

MEMOREX MVDR2102

SERVICE MANUAL

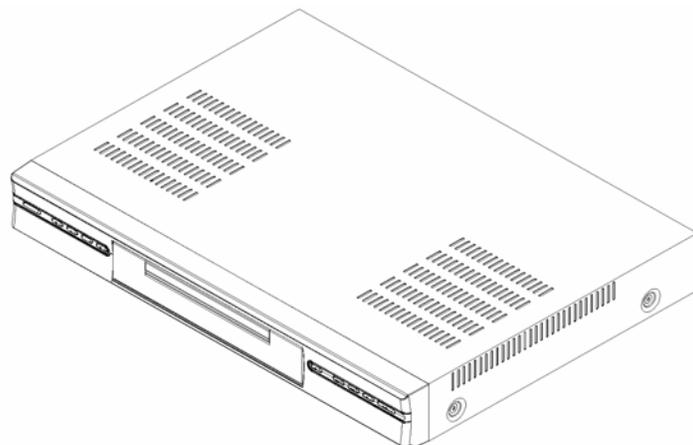
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K466UB

CAUTION: Before servicing the chassis, read the “IMPORTANT SERVICE SAFETY INFORMATION” section on page 2 of this manual.

SPECIFICATIONS

- **GENERAL SPECIFICATION**
- DVD Record
- Record external signal on DVD+R, DVD+RW
- Plays: VD+R/DVD+RW/DVD/CD/SVCD/VCD/JPEG/CD-MP3/CD-R/RW
- TV system: NTSC
- Built-in Dolby digital decoder, DTS digital out
- OSD languages
- Recording mode (based on 4.7GB DVD, single-sided, 1layer)
HQ = 60mins (Highest-level picture quality/ applicable to record high definition data from DV)
SP = 120mins (Standard picture quality, similar to DVD/ record video signals at DVD picture quality)
LP = 180mins (Long Play Mode)
EP = 240mins (Long time recording mode, picture quality better than VHS/ substitute for VCR)
SLP = 360mins (Ultra long time recording mode, picture quality better than VHS/applicable to record long-time programs or contents)
SEP = 420mins ((Super Extended Play Mode)
- Audio Video connector::
Front panel: Composite Audio-Video IN/S-Video IN/DV IN
Rear panel: Composite Audio-Video /S-Video IN & OUT
TV-RF IN & OUT/Coaxial-Optical OUT
- Audio-Video Cord included
- Multifunction remote control
- Power supply & consumption:
Operating power supply: AC100V ~ 240V, 50Hz/ 60Hz.
Power consumption: 35W
Standby-mode power consumption: 2W
- DIMENSION OF UNIT:
430(W) x 325(D) x 55mm



CONTENTS

| | |
|---|-------|
| IMPORTANT SERVICE SAFETY INFORMATION..... | 2 |
| DISASSEMBLY FOR REPAIR | 3 |
| WIRING DIAGRAM..... | 4 |
| BLOCK DIAGRAM..... | 5 |
| CIRCUIT DESCRIPTION | 6~17 |
| PARTS LIST | 18~28 |
| EXPLODED VIEW (UNIT) | 29 |
| SCHEMATIC DIAGRAMS..... | 30~44 |
| PRINTED CIRCUIT BOARDS..... | 45~56 |

Note: Follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

IMPORTANT SERVICE SAFETY INFORMATION

1. SAFETY PRECAUTIONS

Before returning a unit to the customer, always make a safety check of the entire unit, including, but not limited to the following items:

a. Be sure that no built-in protective devices are defective and/or have been defeated during servicing.

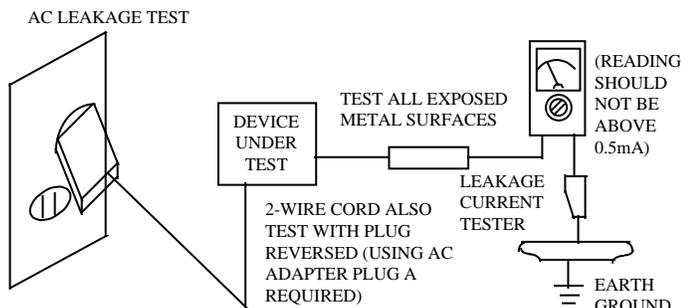
(1) Protective shields are provided to protect both the technician and the customer. Correctly replace all missing protective shields including any removed for servicing convenience.

(2) When reinstalling the chassis and/or other assemblies in the cabinet, be sure to put back in place all protective devices, including, but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields and isolation resistor capacitor networks. Do not operate this unit of permit it to be operated without all protective devices correctly installed and functioning.

b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, excessively wide cabinet ventilation slots, and an improperly fitted and/or incorrectly secured cabinet back cover.

c. Leakage Current Hot Check - With the unit completely reassembled, plug the AC line cord directly into a AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards institute (ANSI) C101.1 "Leakage Current for Appliances" and Underwriters Laboratories (UL) 1410, (50.7). With the unit AC switch first in the ON position and then in the OFF position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the unit (antennas, handle bracket, metal cabinet, screwheads, metallic overlays, control shaft, ect.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamp. Reverse the unit power cord plug in the outlet and repeat test.

ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE UNIT TO THE CUSTOMER.

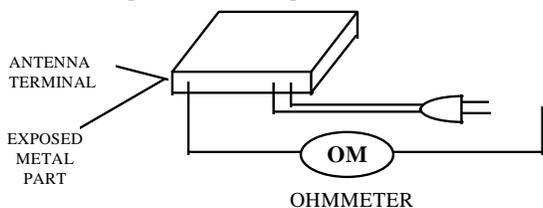


d. Insulation Resistance Test Cold Check

(1) Unplug the power supply cord and connect a jumper wire between the two prongs of the plug.

(2) Turn on the power switch of the unit.

(3) Measure the resistance with an ohmmeter between the jumpered AC plug and each exposed metallic cabinet part on the unit, such as screwheads, antenna, control shaft, handle brackets, etc. When the exposed metallic part has a return path to the chassis, the reading



should be between 1 and 5.2 Megohm. When there is no return path to the chassis, the reading must be "infinite". If it is not within the limits specified, there is the possibility of a shock hazard, and the unit must be repaired and rechecked before it is returned to the customer.

2. PRODUCT SAFETY NOTICE

Some electrical and mechanical parts have special safety related characteristics which are often not evident from visual inspection, nor can be protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a Δ on schematic and parts list. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. Product Safety is under review continuously and new instructions are issued whenever appropriate.

3. SERVICING PRECAUTIONS

CAUTION: Before servicing the unit covered by this service manual and its supplements, read and follow the SAFETY PRECAUTIONS on this page. NOTE: If unforeseen circumstances create a conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions. Remember: Safety First.

General Servicing Precautions.

a. Always unplug the unit's AC power cord from the AC power source before:

(1) removing or reinstalling any component, circuit board, module, or any other unit assembly.

(2) disconnecting or reconnecting any unit electrical plug or other electrical connection.

(3) connecting a test substitute in parallel with an electrolytic capacitor in the unit.

Caution: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

b. Do not defeat any plug/socket B+ voltage interlocks with which the unit covered by this service manual might be equipped.

c. Do not apply AC power to this unit and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.

d. Always connect a test unit ground lead to the unit chassis ground before connecting the test unit positive lead. Always remove the test instrument's ground lead last.

4. LASER PRECAUTIONS

WARNING!

1. When servicing (in case it is necessary to confirm Laser Beam Emission), be sure not to place your eyes any closer than 1 ft or 30cm from the surface of the Object Lens on the Optical Pickup Block.

HANDLING THE LASER PICKUP

2. Laser diodes are extremely susceptible to damage from static electricity. Even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly. When replacing the pickup, use a conductive mat on the floor and desk and wear a wrist band connected to ground through a 1M ohm resistor to protect the laser diode from static damage. If the lens should get dusty, blow off the dust carefully from the object.

3. There are no adjustable parts in the pickup assembly. If it is defective, replace the whole pickup assembly.

CAUTION:

USE OF CONTROLS, ADJUSTMENTS OR PERFORMANCE OF PROCEDURES HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

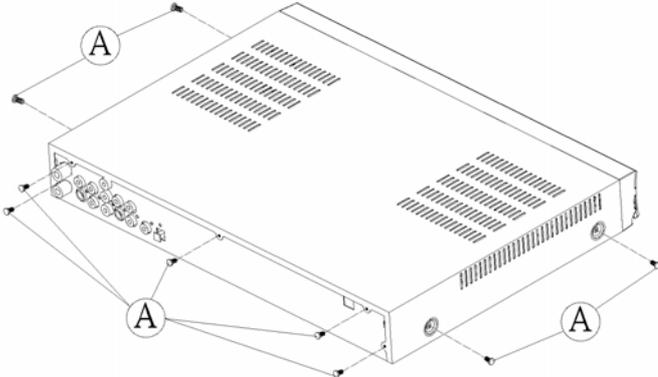
DANGER:

IF INTERLOCK FAILS OR IS DEFEATED, THE LASER LIGHT IS ABLE TO FUNCTION. THE LASER IS INVISIBLE, AVOID DIRECT EXPOSURE TO BEAM.

DISASSEMBLY FOR REPAIR

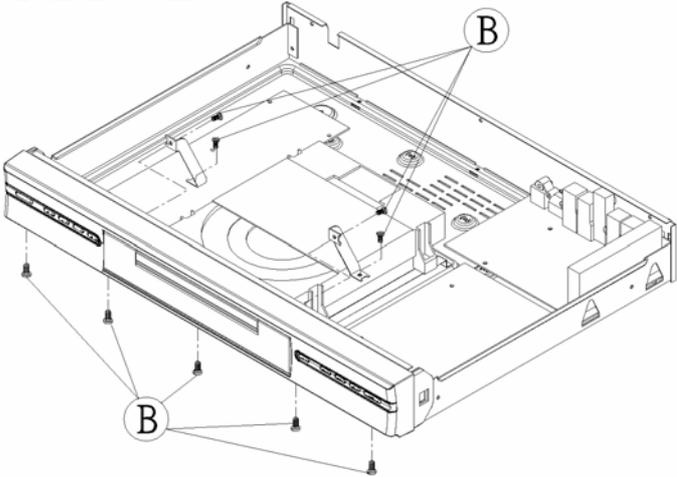
TO DISASSEMBLY THE TOP CABINET

1. Remove the 9 screws (A) from top cabinet.



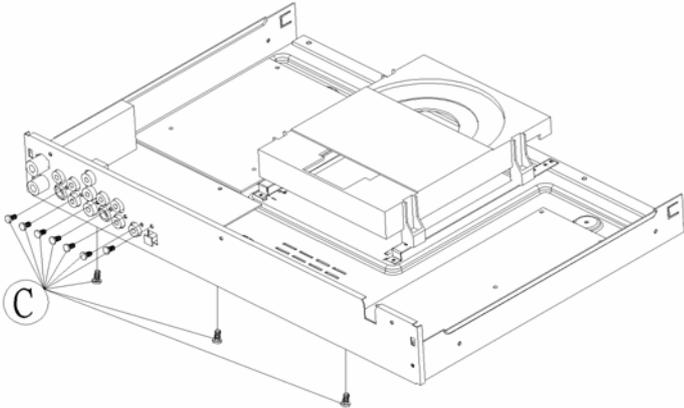
TO DISSAEMBLY THE FRONT CABINET

2. Remove 9 screws (B) from the top bracket and the front cabinet.

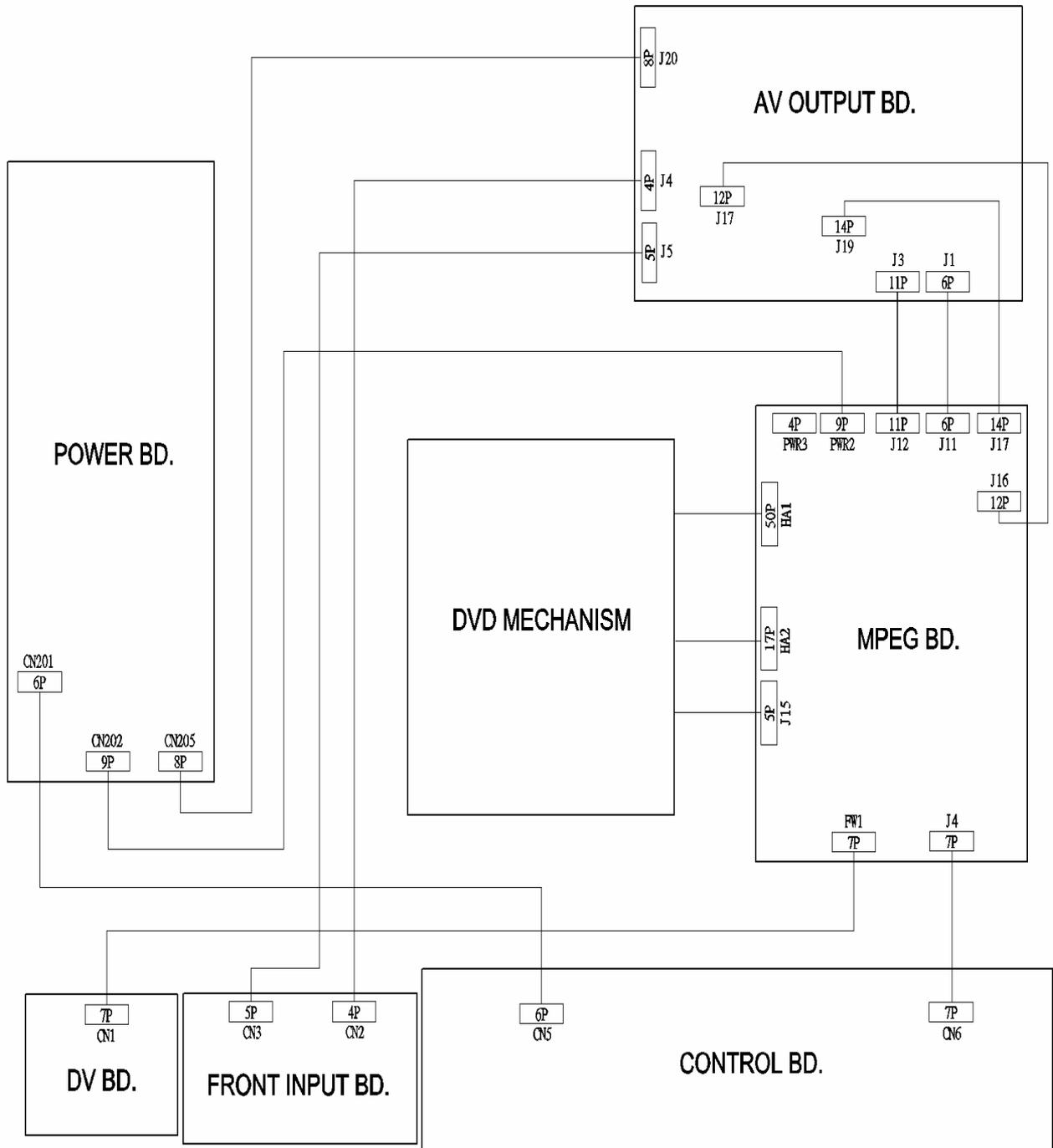


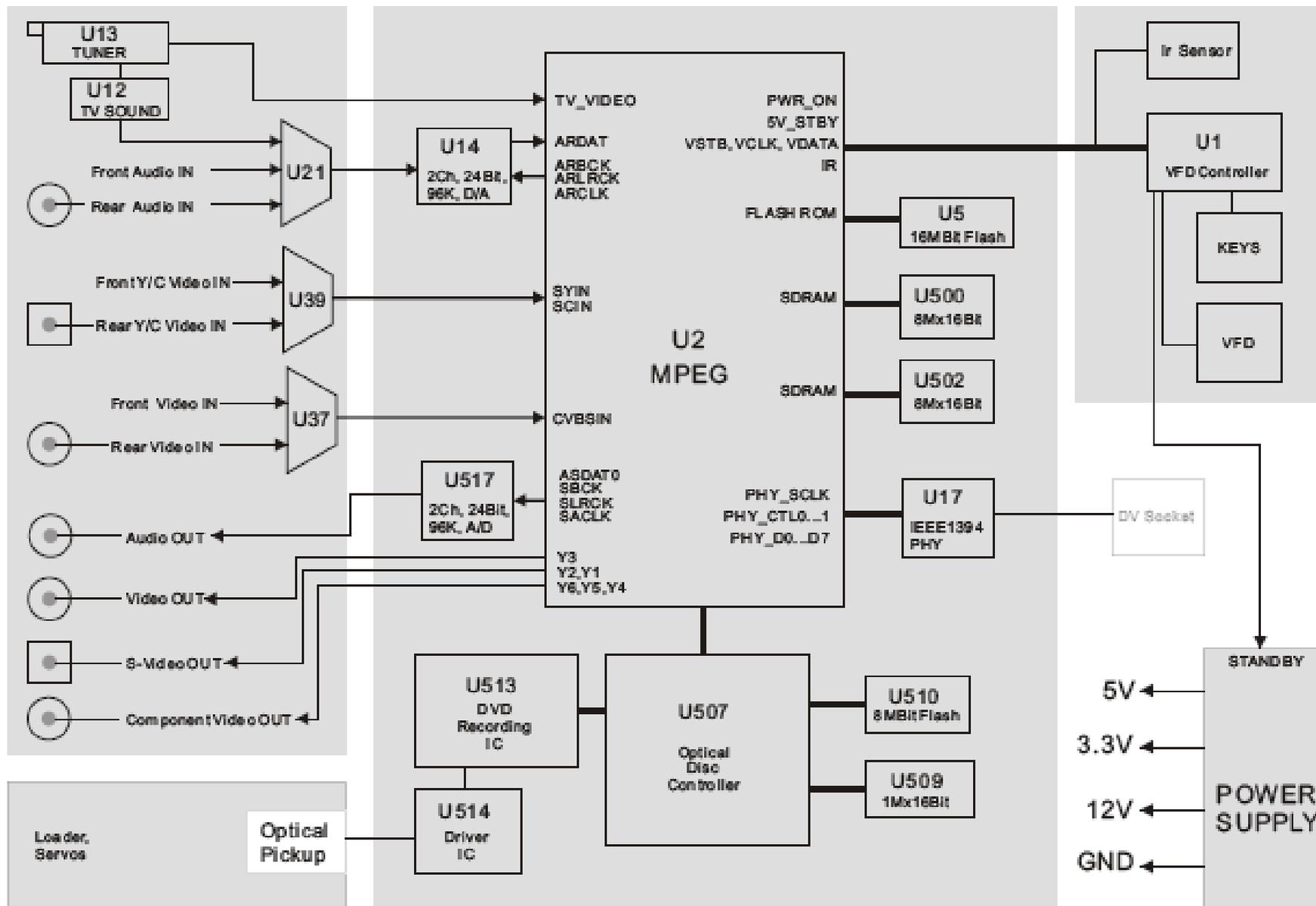
TO REMOVE THE REAR PLATE

3. Remove the 10 screws (C) from the rear plate.



WIRING DIAGRAM

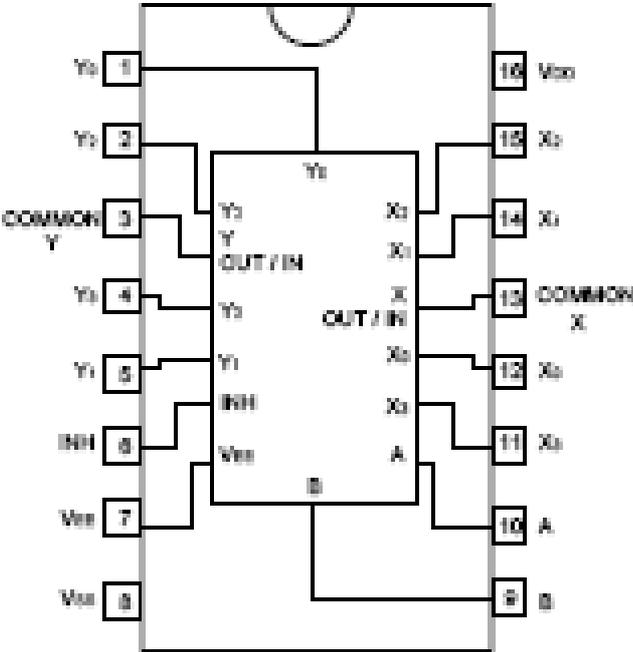




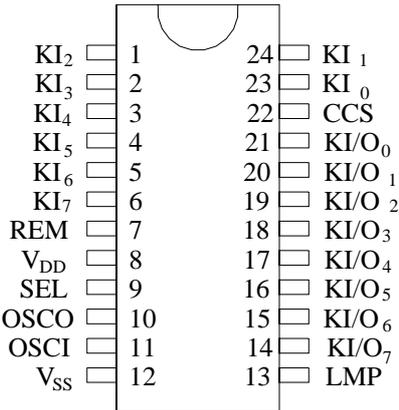
BLOCK DIAGRAM

CIRCUIT DESCRIPTION

DUAL 4-CHANNEL ANALOG MULTIPLEXER /DEMULTIPLEXER: BU4052BCF (U21,37)

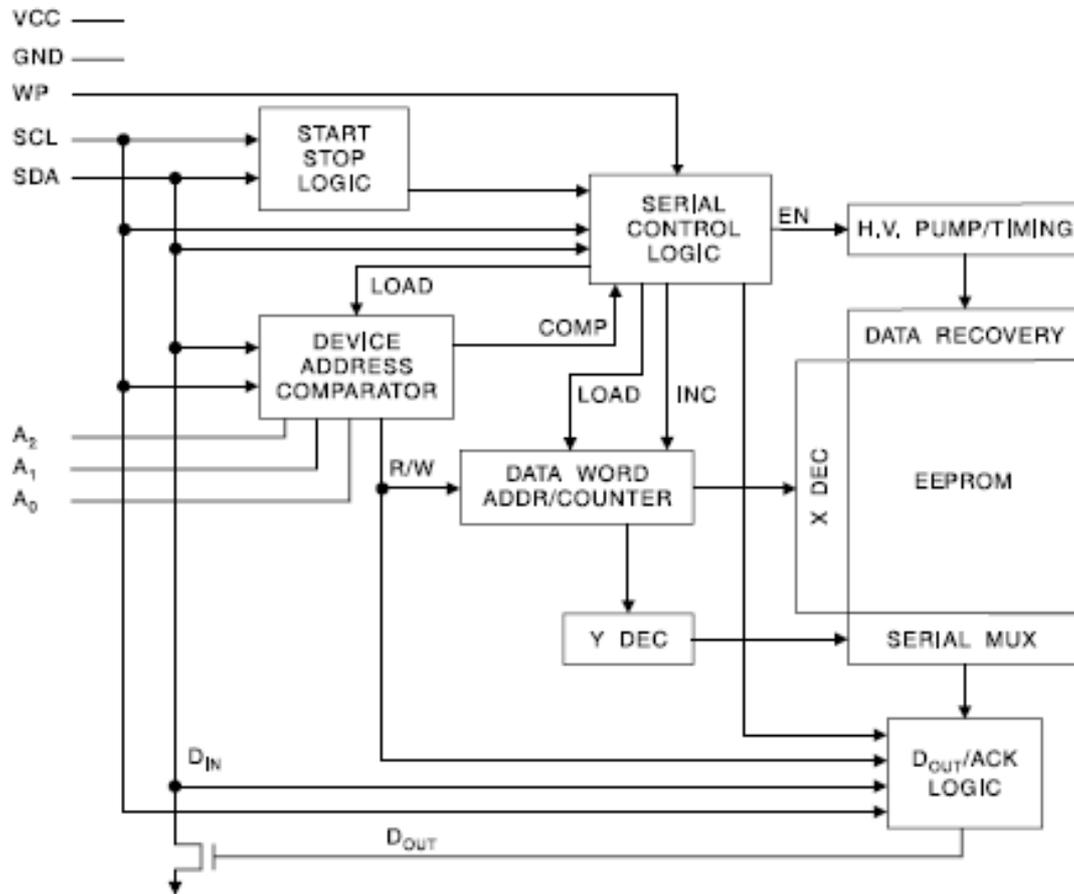


INFRARED REMOTE CONTROL TRANSMITTER : PT2222-002 (IC1)

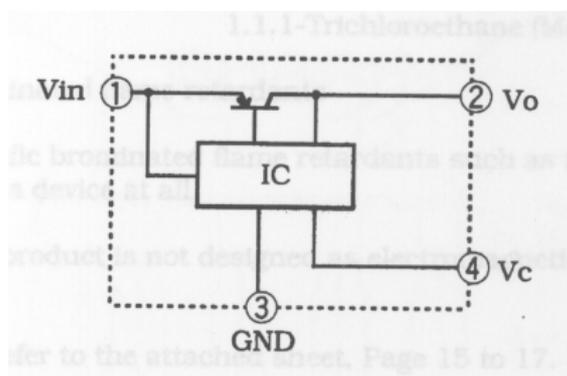


CIRCUIT DESCRIPTION

2-WIRE SERIAL EEPROM : AT24C16AN-10SI-2.7V (U3)

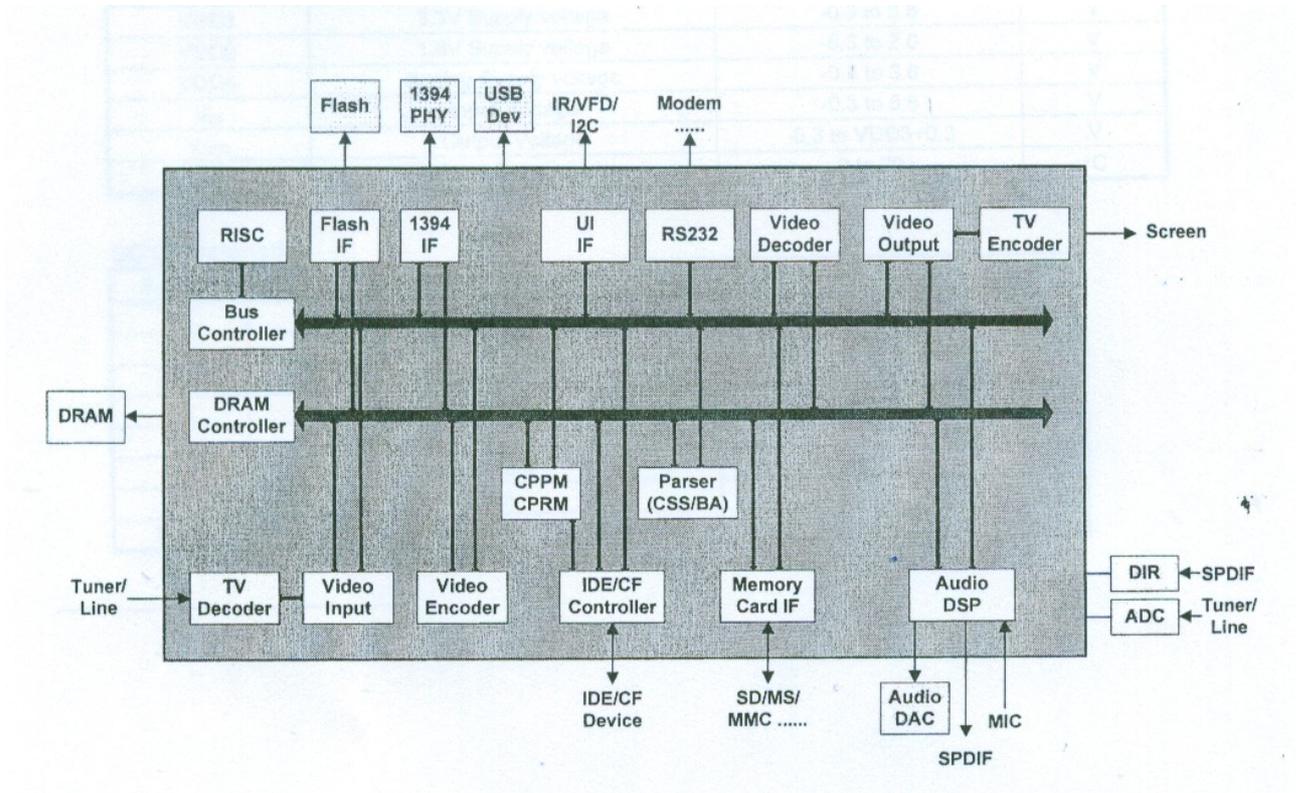


VOLTAGE REGULATOR: PQ12RD21 (IC201)

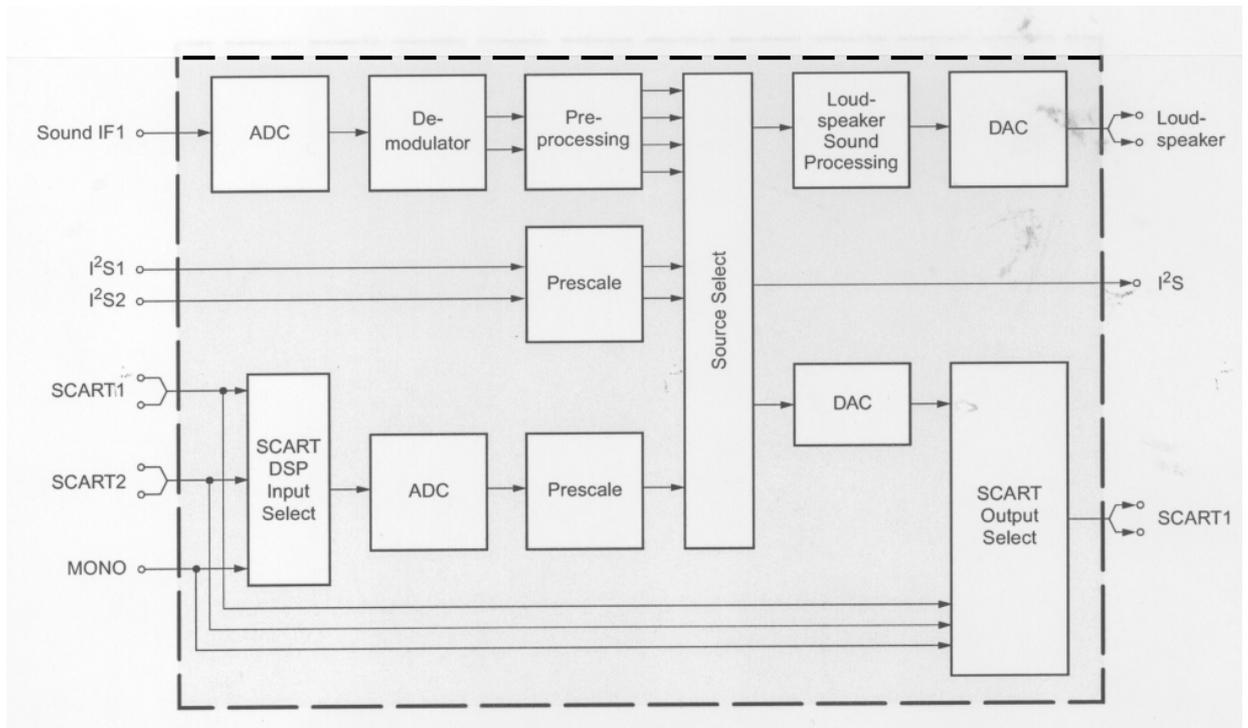


CIRCUIT DESCRIPTION

MPEG CODEC SOC: MT8105GE (U2)

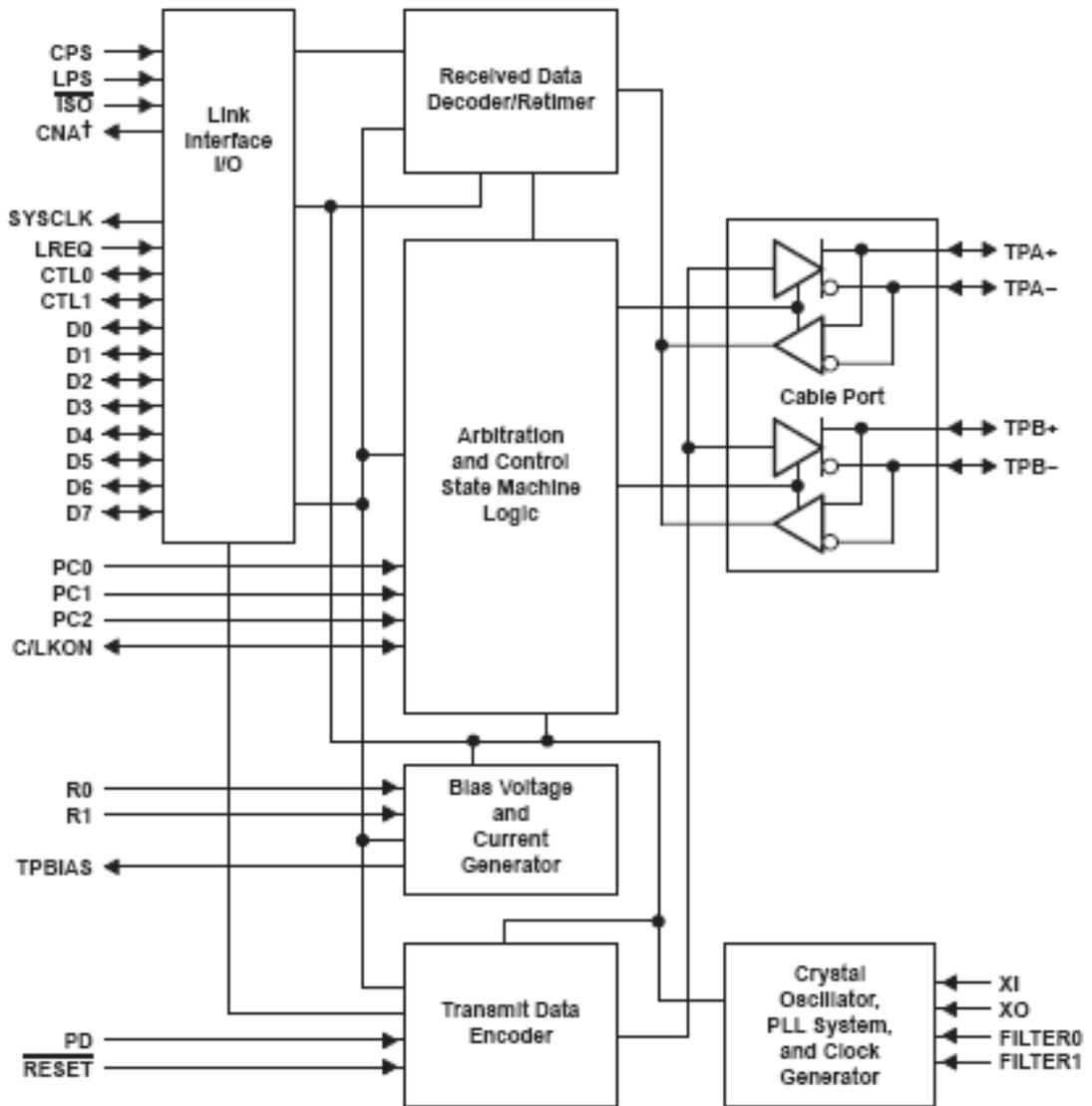


MULTISTANDARD SOUND PROCESSOR FAMILY: MSP3425G-QG-B8-V3 (U12)

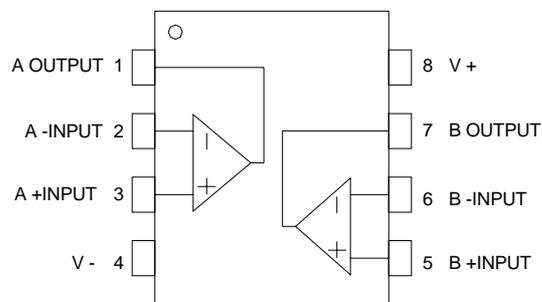


CIRCUIT DESCRIPTION

IEEE 1394a-2000 ONE-PORT CABLE TRANSCEIVER/ARBITER: TSB41AB1PHP (U17)

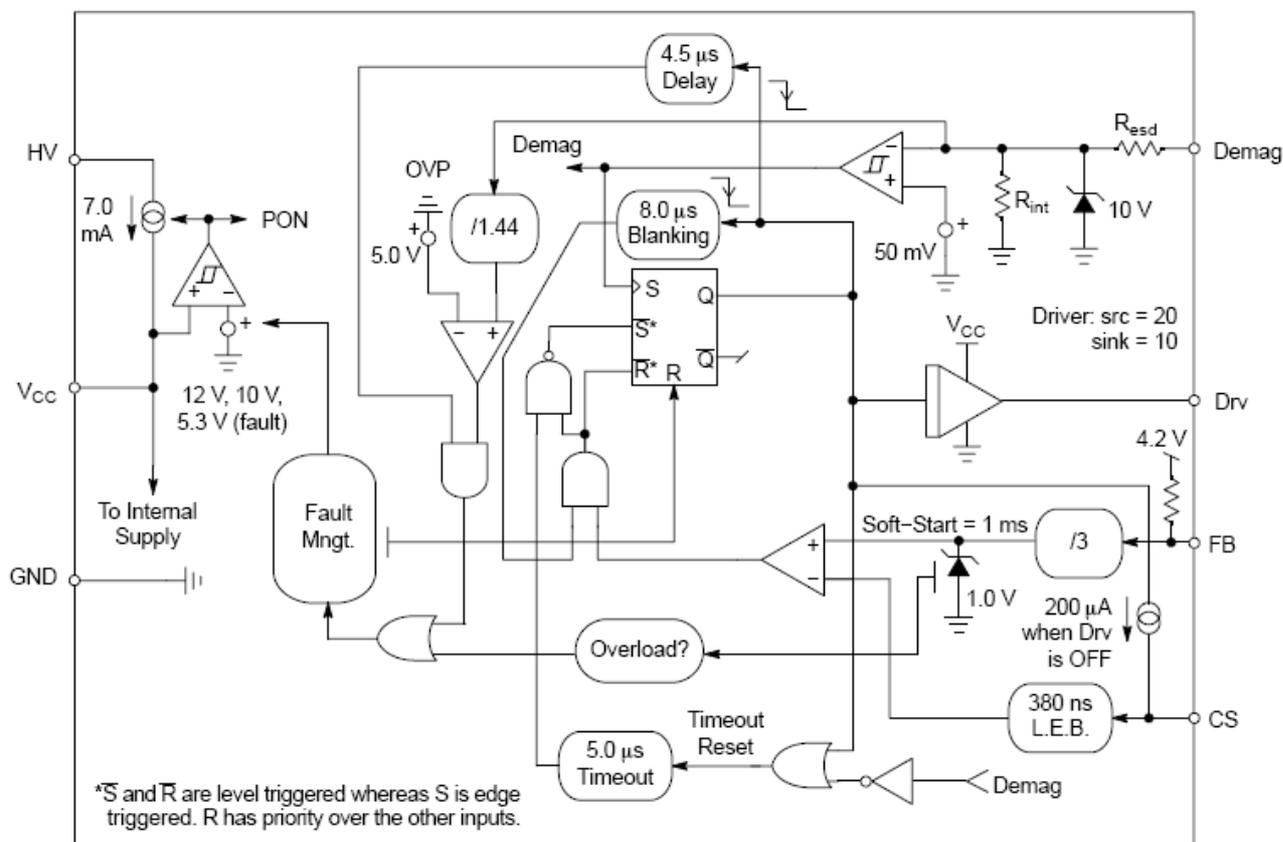


DUAL OPERATIONAL AMPLIFIER: UTC4558 (U10,15)

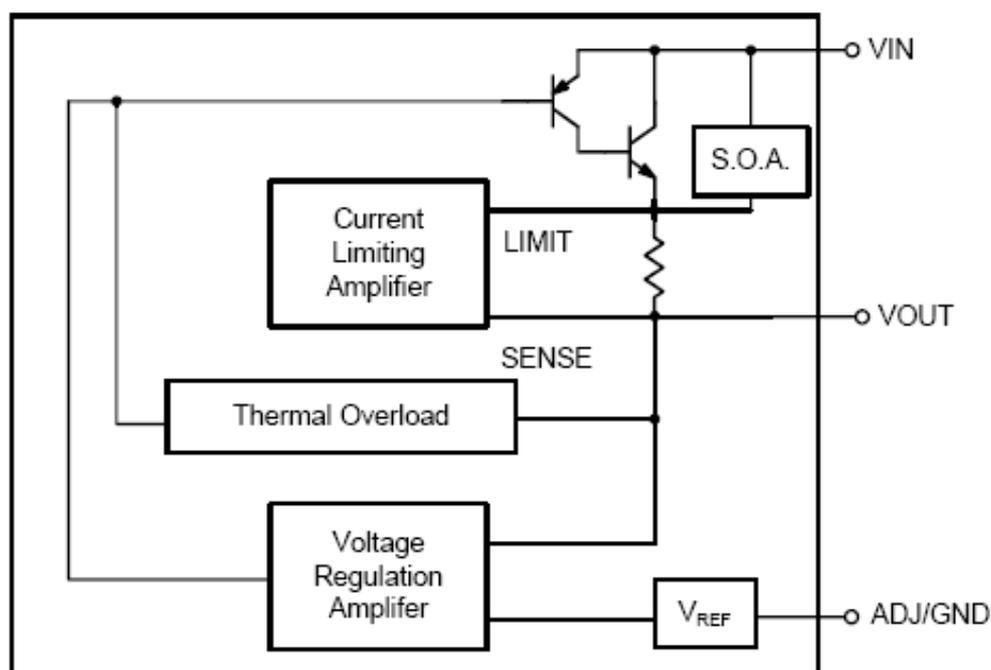


CIRCUIT DESCRIPTION

PWM CURRENT-MODE CONTROLLER FOR FREE RUNNING QUASI-RESONANT OPERATION: NCP1207ADR2G (IC101)

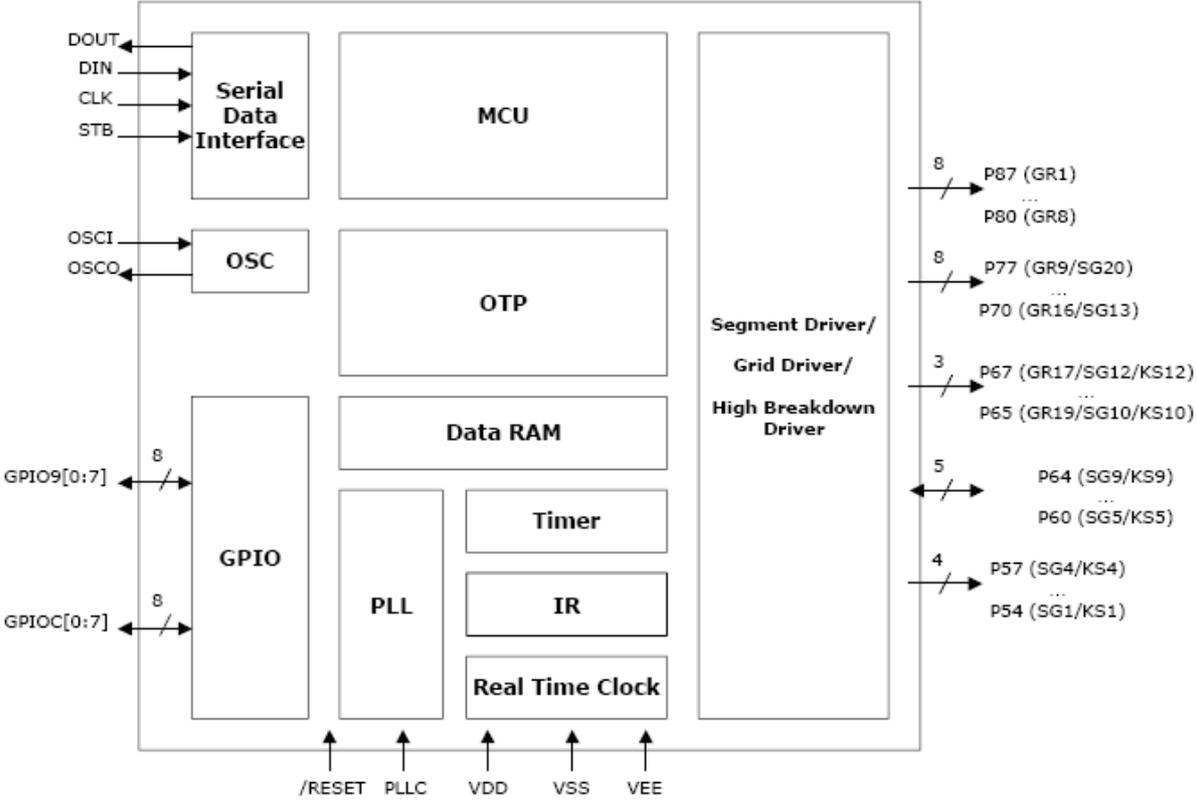


1.0A FIXED AND ADJUSTABLE LOW DROPOUT POSITIVE VOLTAGE REGULATORS: RT9164A-CG (U2, U516, U1)

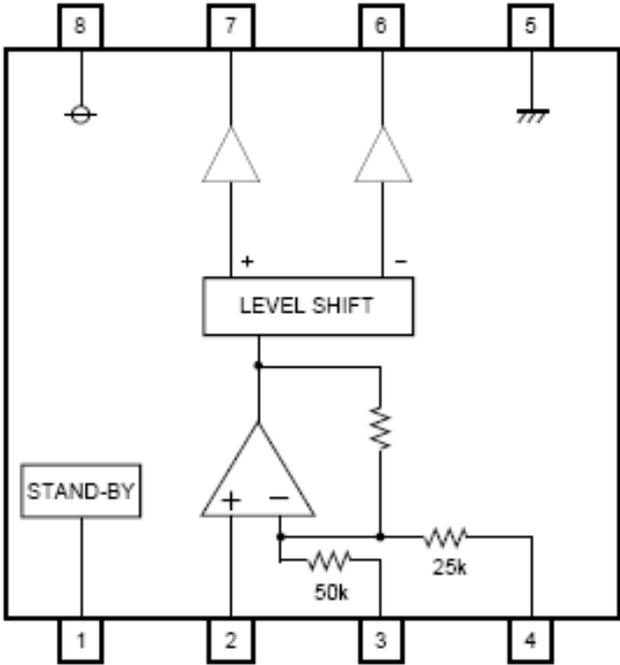


CIRCUIT DESCRIPTION

VFD MICROCOMPUTER: LC588620B (U1)

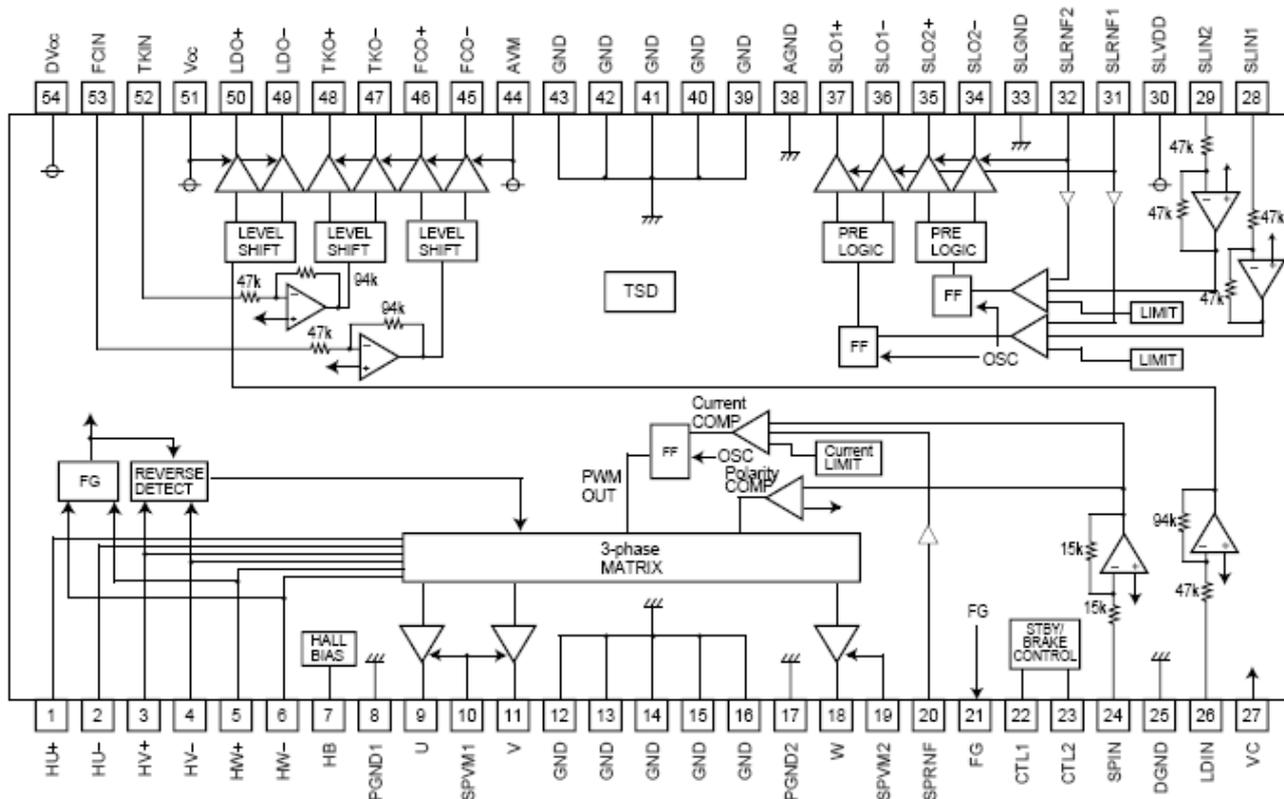


1CH BTL POWER DRIVER IC: BA5962FVM (U15)

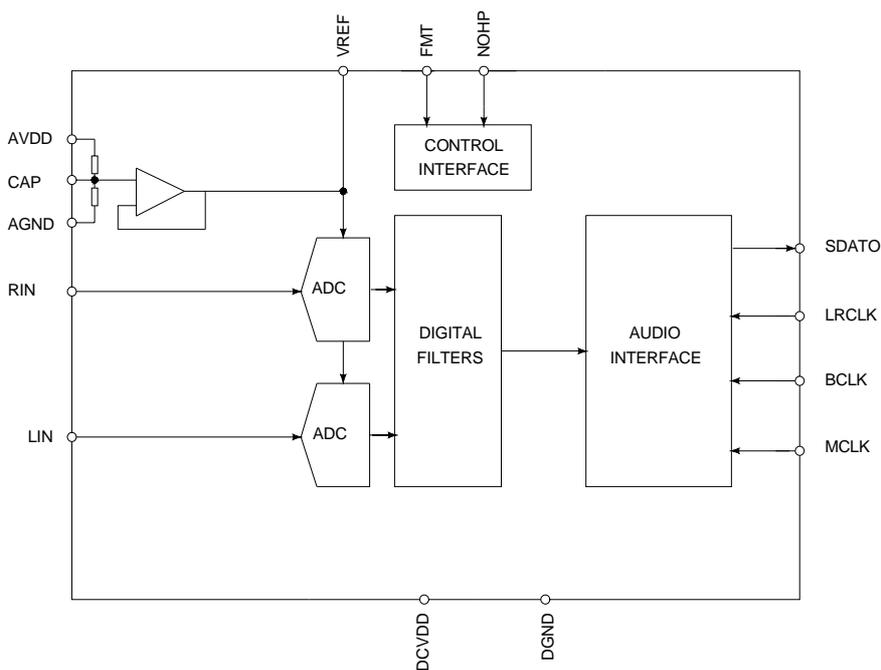


CIRCUIT DESCRIPTION

6CH POWER DRIVER FOR CD-ROM, DVD-ROM: BD7902CFS (U514)

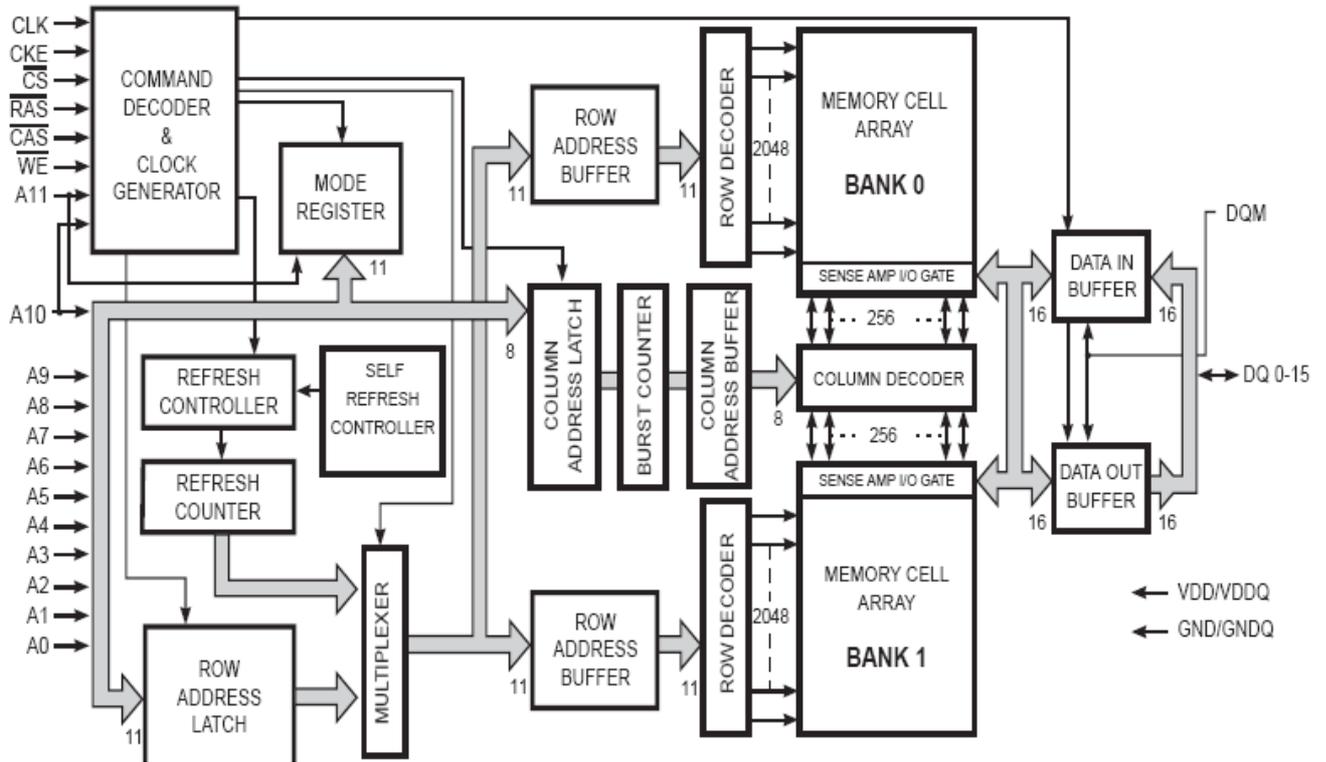


24 BIT STEREO ADC: WM8738 (U14)

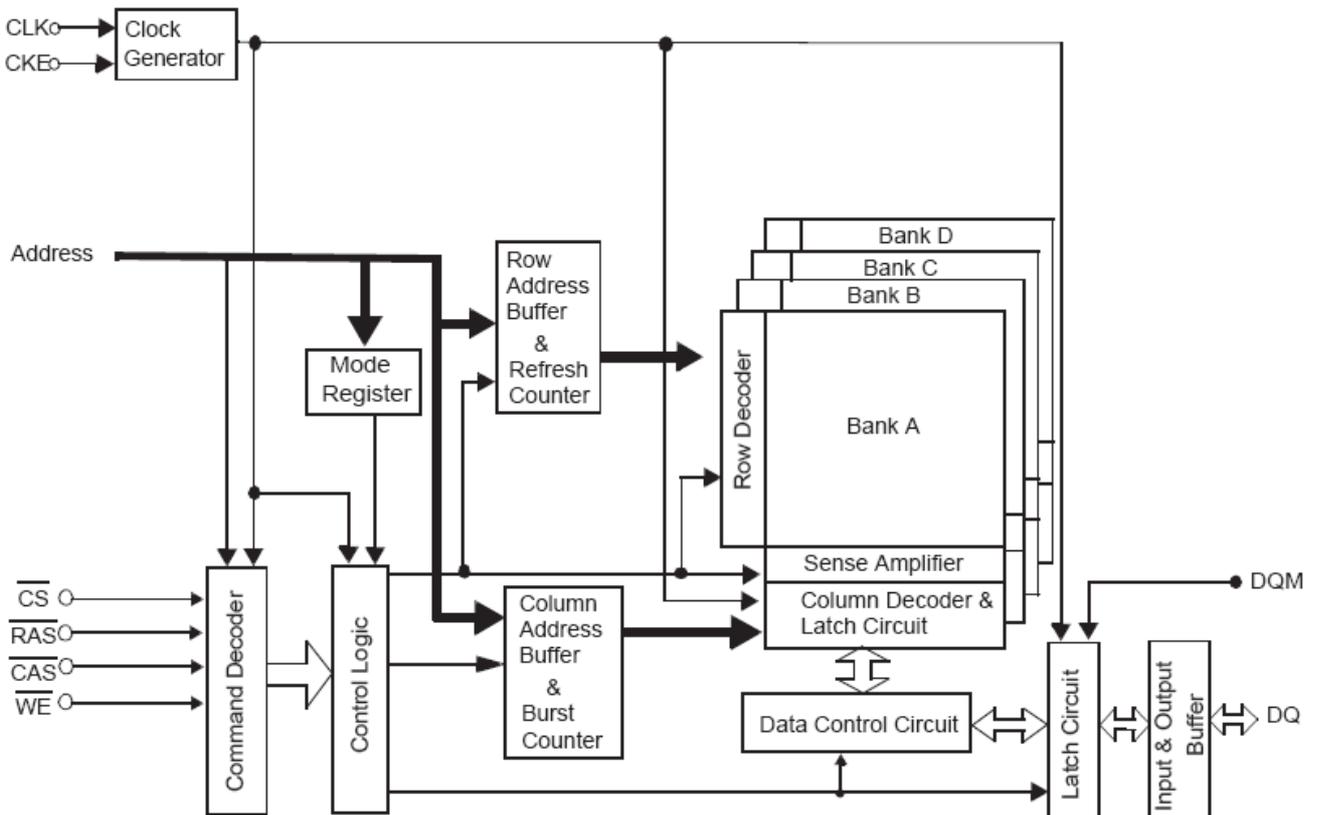


CIRCUIT DESCRIPTION

512K WORDS X 16 BITS X 2 BANKS (16-MBIT) SYNCHRONOUS DYNAMIC RAM: K4S161622H-UC60 (U508)

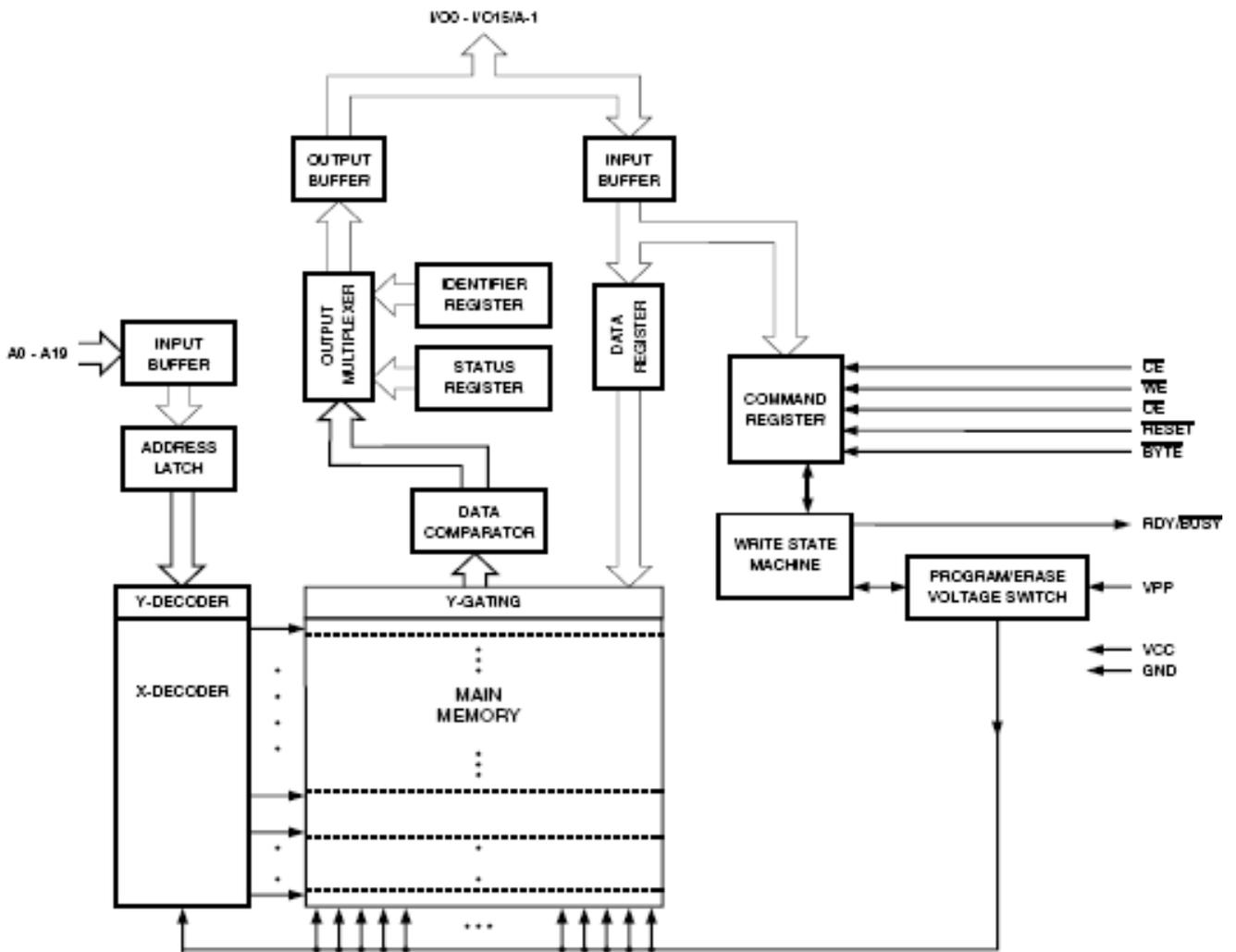


4(2)M X 8(16) BITS X 4 BANKS (128-MBIT) SYNCHRONOUS DYNAMIC RAM: K4S281632F-UC75 (U500,502)

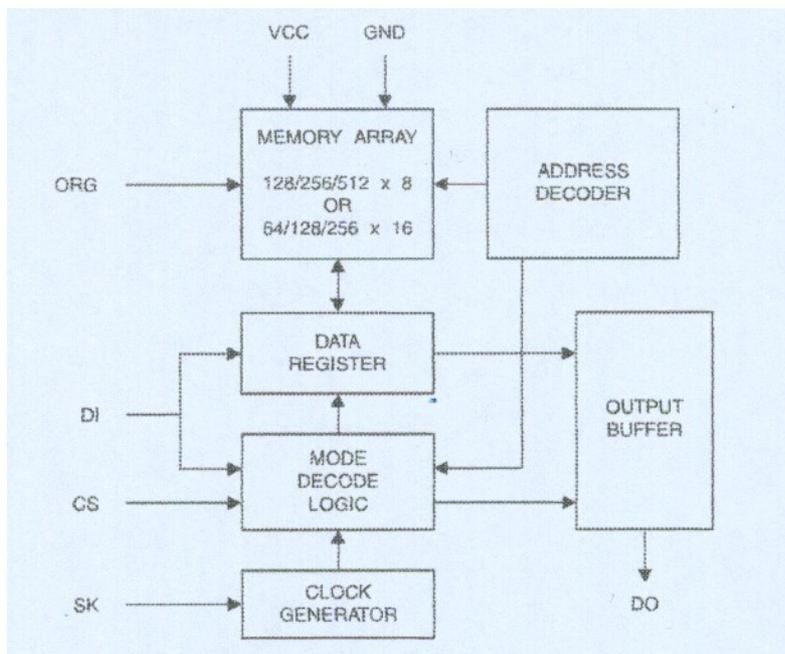


CIRCUIT DESCRIPTION

16-MEGABIT (1M X 16/2M X 8) 3-VOLT ONLY FLASH MEMORY: AT49BV163A-70TU (U5)

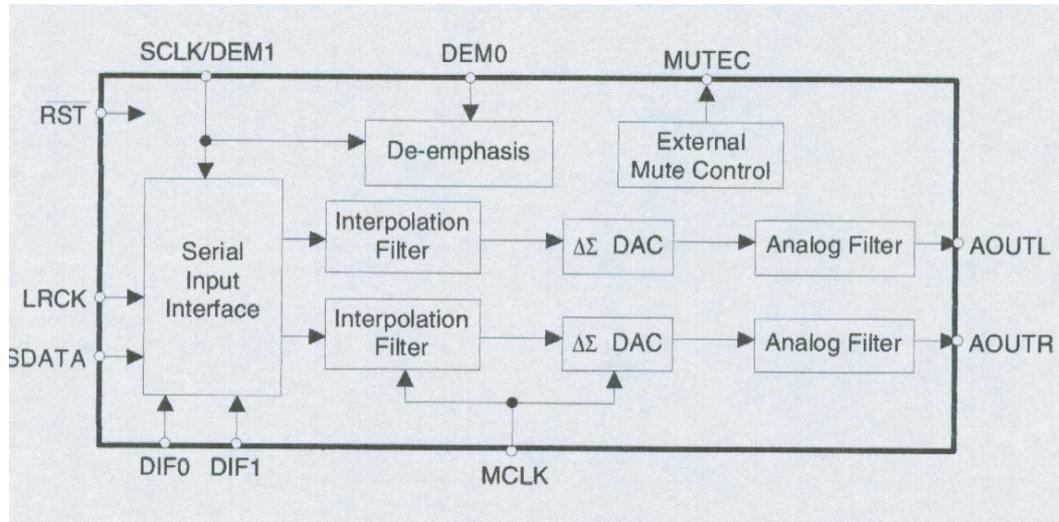


THREE-WIRE SERIAL EEPROMS: AT93C66-10SI-2.7 (U512)

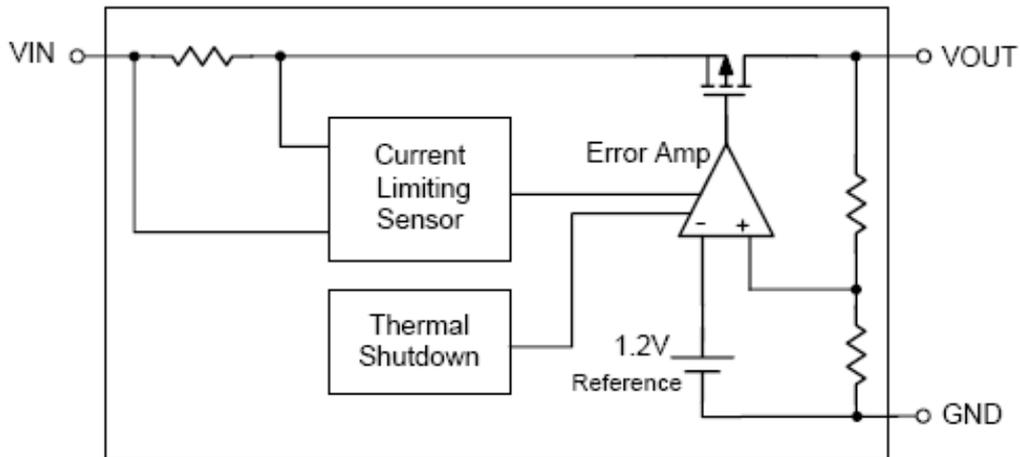


CIRCUIT DESCRIPTION

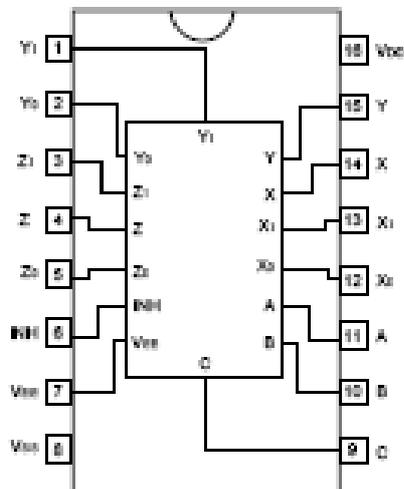
24-BIT, 96KHZ STEREO D/A CONVERTER FOR AUDIO: CS4340 (U517)



300/500MA, ULTRA-FAST TRANSIENT RESPONSE LDO REGULATOR: RT-9166/A-25CXL (U503)

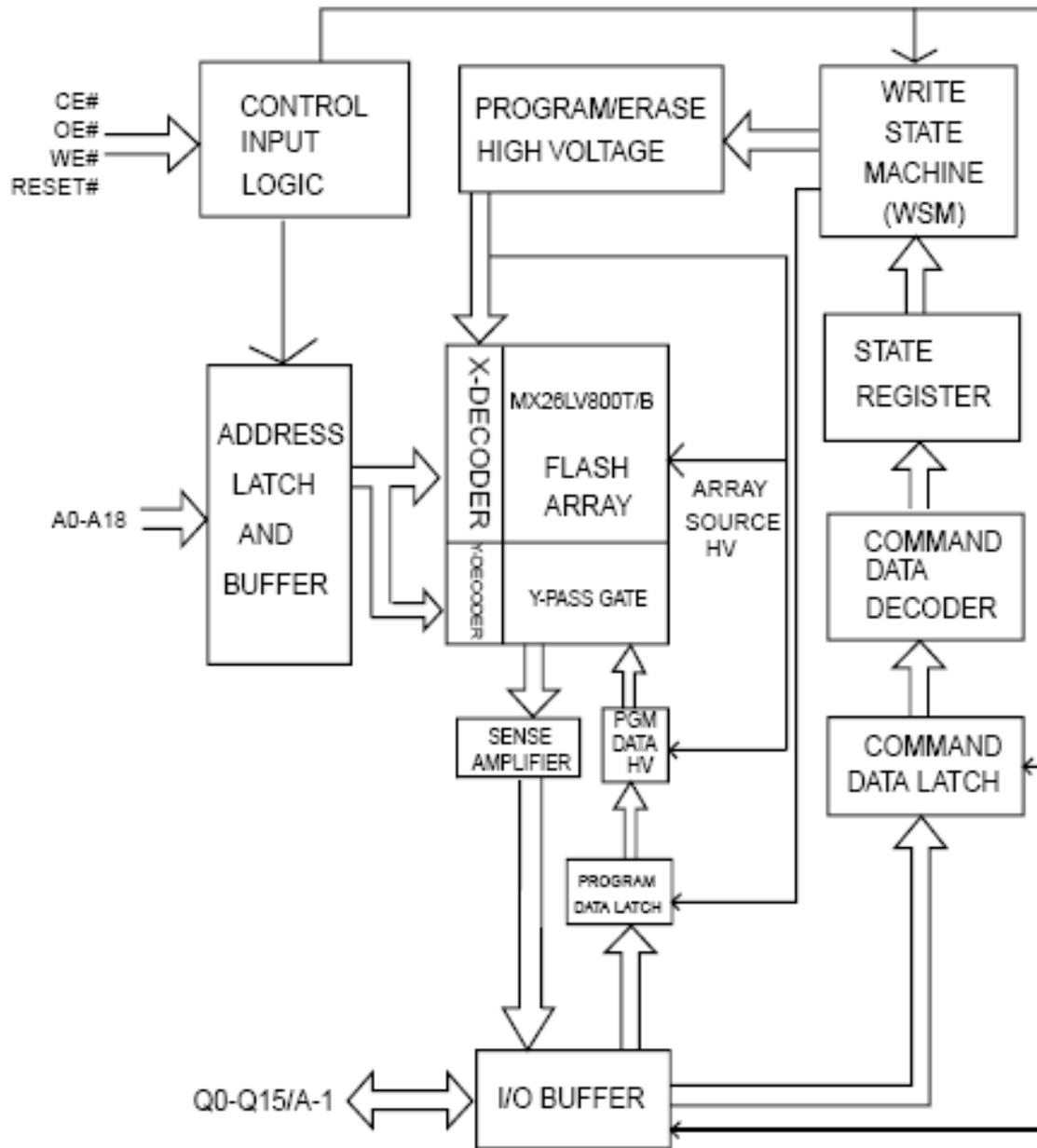


TRIPLE 2-CHANNEL ANALOG MULTIPLEXER / DEMULTIPLEXER: BU4053BCF (U39)



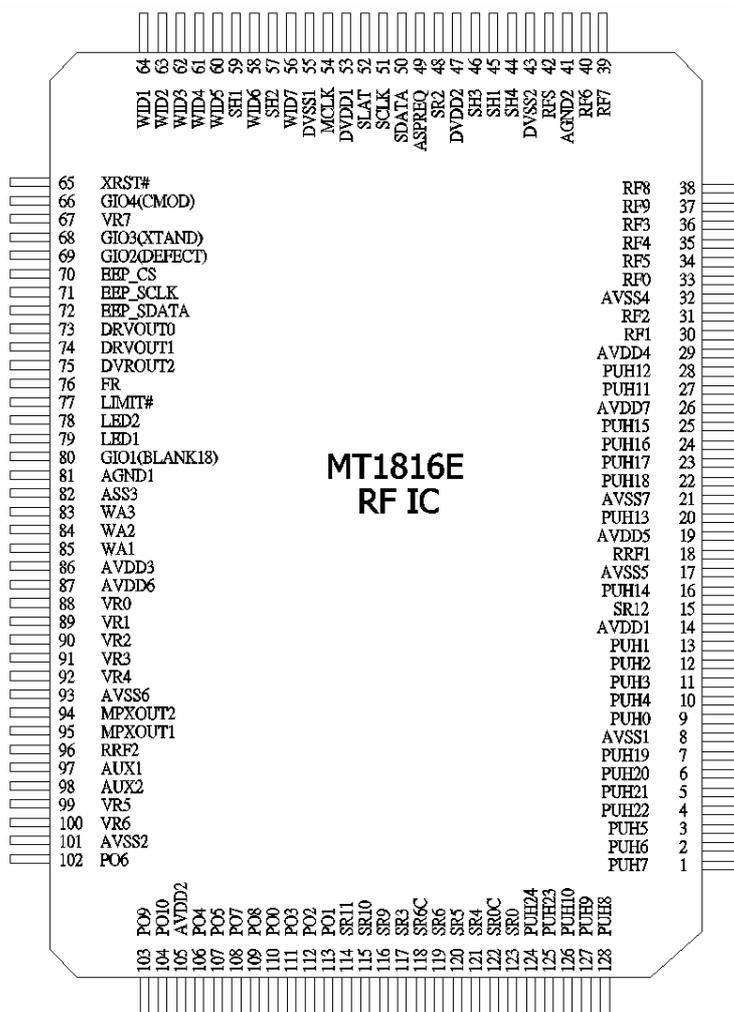
CIRCUIT DESCRIPTION

8M-BIT [1MX8/512K X16] CMOS SINGLE VOLTAGE 3V ONLY HIGH SPEED ELITEFLASH™ MEMORY : AT49BV802AT-70TU (U510)

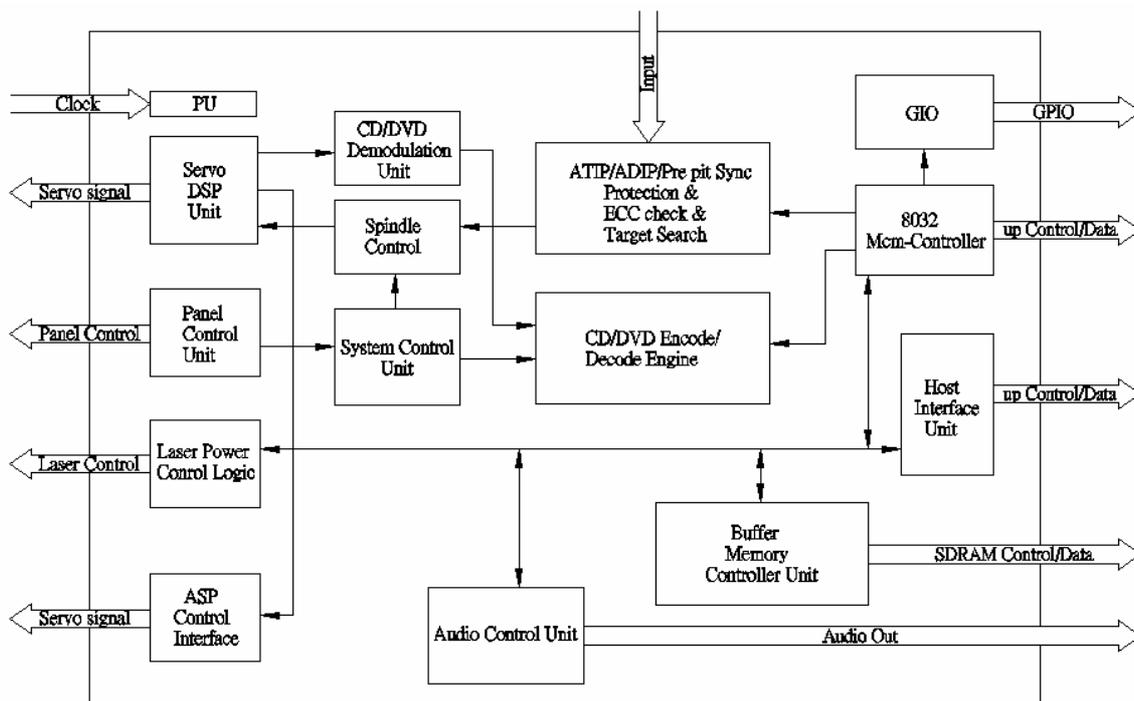


CIRCUIT DESCRIPTION

DVD-DUAL RECORDING RF IC: MT1816E (U513)



DVD DUAL OPTICAL DISK CONTROLLER: MT1818E (U507)



| Ref. No | Parts No. | Description | QTY |
|---|------------------|---|-------------|
| D5,6,7,8,10,11,12,13,14,15 16 X7.5MM (J1,3,4,5,6,7,8, 10,12,14,15,16,23,24,VCC1 ,VCC2) 4 X 10 MM (J17,28,29,GND2) 5 X 5 MM (J19,20,21,30,GND1) | AI-K466UB-GE-001 | K466UB (AI) CONT/POWER BD. CHASSIS ASSY (IC MT8105GE+SONY KWM- 222AAA) | 1 |
| | AI-04661-700 | K466 (AI) CONTROL BOARD CHASSIS ASSY | 1 |
| | 001-04661-700 | K466 CONTROL P.C.B.(94HB) (1 LAYER) (47.5*400*1.6)MM | 1 |
| | 004-94148-400 | SW. DIODE IN-4148 AXIAL TAPE 52MM | 10 |
| | 038-06000-000 | SOLID WIRE (DIA. 0.6MM) | 0.002 74 |
| | AI-04930-401 | K493 (AI) POWER BOARD CHASSIS ASSY | 1 |
| | 001-04930-401 | K493 POWER SUPPLY P.C.B. (94V0) (202*72*1.6)MM | 1 |
| | 004-90056-212 | ZENER DIODE MTZJ5.6B (ROHM) 5.6V 1/2W AXIAL 52MM TAPE & REEL | 1 |
| | 004-90150-212 | ZENER DIODE 15V 1/2W AXIAL TAPE 52MM REEL | 1 |
| | 004-94148-400 | SW. DIODE IN-4148 AXIAL TAPE 52MM | 2 |
| D210 | 004-90056-212 | ZENER DIODE MTZJ5.6B (ROHM) 5.6V 1/2W AXIAL 52MM TAPE & REEL | 1 |
| D103 | 004-90150-212 | ZENER DIODE 15V 1/2W AXIAL TAPE 52MM REEL | 1 |
| D104,209 | 004-94148-400 | SW. DIODE IN-4148 AXIAL TAPE 52MM | 2 |
| R101 | 005-13105-314 | RESISTOR 1 M +-5% 1/4W AXIAL TAPE 52MM | 1 |
| | 038-06000-000 | SOLID WIRE (DIA. 0.6MM) | 0.001 |
| | HS-K466UB-GY-320 | K466UB H/S "MEMOREX" BD. W/COSMETIC L.GREY 429C COLOR (48 KEY) | 1 |
| | 001-04930-710 | K493 REMOTE CONTROL P.C.B. (94HB) T=1.2MM (48 KEY) | 1 |
| IC1 | 002-02222-150 | IC PT2222-002 (PTC) | 1 |
| Q1 | 003-08050-393 | TRANSISTOR 8050C (KEC) | 1 |
| D1 | 004-01122-600 | INFRARED EMITTING DIODE EL-1L2 | 1 |

| Ref. No | Parts No. | Description | QTY | |
|-----------------|----------------|--|--|---|
| R1 | 005-10109-314 | RESISTOR 1 OHM +-5% 1/4W | 1 | |
| C2,3 | 006-10201-250 | CERAMIC CAP 200 PF +-5% 50V | 2 | |
| C1 | 009-10476C510 | ELECT CAP 47 UF +80%-20% 10V (PIN LENGTH 9MM) | 1 | |
| X1 | 028-00455-011 | CERAMIC FILTER ZTB455E (MEC) (2 PINS) | 1 | |
| | 041-02623-002 | T262 HANDSET BATTERY SPRING (+,-) | 1 | |
| | 041-03531-002 | N353 HADSET BATTERY PLATE (+) | 1 | |
| | 041-03532-002 | N353 HANDSET BATTERY SPRING (-) | 1 | |
| | 048-23530-008 | K493 H/S CONTACT RUBBER W/D.GY 430C/BLUE 647C/RED 032C/WHITE SK. | 1 | |
| | 103-03531-2320 | K466UB H/S TOP CAB."MEMOREX" (L.GY 429C) W/R.186C/BLK./WH.SK. (UL) (48 KEY) | 1 | |
| | 104-03530-0784 | N353M HANDSET BOTTOM CAB. (L.GREY 429C) | 1 | |
| | 111-03530-0784 | N353M HANDSET BATT. DOOR (L.GREY 429C) | 1 | |
| | K466U-CASING | K466U CAISNG ASSY (FOR UL) | 1 | |
| | 125-04661-101 | T466 POWER PCB PC COVER PLATE (T=0.5MM) (110*37*0.5)MM PC CUT SHEET | 1 | |
| FOR POWER P.C.B | 125-04661-101 | T466 POWER PCB PC COVER PLATE (T=0.5MM) (115*74*0.5)MM PC CUT SHEET | 1 | |
| FOR POWER PCB | X 5 | 130-04662-001 | T466B PCB POST | 5 |
| FOR MPEG PCB | | 130-04662-002 | T466B MPEG PCB POST | 4 |
| FOR SC PCB | | 130-04662-003 | T466B SCART PCB POST | 2 |
| | | 133-04663-108 | T466B FRONT MTG. BRACKET (IRON T=0.8)MM | 1 |
| | | 133-04663-158 | T466B TOP BRACKET (IRON T=0.8)MM | 1 |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|------------------------------|----------------------|--|-----|
| FOR DVD-L | 133-04663-311 | T466B DVD BRACKET 'L' | 1 |
| FOR DVD-R | 133-04663-312 | T466B DVD BRACKET 'R' | 1 |
| | 133-04933-108 | K493 FRONT MTG. BRACKET (IRON T=0.8)MM | 1 |
| FOR MPEG PCB | 136-11508-200 | RUBBER 15 X 8 X 20MM (W/ONE SIDE TAPE) | 2 |
| FOR MPEG PCB | 136-11803-350 | RUBBER 18 X 3 X 35MM (W/ONE SIDE TAPE) | 1 |
| FOR BOTTOM CAB. | 136-80060-180 | RUBBER FOOT (DIA.18X6MM)(TRANS.)W/O TAPE | 1 |
| FOR H/S | 144-12006-101 | SCREW 2X6 RT | 1 |
| FOR CAB/REAR PLT | 144-53004-201 | SCREW 3X4 STB (TB) | 3 |
| FOR P25 BKT DVD 'L' X 3 | 144-53006-201 | SCREW 3X6 STB (TB) | 25 |
| FOR P26 BKT DVD 'R' X 3 | | (BBZ30P060FMC) | |
| FOR CAB X 9 | | | |
| FOR FRONT CAB/TOP CAB X 5 | | | |
| FOR MAIN PCB X 2 | | | |
| FOR JACK/REAR PL X 3 | | | |
| FOR DISPLAY PC X 7 | 144-53008-203 | SCREW 3X8 STB (DOUBLE:T) | 12 |
| FOR JACK PCB X 5 | | | |
| FOR TUNER BRACKET | 144-53008-211 | SCREW 3X8 STB (TB) BLACK | 9 |
| FOR RUBBER FOOT | 144-53008-301 | SCREW 3X8 STPW (TB) | 4 |
| FOR POWER PCB X 5 | 144-53010-201 | SCREW 3X10 STB (TB) | 7 |
| FOR MAIN PCB X 2 | | | |
| FOR OUTPUT PCB | 144-53012-201 | SCREW 3X12 STB | 2 |
| FOR DVD LOADER * 4 | 144-53014-201 | SCREW 3X14 STB (TB) | 4 |
| FOR MPEG PCB | 144-53016-201 | SCREW 3X16 STB (TB) | 4 |
| FOR JACK PCB | 145-11435-015 | FIBER WASHER 3.5X14X1.5MM | 2 |
| | K466UB-C- 0320 | K466UB "MEMOREX MVDR2102" COSMETIC ASSY SP.SIL.SS9-1 COLOR (01-2 CH.) | 1 |
| | 101-04660- 1320-V | K466UB FRONT CAB."MEMOREX"(SP.SIL.SS9- 1) (V2) W/D.GY 432C/RED 186C SK. | 1 |
| | 112-04660-004 | K466UB PANEL DOOR COVER (SP.SIL.SS9-1) W/D.GY 433C SK. (R1) | 1 |

| Ref. No | Parts No. | Description | QTY |
|---------------------------|------------------------|---|-----|
| | 113-04660-013 | T466B DVD DOOR (CHROME)(NATURAL/ABS) | 1 |
| | 114-04660-005 | K466UB DOOR LENS(CLEAR/PMMA) W/H.S.H.M./ BLACK/WHITE SK. (MEMOREX SK.) (R1) | 1 |
| | 117-04660-003 | K466UB DIS.LENS (CLEAR/PMMA) W/H.S.H.M./ BLK./T.R.106C/SEMI- T.WH/T.PUR./WHITE SK. | 1 |
| | 129-04669- 0800 | T466B PLAY BUTTON COVER (BLACK,SP.ELETROPLATED EFFECT SIL) | 1 |
| | 129-04669- 1800 | T466B POWER BUTTON COVER (BLACK,SP.ELETROPLATED EFFECT SIL) | 1 |
| | 180-04663-056 | T466B TOP CABINET (SP.SIL.SS8-7) | 1 |
| | 180-04664-000 | T466B BOTTOM CABINET | 1 |
| | 180-04935- 0320-001 | K466UB M.REAR PLATE "MEMOREX MVDR2102" W/BLACK SK. (01-2 CH) | 1 |
| | K466UB-P- 0320 | K466UB "MEMOREX MVDR2102" PACKING (FOR UL) (01-2 CH.) | 1 |
| FOR PACKING | 043-26152-513 | 3P RCA CABLE #26 1.5M (2 SIDE RCA PLUG) R/W/Y (LEOCO) | 1 |
| | K493-DVD- LOADER | K493 LOADER (SONY KWM- 222AAA) ASSY | 1 |
| MPEG BOARD TO DVD LOAD | 025-10005-138 | 5P J.WIRE #26UL 150MM (2P 2MM) JST (ORANGE X 1/WHITE X 4) | 1 |
| | 037-47201-504 | 50P FILM CABLE 4+192+4 UL (0.5MM PITCH) | 1 |
| | 160-00222-000 | DVD-RW MECHANISM SONY KWM-222AAA | 1 |
| | 161-00220-001 | DVD LOADER HC-220 (HENG CHAO) | 1 |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|---------------------------------|------------------|--|-----|
| | K493-UL-WIRE | K493 UL WIRE ASSY | 1 |
| AVIO BOARD TO FRONT INPUT BOARD | 025-10004-159 | 4P J.WIRE #26UL 400MM (2P 2MM) JST (ORANGE X 1/WHITE X 3) | 1 |
| AVIO BOARD TO FRONT INPUT BOARD | 025-10005-139 | 5P J.WIRE #26UL 400MM (2P 2MM) JST (ORANGE X 1/WHITE X 4) | 1 |
| MPEG BOARD TO AVIO BOARD | 025-10006-159 | 6P J.WIRE #26UL 100MM (2P 2MM) JST (ORANGE X 1/WHITE X 5) | 1 |
| POWER BOARD TO VFD BOARD | 025-10006-160 | 6P J.WIRE #26UL 200MM (2P 2MM) JST (ORANGE X 1/WHITE X 5) | 1 |
| MPEG BOARD TO VFD BOARD | 025-10007-041 | 7P J.WIRE #26UL 200MM (2P 2MM) JST (ORANGE X 1/WHITE X 6) | 1 |
| MPEG BOARD TO FRONT INPUT BOARD | 025-10007-043 | 7P SHIELD WIRE #30UL 500MM (2P 2MM)JST W/GN/GND/BK/R/GND/GND (GD WIN)E050414-01 | 1 |
| POWER BOARD TO AVIO BOARD | 025-10008-094 | 8P J.WIRE #26UL 400MM (2P 2MM) JST (ORANGE X 1/WHITE X 7) | 1 |
| POWER BOARD TO MPEG BOARD | 025-10009-047 | 9P #22UL J.WIRE 500MM (2P 2MM) 9P+4P+5P JST*3(ORANGE*1+WHITE*3/ORANGE*1+WHITE*4) | 1 |
| MPEG BOARD TO AVIO BOARD | 025-10011-033 | 11P J.WIRE #26UL 100MM (2P 2MM) JST (ORANGE X 1/WHITE X 10) | 1 |
| MPEG BOARD TO AVIO BOARD | 025-10012-030 | 12P J.WIRE #26UL 200MM (2P 2MM) JST (ORANGE X 1/WHITE X 11) | 1 |
| MPEG BOARD TO AVIO BOARD | 025-10014-012 | 14P J.WIRE #26UL 150MM (2P 2MM) JST (ORANGE X 1/WHITE X 13) | 1 |
| | MI-K466UB-GE-001 | K466UB (MI) MAIN/CONT/POWER/AVIO BD.ASSY (IC MT8105GE+SONY | 1 |

| Ref. No | Parts No. | Description | QTY |
|--------------------------|---------------|--|-----|
| | | KWM-222AAA) | |
| | MI-04661-700 | K466 (MI) CONTROL BOARD CHASSIS ASSY | 1 |
| D31 | 004-05818-400 | SW. DIODE IN-5818 | 1 |
| C2,13 | 009-10476-410 | ELECT CAP 47 UF +-20% 10V | 2 |
| C8 | 009-10477-410 | ELECT CAP 470 UF +-20% 10V | 1 |
| L8,9,10 | 015-00027-007 | AXIAL INDUCTOR 2.7 UH | 3 |
| K4,5,6,7,8,9,17,18,19,20 | 020-31100-173 | TACT SWITCH TS062V1-A50C (DELTA) | 10 |
| CN2 | 025-20004-202 | 4P WAFER V-TYPE (2MM PITCH) JST (B4B-PH-K-S) | 1 |
| CN3 | 025-20005-201 | 5P WAFER V-TYPE (2MM PITCH) JST | 1 |
| CN5 | 025-20006-102 | 6P WAFER H-TYPE (2MM PITCH) JST | 1 |
| CN6 | 025-20007-103 | 7P WAFER H-TYPE (2MM PITCH) JST | 1 |
| CN1 | 025-20007-201 | 7P WAFER V-TYPE (2MM PITCH) MOLEX | 1 |
| JK1 | 046-20300-006 | BT941 3P RCA JACK H-PCB-TYPE (Y/W/R) RS-314-04 (DRAGON CITY) | 1 |
| JK2 | 046-50100-002 | S.VIDEO SOCKET MD-121 (1P) (DRAGON) | 1 |
| JK3 | 046-80400-001 | T466B 4P CONNECTOR V-TYPE IEEE 1394 (SCI131R4FTB0000) (DRAGON CITY) | 1 |
| VFD1 | 049-20123-001 | VACUUM FLUORESCENT DISPLAY VFD20-1214F (BOE) GREEN/REDDISH QRANGE COLOR | 1 |
| Y1 | 052-32768-000 | CRYSTAL : 32.768KHZ FUNDAMENTAL +-30 PPM | 1 |
| FOR SENSOR | 061-00138-005 | INFRARED REMOTE CONTROL RECEIVER MODULE HT138BV3 (MOBICON) FO=38KHZ;VS=3 VOLT. | 1 |
| | 136-21004-100 | RUBBER 10X10X4MM W/TWO SIDE TAPE | 3 |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|--|-------------------|---|-----|
| | MI-04930-101-GE | K466UB (MI) MAIN BOARD CHASSIS ASSY | 1 |
| D7,8,17,20 | 004-04148-400 | SW. DIODE IN-4148 | 1 |
| D21 | 004-05818-400 | SW. DIODE IN-5818 | 1 |
| C16,20,23,27,83,103,104,141,158,159,184,185,186,635,636, CE18,34,505,527 | 009-10106C516 | ELECT CAP 10 UF +80%-20% 16V (PIN LENGTH 9MM) | 19 |
| CE525,526 | 009-10226-510 | ELECT CAP 22 UF +80%-20% 10V | 2 |
| CE4,9,15,503,507 | 009-10227-510 | ELECT CAP 220 UF +80%-20% 10V | 5 |
| C136,CE30,513,515,519,520,522,CT2,6 | 009-10476-510 | ELECT CAP 47 UF +80%-20% 10V | 9 |
| CE521,523,524 | 009-10476-516 | ELECT CAP 47 UF +80% -20% 16V | 3 |
| USB1,PWR3,J14 | 025-20004-202 | 4P WAFER V-TYPE (2MM PITCH) JST (B4B-PH-K-S) | 3 |
| J3 | 025-20004-205 | 4P WAFER V-TYPE (2.5MM PITCH) JST | 1 |
| J15,PWR2 | 025-20005-201 | 5P WAFER V-TYPE (2MM PITCH) JST | 2 |
| J11 | 025-20006-201 | 6P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J19 | 025-20006-404 | 6P*2 DUAL ROW S-TYPE (2.54MM PITCH) W/GOLD PLATED | 1 |
| FW1,J4 | 025-20007-203 | 7P WAFER V-TYPE (2MM PITCH) JST | 2 |
| J12 | 025-20011-202 | 11P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J16 | 025-20012-202 | 12P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J17 | 025-20014-201 | 14P WAFER V-TYPE (2MM PITCH) JST | 1 |
| L1,3,5,24,29,39,41,46,47,51,52,53,54,55 , FB5,7 | 027-00000-004 | FERRITE BEAT CORE (RH-3.5X6X1.0) (COILS NO.: 707866) AXIAL TYPE | 16 |
| CE36 | 047-20334-505-001 | DYNACAP 0.33 F +80%-20% 5.5V (ELNA) (-25~+70 DEGREE) (UNLEADED) DX-5R5V334U | 1 |

| Ref. No | Parts No. | Description | QTY |
|------------------|---------------|--|-----|
| Y5 | 052-24576-001 | CRYSTAL:24.576 MHZ HC49S-24.576M1630F(2P) (MEC) +-30 PPM;16 PF;FUNDAMENTAL | 1 |
| Y2 | 052-27000-006 | CRYSTAL:27.0 MHZ HC-49S (2P) (MEC) +-30 PPM FUNDAMENTAL | 1 |
| Y1 | 052-32768-002 | CRYSTAL:32.768 MHZ DT38-32.768K12.520F (2P) (MEC) +-20 PPM;12.5 PF;FUNDAMENTAL | 1 |
| Y4 | 052-33868-006 | CRYSTAL:33.8688 MHZ HC49S +-30PPM;20PF 2P (MEC) HC49S-33.8688M2030F | 1 |
| FOR U2 | 148-04590-220 | M459S HEATSINK W/M3 HI-TECH TAPE (22.5*22.5*6.2)MM (AL. T=2MM) | 1 |
| | MI-04930-401 | K493 (MI) POWER BOARD CHASSIS ASSY | 1 |
| IC201 | 002-01221-550 | IC PQ12RD21 (SHARP) SMT | 1 |
| Q201 | 003-00006-640 | TRANSISTOR 30N06 (FAIRCHILD) | 1 |
| Q101 | 003-00060-642 | TRANSISTOR SSS4N60B T0220F (FAIRCHILD) | 1 |
| IC202 | 003-00431-600 | TRANSISTOR NPN TL431AC LPR TO-92(TEXAS INSTRUMENT) | 1 |
| Q205 | 003-01317-040 | TRANSISTOR 2SA 1317 | 1 |
| Q203 | 003-02274-040 | TRANSISTOR 2SC 2274 | 1 |
| Q102,204 | 003-03330-040 | TRANSISTOR 2SC 3330-T-AC | 2 |
| D204,205,206,212 | 004-00033-300 | RECTIFIER BYD33D (PHILIPS) | 4 |
| D102 | 004-00033-301 | RECTIFIER BYD33J (PHILIPS) | 1 |
| D201 | 004-00064-300 | RECTIFIERS SF64 (TSC) | 1 |
| D101 | 004-00206-300 | BRIDGE RECITIER KBP206 | 1 |
| D202 | 004-00802-300 | RECTIFIER SFA802 (TSC) | 1 |
| IC102 | 004-01010-601 | PHOTO COUPLER DIODE K1010 (COSMOS) | 1 |
| D203 | 004-05822-300 | RECTIFIER DIODE IN5822 | 1 |
| R107 | 005-10104-314 | RESISTOR 100 K +-5% 1/4W | 1 |
| R106 | 005-10109-311 | RESISTOR 1 OHM +-5% 1W | 1 |
| R230 | 005-10470-311 | RESISTOR 47 OHM +-5% 1W | 1 |
| R102 | 005-10473-321 | RESISTOR 47 K +-5% 2W | 1 |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|----------------------|---------------|---|-----|
| R229 | 005-40220-314 | FUSE RESISTOR 22 OHM +-5% 1/4W | 1 |
| C104 | 006-10103-310 | CERAMIC CAP 0.01 UF +-10% 1000V | 1 |
| C107,108,110,114,115 | 006-13471-404 | CERAMIC CAP 470 PF +-20% 250V (Y1) | 5 |
| C102,111 | 008-15224-308 | METAL POLYESTER FILM CAP 0.22 UF +-10% 275V RADIAL TAPE | 2 |
| C203,223 | 009-15107-410 | ELECT CAP 100 UF +-20% 10V (105 DEG.) | 2 |
| C106,212,213,225,226 | 009-15107-450 | ELECT CAP 100UF +-20% 50V 105C DEGREE | 5 |
| C205,206,208,220,221 | 009-15108-416 | ELECT CAP 1000 UF +-20% 16V 105C DEGREE | 5 |
| C202 | 009-15108-425 | ELECT CAP 1000 UF +-20% 25V 105 DEGREE | 1 |
| C227 | 009-15224-450 | ELECT CAP 0.22 UF +-20% 50V 105 DEGREE | 1 |
| C215,231 | 009-15227-416 | ELECT CAP 220 UF +-20% 16V 105 DEGREE | 2 |
| C210,211 | 009-15227-425 | ELECT CAP 220 UF +-20% 25V 105 DEGREE | 2 |
| C217 | 009-15228-425 | ELECT CAP 2200 UF +-20% 25V 105 DEGREE | 1 |
| C109 | 009-15476-550 | ELECT CAP 47 UF +80%-20% 50V 105C DEGREE | 1 |
| C218,219 | 009-15477-410 | ELECT CAP 470 UF +-20% 10V 105 DEGREE | 2 |
| C222 | 009-15477-416 | ELECT CAP 470 UF +-20% 16V 105 DEGREE | 1 |
| C103 | 009-15686-406 | ELECT CAP 68 UF +-20% 400V 105 DEGREE (DIA.18 X 32.5MM) | 1 |
| L203 | 015-00033-106 | INDUCTOR 3.3 UH,3A (RADIAL TYPE) | 1 |
| L204 | 015-00102-001 | CHOKER COIL 1 MH | 1 |
| L206 | 015-00200-001 | CHOKER COILS 20 UH DIA.6X8 (CW-68) | 1 |
| L103 | 015-00303-008 | AC LINE FILTER 30MH | 1 |

| Ref. No | Parts No. | Description | QTY |
|----------|---------------|---|-----|
| | | (CLF2327S-303Y0R6) (COILS) | |
| L202,205 | 015-00200-006 | FILTER CHOKE COIL 20 UH (RADIAL TYPE) (COILS NO.: CR4P-867624) | 2 |
| T101 | 018-04932-400 | SWITCHING X'FORMER CT28LEC-X60V009 PIN TYPE (XIAMEN COILS) | 1 |
| CN101 | 025-20002-403 | 2P HEADER S-TYPE (10MM PITCH) (L1086P0203T) | 1 |
| CN201 | 025-20006-201 | 6P WAFER V-TYPE (2MM PITCH) JST | 1 |
| CN205 | 025-20008-203 | 8P WAFER V-TYPE (2MM PITCH) JST | 1 |
| CN202 | 025-20009-202 | 9P WAFER V-TYPE (2MM PITCH) JST | 1 |
| | 031-10101-040 | JUMPER WIRE AWG22UL 100MM BLACK | 1 |
| | 039-30012-000 | SOLDERING LUG 12MM | 4 |
| | 050-05020-209 | 2A/250V GLASS FUSE 5X20 TIME-LAG BEL/5ST2 UL/CSA/SEMKO/VDE/IMQ/CE APP. | 1 |
| | 133-00002-205 | FUSE HOLDER (NO.:FC-001-N) | 2 |
| | 144-32608-201 | SCREW 2.6X8 STB (M) | 1 |
| | 148-01720-200 | T172E HEATSINK | 1 |
| | MI-04930-901 | K493U (MI) AVIO BOARD CHASSIS ASSY (FOR UL) | 1 |
| | 004-05818-400 | SW. DIODE IN-5818 | 1 |
| | 009-10104-450 | ELECT CAP 0.1 UF +-20% 50V | 2 |
| | 009-10106-410 | ELECT CAP 10 UF +-20% 10V | 9 |
| | 009-10107-410 | ELECT CAP 100 UF +-20% 10V | 1 |
| | 009-10107-416 | ELECT CAP 100 UF +-20% 16V | 4 |
| | 009-10225-510 | ELECT CAP 2.2UF +80%-20% 10V | 4 |
| | 009-10477-410 | ELECT CAP 470 UF +-20% 10V | 1 |
| | 009-10227-410 | ELECT CAP 220 UF +-20% 10V | 20 |
| | | C150 | |
| | | C53,54,55,56,57,58,91,123,142,143,144, 145,146,147, CB4, CC4,CD4,CE4,CF4, | |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|---------|-------------------|--|-----|
| CG4 | | | |
| L6 | 015-00027-007 | AXIAL INDUCTOR 2.7 UH | 1 |
| L3 | 015-00221-006-002 | CHOKE COIL 220 UH +-10% (RADIAL TYPE) COILS NO.: CW57-221K | 1 |
| L4,5 | 015-00331-007 | AXIAL INDUCTOR 330 UH +-10% (COILS NO.: CEC-331K) | 2 |
| L2 | 015-00470-006-001 | CHOKE COIL 47 UH +-10% (RADIAL TYPE) COILS NO.: CW57-470K | 1 |
| T1 | 016-24914-103 | OSC 7MM OSK6-864914 BLACK (COILS) | 1 |
| J4 | 025-20004-202 | 4P WAFER V-TYPE (2MM PITCH) JST(B4B-PH-K-S) | 1 |
| J5 | 025-20005-201 | 5P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J1 | 025-20006-201 | 6P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J20 | 025-20008-203 | 8P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J3 | 025-20011-202 | 11P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J17 | 025-20012-202 | 12P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J19 | 025-20014-201 | 14P WAFER V-TYPE (2MM PITCH) JST | 1 |
| J11 | 046-20100-027 | RCA JACK RS-145C/OR (1P) (ORANGE) PCB-TYPE (DRAGON) | 1 |
| J10,14 | 046-20200-042 | RCA JACK RS-233-04 (2P) (R/W) PCB V-TYPE(DRAGON) | 2 |
| J9 | 046-20300-017 | RCA JACK RS-330-16 (3P) (G/B/R) PCB-TYPE (DRAGON) | 1 |
| J2,13 | 046-50200-005 | S.VEDIO+RCA JACK MDW-111/Y (YELLOW) PCB V-TYPE (DRAGON CITY) | 1 |
| Y2 | 052-18432-001 | CRYSTAL: 18.432MHZ FUNDAMENTAL +-20% PPM | 1 |
| U11 | 061-00553-001 | FIBER OPTIC MODULE GP1FA553TZ (SHARP) | 1 |

| Ref. No | Parts No. | Description | QTY |
|--------------|-------------------|--|-----|
| T11,2 | 061-07305-001 | VIDEO TUNER UVS7305VM-S (M/N SYSTEM) NTSC (USA VERSION) (JINXIN) | 1 |
| 23 | SMT-K466UB-GE-001 | K466UB (SMT) MAIN/CONT/PWR/AVIO BD. ASSY (IC MT8105GE+SONY KWM-222AAA) | 1 |
| | SMT-04661-700 | K466 (SMT) CONTROL BOARD CHASSIS ASSY | 1 |
| U2 | 002-09164-923 | IC RT9164A-CG (RICHTEK) SOT-223 (SMT) 1A ADJUSTABLE LOW DROPOUT VOL. REGULATOR | 1 |
| U1 | 002-58862-001-121 | IC LC588620B (TOP GEAR) QFP-52L (SMT) VFD MICROCOMPUTER IC | 1 |
| Q1 | 003-22412-144 | CHIP TRANSISTOR 2SC2412K(S)-TLB (ROHM) (SMT3) (50V, 0.15A, HFE 270-560) | 1 |
| D27,28,29,30 | 004-80355-400 | SW. DIODE 1SS355-TRB (ROHM) SMT | 4 |
| R15 | 005-52000-301 | CHIP RESISTOR 0 OHM +-5% (1608) (MCR03EZHZJ000) | 1 |
| R4,7 | 005-52101-301 | CHIP RESISTOR 100 OHM +-5% (1608) (MCR03EZHZJ101) | 2 |
| R6,12 | 005-52103-301 | CHIP RESISTOR 10 K +-5% (1608) (MCR03EZHZJ103) | 2 |
| R11,13 | 005-52104-301 | CHIP RESISTOR 100 K +-5% (1608) (MCR03EZHZJ104) | 2 |
| R19 | 005-52121-301 | CHIP RESISTOR 120 OHM +-5% (1608) | 1 |
| R20 | 005-52221-301 | CHIP RESISTOR 220 OHM +-5% (1608) (MCR03EZHZJ221) | 1 |
| R2,10 | 005-52222-301 | CHIP RESISTOR 2.2 K +-5% (1608) (MCH03EZHZJ222) | 2 |
| R14 | 005-52274-301 | CHIP RESISTOR 270 K +-5% (1608) | 1 |
| R5 | 005-52474-301 | CHIP RESISTOR 470 K +-5% (1608) (MCR03EZHZJ474) | 1 |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|------------------|------------------|--|-----|
| C26,27,28,29,129 | 006-72101-350 | CERAMIC CHIP CAP 100 PF +-10% 50V (1608) | 5 |
| C3 | 006-72103-350 | CERAMIC CHIP CAP 0.01 UF +-10% 50V(1608) (MCH185CN103KK) | 1 |
| C1,9,10,12,14 | 006-72104-550 | CERAMIC CHIP CAP 0.1 UF +80%-20% 50V (1608) | 5 |
| C4,5 | 006-72180-250 | CERAMIC CHIP CAP 18 PF +-5% 50V (1608) | 2 |
| | SMT-04930-101-GE | K466UB (SMT) MAIN BOARD CHASSIS ASSY | 1 |
| | 001-04930-101 | K493 MAIN P.C.B.(94V0) (4 LAYER) (120*50*1.6)MM | 1 |
| U17 | 002-00411-110 | IC TSB41AB1PHP (T.I.) SMT | 1 |
| U513 | 002-01816-850 | IC MT1816E (MEDIATEK) LQFP-128 (SMT) DVD-DUAL RECORDING RF IC | 1 |
| U507 | 002-01818-850 | IC MT1818E (MEDIATEK) LQFP-216 (SMT) DVD DUAL OPTICAL DISK CONTROLLER IC | 1 |
| U3 | 002-02416-450 | IC AT24C16AN-10SI-2.7V (ATMEL) SMT EEPROM IC | 1 |
| U517 | 002-04340-410 | IC CS4340 (CRYSTAL) | 1 |
| U515 | 002-05962-140 | IC BA5962FVM (ROHM) MOSP8 (SMT) POWER DIVER FOR CD PLAYER IC | 1 |
| U514 | 002-07902-140 | IC BD7902CFS (ROHM) SSOP-A54 (SMT) 6CH POWER DRIVER FOR CD-ROM, DVD-ROM IC | 1 |
| U2 | 002-08105-850 | IC MT8105GE (MEDIATEK) LQFP-256 (SMT) (5.1 CH/WMA/USB/VCR+) | 1 |
| U14 | 002-08738-680 | IC WM8738 (SO-14 PACKAGE) WOLFSON (SMT) 24 BIT STEREO ADC | 1 |
| U516 | 002-09164-922 | IC RT9164A-33CG (RICHTEK) SOT-223 (SMT) 1A/3.3V FIXED POSITIVE VOLTAGE | 1 |

| Ref. No | Parts No. | Description | QTY |
|---|---------------|---|-----|
| | | REGULATOR | |
| U1 | 002-09164-923 | IC RT9164A-CG (RICHTEK) SOT-223 (SMT) 1A ADJUSTABLE LOW DROPOUT VOL. REGULATOR | 1 |
| U503 | 002-09166-923 | IC RT-9166/A-25CXL (RICHTEK)SOT-89 L SMT 2.5V/500MA | 1 |
| U510 | 002-26800-470 | IC MX26LV800BTC-55 (MXIC) TSOP48 (SMT) 8M FLASH MEMORY IC | 1 |
| U508 | 002-42161-580 | IC IS42S16100A1-6T (ISSI) TSOP50 (SMT) 1MX16 (16M) SDRAM IC | 1 |
| U500,502 | 002-42168-930 | IC IC42S16800-7T (ICSI) 54-PIN TSOP-2 3.3V; 128MBIT SDRAM IC | 2 |
| U5 | 002-49162-450 | IC AT49BV162A-70TI (ATMEL) TSOP-48 16M FLASH MEMORY IC (SMT) | 1 |
| U512 | 002-93661-450 | IC AT93C66-10SI-2.7 (ATMEL) JEDEC SOIC 8 2.7V/4K BIT THREE-WIRE SERIAL EEPROMS IC | 1 |
| R613,614,616 | 005-50109-301 | CHIP RESISTOR 1 OHM +-5% (2012) (MCR10EZHZJ109) | 3 |
| R626,628,629,630 | 005-50229-301 | CHIP RESISTOR 2.2 OHM +-5% (2012) (MCR10EZHZJ229) | 4 |
| R10,51,57,60,65,211,212, 213, 214,534,580, 581,675, 678,681, 702,703,704 | 005-52000-301 | CHIP RESISTOR 0 OHM +-5% (1608) (MCR03EZHZJ000) | 18 |
| R23 | 005-52100-301 | CHIP RESISTOR 10 OHM +-5% (1608) (MCR03EZHZJ100) | 1 |
| R37,38,40,78,389,609,612, 686,687,688 | 005-52101-301 | CHIP RESISTOR 100 OHM +-5% (1608) (MCR03EZHZJ101) | 10 |
| R76,137,138,152,677 | 005-52102-301 | CHIP RESISTOR 1 K +-5% (1608) (MCH03EZHZJ102) | 5 |
| R13,26,27,30,32,33,35,39, 146,391,541,542, 543,545, 547,548, 550,555,562,564, 694,695, 697, 698 | 005-52103-301 | CHIP RESISTOR 10 K +-5% (1608) (MCR03EZHZJ103) | 24 |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|---|---------------|---|-----|
| R28,533,623 | 005-52104-301 | CHIP RESISTOR 100 K +-5% (1608) (MCR03EZHZJ104) | 3 |
| R25 | 005-52105-301 | CHIP RESISTOR 1 M +-5% (1608) (MCR03EZHZJ105) | 1 |
| R12 | 005-52121-301 | CHIP RESISTOR 120 OHM +-5% (1608) | 1 |
| R19 | 005-52151-301 | CHIP RESISTOR 150 OHM +-5% (1608) (MCR03EZHZJ151) | 1 |
| R506 | 005-52181-301 | CHIP RESISTOR 180 OHM +-5% (1608) (MCR03EZHZJ181) | 1 |
| R537 | 005-52183-301 | CHIP RESISTOR 18 K +-5% (1608) (MCR03EZHZJ183) | 1 |
| R17 | 005-52202-101 | CHIP RESISTOR 2 K +-1% (1608) | 1 |
| R544 | 005-52203-301 | CHIP RESISTOR 20 K +-5% (1608) | 1 |
| R546,549,551,559 | 005-52220-301 | CHIP RESISTOR 22 OHM +-5% (1608) (MCR03EZHZJ220) | 4 |
| R7,9 | 005-52221-301 | CHIP RESISTOR 220 OHM +-5% (1608) (MCR03EZHZJ221) | 2 |
| R11 | 005-52271-301 | CHIP RESISTOR 270 OHM +-5% (1608) | 1 |
| R610,611,631,632 | 005-52273-301 | CHIP RESISTOR 27 K +-5% (1608) (MCR03EZHZJ273) | 4 |
| R14,15,16,18,93,94,96,130,132,134,168,169,511,557,558,560,690,691,692,693 | 005-52330-301 | CHIP RESISTOR 33 OHM +-5% (1608) (MCH03EZHZJ330) | 20 |
| R160 | 005-52331-301 | CHIP RESISTOR 330 OHM +-5% (1608) (MCR03EZHZJ331) | 1 |
| R582 | 005-52333-301 | CHIP RESISTOR 33 K +-5% (1608) (MCR03EZHZJ333) | 1 |
| R531 | 005-52393-301 | CHIP RESISTOR 39 K +-5% (1608) (MCR03EZHZJ393) | 1 |
| R178 | 005-52472-301 | CHIP RESISTOR 4.7 K +-5% (1608) (MCR03EZHZJ472) | 1 |
| R31,535,538,683,684,696 | 005-52479-301 | CHIP RESISTOR 4.7 OHM +-5% (1608) (MCR03EZHZJ479) | 6 |
| R5,8 | 005-52512-301 | CHIP RESISTOR 5.1 K +-5% (1608) | 2 |

| Ref. No | Parts No. | Description | QTY |
|--|----------------|--|-----|
| R17,3,4,25 | 005-52560-101 | CHIP METAL RESISTOR 56 OHM +-1% (1608) | 4 |
| R77 | 005-52562-301 | CHIP RESISTOR 5.6K +-5% (1608) | 1 |
| R135 | 005-526341-101 | CHIP RESISTOR 6.34 K 1/16W +-1% (1608) (RC-03K6341FT) FUNGHUA | 1 |
| R565,566 | 005-52754-301 | CHIP RESISTOR 750 K +-5% (1608) | 2 |
| R540 | 005-52822-301 | CHIP RESISTOR 8.2 K +-5% (1608) (MCR03EZHZJ822) | 1 |
| RN12,13 | 005-53101-302 | CHIP RESISTOR (MULTIPLE) 100 OHM +-5% (1608) X 4 (YCN16-4R101) | 2 |
| RN524,525 | 005-53103-301 | CHIP RESISTOR (MULTIPLE) 10 K +-5% (1608) X 4 (RCML08W103JB) ARRAY | 2 |
| RN511,532 | 005-53330-301 | CHIP RESISTOR (MULTIPLE) 33 OHM +-5% (1608) X 4 | 2 |
| C36,517 | 006-72101-250 | CERAMIC CHIP CAP 100 PF +-5% 50V (1608) | 2 |
| C512,513,550,551 | 006-72102-350 | CERAMIC CHIP CAP 0.001 UF +-10% 50V (1608) (MCH185C102KK) | 4 |
| C108,109,111,113,119,121,123,519,527,548 | 006-72103-350 | CERAMIC CHIP CAP 0.01 UF +-10% 50V (1608) (MCH185CN103KK) | 10 |
| C2,3,4,5,6,127,518,530,538,539,541,542,543,558,562,568,640,CB682 | 006-72105-550 | CERAMIC CHIP CAP 1 UF +-80%-20% 50V(1608) | 18 |
| C10,508,509 | 006-72150-250 | CERAMIC CHIP CAP 15 PF +-5% 50V (1608) | 3 |
| C524,525 | 006-72151-250 | CERAMIC CHIP CAP 150 PF +-5% 50V (1608) | 2 |
| C560,561,566,567 | 006-72152-350 | CERAMIC CHIP CAP 0.0015 UF +-10% 50V (1608) | 4 |
| C544,545,546,554,556,565 | 006-72153-350 | CERAMIC CHIP CAP 0.015 UF +-10% 50V (1608) | 6 |
| C637,638 | 006-72160-250 | CERAMIC CHIP CAP 16 PF +-5% 50V (1608) | 2 |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|---|---|--|-----|
| C9,15,17,19,21,24,26,28,30,31,32,33,35, 37,38,39,42,72,75, 82,84, 110,112,118,120,122, 124,125,140,510,520,521,528,540,547,553,559,563, CB1,2,3,4,5,6,7,15,16,18,19,20,21,22,23, 26,28,29,30,31,32, 33,34,35,36,41,45,67,68,70, 72,77,78,79,83,97,523,527,529,530,532,554,560,561, 592,594, 597,603,604,605,606,607,608, 609,610,611,612,613,614,615,616,617, 618,619,620,621,622, 623,624,625,629, 630,631,632, 633,634,637,638,640,641, 642, 644,645,646,647,648,649,650,651, 652,653,654,655,656,657, 660,661,662, 664,665,666,667,668,669,670,671,672, 673,675, 676,677,678,679,680,681,683, 684,685,686 C40,41 | 006-72104-550 CERAMIC CHIP CAP 0.1 UF +80%-20% 50V(1608) | 157 | |
| C1 | 006-72200-250 | CERAMIC CHIP CAP 20 PF +-5% 50V (1608) (MCH185F200JK) | 2 |
| C526,529 | 006-72221-250 | CERAMIC CHIP CAP 220 PF +-5% 50V (1608) | 1 |
| C137,139,155,157,160,161,511,515,534,571, 572,634 C43,44 | 006-72222-350 | CERAMIC CHIP CAP 0.0022 UF +-10% 50V(1608) (MCH185C222KK) | 2 |
| C557,564,569 | 006-72225-316 | CERAMIC CHIP CAP 2.2 UF +-10% 16V (1608) | 12 |
| C552 | 006-72270-250 | CERAMIC CHIP CAP 27 PF +-5% 50V (1608) | 2 |
| | 006-72332-350 | CERAMIC CHIP CAP 0.0033 UF +-10% 50V (1608) (MCH185C332KK) | 3 |
| | 006-72333-350 | CERAMIC CHIP CAP 0.033 UF +-10% 50V(1608) | 1 |

| Ref. No | Parts No. | Description | QTY |
|--------------------------------|-------------------|--|-----|
| C537 | 006-72471-250 | CERAMIC CHIP CAP 470 PF +-5% 50V(1608) (MCH185A471JK) | 1 |
| C53,57,59,63,522,523,556 | 006-72473-350 | CERAMIC CHIP CAP 0.047 UF +-10% 50V(1608) (MCH185C473KK) | 7 |
| C549 | 006-72682-350 | CERAMIC CHIP CAP 0.0068 UF +-10% 50V(1608) (MCH185C682KK) | 1 |
| HA2 | 025-50017-103 | 17P H-TYPE SMT ZIF FFC/FPC UPSIDE CONN. (1MM) CF07171U0R0 (CVILUX) W/FLIP LOCK | 1 |
| HA1 | 025-50050-101 | 50P H-TYPE SMT ZIF FFC/FPC UPSIDE CONN. (0.5MM) CF20501U0R0 (CVILUX) W/FLIP LOCK | 1 |
| FB1,2,3,4,6,8,9,10,11,12,13,14 | 027-03601-001 | CHIP BEAD BK-1608-HM601-T (1608) TAPE & REEL "TAIYO YUDEN" | 12 |
| | SMT-04930-401 | K493 (SMT) POWER BOARD CHASSIS ASSY | 1 |
| | 001-04930-401 | K493 POWER SUPPLY P.C.B. (94V0) (202*72*1.6)MM | 1 |
| IC101 | 002-01207-001-134 | IC NCP1207ADR2G (ON SEMICONDUCTOR)SOIC-8(PB-FREE) PWM CURRENT-MODE CONTROLLER IC | 1 |
| R104A,202A,203A,205A | 005-52100-301 | CHIP RESISTOR 10 OHM +-5% (1608) (MCR03EZHZ100) | 4 |
| R108A,210A,214A | 005-52102-301 | CHIP RESISTOR 1 K +-5% (1608) (MCH03EZHZ102) | 3 |
| R228A | 005-52122-301 | CHIP RESISTOR 1.2K +-5% (1608) (MCHR03EZHZ122) | 1 |
| R220A | 005-52152-301 | CHIP RESISTOR 1.5K +-5% (1608) (MCR03EZHZ152) | 1 |
| R222A | 005-52154-301 | CHIP RESISTOR 150 K +-5% (1608) (MCR03EZHZ154) | 1 |
| R201A | 005-52220-301 | CHIP RESISTOR 22 OHM +-5% (1608) (MCR03EZHZ220) | 1 |
| R219A | 005-52222-301 | CHIP RESISTOR 2.2 K +-5% | 1 |

PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|-------------------------------------|-------------------|---|-----|
| | | (1608) (MCH03EZHZJ222) | |
| R103A | 005-52270-301 | CHIP RESISTOR 27 OHM +-5% (1608) | 1 |
| R223A | 005-52273-301 | CHIP RESISTOR 27 K +-5% (1608) (MCR03EZHZJ273) | 1 |
| R211A | 005-52302-301 | CHIP RESISTOR 3 K +-5% (1608) (MCH03EZHZJ302) | 1 |
| R208A | 005-52332-301 | CHIP RESISTOR 3.3 K +-5% (1608) (MCR03EZHZJ332) | 1 |
| R109A | 005-52333-301 | CHIP RESISTOR 33 K +-5% (1608) (MCR03EZHZJ333) | 1 |
| R105A | 005-52392-301 | CHIP RESISTOR 3.9 K +-5% (1608) | 1 |
| R209A,225A | 005-52432-301 | CHIP RESISTOR 4.3 K +-5% (1608) (MCR03EZHZJ432) | 2 |
| R204A,206A,212A,224A,226A | 005-52471-301 | CHIP RESISTOR 470 OHM +-5% (1608) | 5 |
| R100A,213A,217A,218A | 005-52473-301 | CHIP RESISTOR 47 K +-5% (1608) (MCR03EZHZJ473) | 4 |
| R221A | 005-52561-301 | CHIP RESISTOR 560 OHM +-5% (1608) (MCH03EZHZJ561) | 1 |
| R207A | 005-52681-301 | CHIP RESISTOR 680 OHM +-5% (1608) (MCR03EZHZJ681) | 1 |
| R232A | 005-52913-301 | CHIP RESISTOR 91K +-5% (1608) | 1 |
| C204A,207A,214A | 006-72102-350 | CERAMIC CHIP CAP 0.001 UF +-10% 50V(1608) (MCH185C102KK) | 3 |
| C216A,224A,228A,229A,230A,233A,234A | 006-72104-350 | CERAMIC CHIP CAP 0.1 UF +-10% 50V (1608) | 7 |
| C116A,117A,201A | 006-72471-350 | CERAMIC CHIP CAP 470 PF +-10% 50V (1608) | 3 |
| | SMT-04930-901 | K493U (SMT) AVIO BOARD CHASSIS ASSY(FOR UL) | 1 |
| | 001-04930-901 | K493 AVIO P.C.B. (DOUBLE LAYER) (94V0) (96.5*149.8*1.2)MM | 1 |
| U12 | 002-03425-100-141 | IC MSP3425G-QG-B8-V3 (USA)(MICRONAS) SMT | 1 |
| U21,37 | 002-04052-141 | IC BU4052BCF (ROHM) (SMT) | 2 |
| U39 | 002-04053-141 | IC BU4053BCF (ROHM) SMT | 1 |

| Ref. No | Parts No. | Description | QTY |
|--|---------------|--|-----|
| | | | |
| T110 15 | 002-04558-760 | IC UTC4558 (YW) (SOP-8) SMT OP-AMP IC | 2 |
| QX1,QY1 | 003-20614-140 | CHIP TRANSISTOR DTC614TK (SMT3) (ROHM) NPN DIGITAL TR. (BUILT-IN RESISTOR) | 2 |
| Q24,36 | 003-21037-142 | CHIP TRANSISTOR 2SA1037AK(S)-TLB (ROHM) (SMT3) (-50V,-0.15A,HFE 270-560) | 2 |
| Q23,QB1,QC1,QD1,QE1,QF1,QG1 | 003-22412-144 | CHIP TRANSISTOR 2SC2412K(S)-TLB (ROHM) (SMT3) (50V, 0.15A, HFE 270-560) | 7 |
| D1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16, 19,20,23,24,34,35, 36,37,38,39,42,43,46, 47,50, 51,54,55,58,59 | 004-80355-400 | SW. DIODE 1SS355-TRB (ROHM) SMT | 36 |
| R29,37,38,96,100,118 | 005-52000-301 | CHIP RESISTOR 0 OHM +-5% (1608) (MCR03EZHZJ000) | 6 |
| R9,22,23,30,RB3,RC3,RD3,RE3,RF3,RG3 | 005-52101-301 | CHIP RESISTOR 100 OHM +-5% (1608) (MCR03EZHZJ101) | 10 |
| R116,121 | 005-52102-301 | CHIP RESISTOR 1 K +-5% (1608) (MCH03EZHZJ102) | 2 |
| R7,33,34,89,91,107,109, RB1,2,RC1,2,RD1,2, RE1,2, RF1,2, RG1,2,RX1,RY1, R5,8,18,19,20,21,115,117, 120,122,123,124, RX6,RY6 | 005-52103-301 | CHIP RESISTOR 10 K +-5% (1608) (MCR03EZHZJ103) | 21 |
| R101 | 005-52104-301 | CHIP RESISTOR 100 K +-5% (1608) (MCR03EZHZJ104) | 14 |
| | 005-52105-301 | CHIP RESISTOR 1 M +-5% (1608) (MCR03EZHZJ105) | 1 |
| R126,131,132,133,134,135 | 005-52151-101 | CHIP RESISTOR 150 OHM +-1% (1608) | 6 |
| R6,149 | 005-52153-301 | CHIP RESISTOR 15 K +-5% (1608) (MCR03EZHZJ153) | 2 |
| RX3,RY3 | 005-52203-301 | CHIP RESISTOR 20 K +-5% (1608) | 2 |
| R1,13 | 005-52223-301 | CHIP RESISTOR 22 K +-5% (1608) (MCR03EZHZJ223) | 2 |
| R15 | 005-52224-301 | CHIP RESISTOR 220 K +-5% (1608) (MCR03EZHZJ224) | 1 |

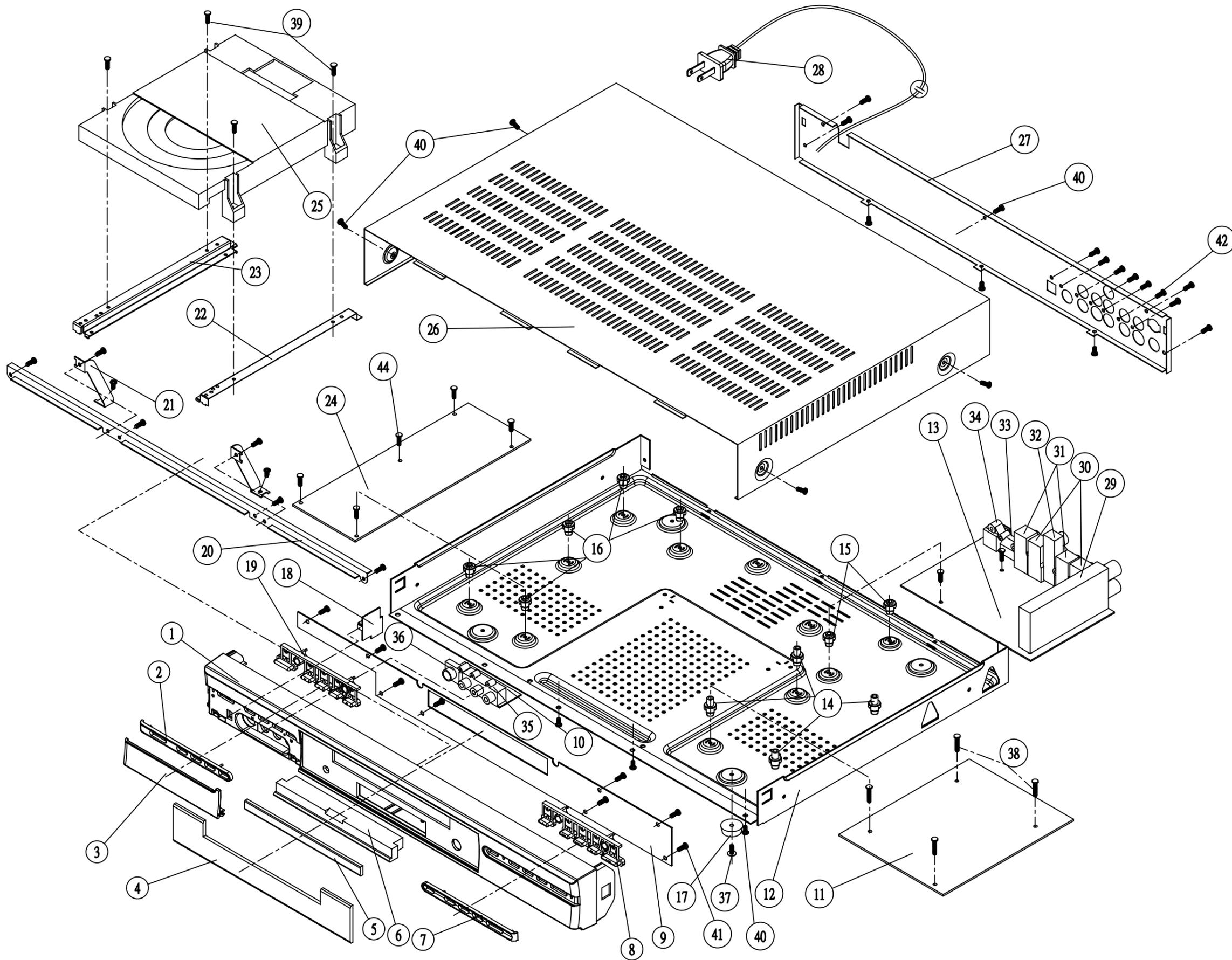
PARTS LIST

| Ref. No | Parts No. | Description | QTY |
|--|---------------|--|-----|
| R86,90,108,110 | 005-52273-301 | CHIP RESISTOR 27 K +-5% (1608) (MCR03EZHZJ273) | 4 |
| RZ1 | 005-52330-301 | CHIP RESISTOR 33 OHM +-5% (1608) (MCH03EZHZJ330) | 1 |
| R83 | 005-52332-301 | CHIP RESISTOR 3.3 K +-5% (1608) (MCR03EZHZJ332) | 1 |
| R92,93,94,95,102,103,104,106 | 005-52334-301 | CHIP RESISTOR 330 K +-5% (1608) (MCR03EZHZJ334) | 8 |
| R2 | 005-52470-301 | CHIP RESISTOR 47 OHM +-5% (1608) (MCR03EZHZJ470) | 1 |
| RX4,RY4 | 005-52471-301 | CHIP RESISTOR 470 OHM +-5% (1608) | 2 |
| RZ2 | 005-52680-301 | CHIP RESISTOR 68 OHM +-5% (1608) (MCR03EZHZJ680) | 1 |
| R129,130, RX2,RY2 | 005-52682-301 | CHIP RESISTOR 6.8K +-5% (1608) (MCR03EZHZJ682) | 4 |
| R26,27,28,98,99,114,127 | 005-52750-101 | CHIP RESISTOR 75 OHM +-1% (1608) | 7 |
| R3,24,25 | 005-52820-301 | CHIP RESISTOR 82 OHM +-5% (1608) | 3 |
| C31,32,33,34,35,82,90,134,135,136, 137,138,139,140,141 | 006-72101-250 | CERAMIC CHIP CAP 100 PF +-5% 50V (1608) | 15 |
| CZ1 | 006-72102-350 | CERAMIC CHIP CAP 0.001 UF +-10% 50V(1608) (MCH185C102KK) | 1 |
| C44,45,48,84,100,101,124,126,128,148,CZ3 | 006-72104-450 | CERAMIC CHIP CAP 0.1 +-20% 50V (1608) | 11 |
| CX3,CY3 | 006-72151-250 | CERAMIC CHIP CAP 150 PF +-5% 50V (1608) | 2 |
| C64,65,69,74,80 | 006-72152-350 | CERAMIC CHIP CAP 0.0015 UF +-10% 50V(1608) | 5 |
| C85,86 | 006-72200-250 | CERAMIC CHIP CAP 20 PF +-5% 50V(1608) (MCH185F200JK) | 2 |
| CZ4 | 006-72221-250 | CERAMIC CHIP CAP 220 PF +-5% 50V (1608) | 1 |
| C71,72,75,83,89 | 006-72331-250 | CERAMIC CHIP CAP 330 PF +-5% 50V (1608) | 5 |
| C76 | 006-72334-525 | CERAMIC CHIP CAP 0.33 UF +-80%-20% 25V(1608) | 1 |

| Ref. No | Parts No. | Description | QTY |
|--------------------------|-------------------|--|-----|
| C71,72,75,83,89 | 006-72470-250 | CERAMIC CHIP CAP 47 PF +-5% 50V(1608) (MCH185A470JK) | 12 |
| C70,79 | 006-72471-250 | CERAMIC CHIP CAP 470 PF +-5% 50V(1608) (MCH185A471JK) | 2 |
| C77,78 | 006-72560-250 | CERAMIC CHIP CAP 56 PF +-5% 50V (1068) | 2 |
| C93,94,99,102 | 006-72681-250 | CERAMIC CHIP CAP 680 PF +-5% 50V (1608) | 4 |
| CX2,CY2 | 006-72821-350 | CERAMIC CHIP CAP 820 PF +-10% 50V (1608) | 2 |
| LB2,LC2,LD2,LE1,LF1, LG2 | 015-00018-901 | CHIP INDUCTOR 1.8 UH (0805) (COILS) CCSP0805FIR8J | 6 |
| | T466B-CHROME-KNOB | T466B CHROME KNOB ASSY | 1 |
| | 128-04660-413 | T466B PLAY KNOB (CHROME/ABS) | 1 |
| | 128-04662-013 | T466B POWER KNOB (CHROME/ABS) | 1 |
| | T466B-STD-13 | T466B 120V UL APP. STANDARD ASSY(W/130-00000-007 AC PLUG PIN PROTECTOR) | 1 |
| | 023-60040-301 | AC CORD UL APP. 6' Y001-A183N2180170BS2 BUSHING+T-0010 PLOA+P11351B HOUSING(Y.C) | 1 |

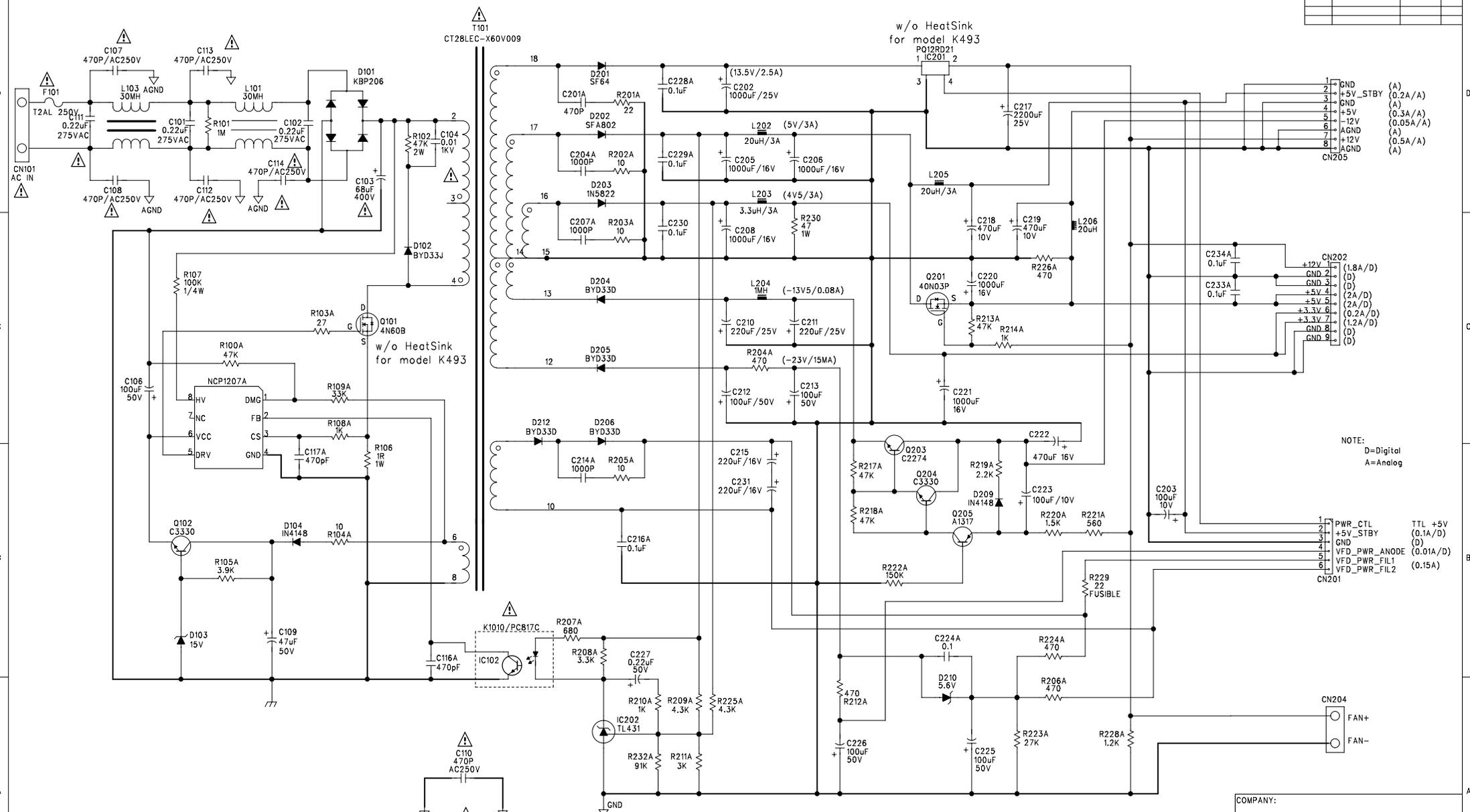
PARTS LIST

EXPLODED VIEW/PARTS LIST (CABINET)



| NO. | DESCRIPTION |
|-----|---------------------|
| 1 | FRONT CABINET |
| 2 | POWER BUTTON COVER |
| 3 | PANEL DOOR COVER |
| 4 | DISPLAY LENS |
| 5 | DVD LENS |
| 6 | DVD DOOR |
| 7 | PLAY BUTTON COVER |
| 8 | PLAY KNOB |
| 9 | CONTROL P.C.B. |
| 10 | FRONT INPUT P.C.B. |
| 11 | MAIN P.C.B. |
| 12 | BOTTOM CABINET |
| 13 | AVIO P.C.B. |
| 14 | MPEG PCB POST |
| 15 | SCRAT PCB POST |
| 16 | PCB POST |
| 17 | RUBBER FOOT |
| 18 | DV P.C.B. |
| 19 | POWER KNOB |
| 20 | TOP BRACKET |
| 21 | FRONT MTG. BRACKET |
| 22 | DVD BRACKET 'R' |
| 23 | DVD BRACKET 'L' |
| 24 | POWER SUPPLY P.C.B. |
| 25 | DVD-RW MECHANISM |
| 26 | TOP CABINET |
| 27 | METAL REAR PLATE |
| 28 | AC CORD |
| 29 | VIDEO TUNER |
| 30 | S. VIDEO+RCA JACK |
| 31 | RCA JACK RS-233-04 |
| 32 | RCA JACK RS-330-16 |
| 33 | RCA JACK RS-145C/OR |
| 34 | FIBER OPTIC MODULE |
| 35 | BT941 3P RCA JACK |
| 36 | S.VIDEO SOCKET |
| 37 | SCREW 3X8 STPW |
| 38 | SCREW 3X16 STB |
| 39 | SCREW 3X14 STB |
| 40 | SCREW 3X6 STB |
| 41 | SCREW 3X8 STB |
| 42 | SCREW 3X8 STB BLACK |

| REVISION RECORD | | |
|-----------------|---------|--------------|
| LTR | ECO NO: | APPROVE/DATE |
| | | |
| | | |
| | | |



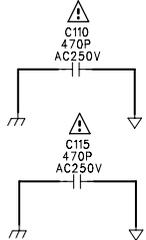
| | | |
|---|----------|-----------|
| 1 | GND | (A) |
| 2 | +5V_STBY | (0.2A/A) |
| 3 | GND | (A) |
| 4 | +5V | (0.3A/A) |
| 5 | -12V | (0.05A/A) |
| 6 | AGND | (A) |
| 7 | +12V | (0.5A/A) |
| 8 | AGND | (A) |

| | | |
|---|---------|----------|
| 1 | +12V | (1.8A/D) |
| 2 | GND 2 | (D) |
| 3 | GND 3 | (D) |
| 4 | +5V 4 | (2A/D) |
| 5 | +5V 5 | (2A/D) |
| 6 | +3.3V 6 | (0.2A/D) |
| 7 | +3.3V 7 | (1.2A/D) |
| 8 | GND 8 | (D) |
| 9 | GND 9 | (D) |

| | | |
|---|---------------|-----------|
| 1 | PWR_CTL | TTL +5V |
| 2 | +5V_STBY | (0.1A/D) |
| 3 | GND | (D) |
| 4 | VFD_PWR_ANODE | (0.01A/D) |
| 5 | VFD_PWR_FIL1 | (0.15A) |
| 6 | VFD_PWR_FIL2 | (0.15A) |

NOTE:
D=Digital
A=Analog

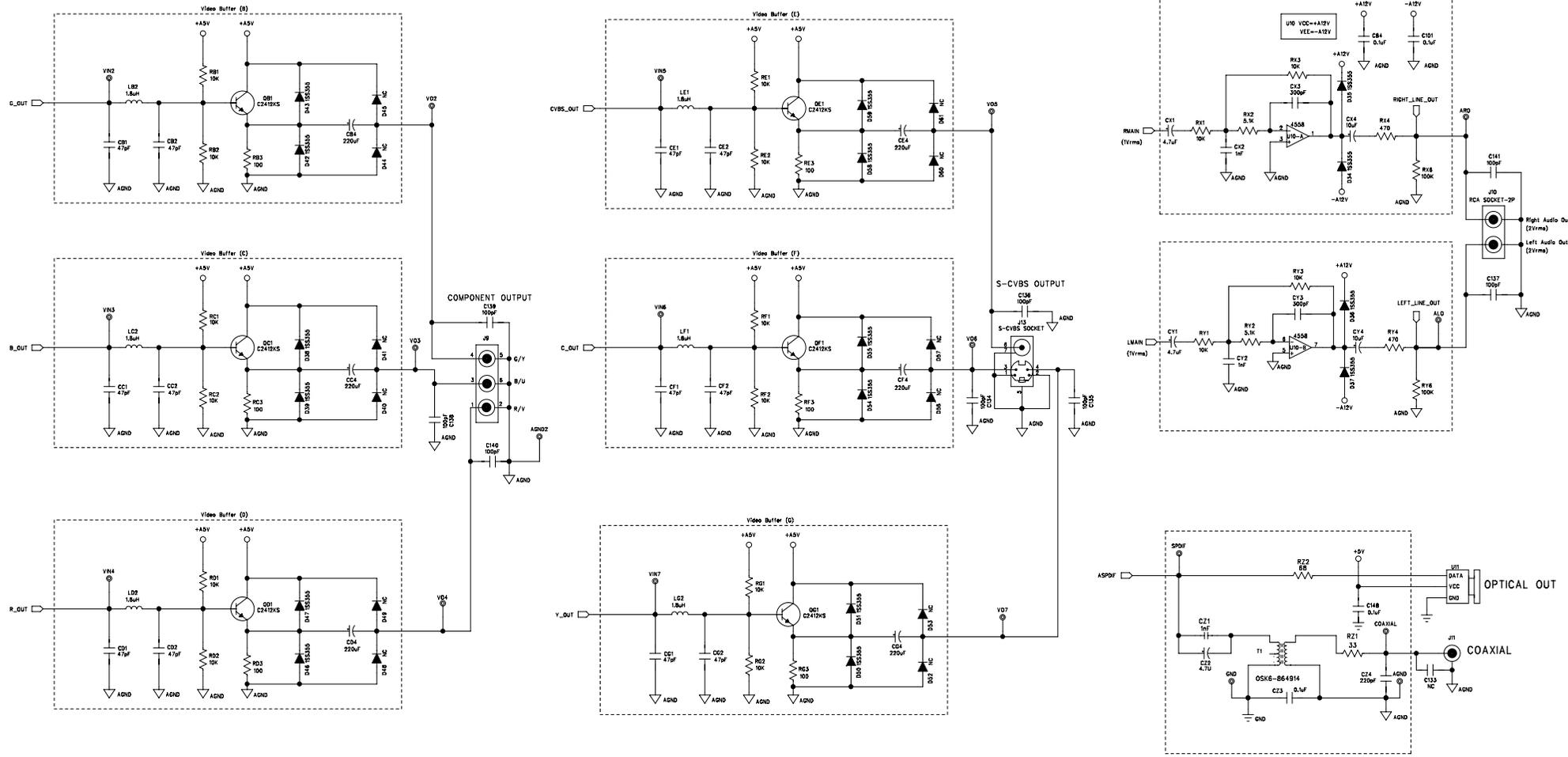
CAUTION:
C107,C108,C110,C112,C113,C114,C115 Shall
be Y1 capacitor



⚠ Parts marked with this sign are safety critical components.
They must always be replaced with identical components refer
to the appropriate parts list and ensure exact replacement.

| | | | | | |
|------------------|--------|-------------------|-------|-------------|---------------|
| COMPANY: | | TITLE: | | | |
| | | K493 POWER SUPPLY | | | |
| DRAWN: | DATED: | CODE: | SIZE: | DRAWING NO: | REV: |
| CHECKED: | DATED: | | A3 | | |
| QUALITY CONTROL: | DATED: | | | | |
| RELEASED: | DATED: | | | | |
| | | | | | SHEET: 1 OF 1 |

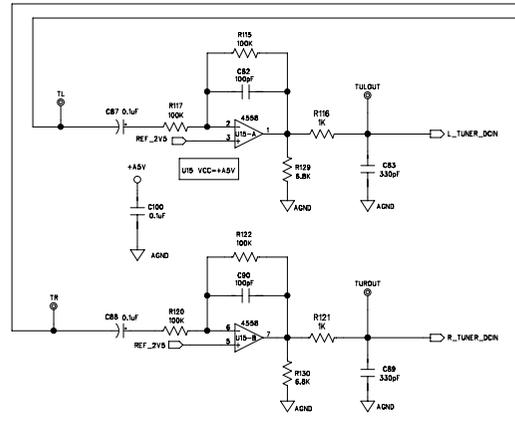
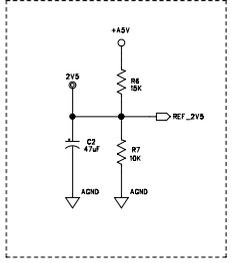
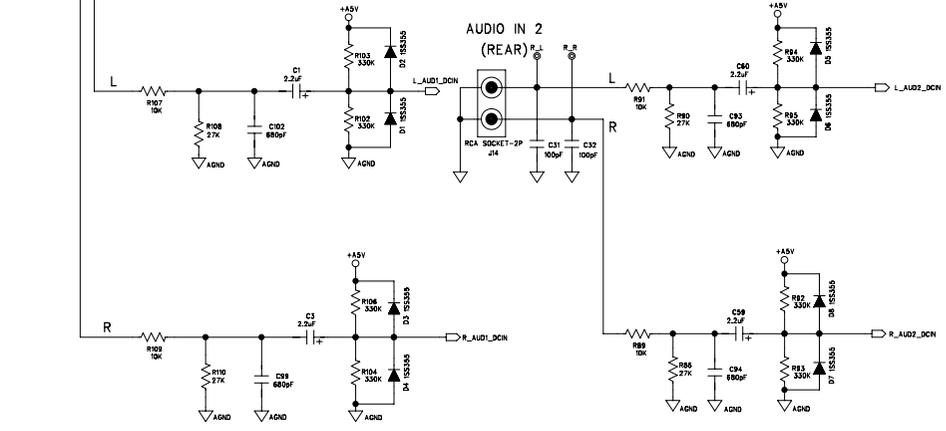
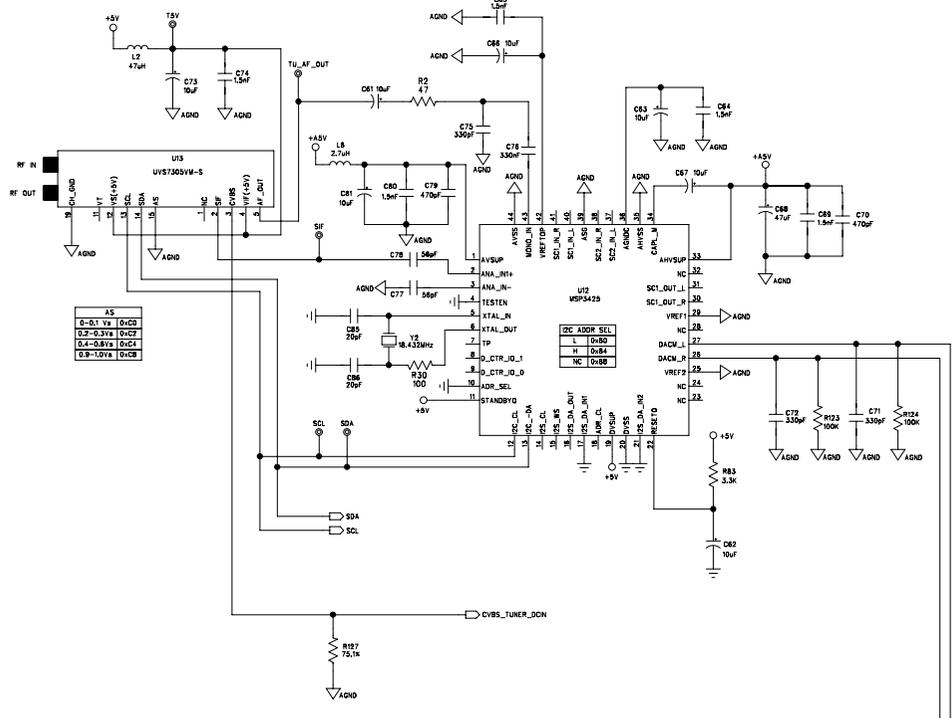
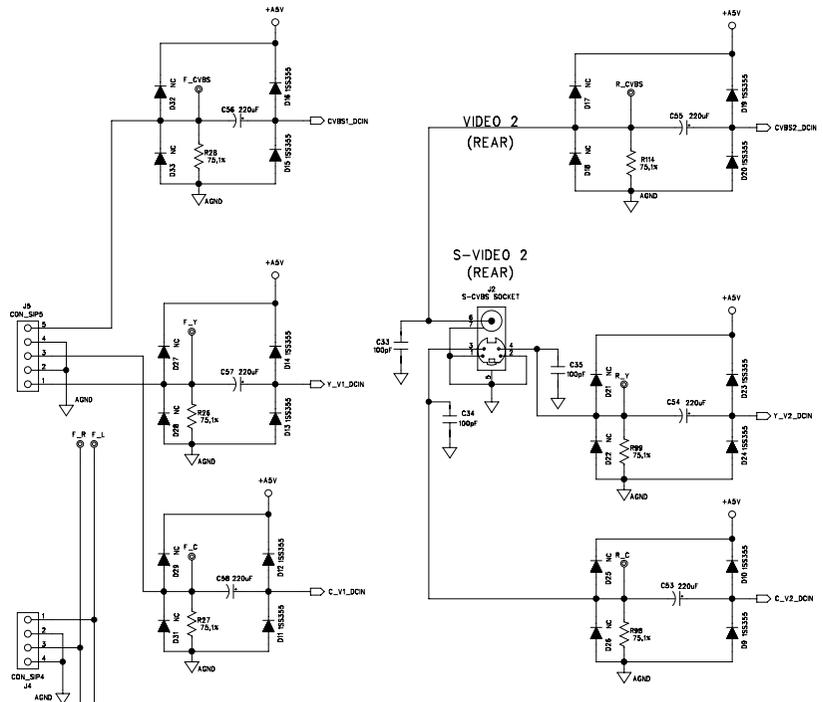
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|-----------------|---------|-----------|-------|
| LTR | ECO NO: | APPROVED: | DATE: |
| | | | |
| | | | |
| | | | |



UNLESS OTHERWISE NOTED, ALL THE ELECT. CAP'S RATING VOLTAGE IS 10V.

| | | | | | |
|------------------|--|------------|--|---------------------------------|-------------|
| DRAWN: | | DATE: | | COMPANY: | |
| H0RACE P00N | | 2006-04-19 | | TONIC TECHNOLOGY (SHENZHEN) LTD | |
| CHECKED: | | DATE: | | TITLE: | |
| H0RACE P00N | | 2006-04-19 | | K493 AV IO BOARD (USA) | |
| QUALITY CONTROL: | | DATE: | | CODE: | SIZE: |
| H0RACE P00N | | 2006-04-19 | | A3 | DRAWING NO: |
| RELEASED: | | DATE: | | K493-AVIO-1 | |
| H0RACE P00N | | 2006-04-19 | | REV: 1.1 | |
| SCALE: | | 1 to 1 | | SHEET: 1 OF 3 | |

| REVISION RECORD | | | |
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| LTR | ECO NO: | APPROVED: | DATE: |
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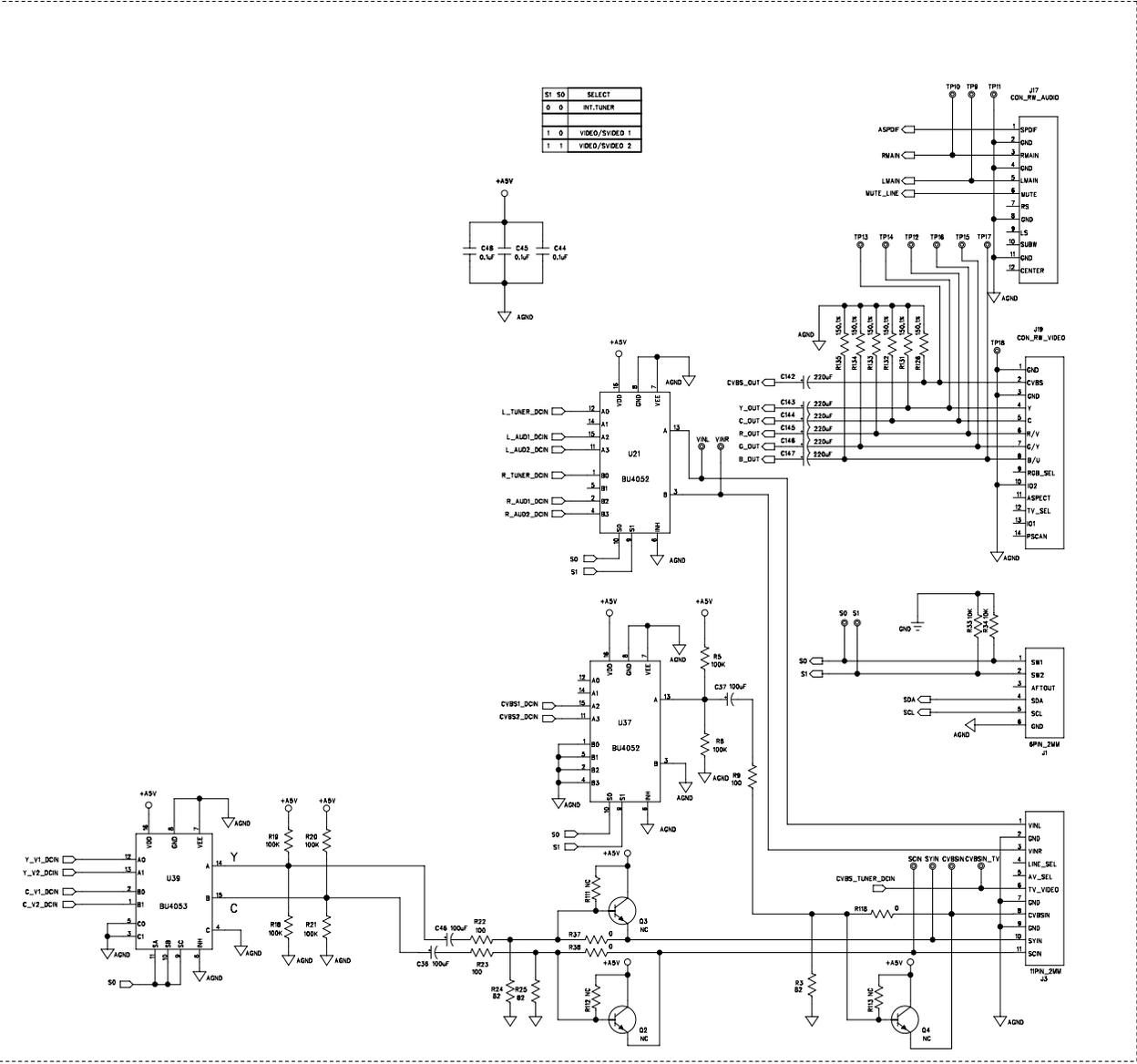
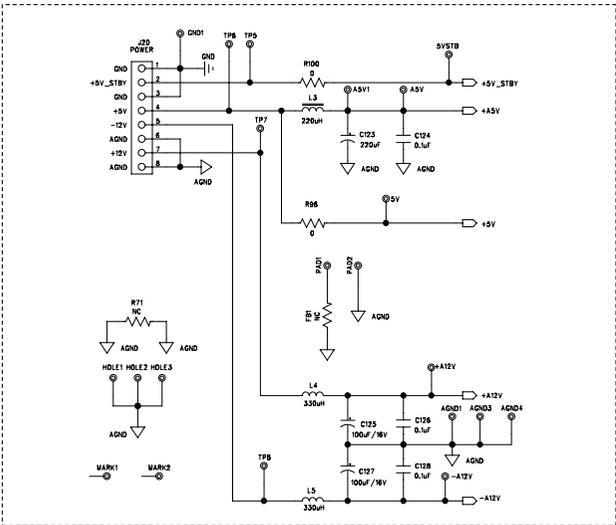
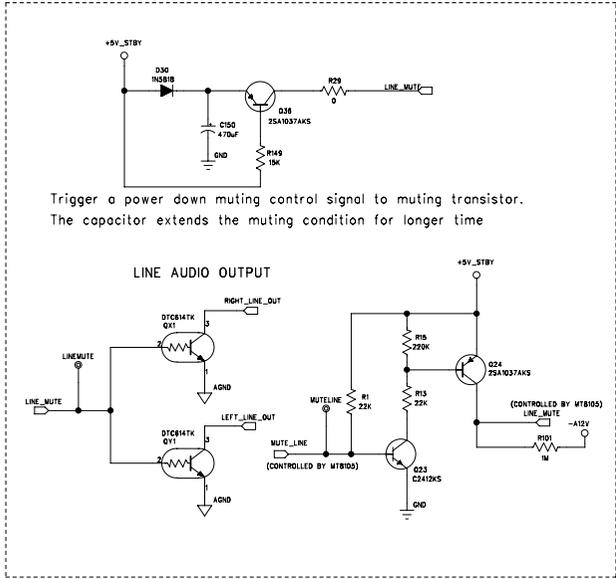


COMPANY: TONIC TECHNOLOGY (SHENZHEN) LTD

TITLE: K493 AV IO BOARD (USA)

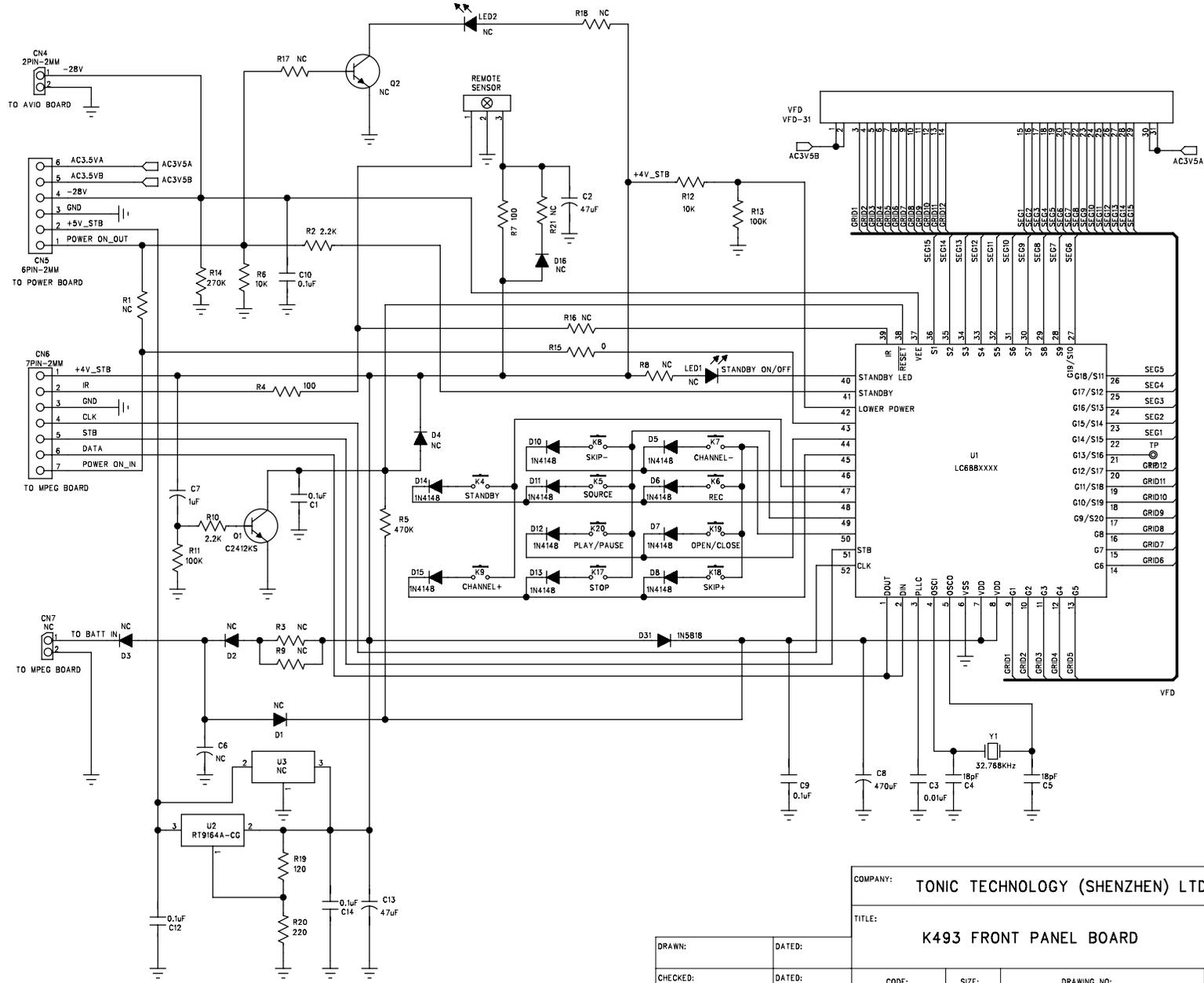
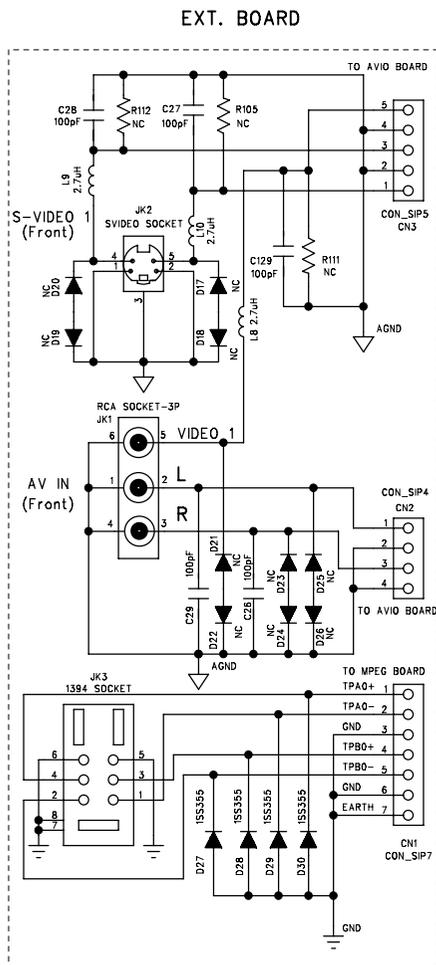
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| CHECKED: | DATE: | | | | |
| HORACE POON | 2005-04-19 | | | | |
| QUALITY CONTROL: | DATE: | | | | |
| HORACE POON | 2005-04-19 | | | | |
| RELEASED: | DATE: | | | | |
| HORACE POON | 2005-04-19 | | | | |

| REVISION RECORD | | | |
|-----------------|---------|-----------|-------|
| LTR | ECO NO: | APPROVED: | DATE: |
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| | | | |
|--|------------------|-----------------------|------------------|
| COMPANY: TONIC TECHNOLOGY (SHENZHEN) LTD | | TITLE: | |
| DRAWING NO: K493-AVIO-3 | | REV: 1.1 | |
| DRAWN: HORACE PCDN | DATE: 2005-04-19 | CHECKED: HORACE PCDN | DATE: 2005-04-19 |
| QUALITY CONTROL: HORACE PCDN | DATE: 2005-04-19 | RELEASED: HORACE PCDN | DATE: 2005-04-19 |
| SCALE: 1:1 | SHEET: 3 OF 3 | | |

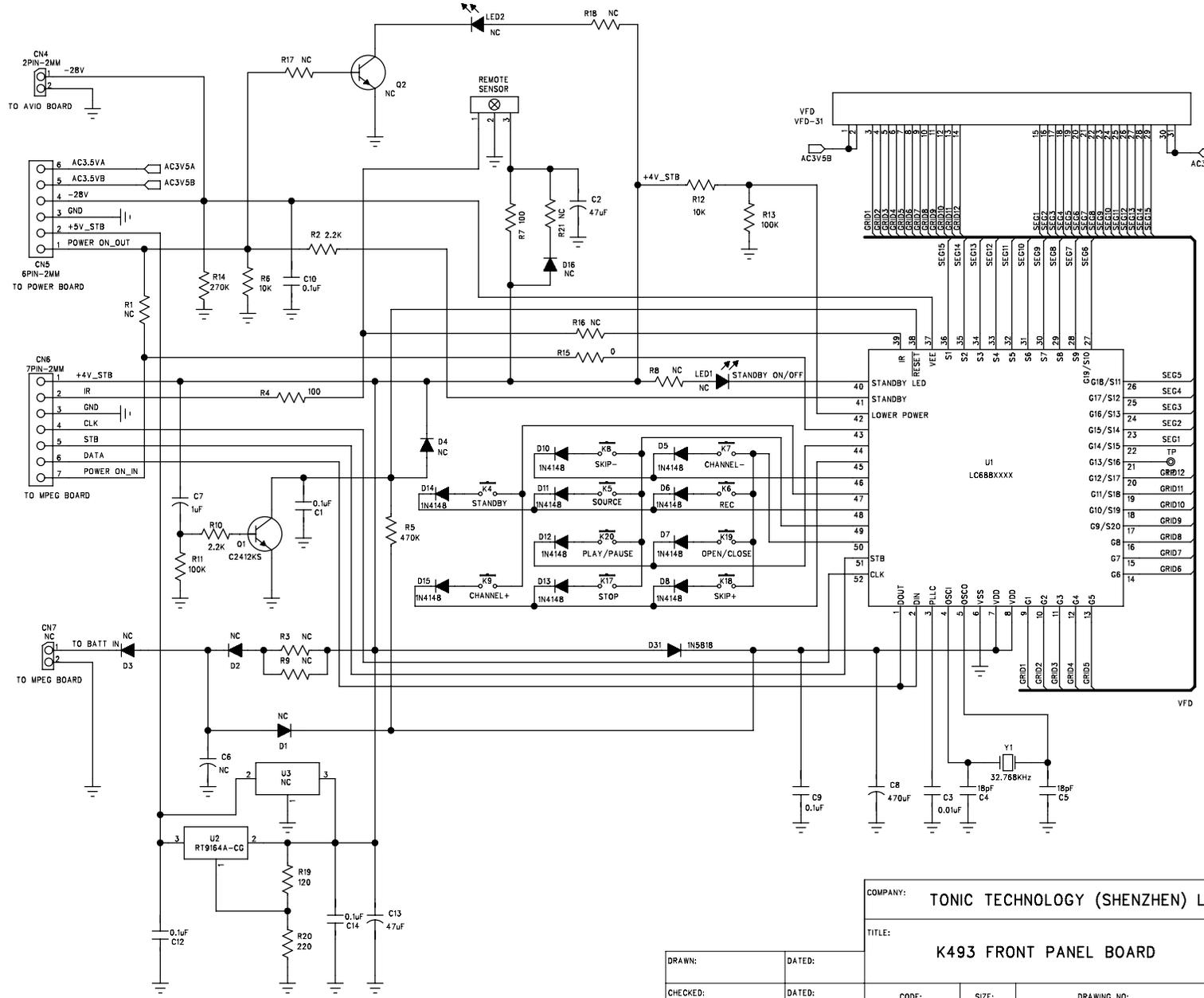
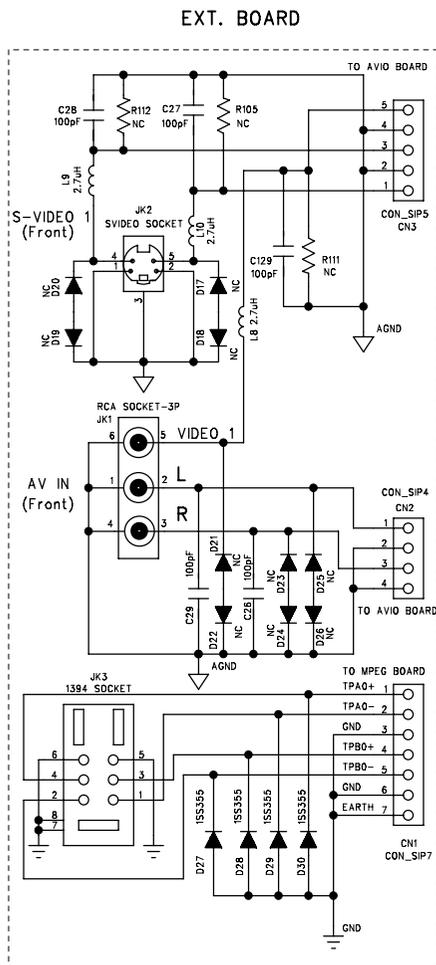
| REVISION RECORD | | | |
|-----------------|---------|-----------|-------|
| LTR | ECO NO: | APPROVED: | DATE: |
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|--|-------------------|-------------|---------------|
| COMPANY: TONIC TECHNOLOGY (SHENZHEN) LTD | | | |
| TITLE: K493 FRONT PANEL BOARD | | | |
| DRAWN: | DATED: | CODE: | SIZE: |
| CHECKED: | DATED: | DRAWING NO: | REV: |
| QUALITY CONTROL: | DATED: | A3 | FRONT PANEL |
| RELEASED: | DATED: 2005-04-19 | SCALE: | SHEET: 1 OF 1 |

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|------------------|-------------------|
| DRAWN: | DATED: |
| CHECKED: | DATED: |
| QUALITY CONTROL: | DATED: |
| RELEASED: | DATED: 2005-04-19 |

| REVISION RECORD | | | |
|-----------------|---------|-----------|-------|
| LTR | ECO NO: | APPROVED: | DATE: |
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| | | | |
|--|-------------------|-------------|---------------|
| COMPANY: TONIC TECHNOLOGY (SHENZHEN) LTD | | | |
| TITLE: K493 FRONT PANEL BOARD | | | |
| DRAWN: | DATED: | CODE: | SIZE: |
| CHECKED: | DATED: | DRAWING NO: | REV: |
| QUALITY CONTROL: | DATED: | A3 | FRONT PANEL |
| RELEASED: | DATED: 2005-04-19 | SCALE: | SHEET: 1 OF 1 |

D

C

B

A

D

C

B

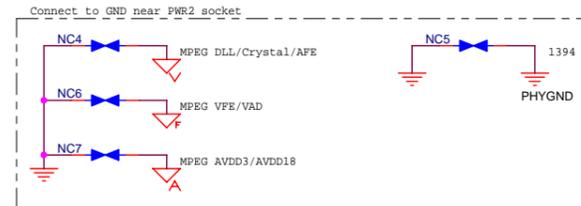
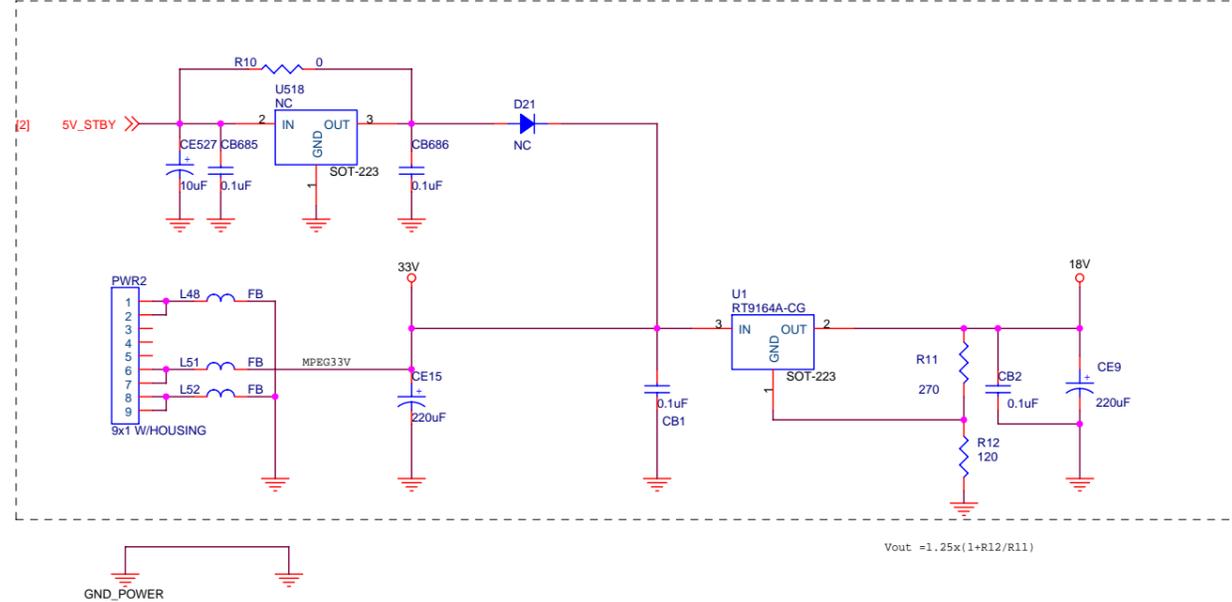
A

MT8105B (LQFP256) DVR BOARD with SONY LDX-378 PUH

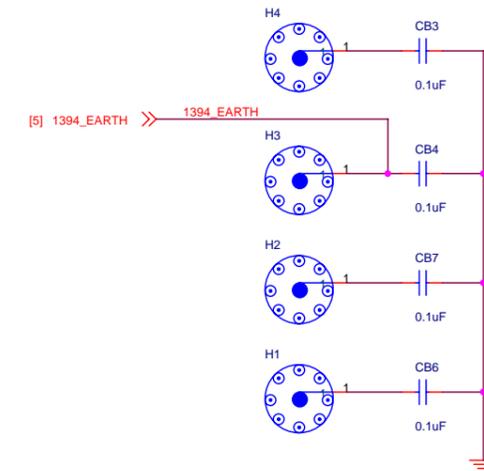
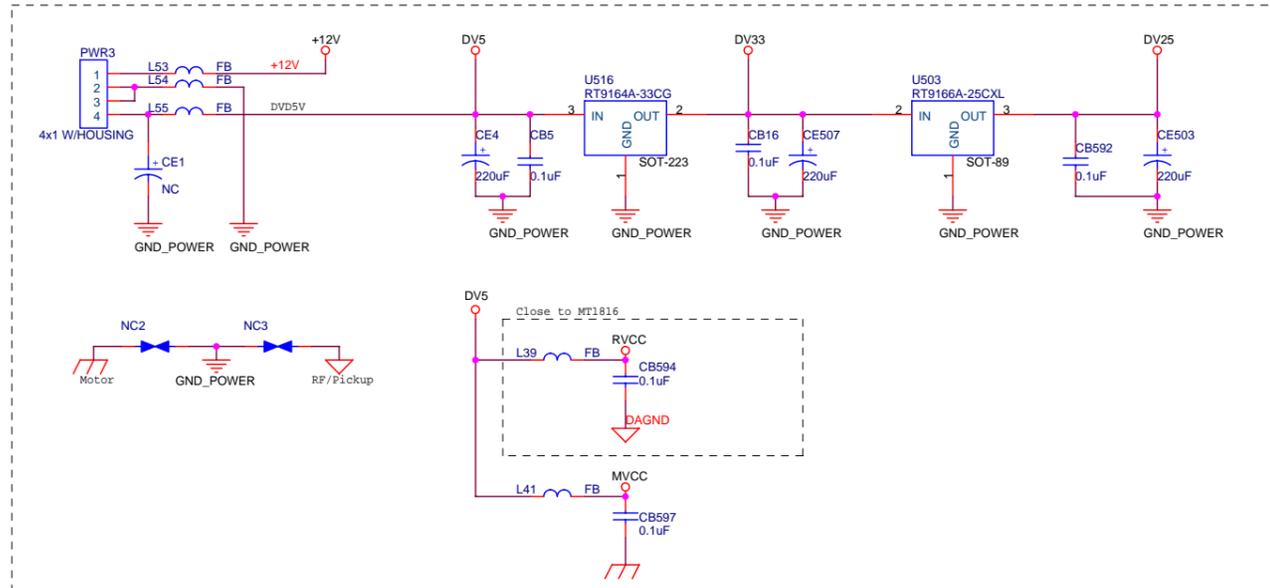
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|---|-------------------------|---|---------------------|
| 1 | INDEX & POWER | 6 | MT1818E |
| 2 | MT8105B | 7 | SERVO SDRAM & FLASH |
| 3 | MPEG SDRAM & FLASH | 8 | MT1816E |
| 4 | AUDIO CODEC & AV IN/OUT | 9 | MOTOR DRIVER |
| 5 | 1394 & USB | | |

| Rev. | History | P# | Date |
|------|---------------------------------------|----|------------|
| V1 | Based on MTK SO8105BS1V1 release. | | 2004/04/12 |
| V7 | Sync with MT8105SDR_SONY_V5 schematic | | 2004/09/23 |

Power Supply for MPEG



Power Supply for Servo/RF



- MVCC >>> MVCC [9]
- RVCC >>> RVCC [8]
- +12V >>> +12V [9]
- 18V >>> 18V [2]
- 33V >>> 33V [2,3,5]
- DV25 >>> DV25 [6]
- DV33 >>> DV33 [4,5,6,7]
- DV5 >>> DV5 [4,5,8]
- DAGND >>> DAGND [6,8,9]

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No.1-2, Innovation Rd 1, SBIP, Hsin-Chu City 300
TEL: (03)867-0786 FAX: (03)878-7610

| | | | | |
|-------|----------------------|-----------------|--------------|-----|
| | MediaTek Inc. | | INDEX | |
| | Size | Document Number | Drawn | Rev |
| C | SO8105BT1V7.DSN | | 1 | |
| Date: | 星期四, 七月 21, 2005 | Sheet | 1 of 9 | |

| | |
|-------|-------|
| A RA3 | D RA3 |
| A RA2 | D RA2 |
| A RA1 | D RA1 |
| A RA0 | D RA0 |

| | |
|-------|-------|
| A RA4 | D RA4 |
| A RA5 | D RA5 |
| A RA6 | D RA6 |
| A RA7 | D RA7 |

| | |
|--------|--------|
| A RA8 | D RA8 |
| A RA9 | D RA9 |
| A RA11 | D RA11 |
| A RA12 | D RA12 |

| | |
|--------|--------|
| A_RA10 | D_RA10 |
|--------|--------|

| | |
|-------|-------|
| A DQ0 | D DQ0 |
| A DQ1 | D DQ1 |
| A DQ2 | D DQ2 |
| A DQ3 | D DQ3 |

| | |
|-------|-------|
| A DQ4 | D DQ4 |
| A DQ5 | D DQ5 |
| A DQ6 | D DQ6 |
| A DQ7 | D DQ7 |

| | |
|--------|--------|
| A DQ8 | D DQ8 |
| A DQ9 | D DQ9 |
| A DQ10 | D DQ10 |
| A DQ11 | D DQ11 |

| | |
|--------|--------|
| A DQ12 | D DQ12 |
| A DQ13 | D DQ13 |
| A DQ14 | D DQ14 |
| A DQ15 | D DQ15 |

| | |
|--------|--------|
| A DQ16 | D DQ16 |
| A DQ17 | D DQ17 |
| A DQ18 | D DQ18 |
| A DQ19 | D DQ19 |

| | |
|--------|--------|
| A DQ20 | D DQ20 |
| A DQ21 | D DQ21 |
| A DQ22 | D DQ22 |
| A DQ23 | D DQ23 |

| | |
|--------|--------|
| A DQ24 | D DQ24 |
| A DQ25 | D DQ25 |
| A DQ26 | D DQ26 |
| A DQ27 | D DQ27 |

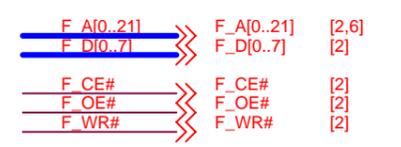
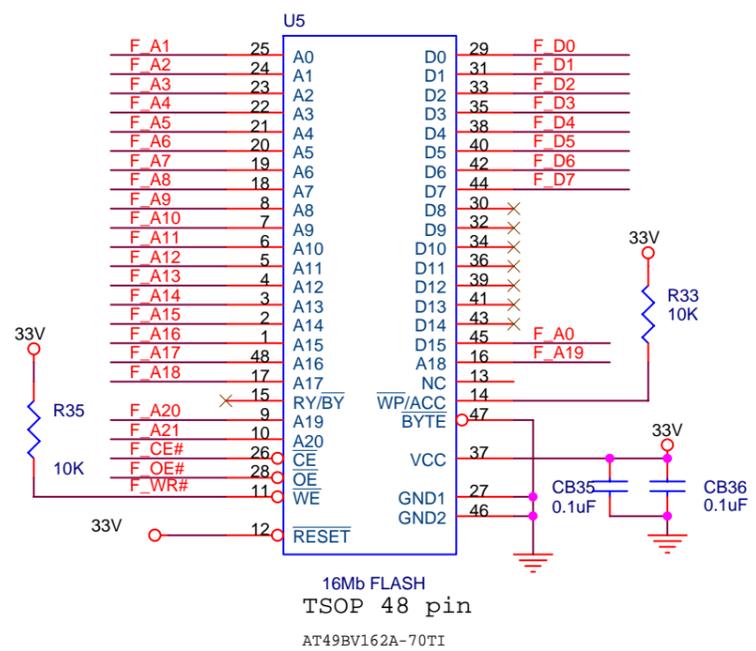
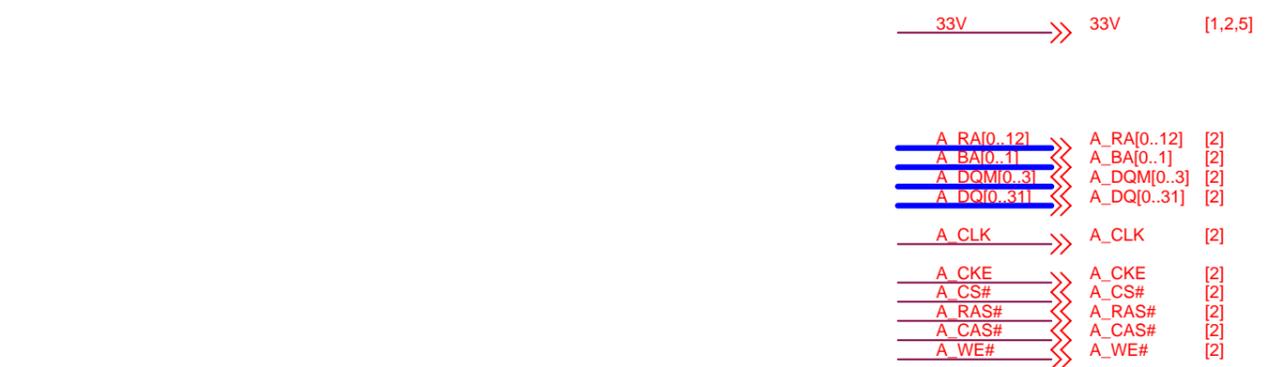
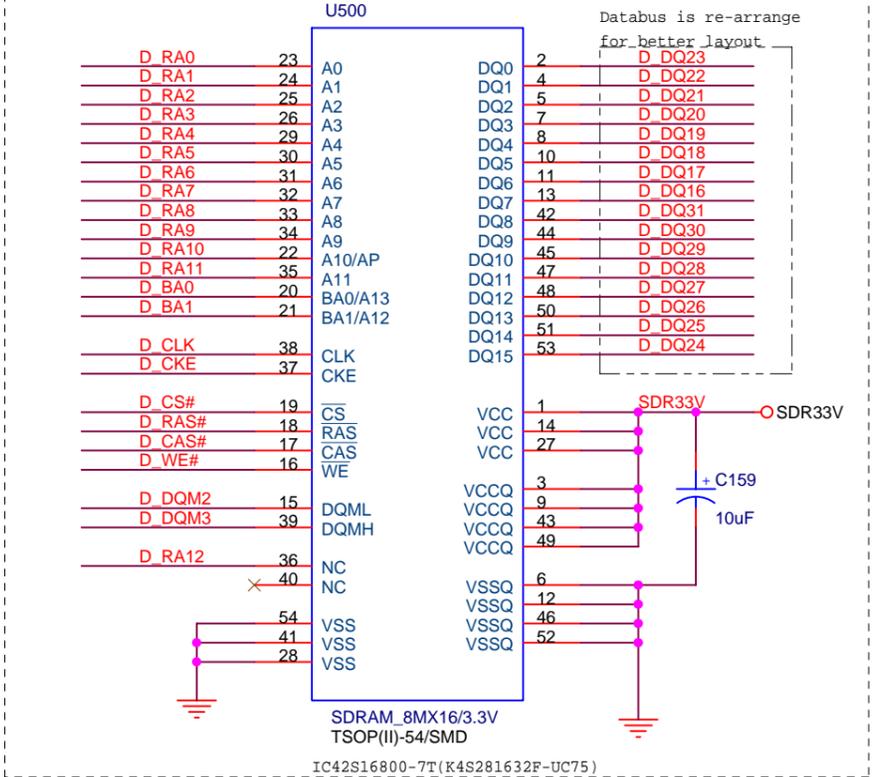
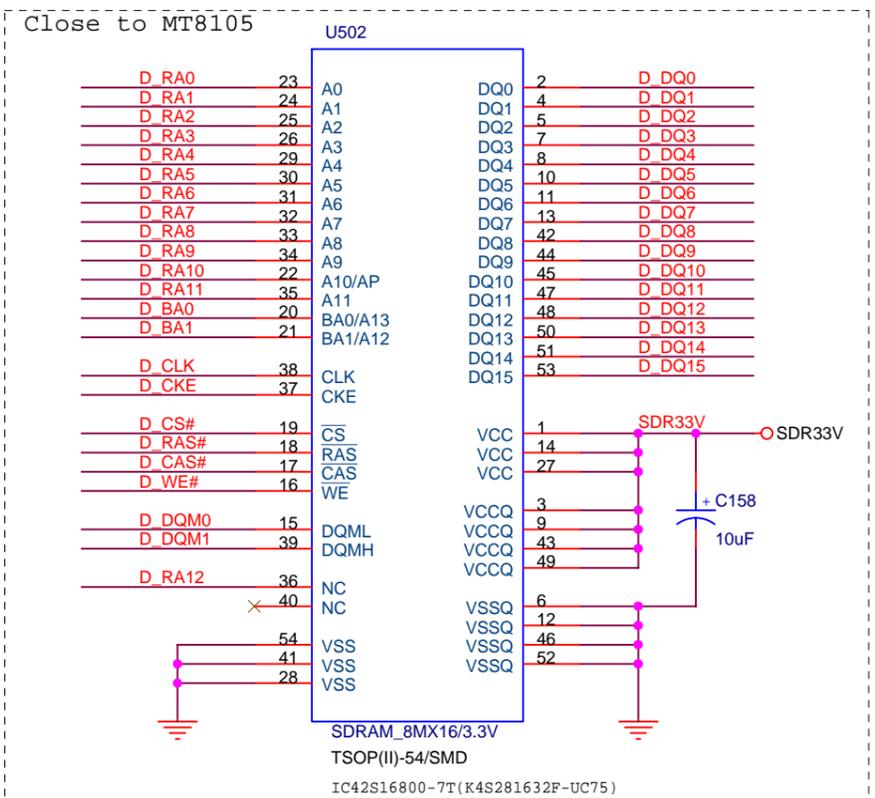
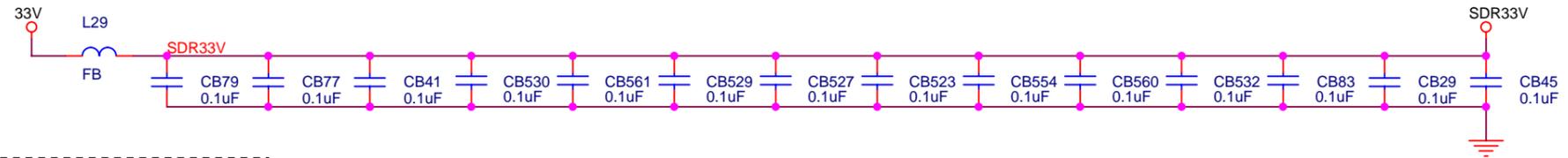
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|--------|--------|
| A DQ28 | D DQ28 |
| A DQ29 | D DQ29 |
| A DQ30 | D DQ30 |
| A DQ31 | D DQ31 |

| | | | |
|--------|------|----|--------|
| A DQM0 | R690 | 33 | D_DQM0 |
| A DQM1 | R691 | 33 | D_DQM1 |
| A DQM2 | R692 | 33 | D_DQM2 |
| A DQM3 | R693 | 33 | D_DQM3 |

| | | | |
|--------|-------|------|--------|
| A CS# | RN511 | 33x4 | D_CS# |
| A RAS# | | | D_RAS# |
| A CAS# | | | D_CAS# |
| A WE# | | | D_WE# |

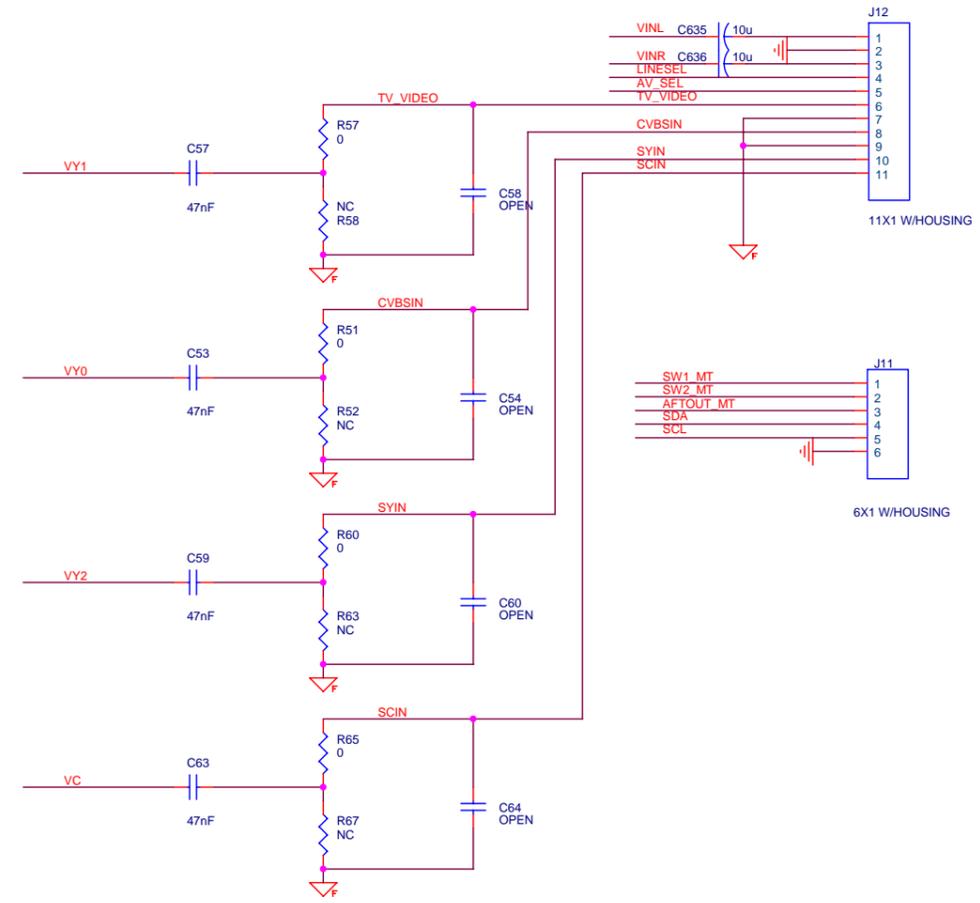
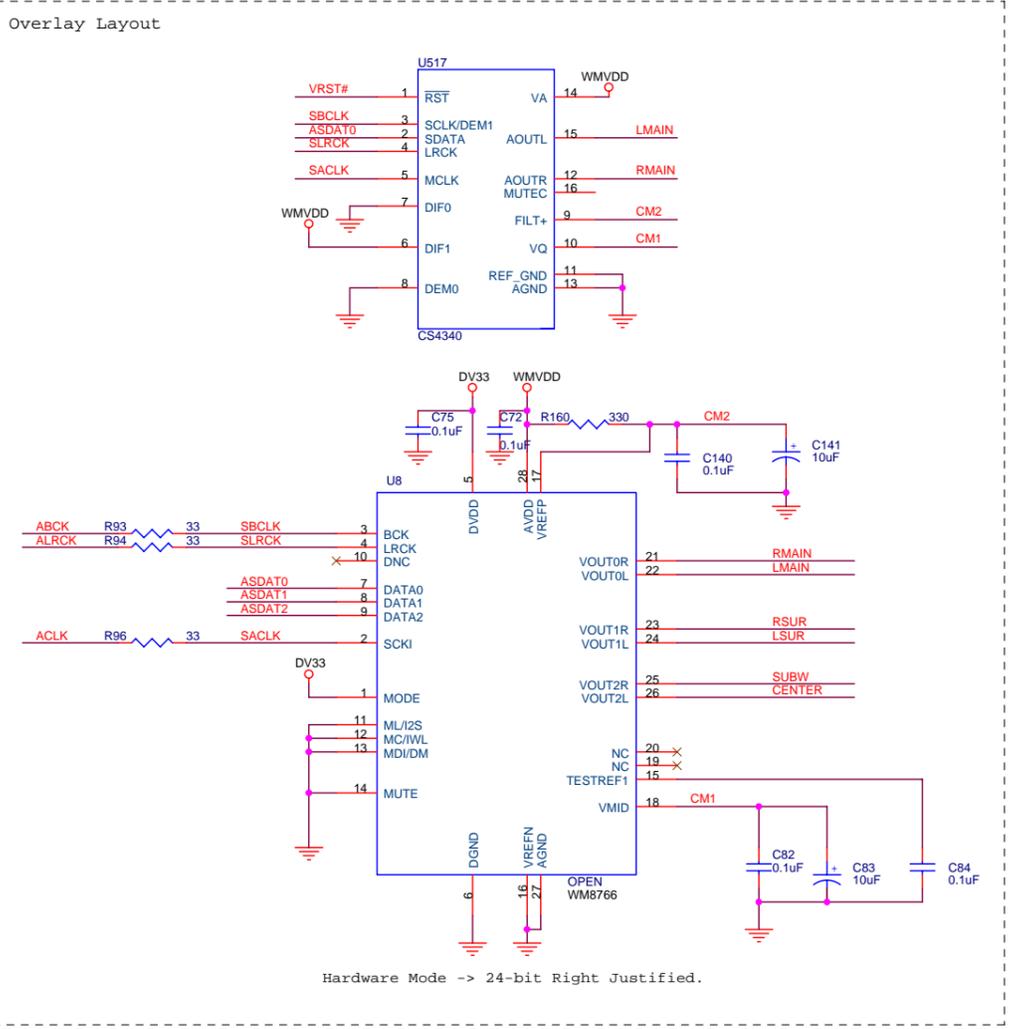
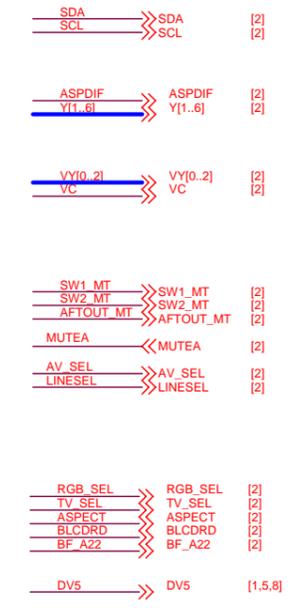
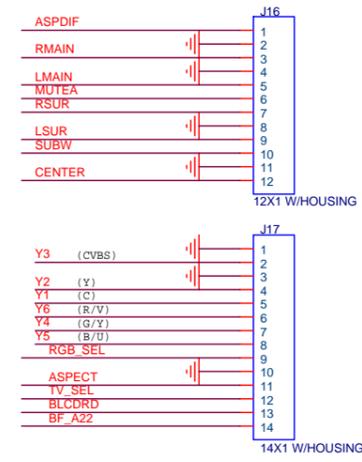
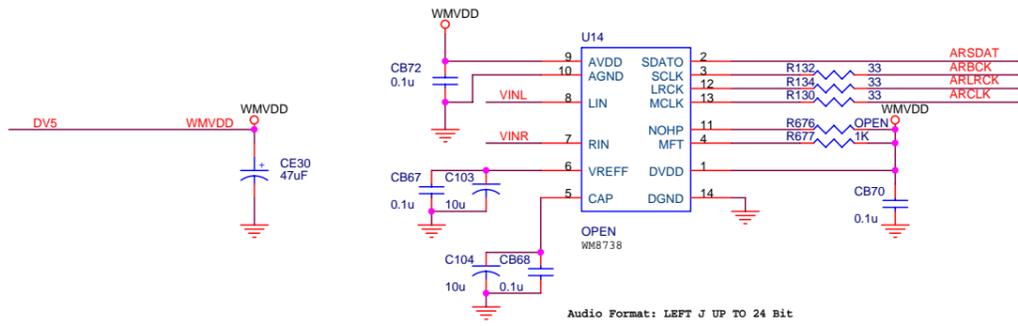
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|-------|-----|----|-------|
| A BA0 | R14 | 33 | D_BA0 |
| A BA1 | R15 | 33 | D_BA1 |

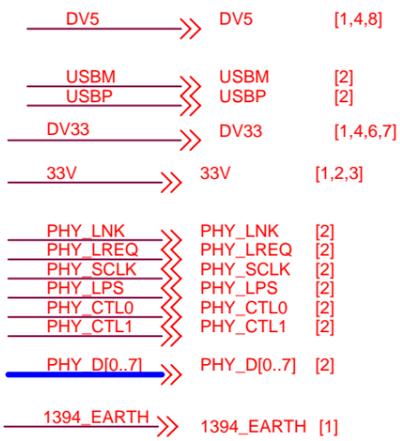
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|-------|------|-----|-------|
| A_CKE | R511 | 33 | D_CKE |
| A_CLK | R506 | 180 | D_CLK |



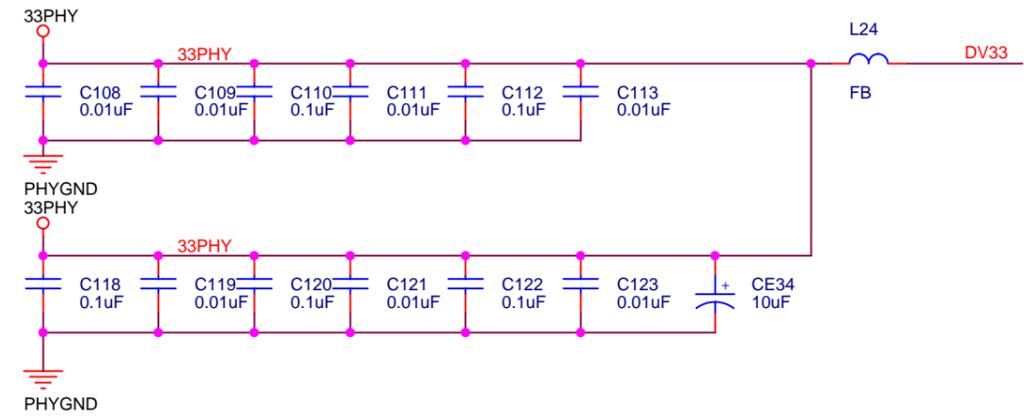
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| | | | |
|---------------------------------|--|-----------|----------|
| | MediaTek Inc. No.1-2, Innovation Rd 1, SBIP, Hsin-Chu City 300 TEL: (03)567-0766 FAX: (03)578-7610 | | |
| | MPEG SDRAM & FLASH | | |
| Title SO8105BT1V7.DSN | Document Number SO8105BT1V7.DSN | Drawn | Rev 1 |
| Date: 星期四, 七月 21, 2005 | Sheet 3 of 9 | | |

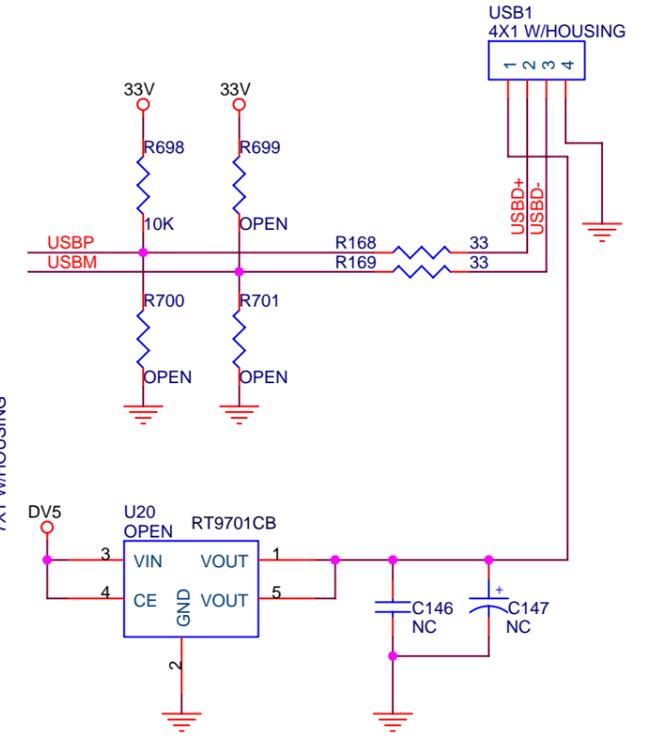
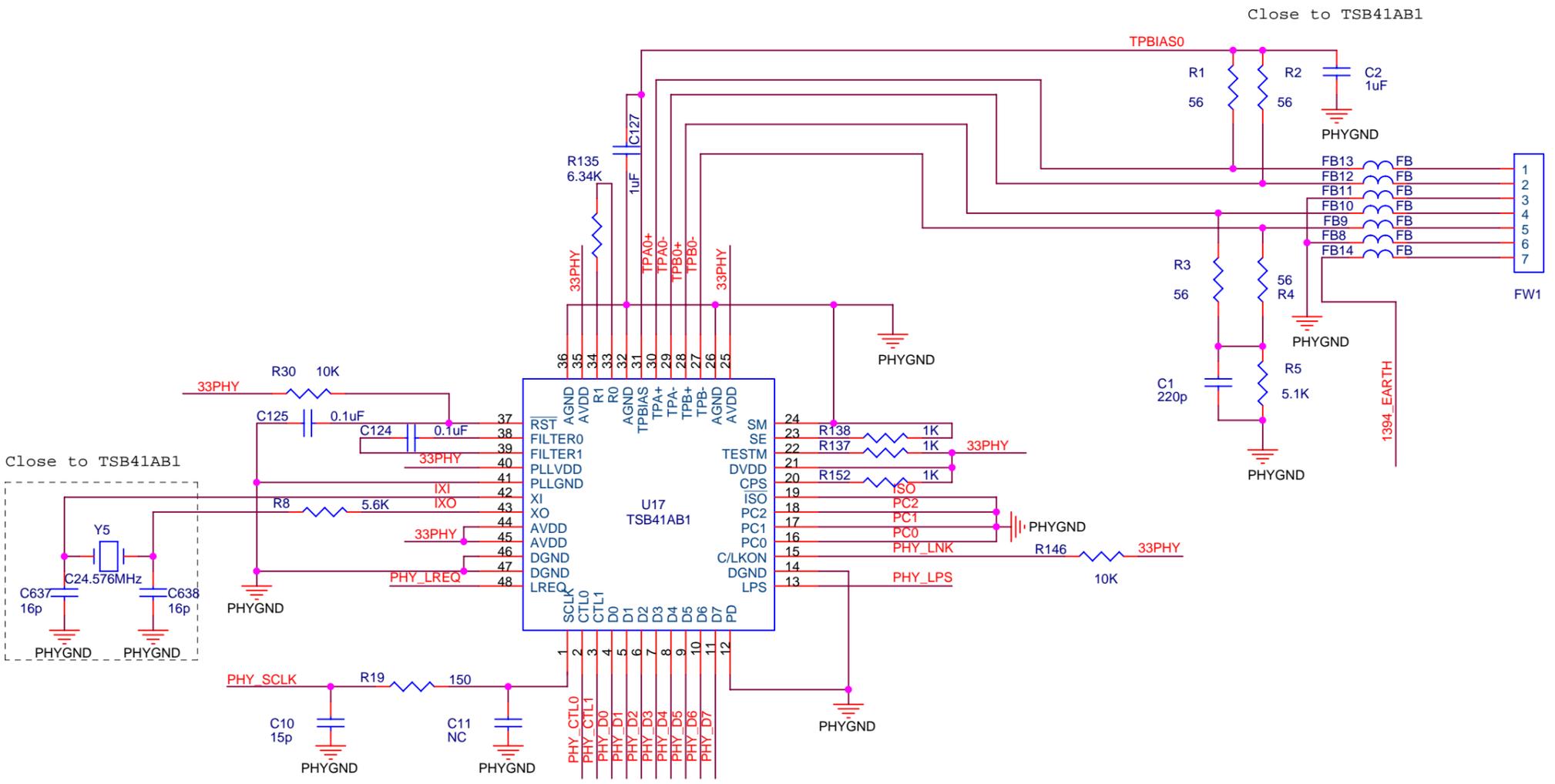




Close to MT8105



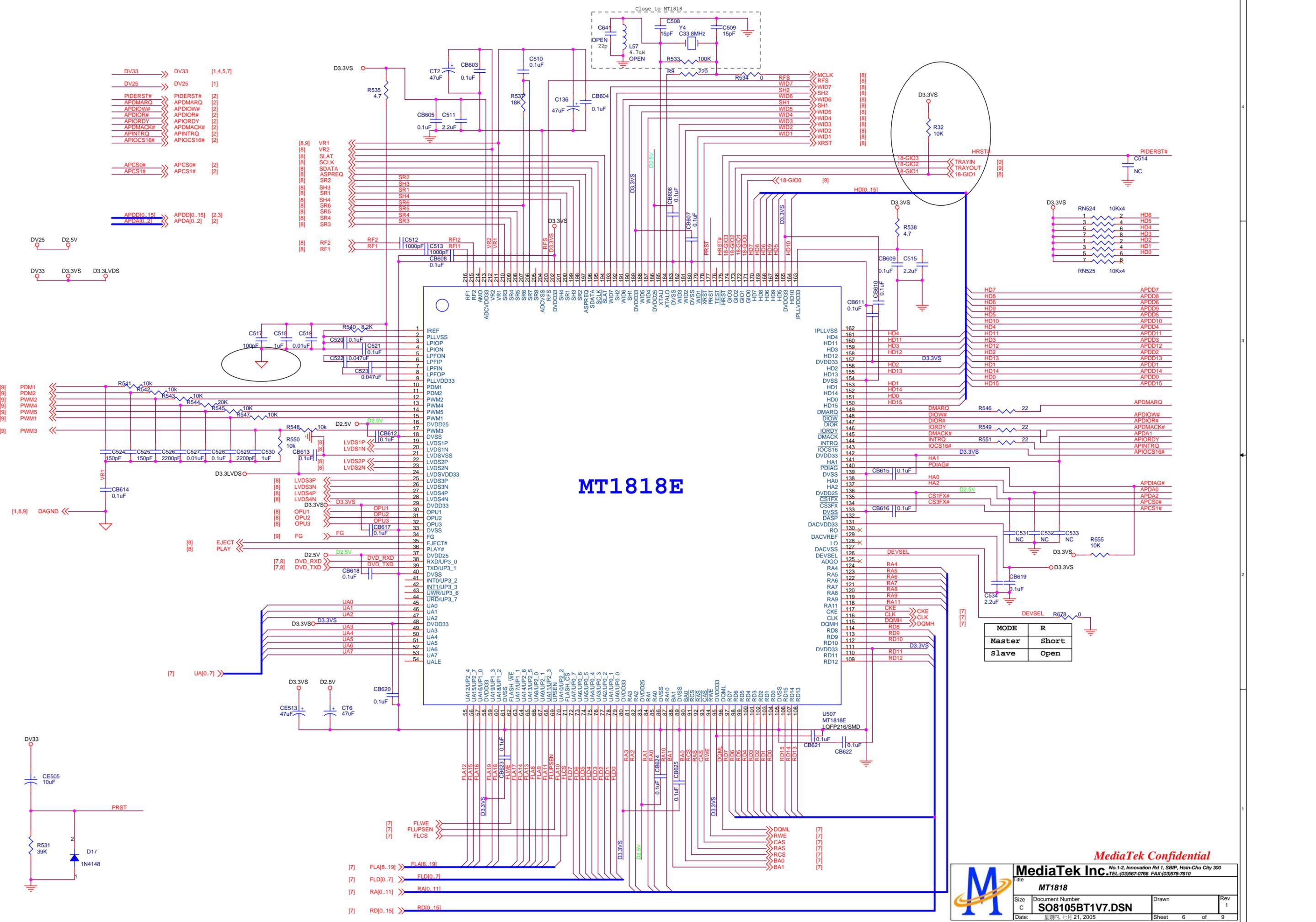
Close to TSB41AB1



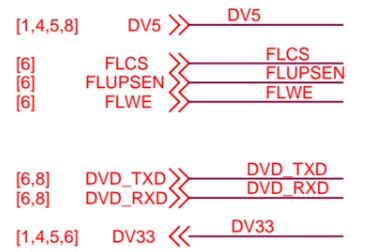
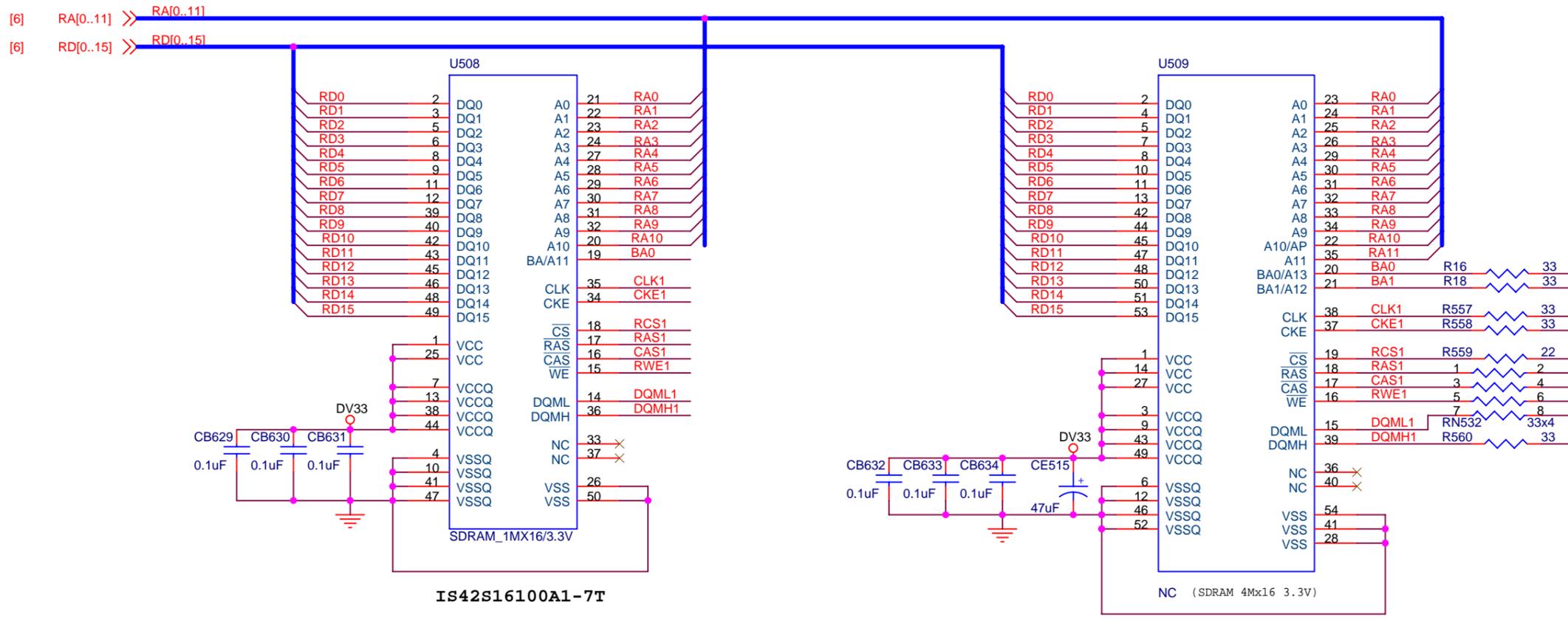
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| | | | |
|------------------------|---|--------|--------|
| | MediaTek Inc No.1-2, Innovation Rd 1, SBIP, Hsin-Chu City 300 TEL: (03)567-0766 FAX: (03)578-7610 | | |
| | Title: 1394 & USB | | |
| Size: B | Document Number: SO8105BT1V7.DSN | Drawn: | Rev: 1 |
| Date: 星期四, 七月 21, 2005 | Sheet: 5 | of: | 9 |

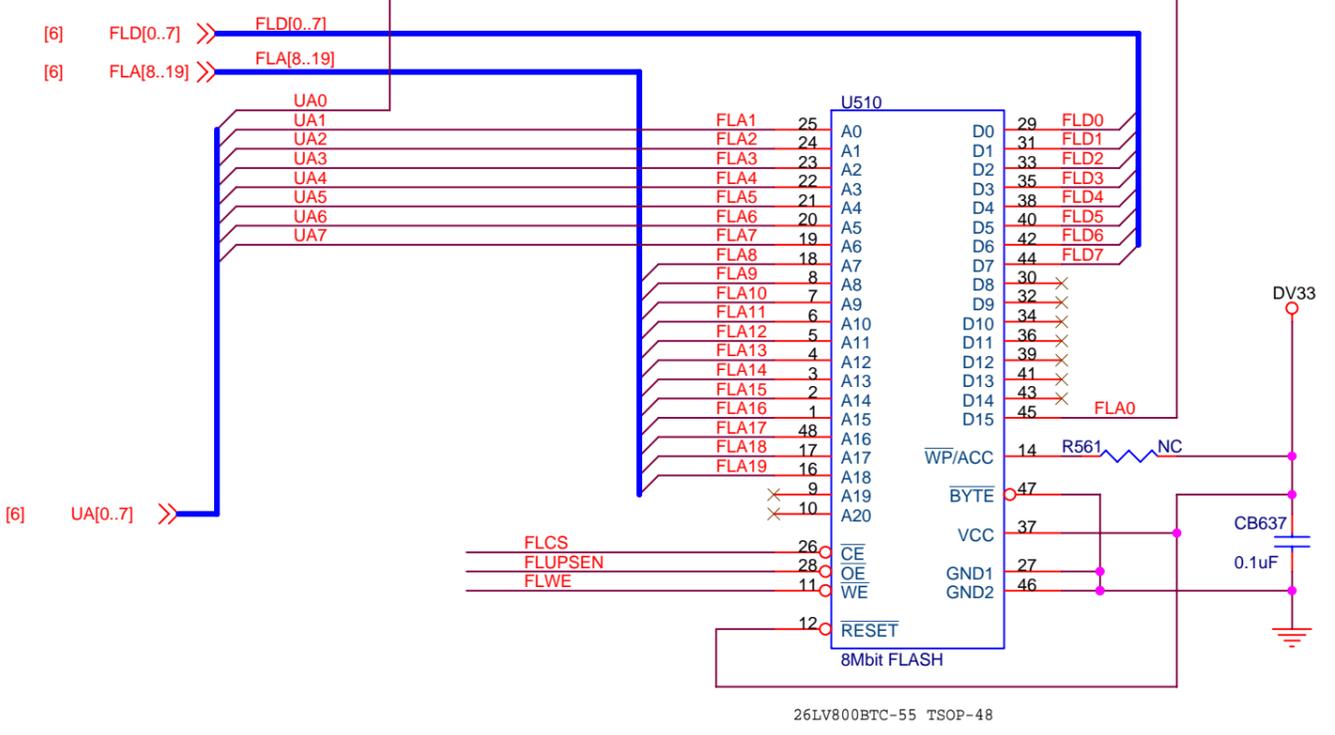
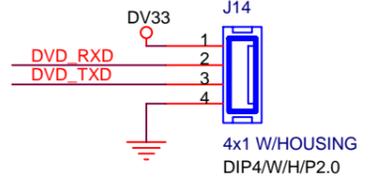
MT1818E



| MODE | R |
|--------|-------|
| Master | Short |
| Slave | Open |

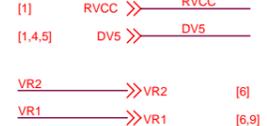
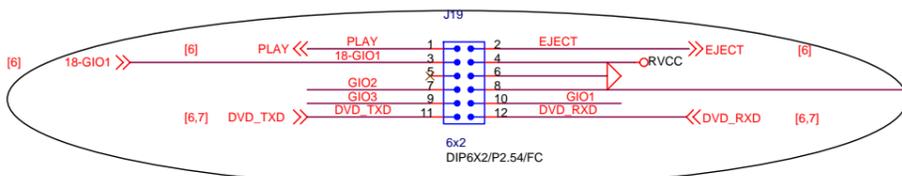


Overlay Layout

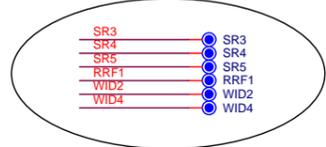


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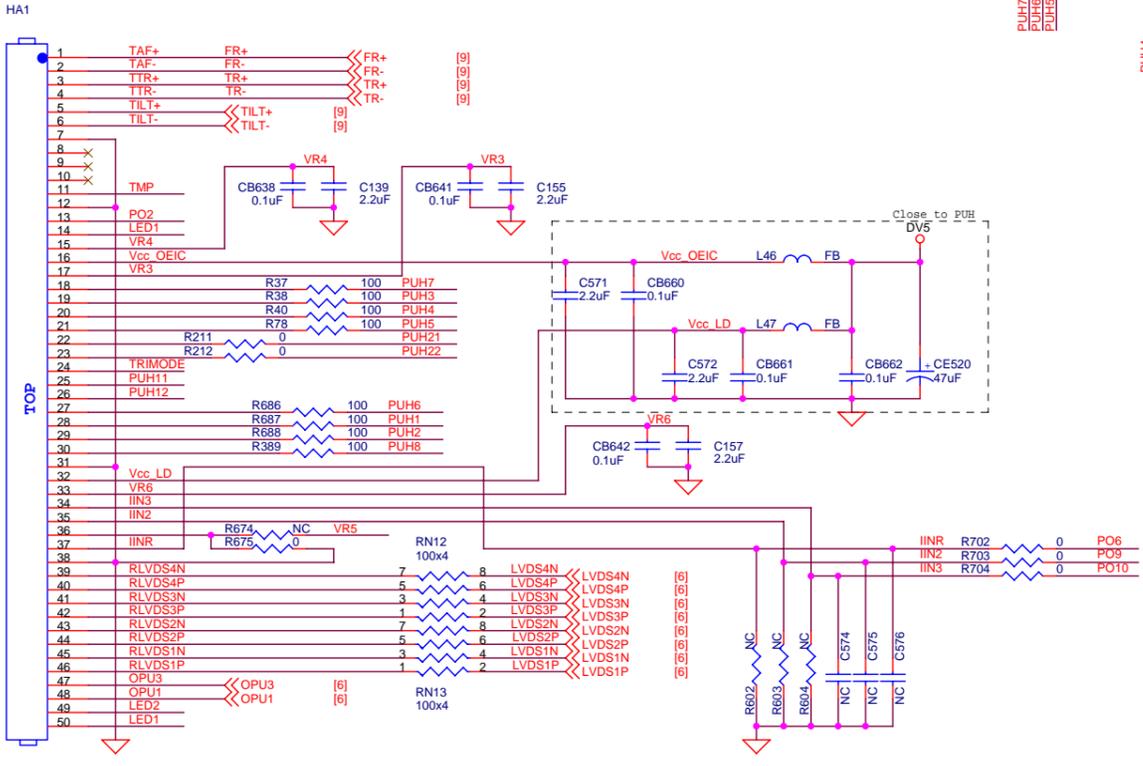
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|---|---|--------|--------|
| MediaTek Inc No.1-2, Innovation Rd 1, SBIP, Hsin-Chu City 300 TEL: (03)567-0766 FAX: (03)578-7610 | | | |
| Title: SERVO SDRAM & FLASH | | | |
| Size: B | Document Number: SO8105BT1V7.DSN | Drawn: | Rev: 1 |
| Date: 星期四, 七月 21, 2005 | Sheet: 7 | of | 9 |



MT1816E

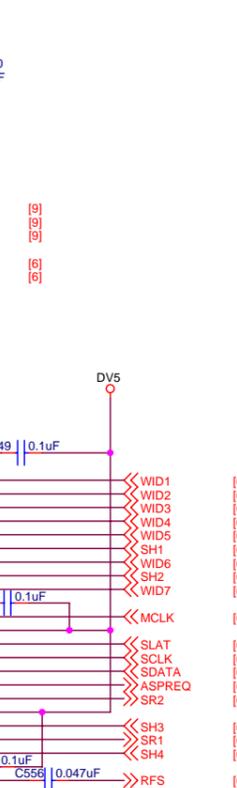
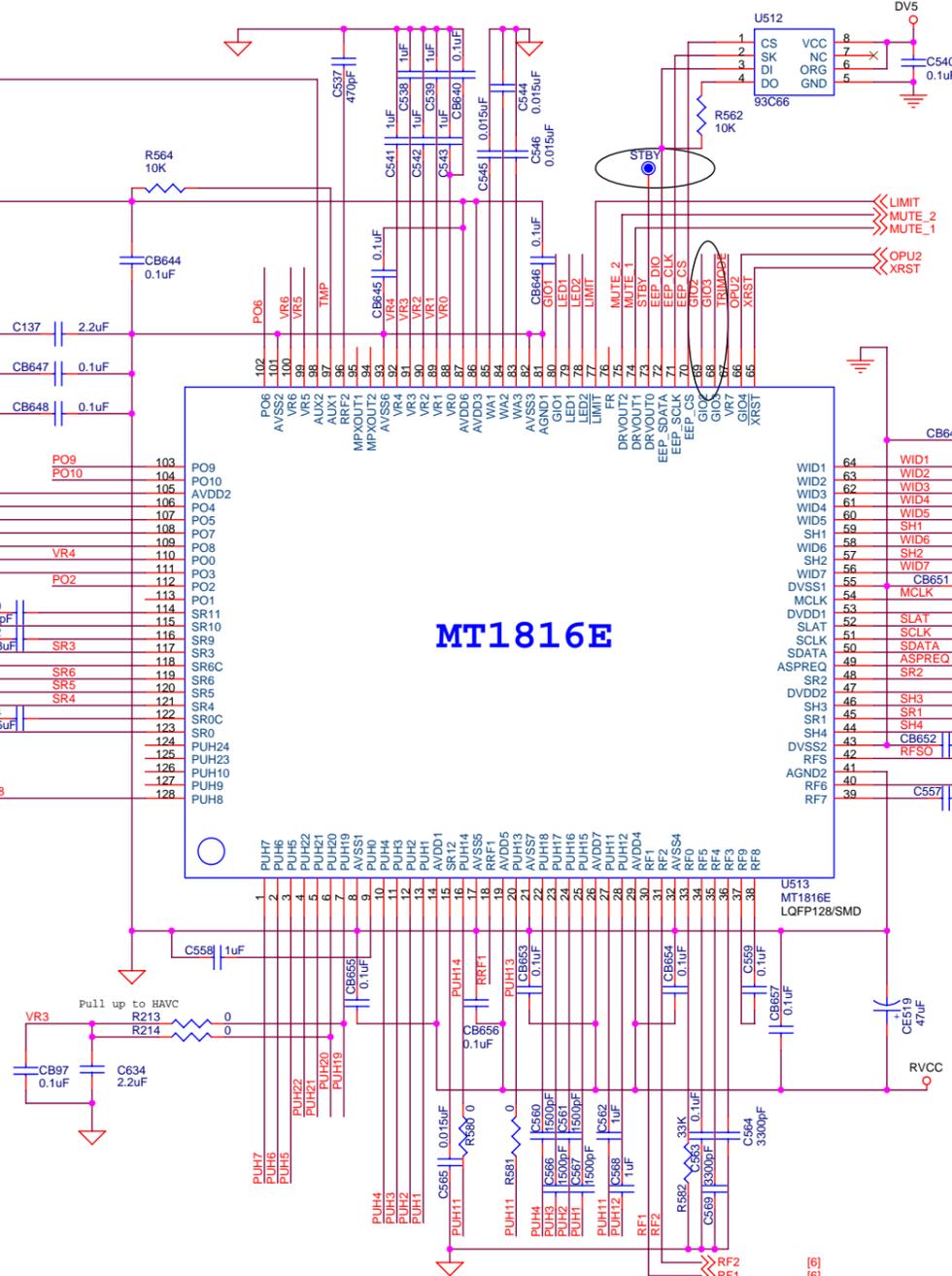


| | |
|----|---------|
| 1 | FCB+ |
| 2 | FCB- |
| 3 | TRK+ |
| 4 | TRK- |
| 5 | TILT+ |
| 6 | TILT- |
| 7 | GND |
| 8 | PD1 |
| 9 | PD2 |
| 10 | LEDA |
| 11 | THERMO |
| 12 | GND |
| 13 | FPD |
| 14 | FPD_SW |
| 15 | VC_FPD |
| 16 | VCC1 |
| 17 | VC_PD |
| 18 | H |
| 19 | A |
| 20 | B |
| 21 | F |
| 22 | NFP2 |
| 23 | NFP1 |
| 24 | SW |
| 25 | RF+ |
| 26 | RF- |
| 27 | E |
| 28 | C |
| 29 | D |
| 30 | G |
| 31 | GND |
| 32 | VCC |
| 33 | IIN5 |
| 34 | IIN4 |
| 35 | IIN3 |
| 36 | IIN2 |
| 37 | IIN1 |
| 38 | GND |
| 39 | XOUT5 |
| 40 | XOUT5 |
| 41 | XOUTEN4 |
| 42 | XOUTEN4 |
| 43 | XOUTEN3 |
| 44 | XOUTEN3 |
| 45 | XOUTEN2 |
| 46 | XOUTEN2 |
| 47 | OSCMOD |
| 48 | OSCBEN |
| 49 | LDBEN2 |
| 50 | LDBEN1 |

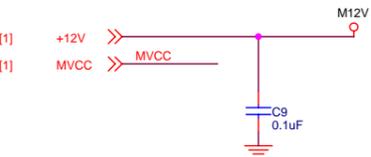


SONY LDX-378

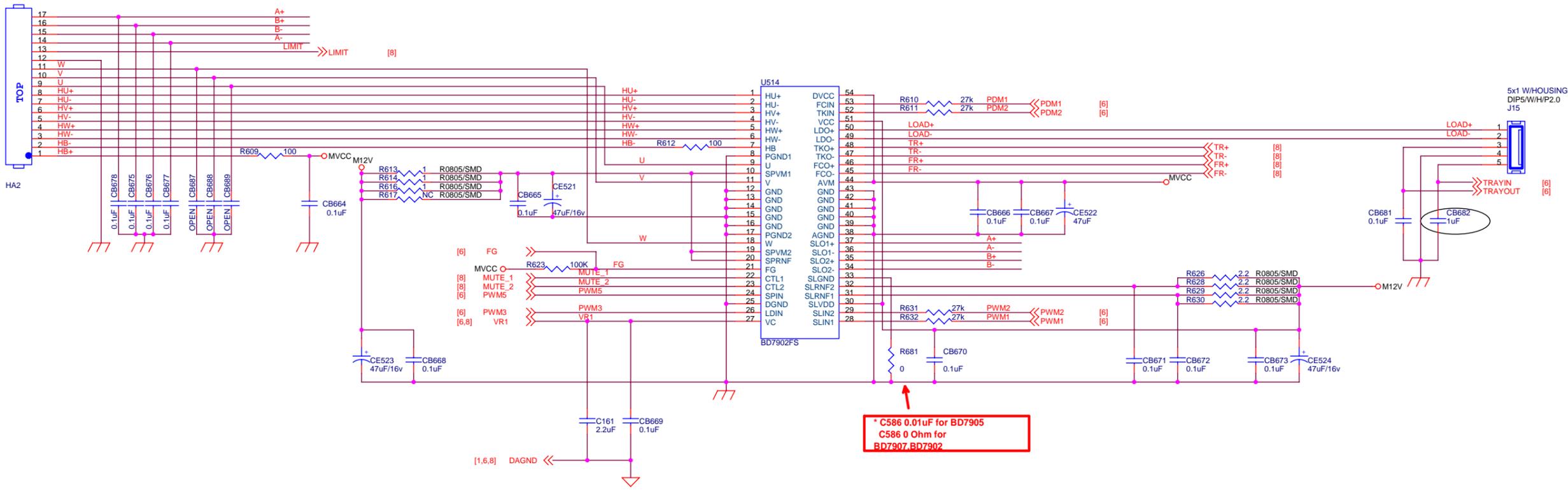
HEADER 50 SMD0.5 TOP
H50S/P0.5/A



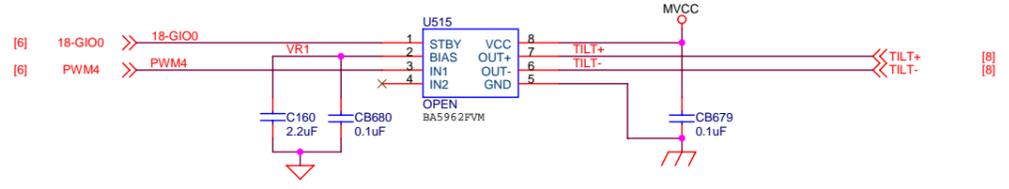
| | | | |
|---|------------------|-------|--------|
| MediaTek Confidential | | | |
| MediaTek Inc. No. 1-2, Innovation Rd 1, SBIP, Hsin-Chu City 300 | | | |
| Title: MT1816E & PUH | | | |
| Size | Document Number | Drawn | Rev |
| C | SO8105BT1V7.DSN | | 1 |
| Date: | 星期四, 七月 21, 2005 | Sheet | 8 of 9 |



H17S/P1.0
HEADER 17 SMD1.0 TOP



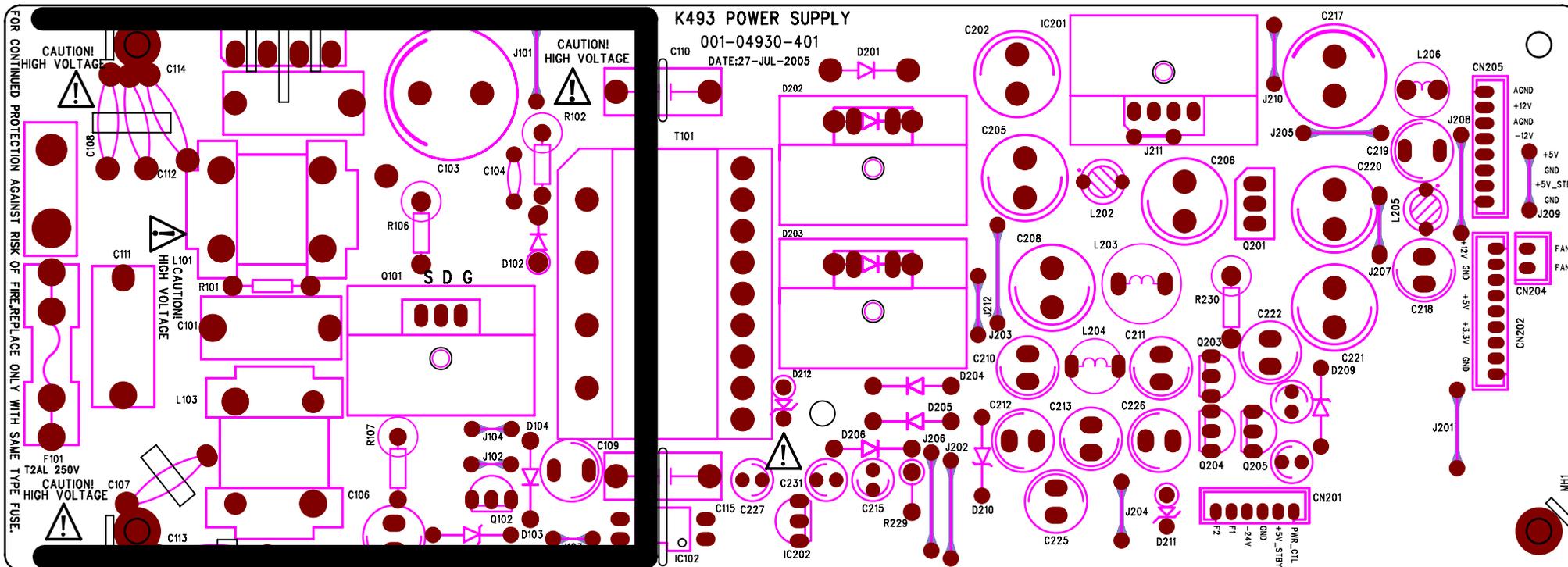
* C586 0.01uF for BD7905
C586 0 Ohm for
BD7907, BD7902



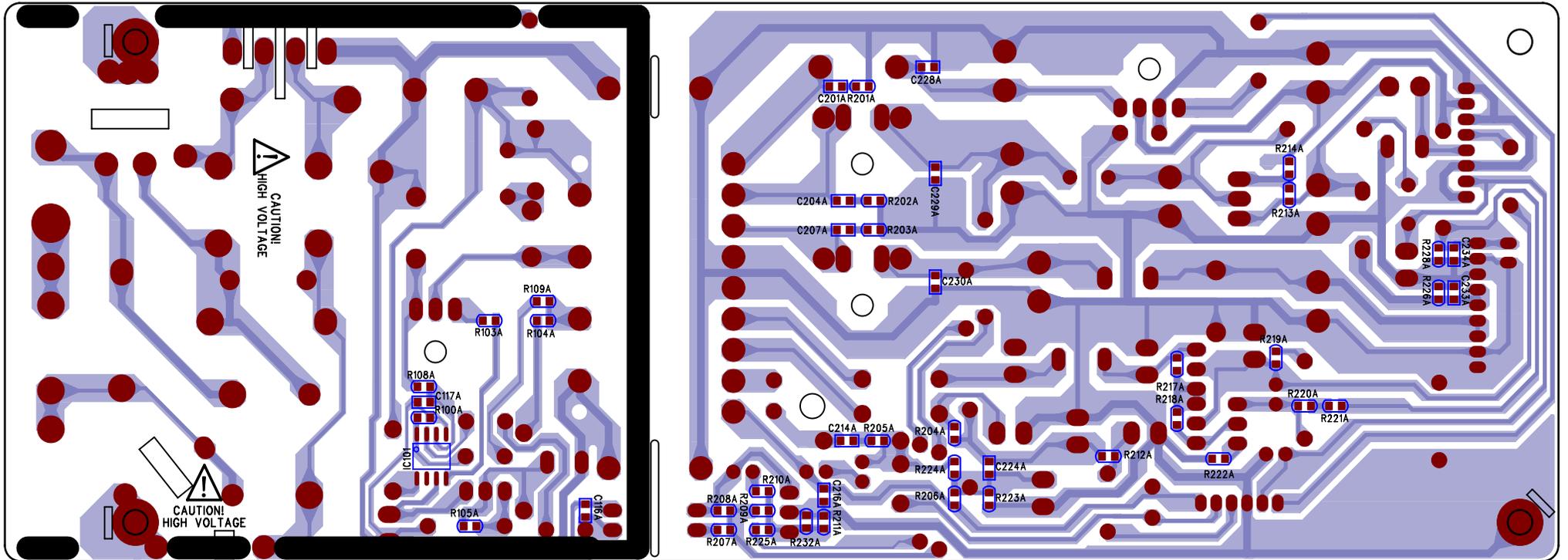
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|-------|---|-------|--------|
| | MediaTek Inc. No.1-2, Innovation Rd 1, SBIP, Hsin-Chu City 300 <small>TEL: (03)867-0766 FAX: (03)878-7610</small> | | |
| | MOTOR DRIVER | | |
| Size | Document Number | Drawn | Rev |
| C | SO8105BT1V7.DSN | | 1 |
| Date: | 日期: 七月 21, 2005 | Sheet | 9 of 9 |

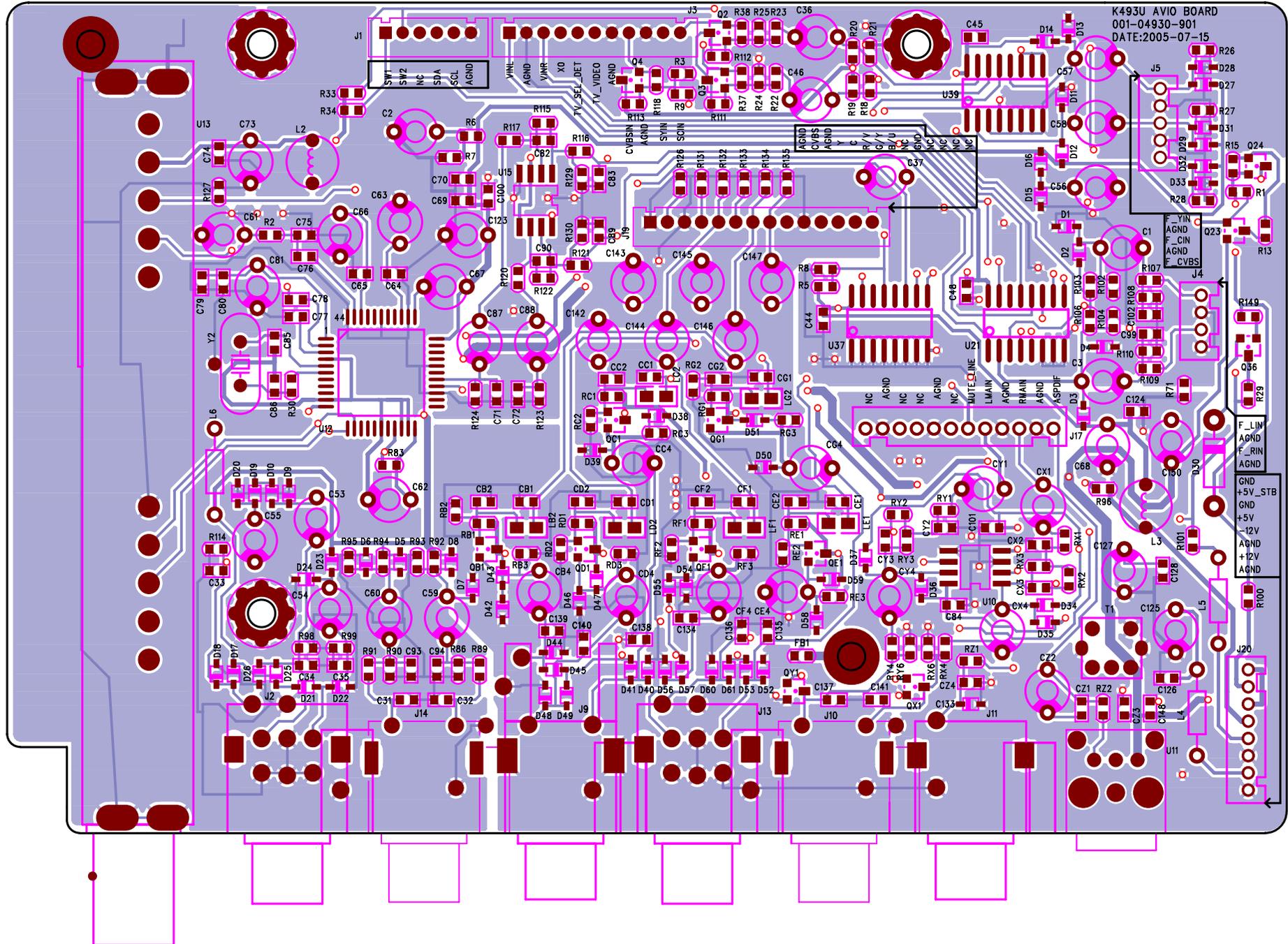
K493 POWER SUPPLY PCB(TOP VIEW)



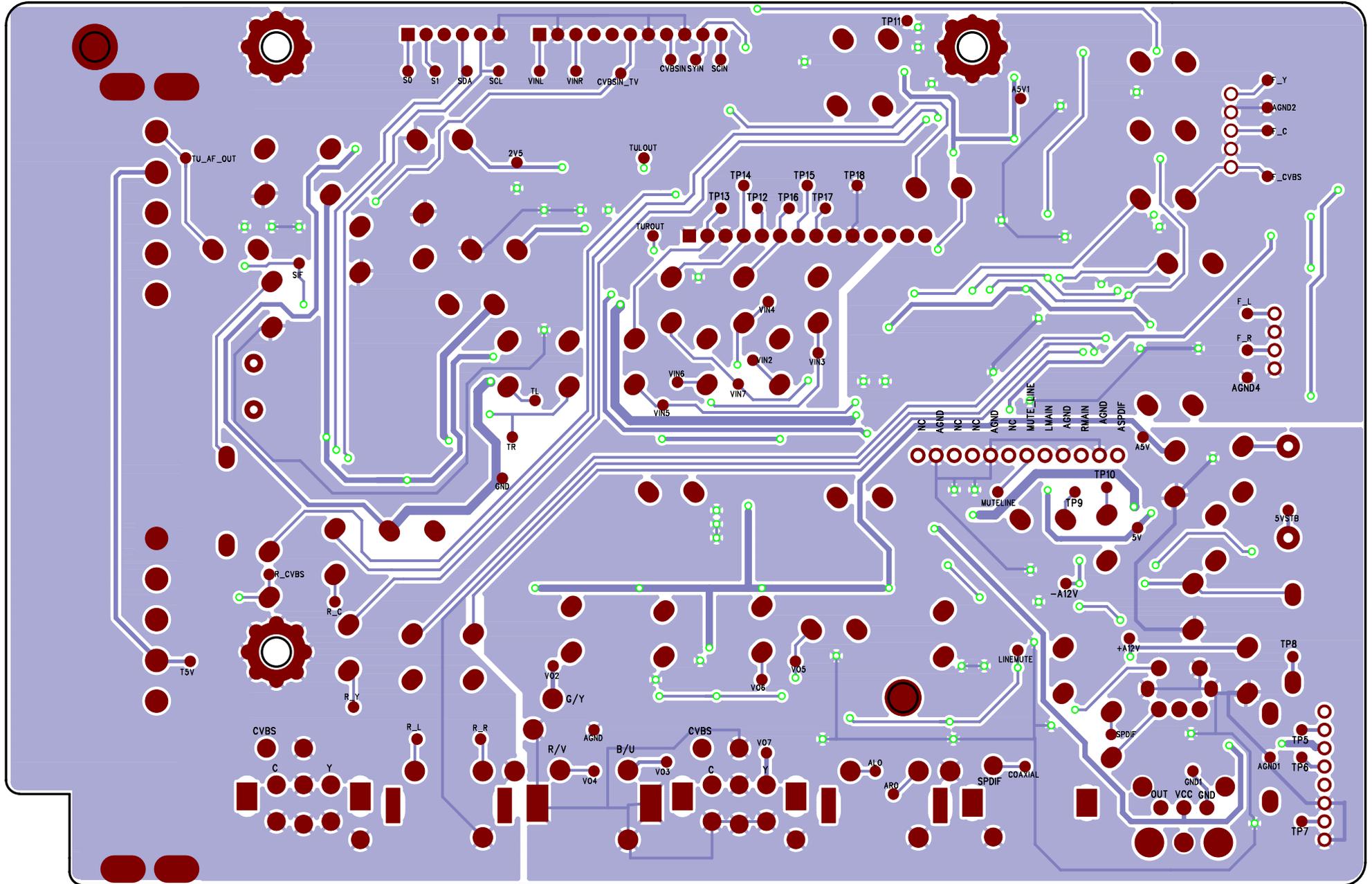
K493 POWER SUPPLY PCB(BOTTOM VIEW)



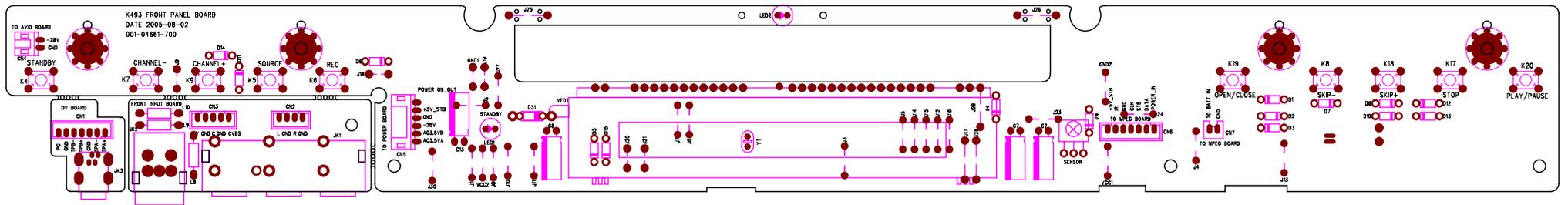
K493U AVIO BOARD(TOP VIEW)



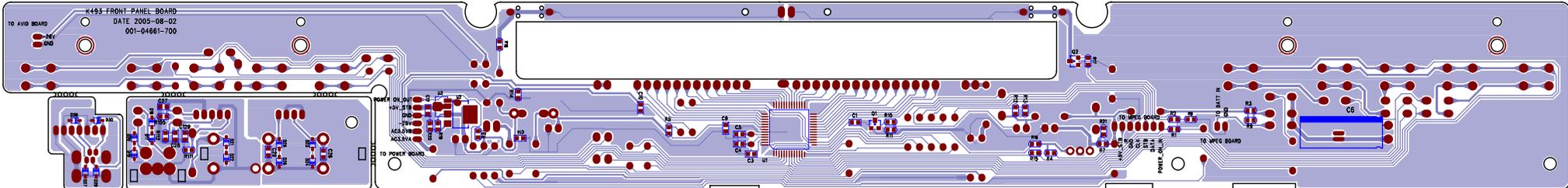
K493U AVIO BOARD(BOTTOM VIEW)



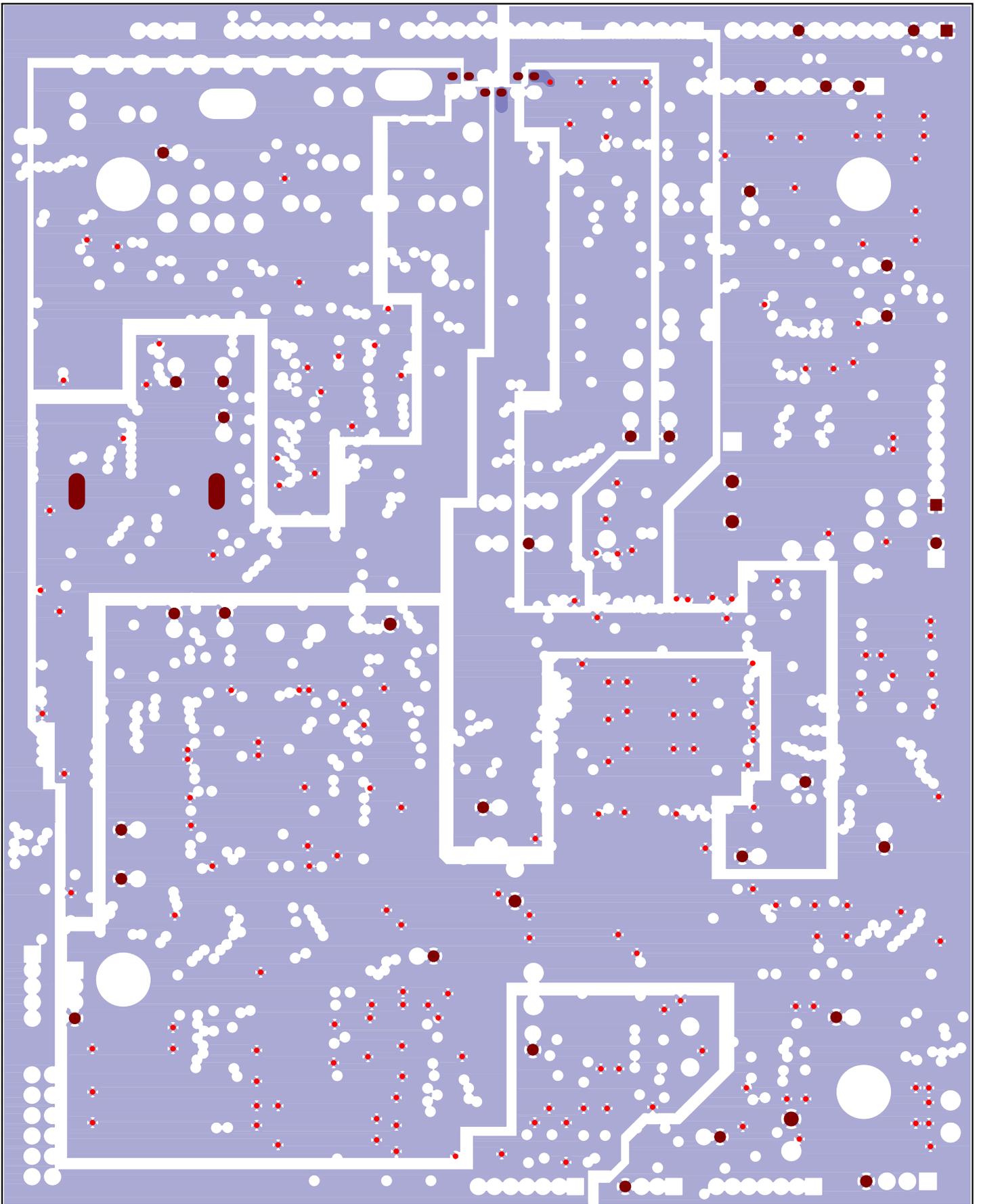
K466 CONTROL BOARD (TOP VIEW)



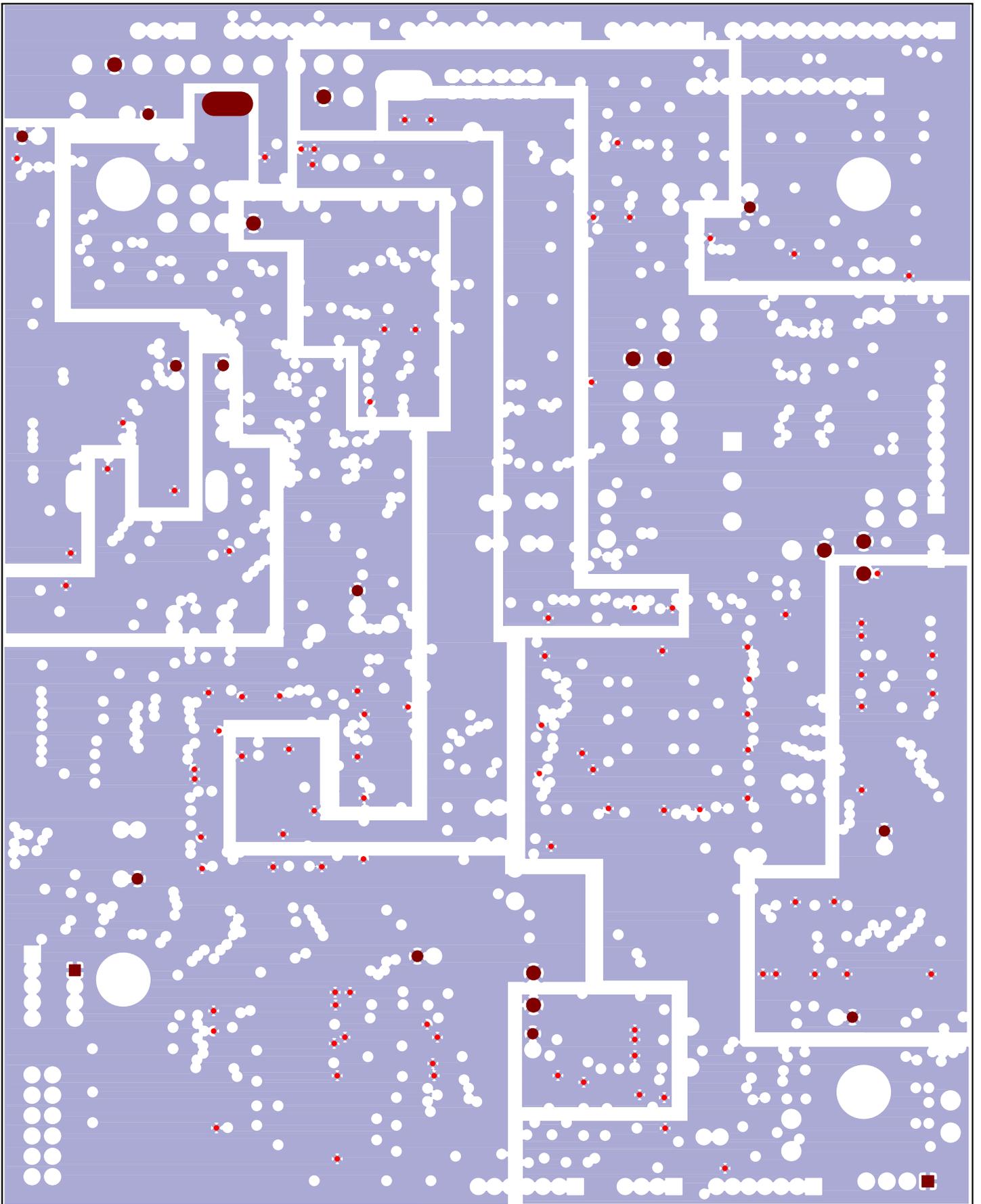
K466 CONTROL BOARD (BOTTOM VIEW)



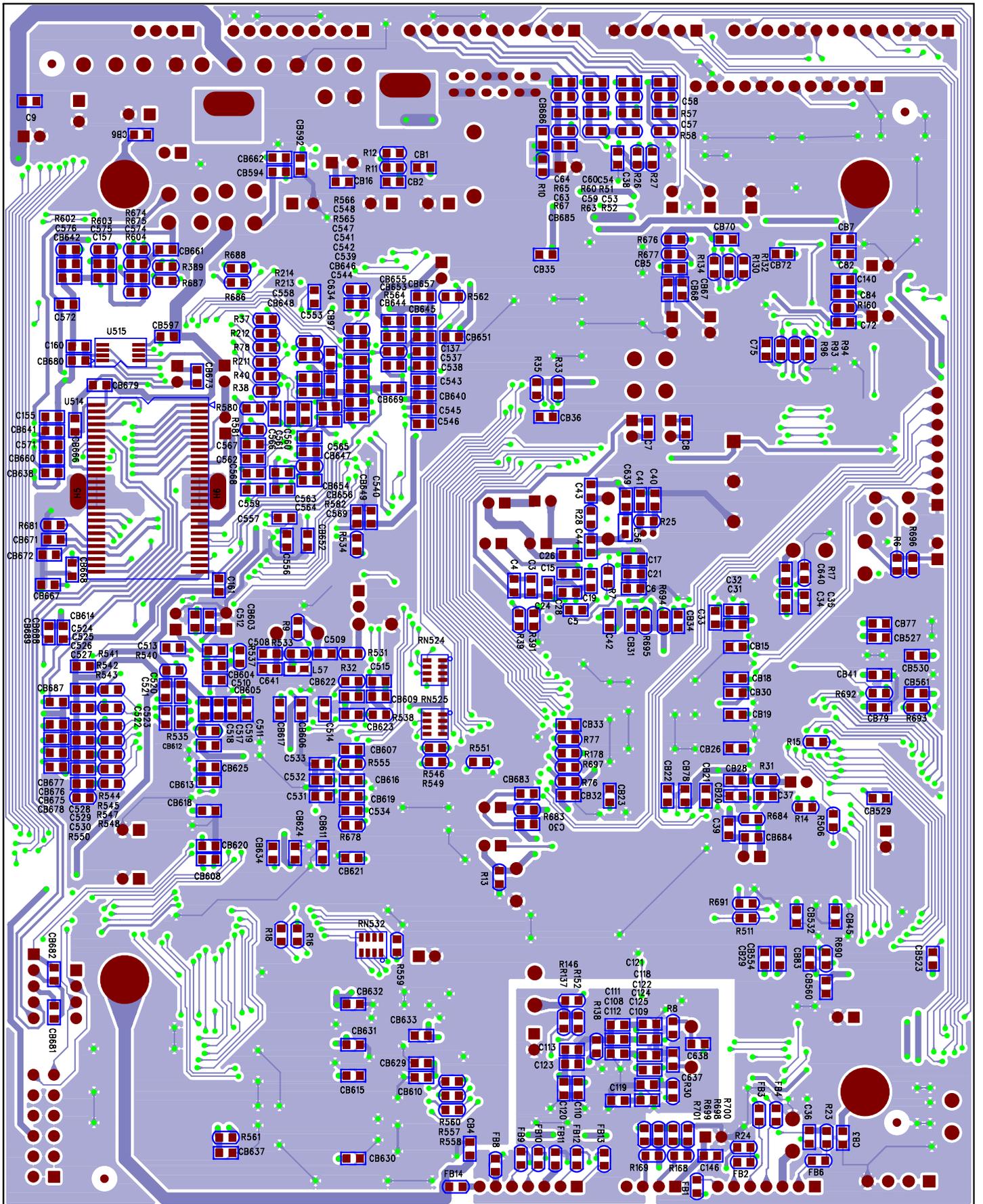
K493 MPEG PCB (GND VIEW)



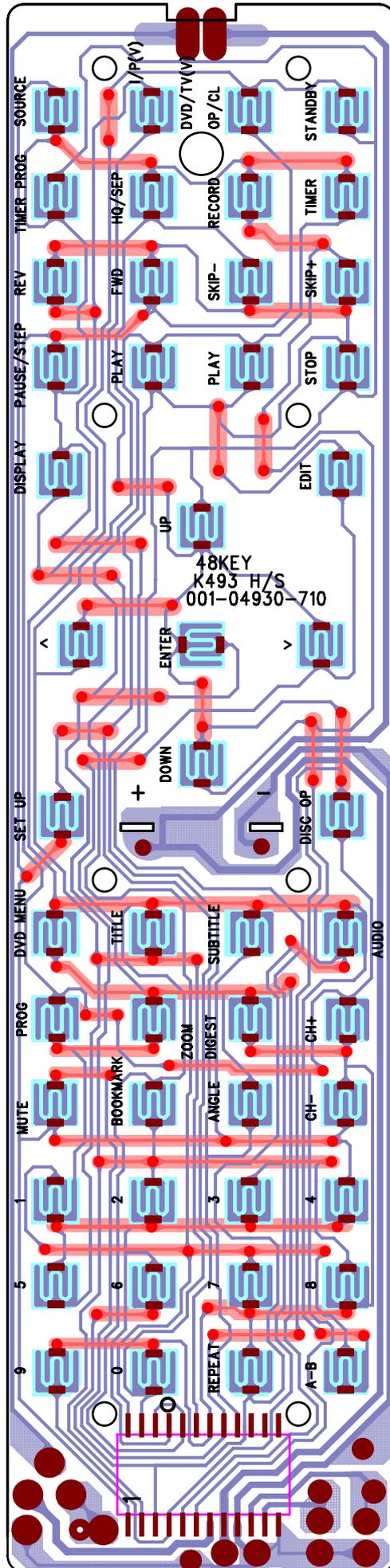
K493 MPEG PCB (VCC VIEW)



K493 MPEG PCB (BOTTOM VIEW)



K493 REMOTE CTRL. PCB(TOP VIEW)



K493 REMOTE CTRL. PCB(BOTTOM VIEW)

