

IBK

DV915HD(RU)

Service Manual



Model version:SI2.00

Catalog

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Caution :

This Service Manual is applicable to DV915HD(RU)SI2.00.

Chapter One About Maintenance

1.1 Safety precautions

1.1.1 Power supply

When maintenance personnel are repairing DVD players, he should pay special attention to the power board with 220V AC and 330V DC which will cause hurt and damage to persons!

1.1.2 Precautions for antistatic

Movement and friction will both bring static electricity which causes serious damages to integrated IC. Though static charge is little, when a limited quantity of electric charge is added to large-scale integrated IC, as the capacitance is very small in the meantime, now the integrated IC is very much easy to be struck through by static electricity or the performance will decrease. Thus static electricity prevention is of extraordinary importance. The following are several measures to prevent static electricity:

1. Use a piece of electric conduction metal with the length of about 2 metres to insert into the earth, and Fetch the lead wire from the top of the surplus metal and connect to the required static electricity device. The length and depth of the metal embedded under the earth should be determined according to the wettability of the local soil. For humid places, it may be shorter, and longer and deeper for dry places. If possible, it can be distributed and layed in terms of “#” shape.
2. On operating table-board, the antistatic table cushion should be covered and grounded.
3. All devices and equipments should be placed on the antistatic table cushion and grounded.
4. Maintenance personnel should wear antistatic wrist ring which should be grounded.
5. Places around the operating position should also be covered with electric conduction cushion or Painted with antistatic paint.

1.1.3 Precautions for laser head

1. Do not stare at laser head directly, for laser emission will occur when laser head is working, which will Hurt your eyes!
2. Do not use wiping water or alcohol to clean laser head, and you may use cotton swab.

1.1.4 About placement position

1. Never place DVD player in positions with high temperature and humidity.
2. Avoid placing near high magnetic fields, such as loudspeaker or magnet.
3. Positions for placement should be stable and secure.

1.2 Maintenance method

1.2.1 Visualized method

Directly view whether abnormalities of collision, lack of element, joint welding, shedding welding, rosin joint, copper foil turning up, lead wire disconnection and elements burning up among pins of elements appear. Check power supply of the machine and then use hands to touch the casing of part of elements and check whether they are hot to judge the trouble spot. You should pay more attention when using this method to check in high voltage parts.

1.2.2 Electric resistance method

Set the multimeter in resistance position and test whether the numerical value of resistance of each point in the circuit has difference from the normal value to judge the trouble spot. But in the circuit the tested numerical value of resistance is not accurate, and the tested numerical value of integrated IC's pins can only be used for reference, so the elements should be broken down for test.

1.2.3 Voltage method

Voltage method is relatively convenient, quick and accurate. Set the multimeter in voltage position and test power supply voltage of the player and voltage of a certain point to judge the trouble spot according to the tested voltage variation.

1.2.4 Current method

Set the multimeter in current position and test current of the player of a certain point to judge the trouble spot. But when testing in current method, the multimeter should be series connected in the circuit, which makes this method too trivial and troublesome, so it is less frequently used in reality.

1.2.5 Cutting method

Cutting method should be combined with electric resistance method and voltage method to use. This method is mainly used in phenomena of short circuit and current leakage of the circuit. When cutting the input terminal voltage of a certain level, if voltage of the player rises again, it means that the trouble lies in this level.

1.2.6 Element substitution method

When some elements cannot be judged good or bad, substitution method may be adopted directly.

1.2.7 Comparison method

A same good PC board is usually used to test the correct voltage and waveform. Compared these data with those tested through fault PC board, the cause of troubles may be found.

Through the above maintenance method, theoretical knowledge and maintenance experience, all difficulties and troubles will be readily solved.

1.3 Required device for maintenance

- ◆ Digital oscillograph ($\geq 100\text{MHz}$)
- ◆ TV set
- ◆ SMD rework station
- ◆ Multimeter
- ◆ Soldering iron
- ◆ Pointed-nose pincers
- ◆ Cutting nippers
- ◆ Forceps
- ◆ Electric screw driver
- ◆ Terminal connecting cord
- ◆ Headphone
- ◆ Microphone

Chapter Two

Functions and Operation Instructions

2.1 Features

Compatible Disc Types:

- #Digital video playback: DVD-Video, Super VCD, VCD compatibility
- #MPEG-4 standard support: compatibility with DivX3.11, DivX4, DivX5, DivXPro, XviD compressed video files
- #Digital audio playback: DVD-Audio, Super Audio CD, CD-DA and HDCD compatibility
- #Fully compatible with compressed audio files such as Mp3, WMA and OGG Vorbis formats
- #Playback of DVD, VCD, CD+G karaoke discs
- #Digital graphic albums playback: Kodak Picture CD, JPEG compatibility

Audio:

- #192 KHz/24 bit Audio Digital/Analog converter
- #Coaxial and optical outputs for Dolby Digital/DTS/LPCM digital audio
- #Mixed audio output for amplifier or TV connection
- #Digital multi-channel decoders, providing Dolby Digital/DTS audio stream playing
- #Built-in Dolby Pro Logic II decoder makes available to convert stereo signal into multi-channel
- #MIC input for karaoke function
- #Headphones output

Video:

- #108 MHz/12 bit Video Digital/Analog converter
- #HDMI interface provides high-definition image(720p/1080) and digital audio
- #Progressive Scan Output(Y Pb Pr) producing flicker-free and stable images
- #Composite, component(Y Cb Cr), S-Video and RGB/SCART outputs for various types of connections
- #Capable of playing NTSC/PAL discs
- #Multiple dubbings, angles, subtitles support
- #Sharpness, gamma, brightness, contrast, hue, saturation adjustment

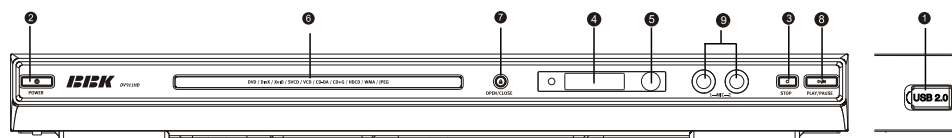
Others:

- #Compatible disc types: CD-R/CD-RW, DVD-R/DVD-RW, DVD+R/DVD+RW
- #USB interface to connect Mp3 player, flash card or digital camera
- #KARAOKE+ system, expanding karaoke function
- #Russia, CIS and Baltic States adaptation interface and filenames, ID3-tags and CD-Text support simplifies device operation
- #"Memory" function enables to save the last point after stop playback
- #"Q-Play" function provides direct playback and allows to skip commercial that is not possible to rewind
- #"Virtual Keyboard" function provides more convenient DVD playback control
- #"Browser" function provides easy access to playback control
- #Automatic Screensaver function
- #Parental control function to protect children from watching inappropriate discs
- #Super wide range of operating power supplies (~110-250V, 50/60Hz), automatic short circuit protection

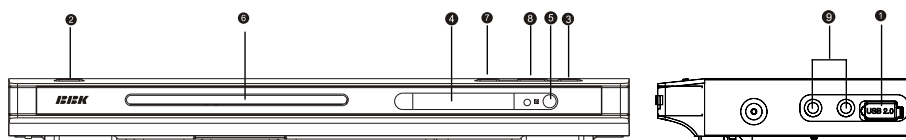
2.2 Controls and functions

2.2.1 Front and side panels control

DV911HD



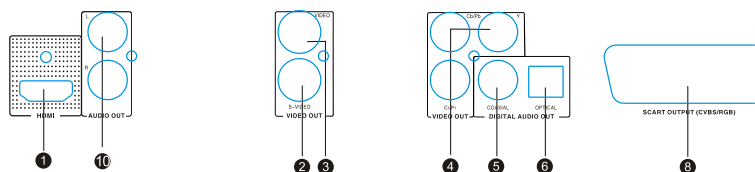
DV915HD



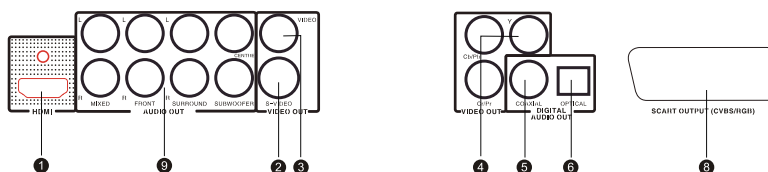
- | | | | |
|---|--------------------------|---|-------------------|
| 1 | USB indicator | 6 | Disc tray |
| 2 | POWER button | 7 | OPEN/CLOSE button |
| 3 | STOP button | 8 | PLAY/PAUSE button |
| 4 | LED display | 9 | Microphone input |
| 5 | Sensor of infrared beams | | |

2.2.2 Rear panel general view

DV911HD



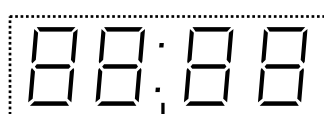
DV915HD



- | | | | |
|---|-----------------------------------|----|--------------------------------|
| 1 | HDMI Out jack | 5 | Digital Audio Coaxial Out jack |
| 2 | S-VIDEO Out jack | 6 | Digital Audio Optical Out jack |
| 3 | VIDEO Out jack | 8 | SCART Out jack |
| 4 | Video Component/Y Pb Pr out jacks | 9 | 5.1CH Audio Out jack |
| | | 10 | Stereophonic audio output |

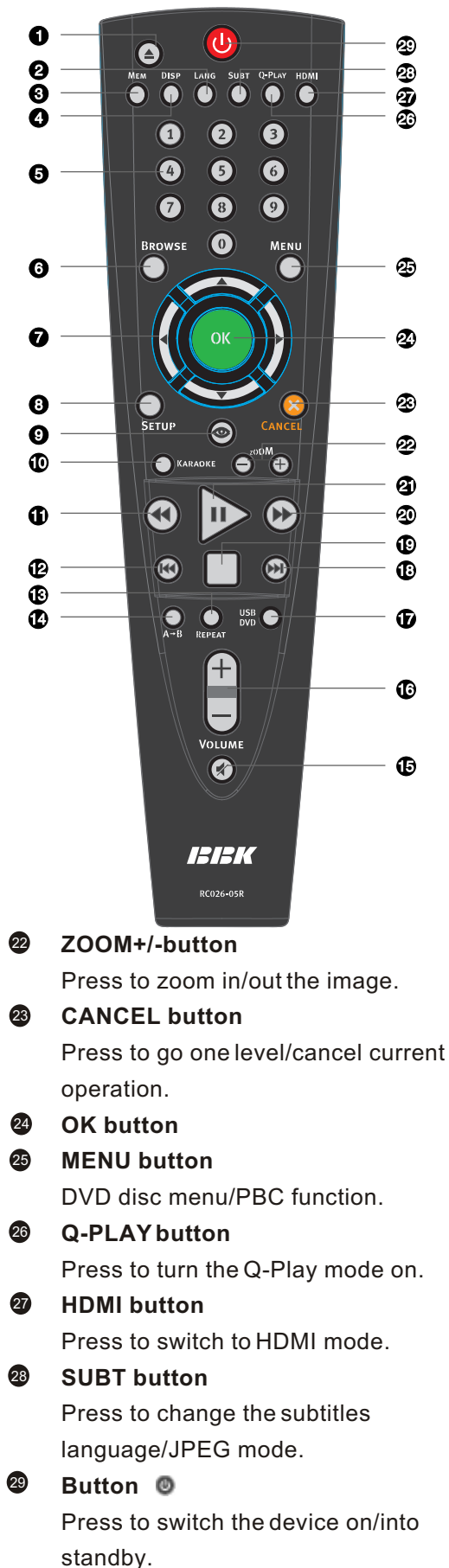
2.2.3 LED display general view

DV911HD,DV915HD



Playback mode

2.2.4 Remote control general view



- 1 **Button** Press to open/close the disc tray.
- 2 **LANG button** Press to change the language.
- 3 **MEM button** Press to memorize the point where playback was stopped/playback from the previously memorized point.
- 4 **DISP button** Press to display the disc information.
- 5 **Numeric buttons**
- 6 **BROWSE button** Press to turn on/off the browser function.
- 7 **Sense buttons**
- 8 **SETUP button** Press to switch to setup mode.
- 9 **Button** Press to turn on/off the "Virtual Keyboard" function.
- 10 **KARAOKE button** Press to set karaoke function.
- 11 **Button** Press to reverse scanning.
- 12 **Button** Press to playback from the previously point.
- 13 **REPEAT button** Press to repeat playback.
- 14 **A-B buttons** Press to repeat the selected portion.
- 15 **Button** Press to turn on/off the sound.
- 16 **VOLUME +/- button** Press to adjust the volume.
- 17 **USB/DVD button** Press to switch USB/DVD modes.
- 18 **Button** Press to stop playback.
- 19 **Button** Press to forward scanning.
- 20 **Button** Press to play/pause the playback.
- 21 **Button** Press to playback from the following point.

2.3 Set list

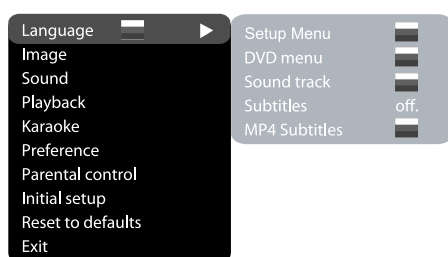
DVD player	1PCS
Audio cord 2xRCA-2xRCA	1PCS
Video cord RCA-RCA	1PCS
Remote control	1PCS
Battery AAA	2PCS
Warranty card	1PCS
User's manual	1PCS
Karaoke disc	1PCS

2.4 FUNCTION SETTINGS

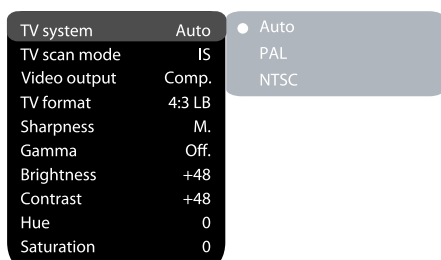
2.4.1 Function selection and change

Press the Setup key to show the setup menu. You will see the following image on the screen, as shown on the figure:

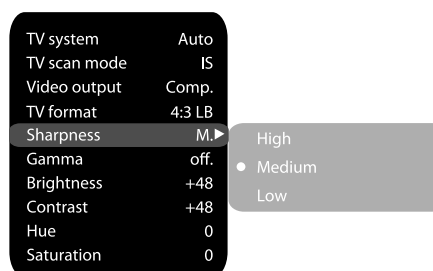
Select the desired menu item using the UP and DOWN buttons; press OK for confirmation.



1. For example, if you wish to change the image settings, you have to select the Image item and press the OK.



- Using the UP and Down buttons, select the desired item and press OK
For example, select the Sharpness item. Settings will appear on the screen. Then select the desired sharpness level and press OK for confirmation.
- Press LEFT key of the UP and DOWN buttons for exit to previous menu level.
- Press SETUP to exit setup menu.

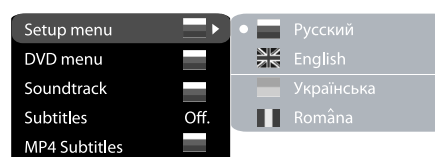


2.4.2 Language settings

1. Menu: interface language setup

#Options: Russian, English, Ukrainian, Romanian.

#Default option: Russian.



2. DVD menu :selection of disc menu language

3. Soundtrack: selection of translation language

#Options: Russian, English, Estonian, Latvian, Kazakh, Romanian, Belarusian, Ukrainian, Chinese.

#Default: English.

#Selection of other languages: select the OTHERS item using the UP and DOWN buttons and press OK. Enter the language code using the numeric buttons and press OK.

#If the language you selected is not recorded on the DVD disc, another available language will be used.

4.5. DVD/MP4 Subtitles: selection of subtitles language

#Options: Off, Russian, English, Estonian, Latvian, Kazakh, Romanian, Belarusian, Ukrainian and Chinese.

#Default option: Off.

#Selection of other languages: select the OTHERS item using the Up and DOWN buttons and press OK. Enter the language code using numeric buttons and press OK.

#If the language you selected is not recorded on the DVD/MP4 disc, another available language will be displayed.

2.4.3 Image settings menu

1. TV system: TV system selection

#Options: Auto, PAL, NTSC.

#Default option: PAL

2. TV scan mode: scan mode selection

#Options: progressive, interlaced.

#Default option: interlaced.

#Progressive scan is transferred only via a component video output.

#Before switching to progressive scan, make sure that your TV set supports this operation mode.

3.Video output: selection of video signal

#Options: S-Video,Comp, SCART.

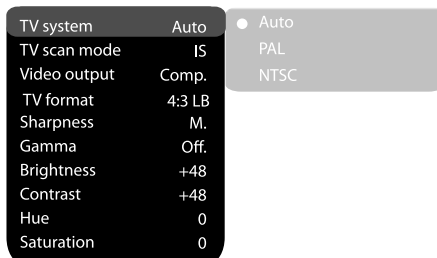
#Default option: Comp.

4. TV Format: image ratio settings

#Options: 4:3 pan&scan, 4:3 letterbox, 16:9 TV, Wide/SQZ.

#Default option: 16:9

#Some discs are recorded with support of only one ratio. The selected ratio must comply with the TV screen.



5.Sharpness: image sharpness adjustment

#Options: High, Medium, Low.

#Default option: Medium.

6.Gamma: adjustment of image color temperature

#Options: High, Medium, Low, Off.

#Default option: Off.

7.Brightness: adjustment of image brightness.

8.Contrast: adjustment of image contrast

9. Hues: adjustment of image hues.

10.Saturation: adjustment of image saturation

Adjustment of image brightness, contrast, hues and saturation:

#Select the desired item of the image adjustment section using the Up and Down buttons. Press OK or RIGHT key to start adjusting the relevant option.

#Change the option value using the Up and Down buttons.

#Upon completion press the LEFT key of the UP and DOWN buttons to return to image setup menu.

2.4.4 Sound settings menu

1. Mixer

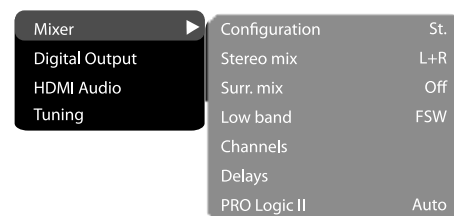
A) Configuration: setting of the mode for conversion of the 5-channel signal to stereo signal

#Options: Stereo, 5.1

#Default option: Stereo.

#5.1 mode must be supported by the disc
Number of music accompaniment channels depends on the specific disc.

#Adjustment of the central speaker and surround speakers is available only if the Configuration option is set to 5.1 position.



B). Stereo mix: playback set-up while playing the disc with two independent audio channels.
(DV911HD only has this function.)

#Options: L+R, L, R.

#Default option: L+R.

C) Surr. Mix: set-up of surround options while playing the stereo disc.(DV911HD only has this function.)

#Options: Off, sum, Virt. Surr.

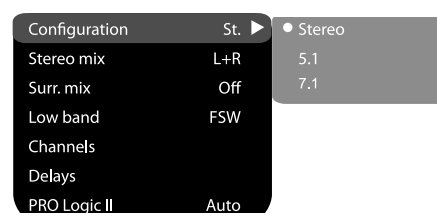
#Default options: Off.

D). Low band: distribution of low frequencies through channels.

#Options: Front F, Center C, Surround Sr, Subwoofer SW.

#Default options: Front F, Subwoofer SW,

#If you want the low-frequency component of the sound signal enter only the subwoofer channel, select and confirm the parameter Subwoofer SW.



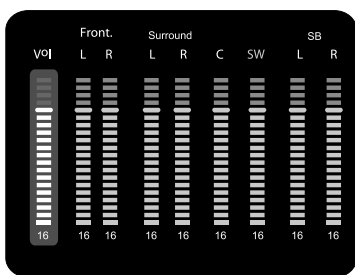
E). Channel settings: separate adjusting of volume by channels.

#Select the channel you want.

#Adjust the sound volume of each channel using the UP and DOWN buttons.

#Press the OK or Cancel to return to sound settings menu.

#No SB L/R selection for DV915HD in right menu.



F) Delay of the channel: set-up of signal delay in speaker channels(central, rear and subwoofer).

#Using the Up and Down buttons, select the channel, for which you want to set up the delay, and press OK for confirmation.

#Using the Up and Down buttons set up the desired distance from the listener to each speaker(detailed description of this operation see on page30)

#Press LEFT key of the cursor to return to speaker configuration menu.

#No LSA/RSB selection for DV915HD in right menu.

G). PRO Logic II: function of stereo sound conversion to 5-channels sound.

#Options: On, Off, Auto.

#Default option:Off.

#In Auto position, the DVD player determines itself, when to use the PRO Logic II decoder. Some discs do not support this function.

2.Digital audio output

A) SPDIF format: set-up of digital audio output options.

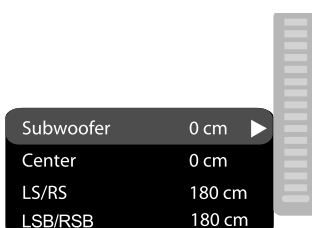
#Options: RAW, PCM.

#Default option: RAW.

#When you select the RAW option, the not decoded signal is transferred to the DVD player's digital outputs, the decoded signal is transferred to analog outputs. Decoding is performed by the built-in decoder of the DVD player.

This feature is meant to ensure that signal decoding at digital outputs is performed by an external device (e.g.an amplifier).

#If you select the PCM option, a PCM coded signal will be transferred to the DVD player's digital outputs.



B)LPCM: set-up of digital audio output options to comply with different amplifiers and receivers.

#Options: 48 kHz 16 bit,96 kHz 24 bit, 192 kHz 24 bit.

#Default option: 48 kHz 16 bit.

3.HDMI audio: transfer digital sound by HDMI interface.

#Options: Spdif, Multi-channel, Off

#Default option: Multi-channel

4.Sound correction

A)Max volume: max volume limiting

#Using the Up and Down buttons, adjust the max volume level.

#Press the LEFT key of the Up and Down buttons to return to sound correction setup menu.

B)Equalizer: equalizer modes

#Options: Rock, Pop, Live, Dance, Techno, Classic, Soft.

#Default option: Off.

C)Echo:echo effects

#Options: Off, Concert, Living room, Hall, Bathroom, Cave, Arena, Church.

#Default option: Off.

D)Tone balance: adjustment of tone balance level.

#Adjust the tone balance level using the Up and Down buttons.

#Press the LEFT key of the Up and Down buttons to return to sound correction setup menu.

2.4.5 Playback settings

1.DVD

Advertisement skip: skip the unskippable block while playing a DVD disc

#Options: Yes, No

DeFAULT option: No



2. VCD/SVCD

PBS menu: PBC menu on/off

#Options: On, Off.

#Default option: On.

#If on option is set, while reproducing discs, a menu will appear, in which you can select the order of playing the disc content. If the off option is set, the reproducing of content is performed in the order, in which it is recorded on the disc.

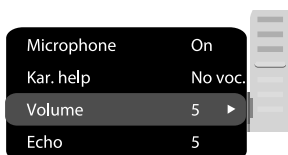
3. Files: selection of reproduced files on the disc.
 #Options: Audio, Pictures, Video.
 #Default option: A.P.V
- 4.Repeat: file repeat mode
 #Options: Off, Single, All.
 #Default option: Off.
- 5.Shuffle: shuffle files from the playlist
 #Options: Off, On.
 #Default option: Off.
- 6.Laad effect: Loading mode for JPEG or Paeture col.
 #Options: Off, from top, from bottom.
 #Default option: Off.

2.4.6 Karaoke settings menu

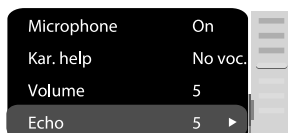
- 1.Microphone: microphone on/off
 #Options: Off, On.
 #Default option: Off.
- 2.Kar. Help :karaoke disc playback mode
 #Options:L Channel, R Channel, No ast, No voc.
 #Default option: No vocal mode.



3. Volume:
 Microphone: microphone sound volume level
 #Using the UP/DOWN buttons adjust the microphone volume level.
 #Press LEFT key of the UP/DOWN buttons to return to karaoke settings menu.



4. Echo: echo level while playing the karaoke-disc
 #Adjust the echo level Using the UP/DOWN buttons.
 #Press LEFT key of the UP/DOWN buttons to return to karaoke settings menu.



2.4.7 Preference settings

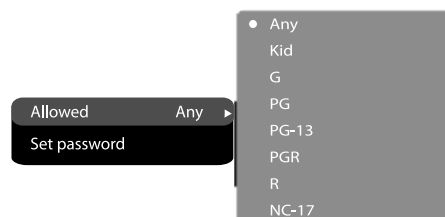
1. Gr.Equalizer: spectrum analyzer
 #Options: On, Off.
 #Default option: Off.

- 2.Screensaver: screen saver on/off
 #Options: On, Off.
 #Default option: On.

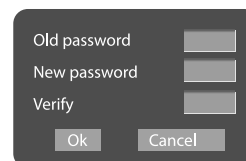


2.4.8 Parental Control

- 1.Allowed: setup of age restrictions to prevent children from seeing undesirable discs.
 #Options: Any, Kid, G, PG, PG-13, PGR, R, NC-17.
 #Default option: Any.

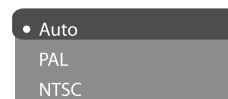


2. Set password: setup of a four-digit password to change the level of age restrictions.
 #Default option: 7890.



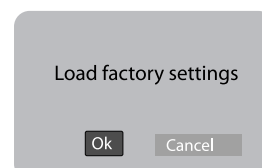
2.4.9 Initial setup menu

- #Press the RIGHT key of the UP/DOWN buttons to enter the initial setup menu, then select the desired item using the buttons Up and Down and press OK key for confirmation.
 #While being in this menu section, you cannot return to the previous level by pressing the LEFT key of the UP/DOWN buttons.



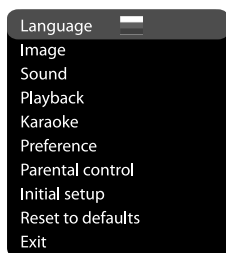
2.4.10 Reset to defaults

- #Resetting all settings and restoring default options, except age restrictions level and password.



2.4.11 Exit settings menu

#Select the exit item using the Up and Down buttons and press the OK to exit the menu.



2.4.12 Channel delay set-up

Set-up of time delay in the surround channel

Usually, time delay in the Dolby Digital decoding system is preset to ensure best effect while installing the Home Theater. However, in case you wish to adjust your system more precisely, please consult instructions given in this manual. Set up of time delay for this device is possible in both Dolby Digital and Dolby Pro Logic modes.

To set the desired delay you have to know the distance from the place where you are, to the front speakers and Surround speakers as shown in Fig.1. Consult Fig.2(Dolby Pro Logic mode) and 3 (Dolby Digital mode) in order to determine the distance to Surround speakers(axis Y in the figure) and the distance to the front speakers(axis X in the figure). Crossing point of those two lines on the chart will give the recommended delay value.

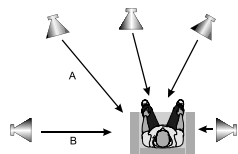


Fig.1. Take into account the A-B distance; use both figures for setting the desired time delay.

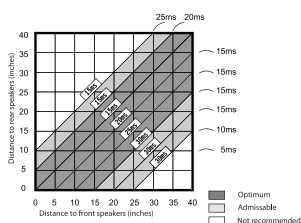


Fig.2. Determine delay value as to Dolby ProLogic mode.

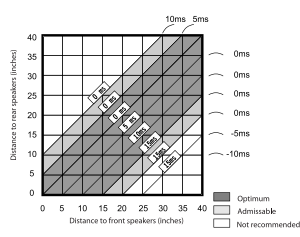


Fig.3. Determine delay value as to Dolby Digital mode.

Set-up of time delay in the central channel

Sometimes several people are listening to the music, and the space is limited. In this case, you can install three speakers(two front ones and a central one) as shown in Fig.1.

With the distance to the listener being approximately the same. The central channel delay is to be set at "0".

Should the central speaker be in close proximity to left and right front speakers as shown in Fig.2, or the central speaker be nearer to listeners when compared with front speaker's location, or the central speaker be nearer to the listener by 1 foot, in all these cases you may set the delay value for the central channel at 1 ms.

For instance, as shown in Fig.2, if the line C is by 1 foot shorter than the lines R and L, the Delay value is to be set at 1 ms, If your sofa is broad enough, and there are several listeners sitting on it, it makes sense to locate the speakers in one line, as shown in Fig.3 with the delay value of the central channel to be set at "0".

Finally, if it will be necessary to install the central speaker behind the left and right front speakers, the delay value shall be set at "0".

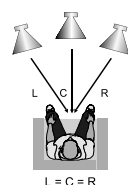


Fig.1. Delay of central channel=0
L=R=C

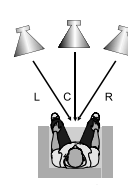


Fig.2. Small area
Delay of central channel
=L=(or)R-C

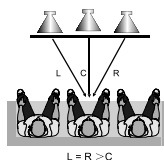
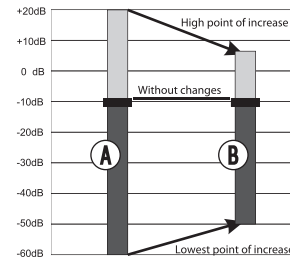


Fig.3. Small area
Delay of central channel=0
L=R>C

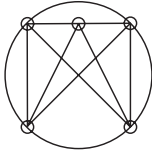
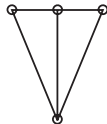
"Night" mode

The Dolby Digital system provides an extremely broad dynamic range of playback sound-from gentle to roaring. It creates the presence effect, especially while seeing motion pictures. However, at night a powerful sound with a broad dynamic range may give pleasure to you, but disturb and annoy your family and neighbors, if you just decrease the volume, you will immediately notice that you ceased to hear, e.g, dialogues as clear as you do at normal volume, and such sound effects as rustle, whisper etc. Have merely disappeared. To avoid this, you just have to decrease the volume of "loud" sounds by simultaneously increasing the volume of "soft" sounds with the volume of "average" sounds left unchanged, i.e. Just decrease the dynamic range of sound accompaniment.

Only Dolby Digital system provides for such a method of sound control. It uses the principle of compressing the acoustic signal's dynamic range while recording; therefore, while playing and inverse transformation (volume expansion) takes place. This is called "night" mode. The regulation limits are restricted, however, to avoid distortions of resultant signal. This is called "night" mode. The regulation limits are restricted, however, to avoid distortions of resultant signal.



Principle of compressing the acoustic signal's dynamic range.

	Dolby Digital	Dolby Pro Logic surround
Rear channel	Stereo 20 Hz-20 kHz	Mono channel with limited frequency range(100Hz-7 kHz)
Low-frequency channel(subwoofer)	Available,20-120 Hz	N/a
Sound field distribution	Multivariate 	From left to right, from right to left, from front to rear, from rear to front 
Channels	6 independent channels, each reproducing its own signal at a time	4 segmented channels. Only one channel is decoded at a time.
	Creates an optimum sound field with illusion of an equal distance from listener to each speaker.	The most cost-efficient way to ensure high-quality surround effect.
	Allows adjusting the decompression degree of sound information("night" mode).	Surround sound may be received from any signal source.
Miscellaneous	Possibility of programmable control of the decoder to transfer basses into low-frequency channel in systems equipped with broad-band speakers and a subwoofer.	Compatible with existing and future two-channel(stereo) formats.
	Undoubted progress in sound recording technology, especially important for program directors, film directors, sound engineers and actors.	Big progress in comparison with conventional stereo, the world's most popular surround format.

2.5 MISCELLANEOUS

2.5.1 Useful notes

- #To extend the service life of your DVD player make pauses of not less than 30 seconds between switching off and repeatedly switching on the DVD player.
- #Disconnect the DVD player from the wall outlet after shutdown.
- #Some DVD player's functions may not be applied to some discs.
- #Use supply sources of rated voltage, otherwise the DVD player may not function or be damaged.
- #In case of the DVD player's occasional stops, please switch the power supply off and then on again.

2.5.2 Trouble shooting

Please check probable causes of malfunction before addressing the service center.

Sign of trouble	Cause of trouble	Actions to eliminate the trouble
No sound	1.Poor audio cable connection 2.Disc dirty or damaged. 3.Sound disabled by the MUTE button.	1.Make proper connection. 2.Clean the disc. 3. Press the MUTE button.
No image	1.Poor video cable connection. 2.Incorrect settings of your TV set. 3.The DVD player's is in the progressive scan mode while your TV set does not support this mode.	1.Make proper connection. 2.Correct the settings of your TV set. 3.Place the DVD players in the interlaced scan mode through the DVD-receiver's menu.
Black and white image	1.Incorrect TV color system selected. 2.Color level on the TV set adjusted incorrectly.	1.Set the appropriate color system via the menu: SETUP > Image > TV scan. 2.Readjust the color system of your TV set.
Discs cannot be read	1.Disc not inserted. 2.Disc inserted incorrectly. 3. Condensate on the DVD players's laser head.	1. Insert the disc. 2.Install the disc with the label side facing up. 3. Switch the DVD players on without disc for an hour.
Microphone does not operate	1.Microphone is unplugged. 2. Low level of the microphone's sound volume.	1. Connect the microphone. 2. Adjust the level of the microphone's sound volume.
Remote control does not operate	1.Remote control is incorrectly directed at the DVD players's screen. 2.Distance to the DVD players is in excess of 8 meters. 3. Run out batteries.	1.Use the remote control according to the manual. 2. Decrease the distance to the DVD players. 3. Replace both batteries.
Some functions do not work	1. Disc is recorded incorrectly. 2.Incorrect key sequence. 3.Static voltage on the DVD players's housing.	1.Wait 5-10 seconds and the DVD players will automatically return to normal state. 2. Repeat the operation one more time. 3. Switch the DVD players off for 1-2 minutes and then switch it on again.
Unstable image	1.Incorrect TV set settings.	1.Correct the TV set settings.
Headphones do not operate	1.Headphones are not connected. 2. Low level of sound volume.	1.Connect the headphones. 2. Adjust the level of sound volume.
Not signal or incorrect signal from HDMI socket	1.Poor HDMI cable connection. 2.Display device don't support HDMI output mode. 3. Conditions of protection from copy not observed.	1. Make proper connection. 2. Select another HDMI output mode supported by display device . 3.Satisfy some details about conditions of signal receipt to HDMI input in user manual.
Flutter echo during connection by HDMI socket	1.Result of incorrect frequency transformation posteriority frame from 50 Hz to 60 Hz.	1.Examine propriety of settings of DVD player and display device.

2.5.3 Specifications

Supported formats	DVD-Video,Super VCD,VCD,MPEG-4,DVD-Audio, CD-DA, CD+G,HDCD,MP3,WMA,Kodak Picture CD,JPEG	
Data medium	CD-R, CD-RW, DVD-R, DVD+R, DVD-RW, DVD+RW	
Inputs	Microphone input USB port	
Outputs	Audio Outputs	Analog outputs: Stereophonic output, 5.1CH output. (Only for DV915HD),2.1CH output(Only for DV911HD) Digital outputs: Coaxlal audio output, Optical output.
	Video Outputs	S-Video output, composite output, component Y Cb Cr output, progressive scanning Y Pb Pr output, RGB/SCART output.
Video characteristics	Signal swing of composite video output: Signal swing fo S-Video output: Signal swing of component video output:	1.0Vp-p(75 Ω) 1.0Vp-p(75 Ω) C:0.286Vp-p(75 Ω) 1.0Vp-p(75 Ω) Cb/Cr:0.7Vp-p(75 Ω)
Audio characteristics	Frequency : Signal-to-noise ratio Common distortion harmonic:	20-20000Hz(±1 dB) >100(dB) <0.01%
Voltage range	~110-250V,50/60Hz	
Temperature requirement	5-35℃	
Moisture requirement	15-75%(not condensate)	

Model	Dimensions(mm)	Weight(kg)
DV911HD	380X 258 X39	1.9
DV915HD	380X 258.5 X41.5	2.5

Model	Power consumption(watt)
DV911HD DV915HD	14

#We improve quality of our production permanently, that's why specification can change without notification.

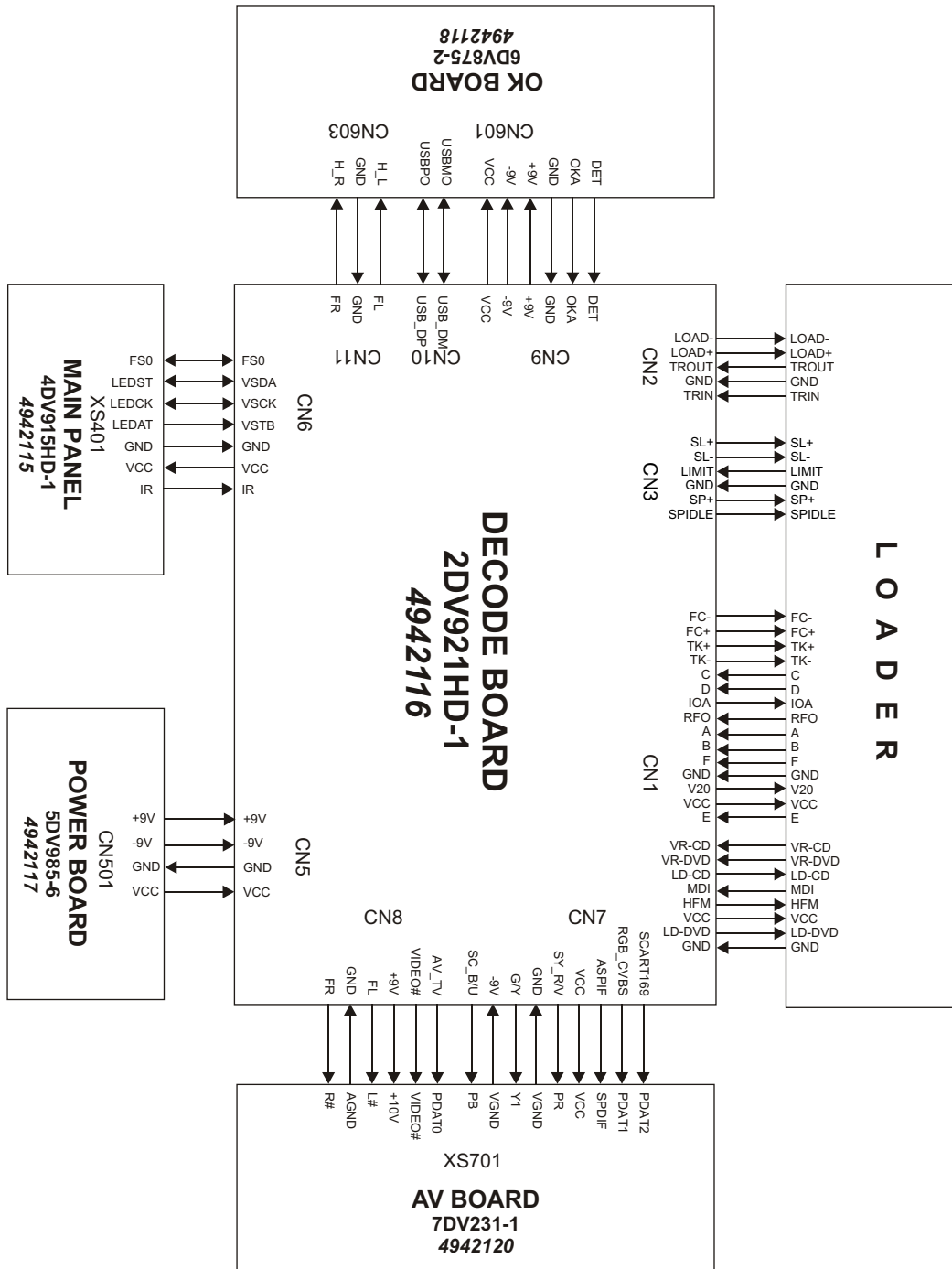
#Some disks,was recording in different formats on different data mediums, can't playback or can playback incorrect over peculiarity of their record.

Chapter Three Block Diagram

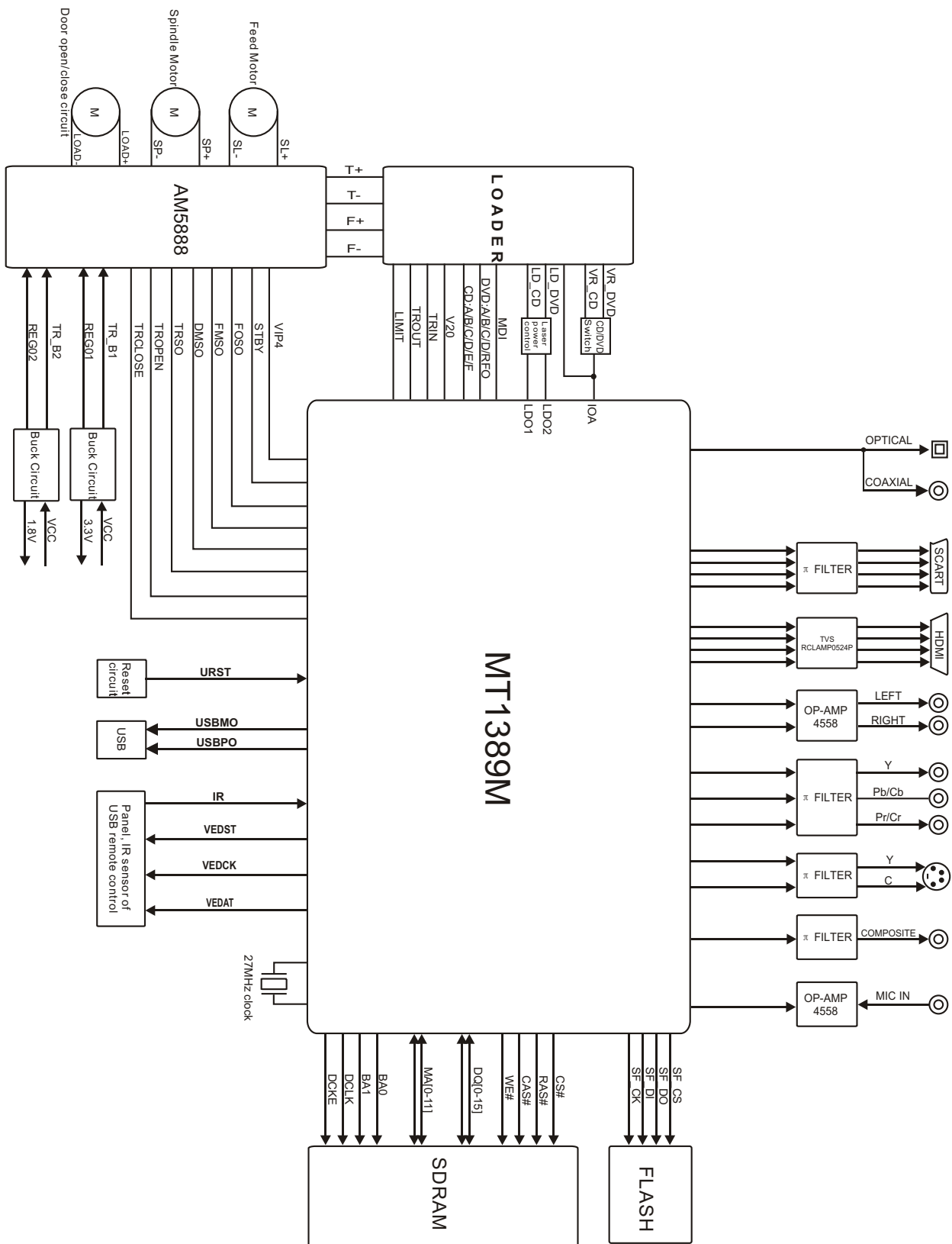
Section One PCB

diagram and block diagram of player

3.1.1 Overall wiring diagram for player.



3.1.2 Block diagram for player.



Section Two Unit circuit principle

3.2.1 Servo circuit.

Servo circuit of this circuit adopts SONY chip and MTK decoding programme, and it is mainly composed of front-end signal processing, digital servo processing, digital signal processing chip MT1389M and driving circuit chip AM5888. Of which MT1389M is also main composition of decoding circuit. Block diagram of servo circuit is shown in figure 3.2.1.1:

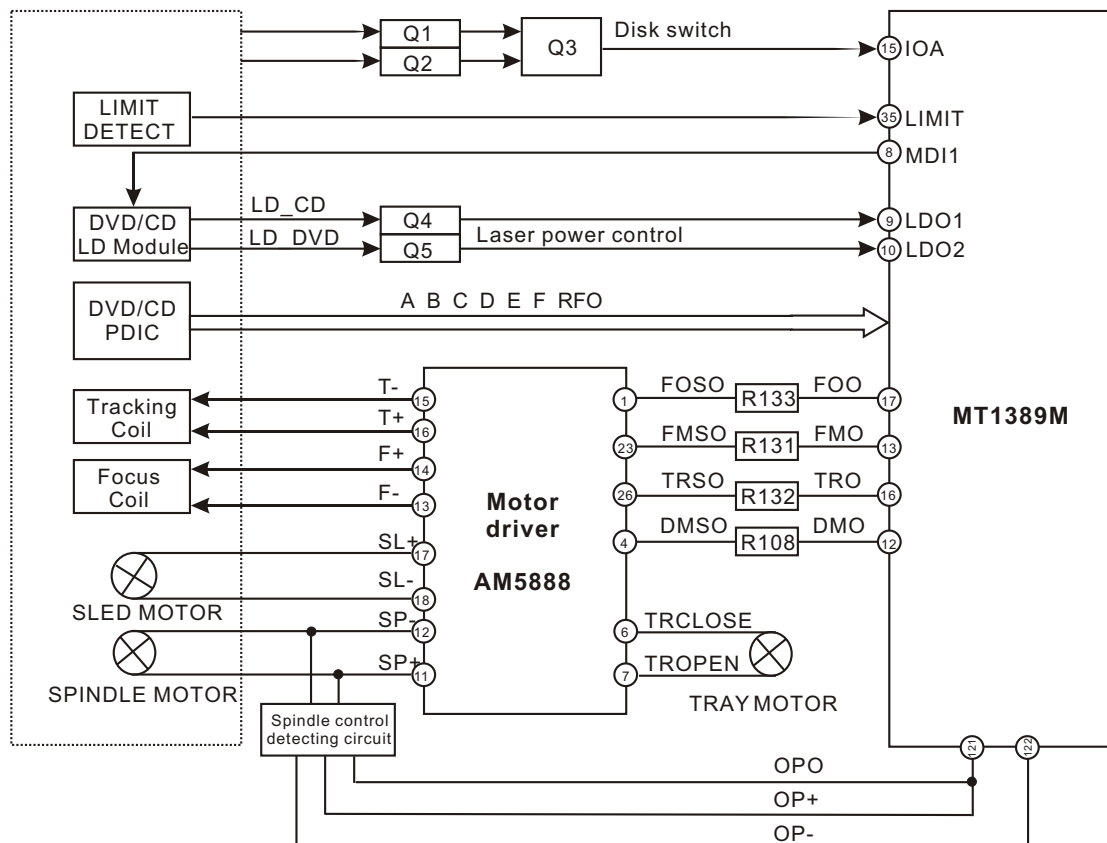


Figure 3.2.1.1 Block diagram of servo circuit

3.2.2 Decoding circuit.

Decoding circuit is mainly composed by MT1389M, SDRAM and FLASH, block diagram of circuit is shown in figure 3.2.2.1:

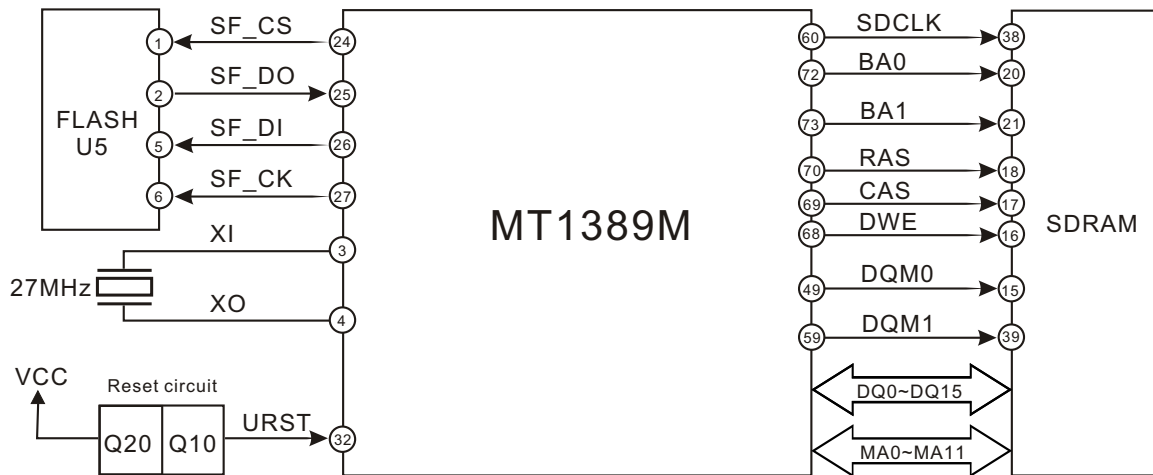


Figure 3.2.2.1 Block diagram of decoding circuit

3.2.3 Audio Circuit.

Block diagram for audio circuit is shown in figure 3.2.3.1.

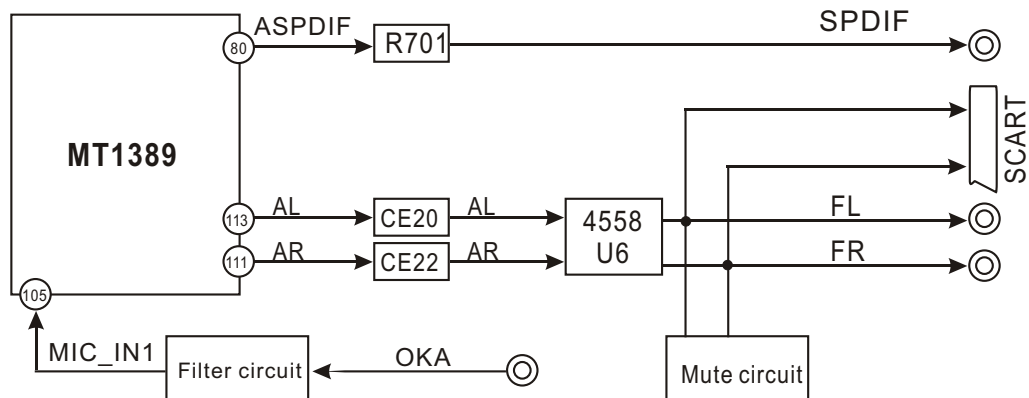


Figure 3.2.3.1 Block diagram of audio circuit

3.2.4 Video circuit .

MT1389M has built-in video D/A conversion circuit. Video output has R/B/G, Y/Pb/Pr, Y/Cb/Cr, CVBS and Y/C modes. However, R/B/G, Y/Pb/Pr, Y/Cb/Cr and Y/C can not output simultaneously, they need software to switch. CVBS is a individual output mode. And four channel video signal outputted by MT1389M outputs to corresponding terminals after video filtering and clamping. Block diagram of video signal is shown in figure 3.2.4.1:

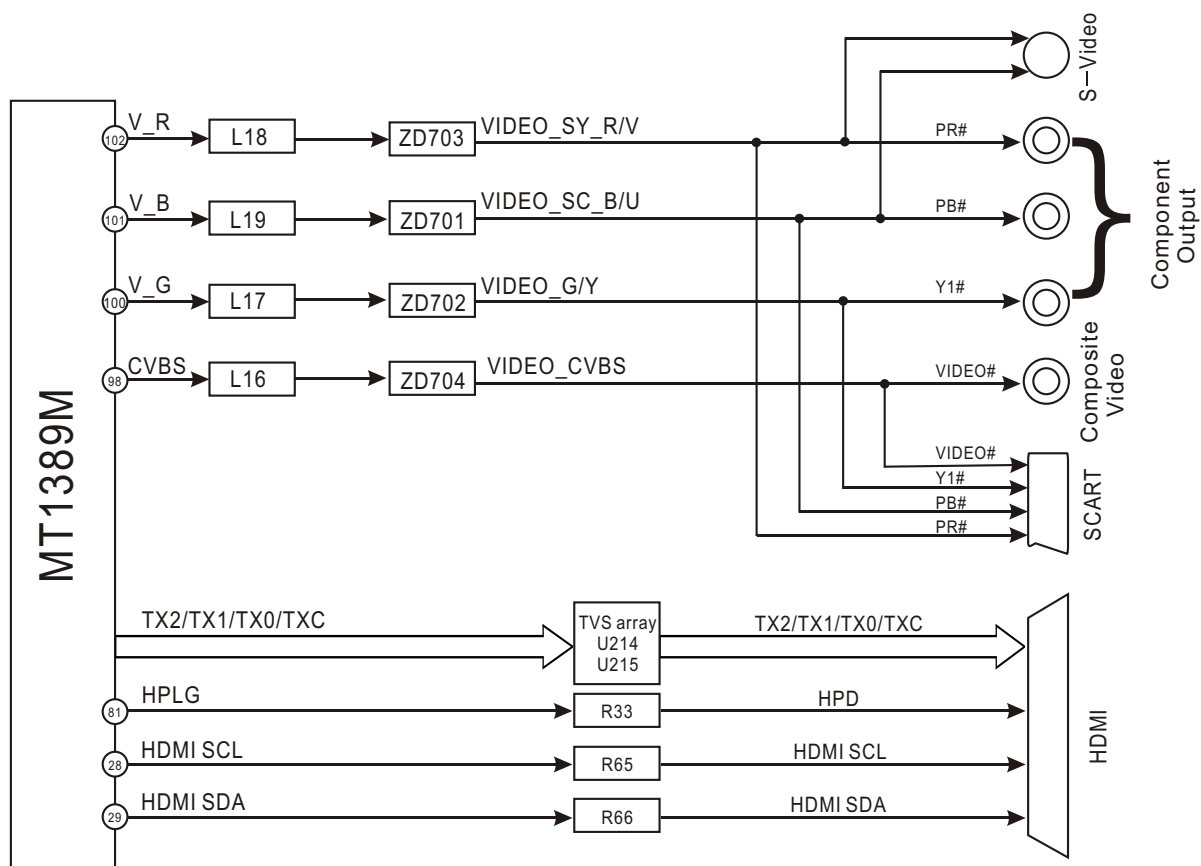


Figure 3.2.4.1 Block diagram of video signal route

3.2.5 Power Circuit.

Block diagram of power circuit is shown in figure 3.2.5.1:

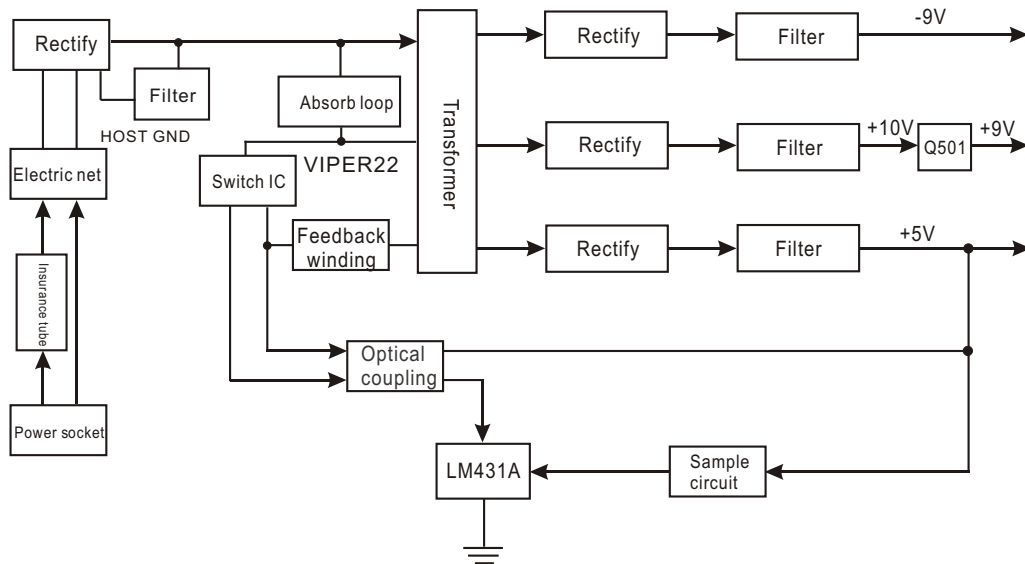
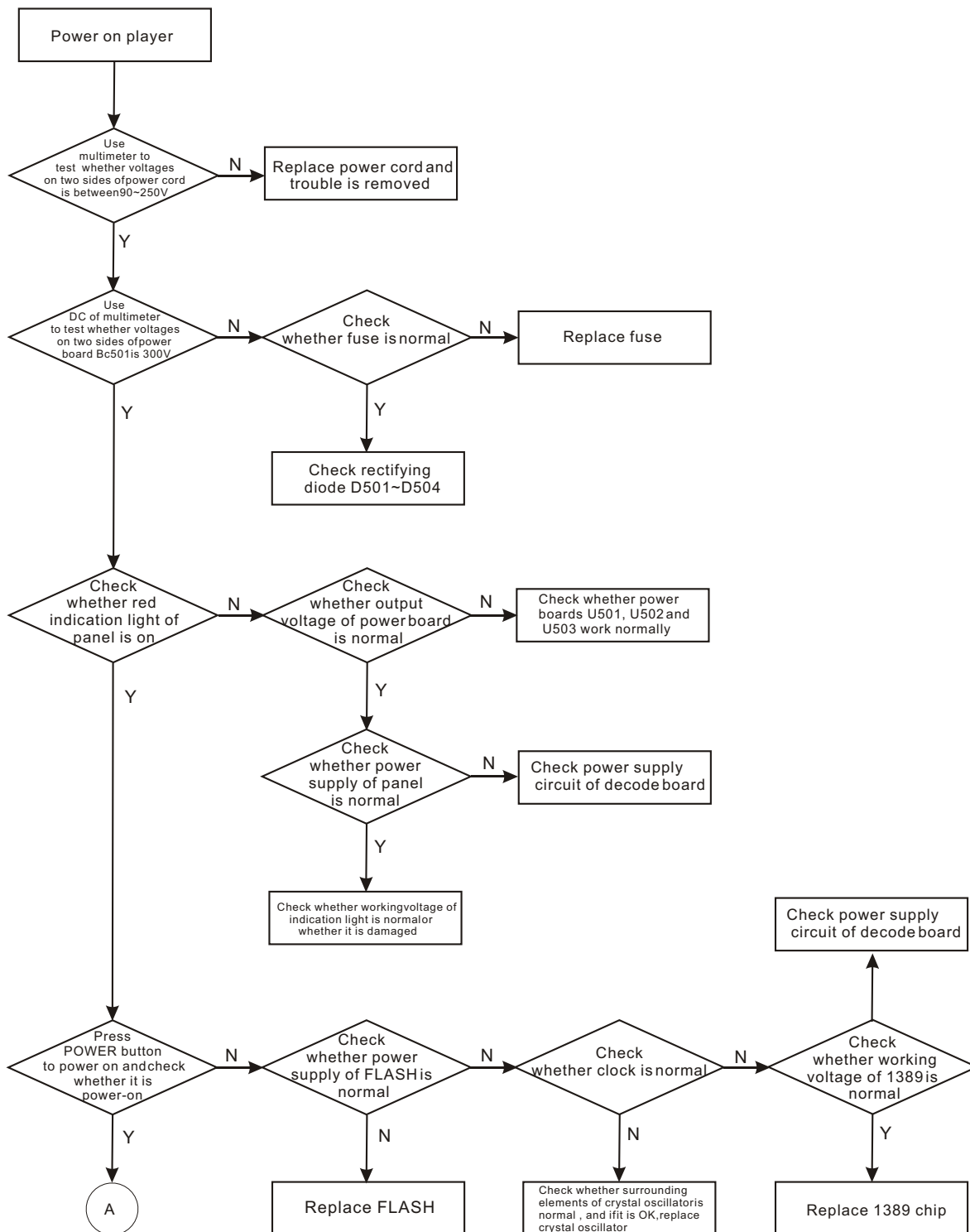
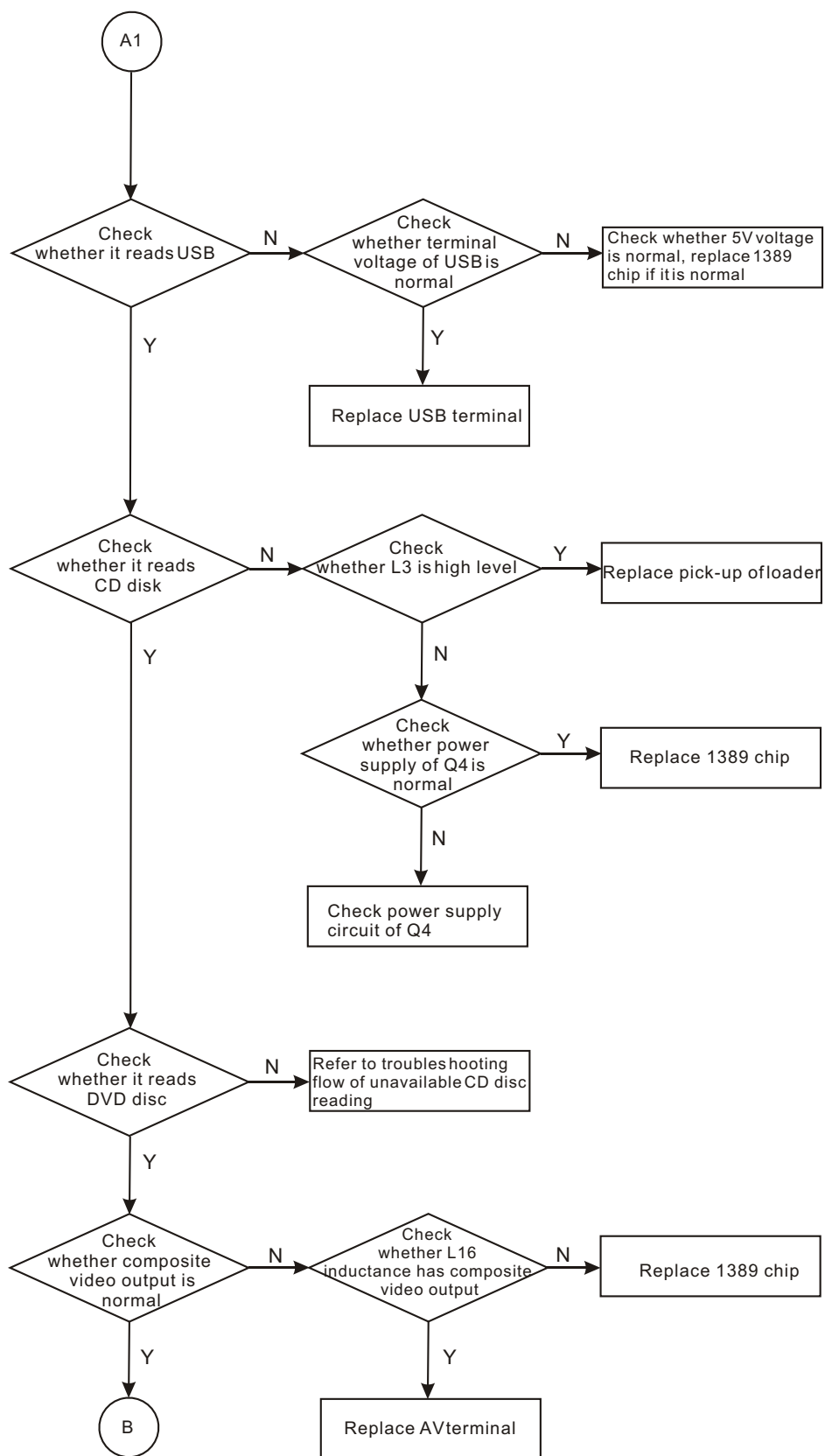
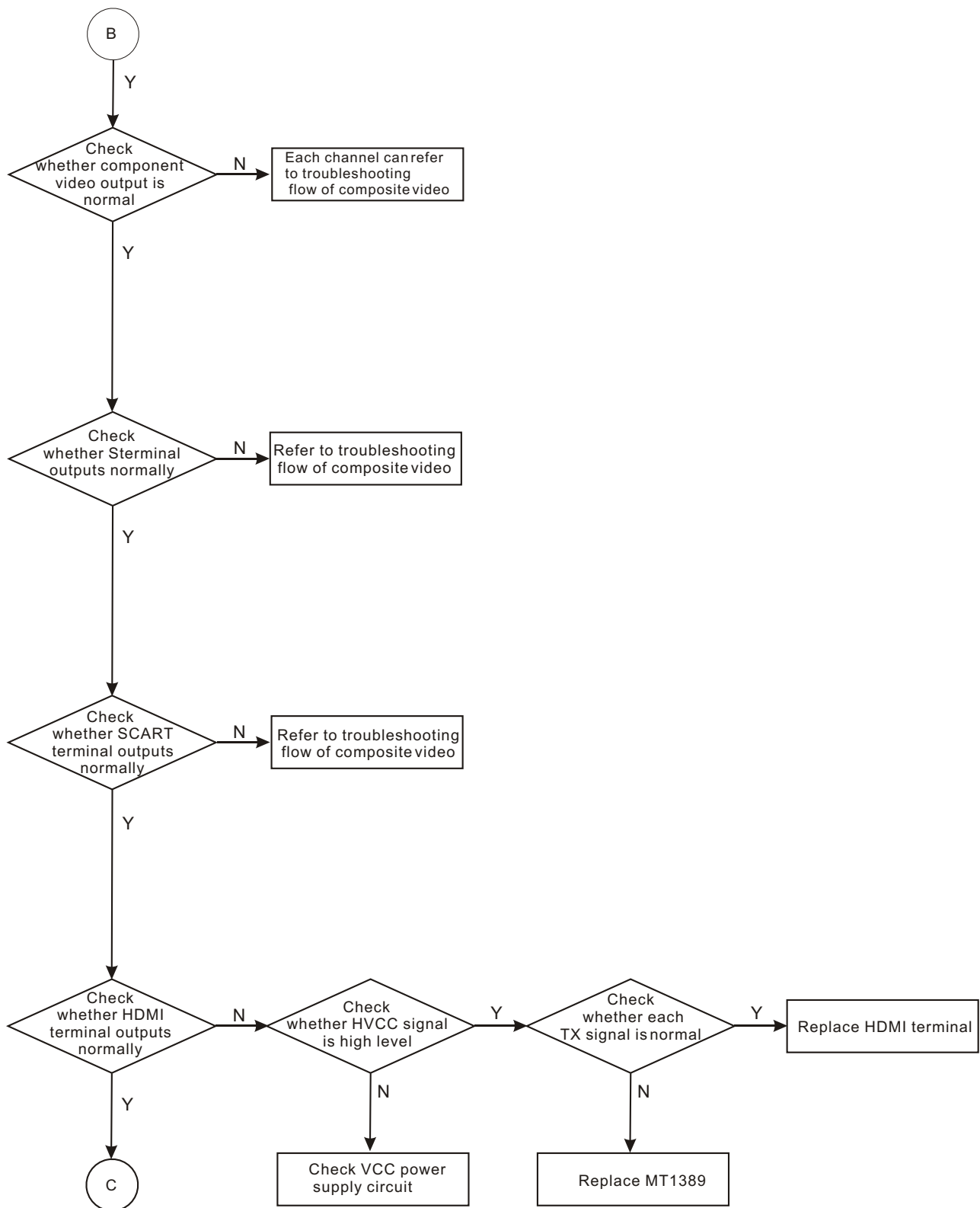


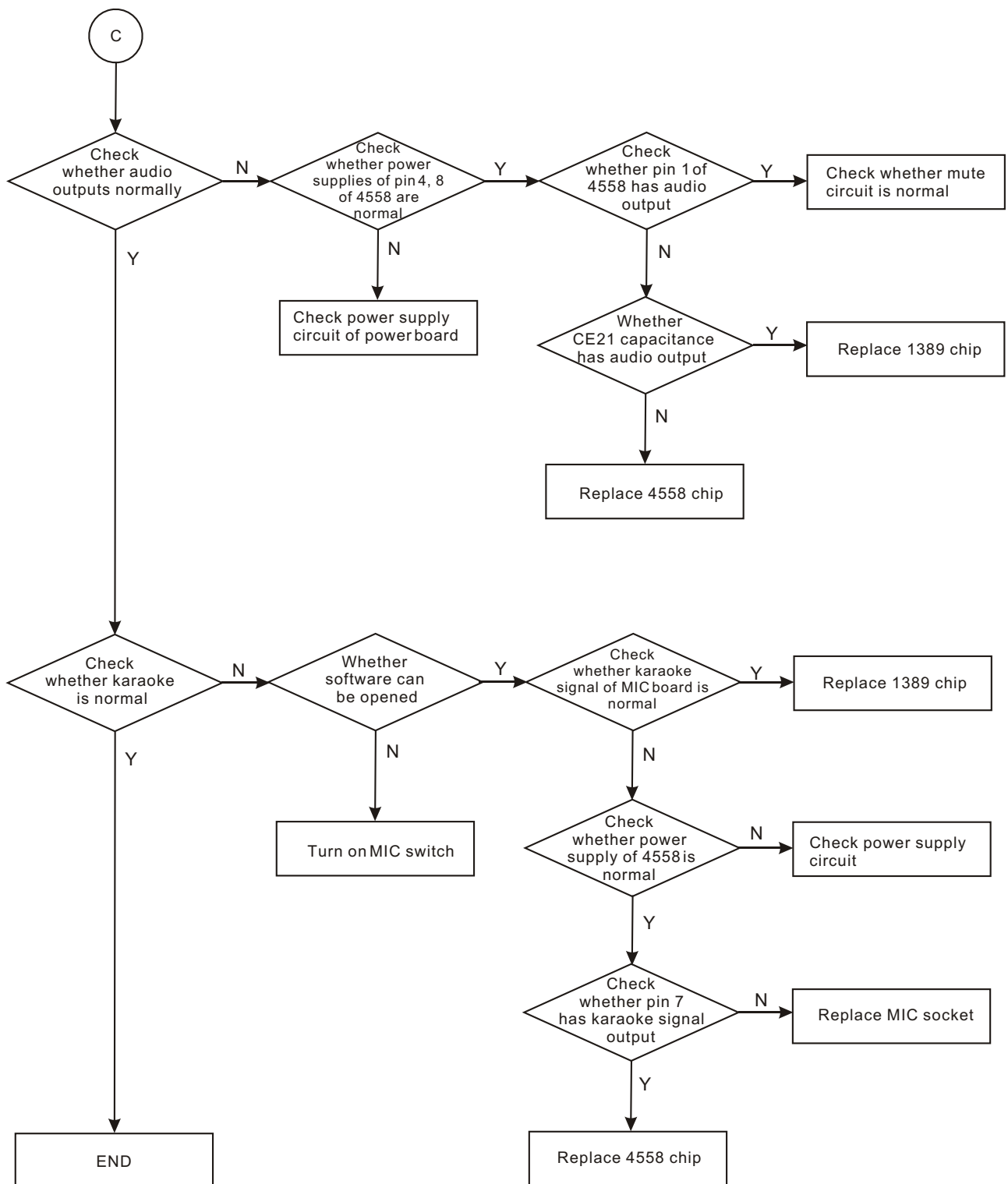
Figure 3.2.5.1 Block diagram of power circuit

Section Three Troubleshooting flow chart





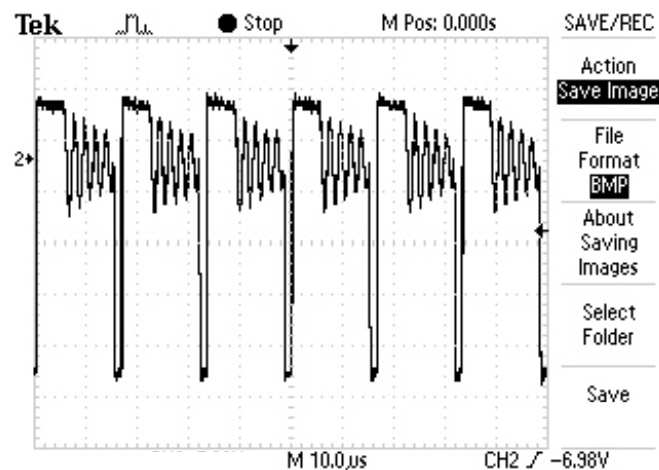




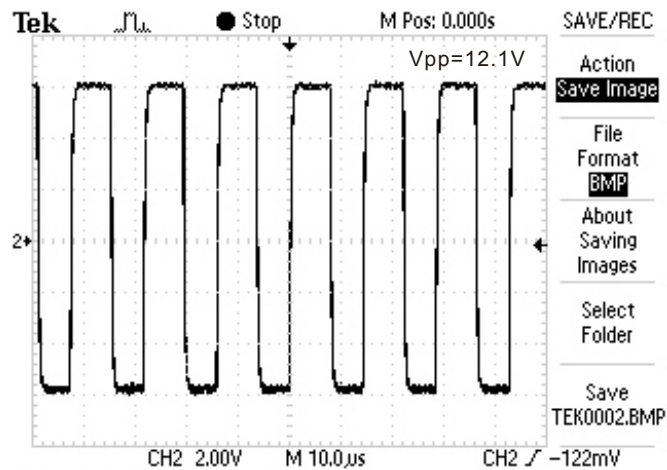
Section Four Waveform Diagram

This section collects signal waveform diagram of audio, video and each unit circuit with the purpose to help servicing personnel to judge where trouble lies in accurately and quickly to improve servicing skills. For the difference of oscillograph's type, model and tuner, a certain difference may exist, so the servicing personnel are expected to pay more attention to check in daily operation.

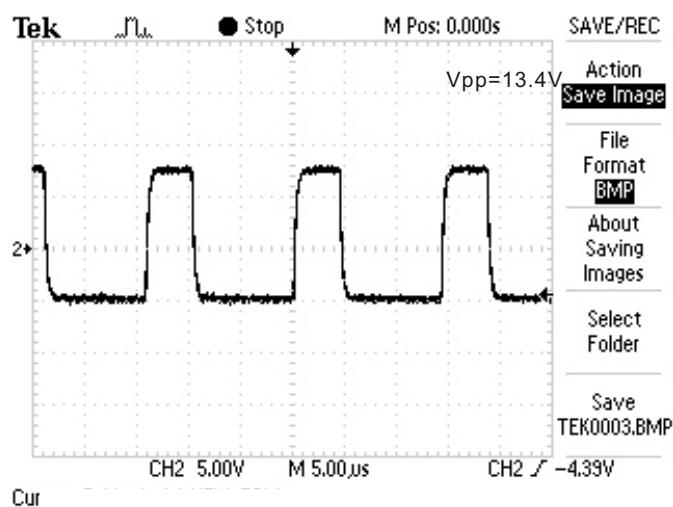
1. Waveform diagram for pulse DC of power board D510 anode.



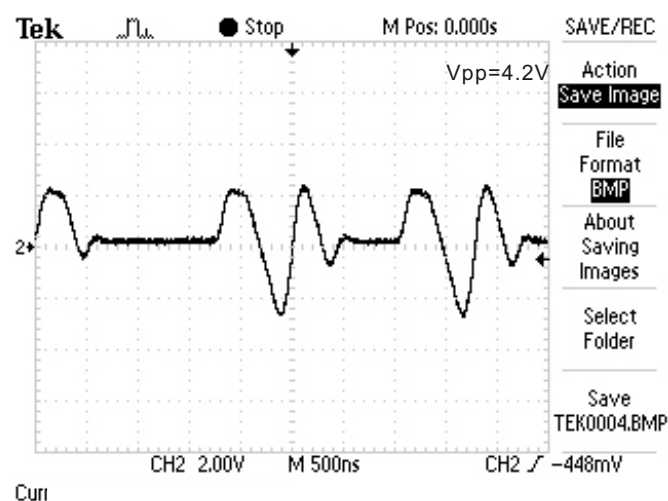
2. DMO waveform diagram (when there is DMSO motion)



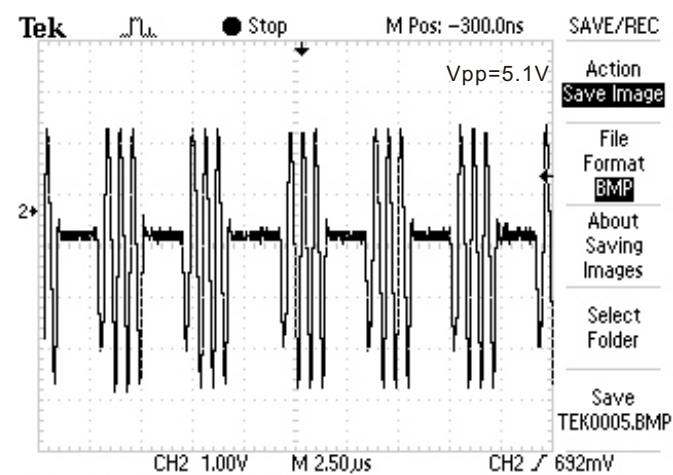
3. FMO waveform diagram (when pick-up has FMSO motion).



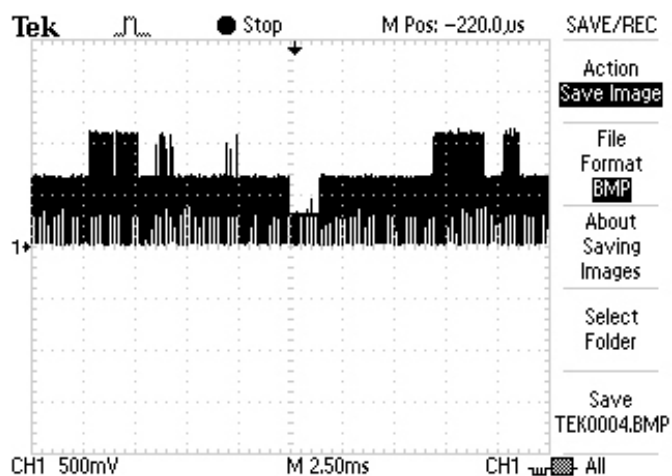
4. TRO waveform diagram (when pick-up has TRSO motion)



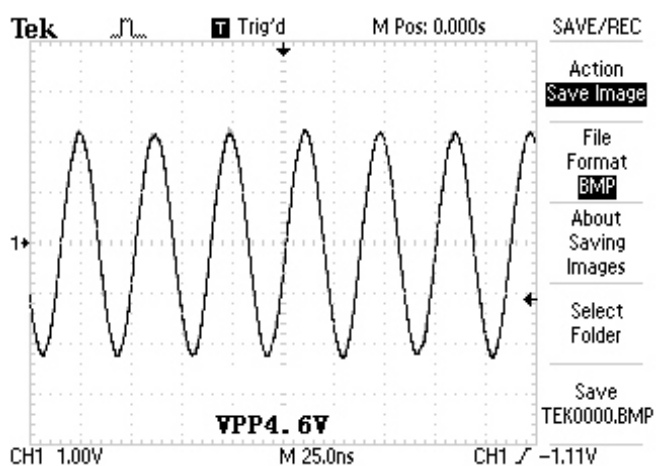
5. FOO waveform diagram (when pick-up has FOSO motion) .



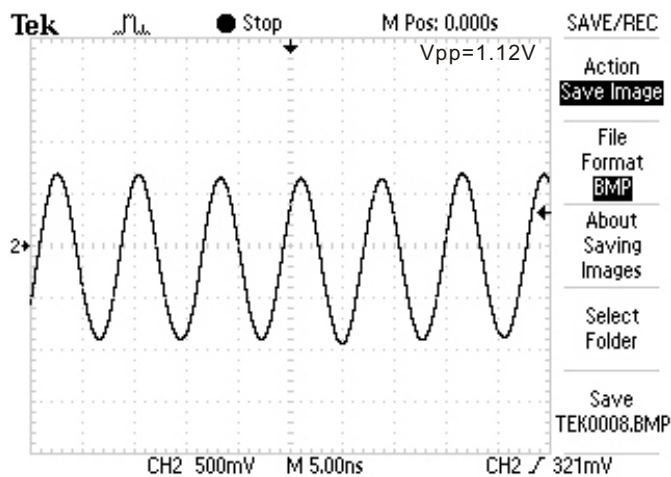
6. Video signal waveform diagram.



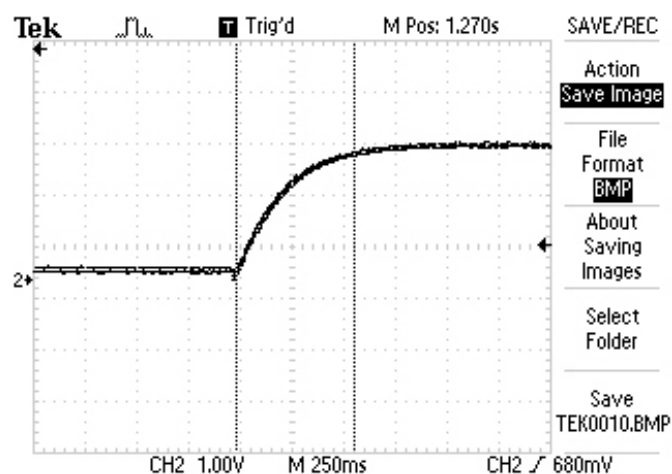
7. 1KHZ audio signal output waveform diagram(it is suggested to use test disc,if not,waveform tested will change at any time,which will affect your judgment).



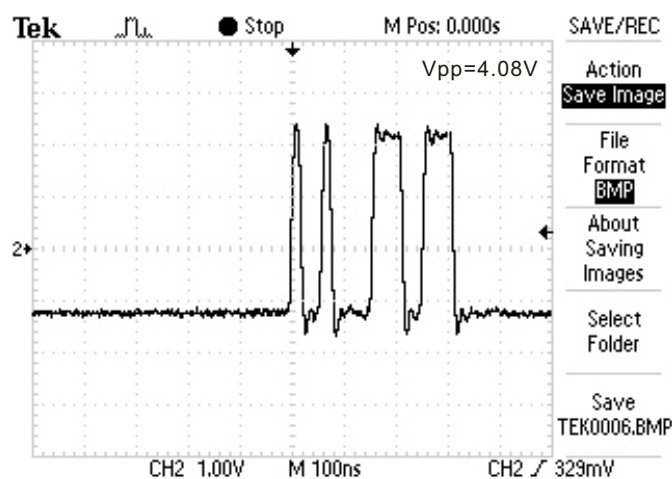
8. Waveform diagram of 27MHz(X1) clock.



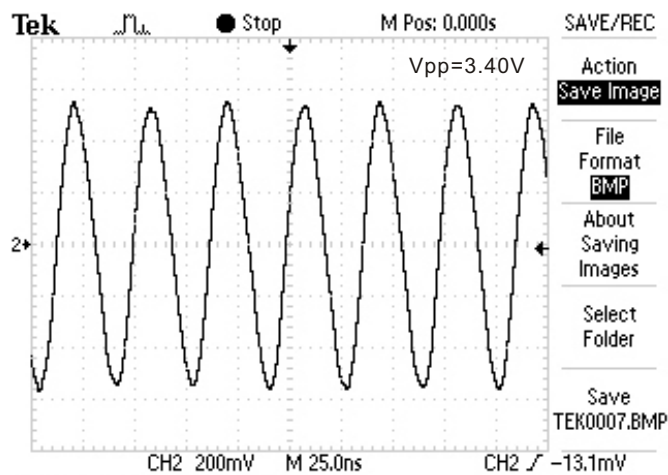
9. URST waveform diagram.



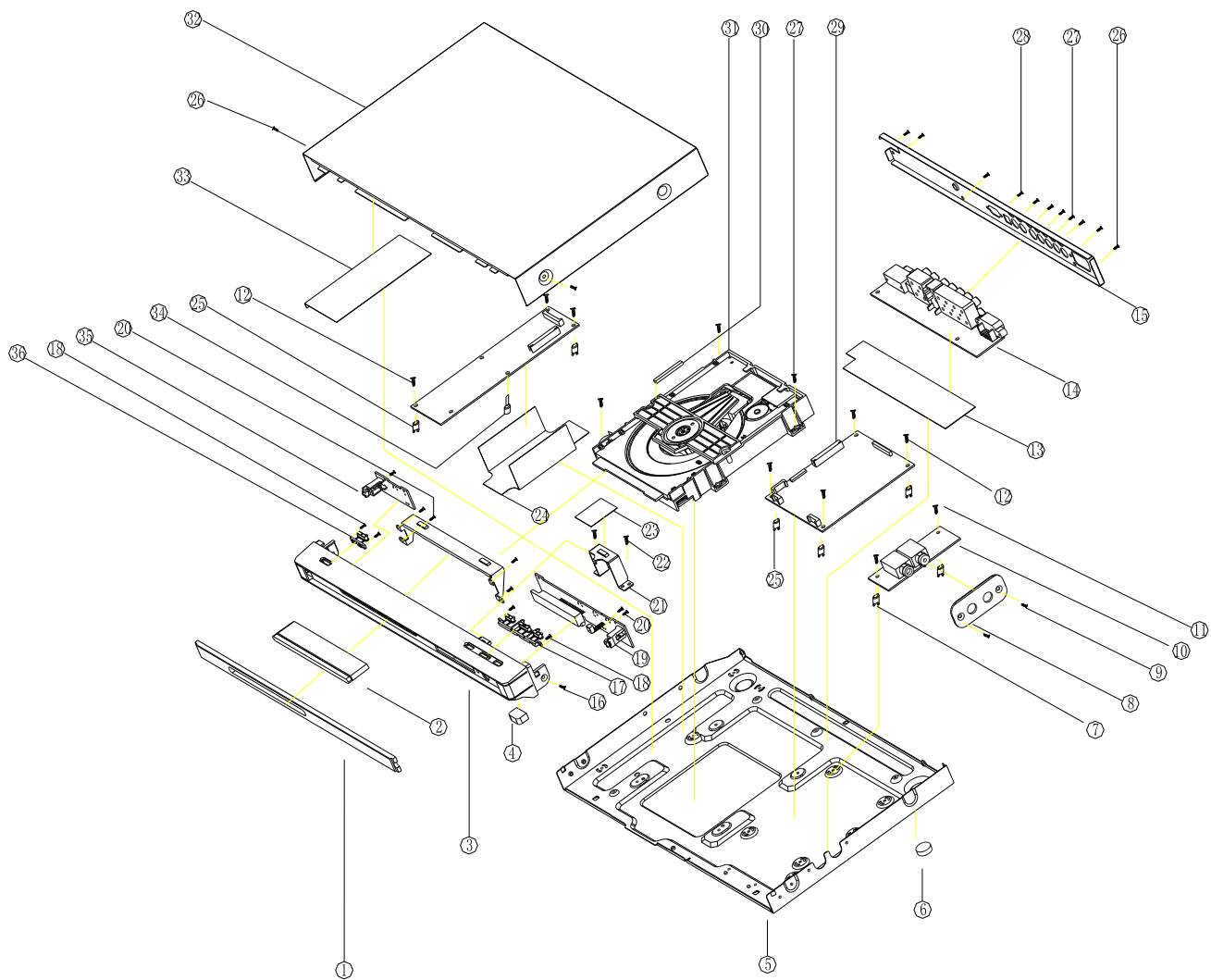
10. Waveform diagram of A1 (pin24 of U3) .



11. Waveform diagram of A2 (pin25 of U3) .



Chapter Four Explosion Chart



SERIAL NUMBER	MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	QUANTITY
1	3076858	LENSES	915HD(RU) BLACK	1
2	3076857	DOOR	915HD(RU) BLACK	1
3	3005947	PANEL	915HD(RU) BLACK	1
4	5233505	FOOT SPACER	17.5×11.5×7 SPONGE (48 DEGREE)	2
5	3103097	LOWER COVER	915HD(RU) GREY	1
6	5233504	FOOT SPACER	φ15×5 SPONGE (48 DEGREE)	2
7	3023942	PLASTIC BRACKET	H=9.5mm 919 2#	2
8	3076859	BRACKET OF MIC BOARD	915HD(RU) BLACK	1
9	4040057	SELF-TAPPING SCREW	FB 3×4.5 BLACK	2
10	4942118	PCB SEMI-FINISHED PRODUCT	6 875-2 915HD(RU)	1
11	4000220	SELF-TAPPING SCREW	PT 3×15 WHITE NICKEL,TOOTH LENGTH 9	2
12	4000267	SELF-TAPPING SCREW	P3×13H WHITE NICKEL	4
13	5234928	PVC PIECE	215×38×0.4 SINGLE-FACED WITH GLUE IN REAR SIDE	1
14	4942120	PCB SEMI-FINISHED PRODUCT	7 231-1 915HD(RU)	1
15	3103098	REAR COVER	915HD(RU) GREY	1
16	4040001	SELF-TAPPING SCREW	FB 3×6 BLACK	2
17	3076861	FUNCTION BUTTON	915HD(RU) BLACK	1
18	4000376	SELF-TAPPING SCREW	CB 1.7×4.2 BLACK	4
19	4942115	PCB SEMI-FINISHED PRODUCT	4 915HD-1 915HD(RU)	1
20	4000484	SELF-TAPPING SCREW	BB 2.3×8 NICKEL	6
21	3871074	PANEL IRON BRACKET	977K	1
22	4000331	SELF-TAPPING SCREW	BT 3×4 H NICKEL	2
23	5232411	PET PIECE	33×29×0.5 SINGLE-SIDED WITH GLUE IN REAR SIDE	1
24	5234940	PVC PIECE	977K(06 EDITION) SINGLE-FACED WITH GLUE IN REAR SIDE	1
25	3028725	PLASTIC BRACKET	H=5.5mm WITH CLASP	2
26	4000072	SELF-TAPPING SCREW	BT 3×6 BLACK	14

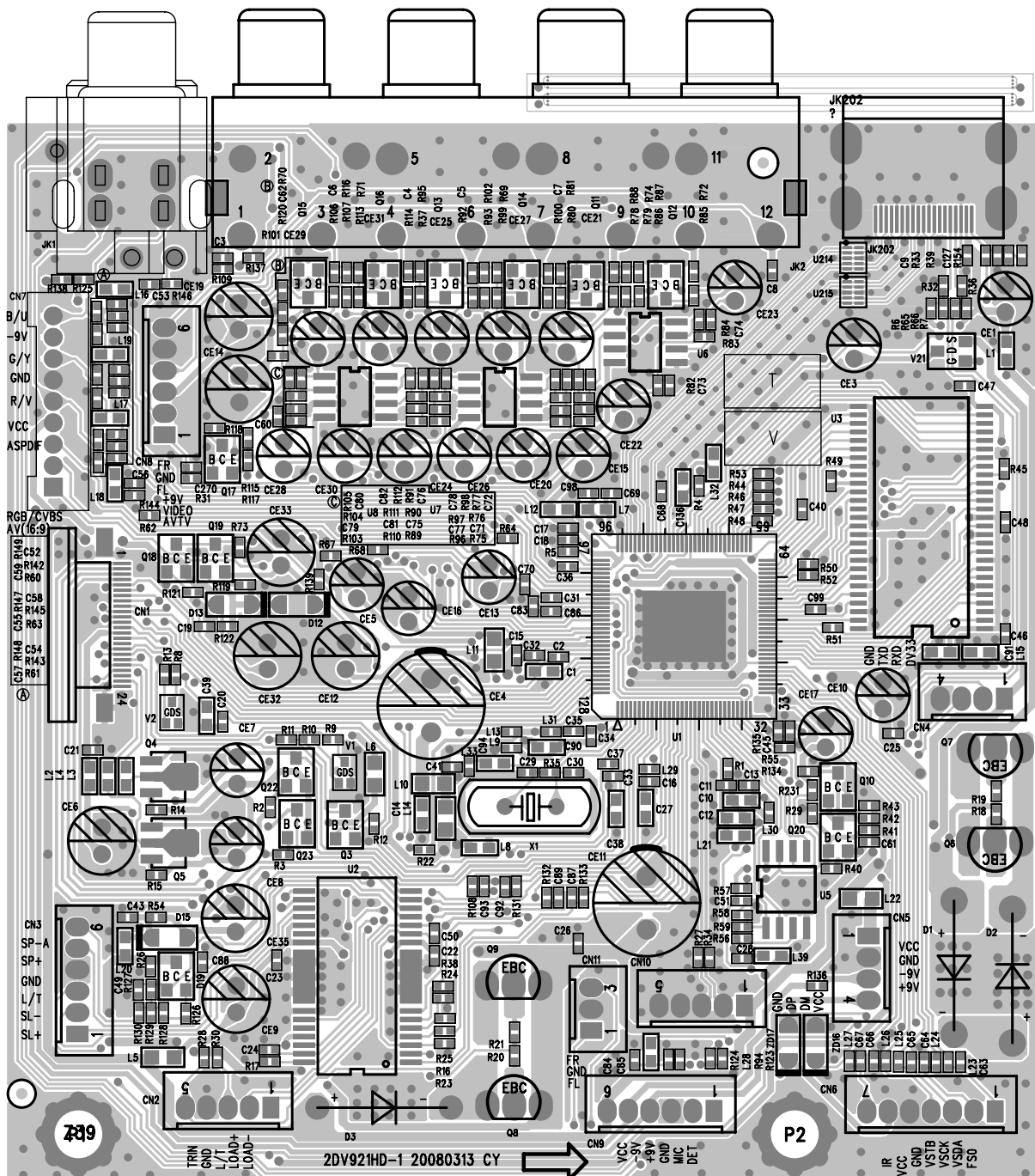
SERIAL NUMBER	MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	QUANTITY
27	4000073	TAPPING SCREW	BT 3×8 BLACK	11
28	4210003	MACHINE-TAPPING SCREW	PM 3×6 BLACK	1
29	4942116	PCB SEMI-FINISHED PRODUCT	2 921HD-1 915HD(RU)	1
30	5232637	RUBBER SPACER	35×3.5×1.5 SINGLE-FACED WITH GLUE IN REAR SIDE	2
31	3060591	DVD LOADER FRAME	028-SONY BLACK	1
32	3103099	TOP COVER	915HD(RU) BLACK, WITH PVC PIECE	1
33	5233352	PVC PIECE	120×70×0.5 SINGLE-FACED WITH GLUE IN REAR SIDE	1
34	3023884	PLASTIC BRACKET	8.0mm WITH CLASP	4
35	4942114	PCB SEMI-FINISHED PRODUCT	9 915HD-0 915HD(RU)	1
36	3076860	POWER BUTTON	915HD(RU) BLACK	1

Chapter Cinque

PCB Board&Circuit Diagram

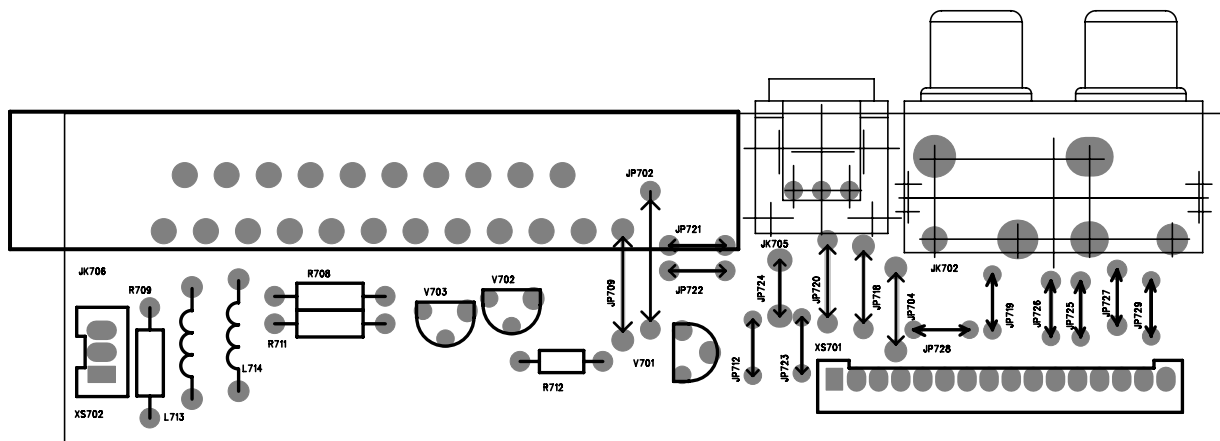
Section One PCB Board

5.1.1 Surface layer of Decode Board(2DV921HD-1)4942116.

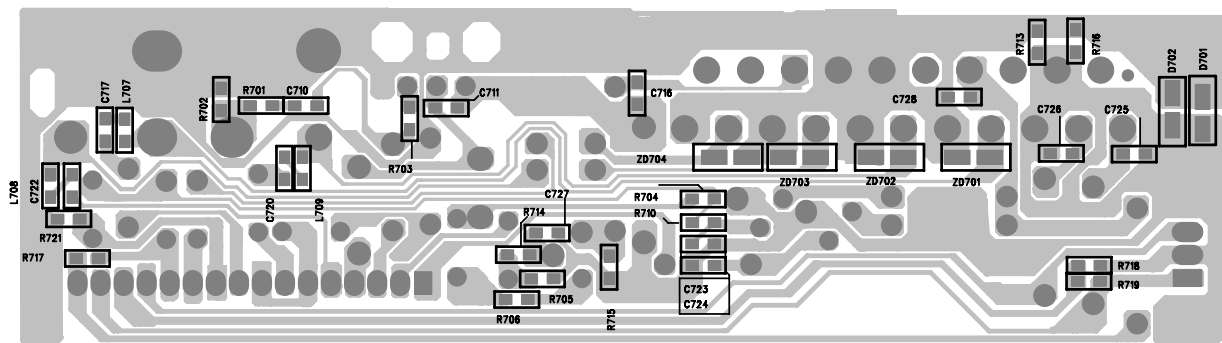


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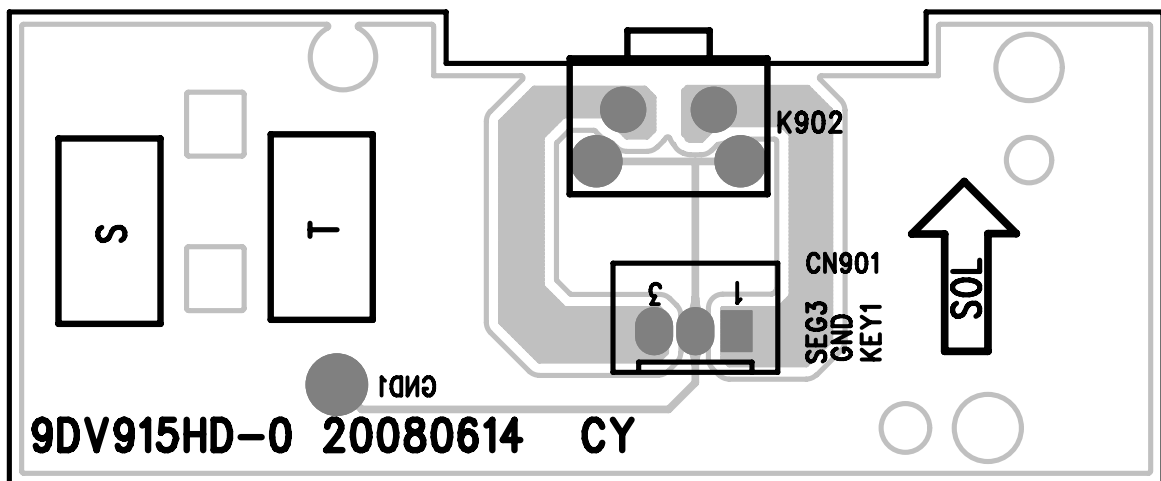
5.1.5 Surface layer of Output Board (7DV231-1)4942120.



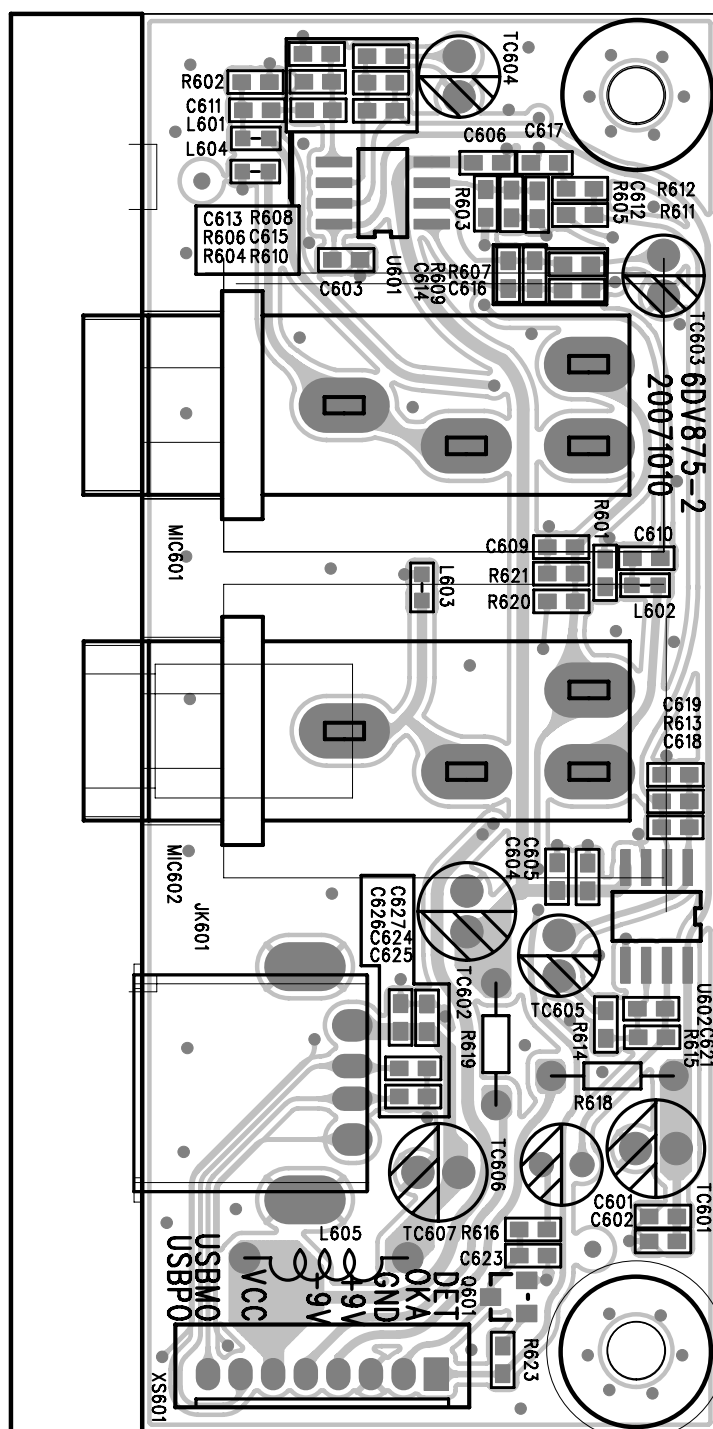
5.1.6 Bottom layer of Output Board (7DV231-1)4942120.

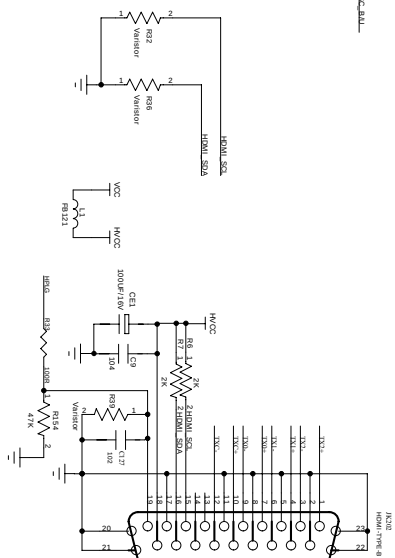
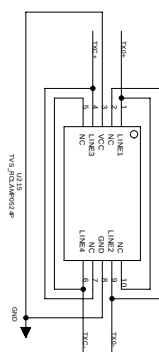
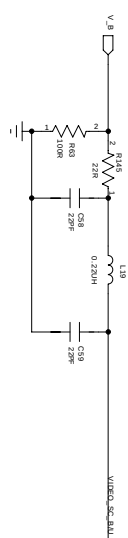
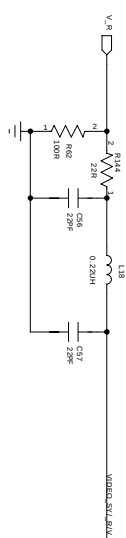
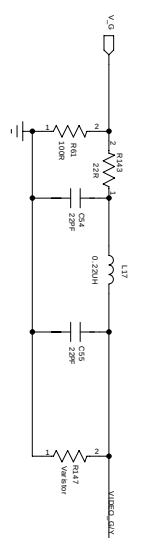
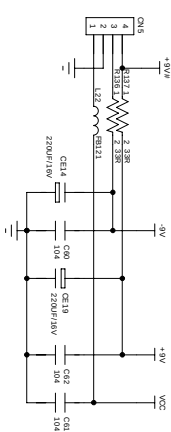
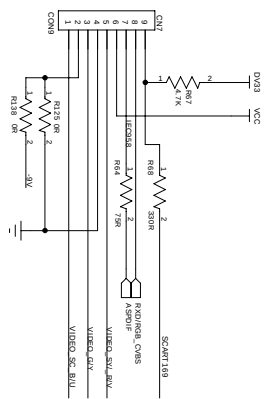


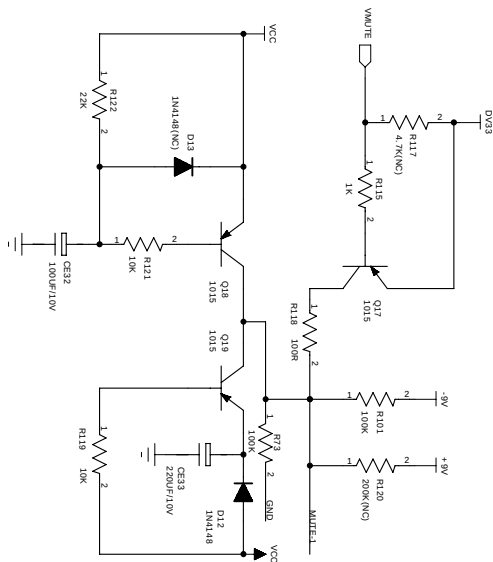
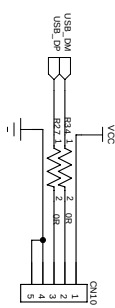
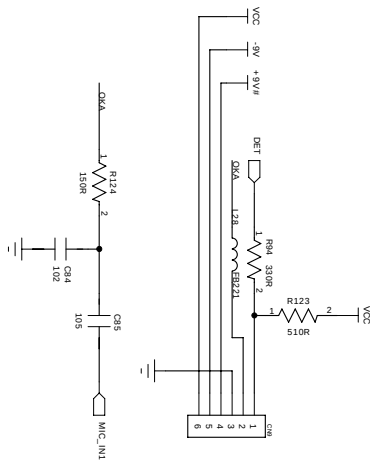
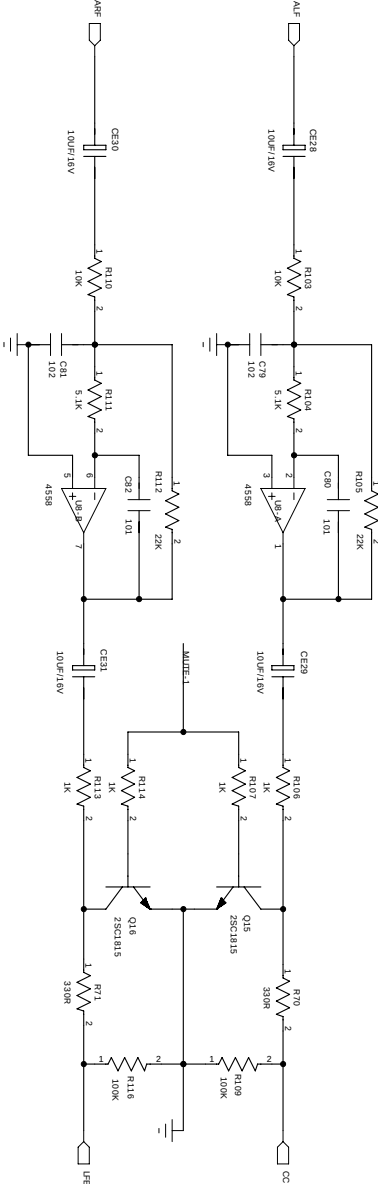
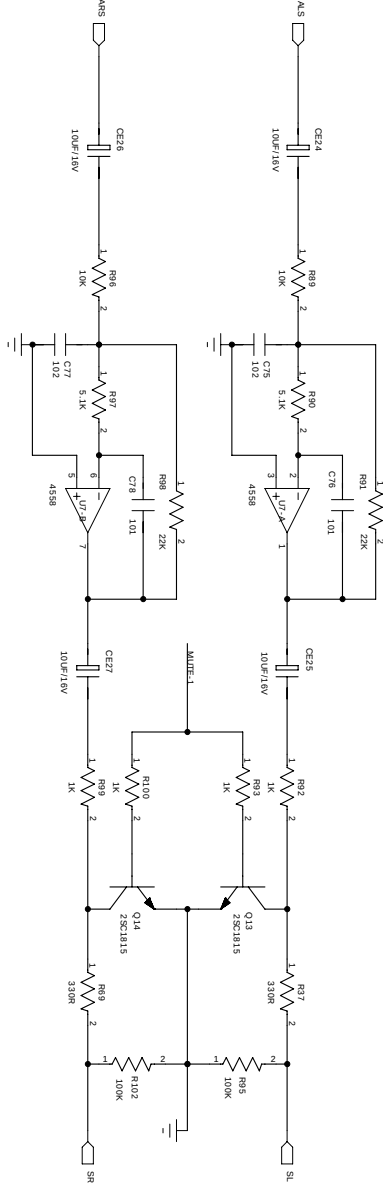
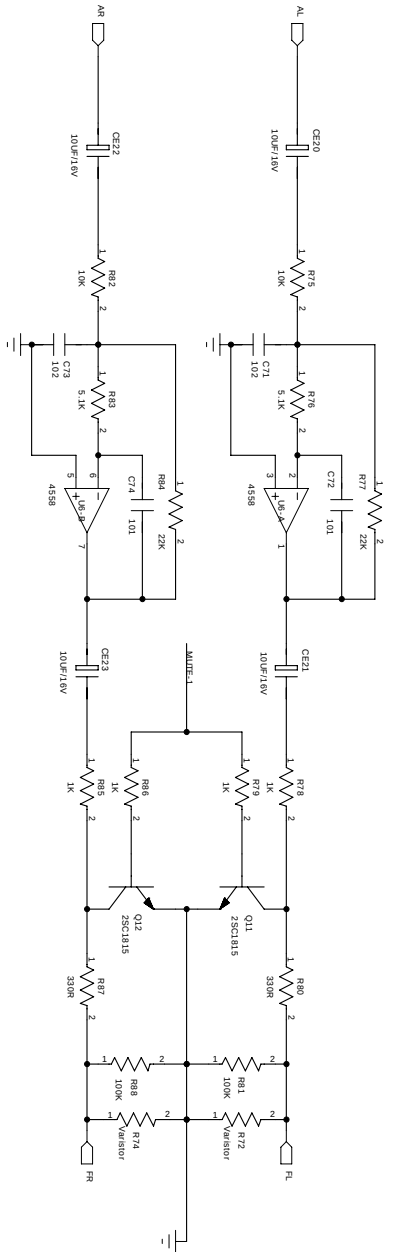
5.1.7 SUBSIDIARY PANEL(9DV915HD-0)4942114.



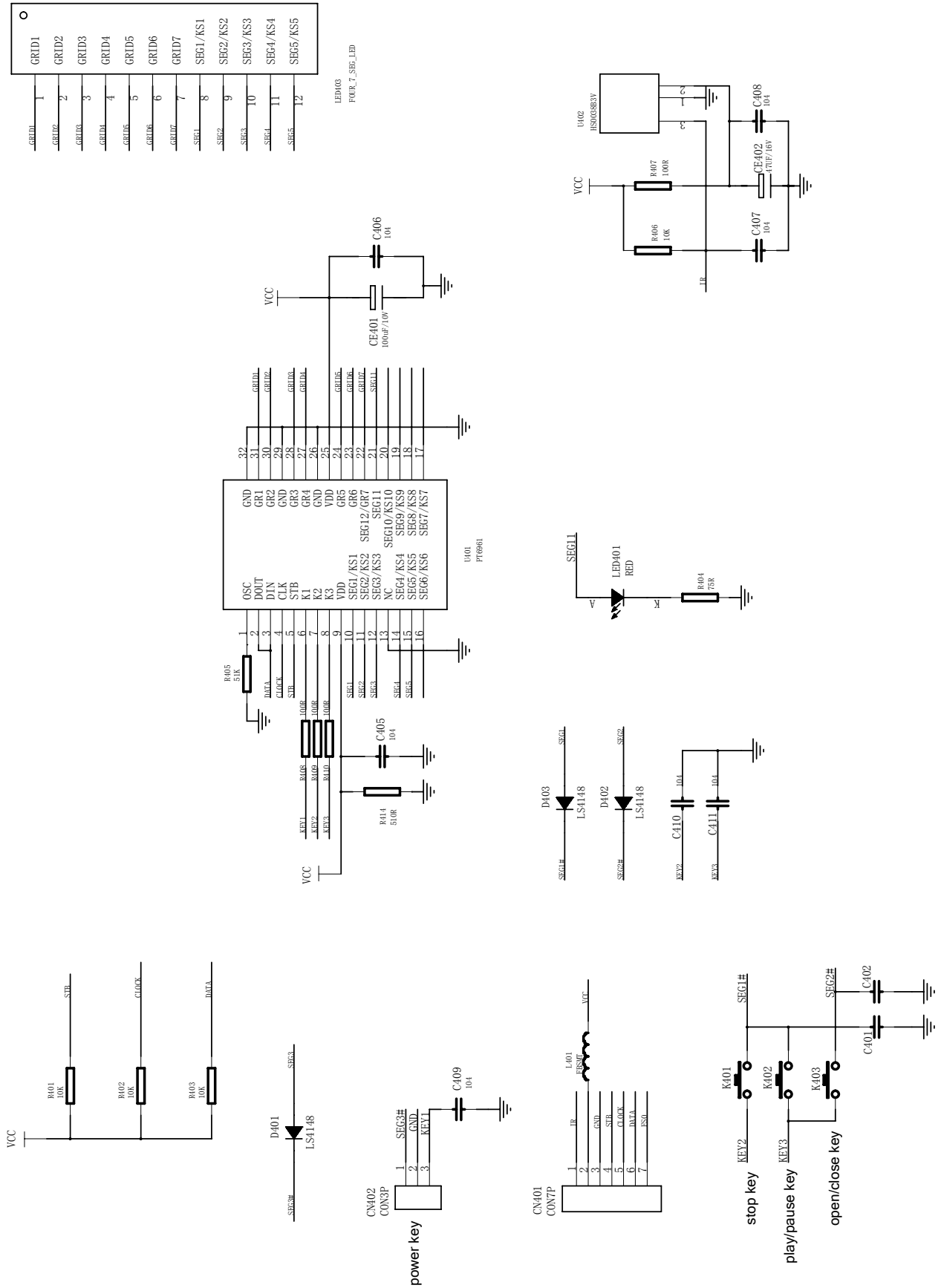
5.1.8 OK Board (6DV875-2) 4942118.



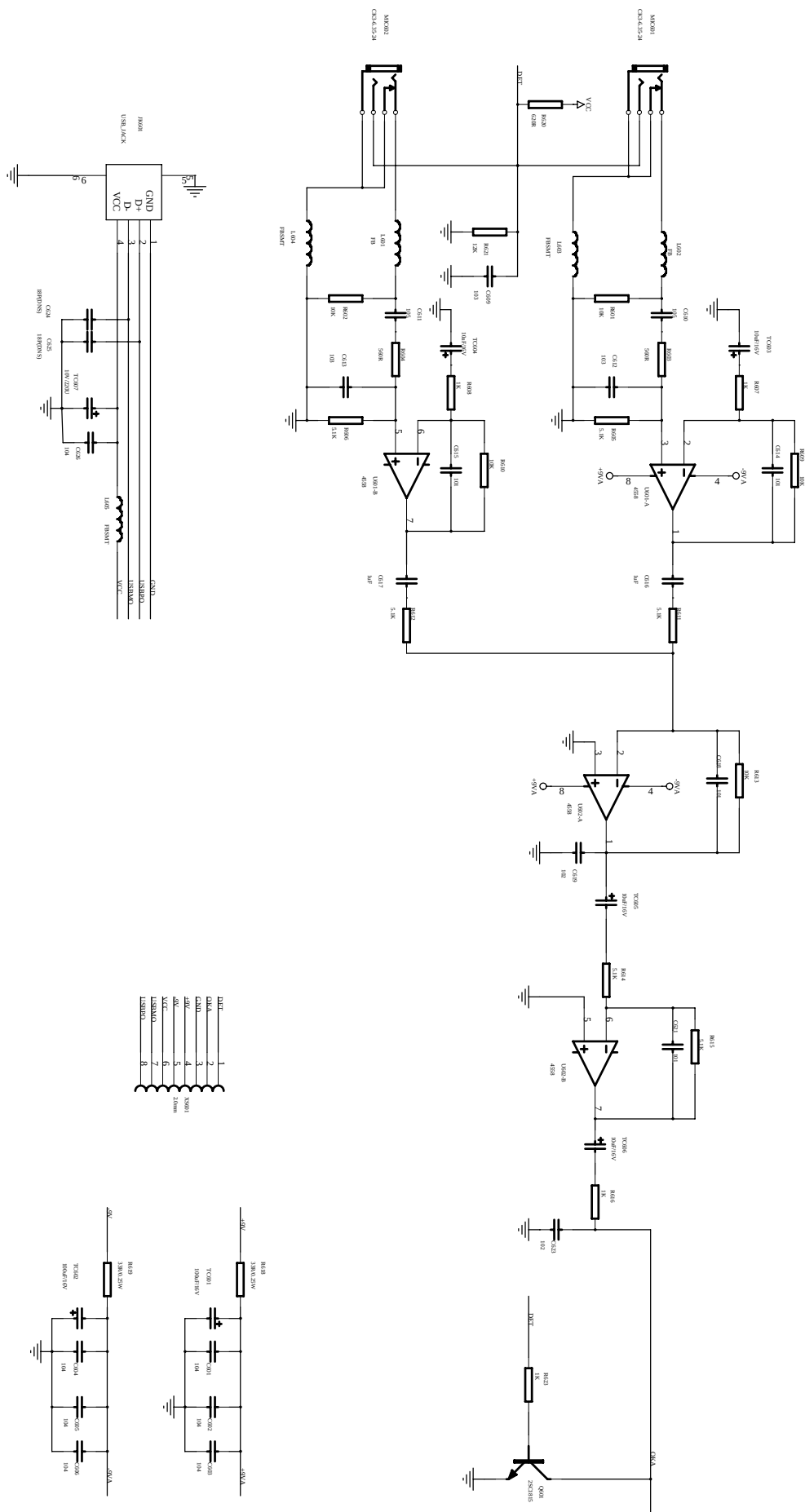




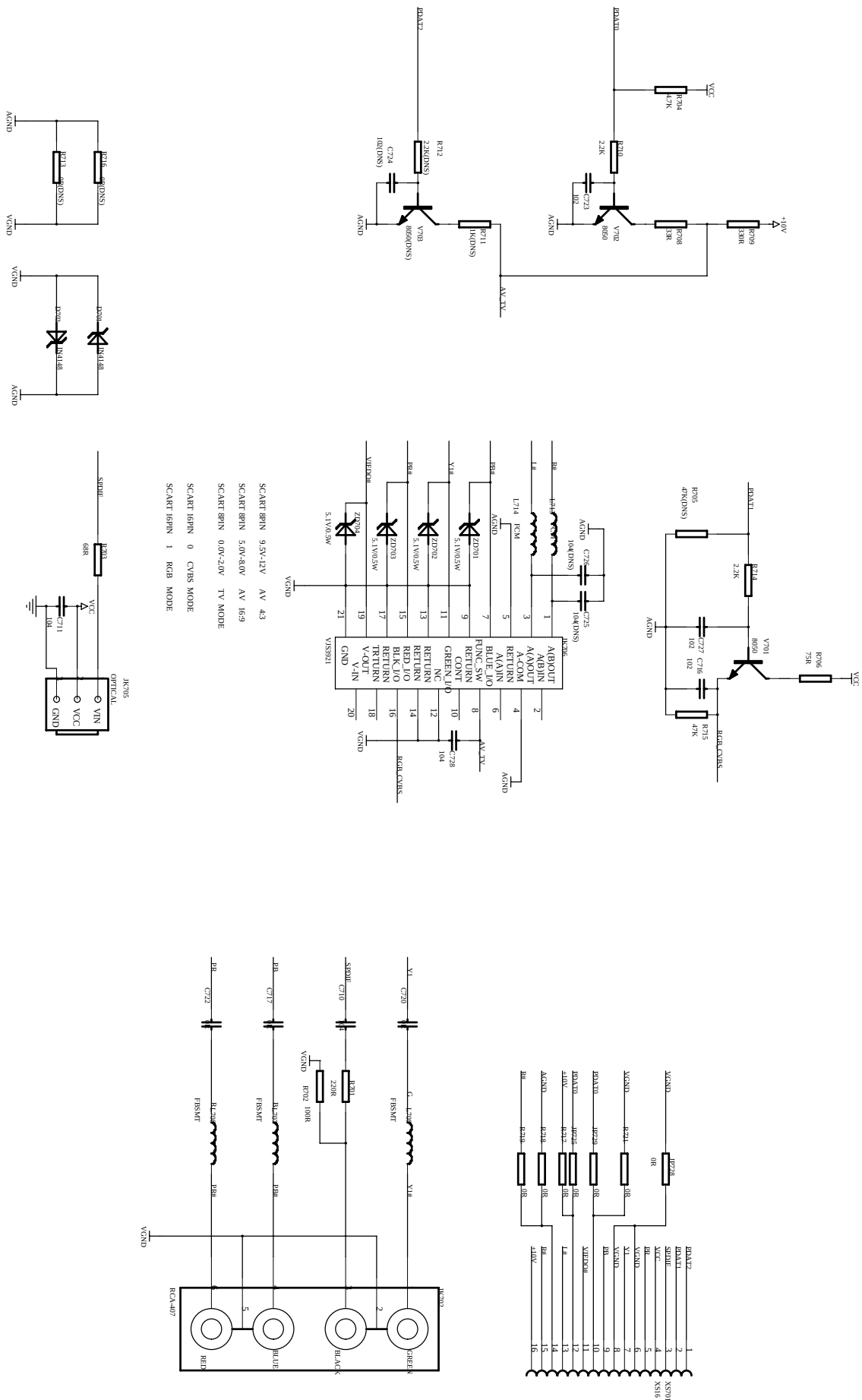
5.2.2 Main Panel.



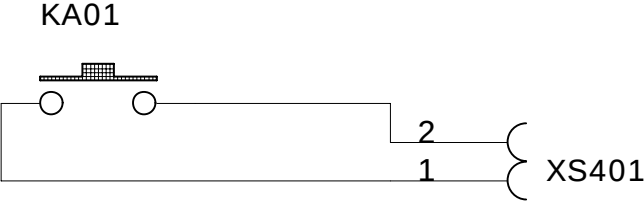
5.2.4 OK Board.



5.2.5 Output Board.



5.2.6 SUBSIDIARY PANEL.



Chapter Six BOM List

DV915HD(RU)BLACK(1389M)

REMOTE CONTROL 5471742

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0090272	SMD RESISTOR	1/16W 1Ω±5% 0603	R801
0310048	SMD CAPACITOR	50V 151±5% NPO 0603	C802,C803
0630010	EMISSION PIPE	LTE-4206	LED801 ①
0630009	EMISSION PIPE	TSAL4400	LED801 ①
0700001	SMD DIODE	LS4148	D801~D803
0780130	SMD TRIODE	STC3265	Q801
0880220	IC	P2222 SOP	U801
0970003	CERAMIC RESONATOR	455E	X801
1564324	PCB	8516SI-3	
3031856	REMOTE CONTROLLERSURFACE CASING	RC026-05R BLACK	
3041399	BOTTOM CASING OF REMOTE CONTROL	026 BLACK 2#	
3051273	GLASS OF REMOTE CONTROLLER	026 MING PURPLE	
3051319	BATTERY CASE DOOR OF REMOTE CONTROL	026 BLACK 2#	
3850124	ANODE SPRING	RC026	
3850125	CATHODE SPRING	RC026	
3850126	ANODE/CATHODE SPRING	RC026	
4000038	SELF-TAPPING SCREW	PB 2.3×6 COLOR ZINC	FOR CONNECTING TOP AND LOWER COVER
4631052	CONDUCT GLUE OF REMOTE CONTROL	RC026-01R 4#	
5070070	PLASTIC BAG	85×250	

DV915HD(RU)BLACK(1389M)

SUBSIDIARY PANEL 9DV915HD-0 4942114

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
1340064	LIGHT TOUCH RESTORE SWITCH	KFC-06-2WB L3.8	K902
1565331	PCB	9 915HD-0 HB D1.6 SX	
1940026	SOCKET	3P 2.0mm	CN901

DV915HD(RU)BLACK(1389M)

MAIN PANEL 4DV915HD-1 4942115

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0090023	SMD RESISTOR	1/16W 10K±5% 0603	R401,R402,R403,R406,
0090181	SMD RESISTOR	1/16W 100Ω±5% 0603	R404,R407,R408,R409,R410
0090192	SMD RESISTOR	1/16W 51K±5% 0603	R405
02602549	CD	C11C 10V100U±20%6×5 2.5 BELT	CE401,CE402
0310207	SMD CAPACITOR	50V 104 ±20% 7R 0603	C405,C406,C408 ②
0310543	SMD CAPACITOR	50V 104±10% 7R 0603	C405,C406,C408 ②
0310245	SMD CAPACITOR	50V 121±10% 7R 0603	C409,C410,C411,C401,C402
0310598	SMD CAPACITOR	50V 102±20% 7R 0603	C407
0390095	SMD MAGNETIC BEADS	FC160822105	L401
0620002	LIGHT-EMITTING DIODE	Φ3 RED	LED401
0700001	SMD DIODE	LS4148	D401,D402,D403
0881426	IC	6961 SOP	U401
1200982	LED DISPLAY SCREEN	HMMOB34086Y16	LED403
1340064	LIGHT TOUCH RESTORE SWITCH	KFC-06-2WB L3.8	K401,K402,K403
1565337	PCB	4 915HD-1 HB D1.6 SX	
2100003	CONNENTION CORDS	Φ0.6 SHAPED 7.5mm	JP401,JP402
2100010	CONNENTION CORDS	Φ0.6 SHAPED 5mm	JP403,JP404,JP405
2121421	FLAT CABLE	6P170 2.0 2 PIN,WITH L NEEDLE,THE SAME DIRECTION	CN401
2122193	FLAT CABLE	3P2502.0 2 PIN WITH L NEEDLE REVERSE	CN402
2360021	IR SENSOR	138BV3	U402
5141757	VERSION LABEL	2.02 SQUARE WHITE	
5232081	SOFT SPONGE SPACER	10×8×12 DOUBLE-FACED,HARD	FOR REMOTE CONTROL RECEIVER
5237105	SOFT SPONGE SPACER	12×8×8 DOUBLE-FACED,HARD	2PCS FOR LED DISPLAY SCREEN AND PANEL PCB

DV915HD(RU)BLACK(1389M)

POWER BOARD @5DV985-6 4942117

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
00001639	CARBON FILM RESISTOR	1/410Ω±5% BELT	R505

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
00001859	CARBON FILM RESISTOR	1/4330Ω±5% BELT	R506
00001959	CARBON FILM RESISTOR	1/41K±5% BELT	R507
00002159	CARBON FILM RESISTOR	1/49.1K±5% BELT	R512
00100979	METAL FILM RESISTOR	1/4W9.4KΩ±1%BELT	R508
0010159	METAL OXIDE FILM RESISTOR	239K±5%SHAPED FLAT 15×7	R503
00103799	METAL FILM RESISTOR	1/4W8.2KΩ±1%BELT	R509
00700169	HIGH PRESSURE RESISTOR	@1/2680K±5% VDE BELT	R501
02001369	PORCELAIN CAPACITOR	50V 473±20% 5mm BELT	C506
02001389	PORCELAIN CAPACITOR	50V 104±20% 5mm BELT	C505,C510,C515
02002249	PORCELAIN CAPACITOR	1000V 103 +80%-20% 7.5MM BELT	C502
0200359	CERAMIC CAPACITOR	@250V 221±10% 10mm VDE	BC503,BC504
02003809	PORCELAIN CAPACITOR	100V 152±10%5MM BELT	C512
0210207	TERYLENE CAPACITOR	@275V 104±20% 15mm VDE	BC501
0260341	CD	ZT 400V22μ±20%φ16×20 7.5	TC501
0260559	CD	CD11T 50V47u±20%6×12 2.5	TC502
0260690	CD	CD288H 10V1000U±20%8×16 3.5	TC506
0260772	CD	CD288Z 16V470U±20%8×12 3.5	TC509,TC503
0260821	CD	CD288H 16V1500U±20%10×20 5	TC505
0410011	CHOKE COIL	VERTICAL 10UH 2A 5mm	L507
0460623	SWITCH POWER TRANSFORMER	@BC19-0348 SJ	T501
05700059	DIODE	1N4007 BELT	D501~D504
05700139	DIODE	HER105 BELT	D506
05700149	DIODE	HER107 BELT	D505,D508,D511
0680046	SCHOTTKY DIODE	SR560 DO-27 SHAPED R 17.5×8	D510
0881933	IC	VIPER22A DIP8	U501
08824629	IC	AZ431AZ-A TO-92 BELT	U503
1000062	POWER GRID FILTER	@JLB1153 33MH +∞-0% SJ	L501
1080032	PHOTOELECTRIC COUPLER	@HS817 VDE	U502
1565296	PCB	@5 985-6 VO D1.6 SX C043	

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
1940022	SOCKET	4P 2.0mm	CN501
1940045	SOCKET	2P 8.0mm 2#	BCN501
2100003	CONNENTION CORDS	Φ0.6 SHAPED 7.5mm	JP502,JP503,JP505
2100004	CONNENTION CORDS	Φ0.6 SHAPED 10mm	JP501
2300049	FUSE	@1.6AL 250V 3.6×10 VDE	F501
3870115	GROUND CHIP OF POWER BOARD	903	G501,G503,G504
5141825	VERSION LABEL	3.00 SQUARE WHITE	

DV915HD(RU)BLACK(1389M)

DECODE BOARD 2DV921HD-1 4942116

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0090036	SMD RESISTOR	1/10W 0Ω±5% 0805	L10
0090324	SMD RESISTOR	1/16W 0Ω±5% 0402	R27,R125,R31,R34,R44,R46,R47,R48,R51,R52,R53,R130,R55
0090330	SMD RESISTOR	1/16W 33Ω±5% 0402	R65,R66,R50,R136,R137
0090336	SMD RESISTOR	1/1675Ω±5% 0402	R64
0090339	SMD RESISTOR	1/16W 100Ω±5% 0402	R8,R9,R60,R61,R62,R63,R118,R18,R19,R20,R21,R33
0090342	SMD RESISTOR	1/16W150Ω±5% 0402	R124
0090350	SMD RESISTOR	1/16330Ω±5% 0402	R37,R69,R70,R71,R80,R87,R94,R68
0090355	SMD RESISTOR	1/16W 510Ω±5% 0402	R123
0090356	SMD RESISTOR	1/16560Ω±5% 0402	R5
0090362	SMD RESISTOR	1/16W 1K±5% 0402	R78,R139,R79,R85,R86,R92,R93,R99,R100,R106,R107,R113,R114,R115
0090367	SMD RESISTOR	1/16W1.8K±5% 0402	R40
0090368	SMD RESISTOR	1/16W 2K±5% 0402	R6,R7
0090377	SMD RESISTOR	1/16W 4.7K±5% 0402	R67
0090378	SMD RESISTOR	1/16W 5.1K±5% 0402	R22,R76,R83,R90,R97,R104,R111
0090385	SMD RESISTOR	1/16W 10K±5% 0402	R2,R3,R11,R12,R16,R17,R23,R28,R30,R41,R42,R43,R45,R49,R56,R57,R58,R75,R82,R89,R96,R103,R108,R110,R119,R121,R126,R127
0090387	SMD RESISTOR	1/1612K±5% 0402	R24
0090389	SMD RESISTOR	1/1615K±5% 0402	R131
0090391	SMD RESISTOR	1/16W 20K±5% 0402	R25,R135

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0090392	SMD RESISTOR	1/16W 22K±5% 0402	R122,R77,R84,R91,R98,R105,R112
0090394	SMD RESISTOR	1/16W 27K±5% 0402	R132,R133
0090396	SMD RESISTOR	1/16W 33K±5% 0402	R54
0090400	SMD RESISTOR	1/16W 47K±5% 0402	R154,R29
0090408	SMD RESISTOR	1/16W 100K±5% 0402	R10,R73,R13,R35,R81,R88,R95,R101,R102,R109,R116
0090445	SMD RESISTOR	1/16W 1Ω±5% 0402	R128
0090447	SMD RESISTOR	1/16W 22Ω±5% 0402	R134,R142,R143,R144,R145
0090834	PRECISION SMD RESISTOR	1/16W 5.1K±1% 0402	R1
0090845	PRECISION SMD RESISTOR	1/16W 2.49K±1% 0402	R4
0090869	SMD RESISTOR	1/16W 6.8Ω±5% 0402	R14,R15
02600289	CD	C11 16V220U±20%6×12 2.5 BELT	CE14,CE19,CE33
0260687	CD	CD11T 10V1000u±20%8×16 C5	CE11
02607819	CD	C11C 10V100U±20%5×11 C2.5 BELT	CE1,CE3,CE6,CE12,CE32,CE35,CE10,CE16
02607869	CD	C11C 16V22U±20%4×7 C2.5 BELT	CE17
02607879	CD	C11C 16V47U±20%5×7 C2.5 BELT	CE7,CE8,CE9,CE15
02607989	CD	C11T 16V470U±20%8×12 C5 BELT	CE4
02608249	CD	C11 16V10U±20%5×11 C2.5 BELT	CE5,CE13,CE20~CE31
0310234	SMD CAPACITOR	16V 105 +80%-20% Y5V 0603	C1,C10,C12,C14,C27,C85,C90,C91
0310392	SMD CAPACITOR	50V 102±10% 7R 0402	C3,C4,C5,C6,C71,C73,C75,C77,C79,C81,C84,C127,L33
0310394	SMD CAPACITOR	50V 222±10% 7R 0402	C7,C8
0310416	SMD CAPACITOR	50V 22P±5% NPO 0402	C52,C53,C54,C55,C56,C57,C58,C59
0310420	SMD CAPACITOR	50V 33P±5% NPO 0402	C29,C30
0310424	SMD CAPACITOR	50V 47P±5% NPO 0402	C64,C65,C66
0310432	SMD CAPACITOR	50V 101±5% NPO 0402	C67,C72,C74,C76,C78,C80,C82
0310435	SMD CAPACITOR	50V 221±5% NPO 0402	C2
0310446	SMD CAPACITOR	50V 152±10% 7R 0402	C86
0310454	SMD CAPACITOR	16V 153±10% 7R 0402	C93
0310493	SMD CAPACITOR	50V 121±5% NPO 0402	C19
0310566	SMD CAPACITOR	10V 225 +80%-20% Y5V 0603	C38,C39,C136

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0310726	SMD CAPACITOR	16V 104±10% 5R 0402	C9,C11,C13,C15,C16,C17,C18,C20,C21,C22,C23,C24,C25,C26,C28,C32,C33,C34,C35,C36,C37,C40,C41,C43,C45,C46,C47,C48,C49,C50,C51,C60,C61,C62,C68,C69,C70,C83,C88,C92,C98,C99
0310794	SMD CAPACITOR	16V 331±5% NPO 0402	C87,C89
0310853	SMD CAPACITOR	16V 682 ±10% 7R 0402	C31
0390095	SMD MAGNETIC BEADS	FC160822105	L1,L2,L7,L8,L12,L15,L21,L39
0390355	SMD INDUCTOR	4.7UH±10% 1608	L3,L4,L32,L20,C94
0390385	SMD INDUCTOR	22uH±10% 2012	L6,L11
0390444	SMD MAGNETIC BEADS	PZ2012U121	L5,L14,L22
0390453	SMD MAGNETIC BEADS	GZ1005D221T 0402	L9,L24,L25,L26,L27,L28,L29,L13,L30,L31
0390568	SMD INDUCTOR	0.22UH ±10% 50mA 1608	L16,L17,L18,L19
05700039	DIODE	1N4001 BELT	D1,D2,D3
0700001	SMD DIODE	LS4148	D12,D15
0700057	SMD DUAL DIODE	MMBD4148CC SO23	D19
0780040	SMD TRIODE	3904(100-300) SO23	Q3
0780115	SMD TRIODE	2SB1132	Q4,Q5
0780129	SMD TRIODE	8550D	Q22,Q23
0780193	SMD TRIODE	2S3018	V1,V2
0780197	SMD TRIODE	C1815	Q10,Q11,Q12,Q13,Q14,Q15,Q16,Q20
0780198	SMD TRIODE	2S1015	Q17,Q18,Q19
07803199	TRIODE	SS8550 TO-92 BELT	Q6~Q9
0780353	SMD TRIODE	CES2302 SOT-23	V21
0880768	IC	C4558 SOP	U6,U7,U8
08828028	IC	A5888S L/ HSOP\$	U2
0883532	IC	HY57V641620FTP-7 SOP	U3
0884051	IC	MT1389FE/M(M EDITION) LQFP	U1
0912110	PROGRAM FLASH	ROM921HDRU-0A(16M)	
0960020	CRYSTAL OSCILLATOR	27.00MHz 49-S	X1
1030048	SMD PRESS SENSITIVITY RESISTOR	SDV1005E5R5C400NPT 0402	R72,R74,R146,R147,R148,R149

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
1635003	PCB	2 921HD-1 FR4 D1.2 PX	
1860102	HDMI SOCKET	51U019S-333A	JK202
1910079	TERMINAL SOCKET	8-8.4-6G-3	JK2
1910129	TERMINAL SOCKET	S001-012 BLACK IRON PIECE,SCREESHIELDED	JK1
1940005	SOCKET	6P 2.0mm	CN3,CN8,CN9,CN6
1940022	SOCKET	4P 2.0mm	CN5
1940024	SOCKET	5P 2.0mm	CN2,CN10
1940044	SOCKET	9P 2.0mm	CN7
1940094	CABLE SOCKET	24P 0.5mm SMD SUBMIT MEET WITH CLASP	CN1
5141895	VERSION LABEL	4.00 SQUARE WHITE	

DV915HD(RU)BLACK(1389M)

OK BOARD 6DV875-2 4942118

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
00000059	CARBON FILM RESISTOR	1/633Ω±5% BELT	R618,R619
0090012	SMD RESISTOR	1/16W 560Ω±5% 0603	R603,R604
0090014	SMD RESISTOR	1/16W 1K±5% 0603	R607,R608,R616,R623
0090020	SMD RESISTOR	1/16W 5.1K±5% 0603	R605,R606,R611~R612,R614
0090023	SMD RESISTOR	1/16W 10K±5% 0603	R601,R602,R613,R615
0090187	SMD RESISTOR	1/16W 12K±5% 0603	R621,R609,R610
02600279	CD	C11 16V100U±20%6×12 2.5 BELT	TC601,TC602
02607799	CD	C11C 16V10U±20%4×7 C2.5 BELT	TC603~TC606
02607819	CD	C11C 10V100U±20%5×11 C2.5 BELT	TC607
0310047	SMD CAPACITOR	50V 101±5% NPO 0603	C614,C615,C618,C621
0310066	SMD CAPACITOR	50V 102±10% 7R 0603	C619,C623
0310072	SMD CAPACITOR	50V 103±10% 7R 0603	C609,C612,C613
0310594	SMD CAPACITOR	25V 104±10% 0603	C601~C606,C626,C627 ③
0310543	SMD CAPACITOR	50V 104±10% 7R 0603	C601~C606,C626,C627 ③
0310643	SMD CAPACITOR	16V 105±20% Y5V 0603	C610,C611,C616,C617
03900579	MAGNETIC BEADS INDUCTOR	RH354708 BELT	L605

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0390095	SMD MAGNETIC BEADS	FC160822105	L601~L604
0780197	SMD TRIODE	C1815	Q601
0880768	IC	C4558 SOP	U601,U602
1634573	PCB	6 875-2 FR4 D1.6 PX	
1860047	USB SOCKET	CAB85-4Pin	JK601
1980018	MICROPHONE SOCKET	C3-6.35-24	MIC601,MIC602
2150379	FLAT CABLE	8-6/5P100/110 2.0 T3 2PB WITH NEEDLE 8CORD	XS601
5142648	VERSION LABEL	5.01 SQUARE WHITE	

DV915HD(RU)BLACK(1389M)

OUTPUT BOARD 7DV231-1 4942120

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0090001	SMD RESISTOR	1/16W 0Ω±5% 0603	C717,C720,C722,R713,R716,
0090005	SMD RESISTOR	1/16W 33Ω±5% 0603	R708
0090008	SMD RESISTOR	1/16W 220Ω±5% 0603	R701
0090016	SMD RESISTOR	1/16W 1.5K±5% 0603	R709,R722,R723
0090017	SMD RESISTOR	1/16W 2.2K±5% 0603	R710,R714
0090024	SMD RESISTOR	1/16W 15K±5% 0603	R704
0090029	SMD RESISTOR	1/16W 47K±5% 0603	R715
0090181	SMD RESISTOR	1/16W 100Ω±5% 0603	R702
0090230	SMD RESISTOR	1/16W 47Ω±5% 0603	R706
0090238	SMD RESISTOR	1/16W 68Ω±5% 0603	R703
0310207	SMD CAPACITOR	50V 104 ±20% 7R 0603	C710,C728 ④
0310543	SMD CAPACITOR	50V 104±10% 7R 0603	C710,C728 ④
0310234	SMD CAPACITOR	16V 105 +80%-20% Y5V 0603	C711
0310598	SMD CAPACITOR	50V 102±20% 7R 0603	C716,C723,C727
0390095	SMD MAGNETIC BEADS	FC160822105	L713,L714,L707,L708,L709
0700001	SMD DIODE	LS4148	D701, D702
0700004	SMD VOLTAGE REGULATOR DIODE	5.1V±5% 1/2W	ZD701,ZD702,ZD703,ZD704
0780085	SMD TRIODE	8050D	Q701,Q702

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
1090045	ELECTRO-OPTIC TRANSFORMER	179ATW	JK705
1565310	PCB	7 231-1 HB D1.6 SX	
1860029	SCART SOCKET	SCAR01	JK706
1910078	TERMINAL SOCKET	4-8.4-6G-3	JK702
2100004	CONNETION CORDS	Φ0.6 SHAPED 10mm	J703, J705, J706,J710
2100010	CONNETION CORDS	Φ0.6 SHAPED 5mm	J701,J702,J704, J707, J708, J709
2122797	FLAT CABLE	15-6/9P110×2 2.0 T3 WITH NEEDLE, THE SAME DIRECTION,	CN701
5141826	VERSION LABEL	3.01 SQUARE WHITE	

DV915HD(RU)BLACK(1389M)

PROGRAM FLASH 0912110

MATERIAL CODE	MATERIAL NAME	SPECIFICATIONS	LOCATION
0883713	IC	AT26DF161-SU SOIC	U5