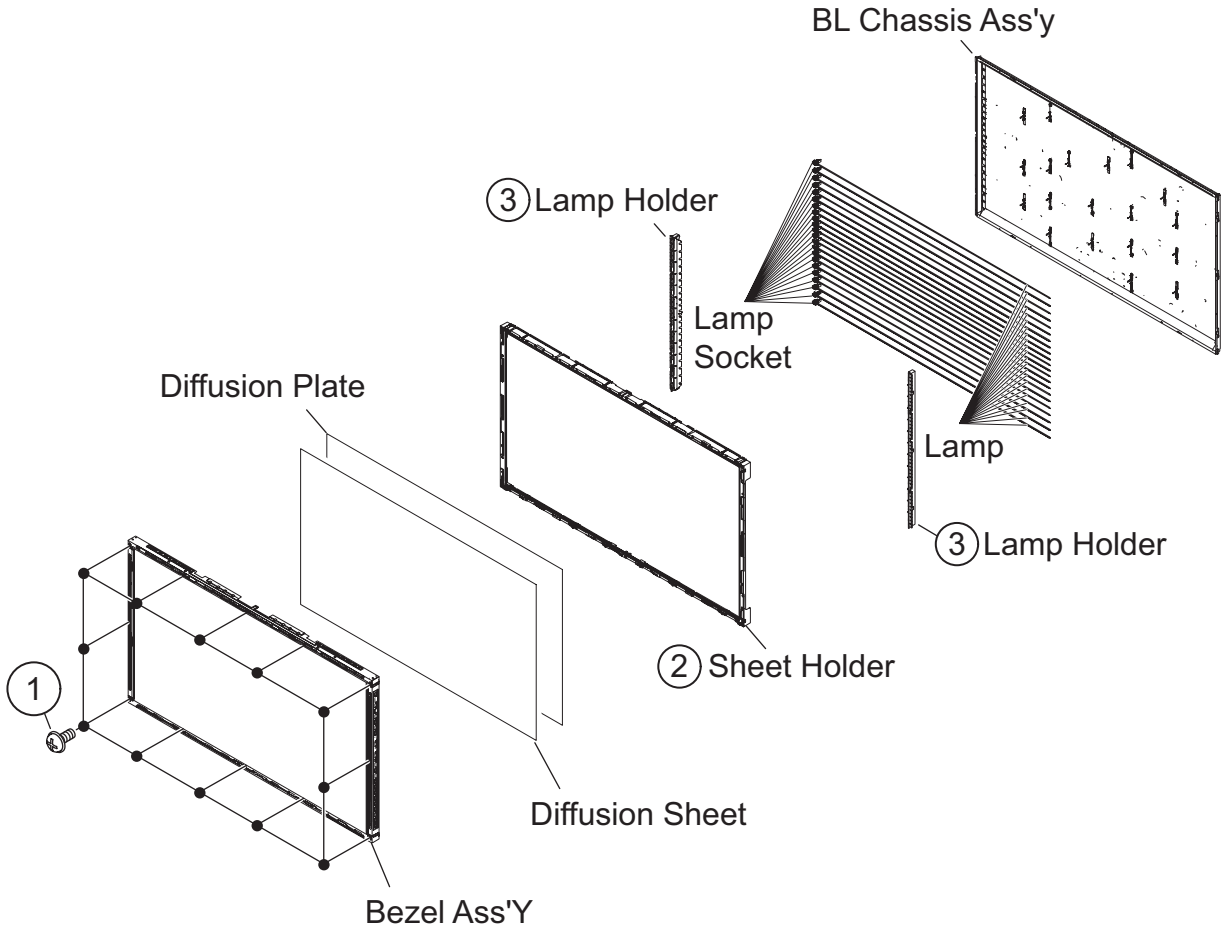
6. Removing of Panel Support Angles and LCD Panel Module

1. Remove the 14 lock screws and detach the Panel Support Angle.
2. Remove the 8 lock screws and detach the LCD Panel Module.



7. Removing of the Lamp

1. Remove the 12 lock screws. Detach the Diffusion Sheet and Diffusion Panel.
2. Detach the 4 Sheet Holders.
3. Remove the 2 Lamp Holders. Detach the Lamp Sockets and Lamps.



CHAPTER 3. ADJUSTMENT PROCEDURE

[1] ADJUSTMENT PROCEDURE

1. Adjustment method after PWB and/or IC replacement due to repair

The unit is set to the optimum at the time of shipment from the factory. If any value should become improper or any adjustment is necessary due to the part replacement, make an adjustment according to the following procedure.

1. Procure the following units in order to replace the main unit, IC8101, IC5001, or IC5003.

   MAIN UNIT: DUNTKE685FM08 (LC-52DH65E/S, LC-52DH66E)

NOTE: [Caution when replacing ICs in the main unit (IC1504)]

The above ICs are EEPROMs storing the EDID data of HDMI. Before replacing the relevant part, procure the following parts in which the data have been rewritten.

IC1504	RH-IXC442WJN1S	EDID (HDMI)
IC1503	RH-IXC697WJQZS	EDID (PC)

2. After replacing the LCD panel or LCD control PWB, check PANEL_SIZE in the following procedure.
   1) Enter the process adjustment mode.
   2) Use the cursor keys ∧ / ∨ and P ∧ / ∨ of R/C to select the item [PANEL_SIZE] on the page 16/16.
   3) Verify that the panel size is displayed.
   4) If the size doesn't match, select the values of the panel size with the Vol ∧ / ∨ keys.
   5) After selection in Step 4), press the OK key, and it is completed with OK displayed.
3. After replacing the LCD panel or LCD control PWB, adjust the VCOM in the following procedure.
   1) Enter the process adjustment mode.
   2) Use the cursor keys ∧ / ∨ and P ∧ / ∨ of R/C to select the item [VCOM ADJ] on the page 10/16.
   3) Press the OK key to verify that the adjustment pattern is displayed.
   4) Use the +/- keys of VOL of R/C to adjust the flicker in the center of the screen to minimum.
   5) When the optimal state is achieved in Step 4, press the OK key to turn the pattern to OFF.

2. Entering and exiting the adjustment process mode

1. Unplug the AC power cord of running TV set to force off the power.
2. While holding down the “VOL (-)” and “INPUT” keys on the set at once, plug in the AC power cord to turn on the power.

   The letter “K” appears on the screen.
3. Next, hold down the “VOL (-)” and “P (∨)” keys on the set at once.

   Multiple lines of blue characters appearing on the screen indicate that the set is now in the adjustment Process mode.

   If you fail to enter the adjustment process mode (the display is the same as normal startup), retry the procedure.
4. To exit the adjustment process mode after the adjustment is done, unplug the AC power cord to force off the power. (When the power is turned off with the remote controller, once unplug the AC power cord and plug it in again. In this case, wait 10 seconds or so before plugging.)

CAUTION: Use due care in handling the information described here lest the users should know how to enter the adjustment process mode. If the settings are tampered with in this mode, unrecoverable system damage may result.

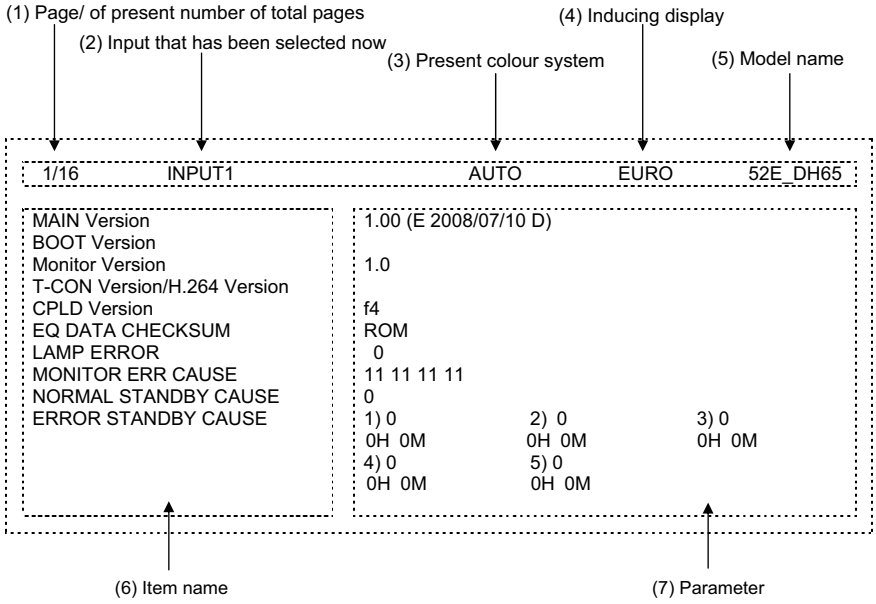
3. Remote controller key operation and description of display in adjustment process mode.

1. key operation

Remote controller key	Main unit key	Function
P (∧ / ∨)	P (∧ / ∨)	Moving an item (line) by one (UP/DOWN)
VOL (+/-)	VOL (+/-)	Changing a selected item setting (+1/-1)
Cursor (∧ / ∨)	—	Turning a page (PREVIOUS / NEXT)
Cursor (</>)	—	Changing a selected line setting (+10/-10)
INPUT	INPUT	Input source switching (toggle switching) (TV→EXT1~8)
RETURN	—	Returning to a present page.
OK	—	Executing a function.

Input mode is switched automatically when relevant adjustment is started so far as the necessary input signal is available.

4. Description of display



No.	Description	Display specification
(1)	Page of present number of total pages	2char/2char Decimal Number mark.
(2)	Input that has been selected now	TV/ EXT1/ EXT2/ EXT3/ EXT4/ HDMI1/ HDMI2/ HDMI3/ EXT8
(3)	Present colour system	NTSC/ PAL/ SECAM/ COMP15K/ COMP33K/ COMP45K/COMP28K/ COMP31K
(4)	Inducing display	EUROPE/ RUSSIA/ SWEDEN
(5)	Model name	MODEL NAME
(6)	Item name	Max. 30 char
(7)	Parameter	Max. 60 char

5. Adjustment process mode menu

The character string in brackets [ ] will appear as a page title in the adjustment process menu header.

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
1/16	1	MAIN Version		Main software version
	2	BOOT Version		BOOT Version.
	3	Monitor Version		Monitor software version
	4	T-CON Version/H.264 Version		T-CON Version/H.264 Version
	5	CPLD Version		CPLD Version.
	6	EQ DATA CHECKSUM		Audio data checksum.
	7	LAMP ERROR		Number of termination due to lamp error.
	8	MONITOR ERR CAUSE		Last error standby cause.
	9	NORMAL STANDBY CAUSE		Situation that became standby at the end.(Excluding the error)
	10	ERROR STANDBY CAUSE	[1] 00H 00M [2] 00H 00M [3] 00H 00M [4] 00H 00M [5] 00H 00M	Error standby cause Total operating time before error.
2/16	1	INDUSTRY INIT	Enter	Initialization to factory settings execution.
	2	INDUSTRY INIT(-Hotel)	OFF	Initialization to factory settings execution.(Hotel mode is excluded)
	3	HOTEL MODE	OFF	Hotel mode setting execution.
	4	Center Acutime	5H 0M	Main operating hours.
	5	RESET	OFF	Main operating hours reset.
	6	Backlight Acutime	19H 35M	Backlight operating hours.
	7	RESET	OFF	Backlight operating hours reset.
	8	LAMP ERROR RESET	OFF	Lamp error reset.
	9	ADJ PARAM SET	Enter	ADJ PARAM SET
	10	VIC XPOS	0	X-coordinate setting for VIC READ
	11	VIC YPOS	0	Y-coordinate setting for VIC READ
	12	VIC SIGNAL TYPE	MAIN	Signal type setting for VIC READ
	13	VIC READ	OFF	Picture level acquisition function. (Level appears in green on the upper right)
3/16	1	RF AGC ADJ	Enter	RF-AGC auto adjustment execution
	2	TUNER ADJ	Enter	TUNER auto adjustment execution
	3	PAL+TUNER ADJ	Enter	PAL TUNER auto adjustment execution
	4	RF AGC ADJ(CA-8CH)	Enter	RF-AGC auto adjustment execution (CA-8CH)
	5	TUNER ADJ(CA-8CH)	Enter	TUNER auto adjustment execution (CA-8CH)
	6	PAL+TUNER ADJ(CA-8CH)	Enter	PAL TUNER auto adjustment execution (CA-8CH)
	7	RF AGC	16	RF AGC adjustment
	8	TUNER DAC	150	TUNER signal level adjustment
	9	TUNER CONTRAST OFFSET	0	TUNER signal level adjustment
	10	RF AGC READ	OFF	
4/16	1	PAL ADJ	Enter	PAL adjustment
	2	SECAM ADJ	Enter	SECAM adjustment
	3	N358 ADJ	Enter	N358 adjustment
	4	PAL CONTRAST	130	PAL contrast adjustment
	5	SECAM CONTRAST	137	SECAM CONTRAST adjustment
	6	N358 CONTRAST	120	N358 CONTRAST adjustment
5/16	1	HDMI CEC TEST	Enter	CEC test
	2	INSPECT USB TERM	Enter	
	3	MONIDATA READ[TEMP/OPC]	OFF	MONITOR Temperature/ OPC Acquisition tool.
	4	CAUSE RESET	Enter	
6/16	1	COMP15K ALL ADJ	Enter	Component 15K picture level adjustment
	2	COMP15K MAIN Y GAIN	194	Y GAIN adjustment value
	3	COMP15K MAIN CB GAIN	215	Cb GAIN adjustment value
	4	COMP15K MAIN CR GAIN	212	Cr GAIN adjustment value
	5	COMP15K Y OFFSET	66	OFFSET adjustment value
	6	COMP15K CB OFFSET	512	Cb OFFSET adjustment value
	7	COMP15K CR OFFSET	513	Cr OFFSET adjustment value
7/16	1	HDTV ADJ	Enter	HDTV video level adjustment
	2	HDTV Y GAIN	195	HDTV Y GAIN adjustment value
	3	HDTV CB GAIN	205	HDTV Cb adjustment value
	4	HDTV CR GAIN	203	HDTV Cr adjustment value
	5	HDTV Y OFFSET	65	HDTV Y OFFSET adjustment value
	6	HDTV CB OFFSET	512	HDTV Cb OFFSET adjustment value
	7	HDTV CR OFFSET	512	HDTV Cr OFFSET adjustment value

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
8/16	1	ANALOG PC ADJ	Enter	DVI ANALOG video level adjustment
	2	R OFFSET	64	R CUTOFF adjustment value
	3	G OFFSET	64	G CUTOFF adjustment value
	4	B OFFSET	66	B CUTOFF adjustment value
	5	R GAIN	193	R DRIVE adjustment value
	6	G GAIN	189	G DRIVE adjustment value
	7	B GAIN	194	B DRIVE adjustment value
9/16	1	SCART RGB ADJ	Enter	SCART RGB level adjustment
	2	SCART R CUTOFF	65	SCART R CUTOFF adjustment value
	3	SCART G CUTOFF	60	SCART G CUTOFF adjustment value
	4	SCART B CUTOFF	64	SCART B CUTOFF adjustment value
	5	SCART R GAIN	200	SCART R GAIN adjustment value
	6	SCART G GAIN	195	SCART G GAIN adjustment value
	7	SCART B GAIN	201	SCART B GAIN adjustment value
10/16	1	VCOM ADJ	69	
	2	LCD LUMA ADJ	Enter	
	3	LCD LUMA UP	26	
	4	LCD LUMA DOWN	13	
11/16	1	DDRA TEST1	Enter	
	2	DDRA TEST2	Enter	
	3	DDRB TEST1	Enter	
	4	DDRB TEST2	Enter	
	5	DDRB TEST3	Enter	
	6	FRC ON/OFF	Enter	
	7	SOUSAM DDR BIST	Enter	
	8	SOUSAS DDR BIST	Enter	
12/16	1	R GAIN(LO)	0	
	2	G GAIN(LO)	0	
	3	B GAIN(LO)	0	
	4	R GAIN(HI)	0	
	5	G GAIN(HI)	0	
	6	B GAIN(HI)	0	
13/16	1	MONITOR TIME OUT	ON	
	2	MONITOR MAX TEMP	30	
	3	MONITOR EEP READ/WRITE	WRITE	
	4	MONITOR EEP ADR	0x 0	
	5	MONITOR EEP DATA	0x 0	
14/16	1	LCD TEST PATTERN	OFF	Pattern with built-in LCD controller display
15/16	1	READ/WRITE	READ	
	2	SLAVE ADDRESS	SLAVE0	
	3	REGISTER ADDRESS	0x 0	
			0x 0	
	4	WRITE DATA	0x 0	
			0x 0	
	5	READ DATA	0x 0	
			0x 0	
16/16	1	EEP SAVE	OFF	Writing setting values to EEPROM.
	2	EEP RECOVER	OFF	Reading setting values from EEPROM.
	3	MONITOR ERROR CAUSE RESET	OFF	
	4	STANDBY CAUSE RESET	OFF	Reset stand by cause.
	5	MODEL NAME	DH65	
	6	PANEL SIZE	52	
	7	PRODUCT EEP ADR	0x 0	
	8	PRODUCT EEP DATA	0x 0	

6. Special features

1. NORMAL STANDBY CAUSE (Page 1/16)

   Display of a cause (code) of the last standby.

   The cause of the last standby is recorded in EEPROM whenever possible.

   Checking this code will be useful in finding a problem when you repair the troubled set.

2. EEP SAVE (Page 16/16)

   Storage of EEP adjustment value

3. EEP RECOVER (Page 16/16)

   Retrieval of EEP adjustment value from storage area.

7. Lamp error detection

1. Function

   This LCD color TV set incorporates a lamp error detection feature that automatically turns off the power for safety under abnormal lamp or lamp circuit conditions. If by any chance anything is wrong with the lamp or lamp circuit or if the lamp error detection feature is activated for some reason, the following will result.

   1) The power is interrupted in about 6 seconds after it is turned on.

      (The power LED on the front of the TV set turns red from green and keeps blinking in red: ON for 300ms and OFF for 1500ms.).

   2) If the above phenomenon 1) occurs 5 times consecutively, it becomes impossible to turn on the power. (The power LED remained red).

2. Measures

   1) Checking with lamp error detection OFF

      Enter the adjustment process mode, referring to 2. Entering and exiting the adjustment process mode.

      If there is a problem with the lamp or lamp circuit, the lamp will go out. (The power LED is green.)

      Then, you can check the operation to see if the lamp and lamp circuit are in trouble.

   2) Resetting the lamp error count

      After the lamp and lamp circuit are found out of trouble, reset the lamp error count. If a lamp error is detected five consecutive times, the power cannot be turned on. Using the cursor (∧ / ∨) key, move to the cursor to [LAMP ERROR RESET], Line 8 on adjustment process mode service page 2/16. With the cursor (</>) keys, select the [LAMP ERROR RESET] value. Finally press the cursor (OK) eys to reset the value to “0”.

      Table of contents of adjustment process mode Page 2/16

INDUSTRY INIT	Enter	
INDUSTRY INIT(-Hotel)	OFF	
HOTEL MODE	OFF	
Center Acutime	5H0M	
RESET	OFF	
Backlight Acutime		
RESET	OFF	
LAMP ERROR RESET	OFF	← Resetting to "0"
ADJ PARAM SET	Enter	
VIC XPOS	0	
VIC YPOS	0	
VIC SIGNAL TYPE	MAIN	
VIC READ	OFF	

8. Public Mode (Hotel Mode)

1. Starting the Public Mode
   - There are two following ways to display the PUBLIC Mode setting screen.

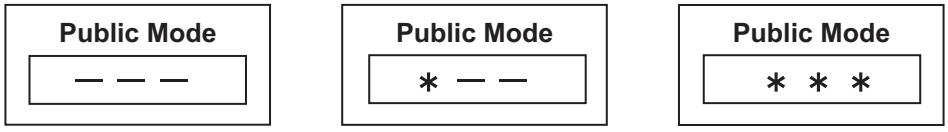
   1) On the process adjustment mode screen (2/16), set the “HOTEL MODE” Flag to ON.

      Turn off the power, and turn it on again, pressing the CHANNEL UP and Volume UP keys of the main unit at the same time.

   2) Enter the Pass Word, and start the unit.

      a) Turn on the power, pressing the INPUT and Volume UP keys of the main unit at the same time.

      b) Display the Pass Word input screen.



      Operation procedure
      - The initial input position is the digit at the left end.
      - For the numeric keys 0 to 9 of R/C, key input is accepted. Input of the other keys is prohibited.
      - Change “–” to “*” by inputting the numeric key at the input position, and shift the input position rightward one digit.
      - When three digits are completely input, the Pass Word is judged.

      c) Check the Pass Word by inputting three digits.

      If the Pass Word is 0 2 7 , it shifts to the PUBLIC Mode setting screen.

      In another case, the screen is erased, and it operates in the ordinary mode.

2. Exiting the Public Mode screen
   - There are two following ways to exit the Public Mode setting screen.

   1) Turn off the power.

   2) Select “Execution” in the PUBLIC_Mode to execute it.

      Activate the restart under the set content. Here, the START input SOURCE setting is excluded since this item is referred to only when the power is turned on.

3. Set value of the Public Mode
   - When the shipment setting is done, a set each value in Public Mode is initialized.

     (PUBLIC MODE in the process mode Setting of a flag is also initialized)
   - Separately, the shipment beginnings when all except for each set value in Public Mode is initialized are provided for a process mode. (INDUSTRY INIT (-HOTEL))
   - Only when turning on the HOTELE MODE item, each setting is effective.
   - After it decides it with EXECUTE, it AC OFF/ON it to reflect a set value.

4. Basic operation in the Public Mode

Volume ∧ / ∨ or Cursor </>		Change or execution of the set value.
Channel ∧ / ∨ or Cursor ∧ / ∨		Movement to the selected item.
Decision (ok)		Execution (Used by the items “Execution” and “RESET”.)
PUBLIC Mode R/C	Ordinary operation mode:	It enters the PUBLIC Mode. PUBLIC MODE Flag is set to “ON”.
	PUBLIC Mode:	It exits the PUBLIC Mode. PUBLIC MODE Flag does not change. Any set item in PUBLIC Mode is not initialized.

Public Mode	
POWER ON FIXED	[VARIABLE]
SHUT DOWN MODE	[NORMAL]
MAXIMUM VOLUME	[60]
VOLUME FIXED	[VARIABLE]
VOLUME FIXED LEVEL	[20]
RC BUTTON	[RESPOND]
PANEL BUTTON	[RESPOND]
MENU BUTTON	[RESPOND]
AV POSITION FIXED	[VARIABLE]
ON SCREEN DISPLAY	[YES]
INPUT MODE START	[NORMAL]
INPUT MODE FIXED	[VARIABLE]
LOUD SPEAKER	[ON]
RC PATH THROUGH	[OFF]
232C POWON	[DISABLE]
HOTELMODE	[ON]
RESET	
EXECUTE	

5. Operation after “RESET”

Select “RESET” in the PUBLIC Mode, and it operates as follows when it is executed (refer to the basic operation).

- The set contents in the PUBLIC mode are initialized.
- It does not exit the PUBLIC mode.
- If “EXCUTE” is not executed, the content that does RESET is not reflected.

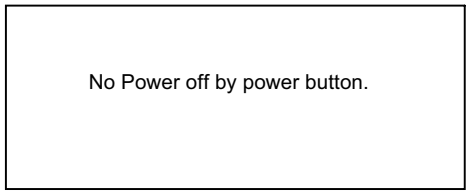
6. Setting items (* Item names and selective items are expressed in English.)

1) Power ON fixed [POWER ON FIXED]

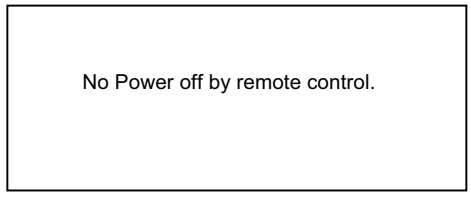
Option	“VARIABLE”, “FIXED_ALL”, “FIXED_BODYKEY” or “RC RESPOND” (loop enabled)
Default	“VARIABLE”
Function	• When set to “FIXED_ALL”, the “POWER/RECEPTION” key on the main unit or remote control is disabled. However, the power can be turned off using the “MAIN POWER” switch. • For some models, the (MAIN) POWER switch is also disabled. • When set to “FIXED_BODYKEY”, only the “MAIN POWER” key on the main unit is disabled (the remote control is enabled). • When selecting “RC RESPOND”, the main unit’s POWER switch toggles between ON and Standby (the same operation as the remote control).
Key disabled when set other than default	• OFF TIMER (SLEEP)
Remarks	• When selecting to “FIXED_ALL”, it functions with the correspondence which isn’t done about other standby factors(see below). • No operation OFF • No signal OFF (including the power management)

If the power button is pressed in the ordinary mode when set to “FIXED_ALL”, the caution is displayed for 5 seconds.

When power button on the main unit is pressed



When power button on R/C is pressed



* The OSD display is an example.

If another ODS is previously displayed, the status is reset (MENU or similar).

2) Instantaneous current shutdown setting when turning off the power [SHUT DOWN MODE]

Option	“NORMAL” or “QUICK”
Default	NORMAL
Function	• Scanning or recording of the digital tuner is enabled/disabled when turning off the power. It is possible to put into the standby state instantaneously due to power off input.
Remarks	When selecting “QUICK”, the function does not work for the following items (The possible method differs from model to model: deleting the item, selection impossible, etc.) • ON TIMER, QUICK START, DIGITAL FIXED, etc.

3) Volume maximum level [MAXIMUM VOLUME]

Option	0 ~ 60 (loop disabled)
Default	60
Function	• The volume cannot be increased more than the adjusted value (the main unit’s speaker only).
Remarks	• When set to 59 or less, only the figure is displayed in the normal mode; the volume bar is not displayed. • The volume of the headphones or monitor output is limited. • The setting is impossible when VOLUME FIXED is set other than VARIABLE.

4) Volume fixed [VOLUME FIXED]

Option	“VARIABLE”, “FIXED”, “AC CTRL” or “AC/RC CTRL” (loop enabled)
Default	“VARIABLE”
Function	• FIXED: The volume is fixed to the value adjusted in the volume fixed level. • AC CTRL: In the case of ACON, the unit starts at the volume specified in the volume fixed level. • AC/RC CTRL: The unit starts at the volume specified in the volume fixed level.
Exception	• In the adjustment process, the volume can be set to any level regardless of this setting.
Key disabled when set to FIXED	• VOLUME UP/DOWN (VOL+/-) [both remote control and main unit] • MUTE (MUTE) * The main unit’s keys for the menu operation are enabled.
Remarks	• VOLUME FIXED has priority over MAXIMUM VOLUME. • The volume of the headphones or monitor output is fixed. • The volume is not displayed when operating the above disabled keys. • VOLUME can be abbreviated to VOL.

5) Volume fixed level [VOLUME FIXED LEVEL]

Option	0 ~ 60 (loop disabled)
Default	20
Function	The volume is fixed to the adjusted value (the main unit's speaker only).
Exception	• In the adjustment process, the volume can be set to any level regardless of this setting.
Remarks	• When setting VOLUME FIXED to "VARIABLE", the setting cannot be changed. • VOLUME can be abbreviated to VOL.

6) Remote control operation [RC BUTTON]

Option	"RESPOND", "NO RESPOND" or "LIMITED" (loop enabled)
Default	RESPOND
Function	The operation of the remote control's keys is set. • When set to "NO RESPOND" the remote control's keys in the normal state are disabled. The POWER key (RECEPTION/STANDBY key) is also disabled. • When set to "LIMITED", only a part of keys (CHANNEL, etc.) is enabled and other keys are disabled. (POWER, VOLUME ∧ ∨, CHANNEL ∧ ∨, LIGHT CONTROL (BRIGHTNESS SENSOR), BROADCAST SELECT)
Exception	• The PROCESS MODE, INSPECTION MODE and HOTEL MODE keys are enabled regardless of this setting. • All the keys are enabled regardless of this setting while entering the process mode, inspection mode or hotel mode.
Remarks	The keys enabled when set to "LIMITED" correspond to those on the remote control for hotel; they differ from model to model.

7) Main Unit Operation [PANEL BUTTON]

Option	"RESPOND" or "NO RESPOND" (loop enabled)
Default	RESPOND
Function	NO RESPOND: The main unit's keys are disabled excluding the POWER key (RECEPTION/STANDBY key).
Exception	• The start operation in the process mode, inspection mode or hotel mode is enabled regardless of this setting. • All the keys are enabled regardless of this setting while entering the process mode, inspection mode or hotel mode. • For the main unit's MENU key, menu operation is possible regardless of the setting during the initial setting when the power is turned on for the first time.

8) Menu operation [MENU BUTTON]

Option	"RESPOND" or "NO RESPOND" (loop enabled)
Default	RESPOND
Function	The MENU key on the main unit or remote control is disabled.
Exception	• The PROCESS MODE, INSPECTION MODE and HOTEL MODE keys are enabled regardless of this setting. • All the keys are enabled regardless of this setting while entering the process mode, inspection mode or hotel mode.
Key disabled when set other than default excluding the MENU key	All the direct transition keys to menu display (AUTO PRESET, MANUAL MEMORY and others)
Remarks	When set to "NO RESPOND" • For the models with the MENU key on the main unit, menu operation is possible regardless of the setting during the initial setting when the power is turned on for the first time

9) AV position fixed [AV POSITION FIXED]

Option	"VARIABLE" or "FIXED" (loop enabled)
Default	"VARIABLE"
Function	• When set to "FIXED", the image adjustment and sound adjustment items in the menu are fixed in the selected state. • When receiving "AV POSITION" of the remote control, only the actual state is displayed, and no setting is changed.
Remarks	• When receiving the sound select direct keys (AV POSITION key, OPC, DOLBY key, etc.), only the actual state is displayed; no setting is changed. • Since the settings for the hotel mode are retained even after the personal data is initialized, each item for the AV position and image adjustment and each value for the sound adjustment are not initialized.

10)OSD display [ON SCREEN DISPLAY]

Option	“YES”, “NO” or “LIMITED” (loop enabled) “LIMITED” is looped only in case of need (destination).
Default	YES
Function	• When set to “NO”, the following OSD is not displayed. Registration, setting, adjustment menu, channel call, volume bar, and input select • When set to “LIMITED”, only a part of OSD is not displayed.
Key which may be enabled (Example of the confusing key)	* OK if simple input select occurs or the original state returns soon if left.
Key disabled when set other than default (example)	* The keys by which visibility of the screen or sound is changed cannot be used. STILL IMAGE, SCREEN DISPLAY, OFF TIMER, AV POSITION, BRIGHTNESS SENSOR, SCREEN SIZE SELECT, AUTO PRESET, MANUAL MEMORY, IMAGE SELECT, SOUND SELECT, LANGUAGE
Remarks	• When set to “NO”, The set time of OFF TIMER “SLEEP” is cleared. When the card function is set to “NO”, all the functions including input select and direct keys are invalid.

11)Start mode [INPUT MODE START]

Option	“NORMAL” or “Input source 1 (input selection or channel)” • • • (loop enabled)
Default	NORMAL
Function	The input source or channel to start when turning on the power is set. If “NORMAL”, the content of the last memory is followed.
Remarks	• When set other than “NORMAL”, Display of the channel setting menu and channel setting operation are prohibited. • When set to “NORMAL”, “START MODE FIXED” is set to “VARIABLE” and selection is prohibited.

Example of option: “NORMAL”

“TVD(002TV)”, “INPUT1”, “INPUT2”, “INPUT3”, “PC”, “HDMI1”, “HDMI2”, “HDMI3”, “INPUT8”

12)Input fixed [INPUT MODE FIXED]

Option	“VARIABLE” “FIXED”, “AC CTRL” or “AC/RC CTRL” (loop enabled)
Default	VARIABLE
Function	When set to “FIXED”, switching to another channel or input is impossible after start-up in the set value of “INPUT MODE START”. When set to “AC CTRL”, the unit starts in the set value of “INPUT MODE START” in the case of the ACON only. When set to “AC/RC CTRL”, the unit starts in the set value of “INPUT MODE START”.
Key disabled when set To “FIXED” (example)	CHANNEL ∧ ∨, DIRECT CHANNEL buttons, FLASHBACK, INPUT SELECT, TV/VIDEO, AUTO PRESET, MANUAL MEMORY, i.LINK, DIRECT INPUT SELECT, ATV, DTV, EPG, RADIO
Remarks	• If the “START MODE” setting is “NORMAL”, this item cannot be set. Set to “VARIABLE”. • When set to “FIXED” The channel setting menu and input selection menu in the menu are not displayed.

13)Speaker ON/OFF selection [LOUD SPEAKER]

Option	“ON” or “OFF” (loop enabled)
Default	ON
Function	The sound from the speakers is not output even if the headphones are not used.
Remarks	• When the VOLUME UP/ DOWN key is pressed, the mute icon is displayed for 4 seconds. • For the MUTE key and sound-related keys, caution is displayed. • For the headphones and monitor output sound, normal operation is possible.

14)Remote control path through [RC PATH THROUGH]

Option	“OFF”, “ON:TV RCE” or “ON:TV RCD” (loop enabled)
Default	OFF
Function	The signal received by the remote control’s light-receiving section is output to the blank pin (9pin) of RS232C.
Exception	• Even in the case of “ON:TV RCD”, the PROCESS MODE, INSPECTION MODE and HOTEL MODE keys are enabled. • Even in the case of “ON: TV RCD”, all the keys are enabled while entering the PROCESS MODE, INSPECTION MODE and hotel mode.
Remarks	• The model always outputting and that impossible to output exist due to the structure of the hardware.

15)232C power ON control [232C POWON]

Option	“ENABLE” or “DISABLE” (loop enabled)
Default	DISABLE
Function	Power ON by the 232C command is enabled/ disabled in the standby state. The same function as 232C command “RSPW”. “ENABLE”: POWR0001 is always enabled. “DISABLE”: Start-up may be impossible at POWR0001. (If the 232C command reception module is set to OFF, the command is invalid.)

16)Hotel mode setting [HOTELMODE]

Option	“OFF” or “ON” (loop enabled)
Default	OFF
Function	The items set in the hotel mode setting menu are enabled or disabled. The same item as [HOTELMODE] in the adjustment process menu.
Remarks	• Each operation of the hotel mode is impossible unless this item is set to ON.

9. Video signal adjustment procedure

The adjustment process mode menu is listed in Section 5.

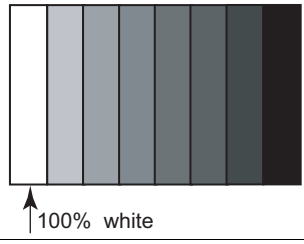
Signal generator level adjustment check (Adjustment to the specified level)

- Composite signal PAL : 0.7Vp-p ± 0.02Vp-p (Pedestal to white level)
- RGB signal : 0.7Vp-p ± 0.02Vp-p
- 15K component signal (50 Hz) : Y level : 0.7Vp-p ± 0.02Vp-p (Pedestal to white level)
  : PB, PR level : 0.7Vp-p ± 0.02Vp-p
- 33K component signal : Y level : 0.7Vp-p ± 0.02Vp-p (Pedestal to white level)
  : PB, PR level : 0.7Vp-p ± 0.02Vp-p

1. Entering the adjustment process mode

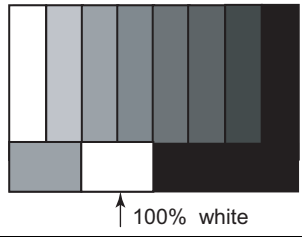
   Enter the adjustment process mode according to Section 2.

2. PAL signal adjustment

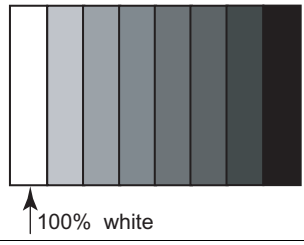
	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] PAL Full Field Color Bar composite signal [Terminal] EXT1 SCART IN	• Feed the PAL full field colour bar signal (75% colour saturation) to EXT1 SCART IN. [VIDEO in signal] 
2	Auto adjustment performance	Page 4/16	Bring the cursor on [PAL ADJ] and press [OK] [PAL ADJ OK] appears when finished.

CAUTION: When going on "PAL signal adjustment" of 2 item after all adjustment completion, please be sure to put "TUNER adjustment" of 3 item into effect after it.

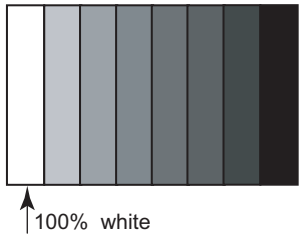
3. TUNER adjustment

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] PAL Split Field Colour Bar RF signal U/V [Terminal] TUNER	• Feed the PAL Split Field colour bar signal (E-12ch) to TUNER. • Make sure the PAL colour bar pattern has the sync level of 7:3 with the picture level. Signal level: 55 dB μV ± 1dB (75Ω LOAD) [E-12CH] 
2	Auto adjustment performance	Page 3/16	Bring the cursor on [TUNER ADJ] and press [OK] [TUNER ADJ OK] appears when finished.

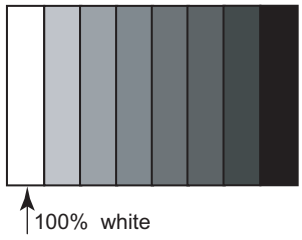
4. SECAM adjustment

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] SECAM Full Field Colour Bar signal [Terminal] EXT1 SCART IN	• Feed the SECAM full field colour bar signal (75% colour saturation) to EXT1 SCART IN. 
2	Auto adjustment performance	Page 4/16	Bring the cursor on [SECAM ADJ] and press [OK] [SECAM ADJ OK] appears when finished.

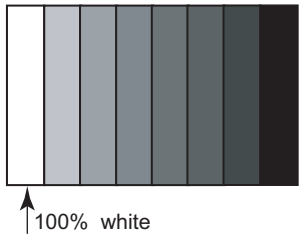
5. ADC adjustment (Component 15K)

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] COMP15K, 50Hz 100% Full Field Colour Bar signal [Terminal] EXT3 COMPONENT IN	• Feed the COMPONENT 15K 100% full field colour bar signal (100% colour saturation) to EXT3 COMPONENT IN. 
2	Auto adjustment performance	Page 6/16	Bring the cursor on [COMP15k ALL ADJ] and press [OK] [COMP15k ALL ADJ OK] appears when finished.

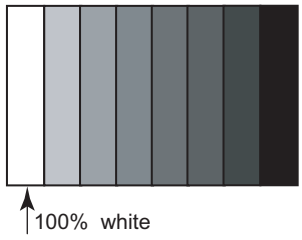
6. ADC adjustment (Component 33K)

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] COMP33K, 50Hz 100% Full Field Colour Bar signal [Terminal] EXT3 COMPONENT IN	Feed the COMPONENT 33K 100% full field colour bar signal (100% colour saturation) to EXT3 COMPONENT IN. 
2	Auto adjustment performance	Page 7/16	Bring the cursor on [HDTV ADJ] and press [OK] [HDTV ADJ OK] appears when finished.

7. PC signal adjustment (ANALOG D-sub15PIN)

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] XGA 60Hz 100% Full Field Colour Bar signal [Terminal] EXT4 PC IN	• Feed the XGA 60Hz 100% full field colour bar signal (100% colour saturation) to EXT4 PC IN. 
2	Auto adjustment performance	Page 8/16	Bring the cursor on [ANALOG PC ADJ] and press [OK] [ANALOG PC ADJ OK] appears when finished.

8. RGB signal adjustment (SCART)

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] RGB15K, 50Hz 100% Full Field Colour Bar signal [Terminal] EXT1 SCART IN	• Feed the RGB 15k 50Hz 100% full field colour bar signal (100% colour saturation) to EXT1 SCART IN. 
2	Auto adjustment performance	Page 9/16	Bring the cursor on [SCART RGB ADJ] and press [OK] [SCART RGB ADJ OK] appears when finished.

10. White Balance Adjustment

For white balance adjustment, adjust the offset values on pages 12/16.

[Condition of the unit for inspection] : PC mode, Modulated light (+16), Color temperature (High)
[Input signal condition] : HDMI 1080i 15IRE(LO), 78IRE(HI)
[Adjustment reference device] : Minolta CA-210
[Adjustment procedure]

1) Display the current adjustment status at R/G/B_GAIN(HI). (Page 12/16 of process adjustment)

   The signal of 78IRE is input.

2) Read the value of the luminance meter. x=0.272, y =0.277

3) Change R_GAIN(HI)/ B_GAIN(HI) (Adjustment offset value) on page 12/16 of process adjustment so that the values of the luminance meter approach x=0.272 and y =0.277.

   (Basically, G is not changed. If adjustment fails with R and B, change G. When G is lowered, the weaker of R or B must be fixed.)

4) Display the adjustment status of the current R/G/B_GAIN(LO).

   The signal of 15IRE is input.

   Change R_GAIN(LO)/ B_GAIN(LO) (adjustment offset value) on page 12/16 of process adjustment so that the values of the luminance meter approach x =0.272 and y = 0.277.

5) Both HI and LO are repeating the step from 1 to 4 until becoming an aim value.

   [Adjustment reference standard value]

   Adjustment spec ± 0.002 Inspection spec ± 0.004 (point LO)

   Adjustment spec ± 0.001 Inspection spec ± 0.002 (point HI)

6) After completing adjustments, set EEP SAVE (16/16) to ON in the process menu to save the white balance adjustment value.

11. Confirmation item

1. After repairing the H.264 peripheral circuits, check that the DTV signal is received in the UK setting. (DH65 and DH66 series models only)
2. HDMI-CEC Inspection

   The thing that the HDMI-CEC circuit operates is confirmed.

12. Initialization to factory settings

CAUTION: When the factory settings have been made, all user setting data, including the channel settings, are initialized.
(The adjustments done in the adjustment process mode are not initialized.) Keep this in mind when initializing these settings.

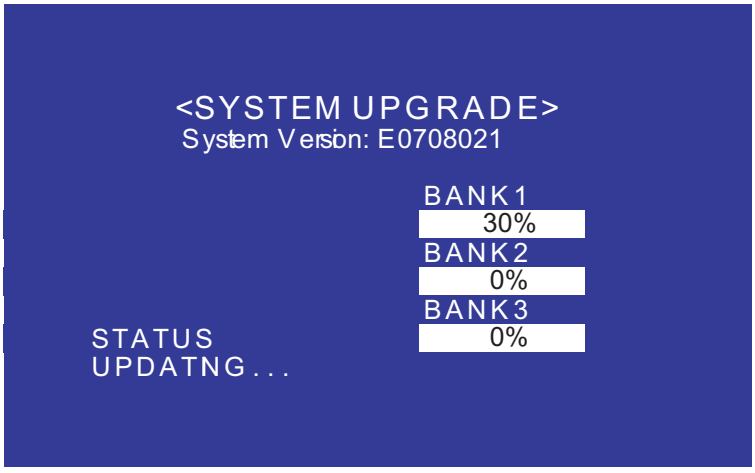
	Adjustment item	Adjustment conditions	Adjustment procedure
1	Factory settings	ends by turning off the MAIN POWER key. (See to below caution)	• Enter the adjustment process mode. • Move the cursor to [INDUSTRY INIT] on page 2/16. • Use the R/C key to select a region from [EUROPE/ RUSSIA/ SWEDEN] and press the [OK] key. • “EXECUTING” display appears. • After a while, “INDUSTRY INIT SUCCESS” display appears, the setting is completed. When succeeding: Background color (green) When failing: Background color (red)
			The following items are initialized in the factory setting. 1) User settings 2) Channel data (e.g. broadcast frequencies) 3) Maker option setting 4) Password data

After adjustments, exit the adjustment process mode.
To exit the adjustment process mode, unplug the AC power cord from the outlet to forcibly turn off the power.
When the power is turned off with the remote control, unplug the AC power cord and plug it back in (wait approximately 10 seconds before plugging in the AC power cord)
Please execute the initialized in the factory setting again when you turn on the power supply after the initialized in the factory setting is set.

13. Upgrading the software

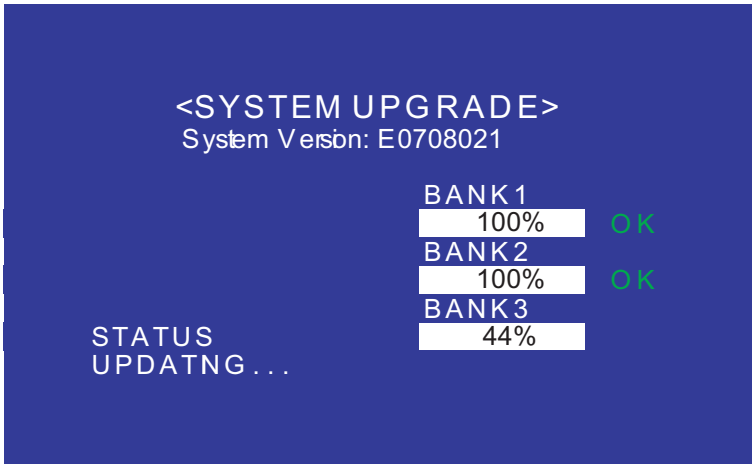
1. Turn off the AC power (Unplug the AC power cord).
2. Insert the upgrading USB flash memory for upgrade into the service slot.
3. While holding down the power button, plug in the AC power cord of the main unit to turn on the power.
4. Upgrade begins automatically.

   After the set starts, the upgrade screen like the figure below is displayed.

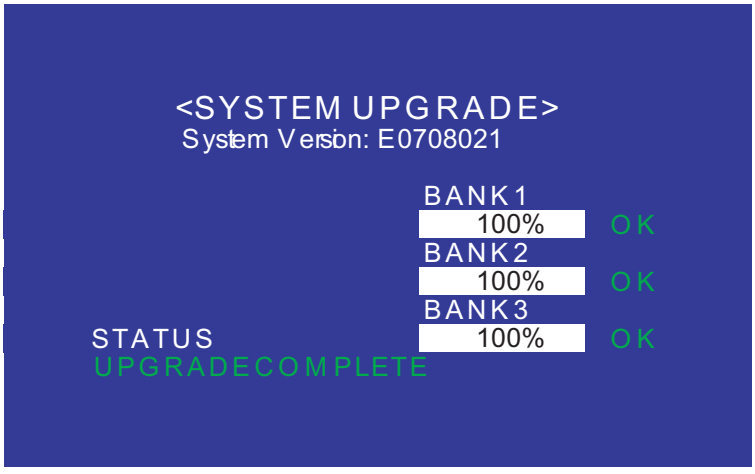


5. If any of the procedures fails, the following upgrade failure screen shows up. For the failing procedure, the “NG” marking turns red.

NOTE: In such case, try to upgrade the software again. If it still fails, the hardware may be in trouble.



6. When all the procedures are complete, the following upgrade success screen shows up. The new software version can be confirmed on screen. The version number appears when each item has been successfully upgraded. Finally the main version number appears on screen.



7. Turn off the AC power (Unplug the AC power cord). Take out the upgrading USB flash memory.
   It waits for about 20 seconds until the AC power supply is turned off.
8. Now the software has been upgraded.

NOTE: Then get the set started and call the process adjustment screen 1/16 to check the main software version.

CAUTION: 1) Do not take out and put in the USB flash memory during formatting.

2) It takes about one minute to the rewriting completion.
Please confirm the upgrade status on the screen becomes 100%.

3) The AC power supply of the set is waited for about 20 seconds until off (The AC outlet is pulled out) after the upgrade is completed.

CHAPTER 4. TROUBLESHOOTING TABLE

[1] TROUBLESHOOTING TABLE

The sound is not emitted from the speaker though the picture has come out.

↓

No sound output in all modes.?

↓

Is I2SO_DATA signal output more than IC1302 (DSP)?
Pin58: I2SO_DATA
Pin57: I2SO_SCLK
Pin56: I2SO_LRCLK
Pin75: I2SO_MCLK

NO → Is the I2C SERIAL DATA/CLOCK communication of IC1302 normal? (Pin52: SDA1/Pin51: SCL1)

YES ↓

Check IC1302 and its peripheral circuits.

↓

Is I2SO_DATA signal input to IC1304 (POWER_AMP.)?
Pin30: I2SO_DATA
Pin28: I2SO_SCLK
Pin29: I2SO_LRCLK
Pin27: I2S0_MCLK

NO → Check the line between IC1302 and IC1304.

YES ↓

Is the I2C SERIAL DATA/CLOCK communication of IC1304 normal? (Pin33: SDA1/Pin34: SCL1)

NO → Check IC1304 and its peripheral circuits.

YES ↓

Is the audio signal output of pin(13, 10/L-ch), (9, 6/R-ch) of IC1304 (POWER_AMP.) normal?

NO → Check IC1304 and its peripheral circuits.

YES ↓

Is the audio signal output of pins (1, 2/L-ch), (4, 3/R-ch) of P1301(SP) terminal normal?

NO → P1301(SP) terminal and the peripheral circuit (L/C filter) are checked.

YES ↓

Check Speaker (right and left) and wire harness.

No sound (during the reception of TV(ANALOG) broadcasting)

↓

Does not the sound go out though the picture has come out when UHF/VHF is received?

↓

Is a SIF signal output from pin (4) of TUNER (TU7501)?

NO → Check the tuner and its peripheral circuits.
Replace as required.

YES ↓

Is the SIF signal sent to pins (92) of IC1302(DSP)?

NO → Check the line between TU7501 and IC1302.
(Q7503, etc.)

YES ↓

Refer to “No sound output in all modes”

No sound (during the reception of TV(DIGITAL) broadcasting)

↓

Does not the sound go out though the picture has come out when DTV(H.264) is received?

↓

Is H.264_I2S signal output from pin (D26/H.264_I2S_MCLK), (E24/H.264_I2S_SCLK), (E26/H.264_I2S_LRCLK) and (A25/H.264_I2S_DATA) of IC5001 (H.264_DECODER)?	NO →	Check IC5001 and its peripheral circuits.
↓ YES		
Is H.264_I2S signal input to pin (13/H.264_I2S_MCLK), (3/H.264_I2S_SCLK), (6/H.264_I2S_LRCLK) and (10/H.264_I2S_DATA) of IC1306 (SW.)?	NO →	Check the line between IC5001 and IC1306.
↓ YES		
Is DIG_I2S signal input to pin (82/DTV_SCK), (83/DTV_WS) and (84/DTV_SDO) of IC1302 (DSP)?	NO →	Check the line between IC1306 and IC1302.
↓ YES		
Refer to “No sound output in all modes”.		

No sound from external input devices (1)

↓

Does not the sound of the audio signal input to EXT1/EXT2 go out?

↓

Is there a audio input signal in pins (6/IN1L) and (2/IN1R) of EXT1 (SC502)?	NO →	Check the setting of an external input device that connects with EXT1.
Is there a audio input signal in pins (6/IN2L) and (2/IN2R) of EXT2 (SC501)?	NO →	Check the setting of an external input device that connects with EXT2.
↓ YES		
EXT1 Is the audio signal input to pins(9/AIN1_L) and (10/AIN1_R) of IC1302(DSP)?	NO →	Check the line between SC502 and IC1302.
EXT2 Is the audio signal input to pins (13/AIN2_L) and (14/AIN2_R) of IC1302 (DSP)?	NO →	Check the line between SC501 and IC1302.
↓ YES		
Refer to “No sound output in all modes”.		

No sound from external input devices (2)

Does not the sound of the audio signal input to EXT3 go out?

Is there a audio input signal in pins (2/IN4L) and (4/IN4R) of EXT3 (J502)?

NO → Check the setting of an external input device that connects with EXT3.

YES

Is the audio signal input to pins(99/AIN4_L) and (100/AIN4_R) of IC1302(DSP)?

NO → Check the line between J502 and IC1302.

YES

Refer to “No sound output in all modes”.

No sound from external input devices (3)

Does not the sound of the audio signal input to HDMI-2 mode go out?

"Checked whether to have selected " "Analogue" " by the Audio setup of the HDMI option. "

YES

Does not the sound of the audio signal input to PC mode go out?

Is there a audio input signal in pins(2/PC_L) and (3/PC_R) of HDMI-2/PC(J1301)?

NO

Check the setting of an external input device that connects with HDMI-2/PC.

YES

Is the audio signal input to pins (19/AIN3_L) and (20/AIN3_R) of IC1302 (DSP)?

NO → Check the line between J1301 and IC1302.

YES

Refer to “No sound output in all modes”.

No sound from external input devices (4)

Does not the sound of the audio signal input to EXT8 go out?

Is there a audio input signal in pins(5/IN3L) and (4/IN3R) of EXT8(J505)?

NO → Check the setting of an external input device that connects with EXT8.

YES

Is the audio signal input to pins(28/AIN3_L) and (29/AIN3_R) of IC1302(DSP)?

NO → Check the line between J505 and IC1302.

YES

Refer to “No sound output in all modes”.

The audio signal is not output (1)

↓

No audio signal output from EXT1/EXT2 terminal.(HDMI/DTV(H.264))

↓

Is there a audio output signal in pins(3/L-ch) and (1/R-ch) of EXT1(SC502)?	YES →	Check the setting of an external input device that connects with EXT1.
Is there a audio output signal in pins(3/L-ch) and (1/R-ch) of EXT2(SC501)?	YES →	Check the setting of an external input device that connects with EXT2.

↓ NO

<EXT1> Is SC-MUTE [pin(67) of IC9101(CPLD)] at H?	YES →	Check the peripheral circuits of IC9101 and SC-MUTE. (Q503, Q505, etc.)
<EXT2> Is SC2-MUTE [pin(65) of IC9101(CPLD)] at H?	YES →	Check the peripheral circuits of IC9101 and SC2-MUTE. (Q502, Q504, etc.)

↓ NO

<EXT1> Is there a audio output signal in pins(39/SC1_OUT_L) and (38/SC1_OUT_R) of IC503(AV_SW)?	YES →	Check the line between IC503 and SC502.
<EXT2> Is there a audio output signal in pins(37/SC2_OUT_L) and (36/SC2_OUT_R) of IC503(AV_SW)?	YES →	Check the line between IC503 and SC501.

↓ NO

<EXT1>When the HDMI signal Is there a audio input signal in pins(60/L1) and (59/R1) of IC503(AV_SW)?	YES →	Check IC503 and its peripheral circuits.
<EXT2>When the HDMI signal Is there a audio input signal in pins(58/L2) and (57/R2) of IC503(AV_SW)?		
When the DTV(H.264) signal Is there a audio input signal in pins(44/L9) and (43/R9) of IC503(AV_SW)?		

↓ NO

<EXT1>When the HDMI signal Is there a audio output signal in pins(1/OUTTNL) and (2/OUT-TNR) of IC1302(DSP)?	YES →	Check the line between IC1302 and IC503.
<EXT2>When the HDMI signal Is there a audio output signal in pins(17/OUT2L) and (18/OUT2R) of IC1302(DSP)?		
When the DTV(H.264) signal Is there a audio input signal in pins(11/AOUT_L) and (10/AOUT_R) of IC504(AUDIO_DAC)?	YES →	Check the line between IC504 and IC503.

↓ NO

When the HDMI signal Is there signal of HDMI_SD0/WS/SCK input to pin (76, 77, 78) of IC1302?	YES →	Check IC1302 and its peripheral circuits.
When the DTV(H.264) signal Is H.264_I2S signal input to pin (13/H.264_I2S_MCLK), (3/H.264_I2S_SCLK), (6/H.264_I2S_LRCLK) and (10/H.264_I2S_DATA) of IC1306 (SW.)?	YES →	Check IC1306, IC504 and its peripheral circuits

↓ NO

When the HDMI signal Is there signal of HDMI_SD0/WS/SCK output to pin (C10, E10, D10) of IC8101(DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER)?	No →	Check IC8101 and its peripheral circuits.
When the DTV(H.264) signal Is H.264_I2S signal output from pin (D26/H.264_I2S_MCLK), (E24/H.264_I2S_SCLK), (E26/H.264_I2S_LRCLK) and (A25/H.264_I2S_DATA) of IC5001 (H.264_DECODER)?	NO →	Check IC5001 and its peripheral circuits.

The audio signal is not output (2)

↓

No audio signal output from AUDIO_OUTPUT terminal.

↓

Is audio signal (L/R) output to pins (2, 4) of AUDIO_OUTPUT terminal (J503)? — YES → Check the connection to AUDIO_OUTPUT terminal and external input devices.

↓ NO

MONITOR_MUTE signal [Pin(23) of IC503(AV_SW.)] or MUTE-A_ALL signal[Pin(21) of IC2003] will be "H"? — YES → Check the peripheral circuits of IC503 and MUTE-A_ALL_LINE. (D534, etc.)

↓ NO

Is audio signal (L/R) output to pins (5, 6) of IC1302 (DSP)? — YES → Check the line between IC1302 and J503. (Q510, Q511, Q512, Q513, etc.)

↓ NO

Check IC1302 and its peripheral circuits.

The audio signal is not output (3)

↓

No sound from HEADPHONE_OUTPUT terminal.

↓

Is the HP_PLUG signal input to pin(90) of IC9101(CPLD) from pin(6) of a HEADPHONE_OUTPUT terminal(J1302)? — NO → Check the line between J1302 and IC9101. (J1302, IC9101, etc.)

↓ YES

Is the audio signal output (HP_L/R) to pins(2, 3) of HEADPHONE terminal(J1302)? — YES → Check the HEADPHONE terminal(J1302) and/or peripheral circuits.

↓ NO

Is HP-MUTE-LINE [pin(70) of IC19101(CPLD)] at H? — YES → Check the peripheral circuits of IC9101 and HP-MUTE_LINE. (Q1301, etc.)

↓ NO

Is audio signal (HP_L/R) output to pins (40, 42) of IC1302 (DSP)? — YES → Check the line between IC1302 and J1302. (IC1305, etc.)

↓ NO

Check IC1302 and its peripheral circuits.

No picture on the display (1)

↓

The picture doesn't appear in all modes.

↓

Is the LVDS signal output from IC8101(DIGITAL_AV_DECODER_&_MAIN_CPU_&_VIDEO PROCESSER) respectively?
TA1_P/M (AC25/AC26), TB1_P/M (AD25/AD26), TC1_P/M (AE25/AE26), TD1_P/M (AE24/AF24), TE1_P/M (AE23/AF23), TCLK1_P/M (AF25/AF26), TA2_P/M (AE22/AF22), TB2_P/M (AE21/AF21), TC2_P/M (AE20/AF20), TD2_P/M (AE18/AF18), TE2_P/M (AE17/AF17), TCLK2_P/M (AE19/AF19)

↓ NO

Check IC8101 and its peripheral control circuits.
(IC2003, IC9101, IC8301, IC8302, X8102, etc.)

↓ YES

Is the above-mentioned LVDS signal output to connector SC2601?

NO → Check the line between IC8101 and SC2601.

↓ YES

Similarly, is LCD controller's control signal normal?

NO → Please check each control signal of L/R, U/D, HV_MODE, ROMSEL_0/1, TEMP3/2/1, OS_EN, SHIP_EN, and PE.

PANEL_UNIT: ↓ YES

Is the LVDS signal input to connector LW of the panel module?

NO → Wire harness (LW) is checked.

↓ YES

Check the panel module.

No picture on the display (2)

↓

Does not the picture come out when VHF/UHF is received?

↓

Is the video signal (TUNER_CVBS) output from pin (6) of TUNER(TU7501)?

NO → Check whether I2C signal normally communicates between TU7501 and IC7508 (COFDM - DEMOD.)

↓ YES

Is the video signal (TUNER_CVBS) sent to pins (24) of IC503(AV_SW.)?

NO → Check the line between TU7501 and IC503.
(IC7503, etc.)"

↓ YES

Refer to “The picture doesn't appear in all modes.”

No picture on the display (3)

↓

Does not the picture come out when DTV is received?

↓

Is the prescriptive voltage supplied a power supply terminal of a TUNER circuit and IC7508 (COFDM - DEMOD)? (Refer to a circuit diagram.)

NO → Each power supply circuit is checked. (IC7502, IC9607, IC9604, etc.)

↓ YES

Is IF signal sent from pins(16, 17) of TUNER(TU7501) to pins(40, 39) of IC7508(COFDM-DEMOD.)?

NO → Check the tuner, IC7508 and their peripheral circuits. Replace as required.

↓ YES

Check whether I2C signal normally communicates between TU7501 and IC7508 (COFDM - DEMOD.)

NO →

↓ YES

Does X7501(20.25MHz) oscillate?

NO → Check X7501 and its peripheral circuits.

↓ YES

Is TS data (FECLK, FESTR_PSYNC, FED_D, FEVAL_DEN) being output from IC7508 to IC8101(DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER)?

NO → Check whether a control signal is normal between IC7508 and IC9101(CPLD). (FE_RST, N_TUNER_INT, FERR_UNCOR, AGCSEL)

↓ YES

Is the TS data input to pin (AE4/FERR_UNCOR), (AG5/FECLK), (AF4/FESTR_PSYNC), (AA4/FED_D) and (AF5/FEVAL_DEN) of IC5001(H.264_DECODER)?

NO → Check the line between IC7508 and IC5001.

↓ YES

Is the TMDS signal output from pin (U33, U34/ TMDSH_CLK_P/N), (T33, T34/ TMDSH_D0_P/N), (R33, R34/ TMDSH_D1_P/N), and (P33, P34/ TMDSH_D2_P/N) of IC5001?

NO → Check IC5001 and its peripheral circuits.

↓ YES

Is the TMDS signal input to pin (39, 38/ TMDSH_CLK_P/N), (42, 41/ TMDSH_D0_P/N), (45, 44/ TMDSH_D1_P/N), and (48, 47/ TMDSH_D2_P/N) of IC5301(TMDS_SW.)?

NO → Check the line between IC5001 and IC5301.

↓ YES

Is the TMDS signal output from pin (26, 27/ TMDS3H_CLK_P/N), (23, 24/ TMDS3H_D0_P/N), (20, 21/ TMDS3H_D1_P/N), and (17, 18/ TMDS3H_D2_P/N) of IC5301?

NO → Check IC5301 and its peripheral circuits.

↓ YES

Is the TMDS signal input to pin (6, 4/ TMDS3H_CLK_P/N), (8, 7/ TMDS3H_D0_P/N), (11, 10/ TMDS3H_D1_P/N), and (14, 13/ TMDS3H_D2_P/N) of IC1507(TMDS_SW.)?

NO → Check the line between IC5301 and IC1507.

↓ YES

Is the TMDS signal output from pin (26, 27/ TMDS_CLK_P/N), (23, 24/ TMDS_D0_P/N), (20, 21/ TMDS_D1_P/N), and (17, 18/ TMDS_D2_P/N) of IC1507?

NO → Check IC1507 and its peripheral circuits.

↓ YES

Is the TMDS signal input to pin (K1, K2/ TMDS_CLK_P/N), (L1, L2/ TMDS_D0_P/N), (M1, M2/ TMDS_D1_P/N), and (N1, N2/ TMDS_D2_P/N) of IC8101(DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER)?

NO → Check the line between IC1507 and IC8101.

↓ YES

Refer to “The picture doesn't appear in all modes”

[External input EXT1,EXT2] No picture on the display (4)

↓

Does not the picture of the CVBS signal input to EXT1 go out?
Does not the picture of the CVBS signal input to EXT2 go out?

↓

Is CVBS signal sent to pin(20) of EXT1 (SC502)?	NO →	Check the setting of an external input device that connects with EXT1.
Is CVBS signal sent to pin(20) of EXT2(SC501)?	NO →	Check the setting of an external input device that connects with EXT2.

↓ YES

Is CVBS signal from EXT1(SC502) sent to pin(100) of IC503(AV_SW.)?	NO →	Check the line between SC502 and IC503.
Is CVBS signal from EXT2(SC501) sent to pin(6) of IC503(AV_SW.)?	NO →	Check the line between SC501 and IC503.

↓ YES

Is CVBS signal output from pin(71) of IC503?	NO →	Check the IC503 and their peripheral circuits.

↓ YES

Is CVBS signal sent to pin(V4) of IC8101(DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER) from pin(71) of IC503?	NO →	Check the line between IC503 and IC8101.

↓ YES

Refer to “The picture doesn't appear in all modes.”

[External input EXT1,EXT2] No picture on the display (5)

↓

Does not the picture of the Y/C video signal input to EXT1 go out?
Does not the picture of the Y/C video signal input to EXT2 go out?

↓

Is Y/C video signal sent to pins(20)/Y and (15)/C of EXT1(SC502)?	NO →	Check the setting of an external input device that connects with EXT1.
Is Y/C video signal sent to pins(20)/Y and (15)/C of EXT2(SC501)?	NO →	Check the setting of an external input device that connects with EXT2.

↓ YES

Is Y/C signal from EXT1(SC502) sent to pins(2)/Y, (86)/C of IC503(AV_SW.)?	NO →	Check the line between SC502 and IC503.
Is Y/C signal from EXT2(SC501) sent to pins(8)/Y, (92)/C of IC503(AV_SW.)?	NO →	Check the line between SC501 and IC503.

↓ YES

Is Y/C signal output from pins(71)/Y, (70)/C of IC503?	NO →	Check the IC503 and their peripheral circuits.

↓ YES

Is Y/C signal sent to pins(V4)/Y, (P4)/C of IC8101(DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER) from pins(71)/Y, (70)/C of IC503?	NO →	Check the line between IC503 and IC8101.

↓ YES

Refer to “The picture doesn’t appear in all modes.”

[External input EXT1,EXT2] No picture on the display (6)

↓

Does not the picture of the R/G/B signal input to EXT1 go out?
Does not the picture of the R/G/B signal input to EXT2 go out?

↓

Is RGB1 signal sent to pins (15)/R1, (11)/G1 and (7)/B1 of EXT1(SC502)?	NO →	Check the setting of an external input device that connects with EXT1.
Is RGB2 signal sent to pins (15)/R2, (11)/G2 and (7)/B2 of EXT2(SC501)?	NO →	Check the setting of an external input device that connects with EXT2.

↓ YES

Is RGB1 signal from EXT1(SC502) sent to pins (86)/R1, (82)/G1 and (84)/B1 of IC503 (AV_SW.)?	NO →	Check the line between SC502 and IC503.
Is RGB2 signal from EXT2 (SC501) sent to pins (92)/R2, (88)/G2 and (90)/B2 of IC503 (AV_SW.)?	NO →	Check the line between SC501 and IC503.

↓ YES

Is RGB signal output from pins (73)/R_TR, (75)/G_TR and (74)/B_TR of IC503?	NO →	Check the IC503 and their peripheral circuits.

↓ YES

Is RGB signal sent to pins(T1)/R_TR, (U2)/G_TR, (P3)/B_TR of IC8101(DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER) from pins(73)/R_TR, (75)/G_TR, (74)/B_TR of IC503?	NO →	Check the line between IC503 and IC8101.

↓ YES

Refer to “The picture doesn’t appear in all modes.”

[External input EXT3] No picture on the display (7)

↓

Does not the picture of the component video signal input to EXT3 go out?

↓

Is a COMPONENT video signal input to pins(3)/Y, (5)/Pb, (7)/Pr of EXT3(J501)?	NO →	Check the setting of an external input device that connects with EXT3.

↓ YES

Is COMPONENT video signal from EXT3(J501) sent to pins(94)/Y, (96)/Pb and (98)/Pr of IC503(AV_SW.)?	NO →	Check the line between J501 and IC503.

↓ YES

Is COMPONENT video signal output from pins(75)/COMP_Y, (74)/COMP_PB and (73)/COMP_PR of IC503?	NO →	Is COMP1_PLUGI detection signal to pin(79) of IC503 input from pin(2) of EXT3 (J501)?

↓ YES

Check the IC503 and their peripheral circuits.

↓ YES

Is COMPONENT signal sent to pins(U2)/COMP_Y, (P3)/COMP_PB and (T1)/COMP_PR of IC8101(DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER) from pins(75)/COMP_Y, (74)/COMP_PB, (73)/COMP_PR of IC503?	NO →	Check the line between IC503 and IC8101.

↓ YES

Refer to “The picture doesn't appear in all modes”

[External input EXT4] No picture on the display (8)

↓

Does not the picture of the DVI (ANALOG) video signal input to EXT4 (15pin-D-SUB terminal) go out?

↓

Are the video signal and the synchronized signal input from pin (1, 2, 3)/(R, G, B), (14 and 13)/(V, H) of EXT4 (SC1504)?

NO → Check the connection and setup with the external DVI devices.

↓ YES

Are the video signal and the synchronized signal input from pins (R1, T4, N3)/(R, G, B), pins (AF2, AE2)/(H, V) of IC8101 (DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER)?

NO → Check the line between SC1504 and IC8101.

↓ YES

Refer to "The picture doesn't appear in all modes."

[External input EXT8] No picture on the display (9)

↓

Does not the picture of the CVBS signal input to EXT8 go out?

↓

Is a CVBS signal input to pin (6) of EXT8 (J505)?

NO → Check the setting of an external input device that connects with EXT8.

↓ YES

Is CVBS signal from EXT8 (J505) sent to pin (12) of IC503 (AV_SW.)?

NO → Check the line between J505 and IC503.

↓ YES

Is CVBS signal output from pin (71) of IC503?

NO → Is V3_PLUG detection signal to pin (13) of IC503 input from pin (7) of EXT8 (J505)?

↓ NO

Check the IC503 and their peripheral circuits.

↓ YES

Is CVBS signal sent to pin (V4) of IC8101 (DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER) from pin (71) of IC503?

NO → Check the line between IC503 and IC8101.

↓ YES

Refer to "The picture doesn't appear in all modes."

[External input HDMI-1/2/3] No picture on the display (10)

Does not the picture/sound of the HDMI signal input to HDMI-1/2/3 go out?

Is the Hot plug detection function output from pin (19) of the HDMI-1(SC1502) normal?
NO → Check the line between SC1502 and pin(50) of IC1507(TMDS-SW).

Is the Hot plug detection function output from pin (19) of the HDMI-2(SC1501) normal?
NO → Check the line between SC1501 and pin(35) of IC1507(TMDS-SW).

Is the Hot plug detection function output from pin (19) of the HDMI-3(SC5301) normal?
NO → Check the line between SC5301 and pin(50) of IC5301(TMDS-SW).

YES

Is EDID data pins(11)/SCL1, (10)/SDA1 of IC1504(FRAM) accessed, and is it read from pins(15, 16) of a HDMI-1(SC1502)?

Is EDID data pins(14)/SCL2, pin(13)/SDA2 of IC1504(FRAM) accessed, and is it read from pins(15, 16) of a HDMI-2(SC1501)?
NO → Is access possible in the exchange of IC1504?

Is EDID data pins(5)/SCL3, (6)/SDA3 of IC1504(FRAM) accessed, and is it read from pins(15, 16) of a HDMI-3(SC5301)?
NO → Check the setting of an external input device that connects with HDMI-1/2/3.

NO →
<HDMI-1/2>
Check the peripheral circuit of SC1501, SC1502, IC1504 and IC1507.
<HDMI-3>
Check the peripheral circuit of SC5301, IC1504 and IC5301.

YES

Is TMDS signal input into pins (54, 53/TMDS1_CLK_P/N), (57, 56/TMDS1_D0_P/N), (60, 59/TMDS1_D1_P/N), (63, 62/TMDS1_D2_P/N) of IC1507 (TMDS-SW) from HDMI-1(SC1502)?
NO → Check the line between HDMI-1(SC1502) and IC1507.

YES → Is TMDS signal input into pins (39, 38/TMDS2_CLK_P/N), (42, 41/TMDS2_D0_P/N), (45, 44/TMDS2_D1_P/N), (48, 47/TMDS2_D2_P/N) of IC1507 (TMDS-SW) from HDMI-2 (SC1501)?
NO → Check the line between HDMI-2(SC1501) and IC1507.

Is TMDS signal input into pins(54, 53/TMDS3_CLKP/N), (57, 56/TMDS3_D0P/N), (60, 59/TMDS3_D1P/N), (63, 62/ TMDS3_D2P/N) of IC5301(TMDS-SW) from HDMI-3(SC5301)?
NO → Check the line between HDMI-3(SC5301) and IC5301.

YES

Are TMDS_Rx and the I2C_SINK signal output from IC5301 respectively?
Pins(26, 27/TMDS3H_CLK_P/N), (23, 24/TMDS3H_D0_P/N), (20, 21/TMDS3H_D1_P/N), (17, 18/TMDS3H_D2_P/N), (29, 30/SCL3H_ SINK/SDA3H_SINK)
NO → Check the IC5301 and peripheral circuits.

YES

Is the TMDS_Rx/ I2C_SINK signal output from IC5301 input to IC1507(TMDS-SW)?
Pins(6,4 /TMDS3H_CLK_P/N), (8, 7/TMDS3H_D0_P/N), (11, 10/TMDS3H_D1_P/N), (14, 13/TMDS3H_D2_P/N), (2, 1/SCL3H_ SINK/SDA3H_SINK)
NO → Check the line between IC5301 and IC1507.

YES

Are TMDS_Rx and the I2C_SINK signal output from IC1507 respectively?
Pins(26, 27/TMDS_CLK_P/N), (23, 24/TMDS_D0_P/N), (20, 21/TMDS_D1_P/N), (17, 18/TMDS_D2_P/N), (29, 30/SCL_SINK/SDA_SINK)
NO → Check the IC1507 and peripheral circuits.

YES

Is the TMDS_Rx/ I2C_SINK signal output from IC1507 input to IC8101(DIGITAL AV DECODER & MAIN CPU & VIDEO PROCESSER)?

Pins(K1, K2/TMDS_CLK_P/N), (L1, L2/TMDS_D0_P/N), (M1, M2/TMDS_D1_ P/N), (N1, N2/TMDS_D2_P/N), (G2, G3/SCL_SINK/SDA_SINK)

NO → heck the line between IC1507 and IC8101.

YES → Refer to “The picture doesn't appear in all modes” or “No sound output in all modes”

<During external connection> No picture on the monitor (1)

↓

No picture appears on EXT1/EXT2 connected monitor during the U/V reception.

↓

Is CVBS signal output into pin (19) of EXT1 (SC502) from pin (67) of IC503 (AV_SW)?	YES →	Check the setting of an external input device that connects with EXT1.
Is CVBS signal output into pin (19) of EXT2 (SC501) from pin (65) of IC503 (AV_SW)?	YES →	Check the setting of an external input device that connects with EXT2.

↓ NO

Is TUNER_CVBS signal input to pin (24) of IC503 (AV_SW)?	YES →	Check the IC503 and their peripheral circuits.

↓ NO

Is TUNER_CVBS signal output from pin (5) of IC7503 (VIDEO_LEV.)?	YES →	Check the line between IC7503 and IC503.

↓ NO

Is TUNER_CVBS signal output from pin (6) of TUNRE (TU7501)?	YES →	Check the line between TU7501 and IC7503.

↓ NO

Whether the TUNER circuit operates correctly is checked.

<During external connection> No picture on the monitor (2)

↓

No picture appears on EXT1/EXT2 connected monitor during the DTV(H.264) reception.

↓

Is CVBS signal output into pin (19) of EXT1 (SC502) from pin (67) of IC503 (AV_SW)?	YES →	Check the setting of an external input device that connects with EXT1.
Is CVBS signal output into pin (19) of EXT2 (SC501) from pin (65) of IC503 (AV_SW)?	YES →	Check the setting of an external input device that connects with EXT2.

↓ NO

Is H.264_CVBS signal input to pin (28) of IC503 (AV_SW)?	YES →	Check the IC503 and their peripheral circuits.

↓ NO

Is H.264_CVBS signal output from pin (C34) of IC5001 (H.264 DECODER)?	YES →	Check the line between IC5001 and IC503.

↓ NO

Check the IC5001 and its peripheral circuits.

<During external connection> No picture on the monitor (3)

↓

No picture from EXT1 appears on EXT2-connected monitor.

↓

Is CVBS signal output into pin (19) of EXT2 (SC501)? — YES → Check the setting of an external input device that connects with EXT2.

↓ NO

Is CVBS signal output to pin (65) of IC503? — YES → Check the line between IC503 and EXT2 (SC501).

↓ NO

Is CVBS signal sent to pin (100) of IC503? — YES → Check the IC503 and peripheral circuits.

↓ YES

Is the I2C SERIAL DATA/CLOCK communication normal?
Pin32: SDA1/Pin31: SCL1

↓ NO

Is CVBS signal sent to pin (20) of EXT1(SC502)? — YES → Check the line between EXT1(SC502) and IC503.

↓ NO

Check the setting of an external input device that connects with EXT1.

<During external connection> No picture on the monitor (4)

↓

SCART2:

No picture from EXT8 appears on EXT2- connected monitor.

↓

Is CVBS signal output into pin(19) of EXT2 (SC501)? — YES → Check the setting of an external input device that connects with EXT2.

↓ NO

Is CVBS signal output to pin (65) of IC503? — YES → Check the line between IC503 and EXT2(SC501).

↓ NO

Is CVBS signal sent to pin (12) of IC503? — YES → Check the IC503 and peripheral circuits.

↓ NO

Is CVBS signal sent to pin (6) of EXT8(J505)? — YES → Check the line between EXT8(J505) and IC503.

↓ YES

Check the setting of an external input device that connects with EXT8. — NO → Is V3_PLUGl detection signal to pin(13) of IC503 input from pin(7) of EXT8 (J505)?

[2] LED flashing specification at the time of the error

Display method

- Refer to Table 1.
- Make the OPC LED flash using the [MENU] key on the remote control since the display for service persons is identified by the number of flashings (once to 5 times).

  Even if the [MENU] key is pressed again, it does not return to the display for customers (only the power LED flashes).
- After recovering from an error, if the same error cannot be generated again, refer to MONITOR ERR CAUSE on the adjustment process screen.

LED flashing method

- Synchronize the phases of the power LED and OPC LED.
- If the LEDs have different number of flashings, adjust the flashing cycle to that where the LED flashes more times.

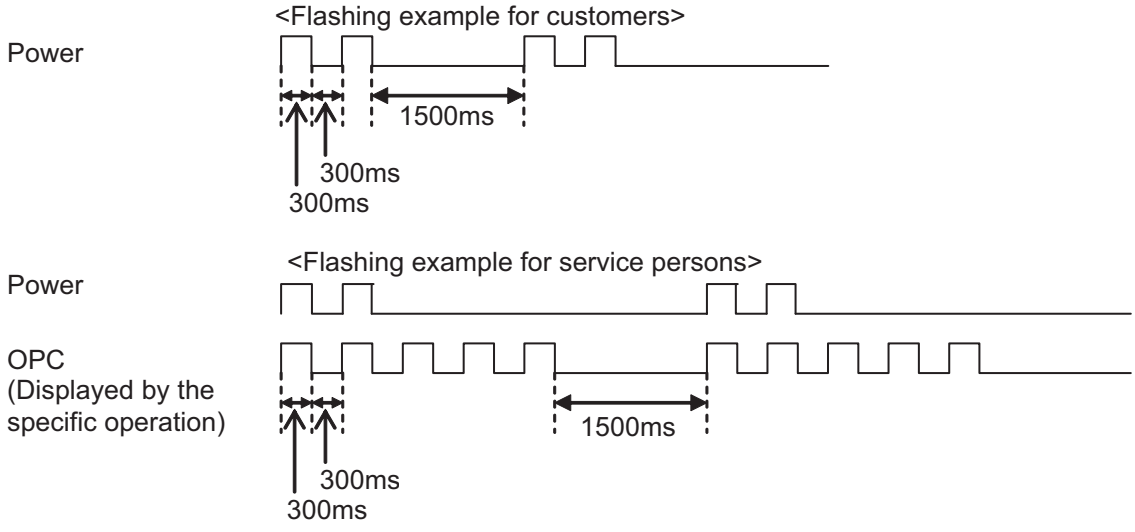


Table 1. Concrete flashing pattern

Item	For customers		For service persons		Cause
	Power	OPC	Power	OPC	
Inverter/Lamp system failure	Red flashes once	Off	Red flashes once	Flashes once	Lamp error
Power PWB failure (Power failure, etc.)	Red flashes twice	Off	Red flashes twice	Flashes once	AC_DET error
				Flashes twice	UR+13.5V error
				Flashes 3 times	D3.3V error
				Flashes 5 times	Panel power supply error
Main PWB failure (Communication failure, etc.)	Green flashes once	Off	Green flashes once	Flashes once	Initial communication error
				Flashes twice	Start-up confirmation communication error
				Flashes 3 times	Regular communication error
				Flashes 5 times	Other communication error
Others	Green flashes twice	Off	Green flashes twice	Flashes once	Temperature error
				Flashes twice	Sync error
				Flashes 3 times	Notification from the main microprocessor (*1)
VerUP executing	Orange flashes once	Off	Orange flashes once	Off	Version upgrading
VerUP succeeded	Power green/OPC flash alternately		Power green/OPC flash alternately		Version upgrade succeeded
VerUP failed	Green/Red flash alternately	Off	Green/Red flash alternately	Off	Version upgrade failed
System	Red flashes 3 times	Off	Red flashes 3 times	Off	Mounting discrimination connector unplugged
ROM data failure	Green/Red flash alternately	Off	Green/Red flash alternately	Off	Start-up after failing version upgrade (*2)

* 1: For details, refer to ERROR STANDBY CAUSE on the adjustment process screen.

* 2: If the boot section is abnormal, there is no flashing (flashing disabled).

MONITOR ERR STBY table

Outline: Communication/Power failure detected by the monitor microprocessor (IC2003) is stored on EEPROM, and the last 4 abnormal states can be confirmed in the adjustment process mode.

Location: Page 1/16 of the adjustment process mode: MONITOR ERR CAUSE
"0" if there is no error. It is cleared to 0 on the last page of the adjustment process mode.

Display	Error description	
02	Start-up communication error 2	Initial communication from the main CPU is not received.
03	Start-up communication error 3	Only the initial communication is received.
04	Start-up communication error 4	Until panel information request reception
05	Start-up communication error 5	Until initialization completion reception
06	Start-up communication error 6	Until version notification transmission
07	Start-up communication error 7	Until start-up information notification transmission
08	Start-up communication error 8	Until start-up information response reception
09	Start-up communication error 9	Until time-out setting reception
0A	Communication error A	REQ time-out
0B	Communication error B	Restart time-out during the beginning of time acquisition start-up
0C	Communication error C	Ending sequence time-out
0D	Communication error D	Preset start-up time-out during completion
0E	Communication error E	Download start-up time-out
0F	Communication error F	Time acquisition time-out
11	Communication error H	Regular communication time-out
16	Panel-related error	Lamp failure
1A	Other error 2	Monitor temperature failure
1D	Power supply error 1	PS_ON(AC_DET) failure
1E	Power supply error 2	D_POW(DET_12V) failure
1F	Power supply error 3	D_POW(DET_D3V3) failure
21	Power supply error 5	Panel power failure
23	Other error 3	Error standby request from the main CPU

LED flashing timing chart at the time of the error

1) Power LED

Error type	Power LED operation (1 cycle)	Note: Pins are monitor microprocessor pins (IC2003).
Inverter/Lamp failure Red flashes once	H: Red on L: Off	Refer to "Inverter/Lamp failure details". OPC_LED flashes by pressing the [MENU] key on the remote control.
Power failure Red flashes twice	H: Red on L: Off	Refer to "Power failure details". OPC_LED flashes by pressing the [MENU] key on the remote control.
Communication failure with main CPU Green flashes once	H: Green on L: Off	Refer to "Communication failure details". OPC_LED flashes by pressing the [MENU] key on the remote control. Communication line failure or main CPU communication failure.
Others Green flashes twice	H: Green on L: Off	Refer to "Other failure details". OPC_LED flashes by pressing the [MENU] key on the remote control.

2) Inverter/Lamp failure details (Power red LED flashes once and OPC (preset) LED flashes)

Error type	OPC (preset) LED operation (1 cycle)	Note: Pins are monitor microprocessor pins unless otherwise specified (IC2003).
Lamp failure Flashes once	H: On L: Off	ERR_PNL(40pin): Abnormal L. Confirmed after 5 consecutive detections at 1 second intervals (detected only when the backlight is on). Note that after five detection counts, the lamp cannot be activated except in the monitoring process. (For the first time, only the inverter is reset, and error OFF is not activated.) Accumulated counts are cleared to 0 when the setting in the adjustment process is made, when AC_ON is performed with [CH_DOWN] and [VOL_UP] on the unit down or after continuous illumination for 3 minutes.

3) Power failure details (Power red LED flashes twice and OPC (preset) LED flashes)

Error type	OPC (preset) LED operation (1 cycle)	Note: Pins are monitor microprocessor pins unless otherwise specified (IC2003).
PS_ON AC_DET failure Flashes once	H: On L: Off	AC_DET(72pin: Abnormal (L). If error is detected during start-up or operation, the power is turned on again by interrupt handling (instantaneous blackout processing).
D_POW Main 12V failure Flashes twice	H: On L: Off	DET_12V(34pin): Abnormal (L). Main 12V is not applied. If error is detected during start-up or operation, the power is turned on again by polling.
D_POW Digital 3.3V Failure Flashes 3 times	H: On L: Off	DET_D3V3(35pin): abnormal (L). Digital 3.3V is not applied. If error is detected during start-up or operation, the power is turned on again by polling.

4) Communication failure details (Power green LED flashes once and OPC (preset) LED flashes)

Error type	OPC (preset) LED operation (1 cycle)	Note: Basically, debug print logs are analyzed or communication logs are analyzed by a bus monitor.
Initial communication reception failure Flashes once	H: On L: Off	Initial communication from the main CPU is not received. (Request for the monitor model No. is not received.) → Communication line failure or main CPU start-up failure
Start-up confirmation reception failure Flashes twice	H: On L: Off	Start-up reason confirmation from the main CPU cannot be received. (Start-up communication until start-up reason notification command is not received.) → Main CPU start-up failure or monitor microprocessor reception failure
Regular communication failure Flashes 3 times	H: On L: Off	Regular communication that is performed at 1 second intervals in the normal operation is interrupted. → Main CPU operation failure or monitor microprocessor reception failure
Other communication failure Flashes 5 times	H: On L: Off	When a request (PM_REQ=H) is sent from the main microprocessor, the request command is not output from the main CPU, etc. → Main CPU operation failure or monitor microprocessor reception failure

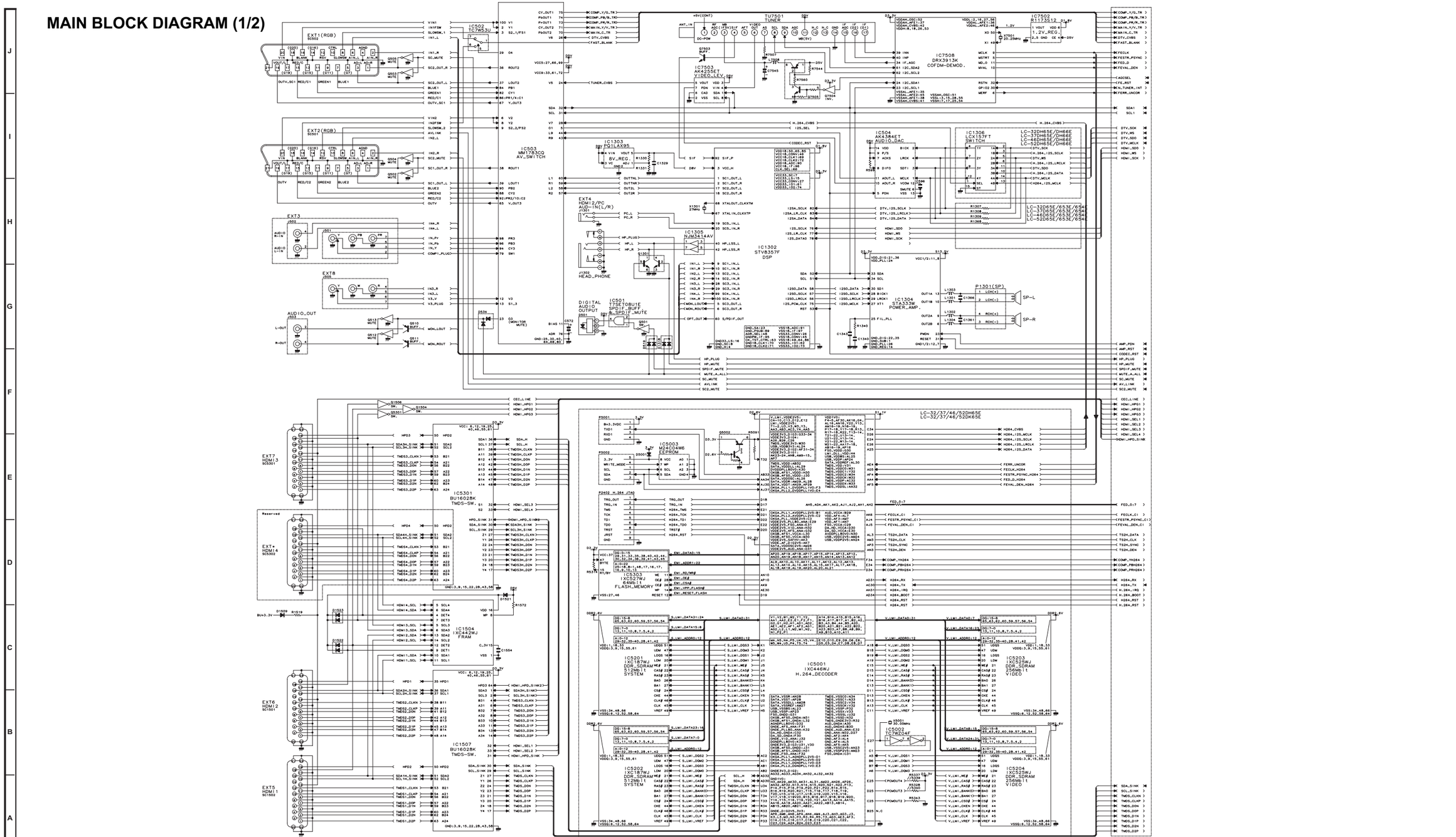
5) Other failure details (Power green LED flashes twice and OPC (preset) LED flashes)

Error type	OPC (preset) LED operation (1 cycle)	Note: Pins are monitor microprocessor pins unless otherwise specified (IC2003).
Monitor temperature failure Flashes once	H: On L: Off	If the panel temperature is 60°C or more for 15 seconds or more in a row, CAUTION appears on the OSD (flashes in red in the lower right screen). If the panel temperature is 60°C or more for 25 seconds or more in a row, error standby is activated. (MONITOR MAX TEMP on page 13/16 of the adjustment process: Change of temperature failure AD value): Thermistor
Main failure Flashes 3 times	H: On L: Off	Main microprocessor detection error (CPU temperature error, etc.) Details are displayed on page 1/16 of the adjustment process for the main microprocessor.

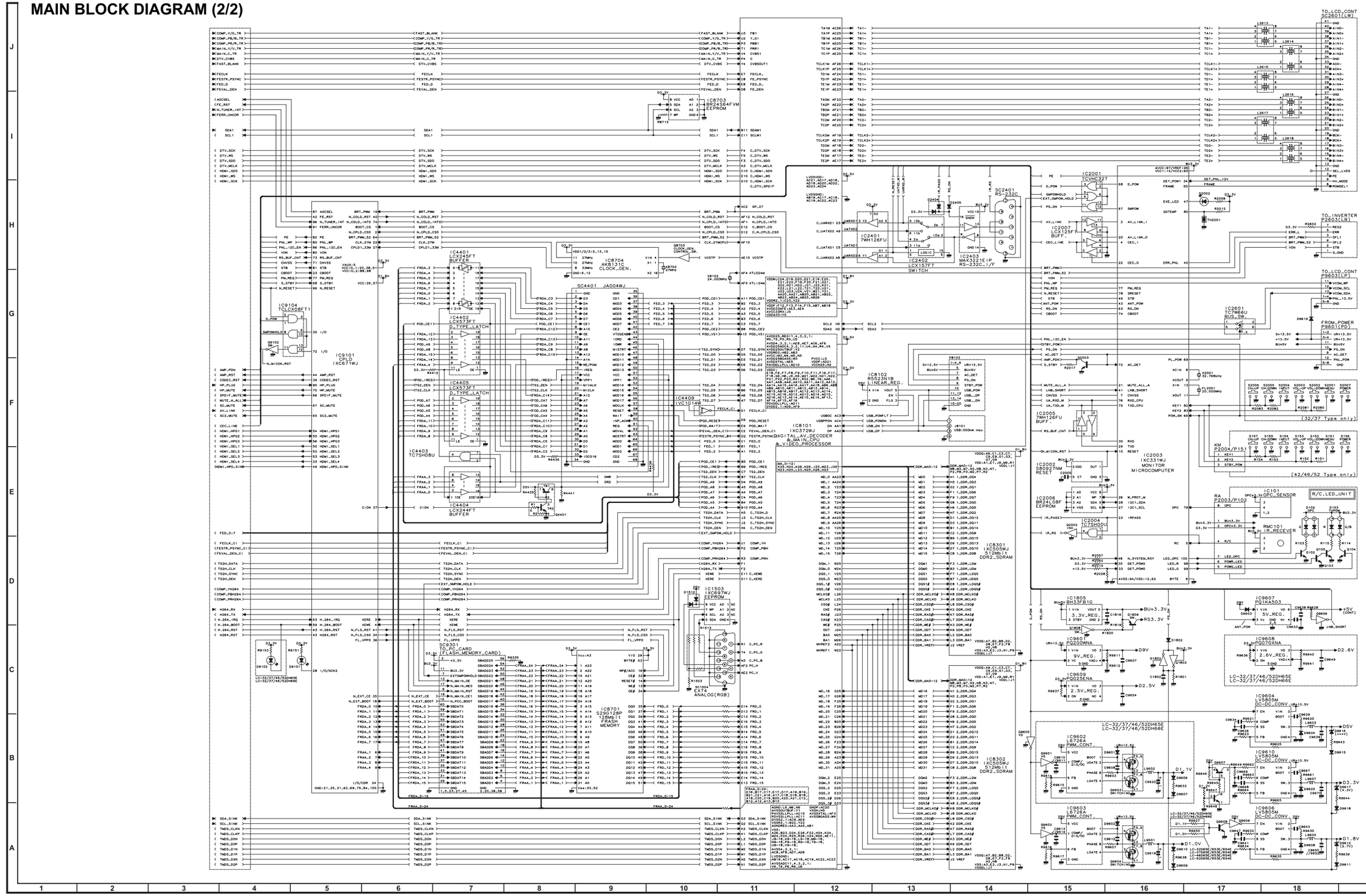
CHAPTER 5. BLOCK DIAGRAM/WIRING DIAGRAM

[1] MAIN BLOCK DIAGRAM

MAIN BLOCK DIAGRAM (1/2)

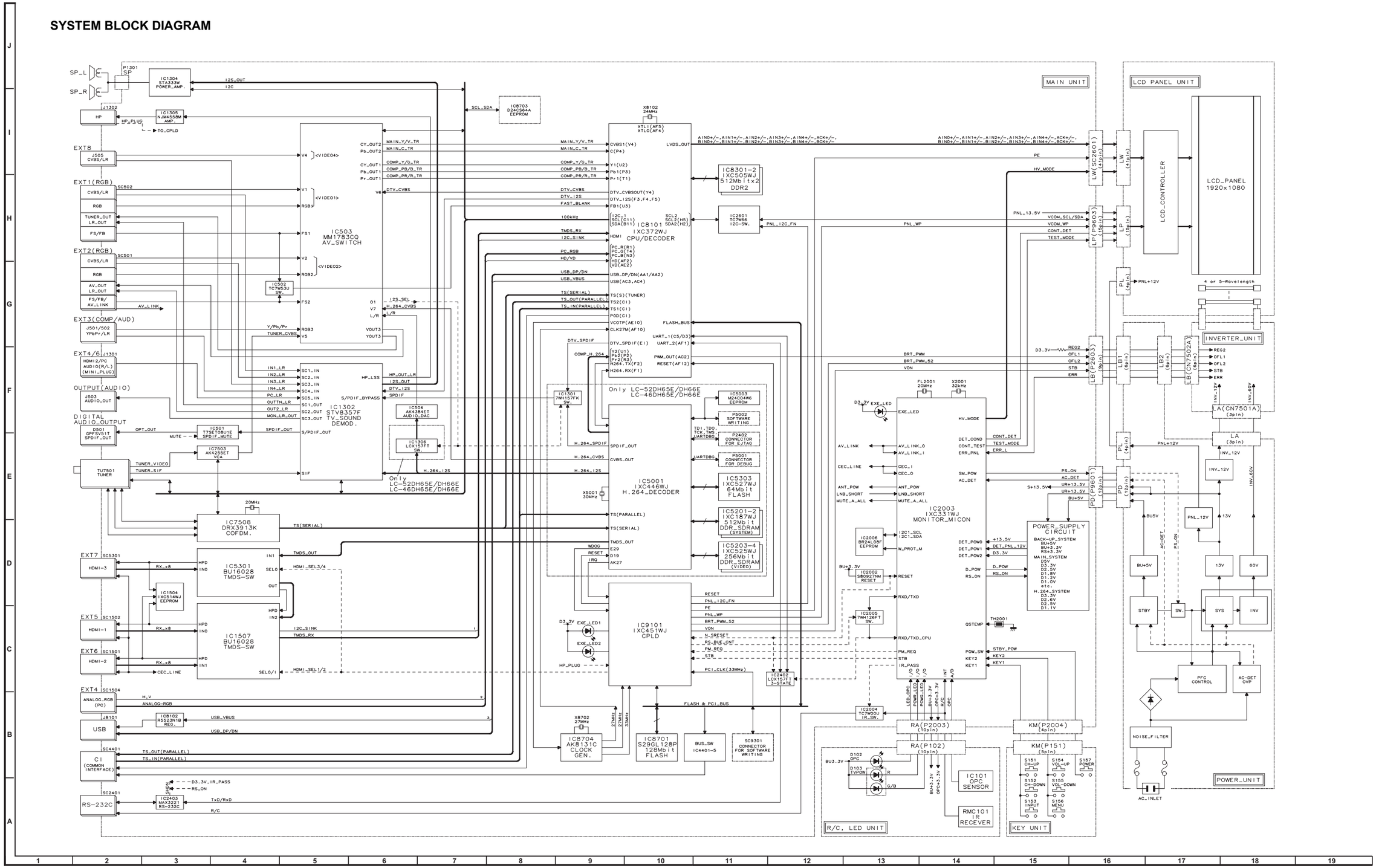


MAIN BLOCK DIAGRAM (2/2)



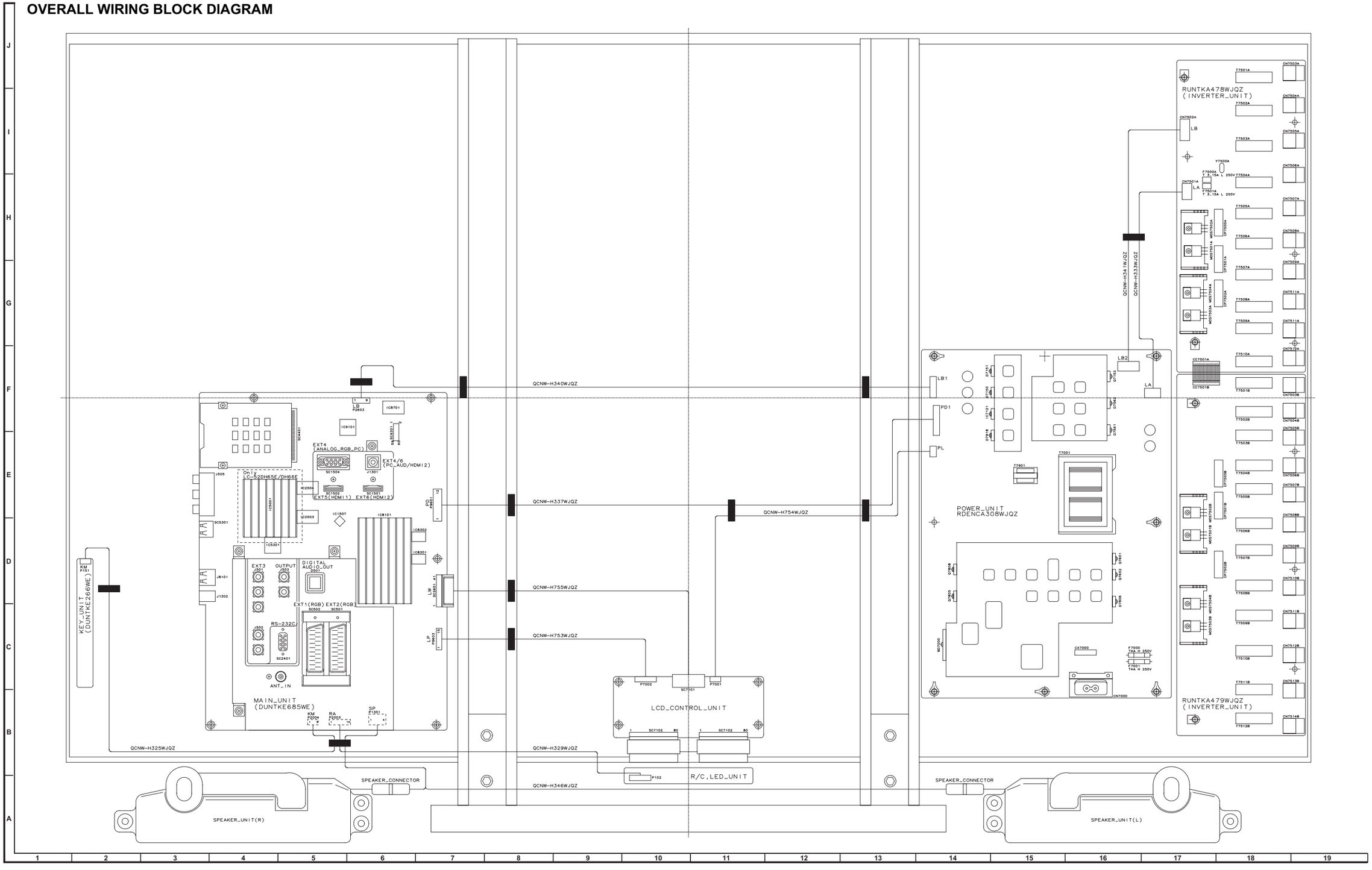
[2] SYSTEM BLOCK DIAGRAM

SYSTEM BLOCK DIAGRAM


MAIN UNIT
LCD PANEL UNIT
IC1503 MM1783CQ AV_SWITCH
IC1302 STV8357F TV_SOUND DEMOD.
IC5001 IXC446WJ H.264_DECODER
IC8101 IXC372WJ CPU/DECODER
IC9101 IXC451WJ CPLD
IC2003 IXC331WJ MONITOR_MICON
IC8301-2 IXC505WJ 512Mbitx2 DDR2
IC5201-2 IXC187WJ 512Mbit DDR_SDRAM (SYSTEM)
IC5203-4 IXC525WJ 256Mbit DDR_SDRAM (VIDEO)
IC5303 IXC527WJ 64Mbit FLASH
IC8701 S29GL128P 128Mbit FLASH
IC5003 M24C04W6 EEPROM
P5002 SOFTWARE WRITING
P2402 CONNECTOR FOR EJTAG
P5001 CONNECTOR FOR DEBUG
IC8703 D24C564A EEPROM
IC1504 IXC514WJ EEPROM
IC2006 BR24L08F EEPROM
IC8704 AK8131C CLOCK GEN.
IC1304 STA333W POWER_AMP.
IC1305 NJM4558M AMP.
IC7503 AK4255ET VCA
IC1306 LCX157FT SW.
IC1301 74H157FK SW.
IC2402 LCX157FT 3-STATE
IC2005 74H126FT SW.
IC2002 SB09274M RESET
IC2004 TC7W00U IR_SW.
IC2601 TC7W66 I2C-SW.
IC8102 R5523N1B REG.
IC2403 MAX3221 RS-232C
IC7508 DRX3913K COFDM.
IC5301 BU16028 TMDS-SW
IC1507 BU16028 TMDS-SW
TU7501 TUNER
SC9301 CONNECTOR FOR SOFTWARE WRITING
Only LC-52DH65E/DH66E LC-46DH65E/DH66E
Only LC-52DH65E/DH66E LC-46DH65E/DH66E
LW(SC2601) (41pin)
LP(P9603) (15pin)
PL (4pin)
PD(P9601) (12pin)
LB(P2603) (9pin)
LB1 (6pin)
LB2 (6pin)
LB(CN7502A) (6pin)
LA(CN7501A) (3pin)
LA (3pin)
RA(P2003) (10pin)
RA(P102) (10pin)
KM(P2004) (4pin)
KM(P151) (5pin)
LCD_CONTROLLER
LCD_PANEL 1920x1080
4 or 5-Wavelength
INVERTER_UNIT
POWER_SUPPLY CIRCUIT
R/C, LED UNIT
KEY UNIT
POWER_UNIT
EXT8
EXT1(RGB)
EXT2(RGB)
EXT3(COMP/AUD)
EXT4/6
OUTPUT(AUDIO)
DIGITAL AUDIO_OUTPUT
EXT7
EXT5
EXT6
EXT4
USB
CI (COMMON INTERFACE)
RS-232C
SP_L
SP_R
HP
HP_PLUG
TO_CPLD
I2S_OUT
I2C
SCL,SDA
X8102 24MHz
X8702 27MHz
X5001 30MHz
FL2001 20MHz
X2001 32kHz
LVDS_OUT
PE
HV_MODE
PNL_13.5V
VCOM_SCL/SDA
VCOM_WP
CONT_DET
TEST_MODE
PNL_WP
PNL_I2C_FN
PNL+12V
BRT_PWM
BRT_PWM_52
VON
REG2
OFL1
OFL2
STB
ERR
INV_12V
INV_60V
EXE_LED
D3.3V
HV_MODE
DET_COND
CONT_TEST
ERR_PNL
CONT_DET
TEST_MODE
ERR_L
AV_LINK
CEC_LINE
ANT_POW
LNB_SHORT
MUTE_A_ALL
SM_POW
AC_DET
PS_ON
S+13.5V
UR+13.5V
BU+5V
BU+3.3V
D3.3V
DET_POW0
DET_POW1
DET_POW2
+13.5V
DET_PNL_12V
D_POW
RS_ON
TH2001
QSTEMP
STBY_POW
KEY2
KEY1
PFC CONTROL
AC-DET OVP
NOISE_FILTER
AC_INLET
PNL_12V
13V
60V
STBY
SW
SYS
INV
IC101 OPC SENSOR
RMC101 IR RECEVER
D102 OPC
D103 TVPOW
S151 CH_UP
S152 CH_DOWN
S153 INPUT
S154 VOL_UP
S155 VOL_DOWN
S156 MENU
S157 POWER
FLASH_BUS
FLASH & PCI_BUS
PCI_CLK(33MHz)
TUNER_VIDEO
TUNER_SIF
SIF
TS(SERIAL)
TS_OUT(PARALLEL)
TS_IN(PARALLEL)
TMDS_OUT
HDMI_SEL1/2
HDMI_SEL3/4
I2C_SINK
TMDS_RX
RX_x8
CEC_LINE
USB_VBUS
USB_DP/DN
H,V
ANALOG-RGB
D3.3V,IR_PASS
RS_ON
TxD/RxD
R/C
AV_LINK
OPT_OUT
MUTE
SPDIF_OUT
H.264_SPDIF
H.264_CVBS
H.264_I2S
I2S_SEL
HP_LSS
HP_OUT_LR
DTV_I2S
SPDIF
S/PDIF_BYPASS
20MHz
100kHz
TMDS_RX
I2C_SINK
PC_RGB
HD/VD
USB_DP/DN
USB_VBUS
TS(SERIAL)
TS_OUT(PARALLEL)
TS_IN(PARALLEL)
DTV_SPDIF
COMP_H.264
FLASH_BUS
PWM_OUT(AC2)
RESET(AF12)
UART_1(C5/D3)
UART_2(AF1)
H264.TX(F2)
H264.RX(F1)
MAIN_Y/V_TR
MAIN_C_TR
COMP_Y/G_TR
COMP_PB/B_TR
COMP_PR/R_TR
DTV_CVBS
DTV_I2S
FAST_BLANK
RESET
PNL_I2C_FN
PE
PNL_WP
BRT_PWM_52
VON
N_SRESET
RS_BUF_CNT
PM_REQ
STB
IR_PASS
LED_OPC
POWER_LED
R/C
OPC
INT
A/D
TDI,TDO,TCK,TMS,UARTDBG
UARTDBG
BU3.3V
OPC+3.3V
R
G/B
SCL2(H5)
SDA2(H2)
I2C1_SCL
I2C1_SDA
W_PROT_M
RXD/TXD
RXD/TXD_CPU
PM_REQ
STB
IR_PASS
SCL1(C11)
SDA1(B11)
I2C_1
SCL(C11)
SDA(B11)
AIN0+/-,AIN1+/-,AIN2+/-,AIN3+/-,AIN4+/-,ACK+/-,BIN0+/-,BIN1+/-,BIN2+/-,BIN3+/-,BIN4+/-,BCK+/-
CVBS1(V4)
C(P4)
Y1(U2)
Pb1(P3)
Pr1(T1)
DTV_CVBSOUT(Y4)
DTV_I2S(F3,F4,F5)
FB1(U3)
HDMI
PC_R(R1)
PC_G(T4)
PC_B(N3)
HD(AF2)
VD(AE2)
USB_DP/DN(AA1/AA2)
USB(AC3,AC4)
TS(S)(TUNER)
TS2(C1)
TS1(C1)
POD(C1)
VCO7F(AE10)
CLK27M(AF10)
DTV_SPDIF(E1)
Y2(U1)
Pb2(P2)
Pr2(R3)
H264.TX(F2)
H264.RX(F1)
PWM_OUT(AC2)
RESET(AF12)
SPDIF_OUT
CVBS_OUT
TS(PARALLEL)
TS(SERIAL)
TMDS_OUT
WDOG
RESET
IRQ
D19
AK27
E29
RESET
PNL_I2C_FN
PE
PNL_WP
BRT_PWM_52
VON
N_SRESET
RS_BUF_CNT
PM_REQ
STB
PCI_CLK(33MHz)
HP_PLUG
D3.3V
EXE_LED1
EXE_LED2
V4 <VIDEO4>
V1 <VIDEO1>
V2 <VIDEO2>
V6
V7
RGB3
V5
VOUT3
YOUT3
SC1_IN
SC2_IN
SC3_IN
SC4_IN
SC5_IN
SC1_OUT
SC2_OUT
SC3_OUT
S/PDIF_OUT
IN1_LR
IN2_LR
IN3_LR
IN4_LR
PC_LR
OUTTN_LR
OUT2_LR
MON_L_R_OUT
SCL_IN
SDA_IN
SCL_OUT
SDA_OUT
HPD
IN0
IN1
IN2
SEL0
SEL0/1
OUT
SC5301
SC1502
SC1501
SC1504
SC4401
SC2401
SC5501
SC501
SC502
SC1301
SC1302
SC1303
SC1305
SC1306
SC1307
SC1308
SC1309
SC1310
SC1311
SC1312
SC1313
SC1314
SC1315
SC1316
SC1317
SC1318
SC1319
SC1320
SC1321
SC1322
SC1323
SC1324
SC1325
SC1326
SC1327
SC1328
SC1329
SC1330
SC1331
SC1332
SC1333
SC1334
SC1335
SC1336
SC1337
SC1338
SC1339
SC1340
SC1341
SC1342
SC1343
SC1344

[3] OVERALL WIRING DIAGRAM

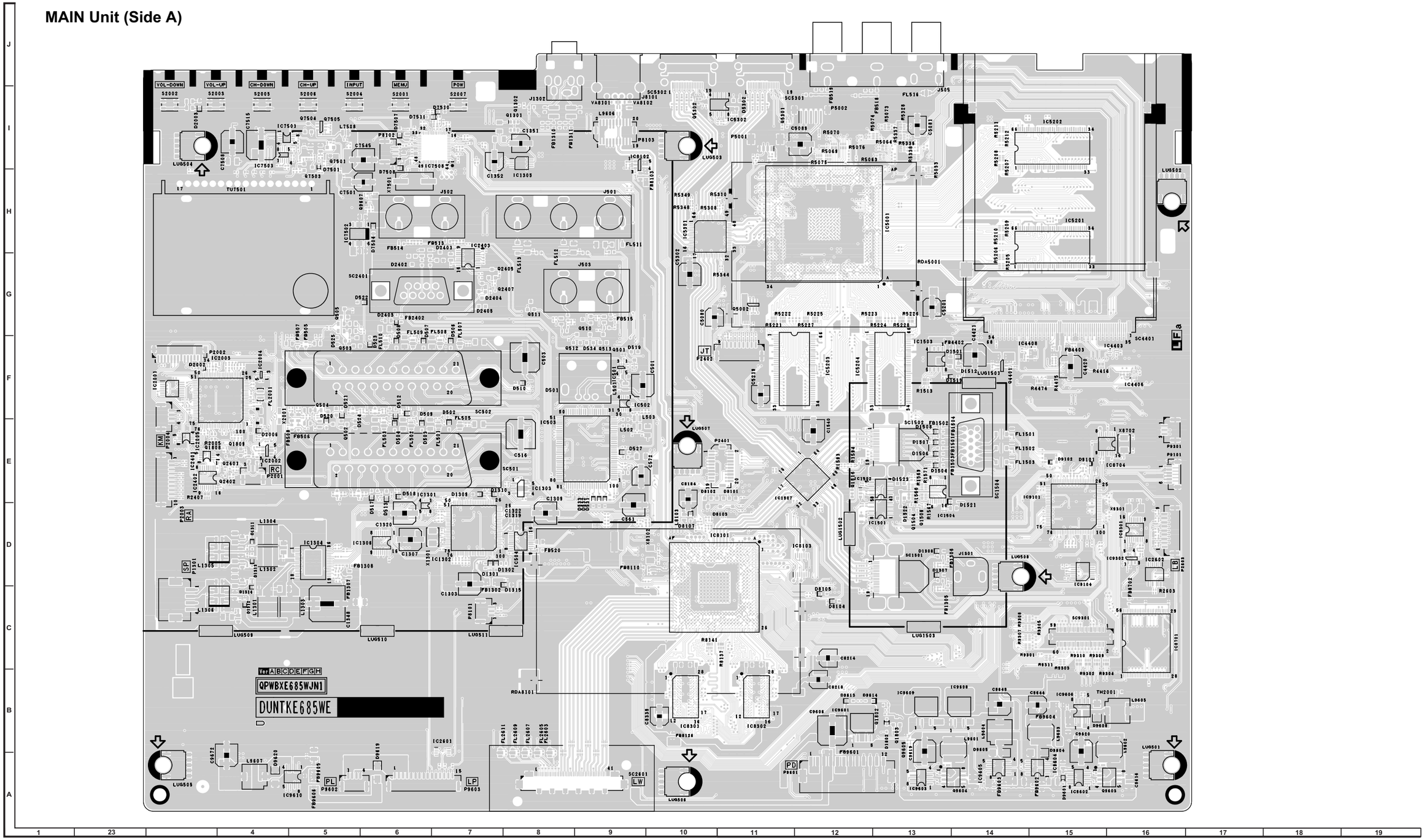
OVERALL WIRING BLOCK DIAGRAM



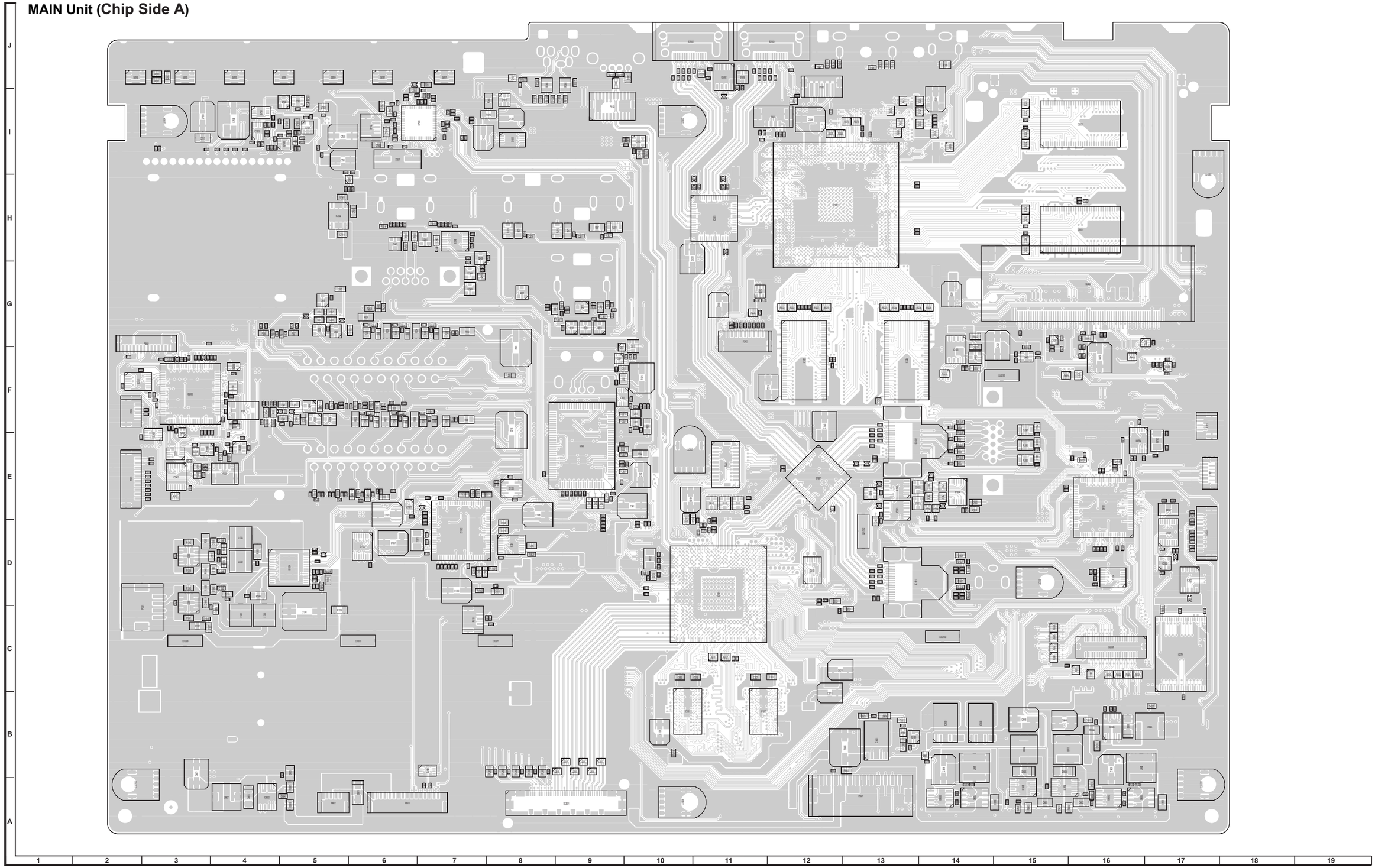
CHAPTER 6. PRINTED WIRING BOARD

[1] MAIN UNIT PRINTED WIRING BOARD

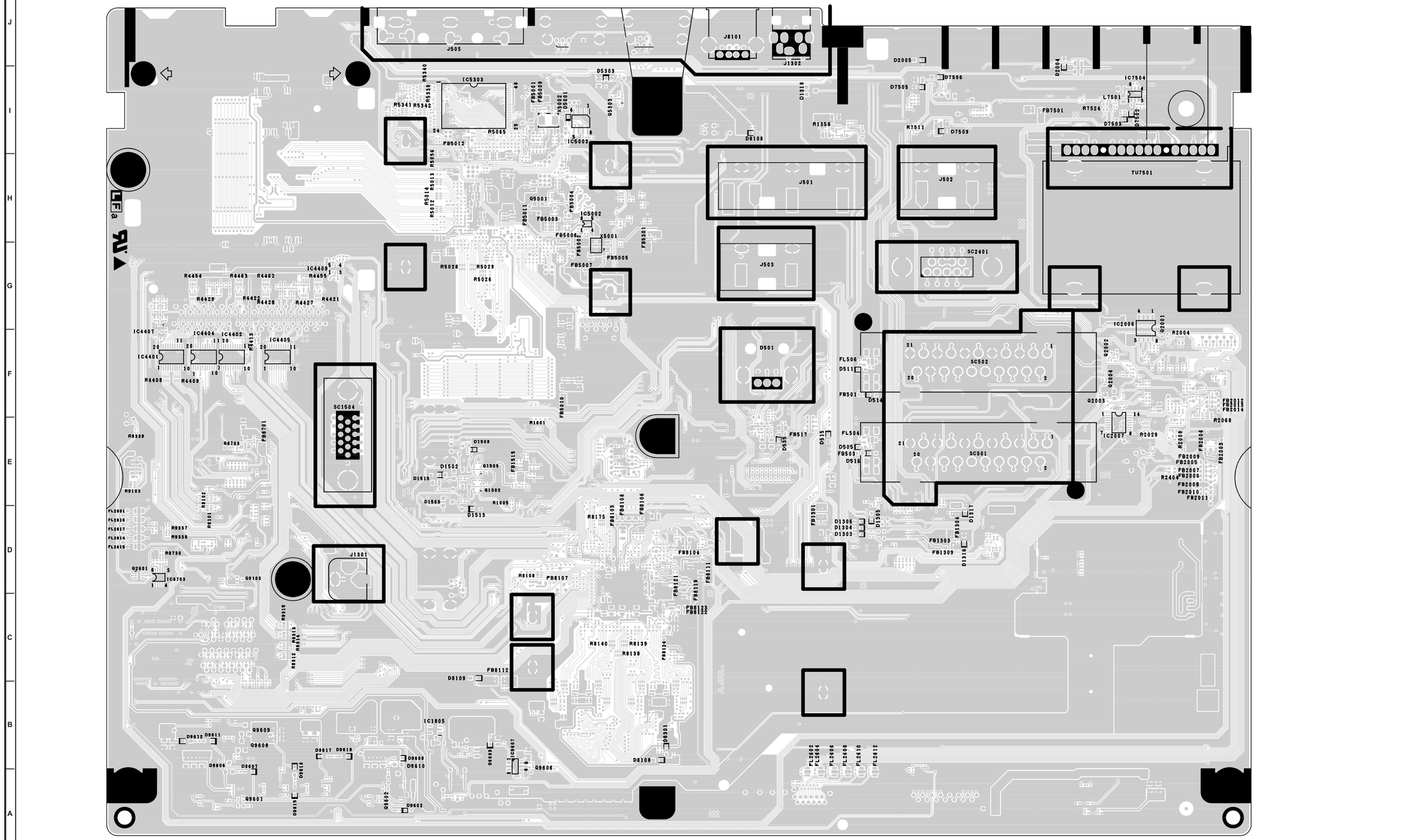
MAIN Unit (Side A)



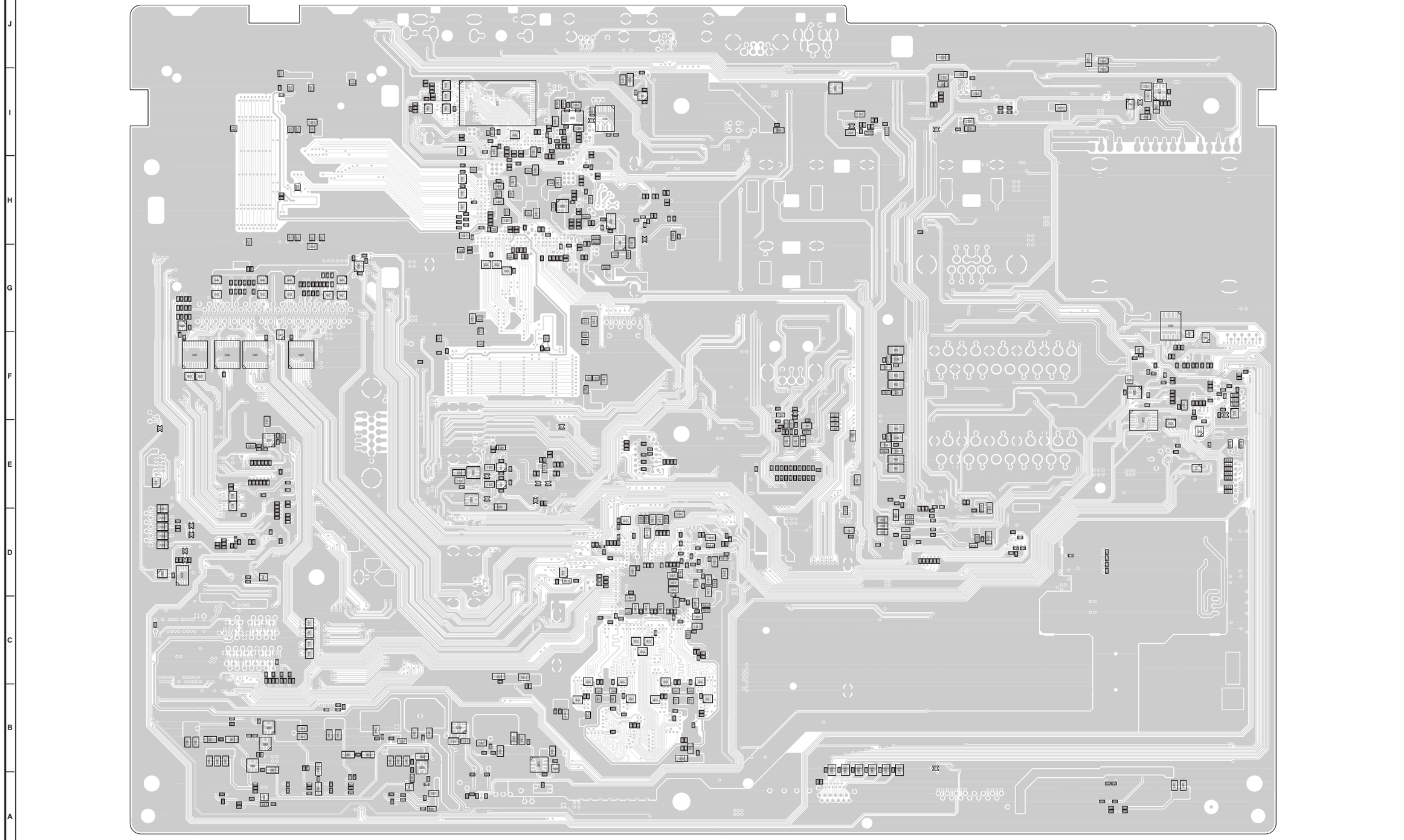
MAIN Unit (Chip Side A)



MAIN Unit (Side B)

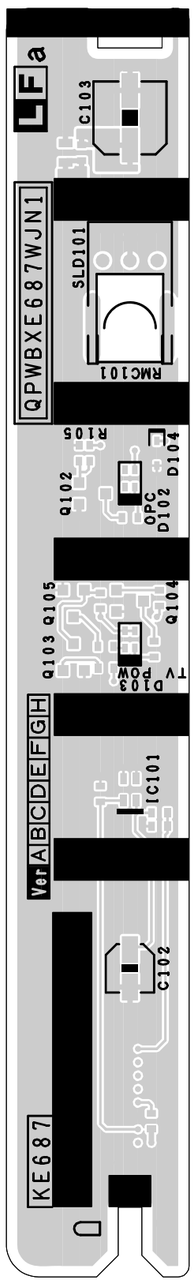


MAIN Unit (Chip Side B)

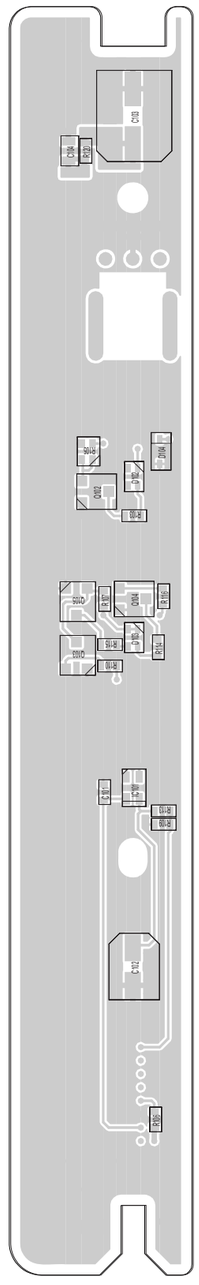


[2] LED UNIT PRINTED WIRING BOARD

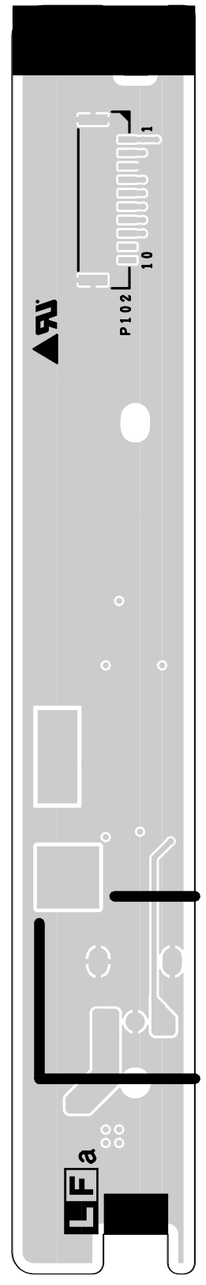
LED Unit (Side A)



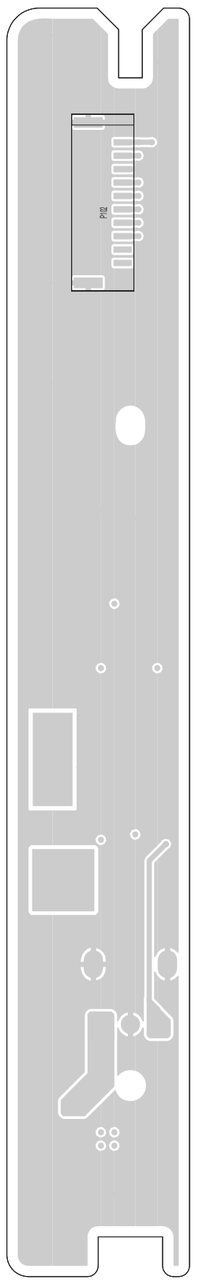
LED Unit (Chip Side A)



LED Unit (Side B)

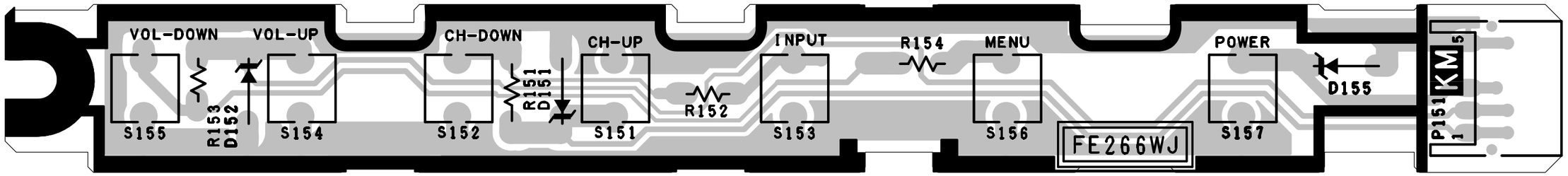


LED Unit (Chip Side B)

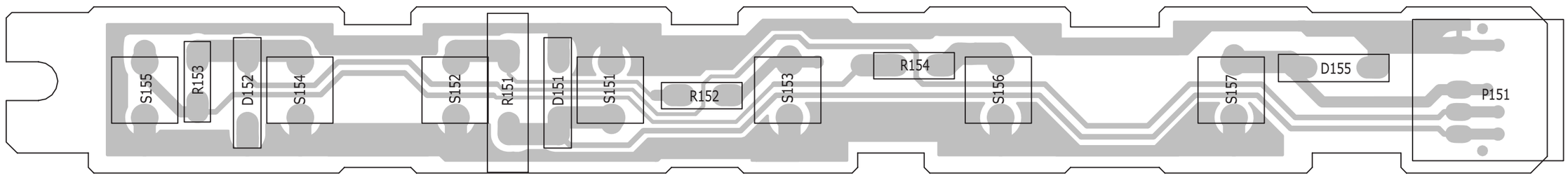


[3] KEY UNIT PRINTED WIRING BOARD

KEY Unit (Side-A)



KEY Unit (Side-AChip)



CHAPTER 7. SCHEMATIC DIAGRAM

[1] DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. The voltages at test points are measured on exclusive AC adaptor and the stable supply voltage of AC 230V.
   Signals are fed by a colour bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω" is omitted.
   (K=kΩ=1000 Ω, M=MΩ).
2. All resistors are ± 5%, unless otherwise noted.
   (K= ± 10%, F= ± 1%, D= ± 0.5%)
3. All resistors are 1/16W, unless otherwise noted.

CAPACITOR

1. All capacitors are μF, unless otherwise noted.
   (P=pF=μμF).
2. All capacitors are 50V, unless otherwise noted.

CAUTION:
This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTES:
1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

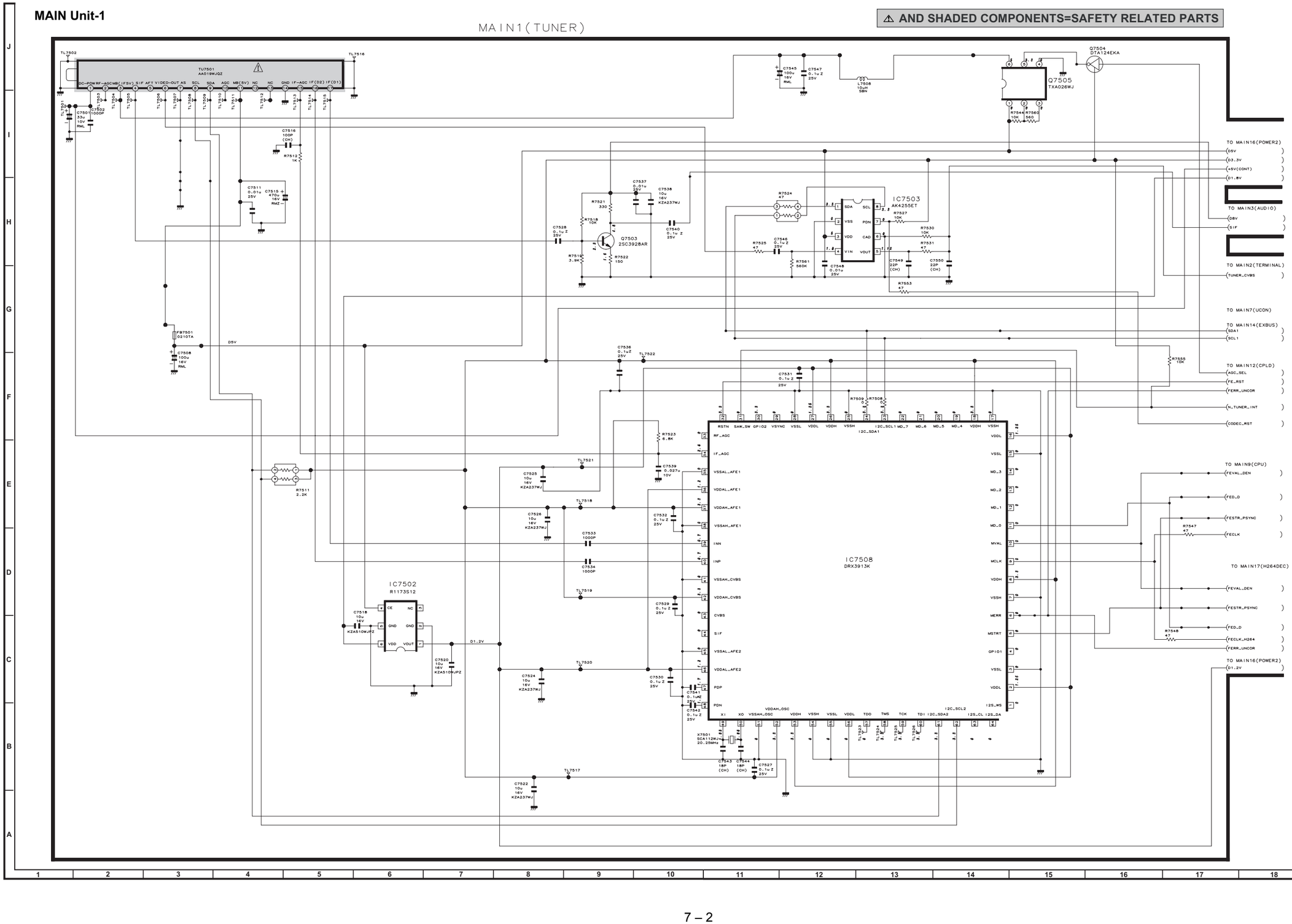
IMPORTANT SAFETY NOTICE:
PARTS MARKED WITH " ⚠ " ( ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

[2] SCHEMATIC DIAGRAM

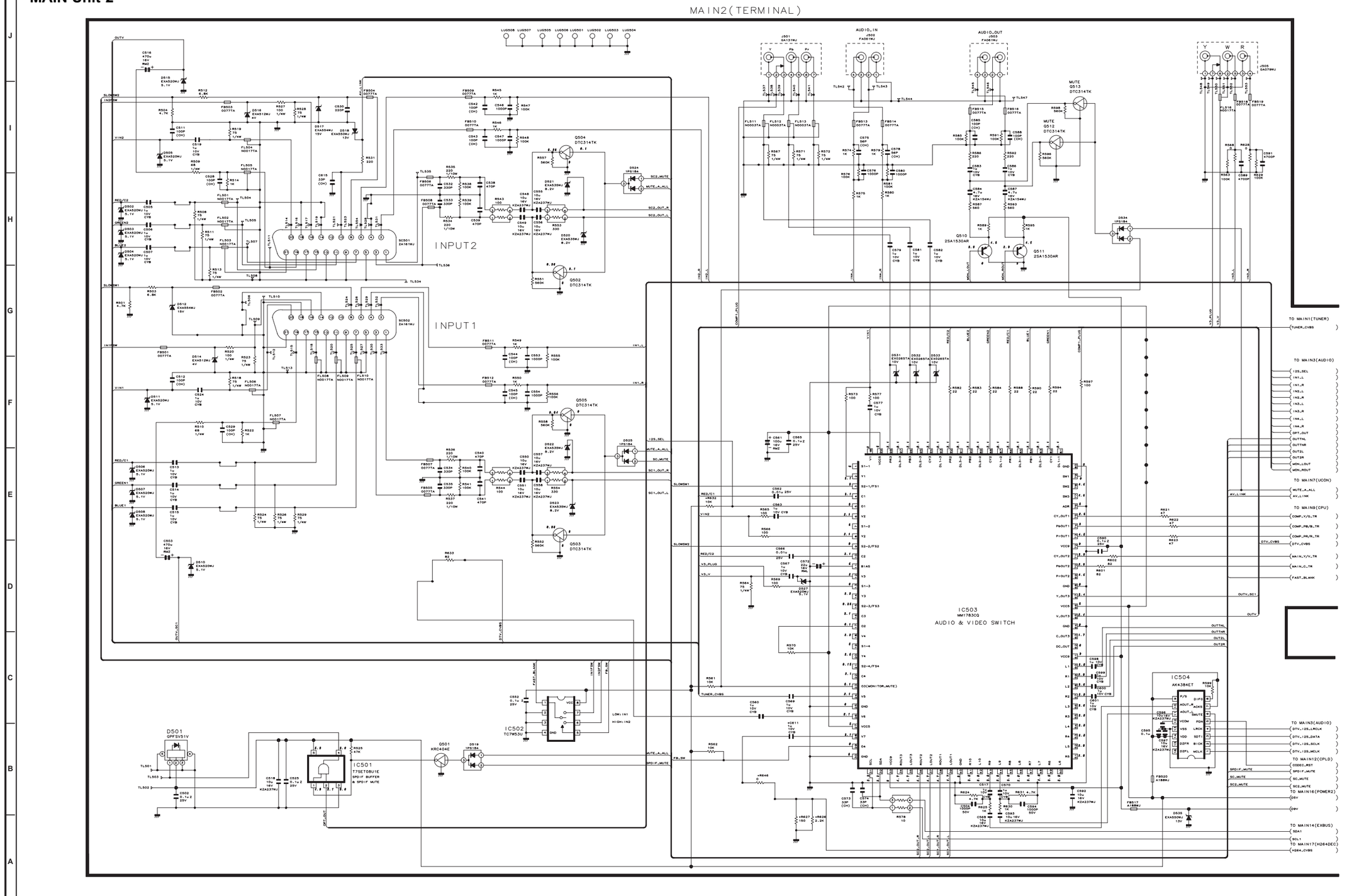
MAIN Unit-1

⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS

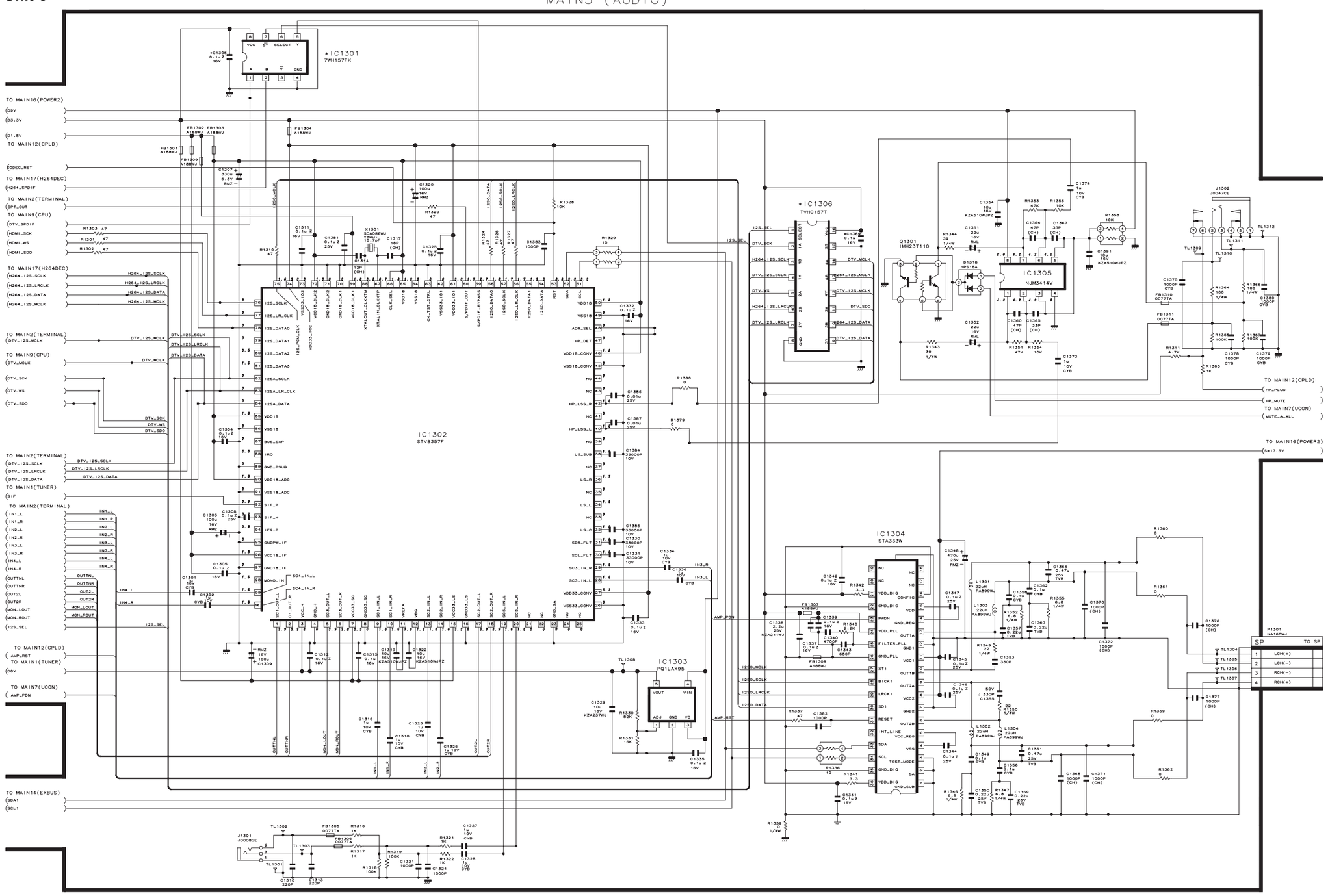
MAIN1(TUNER)



MAIN Unit-2

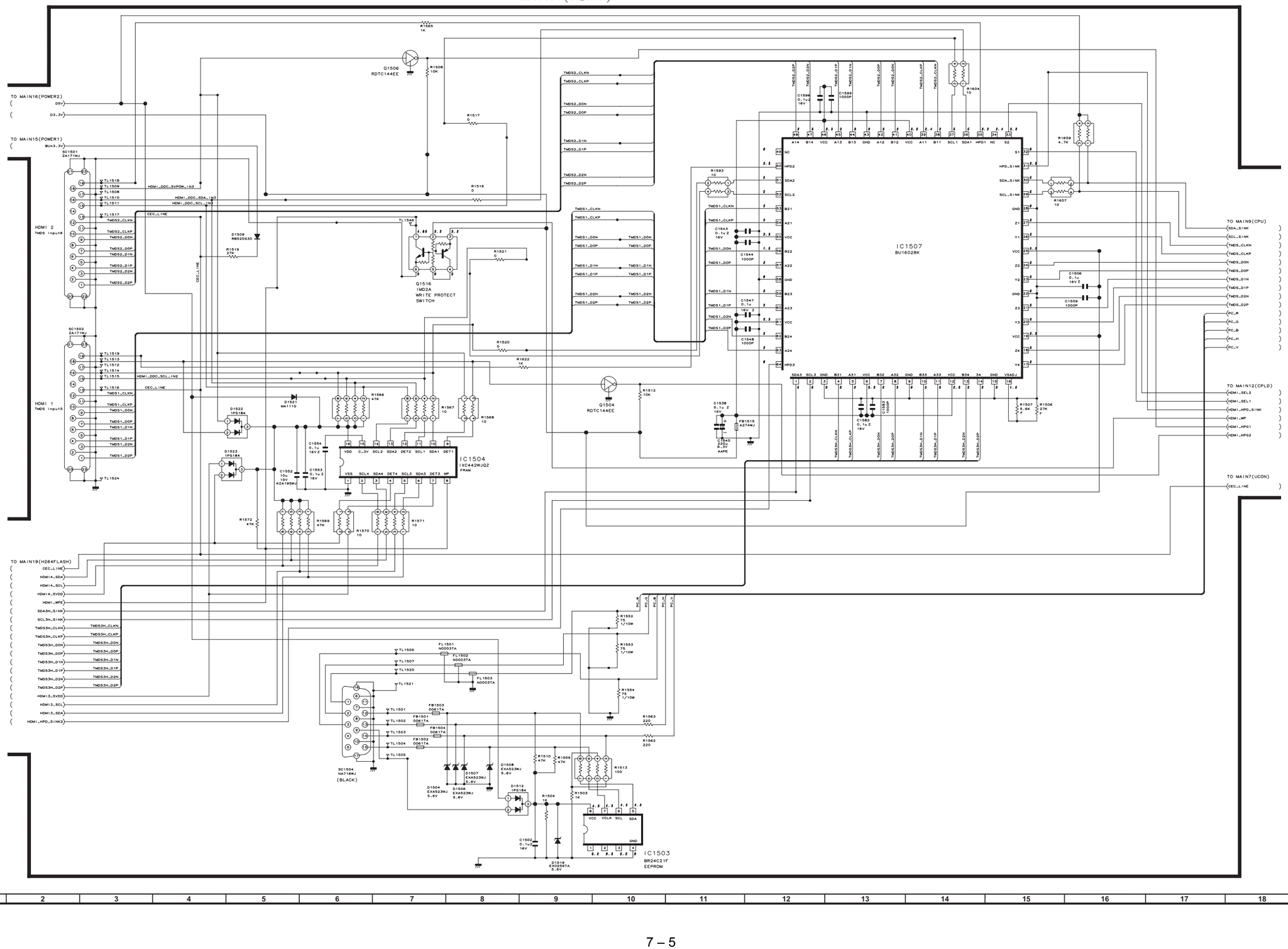

MAIN2(TERMINAL)
INPUT2
INPUT1
IC503
MM1783CQ
AUDIO & VIDEO SWITCH
IC504
AK4384ET
IC502
TC7W53U
IC501
T7SET08U1E
SPDIF BUFFER & SPDIF MUTE
D501
GP1SV51V
Q501
KRC404E
Q502
DTC314TK
Q503
DTC314TK
Q504
DTC314TK
Q505
DTC314TK
Q510
2SA1530AR
Q511
2SA1530AR
MUTE
Q513
DTC314TK
MUTE
Q512
DTC314TK
AUDIO_IN
AUDIO_OUT
TO MAIN1(TUNER)
TO MAIN3(AUDIO)
TO MAIN12(CPLD)
TO MAIN16(POWER2)
TO MAIN14(EXBUS)
TO MAIN17(H264DEC)
TO MAIN7(UCON)
TO MAIN9(CPU)

MAIN Unit-3

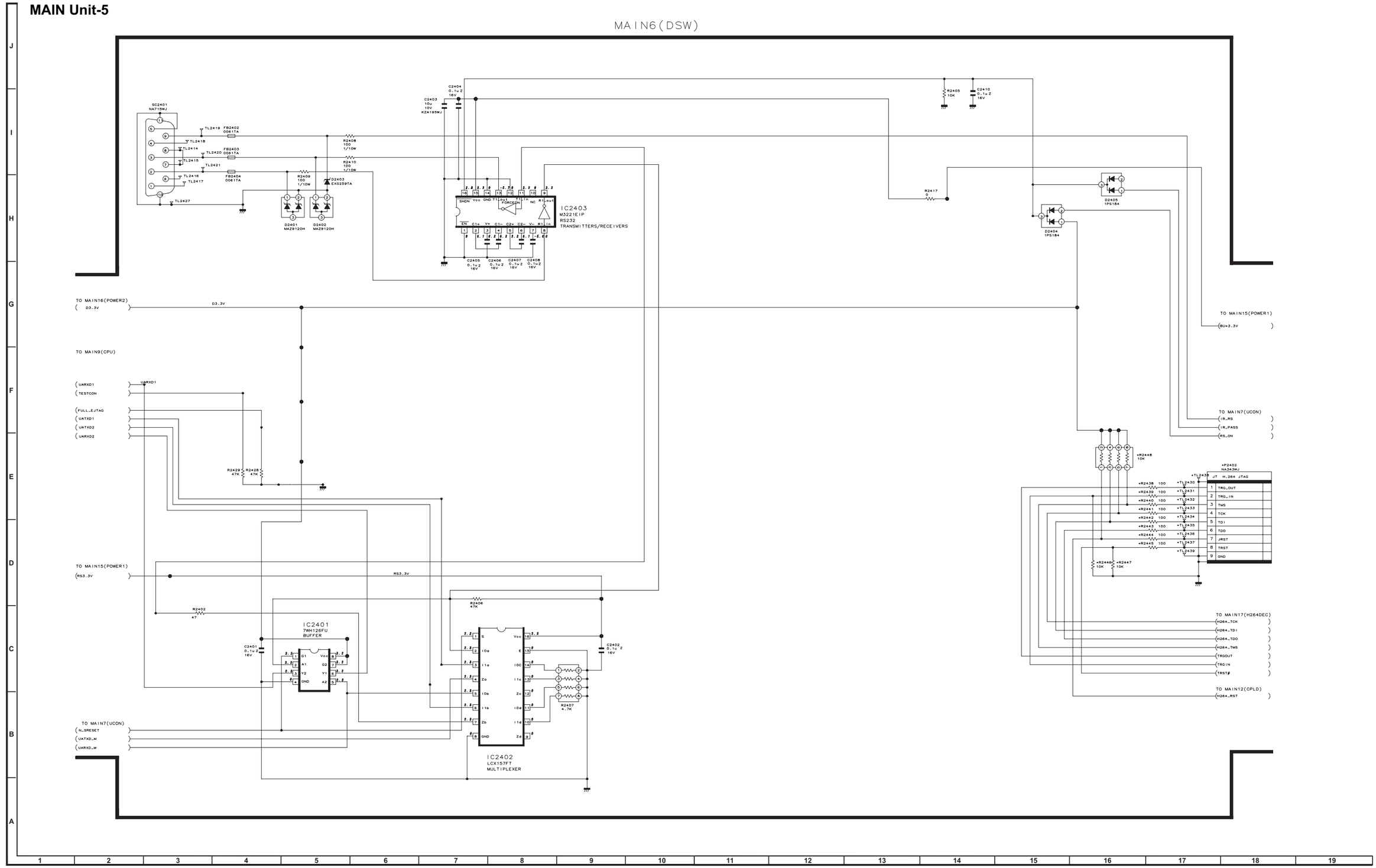

MAIN3 (AUDIO)
IC1301
7WH157FK
IC1302
STV8357F
IC1303
PQ1LAX95
IC1304
STA333W
IC1305
NJM3414V
IC1306
TVHC157T
Q1301
1MH23T110
TO MAIN16(POWER2)
TO MAIN2(TERMINAL)
TO MAIN17(H264DEC)
TO MAIN9(CPU)
TO MAIN12(CPLD)
TO MAIN1(TUNER)
TO MAIN7(UCON)
TO MAIN14(EXBUS)
SP
TO SP
I2SD_MCLK
I2SD_SCLK
I2SD_LRCLK
I2SD_DATA
I2S_SEL
AMP_PDN
AMP_RST

MAIN Unit-4

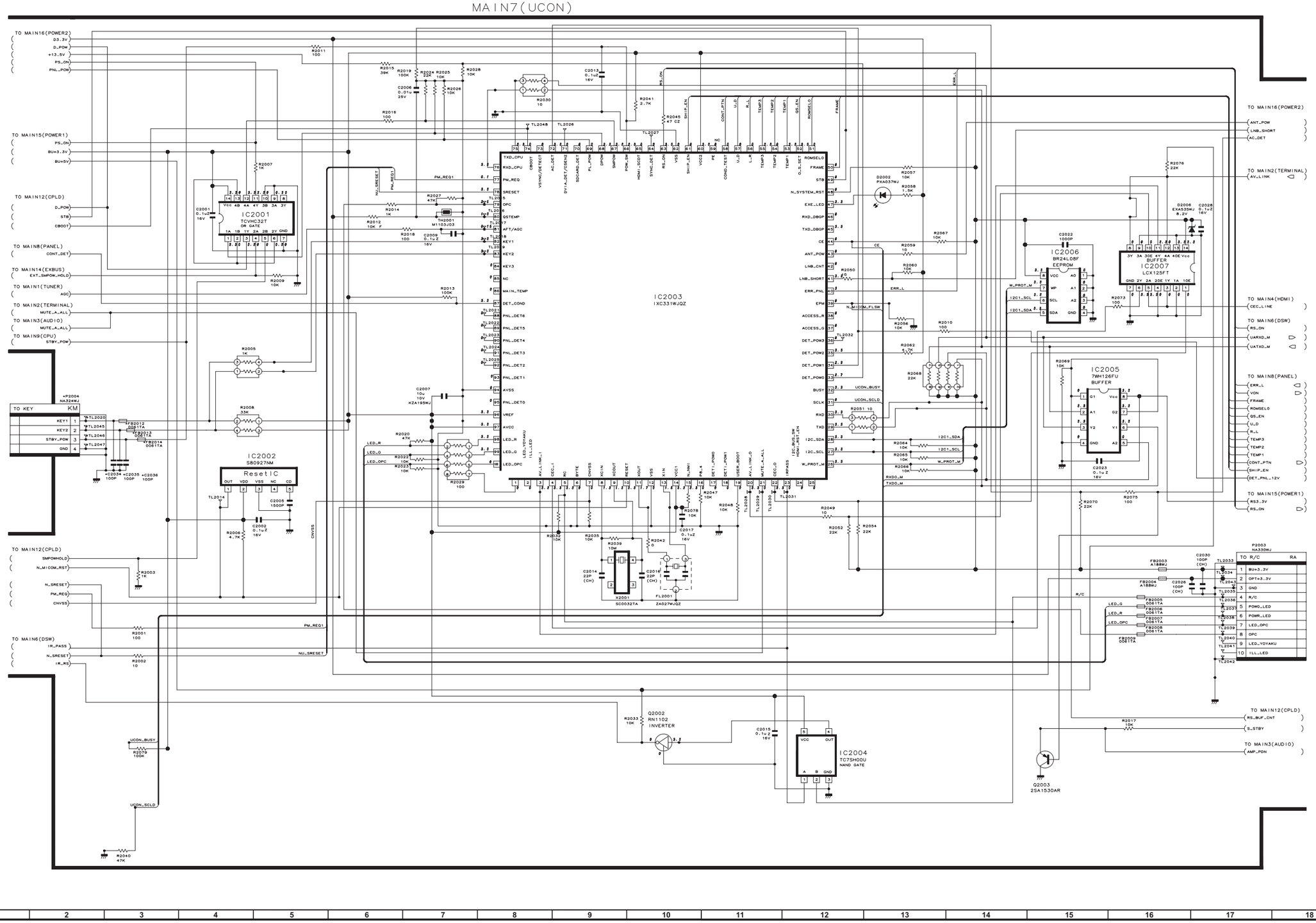
MAIN4(HDMI)



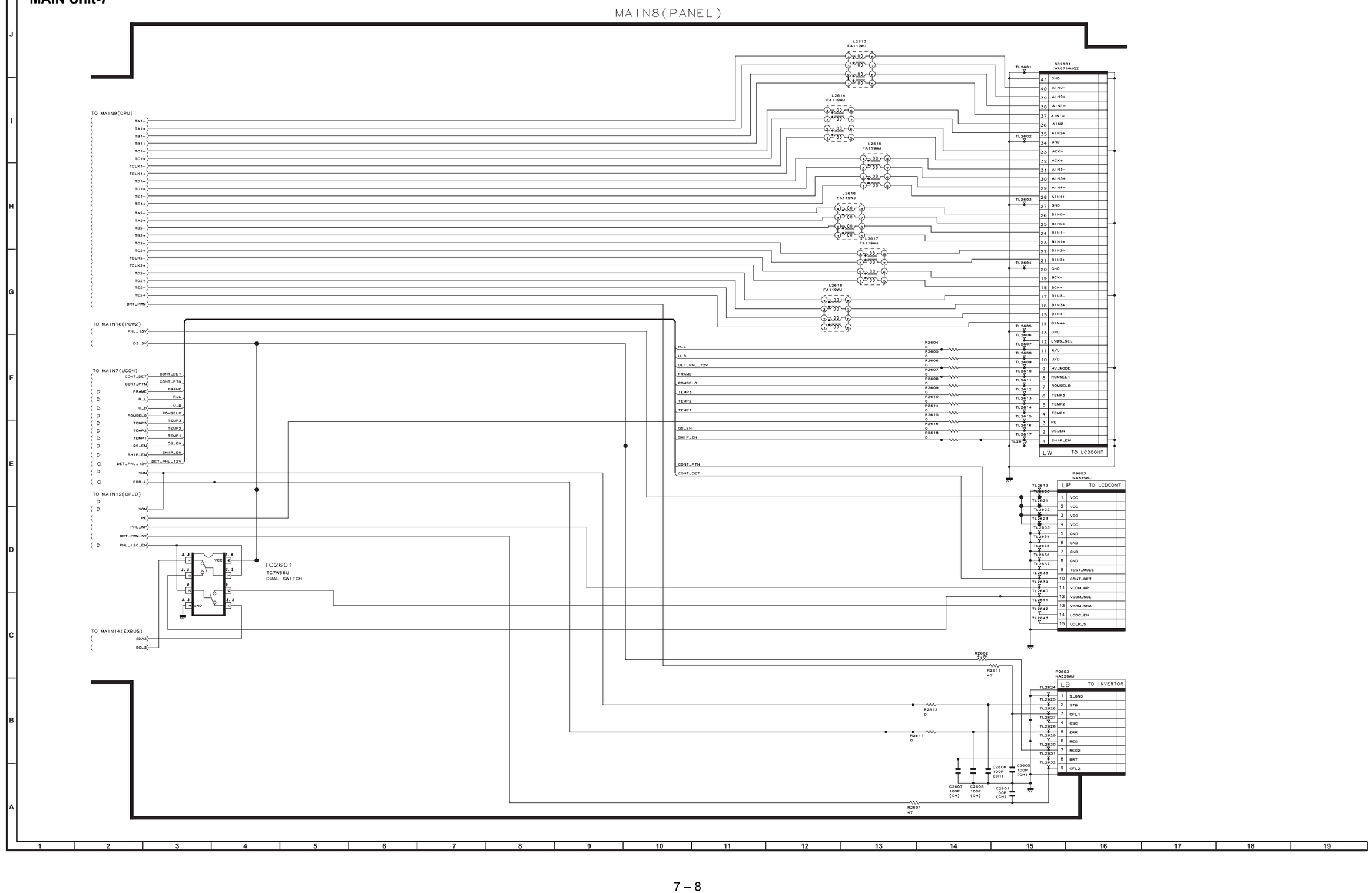
MAIN Unit-5


MAIN6(DSW)
SC2401
NA715WJ
TL2419
TL2418
TL2414
TL2420
TL2415
TL2421
TL2416
TL2417
TL2427
FB2402
00617A
FB2403
00617A
FB2404
00617A
R2408
100
1/10W
R2410
100
1/10W
R2409
100
1/10W
D2403
EX0259TA
D2401
MAZ9120H
D2402
MAZ9120H
C2404
0.1uZ
16V
C2403
10u
10V
KZA1905WJ
R2405
10K
C2410
0.1uZ
16V
R2417
0
D2405
1PS184
D2404
1PS184
IC2403
M3221EIP
RS232
TRANSMITTERS/RECEIVERS
SHDN
Vcc
GND
FORCEON
NC
EN
C1+
V+
C1-
C2+
C2-
V-
R1in
R1out
C2405
0.1uZ
16V
C2406
0.1uZ
16V
C2407
0.1uZ
16V
C2408
0.1uZ
16V
TO MAIN16(POWER2)
D3.3V
TO MAIN9(CPU)
UARXD1
TESTCON
FULL_EJTAG
UATXD1
UATXD2
UARXD2
R2429
47K
R2428
47K
TO MAIN15(POWER1)
RS3.3V
R2402
47
R2406
47K
IC2401
7WH126FU
BUFFER
C2401
0.1uZ
16V
C2402
0.1uZ
16V
IC2402
LCX157FT
MULTIPLEXER
R2407
4.7K
TO MAIN7(UCON)
N_SRESET
UATXD_M
UARXD_M
TO MAIN15(POWER1)
BU+3.3V
TO MAIN7(UCON)
IR_RS
IR_PASS
RS_ON
*R2448
10K
*R2402
NA343WJ
JT H.264 JTAG
1 TRG_OUT
2 TRG_IN
3 TMS
4 TCK
5 TDI
6 TDO
7 JRST
8 TRST
9 GND
*TL2430
*TL2431
*TL2432
*TL2433
*TL2434
*TL2435
*TL2436
*TL2437
*TL2439
*R2438 100
*R2439 100
*R2440 100
*R2441 100
*R2442 100
*R2443 100
*R2444 100
*R2445 100
*R2446
10K
*R2447
10K
TO MAIN17(H264DEC)
H264_TCK
H264_TDI
H264_TDO
H264_TMS
TRGOUT
TRGIN
TRST#
TO MAIN12(CPLD)
H264_RST

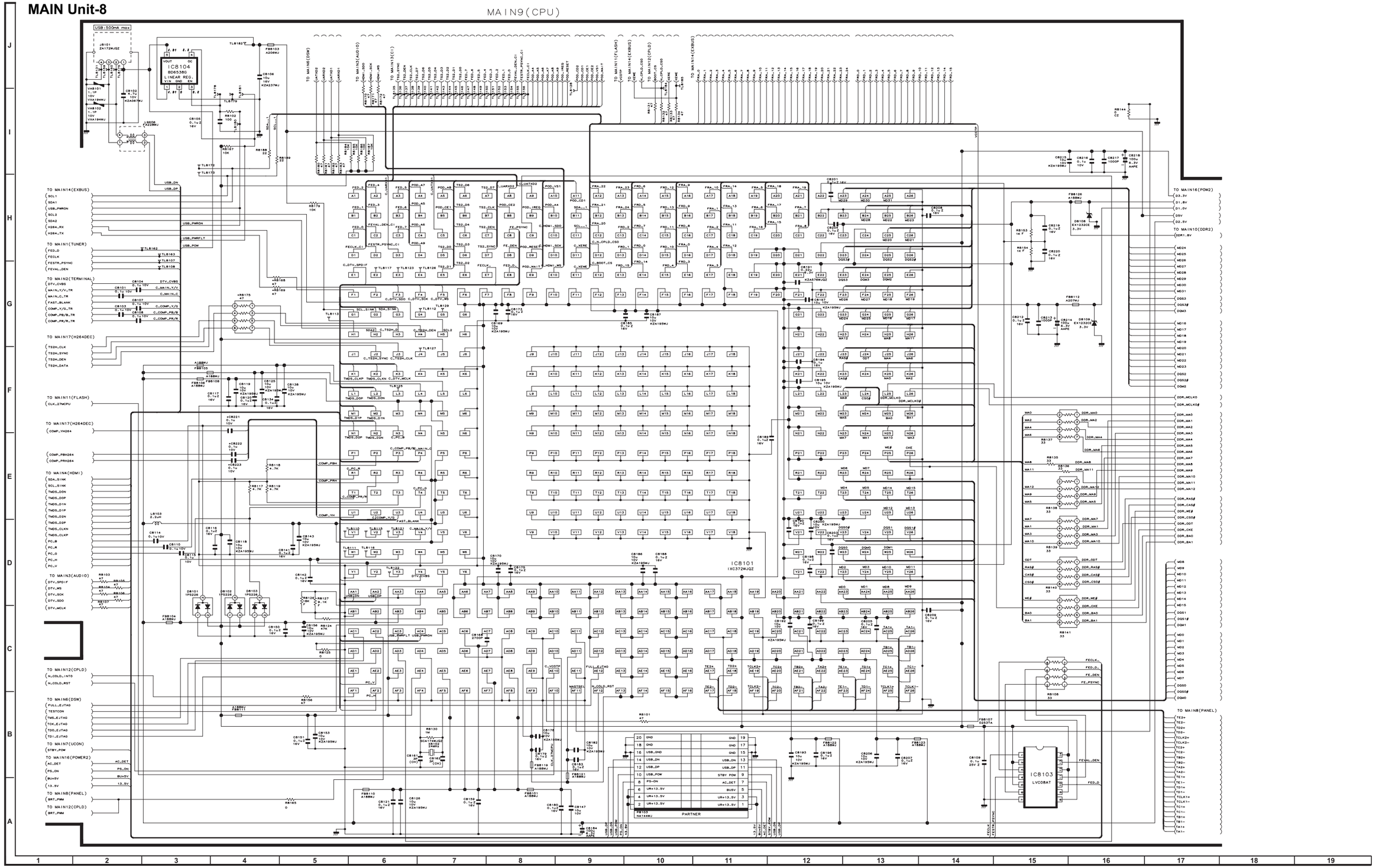
MAIN Unit-6


MAIN7(UCON)
IC2003
IXC331WJQZ
IC2001
TCVHC32T
OR GATE
IC2002
S80927NM
Reset IC
IC2004
TC7SH00U
NAND GATE
IC2005
7WH126FU
BUFFER
IC2006
BR24L08F
EEPROM
BUFFER
IC2007
LCX125FT
Q2002
RN1102
INVERTER
Q2003
2SA1530AR
X2001
SC0032TA
FL2001
ZA027WJQZ
TH2001
M1103J03
D2002
PXA037WJ
D2006
EXA539WJ
TO KEY KM
TO MAIN16(POWER2)
TO MAIN15(POWER1)
TO MAIN12(CPLD)
TO MAIN8(PANEL)
TO MAIN14(EXBUS)
TO MAIN1(TUNER)
TO MAIN2(TERMINAL)
TO MAIN3(AUDIO)
TO MAIN9(CPU)
TO MAIN6(DSW)
TO MAIN4(HDMI)
TO R/C
P2003 NA330WJ

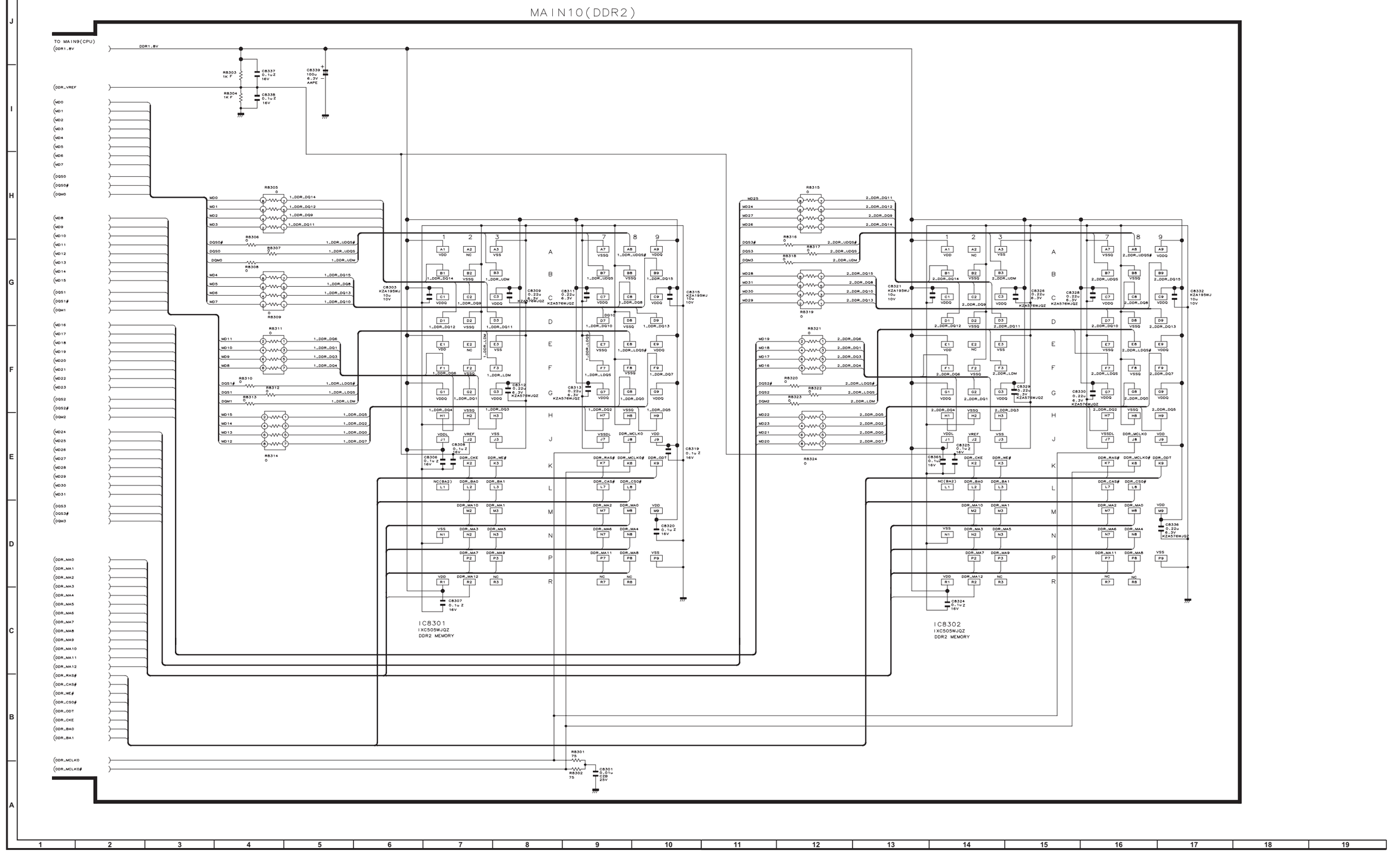
MAIN Unit-7


MAIN8(PANEL)
TO MAIN9(CPU)
TA1-
TA1+
TB1-
TB1+
TC1-
TC1+
TCLK1-
TCLK1+
TD1-
TD1+
TE1-
TE1+
TA2-
TA2+
TB2-
TB2+
TC2-
TC2+
TCLK2-
TCLK2+
TD2-
TD2+
TE2-
TE2+
BRT_PWM
TO MAIN16(POW2)
PNL_13V
D3.3V
TO MAIN7(UCON)
CONT_DET
CONT_PTN
FRAME
R_L
U_D
ROMSEL0
TEMP3
TEMP2
TEMP1
QS_EN
SHIP_EN
DET_PNL_12V
VON
ERR_L
TO MAIN12(CPLD)
VON
PE
PNL_WP
BRT_PWM_52
PNL_I2C_EN
IC2601
TC7W66U
DUAL SWITCH
VCC
GND
TO MAIN14(EXBUS)
SDA2
SCL2
L2613 FA119WJ
L2614 FA119WJ
L2615 FA119WJ
L2616 FA119WJ
L2617 FA119WJ
L2618 FA119WJ
R_L
U_D
DET_PNL_12V
FRAME
ROMSEL0
TEMP3
TEMP2
TEMP1
QS_EN
SHIP_EN
CONT_PTN
CONT_DET
R2604 0
R2605 0
R2606 0
R2607 0
R2608 0
R2609 0
R2610 0
R2614 0
R2615 0
R2616 0
R2618 0
SC2601 WA671WJQZ
TL2601
TL2602
TL2603
TL2604
TL2605
TL2606
TL2607
TL2608
TL2609
TL2610
TL2611
TL2612
TL2613
TL2614
TL2615
TL2616
TL2617
TL2618
41 GND
40 AIN0-
39 AIN0+
38 AIN1-
37 AIN1+
36 AIN2-
35 AIN2+
34 GND
33 ACK-
32 ACK+
31 AIN3-
30 AIN3+
29 AIN4-
28 AIN4+
27 GND
26 BIN0-
25 BIN0+
24 BIN1-
23 BIN1+
22 BIN2-
21 BIN2+
20 GND
19 BCK-
18 BCK+
17 BIN3-
16 BIN3+
15 BIN4-
14 BIN4+
13 GND
12 LVDS_SEL
11 R/L
10 U/D
9 HV_MODE
8 ROMSEL1
7 ROMSEL0
6 TEMP3
5 TEMP2
4 TEMP1
3 PE
2 QS_EN
1 SHIP_EN
LW TO LCDCONT
P9603 NA335WJ
LP TO LCDCONT
TL2619
TL2620
TL2621
TL2622
TL2623
TL2633
TL2634
TL2635
TL2636
TL2637
TL2638
TL2639
TL2640
TL2641
TL2642
TL2643
1 VCC
2 VCC
3 VCC
4 VCC
5 GND
6 GND
7 GND
8 GND
9 TEST_MODE
10 CONT_DET
11 VCOM_WP
12 VCOM_SCL
13 VCOM_SDA
14 LCDC_EN
15 UCLK_S
R2602 4.7Ω
R2611 47
P2603 NA329WJ
LB TO INVERTOR
TL2624
TL2625
TL2626
TL2627
TL2628
TL2629
TL2630
TL2631
TL2632
1 S_GND
2 STB
3 OFL1
4 OSC
5 ERR
6 REG
7 REG2
8 BRT
9 OFL2
R2612 0
R2617 0
C2607 100P (CH)
C2608 100P (CH)
C2606 100P (CH)
C2605 100P (CH)
C2601 100P (CH)
R2601 47

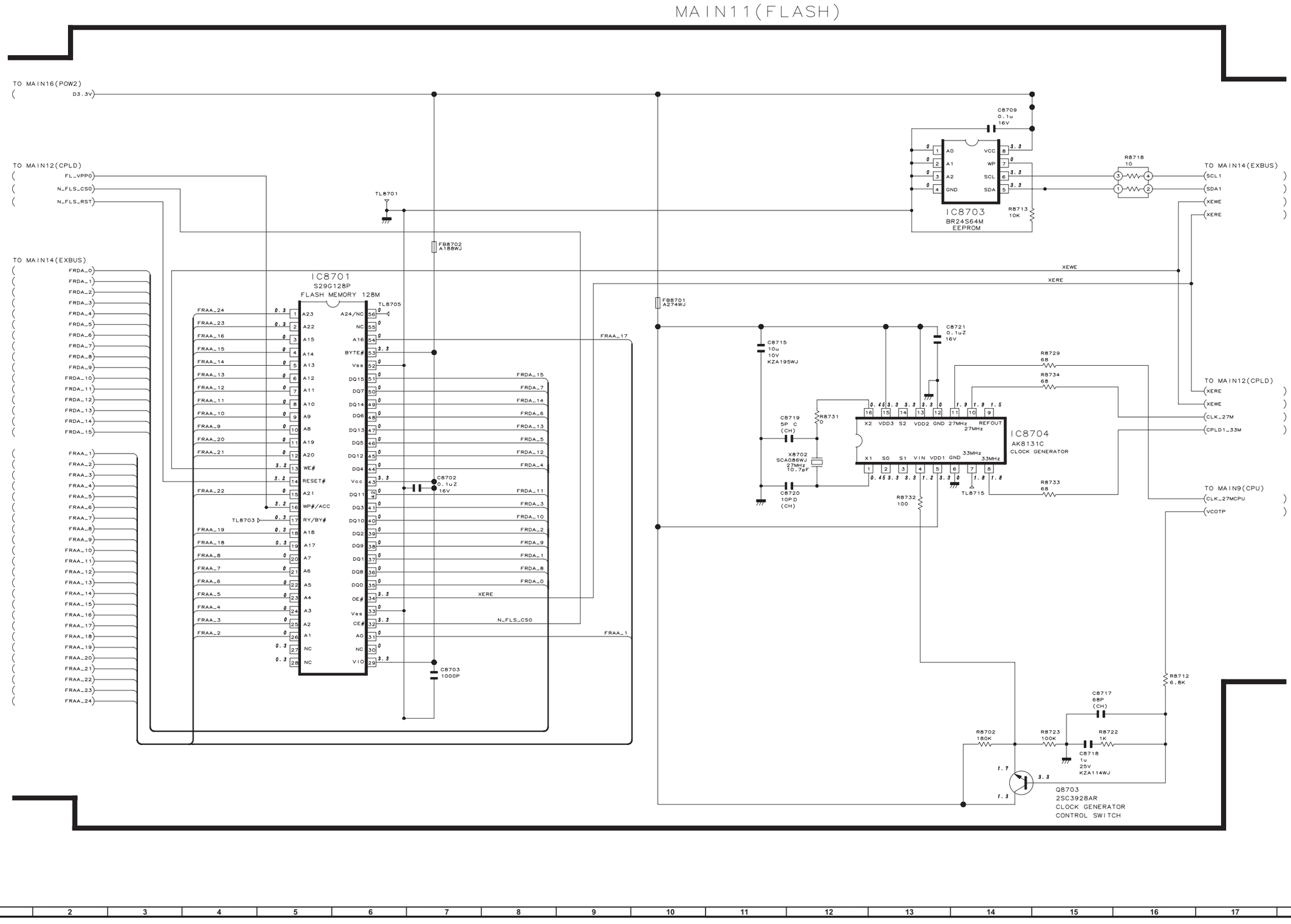
MAIN Unit-8


MAIN9(CPU)
IC8104
BD6538G
LINEAR REG.
IC8101
IXC372WJGZ
IC8103
LVCOBAT
PARTNER
TO MAIN14(EXBUS)
TO MAIN1(TUNER)
TO MAIN2(TERMINAL)
TO MAIN17(H264DEC)
TO MAIN11(FLASH)
TO MAIN17(H264DEC)
TO MAIN4(HDMI)
TO MAIN3(AUDIO)
TO MAIN12(CPLD)
TO MAIN6(DSW)
TO MAIN7(UCON)
TO MAIN16(POWER2)
TO MAIN8(PANEL)
TO MAIN12(CPLD)
TO MAIN16(POW2)
TO MAIN10(DDR2)
TO MAIN8(PANEL)

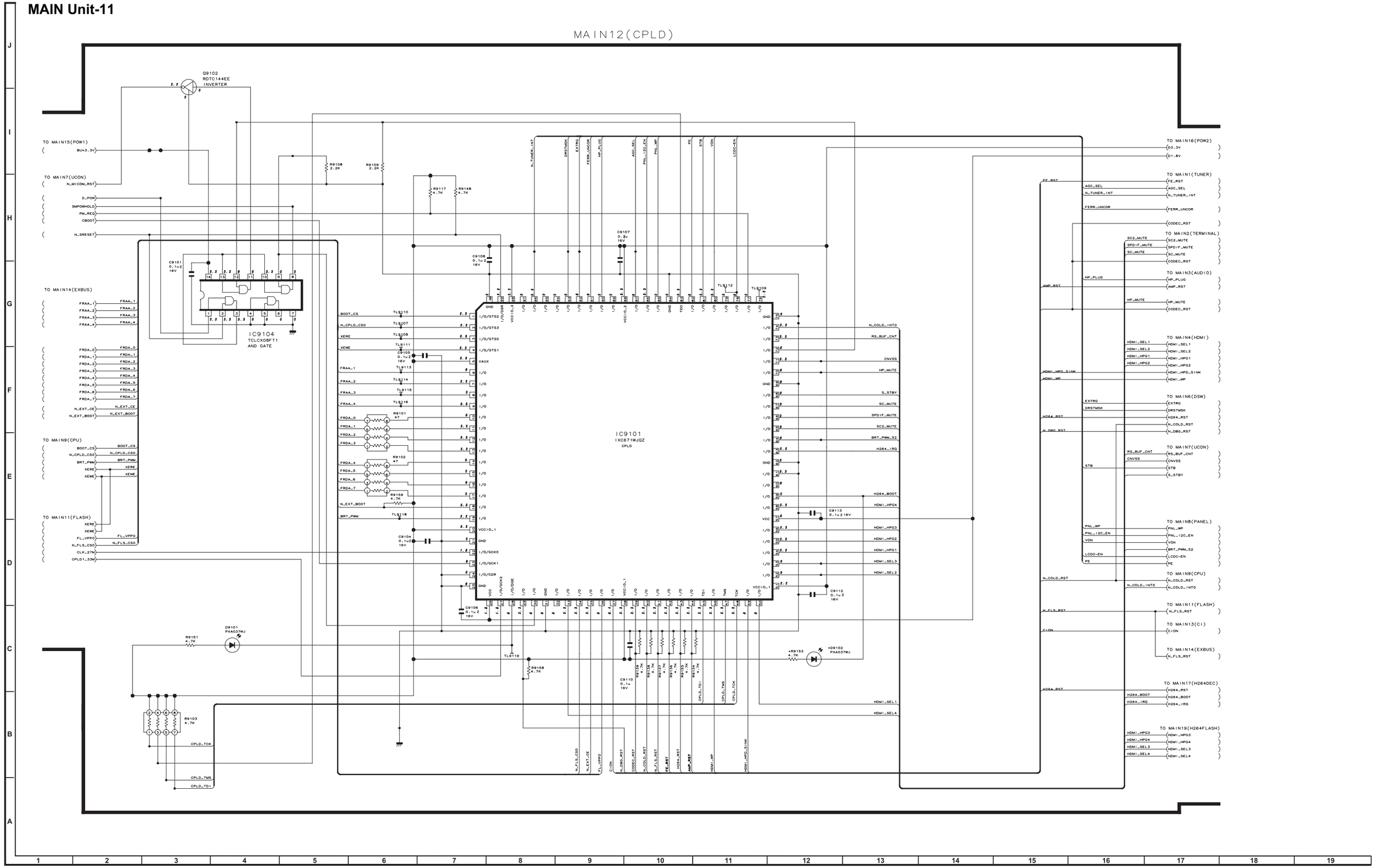
MAIN Unit-9


MAIN10(DDR2)
TO MAIN9(CPU)
DDR1.8V
DDR_VREF
MD0
MD1
MD2
MD3
MD4
MD5
MD6
MD7
DQS0
DQS0#
DQM0
MD8
MD9
MD10
MD11
MD12
MD13
MD14
MD15
DQS1
DQS1#
DQM1
MD16
MD17
MD18
MD19
MD20
MD21
MD22
MD23
DQS2
DQS2#
DQM2
MD24
MD25
MD26
MD27
MD28
MD29
MD30
MD31
DQS3
DQS3#
DQM3
DDR_MA0
DDR_MA1
DDR_MA2
DDR_MA3
DDR_MA4
DDR_MA5
DDR_MA6
DDR_MA7
DDR_MA8
DDR_MA9
DDR_MA10
DDR_MA11
DDR_MA12
DDR_RAS#
DDR_CAS#
DDR_WE#
DDR_CS0#
DDR_ODT
DDR_CKE
DDR_BA0
DDR_BA1
DDR_MCLK0
DDR_MCLK0#
R8303 1K F
R8304 1K F
C8337 0.1uZ 16V
C8338 0.1uZ 16V
C8339 100u 6.3V AAPE
R8305 0
R8306 0
R8307 0
R8308 0
R8309 0
R8310 0
R8311 0
R8312 0
R8313 0
R8314 0
R8315 0
R8316 0
R8317 0
R8318 0
R8319 0
R8320 0
R8321 0
R8322 0
R8323 0
R8324 0
R8301 75
R8302 75
C8301 0.01u CZB 25V
C8303 KZA195WJ 10u 10V
C8306 0.1uZ 16V
C8307 0.1uZ 16V
C8308 0.1uZ 16V
C8309 0.22u 6.3V KZA576WJQZ
C8311 0.22u 6.3V KZA576WJQZ
C8312 0.22u 6.3V KZA576WJQZ
C8313 0.22u 6.3V KZA576WJQZ
C8315 KZA195WJ 10u 10V
C8319 0.1uZ 16V
C8320 0.1uZ 16V
C8321 KZA195WJ 10u 10V
C8324 0.1uZ 16V
C8325 0.1uZ 16V
C8326 0.22u 6.3V KZA576WJQZ
C8328 0.22u 6.3V KZA576WJQZ
C8329 0.22u 6.3V KZA576WJQZ
C8330 0.22u 6.3V KZA576WJQZ
C8332 KZA195WJ 10u 10V
C8336 0.22u 6.3V KZA576WJQZ
C8365 0.1uZ 16V
IC8301
IXC505WJQZ
DDR2 MEMORY
IC8302
IXC505WJQZ
DDR2 MEMORY

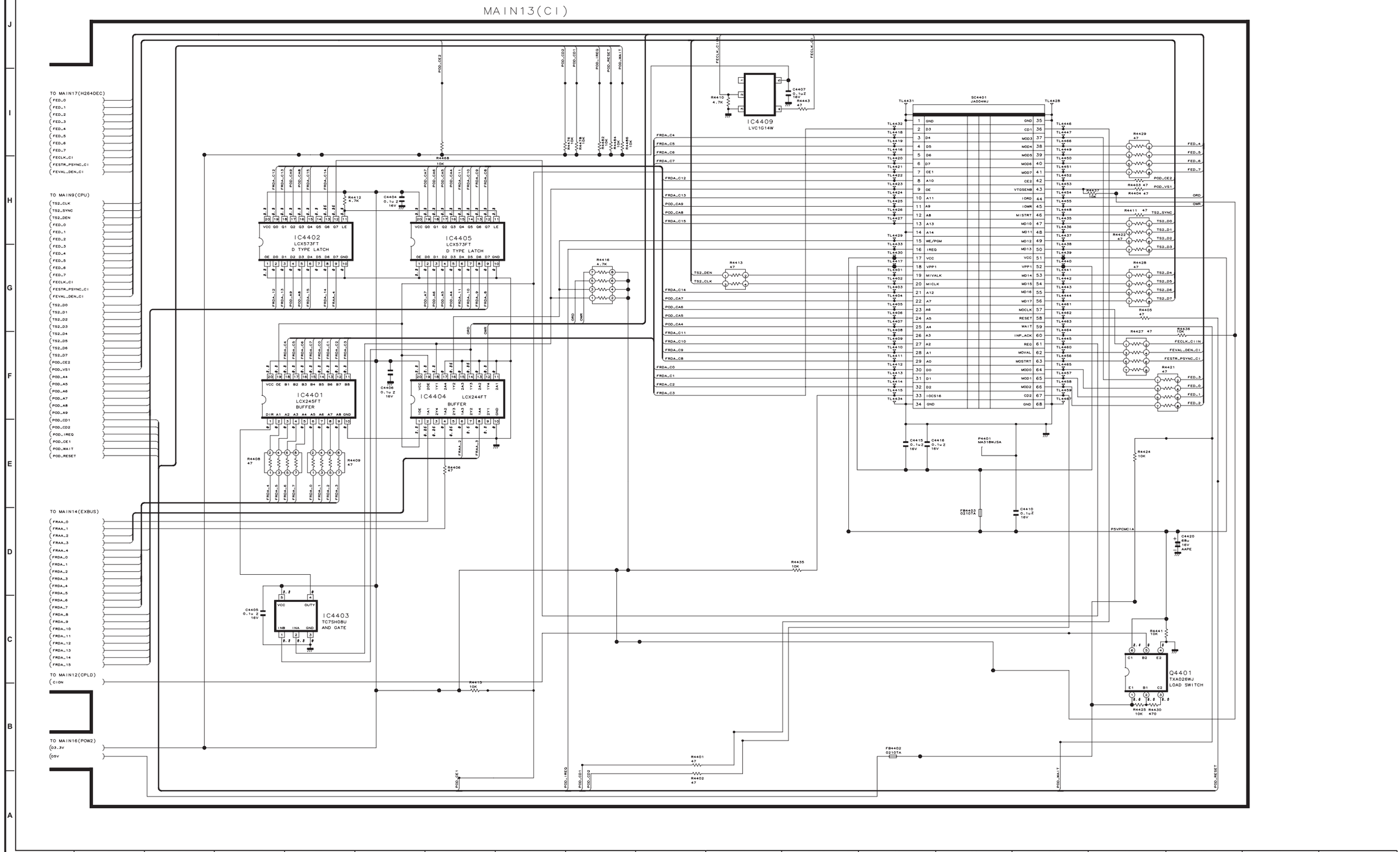
MAIN Unit-10


MAIN11(FLASH)
TO MAIN16(POW2)
D3.3V
TO MAIN12(CPLD)
FL_VPP0
N_FLS_CS0
N_FLS_RST
TO MAIN14(EXBUS)
FRDA_0
FRDA_1
FRDA_2
FRDA_3
FRDA_4
FRDA_5
FRDA_6
FRDA_7
FRDA_8
FRDA_9
FRDA_10
FRDA_11
FRDA_12
FRDA_13
FRDA_14
FRDA_15
FRAA_1
FRAA_2
FRAA_3
FRAA_4
FRAA_5
FRAA_6
FRAA_7
FRAA_8
FRAA_9
FRAA_10
FRAA_11
FRAA_12
FRAA_13
FRAA_14
FRAA_15
FRAA_16
FRAA_17
FRAA_18
FRAA_19
FRAA_20
FRAA_21
FRAA_22
FRAA_23
FRAA_24
TL8701
FB8702
A188WJ
IC8701
S29G128P
FLASH MEMORY 128M
TL8705
TL8703
C8702
0.1uZ
16V
C8703
1000P
XERE
N_FLS_CS0
FRAA_1
FB8701
A274WJ
C8715
10u
10V
KZA195WJ
C8721
0.1uZ
16V
C8719
5P C
(CH)
R8731
0
X8702
SCA086WJ
27MHz
10.7pF
C8720
10PD
(CH)
IC8704
AK8131C
CLOCK GENERATOR
27MHz
33MHz
R8732
100
TL8715
R8729
68
R8734
68
R8733
68
R8712
6.8K
C8717
68P
(CH)
R8702
180K
R8723
100K
R8722
1K
C8718
1u
25V
KZA114WJ
Q8703
2SC3928AR
CLOCK GENERATOR
CONTROL SWITCH
C8709
0.1u
16V
IC8703
BR24S64M
EEPROM
R8713
10K
R8718
10
TO MAIN14(EXBUS)
SCL1
SDA1
XEWE
XERE
TO MAIN12(CPLD)
CLK_27M
CPLD1_33M
TO MAIN9(CPU)
CLK_27MCPU
VCOTP

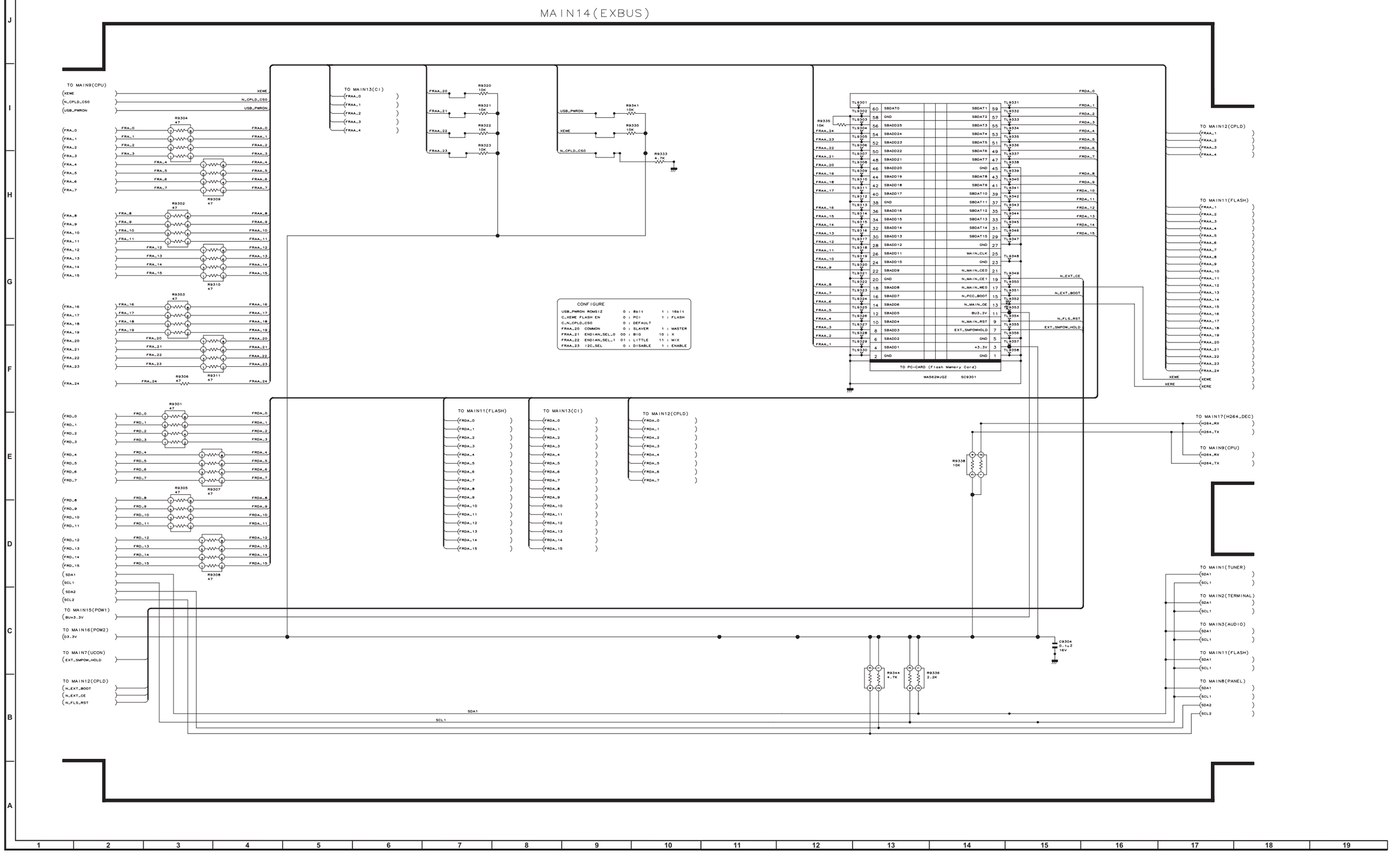
MAIN Unit-11


MAIN12(CPLD)
IC9101
IXC671WJQZ
CPLD
IC9104
TCLCX08FT1
AND GATE
Q9102
RDTC144EE
INVERTER
D9101
PXA037WJ
D9102
PXA037WJ
TO MAIN15(POW1)
TO MAIN7(UCON)
TO MAIN14(EXBUS)
TO MAIN9(CPU)
TO MAIN11(FLASH)
TO MAIN16(POW2)
TO MAIN1(TUNER)
TO MAIN2(TERMINAL)
TO MAIN3(AUDIO)
TO MAIN4(HDMI)
TO MAIN6(DSW)
TO MAIN7(UCON)
TO MAIN8(PANEL)
TO MAIN9(CPU)
TO MAIN11(FLASH)
TO MAIN13(CI)
TO MAIN14(EXBUS)
TO MAIN17(H264DEC)
TO MAIN19(H264FLASH)

MAIN Unit-12

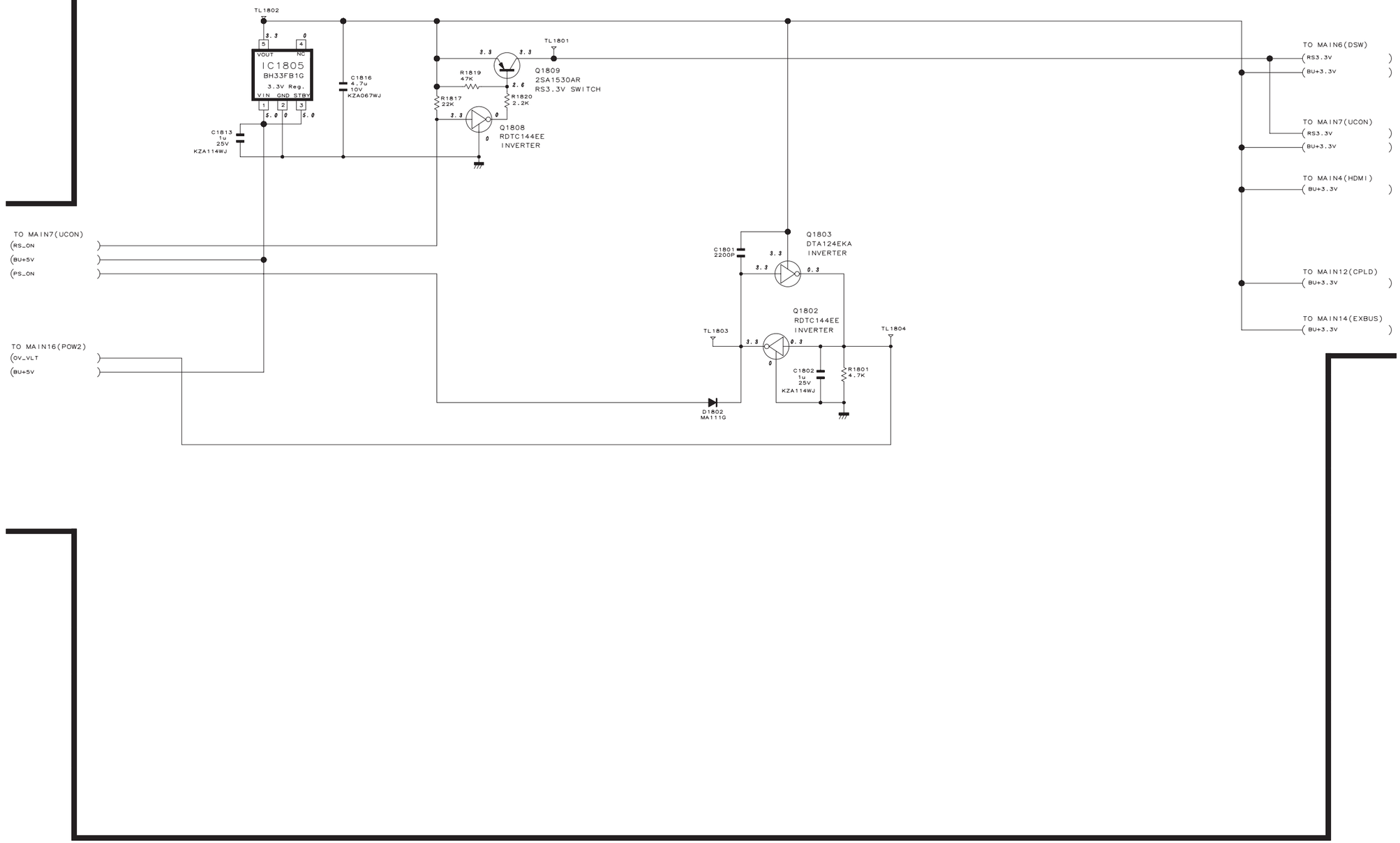

MAIN13(CI)
TO MAIN17(H264DEC)
FED_0
FED_1
FED_2
FED_3
FED_4
FED_5
FED_6
FED_7
FECLK_CI
FESTR_PSYNC_CI
FEVAL_DEN_CI
TO MAIN9(CPU)
TS2_CLK
TS2_SYNC
TS2_DEN
TS2_D0
TS2_D1
TS2_D2
TS2_D3
TS2_D4
TS2_D5
TS2_D6
TS2_D7
POD_CE2
POD_VS1
POD_A4
POD_A5
POD_A6
POD_A7
POD_A8
POD_A9
POD_CD1
POD_CD2
POD_IREQ
POD_CE1
POD_WAIT
POD_RESET
TO MAIN14(EXBUS)
FRAA_0
FRAA_1
FRAA_2
FRAA_3
FRAA_4
FRDA_0
FRDA_1
FRDA_2
FRDA_3
FRDA_4
FRDA_5
FRDA_6
FRDA_7
FRDA_8
FRDA_9
FRDA_10
FRDA_11
FRDA_12
FRDA_13
FRDA_14
FRDA_15
TO MAIN12(CPLD)
CION
TO MAIN16(POW2)
D3.3V
D5V
IC4402
LCX573FT
D TYPE LATCH
IC4405
LCX573FT
D TYPE LATCH
IC4401
LCX245FT
BUFFER
IC4404
LCX244FT
BUFFER
IC4403
TC7SH08U
AND GATE
IC4409
LVC1G14W
SC4401
JA004WJ
P4401
MA318WJSA
Q4401
TXA026WJ
LOAD SWITCH
FB4402
0210TA
C4420
68u
16V
AAPE
P5VPCMCIA

MAIN Unit-13

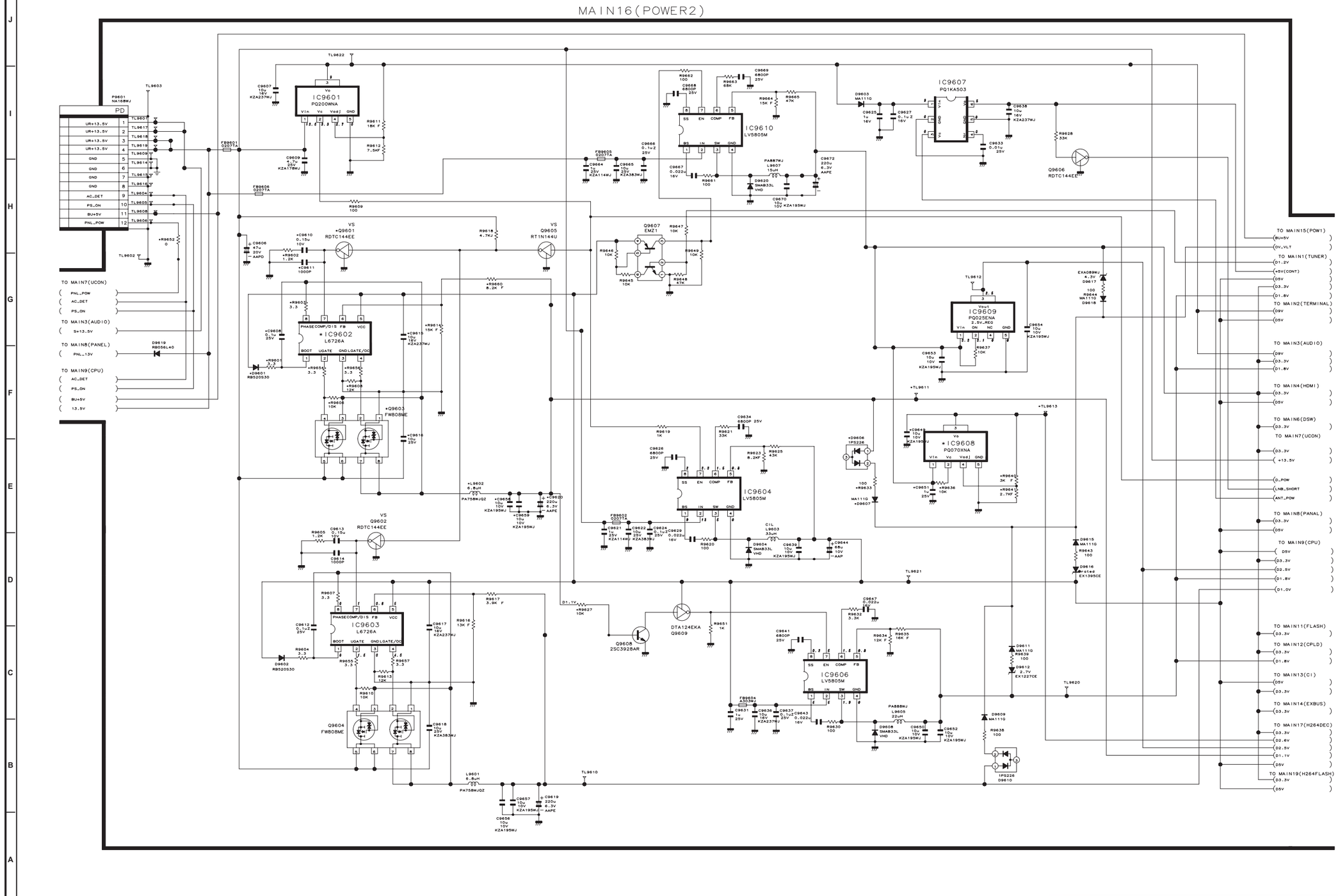

MAIN14(EXBUS)
TO MAIN9(CPU)
XEWE
N_CPLD_CS0
USB_PWRON
FRA_0
FRA_1
FRA_2
FRA_3
FRA_4
FRA_5
FRA_6
FRA_7
FRA_8
FRA_9
FRA_10
FRA_11
FRA_12
FRA_13
FRA_14
FRA_15
FRA_16
FRA_17
FRA_18
FRA_19
FRA_20
FRA_21
FRA_22
FRA_23
FRA_24
FRAA_0
FRAA_1
FRAA_2
FRAA_3
FRAA_4
FRAA_5
FRAA_6
FRAA_7
FRAA_8
FRAA_9
FRAA_10
FRAA_11
FRAA_12
FRAA_13
FRAA_14
FRAA_15
FRAA_16
FRAA_17
FRAA_18
FRAA_19
FRAA_20
FRAA_21
FRAA_22
FRAA_23
FRAA_24
R9304 47
R9309 47
R9302 47
R9310 47
R9303 47
R9306 47
R9311 47
TO MAIN13(CI)
R9320 10K
R9321 10K
R9322 10K
R9323 10K
R9341 10K
R9330 10K
R9333 4.7K
CONFIGURE
USB_PWRON ROMSIZ 0 : 8bit 1 : 16bit
C_XEWE FLASH EN 0 : PCI 1 : FLASH
C_N_CPLD_CS0 0 : DEFAULT
FRAA_20 COMMON 0 : SLAVER 1 : MASTER
FRAA_21 ENDIAN_SEL_0 00 : BIG 10 : X
FRAA_22 ENDIAN_SEL_1 01 : LITTLE 11 : MIX
FRAA_23 I2C_SEL 0 : DISABLE 1 : ENABLE
TL9301
TL9302
TL9303
TL9304
TL9305
TL9306
TL9307
TL9308
TL9309
TL9310
TL9311
TL9312
TL9313
TL9314
TL9315
TL9316
TL9317
TL9318
TL9319
TL9320
TL9321
TL9322
TL9323
TL9324
TL9325
TL9326
TL9327
TL9328
TL9329
TL9330
TL9331
TL9332
TL9333
TL9334
TL9335
TL9336
TL9337
TL9338
TL9339
TL9340
TL9341
TL9342
TL9343
TL9344
TL9345
TL9346
TL9347
TL9348
TL9349
TL9350
TL9351
TL9352
TL9353
TL9354
TL9355
TL9356
TL9357
TL9358
SBDAT0
GND
SBADD25
SBADD24
SBADD23
SBADD22
SBADD21
SBADD20
SBADD19
SBADD18
SBADD17
GND
SBADD16
SBADD15
SBADD14
SBADD13
SBADD12
SBADD11
SBADD10
SBADD9
GND
SBADD8
SBADD7
SBADD6
SBADD5
SBADD4
SBADD3
SBADD2
SBADD1
GND
SBDAT1
SBDAT2
SBDAT3
SBDAT4
SBDAT5
SBDAT6
SBDAT7
GND
SBDAT8
SBDAT9
SBDAT10
SBDAT11
SBDAT12
SBDAT13
SBDAT14
SBDAT15
GND
MAIN_CLK
GND
N_MAIN_CE0
N_MAIN_CE1
N_MAIN_WE0
N_PCC_BOOT
N_MAIN_OE
BU3.3V
N_MAIN_RST
EXT_SMPOWHOLD
GND
+3.3V
GND
TO PC-CARD (Flash Memory Card)
WA562WJGZ SC9301
FRDA_0
FRDA_1
FRDA_2
FRDA_3
FRDA_4
FRDA_5
FRDA_6
FRDA_7
FRDA_8
FRDA_9
FRDA_10
FRDA_11
FRDA_12
FRDA_13
FRDA_14
FRDA_15
N_EXT_CE
N_EXT_BOOT
N_FLS_RST
EXT_SMPOW_HOLD
TO MAIN12(CPLD)
TO MAIN11(FLASH)
XEWE
XERE
TO MAIN17(H264_DEC)
H264_RX
H264_TX
TO MAIN9(CPU)
R9338 10K
TO MAIN1(TUNER)
TO MAIN2(TERMINAL)
TO MAIN3(AUDIO)
TO MAIN8(PANEL)
SDA1
SCL1
SDA2
SCL2
TO MAIN15(POW1)
BU+3.3V
TO MAIN16(POW2)
D3.3V
TO MAIN7(UCON)
EXT_SMPOW_HOLD
TO MAIN12(CPLD)
N_EXT_BOOT
N_EXT_CE
N_FLS_RST
R9301 47
R9305 47
R9307 47
R9308 47
FRD_0
FRD_1
FRD_2
FRD_3
FRD_4
FRD_5
FRD_6
FRD_7
FRD_8
FRD_9
FRD_10
FRD_11
FRD_12
FRD_13
FRD_14
FRD_15
FRDA_0
FRDA_1
FRDA_2
FRDA_3
FRDA_4
FRDA_5
FRDA_6
FRDA_7
FRDA_8
FRDA_9
FRDA_10
FRDA_11
FRDA_12
FRDA_13
FRDA_14
FRDA_15
TO MAIN11(FLASH)
TO MAIN13(CI)
TO MAIN12(CPLD)
C9304 0.1u2 16V
R9344 4.7K
R9336 2.2K

MAIN Unit-14

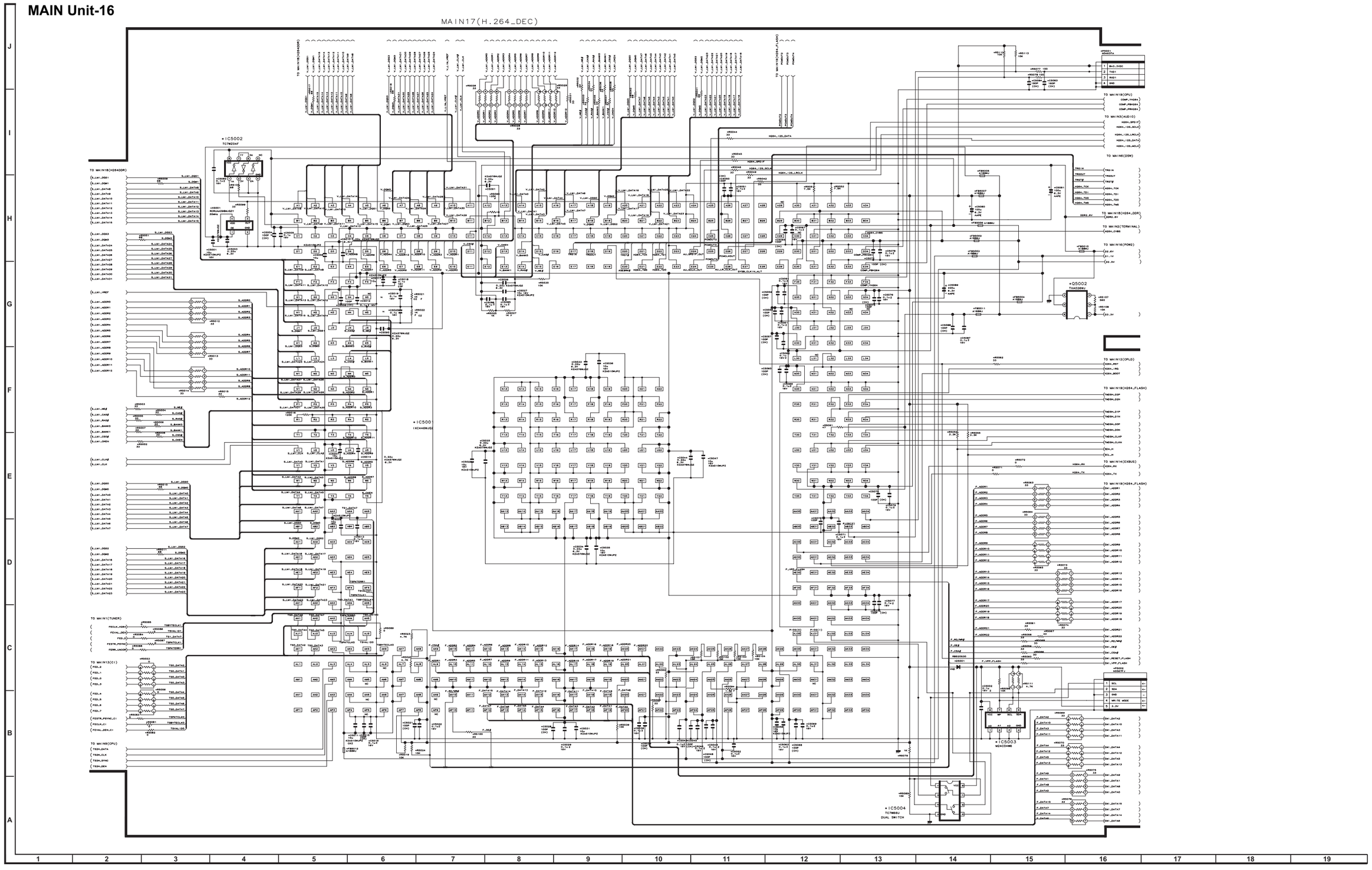
MAIN15(POWER1)



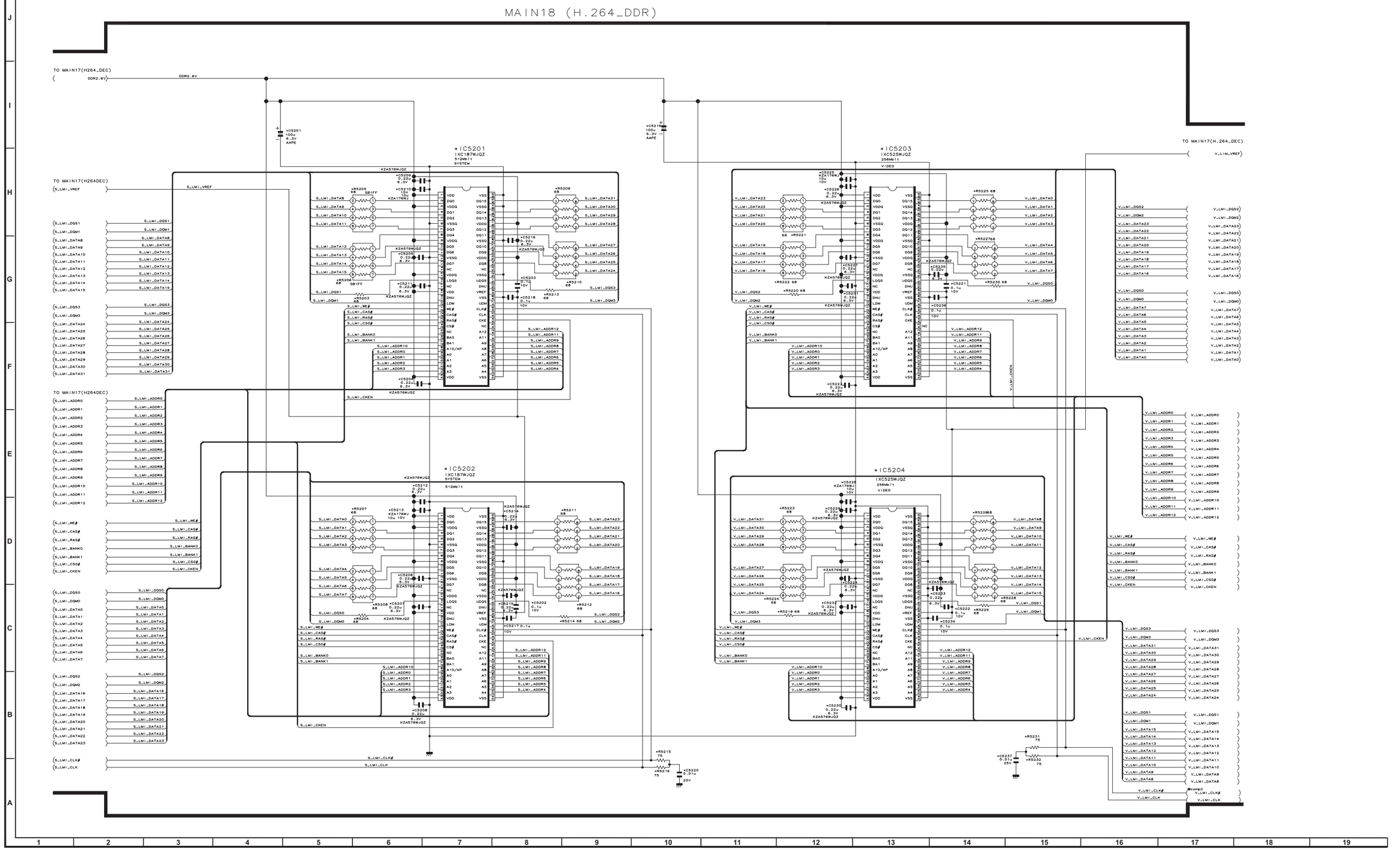
MAIN Unit-15


MAIN16(POWER2)
PD
IC9601
PQ200WNA
IC9610
LV5805M
IC9607
PQ1KA503
IC9602
L6726A
IC9603
L6726A
IC9604
LV5805M
IC9606
LV5805M
IC9608
PQ070XNA
IC9609
PQ025EMA
Q9601
RDTC144EE
Q9602
RDTC144EE
Q9604
FW808ME
Q9605
RT1N144U
Q9606
RDTC144EE
Q9607
EMZ1
Q9608
2SC3928AR
Q9609
DTA124EKA
TO MAIN7(UCON)
TO MAIN3(AUDIO)
TO MAIN8(PANEL)
TO MAIN9(CPU)
TO MAIN15(POW1)
TO MAIN1(TUNER)
TO MAIN2(TERMINAL)
TO MAIN4(HDMI)
TO MAIN6(DSW)
TO MAIN11(FLASH)
TO MAIN12(CPLD)
TO MAIN13(CI)
TO MAIN14(EXBUS)
TO MAIN17(H264DEC)
TO MAIN19(H264FLASH)

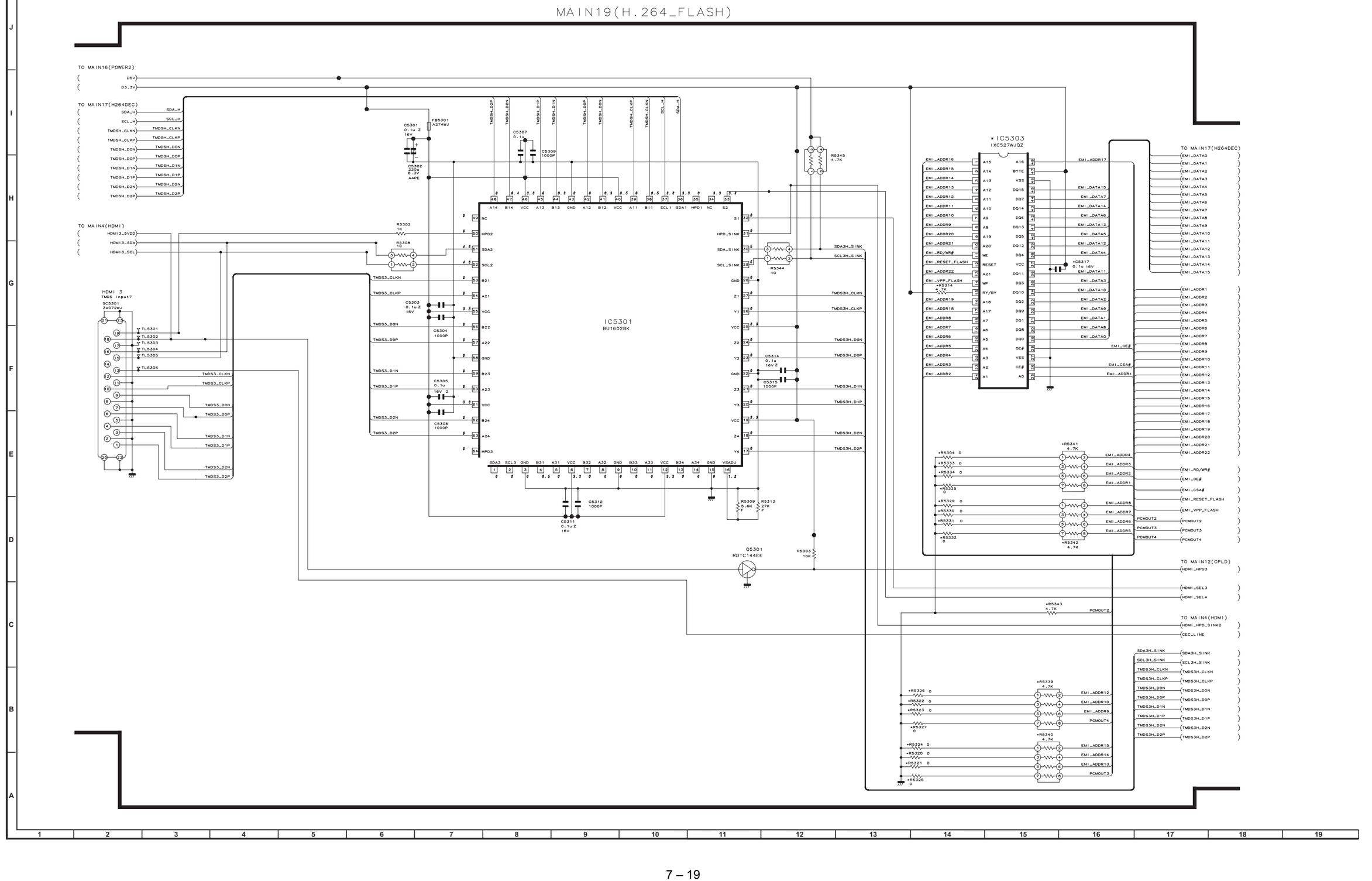
MAIN Unit-16


MAIN17(H.264_DEC)
IC5002
TC7W204F
IC5001
IXC446EMUZ
IC5003
M24C04MB
IC5004
TC7WB6U
DUAL SWITCH
Q5002
TPA0206W
TO MAIN18(H264DDR)
TO MAIN19(CPU)
TO MAIN3(AUDIO)
TO MAIN8(DSW)
TO MAIN18(H264_DDR)
TO MAIN2(TERMINAL)
TO MAIN16(POWZ)
TO MAIN12(CPLD)
TO MAIN19(H264_FLASH)
TO MAIN14(EXBUS)
TO MAIN1(TUNER)
TO MAIN13(C1)
TO MAIN9(CPU)

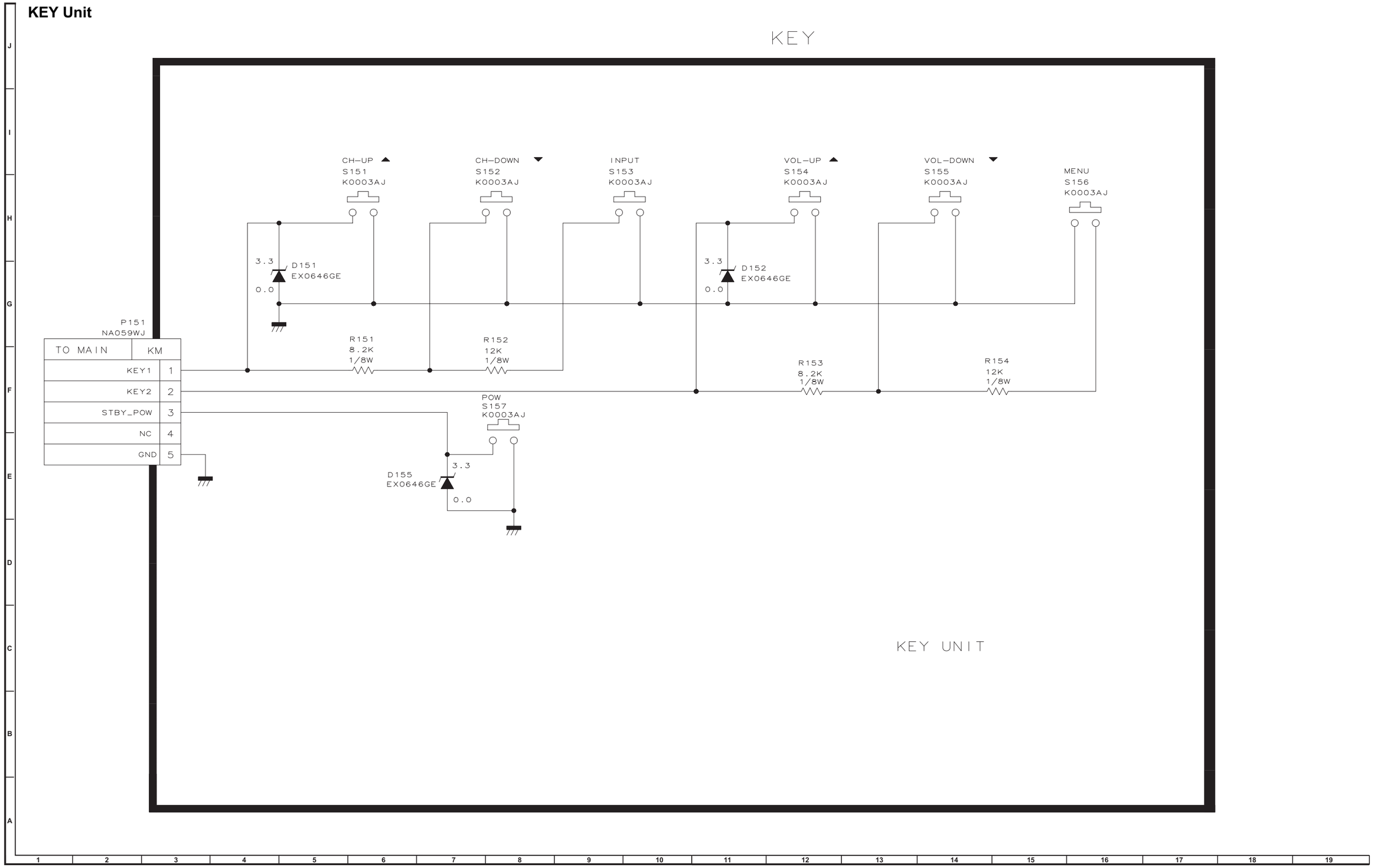
MAIN Unit-17


MAIN18 (H.264_DDR)
TO MAIN17(H264_DEC)
DDR2.6V
*IC5201
IXC187WJQZ
512Mbit
SYSTEM
KZA576WJQZ
*IC5202
IXC187WJQZ
SYSTEM
512Mbit
*IC5203
IXC525WJQZ
256Mbit
VIDEO
*IC5204
IXC525WJQZ
256Mbit
VIDEO
TO MAIN17(H.264_DEC)
V_LIM_VREF
S_LMI_VREF
S_LMI_CKEN
V_LMI_CKEN
S_LMI_CLK#
S_LMI_CLK
V_LMI_CLK#
V_LMI_CLK
*compC

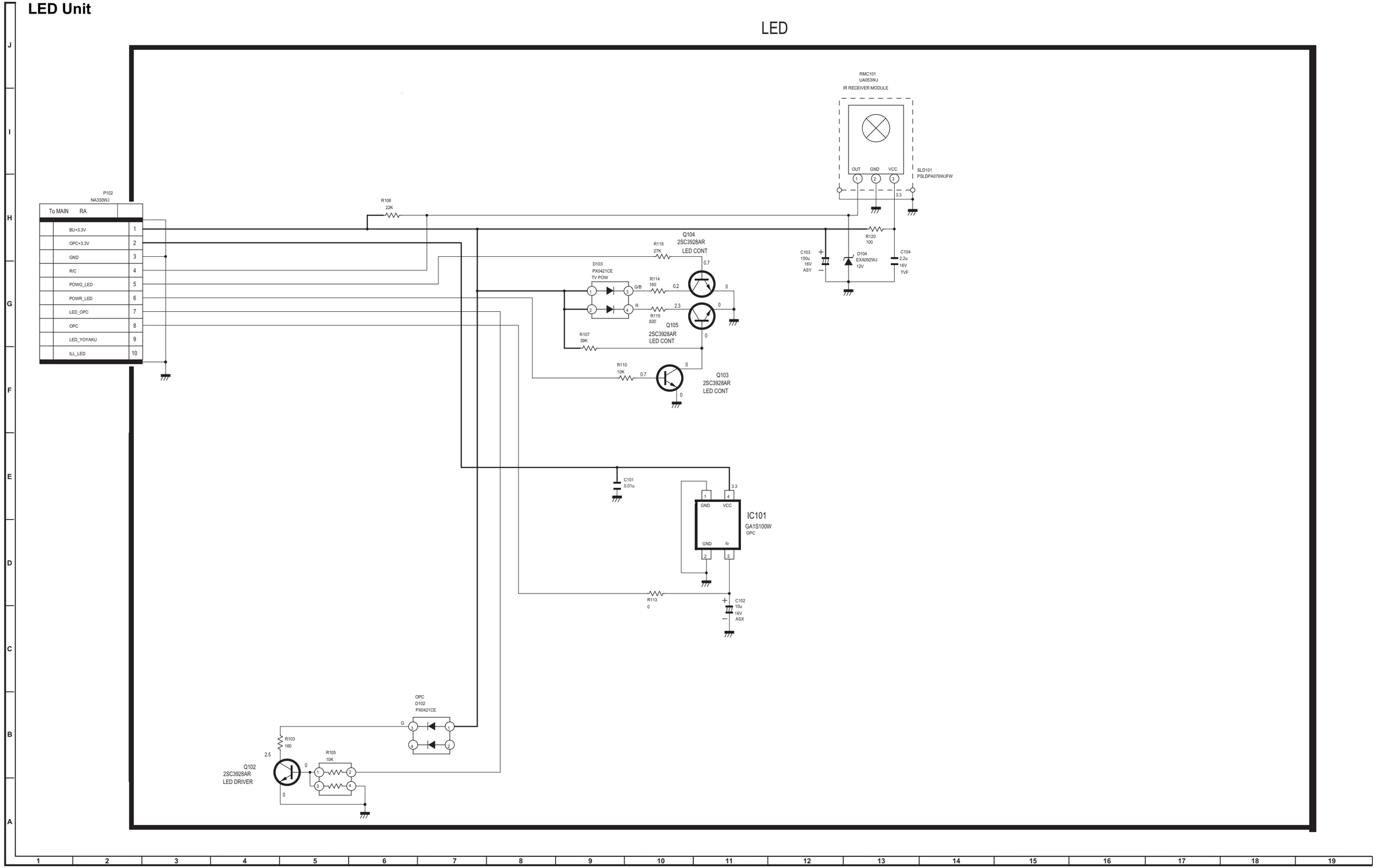
MAIN Unit-18


MAIN19(H.264_FLASH)
TO MAIN16(POWER2)
D5V
D3.3V
TO MAIN17(H264DEC)
SDA_H
SCL_H
TMDSH_CLKN
TMDSH_CLKP
TMDSH_D0N
TMDSH_D0P
TMDSH_D1N
TMDSH_D1P
TMDSH_D2N
TMDSH_D2P
TO MAIN4(HDMI)
HDMI3_5VDD
HDMI3_SDA
HDMI3_SCL
HDMI 3
TMDS input7
SC5301
2A072WJ
TL5301
TL5302
TL5303
TL5304
TL5305
TL5306
TMDS3_CLKN
TMDS3_CLKP
TMDS3_D0N
TMDS3_D0P
TMDS3_D1N
TMDS3_D1P
TMDS3_D2N
TMDS3_D2P
C5301 0.1u Z 16V
FB5301 A274WJ
C5302 220u 6.3V AAPE
C5307 0.1u
C5309 1000P
R5345 4.7K
R5302 1K
R5308 10
C5303 0.1u Z 16V
C5304 1000P
C5305 0.1u 16V Z
C5306 1000P
C5312 1000P
C5311 0.1u Z 16V
R5309 5.6K F
R5313 27K F
IC5301
BU16028K
NC
HPD2
SDA2
SCL2
B21
A21
VCC
B22
A22
GND
B23
A23
VCC
B24
A24
HPD3
HPD_SINK
SDA_SINK
SCL_SINK
Z1
Y1
Z2
Y2
Z3
Y3
Z4
Y4
VSADJ
R5344 10
C5314 0.1u 16V Z
C5315 1000P
SDA3H_SINK
SCL3H_SINK
TMDS3H_CLKN
TMDS3H_CLKP
TMDS3H_D0N
TMDS3H_D0P
TMDS3H_D1N
TMDS3H_D1P
TMDS3H_D2N
TMDS3H_D2P
Q5301
RDTC144EE
R5303 10K
*IC5303
IXC527WJQZ
EMI_ADDR16
EMI_ADDR15
EMI_ADDR14
EMI_ADDR13
EMI_ADDR12
EMI_ADDR11
EMI_ADDR10
EMI_ADDR9
EMI_ADDR20
EMI_ADDR21
EMI_RD/WR#
EMI_RESET_FLASH
EMI_ADDR22
EMI_VPP_FLASH
*R5314 4.7K
EMI_ADDR19
EMI_ADDR18
EMI_ADDR8
EMI_ADDR7
EMI_ADDR6
EMI_ADDR5
EMI_ADDR4
EMI_ADDR3
EMI_ADDR2
EMI_DATA15
EMI_DATA7
EMI_DATA14
EMI_DATA6
EMI_DATA13
EMI_DATA5
EMI_DATA12
EMI_DATA4
EMI_DATA11
EMI_DATA3
EMI_DATA10
EMI_DATA2
EMI_DATA9
EMI_DATA1
EMI_DATA8
EMI_DATA0
EMI_OE#
EMI_CSA#
EMI_ADDR1
*C5317 0.1u 16V
*R5341 4.7K
*R5342 4.7K
*R5343 4.7K
*R5339 4.7K
*R5340 4.7K
*R5304 0
*R5333 0
*R5334 0
*R5335 0
*R5329 0
*R5330 0
*R5331 0
*R5332 0
*R5326 0
*R5322 0
*R5323 0
*R5327 0
*R5324 0
*R5320 0
*R5321 0
*R5325 0
PCMOUT2
PCMOUT3
PCMOUT4
TO MAIN17(H264DEC)
EMI_DATA0
EMI_DATA1
EMI_DATA2
EMI_DATA3
EMI_DATA4
EMI_DATA5
EMI_DATA6
EMI_DATA7
EMI_DATA8
EMI_DATA9
EMI_DATA10
EMI_DATA11
EMI_DATA12
EMI_DATA13
EMI_DATA14
EMI_DATA15
EMI_ADDR1
EMI_ADDR2
EMI_ADDR3
EMI_ADDR4
EMI_ADDR5
EMI_ADDR6
EMI_ADDR7
EMI_ADDR8
EMI_ADDR9
EMI_ADDR10
EMI_ADDR11
EMI_ADDR12
EMI_ADDR13
EMI_ADDR14
EMI_ADDR15
EMI_ADDR16
EMI_ADDR17
EMI_ADDR18
EMI_ADDR19
EMI_ADDR20
EMI_ADDR21
EMI_ADDR22
EMI_RD/WR#
EMI_OE#
EMI_CSA#
EMI_RESET_FLASH
EMI_VPP_FLASH
PCMOUT2
PCMOUT3
PCMOUT4
TO MAIN12(CPLD)
HDMI_HPD3
HDMI_SEL3
HDMI_SEL4
TO MAIN4(HDMI)
HDMI_HPD_SINK2
CEC_LINE
SDA3H_SINK
SCL3H_SINK
TMDS3H_CLKN
TMDS3H_CLKP
TMDS3H_D0N
TMDS3H_D0P
TMDS3H_D1N
TMDS3H_D1P
TMDS3H_D2N
TMDS3H_D2P

KEY Unit


KEY
CH–UP
S151
K0003AJ
CH–DOWN
S152
K0003AJ
INPUT
S153
K0003AJ
VOL–UP
S154
K0003AJ
VOL–DOWN
S155
K0003AJ
MENU
S156
K0003AJ
3.3
D151
EX0646GE
0.0
3.3
D152
EX0646GE
0.0
P151
NA059WJ
TO MAIN
KM
KEY1 1
KEY2 2
STBY_POW 3
NC 4
GND 5
R151
8.2K
1/8W
R152
12K
1/8W
R153
8.2K
1/8W
R154
12K
1/8W
POW
S157
K0003AJ
3.3
D155
EX0646GE
0.0
KEY UNIT

LED Unit


LED
P102
NA330WJ
To MAIN RA
BU+3.3V 1
OPC+3.3V 2
GND 3
R/C 4
POWG_LED 5
POWR_LED 6
LED_OPC 7
OPC 8
LED_YOYAKU 9
ILL_LED 10
R106
22K
RMC101
UA053WJ
IR RECEIVER MODULE
OUT GND VCC
SLD101
PSLDPA076WJFW
3.3
R120
100
C103
100u
16V
ASY
D104
EXA092WJ
12V
C104
2.2u
16V
TVF
Q104
2SC3928AR
LED CONT
R116
27K
0.7
D103
PX0421CE
TV POW
G/B
R
R114
160
0.2
R115
820
2.3
0
Q105
2SC3928AR
LED CONT
R107
39K
R110
10K
0.7
Q103
2SC3928AR
LED CONT
C101
0.01u
IC101
GA1S100W
OPC
GND
VCC
Io
R113
0
C102
10u
16V
ASX
OPC
D102
PX0421CE
G
R103
160
2.5
R105
10K
Q102
2SC3928AR
LED DRIVER

– MEMO –

SHARP PARTS GUIDE

No. S08S1LC52DH65

LCD COLOUR TELEVISION

MODELS LC-52DH65E/S LC-52DH66E

CONTENTS

[1] PRINTED WIRING BOARD ASSEMBLY

[2] LCD PANEL

[3] DUNTKE266FM01 (KEY Unit)

[4] DUNTKE685FM08 (MAIN Unit)

[5] DUNTKE687FM08 (LED Unit)

[6] CABINET PARTS

[7] LCD MODULE Assembly

[8] SUPPLIED ACCESSORIES

[9] PACKING PARTS

[10] SERVICE JIGS

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

This document has been published to be used for after sales service only.
The contents are subject to change without notice.

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[1] PRINTED WIRING BOARD ASSEMBLY					
N	DUNTKE266FM01	AR	N	R	KEY Unit
N	DUNTKE685FM08	CT	N	R	MAIN Unit
N	DUNTKE687FM08	BA	N	R	LED Unit
N	RDENCA308WJQZ		N	S	POWER Unit (Unit Replacement Parts)
[2] LCD PANEL					
N	R1LK520D3LW1AY		N	J	52" LCD Panel Module
[3] DUNTKE266FM01 (KEY Unit)					
D151	RH-EX0646GEZZY	AA		J	Zener Diode MTZJT-7215B
D152	RH-EX0646GEZZY	AA		J	Zener Diode MTZJT-7215B
D155	RH-EX0646GEZZY	AA		J	Zener Diode MTZJT-7215B
P151	QPLGNA059WJZZ	AC		J	Plug 5pin (KM)
R151	VRD-RA2BE822JY	AA		J	Resistor 8.2k 1/8W Carbon
R152	VRD-RA2BE123JY	AA		J	Resistor 12k 1/8W Carbon
R153	VRD-RA2BE822JY	AA		J	Resistor 8.2k 1/8W Carbon
R154	VRD-RA2BE123JY	AA		J	Resistor 12k 1/8W Carbon
S151	QSW-K0003AJZZ+	AB		J	Switch CH-UP
S152	QSW-K0003AJZZ+	AB		J	Switch CH-DOWN
S153	QSW-K0003AJZZ+	AB		J	Switch INPUT
S154	QSW-K0003AJZZ+	AB		J	Switch VOL-UP
S155	QSW-K0003AJZZ+	AB		J	Switch VOL-DOWN
S156	QSW-K0003AJZZ+	AB		J	Switch MENU
S157	QSW-K0003AJZZ+	AB		J	Switch POWER
[4] DUNTKE685FM08 (MAIN Unit)					
C502	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C503	VCEASY1CN477MY	AD		J	Capacitor 470 16V Electrolytic
C504	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C505	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C506	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C507	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C511	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C512	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C513	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C514	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C515	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C516	VCEASY1CN477MY	AD		J	Capacitor 470 16V Electrolytic
C517	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C518	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C519	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C524	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C525	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C528	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C529	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C530	VCKYCZ1HB221KY	AA		J	Capacitor 220p 50V Ceramic
C532	VCKYCZ1HB331KY	AA		J	Capacitor 330p 50V Ceramic
C533	VCKYCZ1HB331KY	AA		J	Capacitor 330p 50V Ceramic
C534	VCKYCZ1HB331KY	AA		J	Capacitor 330p 50V Ceramic
C535	VCKYCZ1HB331KY	AA		J	Capacitor 330p 50V Ceramic
C538	VCKYCZ1HB471KY	AB		J	Capacitor 470p 50V Ceramic
C539	VCKYCZ1HB471KY	AB		J	Capacitor 470p 50V Ceramic
C540	VCKYCZ1HB471KY	AB		J	Capacitor 470p 50V Ceramic
C541	VCKYCZ1HB471KY	AB		J	Capacitor 470p 50V Ceramic
C542	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C543	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C544	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C545	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C546	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C547	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C548	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C549	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C550	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C551	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C552	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C553	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C554	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C555	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C556	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C557	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C558	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C560	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C561	VCERMZ1CN107MY	AD		J	Capacitor 100 16V Electrolytic
C562	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C563	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C565	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C566	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C567	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C568	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C569	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C570	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C572	VCEASX1CN226MY	AC		J	Capacitor 22 16V Electrolytic
C573	VCCCCZ1HH330JY	AB		J	Capacitor 33p 50V Ceramic
C574	VCCCCZ1HH330JY	AB		J	Capacitor 33p 50V Ceramic
C575	VCCCCZ1HH560JY	AB		J	Capacitor 56p 50V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
C576	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C577	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C578	VCCCCZ1HH560JY	AB		J	Capacitor 56p 50V Ceramic
C579	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C580	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C581	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C582	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C583	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C584	RC-KZA154WJZZY	AB		J	Capacitor 4.7 16V Ceramic
C585	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C586	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C587	RC-KZA154WJZZY	AB		J	Capacitor 4.7 16V Ceramic
C588	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C589	VCKYCY1HB472KY	AA		J	Capacitor 4700p 50V Ceramic
C590	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C591	VCKYCY1HB472KY	AA		J	Capacitor 4700p 50V Ceramic
C592	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C593	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C594	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C595	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C596	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C597	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C598	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C599	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C600	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C601	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C611	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C612	VCCCCZ1HH331JY	AA		J	Capacitor 330p 50V Ceramic
C613	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C614	VCCCCZ1HH181JY	AB		J	Capacitor 180p 50V Ceramic
C615	VCCCCZ1HH330JY	AB		J	Capacitor 33p 50V Ceramic
C1301	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1302	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1303	VCEASY1CN107MY	AC		J	Capacitor 100 16V Electrolytic
C1304	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1305	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1306	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1307	VCEASY0JN337MY	AC		J	Capacitor 330 6.3V Electrolytic
C1308	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C1309	VCEASY1CN107MY	AC		J	Capacitor 100 16V Electrolytic
C1310	VCKYCZ1HB221KY	AA		J	Capacitor 220p 50V Ceramic
C1311	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1312	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1313	VCKYCZ1HB221KY	AA		J	Capacitor 220p 50V Ceramic
C1314	VCCCCZ1HH120JY	AB		J	Capacitor 12p 50V Ceramic
C1315	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1316	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1317	VCCCCZ1HH180JY	AB		J	Capacitor 18p 50V Ceramic
C1318	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1319	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C1320	VCEASY1CN107MY	AC		J	Capacitor 100 16V Electrolytic
C1321	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C1322	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C1323	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1324	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C1325	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1326	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1327	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1328	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1329	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C1330	VCKYCZ1AB333KY	AB		J	Capacitor 0.033 10V Ceramic
C1331	VCKYCZ1AB333KY	AB		J	Capacitor 0.033 10V Ceramic
C1332	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1333	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1334	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1335	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1336	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1337	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1338	RC-KZA211WJZZY	AB		J	Capacitor 2.2 25V Ceramic
C1339	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1340	VCKYCZ1HB472KY	AA		J	Capacitor 4700p 50V Ceramic
C1341	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1342	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1343	VCKYCZ1HB681KY	AB		J	Capacitor 680p 50V Ceramic
C1344	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C1345	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C1346	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C1347	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C1348	VCEASY1EN477MY	AE		J	Capacitor 470 25V Electrolytic
C1349	VCKYCY1HB104KY	AA		J	Capacitor 0.1 50V Ceramic
C1350	VCKYTV1EB224KY	AA		J	Capacitor 0.22 25V Ceramic
C1351	VCEASX1CN226MY	AC		J	Capacitor 22 16V Electrolytic
C1352	VCEASX1CN226MY	AC		J	Capacitor 22 16V Electrolytic
C1353	VCCCCZ1HH331JY	AA		J	Capacitor 330p 50V Ceramic
C1354	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
C1355	VCCCCZ1HH331JY	AA		J	Capacitor 330p 50V Ceramic
C1356	VCKYCY1HB104KY	AA		J	Capacitor 0.1 50V Ceramic
C1357	VCKYTV1EB224KY	AA		J	Capacitor 0.22 25V Ceramic
C1358	VCKYCY1HB104KY	AA		J	Capacitor 0.1 50V Ceramic
C1359	VCKYTV1EB224KY	AA		J	Capacitor 0.22 25V Ceramic
C1360	VCCCCZ1HH470JY	AB		J	Capacitor 47p 50V Ceramic
C1361	VCKYTV1EB474KY	AC		J	Capacitor 0.47 25V Ceramic
C1362	VCKYCY1HB104KY	AA		J	Capacitor 0.1 50V Ceramic
C1363	VCKYTV1EB224KY	AA		J	Capacitor 0.22 25V Ceramic
C1364	VCCCCZ1HH470JY	AB		J	Capacitor 47p 50V Ceramic
C1365	VCCCCZ1HH330JY	AB		J	Capacitor 33p 50V Ceramic
C1366	VCKYTV1EB474KY	AC		J	Capacitor 0.47 25V Ceramic
C1367	VCCCCZ1HH330JY	AB		J	Capacitor 33p 50V Ceramic
C1368	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C1369	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1370	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C1371	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C1372	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C1373	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1374	VCKYCY1AB105KY	AB		J	Capacitor 1 10V Ceramic
C1375	VCKYCY1HB102KY	AA		J	Capacitor 1000p 50V Ceramic
C1376	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C1377	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C1378	VCKYCY1HB102KY	AA		J	Capacitor 1000p 50V Ceramic
C1379	VCKYCY1HB102KY	AA		J	Capacitor 1000p 50V Ceramic
C1380	VCKYCY1HB102KY	AA		J	Capacitor 1000p 50V Ceramic
C1381	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C1382	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C1383	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C1384	VCKYCZ1AB333KY	AB		J	Capacitor 0.033 10V Ceramic
C1385	VCKYCZ1AB333KY	AB		J	Capacitor 0.033 10V Ceramic
C1386	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C1387	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C1391	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C1502	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1506	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1509	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C1538	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1540	VCAAPE0JJ227MY	AE		J	Capacitor 220 6.3V Electrolytic
C1543	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1544	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C1547	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1548	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C1552	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C1553	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1554	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1582	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1583	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C1596	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C1599	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C1801	VCKYCZ1HB222KY	AB		J	Capacitor 2200p 50V Ceramic
C1802	RC-KZA114WJZZY	AB		J	Capacitor 1 25V Ceramic
C1813	RC-KZA114WJZZY	AB		J	Capacitor 1 25V Ceramic
C1816	RC-KZA067WJZZY	AB		J	Capacitor 4.7 10V Ceramic
C2001	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2002	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2005	VCKYCZ1HB152KY	AB		J	Capacitor 1500p 50V Ceramic
C2006	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C2007	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C2009	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2013	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2014	VCCCCZ1HH220JY	AB		J	Capacitor 22p 50V Ceramic
C2015	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2016	VCCCCZ1HH220JY	AB		J	Capacitor 22p 50V Ceramic
C2017	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2022	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C2023	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2026	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C2028	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2030	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C2034	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C2035	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C2036	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C2401	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2402	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2403	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C2404	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2405	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2406	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2407	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2408	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2410	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C2601	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C2605	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C2606	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
C2607	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C2608	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C4404	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C4405	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C4406	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C4407	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C4410	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C4415	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C4416	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C4420	VCAAPE1CJ686MY	AE		J	Capacitor 68 16V Electrolytic
C5001	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5002	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5003	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5004	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5005	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5006	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5007	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5008	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5009	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5010	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5011	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5012	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5013	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5014	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5015	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5016	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5017	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5018	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5019	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5020	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5021	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5022	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5023	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5025	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5026	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5027	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5028	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5029	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5031	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5033	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5034	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5035	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5036	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5038	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5039	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5043	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5044	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5045	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5046	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5047	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5048	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5049	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5050	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5051	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5052	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5056	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5057	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5058	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C5059	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5060	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5061	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5062	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5063	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5064	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5065	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5066	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5067	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5068	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5069	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5070	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5071	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5072	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5073	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5074	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5075	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5076	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5077	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5078	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5079	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5080	VCAAPE0JJ107MY	AE		J	Capacitor 100 6.3V Electrolytic
C5081	VCAAPE0JJ107MY	AE		J	Capacitor 100 6.3V Electrolytic
C5082	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5083	VCCCCZ1HH181JY	AB		J	Capacitor 180p 50V Ceramic
C5084	VCCCCZ1HH181JY	AB		J	Capacitor 180p 50V Ceramic
C5085	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
C5086	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5087	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5088	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C5089	VCAAPE0JJ227MY	AE		J	Capacitor 220 6.3V Electrolytic
C5090	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5091	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5201	VCAAPE0JJ107MY	AE		J	Capacitor 100 6.3V Electrolytic
C5202	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C5203	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C5204	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5205	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5206	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5207	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5208	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5209	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5210	RC-KZA176WJZZY	AC		J	Capacitor 10 16V Ceramic
C5211	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5212	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5213	RC-KZA176WJZZY	AC		J	Capacitor 10 16V Ceramic
C5214	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5215	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5216	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5217	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C5218	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C5219	VCAAPE0JJ107MY	AE		J	Capacitor 100 6.3V Electrolytic
C5220	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C5221	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C5222	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C5223	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5224	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5225	RC-KZA176WJZZY	AC		J	Capacitor 10 16V Ceramic
C5226	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5227	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5228	RC-KZA176WJZZY	AC		J	Capacitor 10 16V Ceramic
C5229	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5230	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5231	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5232	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5233	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5234	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C5235	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C5236	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C5237	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C5301	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5302	VCAAPE0JJ227MY	AE		J	Capacitor 220 6.3V Electrolytic
C5303	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5304	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C5305	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5306	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C5307	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5309	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C5311	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5312	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C5314	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C5315	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C5317	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C7501	VCEASX1AN336MY	AC		J	Capacitor 33 10V Electrolytic
C7502	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C7508	VCEASX1CN107MY	AC		J	Capacitor 100 16V Electrolytic
C7511	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C7515	VCEASY1CN477MY	AD		J	Capacitor 470 16V Electrolytic
C7516	VCCCCZ1HH101JY	AB		J	Capacitor 100p 50V Ceramic
C7518	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C7520	RC-KZA510WJPZY	AB		J	Capacitor 10 16V Ceramic
C7522	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C7524	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C7525	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C7526	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C7527	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7528	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7529	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7530	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7531	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7532	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7533	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C7534	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C7536	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7537	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C7538	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C7539	VCKYCZ1AB273KY	AB		J	Capacitor 0.027 10V Ceramic
C7540	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7541	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7542	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7543	VCCCCZ1HH180JY	AB		J	Capacitor 18p 50V Ceramic
C7544	VCCCCZ1HH180JY	AB		J	Capacitor 18p 50V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
C7545	VCEASX1CN107MY	AC		J	Capacitor 100 16V Electrolytic
C7546	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7547	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C7548	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C7549	VCCCCZ1HH220JY	AB		J	Capacitor 22p 50V Ceramic
C7550	VCCCCZ1HH220JY	AB		J	Capacitor 22p 50V Ceramic
C8101	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8102	RC-KZA067WJZZY	AB		J	Capacitor 4.7 10V Ceramic
C8103	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8104	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8105	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8106	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C8107	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8108	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8109	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C8110	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8114	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8115	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8116	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8117	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8118	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8119	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8120	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8121	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8125	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8126	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8134	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8138	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8141	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8142	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8143	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8147	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8150	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8151	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8153	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8156	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8159	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8161	VCCCCZ1HH3R0CY	AA		J	Capacitor 3p 50V Ceramic
C8162	VCCCCZ1HH3R0CY	AA		J	Capacitor 3p 50V Ceramic
C8168	VCKYCZ1HB272KY	AA		J	Capacitor 2700p 50V Ceramic
C8169	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8170	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8173	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8175	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8178	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8179	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8180	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8182	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8183	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8184	VCAAPE0JJ107MY	AE		J	Capacitor 100 6.3V Electrolytic
C8185	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8186	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8187	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8188	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8189	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8190	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8191	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8192	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8193	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8194	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8195	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8196	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8197	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8198	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8199	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8200	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8201	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8203	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8204	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8205	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8206	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8207	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8208	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8209	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8212	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8213	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C8214	VCAAPE0JJ107MY	AE		J	Capacitor 100 6.3V Electrolytic
C8215	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8216	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8217	VCKYCZ1HB102KY	AB		J	Capacitor 1000p 50V Ceramic
C8218	VCAAPE0JJ107MY	AE		J	Capacitor 100 6.3V Electrolytic
C8219	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8220	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8221	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8222	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
C8223	VCKYCZ1AB104KY	AB		J	Capacitor 0.1 10V Ceramic
C8301	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C8303	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8306	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8307	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8308	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8309	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8311	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8312	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8313	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8315	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8319	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8320	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8321	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8324	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8325	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8326	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8328	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8329	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8330	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8332	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8336	RC-KZA576WJQZY	AB		J	Capacitor 0.22 6.3V Ceramic
C8337	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8338	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8339	VCAAPE0JJ107MY	AE		J	Capacitor 100 6.3V Electrolytic
C8365	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8702	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8703	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C8709	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C8715	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C8717	VCCCCZ1HH680JY	AB		J	Capacitor 68p 50V Ceramic
C8718	RC-KZA114WJZZY	AB		J	Capacitor 1 25V Ceramic
C8719	VCCCCZ1HH5R0CY	AA		J	Capacitor 5p 50V Ceramic
C8720	VCCCCZ1HH100DY	AB		J	Capacitor 10p 50V Ceramic
C8721	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9101	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9104	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9105	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9106	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9107	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9108	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9110	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9112	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9113	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9304	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9606	VCAAPD1DJ476MY	AF		J	Capacitor 47 20V Electrolytic
C9607	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C9608	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C9609	RC-KZA178WJZZY	AC		J	Capacitor 4.7 25V Ceramic
C9610	VCKYCY1AB154KY	AB		J	Capacitor 0.15 10V Ceramic
C9611	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C9612	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C9613	VCKYCY1AB154KY	AB		J	Capacitor 0.15 10V Ceramic
C9614	VCCCCZ1HH102JY	AA		J	Capacitor 1000p 50V Ceramic
C9615	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C9616	RC-KZA383WJZZY	AC		J	Capacitor 10 25V Ceramic
C9617	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C9618	RC-KZA383WJZZY	AC		J	Capacitor 10 25V Ceramic
C9619	VCAAPE0JJ227MY	AE		J	Capacitor 220 6.3V Electrolytic
C9620	VCAAPE0JJ227MY	AE		J	Capacitor 220 6.3V Electrolytic
C9621	RC-KZA114WJZZY	AB		J	Capacitor 1 25V Ceramic
C9622	RC-KZA383WJZZY	AC		J	Capacitor 10 25V Ceramic
C9624	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C9625	VCKYTV1CB105KY	AC		J	Capacitor 1 16V Ceramic
C9626	VCKYCZ1EB682KY	AB		J	Capacitor 6800p 25V Ceramic
C9627	VCKYCZ1CF104ZY	AA		J	Capacitor 0.1 16V Ceramic
C9629	VCKYCZ1CB223KY	AC		J	Capacitor 0.022 16V Ceramic
C9631	RC-KZA114WJZZY	AB		J	Capacitor 1 25V Ceramic
C9633	VCKYCZ1EB103KY	AA		J	Capacitor 0.01 25V Ceramic
C9634	VCKYCZ1EB682KY	AB		J	Capacitor 6800p 25V Ceramic
C9636	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C9637	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C9638	RC-KZA237WJZZY	AB		J	Capacitor 10 16V Ceramic
C9639	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9641	VCKYCZ1EB682KY	AB		J	Capacitor 6800p 25V Ceramic
C9643	VCKYCZ1CB223KY	AC		J	Capacitor 0.022 16V Ceramic
C9644	VCAAPG1AJ686MY	AE		J	Capacitor 68 10V Electrolytic
C9647	VCKYCZ1CB223KY	AC		J	Capacitor 0.022 16V Ceramic
C9649	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9650	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9651	RC-KZA114WJZZY	AB		J	Capacitor 1 25V Ceramic
C9652	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9653	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9654	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9656	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
C9657	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9658	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9659	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9664	RC-KZA114WJZZY	AB		J	Capacitor 1 25V Ceramic
C9665	RC-KZA383WJZZY	AC		J	Capacitor 10 25V Ceramic
C9666	VCKYCZ1EF104ZY	AA		J	Capacitor 0.1 25V Ceramic
C9667	VCKYCZ1CB223KY	AC		J	Capacitor 0.022 16V Ceramic
C9668	VCKYCZ1EB682KY	AB		J	Capacitor 6800p 25V Ceramic
C9669	VCKYCZ1EB682KY	AB		J	Capacitor 6800p 25V Ceramic
C9670	RC-KZA195WJZZY	AB		J	Capacitor 10 10V Ceramic
C9672	VCAAPE0JJ227MY	AE		J	Capacitor 220 6.3V Electrolytic
D501	VHPGPFSV51V-1	AG	N	J	Diode GPFSV51V
D502	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D503	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D504	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D505	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D506	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D507	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D508	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D510	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D511	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D512	RH-EXA554WJZZY	AB		J	Zener Diode MAZ8150GML
D514	RH-EXA512WJZZY	AB		J	Zener Diode MAZ8039GHL
D515	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D516	RH-EXA512WJZZY	AB		J	Zener Diode MAZ8039GHL
D517	RH-EXA554WJZZY	AB		J	Zener Diode MAZ8150GML
D518	RH-EXA550WJZZY	AB		J	Zener Diode MAZ8130GML
D519	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D520	RH-EXA535WJZZY	AM		J	Zener Diode MAZ8082GML
D521	RH-EXA535WJZZY	AM		J	Zener Diode MAZ8082GML
D522	RH-EXA535WJZZY	AM		J	Zener Diode MAZ8082GML
D523	RH-EXA535WJZZY	AM		J	Zener Diode MAZ8082GML
D524	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D525	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D527	RH-EXA520WJZZY	AB		J	Zener Diode MAZ8051GML
D531	RH-EX0265TAZZY	AB		J	Zener Diode PDZ10B,115
D532	RH-EX0265TAZZY	AB		J	Zener Diode PDZ10B,115
D533	RH-EX0265TAZZY	AB		J	Zener Diode PDZ10B,115
D534	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D535	RH-EXA550WJZZY	AB		J	Zener Diode MAZ8130GML
D1318	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D1504	RH-EXA523WJZZY	AB		J	Zener Diode MAZ8056GML
D1506	RH-EXA523WJZZY	AB		J	Zener Diode MAZ8056GML
D1507	RH-EXA523WJZZY	AB		J	Zener Diode MAZ8056GML
D1508	RH-EXA523WJZZY	AB		J	Zener Diode MAZ8056GML
D1509	VHDRB520S30-1Y	AC		J	Diode RB520S-30TE61
D1512	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D1519	RH-EX0259TAZZY	AB		J	Zener Diode PDZ5.6B,115
D1521	VHDMA111G++-1Y	AA		J	Diode MA2J1110GL
D1522	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D1523	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D1802	VHDMA111G++-1Y	AA		J	Diode MA2J1110GL
D2002	RH-PXA037WJZZY	AB		J	Diode SML-310MTT86
D2006	RH-EXA535WJZZY	AM		J	Zener Diode MAZ8082GML
D2401	VHDMAZ9120H-1Y	AC		J	Diode MAZ9120H
D2402	VHDMAZ9120H-1Y	AC		J	Diode MAZ9120H
D2403	RH-EX0259TAZZY	AB		J	Zener Diode PDZ5.6B,115
D2404	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D2405	VHD1PS184++-1Y	AB		J	Diode 1PS184,115
D5001	VHDRB520S30-1Y	AC		J	Diode RB520S-30TE61
D8101	VHD1PS226++-1Y	AB		J	Diode 1PS226,115
D8102	VHD1PS226++-1Y	AB		J	Diode 1PS226,115
D8103	VHD1PS226++-1Y	AB		J	Diode 1PS226,115
D8108	RH-EX1232CEZZY	AB		J	Zener Diode EX1232CE, 3.3V
D8109	RH-EX1232CEZZY	AB		J	Zener Diode EX1232CE, 3.3V
D9101	RH-PXA037WJZZY	AB		J	Diode SML-310MTT86
D9102	RH-PXA037WJZZY	AB		J	Diode SML-310MTT86
D9601	VHDRB520S30-1Y	AC		J	Diode RB520S-30TE61
D9602	VHDRB520S30-1Y	AC		J	Diode RB520S-30TE61
D9603	VHDMA111G++-1Y	AA		J	Diode MA2J1110GL
D9604	VHDSMAB33L+-1Y	AC		J	Diode SMAB33L-RTK/P
D9606	VHD1PS226++-1Y	AB		J	Diode 1PS226,115
D9607	VHDMA111G++-1Y	AA		J	Diode MA2J1110GL
D9608	VHDSMAB33L+-1Y	AC		J	Diode SMAB33L-RTK/P
D9609	VHDMA111G++-1Y	AA		J	Diode MA2J1110GL
D9610	VHD1PS226++-1Y	AB		J	Diode 1PS226,115
D9611	VHDMA111G++-1Y	AA		J	Diode MA2J1110GL
D9612	RH-EX1227CEZZY	AB		J	Zener Diode HZU2.7B1TRF-E
D9615	VHDMA111G++-1Y	AA		J	Diode MA2J1110GL
D9616	RH-EX1395CEZZY	AC		J	Zener Diode UDZSNPTE-176.2B
D9617	RH-EXA089WJZZY	AB		J	Zener Diode UDZSNPTE-174.3B
D9618	VHDMA111G++-1Y	AA		J	Diode MA2J1110GL
D9619	VHDRB056L40-1Y	AC		J	Diode RB056L40
D9620	VHDSMAB33L+-1Y	AC		J	Diode SMAB33L-RTK/P
FB501	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
FB502	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB503	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB504	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB505	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB506	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB507	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB508	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB509	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB510	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB511	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB512	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB513	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB514	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB515	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB516	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB517	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB518	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB519	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB520	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB1301	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB1302	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB1303	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB1304	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB1305	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB1306	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB1307	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB1308	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB1309	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB1310	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB1311	RBLN-0077TAZZY	AB		J	Balun BLN-0077TA
FB1501	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB1502	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB1503	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB1504	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB1515	RBLN-A274WJZZY	AB		J	Balun BLN-A274WJ
FB2003	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB2004	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB2005	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2006	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2007	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2008	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2009	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2012	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2013	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2014	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2402	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2403	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB2404	RBLN-0061TAZZY	AD		J	Balun BLN-0061TA
FB4402	RBLN-0210TAZZY	AB		J	Balun BLN-0210TA
FB4403	RBLN-0210TAZZY	AB		J	Balun BLN-0210TA
FB5002	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5003	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5004	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5005	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5006	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5007	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5010	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5011	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5012	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB5301	RBLN-A274WJZZY	AB		J	Balun BLN-A274WJ
FB7501	RBLN-0210TAZZY	AB		J	Balun BLN-0210TA
FB8101	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8103	RBLN-A206WJZZY	AA		J	Balun BLN-A206WJ
FB8104	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8105	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8106	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8107	RBLN-0253TAZZY	AA		J	Balun BLN-0253TA
FB8108	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8110	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8111	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8112	RBLN-A207WJZZY	AB		J	Balun BLN-A207WJ
FB8119	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8121	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8122	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8123	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8126	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB8701	RBLN-A274WJZZY	AB		J	Balun BLN-A274WJ
FB8702	RBLN-A188WJZZY	AA		J	Balun BLN-A188WJ
FB9601	RBLN-0207TAZZY	AB		J	Balun BLN-0207TA
FB9602	RBLN-0207TAZZY	AB		J	Balun BLN-0207TA
FB9604	RBLN-A303WJZZY	AB		J	Balun BLN-A303WJ
FB9605	RBLN-0207TAZZY	AB		J	Balun BLN-0207TA
FB9606	RBLN-0207TAZZY	AB		J	Balun BLN-0207TA
FL501	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL502	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
FL503	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL504	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL505	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL506	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL507	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL508	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL509	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL510	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL511	RFiLN0003TAZZY	AD		J	Filter FiLN0003TA
FL512	RFiLN0003TAZZY	AD		J	Filter FiLN0003TA
FL513	RFiLN0003TAZZY	AD		J	Filter FiLN0003TA
FL516	RFiLN0017TAZZY	AC		J	Filter FiLN0017TA
FL1501	RFiLN0003TAZZY	AD		J	Filter FiLN0003TA
FL1502	RFiLN0003TAZZY	AD		J	Filter FiLN0003TA
FL1503	RFiLN0003TAZZY	AD		J	Filter FiLN0003TA
FL2001	RFiLZA027WJQZY	AD		J	Filter
IC501	VHiT7SET08U1EY	AC		J	IC TC7SET08FU(5L,JF,T
IC502	VHiTC7W53U/-1Y	AF		J	IC TC7W53FU(TE12L,F)
IC503	VHiMM1783CQ-1Q	AS	N	J	IC MM1783CQ
IC504	VHiAK4384ET-1Y	AG		J	IC AK4384ET
IC1301	VHi7WH157FK-1Y	AF		J	IC TC7WH157FK(TE85L,F)
IC1302	VHiSTV8357F-1Q	AY	N	J	IC STV8357FD
IC1303	VHiPQ1LAX95-1Y	AD		J	IC PQ1LAX95MSPQ
IC1304	VHiSTA333W+-1Y	AQ	N	J	IC STA333W13TR
IC1305	VHiNJM3414V-1Y	AF		J	IC NJM3414AV-TE1
IC1306	VHiTVHC157T-1Y			R	IC TC74VHC157FT(EL)
IC1503	RH-iXC697WJQZS	AH		J	IC EDID (PC)
IC1504	RH-iXC442WJN1S	AK	N	J	IC EDID (HDMI)
IC1507	VHiBU16028K-1Q	AP	N	J	IC BU16028KV
IC1805	VHiBH33FB1G-1Y	AD		J	IC BH33FB1WG-TR
IC2001	VHiTCVHC32T-1Y	AE		J	IC TC74VHC32FT(EL)
IC2002	VHiS80927NM-1Y	AC		J	IC S-80927CNMC-G8XT2G
IC2003	RH-iXC331WJQZQ	AQ		J	IC R5F364V6NFB#U0
IC2004	VHiTC7SH00U-1Y	AC		J	IC TC7SH00FU(T5L,JF,T
IC2005	VHi7WH126FU-1Y	AE		J	IC TC7WH126FU(TE12L,F)
IC2006	VHiBR24L08F-1Y	AE		J	IC BR24L08F-WE2
IC2007	VHiLCX125FT-1Y	AD		J	IC TC74LCX125FT(EL,K)
IC2401	VHi7WH126FU-1Y	AE		J	IC TC7WH126FU(TE12L,F)
IC2402	VHiLCX157FT-1Y	AD		J	IC TC74LCX157FT(EKJ)
IC2403	VHiM3221EiP-1Y	AK	N	J	IC MAX3221EIPWR
IC2601	VHiTC7W66U/-1Y	AE		J	IC TC7W66FU(TE12L,F)
IC4401	VHiLCX245FT-1Y	AD		J	IC TC74LCX245FT(EKJ)
IC4402	VHiLCX573FT-1Y	AF		J	IC TC74LCX573FT(EKJ)
IC4403	VHiTC7SH08U-1Y	AF		J	IC TC7SH08FU(TE85L,JF)
IC4404	VHiLCX244FT-1Y	AE		J	IC TC74LCX244FT(EL,K)
IC4405	VHiLCX573FT-1Y	AF		J	IC TC74LCX573FT(EKJ)
IC4409	VHiLVC1G14W-1Y	AC	N	J	IC 74LVC1G14GW,125
IC5001	RH-iXC446WJQZQ	BU	N	J	IC ST-7101BWD
IC5002	VHiTC7WZ04F-1Y	AC		J	IC TC7WZ04FK(TE85L,F)
IC5003	Not Available	-		-	IC M24C04-WMN6TP (Please replace the MAIN PWB when it is necessary to replace this IC.)
IC5004	VHiTC7W66U/-1Y	AE		J	IC TC7W66FU(TE12L,F)
IC5201	RH-iXC187WJQZQ	AZ		J	IC K4H511638D-UCCC
IC5202	RH-iXC187WJQZQ	AZ		J	IC K4H511638D-UCCC
IC5203	RH-iXC525WJQZQ	AU	N	J	IC K4H561638J-LCCC
IC5204	RH-iXC525WJQZQ	AU	N	J	IC K4H561638J-LCCC
IC5301	VHiBU16028K-1Q	AP	N	J	IC BU16028KV
IC5303	RH-iXC527WJQZQ	BA	N	J	IC M29W640FT70N6E
IC7502	VHiR1173S12-1Y	AE		J	IC R1173S121B-E2-F
IC7503	VHiAK4255ET-1Y	AK	N	J	IC AK4255ET
IC7508	VHiDRX3913K-1Q	AX	N	J	IC DRX3913K-XK-A2
IC8101	RH-iXC372WJQZQ	BS	N	J	IC HiDTV Pro WX(8568W-LF)
IC8103	VHiLVC08AT+-1Y	AF		J	IC SN74LVC08APWR
IC8104	VHiBD6538G+-1Y	AD		J	IC BD6538G-TR
IC8301	RH-iXC505WJQZQ	AY	N	J	IC K4T51163QG-HCF7
IC8302	RH-iXC505WJQZQ	AY	N	J	IC K4T51163QG-HCF7
IC8701	VHiS29G128P-1Q	AU		J	IC S29GL128P90TFCR20#
IC8703	VHiBR24S64M-1Y	AF		J	IC BR24S64FVM-WTR
IC8704	VHiAK8131C+-1Y	AK	N	J	IC AK8131C
IC9101	RH-iXC671WJQZQ	AS	N	J	IC XC2C128-7VQG100C
IC9104	VHiTCLCX08FT1Y	AD		J	IC TC74LCX08FT(EL,K)
IC9601	VHiPQ200WNA-1Y	AG		J	IC PQ200WNA1ZPH
IC9602	VHiL6726A++-1Y	AH	N	J	IC L6726ATR
IC9603	VHiL6726A++-1Y	AH	N	J	IC L6726ATR
IC9604	VHiLV5805M+-1Y	AG		J	IC LV5805M-TE-L-E
IC9606	VHiLV5805M+-1Y	AG		J	IC LV5805M-TE-L-E
IC9607	VHiPQ1KA503-1Y	AD		J	IC PQ1KA503MZPH
IC9608	VHiPQ070XNA-1Y	AE		J	IC PQ070XNA1ZPH
IC9609	VHiPQ025ENA-1Y	AE		J	IC PQ025ENA1ZPH
IC9610	VHiLV5805M+-1Y	AG		J	IC LV5805M-TE-L-E
J501	QJAKGA131WJZZ	AG		J	Jack EXT3
J502	QJAKFA061WJZZ	AE		J	Jack
J503	QJAKFA061WJZZ	AE		J	Jack OUTPUT
J505	QJAKGA079WJZZ	AD		J	Jack
J1301	QJAKJ0008GEZZ	AD		J	Jack

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
J1302	QJAKJ0047CEZZ	AD		J	Jack Headphone
J8101	QSOCZA172WJQZ	AD		J	Socket 4Pin(USB)
L503	VPSBN2R2JR54NY	AB		J	Coil SBN2R2JR54N
L1301	RCiLPA899WJZZY	AC		J	Coil Peaking 22μH
L1302	RCiLPA899WJZZY	AC		J	Coil Peaking 22μH
L1303	RCiLPA899WJZZY	AC		J	Coil Peaking 22μH
L1304	RCiLPA899WJZZY	AC		J	Coil Peaking 22μH
L2613	RCiLFA119WJZZY	AE		J	Coil CILFA119WJ
L2614	RCiLFA119WJZZY	AE		J	Coil CILFA119WJ
L2615	RCiLFA119WJZZY	AE		J	Coil CILFA119WJ
L2616	RCiLFA119WJZZY	AE		J	Coil CILFA119WJ
L2617	RCiLFA119WJZZY	AE		J	Coil CILFA119WJ
L2618	RCiLFA119WJZZY	AE		J	Coil CILFA119WJ
L7508	VPSBN100J1R2NY	AB		J	Coil Peaking 10μH
L8103	VPCWM2R2MR10NY	AC		J	Coil Peaking 2.2μH
L9601	RCiLPA758WJQZY	AC		J	Coil CILPA758WJ
L9602	RCiLPA758WJQZY	AC		J	Coil CILPA758WJ
L9603	RCiLPA762WJQZY	AE		J	Coil CILPA762WJ
L9605	RCiLPA888WJZZY	AG		J	Coil CILPA888WJ
L9606	RCiLFA228WJZZY	AD		J	Coil CILFA228WJ
L9607	RCiLPA887WJZZY	AG		J	Coil CILPA887WJ
LUG501	QLUGHA009WJZZY	AC		J	Lug
LUG502	QLUGHA009WJZZY	AC		J	Lug
LUG503	QLUGHA009WJZZY	AC		J	Lug
LUG504	QLUGHA009WJZZY	AC		J	Lug
LUG505	QLUGHA009WJZZY	AC		J	Lug
LUG506	QLUGHA009WJZZY	AC		J	Lug
LUG507	QLUGHA009WJZZY	AC		J	Lug
LUG508	QLUGHA009WJZZY	AC		J	Lug
P1301	QPLGNA160WJZZY	AD		J	Plug 4Pin(SP)
P2003	QPLGNA330WJZZY	AD		J	Plug 10Pin(RA)
P2004	QPLGNA324WJZZY	AC		J	Plug 5pin (KM)
P2402	QPLGNA343WJZZY	AD		J	Plug
P2603	QPLGNA329WJZZY	AD		J	Plug 9Pin(LB)
P4401	QCNCMA318WJSA	AN	N	J	Plug
P5001	QPLGN0463TAZZY	AC		J	Plug
P5002	QPLGN0567FJZZY	AD		J	Plug
P8103	QPLGNA144WJZZY	AF		J	Plug 20Pin(PARTNER)
P9601	QPLGNA168WJZZY	AF		J	Plug 12Pin(PD)
P9603	QPLGNA335WJZZY	AD		J	Plug 15pin (LP)
Q501	VSKRC404E++-1Y	AB		J	Transistor KRC404E
Q502	VSDTC314TK/-1Y	AC		J	Transistor DTC314TKT146
Q503	VSDTC314TK/-1Y	AC		J	Transistor DTC314TKT146
Q504	VSDTC314TK/-1Y	AC		J	Transistor DTC314TKT146
Q505	VSDTC314TK/-1Y	AC		J	Transistor DTC314TKT146
Q510	VS2SA1530AR-1Y	AB		J	Transistor 2SA1530A-T112-1R
Q511	VS2SA1530AR-1Y	AB		J	Transistor 2SA1530A-T112-1R
Q512	VSDTC314TK/-1Y	AC		J	Transistor DTC314TKT146
Q513	VSDTC314TK/-1Y	AC		J	Transistor DTC314TKT146
Q1301	VSiMH23T110-1Y	AC		J	Transistor IMH23T110
Q1504	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q1506	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q1516	VSiMD2A////-1Y	AC		J	Transistor IMD2AT108
Q1802	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q1803	VSDTA124EKA-1Y	AB		J	Transistor DTA124EKAT146
Q1808	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q1809	VS2SA1530AR-1Y	AB		J	Transistor 2SA1530A-T112-1R
Q2002	VSRN1102///-1Y	AB		J	Transistor RN1102(TE85L,F)
Q2003	VS2SA1530AR-1Y	AB		J	Transistor 2SA1530A-T112-1R
Q4401	RH-TXA026WJZZY	AD		J	Transistor PBLS2001D,115
Q5002	RH-TXA026WJZZY	AD		J	Transistor PBLS2001D,115
Q5301	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q7503	VS2SC3928AR-1Y	AB		J	Transistor 2SC3928A-T112-1R
Q7504	VSDTA124EKA-1Y	AB		J	Transistor DTA124EKAT146
Q7505	RH-TXA026WJZZY	AD		J	Transistor PBLS2001D,115
Q8703	VS2SC3928AR-1Y	AB		J	Transistor 2SC3928A-T112-1R
Q9102	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q9601	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q9602	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q9603	VSFW808ME++-1Y	AE		J	Transistor FW808-M-TL-E
Q9604	VSFW808ME++-1Y	AE		J	Transistor FW808-M-TL-E
Q9605	VSRT1N144U/-1Y	AB		J	Transistor RT1N144U-T111-1
Q9606	VSRDTC144EE-1Y	AA		J	Transistor PDTC144EE,115
Q9607	VSEMZ1+++++-1Y	AC		J	Transistor EMZ1T2R
Q9608	VS2SC3928AR-1Y	AB		J	Transistor 2SC3928A-T112-1R
Q9609	VSDTA124EKA-1Y	AB		J	Transistor DTA124EKAT146
R501	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R503	VRS-CZ1JF682JY	AA		J	Resistor 6.8k 1/16W Metal Oxide
R504	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R508	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R509	VRS-TQ2EF680JY	AA		J	Resistor 68 1/4W Metal Oxide
R510	VRS-TQ2EF680JY	AA		J	Resistor 68 1/4W Metal Oxide
R511	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R512	VRS-CZ1JF682JY	AA		J	Resistor 6.8k 1/16W Metal Oxide
R513	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
R514	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R518	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R519	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R520	VRS-TQ2EF101JY	AA		J	Resistor 100 1/4W Metal Oxide
R522	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R523	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R524	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R525	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R526	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R527	VRS-TQ2EF101JY	AA		J	Resistor 100 1/4W Metal Oxide
R528	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R529	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R531	VRS-CZ1JF221JY	AA		J	Resistor 220 1/16W Metal Oxide
R534	VRS-TV1JD221JY	AA		J	Resistor 220 1/16W Metal Oxide
R535	VRS-TV1JD221JY	AA		J	Resistor 220 1/16W Metal Oxide
R536	VRS-TV1JD221JY	AA		J	Resistor 220 1/16W Metal Oxide
R537	VRS-TV1JD221JY	AA		J	Resistor 220 1/16W Metal Oxide
R538	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R539	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R540	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R541	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R543	VRK-SA1JF101JY	AC		J	Resistor 100 1/16W Metal Composition
R544	VRK-SA1JF101JY	AC		J	Resistor 100 1/16W Metal Composition
R545	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R546	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R547	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R548	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R549	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R550	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R551	VRS-CZ1JF564JY	AB		J	Resistor 560k 1/16W Metal Oxide
R552	VRS-CZ1JF564JY	AB		J	Resistor 560k 1/16W Metal Oxide
R553	VRK-SA1JF331JY	AA		J	Resistor 330 1/16W Metal Composition
R554	VRK-SA1JF331JY	AA		J	Resistor 330 1/16W Metal Composition
R555	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R556	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R557	VRS-CZ1JF564JY	AB		J	Resistor 560k 1/16W Metal Oxide
R558	VRS-CZ1JF564JY	AB		J	Resistor 560k 1/16W Metal Oxide
R561	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R562	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R563	VRS-CY1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R564	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R565	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R566	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R567	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R568	VRS-CY1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R569	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R570	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R571	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R572	VRS-TQ2EF750JY	AA		J	Resistor 75 1/4W Metal Oxide
R573	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R574	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R575	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R576	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R577	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R578	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R579	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R580	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R581	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R582	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R583	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R584	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R585	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R586	VRS-CZ1JF221JY	AA		J	Resistor 220 1/16W Metal Oxide
R587	VRS-CZ1JF561JY	AA		J	Resistor 560 1/16W Metal Oxide
R588	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R589	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R590	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R591	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R592	VRS-CZ1JF221JY	AA		J	Resistor 220 1/16W Metal Oxide
R593	VRS-CZ1JF561JY	AA		J	Resistor 560 1/16W Metal Oxide
R594	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R595	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R596	VRS-CZ1JF564JY	AB		J	Resistor 560k 1/16W Metal Oxide
R597	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R598	VRS-CZ1JF564JY	AB		J	Resistor 560k 1/16W Metal Oxide
R599	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R601	VRS-CZ1JF820JY	AA		J	Resistor 82 1/16W Metal Oxide
R602	VRS-CZ1JF820JY	AA		J	Resistor 82 1/16W Metal Oxide
R621	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R622	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R623	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R624	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R625	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R626	VRS-CZ1JF222JY	AA		J	Resistor 2.2k 1/16W Metal Oxide
R627	VRS-CZ1JF151JY	AA		J	Resistor 150 1/16W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
R628	VRS-CY1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R629	VRS-CY1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R630	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R631	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R632	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R633	VRS-CZ1JF820JY	AA		J	Resistor 82 1/16W Metal Oxide
R1301	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1302	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1303	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1310	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1311	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R1316	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1317	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1318	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R1319	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R1320	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1321	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1322	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1324	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1326	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1327	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1328	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R1329	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R1330	VRS-CZ1JF823FY	AA		J	Resistor 82k 1/16W Metal Oxide
R1331	VRS-CZ1JF153FY	AA		J	Resistor 15k 1/16W Metal Oxide
R1336	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R1337	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R1339	VRS-TQ2EF000JY	AB		J	Resistor 0 1/4W Metal Oxide
R1340	VRS-CZ1JF222JY	AA		J	Resistor 2.2k 1/16W Metal Oxide
R1341	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R1342	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R1343	VRS-TQ2EF390JY	AA		J	Resistor 39 1/4W Metal Oxide
R1344	VRS-TQ2EF390JY	AA		J	Resistor 39 1/4W Metal Oxide
R1346	VRS-TQ2EF6R8JY	AA		J	Resistor 6.8 1/4W Metal Oxide
R1347	VRS-TQ2EF6R8JY	AA		J	Resistor 6.8 1/4W Metal Oxide
R1349	VRS-TQ2EF220JY	AA		J	Resistor 22 1/4W Metal Oxide
R1350	VRS-TQ2EF220JY	AA		J	Resistor 22 1/4W Metal Oxide
R1351	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R1352	VRS-TQ2EF6R8JY	AA		J	Resistor 6.8 1/4W Metal Oxide
R1353	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R1354	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R1355	VRS-TQ2EF6R8JY	AA		J	Resistor 6.8 1/4W Metal Oxide
R1356	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R1358	VRK-SA1JF103JY	AB		J	Resistor 10k 1/16W Metal Composition
R1359	VRS-TV1JD000JY	AA		J	Resistor 0 1/10W Metal Oxide
R1360	VRS-TV1JD000JY	AA		J	Resistor 0 1/10W Metal Oxide
R1361	VRS-TV1JD000JY	AA		J	Resistor 0 1/10W Metal Oxide
R1362	VRS-TV1JD000JY	AA		J	Resistor 0 1/10W Metal Oxide
R1363	VRS-CY1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1364	VRS-TW2ED101JY	AA		J	Resistor 100 1/4W Metal Oxide
R1365	VRS-CY1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R1366	VRS-TW2ED101JY	AA		J	Resistor 100 1/4W Metal Oxide
R1367	VRS-CY1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R1379	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R1380	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R1503	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1504	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1506	VRS-CZ1JF273FY	AA		J	Resistor 27k 1/16W Metal Oxide
R1507	VRS-CZ1JF562FY	AA		J	Resistor 5.6k 1/16W Metal Oxide
R1508	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R1509	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R1510	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R1512	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R1513	VRK-SB1FF101JY	AA		J	Resistor 100 1/32W Metal Composition
R1516	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R1517	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R1519	VRS-CZ1JF273JY	AA		J	Resistor 27k 1/16W Metal Oxide
R1520	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R1521	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R1552	VRS-TV1JD750JY	AA		J	Resistor 75 1/16W Metal Oxide
R1553	VRS-TV1JD750JY	AA		J	Resistor 75 1/16W Metal Oxide
R1554	VRS-TV1JD750JY	AA		J	Resistor 75 1/16W Metal Oxide
R1562	VRS-CZ1JF221JY	AA		J	Resistor 220 1/16W Metal Oxide
R1563	VRS-CZ1JF221JY	AA		J	Resistor 220 1/16W Metal Oxide
R1565	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1566	VRK-SB1FF473JY	AB		J	Resistor 47k 1/32W Metal Composition
R1567	VRK-SB1FF100JY	AA		J	Resistor 10 1/32W Metal Composition
R1568	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R1569	VRK-SB1FF473JY	AB		J	Resistor 47k 1/32W Metal Composition
R1570	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R1571	VRK-SB1FF100JY	AA		J	Resistor 10 1/32W Metal Composition
R1572	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R1593	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R1604	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R1607	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
R1609	VRK-SA1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Composition
R1622	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R1801	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R1817	VRS-CZ1JF223JY	AA		J	Resistor 22k 1/16W Metal Oxide
R1819	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R1820	VRS-CZ1JF222JY	AA		J	Resistor 2.2k 1/16W Metal Oxide
R2001	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2002	VRS-CZ1JF100JY	AA		J	Resistor 10 1/16W Metal Oxide
R2003	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R2005	VRS-CJ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R2006	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R2007	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R2008	VRS-CJ1JF333JY	AA		J	Resistor 33k 1/16W Metal Oxide
R2009	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2010	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2011	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2012	VRS-CZ1JF103FY	AB		J	Resistor 10k 1/16W Metal Oxide
R2013	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R2014	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R2015	VRS-CZ1JF393JY	AA		J	Resistor 39k 1/16W Metal Oxide
R2016	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2017	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2018	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2019	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R2020	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R2022	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2023	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2024	VRS-CZ1JF223JY	AA		J	Resistor 22k 1/16W Metal Oxide
R2025	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2026	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2027	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R2028	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2029	VRK-SB1FF101JY	AA		J	Resistor 100 1/32W Metal Composition
R2030	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R2032	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2033	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2035	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2039	VRS-CZ1JF106JY	AA		J	Resistor 10M 1/16W Metal Oxide
R2040	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R2041	VRS-CZ1JF272JY	AA		J	Resistor 2.7k 1/16W Metal Oxide
R2042	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2045	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R2047	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2048	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2049	VRS-CZ1JF100JY	AA		J	Resistor 10 1/16W Metal Oxide
R2050	VRS-CZ1JF100JY	AA		J	Resistor 10 1/16W Metal Oxide
R2051	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R2052	VRS-CZ1JF223JY	AA		J	Resistor 22k 1/16W Metal Oxide
R2054	VRS-CZ1JF223JY	AA		J	Resistor 22k 1/16W Metal Oxide
R2056	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2057	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2058	VRS-CZ1JF152JY	AA		J	Resistor 1.5k 1/16W Metal Oxide
R2059	VRS-CZ1JF100JY	AA		J	Resistor 10 1/16W Metal Oxide
R2060	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2062	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R2064	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2065	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2066	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2067	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2068	VRK-SB1FF223JY	AA		J	Resistor 22k 1/32W Metal Composition
R2069	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2070	VRS-CZ1JF223JY	AA		J	Resistor 22k 1/16W Metal Oxide
R2073	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2075	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2076	VRS-CZ1JF223JY	AA		J	Resistor 22k 1/16W Metal Oxide
R2078	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2079	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R2402	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R2405	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R2406	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R2407	VRK-SB1FF472JY	AA		J	Resistor 4.7k 1/32W Metal Composition
R2408	VRS-TV1JD101JY	AA		J	Resistor 100 1/10W Metal Oxide
R2409	VRS-TV1JD101JY	AA		J	Resistor 100 1/10W Metal Oxide
R2410	VRS-TV1JD101JY	AA		J	Resistor 100 1/10W Metal Oxide
R2417	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2428	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R2429	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R2438	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2439	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2440	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2441	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2442	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2443	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2444	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R2445	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
R2446	VRS-CZ1JF103FY	AB		J	Resistor 10k 1/16W Metal Oxide
R2447	VRS-CZ1JF103FY	AB		J	Resistor 10k 1/16W Metal Oxide
R2448	VRK-SB1FF103JY	AA		J	Resistor 10k 1/32W Metal Composition
R2601	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R2602	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R2604	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2605	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2606	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2607	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2608	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2609	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2610	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2611	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R2612	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2614	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2615	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2616	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2617	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R2618	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R4401	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4402	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4403	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4404	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4405	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4406	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4408	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R4409	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R4410	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R4411	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4412	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R4413	VRS-CJ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4415	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4416	VRK-SB1FF472JY	AA		J	Resistor 4.7k 1/32W Metal Composition
R4421	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R4422	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R4424	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4425	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4427	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R4428	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R4429	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R4430	VRS-CZ1JF471JY	AA		J	Resistor 470 1/16W Metal Oxide
R4435	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4436	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4437	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4441	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4443	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R4468	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4476	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4478	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4482	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4484	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R4486	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5001	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5002	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5003	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5004	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5005	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5006	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5007	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5008	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5009	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5010	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5011	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5012	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5013	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5014	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5015	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5016	VRS-CZ1JF124FY	AA		J	Resistor 120k 1/16W Metal Oxide
R5017	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5018	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5019	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5020	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R5021	VRS-CZ1JF102FY	AA		J	Resistor 1k 1/16W Metal Oxide
R5022	VRS-CZ1JF102FY	AA		J	Resistor 1k 1/16W Metal Oxide
R5023	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R5024	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5025	VRS-CZ1JF102FY	AA		J	Resistor 1k 1/16W Metal Oxide
R5026	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5027	VRS-CZ1JF102FY	AA		J	Resistor 1k 1/16W Metal Oxide
R5028	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5029	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5030	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5031	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5032	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5033	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
R5034	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5035	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5036	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5037	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5038	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5039	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5040	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5041	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5042	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5044	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5045	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5046	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5049	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5051	VRS-CZ1JF752JY	AB		J	Resistor 7.5k 1/16W Metal Oxide
R5052	VRS-CZ1JF752JY	AB		J	Resistor 7.5k 1/16W Metal Oxide
R5053	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R5054	VRS-CZ1JF332JY	AA		J	Resistor 3.3k 1/16W Metal Oxide
R5055	VRS-CZ1JF332JY	AA		J	Resistor 3.3k 1/16W Metal Oxide
R5056	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R5058	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5059	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5060	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5061	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5062	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5063	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5064	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5065	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5066	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5067	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5068	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5069	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5070	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5071	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5072	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5073	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5074	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5075	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5076	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R5077	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R5078	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R5079	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R5080	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5081	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5082	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5083	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5084	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5085	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5086	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5087	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5088	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5089	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5090	VRS-CZ1JF124FY	AA		J	Resistor 120k 1/16W Metal Oxide
R5091	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R5092	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R5093	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R5094	VRS-CZ1JF152FY	AA		J	Resistor 1.5k 1/16W Metal Oxide
R5098	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5099	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R5100	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R5101	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5102	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5103	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5104	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5105	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5107	VRS-CZ1JF561JY	AA		J	Resistor 560 1/16W Metal Oxide
R5108	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5111	VRK-SA1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Composition
R5112	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5113	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5203	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5204	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5205	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5206	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5207	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5208	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5209	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5210	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5211	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5212	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5213	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5214	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5215	VRS-CZ1JF750JY	AA		J	Resistor 75 1/16W Metal Oxide
R5216	VRS-CZ1JF750JY	AA		J	Resistor 75 1/16W Metal Oxide
R5219	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5220	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide

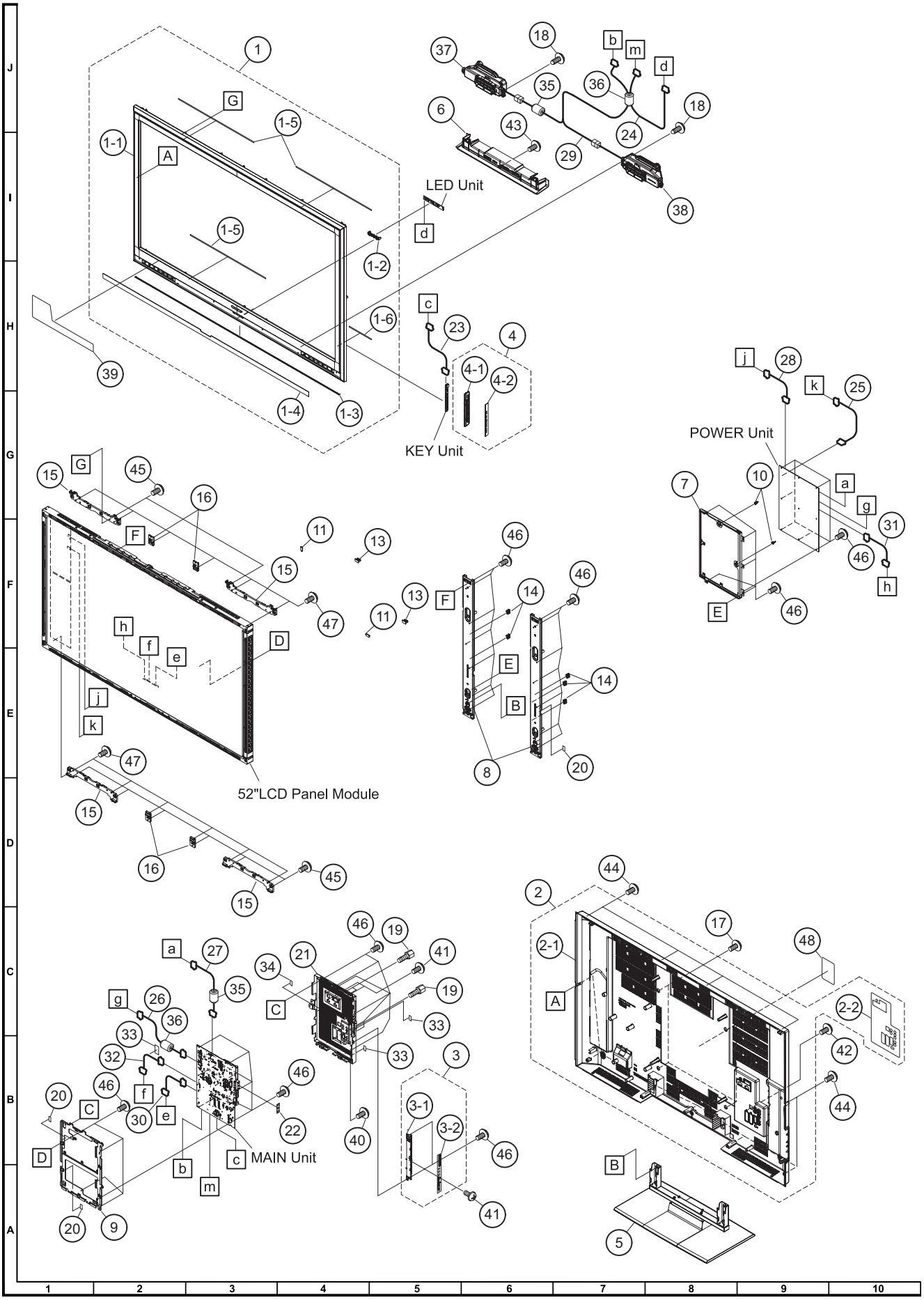
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
R5221	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5222	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5223	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5224	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5225	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5226	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5227	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5228	VRK-SB1FF680JY	AA		J	Resistor 68 1/32W Metal Composition
R5229	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5230	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R5231	VRS-CZ1JF750JY	AA		J	Resistor 75 1/16W Metal Oxide
R5232	VRS-CZ1JF750JY	AA		J	Resistor 75 1/16W Metal Oxide
R5302	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R5303	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R5304	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5308	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R5309	VRS-CZ1JF562FY	AA		J	Resistor 5.6k 1/16W Metal Oxide
R5313	VRS-CZ1JF273FY	AA		J	Resistor 27k 1/16W Metal Oxide
R5314	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R5320	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5321	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5322	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5323	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5324	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5325	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5326	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5327	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5329	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5330	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5331	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5332	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5333	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5334	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5335	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R5339	VRK-SB1FF472JY	AA		J	Resistor 4.7k 1/32W Metal Composition
R5340	VRK-SB1FF472JY	AA		J	Resistor 4.7k 1/32W Metal Composition
R5341	VRK-SB1FF472JY	AA		J	Resistor 4.7k 1/32W Metal Composition
R5342	VRK-SB1FF472JY	AA		J	Resistor 4.7k 1/32W Metal Composition
R5343	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R5344	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R5345	VRK-SA1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Composition
R7508	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R7509	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R7511	VRK-SA1JF222JY	AB		J	Resistor 2.2k 1/16W Metal Composition
R7512	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R7518	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R7519	VRS-CZ1JF392JY	AA		J	Resistor 3.9k 1/16W Metal Oxide
R7521	VRS-CZ1JF331JY	AA		J	Resistor 330 1/16W Metal Oxide
R7522	VRS-CZ1JF151JY	AA		J	Resistor 150 1/16W Metal Oxide
R7523	VRS-CZ1JF682JY	AA		J	Resistor 6.8k 1/16W Metal Oxide
R7524	VRS-CJ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R7525	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R7527	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R7530	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R7531	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R7544	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R7547	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R7548	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R7553	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R7555	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R7560	VRS-CZ1JF561JY	AA		J	Resistor 560 1/16W Metal Oxide
R7561	VRS-CZ1JF564JY	AB		J	Resistor 560k 1/16W Metal Oxide
R8101	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8102	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R8103	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8104	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8105	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8106	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8107	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8108	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R8117	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R8118	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R8119	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R8124	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R8125	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8126	VRS-CZ1JF183FY	AA		J	Resistor 18k 1/16W Metal Oxide
R8127	VRS-CZ1JF912FY	AA		J	Resistor 9.1k 1/16W Metal Oxide
R8130	VRS-CZ1JF105JY	AA		J	Resistor 1M 1/16W Metal Oxide
R8131	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8132	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8133	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8134	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8135	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R8136	VRS-CZ1JF330JY	AA		J	Resistor 33 1/16W Metal Oxide
R8137	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
R8138	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R8139	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R8140	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R8141	VRK-SB1FF330JY	AA		J	Resistor 33 1/32W Metal Composition
R8144	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8153	VRS-CZ1JF102FY	AA		J	Resistor 1k 1/16W Metal Oxide
R8154	VRS-CZ1JF102FY	AA		J	Resistor 1k 1/16W Metal Oxide
R8156	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8165	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8167	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R8168	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8169	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8170	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8171	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8172	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8175	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R8179	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R8180	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8181	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8182	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8183	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide
R8184	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R8185	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R8186	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R8187	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R8188	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R8189	VRS-CZ1JF220JY	AA		J	Resistor 22 1/16W Metal Oxide
R8301	VRS-CZ1JF750JY	AA		J	Resistor 75 1/16W Metal Oxide
R8302	VRS-CZ1JF750JY	AA		J	Resistor 75 1/16W Metal Oxide
R8303	VRS-CZ1JF102FY	AA		J	Resistor 1k 1/16W Metal Oxide
R8304	VRS-CZ1JF102FY	AA		J	Resistor 1k 1/16W Metal Oxide
R8305	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R8306	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8307	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8308	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8309	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R8310	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8311	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R8312	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8313	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8314	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R8315	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R8316	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8317	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8318	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8319	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R8320	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8321	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R8322	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8323	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8324	VRK-SB1FF000JY	AA		J	Resistor 0 1/32W Metal Composition
R8702	VRS-CZ1JF184JY	AA		J	Resistor 180k 1/16W Metal Oxide
R8712	VRS-CZ1JF682JY	AA		J	Resistor 6.8k 1/16W Metal Oxide
R8713	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R8718	VRK-SA1JF100JY	AB		J	Resistor 10 1/16W Metal Composition
R8722	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R8723	VRS-CZ1JF104JY	AA		J	Resistor 100k 1/16W Metal Oxide
R8729	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R8731	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R8732	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R8733	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R8734	VRS-CZ1JF680JY	AB		J	Resistor 68 1/16W Metal Oxide
R9101	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9102	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9103	VRK-SB1FF472JY	AA		J	Resistor 4.7k 1/32W Metal Composition
R9108	VRS-CZ1JF222JY	AA		J	Resistor 2.2k 1/16W Metal Oxide
R9109	VRS-CZ1JF222JY	AA		J	Resistor 2.2k 1/16W Metal Oxide
R9117	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9134	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9136	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9137	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9138	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9139	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9148	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9151	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9153	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9155	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9158	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9159	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9301	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9302	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9303	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9304	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9305	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9306	VRS-CZ1JF470JY	AA		J	Resistor 47 1/16W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
R9307	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9308	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9309	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9310	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9311	VRK-SB1FF470JY	AA		J	Resistor 47 1/32W Metal Composition
R9320	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9321	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9322	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9323	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9330	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9333	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9335	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9336	VRK-SA1JF222JY	AB		J	Resistor 2.2k 1/16W Metal Composition
R9338	VRK-SA1JF103JY	AB		J	Resistor 10k 1/16W Metal Composition
R9339	VRK-SA1JF000JY	AB		J	Resistor 0 1/16W Metal Composition
R9341	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9344	VRK-SA1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Composition
R9601	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R9602	VRS-CZ1JF122JY	AA		J	Resistor 1.2k 1/16W Metal Oxide
R9603	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R9604	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R9605	VRS-CZ1JF122JY	AA		J	Resistor 1.2k 1/16W Metal Oxide
R9606	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9607	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R9608	VRS-CZ1JF123JY	AA		J	Resistor 12k 1/16W Metal Oxide
R9609	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9610	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9611	VRS-CZ1JF183FY	AA		J	Resistor 18k 1/16W Metal Oxide
R9612	VRS-CZ1JF752FY	AA		J	Resistor 7.5k 1/16W Metal Oxide
R9613	VRS-CZ1JF123JY	AA		J	Resistor 12k 1/16W Metal Oxide
R9614	VRS-CZ1JF153FY	AA		J	Resistor 15k 1/16W Metal Oxide
R9616	VRS-CZ1JF133FY	AA		J	Resistor 13k 1/16W Metal Oxide
R9617	VRS-CZ1JF392FY	AA		J	Resistor 3.9k 1/16W Metal Oxide
R9618	VRS-CZ1JF472JY	AA		J	Resistor 4.7k 1/16W Metal Oxide
R9619	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R9620	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9621	VRS-CZ1JF333JY	AA		J	Resistor 33k 1/16W Metal Oxide
R9623	VRS-CZ1JF822FY	AA		J	Resistor 8.2k 1/16W Metal Oxide
R9625	VRS-CZ1JF433FY	AA		J	Resistor 43k 1/16W Metal Oxide
R9627	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9628	VRS-CZ1JF333JY	AA		J	Resistor 33k 1/16W Metal Oxide
R9630	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9632	VRS-CZ1JF332JY	AA		J	Resistor 3.3k 1/16W Metal Oxide
R9633	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9634	VRS-CZ1JF123FY	AA		J	Resistor 12k 1/16W Metal Oxide
R9635	VRS-CZ1JF163FY	AB		J	Resistor 16k 1/16W Metal Oxide
R9636	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9637	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9638	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9639	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9640	VRS-CZ1JF302FY	AA		J	Resistor 3k 1/16W Metal Oxide
R9641	VRS-CZ1JF272FY	AA		J	Resistor 2.7k 1/16W Metal Oxide
R9643	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9644	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9645	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9646	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9647	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9648	VRS-CZ1JF473JY	AA		J	Resistor 47k 1/16W Metal Oxide
R9649	VRS-CZ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R9651	VRS-CZ1JF102JY	AA		J	Resistor 1k 1/16W Metal Oxide
R9652	VRS-CZ1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R9654	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R9655	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R9656	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R9657	VRS-CZ1JF3R3JY	AA		J	Resistor 3.3 1/16W Metal Oxide
R9660	VRS-CZ1JF822FY	AA		J	Resistor 8.2k 1/16W Metal Oxide
R9661	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9662	VRS-CZ1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
R9663	VRS-CZ1JF683JY	AA		J	Resistor 68k 1/16W Metal Oxide
R9664	VRS-CZ1JF153FY	AA		J	Resistor 15k 1/16W Metal Oxide
R9665	VRS-CZ1JF473FY	AA		J	Resistor 47k 1/16W Metal Oxide
RDA5001	PRDARA667WJFW		N	R	Heat Sink
RDA8101	PRDARA607WJFW	AL	N	J	Heat Sink
SC501	QSOCZA161WJZZ	AG		J	Socket 21Pin (EXT2(RGB))
SC502	QSOCZA161WJZZ	AG		J	Socket 21Pin (EXT1(RGB))
SC1501	QSOCZA171WJZZY	AF		J	Socket 23Pin (HDMI2/EXT6)
SC1502	QSOCZA171WJZZY	AF		J	Socket 23Pin (HDMI1/EXT5)
SC1504	QSOCNA716WJZZ	AM		J	Socket 17Pin (EXT4(ANALOG_RGB_PC))
SC2401	QSOCNA715WJZZ	AL		J	Socket 11Pin (RS-232C)
SC2601	QCNCWA671WJQZY	AH		J	Plug 41Pin (LW)
SC4401	QSOCJA004WJZZQ	AV	N	J	Socket 68Pin
SC5301	QSOCZA072WJZZQ	AH		J	Socket 23Pin
SC9301	QCNCWA562WJQZY	AF		J	Connector 60Pin
TH2001	VHHM1103J03-1Y	AC		J	Thermistor
⚠ TU7501	RTUDAA019WJQZ		N	S	Tuner

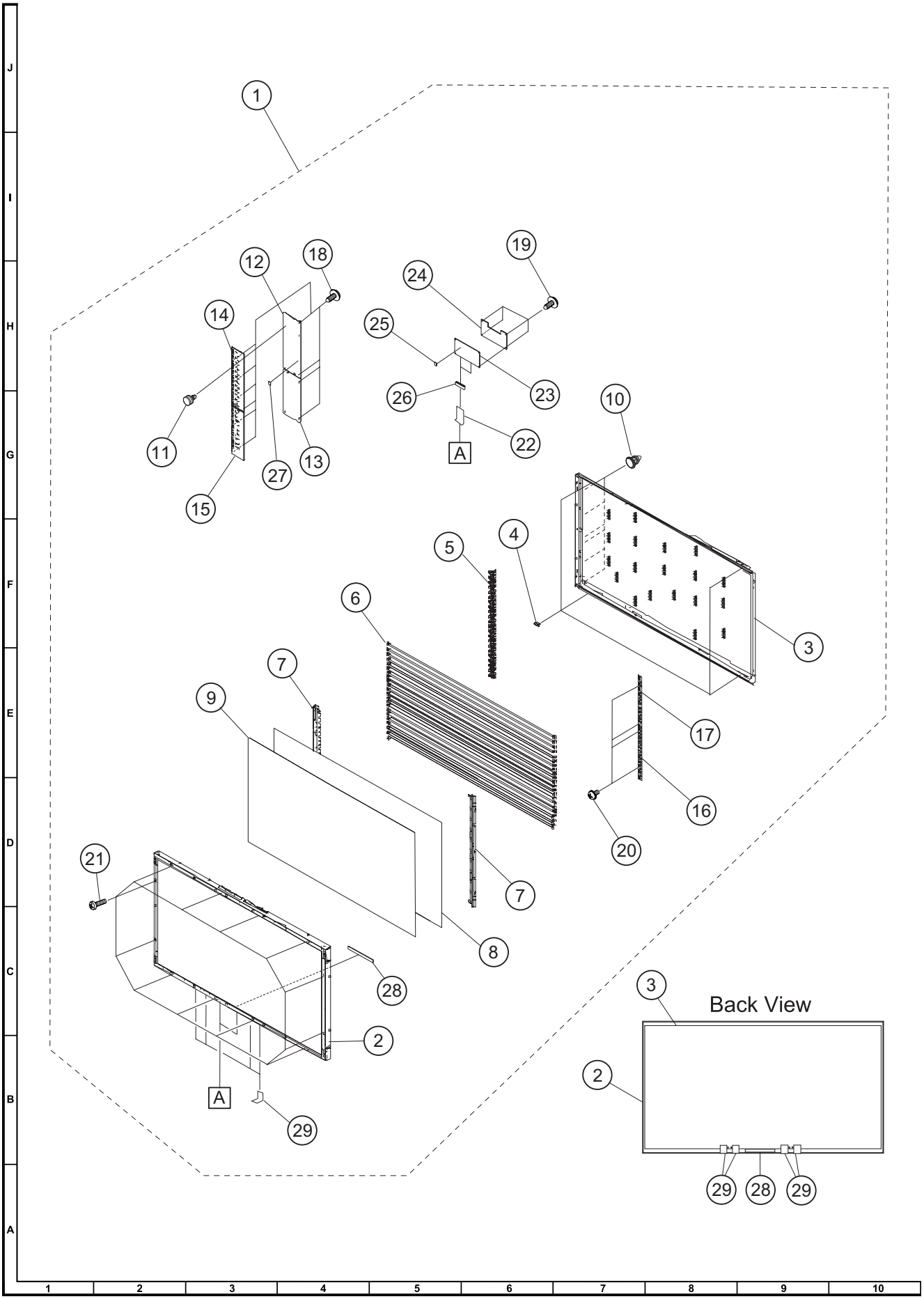
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKE685FM08 (MAIN Unit)					
VA8101	RH-VXA194WJZZY	AC		J	Varistor AVRL161A1R1NTB
VA8102	RH-VXA194WJZZY	AC		J	Varistor AVRL161A1R1NTB
X1301	RCRSCA086WJZZY	AG		J	Crystal 27MHz
X2001	RCRSC0032TAZZY	AG		J	Crystal, 32.768kHz
X5001	RCRUAA098WJQZY	AU	N	J	Crystal
X7501	RCRSCA112WJZZY	AE		J	Crystal
X8102	RCRSCA174WJQZY	AG		J	Crystal
X8702	RCRSCA086WJZZY	AG		J	Crystal 27MHz
N	GCOVAC895WJ1A	AF	N	J	Cover
N	PSPAZB313WJKZ	AC		J	Spacer
N	PSPAZB855WJKZ	AE		J	Spacer
N	XBPSN20P14JS0	AB		J	Screw, x2 (CARD SLOT)
[5] DUNTKE687FM08 (LED Unit)					
C101	VCKYCY1HF103ZY	AA		J	Capacitor 0.01 50V Ceramic
C102	VCEASX1CN106MY	AC		J	Capacitor 10 16V Electrolytic
C103	VCEASY1CN107MY	AC		J	Capacitor 100 16V Electrolytic
C104	VCKYTV1CF225ZY	AB		J	Capacitor 2.2 16V Ceramic
D102	RH-PX0421CEZZY	AD		J	Photo Diode CL-165HR/YG-D-T
D103	RH-PX0421CEZZY	AD		J	Photo Diode CL-165HR/YG-D-T
D104	RH-EXA092WJZZY	AB		J	Zener Diode UDZSNPTE-1712B
IC101	VHiGA1S100W-1Y	AE		J	IC GA1A1S100WP
P102	QPLGNA330WJZZY	AD		J	Plug 10Pin(RA)
Q102	VS2SC3928AR-1Y	AB		J	Transistor 2SC3928A-T112-1R
Q103	VS2SC3928AR-1Y	AB		J	Transistor 2SC3928A-T112-1R
Q104	VS2SC3928AR-1Y	AB		J	Transistor 2SC3928A-T112-1R
Q105	VS2SC3928AR-1Y	AB		J	Transistor 2SC3928A-T112-1R
R103	VRS-CY1JF161JY	AA		J	Resistor 160 1/16W Metal Oxide
R105	VRS-CJ1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R106	VRS-CY1JF223JY	AA		J	Resistor 22k 1/16W Metal Oxide
R107	VRS-CY1JF393JY	AA		J	Resistor 39k 1/16W Metal Oxide
R110	VRS-CY1JF103JY	AA		J	Resistor 10k 1/16W Metal Oxide
R113	VRS-CY1JF000JY	AA		J	Resistor 0 1/16W Metal Oxide
R114	VRS-CY1JF161JY	AA		J	Resistor 160 1/16W Metal Oxide
R115	VRS-CY1JF821JY	AA		J	Resistor 820 1/16W Metal Oxide
R116	VRS-CY1JF273JY	AA		J	Resistor 27k 1/16W Metal Oxide
R120	VRS-CY1JF101JY	AA		J	Resistor 100 1/16W Metal Oxide
RMC101	RRMCUA053WJZZ	AE		J	IR Receiver module
SLD101	PSLDPA076WJFW	AD		J	Shield Case (IR Receiver)

[6] CABINET PARTS



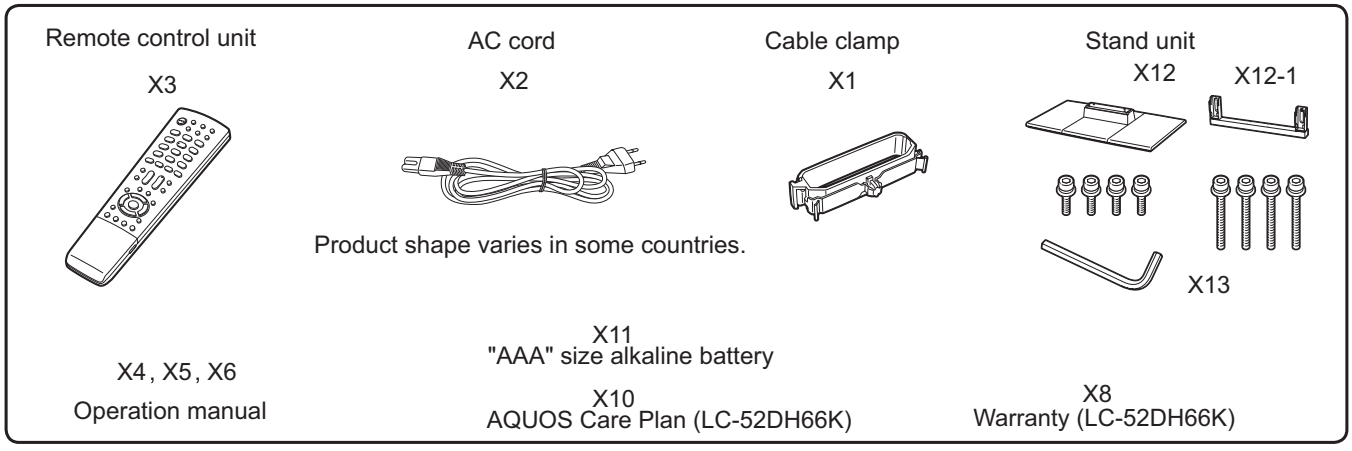
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[6] CABINET PARTS					
1	CCABAC106WJ01		N	S	Front Cabinet Ass'y (LC-52DH65E/S)
1	CCABAC106WJ02		N	S	Front Cabinet Ass'y (LC-52DH66E/K)
1-1	Not Available	–	–	–	Front Cabinet
1-2	HDECQA992WJ1A		N	S	LED Decoration
1-3	HDECSA041WJ1A		N	S	Shine Trim
1-4	HPNLSA200WJ1A		N	S	SP Sheet (LC-52DH65E/S)
1-4	HPNLSA200WJ1B		N	S	SP Sheet (LC-52DH66E/K)
1-5	PSPAHB180WJZZ	AC		J	Spacer, x3
1-6	PSPAHB756WJZZ			S	Spacer
2	CCABBB344WJ01		N	S	Rear Cabinet Ass'y
2-1	Not Available	–	–	–	Rear Cabinet
2-2	HiNDPC866WJSA			S	Terminal Label
3	CCOVAC891WJ01		N	S	Side AV Cover Ass'y
3-1	Not Available	–	–	–	Side AV Cover
3-2	HiNDPD038WJSA		N	S	Side AV Label
4	CCOVAC952WJ02		N	S	Control Cover Ass'y
4-1	Not Available	–	–	–	Control Cover
4-2	HiNDPC965WJSA		N	S	Control Label
5	CDAi-A485WJ04		N	S	Stand Unit (LC-52DH65E/S)
5	CDAi-A507WJ06		N	S	Stand Unit (LC-52DH66E/K)
6	GCOVAC954WJ1A		N	S	Bottom Cover
7	LANGKB839WJFW		N	S	POWER PWB Angle
8	LANGKB840WJFW		N	S	Panel Support Angle, x2
9	LCHSMA483WJFW		N	S	MAIN PWB Angle
10	LHLDFA036WJKZ	AB		J	POWER PWB Holder, x2
11	LHLDWA133WJKZ	AC		J	Wire Holder, x2
12	LHLDWA143WJKZ	AC		J	Wire Holder, x2
13	LHLDWA175WJUZ	AC		J	Wire Holder, x2
14	LHLDWA255WJKZ		N	S	Wire Holder, x5
15	LHLDZB210WJ1A		N	S	Corner Lug L, x4
16	LHLDZB211WJ1A		N	S	Corner Lug S, x4
17	LX-BZA170WJF9			S	Screw, x4 (Rear Cabinet)
18	LX-HZA003WJFN	AC		J	Screw, x2 (Speaker)
19	NSFTZA237WJFN	AC		J	Screw, x4 (D-Sub)
20	PMLT-A577WJZZ		N	S	Molt Spacer, x3 (10*5.5*20 RT)
21	PSLDMB480WJFW		N	S	Full Shield
22	PSPAZC163WJKZ		N	S	Spacer (Ext8 for ESD)
23	QCNW-H325WJQZ		N	S	Connecting Cord (KM)
24	QCNW-H329WJQZ		N	S	Connecting Cord (RA)
25	QCNW-H333WJQZ		N	S	Connecting Cord (LA)
26	QCNW-H337WJQZ		N	S	Connecting Cord (PD)
27	QCNW-H340WJQZ		N	S	Connecting Cord (LB1)
28	QCNW-H341WJQZ		N	S	Connecting Cord (LB2)
29	QCNW-H346WJQZ		N	S	Connecting Cord (SP)
30	QCNW-H753WJQZ		N	S	Connecting Cord (LP)
31	QCNW-H754WJQZ		N	S	Connecting Cord (PL)
32	QCNW-H755WJQZ		N	S	Connecting Cord (LW)
33	QEARZA146WJZZ		N	S	Electro conductive Tape, x3 (50*20 E05R)
34	QEARZA147WJZZ		N	S	Electro conductive Tape (50*20 E05R)
35	RCORFA012WJZZ	AG		J	Core, x2 (PD, SP/RA)
36	RCORFA023WJZZ	AK		J	Core, x2 (LB, Lch)
37	RSP-ZA381WJZZ		N	S	Speaker Lch
38	RSP-ZA382WJZZ		N	S	Speaker Rch
39	TLABZC043WJZZ		N	S	POP Label (H264)
40	XBBS730P04000	AA		J	Screw (TUNER/SHIELD)
41	XBPS830P06000	AA		J	Screw, x3 (HDMI SIDE)
42	XEBS930P08000	AA		J	Screw (21PIN)
43	XEBS930P10000	AA		J	Screw (Bottom Cover)
44	XEBS940P16000	AB		J	Screw, x11 (Rear Cabinet)
45	XEBSN40P10000	AB		J	Screw, x8 (LCD Holder)
46	XHPS730P06WS0	AA		J	Screw, x45 (PWB Etc)
47	XHPS840P08WS0			S	Screw, x12 (LCD Holder)
48	TLABNC117WJZZ			S	Model Label

[7] LCD MODULE Assembly



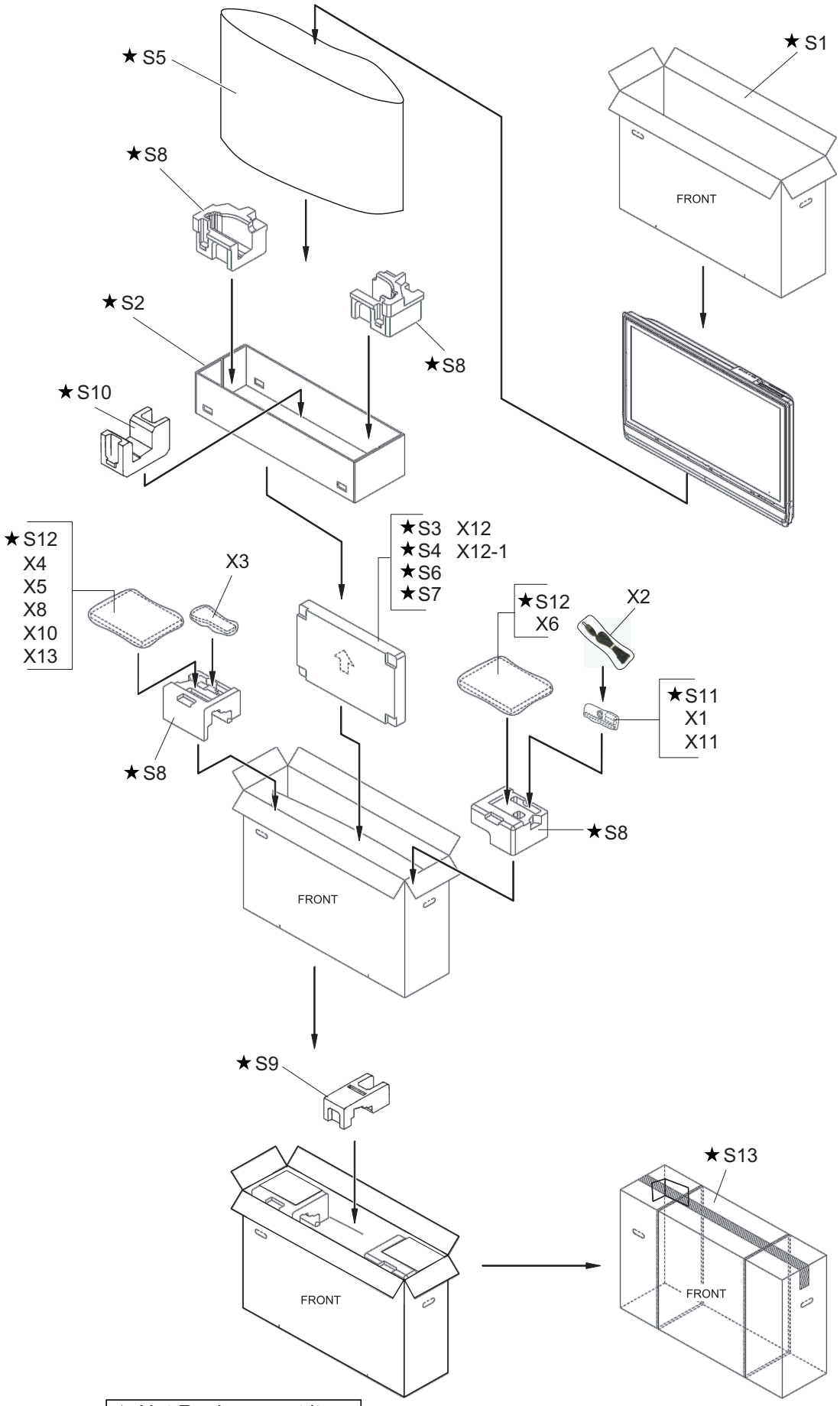
NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[7] LCD MODULE Assembly					
1	R1LK520D3LW1AY		N	J	LCD Module Ass'y
2	Not Available	–	–	–	Bezel Ass'y
3	CCHSMA474WJ01	BP		J	BL Chassis Ass'y
4	LHLDZA963WJKZ	AB		J	Sheet Holder, x4
5	QSOCFA003WJZZ	AD		J	Socket, x22
6	RLMPLA033WJN1	AR		J	Lamp, x22
7	LHLDZB153WJKZ	AP		J	Lamp Holder, x2
8	PCOVUA127WJZZ	BC		J	Diffusion Plate
9	PSHEPA734WJZZ	BB		J	Diffusion Sheet
10	LHLDZB067WJKZ	AC		J	Interver Spacer, x6
11	PSPAZB202WJTZ	AC		J	Interver Spacer
12	RUNTKA526WJZZ			J	Inverter Unit
13	RUNTKA527WJZZ			J	Inverter Unit
14	PCOVWA019WJKZ	AM		J	Cover
15	PCOVWA020WJKZ	AL		J	Cover
16	RUNTKA480WJZZ	AS		J	GND-PWB
17	RUNTKA481WJZZ	AS		J	GND-PWB
18	XHPS830P06WS0	AA		J	Screw, x10 (for Inverter Unit x4, for Cover x6)
19	LX-HZA046WJF7	AB		J	Screw, x4 (for C-PWB)
20	LX-HZA045WJF7	AB		J	Screw, x4 (for GND-PWB)
21	LX-HZA039WJF7	AB		J	Screw, x12 (for fixing Bezel Ass'y and BL Chassis Ass'y)
22	QPWBM0576TPZZ	AH		J	CS-FPC, x2
23	RUNTK4010TPZD			J	C-PWB (LCD Control Unit)
24	PCOVP2639TPZZ			J	C-PWB Cover
25	PSHEG0104TPZZ	AD		J	Heat Radiation Sheet (for C-PWB)
26	RCORFA061WJZZ	AG		J	Ferrite Core, x2
27	PSPAZC050WJKZ	AG		J	Heat Radiation Sheet (for Inverter Unit)
28	PMLT-A576WJZZ			J	Gasket, x2
29	QEARZA144WJZZ			J	Conductivity Cloth, x4

[8] SUPPLIED ACCESSORIES



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[8] SUPPLIED ACCESSORIES					
X1	LHLDWA173WJKZ	AE		J	Cable Clamp
⚠ X2	QACCKA007WJPZ	AK		J	AC Cord 2Pin (without U.K. and Ireland)
⚠ X2	QACCBA054WJPZ	AN		J	AC Cord 3Pin (U.K. and Ireland)
X3	RRMCGA586WJSA			S	Remote Control unit
X4	TiNS-D808WJZZ		N	S	Operation Manual (English) (LC-52DH65E/S)
X4	TiNS-D860WJZZ		N	S	Operation Manual (English) (LC-52DH66E/K)
X5	TiNS-D809WJZZ		N	S	Operation Manual (Swedish) (LC-52DH65S)
X6	TiNS-D810WJZZ		N	S	Operation Manual (Polish) (LC-52DH65E)
X6	TiNS-D861WJZZ		N	S	Operation Manual (Polish) (LC-52DH66E)
X8	TGAN-A801WJZZ			S	Warranty (LC-52DH66K)
X10	TGAN-A802WJZZ			S	AQUOS Care Plan (LC-52DH66K)
X11	Not Available	–	–	–	Batteries
X12	CDAi-A485WJ04		N	S	Stand Unit (LC-52DH65E/S)
X12	CDAi-A507WJ06		N	S	Stand Unit (LC-52DH66E/K)
X12-1	Not Available	–	–	–	Tool For Stand
X13	TCAUZA354WJZZ			S	Class A 21 Language

[9] PACKING PARTS



★ Not Replacement item

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[9] PACKING PARTS					
S1	SPAKCE493WJZZ	–	N	–	Packing Case (Main)
S2	SPAKCE482WJZZ	–	N	–	Packing Case (Bottom)
S3	SPAKFB583WJZZ	–		–	Stand Case
S4	SPAKFB700WJZZ	–	N	–	Stand Pad (LC-52DH65E/S)
S4	SPAKFB701WJZZ	–	N	–	Stand Pad (LC-52DH66E/K)
S5	SPAKPA712WJZZ	–		–	Wrapping Paper
S6	SPAKPA780WJZZ	–		–	Mirror Mat Base
S7	SPAKPA904WJZZ	–		–	Mirror Mat Support
S8	SPAKXC172WJZZ	–	N	–	Buffer Material (Top/Bottom)
S9	SPAKXC173WJZZ	–	N	–	Buffer Material (Top Center)
S10	SPAKXC174WJZZ	–	N	–	Buffer Material (Bottom Center)
S11	SSAKAA009WJZZ	–		–	Polyethylene Bag
S12	SSAKAA111WJZZ	–		–	Polyethylene Bag
S13	TLABM5584BMZZ	–		–	Case Label
[10] SERVICE JIGS					
N	QCNW-G616WJQZ	BK		J	Main-LCD Control (LW)
N	QCNW-H347WJQZ	AY		J	Main-LCD Control (LP)
N	QCNW-H348WJQZ	AW		J	MAIN-LED (RA)
N	QCNW-H185WJQZ	AV		J	MAIN-POWER (LB)
N	QCNW-H184WJQZ	AX		J	Main-Power (PD)
N	QCNW-G445WJQZ	AP		J	Main-Speaker (SP)
N	QCNW-G440WJQZ	AP		J	Main-Key (KM)
N	QCNW-G625WJQZ	AP		J	Main-Power (PL)
N	QCNW-J014WJQZ			J	Main-Power (LB1)
N	QCNW-J015WJQZ			J	Power-Inverter (LB2)
N	QCNW-J016WJQZ			J	Power-Inverter (LA)

SHARP

COPYRIGHT © 2008 BY SHARP CORPORATION

ALL RIGHTS RESERVED.

No Part of this publication may be reproduced,
stored in a retrieval system, or transmitted in
any from or by any means, electronic, mechanical,
photocopying, recording, or otherwise, without
prior written permission of the publisher.

Oct. 2008
TQ2618-S SH. DS

SHARP CORPORATION
AV Systems Group
CS Promotion Center
Yaita,Tochigi 329-2193, Japan