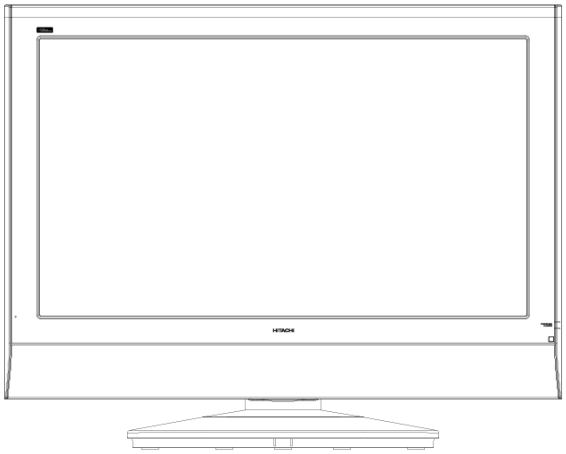
# HITACHI

YK | No.027E

# SERVICE MANUAL

# 26LD8000TA 2



## Caution

Be sure to read this manual before servicing. To ensure safety from fire, electric shock, injury, harmful radiation and materials, various measures are provided in this Plasma Monitor.
Be sure to read cautionary items described in the manual before servicing.
These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that described in the operating instructions unless you are qualified to do so.

## Service Warning

1. Since the Panel Module and the front Filter are made of glass, handling the broken Module and Filter carefully and with caution in order not to receive injury.
2. Replacement work should be started after the Panel Module and the AC/DC Power supply have become sufficiently cool.
3. Special care should be taken when working near the display area in order not to damage its surface.
4. The Panel Module should not be touched with bare hands in order to protect its surface from blemishes and damage.
5. It is recommended that you use clean soft gloves during the replacement work in order to protect not only the display area of the Panel Module but also yourself.

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**SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.**

# LCD Display


**January 2006** Digital Media Division

# CAUTION FOR SAFETY

Please read this page before repair the monitor.
This page explains to following items for keep the safety of set and prevent to accident during repair work.

● **We explain by symbol at happen the damage or injury when took wrong repair.**

| | |
|---|---|
| ⚠ **Warning** | This symbol means **"possible to die or heavy damage"** |
| ⚠ **Caution** | This symbol means **"possible to damage or something will break"** |

● **We made the symbol as below, which are kind of following items.**

| | |
|---|---|
| ⚠ | This symbol means **"CAUTION"** |
| ⚠ | This symbol means **"POSSIBLE to ELECTRIC SHOCK"** |

| | |
|---|---|
| ❗ | This symbol means **"MUST"** |
| ⃠ | This symbol means **"DO NOT"** |

## ⚠ WARNING

■ **Should be follows to instructions.**

We indicates to cabinet, chassis and parts by label, which are special attention part.
Please follow to note and [Safety Instructions] of User's Manual.

■ **Prevent the electric shock.**

Please take care during working because monitor has high voltage part and power supply part.
Possible to die if you touch to these place by miss take.
Please disconnect power plug during overhaul, reassemble or change parts.
You will die or take damage by electric shock if you touch to live part.

■ **Use recommended components.**

Please use to same characteristic component, which is same as previous for your safety and keep reliability especially marked by ⚠ in parts list and circuit diagram.
It is reason of electric shock or fire if you use non-recommended component.

■ **Should be kept same style of wiring or component.**

Monitor uses tubes or tapes, which made by insulator, and some components are keep distance from surface of PWB for safety.
Internal leads kept from hot part or high voltage part by clamper or styling, so please return to original condition for prevent to electric shock or fire.

■ **Should be done safety check after finished.**

Every part (removed screws, component and wiring) should be returned to previous condition.
Check around repair position for make damage by miss take and measure the insulated impedance by meg-ohm meter.
Confirm the value of impedance, that value is more than 4M ohm.
It is reason for electric shock or fire if that value is less than 4M ohm.

■ **Nobody can check and repair to the code and combination circuit of HDCP.**

Never remove the shield case, which is assembled to the code and combination circuit of HDCP.

## PRECAUTIONS

- **Cleaning the TV’s LCD screen panel**

Before cleaning the TV, turn it off and disconnect the power plug from the power outlet. To prevent scratching or damaging of the LCD screen face, do not knock or rub the surface with sharp or hard objects. Clean the screen with a soft cloth moistened with warm water and dry with a second soft cloth. If it is not enough, then use a cloth with mild detergent. Do not use harsh or abrasive cleaners.

- **Cleaning the TV's cabinet**

Use a soft cloth to clean the TV's cabinet and control panel. When excessively soiled, dilute a neutral detergent in water, wet and wring out the soft cloth in it, gently clean the cabinet, and then wipe it down with a dry soft cloth.
Never use acid/alkaline detergents, alcoholic detergents, abrasive cleaners, powder soaps, OA cleaners, car wax, glass cleaners, and so on. They will cause discoloration, scratches or cracks.

# *1. Features*

- **Enhanced definition LCD display panel**

The 26-inch color LCD display panel, with a resolution of 1366 (H) x 768(V) pixels, creates a widescreen picture. This panel features a thin form factor and can be hung on a wall with an optional wall mounting kit.

- **High Performance Digital Processor**

This panel displays a wide range of personal computer signals from 640 x 480, 800 x 600 SVGA to 1280 x 768 WXGA.(RGB Analog input).

- **Easy-to-use remote control and on-screen display system**

The included remote control operates all TV functions. Futhermore, the on-screen display system shows the status of the control settings in an easy-to-view fashion.

- **Power saving system**

When connected to a VESA DPMS-compliant PC, the TV cuts its power consumption while idle.

# 2. Specifications

| | | |
|---|---|---|
| Panel | Display dimensions | Approx. 26.005nches (604 (H) x 323 (V) mm, diagonal 600.53mm) |
| | Resolution | 1366 (H) x 768 (V) pixels |
| Net dimensions | | 661.9 (W) x 522.5 (H) x 266.9(D) mm (With Base) |
| Net weight | | 18 kg (With Base) |
| Ambient conditions | Temperatur | Operating: 0°C to 40°C, Storage: -15°C to 50°C |
| | Relative umidity | Operating: 20% to 80%, Storage: 20% to 90% (non-condensing) |
| Power supply | | AC100 - 240V, 50/60Hz |
| Power consumption/at standby | | <120W / <1W |
| Audio output | | Build in 10W + 10W (4 Ω) |
| (RGB input) | | |
| Input signals | Input terminals | RGB1-VGA audio input terminal (3.5mm Stereo Mini Jack)<br>RGB1-VGA analog RGB input terminal (D-sub 15-pin) |
| | Video signals | 0.7 V |
| | Sync signals | H/V separate, TTL level [2kΩ ]<br>H/V composite, TTL level [2kΩ ]<br>Sync on green, 0.3 Vp-p [75Ω] |
| Recommended signal | | 5 modes |
| (Video input) | | |
| Input signals | Input terminals | AV1 : Component input (Y-PbPr/Y-CbCr) (RCA)<br>AV1 : L/R audio input terminal(RCA)AV1 : L/R audio input terminal(RCA)<br>AV2 : Component input (Y-PbPr/Y-CbCr) (RCA)<br>AV2 : L/R audio input terminal(RCA)AV1 : L/R audio input terminal(RCA)<br>AV3 : Composite video input terminal(RCA)<br>AV3 : S video input teminal<br>AV3 : L/R audio input terminal(RCA)<br>AV4 : Composite video input terminal(RCA)<br>AV4 : S video input teminal<br>AV4 : L/R audio input terminal(RCA) |
| | Video signals | AV1 : NTSC-M / PAL<br>AV2 : NTSC-M / PAL<br>AV3 : NTSC-M / PAL / SECAM<br>AV4 : NTSC-M / PAL / SECAM |
| Video output Signal | | OUTPUT(TV): composite video TV-output terminal (RCA)<br>OUTPUT(TV): L/R audio TV- output terminal (RCA) |
| Recommended signal | | 5 modes |
| **(TV RF input)** | | |
| Input signals | Input terminals | Analog RF input terminal (NTSC/PAL/SECAM) |

- It takes at least 30 minutes to attain the maximum picture quality.

Applicable video signals for each input terminal

| Signal Type / Terminal | RCA | | | D-sub | Remarks |
|---|---|---|---|---|---|
| | Composite | S-video | component | RGB | |
| AV1 | | | ○ | | 480i/480p/1080i/720p inputs (PAL). |
| AV2 | | | ○ | | 480i/480p/1080i/720p inputs (PAL). |
| AV3 | ○ | ○ | | | |
| AV4 | ○ | ○ | | | |
| RGB | | | | ○ | |

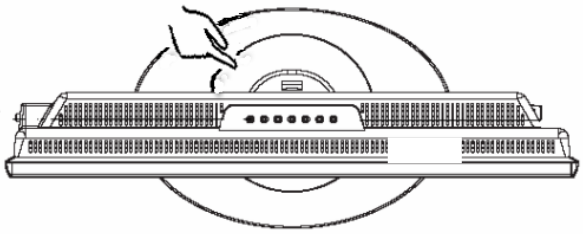
(○: Avaliable)

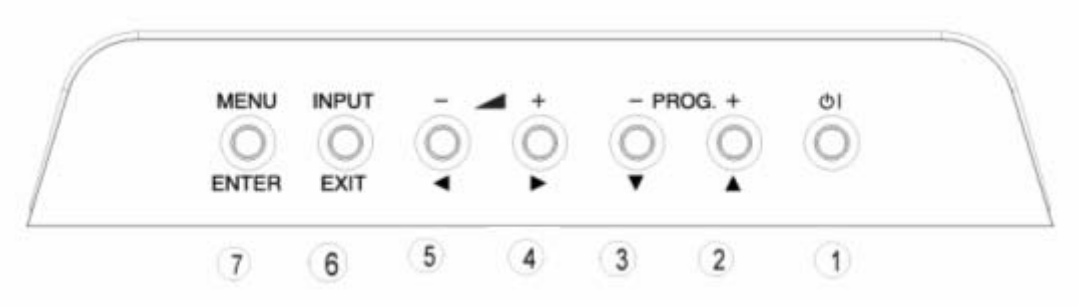
# 3..Component names

➢ [Main unit]

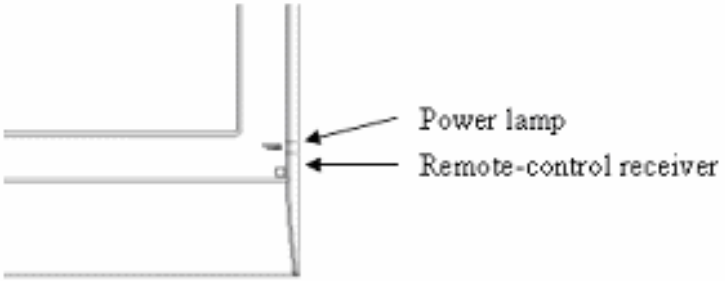
**Control panel**

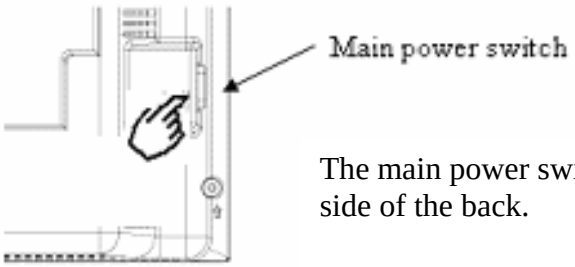
- An Adjustment buttons are located on the top of the control panel
- Indications for each button's function can be found on the inside of the control panel cover.





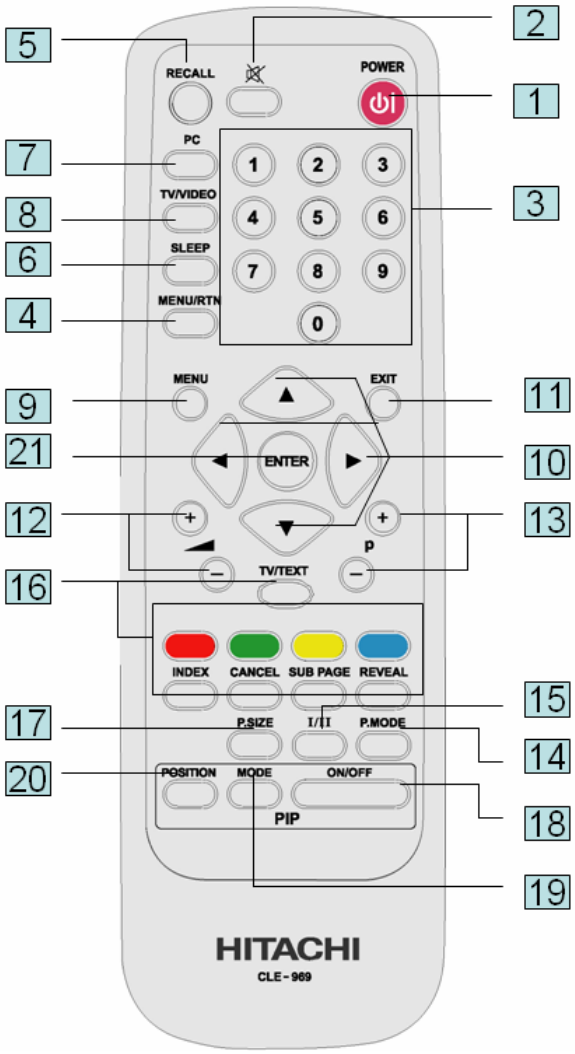

| | | |
|---|---|---|
| 1. SUB-POWER | 4. VOL ▶ | 7.MENU |
| 2. PROGRAM ▲ | 4. RIGHT▶ | 7.ENTER |
| 2. UP ▲ | 5. VOL ◀ | |
| 3. PROGRAM ▼ | 5. LEFT ◀ | |
| 3. DOWN ▼ | 6. INPUT | Normal Button Action |
| | 6.EXIT | Button Action when MENU engaged |




The main power switch is located at the right side of the back.

➢ [Remote Control]




1. Power Button
2. Mute Button
3. Number Buttons
4. Return Button
5. Recall Button
6. Sleep Time Button
7. PC Source Button
8. TV/VIDEO Source Button
9. Menu Button
10. Up/Down/Left/Right Button
11. Exit Button
12. Volume (+/-) Button
13. Channel (+/-) Button
14. P. Mode Button
15. I/II Button
16. Tele Text Buttons
17. P.Size Button
18. Multi Picture ON/OFF Button
19. Multi Picture Mode change Button
20. PIP Position Button
21. ENTER Button

# 4.Service points

- **Lead-free solder**

This product uses lead-free solder (unleaded) to help protect the environment. Please read these instructions before attempting any soldering work.

**Caution:** Always wear safety glasses to prevent fumes or molten solder from getting into the eyes. Lead-free solder can splatter at high temperatures (600℃).

■ **Lead-free solder indicator**

Printed circuit boards using lead-free solder are engraved with an label.

■ **Properties of lead-free solder**

The melting point of lead-free solder is 40-50℃ higher than leaded solder.

■ **Servicing solder**

Solder with an alloy composition of Sn-3.0Ag-0.5Cu or Sn-0.7Cu is recommended. Although servicing with leaded solder is possible, there are a few precautions that have to be taken. (Not taking these precautions may cause the solder to not harden properly, and lead to consequent malfunctions.)

### Precautions when using leaded solder

- Remove all lead-free solder from soldered joints when replacing components.
- If leaded solder should be added to existing lead free joints, mix in the leaded solder thoroughly after the lead-free solder has been completely melted (do not apply the soldering iron without solder).

■ **Servicing soldering iron**

A soldering iron with a temperature setting capability (temperature control function) is recommended.
The melting point of lead-free solder is higher than leaded solder. Use a soldering iron that maintains a high stable temperature (large heat capacity), and that allows temperature adjustment according to the part being serviced, to avoid poor servicing performance.

### Recommended soldering iron:

- Soldering iron with temperature control function (temperature range: 320-450℃)

Recommended temperature range per part:

| Part | Soldering iron temperature |
|---|---|
| Mounting (chips) on mounted PCB | 320℃±30℃ |
| Mounting (chips) on empty PCB | 380℃±30℃ |
| Chassis, metallic shield, etc. | 420℃±30℃ |

(1) IR PWB, KEY PWB, **The PWB assembly which has used lead free solder**

(2) MAIN PWB

(3) POWER BOARD

# 5.Adjustment

## 5.1 SERVICE (FACTORY) MODE ACCESS

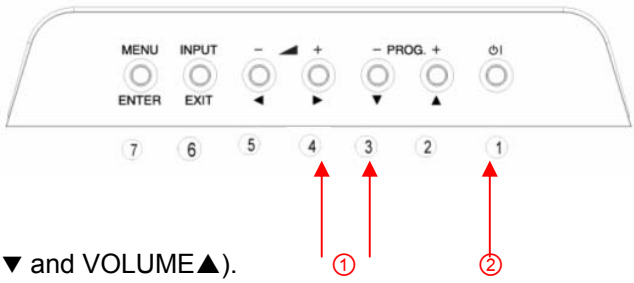
This model has a Factory Mode, where the technician can access and adjust some of the color temperature settings. The Factory Mode has several different appearances, depending on the input signal.

| Picture Setting for Factory Model | NTSC |
|---|---|
| Table1 | TV |
| Table2 | AV (composite)/SV(S-Video) |
| Table3 | SV(S-video) |
| Table4 | 480i(component) |
| Table5 | 480p(component) |
| Table6 | 1080i/60(component) |
| Table7 | 720P/60(component) |

| Picture Setting for Factory Model | PAL |
|---|---|
| Table1 | TV |
| Table2 | AV (composite)/SV(S-Video) |
| Table3 | SV(S-video) |
| Table4 | 576i(component) |
| Table5 | 576p(component) |
| Table6 | 1080i/50(component) |
| Table7 | 720P/50(component) |

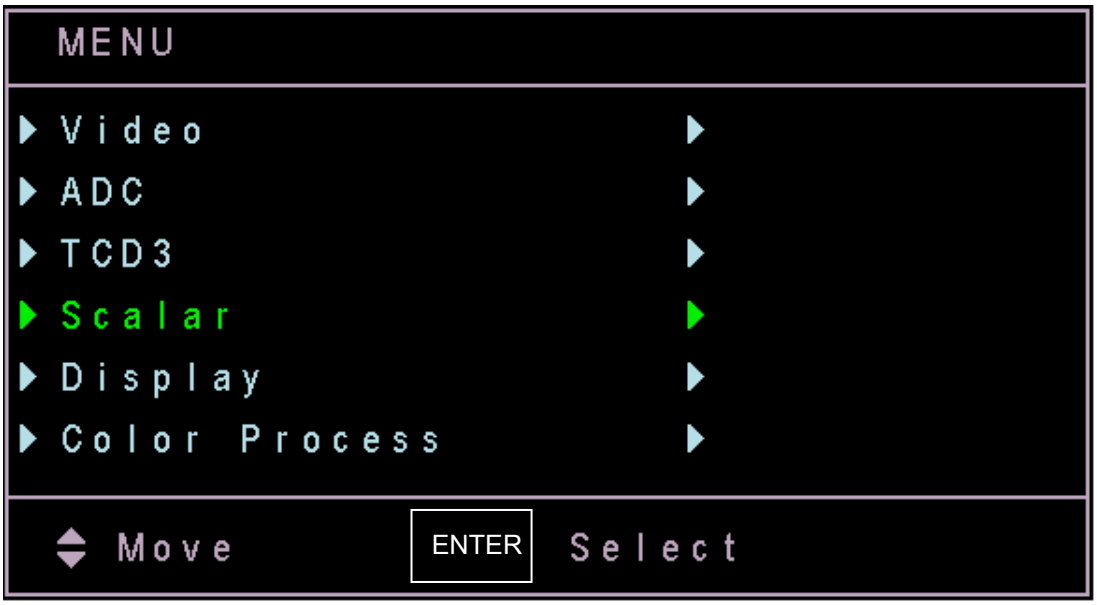
Preliminary

1. To access the Factory Mode, the TV must be running.



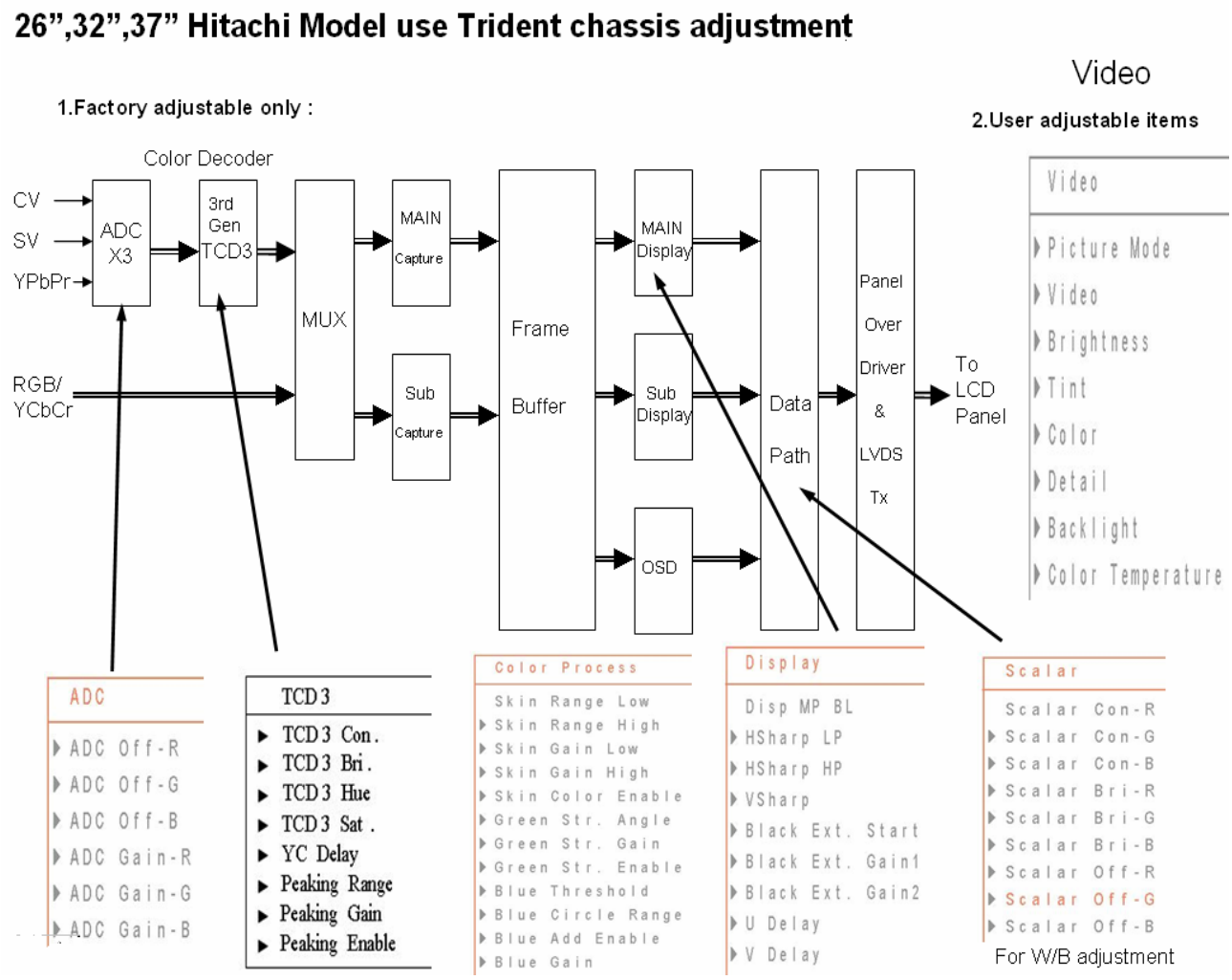

Procedure

2. Press and hold the #3 and #4 button (PROGRAM ▼ and VOLUME▲).
3. While continuing to hold the #3 and #4 button, press and hold the #1 button (SUB-POWER).
4. After both buttons have been held down for five (5) seconds, first release the #1 button, then release the #3 and #4 button.
5. As stated previously, the input that the TV had selected at the time will determine which actual FACTORY MODE display will show up. (See next page)




- **FACTORY MODE NAVATION**

To navigate through the different menu items, use the ▲ or ▼ button on the remote control. The menu items will be high-lighted green as navigation occurs. To access a particular adjustment parameter, use the "ENTER" button on the remote control, which will cause a new menu to appear. To back up from the FACTORY MODE, use the RETURN or EXIT button on the remote control. To leave the FACTORY MODE, press POWER button on the remote control.



| Menu | Function | Description |
|---|---|---|
| Video | | |
| __ | Picture Mode | OSD menu video mode default setting |
| __ | Picture | Display Contrast adjustment ( Back- end ) |
| __ | Brightness | Display Brightness adjustment ( Back- end ) |
| __ | Tint | Display Hue adjustment ( Back- end ) |
| __ | Color | Display Saturation adjustment ( Back- end ) |
| __ | Detail | Display Sharpness adjustment ( Back- end ) |
| __ | Backlight | LCD backlight control ( Back- end ) |
| __ | Color Temperature | Color temperature default setting ( High or Low ) |
| ADC | | |
| __ | ADC Gain - R | ADC input signal gain adjustment ( R/Pr ) , For D1 ~ D4 and PC only |
| __ | ADC Gain - G | ADC input signal gain adjustment ( G/Y ) , For D1 ~ D4 and PC only |
| __ | ADC Gain - B | ADC input signal gain adjustment ( B/Pb) , For D1 ~ D4 and PC only |
| TCD3 | | |
| __ | TCD3 Con. | Video decoder contrast adjustment ( Front- end ) |
| __ | TCD3 Bri. | Video decoder brightness adjustment ( Front- end ) |
| __ | TCD3 Hue | Video decoder Hue adjustment ( Front- end ) |
| __ | TCD3 Sat. | Video decoder Cr Saturation adjustment ( Front- end ) |
| __ | TCD3 Sat. | Video decoder Cb Saturation adjustment ( Front- end ) |
| __ | YC Delay | Video decoder YC delay adjustment ( Front- end ) |
| __ | Peaking Range | Video decoder sharpness peaking range ( Front- end ) Ypeak = Y + YH * (peak_gain/peak_range) where Y is the luma and YH is the high frequency luma only |
| __ | Peaking Gain | Video decoder sharpness peaking gain ( Front- end ) |
| __ | Peaking Enable | Video decoder sharpness peaking function enable ( Front- end ) |
| Scalar | | |
| __ | Scalar Con - R | Output R contrast factor adustment ( color temperature function ) Output R = (( 'Output R + (Scalar Off-R)) * (Scalar Con-R) + (Scalar Bri-R) |
| __ | Scalar Con - G | Output G contrast factor adustment ( color temperature function ) Output G = (( 'Output G + (Scalar Off-G)) * (Scalar Con-G) + (Scalar Bri-G) |
| __ | Scalar Con - B | Output B contrast factor adjustment ( color temperature function ) Output B = (( 'Output B + (Scalar Off-B)) * (Scalar Con-B) + (Scalar Bri-B) |
| __ | Scalar Bri - R | Output R brightness factor adustment ( color temperature function ) |
| __ | Scalar Bri - G | Output G brightness factor adustment ( color temperature function ) |

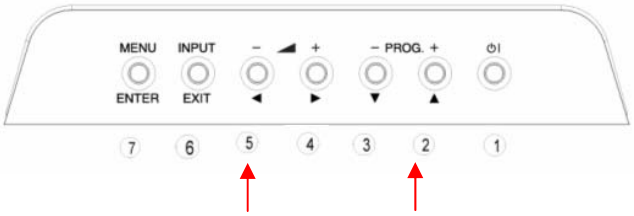
| | | |
|---|---|---|
| __ | Scalar Bri - B | Output B brightness factor adustment ( color temperature function ) |
| __ | Scalar Off - R | Output R offset factor adustment ( color temperature function ) |
| __ | Scalar Off - G | Output G offset factor adustment ( color temperature function ) |
| __ | Scalar Off - B | Output B offset factor adustment ( color temperature function ) |
| Display | | |
| __ | Disp MP BL | Display sharpness band pass gain of peaking adjustment ( Back- end ) , OSD sharpness adjustment item |
| __ | HSharp LP | Display sharpness low pass gain of peaking adjustment ( Back- end ) |
| __ | Hsharp HP | Display sharpness high pass gain of peaking adjustment ( Back- end ) , OSD sharpness adjustment item |
| __ | Vsharp | Display Vertical sharpness adjustment ( Back- end ) |
| __ | Black Ext. Start | Black stretch start-point control factor. Higher value means more black stretch ( Back- end ) |
| __ | Black Ext. Gain1 | Black stretch gain1 |
| __ | Black Ext. Gain2 | Black stretch gain2 |
| __ | U Delay | Display U delay ( comparing with Y ) |
| __ | V Delay | Display Y delay ( comparing with V ) |
| Color Process | | |
| __ | Skin Range Low | Skin color adjustment active range low |
| __ | Skin Range High | Skin color adjustment active range high |
| __ | Skin Gain Low | Skin color adjustment gain of range low |
| __ | Skin Gain High | Skin color adjustment gain of range high |
| __ | Skin Color Enable | Skin color adjustment function enable |
| __ | Green Str. Angle | Green stretch active range ( UV domain green color active angle ) |
| __ | Green Str. Gain | Green stretch gain |
| __ | Green Str. Enable | Green stretch function enable |
| __ | Blue Threshold | Blue add function active threshold |
| __ | Blue Circle Range | Blue add function active range |
| __ | Blue Add Enable | Blue add function enable |
| __ | Blue Gain | Blue add gain |

- **COLOR TEMPERATURE ADJUSTMENTS**

Following the procedures to make the color temperature adjustments. Note that a colorimetry meter (such as a Minolta CA-210) is required to measure the actual screen color temperature.
Low : x=0.301 +/- 0.01, y=0.314 +/- 0.01 = Color Temp.: 7500K
High : x=0.266 +/- 0.01, y=0.264 +/- 0.01 = Color Temp.: 15000K

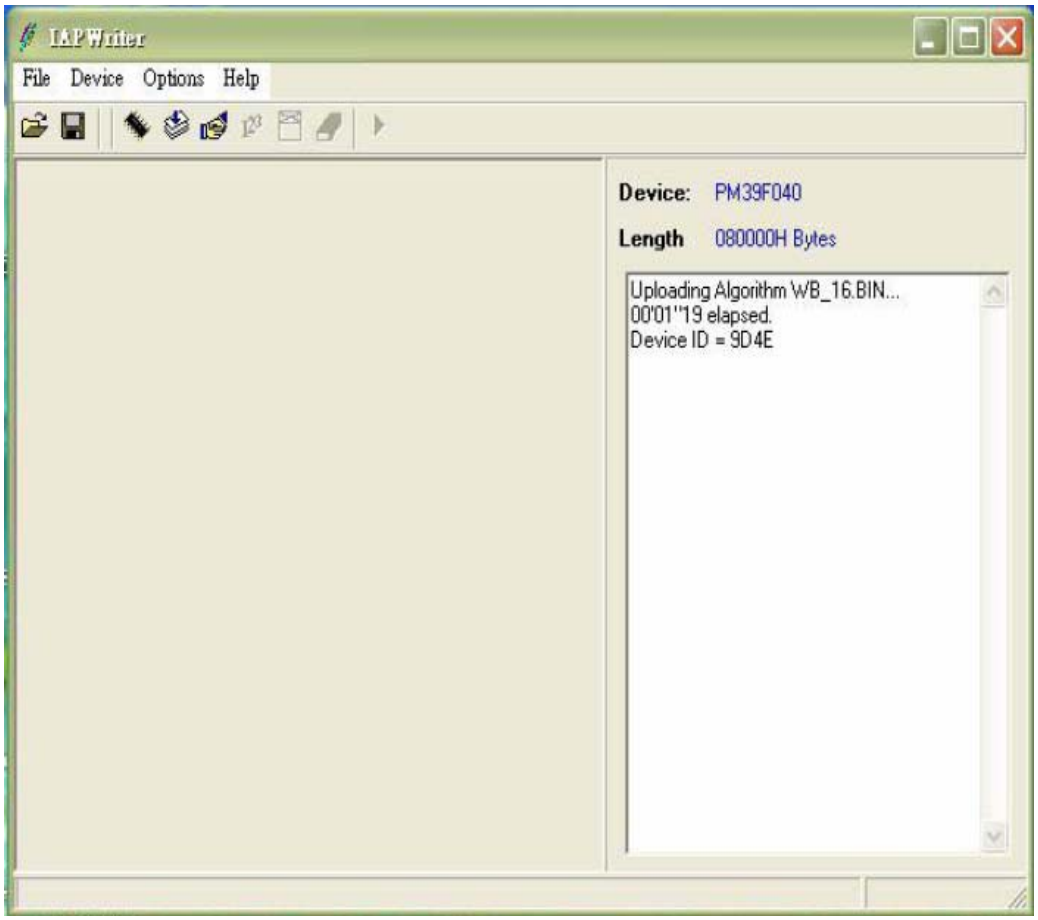
## 5.2 Firmware update

This model has a Debbug Mode, where the technician can debbug and update the firmware.
Preliminary
1.To access the Bebbug Mode, the TV must be running.

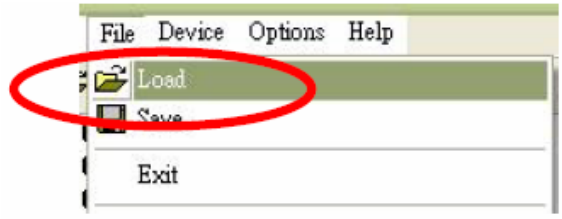


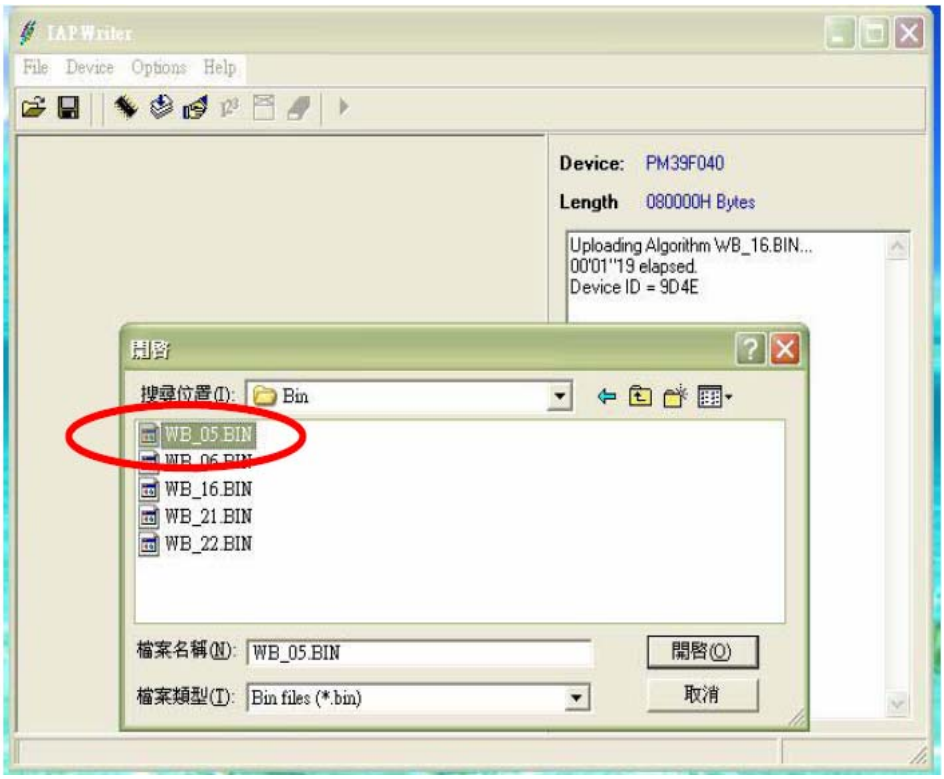

Procedure
2. Press and hold the #2 and #5 button (PROGRAM ▲ and VOLUME▼).
3. After both buttons have been held down for five (5) seconds, then release the #2 and #5 button.
4. Click IAPWriter.EXE

5. Following window will be shown after IAPWriter.EXE is executed.

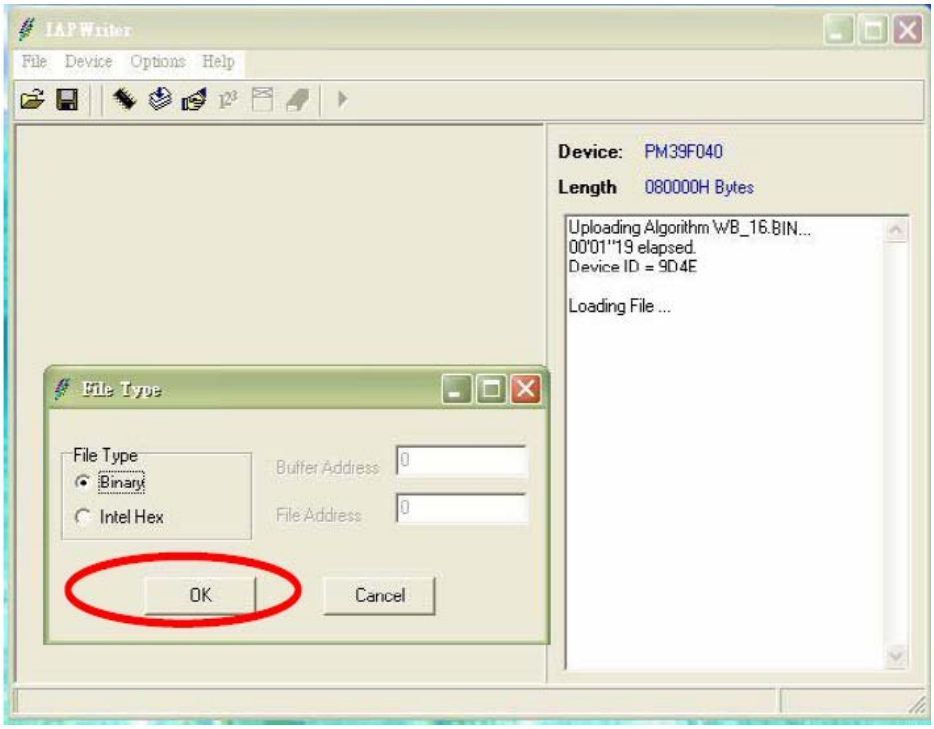


6. Load BIN file.

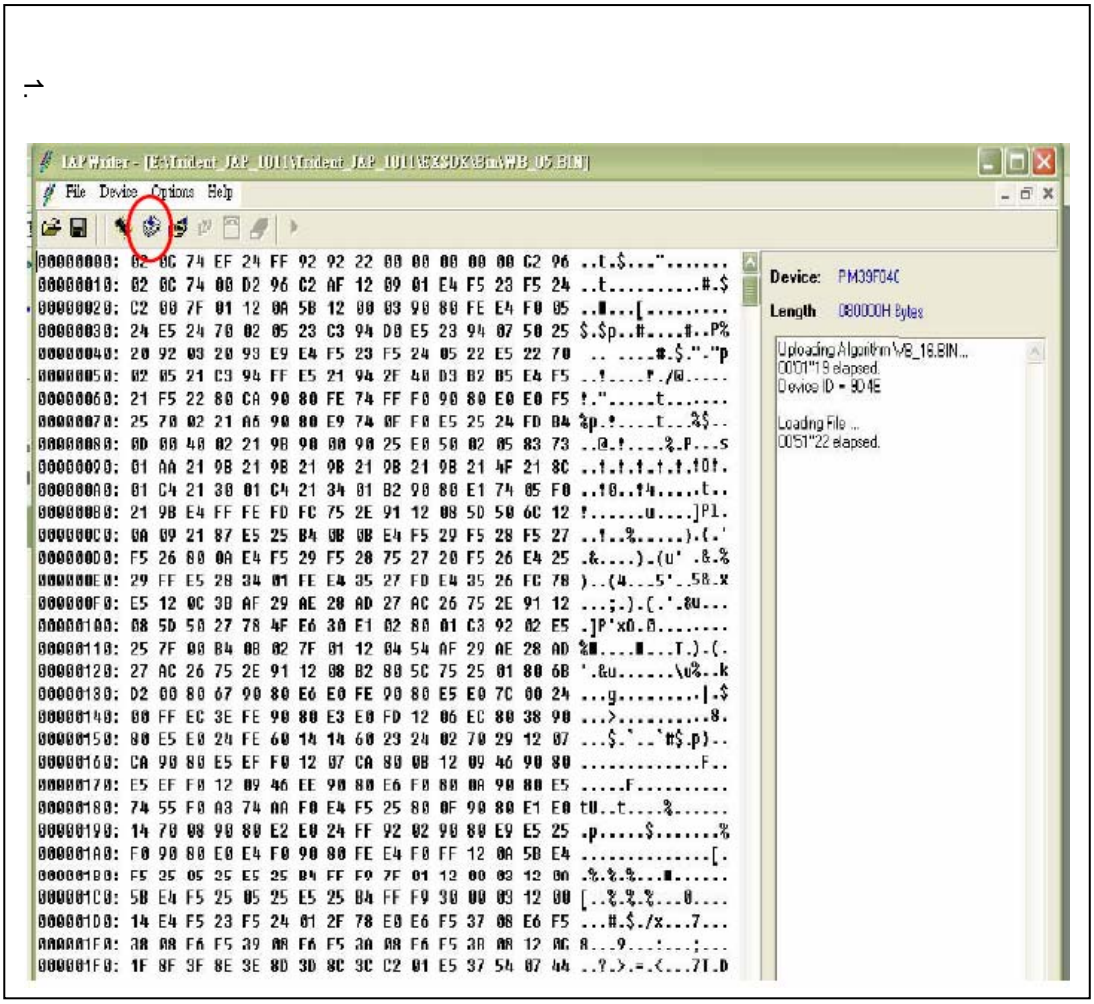



7. Click OK button



8. Click Write Device icon




9. IAP is finished while following massage is shown.

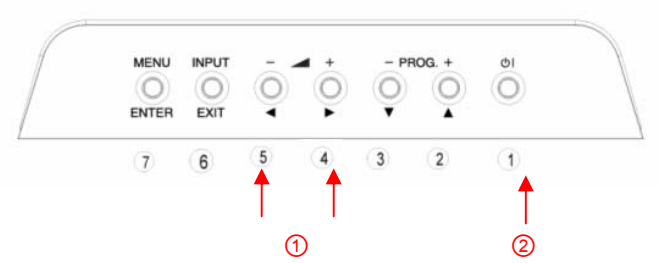
10. After IAP is done, please disconnect and reconnect AC power switch and do initialization.

## 5.3 Initialization

This model has a Initialization Mode, where the technician can initial the EEPROM.

Preliminary

1.To access the Bebbug Mode, the TV must be running.



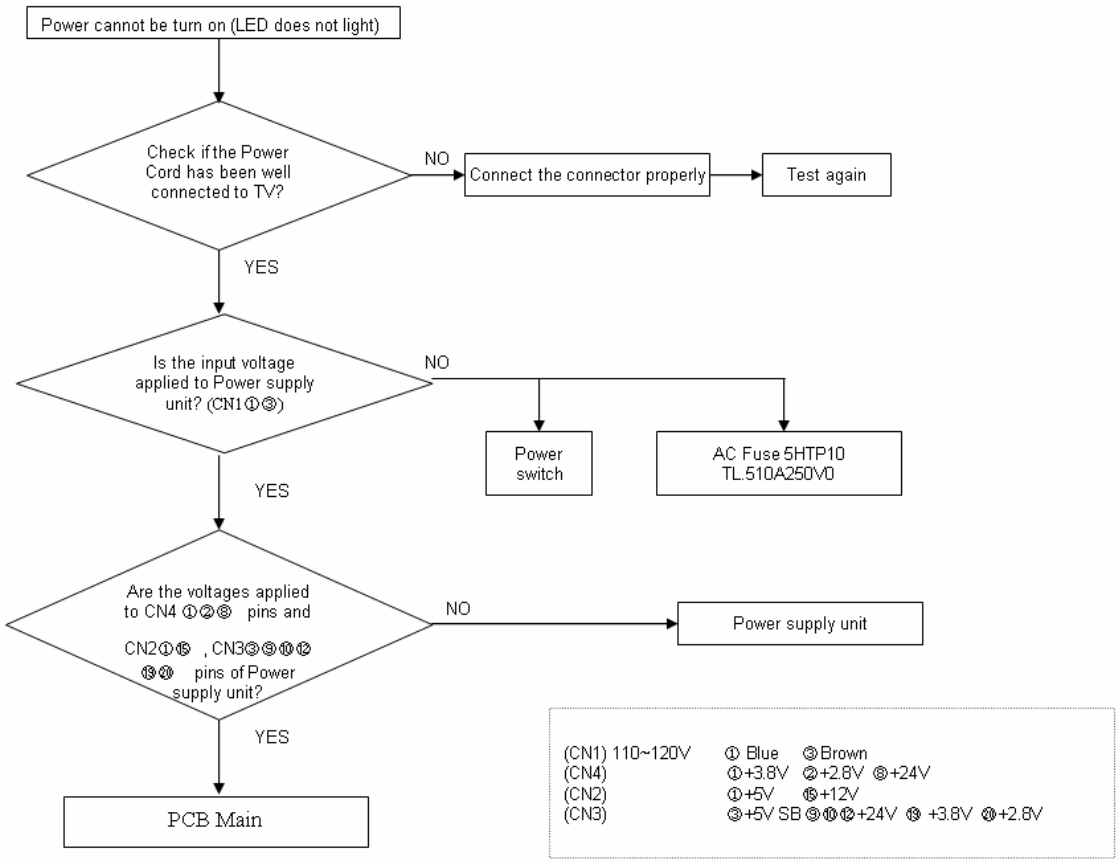

Procedure

6. Press and hold the #4 and #5 button (VOLUME▲ and VOLUME ▼).
7. While continuing to hold the #4 and #5 button, press and hold the #1 button (SUB-POWER).
8. After both buttons have been held down for five (5) seconds, first release the #1 button, then release the #4 and #5 button.
9. As stated previously, the input that the TV had selected at the time will determine which actual INITIALIZATION display will show up. (See below)

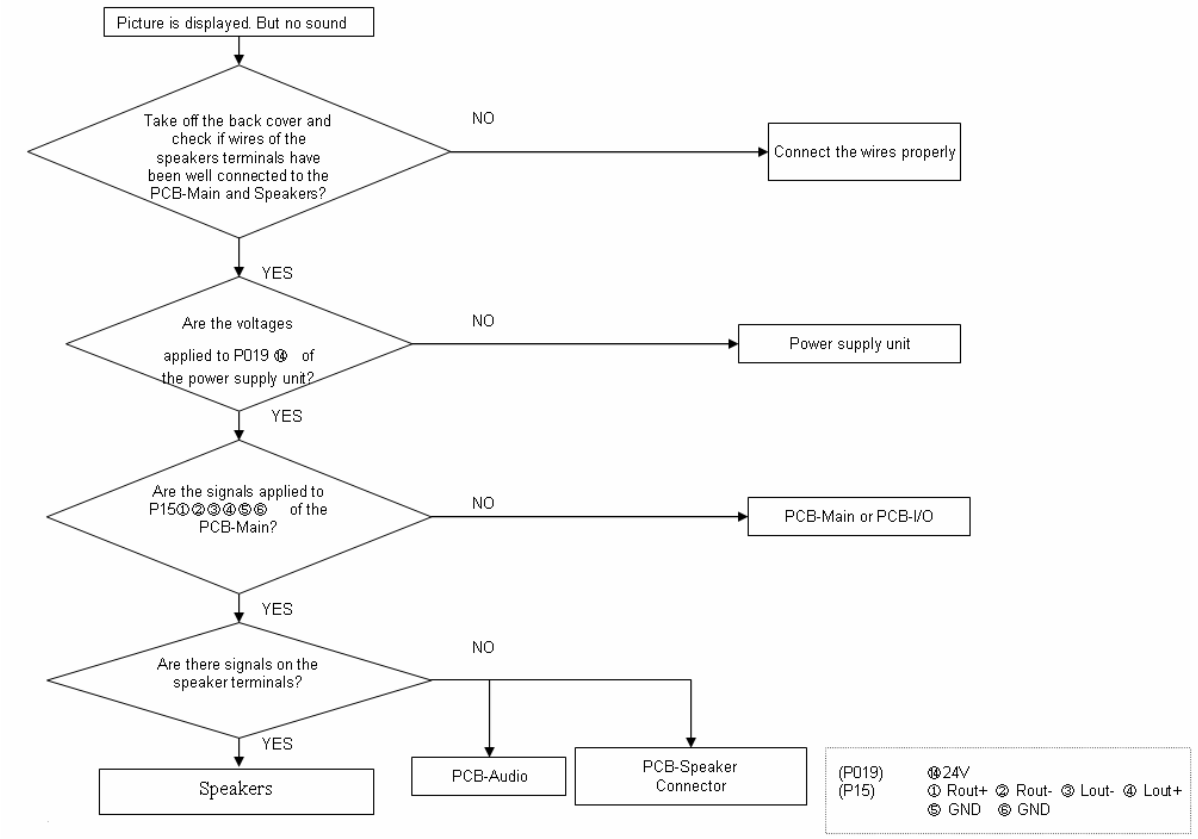
# 6.Troubleshooting

The flow chart shown below will help you to troubleshoot your TV set with it doesn't display normally. Each procedure offers a simple way to check for system errors. Before starting, ensure that there is a signal in and that the TV is turned on.

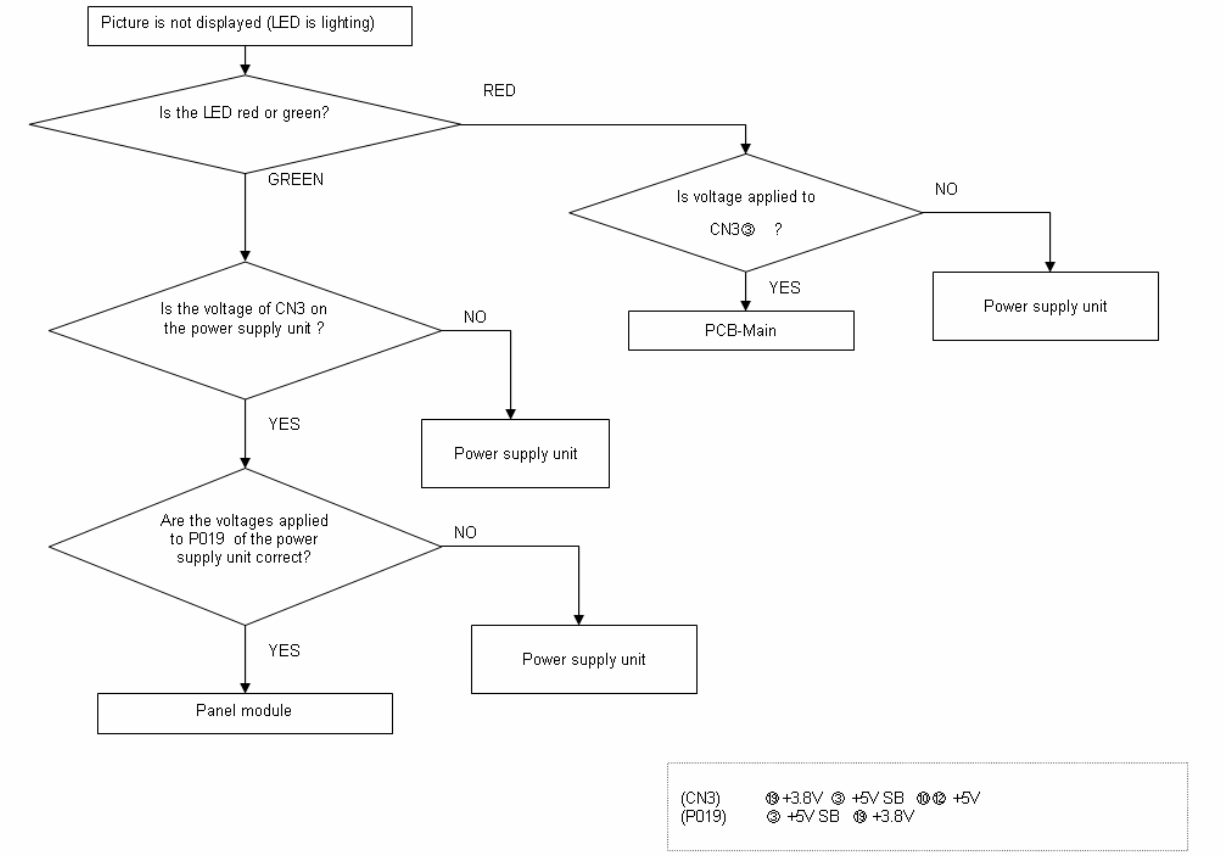
## • Power Turn On Issue



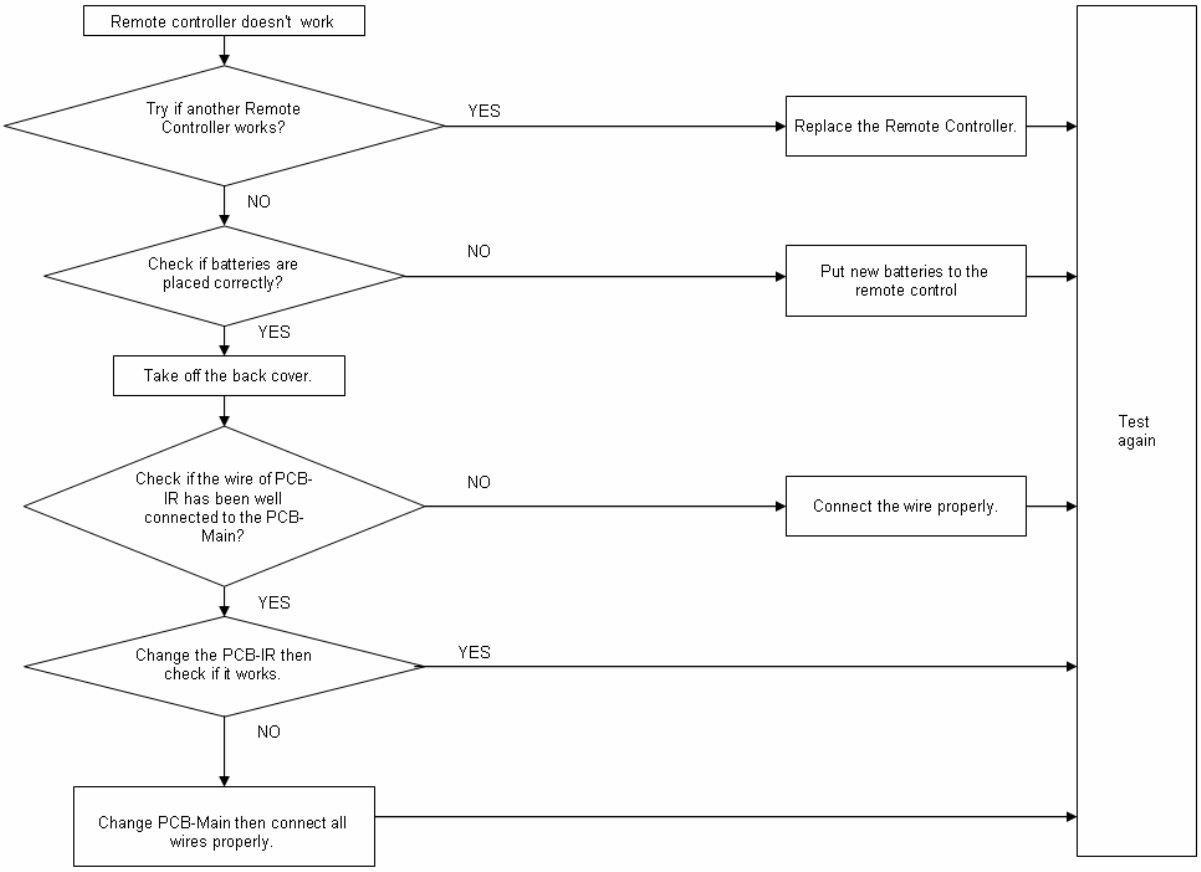
## • No Sound Issue



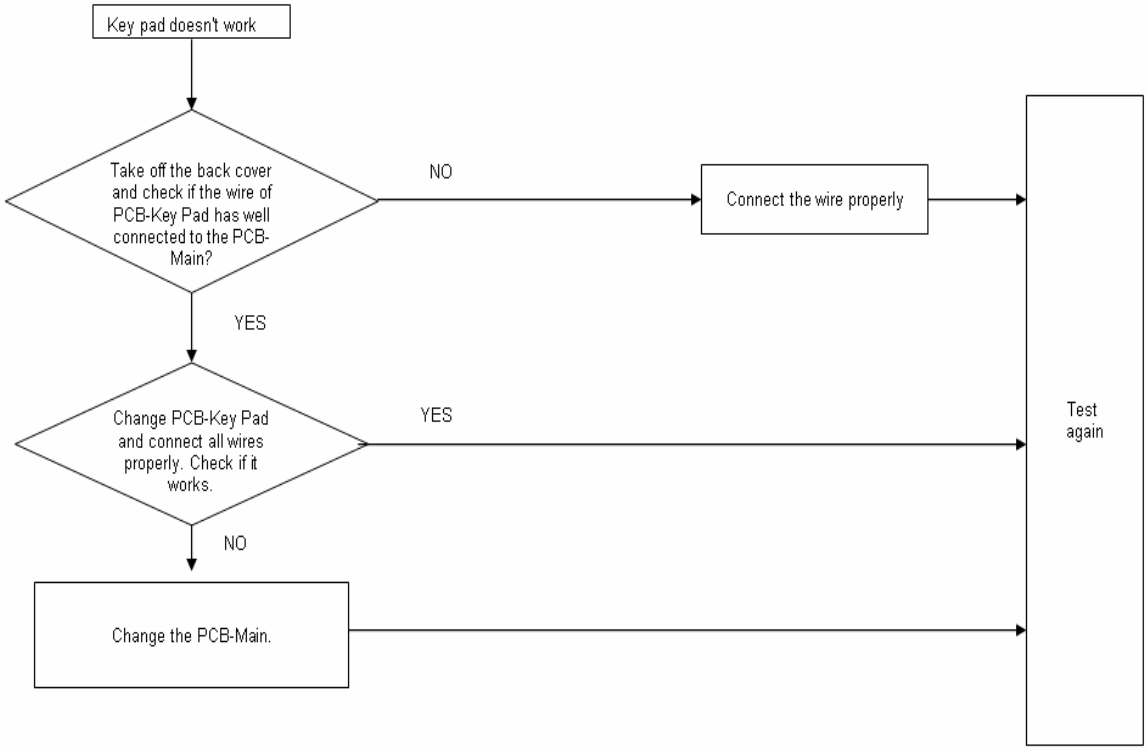

## • No Picture Issue



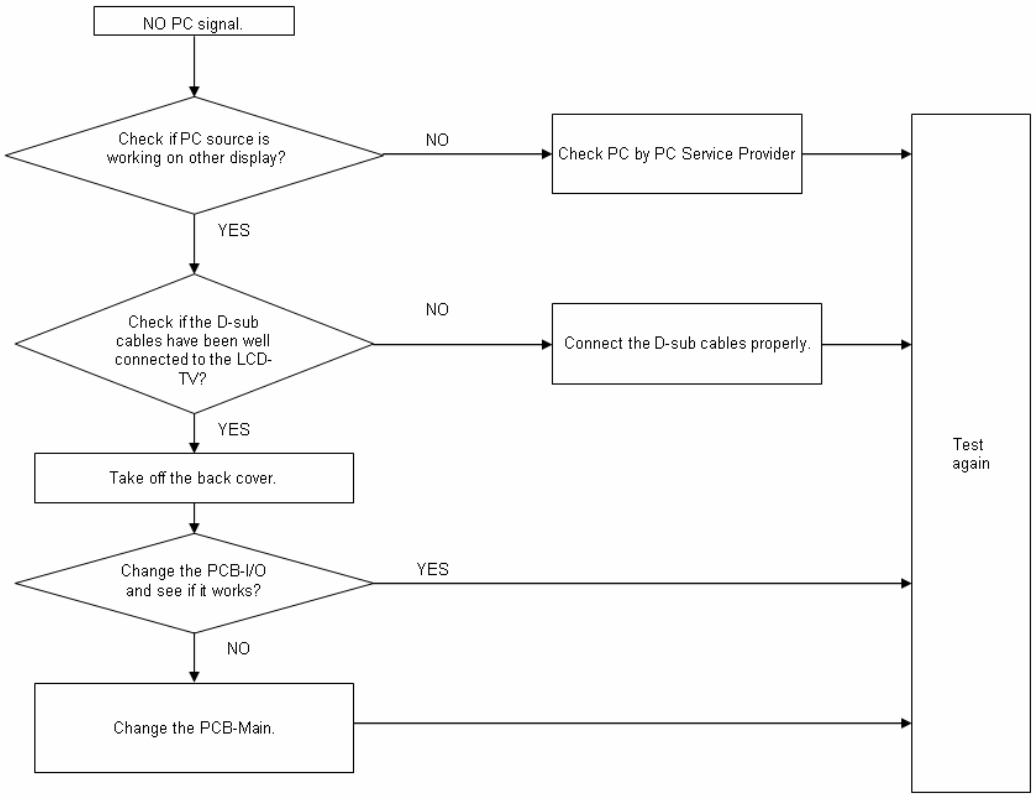
## • Remote Control doesn't Work



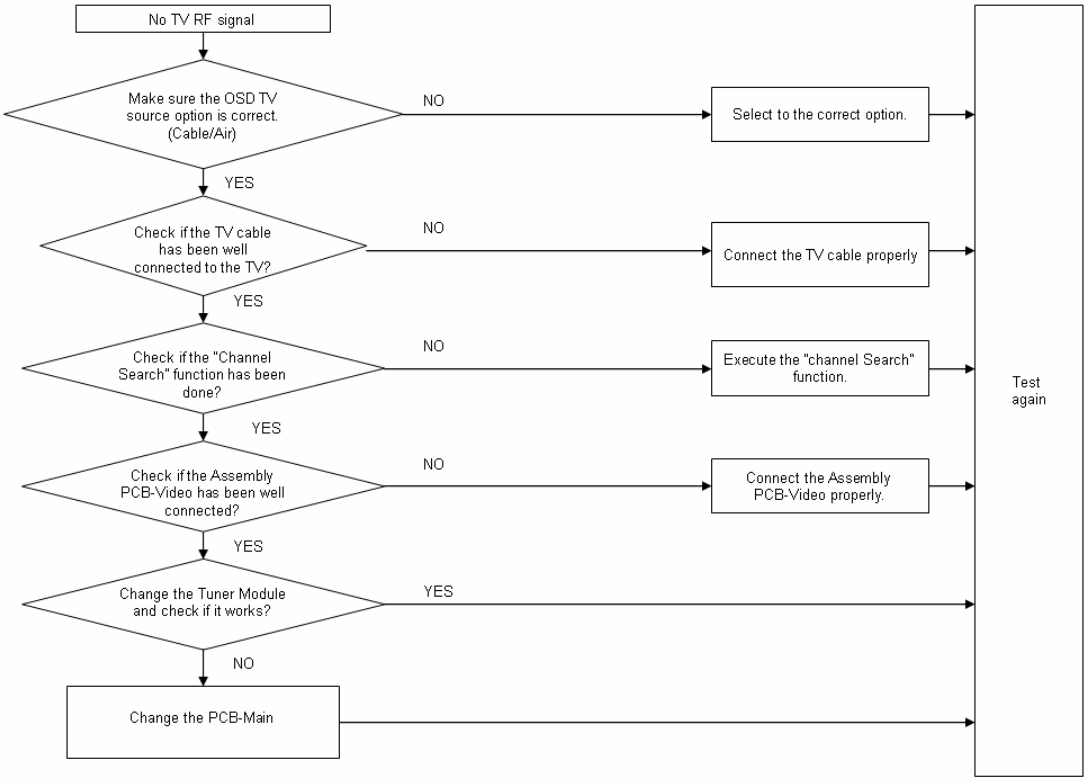

## • Key Pad doesn't Work



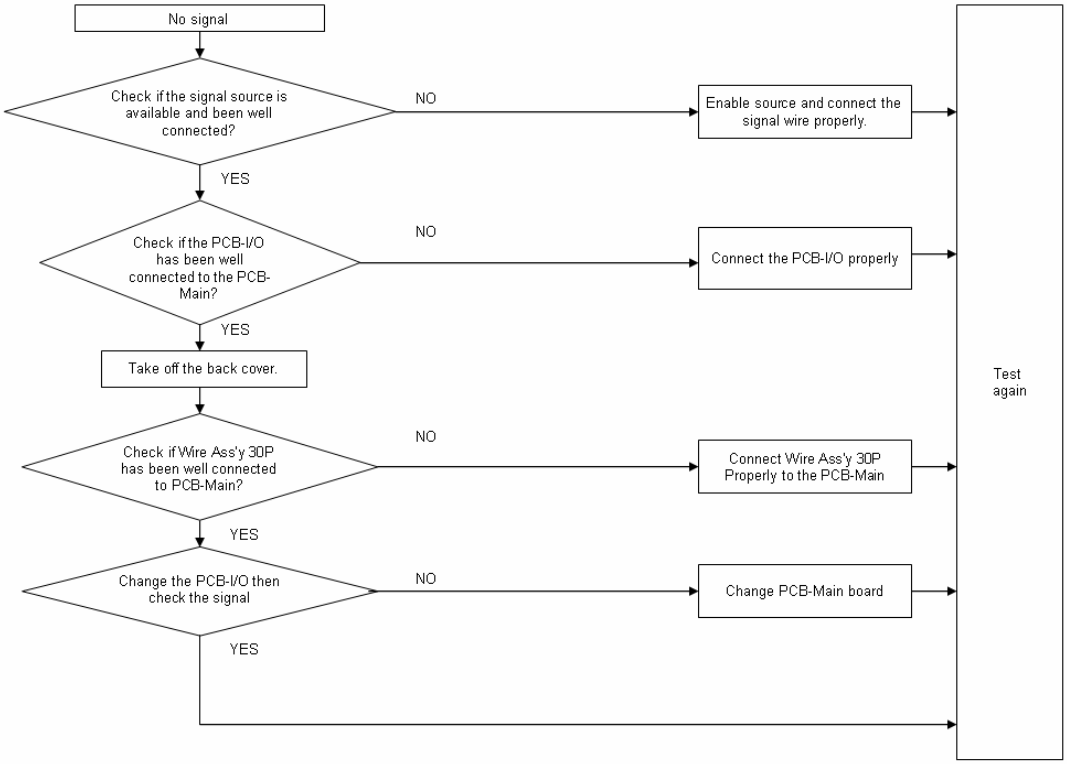
## • No PC Signal (Analog RGB)



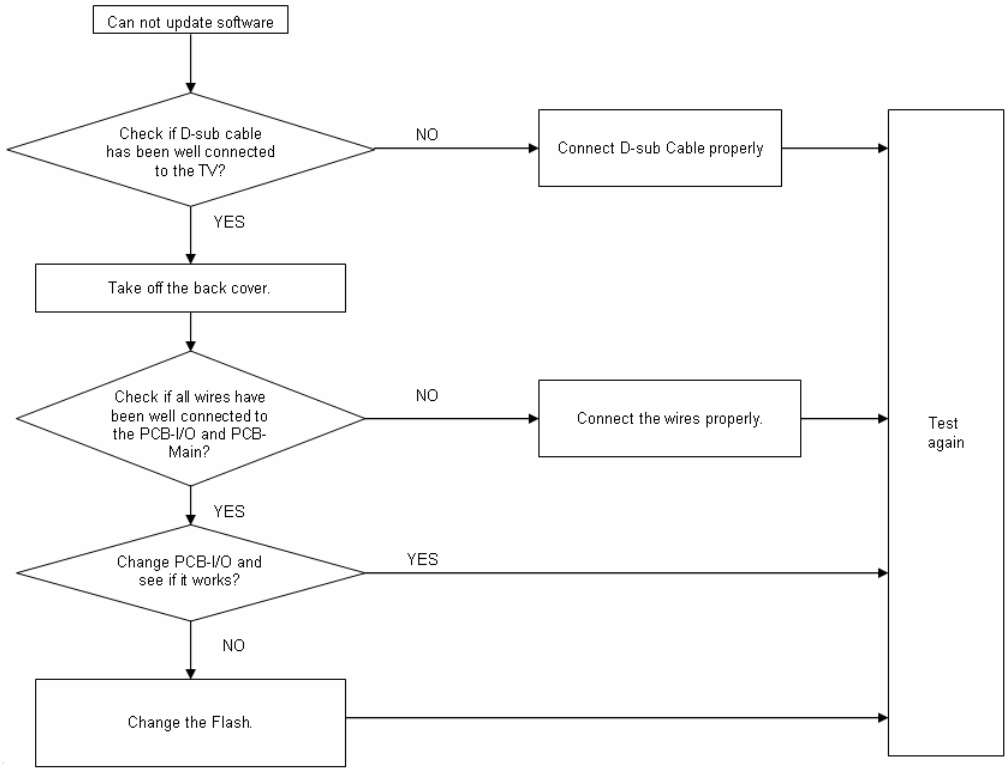

## • TV RF Source no Signal



## • No Signal Issue (Composite, Component)




## • Software can't be updates



# *7.Self Diagnosis Function*

If a problem arises while you are using the TV, please read this self diagram function guide carefully before you ask to have the TV repaired. You may be able to fix it easily by yourself. For example, if the mains plug is disconnected from the mains outlet, or the TV aerial has problems, you may think there is a problem with the TV itself.

**Important:**

- This self diagram function guide only covers problems whose causes are not easy to decide. If you have a question when you are operating a function, read the page(s) for that function carefully, not this self diagram function guide.
- If you follow the advice in this self diagram function guide without any success, unplug the mains plug and ask your TV to be repaired. Do not attempt tp repair the TV by yourself or to remove the rear cover of the TV.

**If you cannot turn on the TV:**

- Are the AC plug on the power cordfrom the TV is connected to AC outlet?

**Poor picture:**

- If noise totally blocks out the picture , there may be a problem with the aerial or the aerial cable. Check the following to try to solve the problem:
  - Have the TV and aerial been connected properly?
  - Has the aerial cable been damaged?
  - Is the aerial pointing in the right direction?
  - Is the aerial itself faulty?
- If the TV or aerial suffers interface from other equipment, stripes or noise may appear in the picture. Move any equipment such as an amplifier, personal computer, or a hair drier, that can cause interference away from your TV. Or try moving the TV. If the aerial suffers interference from a ratio tower or high-voltage wire, please contact your local dealer.
- If the TV suffers interference from signals reflecting from mountains or buildings, double-pictures(ghosting) will occur. Try to change the aerial's direction or replace it with one with better directionality.
- Have the COLOR and BRIGHT settings been adjusted properly?
- Videotaping teletext is not recommended because it may not record correctly.
- When viewing images from commercially available video software products, or videos from videotapes which have been recorded improperly, the top of the image may be distorted. This is due to the condition of the video signal. There is nothing wrong with the TV.

**Poor sound:**

- Have you adjusted BASS or TREBLE properly?

**If the TV does not respond to the remote control:**

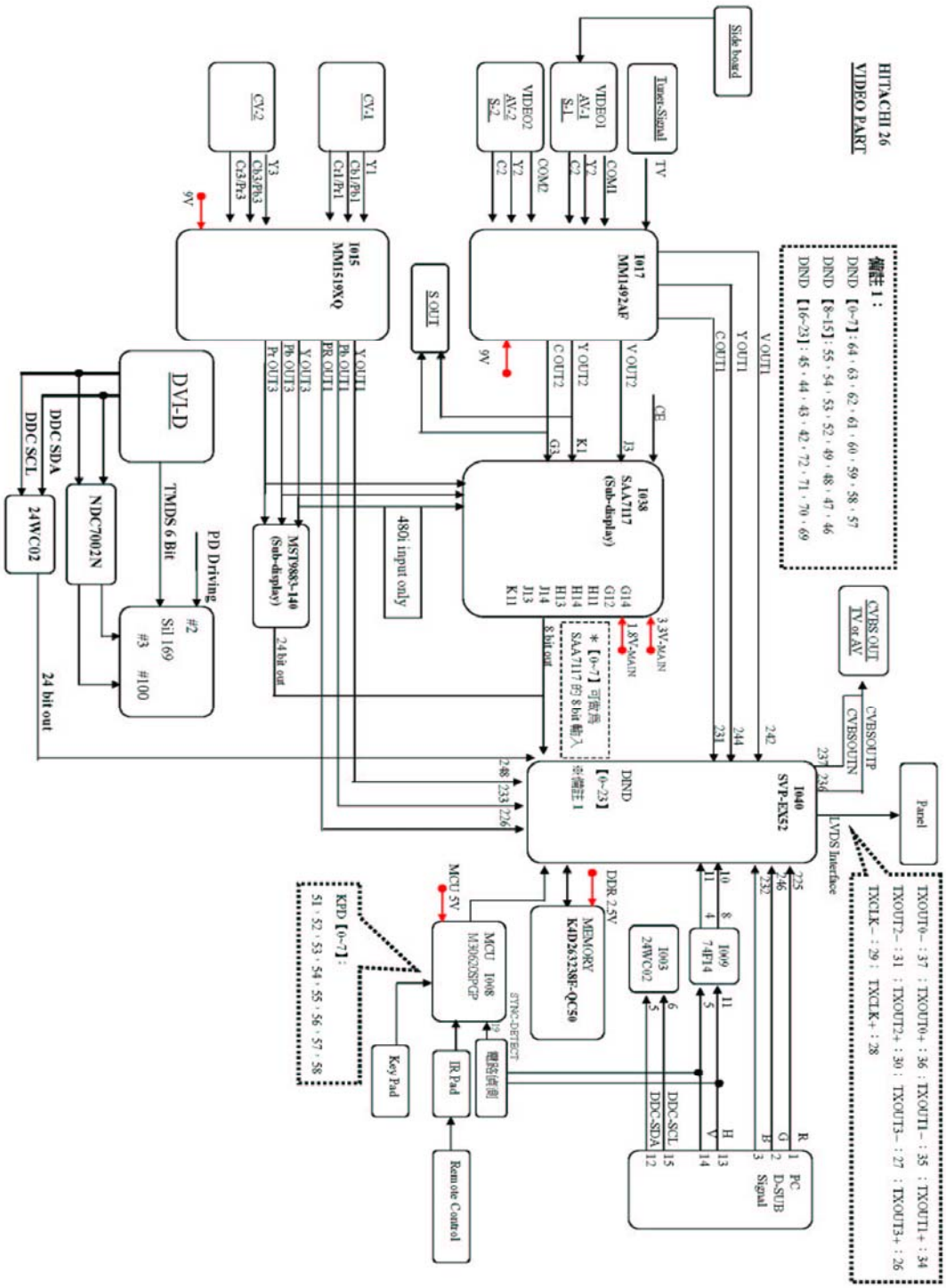
- Have the batteries of the remote control worn out?
- Have you attempted to use the remote control from the sides or rear of the TVor from more than seven metersaway from the TV? Use the remote control in the front of your TV or from less than seven meters away.
- If the TV suddenly stops responding, disconnect the power cord of the TV from the AC outlet. Connect them to the AC outlet again to turn on the TV. If the TV returns to a normal state, it is not a failure.

**Other concerns:**

- When the SLEEP TIMER function operates, the TV is auto matically turned off. If the TV suddenly turns off, try to press the standby button to turn on the TV once again. If the TV goes back to normal, there is no problem.
- It takes a short period of time from the time an operation such as changing channels is performed until an image is displayed. This is not a malfunction. This is the time required for the image to stabilize it can be displayed.
- The TV may make a crackling sound due to a sudden change in temperature. The picture or sound may be normal. If you hear crackling sounds frequently while you are viewing the TV, there may be other causes. As a precaution, ask your service technician to inspect it.
- The top of the TV and the screen may become hot during use but this has no effect on the performance of the TV. Ensure that the ventilation holes are not blocked.
- When the picture is unstable, the screen may become white for a moment. This occurs when the signal which drives the liquid crystal is missing. This is not a malfunction.
- When a still image has been displayed for a long period, a faint residual image may remain on the screen for a short time after the power has been turned off or when another image is displayed. This is not a malfunction and the image will eventually disappear.

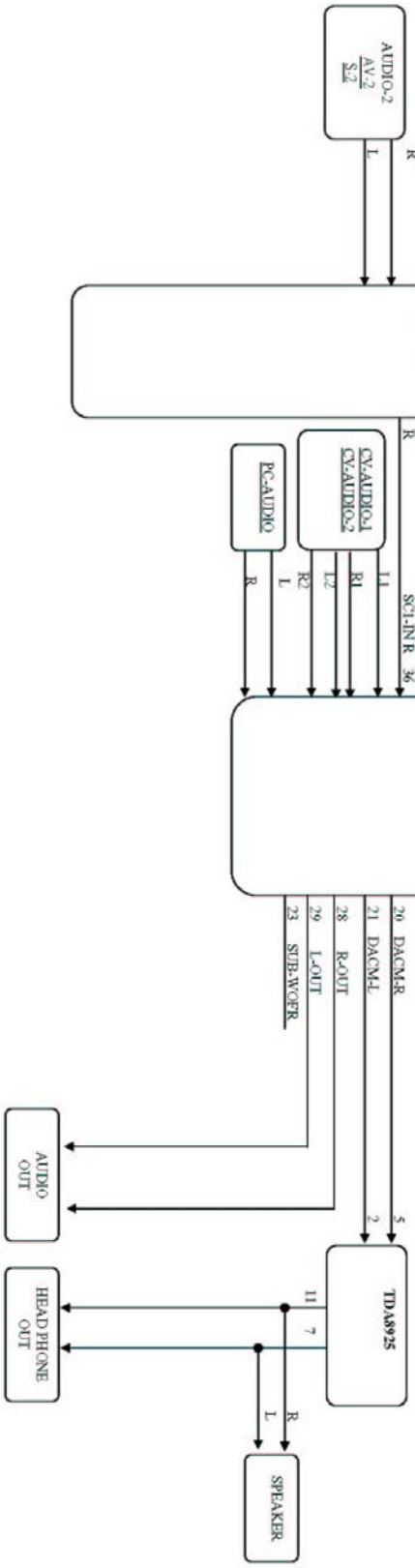
# 8.Block Diagram

➢ LCD-TV

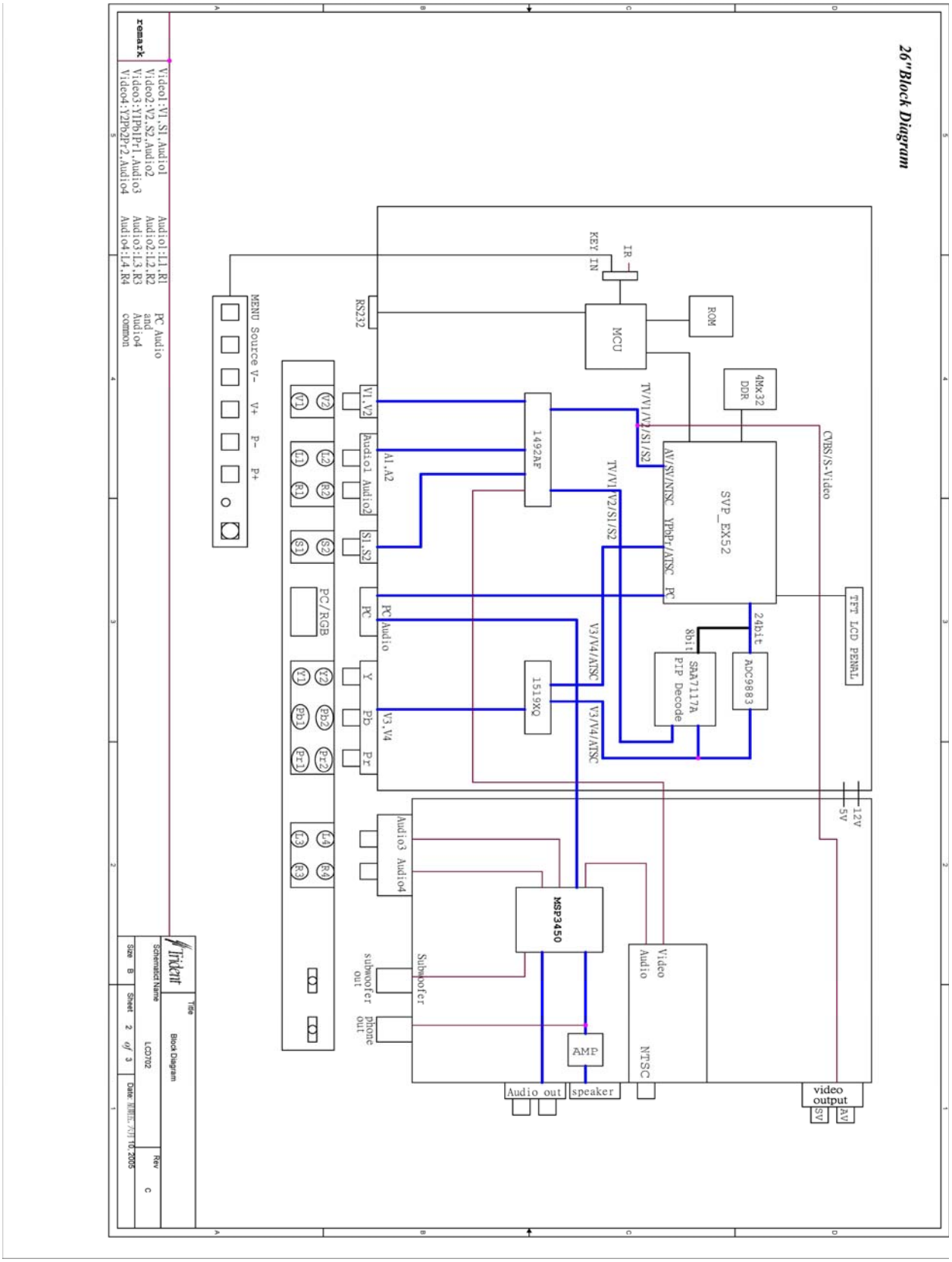


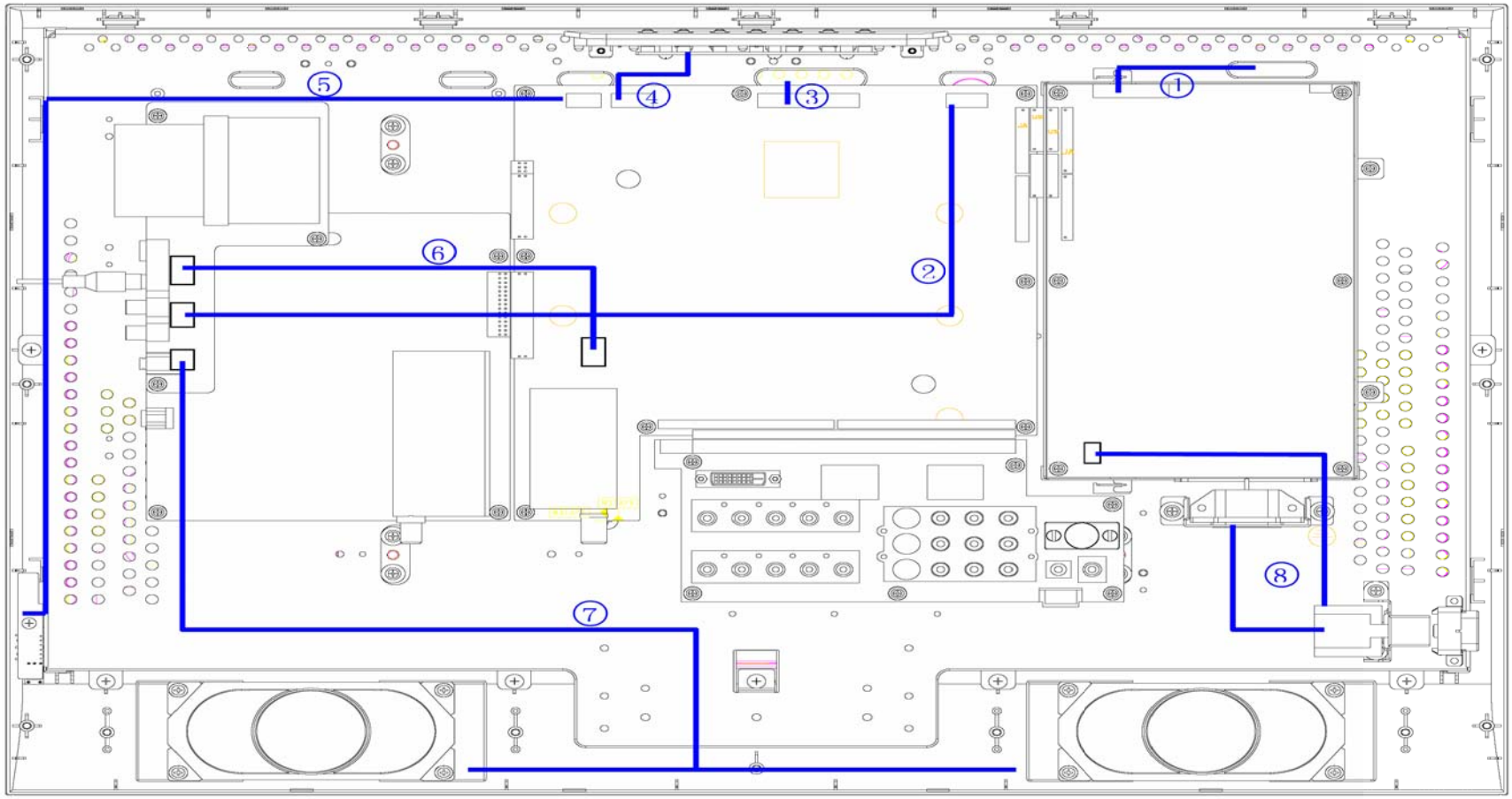
**HITACHI 26**

**AUDIO PART**



# 9. Wiring Block Diagram

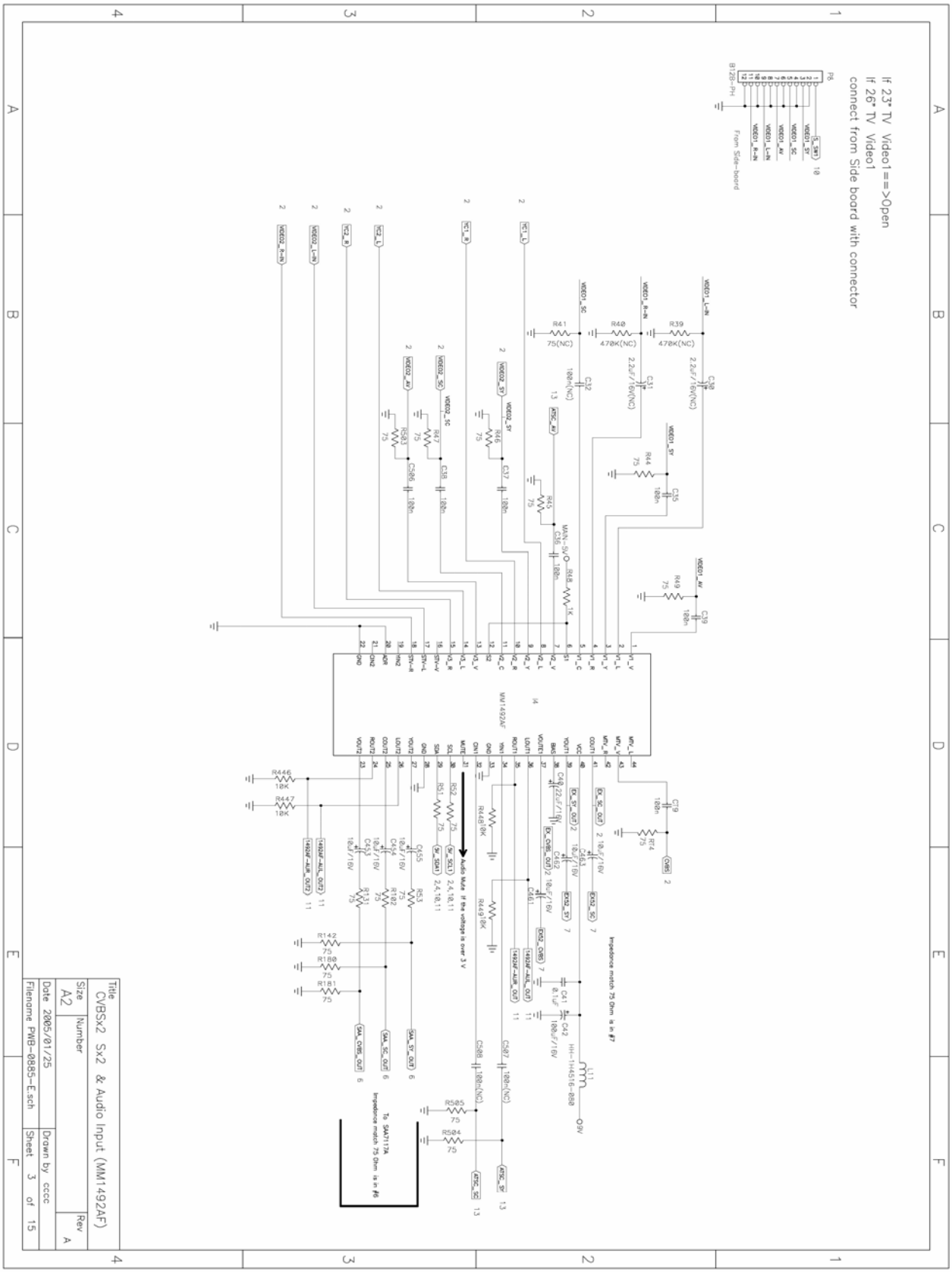


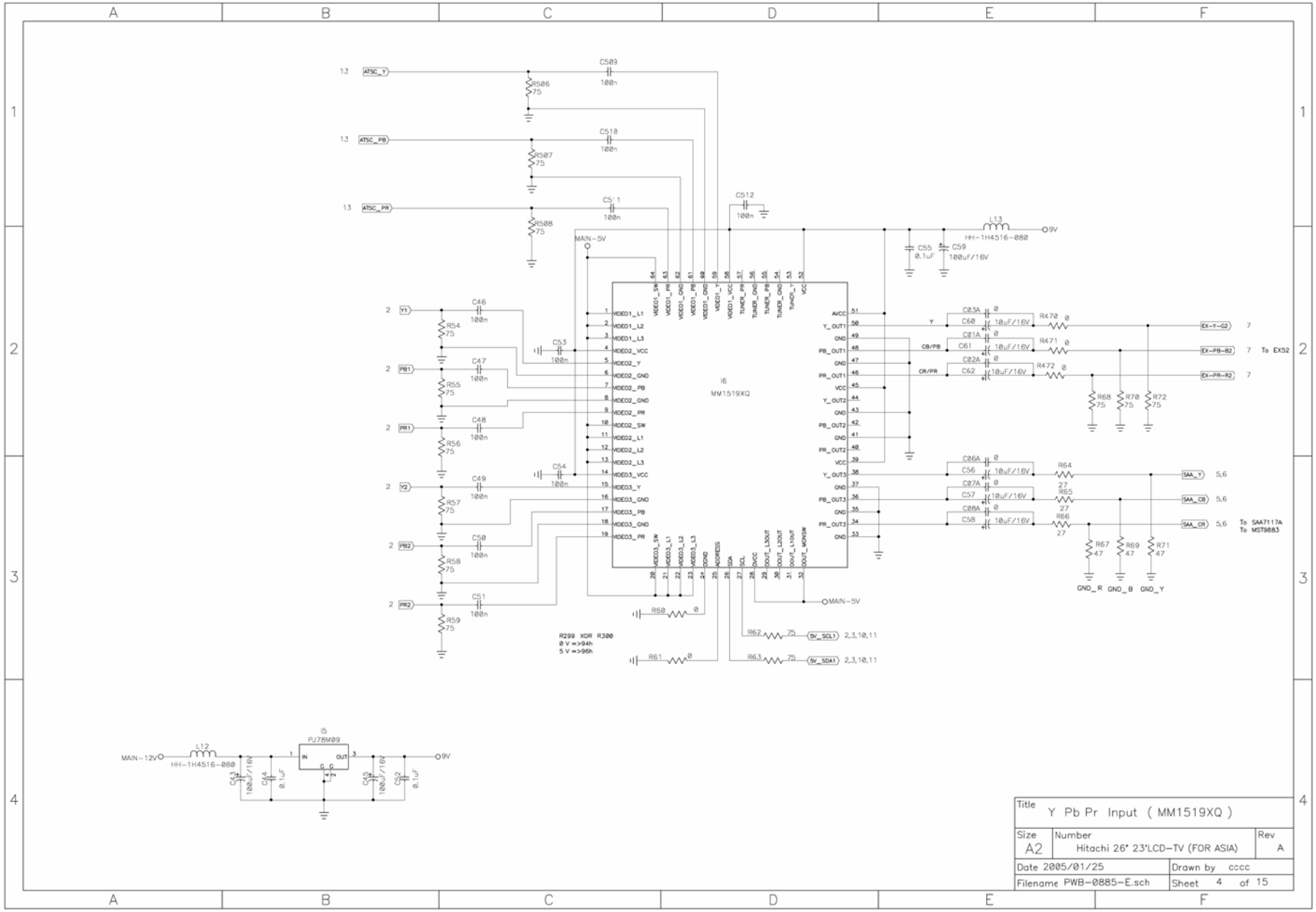


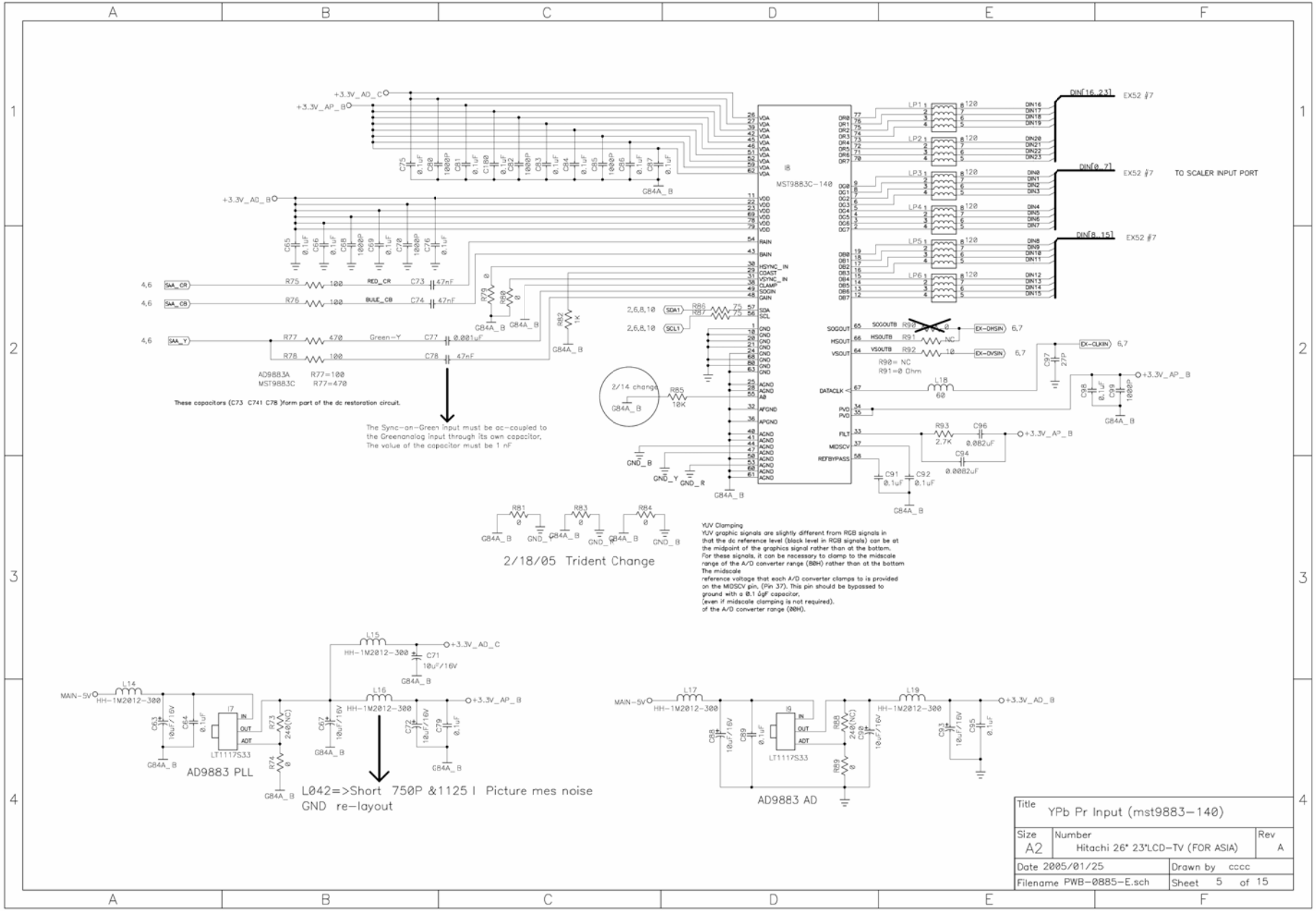

| Item | No. | Wire | Part No. |
|---|---|---|---|
| 1 | V901B | Wire Ass'y W12/14/12P Conn. | E057414004 |
| 2 | P015A | Wire Ass'y W6/6P Conn. | E057406003 |
| 3 | V901A | Wire Ass'y W30/30P Conn. | E057430010 |
| 4 | P011A | Wire Ass'y W8/8P Conn. | E057408004 |
| 5 | P010A | Wire Ass'y W5/5P Conn. | E057405010 |
| 6 | P008A | Wire Ass'y W12/12P Conn. | E057412007 |
| 7 | P905A | Wire Ass'y W4/2P Conn. | E057404012 |
| 8 | SW01A | Wire Ass'y Inlet W3P Conn. | E057403012 |

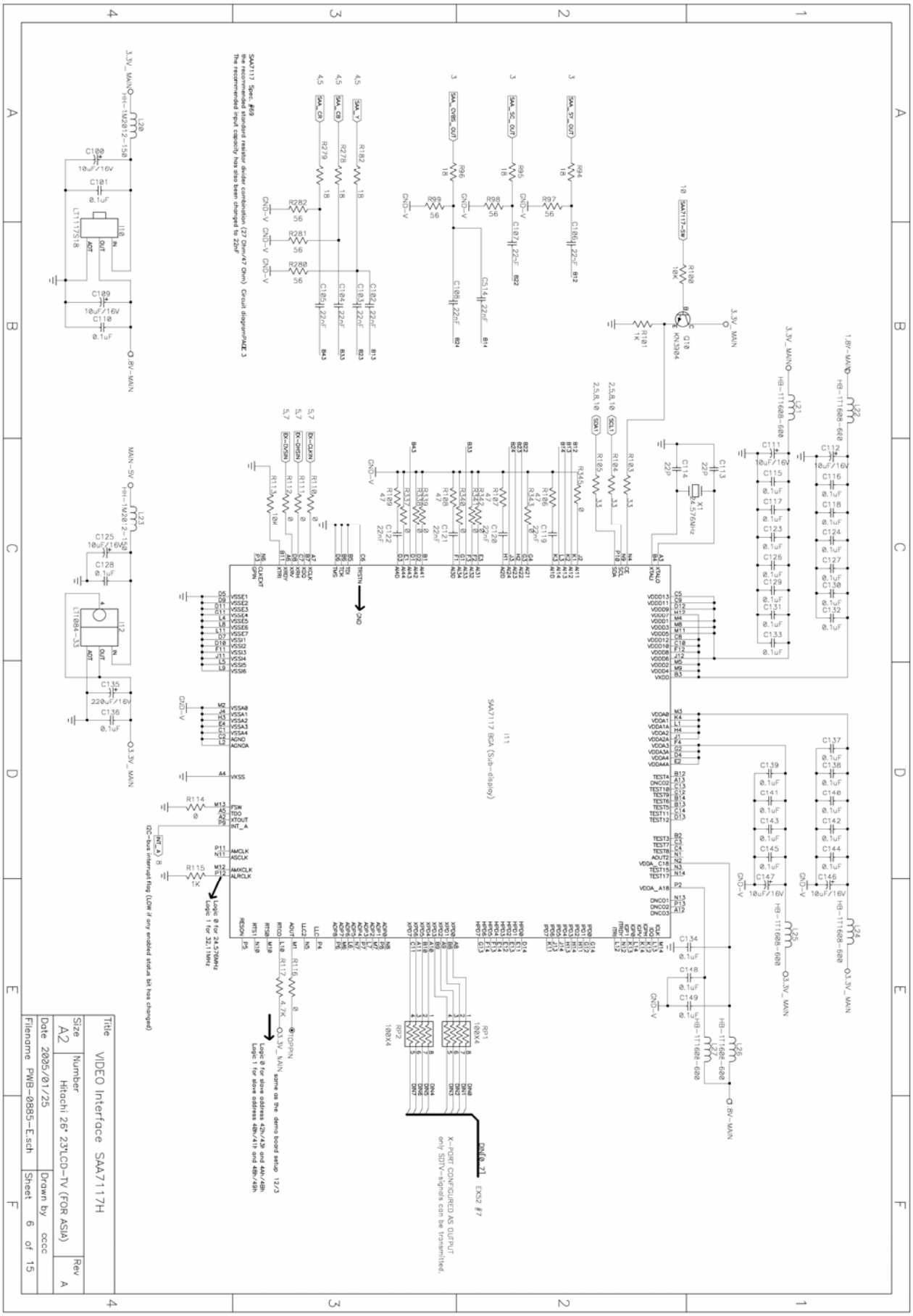
# 10. Circuit Diagram

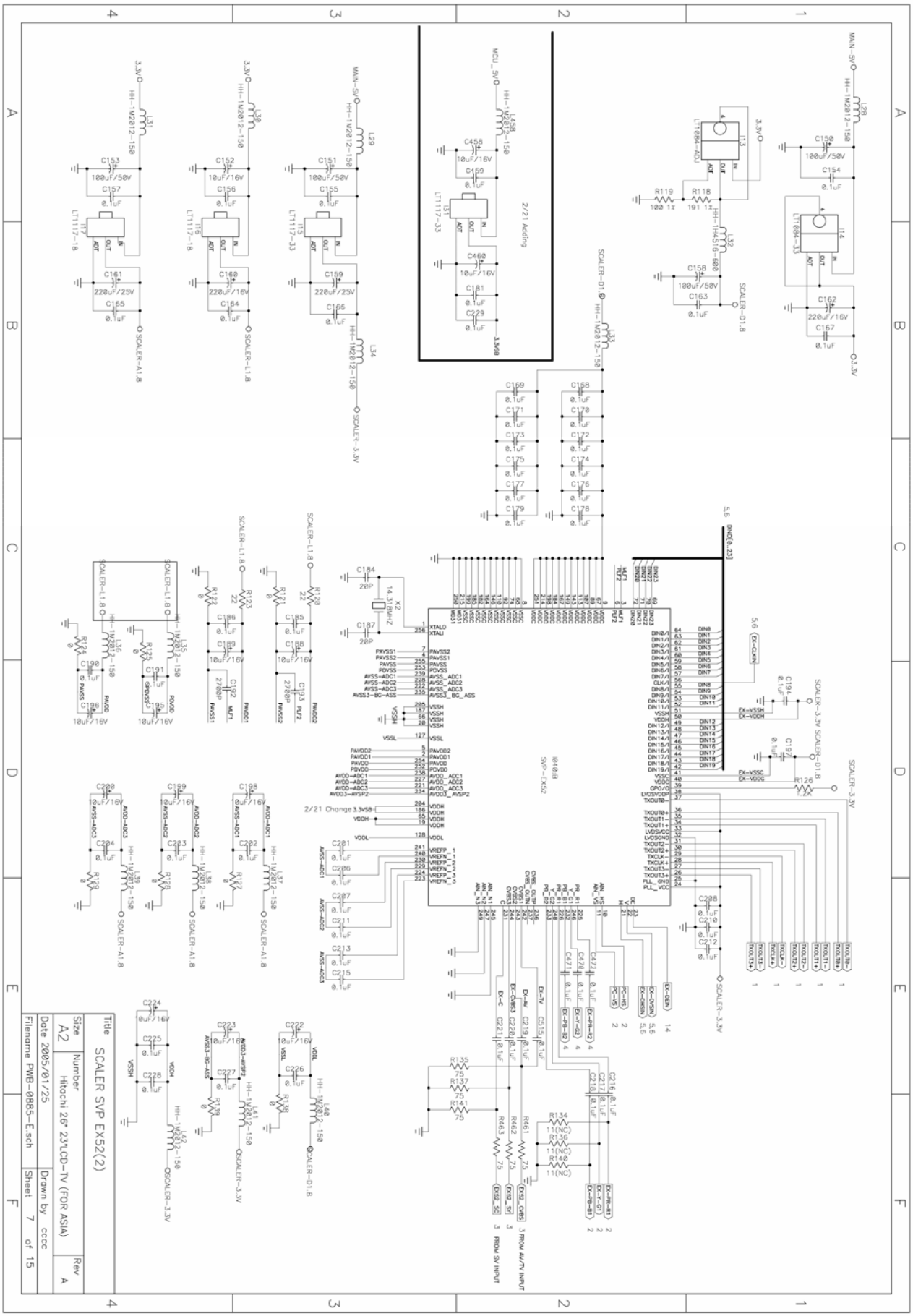
➢ Main Board (PWB-0885)

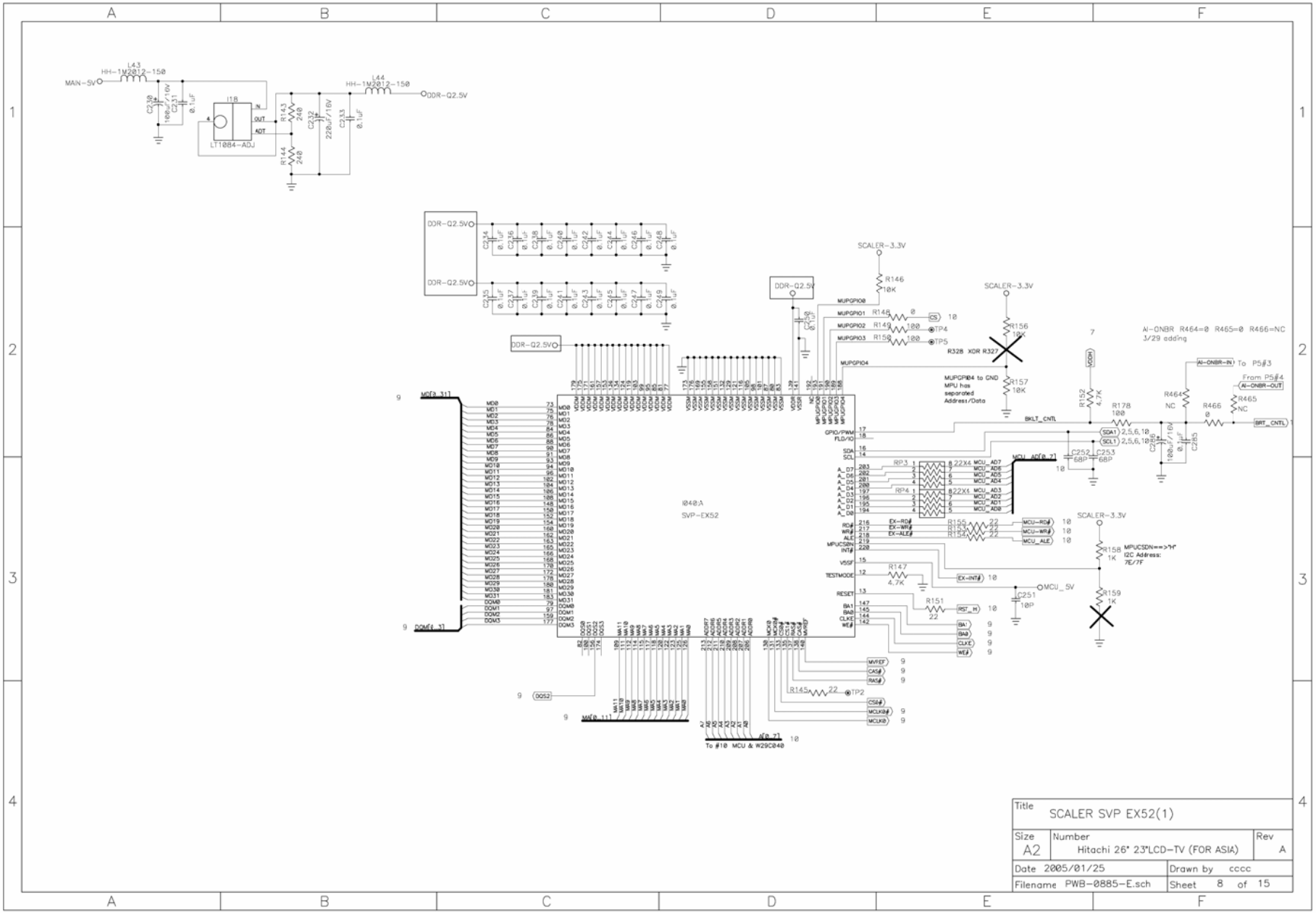



ATSC_Y
ATSC_PB
ATSC_PR
C509 100n
C510 100n
C511 100n
C512 100n
R506 75
R507 75
R508 75
MAIN-5V
L13 HH-1H4516-080
9V
C55 0.1uF
C59 100uF/16V
I6
MM1519XQ
Y1
PB1
PR1
Y2
PB2
PR2
C46 100n
C47 100n
C48 100n
C49 100n
C50 100n
C51 100n
C53 100n
C54 100n
R54 75
R55 75
R56 75
R57 75
R58 75
R59 75
R60 0
R61 0
R62 75
R63 75
5V_SCL1
5V_SDA1
R299 XOR R300
0 V =>94h
5 V =>96h
Y
CB/PB
CR/PR
C20A 0
C60 10uF/16V
C21A 0
C61 10uF/16V
C22A 0
C62 10uF/16V
R470 0
R471 0
R472 0
EX-Y-G2
EX-PB-B2
EX-PR-R2
To EX52
R68 75
R70 75
R72 75
C26A 0
C56 10uF/16V
C27A 0
C57 10uF/16V
C28A 0
C58 10uF/16V
R64 27
R65 27
R66 27
SAA_Y
SAA_CB
SAA_CR
To SAA7117A
To MST9883
R67 47
R69 47
R71 47
GND_R
GND_B
GND_Y
MAIN-12V
L12 HH-1H4516-080
I5
PJ78M09
IN
OUT
C13 100uF/16V
C4 0.1uF
C15 100uF/16V
C2 0.1uF
Title
Y Pb Pr Input ( MM1519XQ )
Size
A2
Number
Hitachi 26" 23"LCD-TV (FOR ASIA)
Rev
A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 4 of 15

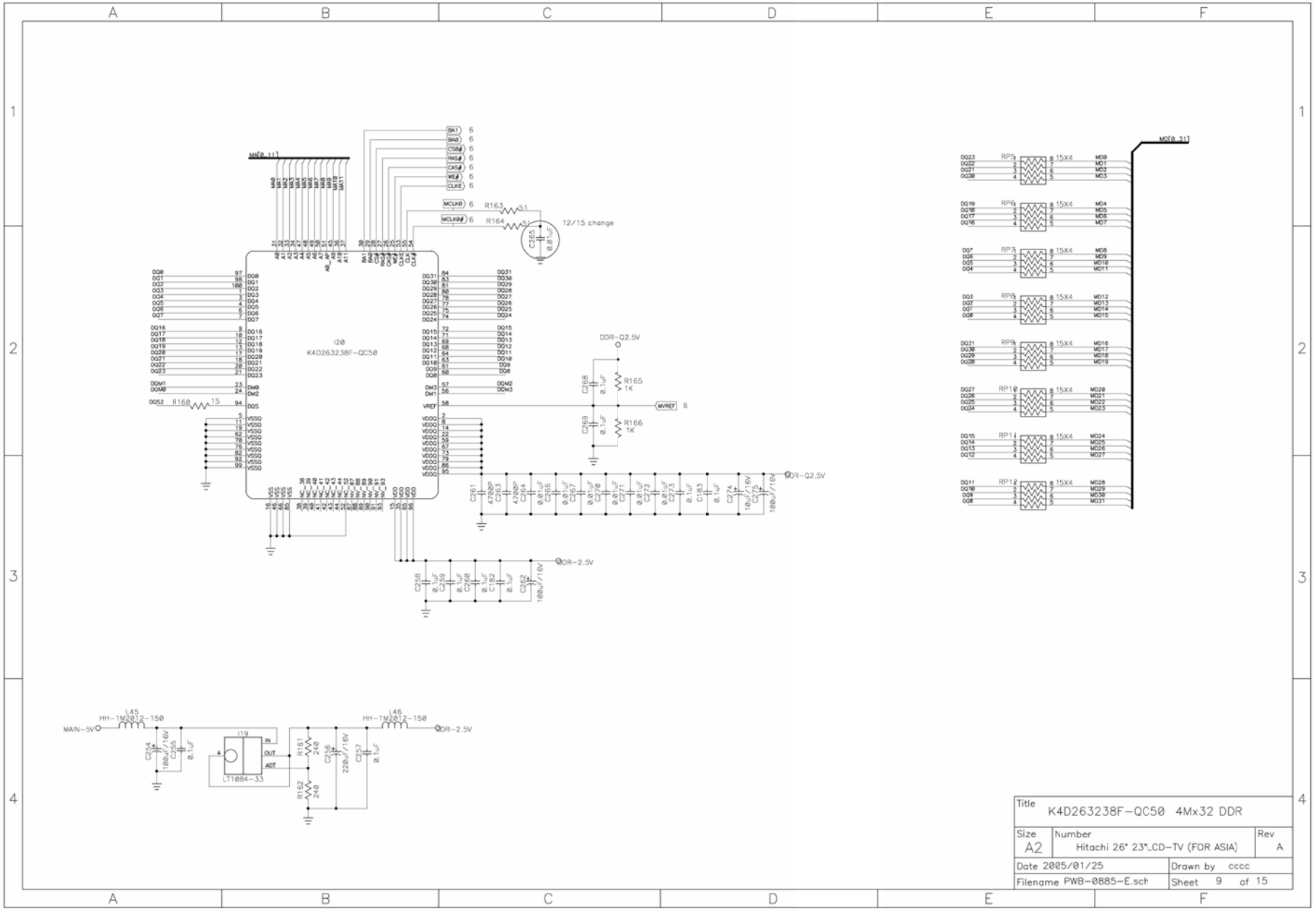

+3.3V_AD_C
+3.3V_AP_B
+3.3V_AD_B
I8
MST9883C-140
DIN[16..23]
EX52 #7
DIN[0..7]
TO SCALER INPUT PORT
DIN[8..15]
SAA_CR
SAA_CB
SAA_Y
RED_CR
BLUE_CB
Green-Y
AD9883A R77=100
MST9883C R77=470
These capacitors (C73 C741 C78 )form part of the dc restoration circuit.
The Sync-on-Green input must be ac-coupled to the Greenanalog input through its own capacitor. The value of the capacitor must be 1 nF
2/14 change
R90= NC
R91=0 Ohm
EX-OHSIN
EX-OVSIN
EX-CLKIN
YUV Clamping
YUV graphic signals are slightly different from RGB signals in that the dc reference level (black level in RGB signals) can be at the midpoint of the graphics signal rather than at the bottom. For these signals, it can be necessary to clamp to the midscale range of the A/D converter range (80H) rather than at the bottom The midscale reference voltage that each A/D converter clamps to is provided on the MIDSCV pin. (Pin 37). This pin should be bypassed to ground with a 0.1 ûgF capacitor. (even if midscale clamping is not required). of the A/D converter range (80H).
2/18/05 Trident Change
MAIN-5V
HH-1M2012-300
LT1117S33
AD9883 PLL
L042=>Short 750P &1125 I Picture mes noise
GND re-layout
AD9883 AD
Title YPb Pr Input (mst9883-140)
Size A2
Number Hitachi 26" 23"LCD-TV (FOR ASIA)
Rev A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 5 of 15

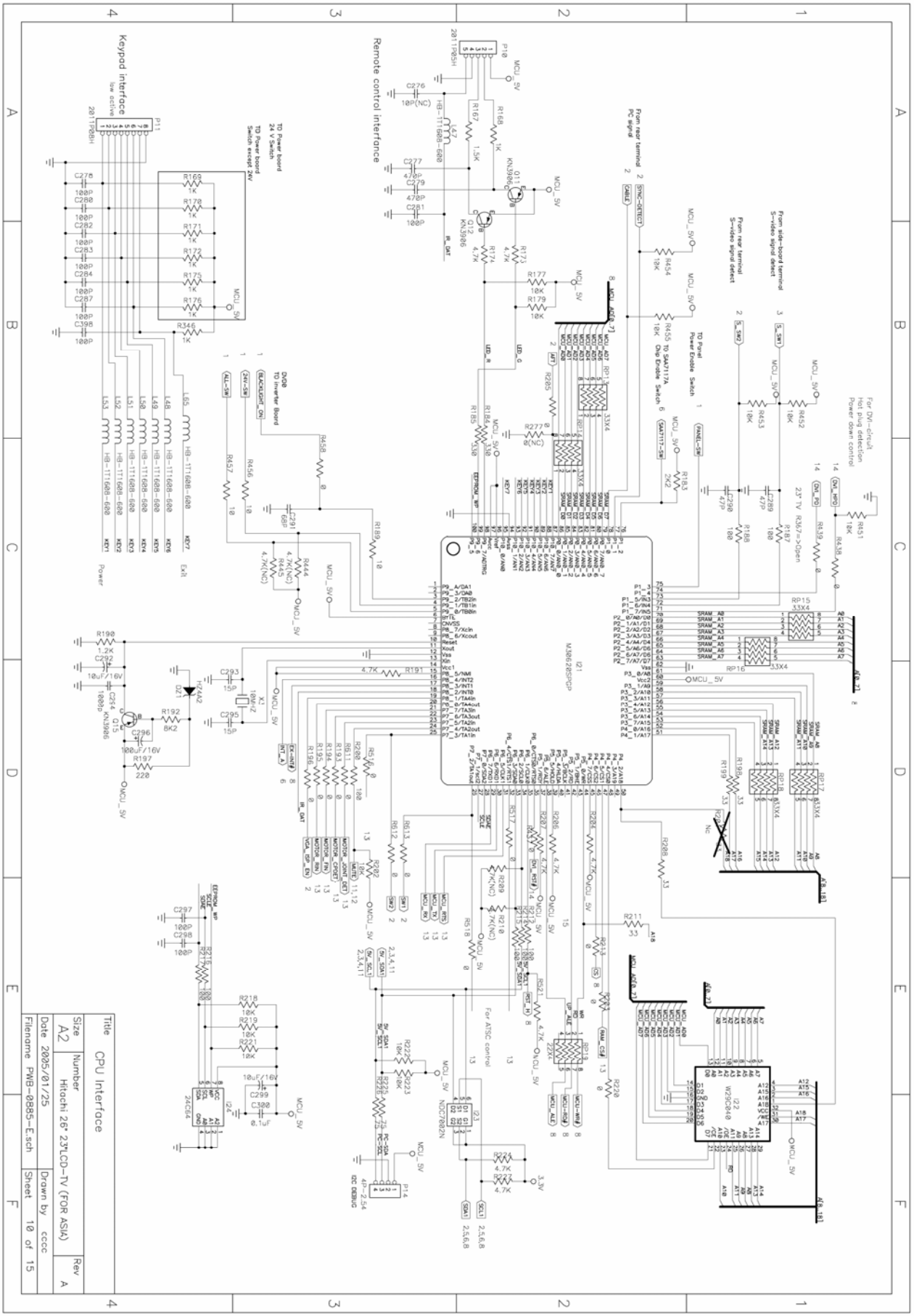

Title
VIDEO Interface SAA7117H
Size
A2
Number
Hitachi 26" 23"LCD-TV (FOR ASIA)
Rev
A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 6 of 15
SAA7117 BGA (Sub-display)
I11
SAA7117 Spec. #69
the recommended standard resistor divider combination (27 Ohm/47 Ohm) Circuit diagramPAGE 3
The recommended input capacity has also been changed to 22nF
I2C-bus interrupt flag (LOW if any enabled status bit has changed)
Logic 0 for 24.576MHz
Logic 1 for 32.11MHz
Logic 0 for slave address 42h/43h and 44h/48h
Logic 1 for slave address 48h/41h and 49h/49h
same as the demo board setup 12/3
X-PORT CONFIGURED AS OUTPUT
only SDTV-signals can be transmitted.
EXS2 #7
LT1117S18
LT1084-3.3
KN3904
X1
24.576MHz
1.8V-MAIN
3.3V_MAIN
8V-MAIN
GND-V

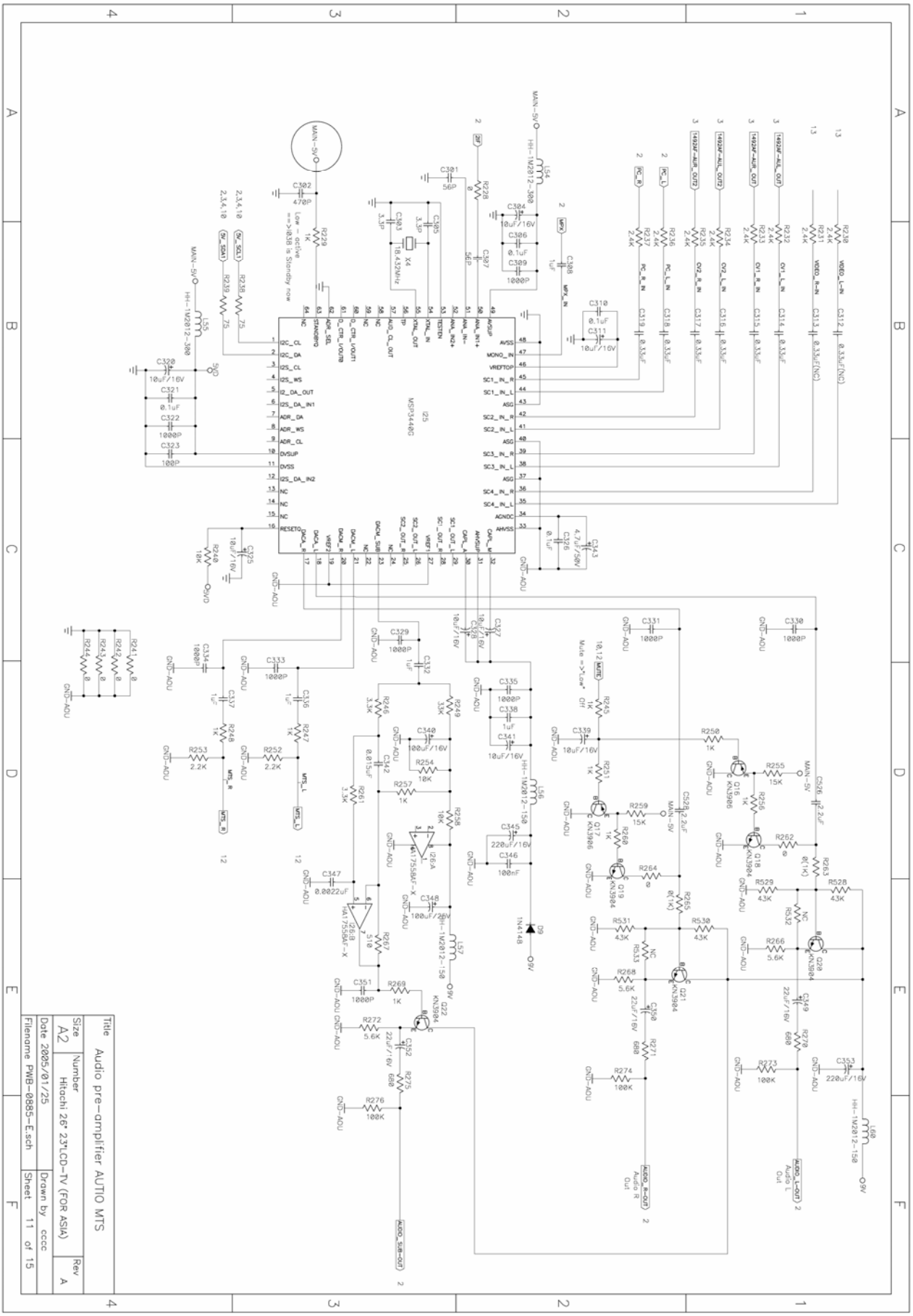

Title
SCALER SVP EX52(2)
Size
A2
Number
Hitachi 26" 23"LCD-TV (FOR ASIA)
Rev
A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 7 of 15

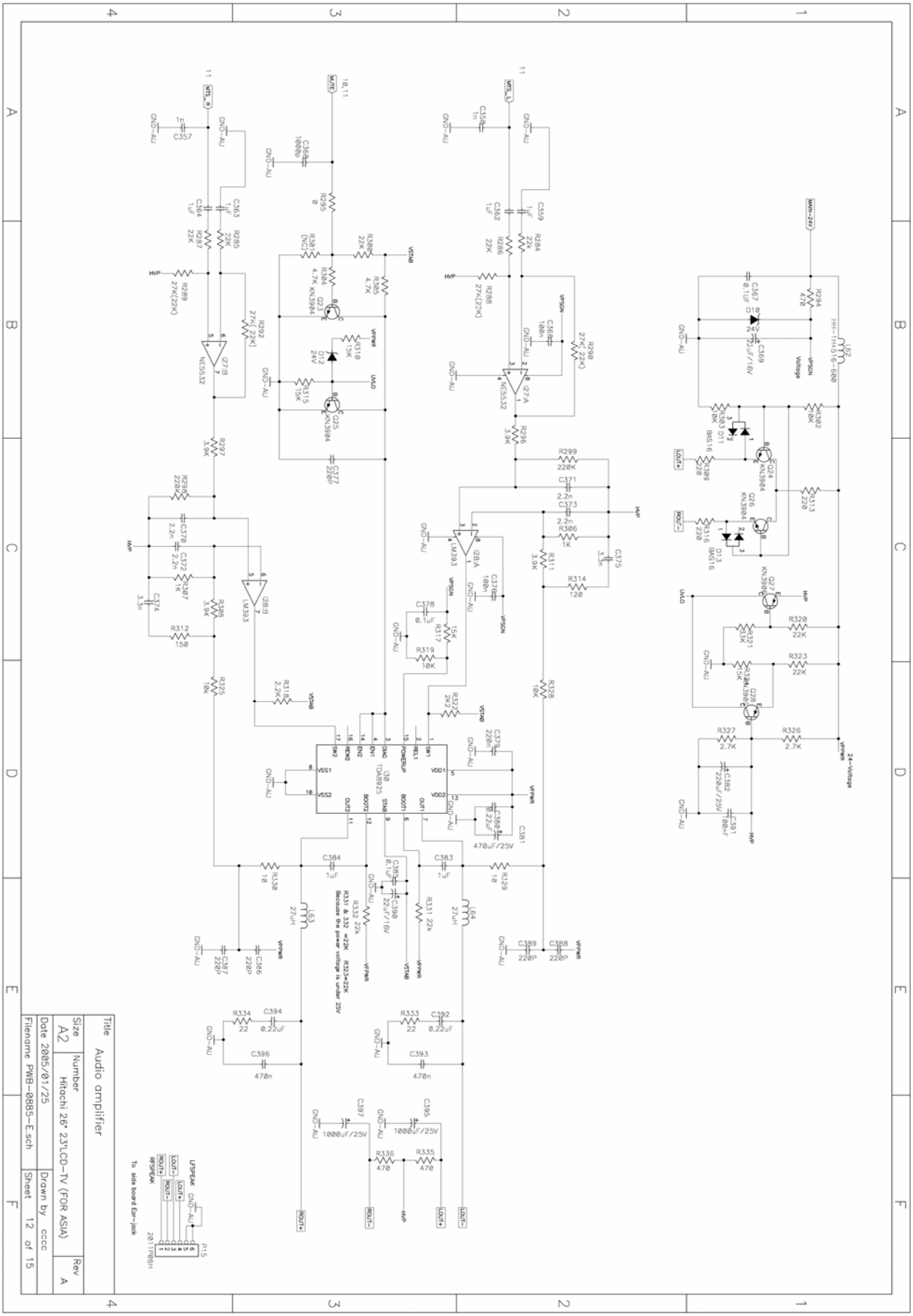


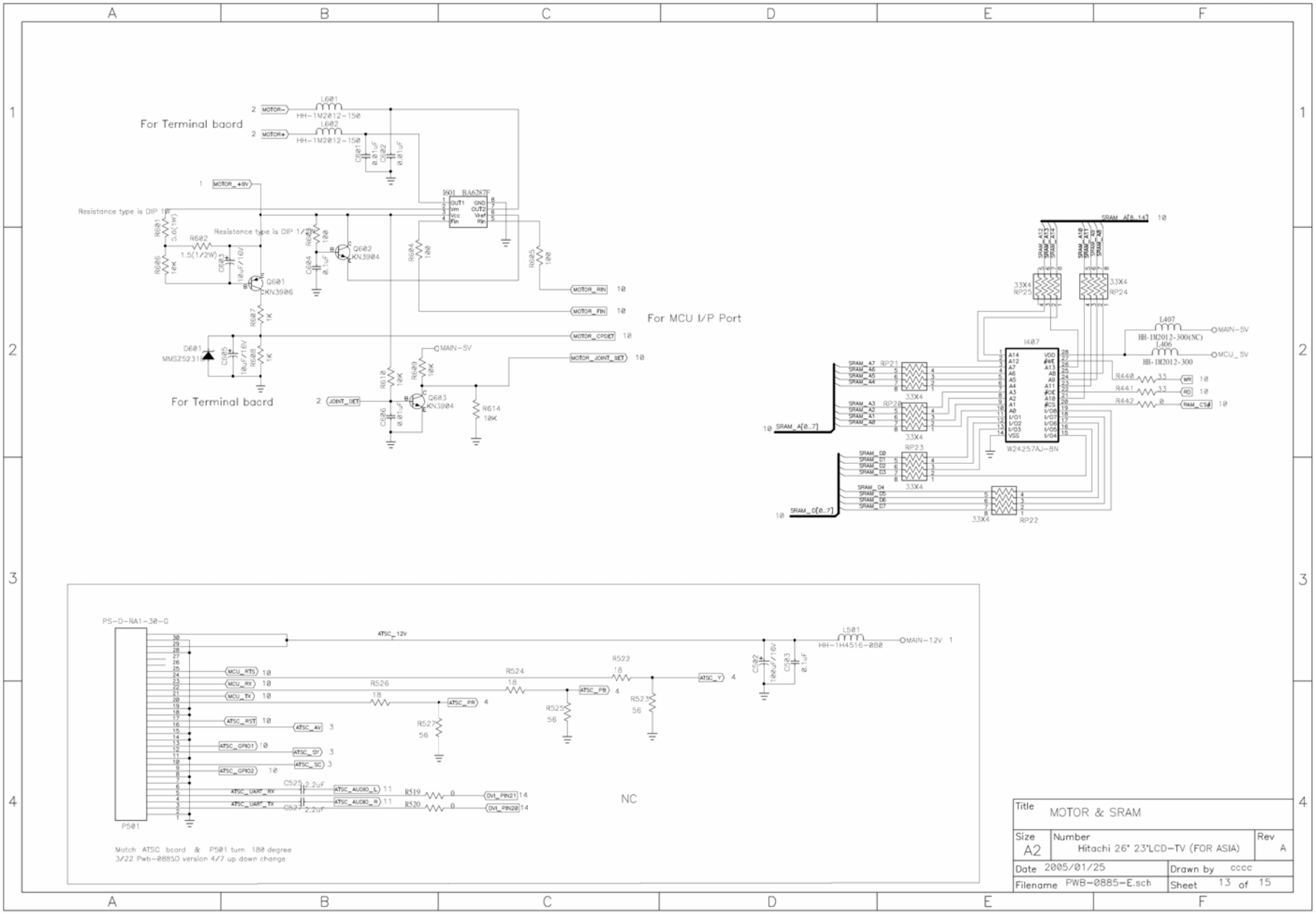

| | | |
|---|---|---|
| Title | SCALER SVP EX52(1) | |
| Size A2 | Number Hitachi 26" 23"LCD-TV (FOR ASIA) | Rev A |
| Date 2005/01/25 | Drawn by cccc | |
| Filename PWB-0885-E.sch | Sheet 8 of 15 | |

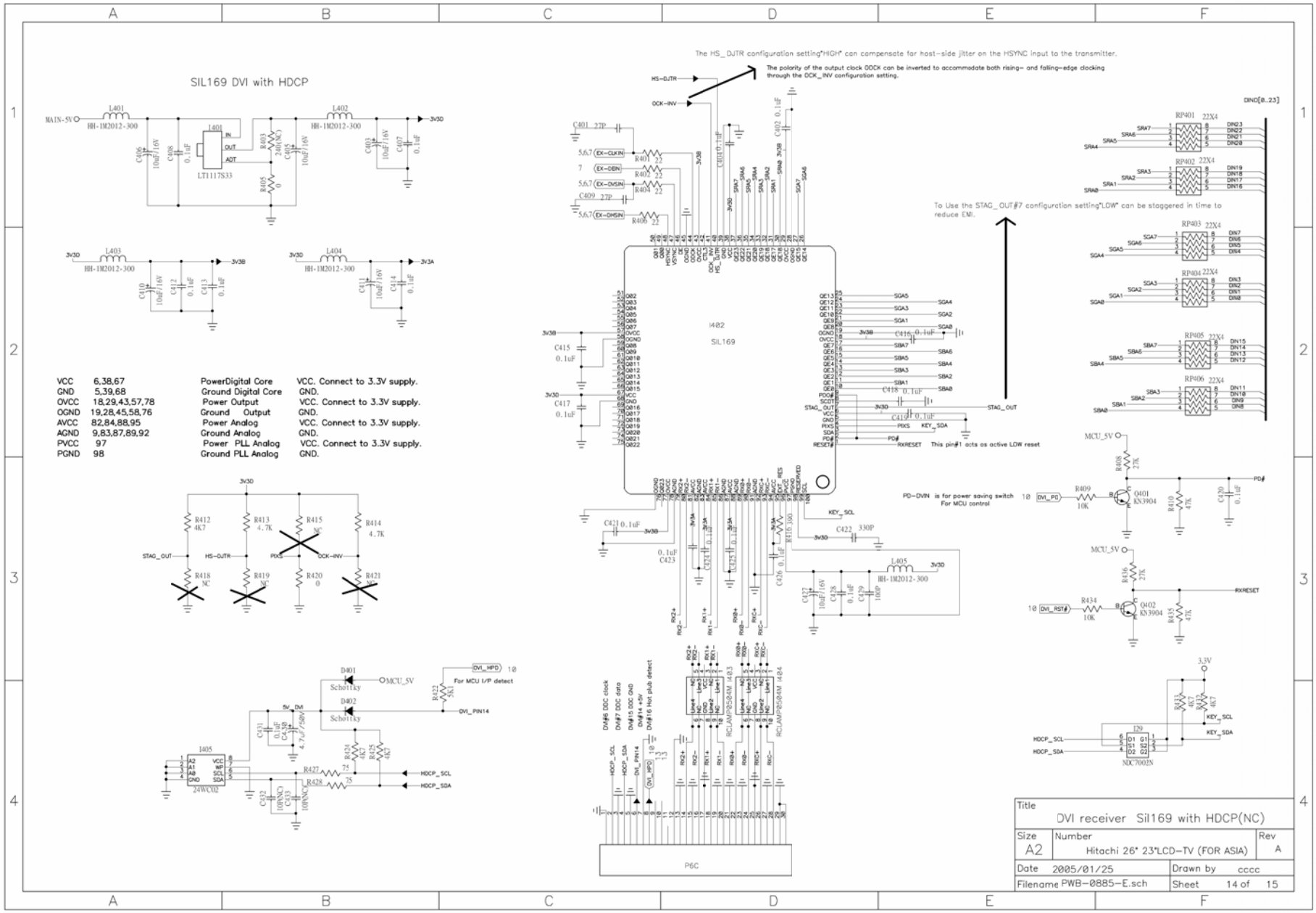

I20
K4D263238F-QC50
DDR-Q2.5V
DDR-2.5V
MAIN-5V
L45
HH-1M2012-150
L46
HH-1M2012-150
I19
LT1084-33
R163 51
R164 51
12/15 change
R165 1K
R166 1K
R168 15
MD[0..31]
Title
K4D263238F-QC50 4Mx32 DDR
Size
A2
Number
Hitachi 26" 23"_CD-TV (FOR ASIA)
Rev
A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 9 of 15


Keypad interface
Remote control interfance
Power
Exit
Title
CPU Interface
Size
A2
Number
Hitachi 26" 23"LCD-TV (FOR ASIA)
Rev
A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 10 of 15

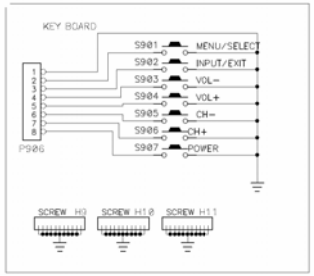

Title
Audio pre-amplifier AUTIO MTS
Size
A2
Number
Hitachi 26" 23"LCD-TV (FOR ASIA)
Rev
A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 11 of 15

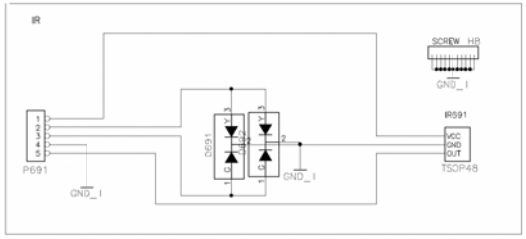

Audio amplifier
Size A2
Number Hitachi 26" 23"LCD-TV (FOR ASIA)
Rev A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 12 of 15
Because the power voltage is under 25V
To side board Ear-jack

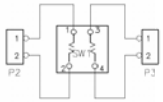

For Terminal baord
For MCU I/P Port
NC
Title MOTOR & SRAM
Size A2
Number Hitachi 26" 23"LCD-TV (FOR ASIA)
Rev A
Date 2005/01/25
Drawn by cccc
Filename PWB-0885-E.sch
Sheet 13 of 15




| | | | |
|---|---|---|---|
| VCC | 6,38,67 | PowerDigital Core | VCC. Connect to 3.3V supply. |
| GND | 5,39,68 | Ground Digital Core | GND. |
| OVCC | 18,29,43,57,78 | Power Output | VCC. Connect to 3.3V supply. |
| OGND | 19,28,45,58,76 | Ground Output | GND. |
| AVCC | 82,84,88,95 | Power Analog | VCC. Connect to 3.3V supply. |
| AGND | 9,83,87,89,92 | Ground Analog | GND. |
| PVCC | 97 | Power PLL Analog | VCC. Connect to 3.3V supply. |
| PGND | 98 | Ground PLL Analog | GND. |

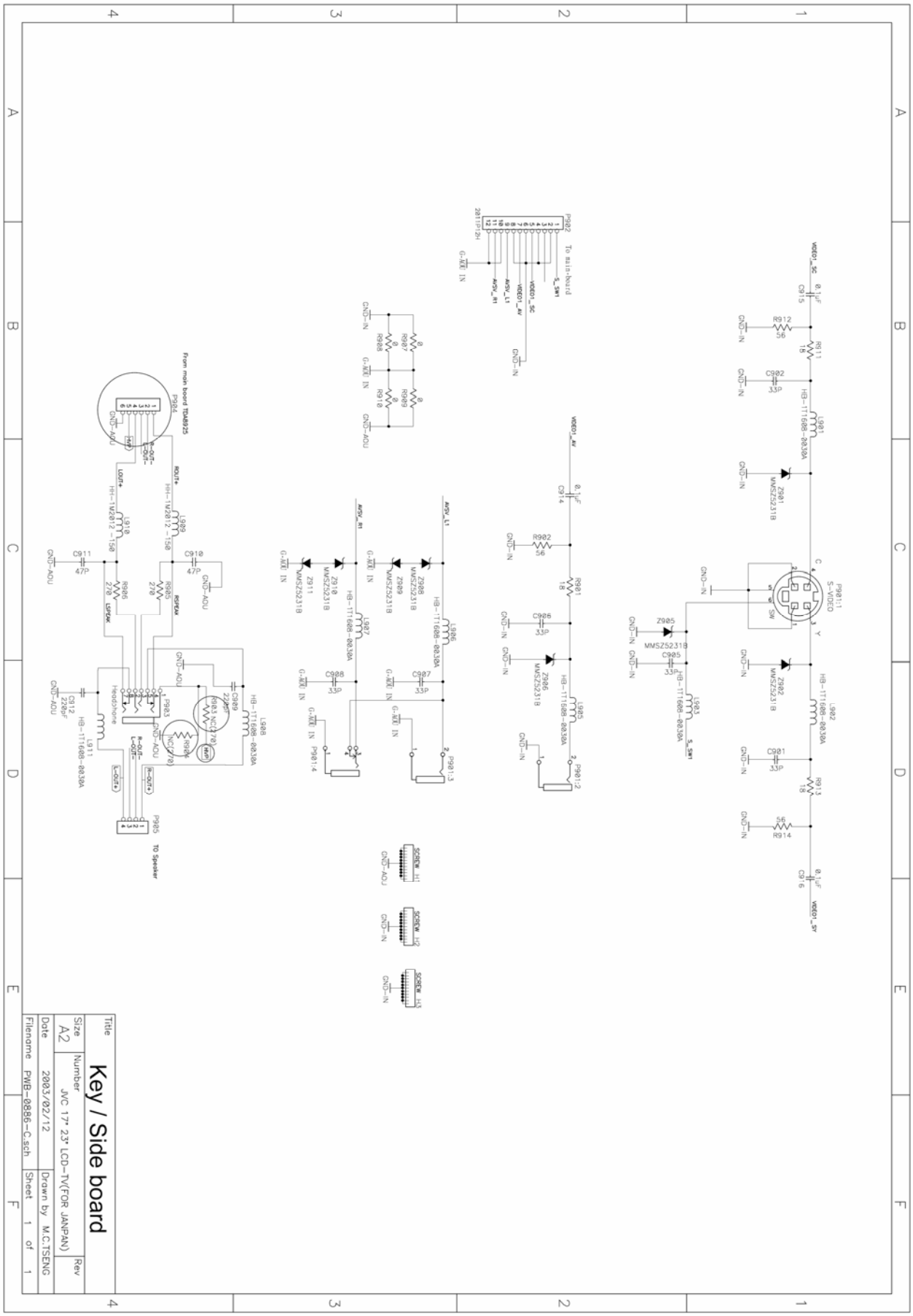


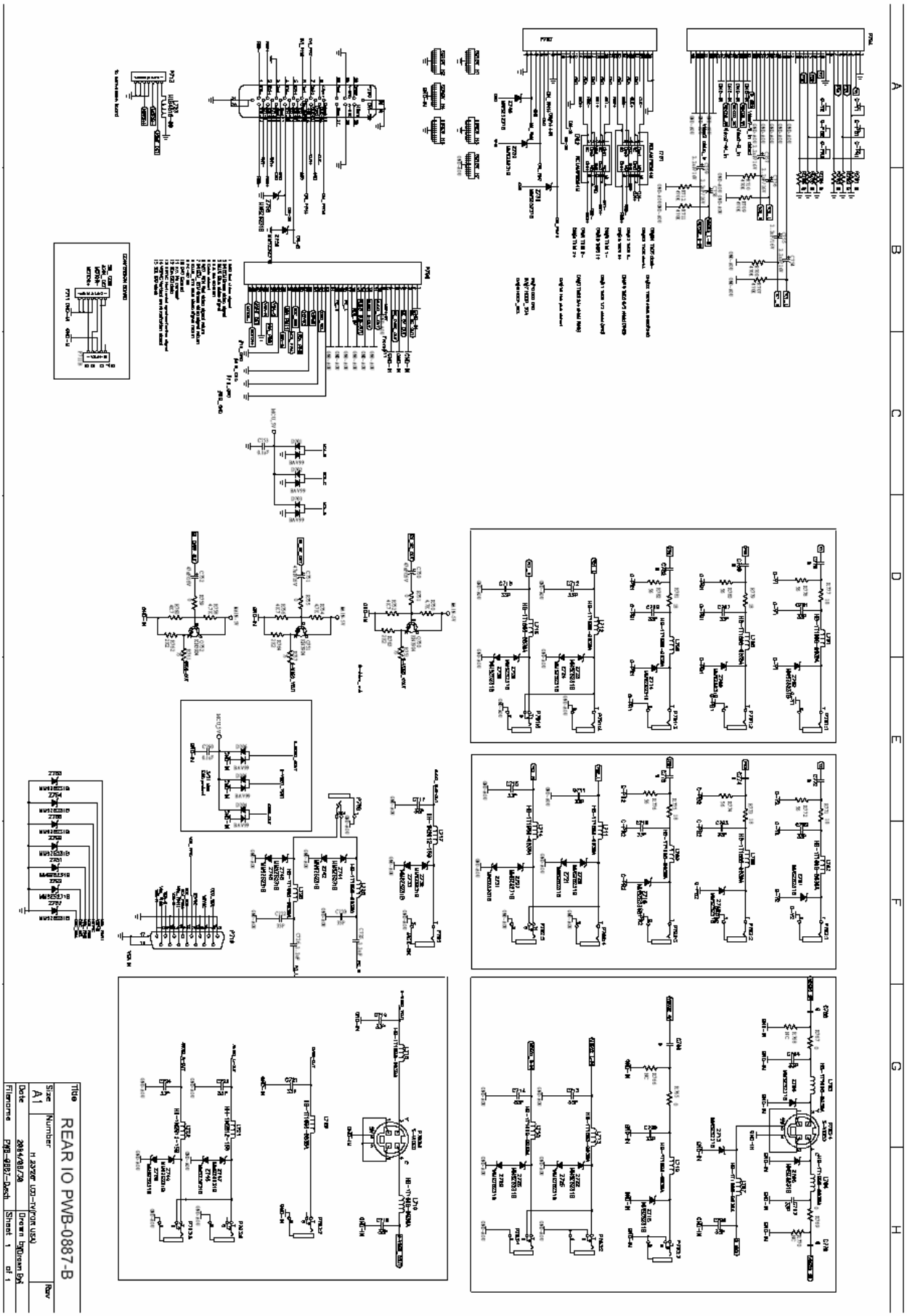




| | | |
|---|---|---|
| Title | Key ; IR led & others | |
| Size A2 | Number Hitachi 26" 23"LCD−TV (FOR ASIA) | Rev A |
| Date 2005/01/25 | Drawn by | |
| Filename | Sheet 15 of 15 | |

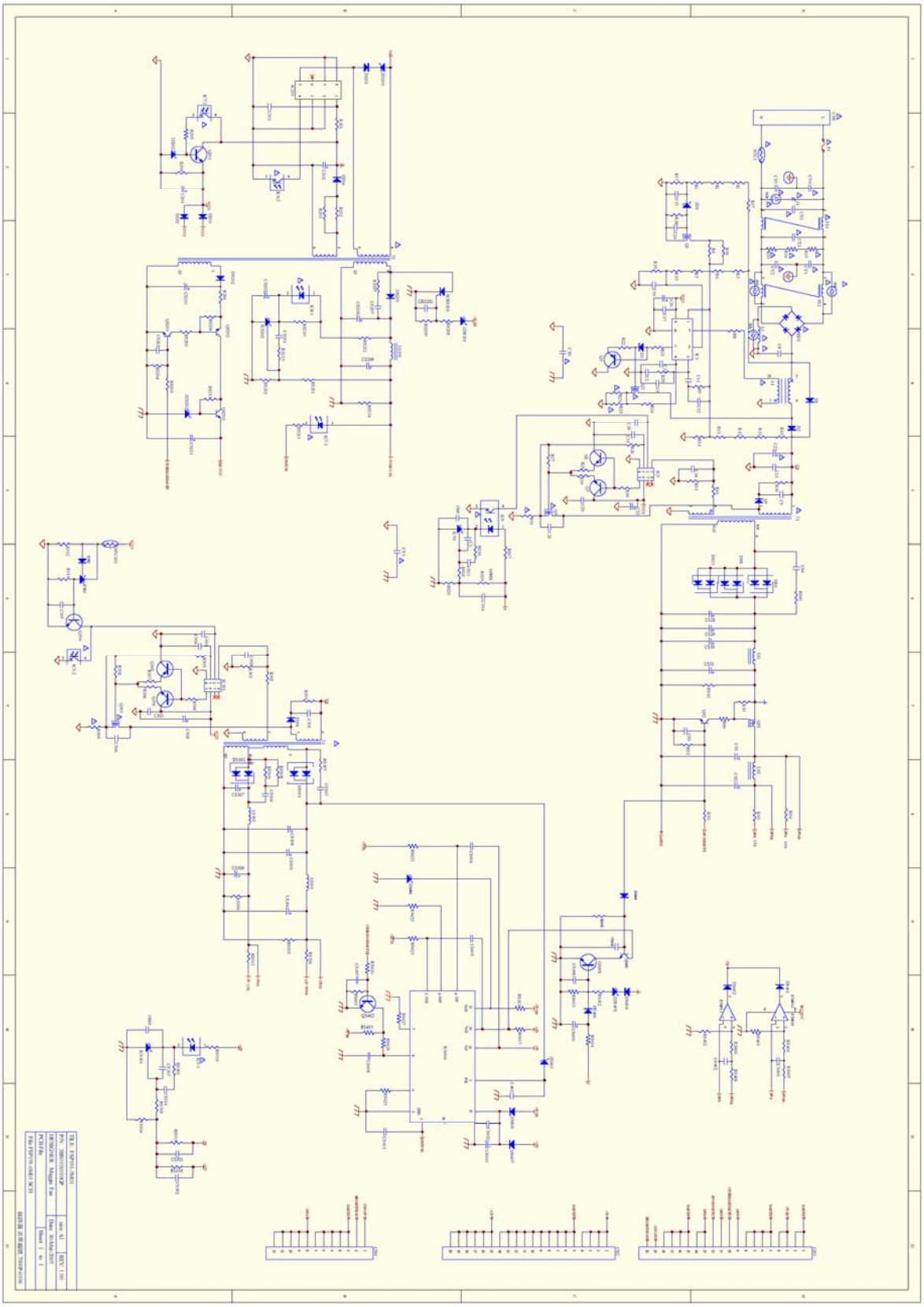
➢ I/O Board1 (PWB-0886)



➢ I/O Board2 (PWB-0887)

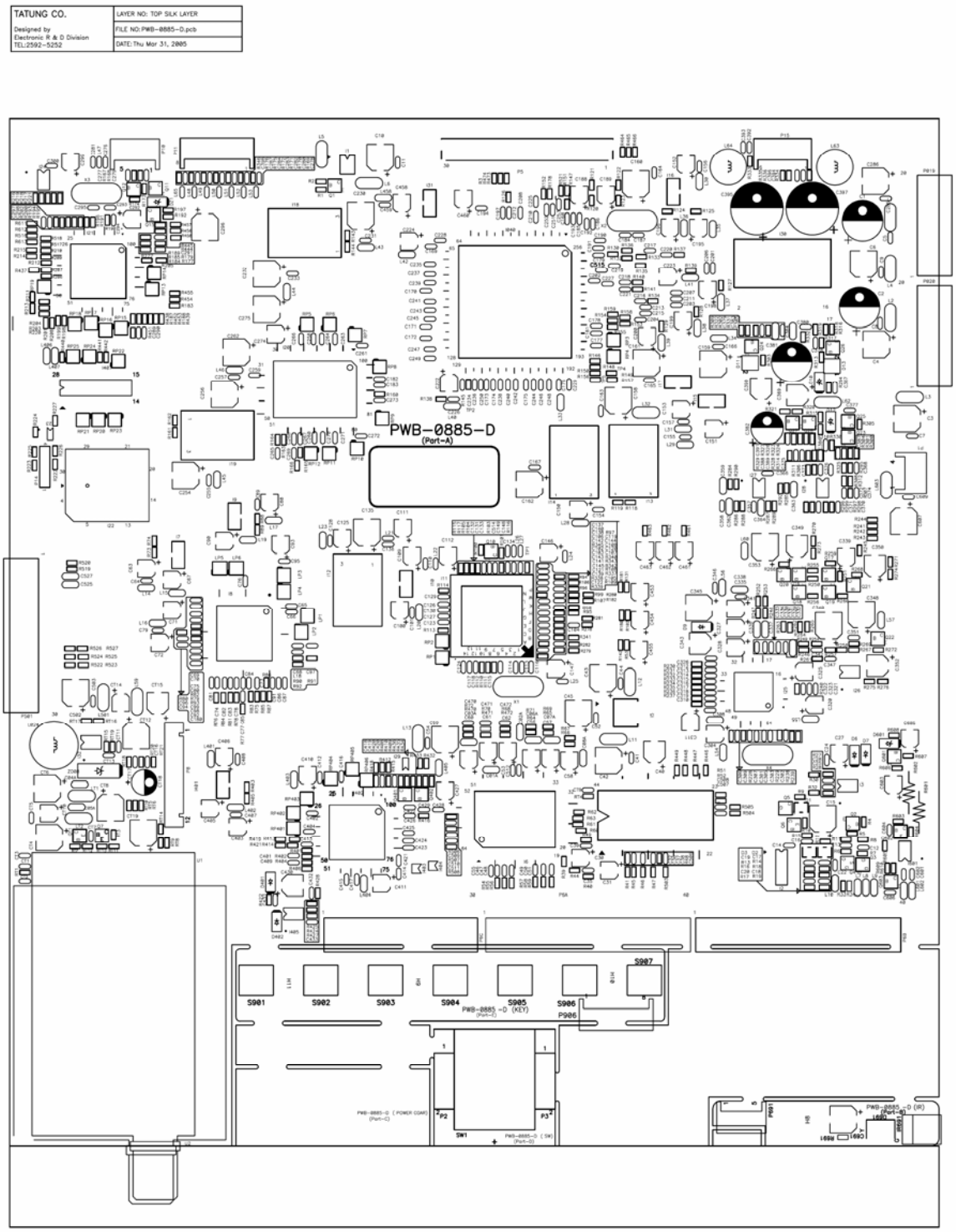


➢ Power Board

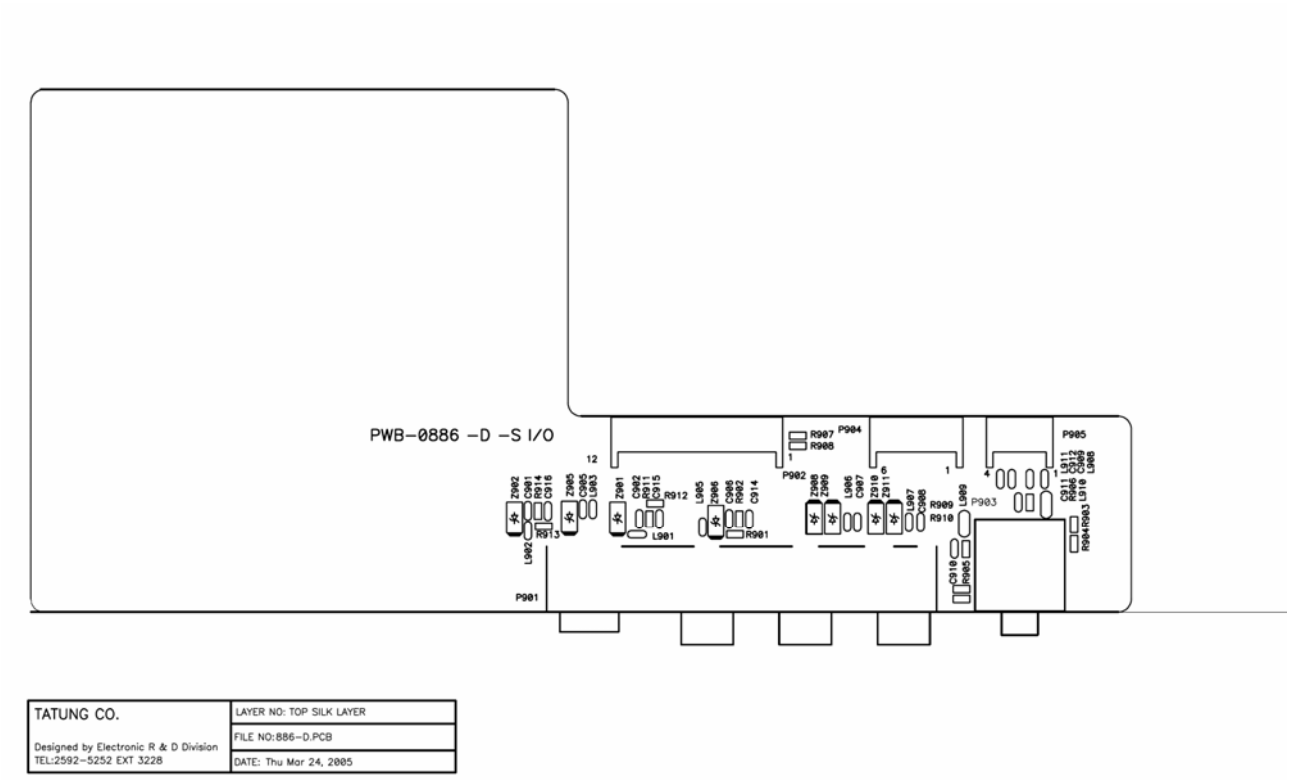


# 11. Printed Wiring Board Diagram

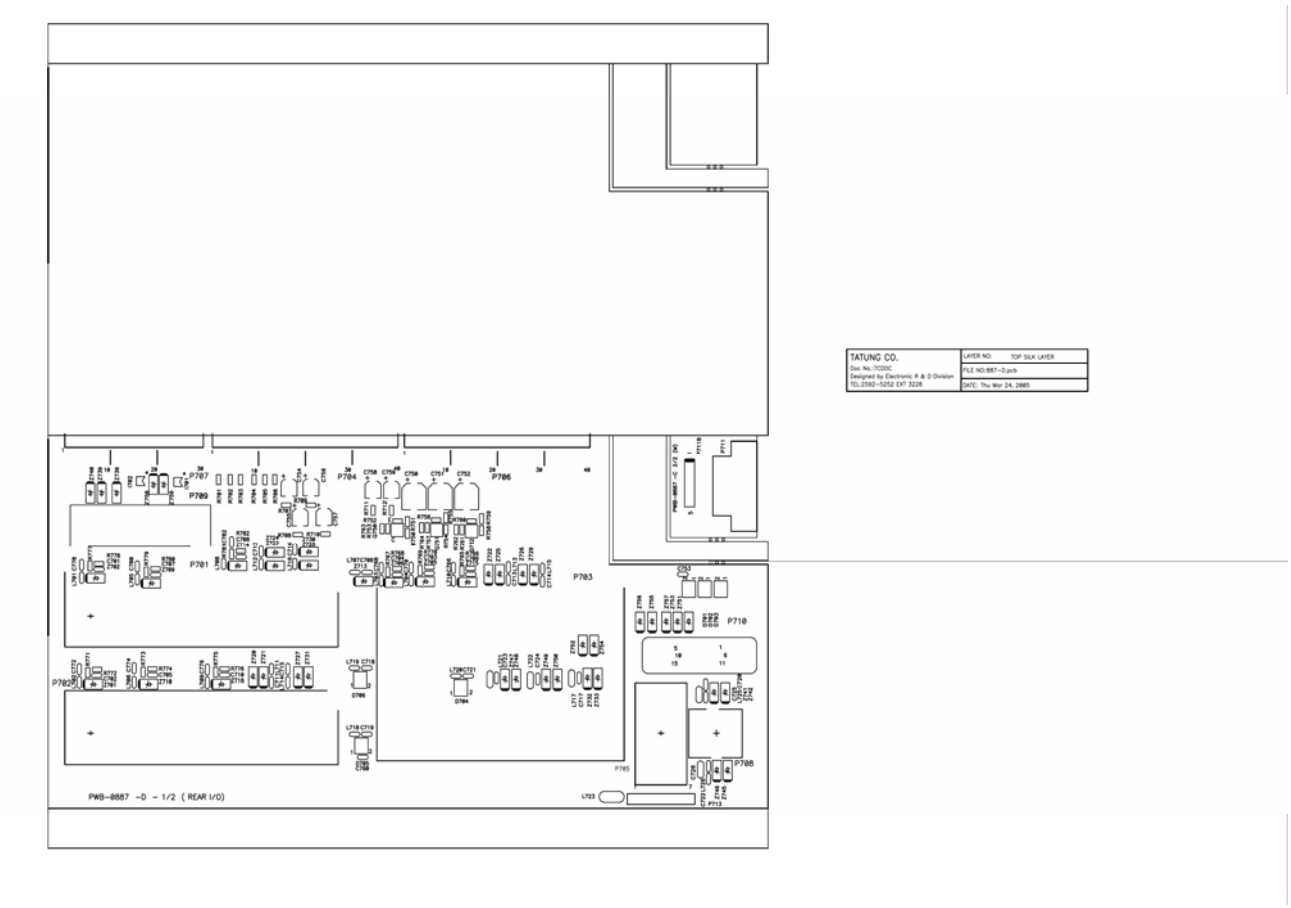
- Main Board-Top side(PWB-0885)



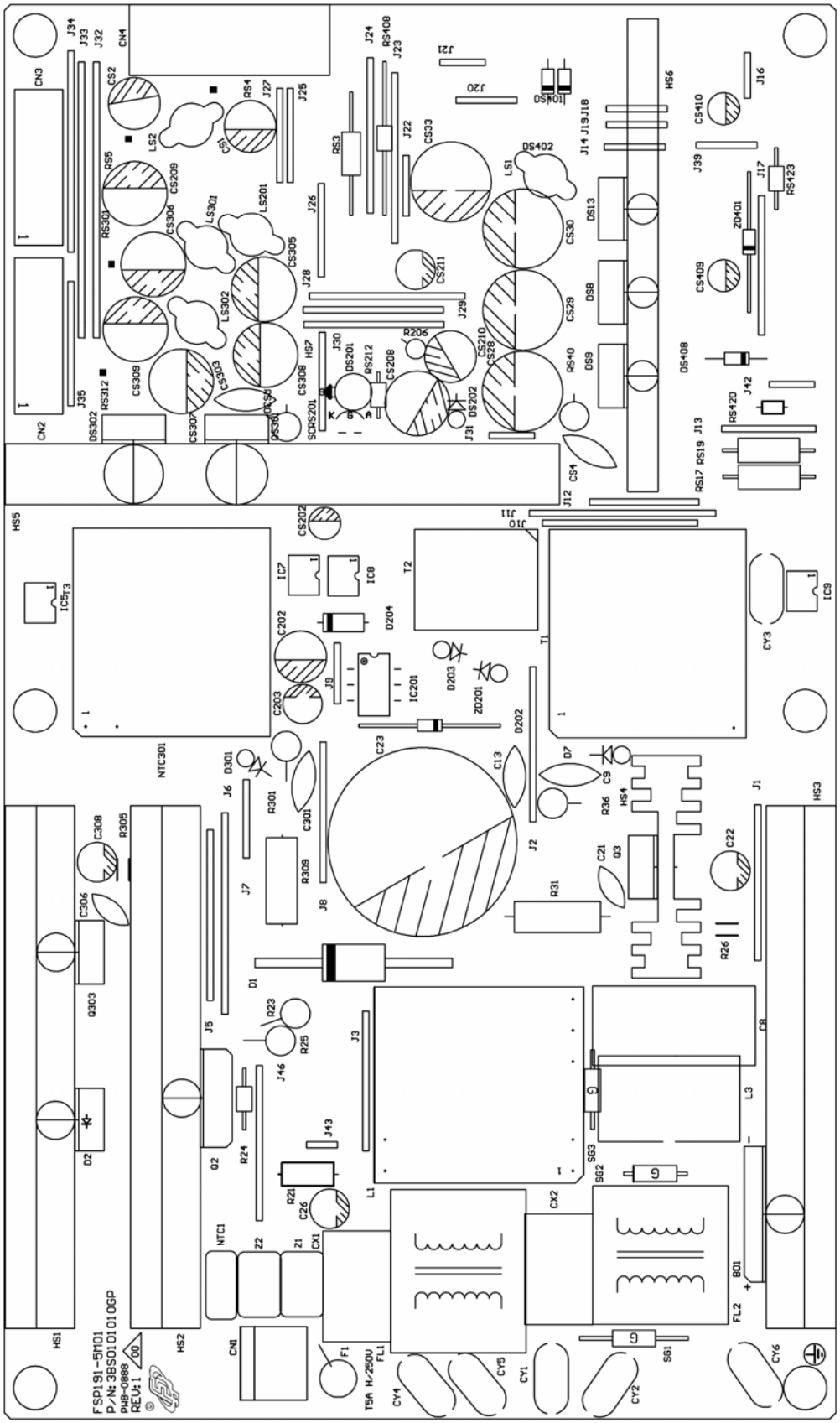
➢ I/O Board1-Top Side(PWB-0886)

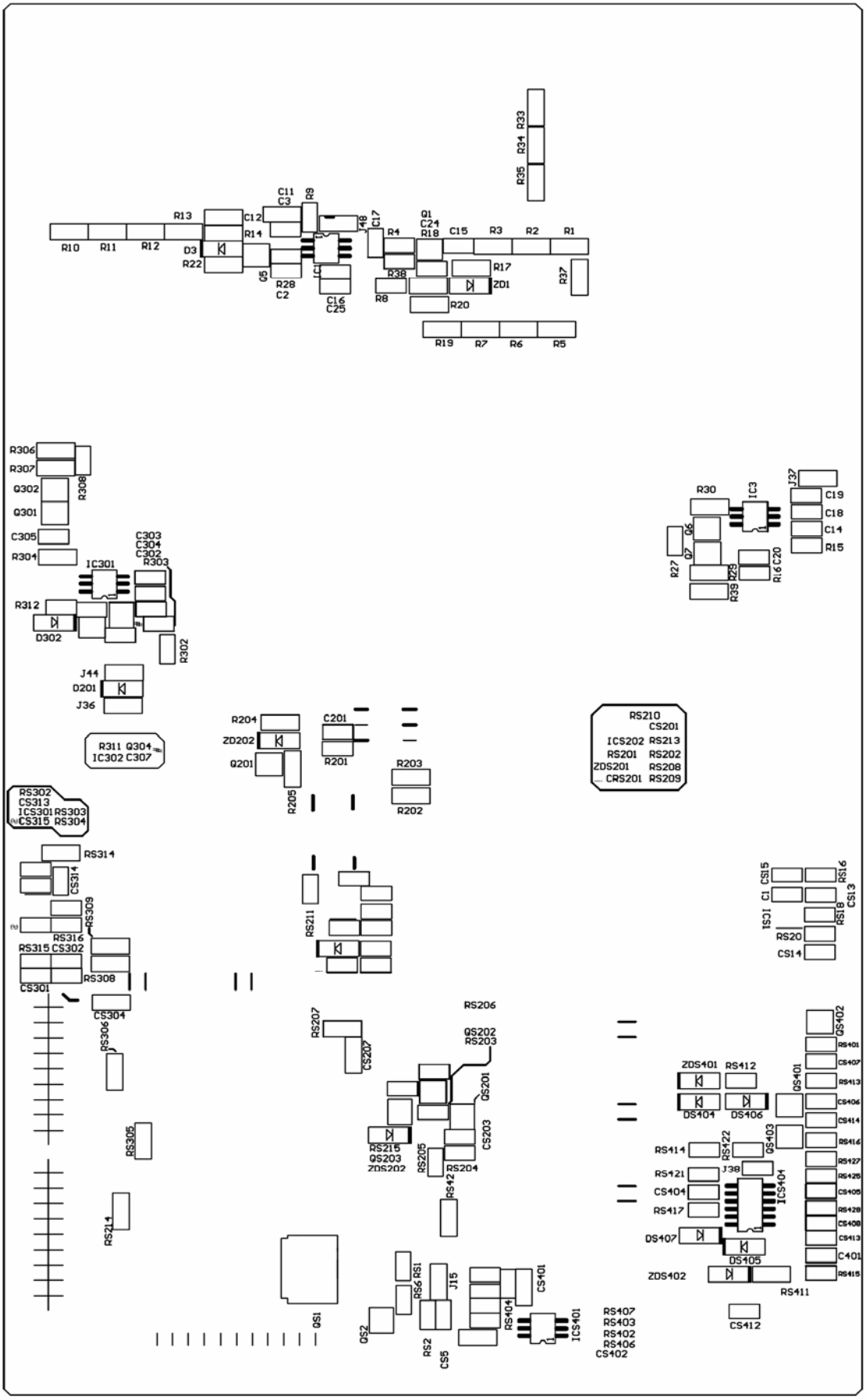



➢ I/O Board2-Top Side (PWB-0887)



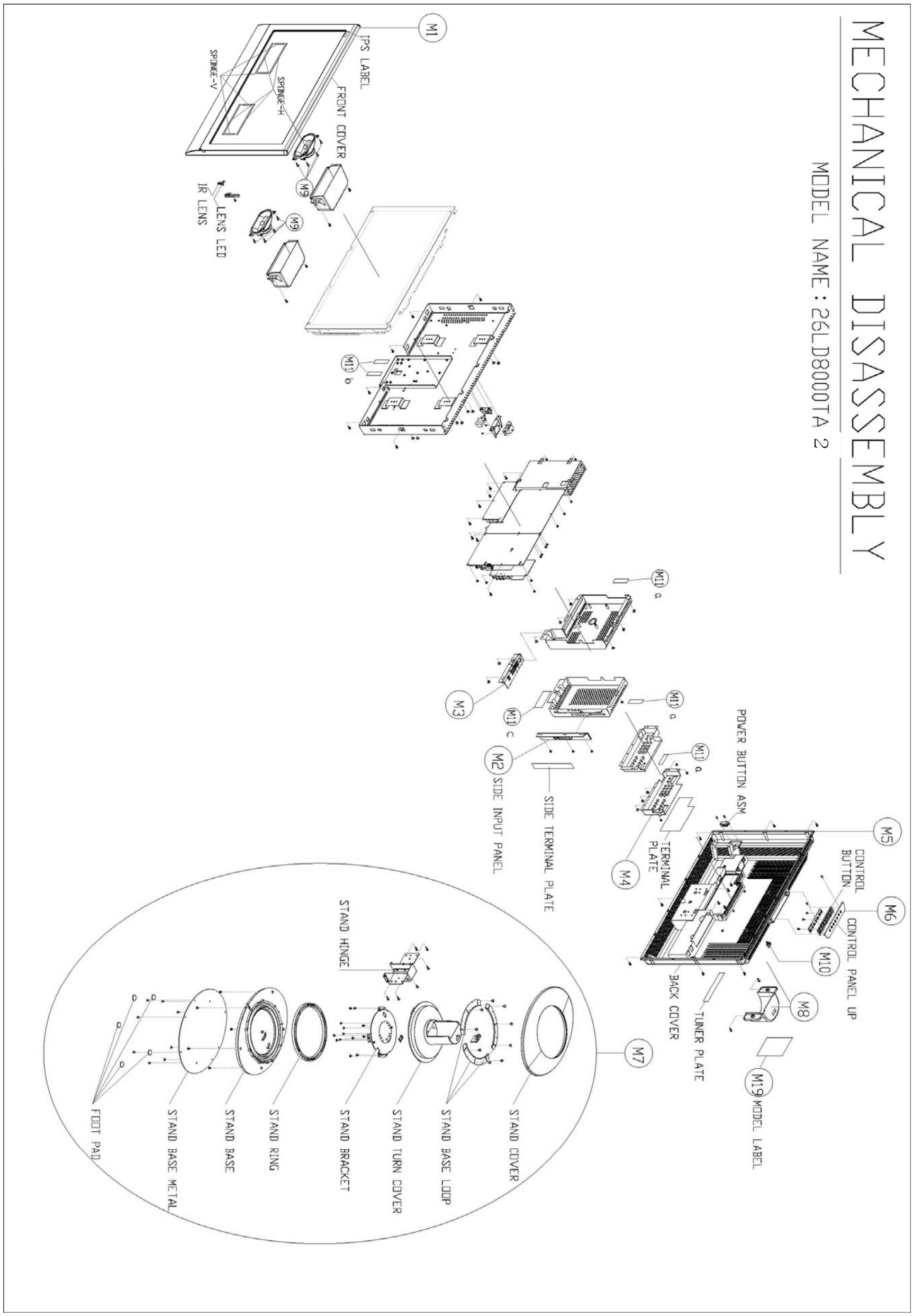
➢ Power Board




R33
R34
R35
C11
C3
R9
R13
C12
R14
R10
R11
R12
D3
R22
Q5
R28
C2
IC1
C16
C25
R48
C17
R4
Q1
C24
R18
C15
R3
R2
R1
R38
R8
R17
ZD1
R20
R37
R19
R7
R6
R5
R306
R307
Q302
Q301
R308
C305
R304
C303
C304
C302
R303
IC301
R312
D302
R302
J44
D201
J36
R30
IC3
J37
C19
C18
C14
R15
Q6
Q7
R27
R25
R39
R16
C20
R204
ZD202
Q201
C201
R201
R205
R203
R202
RS210
CS201
ICS202
RS213
RS201
RS202
ZDS201
RS208
CRS201
RS209
R311
Q304
IC302
C307
RS302
CS313
ICS301
RS303
CS315
RS304
RS314
CS314
RS309
RS316
RS315
CS302
CS301
RS308
CS304
RS306
RS211
CS15
RS16
C1
RS18
CS13
ICS1
RS20
CS14
RS207
CS207
RS206
QS202
RS203
QS201
CS203
RS215
QS203
ZDS202
RS205
RS204
RS42
RS305
RS214
ZDS401
RS412
QS401
DS404
DS406
QS402
RS401
CS407
RS413
CS406
CS414
RS416
RS427
RS426
CS405
RS428
CS408
CS413
C401
RS415
RS414
RS422
QS403
RS421
J38
CS404
ICS404
RS417
DS407
DS405
ZDS402
RS411
CS412
QS1
QS2
RS6
RS1
J15
RS2
CS5
RS404
CS401
ICS401
RS407
RS403
RS402
RS406
CS402

## *12. Disassembly Diagram*

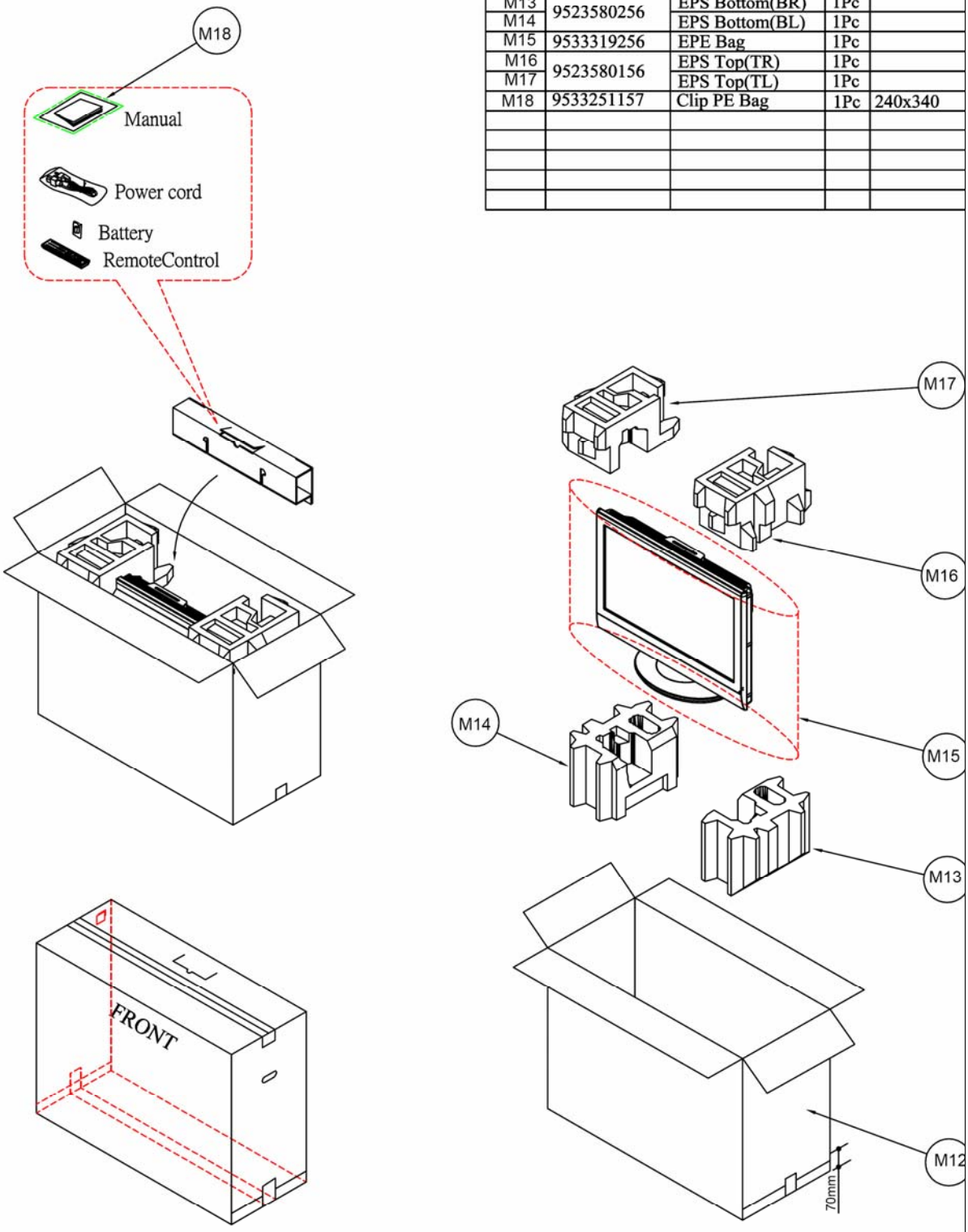
➢ Mechanical



# PAKAGE EXPLODE DIAGRAM

**26LD8000TA** 2

| Model | 26LD8000TA/26LD8200TC V26ALAH-A05/V26ALAH-C05 | | | |
|---|---|---|---|---|
| item | Part No. | Parts Name | Q'ty | Remarks |
| M12 | 9513580256 | RS Carton | 1Pc | |
| M13 | 9523580256 | EPS Bottom(BR) | 1Pc | |
| M14 | | EPS Bottom(BL) | 1Pc | |
| M15 | 9533319256 | EPE Bag | 1Pc | |
| M16 | 9523580156 | EPS Top(TR) | 1Pc | |
| M17 | | EPS Top(TL) | 1Pc | |
| M18 | 9533251157 | Clip PE Bag | 1Pc | 240x340 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



▪ Mechanical & Packing Parts List(26LD8000TA 2)

| NO. | DESCRIPTION | PART NO. | HITACHI PART NO | Q' TY. |
|---|---|---|---|---|
| | | | | |
| M1 | FRONT COVER ASSEMBLY | 5095670823 | TS06161 | 1 |
| a | FRONT COVER(ASIA) | E641104703 | — | 1 |
| b | LENS LED | E640333200 | — | 1 |
| c | IR LENS | E640333300 | — | 1 |
| d | SPONGE-H | E642026412 | — | 4 |
| e | SPONGE-V | E642026413 | — | 4 |
| f | IPS LABEL | E642442200 | — | 1 |
| | | | | |
| M2 | SIDE INPUT PANEL ASSEMBLY | 5095670826 | TS06131 | 1 |
| | SIDE INPUT PANEL | E642681500 | — | 1 |
| | SIDE TERMINAL PLATE | E642441800 | — | 1 |
| | | | | |
| M3 | TUNER PANEL | E642323900 | TS06142 | 1 |
| | | | | |
| M4 | TERMINAL PANEL ASSEMBLY | 5095671030 | TS07321 | 1 |
| | TERMINAL PANEL | E642324200 | — | 1 |
| | TERMINAL PLATE | E642445600 | — | 1 |
| | | | | |
| M5 | BACK COVER ASSEMBLY | 5095671027 | TS07331 | 1 |
| a | BACK COVER | E641104810 | — | 1 |
| b | POWER BUTTON ASM | E642852501 | — | 1 |
| c | TUNER PLATE | E642441900 | — | 1 |
| d | MODEL LABEL(TTL)(A25) | E030538801 | — | 1 |
| f | MODEL LABEL (TCN) (A25) | E030538206 | — | 1 |
| | | | | |
| M6 | CONTROL BUTTON ASSEMBLY | 5095670825 | TS06181 | 1 |
| a | CONTROL PANEL UP(ASIA) | E642323202 | — | 1 |
| b | CONTROL BUTTON | E642852301 | — | 1 |
| | | | | |
| M7 | STAND ASSEMBLY | 5095854669 | TS06191 | 1 |
| a | STAND TURN COVER(ASIA) | E641418202 | — | 1 |
| b | STAND COVER(ASIA) | E641418302 | — | 1 |
| c | STAND BASE | E641418400 | — | 1 |
| d | STAND RING | E641419600 | — | 1 |
| e | STAND BRACKET | E640409900 | — | 1 |

| | | | | |
|---|---|---|---|---|
| f | FOOT PAD | E642030200 | — | 6 |
| g | STAND HINGE | E648746800 | — | 1 |
| h | STAND BASE METAL | E640409800 | — | 1 |
| i | STAND BASE LOOP | E648743200 | — | 3 |
| | | | | |
| M8 | STAND HINGE COVER(ASIA) | E641418502 | TJ03762 | 1 |
| | | | | |
| M9 | PRWP-M3X14 | 5640228400 | TJ03771 | 8 |
| | | | | |
| M10 | CABLE CLAMP | E642682000 | TJ03781 | 1 |
| | | | | |
| M11 | TAPE OF AL FOIL | - - - | - - - | - - - |
| a | TAPE OF AL FOIL | E648006506 | TE02441 | 3 |
| b | TAPE OF AL FOIL | E648006507 | TE02442 | 2 |
| c | TAPE OF AL FOIL | E648006520 | TE02443 | 1 |
| | | | | |
| M12 | RS CARTON | I513580656 | TJ05471 | 1 |
| | | | | |
| M13 | EPS Bottom(BR) | | | 1 |
| | | I523580256 | TJ03801 | |
| M14 | EPS Bottom(BL) | | | 1 |
| | | | | |
| M15 | EPE Bag | I533319256 | TJ03811 | 1 |
| | | | | |
| M16 | EPS Top(TR) | | | 1 |
| | | I523580156 | TJ03821 | |
| M17 | EPS Top(TL) | | | 1 |
| | | | | |
| M18 | Clip PE Bag | I533251157 | TJ03606 | 1 |

## *Service Parts list*

- Electrical Parts List (26LD8000TA 2)

| NO. | DESCRIPTION | PART NO. | HITACHI PART NO |
|---|---|---|---|
| PB01 | POWER MODULE + CASE FSP | F693006617 | TE03871 |
| | ASSEMBLY PCB-MAIN BOARD (PWB-0885-A) | 5098801099 | TE03881 |
| | ASSEMBLY PCB-SIDE I/O (PWB-0886) | 5097650503 | TE02472 |
| | ASSEMBLY PCB-REAR I/O (PWB-0887) | 5097650606 | TE03891 |
| | ASSEMBLY PCB-LED/IR(PWB-0885-B) | 5098801043 | TE02474 |
| | ASSEMBLY PCB-KEY PAD (PWB-0885-C) | 5098801046 | TE02475 |
| | ASSEMBLY PCB-AC SWITCH (PWB-0885-D) | 5098801045 | TE02476 |
| P807 | POWER CORE (UK) (A25) | E056706081 | TE02491 |
| V901 | 26"TFT Panel Module LPL (LC260WX2-SL01 ) | E051253001 | TE02501 |
| SW01B | QUICK TIE,PVC | E071000001 | TE02511 |
| P008A | Wire Ass'y W12/12P | E057412007 | TE02481 |
| P010A | Wire Ass'y W5/5P | E057405010 | TE02482 |
| P011A | Wire Ass'y W8/8P | E057408004 | TE02483 |
| P015A | Wire Ass'y W6/6P | E057406003 | TE02484 |
| V901A | Wire Ass'y W30/30P | E057430010 | TE02488 |
| V091B | Wire Ass'y W12/14/12P | E057414004 | TE02489 |
| P905A | Wire Ass'y W4/2P | E057404012 | TE02485 |
| SW01A | Wire Ass'y Inlet W3P | E057403012 | TE02487 |
| SP01 | SPEAKER | E055100001 | TE02521 |
| SP02 | SPEAKER | E055100001 | TE02521 |
| SP01A | Wire Ass'y W2P Conn. | E057402010 | TE02486 |
| RCU01 | REMOTE CONTROLLER | E052731083 | TE02542 |
| | | | |
| Y001 | USER’S MANUAL | E030037011 | TE03901 |
| 2B01 | MODEL LABEL (TTL) | E030538801 | TJ05451 |
| 2B01 | MODEL LABEL (TCN) | E030538206 | TJ05461 |