

harman/kardon

AVR510

A/V DOLBY DIGITAL RECEIVER

PRELIMINARY SERVICE MANUAL



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harman/kardon, Inc.
250 Crossways Park Dr.
Woodbury, New York 11797

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ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor "chip" components.

The following techniques should be used to help reduce the incidence of component damage caused by static electricity.



1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge build-up or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical change sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES devices.

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing.

Components identified with the IEC symbol  in the parts list are of special significance to safety. When replacing a component identified with , use only the replacement parts designated, or parts with the same ratings or resistance, wattage, or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

LEAKAGE TEST(FOR SERVICE ENGINEERS IN THE U.S.A)

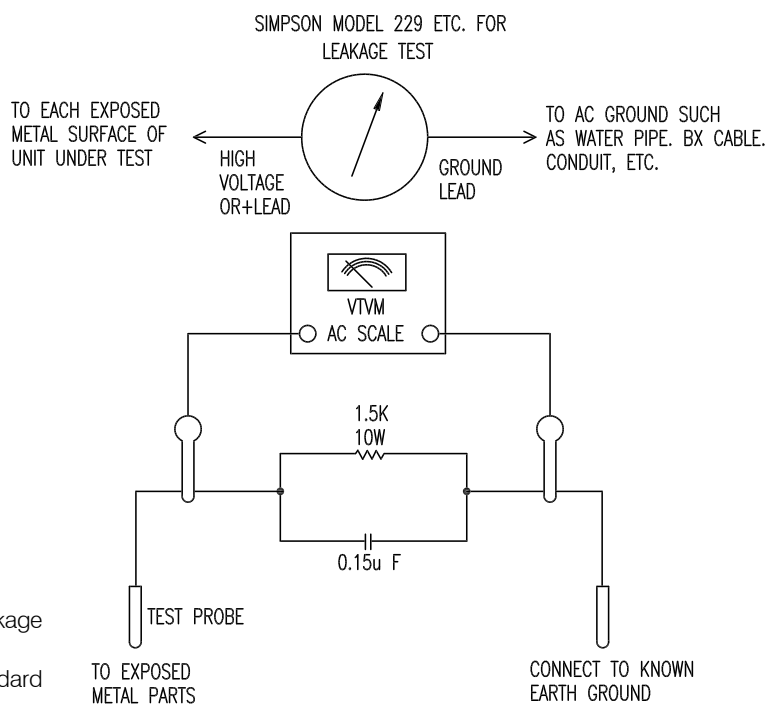
Before returning the unit to the user, perform the following safety checks :

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the unit.

2. Be sure that any protective devices such as nonmetallic control knobs, insulating fish-papers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc. Which were removed for the servicing are properly re-installed.

3. Be sure that no shock hazard exists ; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item No. 21641, RCA Model WT540A or use alternate method as follows : Plug the power cord directly Into a 120 volt AC receptacle (do not use an Isolation Transformer for this test). Using two clip leads, connect a

1500 ohms, 10watt Resistor paralleled by a 0.15uF capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (See diagram) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal, cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.



Technical Specifications

Audio Section

Stereo Mode

Continuous Average Power (FTC)

80 Watts per channel, 20Hz–20kHz,
@ < 0.07% THD, both channels driven into 8 ohms

Five-Channel Surround Modes

Power Per Individual Channel

Front L&R channels:
70 Watts per channel
@ < 0.07% THD, 20Hz–20kHz into 8 ohms

Center channel:
70 Watts @ < 0.07% THD, 20Hz–20kHz into 8 ohms

Surround channels:
70 Watts per channel
@ < 0.07% THD, 20Hz–20kHz into 8 ohms

Input Sensitivity/Impedance

Linear (High-Level) 200mV/47k ohms

Signal-to-Noise Ratio (IHF-A) 95dB

Surround System Adjacent Channel Separation

Analog Decoding 40dB

(Pro Logic, etc.)

Dolby Digital (AC-3) 55dB

DTS 55dB

Frequency Response

@ 1W (+0dB, –3dB) 10Hz – 100kHz

High Instantaneous

Current Capability (HCC) ±35 Amps

Transient Intermodulation

Distortion (TIM) Unmeasurable

Rise Time 16 µsec

Slew Rate 40V/µsec

FM Tuner Section

Frequency Range 87.5–108MHz

Usable Sensitivity IHF 1.3 µV/13.2dB

Signal-to-Noise Ratio Mono/Stereo 70/68dB

Distortion Mono/Stereo 0.2/0.3%

Stereo Separation 40dB @ 1kHz

Selectivity ±400kHz, 70dB

Image Rejection 80dB

IF Rejection 90dB

Tuner Output Level 1kHz, ±75kHz Dev 500mV

AM Tuner Section

Frequency Range 520–1710kHz

Signal-to-Noise Ratio 45dB

Usable Sensitivity Loop 500µV

Distortion 1kHz, 50% Mod 0.8%

Selectivity ±10kHz, 30dB

Video Section

Television Format NTSC

Input Level/Impedance 1Vp-p/75 ohms

Output Level/Impedance 1Vp-p/75 ohms

Video Frequency Response 10Hz–8MHz (–3dB)

General

Power Requirement AC 120V/60Hz

Power Consumption 78W idle, 694W maximum
(2 channels driven)

Dimensions (Max)

Width 17.3 inches (440mm)

Height 6.5 inches (165mm)

Depth 17.1 inches (435mm)

Weight 35 lb (15.9 kg)

Depth measurement includes knobs, buttons and terminal connections.

Height measurement includes feet and chassis.

All features and specifications are subject to change without notice.

Harman Kardon is a registered trademark, and Power for the Digital Revolution is a trademark, of Harman Kardon, Inc.

||||EzSet is a trademark of Harman International Industries, Inc. (Patent No. 5,386,478).

*Manufactured under license from Dolby Laboratories.

"Dolby," "Pro Logic," "AC-3" and the Double-D symbol are trademarks of Dolby Laboratories. Confidential Unpublished Works. ©1992–1999 Dolby Laboratories, Inc. All rights reserved.

DTS and DTS Surround are trademarks of Digital Theater Systems, Inc.

UltraStereo is a trademark of UltraStereo Corp.

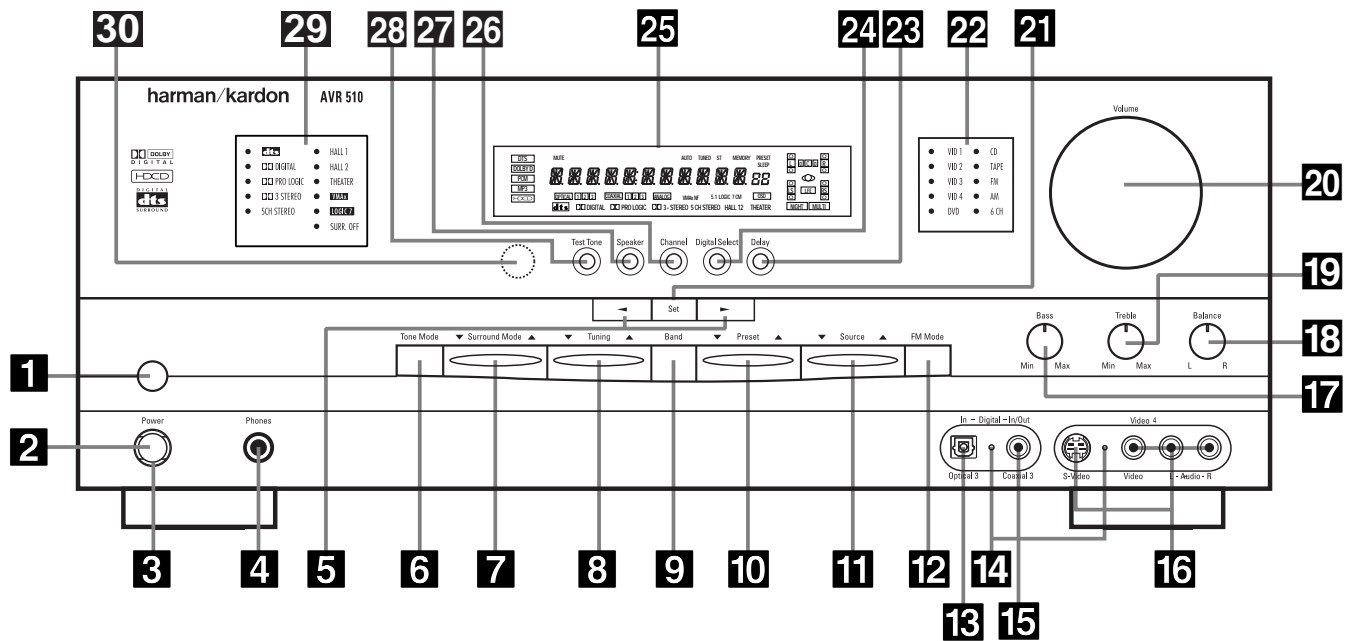
VMAx is a registered trademark of Harman International Industries, Inc., and is an implementation of Cooper Bauck Transaural Stereo under patent license.

Logic 7 is a registered trademark of Lexicon, Inc.

Crystal is a registered trademark of Cirrus Logic Corp.

HDCD system manufactured under license from Pacific Microsonics, Inc. This product is covered by one or more of the following: In the USA: 5,479,168; 5,638,074; 5,640,161; 5,808,574; 5,838,274; 5,854,600; 5,864,311; 5,872,531; and in Australia: 669114. Other patents pending.

Front Panel Controls



- 1** Main Power Switch
- 2** System Power Control
- 3** Power Indicator
- 4** Headphone Jack
- 5** Selector Buttons
- 6** Tone Mode
- 7** Surround Mode Selector
- 8** Tuning Selector
- 9** Tuner Band Selector
- 10** Preset Stations Selector

- 11** Input Source Selector
- 12** FM Mode Selector
- 13** Digital Optical 3 Input
- 14** Input/Output Status Indicator
- 15** Digital Coax 3 Jack
- 16** Video 4 Input Jacks
- 17** Bass Control
- 18** Balance Control
- 19** Treble Control
- 20** Volume Control

- 21** Set Button
- 22** Input Indicators
- 23** Delay
- 24** Digital Input Selector
- 25** Main Information Display
- 26** Channel Select Button
- 27** Speaker Select Button
- 28** Test Tone Selector
- 29** Surround Mode Indicators
- 30** Remote Sensor Window

1 Main Power Switch: Press this button to apply power to the AVR 510. When the switch is pressed in, the unit is placed in a Standby mode, as indicated by the amber **Power Indicator 3** surrounding the **System Power Control 2**. This button **MUST** be pressed in to operate the unit. To turn the unit off and prevent the use of the remote control, this switch should be pressed until it pops out from the front panel so that the word "OFF" may be read at the top of the switch.

NOTE: This switch is normally left in the "ON" position.

2 System Power Control: When the **Main Power Switch 1** is "ON," press this button to turn on the AVR 510; press it again to turn

the unit off. Note that the **Power Indicator 3** surrounding the switch will turn green when the unit is on.

3 Power Indicator: This LED will be lit in amber when the unit is in the Standby mode to signal that the unit is ready to be turned on. When the unit is in operation, the indicator will turn green.

4 Headphone Jack: This jack may be used to listen to the AVR 510's output through a pair of headphones. Be certain that the headphones have a standard 1/4" stereo phone plug. Note that the main room speakers will automatically be turned off when the headphone jack is in use.

5 Selector Buttons: When you are establishing the AVR 510's configuration settings, use these buttons to select from the choices available, as shown in the **Main Information Display 25** or the on-screen displays.

6 Tone Mode: Pressing this button enables or disables the Bass and Treble tone controls. When the button is pressed so that the words TONE IN appear in the **Main Information Display 25**, the settings of the **Bass 17** and **Treble 19** controls may be used to adjust the output signals. When the button is pressed so that the words TONE OUT appear in the **Main Information Display 25**, the output signal will be "flat," without any bass or treble alteration, no matter how the actual **Bass** and **Treble** controls **17/19** are adjusted.

Front Panel Controls

7 Surround Mode Selector: Press this button to change the surround mode by scrolling through the list of available modes. Note that depending on the type of input, some modes are not always available. (See page 27 for more information about surround modes.)

8 Tuning Selector: Press the left side of the button to tune lower-frequency stations and the right side of the button to tune higher-frequency stations. When a station with a strong signal is reached, the **TUNED** indicator **W** will be lit in the **Main Information Display 25**.

To tune manually, tap the button lightly and note that the tuner will step up one frequency increment per button press. When the button is held for a few seconds you will note that the unit will quickly search the frequency band. Release it once the fast tuning starts; the tuner will automatically scan for the next station with an acceptable signal and then stop.

9 Tuner Band Selector: Pressing this button will automatically switch the AVR 510 to the Tuner mode. Pressing it again will switch between the AM and FM frequency bands. (See page 30 for more information on the tuner.)

10 Preset Stations Selector: Press this button to scroll up or down through the list of stations that have been entered into the preset memory. (See page 30 for more information on tuner programming.)

11 Input Source Selector: Press this button to change the input by scrolling up or down through the list of input sources.

12 FM Mode Selector: Press this button to select Auto or Manual tuning. When the button is pressed so that the **AUTO** indicator **X** lights, the tuner will search for the next station with an acceptable signal when the **Tuning Selector 8 21 E** is pressed. When the button is pressed so that the **AUTO** indicator **X** is not lit, each press of the **Tuning Selector 8 21 E** will increase the frequency. (See page 30 for more information on using the tuner.)

13 Digital Optical 3 Input: Connect the optical digital output of an audio or video product to this jack. When the input is not in use, be certain to keep the plastic cap installed to avoid dust contamination that might degrade future performance.

14 Input/Output Status Indicator: These LED indicators will normally light green to show that the front panel Video 4 A/V jacks or the Coaxial 3 digital jack is operating as an input. When either of these jacks has been configured for use as an output, the indicator will turn red to show that the jack may be used for recording. (See page 20 for more information on configuring the front panel jacks as outputs, rather than inputs.)

15 Digital Coax 3 Jack: This jack is normally used for connection to the output of portable audio devices, video game consoles or other products that have a coax digital jack. It may also be configured as an output jack, to feed a digital signal to a CD-R, MiniDisc or other digital recording device. (See page 31 for information on configuring the Digital Coax 3 Jack to an output.)

16 Video 4 Input Jacks: These audio/video jacks may be used for temporary connection to video games or portable audio/video products such as camcorders and portable audio players.

17 Bass Control: Turn this control to modify the low-frequency output of the left/right channels by as much as $\pm 10\text{dB}$. Set this control to a suitable position for your taste or room acoustics.

18 Balance Control: Turn this control to change the relative volume for the front left/right channels.

NOTE: For proper operation of the surround modes this control should be at the midpoint, or "12 o'clock", position.

19 Treble Control: Turn this control to modify the high-frequency output of the left/right channels by as much as $\pm 10\text{dB}$. Set this control to a suitable position for your taste or room acoustics.

20 Volume Control: Turn this knob clockwise to increase the volume, counterclockwise to decrease the volume. If the AVR 510 is muted, adjusting volume control will automatically release the unit from the silenced condition.

21 Set Button: When making choices during the setup and configuration process, press this button to enter the desired setting as shown in the **Main Information Display 25** into the AVR 510's memory.

22 Input Indicators: A green LED will light in front of the input that is currently being used as the source for the AVR 510.

23 Delay: Press this button to begin the sequence of steps required to enter delay time settings. (See page 21 for more information on delay times.)

24 Digital Input Selector: When playing a source that has a digital output, press this button to select between the **Optical 13 31** and **Coaxial 15 32** Digital inputs. (See page 28 for more information on digital audio.)

25 Main Information Display: This display delivers messages and status indications to help you operate the receiver. (See pages 7 & 8 for a complete explanation of the Information Display.)

26 Channel Select Button: Press this button to begin the process of trimming the channel output levels using an external audio source. (For more information on output level trim adjustment, see page 31.)

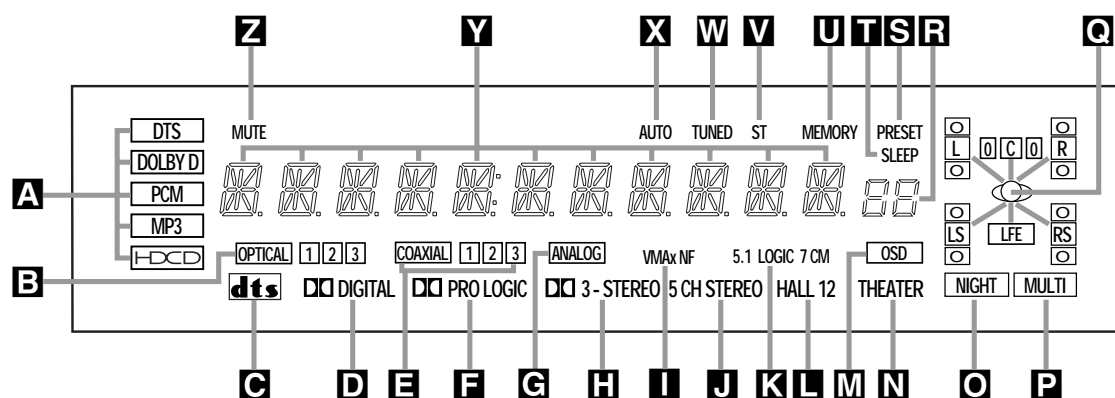
27 Speaker Select Button: Press this button to begin the process of selecting the speaker positions that are used in your listening room. (See page 22 for more information on setup and configuration.)

28 Test Tone Selector: Press this button to begin the process of adjusting the channel output levels using the internal test tone as a reference. (For more information on output level adjustment, see page 23.)

29 Surround Mode Indicators: A green LED will light in front of the surround mode that is currently in use.

30 Remote Sensor Window: The sensor behind this window receives infrared signals from the remote control. Aim the remote at this area and do not block or cover it unless an external remote sensor is installed.

Front Panel Information Display



- | | | |
|------------------------------------|---|-----------------------------------|
| A Bitstream Indicators | J 5-Channel Stereo Indicator | S Preset Indicator |
| B Optical Source Indicators | K Logic 7 Mode Indicators | T Sleep Indicator |
| C DTS Mode Indicator | L Hall Mode Indicators | U Memory Indicator |
| D Dolby Digital Indicator | M OSD Indicator | V Stereo Indicator |
| E Coaxial Source Indicators | N Theater Mode Indicator | W Tuned Indicator |
| F Dolby Pro Logic Indicator | O Night Mode Indicator | X Auto Indicator |
| G Analog Input Indicator | P Multiroom Indicator | Y Main Information Display |
| H Dolby 3 Stereo Indicator | Q Speaker/Channel Input Indicators | Z Mute Indicator |
| I VMAx Mode Indicator | R Preset Number/Sleep Timer | |

A Bitstream Indicators: When the input is a digital source, one of these indicators will light to display the specific type of data signal in use.

B Optical Source Indicators: These indicators light to show when an Optical Digital Input has been selected.

C DTS Mode Indicator: This indicator lights when a DTS-encoded source is playing.

D Dolby Digital Indicator: This indicator lights when a Dolby Digital source is being played.

E Coaxial Source Indicators: These indicators light to show when a Coaxial Digital Input has been selected.

F Dolby Pro Logic Indicator: This indicator lights when the Dolby Pro Logic mode has been selected.

G Analog Input Indicator: This indicator lights when an analog input source has been selected.

H Dolby 3 Stereo Indicator: This indicator lights when the Dolby 3 Stereo Mode has been selected.

I VMAx Mode Indicator: This indicator lights when the VMAx mode is in use. **VMAx F** appears when the Far Field VMAx mode is selected; **VMAx N** appears when the Near Field VMAx mode is selected. (See page 27 for a description of the VMAx modes.)

J 5-Channel Stereo Indicator: This indicator lights when the 5-Channel Stereo mode has been selected.

K Logic 7 Mode Indicators: These indicators light when the Logic 7 mode is in use. **LOGIC 7C** appears for the Cinema version of Logic 7, **LOGIC 7M** appears for the Music version of Logic 7. (See page 27 for a description of the Logic 7 Modes.)

L Hall Mode Indicators: These indicators light when one of the Hall modes has been selected.

M OSD Indicator: When the OSD system is in use, this indicator lights to remind you that the other indicators in this display do not function when the On Screen Display is being used.

N Theater Mode Indicator: This indicator lights to show that the Theater mode is in use.


O Night Mode Indicator: This indicator lights when the AVR 510 is in the Night mode, which preserves the dynamic range of digital program material at low volume levels.

P Multiroom Indicator: This indicator lights when the multiroom system is active. Note that it will remain lit when the multiroom system is in use even though the main room system is in the Standby mode and all other indicators are dark. (See page 35 for more information on the Multiroom system.)

Q Speaker/Channel Input Indicators: These indicators are multipurpose, indicating either the speaker type selected for each channel or the incoming data-signal configuration. The left, center, right, right surround and left surround speaker indicators are composed of three boxes, while the subwoofer is a single box. The center box lights when a "Small" speaker is selected, and the two outer boxes light when "Large" speakers are selected. When none of the boxes are lit for the center, surround or subwoofer channels, no speaker has been selected for one of those positions. (See page 22 for more information on configuring speakers.) The letters inside each of the center boxes display the active input channels. For standard analog inputs, only the L and R will light, indicating a stereo input. When a digital source is playing, the indicators will light to display the channels being received at the digital input. When the letters flash, the digital input has been interrupted. (See pages 23 & 29 for more information on the Channel Indicators.)

R Preset Number/Sleep Timer: When the tuner is in use, these numbers indicate the specific preset memory location in use. (See page 31 for more information on preset stations.) When the Sleep function is in use, these numbers show how many minutes remain before the unit goes into the Standby mode.

Front Panel Information Display

S Preset Indicator: This indicator lights when the tuner is in use to show that the **Preset Number/Sleep Timer**  is showing the station's preset memory number. (See page 31 for more information on tuner presets.)

T Sleep Indicator: This indicator lights when the Sleep function is in use. The numbers in the **Preset Number/Sleep Timer** indicator will show the minutes remaining before the AVR 510 goes into the Standby mode. (See page 26 for more information on the Sleep function.)


U Memory Indicator: This indicator flashes when entering presets and other information into the tuner's memory.

V Stereo Indicator: This indicator lights when an FM station is being tuned in stereo.

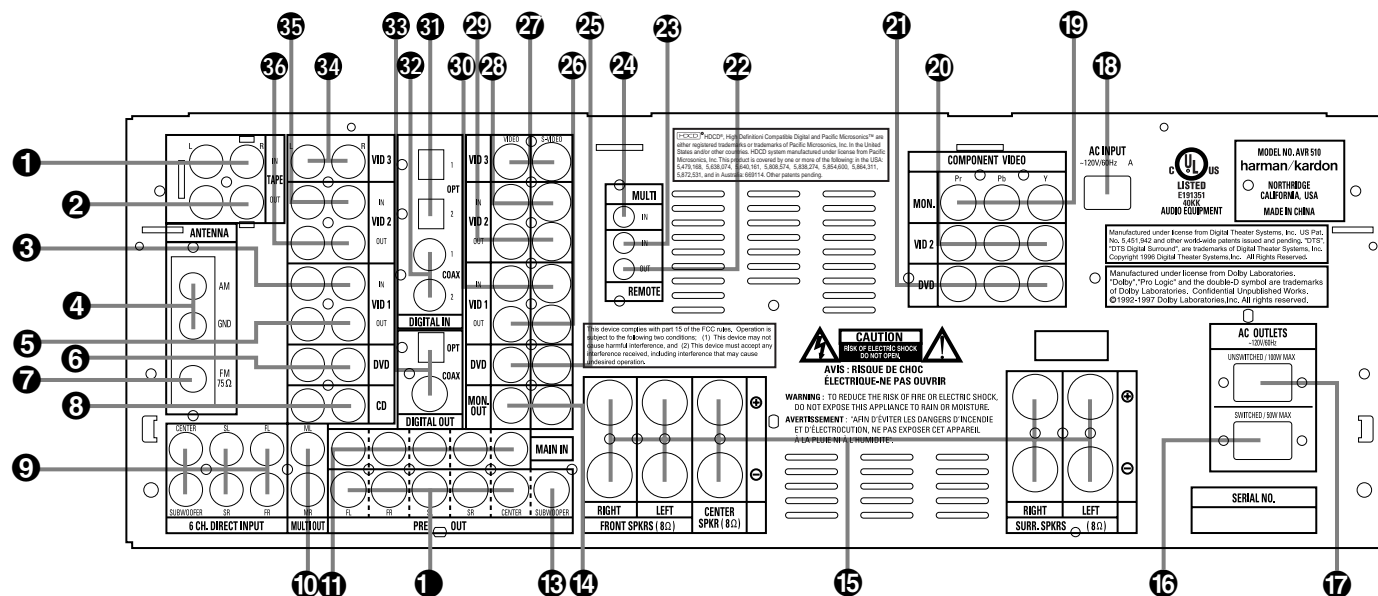
W Tuned Indicator: This indicator lights when a station is being received with sufficient signal strength to provide acceptable listening quality.

X Auto Indicator: This indicator lights when the tuner's Auto mode is in use.

Y Main Information Display: This display shows messages relating to the status, input source, surround mode, tuner, volume level or other aspects of the AVR 510's operation.

Z Mute Indicator: This indicator lights to remind you that the AVR 510's output has been silenced by pressing the **Mute** button  **38**. Press the Mute button again to return to the previously selected output level.

Rear Panel Connections



- 1 Tape Inputs
- 2 Tape Outputs
- 3 Video 1 Audio Inputs
- 4 AM Antenna
- 5 Video 1 Audio Outputs
- 6 DVD Audio Inputs
- 7 FM Antenna
- 8 CD Inputs
- 9 6-Channel Direct Inputs
- 10 Multiroom Outputs
- 11 Amplifier Inputs
- 12 Preamp Outputs
- 13 Subwoofer Output
- 14 Video Monitor Outputs

- 15 Speaker Outputs
- 16 Switched AC Accessory Outlet
- 17 Unswitched AC Accessory Outlet
- 18 AC Power Cord
- 19 Component Video Outputs
- 20 Video 2 Component Video Inputs
- 21 DVD Component Video Inputs
- 22 Remote IR Output
- 23 Remote IR Input
- 24 Multiroom IR Input
- 25 DVD Video Inputs
- 26 Video 1 Video Outputs
- 27 Video 3 Video Inputs
- 28 Video 2 Video Inputs

- 29 Video 2 Video Outputs
- 30 Video 1 Video Inputs
- 31 Optical Digital Inputs
- 32 Coaxial Digital Inputs
- 33 Digital Audio Outputs
- 34 Video 3 Audio Inputs
- 35 Video 2 Audio Inputs
- 36 Video 2 Audio Outputs

Rear Panel Connections

1 Tape Inputs: Connect these jacks to the **PLAY/OUT** jacks of an audio recorder.

2 Tape Outputs: Connect these jacks to the **RECORD/INPUT** jacks of an audio recorder.

3 Video 1 Audio Inputs: Connect these jacks to the **PLAY/OUT** audio jacks on a VCR or other video source.

4 AM Antenna: Connect the AM loop antenna supplied with the receiver to these terminals. If an external AM antenna is used, make connections to the **AM** and **GND** terminals in accordance with the instructions supplied with the antenna.

5 Video 1 Audio Outputs: Connect these jacks to the **RECORD/INPUT** audio jacks on a VCR.

6 DVD Audio Inputs: Connect these jacks to the analog audio jacks on a DVD or other video source.

7 FM Antenna: Connect the supplied indoor or an optional external FM antenna to this terminal.

8 CD Inputs: Connect these jacks to the output of a compact disc player or CD changer.

9 6-Channel Direct Inputs: If an external digital audio decoder is used, connect the outputs of that decoder to these jacks.

10 Multiroom Outputs: Connect these jacks to an optional audio power amplifier to listen to the source selected by the multiroom system in a remote room.

11 Amplifier Inputs: When the jumper pins that link the **Preamp Outputs 1** with these inputs are removed, these jacks may be used to connect an external source or the AVR 510's multiroom system to the internal amplifiers. (See page 17 for more information on using these connections.)

1 Preamp Outputs: When the jumper pins that link the **Amplifier Inputs 11** with these outputs are removed, these jacks may be connected to an external power amplifier.

13 Subwoofer Output: Connect this jack to the line-level input of a powered subwoofer. If an external subwoofer amplifier is used, connect this jack to the subwoofer amplifier input.

14 Video Monitor Outputs: Connect this jack to the composite or S-Video input of a TV monitor or video projector to view the on-screen

menus and the output of any standard video source selected by the receiver's video switcher.

15 Speaker Outputs: Connect these outputs to the matching + or – terminals on your left and right surround speakers. When making speaker connections always make certain to maintain correct polarity by connecting the red (+) terminals on the AVR 510 to the red (+) terminals on the speakers and the black (–) terminals on the AVR 510 to the black (–) terminals on the speakers. See page 15 for more information on speaker polarity.

16 Switched AC Accessory Outlet: This outlet may be used to power any device you wish to have turned on when the AVR 510 is turned on with the **System Power Control** button **2**.

17 Unswitched AC Accessory Outlet: This outlet may be used to power any AC device. The power will remain on at this outlet regardless of whether the AVR 510 is on or off.

Note: The total power consumption of all devices connected to the accessory outlets should not exceed 100 watts.

18 AC Power Cord: Connect the AC plug to an unswitched AC wall output.

19 Component Video Outputs: Connect these outputs to the component video inputs of a video projector or monitor. When a source connected to one of the two **Component Video Inputs 20/21** is selected the signal will be sent to these jacks.

20 Video 2 Component Video Inputs: Connect the Y/Pr/Pb component video outputs of a set top converter box or other video product to these jacks.

21 DVD Component Video Inputs: Connect the Y/Pr/Pb component video outputs of a DVD player to these jacks.

22 Remote IR Output: This connection permits the IR sensor in the receiver to serve other remote controlled devices. Connect this jack to the "IR IN" jack on Harman Kardon (or other compatible) equipment.

23 Remote IR Input: If the AVR 510's front-panel IR sensor is blocked due to cabinet doors or other obstructions, an external IR sensor may be used. Connect the output of the sensor to this jack.

24 Multiroom IR Input: Connect the output of an IR sensor in a remote room to this jack to operate the AVR 510's multiroom control system.

25 DVD Video Inputs: Connect these jacks to the composite or S-Video output jacks on a DVD or other video source.

26 Video 1 Video Outputs: Connect these jacks to the **RECORD/INPUT** composite or S-Video jack on a VCR.

27 Video 3 Video Inputs: Connect these jacks to the **PLAY/OUT** composite or S-Video jacks on a VCR or other video source.

28 Video 2 Video Inputs: Connect these jacks to the **PLAY/OUT** composite or S-Video jacks on a VCR or other video source.

29 Video 2 Video Outputs: Connect these jacks to the **RECORD/INPUT** composite or S-Video jacks on a VCR.

30 Video 1 Video Inputs: Connect these jacks to the **PLAY/OUT** composite or S-Video jacks on a VCR or other video source.

31 Optical Digital Inputs: Connect the optical digital output from a DVD player, HDTV receiver, LD player or CD player to these jacks. The signal may be either a Dolby Digital signal, a DTS signal or a standard PCM digital source.

32 Coaxial Digital Inputs: Connect the coax digital output from a DVD player, HDTV receiver, LD player or CD player to these jacks. The signal may be either a Dolby Digital signal, DTS signal or a standard PCM digital source. Do not connect the RF digital output of an LD player to these jacks.

33 Digital Audio Outputs: Connect these jacks to the matching digital input connector on a digital recorder such as a CD-R or MiniDisc recorder.

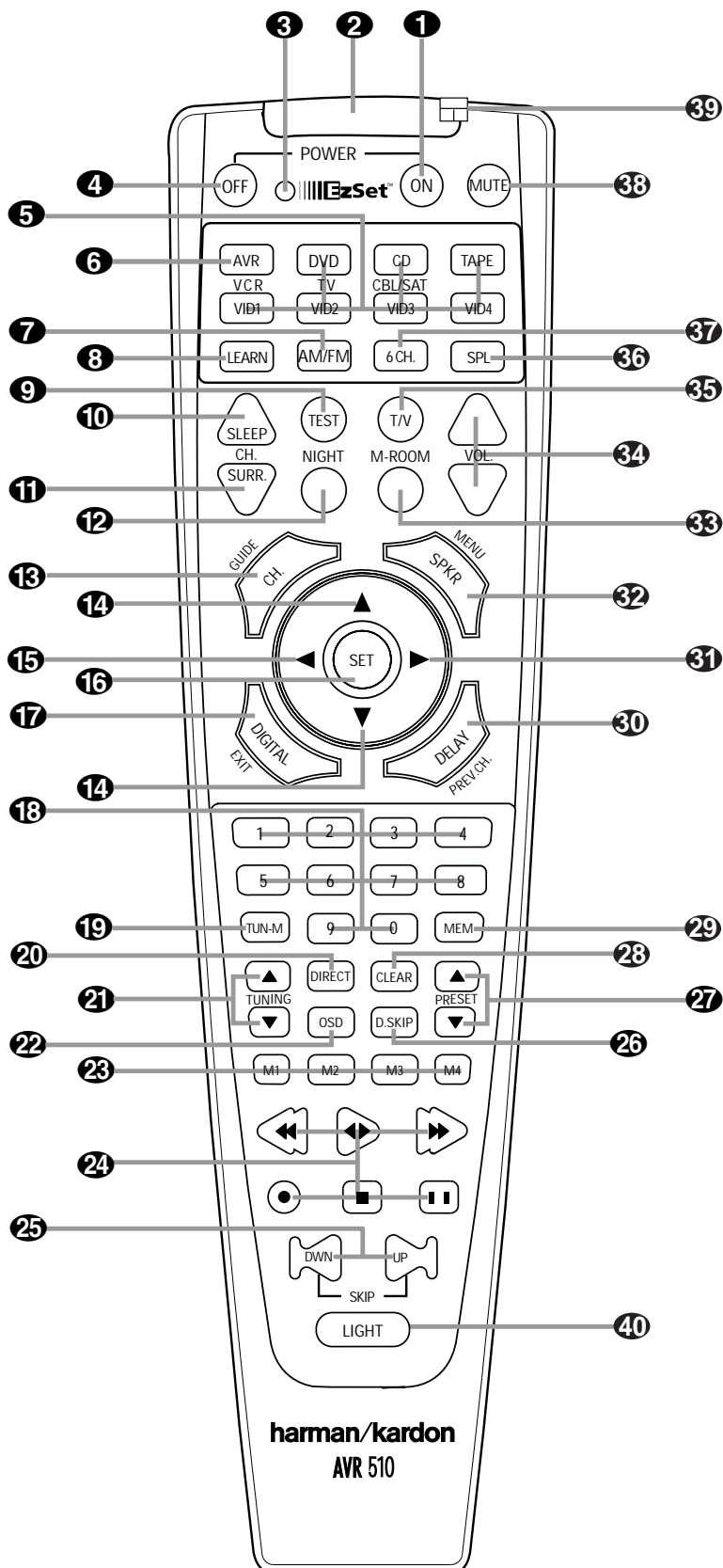
34 Video 3 Audio Inputs: Connect these jacks to the **PLAY/OUT** audio jacks on a VCR or other video source.

35 Video 2 Audio Inputs: Connect these jacks to the **PLAY/OUT** audio jacks on a VCR or other video source.

36 Video 2 Audio Outputs: Connect these jacks to the **RECORD/INPUT** audio jacks on a VCR or other video source.

Main Remote Control Functions

- ❶ Power On Button
- ❷ IR Transmitter Window
- ❸ Program/SPL Indicator
- ❹ Power Off Button
- ❺ Input Selectors
- ❻ AVR Selector
- ❼ AM/FM Tuner Select
- ❽ Learn Button
- ❾ Test Button
- ❿ Sleep Button
- ⓫ Surround Mode Selector
- ⓬ Night Mode
- ⓭ Channel Select Button
- ⓮ ▲/▼ Buttons
- ⓯ ◀ Button
- ⓰ Set Button
- ⓱ Digital Select
- ⓲ Numeric Keys
- ⓳ Tuner Mode
- ⓴ Direct Button
- ⓵ Tuning Up/Down
- ⓶ OSD Button
- ⓷ Macro Buttons
- ⓸ Transport Controls
- ⓹ Skip Up/Down Buttons
- ⓺ Disc Skip Buttons
- ⓻ Preset Up/Down
- ⓼ Clear Button
- ⓽ Memory Button
- ⓿ Delay/Prev. Ch.
- ⓾ ▶ Button
- ⓿ Speaker Select
- ⓿ Multiroom
- ⓿ Volume Up/Down
- ⓿ TV/Video Selector
- ⓿ SPL Indicator Select
- ⓿ 6-Channel Direct Input
- ⓿ Mute
- ⓿ EzSet Sensor Microphone
- ⓿ Light Button



NOTE: The function names shown here are each button's feature when used with the AVR 510. Most buttons have additional functions when used with other devices. See pages 41–42 for a list of these functions.

Main Remote Control Functions

IMPORTANT NOTE: The AVR 510's remote may be programmed to control up to eight devices, including the AVR 510. Before using the remote, it is important to remember to press the **Input Selector** button **5** that corresponds to the unit you wish to operate. In addition, the AVR 510's remote is shipped from the factory to operate the AVR 510 and most Harman Kardon CD or DVD players and cassette decks. The remote is also capable of operating a wide variety of other products using the control codes that are part of the remote. Before using the remote with other products, follow the instructions on pages 36–40 to program the proper codes for the products in your system.

It is also important to remember that many of the buttons on the remote take on different functions, depending on the product selected using the Device Control Selectors. The descriptions shown here primarily detail the functions of the remote when it is used to operate the AVR 510. (See page 40 for information about alternate functions for the remote's buttons.)

1 Power On Button: Press this button to turn on the power to a device selected by pressing one of the **Input Selectors** **5**.

2 IR Transmitter Window: Point this window towards the AVR 510 when pressing buttons on the remote to make certain that infrared commands are properly received.

3 Program/SPL Indicator: This three-color indicator is used to guide you through the process of programming the remote or learning commands from a remote into the AVR 510's remote code memory and it is also used as a level indicator when using the remote's EzSet capabilities. (See page 23 for more information on setting output levels, and see page 36 for information on programming the remote.)

4 Power Off Button: Press this button to place the AVR 510 or a selected device in the Standby mode. Note that this will turn off the main room functions, but if the Multiroom system is activated, it will continue to function.

5 Input Selectors: Pressing one of these buttons will perform three actions at the same time. First, if the AVR 510 is not turned on, this will power up the unit. Next, it will select the source shown on the button as the input to the AVR 510. Finally, it will change the remote control so that it controls the device selected. After pressing one of these buttons you must press the **AVR Selector** button **6** again to operate the AVR 510's functions with the remote.

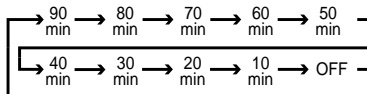
6 AVR Selector: Pressing this button will switch the remote so that it will operate the AVR 510's functions. If the AVR 510 is in the Standby mode, it will also turn the AVR 510 on.

7 AM/FM Tuner Select: Press this button to select the AVR 510's tuner as the listening choice. Pressing this button when the tuner is already in use will select between the AM and FM bands.

8 Learn Button: Press this button to begin the process of "learning" the codes from another product's remote into the AVR 510's remote. (See page 37 for more information on using the remote's learning function.)

9 Test Button: Press this button to begin the sequence used to calibrate the AVR 510's output levels. (See page 23 for more information on calibrating the AVR 510.)

10 Sleep Button: Press this button to place the unit in the Sleep mode. After the time shown in the display, the AVR 510 will automatically go into the Standby mode. Each press of the button changes the time until turn-off in the following order:



Note that this button is also used to change channels on your TV when the TV is selected.

When the AVR 510 remote is being programmed with the codes to operate another device, this button is also used in the "Auto Search" process. (See page 36 for more information on programming the remote.)

11 Surround Mode Selector: Press this button to begin the process of changing the surround mode. After the button has been pressed, use the **▲/▼** buttons **14** to select the desired surround mode. (See page 28 for more information.) Note that this button is also used to tune channels when the TV is selected using the device **Input Selector** **5**. When the AVR 510 remote is being programmed with the codes of another device, this button is also used in the "Auto Search" process. (See page 36 for more information on programming the remote.)

12 Night Mode: Press this button to activate the Night mode. This mode is available in specially encoded digital sources, and it preserves

dialog (center channel) intelligibility at low volume levels.

13 Channel Select Button: This button is used to start the process of setting the AVR 510's output levels to an external source. Once this button is pressed, use the **▲/▼** buttons **14** to select the channel being adjusted, then press the **Set** button **16**, followed by the **▲/▼** buttons again, to change the level setting. (See page 31 for more information.)

14 ▲/▼ Buttons: These are multi-purpose buttons. They will be used most frequently to select a surround mode. To change the surround mode, first press the **Surround Mode ▼** selector

11. Next press these buttons to scroll up or down through the list of surround modes that appear in the **Main Information Display** **25**. These buttons are also used to increase or decrease output levels when configuring the unit with either the internal test tone or an external source. They are also used to enter delay time settings after the **Delay** button **30** has been pressed.

15 ◀ Button: This button is used to change the menu selection or setting during some of the setup procedures for the AVR 510.

16 Set Button: This button is used to enter settings into the AVR 510's memory. It is also used in the setup procedures for delay time, speaker configuration and channel output level adjustment.

17 Digital Select: Press this button to assign one of the digital inputs **13 15** to a source. (See page 28 for more information on using digital inputs.)

18 Numeric Keys: These buttons serve as a ten-button numeric keypad to enter tuner preset positions. They are also used to select channel numbers when **TV** has been selected on the remote, or to select track numbers on a CD, DVD or LD player, depending on how the remote has been programmed.

19 Tuner Mode: Press this button when the tuner is in use to select between automatic tuning and manual tuning. When the button is pressed so that the **AUTO** indicator **X** goes out, pressing the **Tuning** buttons **21 8 E** will move the frequency up or down in single-step increments. When the FM band is in use, pressing this button when a station's signal is weak will change to monaural reception. (See page 30 for more information.)

Main Remote Control Functions

20 Direct Button: Press this button when the tuner is in use to start the sequence for direct entry of a station's frequency. After pressing the button, simply press the proper **Numeric Keys 18** to select a station. (See page 30 for more information on the tuner.)

21 Tuning Up/Down: When the tuner is in use, these buttons will tune up or down through the selected frequency band. If the **Tuner Mode** button **19 12** has been pressed so that the **AUTO** indicator **X** is illuminated, pressing and holding either of the buttons for three seconds will cause the tuner to seek the next station with acceptable signal strength for quality reception. When the **AUTO** indicator **X** is NOT illuminated, pressing these buttons will tune stations in single-step increments. (See page 30 for more information.)

22 OSD Button: Press this button to activate the On Screen Display (OSD) system used to set up or adjust the AVR 510's parameters.

23 Macro Buttons: Press these buttons to store or recall a "Macro", which is a preprogrammed sequence of commands stored in the remote. (See page 37 for more information on storing and recalling macros.)

24 Transport Controls: These buttons do not have any functions for the AVR 510, but they may be programmed for the forward/reverse play operation of a wide variety of CD or DVD players, and audio or video cassette recorders. (See page 38 for more information.)

25 Skip Up/Down Buttons: These buttons do not have a direct function with the AVR 510, but when used with a compatibly programmed CD or DVD changer they will change the disc currently being played in the changer.

26 Disc Skip Buttons: These buttons have no direct function for the AVR 510, but they are often used when the remote is programmed to operate a CD or DVD changer to change the discs in the changer. (See page 38 for more information on using the remote with other devices.)

27 Preset Up/Down: When the tuner is in use, press these buttons to scroll through the stations programmed into the AVR 510's mem-

ory. When some source devices, such as CD players, VCRs and cassette decks, are selected using the device **Input Selectors 5**, these buttons may function as Chapter Step or Track Advance.

28 Clear Button: Press this button to clear incorrect entries when using the remote to directly enter a radio station's frequency.

29 Memory Button: Press this button to enter a radio station into the AVR 510's preset memory. Once the **MEMORY** indicator **U** flashes, you have five seconds to enter a preset memory location using the **Numeric Keys 18**. (See page 31 for more information.)

30 Delay/Prev Ch.: Press this button to begin the process for setting the delay times used by the AVR 510 when processing surround sound. After pressing this button, the delay times are entered by pressing the **Set** button **16** and then using the **▲/▼** buttons **14** to change the setting. Press the **Set** button **16** again to complete the process. (See page 21 for more information.)

31 ► Button: Press this button to change a setting or selection when configuring many of the AVR 510's settings.

32 Speaker Select: Press this button to begin the process of configuring the AVR 510's bass management system for use with the type of speakers used in your system. Once the button has been pressed, use the **▲/▼** buttons **14** to select the channel you wish to set up. Press the **Set** button **16** and then select another channel to configure. When all adjustments have been completed, press the **Set** button **16** twice to exit the settings and return to normal operation. (See page 22 for more information.)

33 Multiroom: Press this button to activate the multiroom system or to begin the process of changing the input or volume level for the second zone. (See page 35 for more information on the multiroom system.)

34 Volume Up/Down: Press these buttons to raise or lower the system volume.

35 TV/Video Button: This button does not have a direct function on the AVR 510, but when used with a compatibly programmed VCR, DVD or satellite receiver that has a "TV/Video" function, pressing this button will switch between the output of the player or receiver and the external video input to that player. Consult the Owner's Manual for your specific player or receiver for the details of how it implements this function.

36 SPL Indicator Select: This button activates the AVR 510's EzSet function to quickly and accurately calibrate the AVR 510's output levels. Press and hold the button for three seconds and then release it. Note that the test tone will begin circulating, and the **Program/SPL Indicator 3** will change colors. During this sequence, EzSet will automatically adjust the output levels for all channels until they are equal, as shown by the **Program/SPL Indicator** lighting green for each channel. Press this button again when the adjustment is complete to turn off the test tone. (See page 23 for more information on EzSet.)

37 6-Ch. Direct Input: Press this button to select the component connected to the **6-Channel Direct Input 9** as the source.

38 Mute: Press this button to momentarily silence the AVR 510 or TV set being controlled, depending on which device has been selected. When the AVR 510 remote is being programmed to operate another device, this button is pressed with the **Input Selector** button **5** to begin the programming process. (See page 36 for more information on programming the remote.)

39 EzSet Sensor Microphone: The sensor microphone for the EzSet microphone is behind these slots. When using the remote to calibrate speaker output levels using EzSet, be sure that you do not hold the remote in a way that covers these slots. (See page 23 for more information on using EzSet.)

40 Light Button: Press this button to activate the remote's backlight for ease of use in darkened rooms.

Troubleshooting Guide

SYMPTOM	CAUSE	SOLUTION
Unit does not function when Main Power Switch is pushed	<ul style="list-style-type: none"> No AC Power 	<ul style="list-style-type: none"> Make certain AC power cord is plugged into a live outlet Check to see whether outlet is switch-controlled
Display lights, but no sound or picture	<ul style="list-style-type: none"> Intermittent input connections Mute is on Volume control is down 	<ul style="list-style-type: none"> Make certain that all input and speaker connections are secure Press Mute button Turn up volume control
Unit turns on, but front panel display does not light up	<ul style="list-style-type: none"> Display brightness is turned off 	<ul style="list-style-type: none"> Follow the instructions in the Display Brightness section on page 33 so that the display is set to VFD FULL
No sound from any speaker; light around power switch is red	<ul style="list-style-type: none"> Amplifier is in protection mode due to possible short Amplifier is in protection mode due to internal problems 	<ul style="list-style-type: none"> Check speaker wire connections for shorts at receiver and speaker ends Contact your local Harman Kardon service depot
No sound from surround or center speakers	<ul style="list-style-type: none"> Incorrect surround mode Input is monaural Incorrect configuration Stereo or Mono program material 	<ul style="list-style-type: none"> Select a mode other than Stereo There is no surround information from mono sources Check speaker mode configuration The surround decoder may not create center- or rear-channel information from nonencoded programs
Unit does not respond to remote commands	<ul style="list-style-type: none"> Weak batteries in remote Wrong device selected Remote sensor is obscured 	<ul style="list-style-type: none"> Change remote batteries Press the AVR selector Make certain front panel sensor is visible to remote or connect remote sensor
Intermittent buzzing in tuner	<ul style="list-style-type: none"> Local interference 	<ul style="list-style-type: none"> Move unit or antenna away from computers, fluorescent lights, motors or other electrical appliances
Letters flash in the channel indicator display and digital audio stops	<ul style="list-style-type: none"> Digital audio feed paused 	<ul style="list-style-type: none"> Resume play for DVD Check that Digital Input is selected

Processor Reset

In the rare case where the unit's operation or the displays seem abnormal, the cause may involve the erratic operation of the system's memory or microprocessor.

To correct this problem, first unplug the unit from the AC wall outlet and wait at least three minutes. After the pause, reconnect the AC power cord and check the unit's operation. If the system still malfunctions, a system reset may clear the problem.

To clear the AVR 510's entire system memory including tuner presets, output level settings,

delay times and speaker configuration data, first put the unit in Standby by pressing the **System Power Control** button **2**. Next, press and hold the **Tone Mode** **6** and the **FM Mode Selector** **12** buttons for three seconds.

The unit will turn on automatically and display the **RESET** message in the **Main Information Display** **Y**. Note that once you have cleared the memory in this manner, it is necessary to reestablish all system configuration settings and tuner presets.

NOTE: Resetting the processor will erase any configuration settings you have made for

speakers, output levels, surround modes, digital input assignments as well as the tuner presets. After a reset the unit will be returned to the factory presets, and all settings for these items must be reentered.

If the system is still operating incorrectly, there may have been an electronic discharge or severe AC line interference that has corrupted the memory or microprocessor.

If these steps do not solve the problem, consult an authorized Harman Kardon service depot.

AVR110/210/310/510 IDLE CURRENT ADJUSTMENT:

Turn main power on; let unit idle (no load) for 5 minutes.

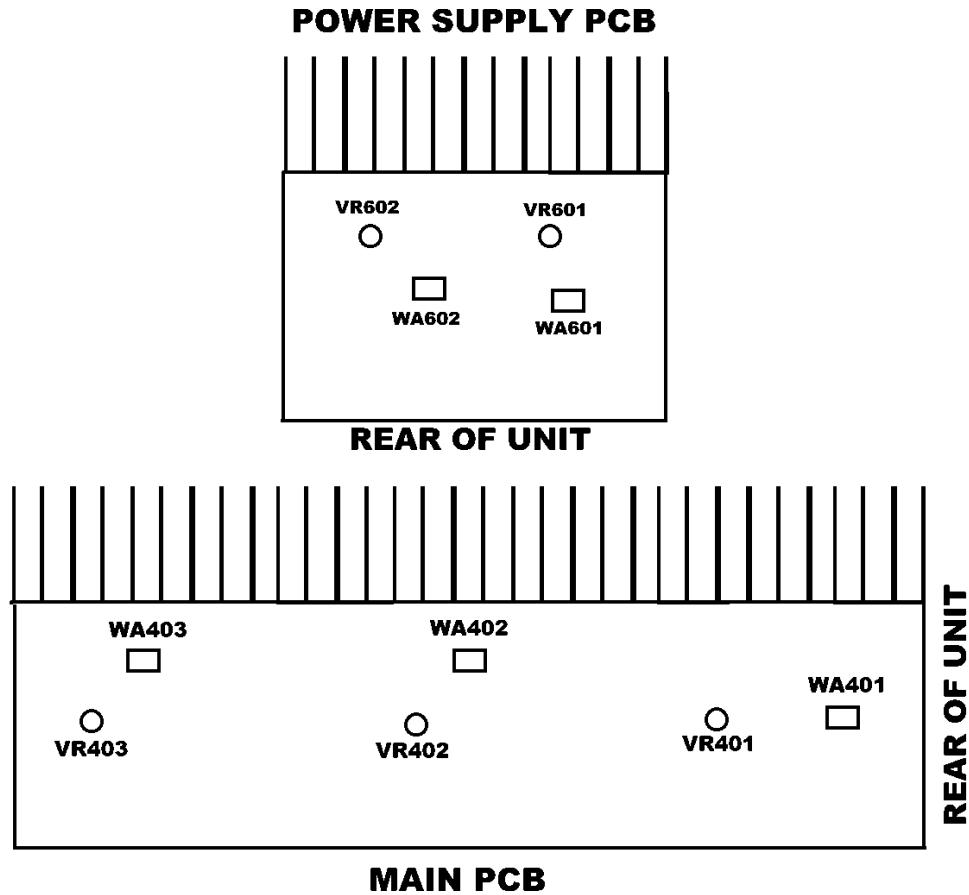
Check points: White female connectors: WA401,WA402,WA403,WA601,WA602

Adjust – Variable resistors: VR401,VR402,VR501,VR601,VR602

to **21mV +/- 3mV**.

Use caution not to short the two pins together in each connector.

After 5 min. more check again, and re-adjust if necessary.



AVR110/210/310/510 TUNER ALIGNMENT

There is no tuner alignment possible on the AVR110/210/310/510 series. In the event of a misalignment or problem, traced to the Tuner PCB, order complete PCB below:

AVR110/210/310/510 (120V)	Part# J4099100170X
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AVR 510 EXPLODED VIEW PART LIST

NO	PARTS CODE	PARTS NAME	Q'TY	MATERIAL & SPEC	NO	PARTS CODE	PARTS NAME	Q'TY	MATERIAL & SPEC
1	J6010300800C	COVER TOP	1	SECC-VCM	51	J443336000C1	JACK STEREO 1P	3	JW-350S
2	J235230020X	VFD SAMSUNG	1	HNA-16LL15	52	J60300501000	BKT PCB	2	SECC 1.0t
3	J44328000102	JACK PHONE KUNMING	1	HT-J664-075G	53	J44302401201	JACK RCA 4P W/VR	6	JW4104RS
4	J603000200C	BKT PHONE	1	SECC 1.0t	54	J60110009000	PANEL REAR	1	SECC 1.0t
5	J603000200C	SW PUSH POWER TV-3	1	SDDL B14730	55	J97200503000	CUSHION BKT 11X145X2t	2	EVA
6	J85400101900C	INDICATOR STANDBY	1	SAN	56	J44091400000	TERMINAL SCREW 4P	1	SH04103373P
7	J85200304900C	BUTTON POWER	1	HIPS 94HB	57	J80120502000	TRANS BOTTOM	1	SECC 1.0t
8	J85200005200C	BTN STANDBY	1	HIPS 94HB	58	J60300504000	BKT PROTECTION	1	SECC 1.0t
9	J8500017200	PANEL FRONT	1	HIPS 94HB	59	J44091600000	TERMINAL SCREW 6P	1	SH0611701P
10	J85500004900C	FILTER DISPLAY ACRYL 6.5t	1	R2117	60	J44301600300	JACK RCA 1P B	1	JE010003PN
11	J8594000900C	DIFFUSER	1	PET 713F	61	J44306600101	JACK RCA 6P W/VR/RR JW	6	JW-4105RSS
12					62	J44312600100	JACK RCA+S-VIDEO YB	7	CS015031DN
13	J85103002200C	KNOB MAIN	1	HIPS 94HB	63	J44302601100	JACK RCA 2P DO DAERYUNG	1	JC0200098N
14	J85300020101	WINDOW DISPLAY W/BADGE	1	MITHUBISHI 530	64	J212366002X	FIBER OPTICAL MODULE	1	
15	J8594000200C	DIFFUSER	1	PET 713F	65	J4099100150X	ASS'Y TUNER MODULE	1	
16	J8510000900C	KNOB TONE	3	HIPS 94HB	66	J80120501100	COVER BOTTOM	1	SECC 1.0t
17	J8540002000C	INDICATOR VIDEO 4	2	SAN	67	J97200501000	CUSHION(B) 30X30X10	5	EVA
18	J85200009300C	BTN 7 KEY	1	HIPS 94HB	68	J60530002100	HEATSINK 118X200X3H	1	AL 6063-T5
19	J2123800011X	FIBER OPTICAL MODULE	3		69	J94100001000	JUMPER PLUG	5	
20	J44301000500C	JACK RCA 1P O GOLD	1	JE010003MG	70	J44301600700	JACK RCA 1P ORANGE	1	JE010003MN
21	J6060001500C	SHIELD DIGITAL	1	ET 3.5t	71				
22	J85200008200C	BTN 5 KEY	1	HIPS 94HB	72				
23	J85200009100C	BTN 3 KEY	1	HIPS 94HB	73				
24	J85900050100C	ASSY FOOT	4	ABS+TPR	74				
25	J6000001000C	CH MAIN	1	SECC 1.0t	75				
26	J44300000100C	JACK RCA 3P Y/VR DAERYUNG	1	JK0300081G					
27	J32214000101	VR BALANCE J/ALPS	1	RK14K1240JBQ					
28	J44311000100C	JACK S-VIDEO DAERYUNG	1	C40163081N					
29	J32214000201	VR TONE J/ALPS	2	RK14K1240JBQ					
30	J6060000600C	SHIELD FENCE TONE	1	ET 3.5t					
31	J33616100001	ENCODER J/ALPS	1	EC16B24204					
32	J8594000300C	REFLECTOR 3	2	HIPS 94HB					
33	J8581000900C	FL GUIDE	1	HIPS 94HB					
34	J2411320014X	REMOTE SENSOR	1	RPM 6936					
35	J8594000800C	REFLECTOR 6	1	HIPS 94HB					
36	J8594000100C	REFLECTOR 1	1	HIPS 94HB					
37	J60300502100C	BKT HEATSINK	1	SECC 1.0t					
38	J6050001000C	HEATSINK SURROUND	1	AL 6063-T5					
39	J9720050500C	CUSHION EMI	3						
40	J6050000900C	HEATSINK MAIN	1	AL 6063-T5					
41	J6002000320C	CH FRONT	1	SECC 1.0t					
42	J6020001200C	FRAME GUIDE	1	SECC 1.0t					
43	J2802210201X	POWER TRANS	1						
44	J65100000100C	BUSHING AC CORD	1						
45	J43731010100C	CORD AC POWER	1	UL SPT II					
46	J9720050200C	CUSHION SPONGE	1						
47	J2812220012X	TRANS STANDBY	1						
48	J44900000110C	AC OUTLET	1	A20D9043P					
49	J4430000000C	JACK RCA 6P RU/GR/GRUG	1	JK090122LN					
50	J6030002000C	BKT GROUND	4	ET 3.5t					

NO	PARTS CODE	PARTS NAME
V1	5541-001-010	WASHER SPRING NO.2 M3 MC
V2	5541-001-020	WASHER FLAT F/W 3.3X8.0X0.5 MC
V3	5541-001-030	WASHER SPRING NO.2 M4 MC
V4	5541-001-040	WASHER FLAT F/W 4.7X1.2X1 MC

NO	PARTS CODE	PARTS NAME
S1	J5636143010X	SCREW A123010002 BTTB 3X10B
S2	J5636143040X	SCREW A183008000 BTTN V3X8Y
S3	J5636143080X	SCREW A124008000 BTTB 4X3Y
S4	J5636143150X	SCREW A180400002 #2 WPT 4X8B
S5	XXXXXX	SCREW 3X6B
S6		
S7	J5636143030X	SCREW A113016000 BTTB 3X16Y
S8		
S9	J9C72031080	SCREW 3X10B BLACK TEETH

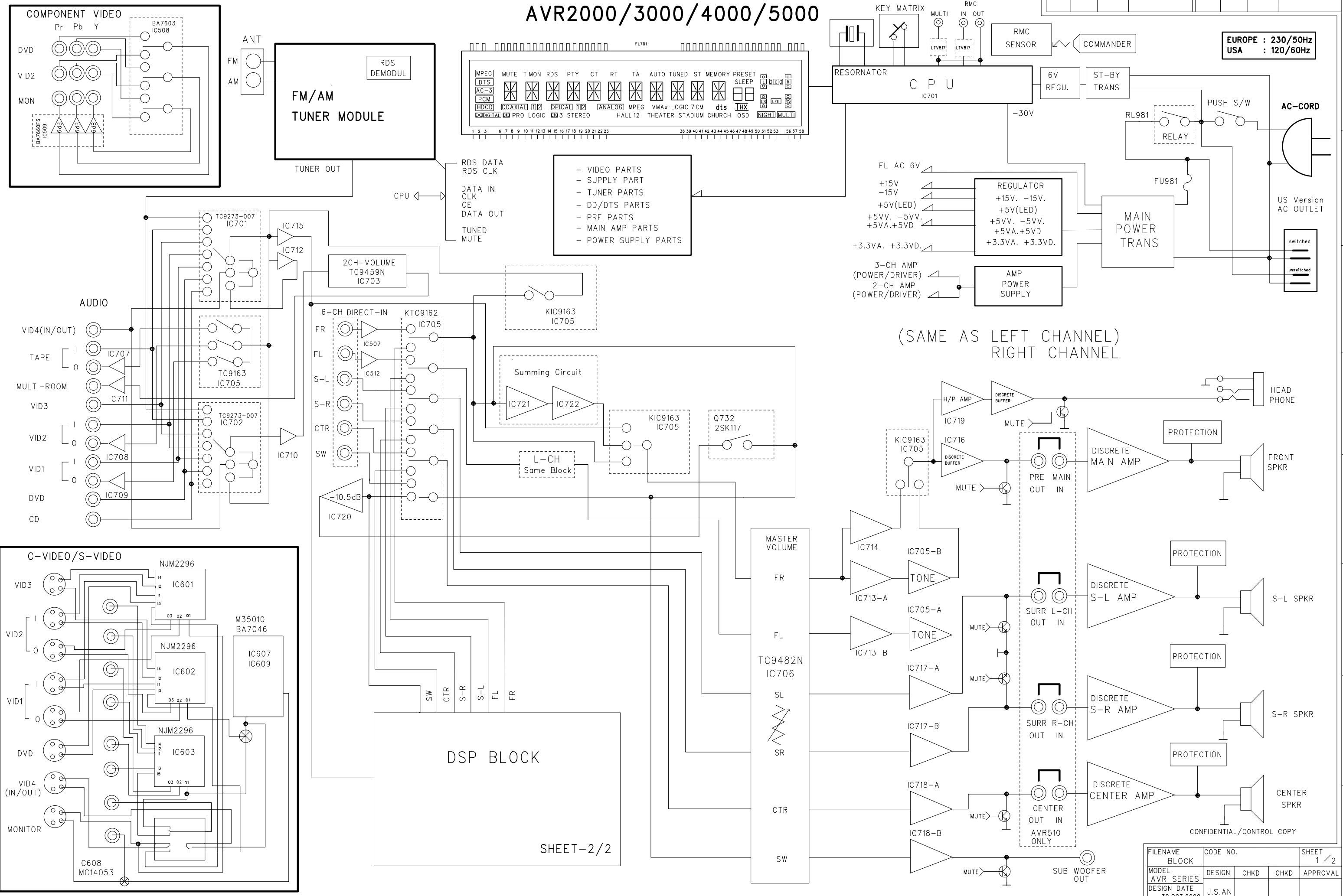
NO	PARTS CODE	PARTS NAME
SW1	J4650060501	SW TACT 2P SKQNAE 160af

BLOCK DIAGRAM

MODEL: AVR110/210/310/510

AVR2000/3000/4000/5000

NO	DATE	POS.	CONTENTS	NO	DATE	POS.	CONTENTS



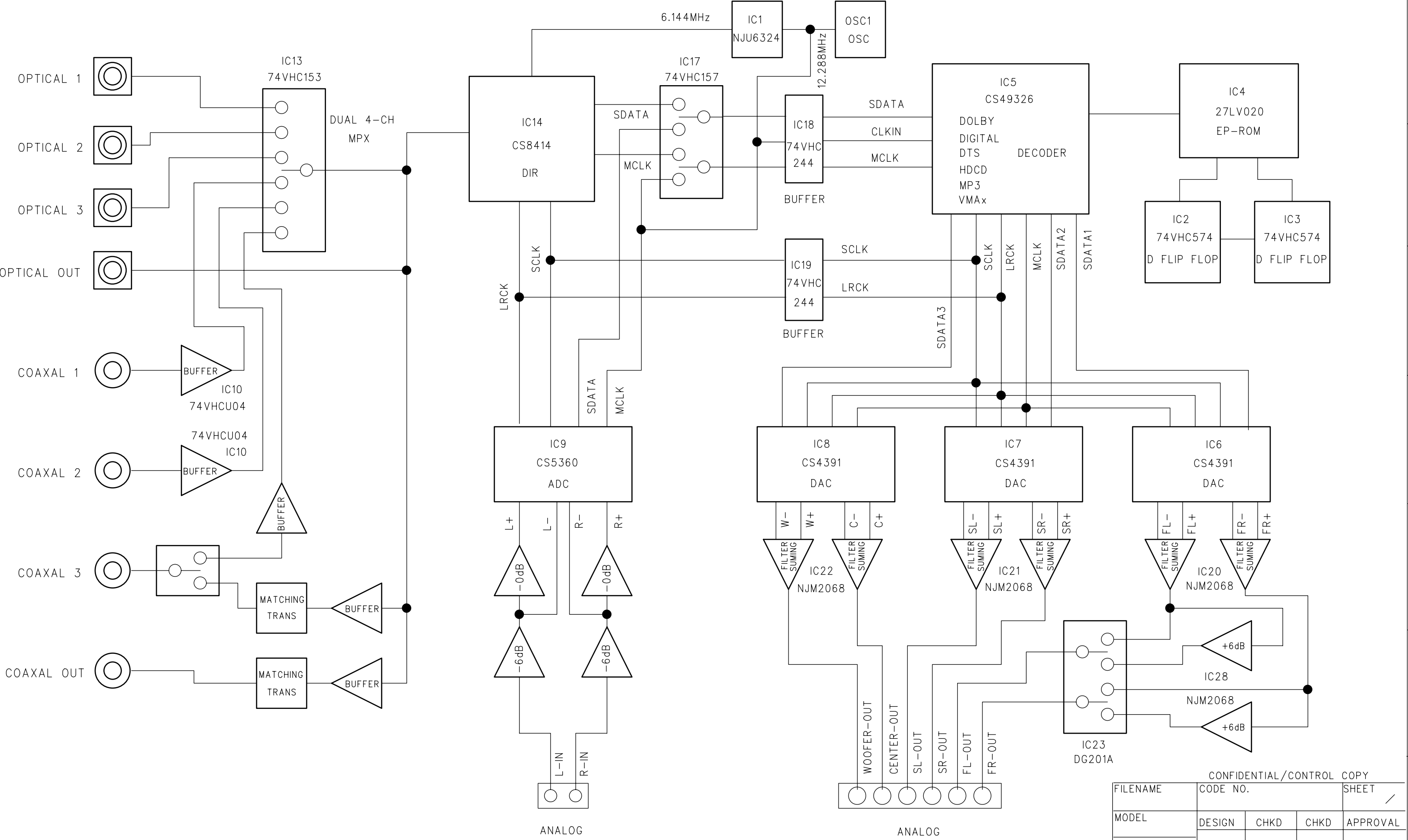
SHEET-2/2

FILENAME BLOCK	CODE NO.	SHEET 1 / 2
MODEL AVR SERIES	DESIGN CHKD CHKD	APPROVAL
DESIGN DATE 30.OCT.2000	J.S.AN	

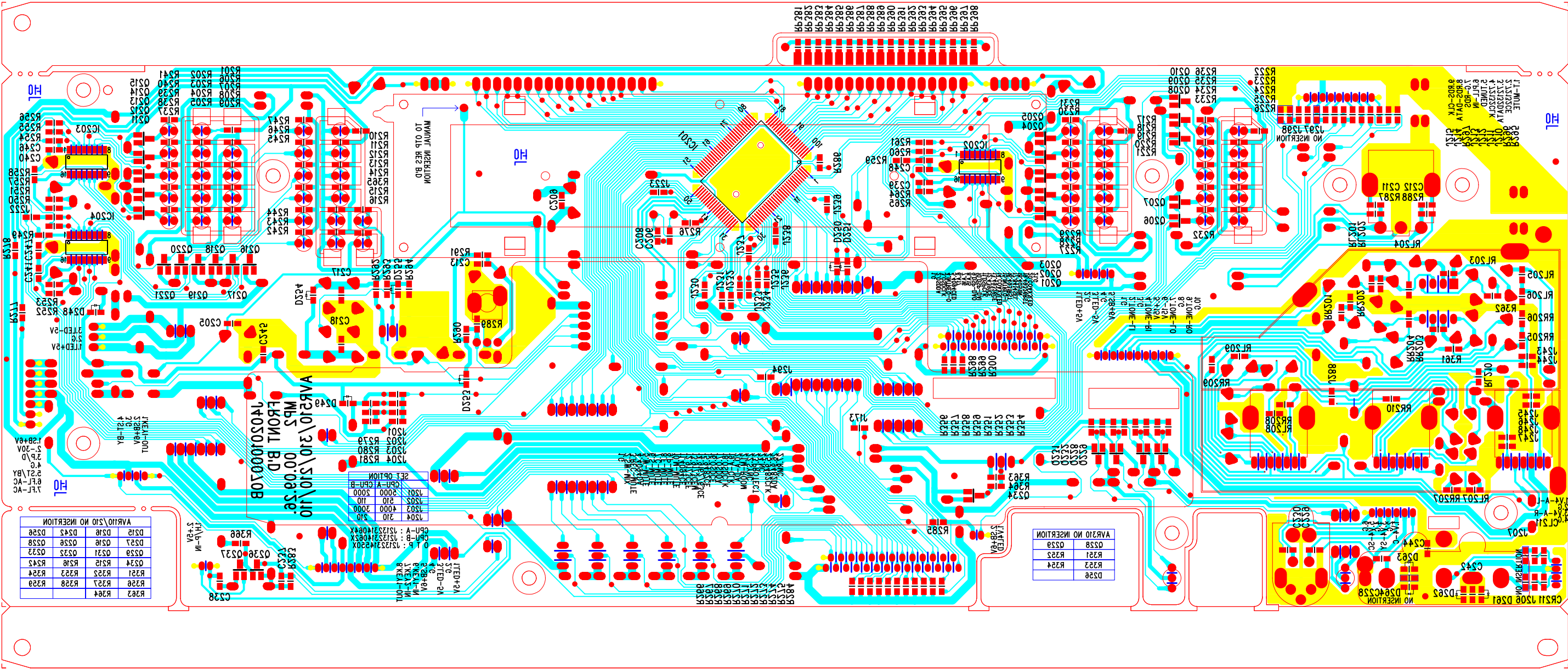
BLOCK DIAGRAM

MODEL 110/210/310/510
2000/3000/4000/5000

NO	DATE	POS.	CONTENTS	NO	DATE	POS.	CONTENTS



CONFIDENTIAL/CONTROL COPY				
FILENAME	CODE NO.			SHEET /
MODEL	DESIGN	CHKD	CHKD	APPROVAL
DESIGN DATE				



VAR210 NO INSERTION	
D526	R324
D528	R323
D529	R321
D530	R322

SET OPTION	
1504	1503
1505	1506
1507	1508
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VAR10 NO INSERTION	
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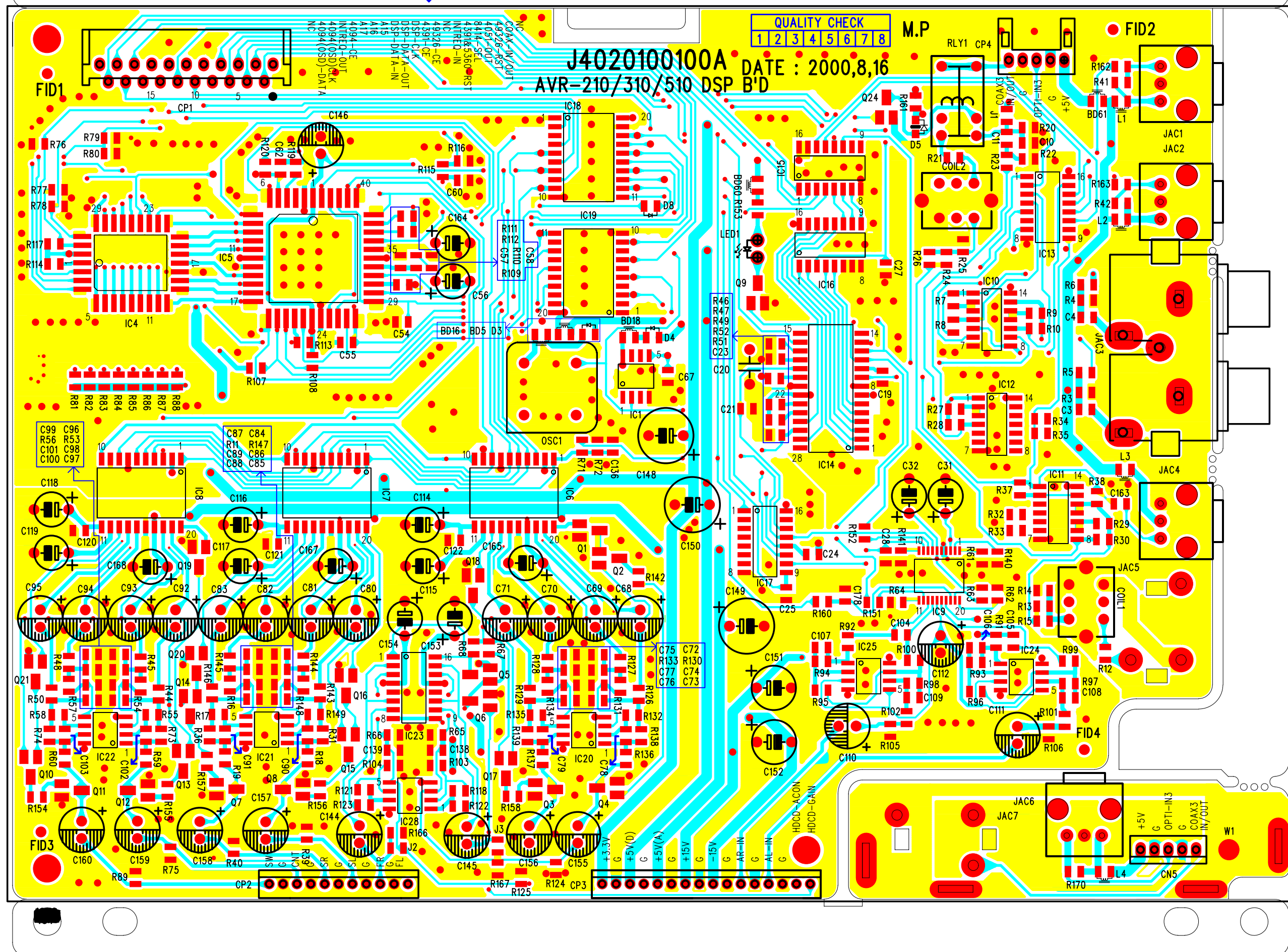
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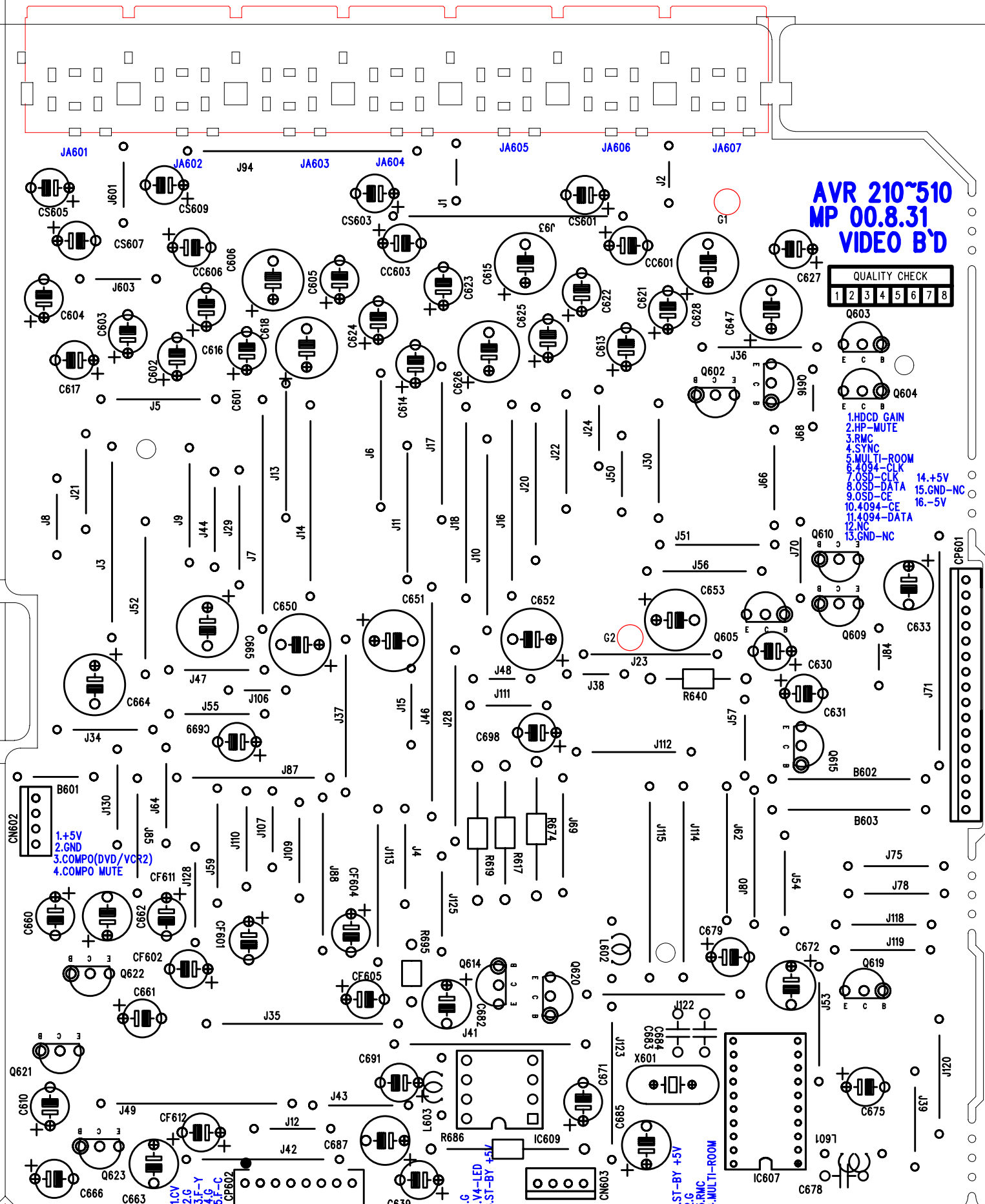
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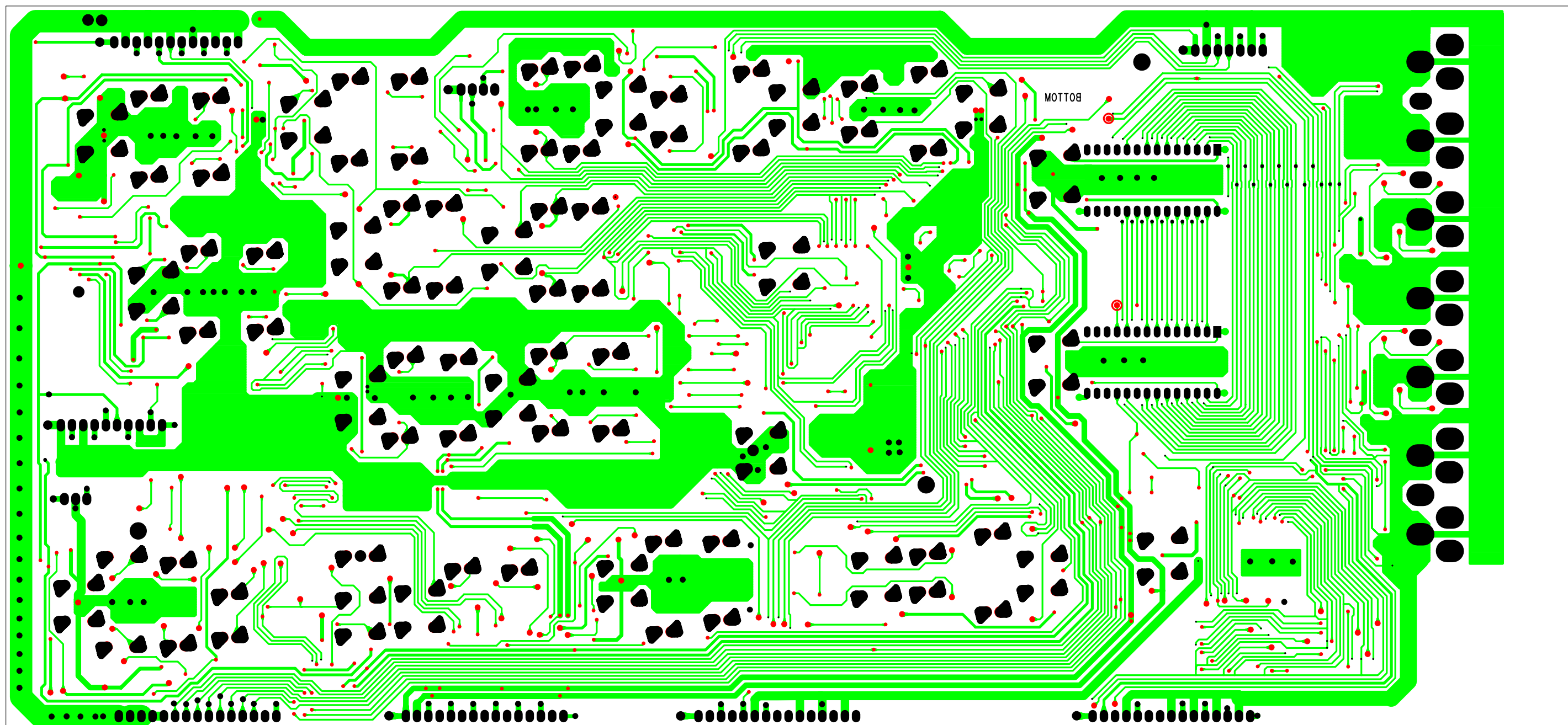
AVR-210/310/510 DSP B'D

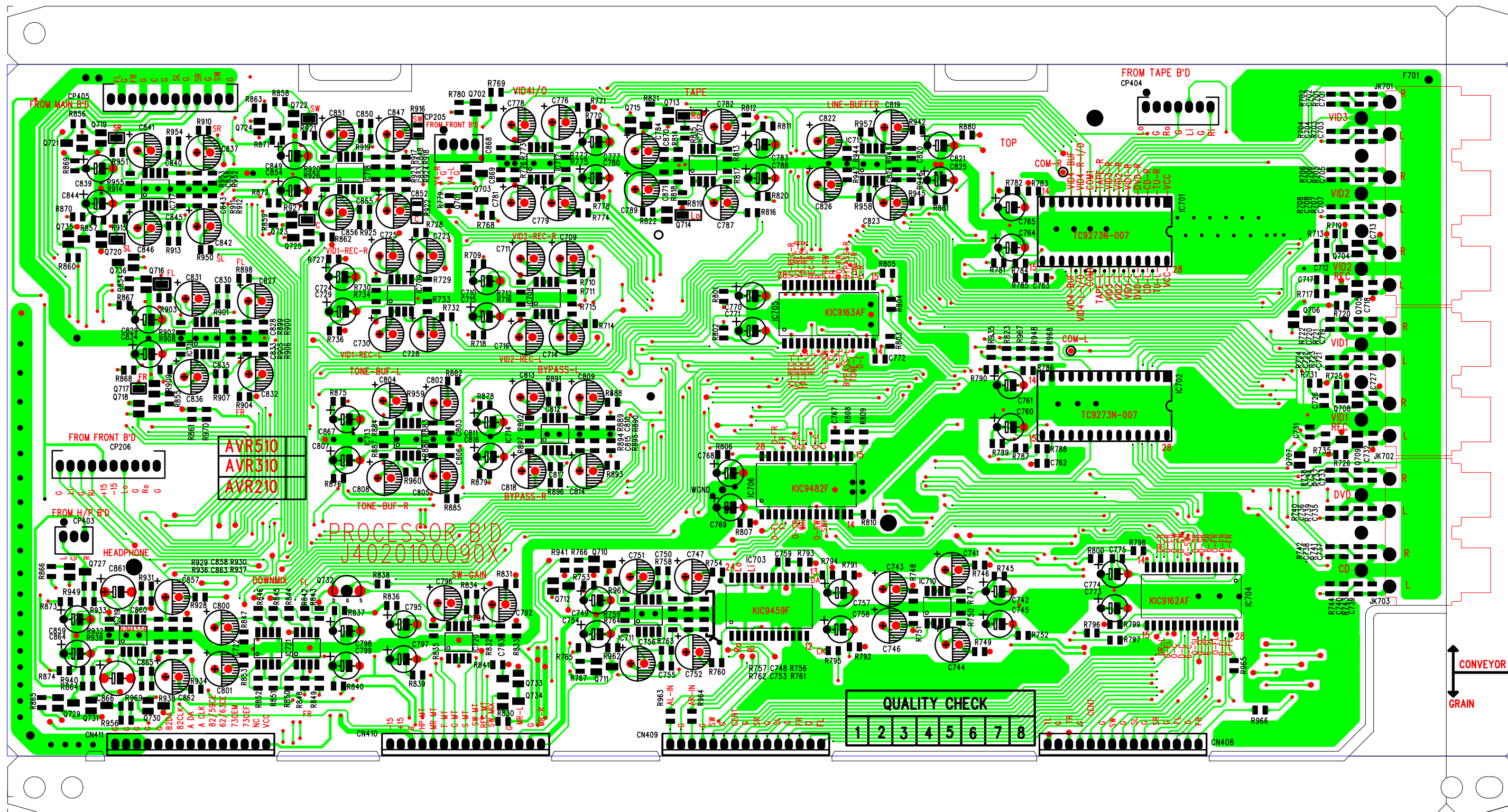




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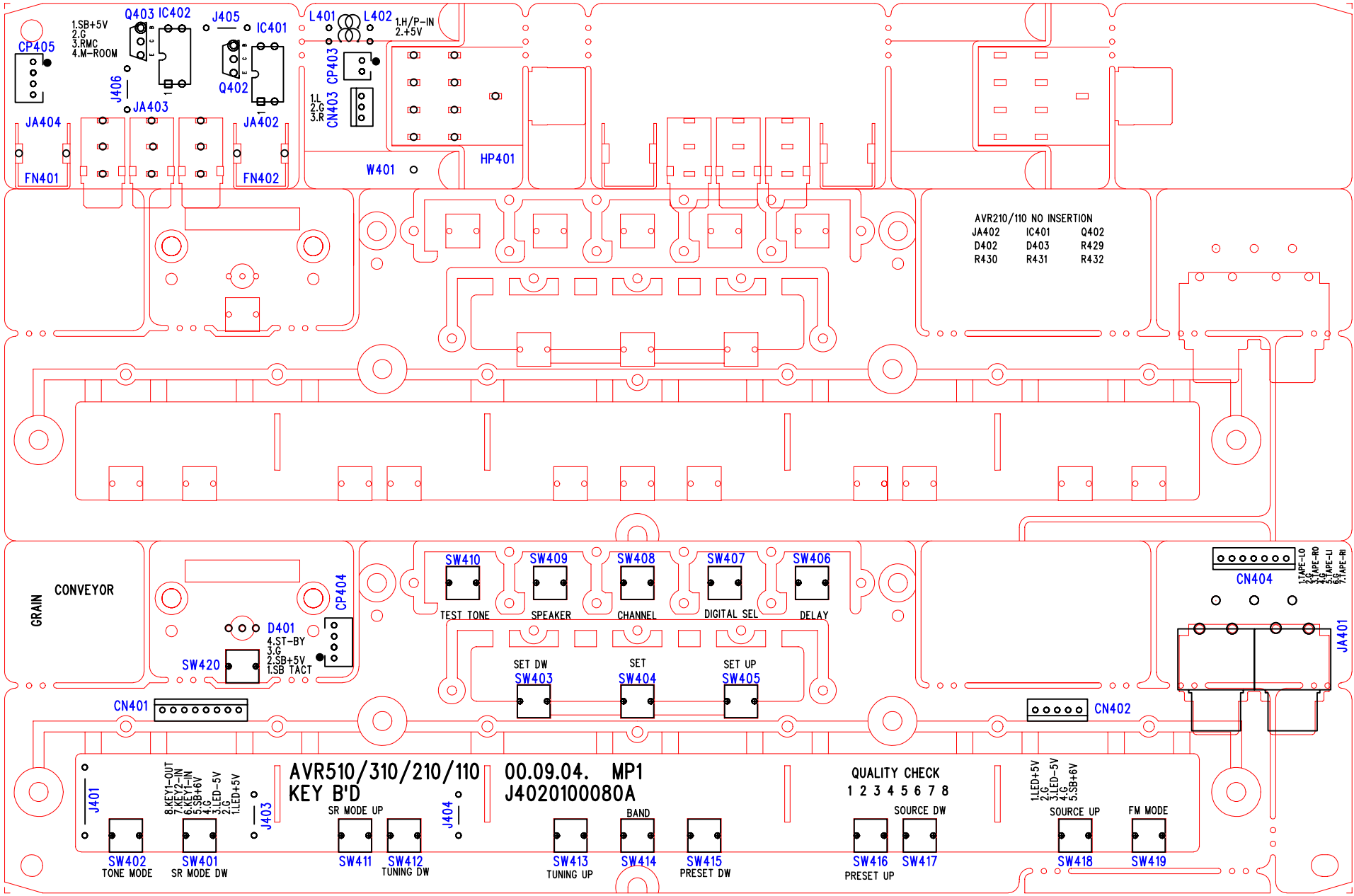


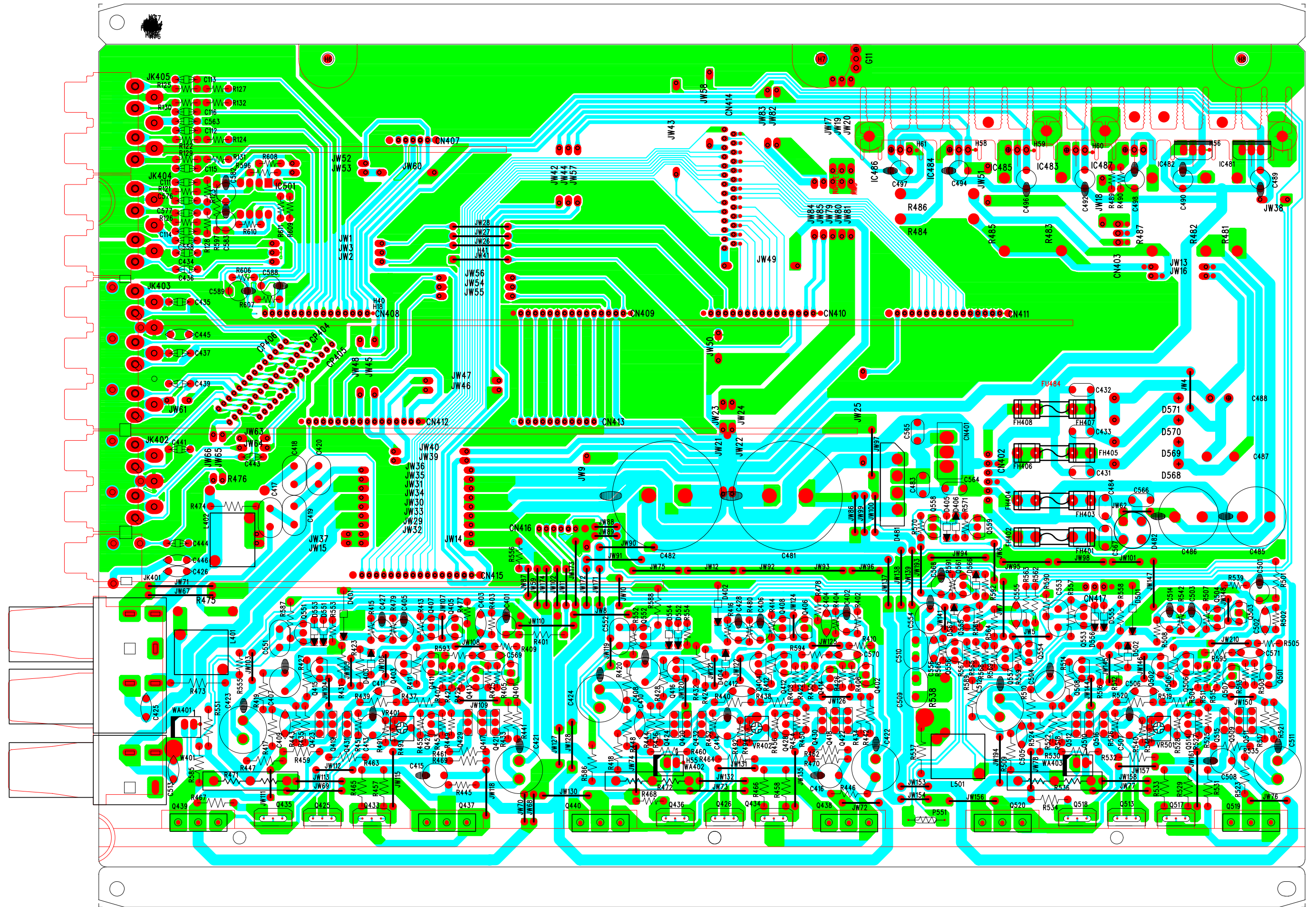




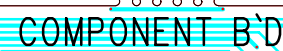








SURROUND
AMP B'D



AVR 110/210/310/510 Series Electrical Parts List

Note: All quantities on any line = 1
unless otherwise noted.

Front/IR Remote/Headphone PCB

Designator	Part#	Description	Designator	Part#	Description
	7043654016	D-SLP 1N4148 100.0	D234	J2301213022X	LED GN LTL1CHGEC 3
	J63330000600	SPONGE SENSOR H:25	D235	J2301213022X	LED GN LTL1CHGEC 3
	J4420040300X	CNT PLUG 2.5 3P	D236	J2301213022X	LED GN LTL1CHGEC 3
CN201	J4305100051X	CNT ASSY 7P 450MM	D237	J2301213022X	LED GN LTL1CHGEC 3
CN202	J4305100052X	CNT ASSY 3P 620MM	D238	J2301213022X	LED GN LTL1CHGEC 3
CN203	J4305100055X	CNT ASSY 9P 400MM	D239	J2301213022X	LED GN LTL1CHGEC 3
CN204	J4305100053X	CNT ASSY 4P 100MM	D240	J2301213022X	LED GN LTL1CHGEC 3
CN205	J4305100058X	CNT ASSY 4P 360MM	D241	J2301213022X	LED GN LTL1CHGEC 3
CN206	J4305100057X	CNT ASSY 10P 220MM	D242	J2301213022X	LED GN LTL1CHGEC 3
CN207	J4112213801X	FPC CABLE 21P 380M	D243	J2301213022X	LED GN LTL1CHGEC 3
CN208	J4112275001X	FPC CABLE 27P 500M	D244	J2301213022X	LED GN LTL1CHGEC 3
CN209	J4305100059X	CNT ASSY 8P 500MM	D245	J2301213022X	LED GN LTL1CHGEC 3
CN210	J4305100063X	CNT ASSY 2P 100MM	D246	J2301213022X	LED GN LTL1CHGEC 3
CP201	J4422212740X	FPC PLUG 27P 1.25	D247	J2301213022X	LED GN LTL1CHGEC 3
CP202	J4422212140X	FPC PLUG 21P 1.25M	D256	J2302210012X	LED RED/GREEN 3F
CP203	J4420030840X	CNT PLUG 2.0 ST 8P	D257	J2302210012X	LED RED/GREEN 3F
CP204	J4420030540X	CNT PLUG 2.0 ST 5P	D260	J2301213022X	LED GN LTL1CHGEC 3
C203	2026783030	CE 47U0F +20% 16.0	FL201	J2352230020X	VFD HNA-16LL15
C210	2026888030	CE 10U0F +20% 50.0	FN201	J60600006000	SHIELD FENCE TONE
C216	J3433247321X	CAP GOLD 0.047F 5.	IC201	J2132314070X	IC CPU CXP82860-31
D201	J2301213022X	LED GN LTL1CHGEC 3	IC201	J2132314071X	IC CPU CXP82860-31
D202	J2301213022X	LED GN LTL1CHGEC 3	IC201	J2132314074X	IC CPU DCR600 CXP8
D203	J2301213022X	LED GN LTL1CHGEC 3	IC205	J2110212000X	IC OPAMP 2068DD
D204	J2301213022X	LED GN LTL1CHGEC 3	JA201	J44303000100	JACK RCA 3P
D205	J2301213022X	LED GN LTL1CHGEC 3	JA202	J44311000100	JACK S-VIDEO 1P
D206	J2301213022X	LED GN LTL1CHGEC 3	L201	J2616247920X	COIL 4.7UH K
D207	J2301213022X	LED GN LTL1CHGEC 3	L202	J2616247920X	COIL 4.7UH K
D208	J2301213022X	LED GN LTL1CHGEC 3	RM201	J2411220017X	REM 38HZ
D209	J2301213022X	LED GN LTL1CHGEC 3	RM201	J2411320014X	REM 38KHZ
D210	J2301213022X	LED GN LTL1CHGEC 3	VR201	J32616100001	ENCODER EC 16E
D211	J2301213022X	LED GN LTL1CHGEC 3	VR202	J32214000201	VR-ROTARY 14MM
D212	J2301213022X	LED GN LTL1CHGEC 3	VR203	J32214000201	VR-ROTARY 14MM
D213	J2301213022X	LED GN LTL1CHGEC 3	VR204	J32214000101	VR-ROTARY 14MM
D214	J2301213022X	LED GN LTL1CHGEC 3	W201	J4305100025X	LUG WIRE 1P 200MM
D215	J2301213022X	LED GN LTL1CHGEC 3	X201	J3911030020X	RESONATOR ZTA10MTT
D216	J2301213022X	LED GN LTL1CHGEC 3	CL201	1500213030	CE 10U0F +20% 16.0
D217	J2301213022X	LED GN LTL1CHGEC 3	CL202	3093623071	CC 100P0F +5% -5%
D218	J2301213022X	LED GN LTL1CHGEC 3	CL203	8043459071	CC 22P0F +5% -5% 5
D219	J2301213022X	LED GN LTL1CHGEC 3	CL204	1500213030	CE 10U0F +20% 16.0
D220	J2301213022X	LED GN LTL1CHGEC 3	CL205	1500213030	CE 10U0F +20% 16.0
D221	J2301213022X	LED GN LTL1CHGEC 3	CL206	J3640183232X	CAP M POLY 18NF 10
D222	J2301213022X	LED GN LTL1CHGEC 3	CL207	J3640823232X	CAP M POLY 82NF 10
D223	J2301213022X	LED GN LTL1CHGEC 3	CL208	J3640332232X	CAP POLY 3N3F 100V
D224	J2301213022X	LED GN LTL1CHGEC 3	CL209	J3640183232X	CAP M POLY 18NF 10
D225	J2301213022X	LED GN LTL1CHGEC 3	CR201	1500213030	CE 10U0F +20% 16.0
D226	J2301213022X	LED GN LTL1CHGEC 3	CR202	3093623071	CC 100P0F +5% -5%
D227	J2301213022X	LED GN LTL1CHGEC 3	CR203	8043459071	CC 22P0F +5% -5% 5
D228	J2301213022X	LED GN LTL1CHGEC 3	CR204	1500213030	CE 10U0F +20% 16.0
D229	J2301213022X	LED GN LTL1CHGEC 3	CR205	1500213030	CE 10U0F +20% 16.0
D230	J2301213022X	LED GN LTL1CHGEC 3	CR206	J3640183232X	CAP M POLY 18NF 10
D231	J2301213022X	LED GN LTL1CHGEC 3	CR207	J3640823232X	CAP M POLY 82NF 10
D232	J2301213022X	LED GN LTL1CHGEC 3	CR208	J3640332232X	CAP POLY 3N3F 100V
D233	J2301213022X	LED GN LTL1CHGEC 3	CR209	J3640183232X	CAP M POLY 18NF 10

Designator	Part#	Description	Designator	Part#	Description
C201	2026783030	CE 47U0F +20% 16.0	D264	8044051091	RMGCFMIN 0 OHM +0%
C202	2026783030	CE 47U0F +20% 16.0	IC202	J2141004002X	IC BU4094 SOP16
C204	2026901030	CE 47U0F +20% 50.0	IC203	J2141004002X	IC BU4094 SOP16
C214	2026783030	CE 47U0F +20% 16.0	IC204	J2141004002X	IC BU4094 SOP16
C215	2026783030	CE 47U0F +20% 16.0	J173	8044051091	RMGCFMIN 0 OHM +0%
C219	2026901030	CE 47U0F +20% 50.0	J201	8044051091	RMGCFMIN 0 OHM +0%
C220	2026888030	CE 10U0F +20% 50.0	J202	8044051091	RMGCFMIN 0 OHM +0%
C232	2026783030	CE 47U0F +20% 16.0	J203	8044051091	RMGCFMIN 0 OHM +0%
C233	2026783030	CE 47U0F +20% 16.0	J204	8044051091	RMGCFMIN 0 OHM +0%
C234	J3470110871X	CE SG 0.1UF 50V M	J206	8044051091	RMGCFMIN 0 OHM +0%
C235	J3600473330X	CP .047U 100V K	J207	8044051091	RMGCFMIN 0 OHM +0%
C236	J3600473330X	CP .047U 100V K	J210	8044051091	RMGCFMIN 0 OHM +0%
Q222	J2021220001X	TR NPN KRC107M	J211	8044051091	RMGCFMIN 0 OHM +0%
Q222	J2021220102X	TR NPN DTC114YSA	J212	8044051091	RMGCFMIN 0 OHM +0%
Q223	J2021220001X	TR NPN KRC107M	J213	8044051091	RMGCFMIN 0 OHM +0%
Q223	J2021220102X	TR NPN DTC114YSA	J214	8044051091	RMGCFMIN 0 OHM +0%
Q224	J2021220001X	TR NPN KRC107M	J215	8044051091	RMGCFMIN 0 OHM +0%
Q224	J2021220102X	TR NPN DTC114YSA	J222	8044051091	RMGCFMIN 0 OHM +0%
Q225	J2021220001X	TR NPN KRC107M	J223	8044051091	RMGCFMIN 0 OHM +0%
Q225	J2021220102X	TR NPN DTC114YSA	J230	8044051091	RMGCFMIN 0 OHM +0%
Q226	J2021220001X	TR NPN KRC107M	J231	8044051091	RMGCFMIN 0 OHM +0%
Q226	J2021220102X	TR NPN DTC114YSA	J232	8044051091	RMGCFMIN 0 OHM +0%
Q227	J2021020801X	TR MPSA06 Y TO-92	J233	8044051091	RMGCFMIN 0 OHM +0%
Q233	J2021000601X	TR PNP MPSA56 Y	J234	8044051091	RMGCFMIN 0 OHM +0%
Q235	J2021220001X	TR NPN KRC107M	J235	8044051091	RMGCFMIN 0 OHM +0%
Q235	J2021220102X	TR NPN DTC114YSA	J236	8044051091	RMGCFMIN 0 OHM +0%
CL211	1105867091	CCCFMIN 100P0F +5%	J237	8044051091	RMGCFMIN 0 OHM +0%
CR211	1105867091	CCCFMIN 100P0F +5%	J238	8044051091	RMGCFMIN 0 OHM +0%
C205	2026729091	CCCFMIN 100N0F +80	J239	8044051091	RMGCFMIN 0 OHM +0%
C206	5088236091	CCCFMIN 33P0F +5%	J243	8044051091	RMGCFMIN 0 OHM +0%
C208	5088236091	CCCFMIN 33P0F +5%	J244	8044051091	RMGCFMIN 0 OHM +0%
C209	2026729091	CCCFMIN 100N0F +80	J245	8044051091	RMGCFMIN 0 OHM +0%
C211	1507090091	CCCFMIN 820P0F +10	J246	8044051091	RMGCFMIN 0 OHM +0%
C212	1507090091	CCCFMIN 820P0F +10	J247	8044051091	RMGCFMIN 0 OHM +0%
C213	2026729091	CCCFMIN 100N0F +80	J248	8044051091	RMGCFMIN 0 OHM +0%
C217	2026729091	CCCFMIN 100N0F +80	J288	8044051091	RMGCFMIN 0 OHM +0%
C218	2026729091	CCCFMIN 100N0F +80	J294	8044051091	RMGCFMIN 0 OHM +0%
C228	1105867091	CCCFMIN 100P0F +5%	J297	8044051091	RMGCFMIN 0 OHM +0%
C229	1105867091	CCCFMIN 100P0F +5%	J298	8044051091	RMGCFMIN 0 OHM +0%
C230	1105867091	CCCFMIN 100P0F +5%	Q201	J2041220202X	TR DTC114TK SMT3
C237	2026729091	CCCFMIN 100N0F +80	Q201	J2041220701X	TR KRC111S SOT23
C238	2026729091	CCCFMIN 100N0F +80	Q202	J2041220202X	TR DTC114TK SMT3
C239	2026729091	CCCFMIN 100N0F +80	Q202	J2041220701X	TR KRC111S SOT23
C240	2026729091	CCCFMIN 100N0F +80	Q203	J2041220202X	TR DTC114TK SMT3
C241	2026729091	CCCFMIN 100N0F +80	Q203	J2041220701X	TR KRC111S SOT23
C242	2026729091	CCCFMIN 100N0F +80	Q204	J2041220202X	TR DTC114TK SMT3
C244	2026729091	CCCFMIN 100N0F +80	Q204	J2041220701X	TR KRC111S SOT23
C245	2026729091	CCCFMIN 100N0F +80	Q205	J2041220202X	TR DTC114TK SMT3
C246	1105867091	CCCFMIN 100P0F +5%	Q205	J2041220701X	TR KRC111S SOT23
C247	1105867091	CCCFMIN 100P0F +5%	Q206	J2041220202X	TR DTC114TK SMT3
C248	1105867091	CCCFMIN 100P0F +5%	Q206	J2041220701X	TR KRC111S SOT23
D248	J2244010104X	DIODE CHIP 1SS355	Q207	J2041220202X	TR DTC114TK SMT3
D249	J2244010104X	DIODE CHIP 1SS355	Q207	J2041220701X	TR KRC111S SOT23
D250	J2244010104X	DIODE CHIP 1SS355	Q208	J2041220202X	TR DTC114TK SMT3
D251	J2244010104X	DIODE CHIP 1SS355	Q208	J2041220701X	TR KRC111S SOT23
D253	J2244010104X	DIODE CHIP 1SS355	Q209	J2041220202X	TR DTC114TK SMT3
D254	J2244010104X	DIODE CHIP 1SS355	Q209	J2041220701X	TR KRC111S SOT23
D255	J2244010104X	DIODE CHIP 1SS355	Q210	J2041220202X	TR DTC114TK SMT3
D261	J2244010104X	DIODE CHIP 1SS355	Q210	J2041220701X	TR KRC111S SOT23
D262	J2244010104X	DIODE CHIP 1SS355	Q211	J2041220202X	TR DTC114TK SMT3
D263	8044051091	RMGCFMIN 0 OHM +0%	Q211	J2041220701X	TR KRC111S SOT23

Designator	Part#	Description	Designator	Part#	Description
Q212	J2041220202X	TR DTC114TK SMT3	R208	8044037091	RMGCFMIN 150R0 OHM
Q212	J2041220701X	TR KRC111S SOT23	R209	8044037091	RMGCFMIN 150R0 OHM
Q213	J2041220202X	TR DTC114TK SMT3	R210	8044037091	RMGCFMIN 150R0 OHM
Q213	J2041220701X	TR KRC111S SOT23	R211	8044037091	RMGCFMIN 150R0 OHM
Q214	J2041220202X	TR DTC114TK SMT3	R212	8044037091	RMGCFMIN 150R0 OHM
Q214	J2041220701X	TR KRC111S SOT23	R213	8044037091	RMGCFMIN 150R0 OHM
Q215	J2041220202X	TR DTC114TK SMT3	R214	8044037091	RMGCFMIN 150R0 OHM
Q215	J2041220701X	TR KRC111S SOT23	R215	8044037091	RMGCFMIN 150R0 OHM
Q216	J2041220202X	TR DTC114TK SMT3	R216	8044037091	RMGCFMIN 150R0 OHM
Q216	J2041220701X	TR KRC111S SOT23	R217	8044037091	RMGCFMIN 150R0 OHM
Q217	J2041220202X	TR DTC114TK SMT3	R218	8044037091	RMGCFMIN 150R0 OHM
Q217	J2041220701X	TR KRC111S SOT23	R219	8044037091	RMGCFMIN 150R0 OHM
Q218	J2041220202X	TR DTC114TK SMT3	R220	8044037091	RMGCFMIN 150R0 OHM
Q218	J2041220701X	TR KRC111S SOT23	R221	8044037091	RMGCFMIN 150R0 OHM
Q219	J2041220202X	TR DTC114TK SMT3	R222	8044037091	RMGCFMIN 150R0 OHM
Q219	J2041220701X	TR KRC111S SOT23	R223	8044037091	RMGCFMIN 150R0 OHM
Q220	J2041220202X	TR DTC114TK SMT3	R224	8044037091	RMGCFMIN 150R0 OHM
Q220	J2041220701X	TR KRC111S SOT23	R225	8044037091	RMGCFMIN 150R0 OHM
Q221	J2041220202X	TR DTC114TK SMT3	R226	8044037091	RMGCFMIN 150R0 OHM
Q221	J2041220701X	TR KRC111S SOT23	R227	8044037091	RMGCFMIN 150R0 OHM
Q228	J2041220102X	TR NPN DTC114YKA	R228	8044037091	RMGCFMIN 150R0 OHM
Q228	J2041220201X	TR CHIP NPN KRC107	R229	8044037091	RMGCFMIN 150R0 OHM
Q229	J2041220102X	TR NPN DTC114YKA	R230	8044037091	RMGCFMIN 150R0 OHM
Q229	J2041220201X	TR CHIP NPN KRC107	R231	8044037091	RMGCFMIN 150R0 OHM
Q231	J2041220102X	TR NPN DTC114YKA	R232	8044037091	RMGCFMIN 150R0 OHM
Q231	J2041220201X	TR CHIP NPN KRC107	R233	8044037091	RMGCFMIN 150R0 OHM
Q232	J2041220102X	TR NPN DTC114YKA	R234	8044037091	RMGCFMIN 150R0 OHM
Q232	J2041220201X	TR CHIP NPN KRC107	R235	8044037091	RMGCFMIN 150R0 OHM
Q234	J2041220102X	TR NPN DTC114YKA	R236	8044037091	RMGCFMIN 150R0 OHM
Q234	J2041220201X	TR CHIP NPN KRC107	R237	8044037091	RMGCFMIN 150R0 OHM
Q236	J2041200101X	TR PNP KRA107S	R238	8044037091	RMGCFMIN 150R0 OHM
Q236	J2041200102X	TR PNP DTA114YKA	R239	8044037091	RMGCFMIN 150R0 OHM
Q237	J2041220102X	TR NPN DTC114YKA	R240	8044037091	RMGCFMIN 150R0 OHM
Q237	J2041220201X	TR CHIP NPN KRC107	R241	8044037091	RMGCFMIN 150R0 OHM
RL201	2047195091	RMGCFMIN 1K0 OHM +	R242	8044037091	RMGCFMIN 150R0 OHM
RL202	5088663091	RMGCFMIN 100K0 OHM	R243	8044037091	RMGCFMIN 150R0 OHM
RL203	5088667091	RMGCFMIN 1M0 OHM +	R244	8044037091	RMGCFMIN 150R0 OHM
RL204	1106648091	RMGCFMIN 47K0 OHM	R245	8044037091	RMGCFMIN 150R0 OHM
RL205	9057440091	RMGCFMIN 470R0 OHM	R246	8044037091	RMGCFMIN 150R0 OHM
RL206	5088663091	RMGCFMIN 100K0 OHM	R247	8044037091	RMGCFMIN 150R0 OHM
RL207	2047194091	RMGCFMIN 680R0 OHM	R249	2047195091	RMGCFMIN 1K0 OHM +
RL208	6044439091	RMGCFMIN 3K9 OHM +	R250	2047195091	RMGCFMIN 1K0 OHM +
RL209	6044440091	RMGCFMIN 22K0 OHM	R251	2047195091	RMGCFMIN 1K0 OHM +
RL210	8044039091	RMGCFMIN 2K2 OHM +	R252	7043420091	RMGCFMIN 100R0 OHM
RR201	2047195091	RMGCFMIN 1K0 OHM +	R253	2047195091	RMGCFMIN 1K0 OHM +
RR202	5088663091	RMGCFMIN 100K0 OHM	R254	2047195091	RMGCFMIN 1K0 OHM +
RR203	5088667091	RMGCFMIN 1M0 OHM +	R255	2047195091	RMGCFMIN 1K0 OHM +
RR204	1106648091	RMGCFMIN 47K0 OHM	R256	2047195091	RMGCFMIN 1K0 OHM +
RR205	9057440091	RMGCFMIN 470R0 OHM	R257	7043420091	RMGCFMIN 100R0 OHM
RR206	5088663091	RMGCFMIN 100K0 OHM	R258	2047195091	RMGCFMIN 1K0 OHM +
RR207	2047194091	RMGCFMIN 680R0 OHM	R259	2047195091	RMGCFMIN 1K0 OHM +
RR208	6044439091	RMGCFMIN 3K9 OHM +	R260	2047195091	RMGCFMIN 1K0 OHM +
RR209	6044440091	RMGCFMIN 22K0 OHM	R261	2047195091	RMGCFMIN 1K0 OHM +
RR210	8044039091	RMGCFMIN 2K2 OHM +	R264	7043420091	RMGCFMIN 100R0 OHM
R201	8044037091	RMGCFMIN 150R0 OHM	R265	2047195091	RMGCFMIN 1K0 OHM +
R202	8044037091	RMGCFMIN 150R0 OHM	R266	3094431091	RMGCFMIN 4K7 OHM +
R203	8044037091	RMGCFMIN 150R0 OHM	R267	3094431091	RMGCFMIN 4K7 OHM +
R204	8044037091	RMGCFMIN 150R0 OHM	R268	3094431091	RMGCFMIN 4K7 OHM +
R205	8044037091	RMGCFMIN 150R0 OHM	R269	3094431091	RMGCFMIN 4K7 OHM +
R206	8044037091	RMGCFMIN 150R0 OHM	R270	3094431091	RMGCFMIN 4K7 OHM +
R207	8044037091	RMGCFMIN 150R0 OHM	R271	2047195091	RMGCFMIN 1K0 OHM +

Designator	Part#	Description	Designator	Part#	Description
R272	2047195091	RMGCFMIN 1K0 OHM +	JA403	J44333000001	STEREO JACK JW-350
R273	2047195091	RMGCFMIN 1K0 OHM +	JA404	J44333000001	STEREO JACK JW-350
R274	2047195091	RMGCFMIN 1K0 OHM +	L401	J2616247020X	COIL 47UH
R275	2047195091	RMGCFMIN 1K0 OHM +	L402	J2616247020X	COIL 47UH
R276	7043420091	RMGCFMIN 100R0 OHM	Q402	J2021200002X	TR PNP DTA114YS
R277	1035519091	RMGCFMIN 2R2 OHM +	Q402	J2021200501X	TR PNP KRA107M
R278	1035519091	RMGCFMIN 2R2 OHM +	2 W401	J4305100025X	LUG WIRE 1P 200MM
R279	5088661091	RMGCFMIN 10K0 OHM	Q403	J2021200002X	TR PNP DTA114YS
R280	5088661091	RMGCFMIN 10K0 OHM	Q403	J2021200501X	TR PNP KRA107M
R281	5088661091	RMGCFMIN 10K0 OHM	SW401	J46500500501	SW TACT SKQNAE
R283	5088661091	RMGCFMIN 10K0 OHM	SW402	J46500500501	SW TACT SKQNAE
R284	2047195091	RMGCFMIN 1K0 OHM +	SW403	J46500500501	SW TACT SKQNAE
R285	2047195091	RMGCFMIN 1K0 OHM +	SW404	J46500500501	SW TACT SKQNAE
R286	5088661091	RMGCFMIN 10K0 OHM	SW405	J46500500501	SW TACT SKQNAE
R287	1106650091	RMGCFMIN 68K0 OHM	SW406	J46500500501	SW TACT SKQNAE
R288	1106650091	RMGCFMIN 68K0 OHM	SW407	J46500500501	SW TACT SKQNAE
R289	1106648091	RMGCFMIN 47K0 OHM	SW408	J46500500501	SW TACT SKQNAE
R290	3094431091	RMGCFMIN 4K7 OHM +	SW409	J46500500501	SW TACT SKQNAE
R291	7043420091	RMGCFMIN 100R0 OHM	SW410	J46500500501	SW TACT SKQNAE
R292	5088663091	RMGCFMIN 100K0 OHM	SW411	J46500500501	SW TACT SKQNAE
R293	1106646091	RMGCFMIN 8K2 OHM +	SW412	J46500500501	SW TACT SKQNAE
R294	5088661091	RMGCFMIN 10K0 OHM	SW413	J46500500501	SW TACT SKQNAE
R295	2047195091	RMGCFMIN 1K0 OHM +	SW414	J46500500501	SW TACT SKQNAE
R296	2047195091	RMGCFMIN 1K0 OHM +	SW415	J46500500501	SW TACT SKQNAE
R297	2047195091	RMGCFMIN 1K0 OHM +	SW416	J46500500501	SW TACT SKQNAE
R298	3094431091	RMGCFMIN 4K7 OHM +	SW417	J46500500501	SW TACT SKQNAE
R299	3094431091	RMGCFMIN 4K7 OHM +	SW418	J46500500501	SW TACT SKQNAE
R300	3094431091	RMGCFMIN 4K7 OHM +	SW419	J46500500501	SW TACT SKQNAE
R351	9057440091	RMGCFMIN 470R0 OHM	SW420	J46500500501	SW TACT SKQNAE
R352	9057440091	RMGCFMIN 470R0 OHM	C401	3093924091	CCCFMIN 22N0F +10%
R353	1106642091	RMGCFMIN 390R0 OHM	C402	3093924091	CCCFMIN 22N0F +10%
R354	1106642091	RMGCFMIN 390R0 OHM	C403	1105933091	CCCFMIN 2N2F +10%
R356	9057440091	RMGCFMIN 470R0 OHM	C404	1105933091	CCCFMIN 2N2F +10%
R357	9057440091	RMGCFMIN 470R0 OHM	C405	2026729091	CCCFMIN 100N0F +80
R358	1106642091	RMGCFMIN 390R0 OHM	C406	2026729091	CCCFMIN 100N0F +80
R359	1106642091	RMGCFMIN 390R0 OHM	C409	1105867091	CCCFMIN 100P0F +5%
R361	2047192091	RMGCFMIN 220R0 OHM	C410	1105867091	CCCFMIN 100P0F +5%
R362	2047192091	RMGCFMIN 220R0 OHM	C411	1105867091	CCCFMIN 100P0F +5%
R363	2047192091	RMGCFMIN 220R0 OHM	C412	1105867091	CCCFMIN 100P0F +5%
R364	2047195091	RMGCFMIN 1K0 OHM +	C413	1105867091	CCCFMIN 100P0F +5%
R365	8044037091	RMGCFMIN 150R0 OHM	C414	1105867091	CCCFMIN 100P0F +5%
R366	2047195091	RMGCFMIN 1K0 OHM +	C415	2026729091	CCCFMIN 100N0F +80
			C416	2026729091	CCCFMIN 100N0F +80

Key PCB

CN401	J4305100054X	CNT ASSY 8P 100MM
CN402	J4305100056X	CNT ASSY 5P 100MM
CN403	J4305100062X	CNT ASSY 3P 600MM
CN404	J4305100071X	CNT ASSY 7P 100MM
CP403	J4420030240X	CON WAFER 2P 2.0
CP404	J4420030440X	CNT PLUG 4P 2.0MM
CP405	J4420030440X	CNT PLUG 4P 2.0MM
D401	J2302210012X	LED RED/GREEN 3F
D401	J2302310012X	LED RED/GREEN 5
FN401	J60300028000	BKT GROUND ET 0.5T
FN402	J60300028000	BKT GROUND ET 0.5T
HP401	J44329000102	JACK MIC 9P GOLD
IC401	J2123239001X	IC PC-17T1 PHOTOCO
IC402	J2123239001X	IC PC-17T1 PHOTOCO
JA401	J44302401201	JACK RCA 4P S
JA402	J44333000001	STEREO JACK JW-350

J407	8044051091	RMGCFMIN 0 OHM +0%
J408	8044051091	RMGCFMIN 0 OHM +0%
Q401	J2041220102X	TR NPN DTC114YKA
Q401	J2041220201X	TR CHIP NPN KRC107
R401	5088661091	RMGCFMIN 10K0 OHM
R402	2047195091	RMGCFMIN 1K0 OHM +
R403	7043423091	RMGCFMIN 1K2 OHM +
R404	4043829091	RMGCFMIN 1K5 OHM +
R405	8044039091	RMGCFMIN 2K2 OHM +
R406	5088659091	RMGCFMIN 2K7 OHM +
R407	1106644091	RMGCFMIN 3K3 OHM +
R408	8044040091	RMGCFMIN 5K6 OHM +
R409	1106646091	RMGCFMIN 8K2 OHM +

Designator	Part#	Description	Designator	Part#	Description
R410	9057443091	RMGCFMIN 18K0 OHM	J052	J2631200012X	BEAD AXIAL 6MM
R411	5088661091	RMGCFMIN 10K0 OHM	X601	J3913010065X	CRYS 17.734475MHZ
R412	2047195091	RMGCFMIN 1K0 OHM +	X601	J3913010075X	CRYS 14.31818MHZ
R413	7043423091	RMGCFMIN 1K2 OHM +	CC601	2026888030	CE 10U0F +20% 50.0
R414	4043829091	RMGCFMIN 1K5 OHM +	CC603	2026888030	CE 10U0F +20% 50.0
R415	8044039091	RMGCFMIN 2K2 OHM +	CC606	2026888030	CE 10U0F +20% 50.0
R416	5088659091	RMGCFMIN 2K7 OHM +	CF601	2026888030	CE 10U0F +20% 50.0
R417	1106644091	RMGCFMIN 3K3 OHM +	CF602	2026888030	CE 10U0F +20% 50.0
R418	8044040091	RMGCFMIN 5K6 OHM +	CF604	2026888030	CE 10U0F +20% 50.0
R419	1106646091	RMGCFMIN 8K2 OHM +	CF605	2026888030	CE 10U0F +20% 50.0
R420	9057443091	RMGCFMIN 18K0 OHM	CF611	2026888030	CE 10U0F +20% 50.0
R421	6044437091	RMGCFMIN 180R0 OHM	CF612	2026888030	CE 10U0F +20% 50.0
R422	6044437091	RMGCFMIN 180R0 OHM	CS607	2026888030	CE 10U0F +20% 50.0
R423	2047194091	RMGCFMIN 680R0 OHM	C601	2026888030	CE 10U0F +20% 50.0
R424	2047194091	RMGCFMIN 680R0 OHM	C602	2026888030	CE 10U0F +20% 50.0
R427	9057440091	RMGCFMIN 470R0 OHM	C603	2026888030	CE 10U0F +20% 50.0
R428	9057440091	RMGCFMIN 470R0 OHM	C604	2026888030	CE 10U0F +20% 50.0
R429	9057440091	RMGCFMIN 470R0 OHM	C605	2025267030	CE 470U0F +20% 10.
R430	6044439091	RMGCFMIN 3K9 OHM +	C605	2026888030	CE 10U0F +20% 50.0
R431	1106648091	RMGCFMIN 47K0 OHM	C606	2025267030	CE 470U0F +20% 10.
R432	6044435091	RMGCFMIN 47R0 OHM	C610	2026783030	CE 47U0F +20% 16.0
R433	6044435091	RMGCFMIN 47R0 OHM	C613	2026888030	CE 10U0F +20% 50.0
R434	6044438091	RMGCFMIN 270R0 OHM	C614	2026888030	CE 10U0F +20% 50.0
R435	5088661091	RMGCFMIN 10K0 OHM	C615	2025267030	CE 470U0F +20% 10.
R436	1106648091	RMGCFMIN 47K0 OHM	C616	2026888030	CE 10U0F +20% 50.0
Video PCB			C617	2026888030	CE 10U0F +20% 50.0
-----			C618	2025267030	CE 470U0F +20% 10.
#001	JE00008502UA	AVR210US VIDBD ASM	C621	2026888030	CE 10U0F +20% 50.0
#002	JE00008505UA	AVR510US VIDBD ASM	C622	2026888030	CE 10U0F +20% 50.0
#003	JE00008501UA	AVR110US VIDBD ASM	C623	2026888030	CE 10U0F +20% 50.0
#004	JE00008502EA	AVR2000EU VIDBD AS	C624	2026888030	CE 10U0F +20% 50.0
#005	JE00008503EA	AVR3000EU VIDBD AS	C625	2025267030	CE 470U0F +20% 10.
#006	JE00008505EA	AVR5000EU VIDBD AS	C625	2026888030	CE 10U0F +20% 50.0
#007	JE00008506UA	DCR600US VIDBD ASM	C626	2025267030	CE 470U0F +20% 10.
'020	JE00008601UA	AVR110US VIDBD APP	C626	2026888030	CE 10U0F +20% 50.0
'020	JE00008602UA	AVR210US VIDBD APP	C627	2025267030	CE 470U0F +20% 10.
'020	JE00008603EA	AVR3000EU VIDBD AP	C627	2026888030	CE 10U0F +20% 50.0
'020	JE00008605EA	AVR5000EU VIDBD AP	C628	2025267030	CE 470U0F +20% 10.
'020	JE00008605UA	AVR510US VIDBD APP	C628	2026888030	CE 10U0F +20% 50.0
'020	JE00008606UA	DCR600US VIDBD APP	C630	2026885030	CE 2U2F +20% 50.0V
B601	J2631200022X	BEAD AX 80.5 OHM	C631	2026888030	CE 10U0F +20% 50.0
B602	J2631200022X	BEAD AX 80.5 OHM	C633	2026894030	CE 100U0F +20% 10.
B603	J2631200022X	BEAD AX 80.5 OHM	C639	2026884030	CE 1U0F +20% 50.0V
CN602	J4305100065X	CNT ASSY 4P 380MM	C647	2025267030	CE 470U0F +20% 10.
CN603	J4305100064X	CNT ASSY 4P 250MM	C650	2025267030	CE 470U0F +20% 10.
CP601	J4423331600X	CNT PLUG BD'BD 2.0	C651	2025267030	CE 470U0F +20% 10.
CP602	J4420030840X	CNT PLUG 2.0 ST 8P	C652	2025267030	CE 470U0F +20% 10.
G001	J4305100030X	CNT ASSY 1P 100MM	C653	2025267030	CE 470U0F +20% 10.
IC607	J2116209002X	IC OSD M35013	C660	2026783030	CE 47U0F +20% 16.0
IC609	J2116204001X	IC VIDEO BA7046	C661	2026783030	CE 47U0F +20% 16.0
JA601	J44312000100	JACK RCA+S GNDCAP	C662	2026908030	CE 220U0F +20% 10.
JA602	J44312000100	JACK RCA+S GNDCAP	C663	2026908030	CE 220U0F +20% 10.
JA603	J44312000100	JACK RCA+S GNDCAP	C664	2025267030	CE 470U0F +20% 10.
JA604	J44312000100	JACK RCA+S GNDCAP	C665	2025267030	CE 470U0F +20% 10.
JA605	J44312000100	JACK RCA+S GNDCAP	C666	2026783030	CE 47U0F +20% 16.0
JA606	J44312000100	JACK RCA+S GNDCAP	C671	2026896030	CE 330N0F +20% 50.
JA607	J44312000100	JACK RCA+S GNDCAP	C672	2026894030	CE 100U0F +20% 10.
J034	J2631200012X	BEAD AXIAL 6MM	C675	2026884030	CE 1U0F +20% 50.0V
J050	J2631200012X	BEAD AXIAL 6MM	C678	J3513180270X	CC/DISC 18P 50V J
J051	J2631200012X	BEAD AXIAL 6MM	C679	2026888030	CE 10U0F +20% 50.0
			C682	2026894030	CE 100U0F +20% 10.

Designator	Part#	Description	Designator	Part#	Description
C683	J3513300270X	CC/DISC 30PF 50V J	C641	1105867091	CCCFMIN 100P0F +5%
C683	8043459071	CC 22P0F +5% -5% 5	C642	1105867091	CCCFMIN 100P0F +5%
C684	J3513300270X	CC/DISC 30PF 50V J	C657	2026729091	CCCFMIN 100N0F +80
C684	8043459071	CC 22P0F +5% -5% 5	C658	1105867091	CCCFMIN 100P0F +5%
C685	2026894030	CE 100U0F +20% 10.	C659	1105867091	CCCFMIN 100P0F +5%
C687	2026894030	CE 100U0F +20% 10.	C670	1105867091	CCCFMIN 100P0F +5%
C691	2026884030	CE 1U0F +20% 50.0V	C673	1105934091	CCCFMIN 10N0F +10%
C698	2026783030	CE 47U0F +20% 16.0	C674	4043518091	CCCFMIN 47P0F +5%
C699	2026783030	CE 47U0F +20% 16.0	C676	5088236091	CCCFMIN 33P0F +5%
L601	J2616222020X	COIL LAL02 22UH K	C681	1105867091	CCCFMIN 100P0F +5%
L602	J2616222020X	COIL LAL02 22UH K	C686	1105934091	CCCFMIN 10N0F +10%
L603	J2616222020X	COIL LAL02 22UH K	C688	1105933091	CCCFMIN 2N2F +10%
Q602	J2021021501X	TR KTC2874 B NPN T	C690	1105932091	CCCFMIN 1N0F +10%
Q602	J2021021601X	TR KTC2874 A NPN T	C696	1105867091	CCCFMIN 100P0F +5%
Q603	J2021021501X	TR KTC2874 B NPN T	C697	2026729091	CCCFMIN 100N0F +80
Q603	J2021021601X	TR KTC2874 A NPN T	D601	J2244010104X	DIODE CHIP 1SS355
Q604	J2021021501X	TR KTC2874 B NPN T	D602	J2244010104X	DIODE CHIP 1SS355
Q604	J2021021601X	TR KTC2874 A NPN T	D603	J2244010104X	DIODE CHIP 1SS355
Q605	J2021000102X	TR PNP 2SA933S	D604	J2244010104X	DIODE CHIP 1SS355
Q609	J2021021501X	TR KTC2874 B NPN T	D605	J2244010104X	DIODE CHIP 1SS355
Q609	J2021021601X	TR KTC2874 A NPN T	D606	J2244010104X	DIODE CHIP 1SS355
Q610	J2021060001X	TR NPN KTD1302 B	D607	J2244010104X	DIODE CHIP 1SS355
Q614	J2021220002X	TR NPN 2SC1740S	D608	J2244010104X	DIODE CHIP 1SS355
Q615	J2021021501X	TR KTC2874 B NPN T	D609	J2244010104X	DIODE CHIP 1SS355
Q615	J2021021601X	TR KTC2874 A NPN T	D611	J2244010104X	DIODE CHIP 1SS355
Q616	J2021021501X	TR KTC2874 B NPN T	D612	J2244010104X	DIODE CHIP 1SS355
Q616	J2021021601X	TR KTC2874 A NPN T	D613	J2244010104X	DIODE CHIP 1SS355
Q619	J2021220002X	TR NPN 2SC1740S	D614	J2244010104X	DIODE CHIP 1SS355
Q620	J2021000102X	TR PNP 2SA933S	D615	J2244010104X	DIODE CHIP 1SS355
Q621	J2021000102X	TR PNP 2SA933S	IC601	J2116012001X	IC VIDEO NJM2296
Q622	J2021000102X	TR PNP 2SA933S	IC602	J2116012001X	IC VIDEO NJM2296
Q623	J2021000102X	TR PNP 2SA933S	IC603	J2116012001X	IC VIDEO NJM2296
R617	1105964016	RCF 1K0 OHM +5% 25	IC605	J2141004002X	IC BU4094 SOP16
R619	1105964016	RCF 1K0 OHM +5% 25	IC606	J2141004002X	IC BU4094 SOP16
R640	2046946016	RCF 2K2 OHM +5% 25	IC608	J2141004003X	IC BU4053
R674	1105964016	RCF 1K0 OHM +5% 25	IC619	J2141004002X	IC BU4094 SOP16
R686	5088303016	RCF 150K0 OHM +5%	J025	8044051091	RMGCFMIN 0 OHM +0%
R695	6044155016	RCF 330R0 OHM +5%	J031	8044051091	RMGCFMIN 0 OHM +0%
TBD	J2616222020X	COIL LAL02 22UH K	J032	8044051091	RMGCFMIN 0 OHM +0%
TBD1	J2616247020X	COIL 47UH	J033	8044051091	RMGCFMIN 0 OHM +0%
CC602	2026729091	CCCFMIN 100N0F +80	J036	8044051091	RMGCFMIN 0 OHM +0%
CC604	2026729091	CCCFMIN 100N0F +80	J039	8044051091	RMGCFMIN 0 OHM +0%
CC607	2026729091	CCCFMIN 100N0F +80	J040	8044051091	RMGCFMIN 0 OHM +0%
CC609	2026729091	CCCFMIN 100N0F +80	J041	8044051091	RMGCFMIN 0 OHM +0%
CF603	2026729091	CCCFMIN 100N0F +80	J045	8044051091	RMGCFMIN 0 OHM +0%
CF606	2026729091	CCCFMIN 100N0F +80	J048	8044051091	RMGCFMIN 0 OHM +0%
CF608	1105944091	CCCFMIN 10P0F +0P2	J052	8044051091	RMGCFMIN 0 OHM +0%
CF610	1105944091	CCCFMIN 10P0F +0P2	J058	8044051091	RMGCFMIN 0 OHM +0%
CF613	2026729091	CCCFMIN 100N0F +80	J063	8044051091	RMGCFMIN 0 OHM +0%
CF615	1105944091	CCCFMIN 10P0F +0P2	J065	8044051091	RMGCFMIN 0 OHM +0%
C608	1105867091	CCCFMIN 100P0F +5%	J067	8044051091	RMGCFMIN 0 OHM +0%
C609	1105867091	CCCFMIN 100P0F +5%	J072	8044051091	RMGCFMIN 0 OHM +0%
C611	1105867091	CCCFMIN 100P0F +5%	J073	8044051091	RMGCFMIN 0 OHM +0%
C612	1105867091	CCCFMIN 100P0F +5%	J074	8044051091	RMGCFMIN 0 OHM +0%
C619	1105867091	CCCFMIN 100P0F +5%	J076	8044051091	RMGCFMIN 0 OHM +0%
C620	1105867091	CCCFMIN 100P0F +5%	J077	8044051091	RMGCFMIN 0 OHM +0%
C629	1105934091	CCCFMIN 10N0F +10%	J079	8044051091	RMGCFMIN 0 OHM +0%
C632	1105934091	CCCFMIN 10N0F +10%	J081	8044051091	RMGCFMIN 0 OHM +0%
C637	1105867091	CCCFMIN 100P0F +5%	J083	8044051091	RMGCFMIN 0 OHM +0%
C638	1105867091	CCCFMIN 100P0F +5%	J086	8044051091	RMGCFMIN 0 OHM +0%
C640	1105867091	CCCFMIN 100P0F +5%	J089	8044051091	RMGCFMIN 0 OHM +0%

Designator	Part#	Description	Designator	Part#	Description
J090	8044051091	RMGCFMIN 0 OHM +0%	RS605	1106639091	RMGCFMIN 75R0 OHM
J091	8044051091	RMGCFMIN 0 OHM +0%	RS605	9057437091	RMGCFMIN 82R0 OHM
J099	8044051091	RMGCFMIN 0 OHM +0%	RS606	1106639091	RMGCFMIN 75R0 OHM
J101	8044051091	RMGCFMIN 0 OHM +0%	RS606	9057437091	RMGCFMIN 82R0 OHM
J116	8044051091	RMGCFMIN 0 OHM +0%	RS608	1106639091	RMGCFMIN 75R0 OHM
J121	8044051091	RMGCFMIN 0 OHM +0%	RS608	9057437091	RMGCFMIN 82R0 OHM
Q601	J2041220102X	TR NPN DTC114YKA	RS609	1106639091	RMGCFMIN 75R0 OHM
Q601	J2041220201X	TR CHIP NPN KRC107	RS609	9057437091	RMGCFMIN 82R0 OHM
Q606	J2041200101X	TR PNP KRA107S	RS611	1106639091	RMGCFMIN 75R0 OHM
Q606	J2041200102X	TR PNP DTA114YKA	RS611	9057437091	RMGCFMIN 82R0 OHM
Q607	J2041220102X	TR NPN DTC114YKA	RS612	1106639091	RMGCFMIN 75R0 OHM
Q607	J2041220201X	TR CHIP NPN KRC107	RS612	9057437091	RMGCFMIN 82R0 OHM
Q608	J2041200101X	TR PNP KRA107S	RS620	1106639091	RMGCFMIN 75R0 OHM
Q608	J2041200102X	TR PNP DTA114YKA	RS620	9057437091	RMGCFMIN 82R0 OHM
Q611	J2041220102X	TR NPN DTC114YKA	RS621	1106639091	RMGCFMIN 75R0 OHM
Q611	J2041220201X	TR CHIP NPN KRC107	RS621	9057437091	RMGCFMIN 82R0 OHM
Q613	J2041220102X	TR NPN DTC114YKA	RS622	1106639091	RMGCFMIN 75R0 OHM
Q613	J2041220201X	TR CHIP NPN KRC107	RS622	9057437091	RMGCFMIN 82R0 OHM
RC601	3094425091	RMGCFMIN 10R0 OHM	RS623	1106639091	RMGCFMIN 75R0 OHM
RC602	1106639091	RMGCFMIN 75R0 OHM	RS623	9057437091	RMGCFMIN 82R0 OHM
RC602	9057437091	RMGCFMIN 82R0 OHM	R608	3094427091	RMGCFMIN 68R0 OHM
RC603	3094425091	RMGCFMIN 10R0 OHM	R609	8044041091	RMGCFMIN 7K5 OHM +
RC604	1106639091	RMGCFMIN 75R0 OHM	R610	1106644091	RMGCFMIN 3K3 OHM +
RC604	9057437091	RMGCFMIN 82R0 OHM	R612	8044043091	RMGCFMIN 43K0 OHM
RC606	1106639091	RMGCFMIN 75R0 OHM	R613	1106644091	RMGCFMIN 3K3 OHM +
RC606	9057437091	RMGCFMIN 82R0 OHM	R614	7043420091	RMGCFMIN 100R0 OHM
RC607	1106639091	RMGCFMIN 75R0 OHM	R615	2047199091	RMGCFMIN 12K0 OHM
RC607	9057437091	RMGCFMIN 82R0 OHM	R617	2047195091	RMGCFMIN 1K0 OHM +
RC608	3094425091	RMGCFMIN 10R0 OHM	R618	2047195091	RMGCFMIN 1K0 OHM +
RC609	3094425091	RMGCFMIN 10R0 OHM	R619	2047195091	RMGCFMIN 1K0 OHM +
RC610	1106639091	RMGCFMIN 75R0 OHM	R621	5088661091	RMGCFMIN 10K0 OHM
RC610	9057437091	RMGCFMIN 82R0 OHM	R622	5088661091	RMGCFMIN 10K0 OHM
RC612	1106639091	RMGCFMIN 75R0 OHM	R623	5088661091	RMGCFMIN 10K0 OHM
RC612	9057437091	RMGCFMIN 82R0 OHM	R624	5088661091	RMGCFMIN 10K0 OHM
RC614	1106639091	RMGCFMIN 75R0 OHM	R625	5088661091	RMGCFMIN 10K0 OHM
RC614	3094427091	RMGCFMIN 68R0 OHM	R626	5088661091	RMGCFMIN 10K0 OHM
RF601	8044037091	RMGCFMIN 150R0 OHM	R627	5088661091	RMGCFMIN 10K0 OHM
RF601	9057437091	RMGCFMIN 82R0 OHM	R628	5088661091	RMGCFMIN 10K0 OHM
RF602	3094425091	RMGCFMIN 10R0 OHM	R629	5088661091	RMGCFMIN 10K0 OHM
RF603	8044037091	RMGCFMIN 150R0 OHM	R632	1106639091	RMGCFMIN 75R0 OHM
RF603	9057437091	RMGCFMIN 82R0 OHM	R632	9057437091	RMGCFMIN 82R0 OHM
RF604	3094425091	RMGCFMIN 10R0 OHM	R633	1106639091	RMGCFMIN 75R0 OHM
RF606	5088661091	RMGCFMIN 10K0 OHM	R633	3094427091	RMGCFMIN 68R0 OHM
RF608	5088661091	RMGCFMIN 10K0 OHM	R634	5088663091	RMGCFMIN 100K0 OHM
RF610	5088661091	RMGCFMIN 10K0 OHM	R635	2047195091	RMGCFMIN 1K0 OHM +
RF611	8044037091	RMGCFMIN 150R0 OHM	R636	2047195091	RMGCFMIN 1K0 OHM +
RF611	9057437091	RMGCFMIN 82R0 OHM	R637	2047195091	RMGCFMIN 1K0 OHM +
RF612	3094425091	RMGCFMIN 10R0 OHM	R638	8044042091	RMGCFMIN 33K0 OHM
RF615	1106639091	RMGCFMIN 75R0 OHM	R639	3094427091	RMGCFMIN 68R0 OHM
RF615	3094426091	RMGCFMIN 22R0 OHM	R641	5088663091	RMGCFMIN 100K0 OHM
RF615	8044051091	RMGCFMIN 0 OHM +0%	R642	2047195091	RMGCFMIN 1K0 OHM +
RF616	1106639091	RMGCFMIN 75R0 OHM	R643	1106648091	RMGCFMIN 47K0 OHM
RF616	3094426091	RMGCFMIN 22R0 OHM	R644	2047195091	RMGCFMIN 1K0 OHM +
RF616	8044051091	RMGCFMIN 0 OHM +0%	R650	7043425091	RMGCFMIN 15K0 OHM
RF617	1106639091	RMGCFMIN 75R0 OHM	R651	2047195091	RMGCFMIN 1K0 OHM +
RF617	3094426091	RMGCFMIN 22R0 OHM	R652	1106644091	RMGCFMIN 3K3 OHM +
RF617	8044051091	RMGCFMIN 0 OHM +0%	R653	3094427091	RMGCFMIN 68R0 OHM
RS602	1106639091	RMGCFMIN 75R0 OHM	R661	8044051091	RMGCFMIN 0 OHM +0%
RS602	9057437091	RMGCFMIN 82R0 OHM	R662	8044051091	RMGCFMIN 0 OHM +0%
RS603	1106639091	RMGCFMIN 75R0 OHM	R665	5088661091	RMGCFMIN 10K0 OHM
RS603	9057437091	RMGCFMIN 82R0 OHM	R666	8044043091	RMGCFMIN 43K0 OHM

Designator	Part#	Description	Designator	Part#	Description
R670	8044051091	RMGCFMIN 0 OHM +0%	C799	2026783030	CE 47U0F +20% 16.0
R674	2047195091	RMGCFMIN 1K0 OHM +	C800	J3470910030X	CE RA/TAP 10UF 16V
R677	2047195091	RMGCFMIN 1K0 OHM +	C801	J3470910030X	CE RA/TAP 10UF 16V
R678	2047195091	RMGCFMIN 1K0 OHM +	C802	J3470910030X	CE RA/TAP 10UF 16V
R679	2047195091	RMGCFMIN 1K0 OHM +	C804	J3470910030X	CE RA/TAP 10UF 16V
R680	4043830091	RMGCFMIN 6K8 OHM +	C805	J3470910030X	CE RA/TAP 10UF 16V
R681	8044039091	RMGCFMIN 2K2 OHM +	C807	2026783030	CE 47U0F +20% 16.0
R682	5088661091	RMGCFMIN 10K0 OHM	C808	J3470910030X	CE RA/TAP 10UF 16V
R683	1106646091	RMGCFMIN 8K2 OHM +	C809	J3470910030X	CE RA/TAP 10UF 16V
R684	1106650091	RMGCFMIN 68K0 OHM	C811	2026783030	CE 47U0F +20% 16.0
R685	7043420091	RMGCFMIN 100R0 OHM	C813	J3470910030X	CE RA/TAP 10UF 16V
R687	6044442091	RMGCFMIN 150K0 OHM	C814	J3470910030X	CE RA/TAP 10UF 16V
R688	5088667091	RMGCFMIN 1M0 OHM +	C816	2026783030	CE 47U0F +20% 16.0
R689	6044437091	RMGCFMIN 180R0 OHM	C818	J3470910030X	CE RA/TAP 10UF 16V
R690	3094427091	RMGCFMIN 68R0 OHM	C819	J3470910030X	CE RA/TAP 10UF 16V
R691	3094425091	RMGCFMIN 10R0 OHM	C821	2026783030	CE 47U0F +20% 16.0
R692	3094425091	RMGCFMIN 10R0 OHM	C822	J3470910030X	CE RA/TAP 10UF 16V
R693	9057440091	RMGCFMIN 470R0 OHM	C823	J3470910030X	CE RA/TAP 10UF 16V
R694	5088667091	RMGCFMIN 1M0 OHM +	C825	2026783030	CE 47U0F +20% 16.0
R696	4043835091	RMGCFMIN 470K0 OHM	C826	J3470910030X	CE RA/TAP 10UF 16V
R697	4043835091	RMGCFMIN 470K0 OHM	C827	J3470910030X	CE RA/TAP 10UF 16V
R698	5088661091	RMGCFMIN 10K0 OHM	C829	2026783030	CE 47U0F +20% 16.0
R699	2047199091	RMGCFMIN 12K0 OHM	C831	J3470910030X	CE RA/TAP 10UF 16V

Processor (Input) PCB

#001	JE00016201UA	AVR110US	PROBD	APP	
'020	JE00009201UA	AVR110US	PROBD	SMT	
'021	J4024100010X	PROCESS	PCB	330*16	
C709	J3470910030X	CE	RA/TAP	10UF	16V
C710	2026783030	CE	47U0F	+20%	16.0
C711	J3470910030X	CE	RA/TAP	10UF	16V
C714	J3470910030X	CE	RA/TAP	10UF	16V
C715	2026783030	CE	47U0F	+20%	16.0
C716	J3470910030X	CE	RA/TAP	10UF	16V
C723	J3470910030X	CE	RA/TAP	10UF	16V
C724	2026783030	CE	47U0F	+20%	16.0
C725	J3470910030X	CE	RA/TAP	10UF	16V
C728	J3470910030X	CE	RA/TAP	10UF	16V
C729	2026783030	CE	47U0F	+20%	16.0
C730	J3470910030X	CE	RA/TAP	10UF	16V
C764	2026783030	CE	47U0F	+20%	16.0
C765	2026783030	CE	47U0F	+20%	16.0
C768	2026783030	CE	47U0F	+20%	16.0
C769	2026783030	CE	47U0F	+20%	16.0
C770	2026783030	CE	47U0F	+20%	16.0
C771	2026783030	CE	47U0F	+20%	16.0
C773	2026783030	CE	47U0F	+20%	16.0
C774	2026783030	CE	47U0F	+20%	16.0
C782	J3470910030X	CE	RA/TAP	10UF	16V
C783	2026783030	CE	47U0F	+20%	16.0
C784	J3470910030X	CE	RA/TAP	10UF	16V
C787	J3470910030X	CE	RA/TAP	10UF	16V
C788	2026783030	CE	47U0F	+20%	16.0
C789	J3470910030X	CE	RA/TAP	10UF	16V
C792	J3470910030X	CE	RA/TAP	10UF	16V
C795	2026783030	CE	47U0F	+20%	16.0
C796	J3470910030X	CE	RA/TAP	10UF	16V
C797	2026783030	CE	47U0F	+20%	16.0
C798	2026783030	CE	47U0F	+20%	16.0
C836	J3470910030X	CE	RA/TAP	10UF	16V
C837	J3470910030X	CE	RA/TAP	10UF	16V
C839	2026783030	CE	47U0F	+20%	16.0
C841	J3470910030X	CE	RA/TAP	10UF	16V
C842	J3470910030X	CE	RA/TAP	10UF	16V
C844	2026783030	CE	47U0F	+20%	16.0
C846	J3470910030X	CE	RA/TAP	10UF	16V
C847	J3470910030X	CE	RA/TAP	10UF	16V
C849	2026783030	CE	47U0F	+20%	16.0
C851	J3470910030X	CE	RA/TAP	10UF	16V
C852	J3470910030X	CE	RA/TAP	10UF	16V
C854	2026783030	CE	47U0F	+20%	16.0
C856	J3470910030X	CE	RA/TAP	10UF	16V
C857	J3470910030X	CE	RA/TAP	10UF	16V
C859	2026783030	CE	47U0F	+20%	16.0
C861	J3470133111X	CE	330U	6V3 M 6.3*	
C862	J3470910030X	CE	RA/TAP	10UF	16V
C864	2026783030	CE	47U0F	+20%	16.0
C866	J3470133111X	CE	330U	6V3 M 6.3*	
C867	2026783030	CE	47U0F	+20%	16.0
Q704	J2021060001X	TR	NPN	KTD1302	B
Q705	J2021060001X	TR	NPN	KTD1302	B
Q706	J2021200102X	TR	PNP	DTA114TS	SP
Q707	J2021200102X	TR	PNP	DTA114TS	SP
Q708	J2021060001X	TR	NPN	KTD1302	B
Q709	J2021060001X	TR	NPN	KTD1302	B
Q713	J2021060001X	TR	NPN	KTD1302	B
Q714	J2021060001X	TR	NPN	KTD1302	B
Q715	J2021200102X	TR	PNP	DTA114TS	SP
Q716	J2021060001X	TR	NPN	KTD1302	B
Q717	J2021060001X	TR	NPN	KTD1302	B
Q718	J2021200102X	TR	PNP	DTA114TS	SP
Q719	J2021060001X	TR	NPN	KTD1302	B
Q720	J2021060001X	TR	NPN	KTD1302	B
Q721	J2021200102X	TR	PNP	DTA114TS	SP
Q722	J2021060001X	TR	NPN	KTD1302	B

Designator	Part#	Description	Designator	Part#	Description
Q723	J2021060001X	TR NPN KTD1302 B	C774	2026783030	CE 47U0F +20% 16.0
Q724	J2021200102X	TR PNP DTA114TS SP	C776	J3470910030X	CE RA/TAP 10UF 16V
Q725	J2021200102X	TR PNP DTA114TS SP	C777	2026783030	CE 47U0F +20% 16.0
Q727	J2021060001X	TR NPN KTD1302 B	C778	J3470910030X	CE RA/TAP 10UF 16V
Q729	J2021060001X	TR NPN KTD1302 B	C779	J3470910030X	CE RA/TAP 10UF 16V
Q730	J2021200102X	TR PNP DTA114TS SP	C780	2026783030	CE 47U0F +20% 16.0
Q731	J2021220402X	TR NPN DTC114TS SP	C781	J3470910030X	CE RA/TAP 10UF 16V
Q732	J2021120003X	FET RA/TAP 2SK117Y	C782	J3470910030X	CE RA/TAP 10UF 16V
Q733	J2021200102X	TR PNP DTA114TS SP	C783	2026783030	CE 47U0F +20% 16.0
Q734	J2021220402X	TR NPN DTC114TS SP	C784	J3470910030X	CE RA/TAP 10UF 16V
CN408	J4423331500X	CNT 2.0 35237-1510	C787	J3470910030X	CE RA/TAP 10UF 16V
CN409	J4423331500X	CNT 2.0 35237-1510	C788	2026783030	CE 47U0F +20% 16.0
CN410	J4423331500X	CNT 2.0 35237-1510	C789	J3470910030X	CE RA/TAP 10UF 16V
CN411	J4423331500X	CNT 2.0 35237-1510	C792	J3470910030X	CE RA/TAP 10UF 16V
CP205	J4420030440X	CNT PLUG 4P 2.0MM	C795	2026783030	CE 47U0F +20% 16.0
CP206	J4420031040X	CNT PLUG 2.0 10P	C796	J3470910030X	CE RA/TAP 10UF 16V
CP403	J4420030340X	CNT PLUG 2.0 ST 3P	C797	2026783030	CE 47U0F +20% 16.0
CP404	J4420030740X	CNT PLUG 2.0ST 7P	C798	2026783030	CE 47U0F +20% 16.0
CP405	J4420031240X	CNT PLUG12P 2.0MM	C799	2026783030	CE 47U0F +20% 16.0
IC701	J2115206007X	IC TC9273N-007	C800	J3470910030X	CE RA/TAP 10UF 16V
IC702	J2115206007X	IC TC9273N-007	C801	J3470910030X	CE RA/TAP 10UF 16V
JK701	J44302401201	JACK RCA 4P S	C802	J3470910030X	CE RA/TAP 10UF 16V
JK701	J44306000101	JACK RCA 6P GND W/	C804	J3470910030X	CE RA/TAP 10UF 16V
JK702	J44302401201	JACK RCA 4P S	C805	J3470910030X	CE RA/TAP 10UF 16V
JK703	J44302001401	JACK RCA 2P WR JW1	C807	2026783030	CE 47U0F +20% 16.0
JK703	J44302401201	JACK RCA 4P S	C808	J3470910030X	CE RA/TAP 10UF 16V
C709	J3470910030X	CE RA/TAP 10UF 16V	C809	J3470910030X	CE RA/TAP 10UF 16V
C710	2026783030	CE 47U0F +20% 16.0	C811	2026783030	CE 47U0F +20% 16.0
C711	J3470910030X	CE RA/TAP 10UF 16V	C813	J3470910030X	CE RA/TAP 10UF 16V
C714	J3470910030X	CE RA/TAP 10UF 16V	C814	J3470910030X	CE RA/TAP 10UF 16V
C715	2026783030	CE 47U0F +20% 16.0	C816	2026783030	CE 47U0F +20% 16.0
C716	J3470910030X	CE RA/TAP 10UF 16V	C818	J3470910030X	CE RA/TAP 10UF 16V
C723	J3470910030X	CE RA/TAP 10UF 16V	C819	J3470910030X	CE RA/TAP 10UF 16V
C724	2026783030	CE 47U0F +20% 16.0	C821	2026783030	CE 47U0F +20% 16.0
C725	J3470910030X	CE RA/TAP 10UF 16V	C822	J3470910030X	CE RA/TAP 10UF 16V
C728	J3470910030X	CE RA/TAP 10UF 16V	C823	J3470910030X	CE RA/TAP 10UF 16V
C729	2026783030	CE 47U0F +20% 16.0	C825	2026783030	CE 47U0F +20% 16.0
C730	J3470910030X	CE RA/TAP 10UF 16V	C826	J3470910030X	CE RA/TAP 10UF 16V
C741	J3470910030X	CE RA/TAP 10UF 16V	C827	J3470910030X	CE RA/TAP 10UF 16V
C742	2026783030	CE 47U0F +20% 16.0	C829	2026783030	CE 47U0F +20% 16.0
C743	J3470910030X	CE RA/TAP 10UF 16V	C831	J3470910030X	CE RA/TAP 10UF 16V
C744	J3470910030X	CE RA/TAP 10UF 16V	C832	J3470910030X	CE RA/TAP 10UF 16V
C745	2026783030	CE 47U0F +20% 16.0	C834	2026783030	CE 47U0F +20% 16.0
C746	J3470910030X	CE RA/TAP 10UF 16V	C836	J3470910030X	CE RA/TAP 10UF 16V
C747	J3470910030X	CE RA/TAP 10UF 16V	C837	J3470910030X	CE RA/TAP 10UF 16V
C749	2026783030	CE 47U0F +20% 16.0	C839	2026783030	CE 47U0F +20% 16.0
C751	J3470910030X	CE RA/TAP 10UF 16V	C841	J3470910030X	CE RA/TAP 10UF 16V
C752	J3470910030X	CE RA/TAP 10UF 16V	C842	J3470910030X	CE RA/TAP 10UF 16V
C754	2026783030	CE 47U0F +20% 16.0	C844	2026783030	CE 47U0F +20% 16.0
C756	J3470910030X	CE RA/TAP 10UF 16V	C846	J3470910030X	CE RA/TAP 10UF 16V
C757	2026783030	CE 47U0F +20% 16.0	C847	J3470910030X	CE RA/TAP 10UF 16V
C758	2026783030	CE 47U0F +20% 16.0	C849	2026783030	CE 47U0F +20% 16.0
C760	2026783030	CE 47U0F +20% 16.0	C851	J3470910030X	CE RA/TAP 10UF 16V
C761	2026783030	CE 47U0F +20% 16.0	C852	J3470910030X	CE RA/TAP 10UF 16V
C764	2026783030	CE 47U0F +20% 16.0	C854	2026783030	CE 47U0F +20% 16.0
C765	2026783030	CE 47U0F +20% 16.0	C856	J3470910030X	CE RA/TAP 10UF 16V
C768	2026783030	CE 47U0F +20% 16.0	C857	J3470910030X	CE RA/TAP 10UF 16V
C769	2026783030	CE 47U0F +20% 16.0	C859	2026783030	CE 47U0F +20% 16.0
C770	2026783030	CE 47U0F +20% 16.0	C861	J3470133111X	CE 330U 6V3 M 6.3*
C771	2026783030	CE 47U0F +20% 16.0	C862	J3470910030X	CE RA/TAP 10UF 16V
C773	2026783030	CE 47U0F +20% 16.0	C864	2026783030	CE 47U0F +20% 16.0

Designator	Part#	Description	Designator	Part#	Description
C866	J3470133111X	CE 330U 6V3 M 6.3*	C868	1105867091	CCCFMIN 100P0F +5%
C867	2026783030	CE 47U0F +20% 16.0	C869	1105867091	CCCFMIN 100P0F +5%
Q732	J2021120003X	FET RA/TAP 2SK117Y	C870	1105867091	CCCFMIN 100P0F +5%
C701	1105867091	CCCFMIN 100P0F +5%	C871	1105867091	CCCFMIN 100P0F +5%
C702	1105867091	CCCFMIN 100P0F +5%	IC703	J2115006001X	IC VOL TC9459F SOP
C703	1105867091	CCCFMIN 100P0F +5%	IC704	J2121005001X	IC SW KIC9162AF SO
C704	1105867091	CCCFMIN 100P0F +5%	IC705	J2121005002X	IC SW KIC9163AF SO
C705	1105867091	CCCFMIN 100P0F +5%	IC706	J2115006002X	IC VOL TC9482F SOP
C706	1105867091	CCCFMIN 100P0F +5%	IC707	J2110012004X	IC OPAMP NJM2068
C707	1105867091	CCCFMIN 100P0F +5%	IC708	J2110012004X	IC OPAMP NJM2068
C708	1105867091	CCCFMIN 100P0F +5%	IC709	J2110012004X	IC OPAMP NJM2068
C712	1105867091	CCCFMIN 100P0F +5%	IC710	J2110012004X	IC OPAMP NJM2068
C713	1105867091	CCCFMIN 100P0F +5%	IC711	J2110012004X	IC OPAMP NJM2068
C717	1105867091	CCCFMIN 100P0F +5%	IC712	J2110012004X	IC OPAMP NJM2068
C718	1105867091	CCCFMIN 100P0F +5%	IC713	J2110012004X	IC OPAMP NJM2068
C719	1105867091	CCCFMIN 100P0F +5%	IC714	J2110012004X	IC OPAMP NJM2068
C720	1105867091	CCCFMIN 100P0F +5%	IC715	J2110012004X	IC OPAMP NJM2068
C721	1105867091	CCCFMIN 100P0F +5%	IC716	J2110012004X	IC OPAMP NJM2068
C722	1105867091	CCCFMIN 100P0F +5%	IC717	J2110012004X	IC OPAMP NJM2068
C726	1105867091	CCCFMIN 100P0F +5%	IC718	J2110012004X	IC OPAMP NJM2068
C727	1105867091	CCCFMIN 100P0F +5%	IC719	J2110012005X	IC AMP NJM4556AM D
C731	1105867091	CCCFMIN 100P0F +5%	IC720	J2110012004X	IC OPAMP NJM2068
C732	1105867091	CCCFMIN 100P0F +5%	IC721	J2110012004X	IC OPAMP NJM2068
C733	1105867091	CCCFMIN 100P0F +5%	IC722	J2110012004X	IC OPAMP NJM2068
C734	1105867091	CCCFMIN 100P0F +5%	JUM10	8044051091	RMGCFMIN 0 OHM +0%
C735	1105867091	CCCFMIN 100P0F +5%	JUM10	8044051091	RMGCFMIN 0 OHM +0%
C736	1105867091	CCCFMIN 100P0F +5%	JUM12	8044051091	RMGCFMIN 0 OHM +0%
C737	1105867091	CCCFMIN 100P0F +5%	JUM12	8044051091	RMGCFMIN 0 OHM +0%
C738	1105867091	CCCFMIN 100P0F +5%	JUM15	8044051091	RMGCFMIN 0 OHM +0%
C739	1105867091	CCCFMIN 100P0F +5%	JUM15	8044051091	RMGCFMIN 0 OHM +0%
C740	1105867091	CCCFMIN 100P0F +5%	JUM15	8044051091	RMGCFMIN 0 OHM +0%
C750	5088236091	CCCFMIN 33P0F +5%	JUM18	8044051091	RMGCFMIN 0 OHM +0%
C755	5088236091	CCCFMIN 33P0F +5%	JUM19	8044051091	RMGCFMIN 0 OHM +0%
C759	1105867091	CCCFMIN 100P0F +5%	JUM19	8044051091	RMGCFMIN 0 OHM +0%
C762	1105867091	CCCFMIN 100P0F +5%	JUM20	8044051091	RMGCFMIN 0 OHM +0%
C763	1105867091	CCCFMIN 100P0F +5%	JUM20	8044051091	RMGCFMIN 0 OHM +0%
C767	1105867091	CCCFMIN 100P0F +5%	JUM21	8044051091	RMGCFMIN 0 OHM +0%
C772	1105867091	CCCFMIN 100P0F +5%	JUM24	8044051091	RMGCFMIN 0 OHM +0%
C775	1105867091	CCCFMIN 100P0F +5%	JUM24	8044051091	RMGCFMIN 0 OHM +0%
C793	1105933091	CCCFMIN 2N2F +10%	JUM24	8044051091	RMGCFMIN 0 OHM +0%
C794	1105933091	CCCFMIN 2N2F +10%	JUM26	8044051091	RMGCFMIN 0 OHM +0%
C812	5088236091	CCCFMIN 33P0F +5%	JUM26	8044051091	RMGCFMIN 0 OHM +0%
C817	5088236091	CCCFMIN 33P0F +5%	JUM27	8044051091	RMGCFMIN 0 OHM +0%
C820	1105867091	CCCFMIN 100P0F +5%	JUM27	8044051091	RMGCFMIN 0 OHM +0%
C824	1105867091	CCCFMIN 100P0F +5%	JUM27	8044051091	RMGCFMIN 0 OHM +0%
C828	1105867091	CCCFMIN 100P0F +5%	JUM27	8044051091	RMGCFMIN 0 OHM +0%
C830	5088236091	CCCFMIN 33P0F +5%	JUM27	8044051091	RMGCFMIN 0 OHM +0%
C833	1105867091	CCCFMIN 100P0F +5%	JUM5	8044051091	RMGCFMIN 0 OHM +0%
C835	5088236091	CCCFMIN 33P0F +5%	JUM50	8044051091	RMGCFMIN 0 OHM +0%
C838	1105867091	CCCFMIN 100P0F +5%	JUM51	8044051091	RMGCFMIN 0 OHM +0%
C840	5088236091	CCCFMIN 33P0F +5%	JUM52	8044051091	RMGCFMIN 0 OHM +0%
C843	1105867091	CCCFMIN 100P0F +5%	JUM53	8044051091	RMGCFMIN 0 OHM +0%
C845	5088236091	CCCFMIN 33P0F +5%	JUM85	8044051091	RMGCFMIN 0 OHM +0%
C848	1105867091	CCCFMIN 100P0F +5%	JUM9	8044051091	RMGCFMIN 0 OHM +0%
C850	1105933091	CCCFMIN 2N2F +10%	JUM90	8044051091	RMGCFMIN 0 OHM +0%
C853	1105867091	CCCFMIN 100P0F +5%	JUM92	8044051091	RMGCFMIN 0 OHM +0%
C855	5088236091	CCCFMIN 33P0F +5%	Q701	J2021220801X	TR NPN KTD1304
C858	8043682091	CCCFMIN 680P0F +10	Q702	J2021220801X	TR NPN KTD1304
C860	8043682091	CCCFMIN 680P0F +10	Q703	J2041200101X	TR PNP KRA107S
C863	8043682091	CCCFMIN 680P0F +10	Q703	J2041200102X	TR PNP DTA114YKA
C865	8043682091	CCCFMIN 680P0F +10	Q704	J2021220801X	TR NPN KTD1304

Designator	Part#	Description	Designator	Part#	Description
Q705	J2021220801X	TR NPN KTD1304	R719	8044039091	RMGCFMIN 2K2 OHM +
Q706	J2041200101X	TR PNP KRA107S	R720	8044039091	RMGCFMIN 2K2 OHM +
Q706	J2041200102X	TR PNP DTA114YKA	R721	9057440091	RMGCFMIN 470R0 OHM
Q707	J2041200101X	TR PNP KRA107S	R722	4043835091	RMGCFMIN 470K0 OHM
Q707	J2041200102X	TR PNP DTA114YKA	R723	9057440091	RMGCFMIN 470R0 OHM
Q708	J2021220801X	TR NPN KTD1304	R724	4043835091	RMGCFMIN 470K0 OHM
Q709	J2021220801X	TR NPN KTD1304	R725	8044039091	RMGCFMIN 2K2 OHM +
Q710	J2021220801X	TR NPN KTD1304	R726	8044039091	RMGCFMIN 2K2 OHM +
Q711	J2021220801X	TR NPN KTD1304	R727	7043420091	RMGCFMIN 100R0 OHM
Q712	J2041200101X	TR PNP KRA107S	R728	9057440091	RMGCFMIN 470R0 OHM
Q712	J2041200102X	TR PNP DTA114YKA	R729	2047202091	RMGCFMIN 180K0 OHM
Q713	J2021220801X	TR NPN KTD1304	R730	5088663091	RMGCFMIN 100K0 OHM
Q714	J2021220801X	TR NPN KTD1304	R731	2047195091	RMGCFMIN 1K0 OHM +
Q715	J2041200101X	TR PNP KRA107S	R732	9057440091	RMGCFMIN 470R0 OHM
Q715	J2041200102X	TR PNP DTA114YKA	R733	2047202091	RMGCFMIN 180K0 OHM
Q716	J2021220801X	TR NPN KTD1304	R734	5088663091	RMGCFMIN 100K0 OHM
Q717	J2021220801X	TR NPN KTD1304	R735	2047195091	RMGCFMIN 1K0 OHM +
Q718	J2041200101X	TR PNP KRA107S	R736	7043420091	RMGCFMIN 100R0 OHM
Q718	J2041200102X	TR PNP DTA114YKA	R737	9057440091	RMGCFMIN 470R0 OHM
Q719	J2021220801X	TR NPN KTD1304	R738	4043835091	RMGCFMIN 470K0 OHM
Q720	J2021220801X	TR NPN KTD1304	R739	9057440091	RMGCFMIN 470R0 OHM
Q721	J2041200101X	TR PNP KRA107S	R740	4043835091	RMGCFMIN 470K0 OHM
Q721	J2041200102X	TR PNP DTA114YKA	R741	9057440091	RMGCFMIN 470R0 OHM
Q722	J2021220801X	TR NPN KTD1304	R742	4043835091	RMGCFMIN 470K0 OHM
Q723	J2021220801X	TR NPN KTD1304	R743	9057440091	RMGCFMIN 470R0 OHM
Q724	J2041200101X	TR PNP KRA107S	R744	4043835091	RMGCFMIN 470K0 OHM
Q724	J2041200102X	TR PNP DTA114YKA	R745	7043420091	RMGCFMIN 100R0 OHM
Q725	J2041200101X	TR PNP KRA107S	R746	9057440091	RMGCFMIN 470R0 OHM
Q725	J2041200102X	TR PNP DTA114YKA	R747	1106648091	RMGCFMIN 47K0 OHM
Q727	J2021220801X	TR NPN KTD1304	R748	5088663091	RMGCFMIN 100K0 OHM
Q729	J2021220801X	TR NPN KTD1304	R749	9057440091	RMGCFMIN 470R0 OHM
Q730	J2041200101X	TR PNP KRA107S	R750	1106648091	RMGCFMIN 47K0 OHM
Q730	J2041200102X	TR PNP DTA114YKA	R751	5088663091	RMGCFMIN 100K0 OHM
Q731	J2041220102X	TR NPN DTC114YKA	R752	7043420091	RMGCFMIN 100R0 OHM
Q731	J2041220201X	TR CHIP NPN KRC107	R753	7043420091	RMGCFMIN 100R0 OHM
Q733	J2041200101X	TR PNP KRA107S	R754	9057440091	RMGCFMIN 470R0 OHM
Q733	J2041200102X	TR PNP DTA114YKA	R756	5088663091	RMGCFMIN 100K0 OHM
Q734	J2041220102X	TR NPN DTC114YKA	R757	2047195091	RMGCFMIN 1K0 OHM +
Q734	J2041220201X	TR CHIP NPN KRC107	R758	5088660091	RMGCFMIN 5K1 OHM +
Q735	J2041200101X	TR PNP KRA107S	R759	5088663091	RMGCFMIN 100K0 OHM
Q735	J2041200102X	TR PNP DTA114YKA	R760	9057440091	RMGCFMIN 470R0 OHM
Q736	J2041200101X	TR PNP KRA107S	R761	5088663091	RMGCFMIN 100K0 OHM
Q736	J2041200102X	TR PNP DTA114YKA	R762	2047195091	RMGCFMIN 1K0 OHM +
R701	9057440091	RMGCFMIN 470R0 OHM	R763	5088660091	RMGCFMIN 5K1 OHM +
R702	4043835091	RMGCFMIN 470K0 OHM	R764	5088663091	RMGCFMIN 100K0 OHM
R703	9057440091	RMGCFMIN 470R0 OHM	R765	7043420091	RMGCFMIN 100R0 OHM
R704	4043835091	RMGCFMIN 470K0 OHM	R766	8044039091	RMGCFMIN 2K2 OHM +
R705	9057440091	RMGCFMIN 470R0 OHM	R767	8044039091	RMGCFMIN 2K2 OHM +
R706	4043835091	RMGCFMIN 470K0 OHM	R768	2047195091	RMGCFMIN 1K0 OHM +
R707	9057440091	RMGCFMIN 470R0 OHM	R769	2047195091	RMGCFMIN 1K0 OHM +
R708	4043835091	RMGCFMIN 470K0 OHM	R770	7043420091	RMGCFMIN 100R0 OHM
R709	7043420091	RMGCFMIN 100R0 OHM	R771	9057440091	RMGCFMIN 470R0 OHM
R710	9057440091	RMGCFMIN 470R0 OHM	R772	4043835091	RMGCFMIN 470K0 OHM
R711	2047202091	RMGCFMIN 180K0 OHM	R773	5088663091	RMGCFMIN 100K0 OHM
R712	5088663091	RMGCFMIN 100K0 OHM	R774	9057440091	RMGCFMIN 470R0 OHM
R713	2047195091	RMGCFMIN 1K0 OHM +	R775	4043835091	RMGCFMIN 470K0 OHM
R714	9057440091	RMGCFMIN 470R0 OHM	R776	5088663091	RMGCFMIN 100K0 OHM
R715	2047202091	RMGCFMIN 180K0 OHM	R778	7043420091	RMGCFMIN 100R0 OHM
R716	5088663091	RMGCFMIN 100K0 OHM	R779	8044039091	RMGCFMIN 2K2 OHM +
R717	2047195091	RMGCFMIN 1K0 OHM +	R780	8044039091	RMGCFMIN 2K2 OHM +
R718	7043420091	RMGCFMIN 100R0 OHM	R781	7043420091	RMGCFMIN 100R0 OHM

Designator	Part#	Description	Designator	Part#	Description
R782	7043420091	RMGCFMIN 100R0 OHM	R848	2047199091	RMGCFMIN 12K0 OHM
R783	2047195091	RMGCFMIN 1K0 OHM +	R849	2047199091	RMGCFMIN 12K0 OHM
R784	2047195091	RMGCFMIN 1K0 OHM +	R850	2047199091	RMGCFMIN 12K0 OHM
R785	2047195091	RMGCFMIN 1K0 OHM +	R851	1106644091	RMGCFMIN 3K3 OHM +
R786	2047195091	RMGCFMIN 1K0 OHM +	R852	1106644091	RMGCFMIN 3K3 OHM +
R787	2047195091	RMGCFMIN 1K0 OHM +	R853	5088663091	RMGCFMIN 100K0 OHM
R788	2047195091	RMGCFMIN 1K0 OHM +	R854	8044039091	RMGCFMIN 2K2 OHM +
R789	7043420091	RMGCFMIN 100R0 OHM	R855	8044039091	RMGCFMIN 2K2 OHM +
R790	7043420091	RMGCFMIN 100R0 OHM	R856	8044039091	RMGCFMIN 2K2 OHM +
R791	7043420091	RMGCFMIN 100R0 OHM	R857	8044039091	RMGCFMIN 2K2 OHM +
R792	7043420091	RMGCFMIN 100R0 OHM	R858	8044039091	RMGCFMIN 2K2 OHM +
R793	2047195091	RMGCFMIN 1K0 OHM +	R859	8044039091	RMGCFMIN 2K2 OHM +
R794	2047195091	RMGCFMIN 1K0 OHM +	R860	3094432091	RMGCFMIN 9K1 OHM +
R795	2047195091	RMGCFMIN 1K0 OHM +	R861	3094432091	RMGCFMIN 9K1 OHM +
R796	2047195091	RMGCFMIN 1K0 OHM +	R861	9057443091	RMGCFMIN 18K0 OHM
R797	2047195091	RMGCFMIN 1K0 OHM +	R862	9057443091	RMGCFMIN 18K0 OHM
R798	2047195091	RMGCFMIN 1K0 OHM +	R863	9057443091	RMGCFMIN 18K0 OHM
R799	7043420091	RMGCFMIN 100R0 OHM	R864	2047192091	RMGCFMIN 220R0 OHM
R800	7043420091	RMGCFMIN 100R0 OHM	R865	8044039091	RMGCFMIN 2K2 OHM +
R801	7043420091	RMGCFMIN 100R0 OHM	R866	8044039091	RMGCFMIN 2K2 OHM +
R802	7043420091	RMGCFMIN 100R0 OHM	R867	7043420091	RMGCFMIN 100R0 OHM
R803	2047195091	RMGCFMIN 1K0 OHM +	R868	7043420091	RMGCFMIN 100R0 OHM
R804	2047195091	RMGCFMIN 1K0 OHM +	R869	7043420091	RMGCFMIN 100R0 OHM
R805	2047195091	RMGCFMIN 1K0 OHM +	R870	7043420091	RMGCFMIN 100R0 OHM
R806	7043420091	RMGCFMIN 100R0 OHM	R871	7043420091	RMGCFMIN 100R0 OHM
R807	7043420091	RMGCFMIN 100R0 OHM	R872	7043420091	RMGCFMIN 100R0 OHM
R808	2047195091	RMGCFMIN 1K0 OHM +	R873	7043420091	RMGCFMIN 100R0 OHM
R809	2047195091	RMGCFMIN 1K0 OHM +	R874	7043420091	RMGCFMIN 100R0 OHM
R810	2047195091	RMGCFMIN 1K0 OHM +	R875	7043420091	RMGCFMIN 100R0 OHM
R811	7043420091	RMGCFMIN 100R0 OHM	R876	7043420091	RMGCFMIN 100R0 OHM
R812	9057440091	RMGCFMIN 470R0 OHM	R878	7043420091	RMGCFMIN 100R0 OHM
R813	2047202091	RMGCFMIN 180K0 OHM	R879	7043420091	RMGCFMIN 100R0 OHM
R814	5088663091	RMGCFMIN 100K0 OHM	R880	7043420091	RMGCFMIN 100R0 OHM
R815	2047195091	RMGCFMIN 1K0 OHM +	R881	7043420091	RMGCFMIN 100R0 OHM
R816	9057440091	RMGCFMIN 470R0 OHM	R882	9057440091	RMGCFMIN 470R0 OHM
R817	2047202091	RMGCFMIN 180K0 OHM	R883	2047202091	RMGCFMIN 180K0 OHM
R818	5088663091	RMGCFMIN 100K0 OHM	R884	5088663091	RMGCFMIN 100K0 OHM
R819	2047195091	RMGCFMIN 1K0 OHM +	R885	9057440091	RMGCFMIN 470R0 OHM
R820	7043420091	RMGCFMIN 100R0 OHM	R886	2047202091	RMGCFMIN 180K0 OHM
R821	8044039091	RMGCFMIN 2K2 OHM +	R887	5088663091	RMGCFMIN 100K0 OHM
R822	8044039091	RMGCFMIN 2K2 OHM +	R888	9057440091	RMGCFMIN 470R0 OHM
R823	3094434091	RMGCFMIN 27K0 OHM	R889	2047202091	RMGCFMIN 180K0 OHM
R823	5088661091	RMGCFMIN 10K0 OHM	R890	2047195091	RMGCFMIN 1K0 OHM +
R830	1106648091	RMGCFMIN 47K0 OHM	R891	8044040091	RMGCFMIN 5K6 OHM +
R831	9057440091	RMGCFMIN 470R0 OHM	R892	5088663091	RMGCFMIN 100K0 OHM
R832	5088663091	RMGCFMIN 100K0 OHM	R893	9057440091	RMGCFMIN 470R0 OHM
R833	8044039091	RMGCFMIN 2K2 OHM +	R894	2047202091	RMGCFMIN 180K0 OHM
R834	8044040091	RMGCFMIN 5K6 OHM +	R895	2047195091	RMGCFMIN 1K0 OHM +
R835	5088663091	RMGCFMIN 100K0 OHM	R896	8044040091	RMGCFMIN 5K6 OHM +
R836	7043420091	RMGCFMIN 100R0 OHM	R897	5088663091	RMGCFMIN 100K0 OHM
R837	7043420091	RMGCFMIN 100R0 OHM	R898	9057440091	RMGCFMIN 470R0 OHM
R838	8044048091	RMGCFMIN 3M3 OHM +	R899	5088663091	RMGCFMIN 100K0 OHM
R839	7043420091	RMGCFMIN 100R0 OHM	R901	8044040091	RMGCFMIN 5K6 OHM +
R840	7043420091	RMGCFMIN 100R0 OHM	R902	5088663091	RMGCFMIN 100K0 OHM
R841	5088663091	RMGCFMIN 100K0 OHM	R903	2047195091	RMGCFMIN 1K0 OHM +
R842	2047199091	RMGCFMIN 12K0 OHM	R904	9057440091	RMGCFMIN 470R0 OHM
R843	2047199091	RMGCFMIN 12K0 OHM	R905	5088663091	RMGCFMIN 100K0 OHM
R844	2047199091	RMGCFMIN 12K0 OHM	R907	8044040091	RMGCFMIN 5K6 OHM +
R845	1106644091	RMGCFMIN 3K3 OHM +	R908	5088663091	RMGCFMIN 100K0 OHM
R846	1106644091	RMGCFMIN 3K3 OHM +	R909	2047195091	RMGCFMIN 1K0 OHM +
R847	5088663091	RMGCFMIN 100K0 OHM	R910	9057440091	RMGCFMIN 470R0 OHM

Designator	Part#	Description
R911	5088663091	RMGCFMIN 100K0 OHM
R912	2047195091	RMGCFMIN 1K0 OHM +
R913	8044040091	RMGCFMIN 5K6 OHM +
R914	5088663091	RMGCFMIN 100K0 OHM
R915	2047195091	RMGCFMIN 1K0 OHM +
R916	9057440091	RMGCFMIN 470R0 OHM
R917	5088663091	RMGCFMIN 100K0 OHM
R918	2047195091	RMGCFMIN 1K0 OHM +
R919	5088661091	RMGCFMIN 10K0 OHM
R920	5088663091	RMGCFMIN 100K0 OHM
R921	2047195091	RMGCFMIN 1K0 OHM +
R922	9057440091	RMGCFMIN 470R0 OHM
R923	5088663091	RMGCFMIN 100K0 OHM
R924	2047195091	RMGCFMIN 1K0 OHM +
R925	8044040091	RMGCFMIN 5K6 OHM +
R926	5088663091	RMGCFMIN 100K0 OHM
R927	2047195091	RMGCFMIN 1K0 OHM +
R928	9057440091	RMGCFMIN 470R0 OHM
R929	5088663091	RMGCFMIN 100K0 OHM
R930	2047195091	RMGCFMIN 1K0 OHM +
R931	2047196091	RMGCFMIN 1K8 OHM +
R931	4043829091	RMGCFMIN 1K5 OHM +
R931	8044039091	RMGCFMIN 2K2 OHM +
R932	5088663091	RMGCFMIN 100K0 OHM
R933	2047192091	RMGCFMIN 220R0 OHM
R934	9057440091	RMGCFMIN 470R0 OHM
R935	3094434091	RMGCFMIN 27K0 OHM
R936	5088663091	RMGCFMIN 100K0 OHM
R937	2047195091	RMGCFMIN 1K0 OHM +
R938	2047196091	RMGCFMIN 1K8 OHM +
R938	4043829091	RMGCFMIN 1K5 OHM +
R938	8044039091	RMGCFMIN 2K2 OHM +
R939	5088663091	RMGCFMIN 100K0 OHM
R940	2047192091	RMGCFMIN 220R0 OHM
R941	3094432091	RMGCFMIN 9K1 OHM +
R942	9057440091	RMGCFMIN 470R0 OHM
R943	2047202091	RMGCFMIN 180K0 OHM
R944	5088663091	RMGCFMIN 100K0 OHM
R945	9057440091	RMGCFMIN 470R0 OHM
R946	2047202091	RMGCFMIN 180K0 OHM
R947	5088663091	RMGCFMIN 100K0 OHM
R948	3094434091	RMGCFMIN 27K0 OHM
R949	2047192091	RMGCFMIN 220R0 OHM
R950	9057440091	RMGCFMIN 470R0 OHM
R951	2047195091	RMGCFMIN 1K0 OHM +
R952	2047195091	RMGCFMIN 1K0 OHM +
R953	5088663091	RMGCFMIN 100K0 OHM
R954	8044040091	RMGCFMIN 5K6 OHM +
R955	5088663091	RMGCFMIN 100K0 OHM
R956	3094432091	RMGCFMIN 9K1 OHM +
R956	9057443091	RMGCFMIN 18K0 OHM
R957	2047195091	RMGCFMIN 1K0 OHM +
R958	2047195091	RMGCFMIN 1K0 OHM +
R959	2047195091	RMGCFMIN 1K0 OHM +
R960	2047195091	RMGCFMIN 1K0 OHM +
R961	2047195091	RMGCFMIN 1K0 OHM +
R962	2047195091	RMGCFMIN 1K0 OHM +
R963	5088655091	RMGCFMIN 560R0 OHM
R964	5088655091	RMGCFMIN 560R0 OHM
R965	9057440091	RMGCFMIN 470R0 OHM
R966	9057440091	RMGCFMIN 470R0 OHM

Designator	Part#	Description
R967	3094434091	RMGCFMIN 27K0 OHM
R968	3094434091	RMGCFMIN 27K0 OHM
R969	9057443091	RMGCFMIN 18K0 OHM
R970	9057443091	RMGCFMIN 18K0 OHM

DSP PCB

'050	J60600014000	SHIELD DIGITAL ET
CN05	J4305100060X	CNT ASSY 5P 480MM
COIL1	J2831020205X	TRANS PULSE 110UH
COIL2	J2831020305X	TRANS PULSE 110UH
CP01	J4422212140X	FPC PLUG 21P 1.25M
CP02	J4423331100X	CNT PLUG BD'BD 2.0
CP03	J4423331600X	CNT PLUG BD'BD 2.0
CP04	J4420130540X	CNT 2.0MM 5P
C112	2025256030	CE 220U0F +20% 6.3
C148	20269180AM	CE 1MI0F +20% 6.3V
C149	20269180AM	CE 1MI0F +20% 6.3V
C150	20269180AM	CE 1MI0F +20% 6.3V
JAC1	J2123806001X	FIBER TORX178B
JAC2	J2123806001X	FIBER TORX178B
JAC3	J44302001100	JACK RA 2P OO JC02
JAC4	J2123806002X	FIBER OPT TRANS
JAC5	J44301000700	JACK RCA 1P O W/GN
JAC6	J2123806001X	FIBER TORX178B
JAC7	J44301000600	JACK RCA 1P O W/GN
OSC1	J3914010025X	CRY 12.28MHZ
RLY1	J5511610020X	RELAY TSC-105L3H
2 W001	J4305100020X	LUG WIRE 1P 100MM
C020	J3640683220X	CMP 0.068U 63V J
C031	2026884030	CE 1U0F +20% 50.0V
C032	2026884030	CE 1U0F +20% 50.0V
C056	2026885030	CE 2U2F +20% 50.0V
C068	J3470910030X	CE RA/TAP 10UF 16V
C069	J3470910030X	CE RA/TAP 10UF 16V
C070	J3470910030X	CE RA/TAP 10UF 16V
C071	J3470910030X	CE RA/TAP 10UF 16V
C080	J3470910030X	CE RA/TAP 10UF 16V
C081	J3470910030X	CE RA/TAP 10UF 16V
C082	J3470910030X	CE RA/TAP 10UF 16V
C083	J3470910030X	CE RA/TAP 10UF 16V
C092	J3470910030X	CE RA/TAP 10UF 16V
C093	J3470910030X	CE RA/TAP 10UF 16V
C094	J3470910030X	CE RA/TAP 10UF 16V
C095	J3470910030X	CE RA/TAP 10UF 16V
C110	J3470910030X	CE RA/TAP 10UF 16V
C111	J3470910030X	CE RA/TAP 10UF 16V
C114	2026884030	CE 1U0F +20% 50.0V
C115	2026884030	CE 1U0F +20% 50.0V
C116	2026884030	CE 1U0F +20% 50.0V
C117	2026884030	CE 1U0F +20% 50.0V
C118	2026884030	CE 1U0F +20% 50.0V
C119	2026884030	CE 1U0F +20% 50.0V
C144	J3470910030X	CE RA/TAP 10UF 16V
C145	J3470910030X	CE RA/TAP 10UF 16V
C146	J3470910030X	CE RA/TAP 10UF 16V
C151	2026902030	CE 100U0F +20% 16.
C152	2026902030	CE 100U0F +20% 16.
C153	2026783030	CE 47U0F +20% 16.0
C154	2026783030	CE 47U0F +20% 16.0
C155	J3470910030X	CE RA/TAP 10UF 16V

Designator	Part#	Description	Designator	Part#	Description
C156	J3470910030X	CE RA/TAP 10UF 16V	C136	2026729091	CCCFMIN 100N0F +80
C157	J3470910030X	CE RA/TAP 10UF 16V	C138	1105867091	CCCFMIN 100P0F +5%
C158	J3470910030X	CE RA/TAP 10UF 16V	C139	1105867091	CCCFMIN 100P0F +5%
C159	J3470910030X	CE RA/TAP 10UF 16V	C163	7043420091	RMGCFMIN 100R0 OHM
C160	J3470910030X	CE RA/TAP 10UF 16V	C178	2026729091	CCCFMIN 100N0F +80
C164	2026783030	CE 47U0F +20% 16.0	D003	J2244010104X	DIODE CHIP 1SS355
C165	2026783030	CE 47U0F +20% 16.0	D004	J2244010104X	DIODE CHIP 1SS355
C167	2026783030	CE 47U0F +20% 16.0	D005	J2244010104X	DIODE CHIP 1SS355
C168	2026783030	CE 47U0F +20% 16.0	D008	J2244010104X	DIODE CHIP 1SS355
BD05	J2631300204X	BEAD CHIP/TAP HB-1	IC01	J2129012001X	IC CLK NJU6324M
BD16	J2631300204X	BEAD CHIP/TAP HB-1			
BD18	J2631300204X	BEAD CHIP/TAP HB-1	IC04	55172540AVR510	IC EPROM AT27LV020
BD61	J2631300204X	BEAD CHIP/TAP HB-1	IC05	J2135326005X	IC CS493263-CL PLC
C003	1105934091	CCCFMIN 10N0F +10%	IC06	J2133926005X	IC DAC CS4391-KS S
C004	1105934091	CCCFMIN 10N0F +10%	IC07	J2133926005X	IC DAC CS4391-KS S
C010	6044108091	CCCFMIN 22P0F +5%	IC08	J2133926005X	IC DAC CS4391-KS S
C011	1105934091	CCCFMIN 10N0F +10%	IC09	J2133926002X	IC ADC CS5360-KS
C019	2026729091	CCCFMIN 100N0F +80	IC10	J2116007001X	IC 74HCU04M1R HEX
C021	4043518091	CCCFMIN 47P0F +5%	IC11	J2116007001X	IC 74HCU04M1R HEX
C023	4043518091	CCCFMIN 47P0F +5%	IC12	J2116007001X	IC 74HCU04M1R HEX
C024	4043518091	CCCFMIN 47P0F +5%	IC13	J2142032005X	IC 74VHC153MX
C025	4043518091	CCCFMIN 47P0F +5%	IC14	J2136926001X	IC DIR CS8414-CS
C028	4043518091	CCCFMIN 47P0F +5%	IC15	J2141004002X	IC BU4094 SOP16
C055	4043518091	CCCFMIN 47P0F +5%	IC16	J2141004001X	IC BU4051 SOP16
C057	2026732091	CCCFMIN 220N0F +80	IC17	J2142032006X	IC 74VHC157MX
C060	2047195091	RMGCFMIN 1K0 OHM +	IC18	J2142032002X	IC TC74VHC244MX
C062	1105864091	CCCFMIN 27P0F +5%	IC19	J2142032002X	IC TC74VHC244MX
C067	4043518091	CCCFMIN 47P0F +5%	IC20	J2110012004X	IC OPAMP NJM2068
C072	3093923091	CCCFMIN 2N7F +10%	IC21	J2110012004X	IC OPAMP NJM2068
C073	3093923091	CCCFMIN 2N7F +10%	IC22	J2110012004X	IC OPAMP NJM2068
C074	1105871091	CCCFMIN 560P0F +5%	IC23	J2121012002X	IC SW NJU201AM
C075	3093923091	CCCFMIN 2N7F +10%	IC24	J2110012004X	IC OPAMP NJM2068
C076	3093923091	CCCFMIN 2N7F +10%	IC25	J2110012004X	IC OPAMP NJM2068
C077	1105871091	CCCFMIN 560P0F +5%	IC28	J2110012004X	IC OPAMP NJM2068
C078	1105871091	CCCFMIN 560P0F +5%	J001	J2611447822X	COIL CHIP 0.47UH K
C079	1105871091	CCCFMIN 560P0F +5%	J002	8044051091	RMGCFMIN 0 OHM +0%
C084	3093923091	CCCFMIN 2N7F +10%	J003	8044051091	RMGCFMIN 0 OHM +0%
C085	3093923091	CCCFMIN 2N7F +10%	J004	8044051091	RMGCFMIN 0 OHM +0%
C086	1105871091	CCCFMIN 560P0F +5%	L001	J2611433022X	COIL CHIP 33UH K F
C087	3093923091	CCCFMIN 2N7F +10%	L002	J2611433022X	COIL CHIP 33UH K F
C088	3093923091	CCCFMIN 2N7F +10%	L003	J2611433022X	COIL CHIP 33UH K F
C089	1105871091	CCCFMIN 560P0F +5%	L004	J2611433022X	COIL CHIP 33UH K F
C090	1105871091	CCCFMIN 560P0F +5%	Q005	J2041220102X	TR NPN DTC114YKA
C091	1105871091	CCCFMIN 560P0F +5%	Q005	J2041220201X	TR CHIP NPN KRC107
C096	3093923091	CCCFMIN 2N7F +10%	Q006	J2041220102X	TR NPN DTC114YKA
C097	3093923091	CCCFMIN 2N7F +10%	Q006	J2041220201X	TR CHIP NPN KRC107
C098	1105871091	CCCFMIN 560P0F +5%	Q024	J2041220102X	TR NPN DTC114YKA
C099	2046934091	CCCFMIN 4N7F +10%	Q024	J2041220201X	TR CHIP NPN KRC107
C100	2046934091	CCCFMIN 4N7F +10%	R003	1106648091	RMGCFMIN 47K0 OHM
C101	1105932091	CCCFMIN 1N0F +10%	R004	1106648091	RMGCFMIN 47K0 OHM
C102	1105871091	CCCFMIN 560P0F +5%	R005	5088655091	RMGCFMIN 560R0 OHM
C103	1105932091	CCCFMIN 1N0F +10%	R006	5088655091	RMGCFMIN 560R0 OHM
C104	1105933091	CCCFMIN 2N2F +10%	R007	8044039091	RMGCFMIN 2K2 OHM +
C105	1105933091	CCCFMIN 2N2F +10%	R008	1106648091	RMGCFMIN 47K0 OHM
C106	1105867091	CCCFMIN 100P0F +5%	R009	8044039091	RMGCFMIN 2K2 OHM +
C107	1105867091	CCCFMIN 100P0F +5%	R010	1106648091	RMGCFMIN 47K0 OHM
C108	1105867091	CCCFMIN 100P0F +5%	R011	8044040091	RMGCFMIN 5K6 OHM +
C109	1105867091	CCCFMIN 100P0F +5%	R012	3094425091	RMGCFMIN 10R0 OHM
C120	2026729091	CCCFMIN 100N0F +80	R013	9057440091	RMGCFMIN 470R0 OHM
C121	2026729091	CCCFMIN 100N0F +80	R014	7043420091	RMGCFMIN 100R0 OHM
C122	2026729091	CCCFMIN 100N0F +80	R015	2047193091	RMGCFMIN 510R0 OHM

Designator	Part#	Description	Designator	Part#	Description
R016	7043423091	RMGCFMIN 1K2 OHM +	R087	5088661091	RMGCFMIN 10K0 OHM
R017	7043423091	RMGCFMIN 1K2 OHM +	R088	5088661091	RMGCFMIN 10K0 OHM
R018	5088655091	RMGCFMIN 560R0 OHM	R089	5088663091	RMGCFMIN 100K0 OHM
R019	5088655091	RMGCFMIN 560R0 OHM	R091	8044037091	RMGCFMIN 150R0 OHM
R020	1106639091	RMGCFMIN 75R0 OHM	R092	8044037091	RMGCFMIN 150R0 OHM
R021	3094425091	RMGCFMIN 10R0 OHM	R093	5088661091	RMGCFMIN 10K0 OHM
R022	1106648091	RMGCFMIN 47K0 OHM	R094	5088661091	RMGCFMIN 10K0 OHM
R023	9057440091	RMGCFMIN 470R0 OHM	R095	5088661091	RMGCFMIN 10K0 OHM
R024	9057440091	RMGCFMIN 470R0 OHM	R096	5088661091	RMGCFMIN 10K0 OHM
R025	7043420091	RMGCFMIN 100R0 OHM	R097	5088661091	RMGCFMIN 10K0 OHM
R026	2047193091	RMGCFMIN 510R0 OHM	R098	5088661091	RMGCFMIN 10K0 OHM
R027	8044039091	RMGCFMIN 2K2 OHM +	R099	8044037091	RMGCFMIN 150R0 OHM
R028	1106648091	RMGCFMIN 47K0 OHM	R100	8044037091	RMGCFMIN 150R0 OHM
R029	8044039091	RMGCFMIN 2K2 OHM +	R101	3094433091	RMGCFMIN 20K0 OHM
R030	1106648091	RMGCFMIN 47K0 OHM	R102	3094433091	RMGCFMIN 20K0 OHM
R031	8044040091	RMGCFMIN 5K6 OHM +	R103	2047195091	RMGCFMIN 1K0 OHM +
R036	8044040091	RMGCFMIN 5K6 OHM +	R104	2047195091	RMGCFMIN 1K0 OHM +
R037	8044039091	RMGCFMIN 2K2 OHM +	R105	5088663091	RMGCFMIN 100K0 OHM
R038	1106648091	RMGCFMIN 47K0 OHM	R106	5088663091	RMGCFMIN 100K0 OHM
R039	5088663091	RMGCFMIN 100K0 OHM	R107	3094431091	RMGCFMIN 4K7 OHM +
R040	5088663091	RMGCFMIN 100K0 OHM	R108	3094431091	RMGCFMIN 4K7 OHM +
R041	2047195091	RMGCFMIN 1K0 OHM +	R109	5088661091	RMGCFMIN 10K0 OHM
R042	2047195091	RMGCFMIN 1K0 OHM +	R111	5088661091	RMGCFMIN 10K0 OHM
R044	8044040091	RMGCFMIN 5K6 OHM +	R112	3094431091	RMGCFMIN 4K7 OHM +
R045	8044040091	RMGCFMIN 5K6 OHM +	R113	5088661091	RMGCFMIN 10K0 OHM
R046	5088661091	RMGCFMIN 10K0 OHM	R114	5088661091	RMGCFMIN 10K0 OHM
R047	5088661091	RMGCFMIN 10K0 OHM	R115	2047195091	RMGCFMIN 1K0 OHM +
R048	5088660091	RMGCFMIN 5K1 OHM +	R116	2026729091	CCCFMIN 100N0F +80
R049	9057440091	RMGCFMIN 470R0 OHM	R117	5088661091	RMGCFMIN 10K0 OHM
R050	5088660091	RMGCFMIN 5K1 OHM +	R118	7043423091	RMGCFMIN 1K2 OHM +
R051	5088661091	RMGCFMIN 10K0 OHM	R119	3094431091	RMGCFMIN 4K7 OHM +
R052	5088661091	RMGCFMIN 10K0 OHM	R120	3094431091	RMGCFMIN 4K7 OHM +
R053	8044040091	RMGCFMIN 5K6 OHM +	R121	7043423091	RMGCFMIN 1K2 OHM +
R054	7043423091	RMGCFMIN 1K2 OHM +	R122	5088655091	RMGCFMIN 560R0 OHM
R055	7043423091	RMGCFMIN 1K2 OHM +	R123	5088655091	RMGCFMIN 560R0 OHM
R056	8044040091	RMGCFMIN 5K6 OHM +	R124	2047202091	RMGCFMIN 180K0 OHM
R057	7043423091	RMGCFMIN 1K2 OHM +	R125	2047202091	RMGCFMIN 180K0 OHM
R058	7043423091	RMGCFMIN 1K2 OHM +	R126	5088660091	RMGCFMIN 5K1 OHM +
R059	5088655091	RMGCFMIN 560R0 OHM	R127	5088660091	RMGCFMIN 5K1 OHM +
R060	5088655091	RMGCFMIN 560R0 OHM	R128	5088660091	RMGCFMIN 5K1 OHM +
R061	5088661091	RMGCFMIN 10K0 OHM	R129	5088660091	RMGCFMIN 5K1 OHM +
R062	5088661091	RMGCFMIN 10K0 OHM	R130	8044040091	RMGCFMIN 5K6 OHM +
R063	5088661091	RMGCFMIN 10K0 OHM	R131	7043423091	RMGCFMIN 1K2 OHM +
R064	5088661091	RMGCFMIN 10K0 OHM	R132	7043423091	RMGCFMIN 1K2 OHM +
R065	5088663091	RMGCFMIN 100K0 OHM	R133	8044040091	RMGCFMIN 5K6 OHM +
R066	5088663091	RMGCFMIN 100K0 OHM	R134	7043423091	RMGCFMIN 1K2 OHM +
R067	5088661091	RMGCFMIN 10K0 OHM	R135	7043423091	RMGCFMIN 1K2 OHM +
R068	5088661091	RMGCFMIN 10K0 OHM	R136	5088655091	RMGCFMIN 560R0 OHM
R071	2047195091	RMGCFMIN 1K0 OHM +	R137	5088655091	RMGCFMIN 560R0 OHM
R072	4043829091	RMGCFMIN 1K5 OHM +	R138	8044040091	RMGCFMIN 5K6 OHM +
R073	8044040091	RMGCFMIN 5K6 OHM +	R139	8044040091	RMGCFMIN 5K6 OHM +
R074	8044040091	RMGCFMIN 5K6 OHM +	R141	1106648091	RMGCFMIN 47K0 OHM
R075	5088663091	RMGCFMIN 100K0 OHM	R143	8044040091	RMGCFMIN 5K6 OHM +
R078	5088661091	RMGCFMIN 10K0 OHM	R144	8044040091	RMGCFMIN 5K6 OHM +
R080	3094431091	RMGCFMIN 4K7 OHM +	R145	8044040091	RMGCFMIN 5K6 OHM +
R081	5088661091	RMGCFMIN 10K0 OHM	R146	8044040091	RMGCFMIN 5K6 OHM +
R082	5088661091	RMGCFMIN 10K0 OHM	R147	8044040091	RMGCFMIN 5K6 OHM +
R083	5088661091	RMGCFMIN 10K0 OHM	R148	7043423091	RMGCFMIN 1K2 OHM +
R084	5088661091	RMGCFMIN 10K0 OHM	R149	7043423091	RMGCFMIN 1K2 OHM +
R085	5088661091	RMGCFMIN 10K0 OHM	R151	7043420091	RMGCFMIN 100R0 OHM
R086	5088661091	RMGCFMIN 10K0 OHM	R152	7043420091	RMGCFMIN 100R0 OHM

Designator	Part#	Description	Designator	Part#	Description
R159	9057440091	RMGCFMIN 470R0 OHM	C012	2026729091	CCCFMIN 100N0F +80
R160	2047195091	RMGCFMIN 1K0 OHM +	C013	2026729091	CCCFMIN 100N0F +80
R161	6044435091	RMGCFMIN 47R0 OHM	C014	2026729091	CCCFMIN 100N0F +80
R162	3094425091	RMGCFMIN 10R0 OHM	C015	2026729091	CCCFMIN 100N0F +80
R163	3094425091	RMGCFMIN 10R0 OHM	C016	2026729091	CCCFMIN 100N0F +80
R164	9057440091	RMGCFMIN 470R0 OHM	C017	2026729091	CCCFMIN 100N0F +80
R165	9057440091	RMGCFMIN 470R0 OHM	C018	2026729091	CCCFMIN 100N0F +80
R166	2047202091	RMGCFMIN 180K0 OHM	C022	2026729091	CCCFMIN 100N0F +80
R167	2047202091	RMGCFMIN 180K0 OHM	C026	2026729091	CCCFMIN 100N0F +80
R168	9057440091	RMGCFMIN 470R0 OHM	C029	2026729091	CCCFMIN 100N0F +80
R169	9057440091	RMGCFMIN 470R0 OHM	C030	2026729091	CCCFMIN 100N0F +80
R170	2047195091	RMGCFMIN 1K0 OHM +	C033	2026729091	CCCFMIN 100N0F +80
R171	3094428091	RMGCFMIN 120R0 OHM	C034	2026729091	CCCFMIN 100N0F +80
R172	9057440091	RMGCFMIN 470R0 OHM	C035	2026729091	CCCFMIN 100N0F +80
R173	5088655091	RMGCFMIN 560R0 OHM	C036	4043518091	CCCFMIN 47P0F +5%
R174	5088655091	RMGCFMIN 560R0 OHM	C037	4043518091	CCCFMIN 47P0F +5%
R175	8044037091	RMGCFMIN 150R0 OHM	C040	2026729091	CCCFMIN 100N0F +80
R176	5088655091	RMGCFMIN 560R0 OHM	C041	2026729091	CCCFMIN 100N0F +80
R177	5088655091	RMGCFMIN 560R0 OHM	C042	2026729091	CCCFMIN 100N0F +80
R178	5088655091	RMGCFMIN 560R0 OHM	C043	2026729091	CCCFMIN 100N0F +80
R179	5088655091	RMGCFMIN 560R0 OHM	C049	4043518091	CCCFMIN 47P0F +5%
R180	5088655091	RMGCFMIN 560R0 OHM	C050	4043518091	CCCFMIN 47P0F +5%
R181	5088655091	RMGCFMIN 560R0 OHM	C059	2026729091	CCCFMIN 100N0F +80
R182	5088655091	RMGCFMIN 560R0 OHM	C061	2046897091	CCCFMIN 330P0F +5%
R183	7043420091	RMGCFMIN 100R0 OHM	C063	2026729091	CCCFMIN 100N0F +80
R184	5088655091	RMGCFMIN 560R0 OHM	C064	1105867091	CCCFMIN 100P0F +5%
BD01	J2631300204X	BEAD CHIP/TAP HB-1	C065	2026729091	CCCFMIN 100N0F +80
BD02	J2631300204X	BEAD CHIP/TAP HB-1	C066	2026729091	CCCFMIN 100N0F +80
BD04	J2631300204X	BEAD CHIP/TAP HB-1	C113	2026729091	CCCFMIN 100N0F +80
BD10	J2631300204X	BEAD CHIP/TAP HB-1	C123	2026729091	CCCFMIN 100N0F +80
BD11	J2631300204X	BEAD CHIP/TAP HB-1	C124	2026729091	CCCFMIN 100N0F +80
BD12	J2631300204X	BEAD CHIP/TAP HB-1	C125	2026729091	CCCFMIN 100N0F +80
BD15	J2631300224X	BEAD CHIP/TAP, HH-1	C126	2026729091	CCCFMIN 100N0F +80
BD23	J2631300204X	BEAD CHIP/TAP HB-1	C127	2026729091	CCCFMIN 100N0F +80
BD24	J2631300204X	BEAD CHIP/TAP HB-1	C128	2026729091	CCCFMIN 100N0F +80
BD25	J2631300204X	BEAD CHIP/TAP HB-1	C129	2026729091	CCCFMIN 100N0F +80
BD26	J2631300204X	BEAD CHIP/TAP HB-1	C130	2026729091	CCCFMIN 100N0F +80
BD27	J2631300204X	BEAD CHIP/TAP HB-1	C131	2026729091	CCCFMIN 100N0F +80
BD28	J2631300204X	BEAD CHIP/TAP HB-1	C132	2026729091	CCCFMIN 100N0F +80
BD29	J2631300204X	BEAD CHIP/TAP HB-1	C133	2026729091	CCCFMIN 100N0F +80
BD30	J2631300204X	BEAD CHIP/TAP HB-1	C134	2026729091	CCCFMIN 100N0F +80
BD31	J2631300204X	BEAD CHIP/TAP HB-1	C135	2026729091	CCCFMIN 100N0F +80
BD32	J2631300204X	BEAD CHIP/TAP HB-1	C137	2026729091	CCCFMIN 100N0F +80
BD34	J2631300204X	BEAD CHIP/TAP HB-1	C140	2026729091	CCCFMIN 100N0F +80
BD38	J2631300204X	BEAD CHIP/TAP HB-1	C141	2026729091	CCCFMIN 100N0F +80
BD41	J2631300204X	BEAD CHIP/TAP HB-1	C142	2026729091	CCCFMIN 100N0F +80
BD42	J2631300204X	BEAD CHIP/TAP HB-1	C143	2026729091	CCCFMIN 100N0F +80
BD43	J2631300204X	BEAD CHIP/TAP HB-1	C147	3093873091	CCCFMIN 220P0F +5%
BD44	J2631300204X	BEAD CHIP/TAP HB-1	C166	2026729091	CCCFMIN 100N0F +80
BD45	J2631300204X	BEAD CHIP/TAP HB-1	C169	2046897091	CCCFMIN 330P0F +5%
BD57	J2631300204X	BEAD CHIP/TAP HB-1	C170	2026729091	CCCFMIN 100N0F +80
BD58	J2631300204X	BEAD CHIP/TAP HB-1	C171	2026729091	CCCFMIN 100N0F +80
BD62	J2631300204X	BEAD CHIP/TAP HB-1	C172	2026729091	CCCFMIN 100N0F +80
BD71	J2631300204X	BEAD CHIP/TAP HB-1	C174	4043518091	CCCFMIN 47P0F +5%
C001	6044108091	CCCFMIN 22P0F +5%	C175	4043518091	CCCFMIN 47P0F +5%
C002	6044108091	CCCFMIN 22P0F +5%	C176	4043518091	CCCFMIN 47P0F +5%
C005	2026729091	CCCFMIN 100N0F +80	D009	J2244010104X	DIODE CHIP 1SS355
C006	2026729091	CCCFMIN 100N0F +80	IC02	J2142032001X	IC F/F 74VHC574MX
C007	2026729091	CCCFMIN 100N0F +80	IC03	J2142032001X	IC F/F 74VHC574MX
C008	2026729091	CCCFMIN 100N0F +80	R001	1106639091	RMGCFMIN 75R0 OHM
C009	2026729091	CCCFMIN 100N0F +80	R002	1106639091	RMGCFMIN 75R0 OHM

Designator	Part#	Description
R043	1511259091	RMGCFMIN 3R3 OHM +
R069	7043420091	RMGCFMIN 100R0 OHM
R070	7043420091	RMGCFMIN 100R0 OHM
R090	1511259091	RMGCFMIN 3R3 OHM +
R150	1035519091	RMGCFMIN 2R2 OHM +

Main PCB

#001	JE00009902UA	AVR210US MNBD ASM
#002	JE00009903UA	AVR310US MNBD ASM
#003	JE00009905UA	AVR510US MNBD ASM
#004	JE00009901UA	AVR110US MNBD ASM
#005	JE00009902EA	AVR2000EU MNBD ASM
#006	JE00009903EA	AVR3000EU MNBD ASM
#007	JE00009904EA	AVR4000EU MNBD ASM
#008	JE00009905EA	AVR5000EU MNBD ASM
#009	JE00009906UA	DCR600US MNBD ASM
'020	JE00010001UA	AVR110US MNBD APP
'020	JE00010002EA	AVR2000EU MNBD APP
'020	JE00010002UA	AVR210US MNBD APP
'020	JE00010003EA	AVR3000EU MNBD APP
'020	JE00010003UA	AVR310US MNBD APP
'020	JE00010004EA	AVR4000EU MNBD APP
'020	JE00010005EA	AVR5000EU MNBD APP
'020	JE00010005UA	AVR510US MNBD APP
'050	J60530002100	H/SINK REG 118*20*
CN401	J4420050300X	CNT ST 35313-0310
CN402	J4420040600X	CNT PLUG 2.5 6P
CN403	J4420040300X	CNT PLUG 2.5 3P
CN407	J4423230500X	CNT 2.0MM 35336-05
CN408	J4423231500X	CNT 2.0 35336-1510
CN409	J4423231500X	CNT 2.0 35336-1510
CN410	J4423231500X	CNT 2.0 35336-1510
CN411	J4423231500X	CNT 2.0 35336-1510
CN412	J4423231600X	CONNECTOR
CN413	J4423231100X	CONNECTOR
CN414	J4422112740X	FPC PLUG 27P 1.25
CN415	J4423231600X	CONNECTOR
CN416	J4420030640X	CNT PLUG 2.0 6P ST
CN417	J4420040300X	CNT PLUG 2.5 3P
CP404	J4305100067X	CNT ASSY12P 390MM
CP405	J4305100068X	CNT ASSY 10P 390+5
CP406	J4305100069X	CNT ASSY 10P 390+5
C421	13076940AM	CE 470U0F +20% 63.
C422	13076940AM	CE 470U0F +20% 63.
C423	13076940AM	CE 470U0F +20% 63.
C424	13076940AM	CE 470U0F +20% 63.
C481	J34204103661	CE 10000UF 63V
C481	J3420468266X	CE 6800UF 63V
C481	J3420482266X	CAPE82 00UF63V
C482	J34204103661	CE 10000UF 63V
C482	J3420468266X	CE 6800UF 63V
C482	J3420482266X	CAPE82 00UF63V
C485	J3470122261X	CE 2200UP 35V
C486	J3470122261X	CE 2200UP 35V
C487	J3420668236X	CE SHL 6800U 16V M
C488	J3470122231X	CE 2200UF 16V
C511	13076940AM	CE 470U0F +20% 63.
C512	13076940AM	CE 470U0F +20% 63.
D481	J2202306007X	DIODE BU8-04F
D481	J2202376107X	DIODE BU10-04

Designator	Part#	Description
D482	J2203336007X	DIODE W2-04F
D568	J2221244000X	DIODE RECT 1N5402S
D569	J2221244000X	DIODE RECT 1N5402S
D570	J2221244000X	DIODE RECT 1N5402S
D571	J2221244000X	DIODE RECT 1N5402S
FU481	J5502220320X	FUSE 2A/125V
FU481	J5503320330X	FUSE T 250V/2.0A
FU482	J5502220320X	FUSE 2A/125V
FU482	J5503320330X	FUSE T 250V/2.0A
FU483	J5502220320X	FUSE 2A/125V
FU483	J5503320330X	FUSE T 250V/2.0A
FU484	J5502220320X	FUSE 2A/125V
FU484	J5503320330X	FUSE T 250V/2.0A
G011	J4200020000X	GND PLATE
IC481	J2112505021X	IC 7815PI TO-220IS
IC482	J2112505018X	IC KIA7915PI TO220
IC483	J2112504001X	IC BA033T
IC484	J2112505019X	IC KIA7805PI TO220
IC485	J2112505019X	IC KIA7805PI TO220
IC486	J2112505014X	IC KIA7905PI
IC487	J2112503001X	IC REG ADJ KA33 TO
IC501	J2110212000X	IC OPAMP 2068DD
JK401	J44301000300	JACK RCA 1P BK GND
JK401	J44301001100	JACK RCA 1P BROWN
JK402	J44302000900	JACK RCA 2P BB W/G
JK402	J44302401201	JACK RCA 4P S
JK403	J44303000500	JACK RCA 3P BBB W/
JK403	J44306000101	JACK RCA 6P GND W/
JK404	J44302401201	JACK RCA 4P S
JK405	J44302401201	JACK RCA 4P S
JK405	J44306000101	JACK RCA 6P GND W/
JP401	J44001600000	TERMINAL SCREW 6P
2 L401	J1451000030X	COIL-AF CHOKE .7UH
2 L402	J1451000030X	COIL-AF CHOKE .7UH
2 L501	J1451000030X	COIL-AF CHOKE .7UH
P551	J2431100002X	POSISTOR PTC
Q425	J2021520302X	TR NPN 2SC4883A
Q426	J2021520302X	TR NPN 2SC4883A
Q433	J2021500102X	TR PNP 2SA1859A
Q434	J2021500102X	TR PNP 2SA1859A
Q435	J2021520302X	TR NPN 2SC4883A
Q436	J2021520302X	TR NPN 2SC4883A
Q437	J2002520103X	TR NPN 2SC5358-R
Q437	J2002520203X	TR NPN 2SC5198-R(1
Q438	J2002520103X	TR NPN 2SC5358-R
Q438	J2002520203X	TR NPN 2SC5198-R(1
Q439	J2002500103X	TR PNP 2SA1986-R
Q439	J2002500203X	TR PNP 2SA1941-R(1
Q440	J2002500103X	TR PNP 2SA1986-R
Q440	J2002500203X	TR PNP 2SA1941-R(1
Q513	J2021520302X	TR NPN 2SC4883A
Q517	J2021500102X	TR PNP 2SA1859A
Q518	J2021520302X	TR NPN 2SC4883A
Q519	J2002520103X	TR NPN 2SC5358-R
Q519	J2002520203X	TR NPN 2SC5198-R(1
Q520	J2002500103X	TR PNP 2SA1986-R
Q520	J2002500203X	TR PNP 2SA1941-R(1
R471	J3076228421X	RES MPR 0.22 5W J
R472	J3076228421X	RES MPR 0.22 5W J
R475	J3010100620X	RES OXIDE 10 1W J
R476	J3010100620X	RES OXIDE 10 1W J

Designator	Part#	Description	Designator	Part#	Description
R481	J3030100720X	RES 10 OHM 2W J	FU981	J5502263320X	FUSE SB 6.3A/125V
R482	J3030100720X	RES 10 OHM 2W J	FU981	J5502270320X	FUSE SB 7A/125V
R483	J3030100720X	RES 10 OHM 2W J	FU981	J5503331330X	FUSE 250V 3.15A
R484	J3030479720X	RES 4R7 OHM 2W J	FU981	J5503340330X	FUSET 4A/250V
R485	J3030479720X	RES 4R7 OHM 2W J	FU981	J5503350330X	FUSE 5A/250V
R486	J3030479720X	RES 4R7 OHM 2W J	2 H012	J4305100026X	LUG WIRE 1P 200MM
R487	J3030339720X	RES OX 3R3 2W J	2 H020	J4305100026X	LUG WIRE 1P 200MM
R536	J3076228421X	RES MPR 0.22 5W J	IC390	J2116004001X	IC BA7660FS 3-CH
R538	J3010100620X	RES OXIDE 10 1W J	IC391	J2116004003X	IC BA7603F VIDEO
VR401	J3211310210X	RES SEMI 1K	IC981	J2112505000X	IC KIA7805P TO-220
VR402	J3211310210X	RES SEMI 1K	JA290	J44309000000	JACK RCA 9P GND CAP
VR501	J3211310210X	RES SEMI 1K	JK601	J44001400000	TERMINAL SCREW 4P
WA401	J4420040200X	CNT ST 5267-02A	2 L601	J1451000030X	COIL-AF CHOKE .7UH
WA402	J4420040200X	CNT ST 5267-02A	2 L602	J1451000030X	COIL-AF CHOKE .7UH
WA403	J4420040200X	CNT ST 5267-02A	Q625	J2021520302X	TR NPN 2SC4883A
W401	J4305100072X	CNT ASSY 1P 250MM	Q626	J2021520302X	TR NPN 2SC4883A
Surround/Standby Power Supply/ Video Component PCB			Q633	J2021500102X	TR PNP 2SA1859A
-----			Q634	J2021500102X	TR PNP 2SA1859A
'050	J60530006000	HEAT SINK 16X7.5X3	Q635	J2021520302X	TR NPN 2SC4883A
'055	J5636140010X	SCREW	Q636	J2021520302X	TR NPN 2SC4883A
'060	J90400038000	LABEL FUSE SB5A/12	Q637	J2002520103X	TR NPN 2SC5358-R
AC981	J1561000006X	AC OUTLET CE	Q637	J2002520203X	TR NPN 2SC5198-R(1
AC981	J449000000110	AC OUTLET A204D004	Q638	J2002520103X	TR NPN 2SC5358-R
AC981	J44901000100	AC OUTLET A304D007	Q638	J2002520203X	TR NPN 2SC5198-R(1
BKT1	J60300028000	BKT GROUND ET 0.5T	Q639	J2002500103X	TR PNP 2SA1986-R
BKT2	J60300028000	BKT GROUND ET 0.5T	Q639	J2002500203X	TR PNP 2SA1941-R(1
CA81	J3926100000X	X-C .1U PCX2 335M	Q640	J2002500103X	TR PNP 2SA1986-R
CN606	J4305100066X	CNT ASSY 3P 900MM	Q640	J2002500203X	TR PNP 2SA1941-R(1
CP390	J4420030440X	CNT PLUG 4P 2.0MM	RL981	J5511300010X	RELAY 10A 12V
C621	13073530AM	CE 470U0F +20% 50.	RL981	J5511300020X	RELAY SDT-S-112DMR
C621	13076940AM	CE 470U0F +20% 63.	R671	J3076228421X	RES MPR 0.22 5W J
C622	13073530AM	CE 470U0F +20% 50.	R672	J3076228421X	RES MPR 0.22 5W J
C622	13076940AM	CE 470U0F +20% 63.	R675	J3010100620X	RES OXIDE 10 1W J
C623	13073530AM	CE 470U0F +20% 50.	R676	J3010100620X	RES OXIDE 10 1W J
C623	13076940AM	CE 470U0F +20% 63.	R995	J3091335033X	RES 3.3MOHM 1/2W
C624	13073530AM	CE 470U0F +20% 50.	T981	J2812220012X	ST'BY TRANS AVR510
C624	13076940AM	CE 470U0F +20% 63.	T981	J2812420032X	ST'BY TRANS AVR510
C691	J3420447256X	CE DL 4700U 50V	VR601	J3211310210X	RES SEMI 1K
C691	J3420468256X	CE 6800UF 50V	VR602	J3211310210X	RES SEMI 1K
C691	J3420468266X	CE 6800UF 63V	WA601	J4420040200X	CNT ST 5267-02A
C692	J3420447256X	CE DL 4700U 50V	WA602	J4420040200X	CNT ST 5267-02A
C692	J3420468256X	CE 6800UF 50V	WA603	J4420050300X	CNT ST 35313-0310
C692	J3420468266X	CE 6800UF 63V	WA625	J4420030440X	CNT PLUG 4P 2.0MM
C982	J3531472412X	CAP AC250V 472-M	WA981	J4420060260X	CONNECTOR
C984	13073530AM	CE 470U0F +20% 50.	WA983	J4420060200X	CONNECTOR
C989	13073530AM	CE 470U0F +20% 50.	WA985	J4420060200X	CONNECTOR
C990	13073530AM	CE 470U0F +20% 50.	WA986	J4420040700X	CNT PLUG 2.5 7P
D691	J2202306007X	DIODE BU8-04F	2 W301	J4305100073X	CNT ASSY 1P 80MM #
D691	J2202366007X	DIODE BU6-04F	2 W302	J4305100073X	CNT ASSY 1P 80MM #
D981	2041506016	D-SR 1N4004 400.0V	C111	2093665016	CC 100P0F +10% -10
D982	2041506016	D-SR 1N4004 400.0V	C112	2093665016	CC 100P0F +10% -10
D983	2041506016	D-SR 1N4004 400.0V	C113	2093665016	CC 100P0F +10% -10
D984	2041506016	D-SR 1N4004 400.0V	C114	2093665016	CC 100P0F +10% -10
D985	2041506016	D-SR 1N4004 400.0V	C115	2093665016	CC 100P0F +10% -10
D986	2041506016	D-SR 1N4004 400.0V	C116	2093665016	CC 100P0F +10% -10
D989	2041506016	D-SR 1N4004 400.0V	C401	2026888030	CE 10U0F +20% 50.0
D990	2041506016	D-SR 1N4004 400.0V	C402	2026888030	CE 10U0F +20% 50.0
FU981	J5502250320X	FUSE SB 5A/125V	C403	1105530071	CC 68P0F +5% -5% 5
			C404	1105530071	CC 68P0F +5% -5% 5
			C405	2026907030	CE 100U0F +20% 25.
			C406	2026907030	CE 100U0F +20% 25.

Designator	Part#	Description	Designator	Part#	Description
C407	2026908030	CE 220U0F +20% 10.	C568	1500213030	CE 10U0F +20% 16.0
C408	2026908030	CE 220U0F +20% 10.	C569	4043358071	CC 680P0F +10% -10
C409	3093607071	CC 12P0F +5% -5% 5	C570	4043358071	CC 680P0F +10% -10
C410	3093607071	CC 12P0F +5% -5% 5	C571	4043358071	CC 680P0F +10% -10
C411	6043915071	CC 33P0F +5% -5% 5	C576	2093665016	CC 100P0F +10% -10
C412	6043915071	CC 33P0F +5% -5% 5	C577	2093665016	CC 100P0F +10% -10
C413	2026888030	CE 10U0F +20% 50.0	C582	2026783030	CE 47U0F +20% 16.0
C414	2026888030	CE 10U0F +20% 50.0	C583	2026783030	CE 47U0F +20% 16.0
C415	2026888030	CE 10U0F +20% 50.0	C588	1500213030	CE 10U0F +20% 16.0
C416	2026888030	CE 10U0F +20% 50.0	C589	1500213030	CE 10U0F +20% 16.0
C417	J3640104320X	CP MET .1U 63V -K	D401	7043654016	D-SLP 1N4148 100.0
C418	J3640104320X	CP MET .1U 63V -K	D402	7043654016	D-SLP 1N4148 100.0
C419	J3640104320X	CP MET .1U 63V -K	D403	7043654016	D-SLP 1N4148 100.0
C420	J3640104320X	CP MET .1U 63V -K	D404	7043654016	D-SLP 1N4148 100.0
C425	1105556071	CC 3N3F +10% -10%	D405	7043654016	D-SLP 1N4148 100.0
C426	1105556071	CC 3N3F +10% -10%	D406	7043654016	D-SLP 1N4148 100.0
C431	J3600473330X	CP .047U 100V K	D501	7043654016	D-SLP 1N4148 100.0
C432	J3600473330X	CP .047U 100V K	D502	7043654016	D-SLP 1N4148 100.0
C433	J3600473330X	CP .047U 100V K	D551	7043654016	D-SLP 1N4148 100.0
C434	2025004016	CC 220P0F +10% -10	D552	7043654016	D-SLP 1N4148 100.0
C435	2025004016	CC 220P0F +10% -10	D553	7043654016	D-SLP 1N4148 100.0
C436	2025004016	CC 220P0F +10% -10	D554	7043654016	D-SLP 1N4148 100.0
C437	2025004016	CC 220P0F +10% -10	D555	7043654016	D-SLP 1N4148 100.0
C439	2025004016	CC 220P0F +10% -10	D556	7043654016	D-SLP 1N4148 100.0
C441	2025004016	CC 220P0F +10% -10	D566	7043654016	D-SLP 1N4148 100.0
C443	2025004016	CC 220P0F +10% -10	D567	7043654016	D-SLP 1N4148 100.0
C444	2025004016	CC 220P0F +10% -10	FH401	J4210020001X	FUSE CLIP 0.3T
C445	2024647071	CC 100N0F +80% -20	FH402	J4210020001X	FUSE CLIP 0.3T
C446	2024647071	CC 100N0F +80% -20	FH403	J4210020001X	FUSE CLIP 0.3T
C483	J3640104350X	CP MET .1U 250V -M	FH404	J4210020001X	FUSE CLIP 0.3T
C484	J3600473330X	CP .047U 100V K	FH405	J4210020001X	FUSE CLIP 0.3T
C489	2026888030	CE 10U0F +20% 50.0	FH406	J4210020001X	FUSE CLIP 0.3T
C490	2026888030	CE 10U0F +20% 50.0	FH407	J4210020001X	FUSE CLIP 0.3T
C492	2026888030	CE 10U0F +20% 50.0	FH408	J4210020001X	FUSE CLIP 0.3T
C494	2026888030	CE 10U0F +20% 50.0	Q401	J2021020701X	TR NPN KTC3200 BL
C496	2026888030	CE 10U0F +20% 50.0	Q402	J2021020701X	TR NPN KTC3200 BL
C497	2026888030	CE 10U0F +20% 50.0	Q403	J2021020701X	TR NPN KTC3200 BL
C498	2026888030	CE 10U0F +20% 50.0	Q404	J2021020701X	TR NPN KTC3200 BL
C501	2026888030	CE 10U0F +20% 50.0	Q405	J2021020701X	TR NPN KTC3200 BL
C502	1105530071	CC 68P0F +5% -5% 5	Q406	J2021020701X	TR NPN KTC3200 BL
C503	2026907030	CE 100U0F +20% 25.	Q407	J2021020201X	TR NPN KTC3198 BL
C504	2026908030	CE 220U0F +20% 10.	Q408	J2021020201X	TR NPN KTC3198 BL
C505	3093607071	CC 12P0F +5% -5% 5	Q411	J2021005101X	TR PNP KTA1268 BL
C506	6043915071	CC 33P0F +5% -5% 5	Q412	J2021005101X	TR PNP KTA1268 BL
C507	2026888030	CE 10U0F +20% 50.0	Q413	J2021005101X	TR PNP KTA1268 BL
C508	2026888030	CE 10U0F +20% 50.0	Q414	J2021005101X	TR PNP KTA1268 BL
C509	J3640104320X	CP MET .1U 63V -K	Q415	J2021020701X	TR NPN KTC3200 BL
C510	J3640104320X	CP MET .1U 63V -K	Q416	J2021020701X	TR NPN KTC3200 BL
C513	1105556071	CC 3N3F +10% -10%	Q417	J2021000101X	TR PNP KTA1024
C551	J3640683220X	CMP 0.068U 63V J	Q418	J2021000101X	TR PNP KTA1024
C552	J3640683220X	CMP 0.068U 63V J	Q419	J2021020501X	TR NPN KTC3206
C553	J3640683220X	CMP 0.068U 63V J	Q420	J2021020501X	TR NPN KTC3206
C554	J3470147121X	CE SG 470U 10V M	Q421	J2021000101X	TR PNP KTA1024
C555	7042852071	CC 10N0F +10% -10%	Q422	J2021000101X	TR PNP KTA1024
C556	7042852071	CC 10N0F +10% -10%	Q423	J2021020501X	TR NPN KTC3206
C558	2029347016	CC 100N0F +80% -20	Q424	J2021020501X	TR NPN KTC3206
C563	2029347016	CC 100N0F +80% -20	Q427	J2021020701X	TR NPN KTC3200 BL
C564	J3640104350X	CP MET .1U 250V -M	Q428	J2021020701X	TR NPN KTC3200 BL
C565	J3640104350X	CP MET .1U 250V -M	Q429	J2021020501X	TR NPN KTC3206
C566	J3600473330X	CP .047U 100V K	Q430	J2021020501X	TR NPN KTC3206
C567	J3600473330X	CP .047U 100V K	Q431	J2021000101X	TR PNP KTA1024

Designator	Part#	Description	Designator	Part#	Description
Q432	J2021000101X	TR PNP KTA1024	R418	3093949016	RCF 33K0 OHM +5% 2
Q501	J2021020701X	TR NPN KTC3200 BL	R418	8043703016	RCF 27K0 OHM +5% 2
Q502	J2021020701X	TR NPN KTC3200 BL	R418	9057113016	RCF 39K0 OHM +5% 2
Q503	J2021020701X	TR NPN KTC3200 BL	R419	1105966016	RCF 2K0 OHM +5% 25
Q504	J2021020201X	TR NPN KTC3198 BL	R419	8043701016	RCF 1K8 OHM +5% 25
Q506	J2021005101X	TR PNP KTA1268 BL	R420	1105966016	RCF 2K0 OHM +5% 25
Q507	J2021005101X	TR PNP KTA1268 BL	R420	8043701016	RCF 1K8 OHM +5% 25
Q508	J2021020701X	TR NPN KTC3200 BL	R421	6044156016	RCF 560R0 OHM +5%
Q509	J2021000101X	TR PNP KTA1024	R422	6044156016	RCF 560R0 OHM +5%
Q510	J2021020501X	TR NPN KTC3206	R423	6044156016	RCF 560R0 OHM +5%
Q511	J2021000101X	TR PNP KTA1024	R424	6044156016	RCF 560R0 OHM +5%
Q512	J2021020501X	TR NPN KTC3206	R425	6044156016	RCF 560R0 OHM +5%
Q514	J2021020701X	TR NPN KTC3200 BL	R426	6044156016	RCF 560R0 OHM +5%
Q515	J2021020501X	TR NPN KTC3206	R427	6044156016	RCF 560R0 OHM +5%
Q516	J2021000101X	TR PNP KTA1024	R428	6044156016	RCF 560R0 OHM +5%
Q551	J2021020701X	TR NPN KTC3200 BL	R429	6044156016	RCF 560R0 OHM +5%
Q552	J2021020701X	TR NPN KTC3200 BL	R430	6044156016	RCF 560R0 OHM +5%
Q553	J2021020701X	TR NPN KTC3200 BL	R431	6044156016	RCF 560R0 OHM +5%
Q554	J2021020201X	TR NPN KTC3198 BL	R432	6044156016	RCF 560R0 OHM +5%
Q555	J2021020201X	TR NPN KTC3198 BL	R433	5088296016	RCF 150R0 OHM +5%
Q556	J2021020201X	TR NPN KTC3198 BL	R434	5088296016	RCF 150R0 OHM +5%
Q557	J2021000201X	TR PNP KTA1266 Y	R435	5088296016	RCF 150R0 OHM +5%
Q558	J2021000101X	TR PNP KTA1024	R436	5088296016	RCF 150R0 OHM +5%
Q559	J2021220001X	TR NPN KRC107M	R437	5088301016	RCF 15K0 OHM +5% 2
Q559	J2021220102X	TR NPN DTC114YSA	R438	5088301016	RCF 15K0 OHM +5% 2
Q561	J2021005101X	TR PNP KTA1268 BL	R439	5088301016	RCF 15K0 OHM +5% 2
R121	5088297016	RCF 470R0 OHM +5%	R440	5088301016	RCF 15K0 OHM +5% 2
R122	5088297016	RCF 470R0 OHM +5%	R441	5088296016	RCF 150R0 OHM +5%
R123	3093951016	RCF 100K0 OHM +5%	R442	5088296016	RCF 150R0 OHM +5%
R124	3093951016	RCF 100K0 OHM +5%	R443	5088296016	RCF 150R0 OHM +5%
R125	5088297016	RCF 470R0 OHM +5%	R444	5088296016	RCF 150R0 OHM +5%
R126	5088297016	RCF 470R0 OHM +5%	R445	3093936016	RCF 10R0 OHM +5% 2
R127	3093951016	RCF 100K0 OHM +5%	R446	3093936016	RCF 10R0 OHM +5% 2
R128	3093951016	RCF 100K0 OHM +5%	R447	3093936016	RCF 10R0 OHM +5% 2
R129	5088297016	RCF 470R0 OHM +5%	R448	3093936016	RCF 10R0 OHM +5% 2
R130	2046946016	RCF 2K2 OHM +5% 25	R449	1105964016	RCF 1K0 OHM +5% 25
R131	3093951016	RCF 100K0 OHM +5%	R450	1105964016	RCF 1K0 OHM +5% 25
R132	3093951016	RCF 100K0 OHM +5%	R451	6044156016	RCF 560R0 OHM +5%
R401	6044155016	RCF 330R0 OHM +5%	R452	6044156016	RCF 560R0 OHM +5%
R402	6044155016	RCF 330R0 OHM +5%	R453	4043564016	RCF 4K7 OHM +5% 25
R403	3093949016	RCF 33K0 OHM +5% 2	R454	4043564016	RCF 4K7 OHM +5% 25
R403	8043703016	RCF 27K0 OHM +5% 2	R455	7043056016	RCF 5K6 OHM +5% 25
R403	9057113016	RCF 39K0 OHM +5% 2	R456	7043056016	RCF 5K6 OHM +5% 25
R404	3093949016	RCF 33K0 OHM +5% 2	R457	5088295016	RCF 100R0 OHM +5%
R404	8043703016	RCF 27K0 OHM +5% 2	R458	5088295016	RCF 100R0 OHM +5%
R404	9057113016	RCF 39K0 OHM +5% 2	R459	5088295016	RCF 100R0 OHM +5%
R405	4043563016	RCF 1K5 OHM +5% 25	R460	5088295016	RCF 100R0 OHM +5%
R406	4043563016	RCF 1K5 OHM +5% 25	R461	3093937016	RCF 15R0 OHM +5% 2
R407	4043563016	RCF 1K5 OHM +5% 25	R462	3093937016	RCF 15R0 OHM +5% 2
R408	4043563016	RCF 1K5 OHM +5% 25	R463	3093937016	RCF 15R0 OHM +5% 2
R409	2046945016	RCF 220R0 OHM +5%	R464	3093937016	RCF 15R0 OHM +5% 2
R410	2046945016	RCF 220R0 OHM +5%	R465	4043891016	RCF 2R2 OHM +5% 25
R411	2046945016	RCF 220R0 OHM +5%	R466	4043891016	RCF 2R2 OHM +5% 25
R412	2046945016	RCF 220R0 OHM +5%	R467	4043891016	RCF 2R2 OHM +5% 25
R413	1105961016	RCF 270R0 OHM +5%	R468	4043891016	RCF 2R2 OHM +5% 25
R414	1105961016	RCF 270R0 OHM +5%	R469	1105959016	RCF 82R0 OHM +5% 2
R415	2046951016	RCF 43K0 OHM +5% 2	R470	1105959016	RCF 82R0 OHM +5% 2
R416	2046951016	RCF 43K0 OHM +5% 2	R473	3093936016	RCF 10R0 OHM +5% 2
R417	3093949016	RCF 33K0 OHM +5% 2	R474	3093936016	RCF 10R0 OHM +5% 2
R417	8043703016	RCF 27K0 OHM +5% 2	R477	3093936016	RCF 10R0 OHM +5% 2
R417	9057113016	RCF 39K0 OHM +5% 2	R478	3093936016	RCF 10R0 OHM +5% 2

Designator	Part#	Description	Designator	Part#	Description
R489	2046945016	RCF 220R0 OHM +5%	R569	3093948016	RCF 10K0 OHM +5% 2
R490	1105963016	RCF 680R0 OHM +5%	R570	1105961016	RCF 270R0 OHM +5%
R501	6044155016	RCF 330R0 OHM +5%	R571	8043703016	RCF 27K0 OHM +5% 2
R502	3093949016	RCF 33K0 OHM +5% 2	R585	4043563016	RCF 1K5 OHM +5% 25
R502	8043703016	RCF 27K0 OHM +5% 2	R586	4043563016	RCF 1K5 OHM +5% 25
R502	9057113016	RCF 39K0 OHM +5% 2	R587	9057113016	RCF 39K0 OHM +5% 2
R503	4043563016	RCF 1K5 OHM +5% 25	R588	9057113016	RCF 39K0 OHM +5% 2
R504	4043563016	RCF 1K5 OHM +5% 25	R589	4043563016	RCF 1K5 OHM +5% 25
R505	2046945016	RCF 220R0 OHM +5%	R590	9057113016	RCF 39K0 OHM +5% 2
R506	2046945016	RCF 220R0 OHM +5%	R591	3093948016	RCF 10K0 OHM +5% 2
R507	1105961016	RCF 270R0 OHM +5%	R592	9057113016	RCF 39K0 OHM +5% 2
R508	2046951016	RCF 43K0 OHM +5% 2	R593	5088297016	RCF 470R0 OHM +5%
R509	3093949016	RCF 33K0 OHM +5% 2	R594	5088297016	RCF 470R0 OHM +5%
R509	8043703016	RCF 27K0 OHM +5% 2	R595	5088297016	RCF 470R0 OHM +5%
R509	9057113016	RCF 39K0 OHM +5% 2	R596	5088295016	RCF 100R0 OHM +5%
R510	1105966016	RCF 2K0 OHM +5% 25	R597	5088295016	RCF 100R0 OHM +5%
R510	8043701016	RCF 1K8 OHM +5% 25	R606	3093951016	RCF 100K0 OHM +5%
R511	6044156016	RCF 560R0 OHM +5%	R607	3093951016	RCF 100K0 OHM +5%
R512	6044156016	RCF 560R0 OHM +5%	R608	1105964016	RCF 1K0 OHM +5% 25
R513	6044156016	RCF 560R0 OHM +5%	R609	9057112016	RCF 12K0 OHM +5% 2
R514	6044156016	RCF 560R0 OHM +5%	R610	1105964016	RCF 1K0 OHM +5% 25
R515	6044156016	RCF 560R0 OHM +5%	R611	9057112016	RCF 12K0 OHM +5% 2
R516	6044156016	RCF 560R0 OHM +5%	C374	2024647071	CC 100N0F +80% -20
R517	5088296016	RCF 150R0 OHM +5%	C375	2026783030	CE 47U0F +20% 16.0
R518	5088296016	RCF 150R0 OHM +5%	C376	2026902030	CE 100U0F +20% 16.
R519	5088301016	RCF 15K0 OHM +5% 2	C377	2026889030	CE 22U0F +20% 25.0
R520	5088301016	RCF 15K0 OHM +5% 2	C378	2026907030	CE 100U0F +20% 25.
R521	5088296016	RCF 150R0 OHM +5%	C379	2026889030	CE 22U0F +20% 25.0
R522	5088296016	RCF 150R0 OHM +5%	C380	2026902030	CE 100U0F +20% 16.
R523	3093936016	RCF 10R0 OHM +5% 2	C381	2026889030	CE 22U0F +20% 25.0
R524	3093936016	RCF 10R0 OHM +5% 2	C382	2024647071	CC 100N0F +80% -20
R525	1105964016	RCF 1K0 OHM +5% 25	C383	2026783030	CE 47U0F +20% 16.0
R526	6044156016	RCF 560R0 OHM +5%	C384	2026884030	CE 1U0F +20% 50.0V
R527	4043564016	RCF 4K7 OHM +5% 25	C387	2026884030	CE 1U0F +20% 50.0V
R528	7043056016	RCF 5K6 OHM +5% 25	C388	2026884030	CE 1U0F +20% 50.0V
R529	5088295016	RCF 100R0 OHM +5%	C389	2026884030	CE 1U0F +20% 50.0V
R530	5088295016	RCF 100R0 OHM +5%	C392	2026884030	CE 1U0F +20% 50.0V
R531	3093937016	RCF 15R0 OHM +5% 2	C395	2026884030	CE 1U0F +20% 50.0V
R532	3093937016	RCF 15R0 OHM +5% 2	C396	2093665016	CC 100P0F +10% -10
R533	4043891016	RCF 2R2 OHM +5% 25	C397	2093665016	CC 100P0F +10% -10
R534	4043891016	RCF 2R2 OHM +5% 25	C398	2093665016	CC 100P0F +10% -10
R535	1105959016	RCF 82R0 OHM +5% 2	C399	2029347016	CC 100N0F +80% -20
R537	3093936016	RCF 10R0 OHM +5% 2	C601	2026888030	CE 10U0F +20% 50.0
R539	3093936016	RCF 10R0 OHM +5% 2	C602	2026888030	CE 10U0F +20% 50.0
R551	4043563016	RCF 1K5 OHM +5% 25	C603	1105530071	CC 68P0F +5% -5% 5
R552	4043563016	RCF 1K5 OHM +5% 25	C604	1105530071	CC 68P0F +5% -5% 5
R553	5088301016	RCF 15K0 OHM +5% 2	C605	2026907030	CE 100U0F +20% 25.
R554	5088301016	RCF 15K0 OHM +5% 2	C606	2026907030	CE 100U0F +20% 25.
R555	6044158016	RCF 22K0 OHM +5% 2	C607	2026908030	CE 220U0F +20% 10.
R556	6044158016	RCF 22K0 OHM +5% 2	C608	2026908030	CE 220U0F +20% 10.
R557	4043563016	RCF 1K5 OHM +5% 25	C609	3093607071	CC 12P0F +5% -5% 5
R558	5088301016	RCF 15K0 OHM +5% 2	C610	3093607071	CC 12P0F +5% -5% 5
R559	6044158016	RCF 22K0 OHM +5% 2	C611	6043915071	CC 33P0F +5% -5% 5
R561	7043057016	RCF 8K2 OHM +5% 25	C612	6043915071	CC 33P0F +5% -5% 5
R562	1105971016	RCF 56K0 OHM +5% 2	C613	2026888030	CE 10U0F +20% 50.0
R563	1105971016	RCF 56K0 OHM +5% 2	C614	2026888030	CE 10U0F +20% 50.0
R564	1105971016	RCF 56K0 OHM +5% 2	C615	2026888030	CE 10U0F +20% 50.0
R565	9057112016	RCF 12K0 OHM +5% 2	C616	2026888030	CE 10U0F +20% 50.0
R566	5088295016	RCF 100R0 OHM +5%	C617	J3640104320X	CP MET .1U 63V -K
R567	3093948016	RCF 10K0 OHM +5% 2	C618	J3640104320X	CP MET .1U 63V -K
R568	3093948016	RCF 10K0 OHM +5% 2	C619	J3640104320X	CP MET .1U 63V -K

Designator	Part#	Description	Designator	Part#	Description
C620	J3640104320X	CP MET .1U 63V -K	Q623	J2021020501X	TR NPN KTC3206
C625	1105556071	CC 3N3F +10% -10%	Q624	J2021020501X	TR NPN KTC3206
C626	1105556071	CC 3N3F +10% -10%	Q627	J2021020701X	TR NPN KTC3200 BL
C629	4043358071	CC 680P0F +10% -10	Q628	J2021020701X	TR NPN KTC3200 BL
C630	4043358071	CC 680P0F +10% -10	Q629	J2021020501X	TR NPN KTC3206
C681	J3640683220X	CMP 0.068U 63V J	Q630	J2021020501X	TR NPN KTC3206
C682	J3640683220X	CMP 0.068U 63V J	Q631	J2021000101X	TR PNP KTA1024
C693	J3640104350X	CP MET .1U 250V -M	Q632	J2021000101X	TR PNP KTA1024
C694	J3640104350X	CP MET .1U 250V -M	Q681	J2021020701X	TR NPN KTC3200 BL
C695	J3640104350X	CP MET .1U 250V -M	Q682	J2021020701X	TR NPN KTC3200 BL
C696	1500213030	CE 10U0F +20% 16.0	Q683	J2021005101X	TR PNP KTA1268 BL
C971	2026884030	CE 1U0F +20% 50.0V	Q981	J2021005101X	TR PNP KTA1268 BL
C983	7042852071	CC 10N0F +10% -10%	Q982	J2021020801X	TR MPSA06 Y TO-92
C985	2049503016	CC 100N0F +10% -10	R385	7043052016	RCF 75R0 OHM +5% 2
C986	2026884030	CE 1U0F +20% 50.0V	R386	7043052016	RCF 75R0 OHM +5% 2
C987	2026888030	CE 10U0F +20% 50.0	R387	7043052016	RCF 75R0 OHM +5% 2
C988	2049503016	CC 100N0F +10% -10	R389	7043052016	RCF 75R0 OHM +5% 2
C991	2026901030	CE 47U0F +20% 50.0	R391	7043052016	RCF 75R0 OHM +5% 2
C992	1303935030	CE 100U0F +20% 35.	R392	7043052016	RCF 75R0 OHM +5% 2
C993	2049503016	CC 100N0F +10% -10	R393	7043052016	RCF 75R0 OHM +5% 2
C994	2049503016	CC 100N0F +10% -10	R394	7043052016	RCF 75R0 OHM +5% 2
C995	2049503016	CC 100N0F +10% -10	R396	7043052016	RCF 75R0 OHM +5% 2
C997	7042852071	CC 10N0F +10% -10%	R397	3093948016	RCF 10K0 OHM +5% 2
C998	7042852071	CC 10N0F +10% -10%	R398	3093948016	RCF 10K0 OHM +5% 2
C999	7042852071	CC 10N0F +10% -10%	R399	3093948016	RCF 10K0 OHM +5% 2
D601	7043654016	D-SLP 1N4148 100.0	R601	6044155016	RCF 330R0 OHM +5%
D602	7043654016	D-SLP 1N4148 100.0	R602	6044155016	RCF 330R0 OHM +5%
D603	7043654016	D-SLP 1N4148 100.0	R603	3093949016	RCF 33K0 OHM +5% 2
D604	7043654016	D-SLP 1N4148 100.0	R603	8043703016	RCF 27K0 OHM +5% 2
D681	7043654016	D-SLP 1N4148 100.0	R603	9057113016	RCF 39K0 OHM +5% 2
D682	7043654016	D-SLP 1N4148 100.0	R604	3093949016	RCF 33K0 OHM +5% 2
D683	7043654016	D-SLP 1N4148 100.0	R604	8043703016	RCF 27K0 OHM +5% 2
D684	7043654016	D-SLP 1N4148 100.0	R604	9057113016	RCF 39K0 OHM +5% 2
D685	7043654016	D-SLP 1N4148 100.0	R605	4043563016	RCF 1K5 OHM +5% 25
D987	7043654016	D-SLP 1N4148 100.0	R606	4043563016	RCF 1K5 OHM +5% 25
D988	7043654016	D-SLP 1N4148 100.0	R607	4043563016	RCF 1K5 OHM +5% 25
D991	J2221430635X	D-ZENER .5W 30V J	R608	4043563016	RCF 1K5 OHM +5% 25
D992	7043654016	D-SLP 1N4148 100.0	R609	2046945016	RCF 220R0 OHM +5%
D994	J2221475535X	D-Z/AX 0.5W 7.5V U	R610	2046945016	RCF 220R0 OHM +5%
D996	J2221451535X	D-ZENER .5W 5V1 J	R611	2046945016	RCF 220R0 OHM +5%
FH981	J4210020001X	FUSE CLIP 0.3T	R612	2046945016	RCF 220R0 OHM +5%
Q601	J2021020701X	TR NPN KTC3200 BL	R613	1105961016	RCF 270R0 OHM +5%
Q602	J2021020701X	TR NPN KTC3200 BL	R614	1105961016	RCF 270R0 OHM +5%
Q603	J2021020701X	TR NPN KTC3200 BL	R615	2046951016	RCF 43K0 OHM +5% 2
Q604	J2021020701X	TR NPN KTC3200 BL	R616	2046951016	RCF 43K0 OHM +5% 2
Q605	J2021020701X	TR NPN KTC3200 BL	R617	3093949016	RCF 33K0 OHM +5% 2
Q606	J2021020701X	TR NPN KTC3200 BL	R617	8043703016	RCF 27K0 OHM +5% 2
Q607	J2021020201X	TR NPN KTC3198 BL	R617	9057113016	RCF 39K0 OHM +5% 2
Q608	J2021020201X	TR NPN KTC3198 BL	R618	3093949016	RCF 33K0 OHM +5% 2
Q611	J2021005101X	TR PNP KTA1268 BL	R618	8043703016	RCF 27K0 OHM +5% 2
Q612	J2021005101X	TR PNP KTA1268 BL	R618	9057113016	RCF 39K0 OHM +5% 2
Q613	J2021005101X	TR PNP KTA1268 BL	R619	1105966016	RCF 2K0 OHM +5% 25
Q614	J2021005101X	TR PNP KTA1268 BL	R619	8043701016	RCF 1K8 OHM +5% 25
Q615	J2021020701X	TR NPN KTC3200 BL	R620	1105966016	RCF 2K0 OHM +5% 25
Q616	J2021020701X	TR NPN KTC3200 BL	R620	8043701016	RCF 1K8 OHM +5% 25
Q617	J2021000101X	TR PNP KTA1024	R621	6044156016	RCF 560R0 OHM +5%
Q618	J2021000101X	TR PNP KTA1024	R622	6044156016	RCF 560R0 OHM +5%
Q619	J2021020501X	TR NPN KTC3206	R623	6044156016	RCF 560R0 OHM +5%
Q620	J2021020501X	TR NPN KTC3206	R624	6044156016	RCF 560R0 OHM +5%
Q621	J2021000101X	TR PNP KTA1024	R625	6044156016	RCF 560R0 OHM +5%
Q622	J2021000101X	TR PNP KTA1024	R626	6044156016	RCF 560R0 OHM +5%

Designator	Part#	Description	Designator	Part#	Description
R627	6044156016	RCF 560R0 OHM +5%	R692	9057113016	RCF 39K0 OHM +5% 2
R628	6044156016	RCF 560R0 OHM +5%	R971	3093948016	RCF 10K0 OHM +5% 2
R629	6044156016	RCF 560R0 OHM +5%	R972	3093951016	RCF 100K0 OHM +5%
R630	6044156016	RCF 560R0 OHM +5%	R981	2047253016	RCF 4R7 OHM +5% 25
R631	6044156016	RCF 560R0 OHM +5%	R982	2046946016	RCF 2K2 OHM +5% 25
R632	6044156016	RCF 560R0 OHM +5%	R983	1105964016	RCF 1K0 OHM +5% 25
R633	5088296016	RCF 150R0 OHM +5%	R984	1105967016	RCF 2K7 OHM +5% 25
R634	5088296016	RCF 150R0 OHM +5%	R985	3093938016	RCF 22R0 OHM +5% 2
R635	5088296016	RCF 150R0 OHM +5%	R986	2046946016	RCF 2K2 OHM +5% 25
R636	5088296016	RCF 150R0 OHM +5%	R987	6044156016	RCF 560R0 OHM +5%
R637	5088301016	RCF 15K0 OHM +5% 2	R988	1106757016	RCF 1R0 OHM +5% 25
R638	5088301016	RCF 15K0 OHM +5% 2	R989	1106757016	RCF 1R0 OHM +5% 25
R639	5088301016	RCF 15K0 OHM +5% 2	R993	7043056016	RCF 5K6 OHM +5% 25
R640	5088301016	RCF 15K0 OHM +5% 2			
R641	5088296016	RCF 150R0 OHM +5%			
R642	5088296016	RCF 150R0 OHM +5%			
R643	5088296016	RCF 150R0 OHM +5%			
R644	5088296016	RCF 150R0 OHM +5%			
R645	3093936016	RCF 10R0 OHM +5% 2			
R646	3093936016	RCF 10R0 OHM +5% 2			
R647	3093936016	RCF 10R0 OHM +5% 2			
R648	3093936016	RCF 10R0 OHM +5% 2			
R649	1105964016	RCF 1K0 OHM +5% 25			
R650	1105964016	RCF 1K0 OHM +5% 25			
R651	6044156016	RCF 560R0 OHM +5%			
R652	6044156016	RCF 560R0 OHM +5%			
R653	4043564016	RCF 4K7 OHM +5% 25			
R654	4043564016	RCF 4K7 OHM +5% 25			
R655	7043056016	RCF 5K6 OHM +5% 25			
R656	7043056016	RCF 5K6 OHM +5% 25			
R657	5088295016	RCF 100R0 OHM +5%			
R658	5088295016	RCF 100R0 OHM +5%			
R659	5088295016	RCF 100R0 OHM +5%			
R660	5088295016	RCF 100R0 OHM +5%			
R661	3093937016	RCF 15R0 OHM +5% 2			
R662	3093937016	RCF 15R0 OHM +5% 2			
R663	3093937016	RCF 15R0 OHM +5% 2			
R664	3093937016	RCF 15R0 OHM +5% 2			
R665	4043891016	RCF 2R2 OHM +5% 25			
R666	4043891016	RCF 2R2 OHM +5% 25			
R667	4043891016	RCF 2R2 OHM +5% 25			
R668	4043891016	RCF 2R2 OHM +5% 25			
R669	1105959016	RCF 82R0 OHM +5% 2			
R670	1105959016	RCF 82R0 OHM +5% 2			
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R674	3093936016	RCF 10R0 OHM +5% 2			
R677	3093936016	RCF 10R0 OHM +5% 2			
R678	3093936016	RCF 10R0 OHM +5% 2			
R679	5088297016	RCF 470R0 OHM +5%			
R680	5088297016	RCF 470R0 OHM +5%			
R681	4043563016	RCF 1K5 OHM +5% 25			
R682	4043563016	RCF 1K5 OHM +5% 25			
R683	5088301016	RCF 15K0 OHM +5% 2			
R684	5088301016	RCF 15K0 OHM +5% 2			
R685	6044158016	RCF 22K0 OHM +5% 2			
R686	6044158016	RCF 22K0 OHM +5% 2			
R687	4043563016	RCF 1K5 OHM +5% 25			
R688	4043563016	RCF 1K5 OHM +5% 25			
R689	9057113016	RCF 39K0 OHM +5% 2			
R690	9057113016	RCF 39K0 OHM +5% 2			
R691	3093948016	RCF 10K0 OHM +5% 2			

AVR110/210/310/510/2000/3000/4000/5000

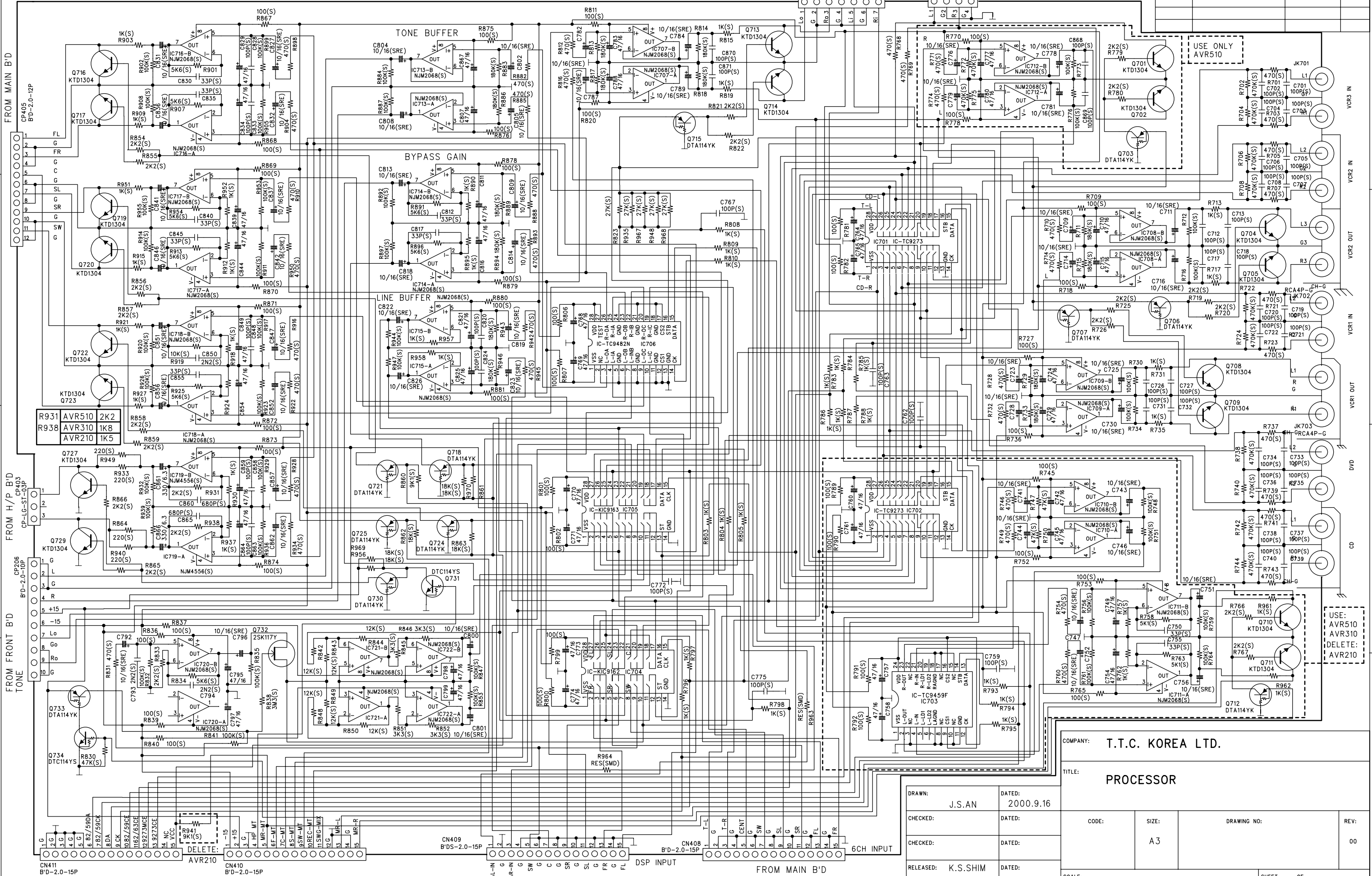
SCHEMATIC DIAGRAM

FROM TAPE B'D
CP-L6-ST-07P

VID4 I/O
FROM FRONT B'D
CP205
CP-L6-ST-04P

MP

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

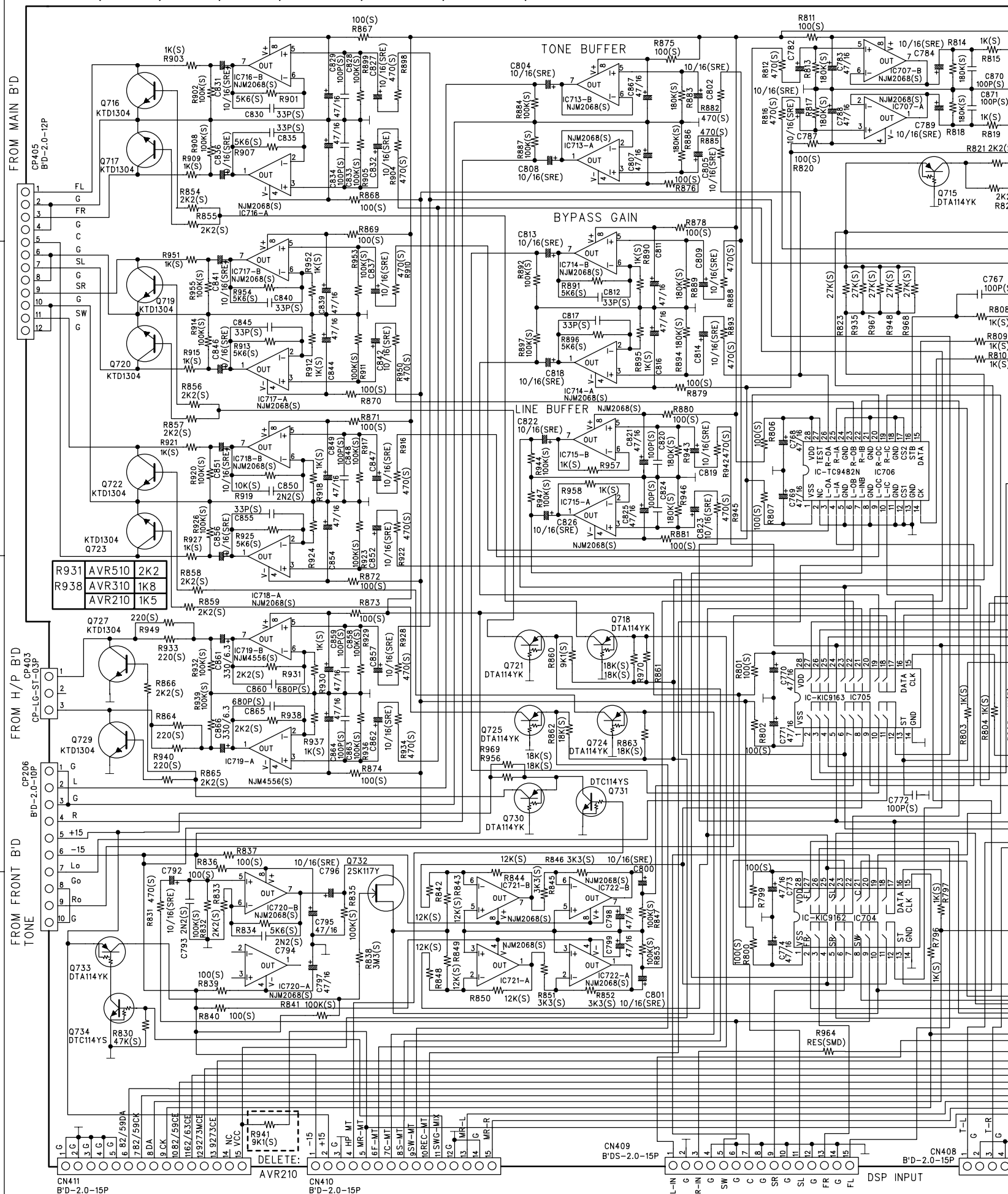


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TITLE: PROCESSOR

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RELEASED: K.S.SHIM	DATED:				
		SCALE:	SHEET OF		

SCHEMATIC DIAGR



DIAGRAM

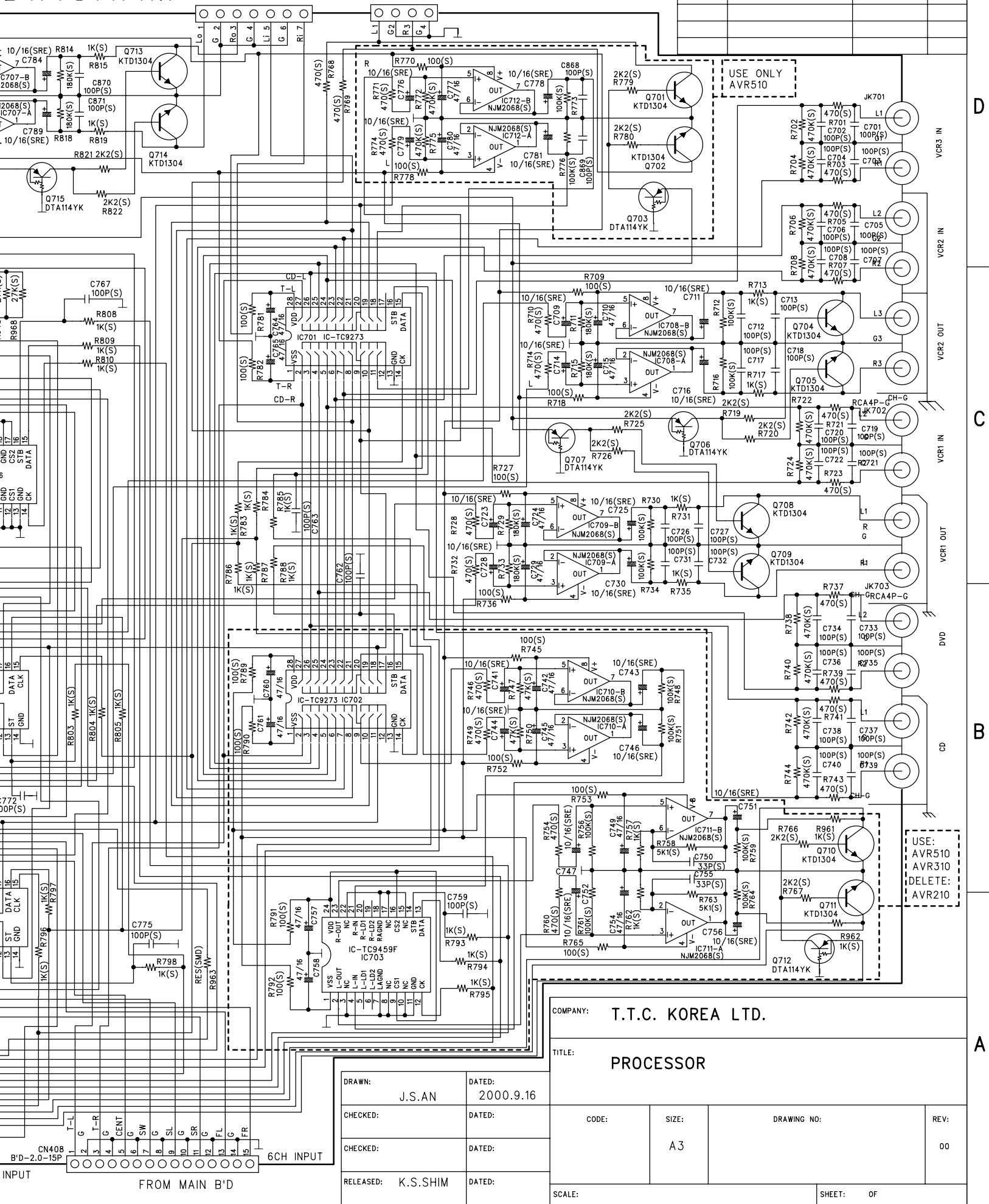
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CP404
CP-LG-ST-07P

VID4 I/O
FROM FRONT B'D
CP205
CP-LG-ST-04P

MP

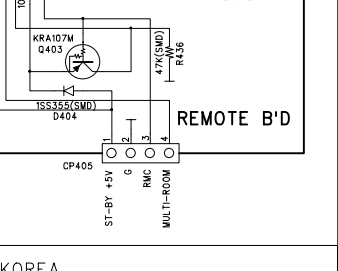
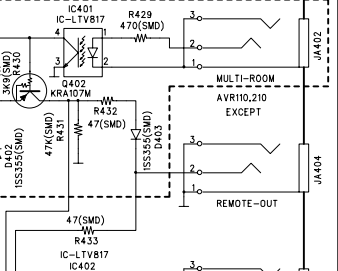
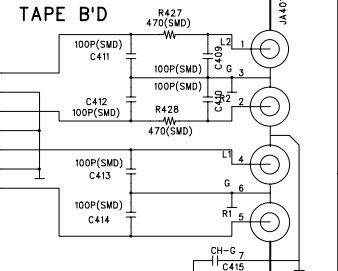
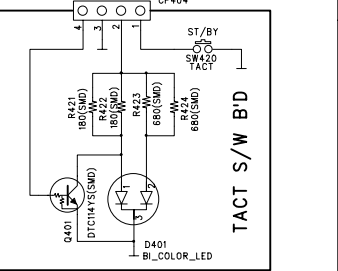
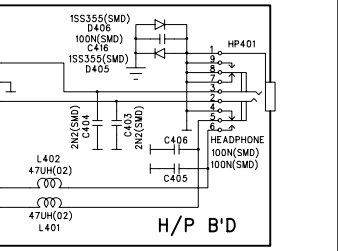
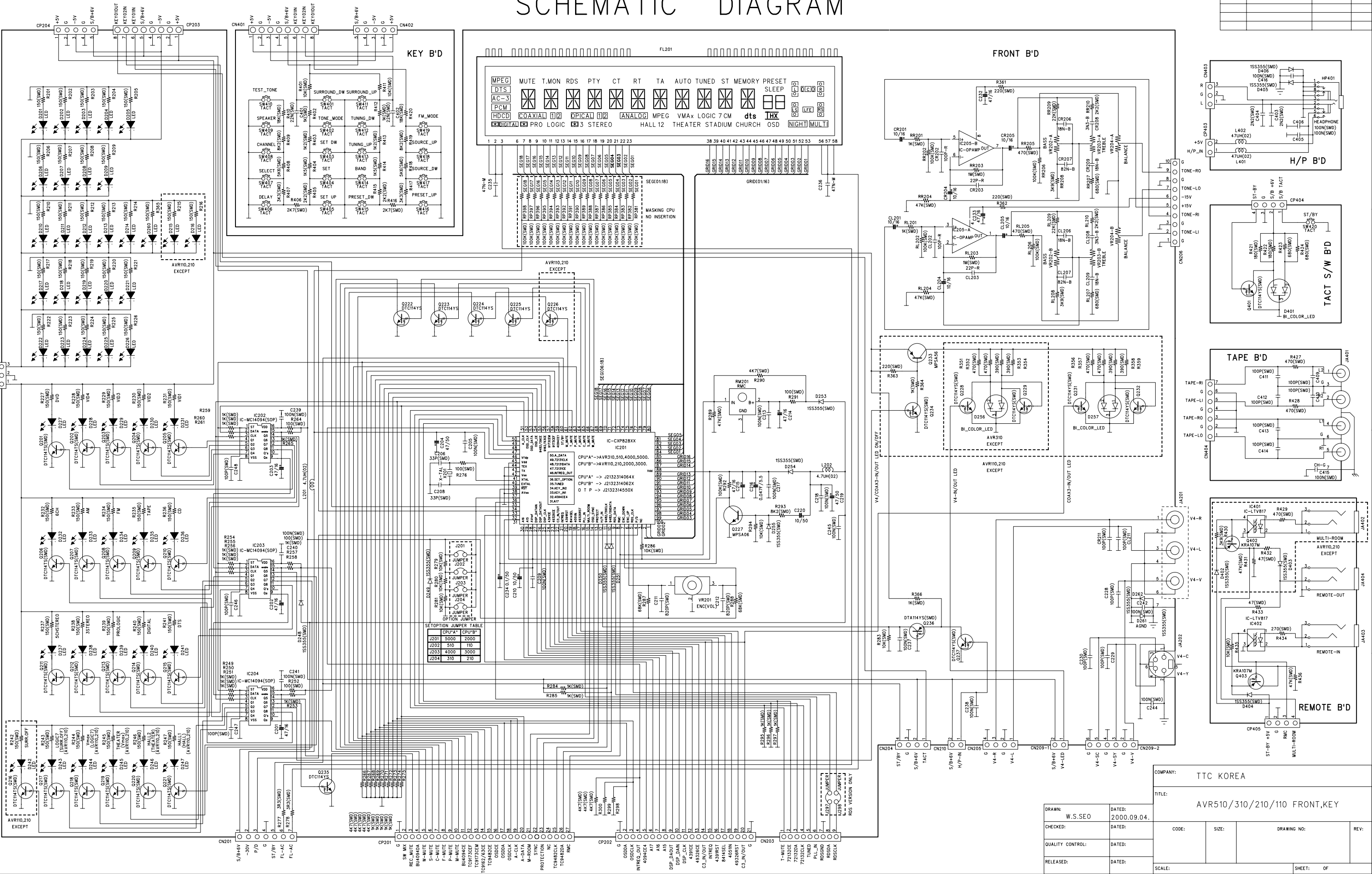
REVISION RECORD

LTR	ECO NO:	APPROVED:	DATE:



SCHEMATIC DIAGRAM

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



COMPANY: TTC KOREA			
TITLE: AVR510/310/210/110 FRONT,KEY			
DRAWN: W.S.SEO	DATED: 2000.09.04.	CODE:	SIZE:
CHECKED:	DATED:	DRAWING NO:	REV:
QUALITY CONTROL:	DATED:	SCALE:	SHEET: OF
RELEASED:	DATED:	TTC KOREA LTD.	

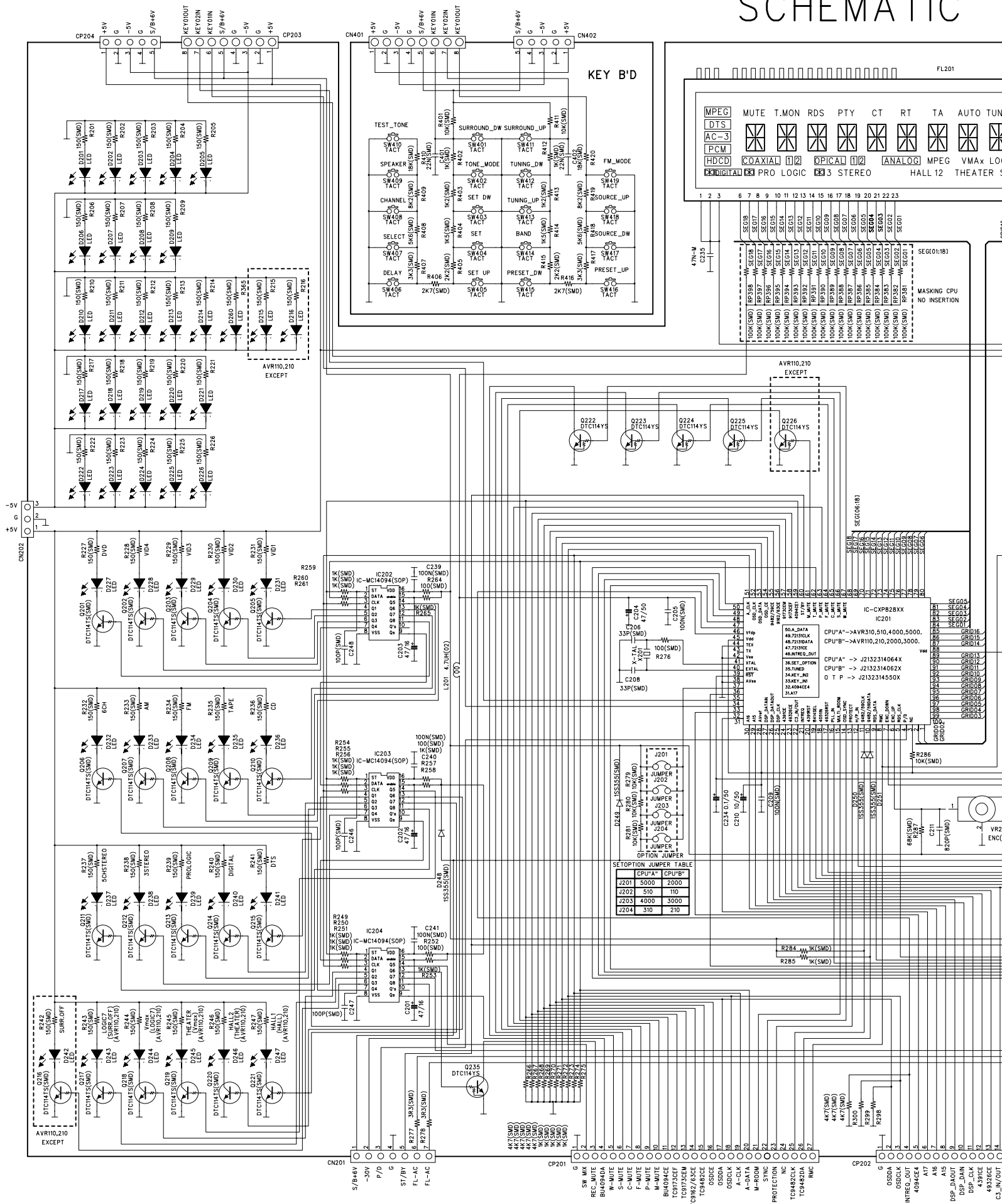
SCHEMATIC

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201

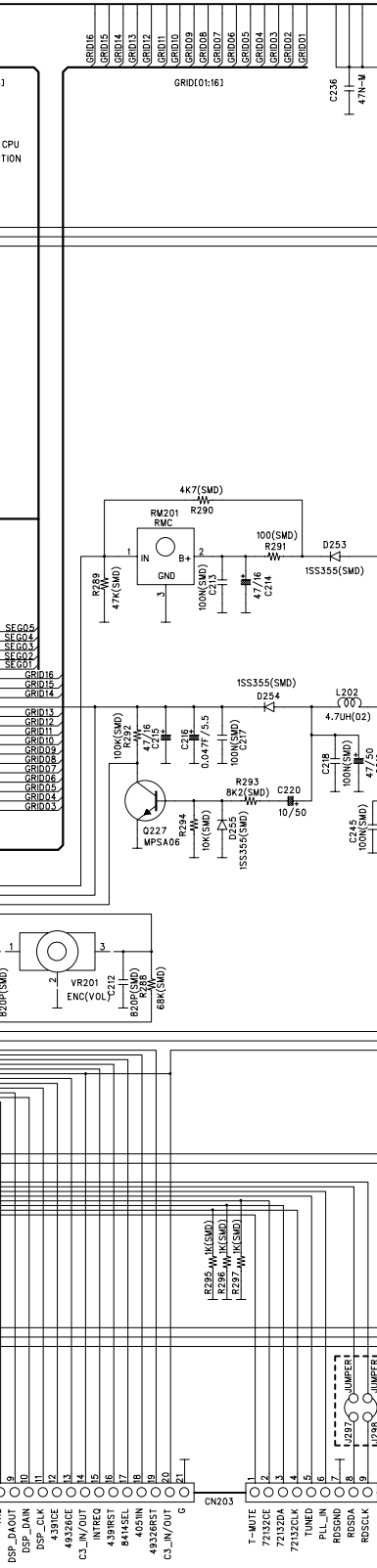
AUTO TUNED ST MEMORY PRESET SLEEP

VMAx LOGIC 7 CM dts THX

THEATER STADIUM CHURCH OSD

(NIGHT) (MULTI)

38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 56 57 58



The schematic diagram illustrates a stereo audio amplifier circuit with two channels, Left and Right. Each channel consists of a pre-amplifier stage and a power amplifier stage.

Left Channel:

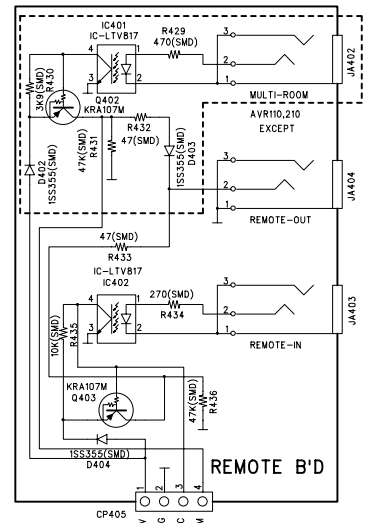
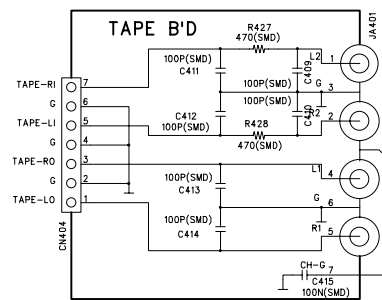
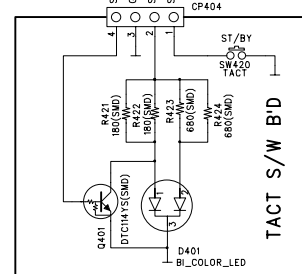
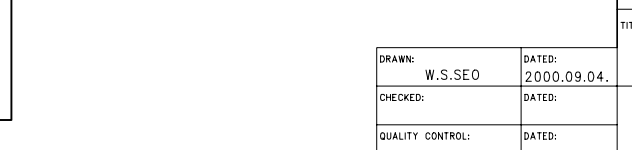
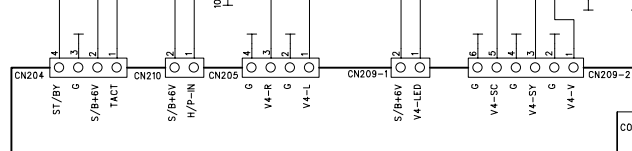
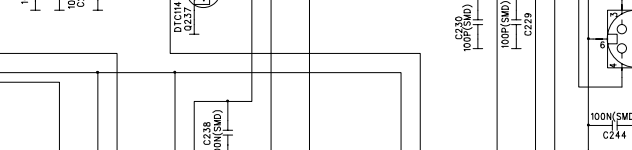
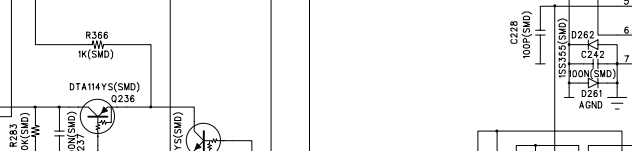
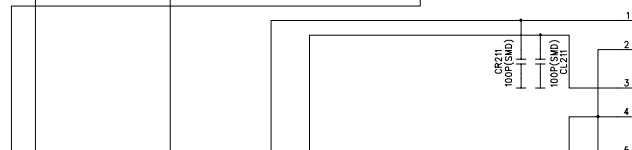
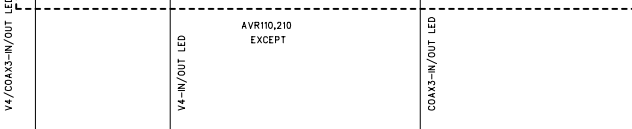
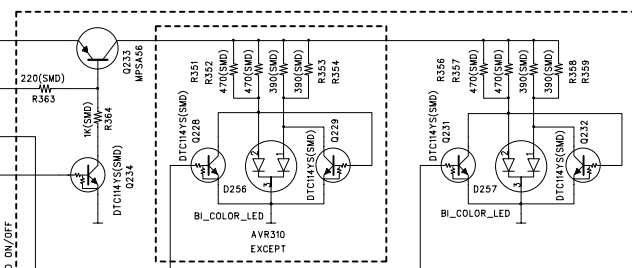
- Pre-amplifier:** Features a 1K(SMD) resistor (CR201) and a 10/16 capacitor (RR201) connected to the non-inverting input of the IC-OPAMP (CR205-B). The inverting input is connected to ground through a 1000P-F capacitor (RR202) and a 1000P-F capacitor (CR202). The output of the pre-amplifier is connected to the input of the power amplifier through a 1000P-F capacitor (RR203) and a 1000P-F capacitor (CR203).
- Power Amplifier:** The IC-OPAMP (CR205-B) is configured as a voltage follower. The output is connected to the speaker terminals through a 470(SMD) resistor (RR205) and a 470(SMD) capacitor (CR205).

Right Channel:

- Pre-amplifier:** Features a 1K(SMD) resistor (CL201) and a 10/16 capacitor (RL201) connected to the non-inverting input of the IC-OPAMP (CL205-A). The inverting input is connected to ground through a 1000P-F capacitor (RL202) and a 1000P-F capacitor (CL202). The output of the pre-amplifier is connected to the input of the power amplifier through a 1000P-F capacitor (RL203) and a 1000P-F capacitor (CL203).
- Power Amplifier:** The IC-OPAMP (CL205-A) is configured as a voltage follower. The output is connected to the speaker terminals through a 470(SMD) resistor (RL205) and a 470(SMD) capacitor (CL205).

Common Components:

- Resistors:** 1K(SMD) (CR201, CL201), 10/16 (RR201, RL201), 1000P-F (RR202, RL202), 1000P-F (CR202, CL202), 1000P-F (RR203, RL203), 1000P-F (CR203, CL203), 470(SMD) (RR205, RL205), 470(SMD) (CR205, CL205).
- Capacitors:** 10/16 (RR201, RL201), 1000P-F (RR202, RL202), 1000P-F (CR202, CL202), 1000P-F (RR203, RL203), 1000P-F (CR203, CL203), 470(SMD) (RR205, RL205), 470(SMD) (CR205, CL205).
- Integrated Circuits:** IC-OPAMP (CR205-B), IC-OPAMP (CL205-A).



SCALE:		SHEET: OF

AVR 510/ 310/ 210/ 110/ 5000/ 4000/ 3000/ 2000 MAIN AMP

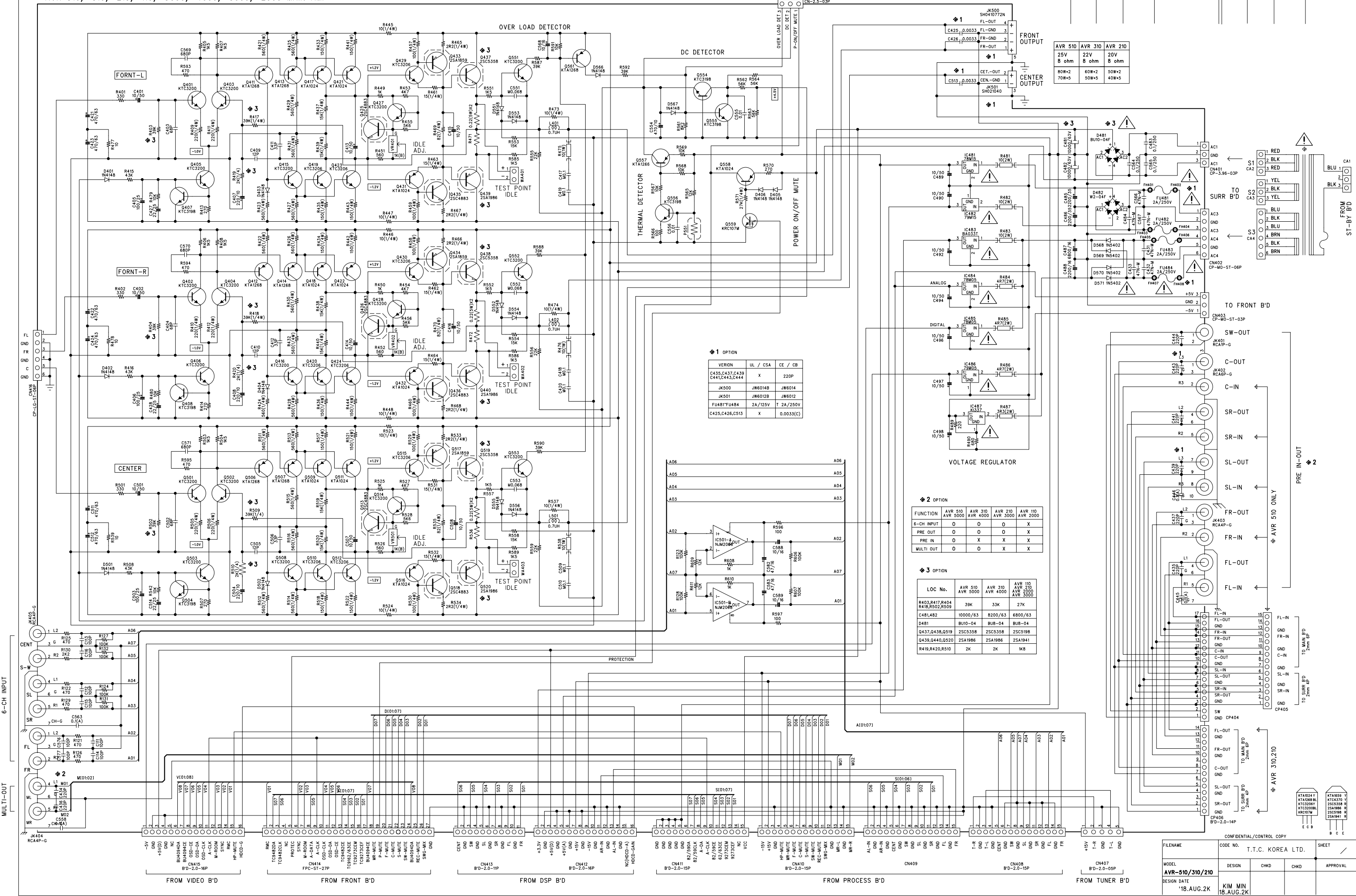
SCHEMATIC DIAGRAM

TO SURR B'D
CN417
CN-2.5-03P

M.P

NO	DATE	POS.	CONTENTS	NO	DATE	POS.	CONTENTS
1				2			
3				4			
5				6			
7				8			
9				10			
11				12			

AVR 510	AVR 310	AVR 210
25V	22V	20V
8 ohm	8 ohm	8 ohm
80W+2	60W+2	50W+2
70W+5	50W+5	40W+5



❖ 1 OPTION

VERSION	UL / CSA	CE / CB
C435,C437,C439	X	220P
C441,C443,C444		
JK500	JW6014B	JW6014
JK501	JW6012B	JW6012
FU481,FU484	2A/125V	T 2A/250V
C425,C426,C513	X	0.0033(C)

❖ 2 OPTION

FUNCTION	AVR 510	AVR 310	AVR 210	AVR 110
6-CH INPUT	0	0	0	X
PRE OUT	0	0	0	X
PRE IN	0	X	X	X
MULTI OUT	0	0	X	X

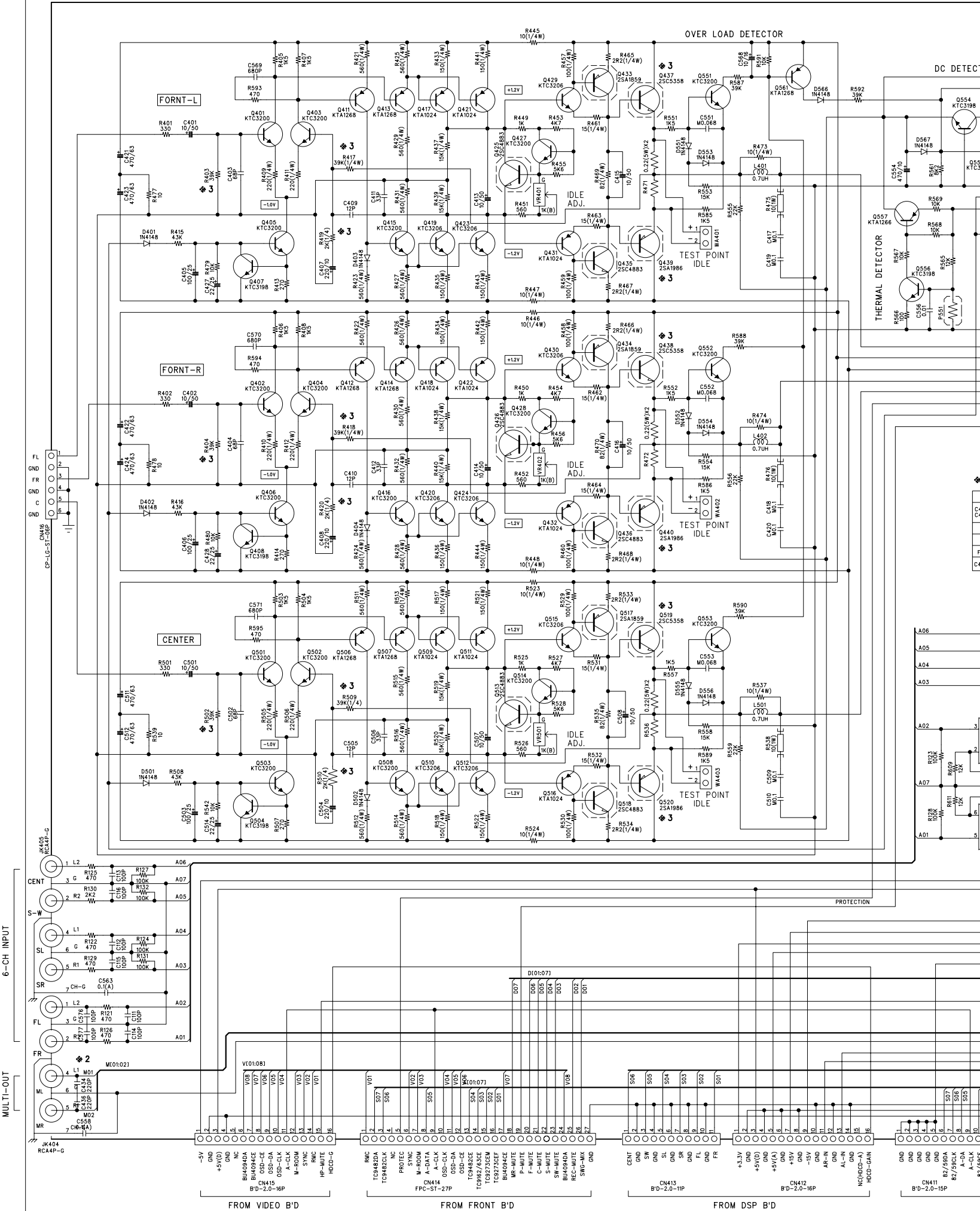
❖ 3 OPTION

LOC No.	AVR 510	AVR 310	AVR 210	AVR 110
R403,R417,R404	39K	33K	27K	
R418,R502,R509				
C481,482	10000/63	8200/63	6800/63	
D481	BU10-04	BU8-04	BU8-04	
Q437,Q438,Q519	2SC5358	2SC5358	2SC5198	
Q439,Q440,Q520	2SA1986	2SA1986	2SA1941	
R419,R420,R510	2K	2K	1K8	

CONFIDENTIAL/CONTROL COPY

FILENAME	CODE NO.	T.T.C. KOREA LTD.	SHEET
MODEL	DESIGN	CHKD	CHKD
AVR-510/310/210	KIM MIN		
DESIGN DATE	18.AUG.2K		
DESIGN DATE	18.AUG.2K		

TTC



AVR 510	AVR 310	AVR 210
25V 8 ohm	22V 8 ohm	20V 8 ohm
80W*2 70W*5	60W*2 50W*5	50W*2 40W*5



6

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3

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1

SCHEMATIC DIAGRAM MP AVR110/210/310/510 DSP B'D

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

D

D

C

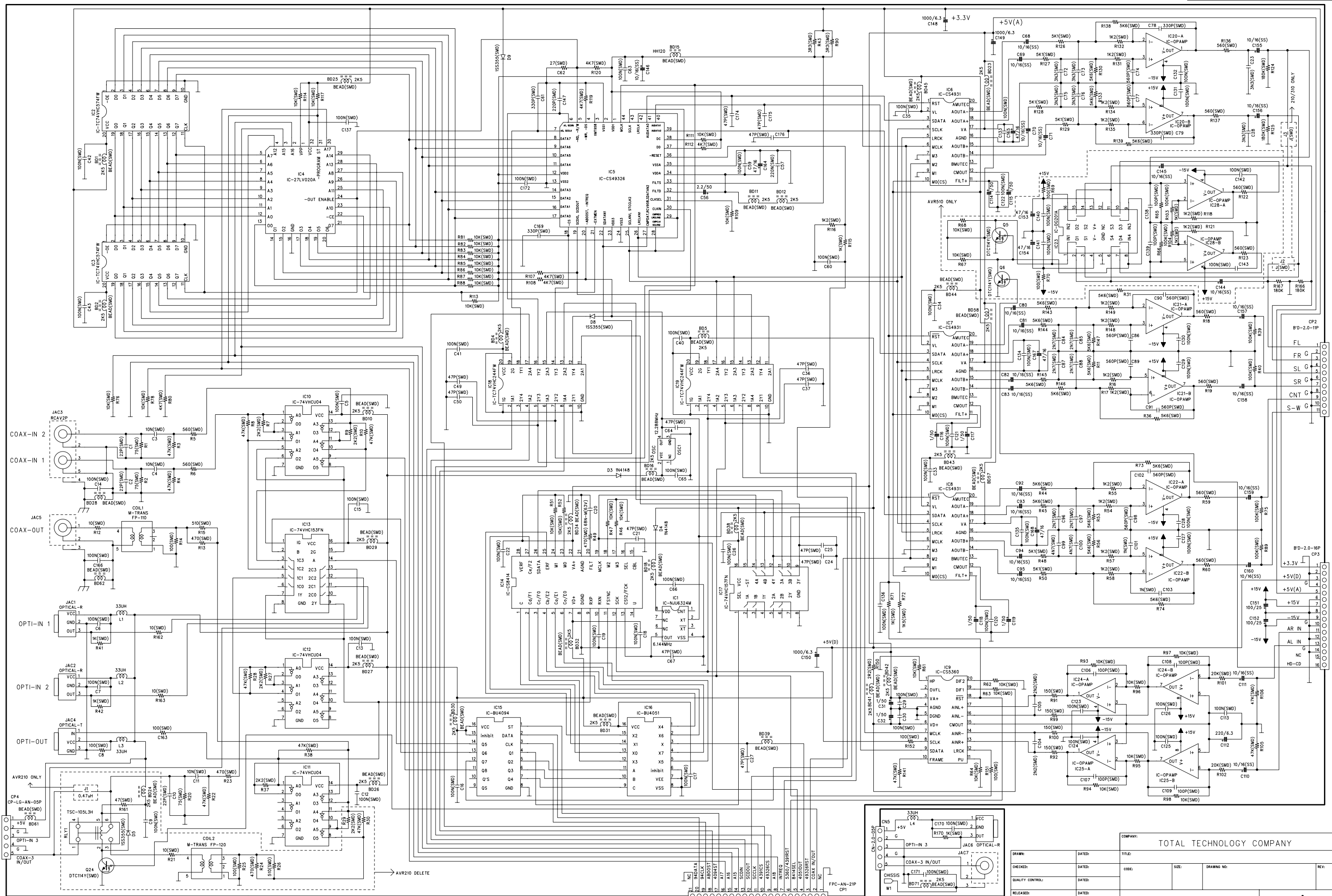
C

B

B

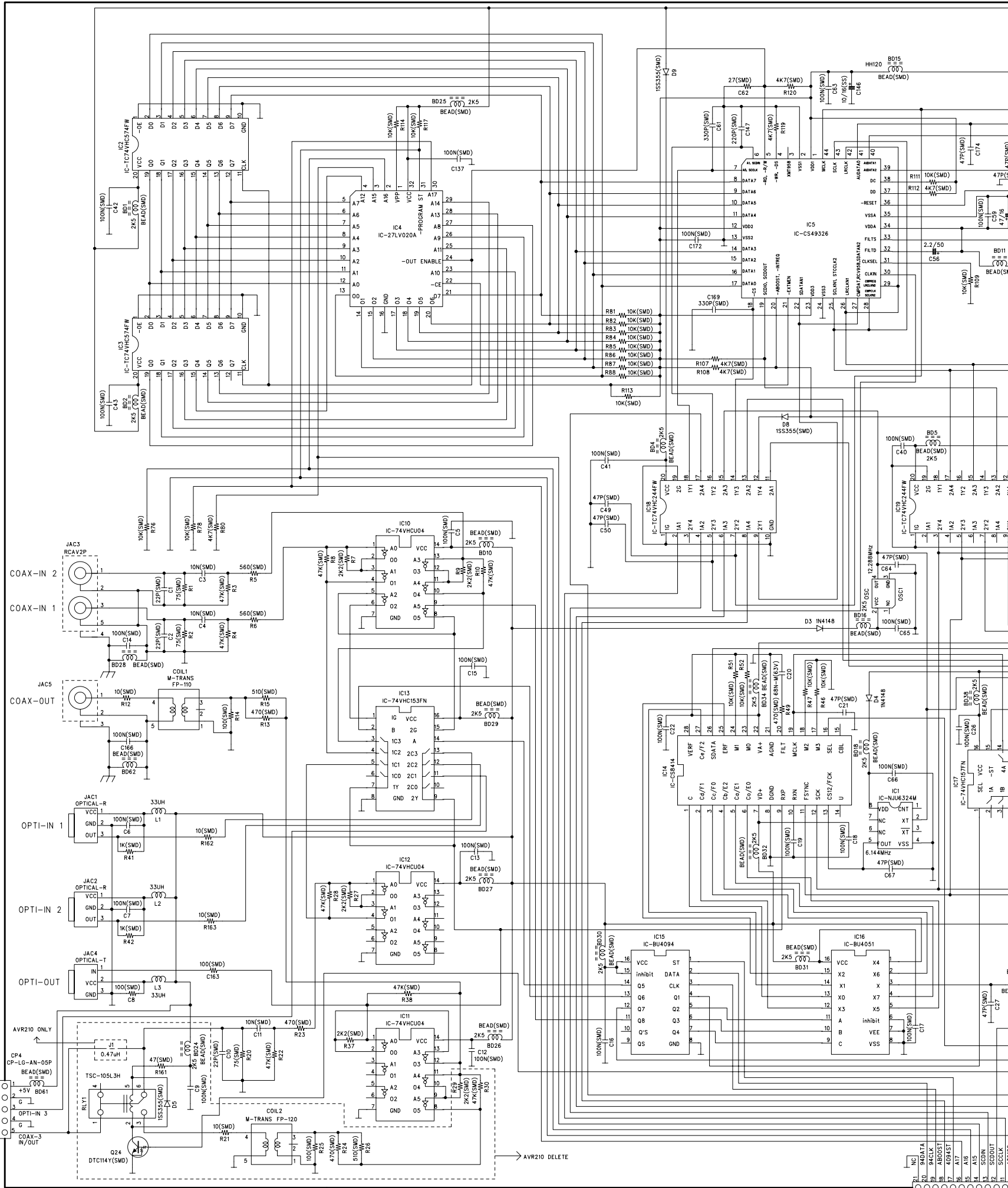
A

A



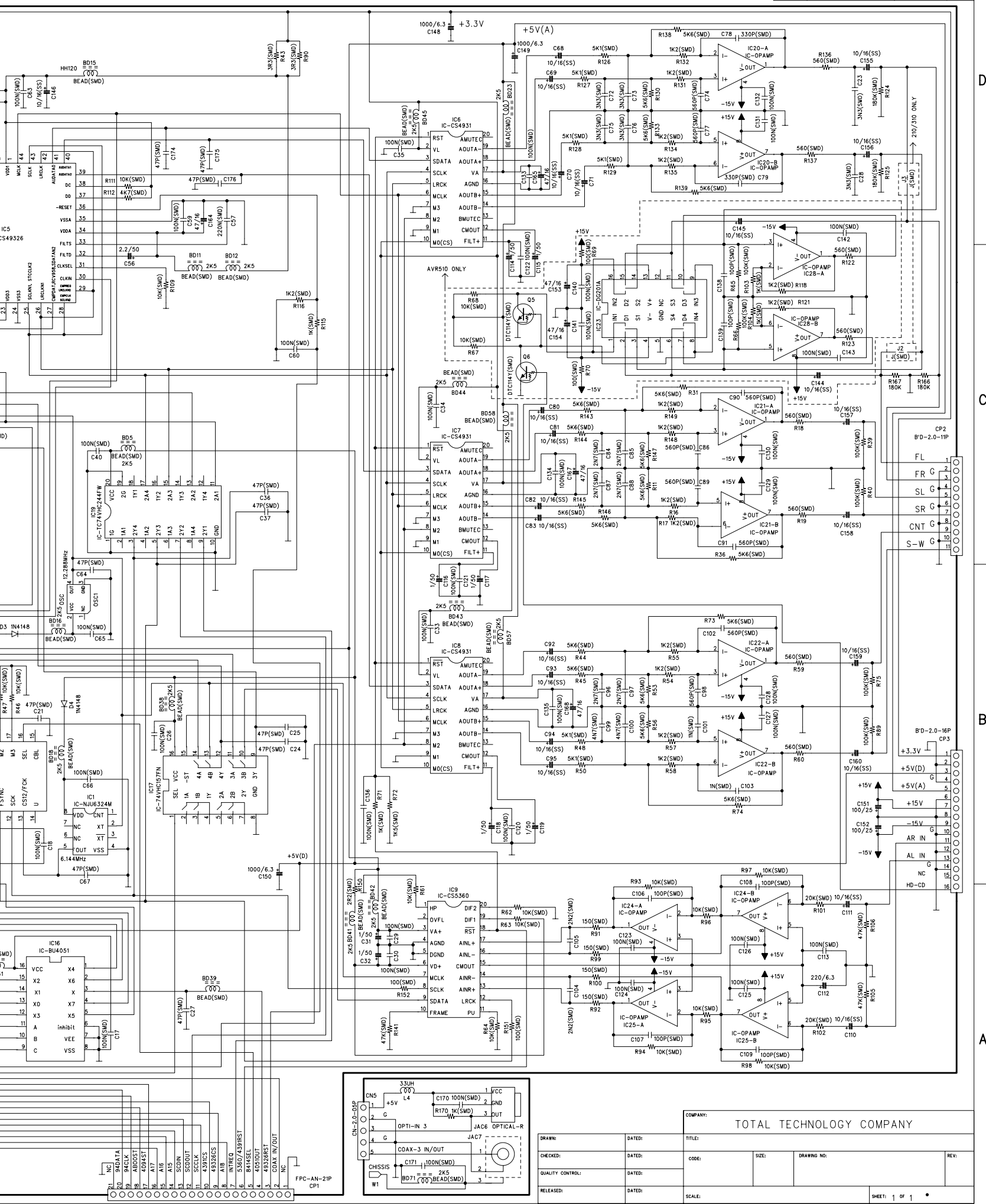
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TITLE:	
CODE:	SIZE:
DRAWING NO:	REV:
SCALE:	
SHEET: 1 of 1	

A



DSP B'D

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

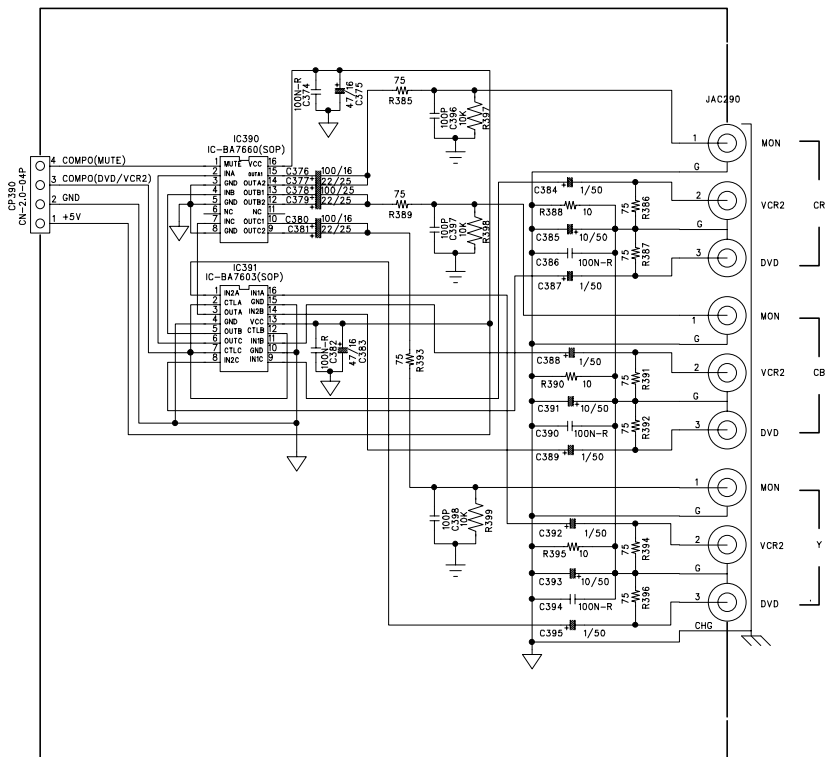


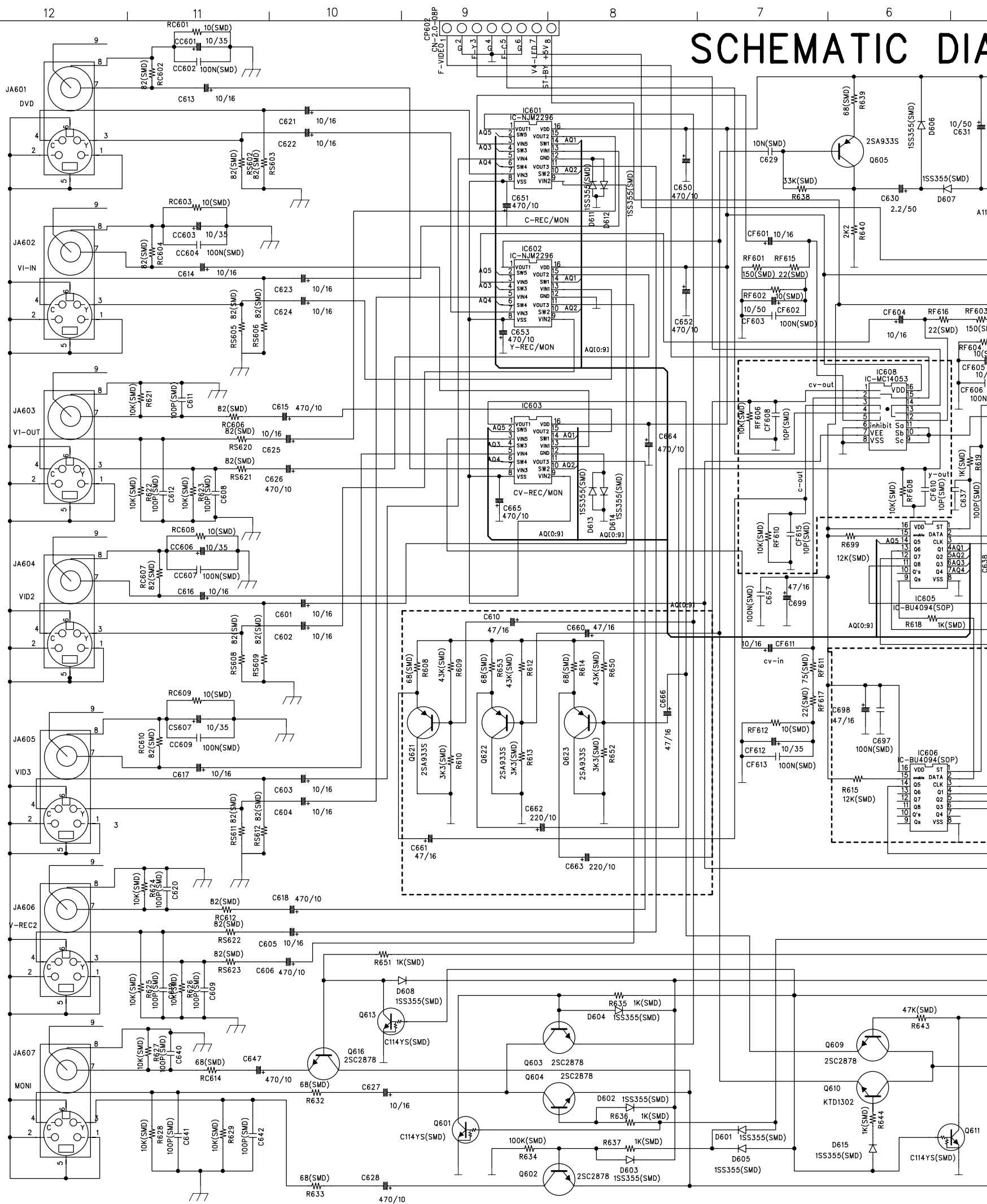
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RELEASED:	DATED:	SCALE:			SHEET: 1 OF 1

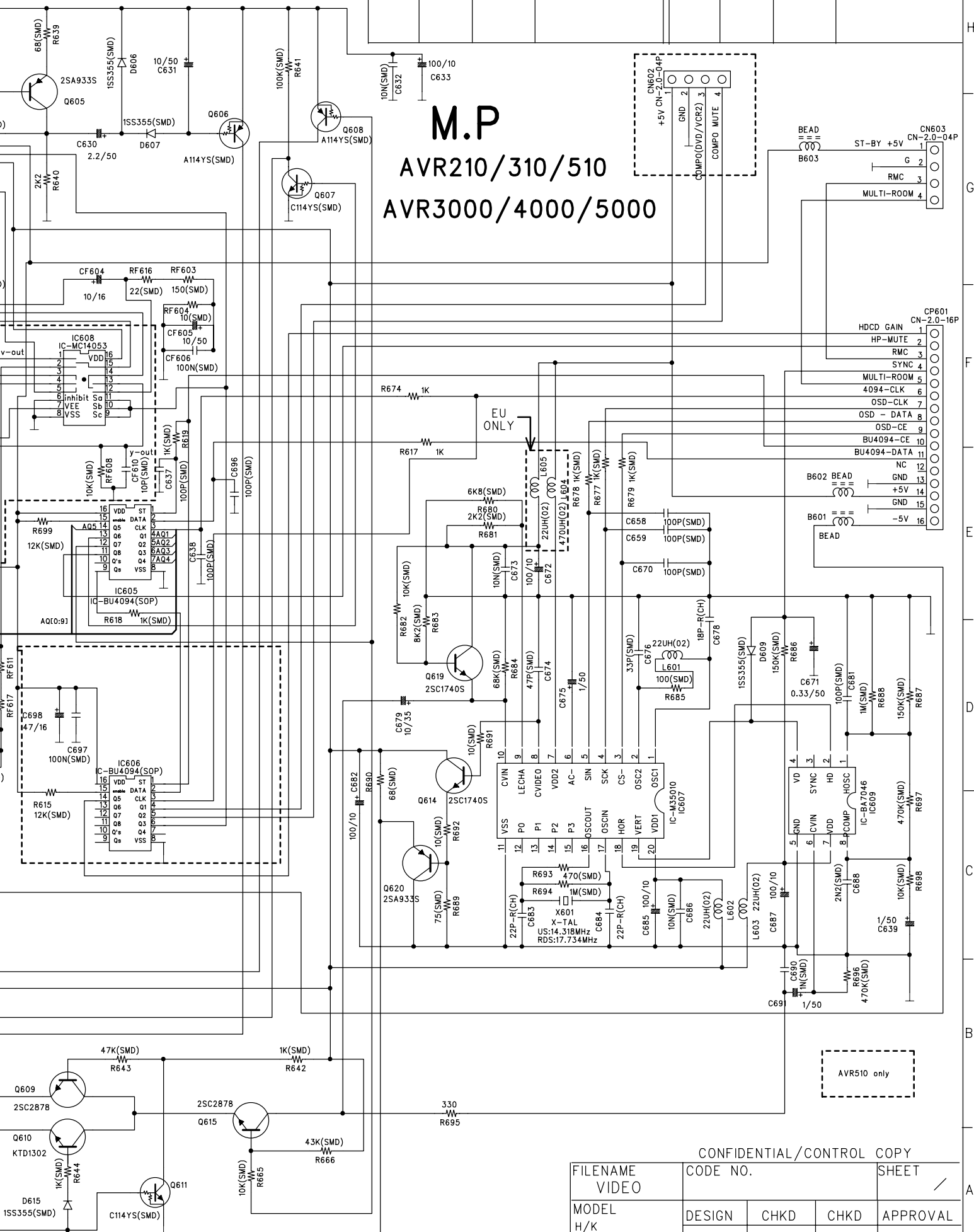
VERSION	USA	EU
R995	0	X
G20	0	X
FU981	110 210 SB5A/125V	T3.15A/250V
	310 SB6.3A/125V	T4A/250V
	510 SB8A/125V	T5A/250V
AC INPUT	120V/60Hz	230V/50Hz
JW125	0	X
JW124	X	0
C625 C626	X	0
T981	J2812220012X	J2812420032

COMPONENT B'D ASS'Y

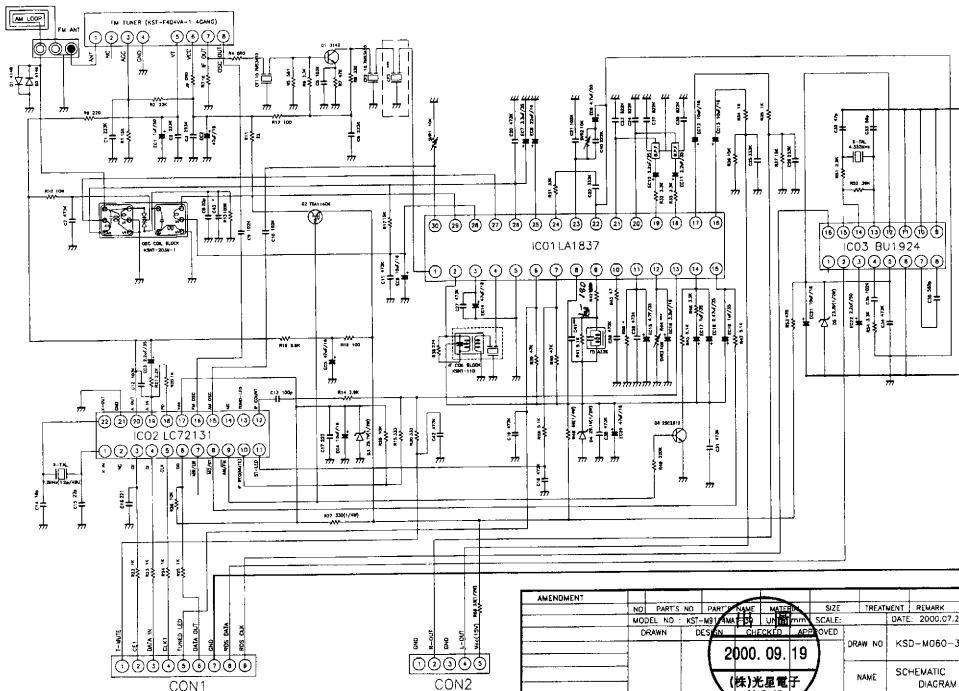




SCHEMATIC DIAGRAM



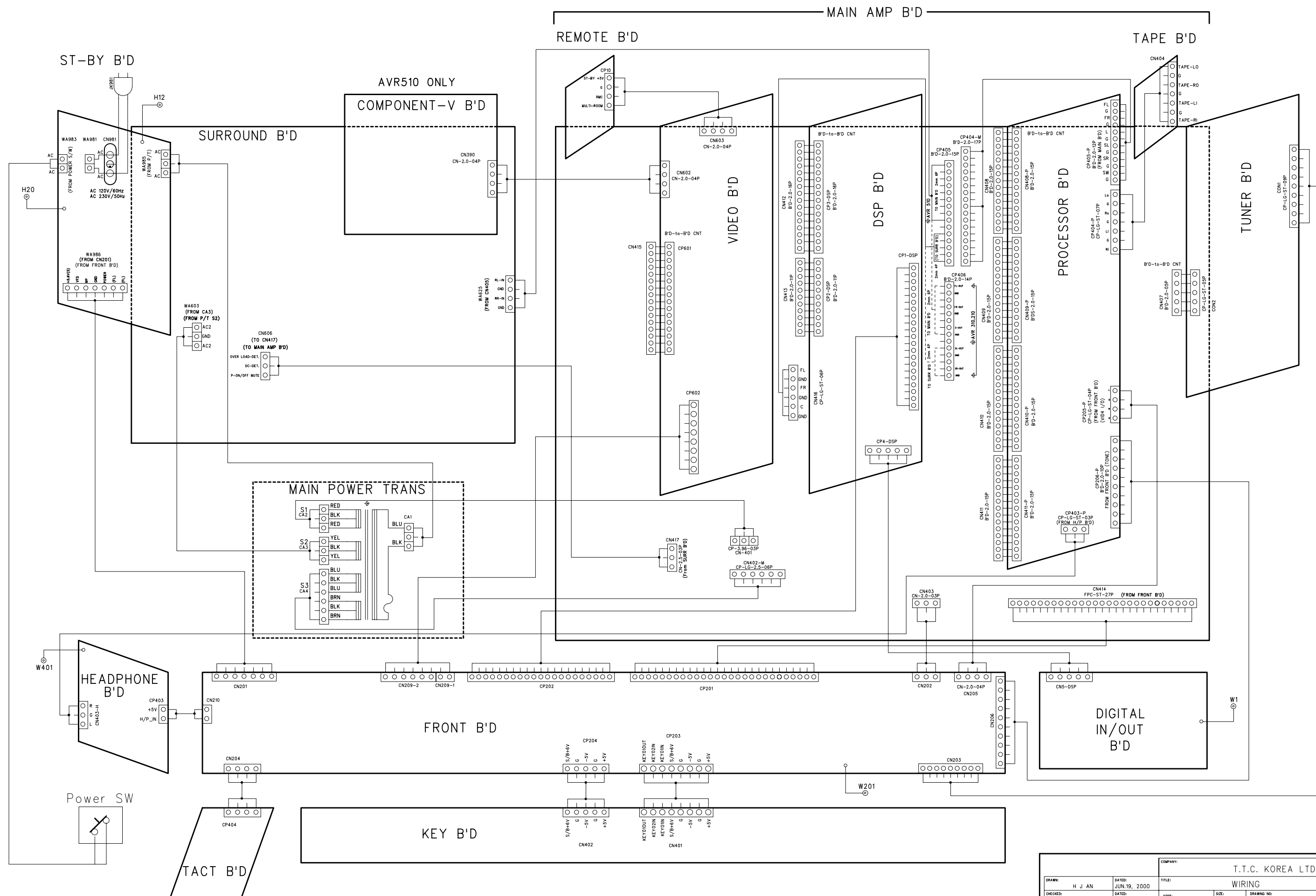
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VIDEO			/	
MODEL	DESIGN	CHKD	CHKD	APPROVAL
H/K				
DESIGN DATE	H.S.KIM			
2000.03.02				



AMENDMENT									
NO	PARTS NO.	PARTS NAME	MATERIAL	SIZE	TREATMENT	REMARK			
MODEL NO. : KST-MB100A		UNIT		SCALE:		DATE: 2000.07.26			
DRAWN		DESIGN	CHECKED	APPROVED					
2000.09.19						DRAW NO	KSD-M060-32		
(株)光星電子						NAME	SCHEMATIC DIAGRAM		

MODEL:AVR110/210/310/510
AVR2000/3000/4000/5000

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



		COMPANY:		T.T.C. KOREA LTD.	
DRAWN: H J AN		DATED: JUN.19, 2000		TITLE: WIRING	
CHECKED:		DATED:		CODE:	SIZE:
QUALITY CONTROL:		DATED:		DRAWING NO:	
RELEASED:		DATED:		SCALE:	SHEET: 1 OF 1

WIRING DIAGRAM

MODE

D

C

B

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REMOTE B'D

ST-BY B'D

AVR510 ONLY

COMPONENT-V B'D

SURROUND B'D

VIDEO B'D

MAIN POWER TRANS

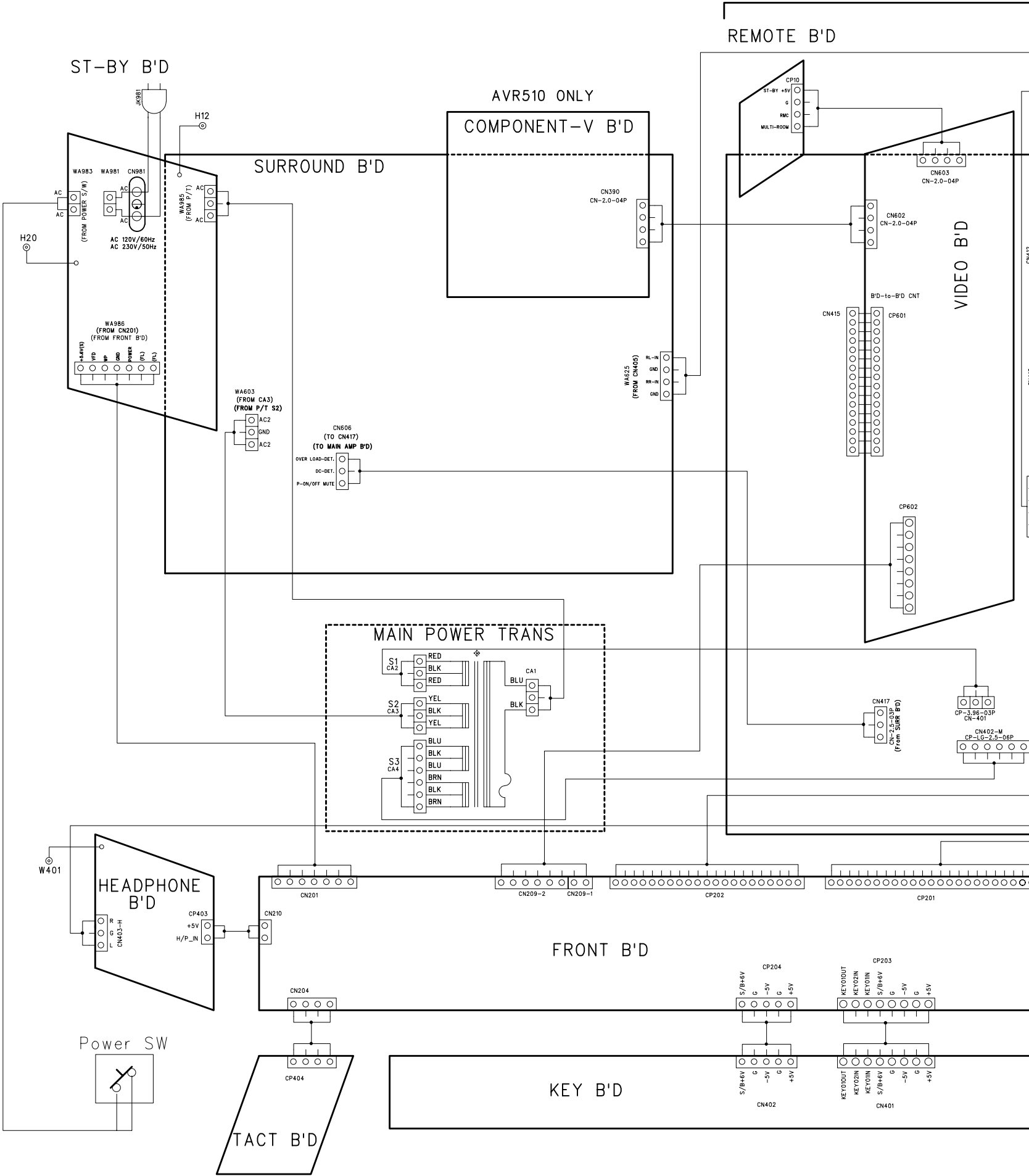
FRONT B'D

KEY B'D

TACT B'D

HEADPHONE B'D

Power SW

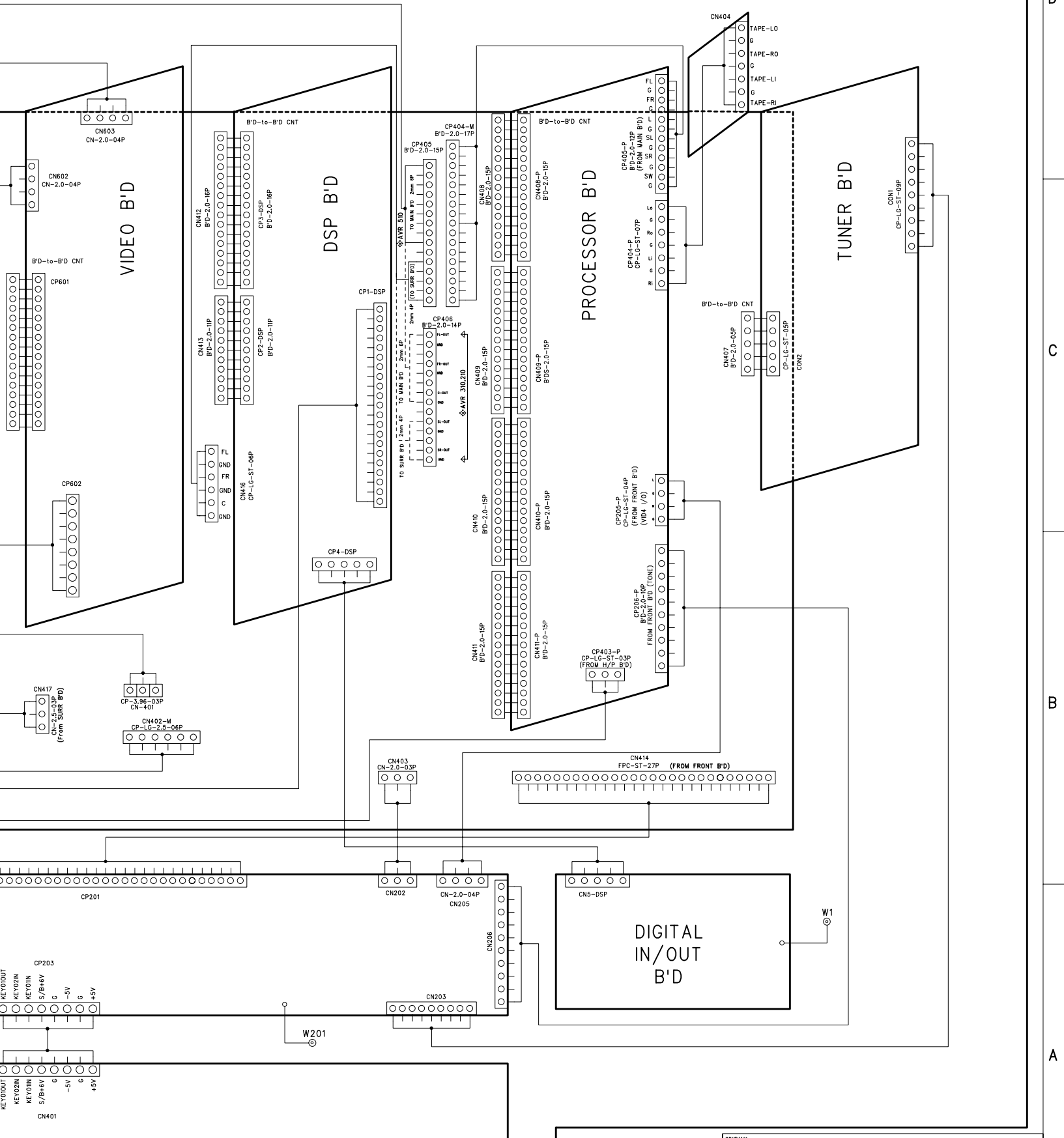


MODEL:AVR110/210/310/510 AVR2000/3000/4000/5000

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

MAIN AMP B'D

TAPE B'D



COMPANY:

T.T.C. KOREA LTD.

