

# M15 HD

AV Surround sound Preampfier

# SERVICE MANUAL

# M15 HD

AV Surround sound Preampfier



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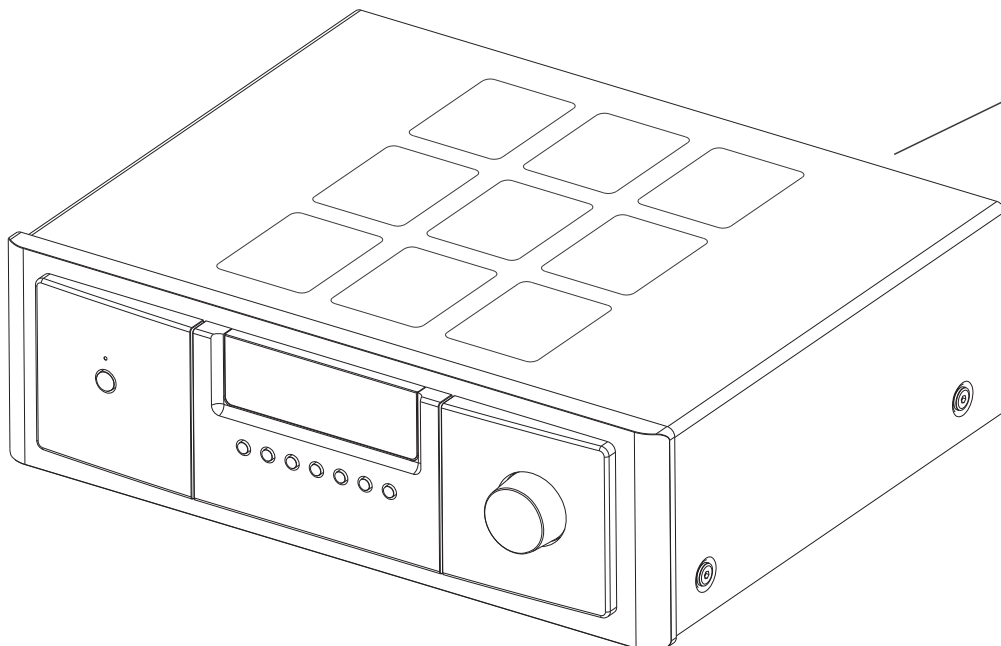
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**NAD ELECTRONICS INTERNATIONAL**  
833 GRANITE COURT, PICKERING, ON CANADA L1W 3K1  
**MODEL M15 HD AV SURROUND SOUND PREAMPLIFIER**  
**POWER RATING 120V ~ 60Hz 1.2A**  
DESIGNED & ENGINEERED IN CANADA, CUSTOM  
MANUFACTURED TO NAD SPECIFICATIONS IN CHINA

**NAD ELECTRONICS INTERNATIONAL**  
**MODEL M15 HD AV SURROUND SOUND PREAMPLIFIER**  
**POWER RATING 230V ~ 50Hz 0.6A**  
DESIGNED & ENGINEERED IN CANADA, CUSTOM  
MANUFACTURED TO NAD SPECIFICATIONS IN CHINA

  
**CAUTION**  
RISK OF ELECTRIC SHOCK  
DO NOT OPEN  
WARNING: SHOCK HAZARD  
- DO NOT OPEN  
AVIS: RISQUE DE CHOC  
ELECTRIQUE-NE PAS OUVRIR



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# SPECIFICATIONS

## OVERALL SPECIFICATIONS

### LINE LEVEL INPUT

Input impedance ( R and C )	56K $\Omega$ +220 pF
Input sensitivity	40mV (ref. 500 mV out)
Maximum input signal	> 8 Vrms
Signal/Noise ratio, A-weighted	> 90 dB (ref. 500 mV in 500 mV out, volume set to unity gain) > 80 dB (ref. 2 V out, Volume maximum)
Channel Separation	> 70 dB (ref.1 kHz / 10 kHz)
Frequency response	$\pm$ 0.3 dB (ref.20 Hz – 20 kHz, Tone Active) $\pm$ 0.3 dB (ref.20 Hz – 20 kHz, Tone Defeat)
Frequency response (subwoofer out)	10 – 200Hz (ref. -3 dB)

### OUTPUT

Maximum output level	> 8 Vrms into 600 $\Omega$
THD (CCIF IMD, DIM 100)	< 0.005% (ref. 20 Hz – 20 kHz, 2 V out)

### TONE CONTROLS

Treble	$\pm$ 10 dB at 10 kHz (ref. 2V in 2V out)
Bass	$\pm$ 10 dB at 100 Hz (ref. 2V in 2V out)

### POWER CONSUMPTION

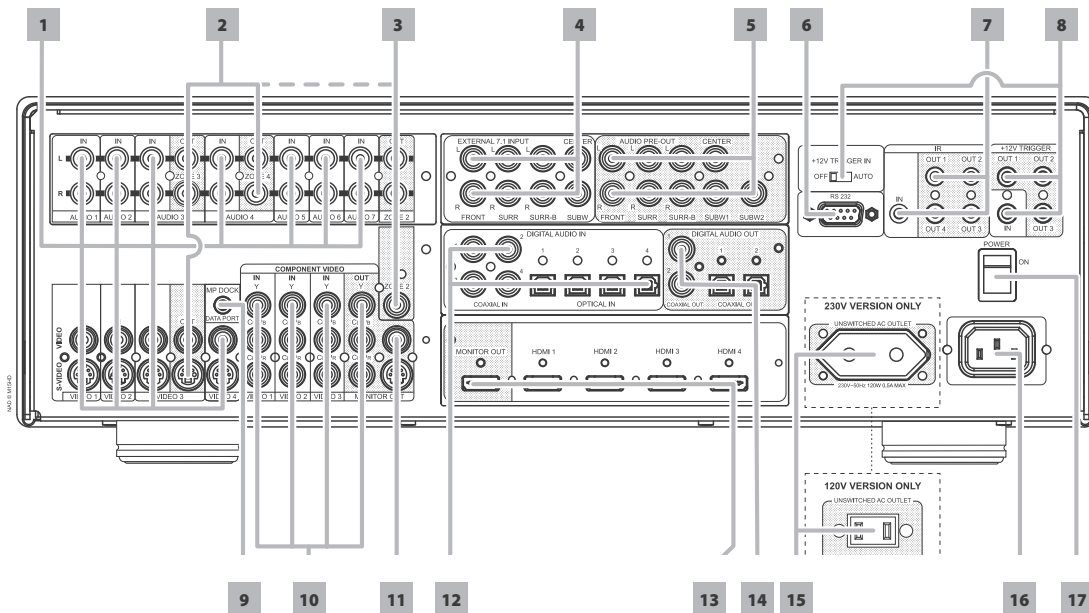
Normal operation	80 W
Standby mode	<1 W

## PHYSICAL SPECIFICATIONS

Unit dimensions (W x H x D)	435 x 145 x 385 mm (Gross*)
Net weight	13.1 kg
Shipping weight	22 kg

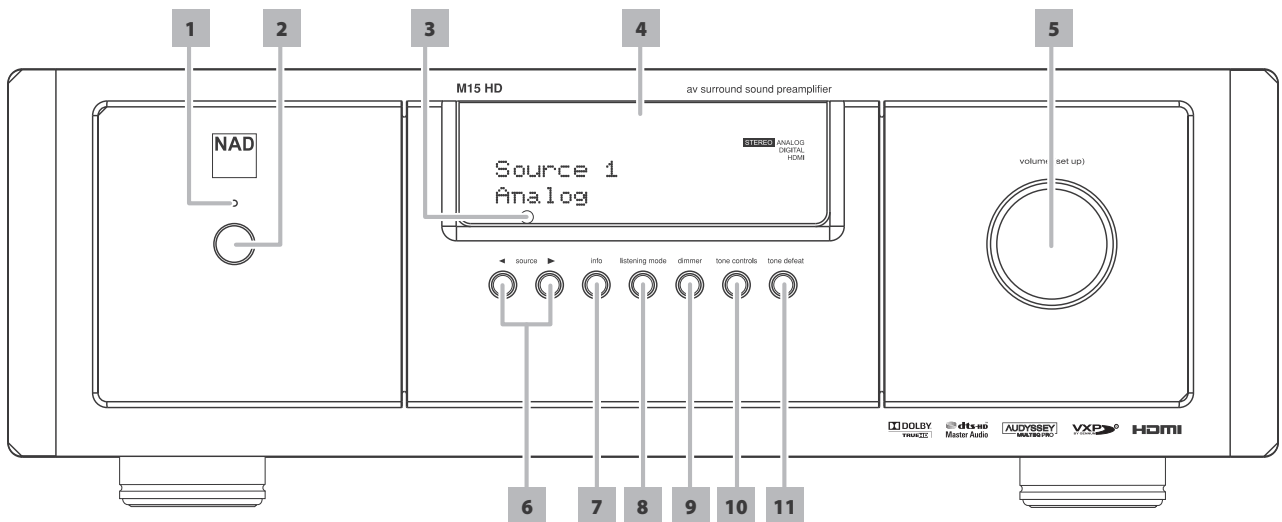
# REAR PANEL / FRONT PANEL VIEW

## REAR PANEL



- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1 AUDIO 1-7 IN/VIDEO 1-4 IN/S-VIDEO 1-4 IN</li> <li>2 AUDIO 3 OUT/VIDEO 3 OUT/S-VIDEO 3 OUT, AUDIO 4 OUT</li> <li>3 ZONE 2, ZONE 3, ZONE 4</li> <li>4 7.1 CH INPUT</li> <li>5 AUDIO PRE-OUT</li> <li>6 RS-232</li> <li>7 IR IN/OUT</li> <li>8 +12V TRIGGER IN (OFF/AUTO)</li> </ul> | <ul style="list-style-type: none"> <li>9 MP DOCK</li> <li>10 COMPONENT VIDEO 1-3 IN, COMPONENT VIDEO OUT</li> <li>11 MONITOR (S-VIDEO, VIDEO)</li> <li>12 DIGITAL AUDIO IN (OPTICAL 1-4, COAXIAL 1-4)</li> <li>13 HDMI (HDMI 1-4, HDMI MONITOR OUT)</li> <li>14 DIGITAL AUDIO OUT (OPTICAL 1-2, COAXIAL 1-2)</li> <li>15 UNSWITCHED AC OUTLET</li> <li>16 AC MAINS INPUT</li> <li>17 POWER</li> </ul> |
|--|---|

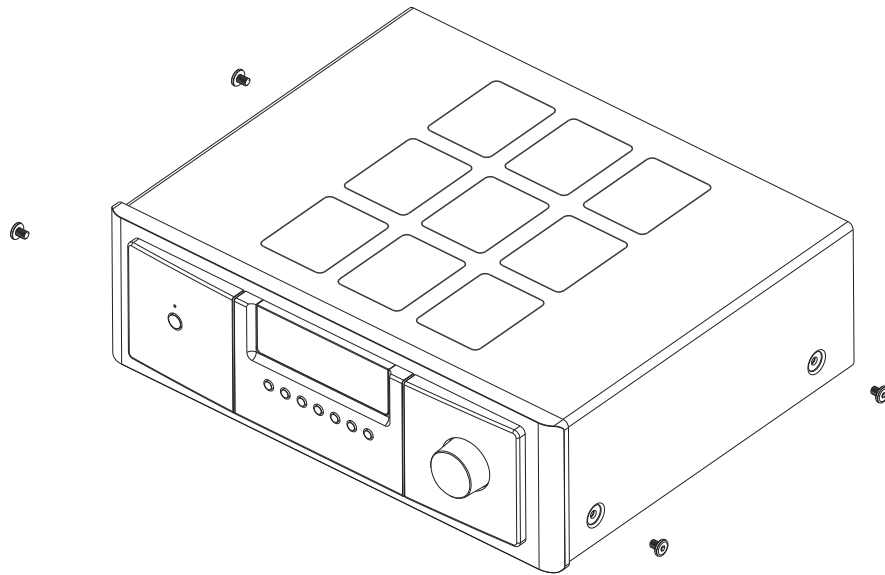
## FRONT PANEL



- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>1 STANDBY LED</li> <li>2 STANDBY BUTTON</li> <li>3 REMOTE SENSOR</li> <li>4 VACUUM FLUORESCENT DISPLAY (VFD)</li> <li>5 VOLUME</li> </ul> | <ul style="list-style-type: none"> <li>6 SOURCE [◀▶]</li> <li>7 INFO</li> <li>8 LISTENING MODE</li> <li>9 DIMMER</li> <li>10 TONE CONTROLS</li> <li>11 TONE DEFEAT</li> </ul> |
|--|---|

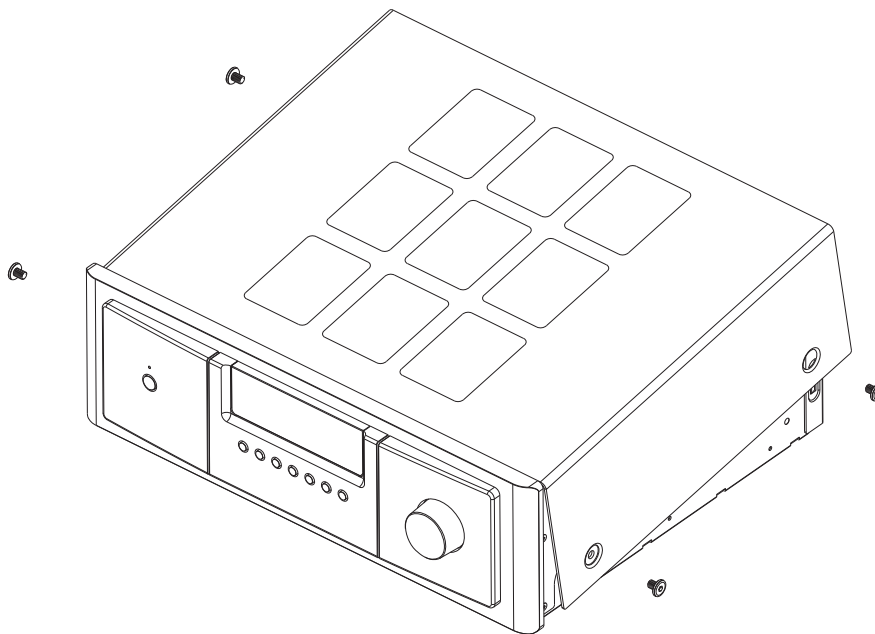
## DISASSEMBLY INSTRUCTIONS

1. Remove machine screws M6.0 x 8.0 ( x 4pcs) from the side panels  
**Refer to Figure No.1**



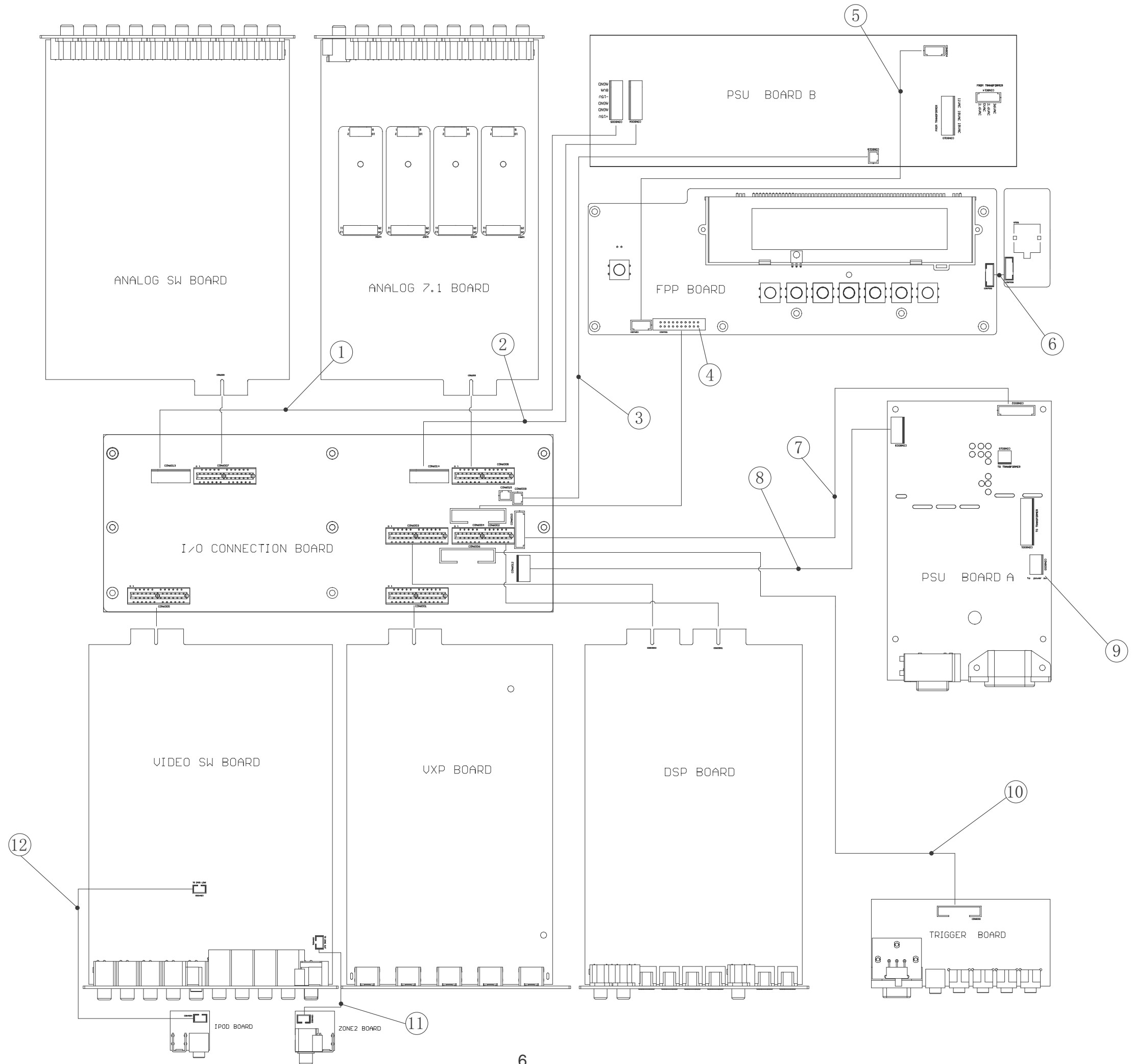
**Figure No.1**

2. Pull both sides of the TOP COVER slightly outwards and tilt approx. 35° and then remove in the direction as indicated.  
**Refer to Figure No.2**



**Figure No.2**

# WIRING DIAGRAM



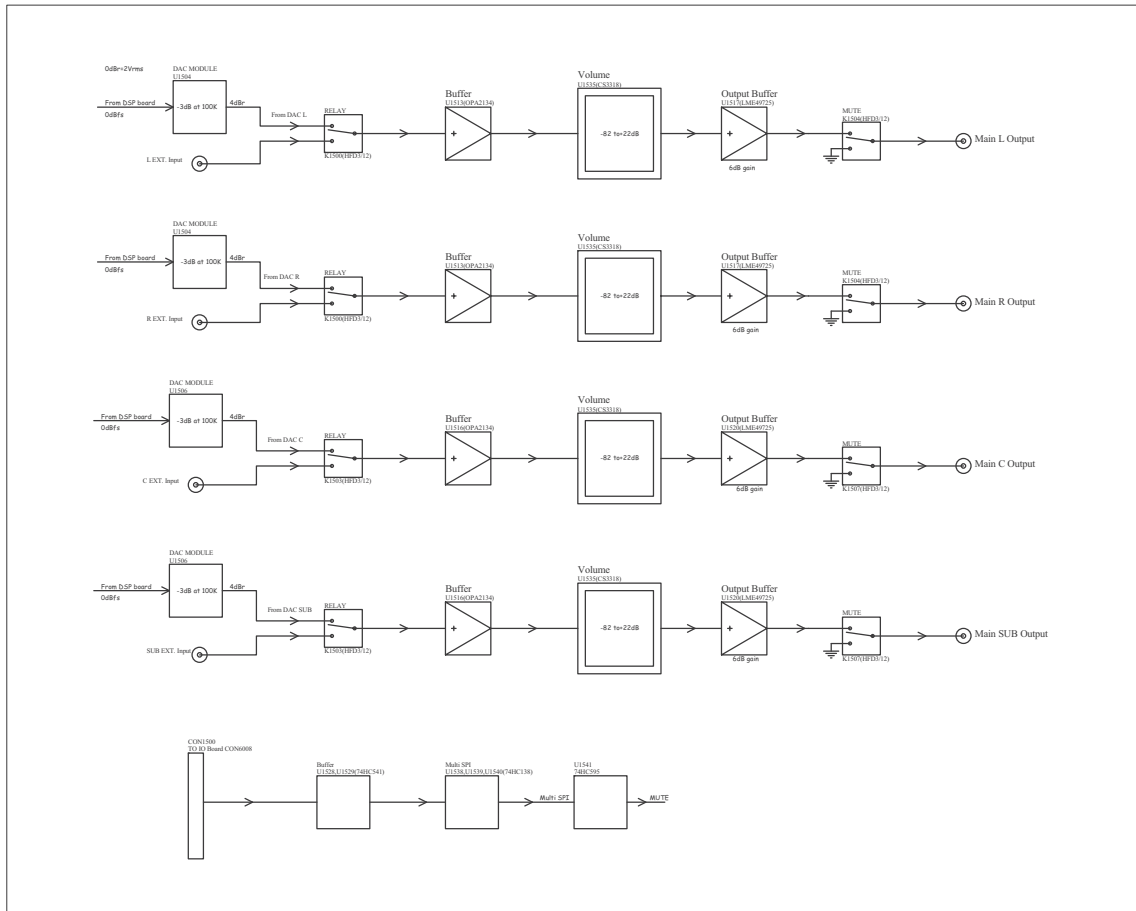
## WIRING DIAGRAM PARTS LIST

ITEM	Part Number	Description	Remark
1	14-11506-01	CABLE L=120mm	PSUB to connect board
2	14-11506-00	CABLE L=240mm	PSUB to connect board
3	14-11502-02	CABLE L=120mm	PSUB to connect board
4	14-32220-11	CABLE	CON7001
5	14-11504-01	CABLE L=150mm	PSUB to FPP board
6	14-11506-02	CABLE L=100mm	FPP to Encoder board
7	14-11508-00	CABLE L=250mm	PSUA to connect board
8	14-11504-00	CABLE ,L=180mm	PSUA to connect board
9	14-11502-01	CABLE ,L=100mm	PSUA to power switch
10	14-11520-00	CABLE L=380mm	CON9000,CON6006
11	14-11503-00	CABLE L=100mm	con4001 to con4002
12	14-11503-00	CABLE L=100mm	con4003 to con4004

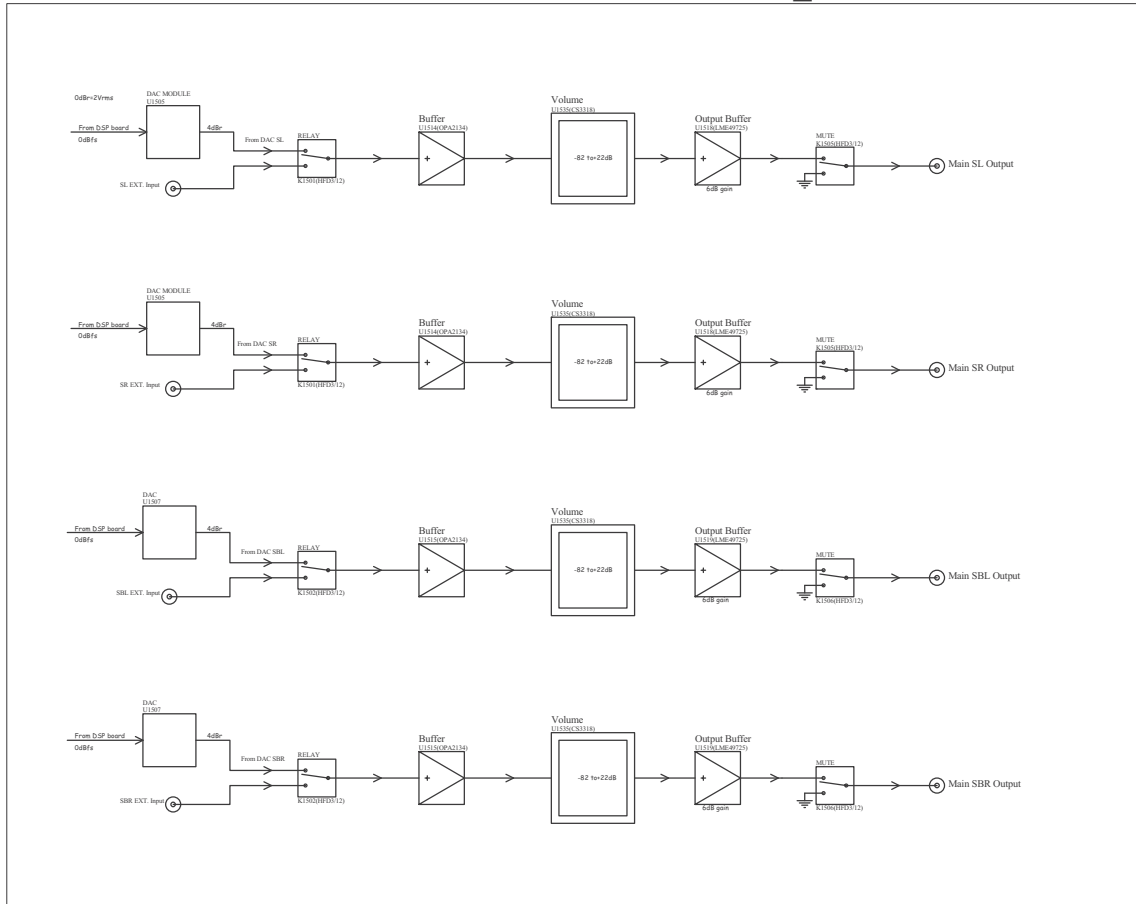


# BLOCK DIAGRAM

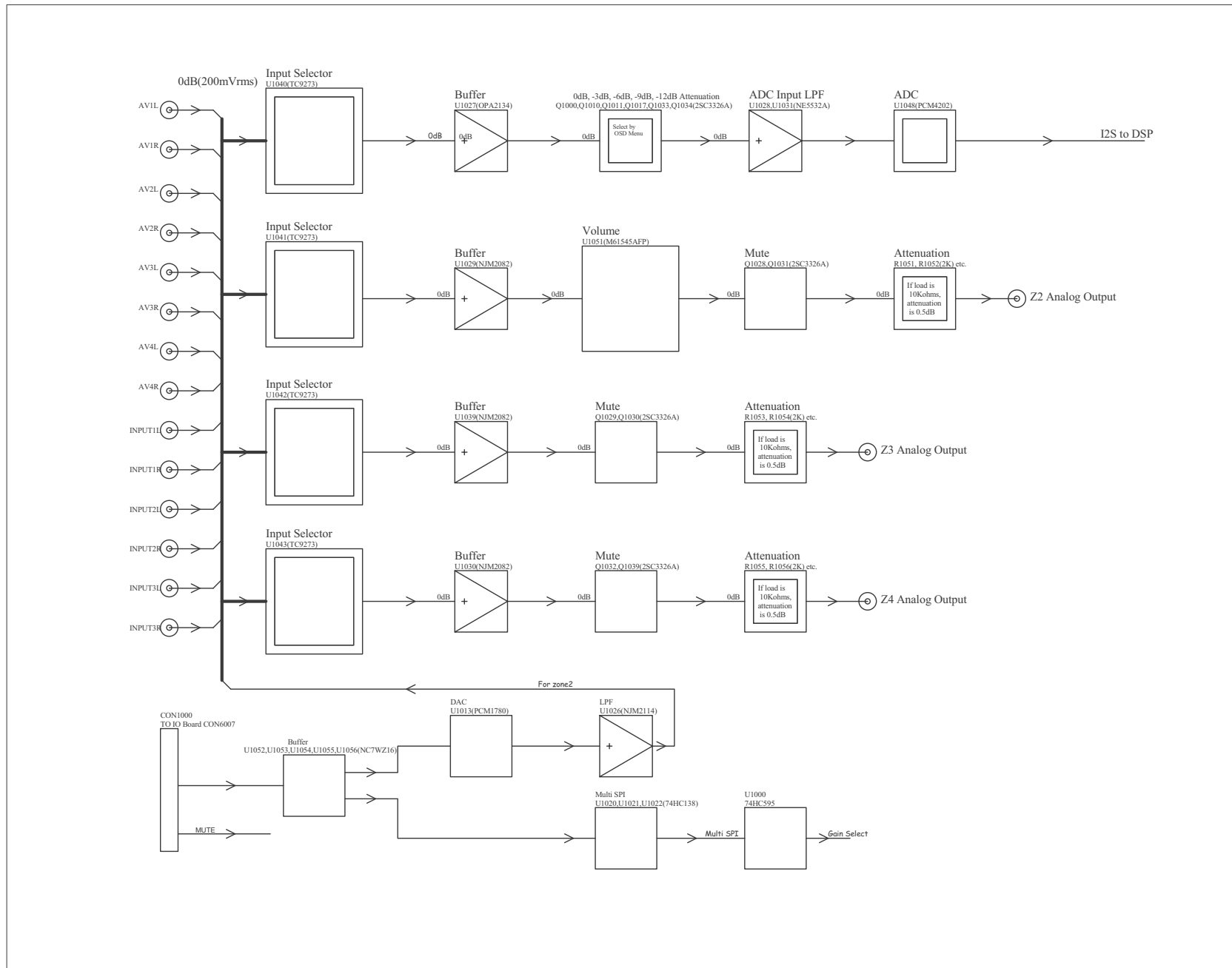
## M15HD Audio 7.2 Board\_1



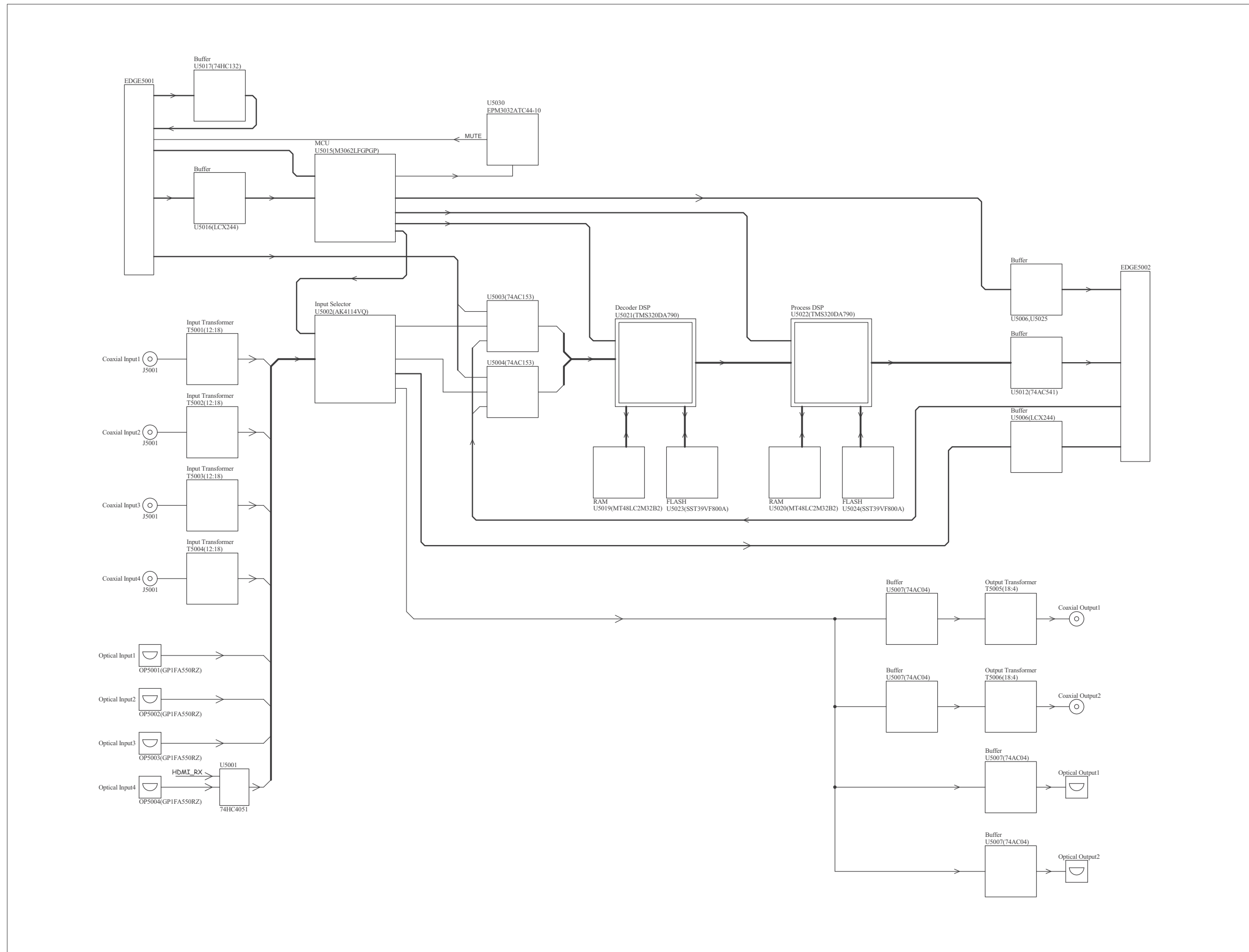
## M15HD Audio 7.2 Board\_2



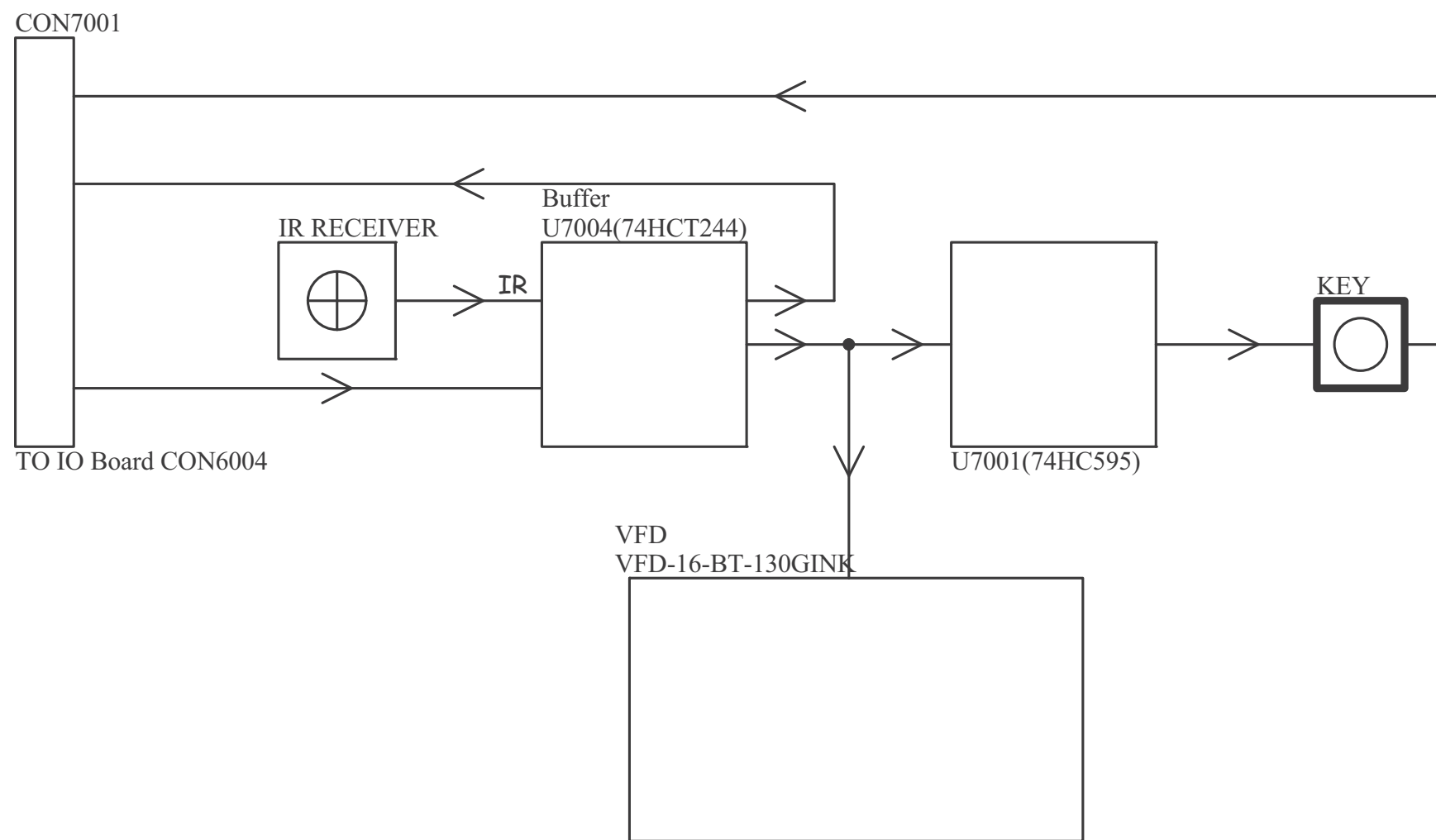
# M15HD Audio\_analog Board



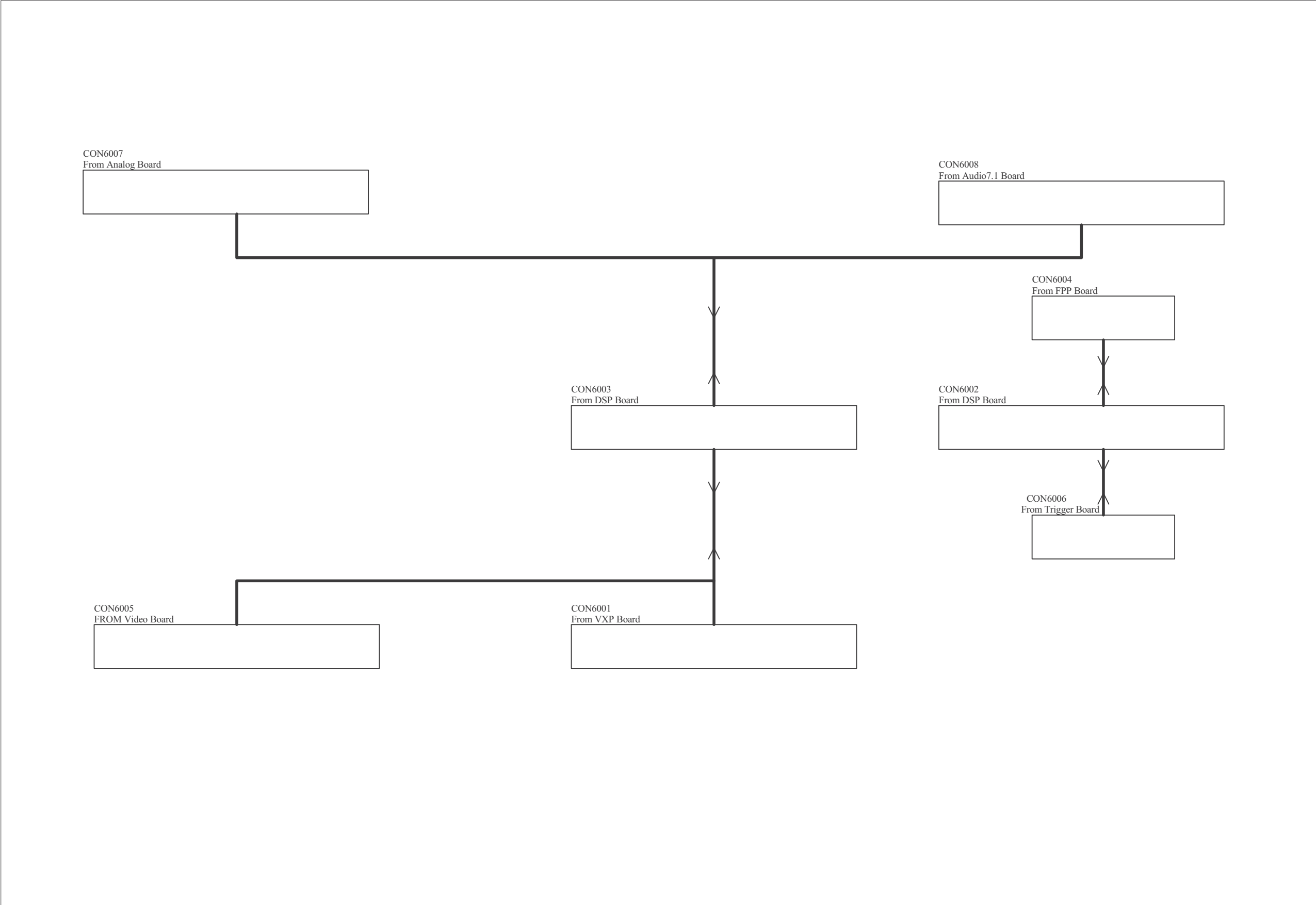
# M15HD DSP BOARD



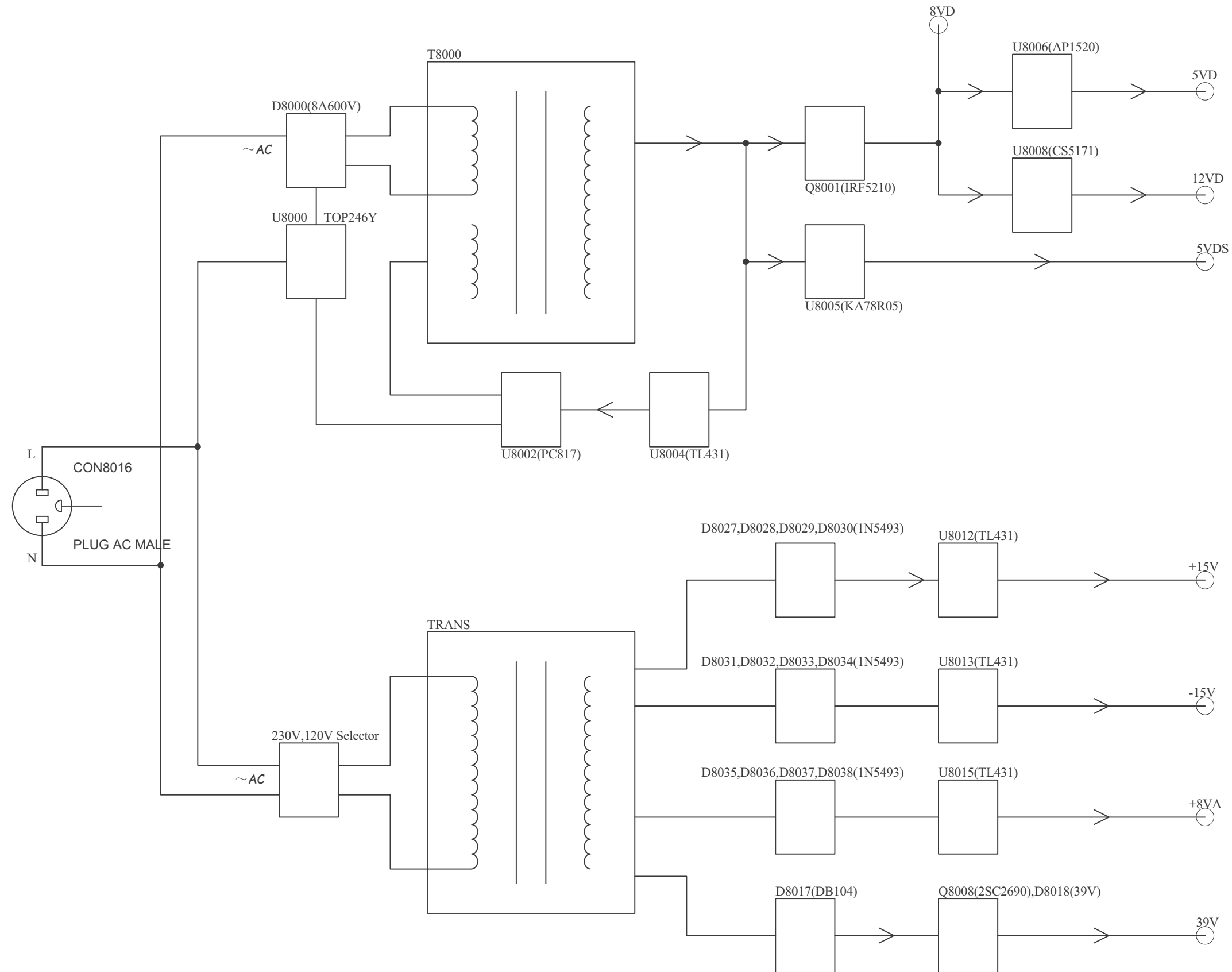
# M15HD FPP BOARD



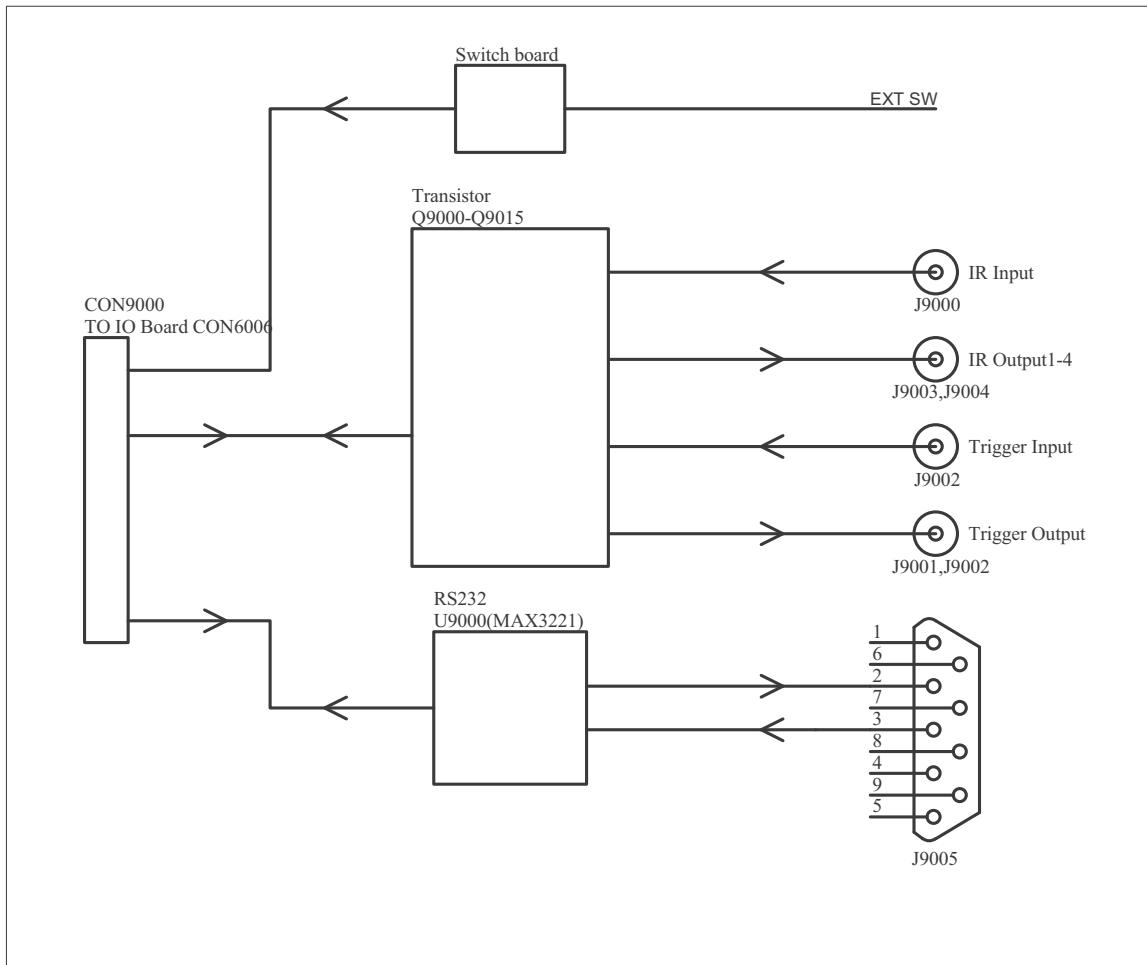
# M15HD IO BOARD



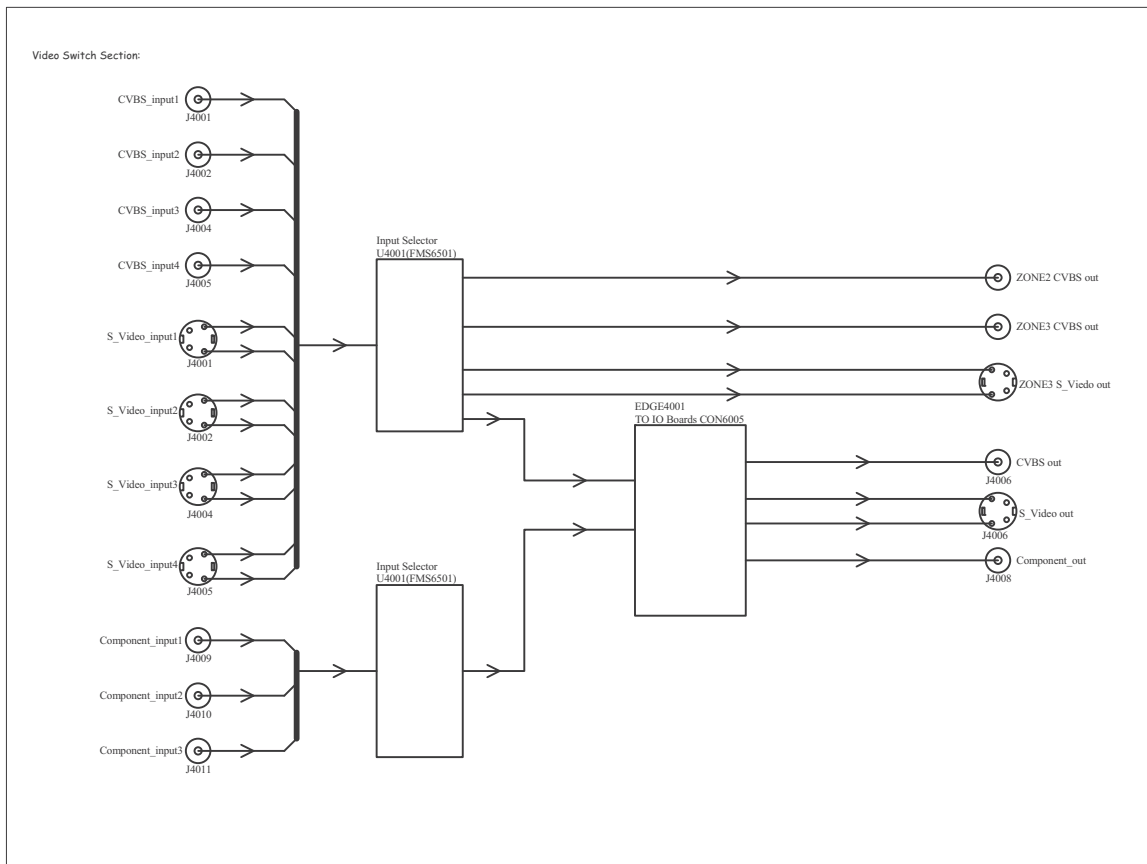
# M15HD PSU BOARD



## M15HD Trigger Board



## M15HD Video Board



# SPECIAL KEYS

Function	Keys	Notes
Factory Reset AH	Source Down + Tone Defeat	
Factory Reset C	Source Up + Tone Defeat	
Toggle IR Channel	Source Down + Power	
Check Version Info	Source Down + Source Up	MCU, DSP, and VXP versions.
Video Reset	Listening Mode + Tone Defeat	
VFD Test	Source Down + Display/Info	Lights up the entire VFD display
Video Mode	Source Down + Tone Controls	Check Video Resolution



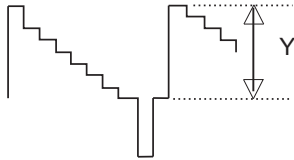
# DETAILS & WAVEFORMS ON SYSTEM & TEST & DEBUGGING

## Video Wave

(1) Test the signal of S MONITOR OUT by the wave of oscilloscope. Video source is 100% color Bar

(a) Target, Y-signal

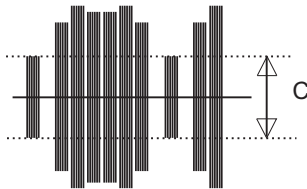
Point : S\_video Y  
 Adjustment Value :  $700 \pm 70\text{mV}$   
 Waveform



Y-signal of S MONITOR OUT

(b) Target, C-signal

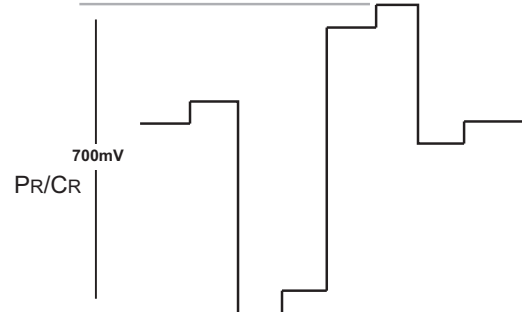
Point : S\_video C  
 Test Value :  $286 \pm 28\text{mV}$   
 Waveform



C-signal of S-MONITOR

(c) Target, PR/CR-signal

Point : Component PR/CR  
 Test Value :  $*700 \pm 70\text{mV}$   
 Waveform

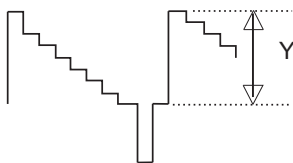


PR/CR-signal COMPONENT OUT

(2) Adjust the signal of COMPONENT OUT by the wave of oscilloscope.

(a) Target, Y-signal

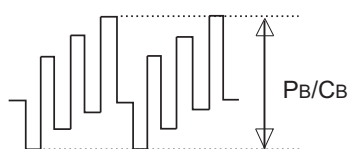
Point : Component Y  
 Test Value :  $700 \pm 70\text{mV}$   
 Waveform



Y-signal COMPONENT OUT

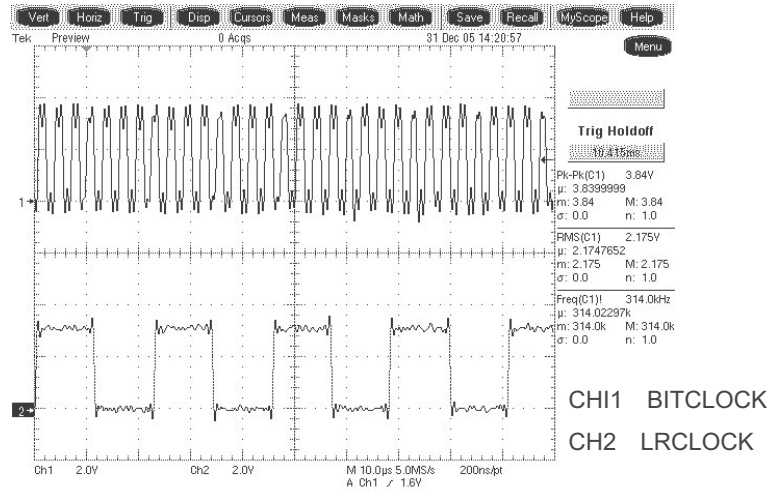
(b) Target, PB/CB-signal

Point : Component Pb/Cb  
 Test Value :  $*700 \pm 70\text{mV}$   
 Waveform

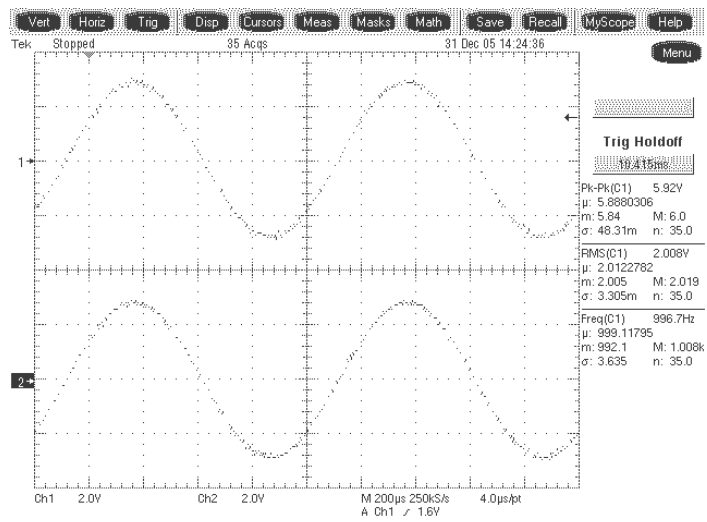


PB/CB-signal COMPONENT OUT

# AUDIO OUTPUT TO AUDIO DAC

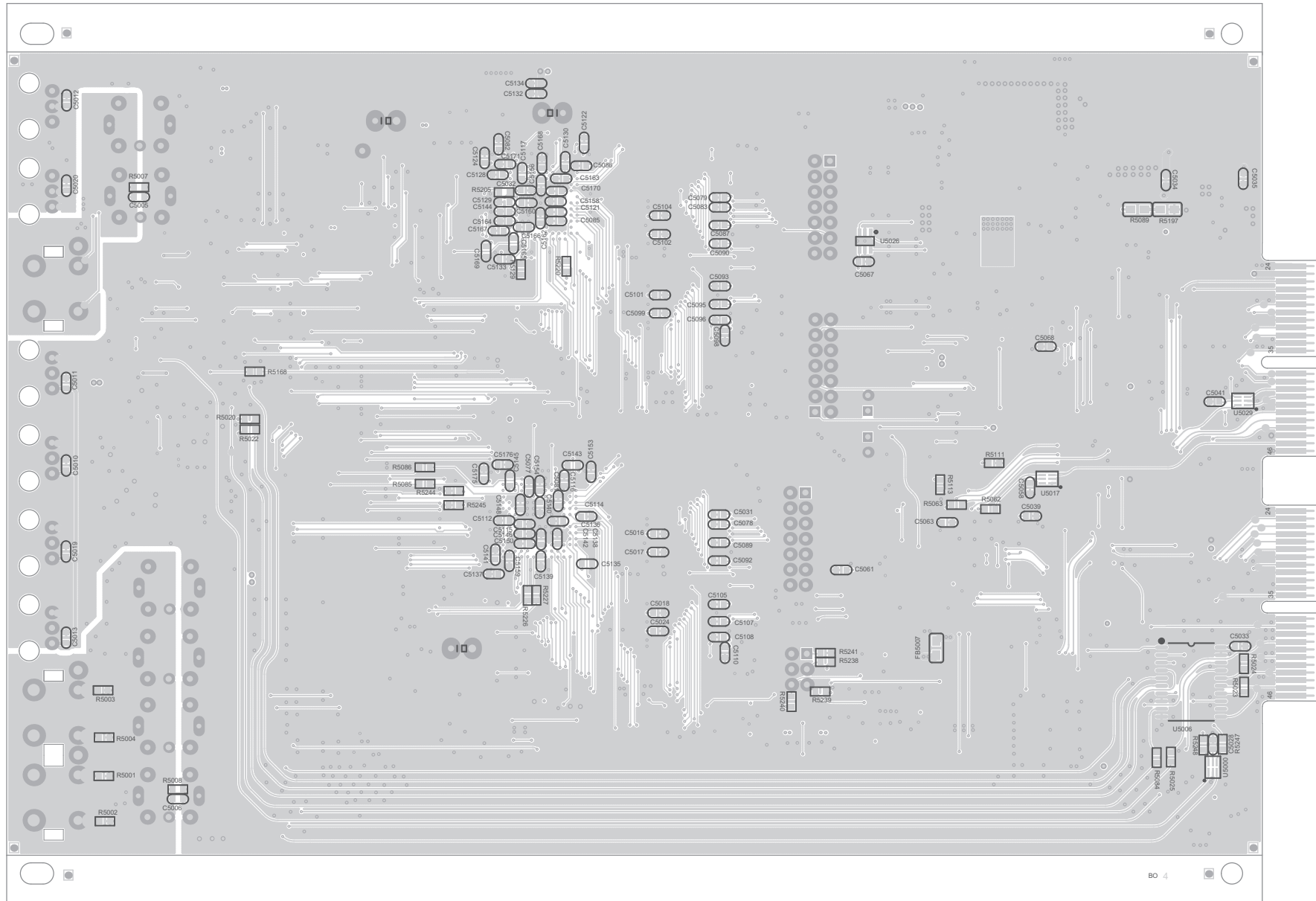


# AUDIO OUTPUT (1KHZ 0DB)



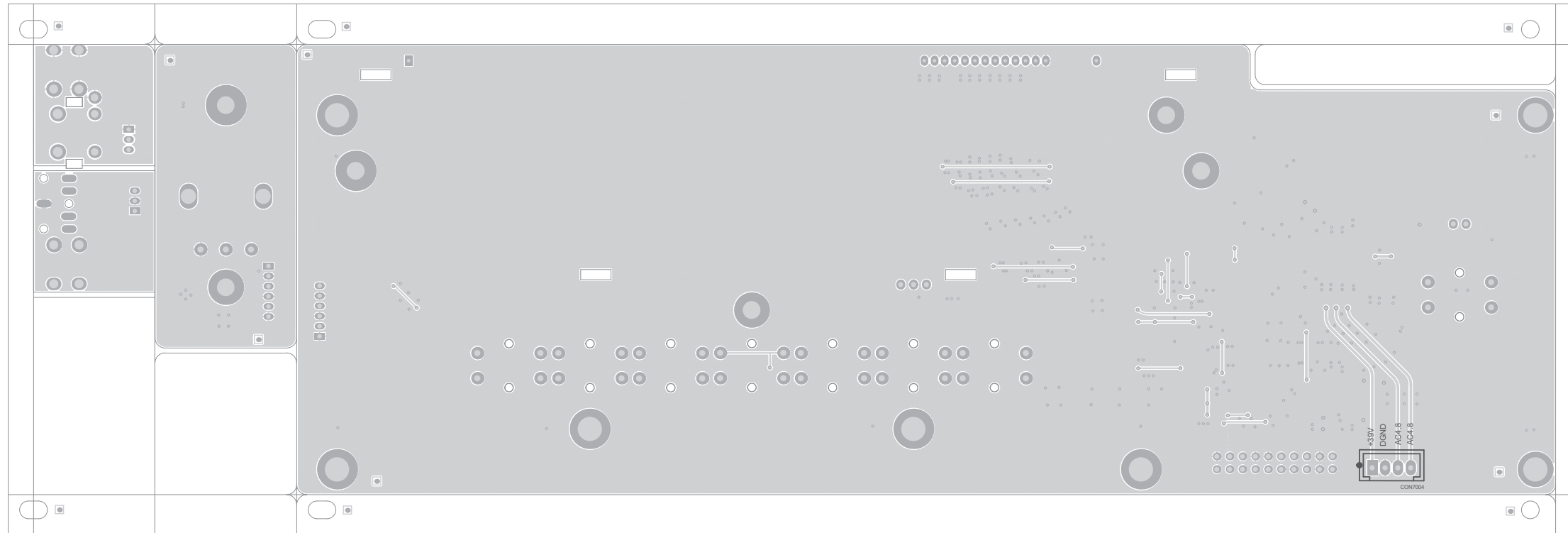
# PCB LAYOUT

## DSP BOARD - COPPER SIDE

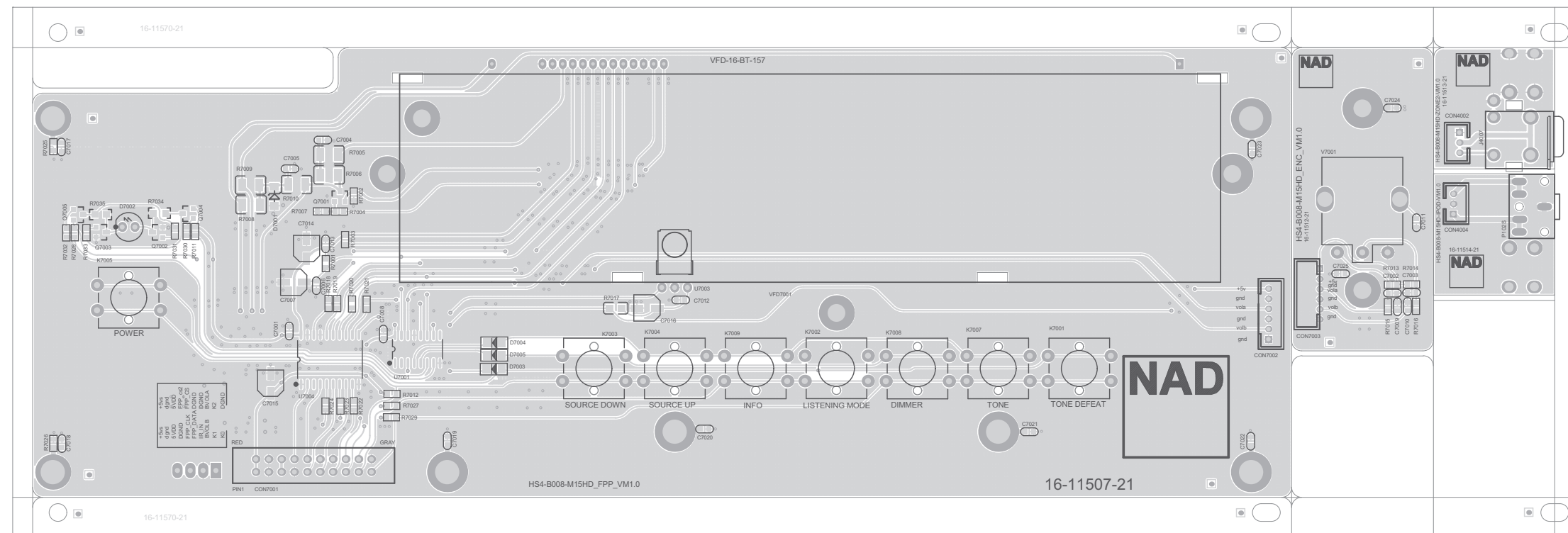




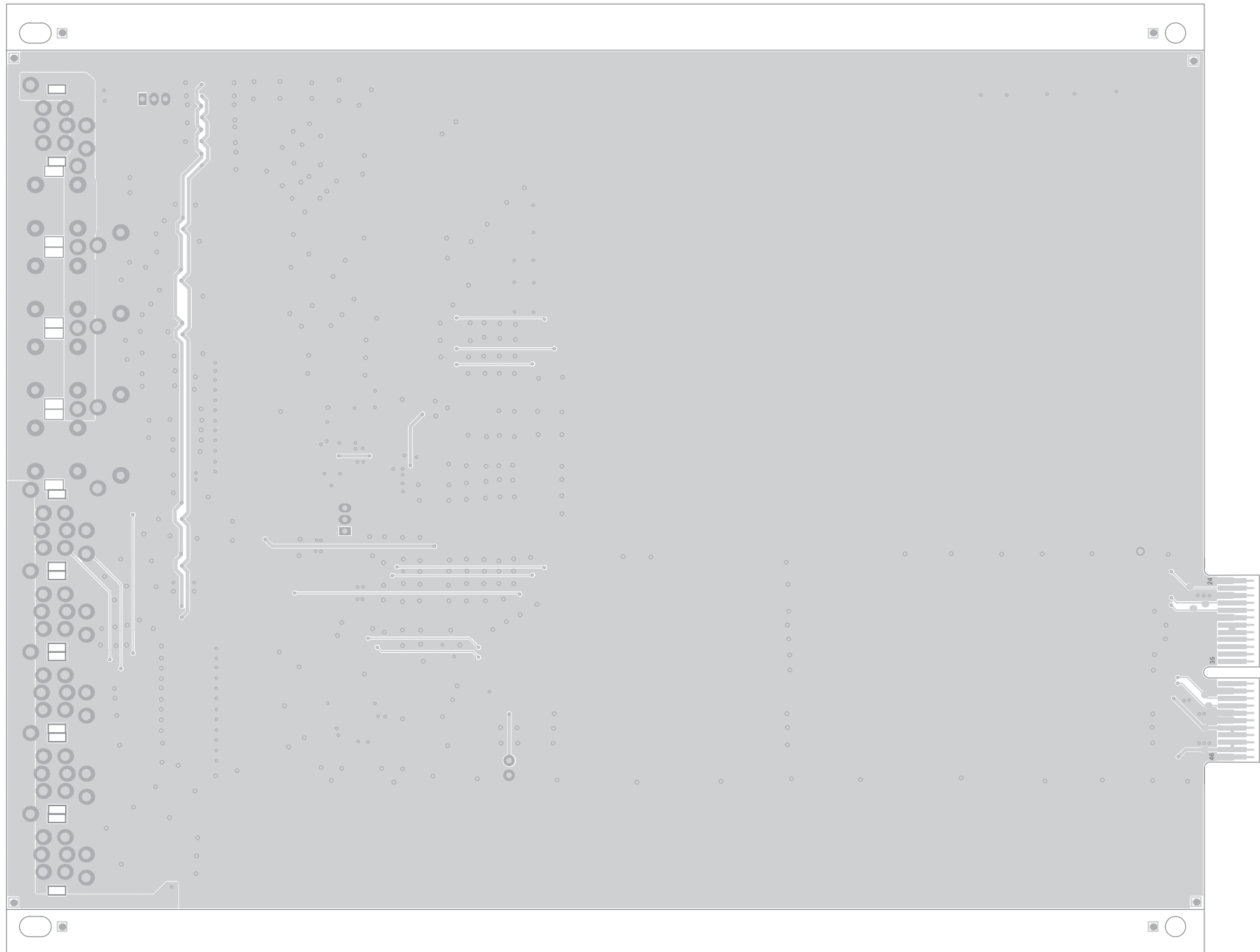
**KEYBOARD - COPPER SIDE**



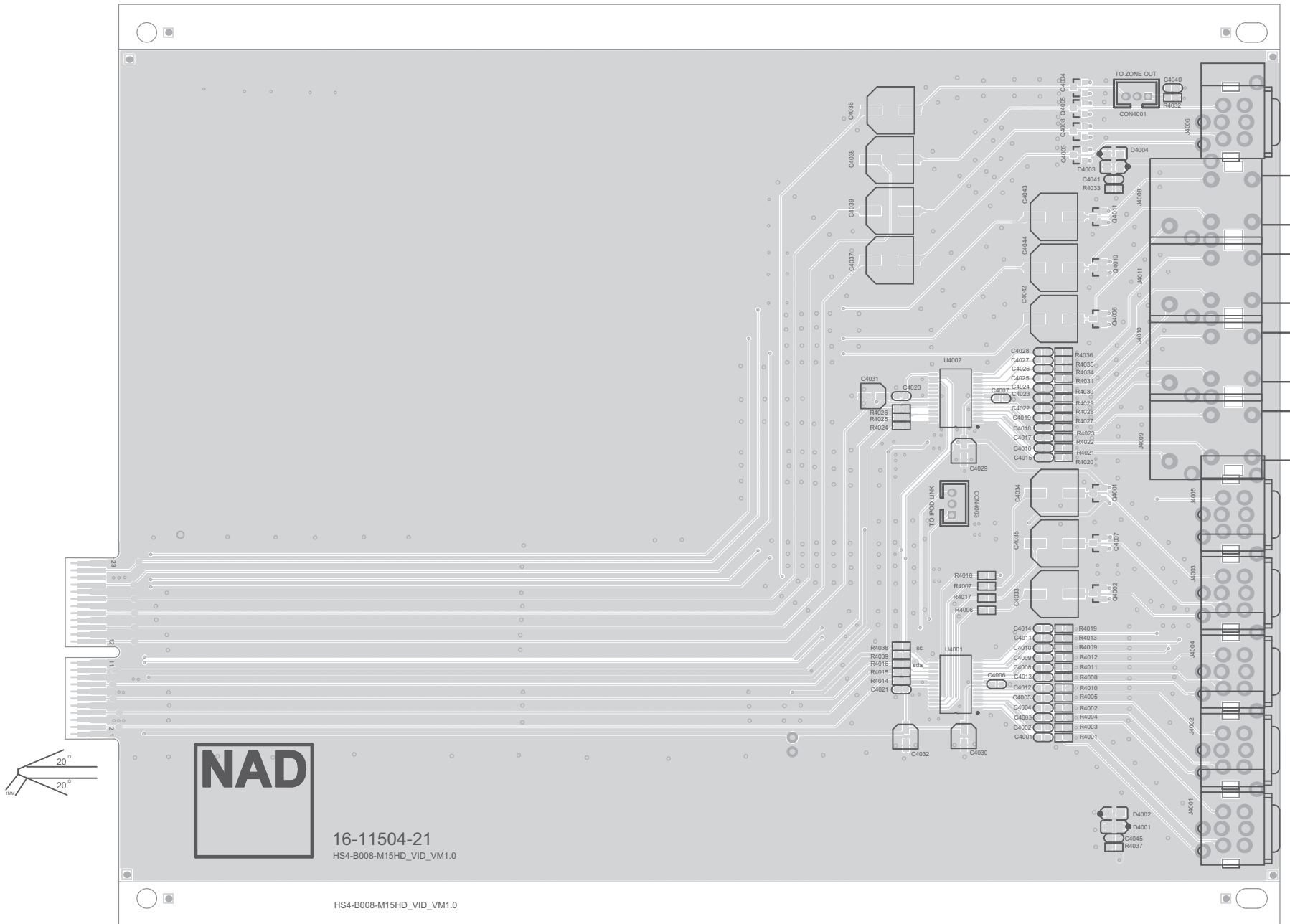
**KEYBOARD - COMPONENT SIDE**



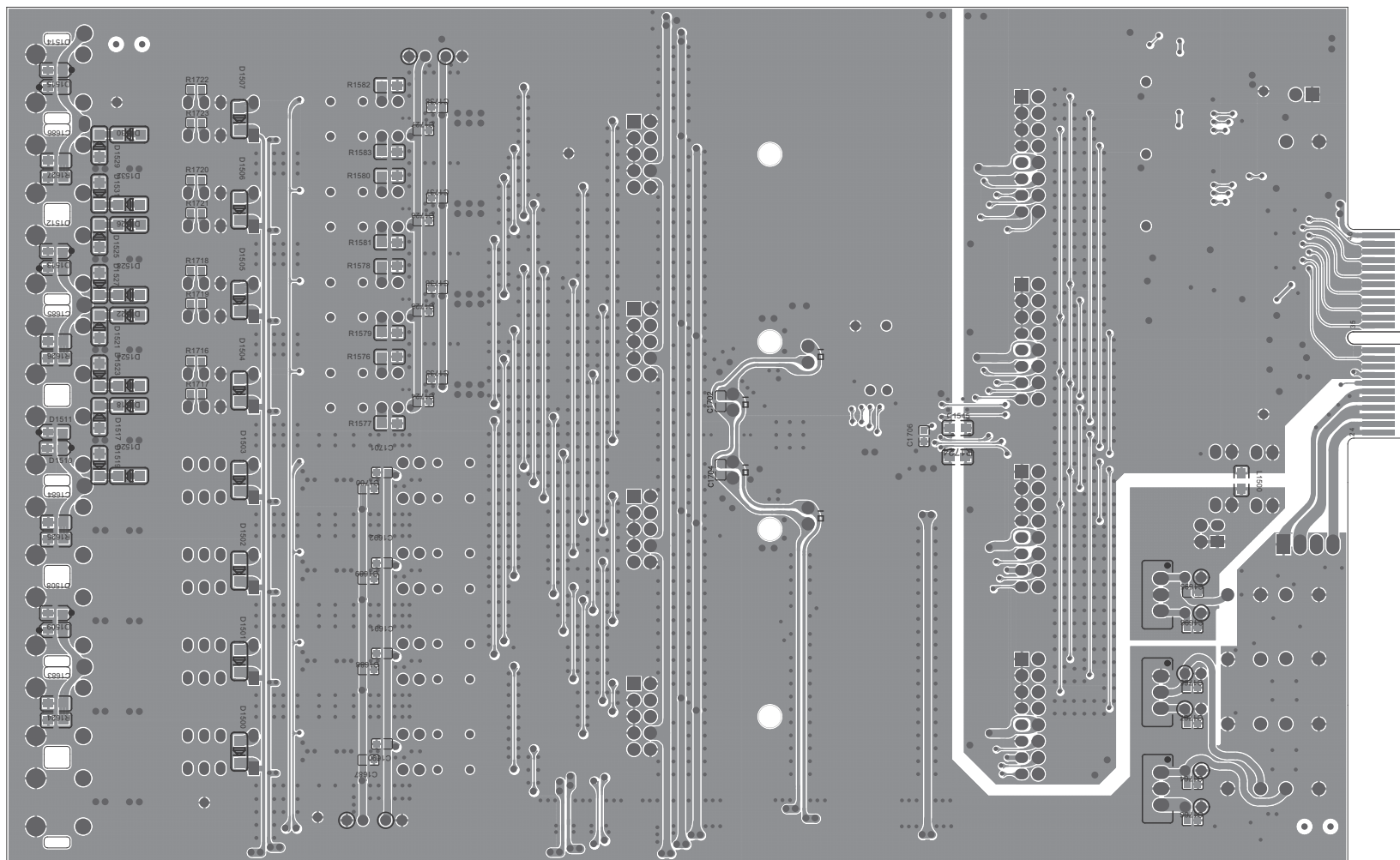
# VIDEO BOARD - COPPER SIDE



# VIDEO BOARD - COMPONENT SIDE

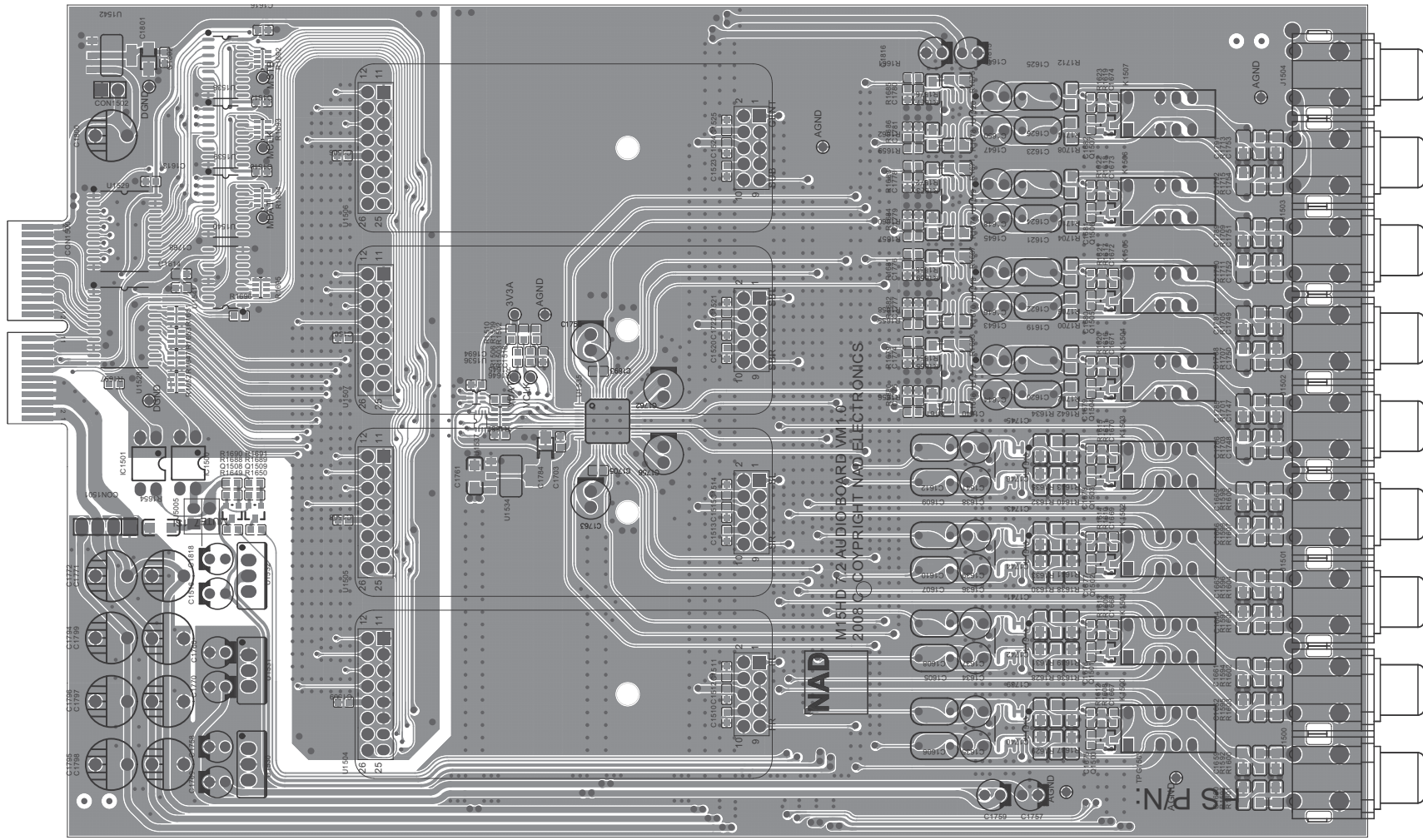


# AUDIO 7\_1 BOARD - COPPER SIDE

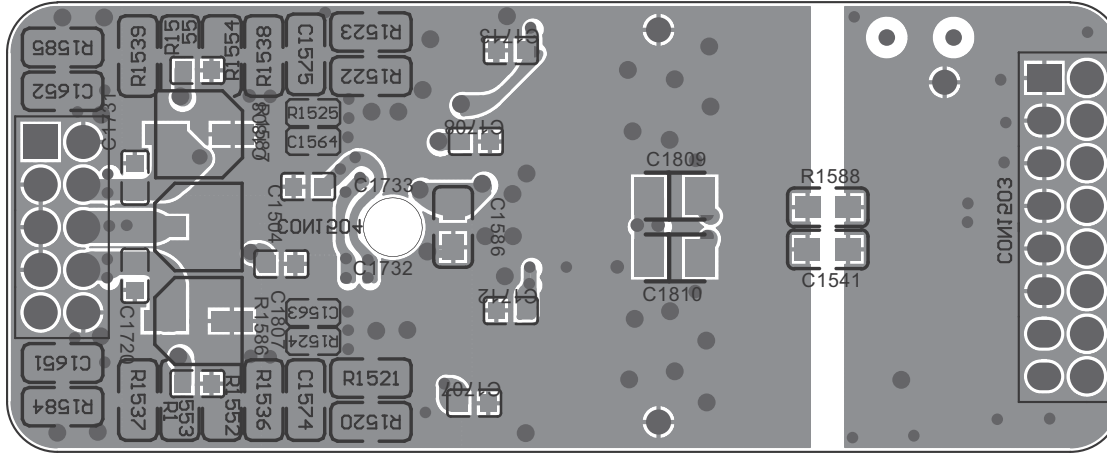




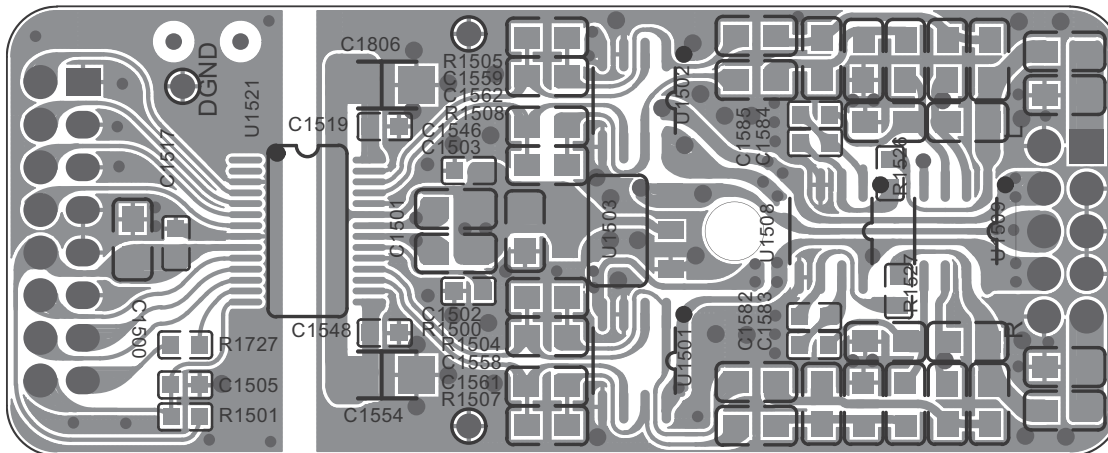
AUDIO 7\_1 BOARD - COMPONENT SIDE



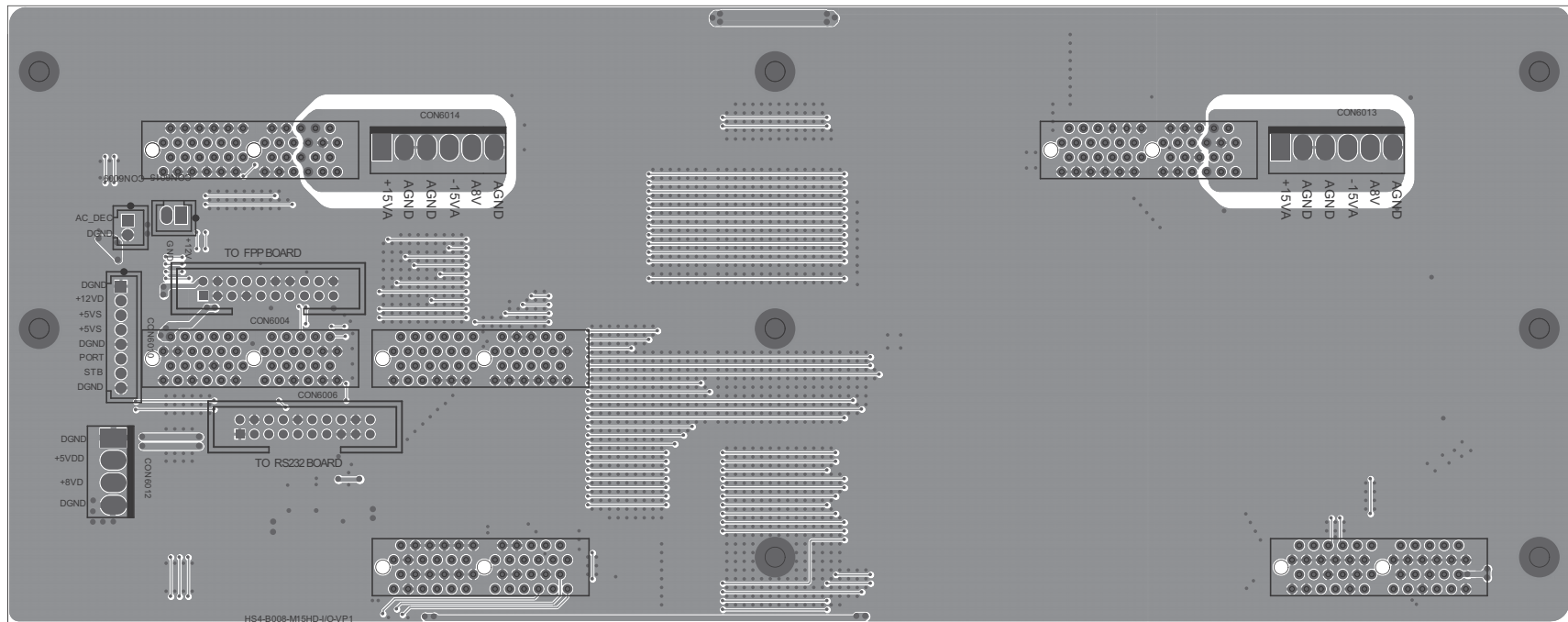
**DAC BOARD - COPPER SIDE**



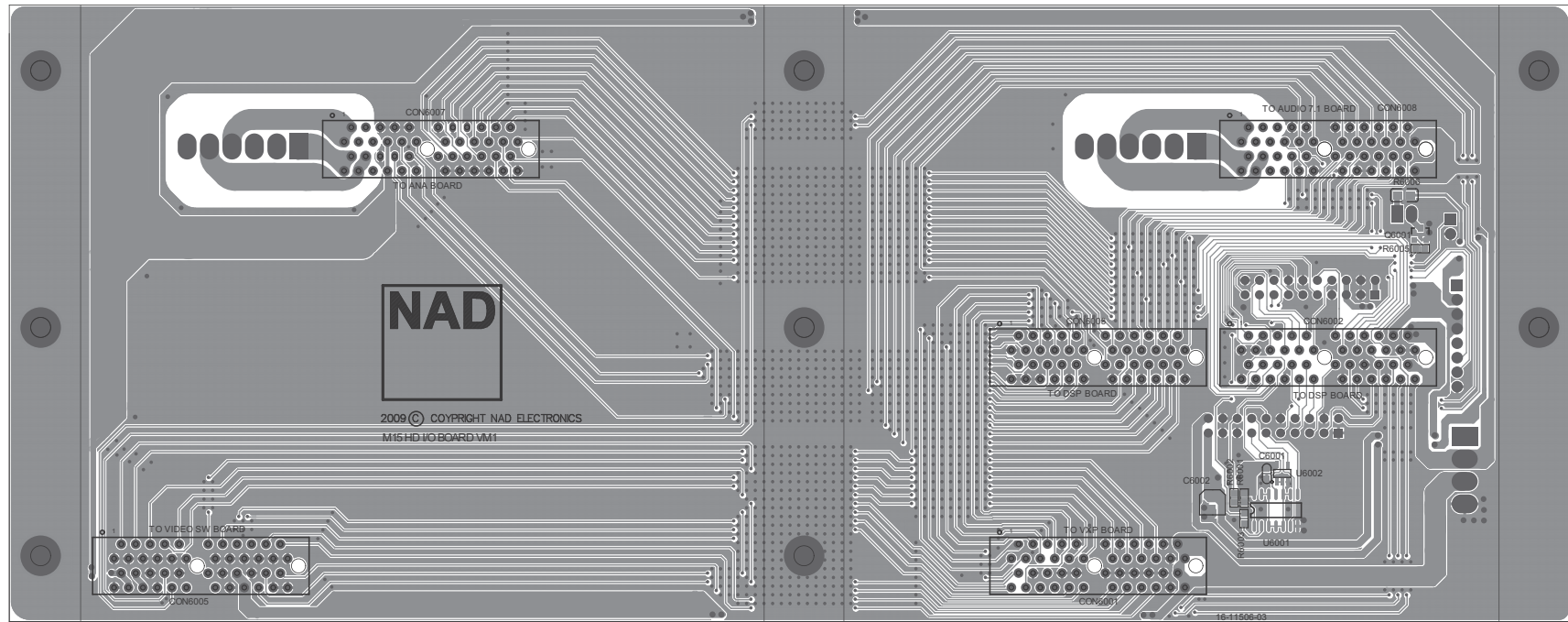
**DAC BOARD - COMPONENT SIDE**



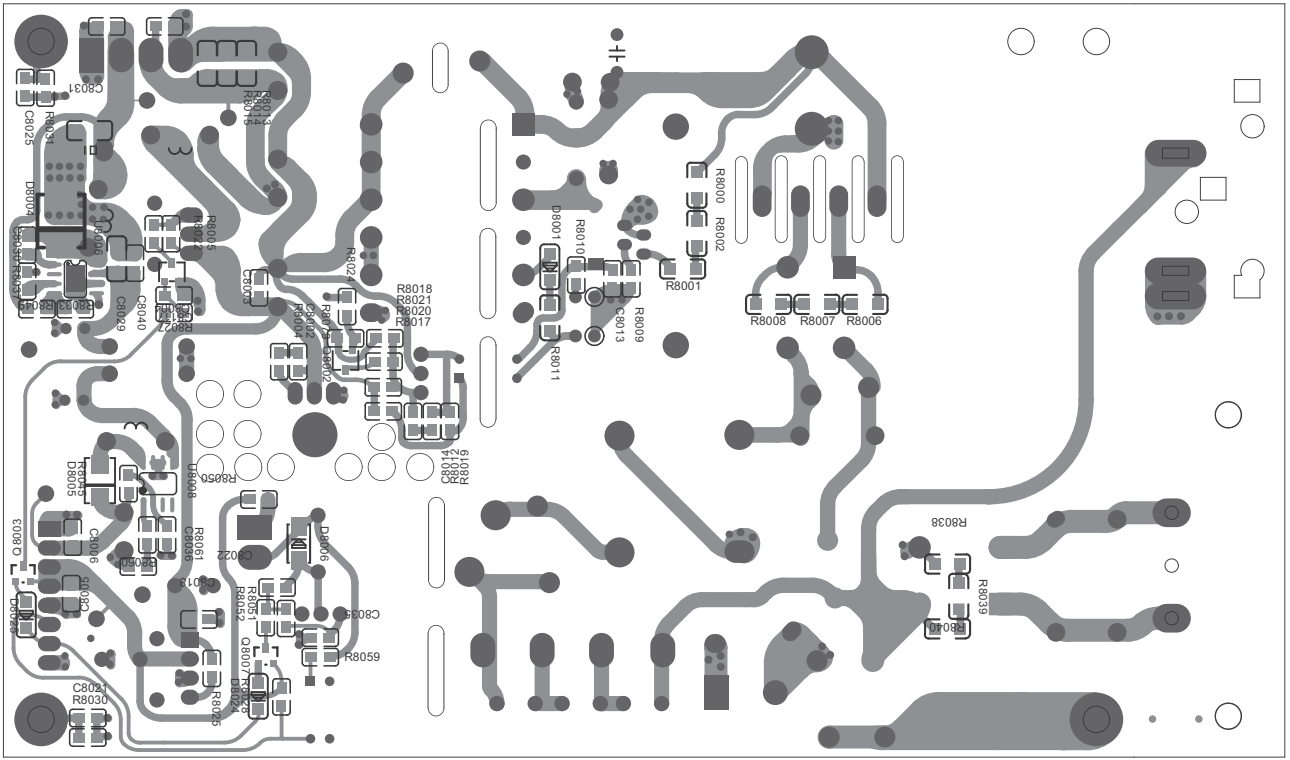
# I / O BOARD - COPPER SIDE



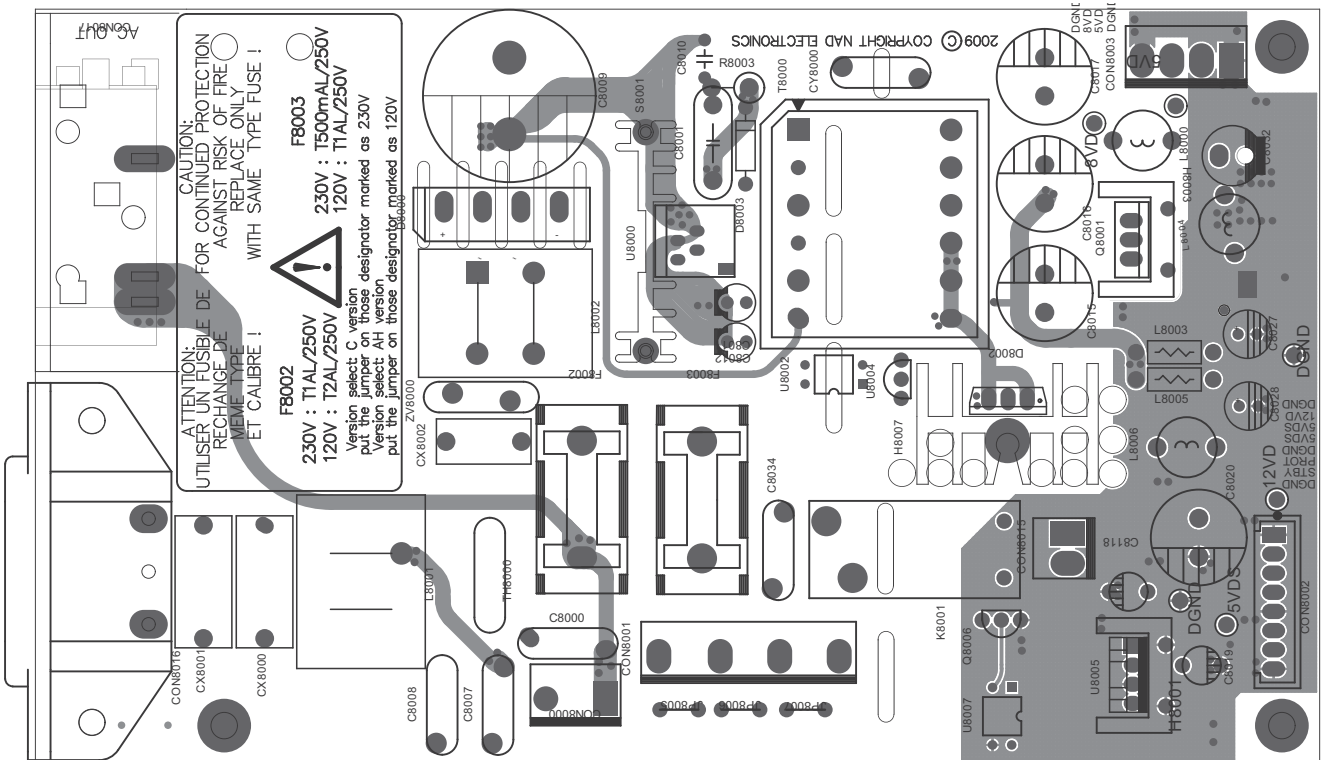
# I/O BOARD - COMPONENT SIDE



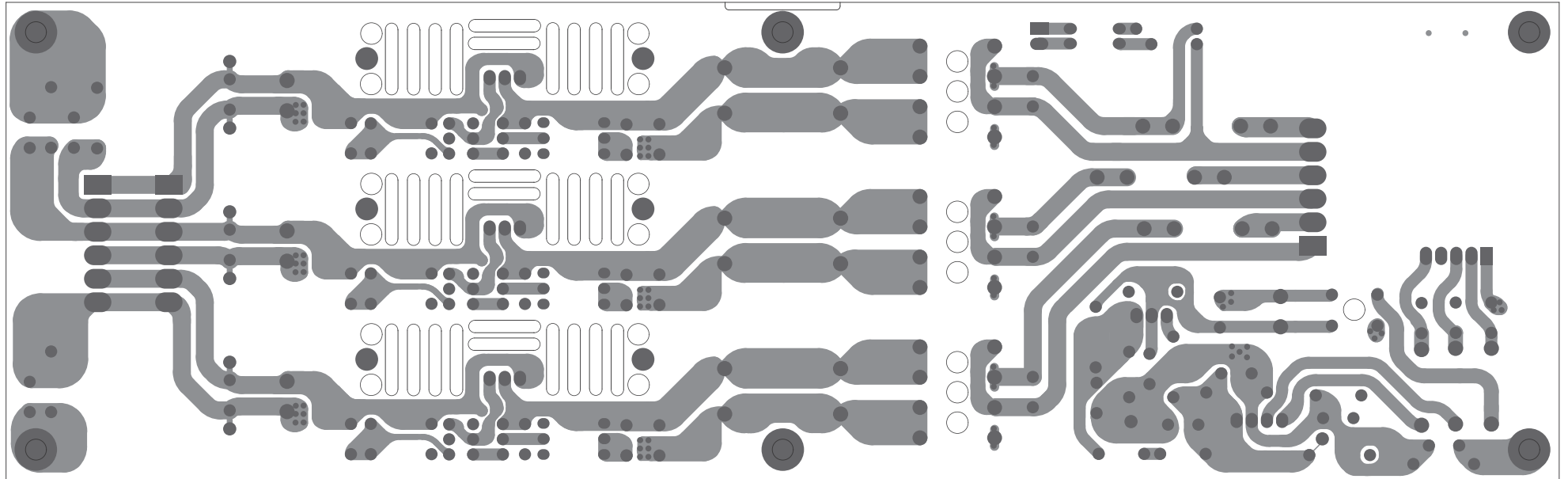
# PAU A BOARD - COPPER SIDE



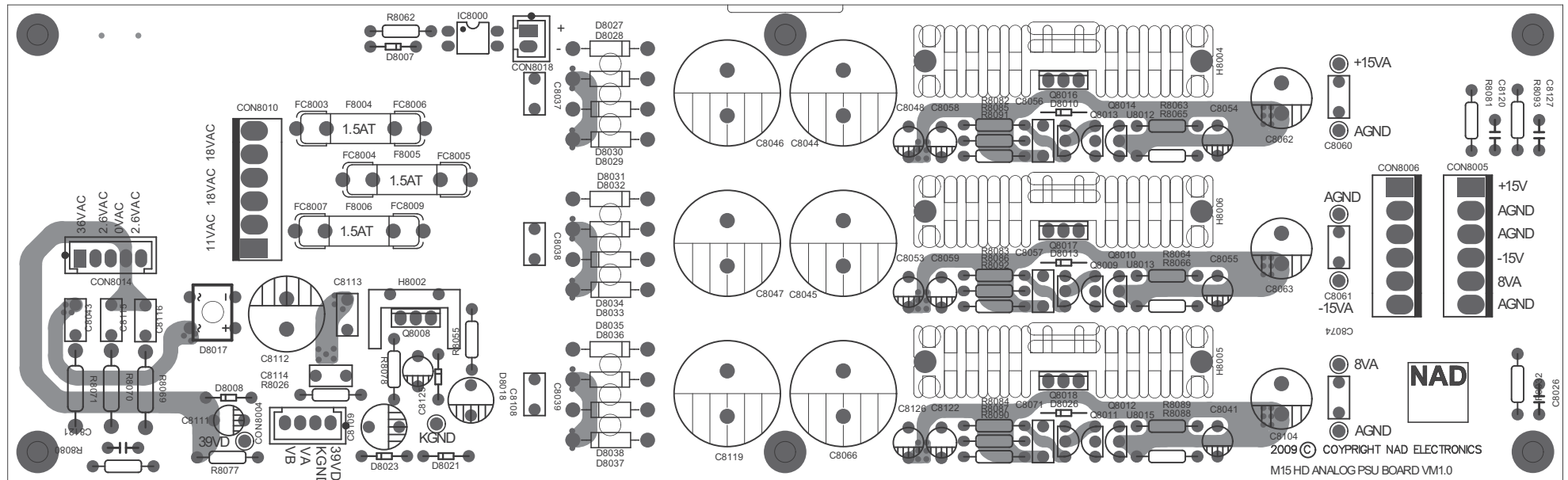
# PAU A BOARD - COMPONENT SIDE



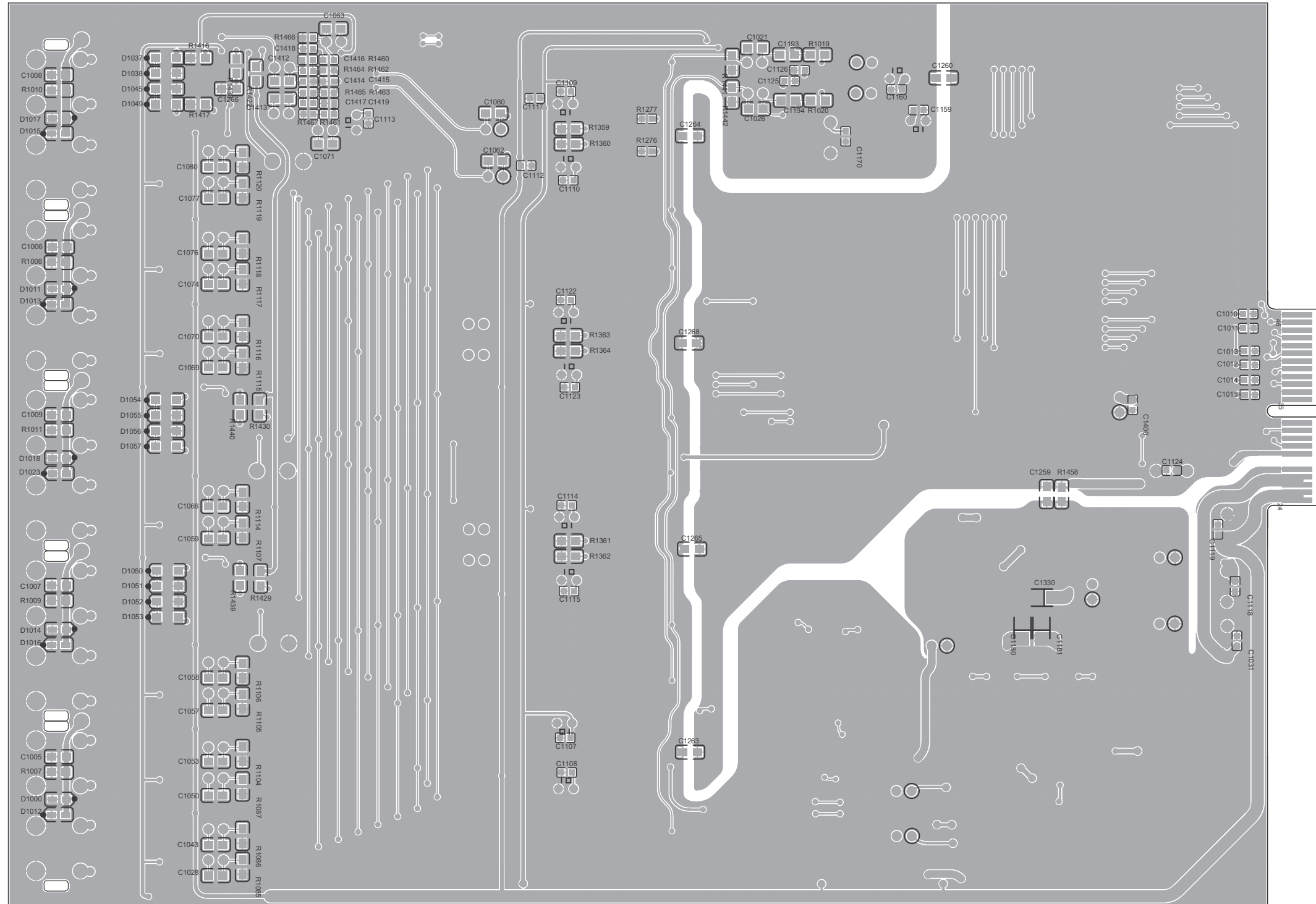
## PAU B BOARD - COPPER SIDE



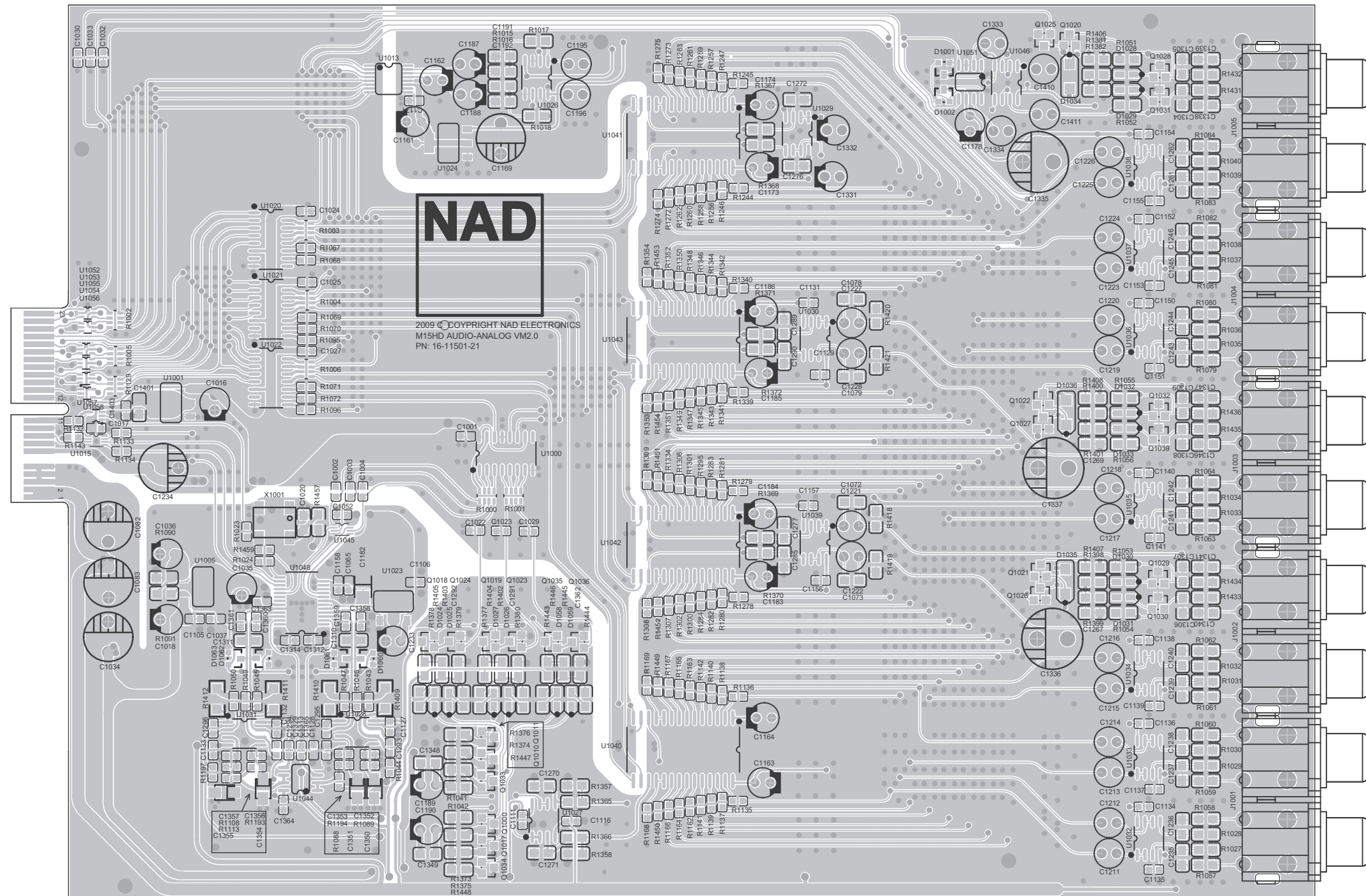
## PAU B BOARD - COMPONENT SIDE



# AUDIO ANALOG BOARD - COPPER SIDE

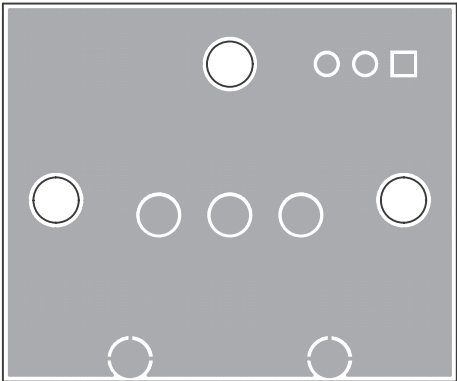


# AUDIO ANALOG BOARD - COMPONENT SIDE

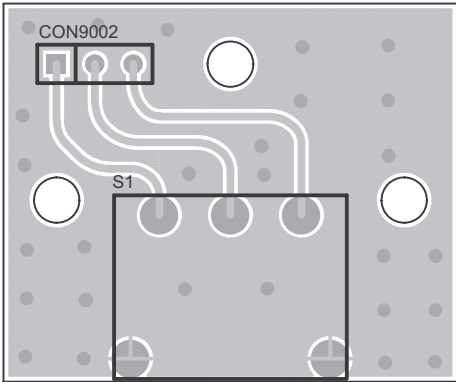




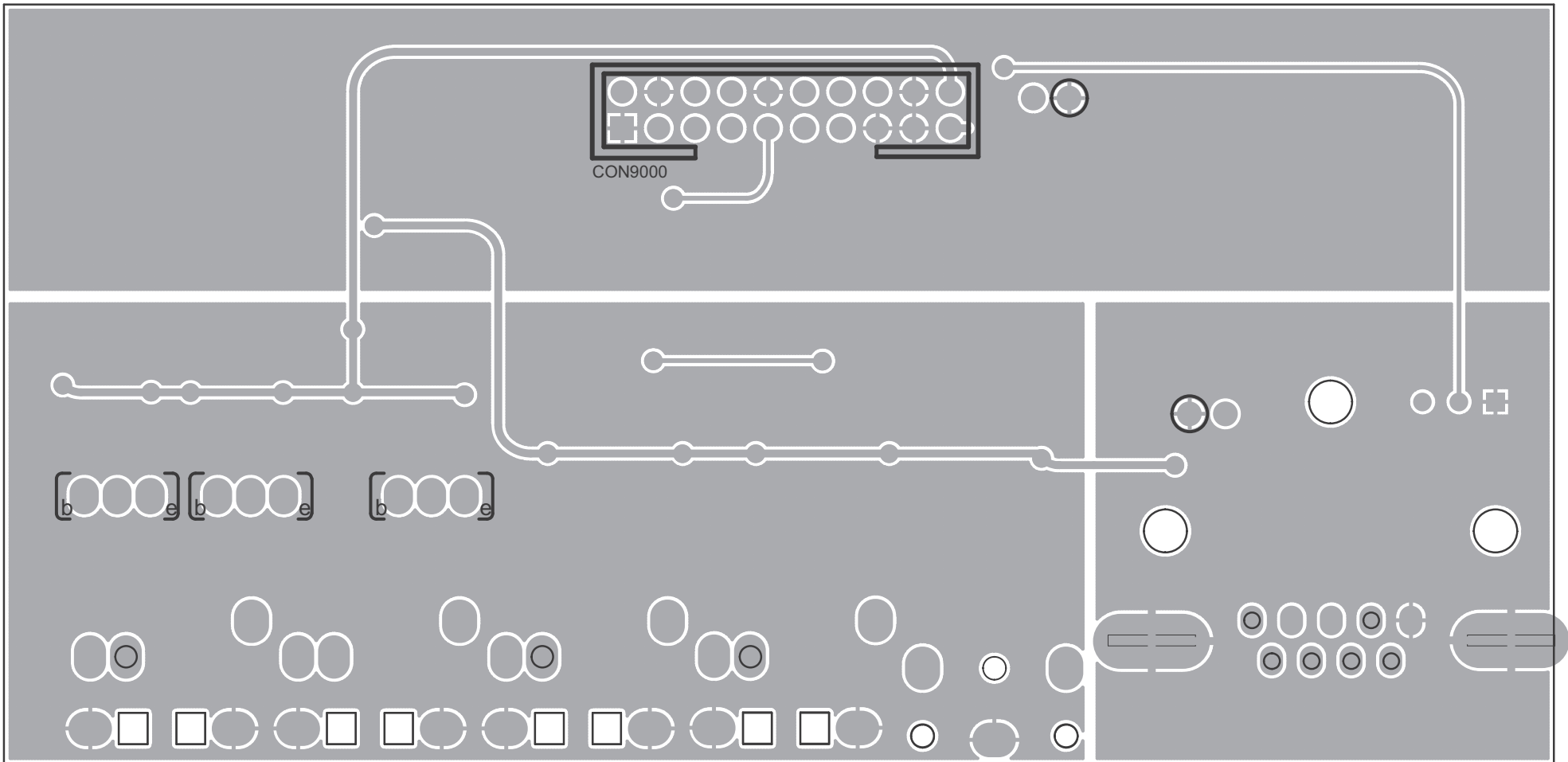
SWITCH BOARD - COPPER SIDE



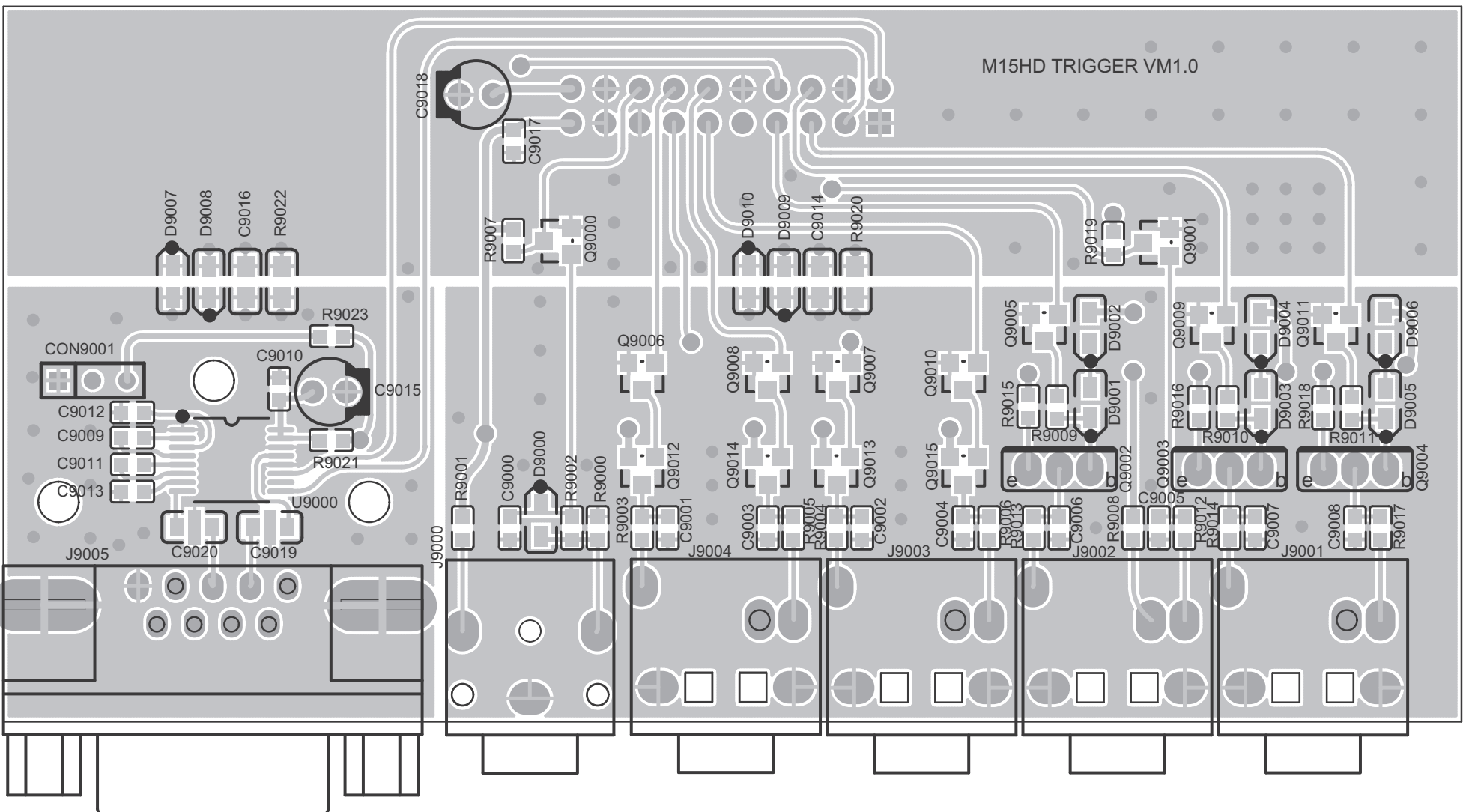
SWITCH BOARD - COMPONENT SIDE



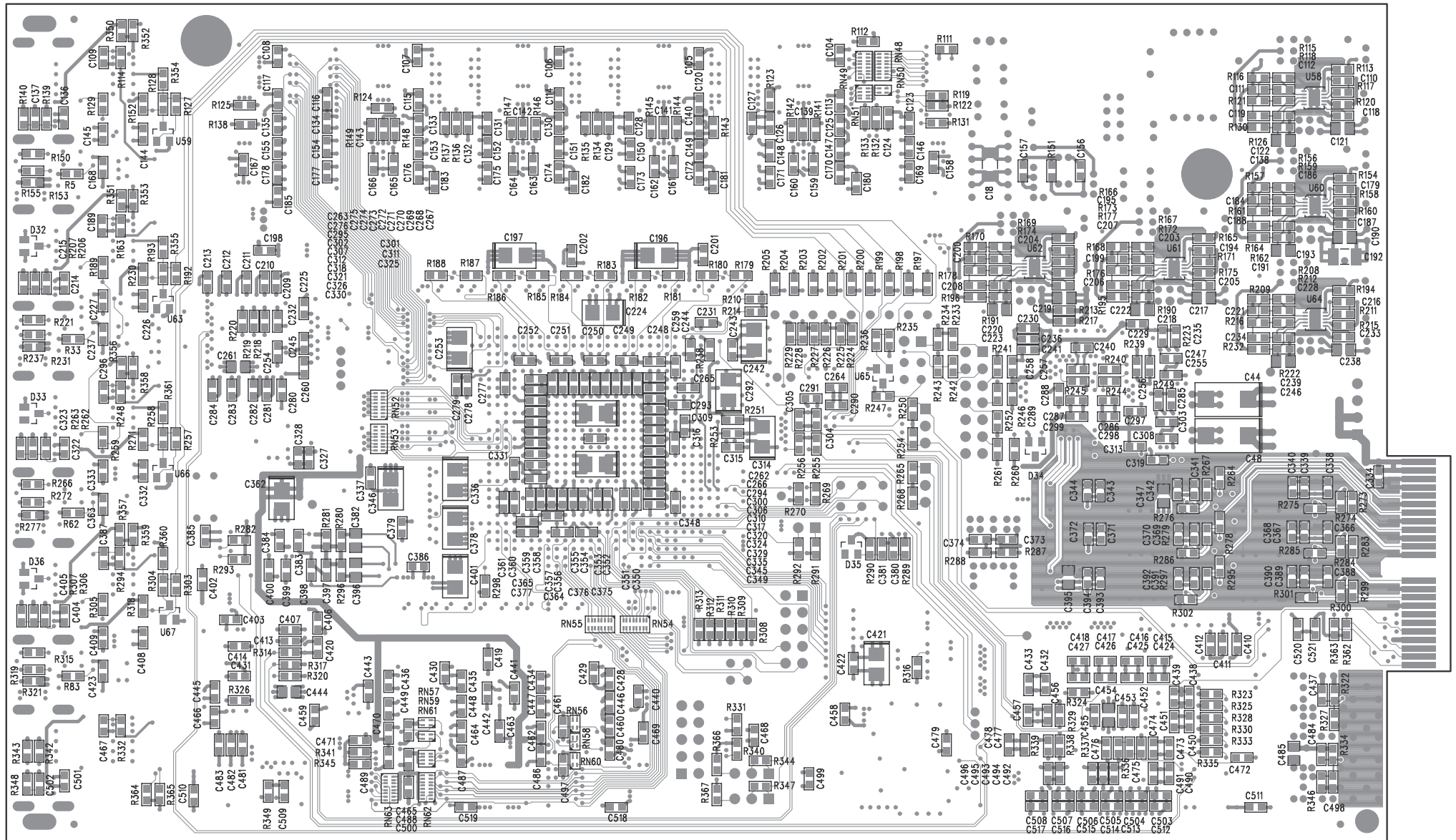
**TRIGGER BOARD - COPPER SIDE**



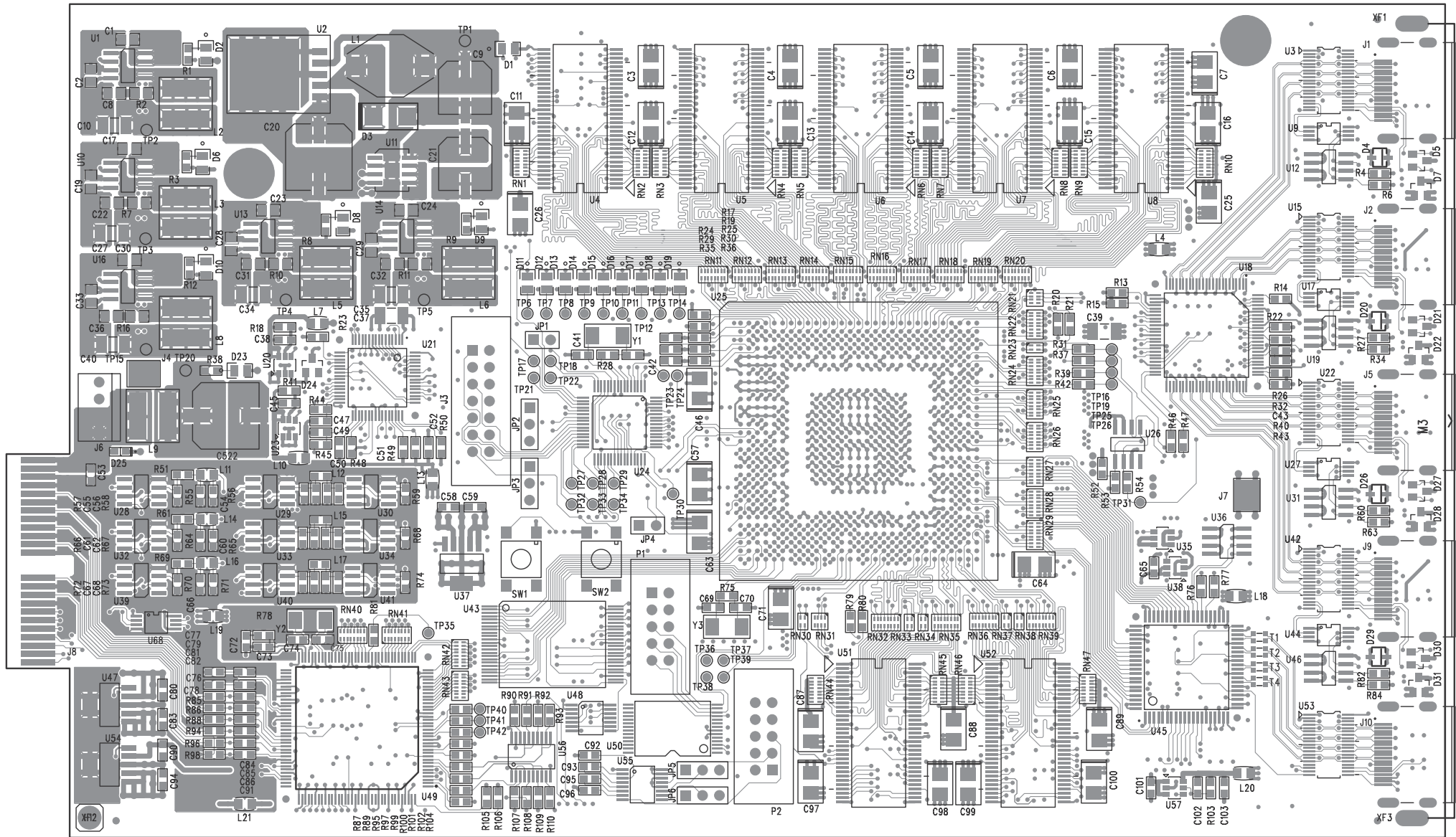
**TRIGGER BOARD - COMPONENT SIDE**



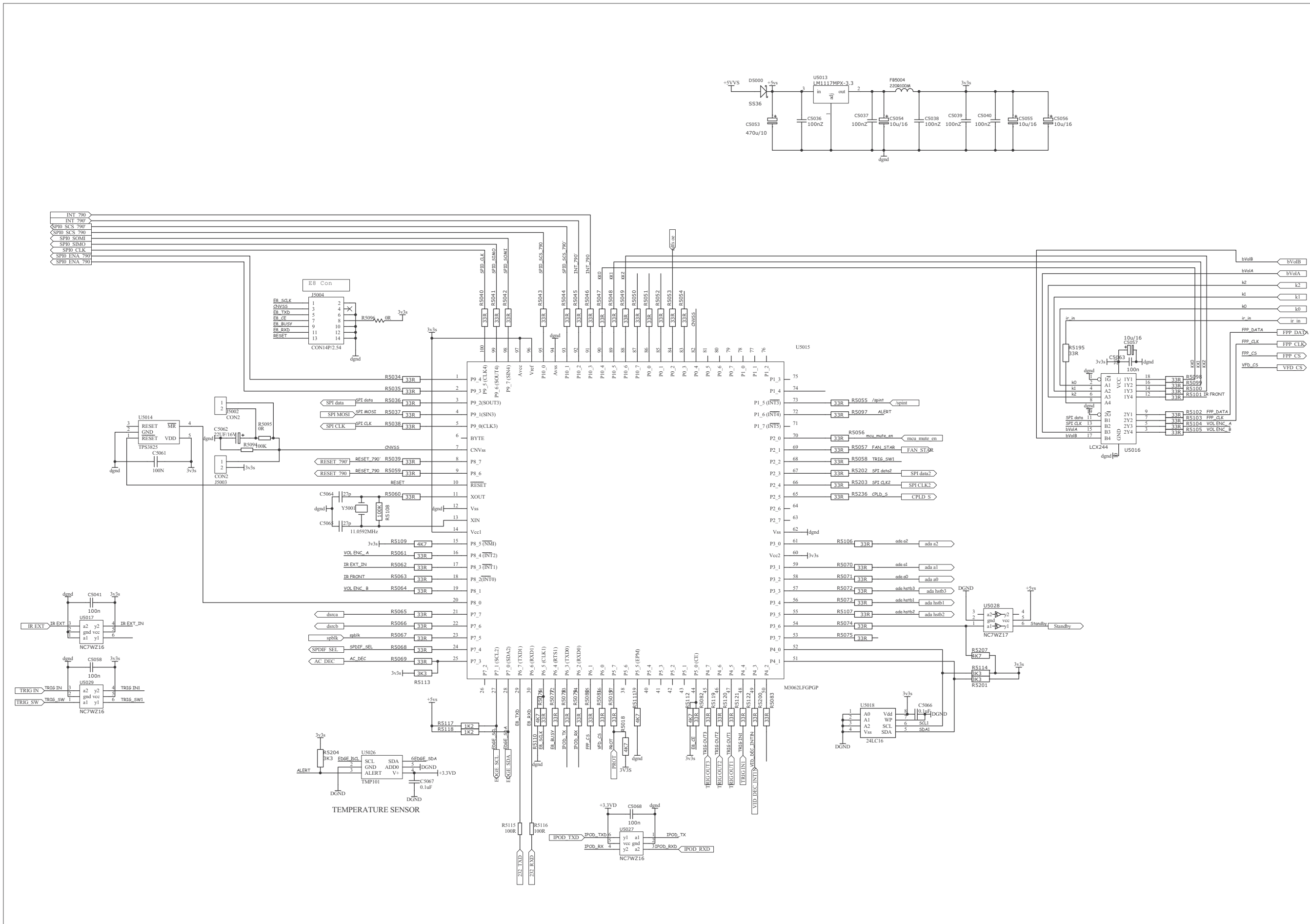
# VXP BOARD - COPPER SIDE

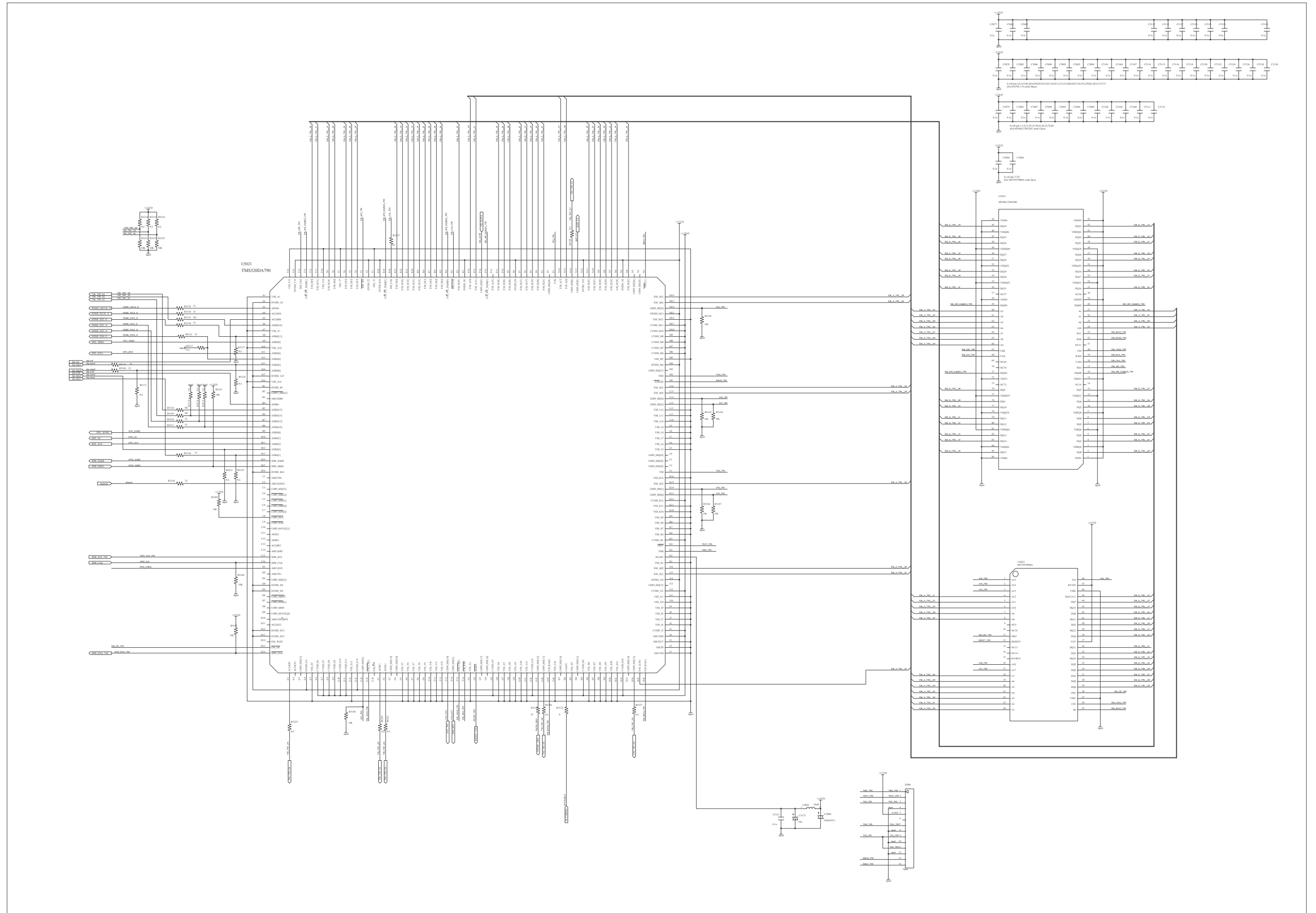


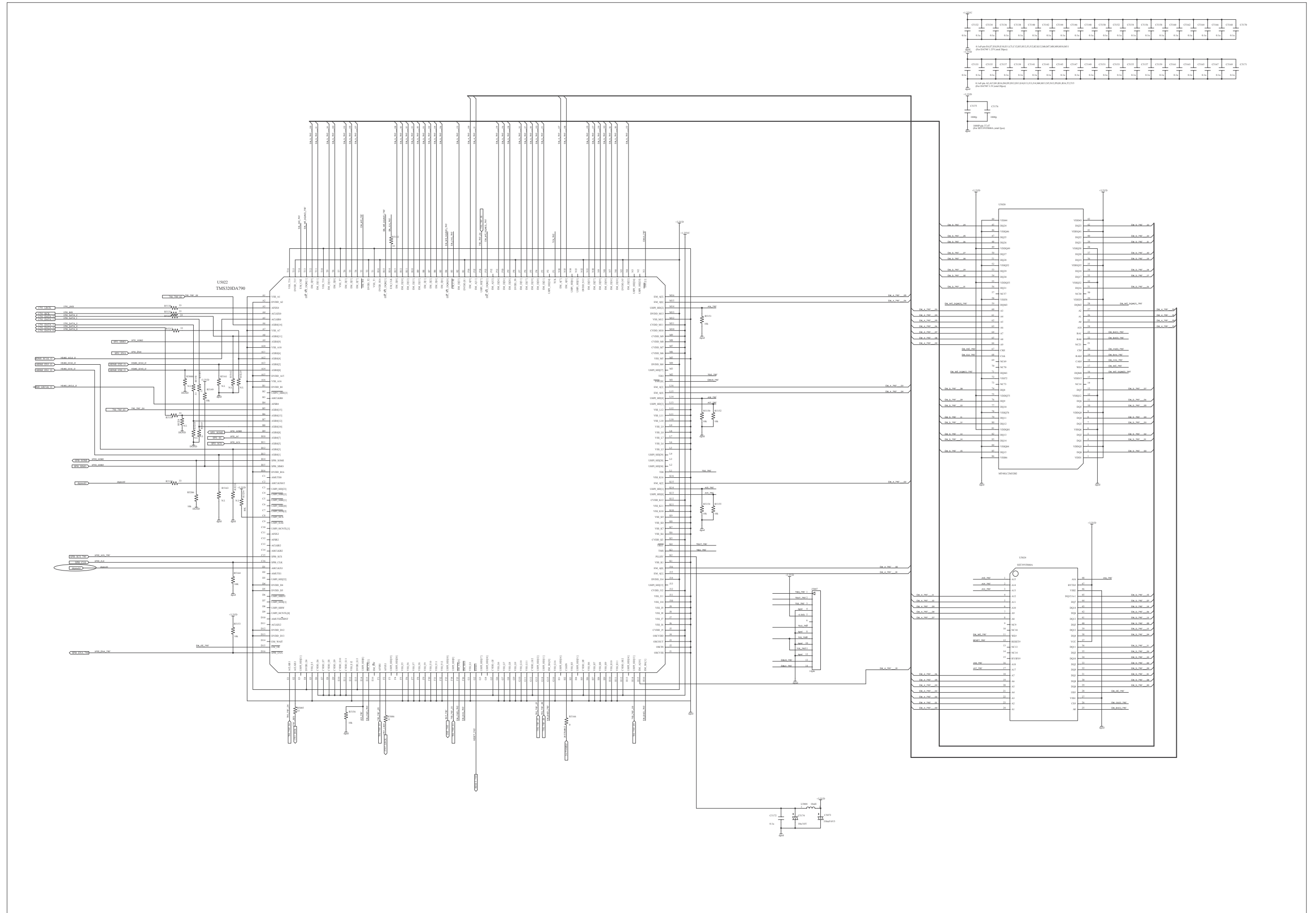
# VXP BOARD - COMPONENT SIDE





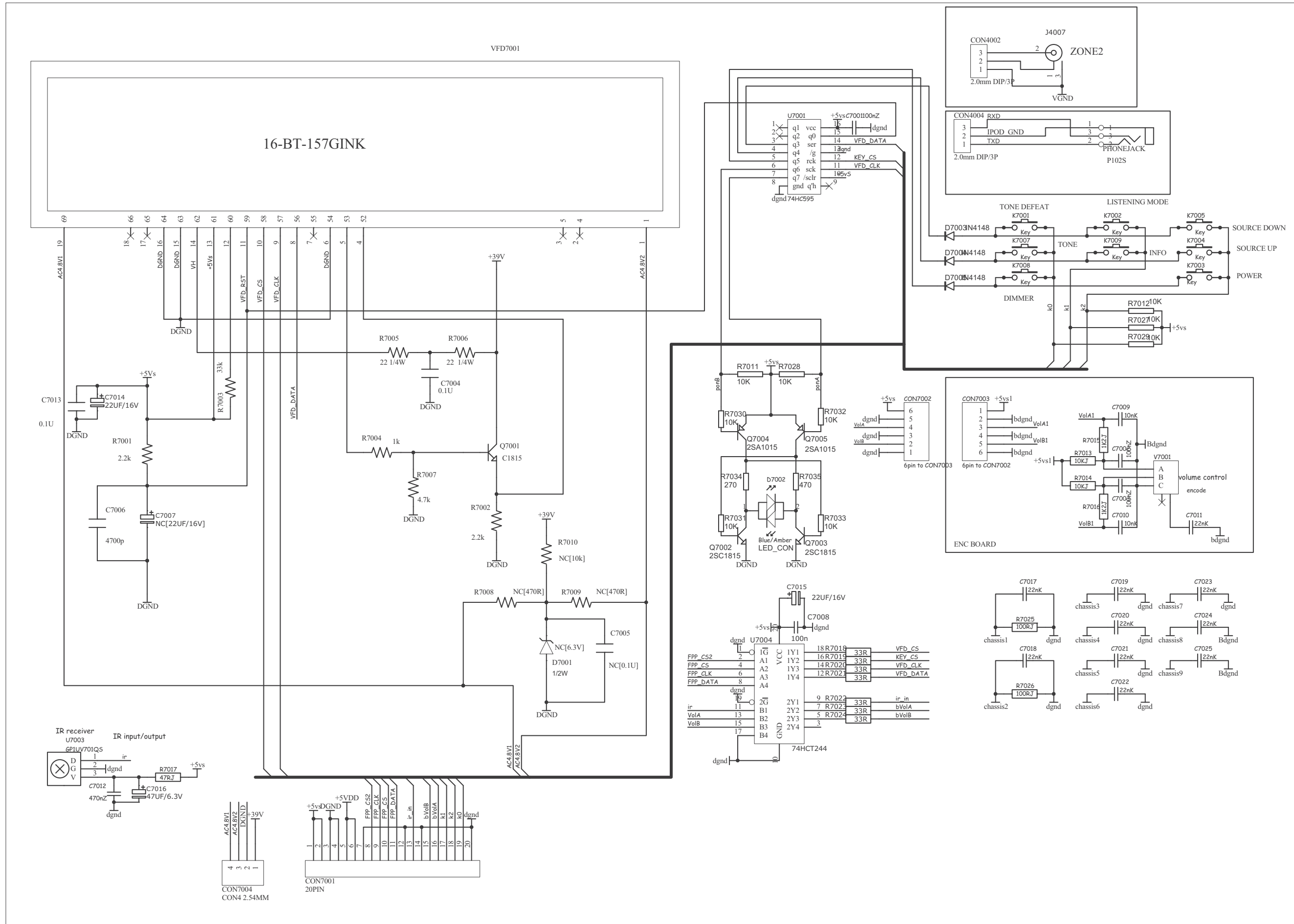




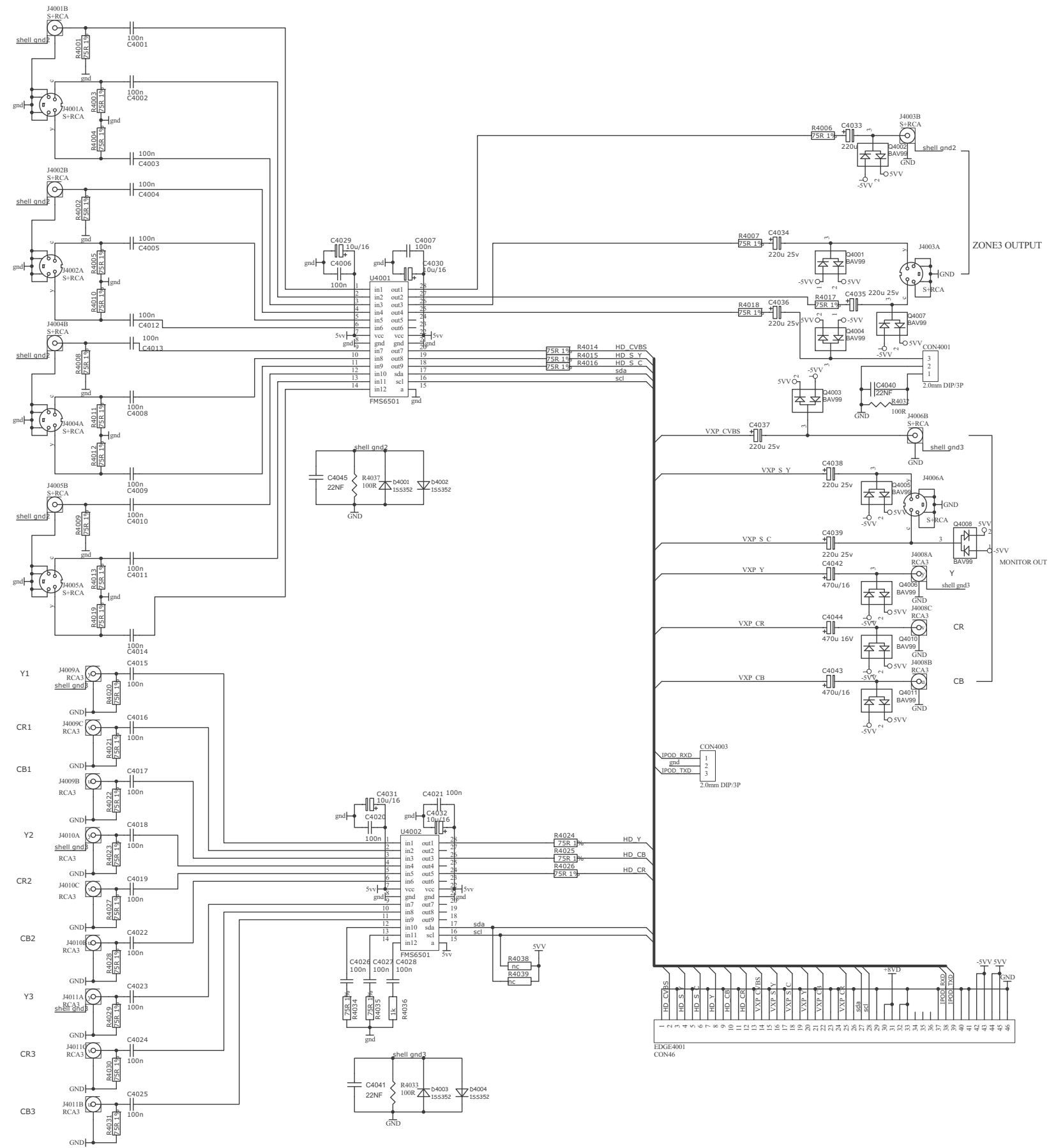




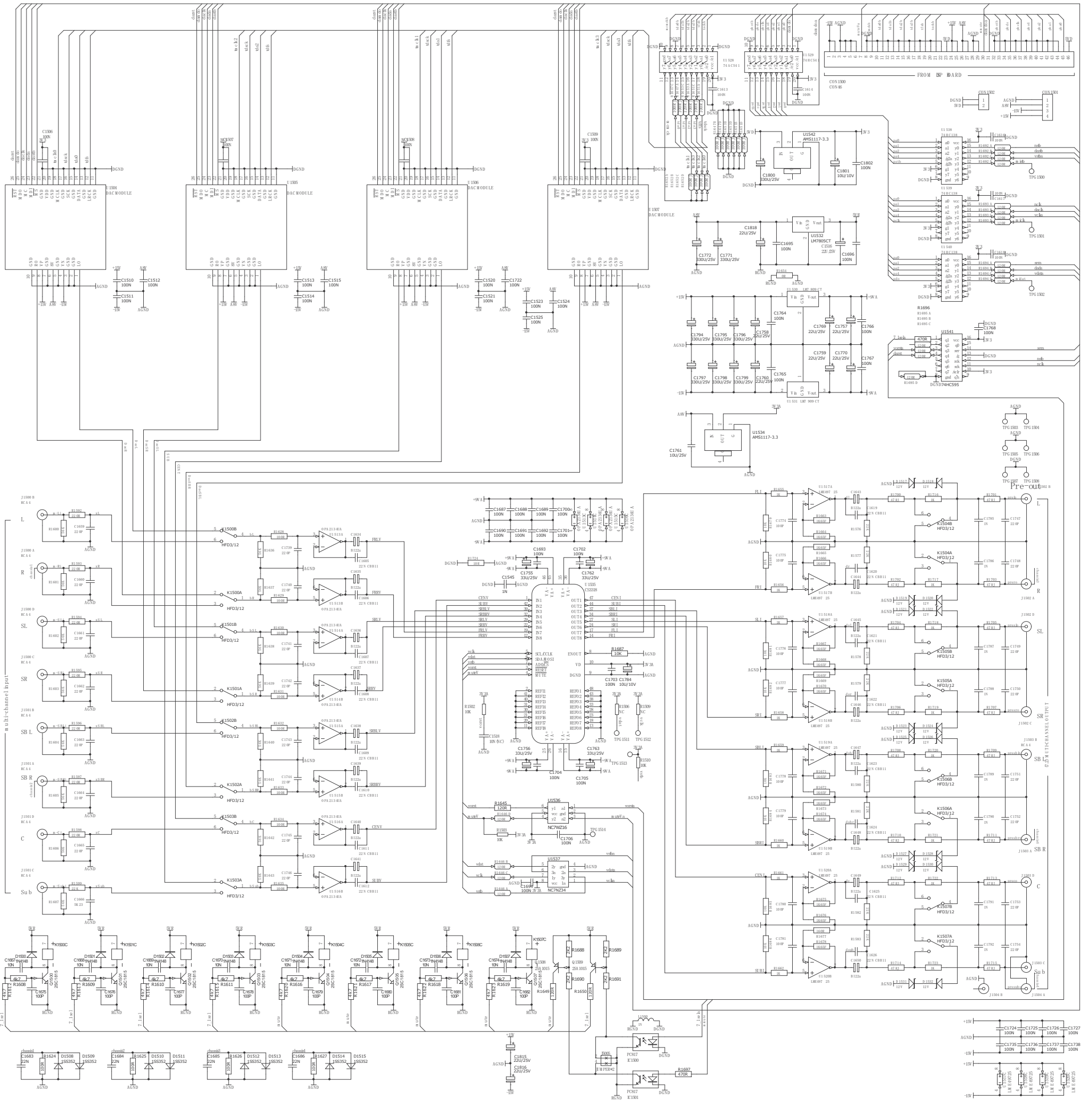
# KEYBOARD



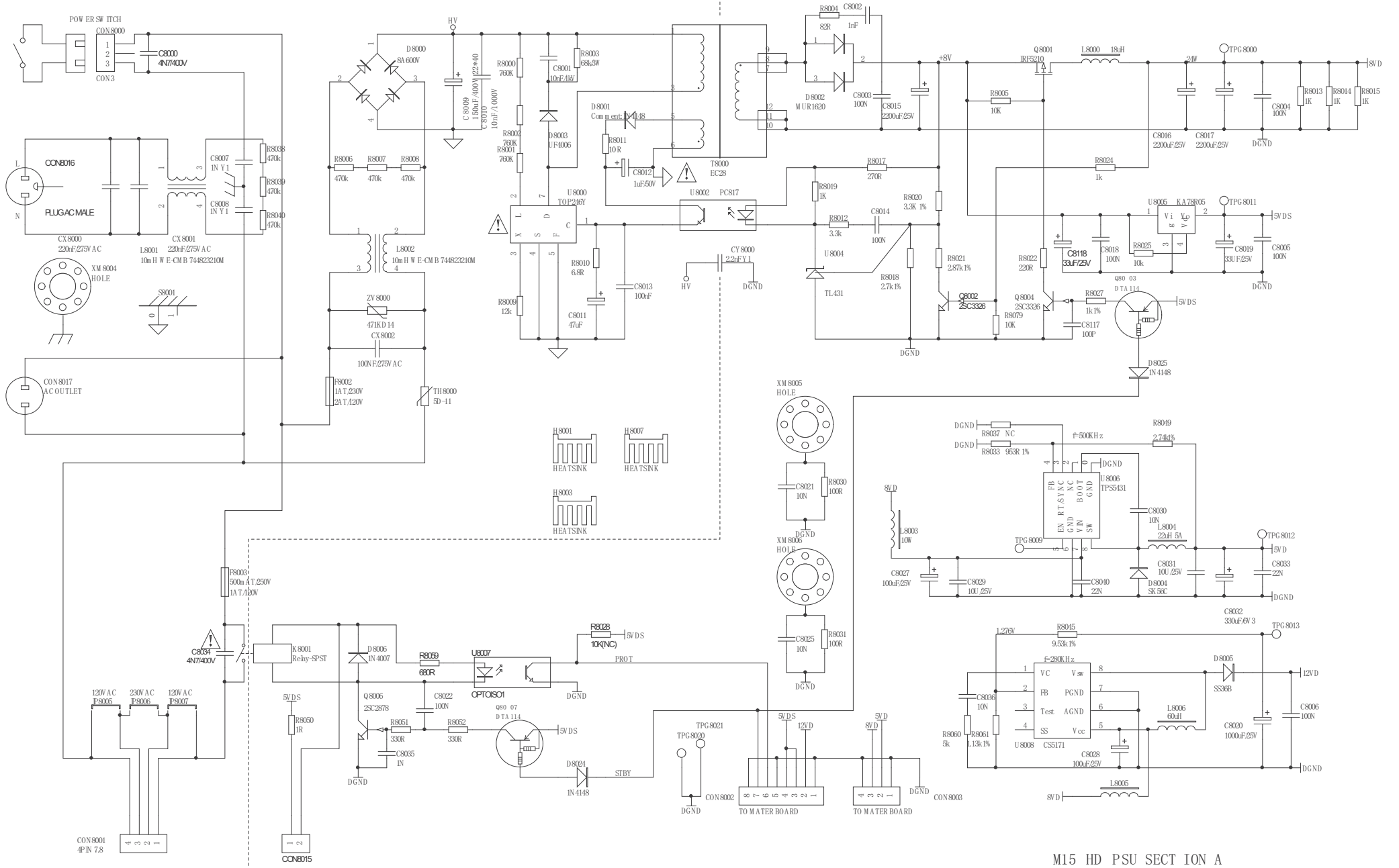
VIDEO



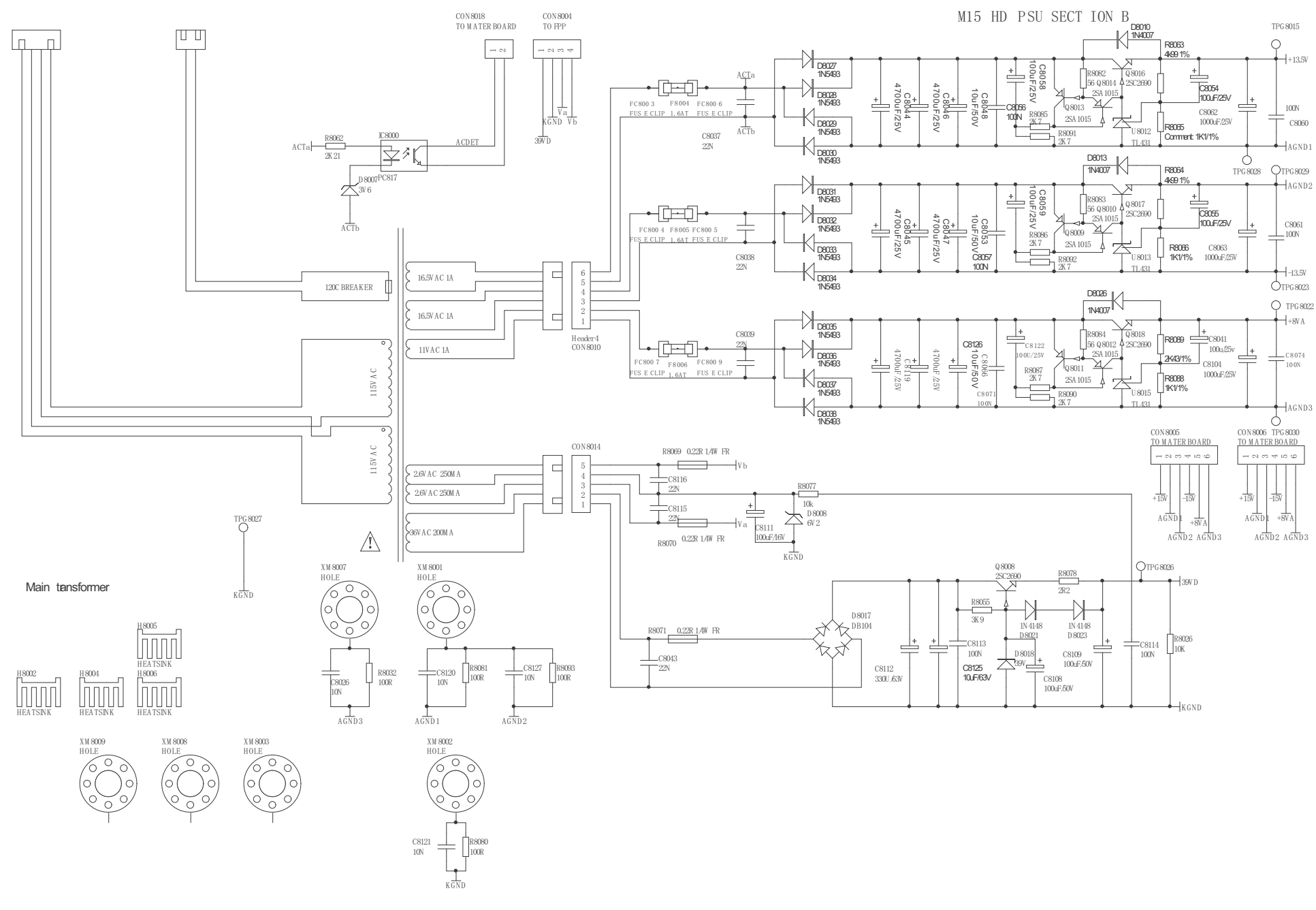
# Audio 7.1 board



PAU A AND PAU B BOARD

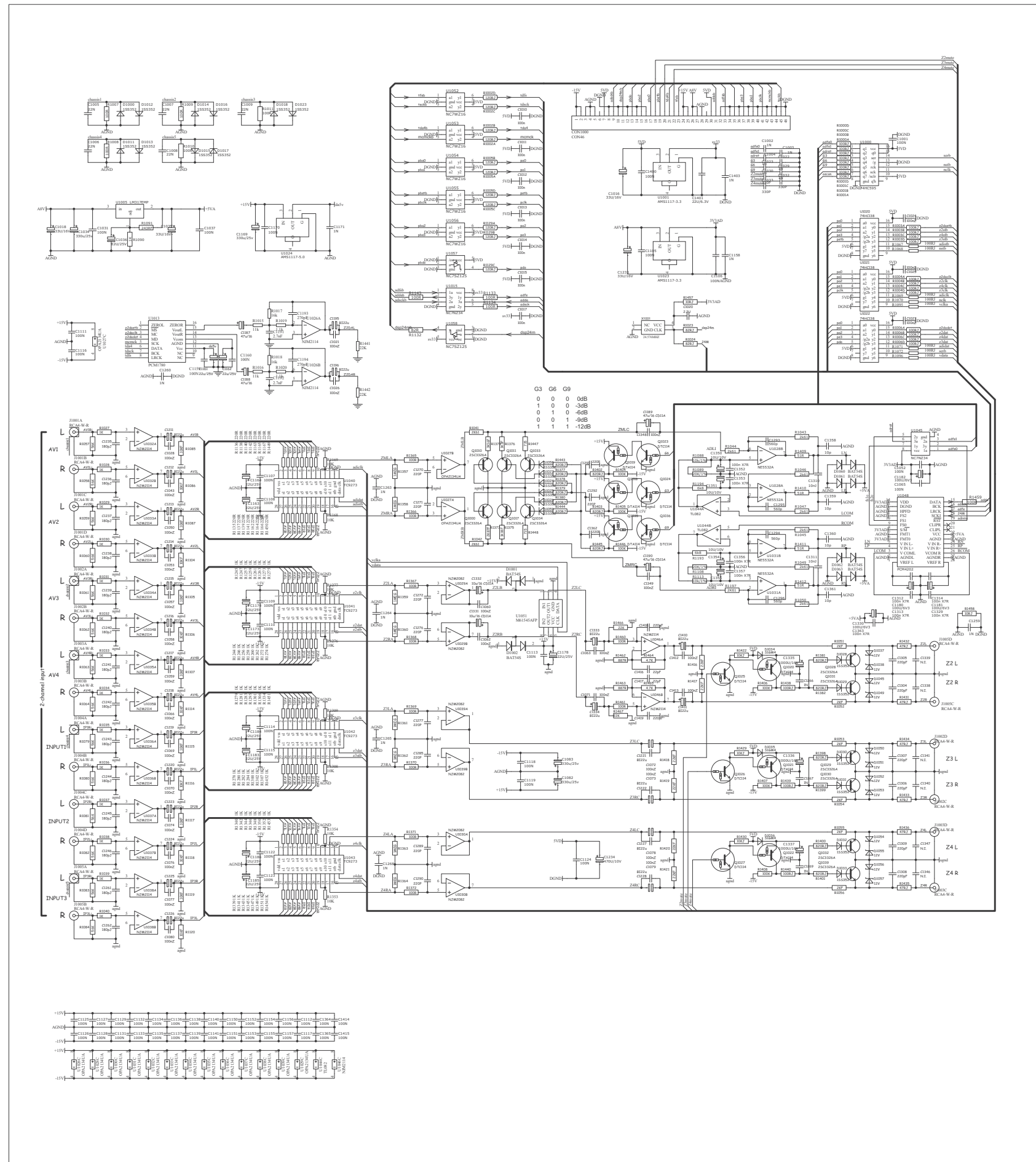


M15 HD PSU SECT ION A

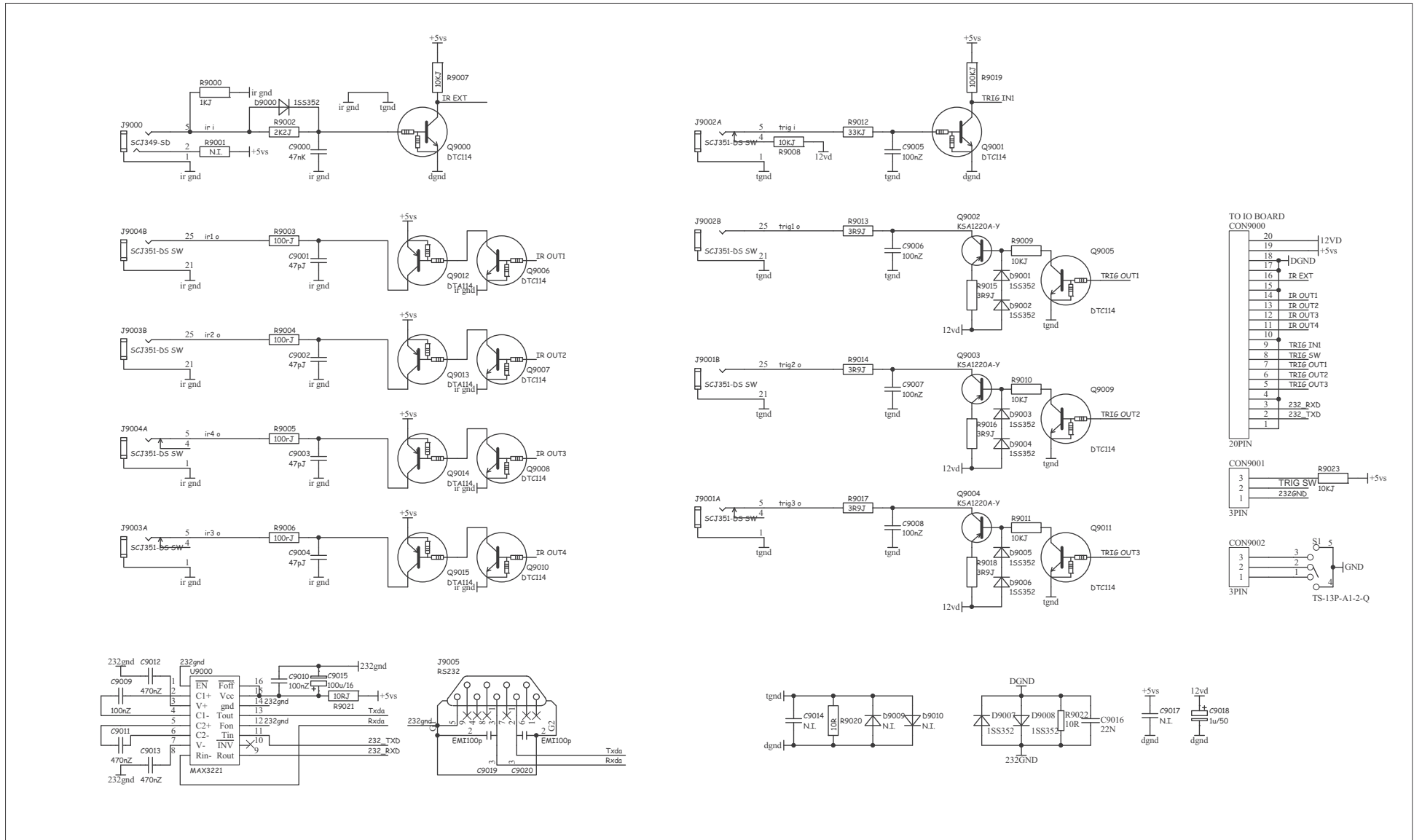


M15 HD PSU SECT ION B

# AUDIO ANALOG BOARD

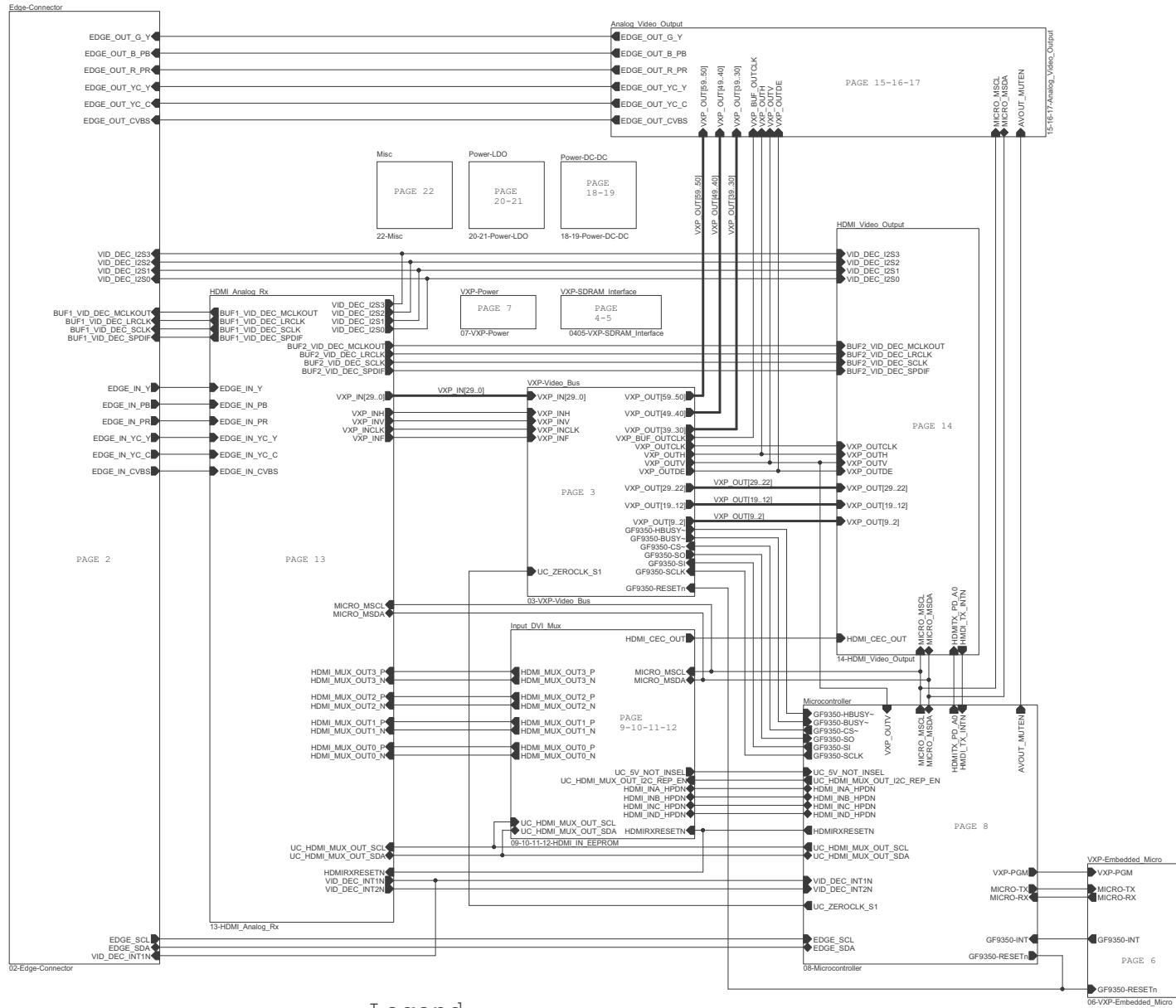


# TRIGGER BOARD



# REVISION 4

## NAD VIDEO PROCESSOR: TOP



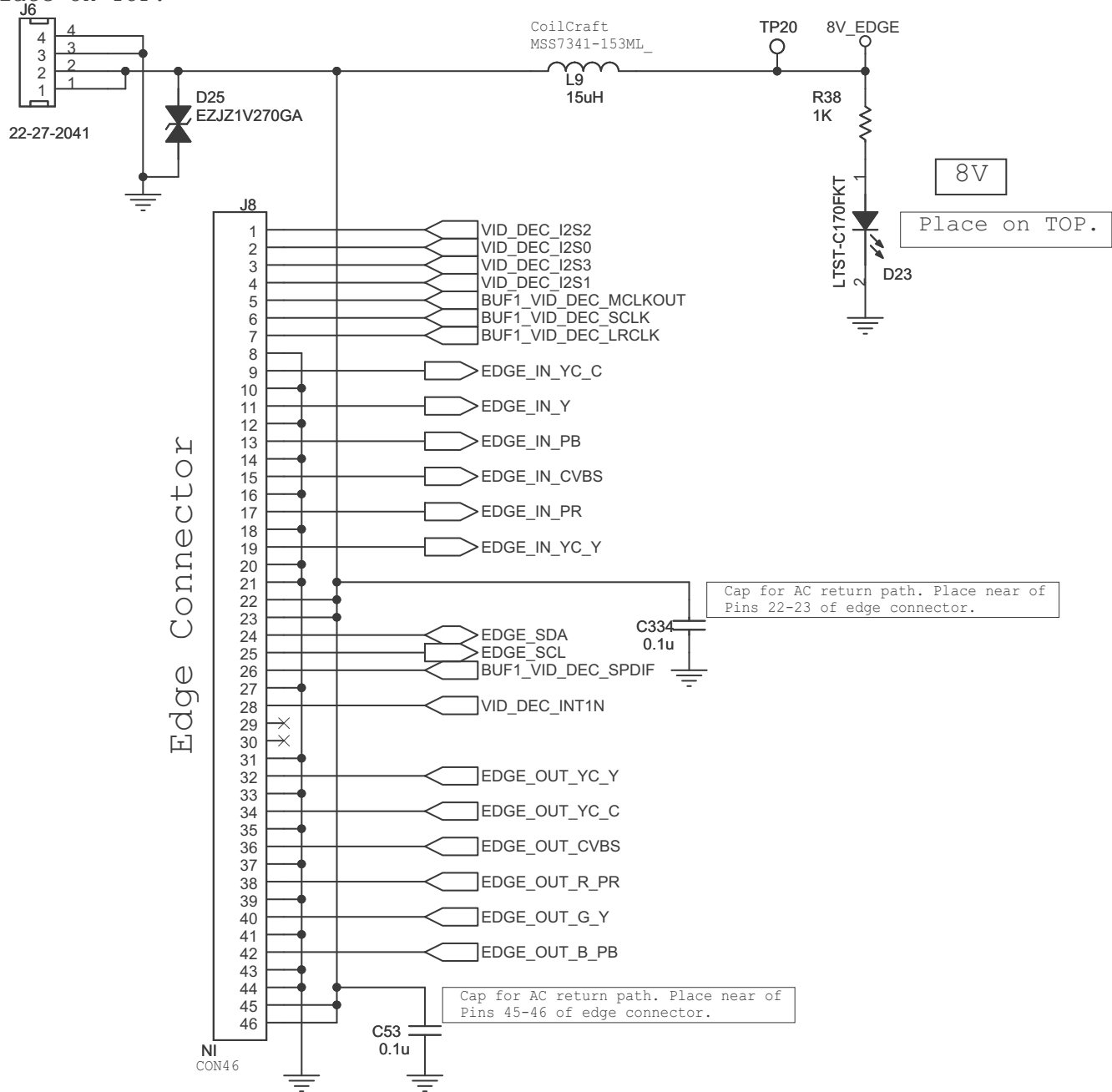
### Legend

Layout Design Notes

Silkscreen Label

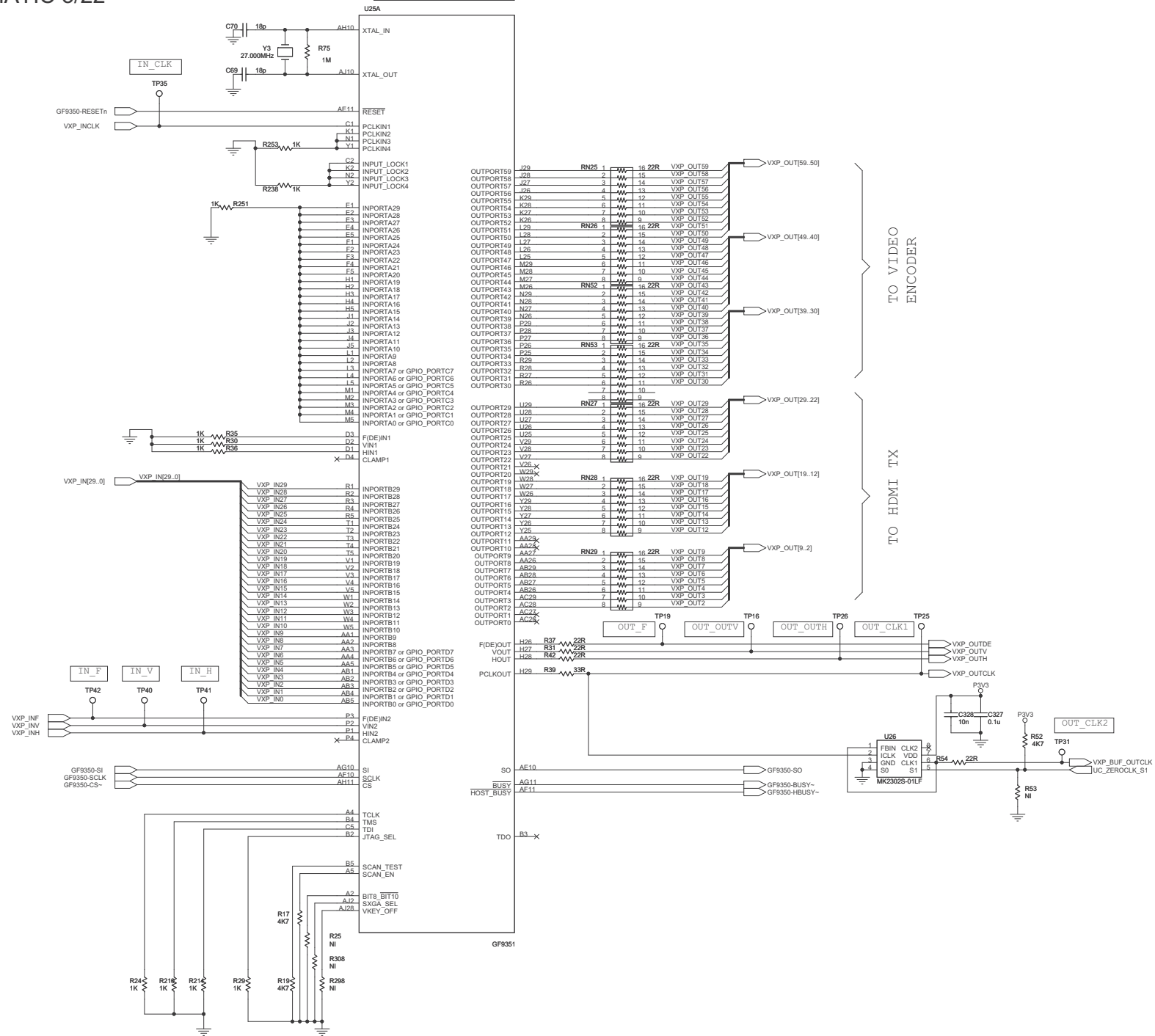
EDGE CONNECTOR

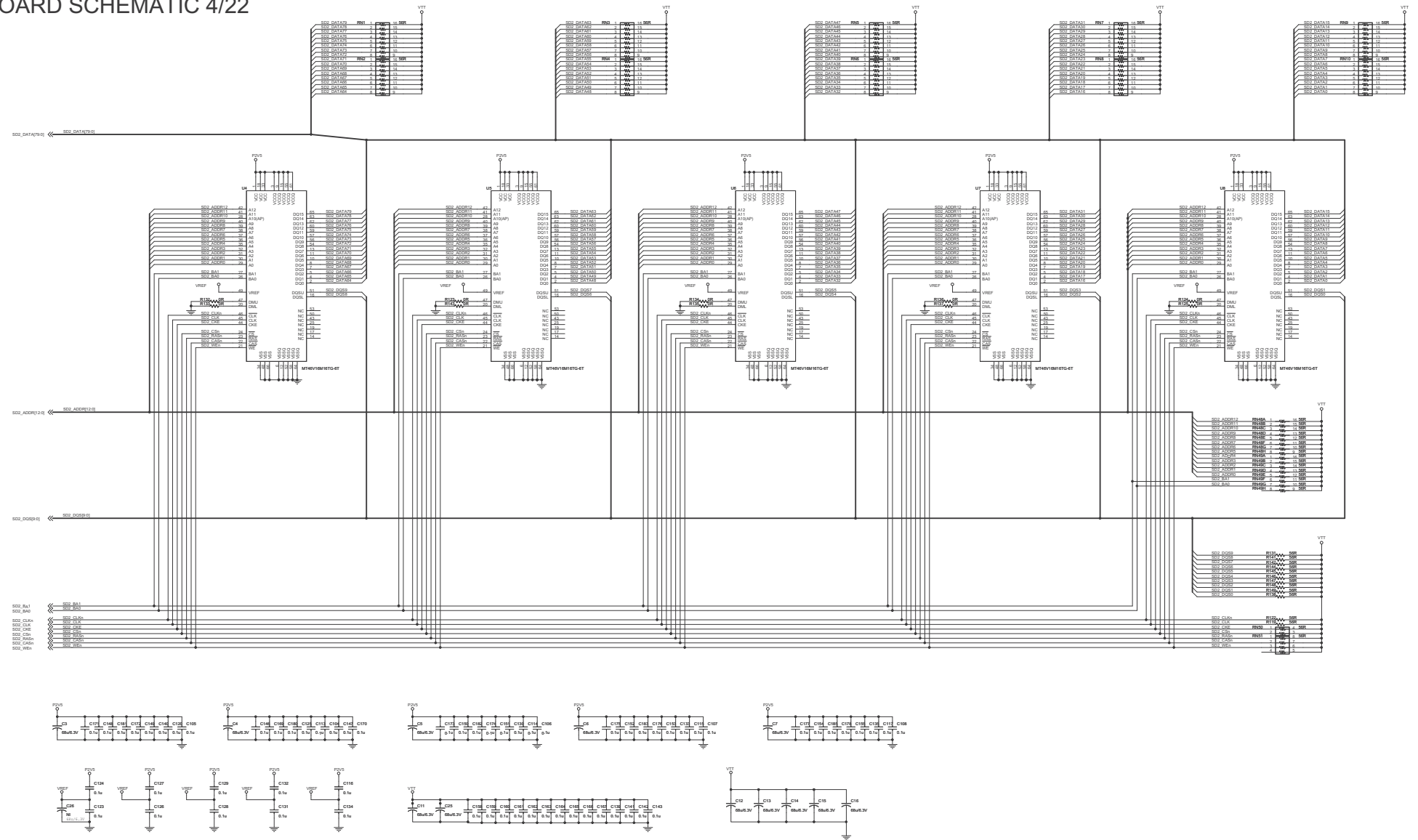
Place on TOP.



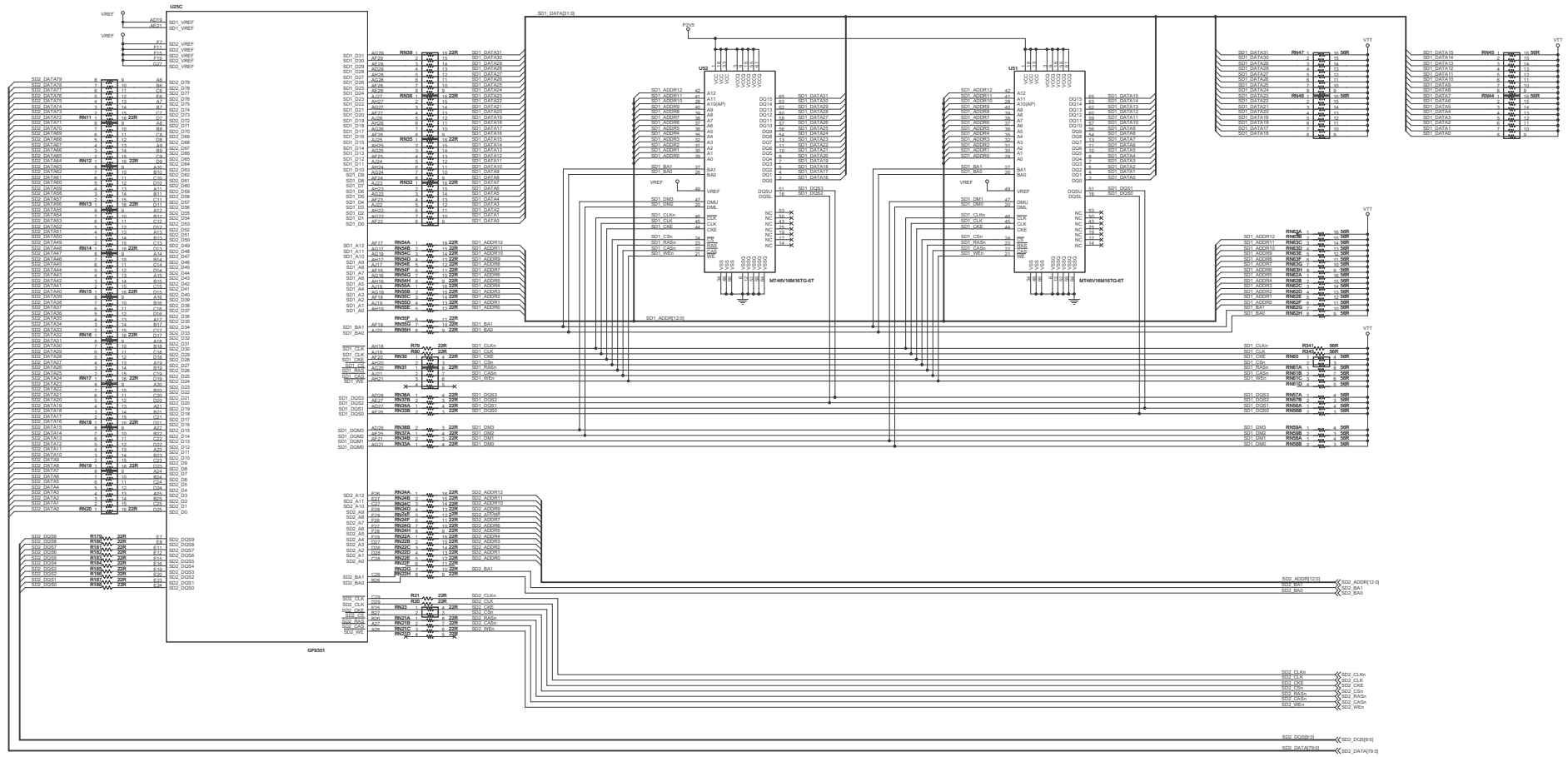


VXP VIDEO

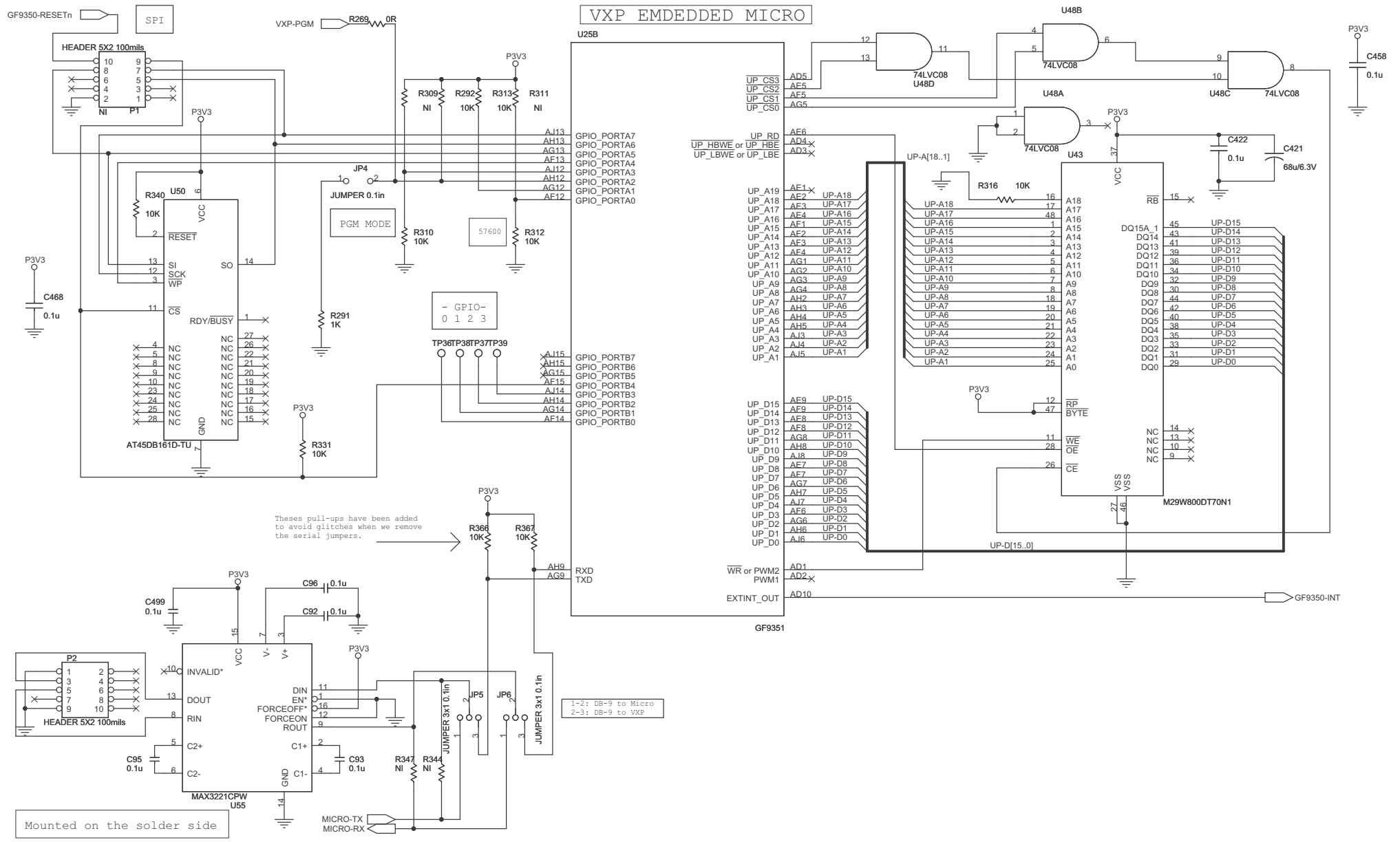




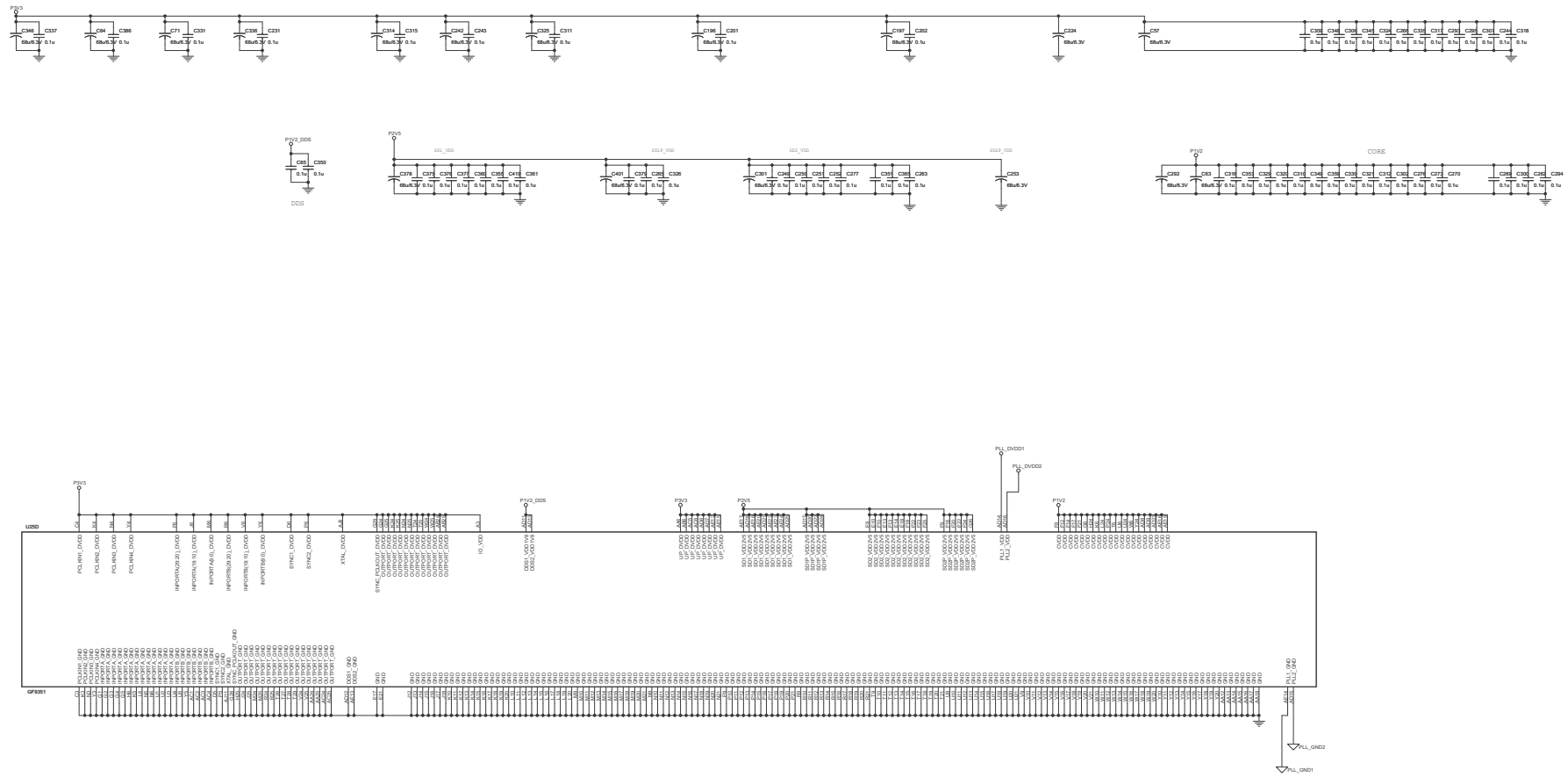
VXP SDRAM INTERFACE AND OSD

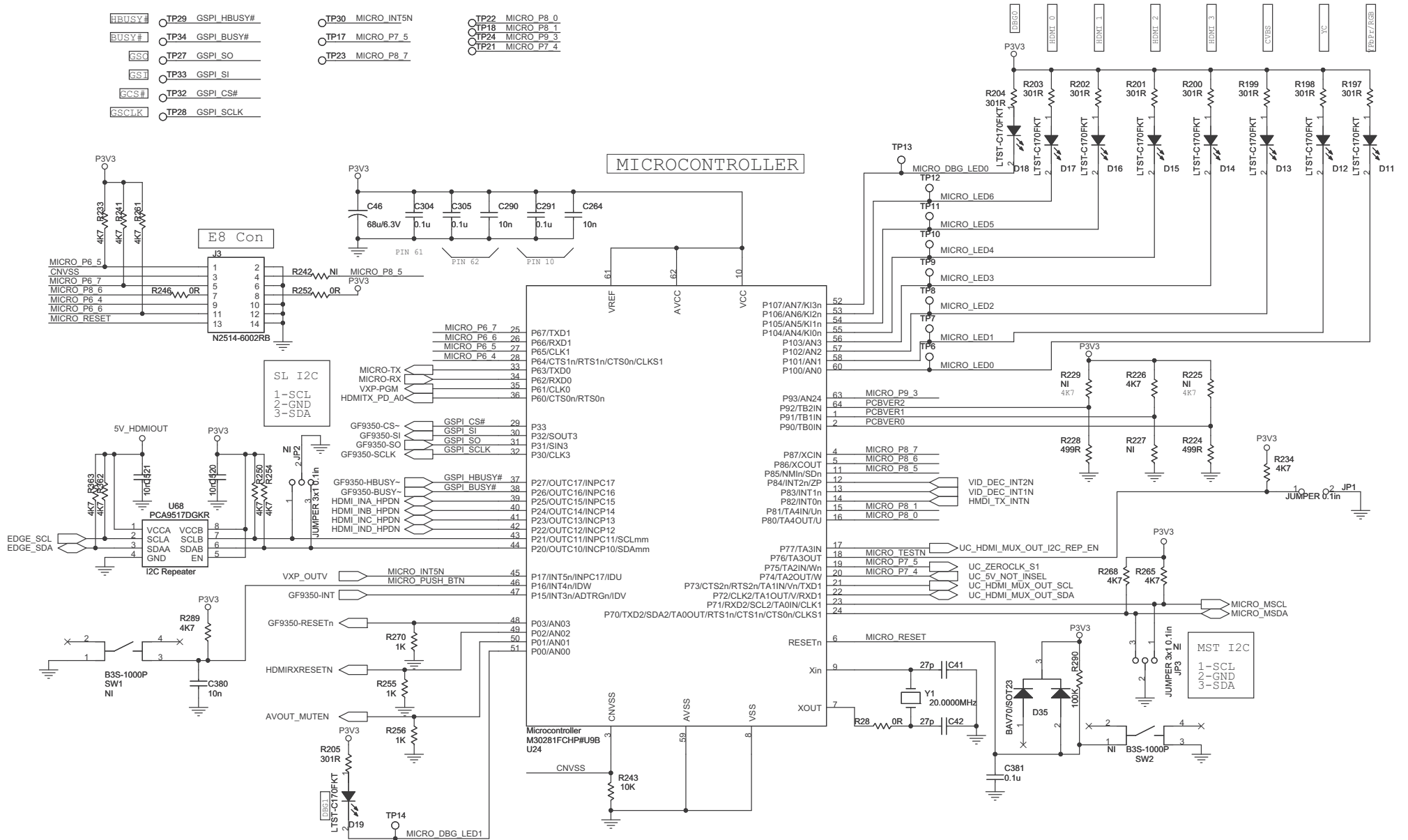


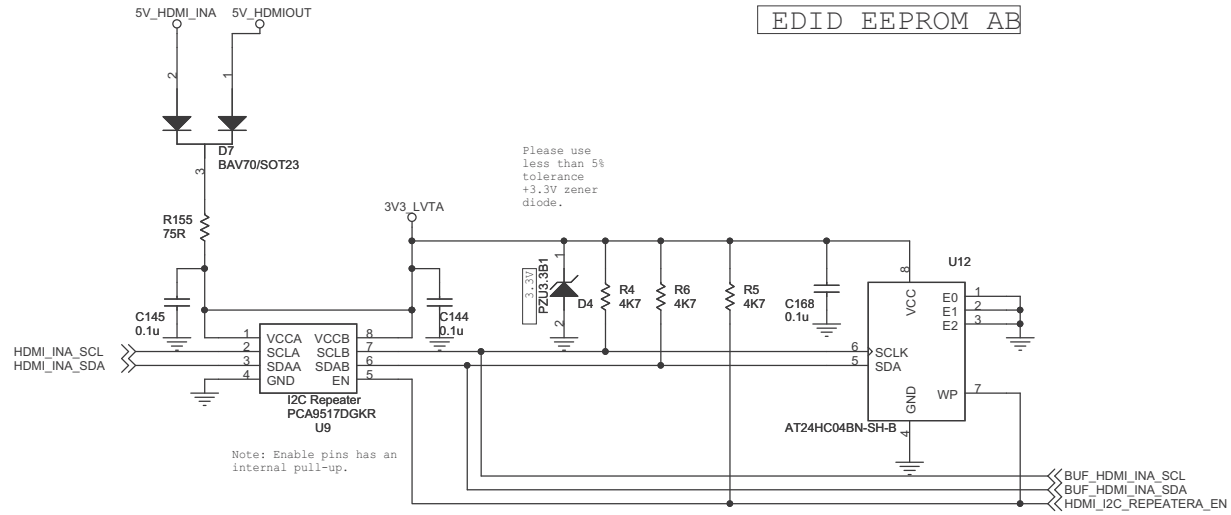
# VXP BOARD SCHEMATIC 6/22



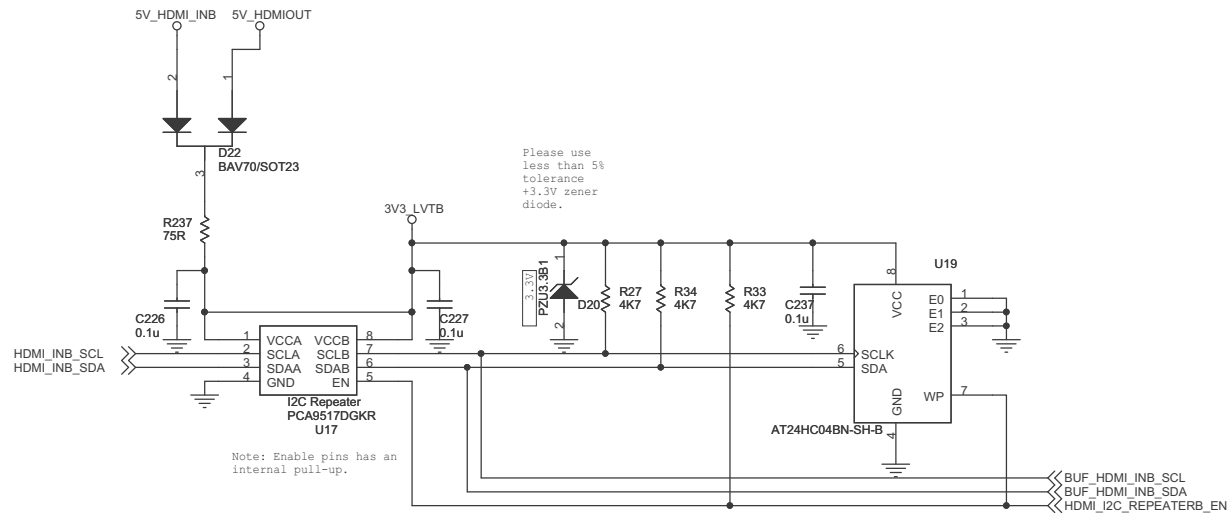
VXP POWER



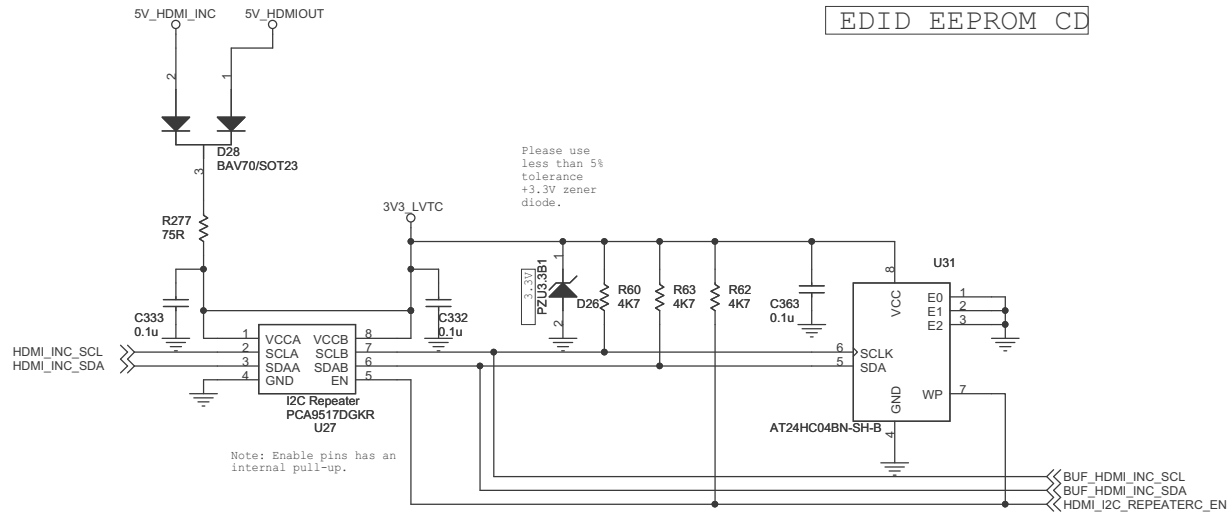




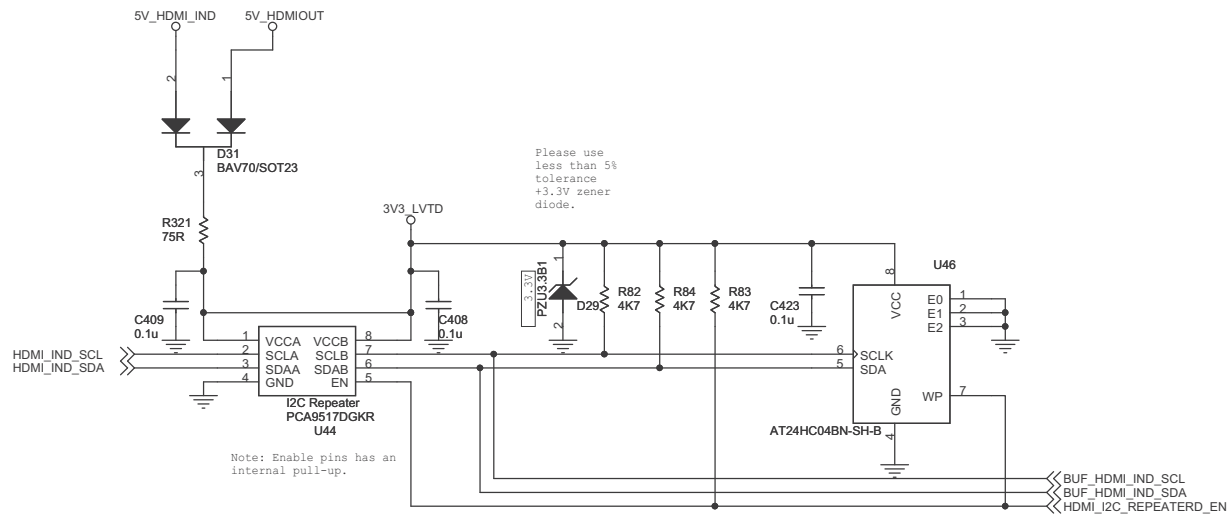
## INPUT EDID EEPROM A



## INPUT EDID EEPROM B



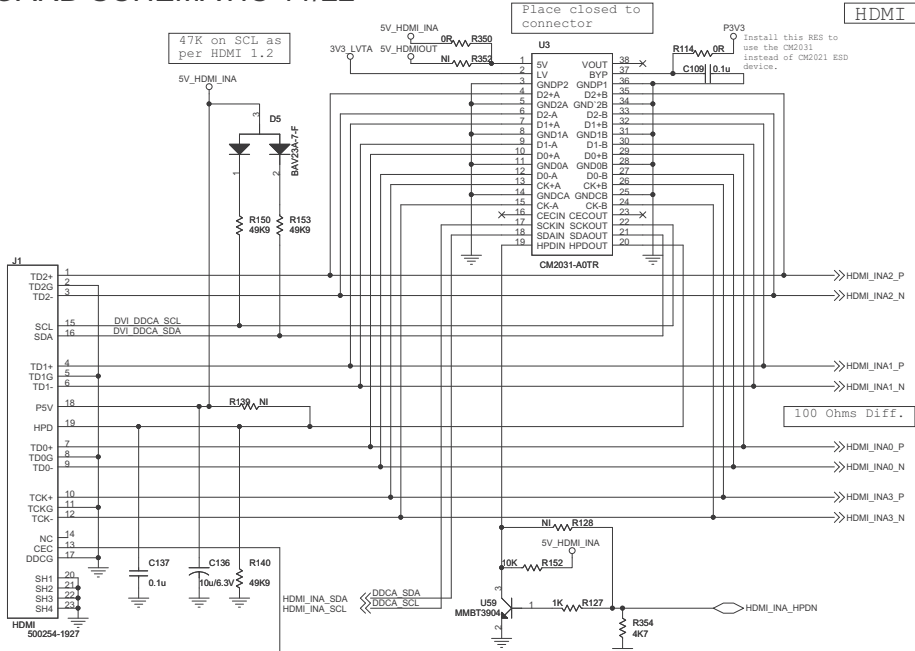
## INPUT EDID EEPROM C



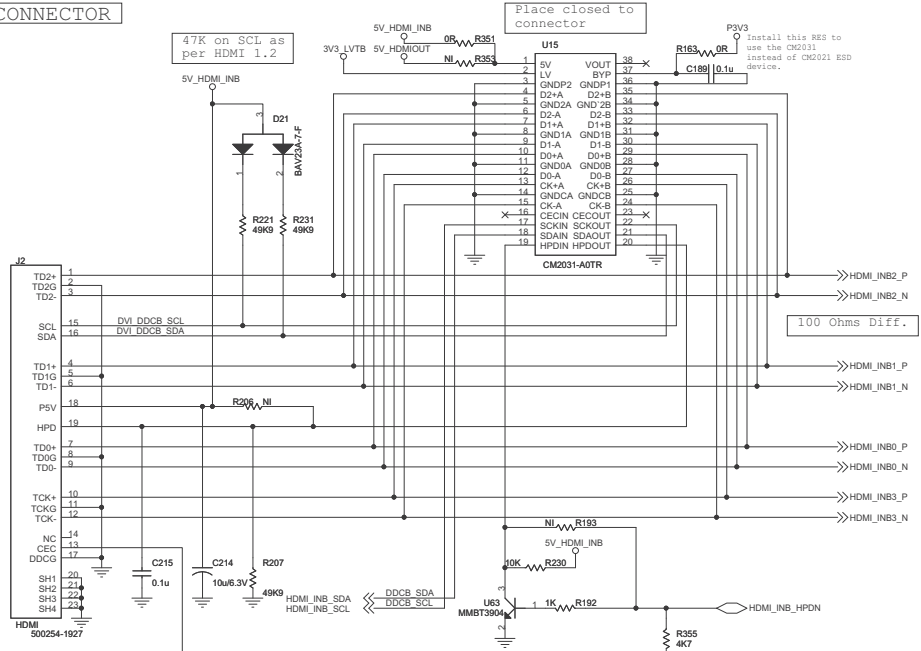
## INPUT EDID EEPROM D



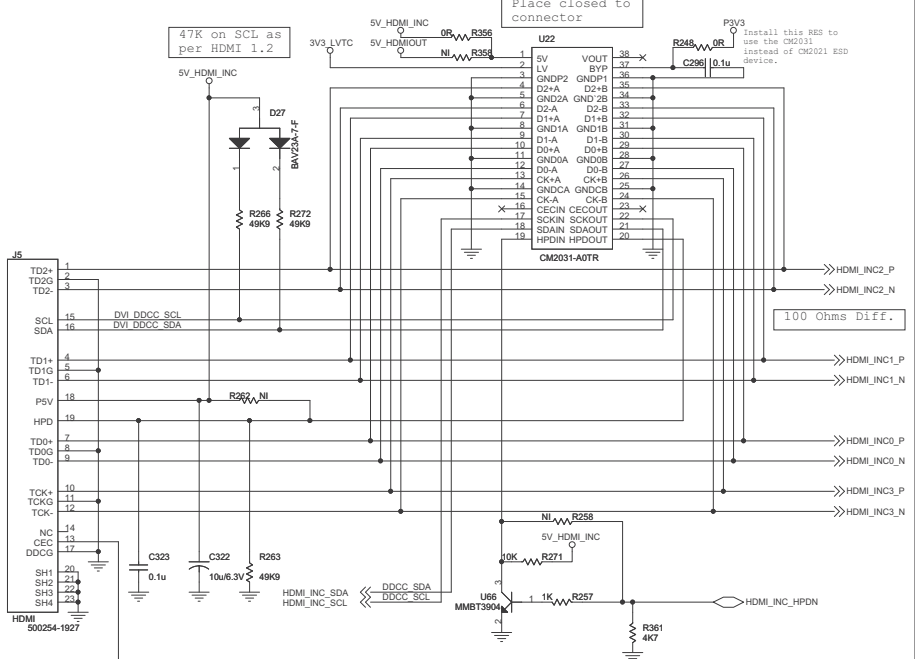
HDMI INPUT CONNECTOR



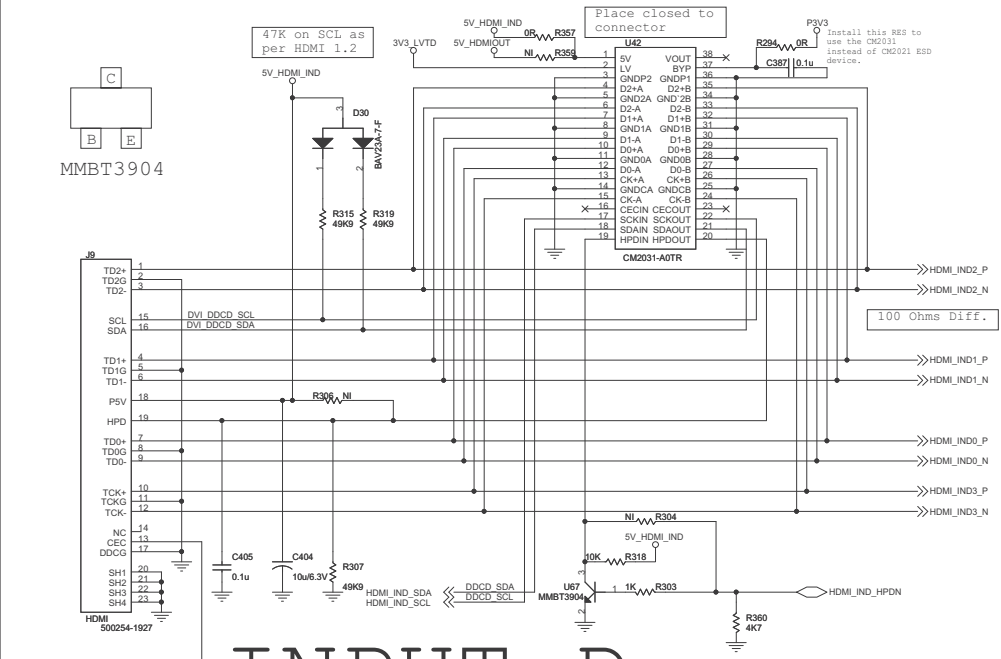
INPUT A



INPUT B



INPUT C

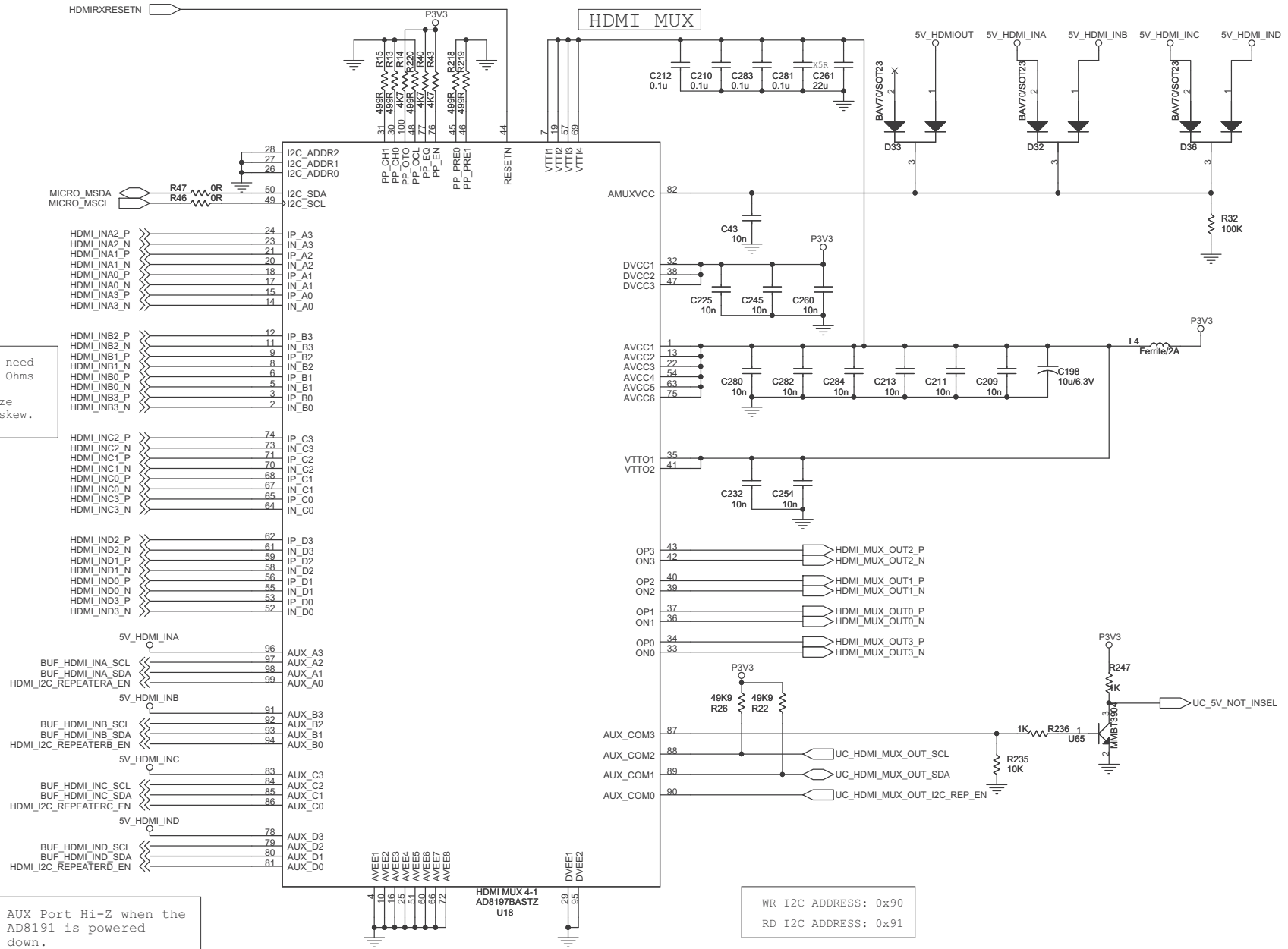


INPUT D

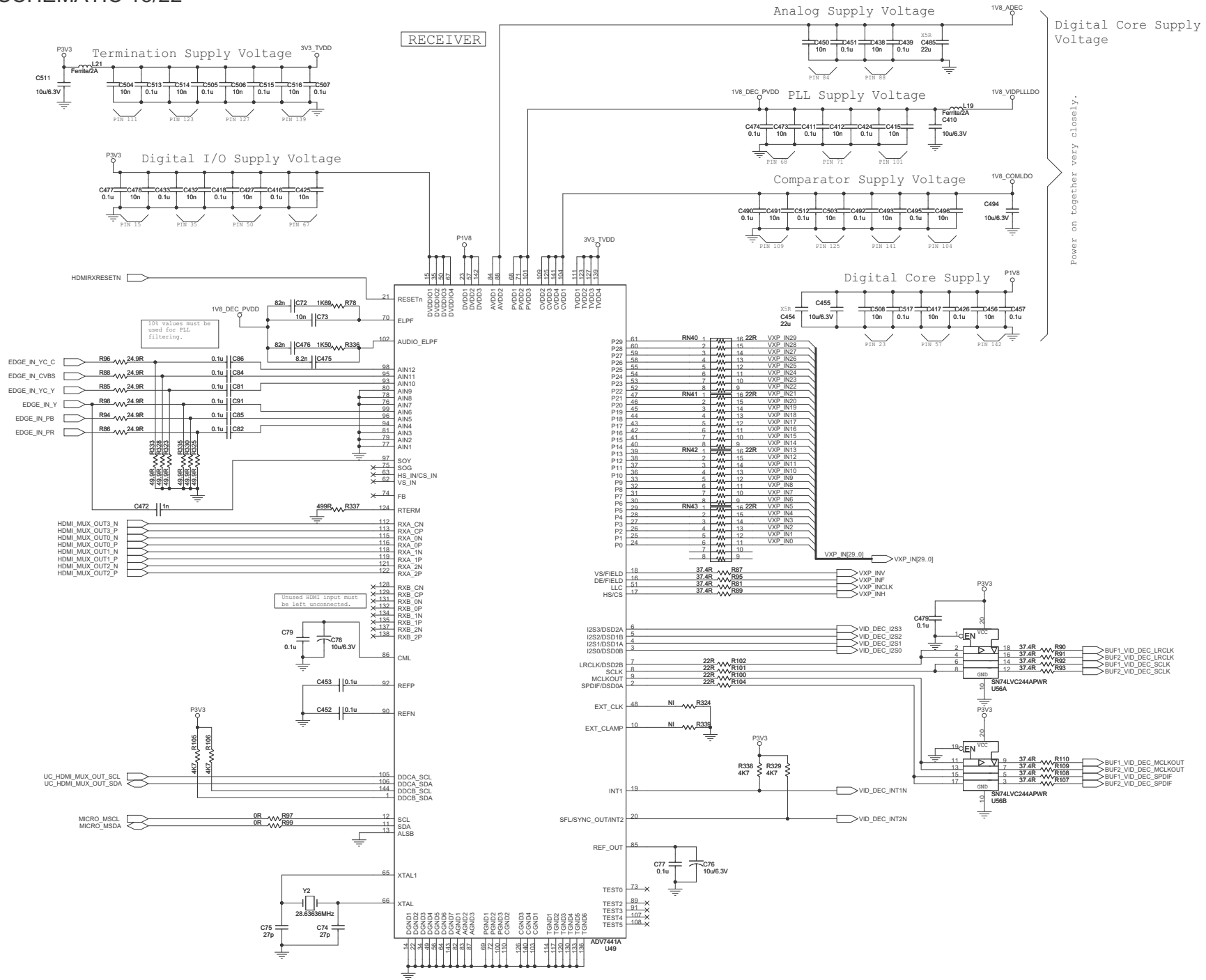
# VXP BOARD SCHEMATIC 12/22

Differential traces need to be routed at 100 Ohms Diff AND 50 Ohms referential. Minimize channel-to-channel skew.

AUX Port Hi-Z when the AD8191 is powered down.



# VXP BOARD SCHEMATIC 13/22

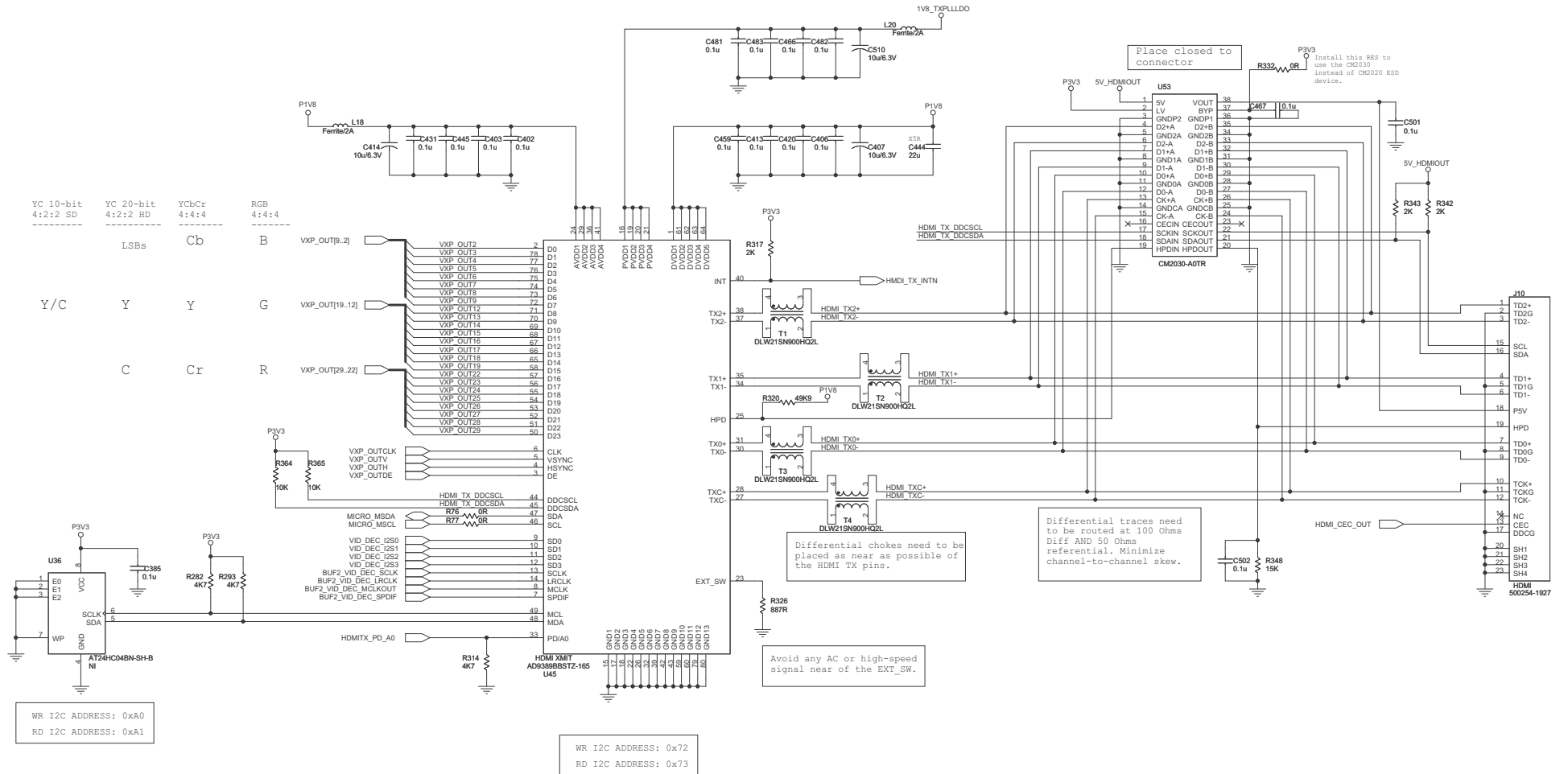


Digital Core Supply Voltage

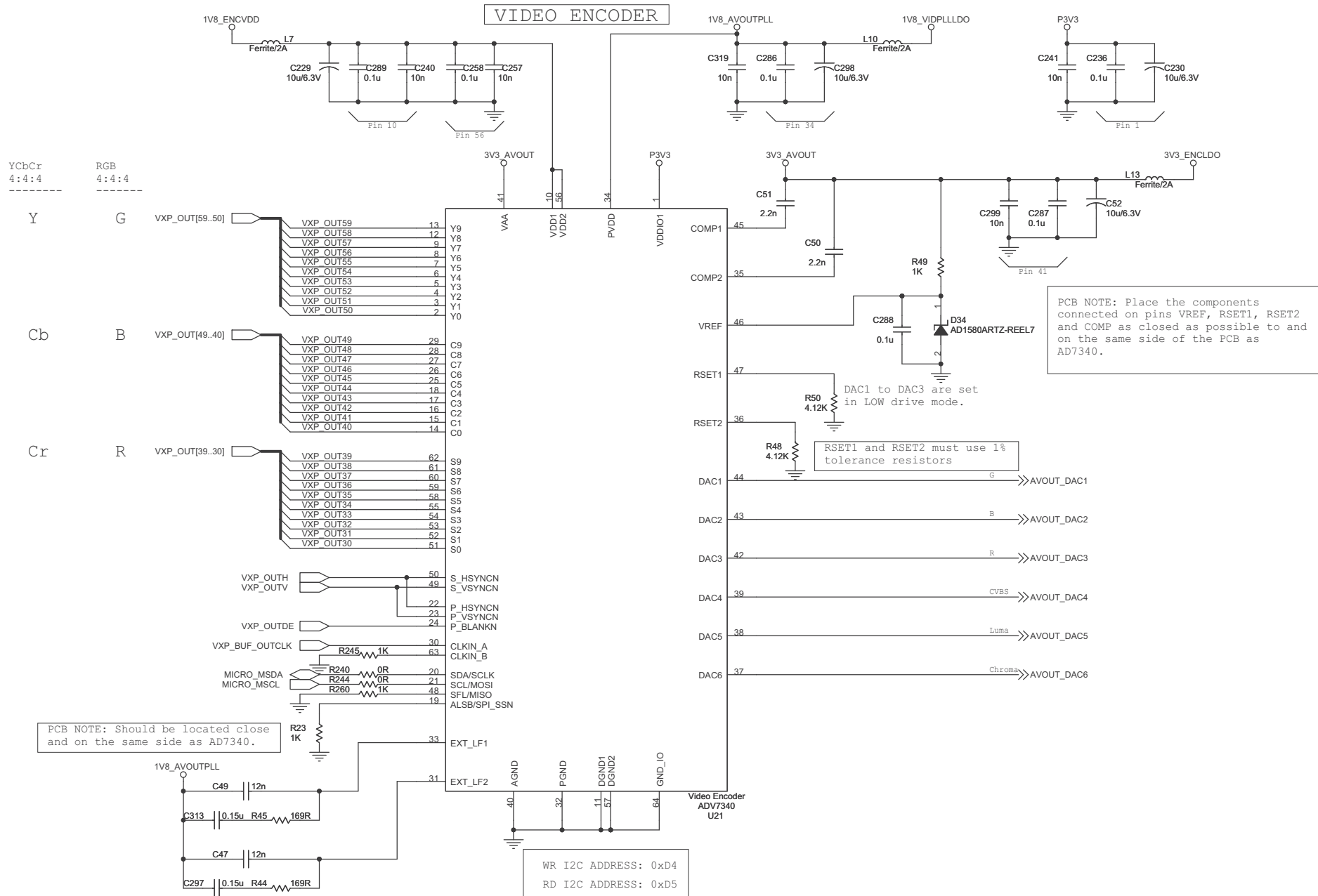
Power on together very closely.

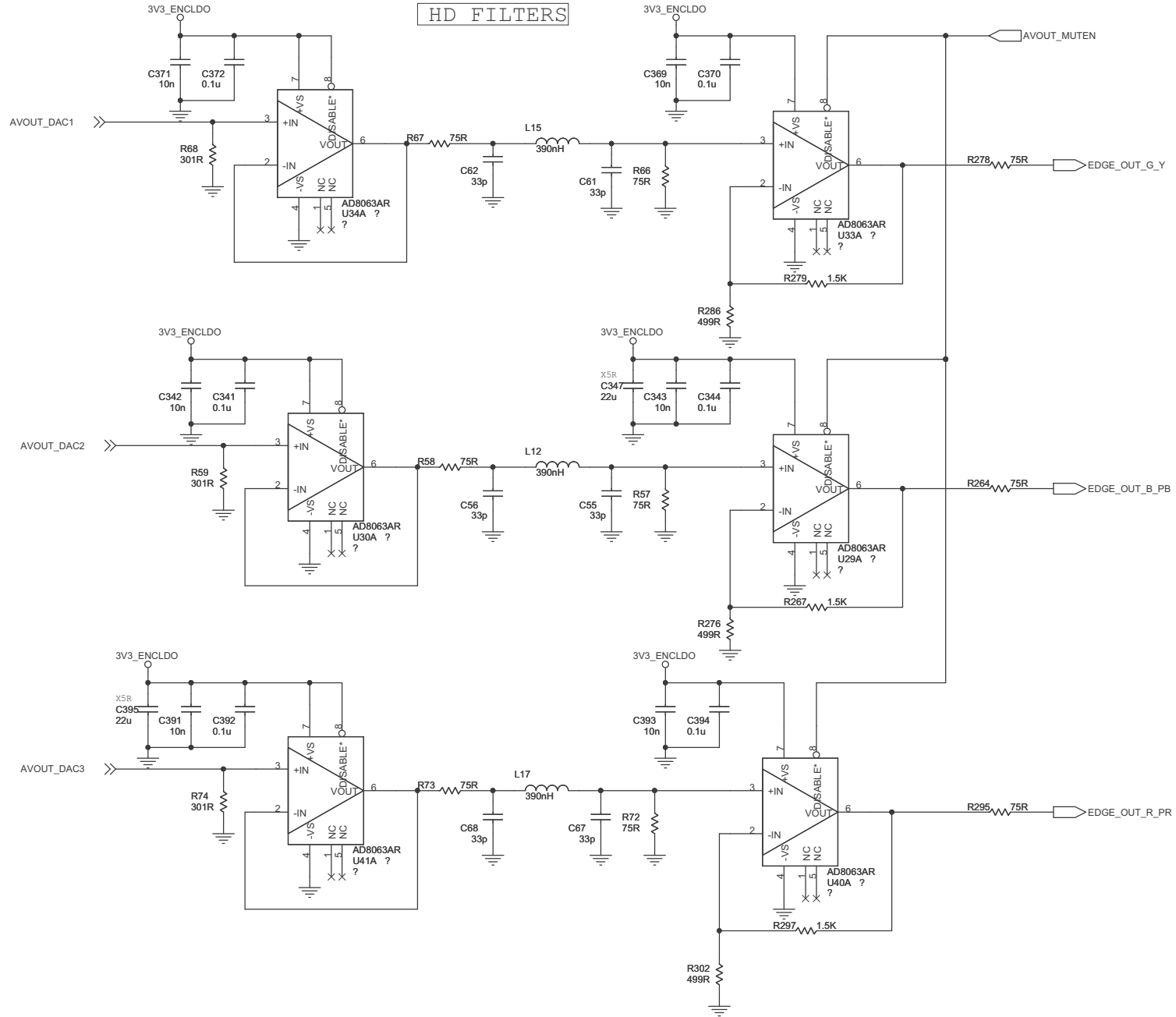
WR I2C ADDRESS: 0x40  
RD I2C ADDRESS: 0x42

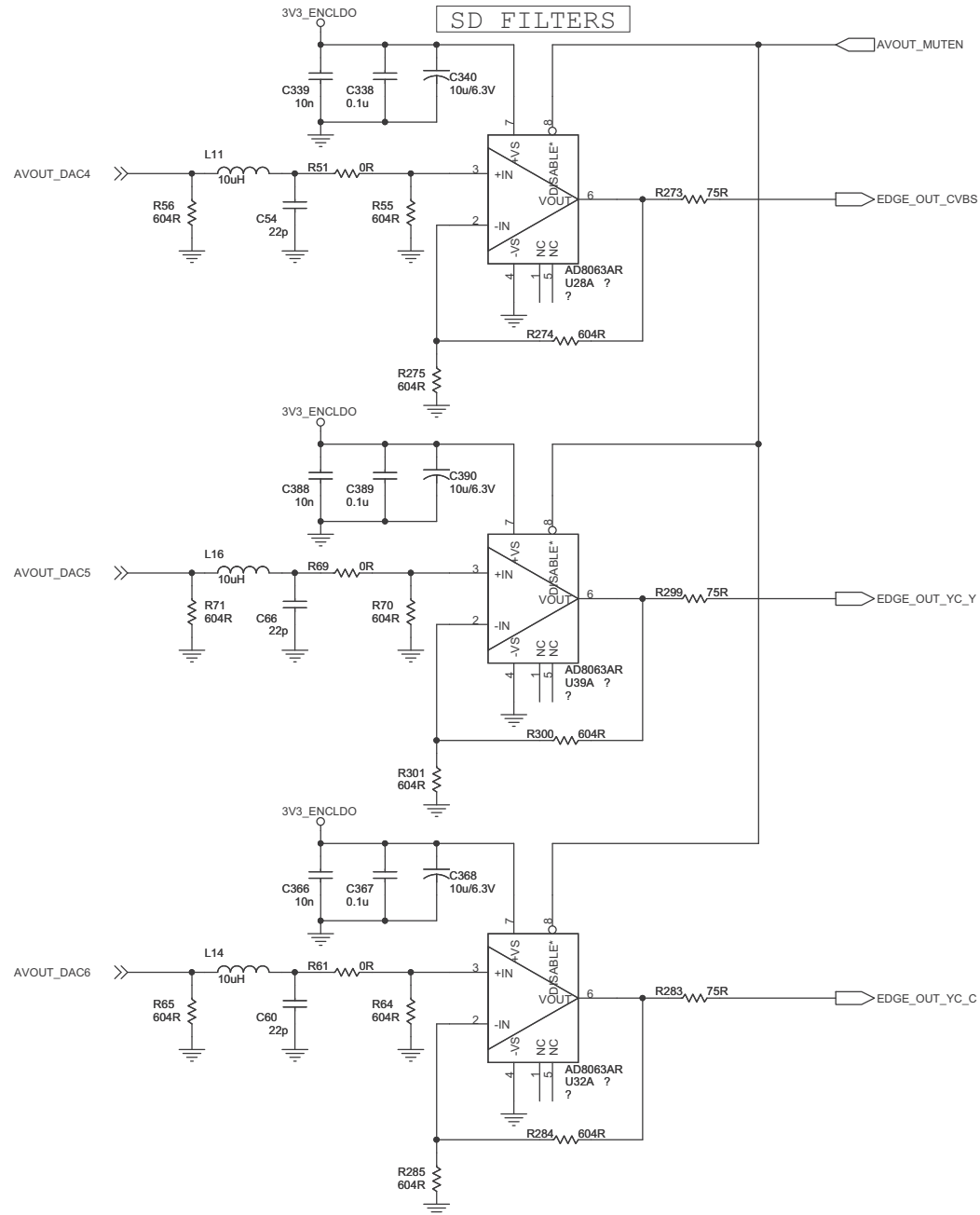
HDMI TX



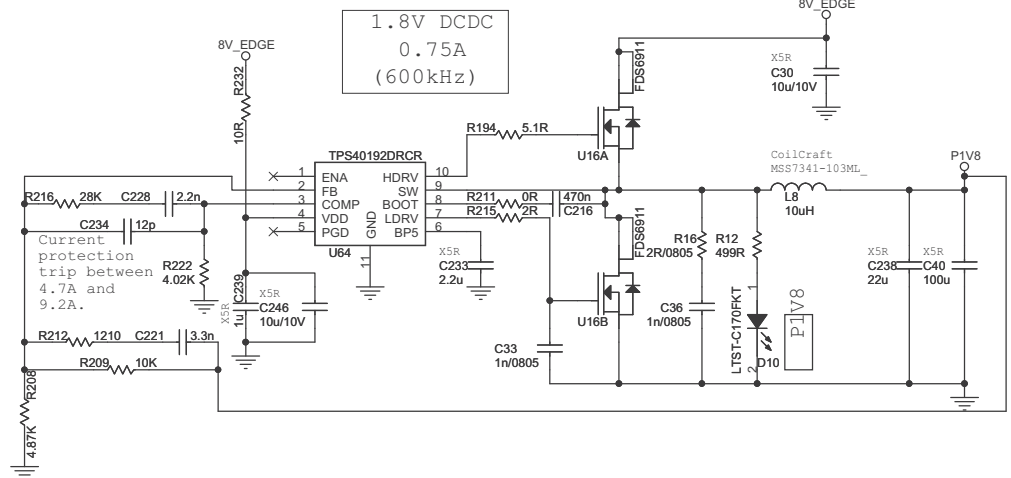
# VXP BOARD SCHEMATIC 15/22



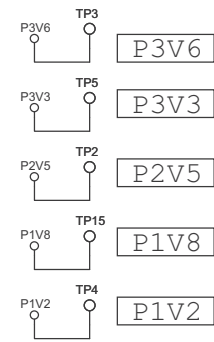




DC-DC PART 1

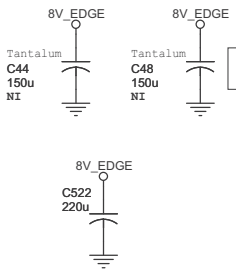


Place all TPs together.



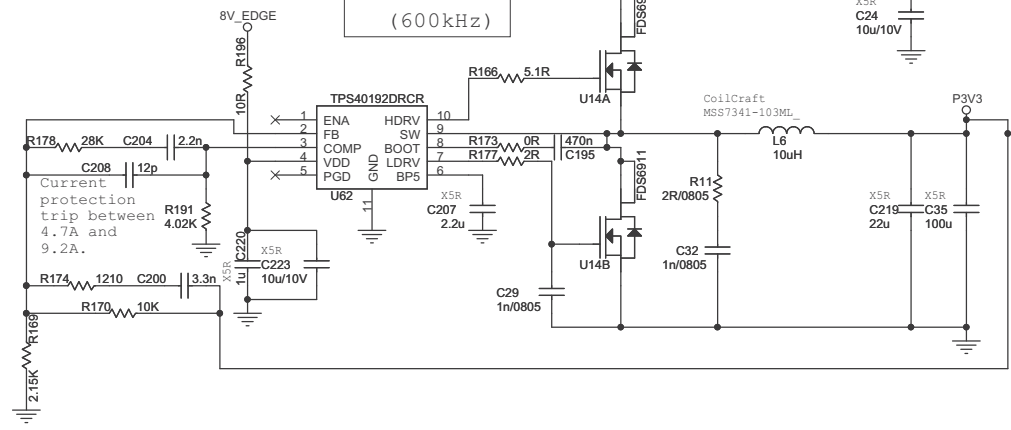
Place silkscreen on TOP.

Place near of DC-DCs inputs.

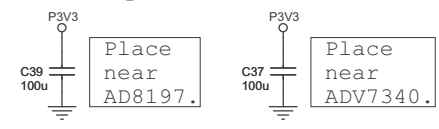


Place on bottom side (under C522)

3.3V DCDC 1.4A (600kHz)

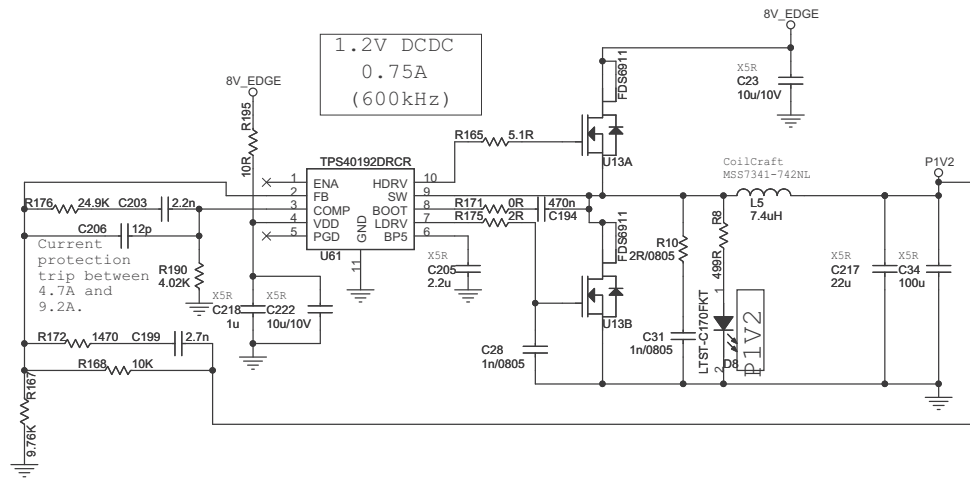


Bulk Capacitors



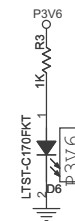
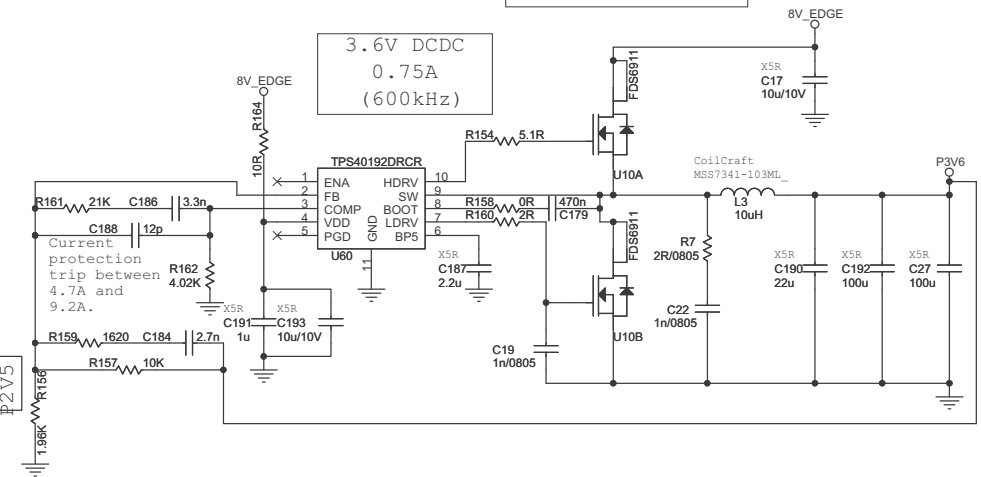
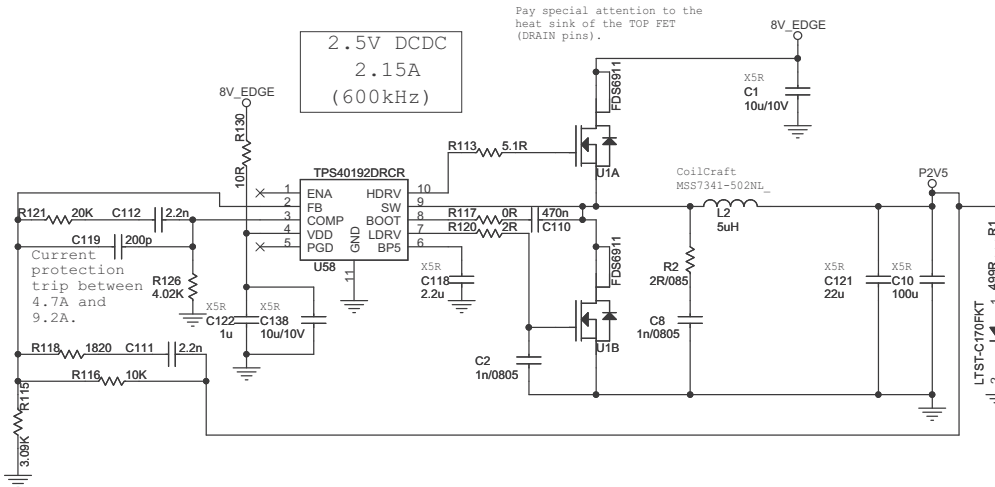
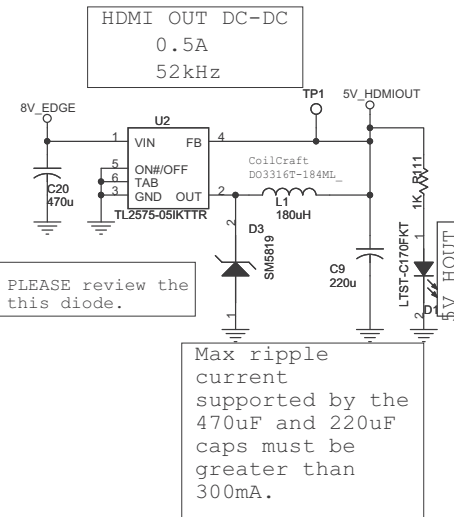
Used to discharge the +3.3V power plane.





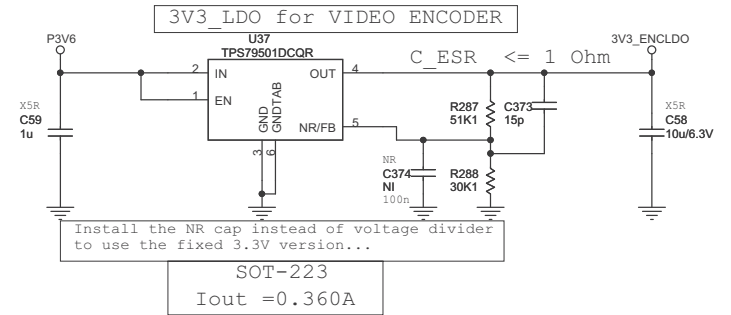
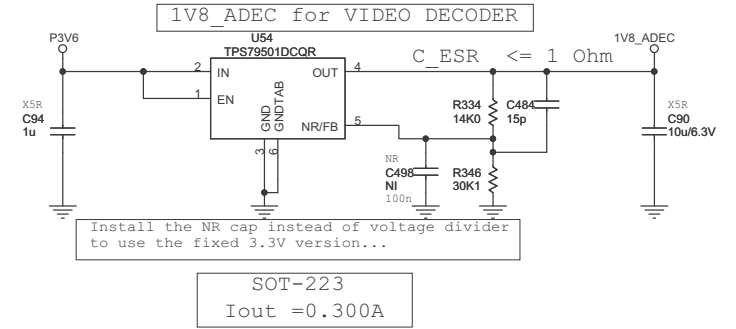
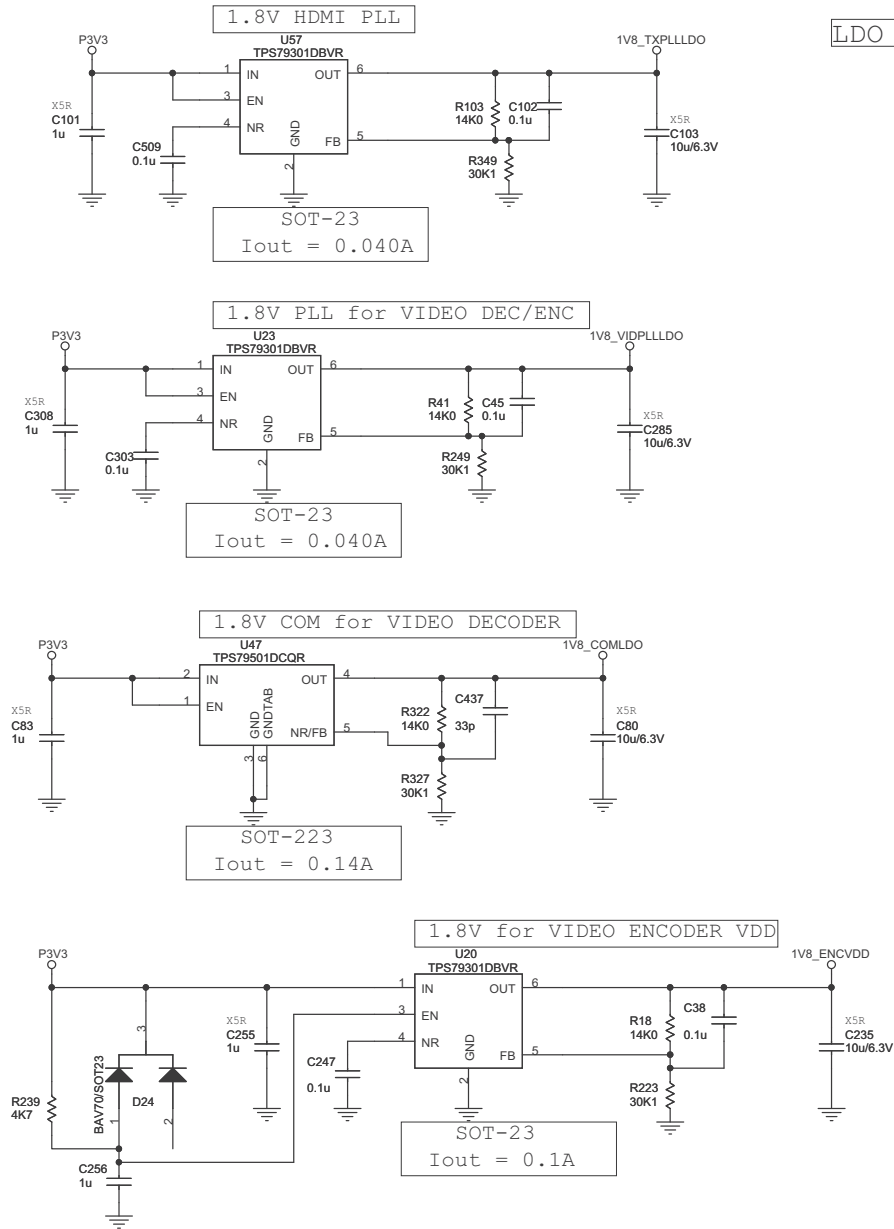
DC-DC PART 2

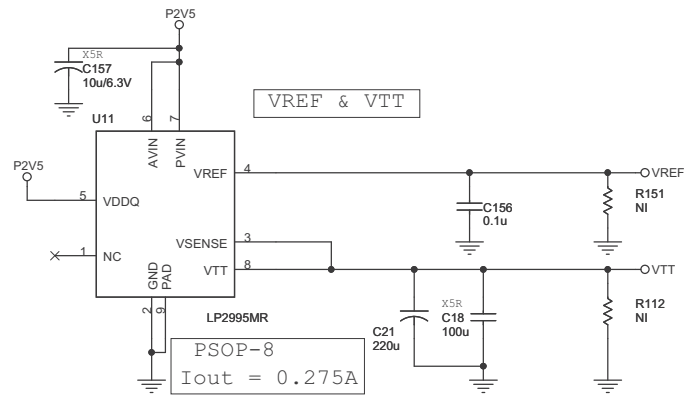
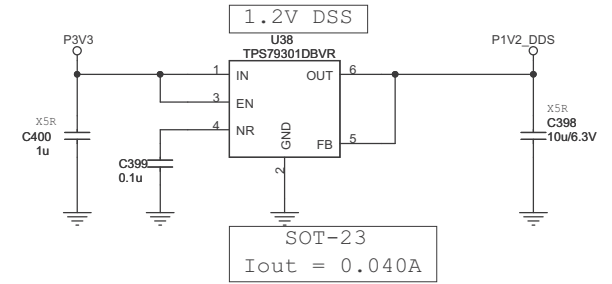
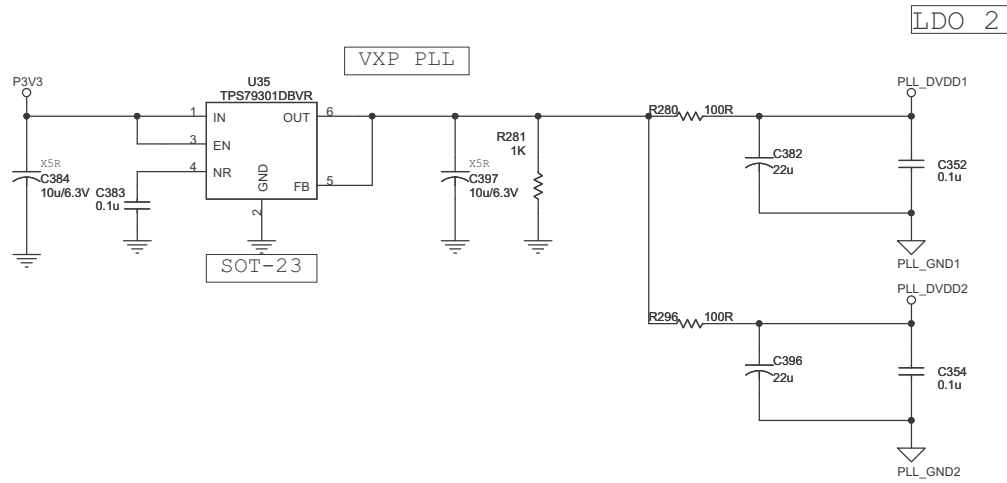
Do not use 1000uF capacitors for electrolytic caps.

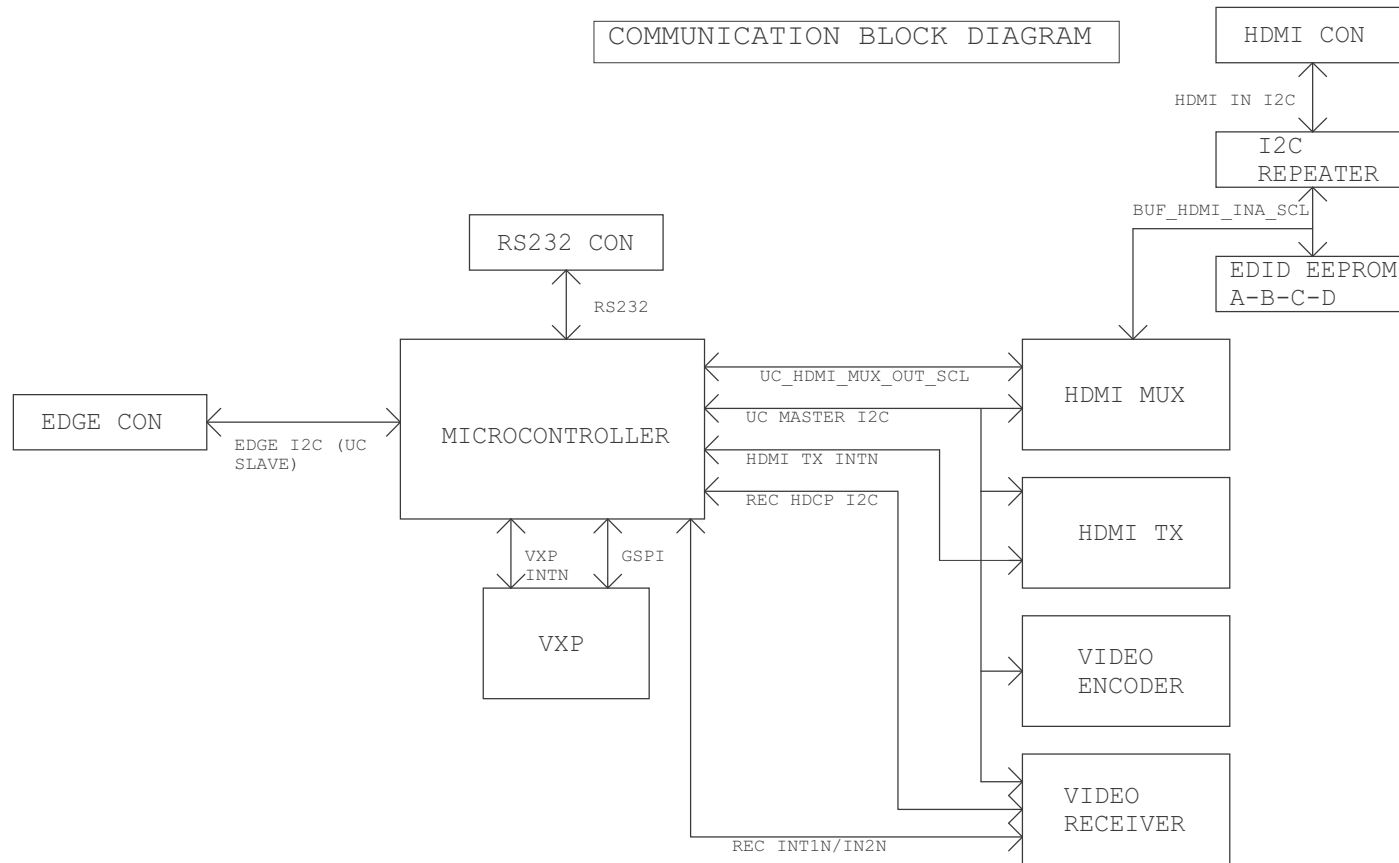


# VXP BOARD SCHEMATIC 20/22

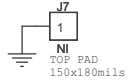
## LDO 1







Place TOP  
near AD8191  
(HDMI TX)



Geometry is a TOP  
pad 150mils X  
180mils.

# ELECTRICAL PARTS LIST

PART NO.	VALUE	DESIGNATOR
01-11502-00	AUDIO 7.1 BOARD main assembly	
<b>DIODES</b>		
33-44148-11	LL4148	D1500, D1501, D1502, D1503, D1504, D1505, D1506, D1507
33-40352-01	1SS352	D1508, D1509, D1510, D1511, D1512, D1513, D1514, D1515
NC	12V, LL34, Tape(NC)	D1517, D1518, D1519, D1520, D1521, D1522, D1523, D1524, D1525, D1526, D1527, D1528, D1529, D1530, D1531, D1532
31-01815-03	C1815	Q1500, Q1501, Q1502, Q1503, Q1504, Q1505, Q1506, Q1507
31-01015-03	A1015	Q1508, Q1509
<b>IC</b>		
03-00541-05	74AC541, SOIC0.3inch, Tube/Tape	U1528
03-00541-08	74HC541, SOIC0.3inch, Tube/Tape	U1529
or 03-00541-06	74HC541, SOIC0.3inch, Tube/Tape	U1529
03-00734-01	NC7NZ34K8X	U1537
03-00716-01	NC7WZ16P6X	U1536
J03-49725-01	LME49725MA	U1517, U1518, U1519, U1520
J03-02134-00	OPA2134UA	U1513, U1514, U1515, U1516
03-01117-33	ASM1117-3.3	U1534, U1542
03-00138-02	MM74HC138M	U1538, U1539, U1540
03-00595-01	SN74HC595D/74HC595D/MM74HC595M	U1541
J03-03318-00	CS3318-CQZ	U1535
<b>CAPACITOR</b>		
26-10451-00	0603, 100NF, 50V, Y5V	C1506, C1507, C1508, C1509, C1510, C1511, C1512, C1513, C1514, C1515, C1520, C1521, C1523, C1524, C1525, C1687, C1688, C1689, C1690, C1691, C1692, C1693, C1694, C1695, C1696, C1700, C1701, C1702, C1703, C1704, C1705, C1706, C1722, C1724, C1725, C1726, C1727, C1735, C1736, C1737, C1738, C1764, C1765, C1766, C1767, C1768, C1802, C1613, C1614, C1616, C1617, C1618
26-10351-00	10nK,50V,0603,X7R	C1667, C1668, C1669, C1670, C1671, C1672, C1673, C1674
26-10151-00	100pJ,50V ,0603,NPO	C1675, C1676, C1677, C1678, C1679, C1680, C1681, C1682, C1774, C1775, C1776, C1777, C1778, C1779, C1780, C1781
26-22151-00	220pJ,50V ,0603,NPO	R1607
26-22151-01	0805, 220PF, 50V, NPO	C1659, C1660, C1661, C1662, C1663, C1664, C1665, C1739, C1740, C1741, C1742, C1743, C1744, C1745, C1746, C1747, C1748, C1749, C1750, C1751, C1752, C1753, C1754
26-10251-11	0805, 1nF, 50V, NPO	C1545, C1785, C1786, C1787, C1788, C1789, C1790, C1791, C1792, L1500
26-22351-01	0805, 22NF, 50V, X7R	C1683, C1684, C1685, C1686
06-10011-11	10UF 10V 20%	C1784, C1801

PART NO.	VALUE	DESIGNATOR
26-10621-12	10uF,25V,±10%,1206,X5R	C1761
<b>RESISTOR</b>		
07-90121-00	0603, 120R, 5%	R1645, R1649, R1650
07-90471-00	0603, 470R, 5%	R1696, R1697
07-90102-00	0603, 1K, 5%	R1655, R1656, R1657, R1658, R1659, R1660, R1661, R1662, R1716, R1717, R1718, R1719, R1720, R1721, R1722, R1723
07-90222-00	0603, 2K2, 5%	R1688, R1689, R1690, R1691
07-90472-00	0603, 4K7, 5%	R1608, R1609, R1610, R1611, R1612, R1613, R1614, R1615, R1616, R1617, R1618, R1619, R1620, R1621, R1622, R1623
07-90103-00	0603, 10k, 5%	R1502, R1503, R1510, R1679, R1680, R1681, R1682, R1683, R1684, R1685, R1686, R1687
07-90100-01	0805, 10R, 5%	R1724
07-90470-01	0805, 47R, 5%	R1700, R1701, R1702, R1703, R1704, R1705, R1706, R1707, R1708, R1709, R1710, R1711, R1712, R1713, R1714, R1715
07-90101-01	0805, 100R, 5%	R1624, R1625, R1626, R1627, R1628, R1629, R1630, R1631, R1632, R1633, R1634, R1635
07-91600-01	0805, 160R, 1%	R1677
07-92200-01	0805, 220R, 1%	R1592, R1593, R1594, R1595, R1596, R1597, R1598
07-91651-01	0805, 1.65K, 1%	R1663, R1664, R1665, R1666, R1667, R1668, R1669, R1670, R1671, R1672, R1673, R1674, R1675, R1676, R1678
07-95231-01	0805, 5.23K, 1%	C1666
07-90223-01	0805, 22K, 5%	R1576, R1577, R1578, R1579, R1580, R1581, R1582, R1583
07-92202-01	0805, 22K, 1%	R1599
07-90563-01	0805, 56K, 5%	R1600, R1601, R1602, R1603, R1604, R1605, R1606, R1636, R1637, R1638, R1639, R1640, R1641, R1642, R1643
07-90000-02	1206, 0R, 5%	R1654
07-90330-10	33R, 5%, R0603X4	R1651
07-90820-10	82Ω,0603X4,±5%,YC164-JR-0782RL	R1652
07-90101-10	100R, 5%, R0603X4	R1647, R1653
07-90121-10	120R, 5%, R0603X4	R1646, R1692, R1693, R1694, R1695
<b>IC</b>		
03-07805-12	MC7805CT	U1532
03-07809-03	LM7809	U1530
03-07909-00	LM7909	U1531
A03-00817-00	PC817X2J000F DIP4	IC1500, IC1501
<b>RESISTOR</b>		
07-30100-07	10R, 2W, 5%,	
<b>CAPACITOR</b>		
25-22312-09	CBB11,22nF, 100V, ±5%	C1605, C1606, C1607, C1608, C1609, C1610, C1611, C1612, C1619, C1620, C1621, C1622, C1623, C1624, C1625, C1626
06-22021-05	CD284, 22UF, 25V, 20%,	C1516, C1757, C1758, C1759, C1760, C1769, C1770, C1815, C1816, C1818
06-33021-02	SSG,33uF,25V,±20%,F2.5	C1755, C1756, C1762, C1763

PART NO.	VALUE	DESIGNATOR
06-33121-00	CD263, 330uF, 25V 20%	C1771, C1772, C1794, C1795, C1796, C1797, C1798, C1799, C1800
06-22011-04	CD71, 22uF, 16V, ±20%	C1634, C1635, C1636, C1637, C1638, C1639, C1640, C1641, C1643, C1644, C1645, C1646, C1647, C1648, C1649, C1650
12-02202-10	HFD3 5V	K1500, K1501, K1502, K1503, K1504, K1505, K1506, K1507
<b>CONNECTOR</b>		
13-22516-06	CNT-F254-2*8-GS-850-N, 2.54 2X8Pin	U1504, U1505, U1506, U1507(上)
13-22510-09	CNT-F254-2*5-GS-850-N, 2.54 2X5Pin	U1504, U1505, U1506, U1507(下)
13-12504-12	CNT-M254-2*2-GS-6/3-N, 2.54 2X2Pin	J5005
17-01001-07	RCA1-BK 1 heads,Black,AV-8.4-14PB1,	J1504
17-01004-17	AV4-8.4-13,	J1500, J1502
17-01004-18	AV4-8.4-13,	J1501, J1503
13-10001-00	tpg1	
<b>01-11501-00 AUDIO ANALOG BOARD assembly</b>		
<b>DIODES</b>		
33-40352-01	1SS352(TPH3,F)	D1000, D1011, D1012, D1013, D1014, D1015, D1016, D1017, D1018, D1023, D1024, D1025, D1026, D1027, D1028, D1029, D1030, D1031, D1032, D1033,D1058,D1059
33-40054-00	BAT54S, SOT23	D1001, D1002,D1060,D1061,D1062,D1063
33-20004-02	M4A,SMA,Tape	D1034, D1035, D1036
33-11200-11	12V,1/2W, LL34	D1037, D1038, D1045, D1049, D1050, D1051, D1052, D1053, D1054, D1055, , D1056, D1057
<b>Transistors</b>		
J31-03326-01	2SC3326A	Q1000, Q1010, Q1011, Q1017, Q1028, Q1029, Q1030, Q1031, Q1032, Q1033,Q1034,Q1039
31-00114-01	DTA114, SOT23, Tape	Q1018, Q1019, Q1020, Q1021, Q1022, Q1035
31-00114-05	DTC114, SOT23, Tape	Q1023, Q1024, Q1025, Q1026, Q1027,Q1036
<b>IC</b>		
03-00595-01	74HC595, SOIC0.15inch, Tube/Tape	U1000
J03-01780-01	PCM1780	U1013
03-00734-01	NC7NZ34K8X	U1015, U1045
03-00716-01	NC7WZ16P6X	U1052, U1053, U1054, U1055, U1056
03-07125-01	NC7SZ125P5X	U1057, U1058
03-00138-02	74HC138, SOIC0.15inch, Tube/Tape	U1020, U1021, U1022
03-01117-01	LM1117MPX-5.0/AMS1117-5.0	U1024
03-01117-33	LM1117MPX-3.3/AMS1117-3.3	U1001, U1023
J03-02114-01	NJM2114M-TE2,DMP8	U1026, U1032, U1033, U1034, U1035, U1036, U1037, U1038, U1046
J03-02134-00	OPA2134UA, SOIC0.15inch, Tube/Tape	U1027
03-05532-03	NE5532DR SOIC8	U1028,U1031
J03-02082-01	NJM2082MD-TE2	U1029, U1030, U1039
J03-09273-01	TC9273F-004	U1040 U1041 U1042 U1043
03-00082-02	TL082CD	U1044
J03-04202-01	PCM4202	U1048
J03-61545-01	M61545AFP	U1051

PART NO.	VALUE	DESIGNATOR
J03-00317-03	LM317EMP,SOT-223	U1005
<b>CAPACITOR</b>		
26-10451-10	100nK,50V,0603,X7R	C1001, C1010, C1011, C1012, C1013, C1014, C1015, C1017, C1024, C1025, C1027, C1031, C1037, C1052, C1065, C1105, C1106, C1107, C1108, C1109, C1110, C1111, C1112, C1113, C1116, C1117, C1118, C1119, C1124, C1125, C1126, C1127, C1128, C1129, C1131, C1132, C1133, C1134, C1135, C1136, C1137, C1138, C1139, C1140, C1141, C1150, C1151, C1152, C1153, C1154, C1155, C1156, C1157, C1159, C1160, C1170, C1312, C1313, C1314, C1329, C1352, C1353, C1356, C1357, C1363, C1364, C1365, C1114, C1115, C1122, C1123, C1412, C1413, C1414, C1415
26-10251-10	1nJ,50V,0603,NPO	C1002, C1003, C1004, C1022, C1023, C1029, C1158, C1171, C1403
26-56151-00	560pJ,50V,0603,NPO	C1293, C1294, C1295, C1296
26-10051-00	10PJ,50V,0603,NPO	C1358, C1359, C1360, C1361
26-22051-00	22P,0603,50V,NPO	C1416, C1417
26-22151-00	220pJ,50V,0603,NPO	C1418, C1419
26-22351-01	22N,50V,0805,X7R	C1005, C1006, C1007, C1008, C1009
26-10451-11	100NK,50V,0805,X7R	C1021, C1026, C1028, C1043, C1050, C1053, C1057, C1058, C1059, C1060, C1062, C1063, C1066, C1069, C1070, C1071, C1072, C1073, C1074, C1076, C1077, C1078, C1079, C1080, C1348, C1349, C1400
26-27251-01	2n7K,50V,0805,X7R	C1191, C1192
26-27151-00	270pJ,50V,0603,NPO	C1193, C1194
26-18151-01	180PJ,50V,0805,NPO	C1235, C1236, C1237, C1238, C1239, C1240, C1241, C1242, C1243, C1244, C1245, C1246, C1261, C1262
26-10251-11	1nJ,50V,0805,NPO	C1259, C1260, C1263, C1264, C1265, C1266, C1267, C1268, C1269
26-22151-01	220PJ,50V,0805,NPO	C1270, C1271, C1272, C1276, C1277, C1285, C1289, C1290, C1291, C1292, C1362, C1304, C1305, C1306, C1307, C1308, C1309
26-33151-01	330PJ,50V,0805,NPO	C1030, C1032, C1033
26-10351-01	10nK,50V,0805,X7R	C1310, C1311
26-22660-11	22U/6V3 X5R 0805	C1401
26-22511-01	2.2uF	C1020
06-10011-11	TPSA106M010R0900	C1350, C1351, C1354, C1355
27-10160-00	100UF,6.3V,	C1180, C1181, C1182, C1330
<b>RESISTOR</b>		
07-90820-00	82R,0603,1/10W,±5%	R1023, R1024, R1132
07-90101-00	100R,0603,1/10W,±5%	R1067, R1068, R1069, R1070, R1071, R1072, R1095, R1096, R1133, R1134, R1143, R1459, R1460, R1461
07-98870-00	887R,0603,1/10W,±1%	R1462 R1463
07-92431-00	2.43KΩ,1/10W,±1%,RC0603FR-072K43L	R1043, R1050
07-92611-00	2.61KΩ,0603,1/10W,±1%,RC0603	R1044, R1045, R1046, R1047, R1049, R1197
07-96801-00	6.8K,0603,1/10W,±1%	R1088, R1113
07-91002-00	10K,0603,1/10W,±1%	R1168, R1169, R1276, R1277, R1308, R1309, R1353, R1354



PART NO.	VALUE	DESIGNATOR
07-90223-00	22K,0603,1/8W,±5%	R1466 R1467
07-90102-00	1K,0603,1/10W,±5%	R1244, R1245, R1246, R1247, R1256, R1257, R1258, R1259, R1260, R1261, R1262, R1263, R1272, R1273, R1274, R1275, R1278, R1279, R1280, R1281, R1282, R1283, R1284, R1295, R1300, R1301, R1302, R1306, R1307, R1334, R1339, R1340, R1341, R1342, R1343, R1344, R1345, R1346, R1347, R1348, R1349, R1350, R1351, R1352, R1451, R1452, R1453, R1454
07-90221-00	220Ω,0603,1/10W,±5%	R1135, R1136, R1137, R1138, R1139, R1140, R1141, R1142, R1162, R1163, R1164, R1165, R1166, R1167, R1449, R1450
07-94701-00	4.7KΩ,0603,1/10W,±1%	R1464 R1465
07-96801-00	6.8KΩ,0603,1/10W,±1%	R1193,R1194
07-90101-10	100R,R0603×4,±5%	R1000, R1001, R1003, R1004, R1006
07-90101-01	100R,0805,1/8W,±5%	R1007, R1008, R1009, R1010, R1011, R1365, R1366, R1367, R1368, R1369, R1370, R1371, R1372, R1438, R1439, R1440
07-91102-01	11K,0805,1/8W,±1%	R1015,R1016
07-91602-01	16K,0805,1/8W,±1%	R1017,R1018
07-91101-01	1.1K, 1/8W, 1%, 0805	R1019,R1020
07-90102-01	1K,0805,1/8W,±5%	R1027, R1028, R1029, R1030, R1031, R1032, R1033, R1034, R1035, R1036, R1037, R1038, R1039, R1040
07-92611-01	2.61KΩ,0805,1/10W,±1%,RC0805	R1041,R1042
07-92001-01	2K,0805,1/8W,±1%	R1051, R1052, R1053, R1054, R1055, R1056
07-90563-01	56K,0805,1/8W,±5%	R1057, R1058, R1059, R1060, R1061, R1062, R1063, R1064, R1079, R1080, R1081, R1082, R1083, R1084
07-91002-01	10K,0805,1/8W,±1%	R1085, R1086, R1087, R1104, R1105, R1106, R1107, R1114, R1115, R1116, R1117, R1118, R1119, R1120, R1422, R1429, R1430
07-90105-01	1M,0805,1/8W,±5%	R1357, R1358, R1359, R1360, R1361, R1362, R1363, R1364
07-92871-01	2.87K,0805,1/8W,±1%	R1373
07-93161-01	3.16KΩ,0805,1/8W,±1%,RC0805	R1374
07-91181-01	1.18K,0805,1/8W,±1%	R1375
07-91301-01	1.3K,0805,1/8W,±1%	R1376
07-92700-01	270Ω,0805,±1%	R1091
07-98200-01	820R,0805,1/8W,±1%	R1090, R1377, R1378, R1379, R1380, R1381, R1382, R1398, R1399, R1400, R1401, R1402, R1403,R1443,R1444,R1445
07-90104-01	100K,0805,1/8W,±5%	R1404, R1405, R1406, R1407, R1408,R1446
07-92202-01	22K,0805,1/8W,±1%	R1416, R1417, R1418, R1419, R1420, R1421, R1441, R1442
07-90470-01	47R,0805,1/8W,±5%	R1431, R1432, R1433, R1434, R1435, R1436
07-97150-01	715R,0805,1/8W,±1%	R1447,R1448
07-90100-01	10R,0805,1/8W,±5%	R1457, R1458
07-90510-02	51Ω,1206,1/4W,±5%	R1409, R1410, R1411, R1412
07-90121-10	120R, 5%, R0603X4	R1002, R1005, R1129
<b>CRYSTALS</b>		
04-22452-02	24.576MHz 10ppm,CL=15pF,SMD 5*7	X1001
<b>CAPACITOR</b>		
06-33011-00	CD11C,33uF,16V,±20%,F2.5	C1016, C1018, C1035,C1036, C1233

<b>PART NO.</b>	<b>VALUE</b>	<b>DESIGNATOR</b>
06-47011-08	CD11A,47uF,16V,ELNA series,F2.5	C1331, C1332
06-22021-00	CD110,22uF,25V,±20%,F2.5	C1161, C1162, C1163, C1164, C1173, C1174, C1178, C1183 C1184 C1185 C1186
06-47011-08	CD11A,47uF,16V,F2.5	C1187, C1188, C1189, C1190
06-10211-04	CD263,1000uF,16V,±20%,10×16,F5.0	C1335, C1336, C1337
06-22011-04	CD71,22uF,16V,±20%,D=5,F2.5	C1195, C1196, C1211, C1212, C1213, C1214, C1215, C1216, C1217, C1218, C1219, C1220, C1221, C1222, C1223, C1224, C1225, C1226, C1227, C1228, C1333, C1334, C1410, C1411
06-33121-00	CD263X,330uF,25V,±20%,F5.0	C1034, C1082, C1083, C1169
06-47111-09	CD263,470uF,10V	C1234
<b>CONNECTOR</b>		
17-01004-17	AV4-8.4-13,	J1001, J1002, J1003, J1004, J1005
<b>01-11510-00</b>	<b>DAC MODULE X4 assembly</b>	
<b>IC</b>		
J03-01796-01	PCM1796DB	U1521
J03-00275-01	OP275GSZ	U1501, U1502
J03-49725-01	LME49725MA	U1509
03-01117-01	AMS1117-5.0	U1503
03-00082-01	TL082BCD	U1508
or N03-02131-01	OPA2131UA	U1508
<b>CAPACITOR</b>		
26-22351-00	0603, 22NF, 50V, X7R	C1519, C1548
26-10451-00	0603, 100NF, 50V, Y5V	C1517, C1546, C1707, C1708, C1712, C1713, C1720, C1731, C1732, C1733
26-10521-10	1uF,25V,±10%,0603,X5R	C1563, C1564
26-10251-11	0805, 1nF, 50V, NPO	C1541
26-12251-11	0805, 1.2NF, 50V, NPO 5%	C1582, C1583, C1584, C1585
26-22251-21	0805, 2.2NF, 50V, NPO 5%	C1558, C1559, C1561, C1562
26-68221-01	6.8nF,25V,±5%,0805,NPO	C1502, C1503, C1574, C1575, C1651, C1652
26-22521-01	2.2uFK, 25V X5R, 0805	C1586
26-10611-11	10uFK, 10V, X5R 0805	C1501
26-22660-11	22U/6V3 X5R 0805	C1500
27-10160-00	100uF,6.3V,20%,3528	C1554, C1806
06-33011-04	33U/16V E5*5.4	C1504
06-22021-06	VES-25V220ME55R, 22uF, 25V, ±20%, 105 °C, 5*5.4	C1807, C1808
27-10160-00	100UF 6.3V 20%	C1809, C1810
<b>RESISTOR</b>		
07-90100-00	0603, 10R, 5%	R1588
07-90101-00	0603, 100R, 5%	R1727
07-90103-00	0603, 10k, 5%	R1500, R1501
07-94701-00	0603, 4.7k, 1%	R1524, R1525, R1586, R1587
07-91004-00	0603, 1M, 1%	R1526, R1527
07-90101-01	0805, 100R, 5%	R1584, R1585
07-93300-01	0805,330R, 1%	R1520, R1521, R1522, R1523, R1552, R1553, R1554, R1555
07-94530-01	0805, 453R, 1%	R1536, R1537, R1538, R1539

<b>PART NO.</b>	<b>VALUE</b>	<b>DESIGNATOR</b>
07-98200-01	0805,820Ω, ±1%	R1504, R1505, R1507, R1508
<b>CONNECTOR</b>		
13-12516-02	CNT-M254-2*8-GS-6/3-N, 2.54 2X8Pin	CON1503
13-12510-11	CNT-M254-2*5-GS-6/3-N, 2.54 2X5Pin	CON1504
<b>01-11505-00</b>	<b>DSP BOARD assembly</b>	
<b>DIODES</b>		
33-20036-00	SS36	D5000, D5001
<b>Transistors</b>		
31-00114-05	DTC114	Q5001, Q5002
<b>IC</b>		
03-00004-01	74AC04	U5007
03-00153-01	74AC153	U5003, U5004
03-00541-05	74AC541	U5012, U5025
03-03306-01	PI5C3306LE	U5001
J03-04114-01	AK4114VQ	U5002
J03-25081-01	CDCVF25081D	U5008
03-00244-01	LCX244	U5016
03-02244-01	74LCX2244WM	U5006
03-01117-33	LM1117MPX-3.3	U5013
J03-38500-01	LP38500TS-ADJ	U5010
J03-54331-01	TPS54331D	U5011
03-03062-10	M3062LFGPGP	U5015
J03-03062-01	M3062LFGPGP	
03-00734-01	NC7NZ34	U5005
03-39800-71	SST39VF800A-70-4C-EKE	U5023
03-39800-72	SST39VF800A-70-4C-EKE	U5024
03-39800-70	SST39VF800A-70-4C-EKE	
J03-00790-01	D790E001BZDH300	U5021, U5022
03-03825-33	TPS3825	U5014
J03-04832-60	MT48LC2M32B2P-6:G	U5019, U5020
03-02416-02	24LC16	U5018
03-00716-01	NC7WZ16P6X	U5000, U5017,U5029,U5027
03-00717-01	NC7WZ17P6X	U5028
J03-00101-00	TMP101	U5026
J03-03032-01	EPM3032ATC44-10N	U5030
<b>CAPACITOR</b>		

PART NO.	VALUE	DESIGNATOR
26-10451-00	0.1u	C5042, C5066, C5077, C5078, C5079, C5080, C5081, C5082, C5083, C5084, C5085, C5086, C5087, C5089, C5090, C5092, C5093, C5095, C5096, C5098, C5099, C5101, C5102, C5104, C5105, C5107, C5108, C5110, C5111, C5112, C5113, C5114, C5115, C5116, C5117, C5118, C5119, C5120, C5121, C5122, C5123, C5124, C5126, C5128, C5129, C5130, C5131, C5132, C5133, C5134, C5135, C5136, C5137, C5138, C5139, C5140, C5141, C5142, C5143, C5144, C5145, C5146, C5147, C5148, C5149, C5150, C5151, C5152, C5153, C5154, C5155, C5156, C5157, C5158, C5159, C5160, C5161, C5162, C5163, C5164, C5165, C5166, C5167, C5168, C5169, C5170, C5171, C5172
26-10451-00	100n	C5007, C5008, C5009, C5010, C5011, C5012, C5013, C5014, C5015, C5016, C5017, C5018, C5019, C5020, C5021, C5022, C5023, C5024, C5031, C5032, C5033, C5034, C5035, C5036, C5037, C5038, C5039, C5040, C5041, C5059, C5060, C5063, C5026, C5058, C5061, C5067, C5068
26-10251-00	1n	C5001, C5002, C5003, C5004
26-15351-00	15n	C5070
26-27051-00	27p	C5064, C5065
26-22051-00	22p	C5072
26-33051-00	33p	C5005, C5006
26-22151-00	220p	C5071
26-10251-00	1000p	C5175, C5176
26-22511-01	2.2uF	C5029, C5030, C5069
06-10011-09	10u/16V, 20%, 4*5.4	C5048, C5050, C5054, C5055, C5056, C5057, C5046
06-10011-11	10UF 10V 20%	C5025, C5049, C5052, C5043, C5044, C5045, C5173, C5174
06-22011-05	22UF/16V, 20%, 5*5.4	C5047, C5062
06-47111-06	470u/10V, 20%	C5051, C5053
<b>RESISTOR</b>		
07-90000-00	0R, 0603, 1/10W, 5%	R5023, R5024, R5025, R5166, R5172, R5084, R5095, R5096, R5173, R5174, R5177, R5178, R5187, R5188, R5189, R5199
07-90104-00	100K,0603, 1/10W	R5017, R5094, R5108
07-90101-00	100R,0603,1/10W,±5%	R5026, R5027, R5028, R5029, R5030, R5031, R5032, R5033, R5115, R5116, R5182, R5183, R5184, R5185, R5186, R5009, R5010, R5011, R5012, R5013, R5014, R5015, R5167, R5247, R5248
07-90102-00	1k ,0603, 1/10W, 5%	R5238, R5239, R5240, R5241
07-90103-00	10k ,0603, 1/10W, 5%	R5088, R5141, R5142, R5143, R5144, R5145, R5146, R5147, R5148, R5149, R5150, R5151, R5152, R5153, R5154, R5155, R5156, R5208, R5231, R5232, R5233, R5234, R5205 R5206 R5164 R5160

PART NO.	VALUE	DESIGNATOR
07-90330-00	33R,0603,1/10W,±5%	R5020, R5022, R5021, R5097, R5135, R5136, R5137, R5139, R5140, R5165, R5168, R5194, R5019, R5034, R5035, R5036, R5037, R5038, R5039, R5040, R5041, R5042, R5043, R5044, R5045, R5046, R5047, R5048, R5049, R5050, R5051, R5052, R5053, R5054, R5055, R5056, R5057, R5058, R5059, R5060, R5061, R5062, R5063, R5064, R5065, R5066, R5067, R5068, R5069, R5070, R5071, R5072, R5073, R5074, R5075, R5076, R5077, R5078, R5079, R5080, R5081, R5082, R5083, R5085, R5086, R5098, R5099, R5100, R5101, R5102, R5103, R5104, R5105, R5106, R5107, R5119, R5120, R5121, R5122, R5179, R5180, R5181, R5195, R5200, R5191, R5222, R5235, R5237, R5242, R5243, R5202, R5203, R5236, R5123, R5124, R5127, R5128, R5129, R5130, R5131, R5132, R5133, R5134, R5138, R5190, R5192, R5193, R5210, R5211, R5212, R5213, R5246, R5169, R5125, R5126, R5223, R5224, R5225, R5220, R5226, R5227
07-90122-00	1K2,0603,1/10W,±5%	R5117, R5118
07-90332-00	3K3,0603,1/10W,±5%	R5113, R5114, R5201, R5204
07-90472-00	4K7,0603,1/10W,±5%	R5018, R5109, R5110, R5111, R5112, R5207
07-97509-00	75R,0603,1/10W,±1%	R5001, R5002, R5003, R5004, R5005, R5006
07-99100-01	910Ω,1/8W,±1%,RC0805FR-07910RL	R5209
07-95101-01	5.1K,0805,1/8W,±1%	R5197
07-95901-01	5.9K,0805,1/8W,±1%	R5091
07-91002-01	10K 1% 0805, 1/8W	R5092
07-91602-01	16K 1% 0805, 1/8W	R5093
07-91802-01	18K 1% 0805, 1/8W	R5016
07-92702-01	27K,0805,1/8W,±1%	R5090
07-96492-01	64.9K,0805,1/8W,±1%	R5198
07-91103-01	110K,0805,1/8W,±1%	R5089
07-93323-01	332K,0805,1/8W,±1%	R5196
07-90330-10	33R,0603	RP5001, RP5002
<b>INDUCTOR</b>		
08-04101-00	100uH,1210	L5001, L5002
08-04100-02	10uH, ±10%, 0805	L5003, L5004
08-04479-01	SDR0805-4R7ML	L5005
08-04221-01	220R100M	FB5001, FB5002, FB5003, FB5004,FB5006, FB5007
<b>CRYSTALS</b>		
04-11102-01	11.059MHz, 49SMD	Y5001
04-22452-01	HLX-0-3-5-24.576M-50-0070-2-TR	Y5000
<b>IC</b>		
J03-00147-01	TORX147L(25M,F,T)	OP5001, OP5002, OP5003, OP5004
J03-00147-00	TOTX147L(25M,F,T)	OP5005, OP5006
<b>CAPACITOR</b>		
06-33160-01	HCN,330uF,6.3V,±20%,105°C,F3.5	C5000, C5027, C5073
<b>TRANS</b>		

<b>PART NO.</b>	<b>VALUE</b>	<b>DESIGNATOR</b>
22-22801-20	PT-10(HKS-999-115)	T5005, T5006
22-22800-07	PT-10(2280-T007)	T5001, T5002, T5003, T5004
<b>CONNECTOR</b>		
13-12506-03	2.54mm 2x3Pin	CN5001
13-12502-00	2.54mm 2Pin	J5003
13-22514-10	2.54mm 2*7Pin	J5004 J5006 J5007
17-01002-13	AV2-8.4-13PB1	J5005
17-01004-19	AV4-8.4-13,	J5001
<b>01-11512-00 ENCODER BOARD assembly</b>		
<b>CAPACITOR</b>		
26-10451-00	100n ,0603	C7002
26-10351-00	10n,0603	C7009, C7010
26-22351-00	22n,0603	C7011, C7024, C7025
<b>RESISTOR</b>		
07-90122-00	1K2,0603	R7015, R7016
07-90103-00	10K,0603	R7013, R7014
<b>CONNECTOR</b>		
13-22006-01	CON2MM/6P,DIP	CON7003
J37-16243-00	encode	V7001
<b>01-11507-00 FPP BOARD assembly</b>		
<b>DIODES</b>		
33-44148-11	LL4148, LL34	D7003, D7004, D7005
<b>Transistors</b>		
31-01015-03	A1015	Q7004, Q7005
31-01815-03	C1815	Q7001, Q7002, Q7003
<b>IC</b>		
03-00595-01	74HC595	U7001
03-00244-05	74HCT244	U7004
<b>CAPACITOR</b>		
26-10451-00	100n ,0603	C7004, C7005, C7013, C7008, C7001, C7003
26-22351-00	22n,0603	C7017, C7018, C7019, C7020, C7021, C7022, C7023
26-47251-00	4700p,0603	C7006
26-47451-00	470n,0603	C7012
06-22011-05	22UF/16V,5/5.4	C7014, C7015
06-47060-01	47UF/6.3V,5/5.4	C7016
<b>RESISTOR</b>		
07-90330-00	33R,0603	R7018, R7019, R7020, R7021, R7022, R7023, R7024
07-90333-00	33k,0603	R7003
07-90472-00	4.7k,0603	R7007

PART NO.	VALUE	DESIGNATOR
07-90101-00	100R,0603	R7025, R7026
07-90102-00	1K,0603	R7004
07-90222-00	2.2k,0603	R7001, R7002
07-90103-00	10K,0603	R7011, R7012, R7027, R7028, R7029, R7030, R7031, R7032, R7033
07-90470-01	47R,0805	R7017
07-90271-01	270R 0805	R7034
07-90471-01	470R,0805	R7035
07-92209-02	22R,1206, 1/4W	R7005, R7006
<b>DIODES</b>		
33-50565-01	Blue/Amber LED, D=5, High Light	D7002
<b>IC</b>		
03-05038-00	FM-5038LN-5CN	U7003
<b>CONNECTOR</b>		
13-22006-00	CON2MM/6P,DIP	CON7002
13-22504-00	CON2.54MM/4P,DIP	CON7004
14-32220-11	2.54mm, 10*2pin, L=230mm, grey	CON7001
11-04101-16	DTS-25R-V, 260gf	K7001, K7002, K7003, K7004, K7005, K7007, K7008, K7009
J23-16157-00	16-BT-157GINK	VFD7001
70-151003-0	AL	
75-123001-0	ABS, Black (OP PN: 25-024-0352-90)	
<b>01-11506-00</b>	<b>IO BOARD assembly</b>	
<b>Transistors</b>		
31-00143-01	DTC143	Q6001
<b>IC</b>		
03-00132-02	74HC132	U6001
03-00100-02	SN74AHC1G00DBVR	U6002
<b>RESISTOR</b>		
07-90000-00	0R ,0603, 1/10W, 5%	R6005
07-90104-00	100K,0603, 1/10W	R6001
07-90330-00	33R,0603,1/10W,±5%	R6002, R6003
07-90100-01	10R,0805,1/8W,±5%	R6006
<b>CAPACITOR</b>		
26-10451-00	100n	C6001
06-10011-09	10u/16V, 20%, 4*5.4	C6002
<b>CONNECTOR</b>		
13-21246-00	EH02311-DCB-DF	CON6002, CON6003, CON6005, CON6001, CON6007, CON6008
13-22520-11	2.54*2*10 DIP	CON6004, CON6006
13-22502-00	CON2.54/2P	CON6009, CON6015
13-22508-00	CON2.54/8P	CON6010
13-23906-00	CON3.96/6P	CON6014, CON6013

PART NO.	VALUE	DESIGNATOR
13-23904-00	CON3.96/4P	CON6012
<b>01-11514-00</b>	<b>IPOD LINK BOARD assembly</b>	
<b>CONNECTOR</b>		
13-22003-00	DIP2MM/3P	CON4004
17-02001-34	CKX-3.5-02C-G	P102S
67-114001-0	SECC-N5 T=1	
<b>01-11508-11</b>	<b>PSU BOARD A AH version assembly</b>	
<b>01-11508-21</b>	<b>PSU BOARD A C version assembly</b>	
<b>DIODES</b>		
33-44148-17	1N4148W-NR	D8001, D8024, D8025
33-20001-01	M1	D8006
33-20036-00	SS36B	D8005
33-20056-00	SK56C	D8004
<b>Transistors</b>		
J31-03326-01	2SC3326A	Q8002, Q8004
31-00114-01	DTA114EKA	Q8003, Q8007
<b>IC</b>		
03-05171-02	CS5171ED8G	U8008
<b>RESISTOR</b>		
07-92700-01	270Ω ,0805,1/8W,±1%	R8017
07-91001-01	1KΩ ,0805,1/8W,±1%	R8019, R8027
07-91131-01	1.13KΩ,0805,1/8W,±1%,RC0805	R8061
07-99530-01	953Ω ,1/8W,±1%,RC0805FR-07953RL	R8033
07-92701-01	2.7KΩ ,0805,1/8W,±1%	R8018
07-92871-01	2.87KΩ ,0805,1/8W,±1%	R8021
07-93301-01	3.3KΩ ,0805,1/8W,±1%	R8020, R8012
07-94991-01	4.99KΩ ,0805,1/8W,±1%	R8060
07-92741-01	2.74KΩ ,0805,1/8W,±1%	R8049
07-99531-01	9.53KΩ,0805,1/8W,±1%,RC0805	R8045
07-97501-01	7.5KΩ ,0805,1/8W,±1%	R8009
07-90109-01	1Ω ,0805,1/8W,±5%	R8050
07-90689-01	6.8Ω ,0805,1/8W,±5%	R8010
07-90101-01	100Ω ,0805,1/8W,±5%	R8030, R8031
07-90820-01	82Ω ,0805,1/8W,±5%	R8004
07-90221-01	220Ω ,0805,1/8W,±5%	R8022
07-90331-01	330Ω ,0805,1/8W,±5%	R8051, R8052
07-90681-01	680Ω ,0805,1/8W,±5%	R8059
07-90102-01	1KΩ,0805,1/8W,±5%	R8024
07-90103-01	10KΩ,0805,1/8W,±5%	R8005, R8079, R8025
07-90100-02	10R,1206,1/4W,±5%	R8011
07-90102-02	1KΩ,1206,1/4W,±5%	R8013, R8014, R8015
07-90474-02	470K,1206,1/4W,±5%	R8006, R8007, R8008, R8038, R8039, R8040
07-90754-02	750K,1206,1/4W,±5%	R8000, R8001, R8002



PART NO.	VALUE	DESIGNATOR
<b>CAPACITOR</b>		
26-10151-01	0805,100PF, 50V, NPO	C8035, C8117
26-10251-01	0805,1nF, 50V, NPO	C8002
26-33151-01	330pJ,50V,0805,NPO	C8025
26-10351-01	10nK,50V,0805,X7R	C8021, C8022, C8036
26-22351-01	22nK,50V,0805,X7R	C8033, C8040
26-10451-01	100nK,50V,0805,X7R	C8003, C8004, C8005, C8006, C8014, C8018, C8030, C8013
26-10621-12	10uF,25V,±10%,1206,X5R	C8029, C8031
<b>DIODES</b>		
33-21620-00	MUR1620G, TO220	D8002
33-24006-00	UF4006	D8003
or33-24006-02	UF4006	D8003
33-30862-00	KBU806,8A/600V	D8000
<b>Transistors</b>		
J31-02878-00	2SC2878 TO-92	Q8006
31-05210-00	IRF5210 TO-220	Q8001
<b>IC</b>		
J03-22670-01	LM22670MR-ADJ	U8006
J03-00246-00	TOP246YN	U8000
A03-00817-00	PC817B	U8002, U8007
03-00431-02	TL431	U8004
03-07805-10	KA78R05	U8005
<b>INDUCTOR</b>		
19-35980-00	3~5uH	L8003, L8005
22-23210-00	10mH/2A	L8001, L8002
08-02180-00	18uH/5A	L8000
22-00600-00	60uH/3A	L8006
08-05220-01	R0603-22uH, 22uH	L8004
<b>TRANSFORMER</b>		
A18-15028-00	M15HD-EER28	T8000
<b>CAPACITORS</b>		
A25-10422-09	MKP62, 100nF, 275VAC, X2, ±10%	CX8002
A25-22422-03	MKP62, 0.22uF, 275VAC, X2, ±10%	CX8000, CX8001
A05-22242-00	2.2nF, 400V(X1), 250V(Y1), ±5%	CY8000
A05-10242-00	1nF, 400V(X1), 250V(Y1), ±5%	C8007, C8008
A05-47242-00	4.7nF, 400V(X1),250V(Y1), ±20%	C8000, C8034
05-10313-01	10nF, 1kV, ±20% CT81-1KV-10b-2F4-103M	C8010
05-10313-00	10nF, 1kV, ±20% CT81-1KV-10b-2F4-103M	C8001
06-15142-02	CD296, 150uF, 400V, ±20%,105 °C,	C8009
06-10051-02	CD284, 2200UF, 16V, ±20%, 105 °C, F5.0	C8012
06-47021-02	CD263(X), 47uF,25V, ±20%	C8011
06-22211-06	CD284, 2200UF, 16V, ±20%, 105 °C, F5.0	C8015, C8016, C8017
06-10221-03	CD289,1000uF,25V,±20%,10×30,F5.0	C8020

<b>PART NO.</b>	<b>VALUE</b>	<b>DESIGNATOR</b>
06-33160-01	HCN,330uF,6.3V,±20%,105°C,F3.5	C8032
06-33021-01	CD284, 33UF, 25V, ±20%,105°C, F5.0	C8019, C8118
06-10121-10	CD289,100uF,25V,±20%,105°C,F2.5	C8027, C8028
<b>RESISTOR</b>		
07-30683-04	RY21,68KΩ, 2W, ±5%	R8003
07-70471-03	TUR10D471	ZV8000
07-70050-02	5D-11	TH8000
21-06000-00	L=5mm	C:JP8006 AH:JP8005, JP8007
<b>Relays</b>		
A12-02101-01	DH1U 15A/250V 5V	K8001
<b>CONNECTOR</b>		
A14-11501-00	UL1672#18AWG L=55mm	AC inlet to chassis
A17-07103-02	R-30190(C54)	CON8016
JA17-07002-20	A302-D006-0P	CON8017
JA17-07002-12	A2-02-D003-0P	CON8017
13-22508-00	XHB-2.5A-8A	CON8002
13-23904-30	B4P-VH	CON8003
13-23902-30	B2P-VH	CON8015
13-23903-01	7.92A-2A VH	CON8000
13-23907-01	LD7.92-4A, (VH, 3.96A-7A, )	CON8001
<b>FUSE</b>		
A20-20000-01	HF-003-1	F8002, F8003
A20-12102-00	T1A/250V	F8003
A20-12501-00	T500mA/250V	F8003
A20-12202-00	T2A/250V	F8002
A20-12102-00	T1A/250V	F8002
<b>01-11508-02</b>	<b>PSU BOARD B assembly</b>	
<b>DIODES</b>		
33-44148-00	1N4148 DO-35	D8021, D8023
33-13609-00	3V6, 1/2W, DO-35	D8007
33-16209-00	6V2, 1/2W, DO-35	D8008
33-13900-02	39V, 1/2W, DO-35	D8018
33-24001-00	1N4001 DO-41	D8010, D8013, D8026
33-30142-00	DB104 DIP4	D8017
33-25393-00	1N5393	D8027 D8028 D8029 D8030 D8031 D8032 D8033 D8034 D8035 D8036 D8037 D8037
<b>Transistors</b>		
31-02690-00	KSC2690AYSTU TO-126	Q8008 Q8016 Q8017 Q8018
31-01015-00	2SA1015 TO-92	Q8013 Q8014 Q8009 Q8010 Q8011 Q8012
<b>IC</b>		
03-00431-02	TL431 TO-92	U8012, U8013, U8015
A03-00817-00	PC817X2J000F DIP4	IC8000

PART NO.	VALUE	DESIGNATOR
<b>RESISTOR</b>		
07-20229-51	2.2Ω,1/4W,±5%	R8078
07-26809-51	68Ω,1/4W,±1%	R8082 R8083 R8084
07-20101-51	100Ω,1/4W,±5%	R8032, R8080, R8081, R8093
07-24991-51	4.99KΩ,1/4W,±1%	R8063, R8064
07-20392-51	3.9KΩ,1/4W,±5%	R8055
07-21101-51	1.1KΩ,1/4W,±1%	R8065, R8066 R8088
07-22211-51	2.21KΩ,1/4W,±1%	R8062
07-22431-51	2.43KΩ,1/4W,±1%	R8089
07-22701-51	2.7KΩ,1/4W,±1%	R8085 R8086 R8087 R8090 R8091 R8092
07-20103-51	10KΩ,1/4W,±5%	R8026
07-20153-51	15KΩ,1/4W,±5%	R8077
07-50228-10	0.22Ω, 1/4W, ±10%	R8069, R8070, R8071
<b>CAPACITOR</b>		
06-10051-01	CD263(X),10uF,50V,±20%,F5.0	C8126 C8048, C8053
06-10061-02	CD263(X),10uF,63V,±20%,105 °C, F5.0	C8125
06-10111-03	CD263X,100uF,16V,±20%,D=5,F5.0	C8111
06-10121-02	CD263(X), 100uF,25V, ±20%	C8041 C8054 C8055 C8058 C8059 C8122
06-10211-01	CD263X,1000uF,16V,±20%,D=10,F5.0	C8104
06-10151-04	CD263(X),100uF,50V,±20%,F5.0	C8108, C8109
06-33161-00	CD263,330uF,63V,±20%,F5.0	C8112
06-10221-01	CD263X,1000uF,25V,±20%,F5.0	C8062, C8063
06-47221-01	CD263,4700uF,25V,±20%,105 °C,Pitch=7.5mm	C8066, C8119
06-47231-01	CD263,4700uF,35V,±20%,105 °C,Pitch=7.5mm	C8044, C8045, C8046, C8047
24-10312-00	10n, 100V, ±20% F5.0	C8026, C8120, C8121, C8127
25-10412-04	CL23B,100nF,100V,±5%,Pitch=5mm	C8056, C8057, C8060, C8061, C8071, C8074, C8113, C8114
25-22312-06	CL23B,22nF,100V,±5%,Pitch=5mm,	C8037, C8038, C8039, C8043, C8115, C8116
<b>CONNECTOR</b>		
13-10001-00	tpg1	
13-22502-00	XHB2.5A-2A	CON8018
13-22504-00	XHB-2.5A-4A	CON8004
13-22505-00	XHB-2.5A-5A	CON8014
13-23906-00	VH 3.96A-6A	CON8005, CON8006, CON8010
<b>FUSE</b>		
A20-12162-01	061801.6MXP, T1.6AL/250V	F8004, F8005, F8006
20-20000-00	HF-004	FC8003, FC8004, FC8005, FC8006, FC8007, FC8009
<b>01-11511-01</b>	<b>SWITCH BOARD assembly</b>	<b>U9001</b>
<b>CONNECTOR</b>		
13-22503-24	GL37S01-3-C-3.1	CON9002
11-05102-01	TS-13P-A1-2-Q	S1
<b>01-11509-00</b>	<b>TRIGGER BOARD assembly</b>	

PART NO.	VALUE	DESIGNATOR
<b>DIODES</b>		
33-40352-01	1SS352	D9000, D9001, D9002, D9003, D9004, D9005, D9006, D9007, D9008
<b>Transistors</b>		
31-00114-01	DTA114, SOT23, Tape	Q9012, Q9013, Q9014, Q9015
31-00114-05	DTC114,SOT23,Tape	Q9000, Q9001, Q9005, Q9006, Q9007, Q9008, Q9009, Q9010, Q9011
J03-03221-02	MAX3221CAE, SSOP, Tube	U9000
26-10151-11	EMI100p Low ESL Feed Through,0805,X5R,100p,50V,Tape	C9019, C9020
26-47051-00	47P,0603,50V,NPO	C9001, C9002, C9003, C9004
26-47351-00	47N,0603,50V,X7R	C9000
26-10451-00	100N,0603,50V,Y5V	C9005, C9006, C9007, C9008, C9009, C9010
26-47451-00	470N,0603,50V,Y5V	C9011, C9012, C9013
26-22351-01	22N,0805,50V,X7R	C9016
<b>RESISTOR</b>		
07-90100-00	10R,0603,1/10W,±5%	R9021
07-90399-00	3.9Ω,0603,1/10W,±5%,RC0603	R9013, R9014, R9015, R9016, R9017, R9018
07-90101-00	100Ω,0603,1/10W,±5%	R9003, R9004, R9005, R9006
07-90102-00	1K,0603,1/10W,±5%	R9000
07-90222-00	2.2K,0603,1/10W,±5%	R9002
07-90103-00	10K,0603,1/10W,±5%	R9007, R9008, R9009, R9010, R9011, R9023
07-90333-00	33K,0603,1/10W,±5%	R9012
07-90104-00	100K,0603,1/10W,±5%	R9019
07-90100-01	10R,0805,1/8W,±5%	R9020, R9022
<b>Transistors</b>		
31-01220-00	KSA1220A-Y	Q9002, Q9003, Q9004
<b>CAPACITOR</b>		
06-10951-02	CD110,1u,50V,20%,D=5,Pitch=2	C9018
06-10111-01	CD110X,100u,16V,20%,D=5,Pitch=2,Pin Length=5	C9015
<b>CONNECTOR</b>		
17-08009-00	RS232 RS232/FS	J9005
17-02001-04	ST-323B-04 / CKX-3.5-02-3P	J9000
J17-02002-02	SCJ351-DS SW 3.5mm, Double Single CH, SW	J9001, J9002, J9003, J9004
14-11520-00	UL2651#28AWG*20P L=380mm	CON9000 CON6006
13-12503-15	GL27S01-03-C2B-13.0/3.0, 2.54 3Pin	CON9001
61-023208-0	BTB3×8,	
85-151001-0	Nylon66,H=17	
<b>01-11504-00</b>	<b>VIDEO BOARD assembly</b>	
<b>Transistors</b>		
33-40352-01	1SS352	D4001, D4002, D4003, D4004
33-40099-01	BAV99	Q4001, Q4002, Q4003, Q4004, Q4005, Q4006, Q4007, Q4008, Q4010, Q4011

PART NO.	VALUE	DESIGNATOR
<b>IC</b>		
J03-06501-01	FMS6501MSA28X	U4001, U4002
<b>CAPACITOR</b>		
26-10451-00	0603, 100nZ, 50V, Y5V	C4001, C4002, C4003, C4004, C4005, C4006, C4007, C4008, C4009, C4010, C4011, C4012, C4013, C4014, C4015, C4016, C4017, C4018, C4019, C4020, C4021, C4022, C4023, C4024, C4025, C4026, C4027, C4028
26-22351-00	0603, 22NF, 50V, X7R	C4040 C4041 C4045
06-22121-05	220UF, 25V, 20%, 8*10.5	C4033, C4034, C4035, C4036, C4037, C4038, C4039
06-47111-06	470UF, 10V, 20%, 8*10.5	C4042, C4043, C4044
06-10011-09	10UF, 16V, 20%, 4*5.4	C4029, C4030, C4031, C4032
<b>RESISTOR</b>		
07-90101-00	0603, 100R, 5%	R4032 R4033 R4037
07-97509-00	0603, 75R, 1%	R4001, R4002, R4003, R4004, R4005, R4006, R4007, R4008, R4009, R4010, R4011, R4012, R4013, R4014, R4015, R4016, R4017, R4018, R4019, R4020, R4021, R4022, R4023, R4024, R4025, R4026, R4027, R4028, R4029, R4030, R4031, R4034, R4035
07-90102-00	0603, 1K, 5%	R4036
<b>CONNECTOR</b>		
13-22003-00	PH 2.0A-3A	CON4001, CON4003
17-01003-10	AV-8.4-13,	J4008, J4009, J4010, J4011
17-01001-40	DASW-11	J4001, J4002, J4003, J4004, J4005, J4006
<b>01-11503-00</b>	<b>VXP BOARD assembly</b>	
<b>DIODES</b>		
33-25819-02	SM5819	D3
33-13309-05	MM5Z3V3T1,3.3V 100mW	D4, D20, D26, D29
33-40023-01	BAV23A-7-F	D5, D21, D27, D30
33-40070-01	BAV70-7-F	D7, D22, D24, D28, D31, D32, D33, D35, D36
07-70270-00	EZJZ1V270GA	D25
J03-01580-01	AD1580ARTZ	D34
<b>Transistors</b>		
31-03904-01	MMBT3904	U59, U63, U65, U66, U67
<b>IC</b>		
J31-06911-01	FDS6911CT-ND	U1, U10, U13, U14, U16
J03-02404-01	AT24HC04BN-SH-B	U12, U19, U31, U36, U46
J03-02575-05	TL2575-05IKTTR	U2
J03-02031-01	CM2031-A0TR	U3, U15, U22, U42
J03-02030-01	CM2030-A0TR	U53
J03-04616-01	MT46V16M16P-6T	U4, U5, U6, U7, U8, U51, U52
J03-09517-01	PCA9517DGKR	U9, U17, U27, U44, U68
J03-02995-01	LP2995MR	U11
J03-08197-01	AD8197BASTZ	U18

PART NO.	VALUE	DESIGNATOR
J03-09301-01	TPS79301DBVR	U20, U23, U35, U38, U57
J03-07340-01	ADV7340BSTZ	U21
03-30281-14	M30281FCHP#U9B	U24
J03-30281-04	M30281FCHP#U9B	
J03-09351-01	GF9351-165CBE2	U25
J03-02302-01	MK2302S-01LF	U26
J03-08063-01	AD8063ARZ	U28, U29, U30, U32, U33, U34, U39, U40, U41
J03-79501-01	TPS79501DCQR	U37, U47, U54
03-29800-71	M29W800DT70N1	U43
J03-29800-70	M29W800DT70N1	
J03-09389-01	AD9389BBSTZ-165	U45
03-00008-01	74LVC08	U48
J03-07441-01	ADV7441ABSTZ-170	U49
03-45161-10	AT45DB161D-TU	U50
J03-45161-01	AT45DB161D-TU	
J03-03221-03	MAX3221CPW	U55
03-00244-06	SN74LVC244APWR	U56
J03-40192-01	TPS40192DRCR	U58, U60, U61, U62, U64
<b>CAPACITOR</b>		
26-10451-00	0.1u, 0603, 50V, Y5V	C38, C45, C53, C65, C77, C79, C81, C82, C84, C85, C86, C91, C92, C93, C95, C96, C102, C104, C105, C106, C107, C108, C109, C113, C114, C115, C116, C117, C120, C123, C124, C125, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C137, C139, C140, C141, C142, C143, C144, C145, C146, C147, C148, C149, C150, C151, C152, C153, C154, C155, C156, C158, C159, C160, C161, C162, C163, C164, C165, C166, C167, C168, C169, C170, C171, C172, C173, C174, C175, C176, C177, C178, C180, C181, C182, C183, C185, C189, C201, C202, C210, C212, C215, C226, C227, C231, C236, C237, C243, C244, C247, C248, C249, C250, C251, C252, C258, C259, C262, C263, C265, C266, C267, C268, C269, C270, C271, C272, C273, C274, C275, C276, C277, C278, C279, C281, C283, C286, C287, C288, C289, C291, C293, C294, C295, C296, C300, C302, C303, C304, C305, C306, C307, C309, C310, C311, C312, C315, C316, C317, C318, C320, C321, C323, C324, C326, C327, C329, C330, C331, C332, C333, C334, C335, C337, C338, C341, C344, C345, C348, C349, C350, C351, C352, C353, C354, C355, C356, C357, C358, C359, C360, C361, C363, C364, C
26-27051-00	27p,0603,50V,NPO	C41, C42, C74, C75
26-10351-00	10n,0603,50V,X7R	C43, C73, C209, C211, C213, C225, C232, C240, C241, C245, C254, C257, C260, C264, C280, C282, C284, C290, C299, C319, C328, C339, C342, C343, C366, C369, C371, C380, C388, C391, C393, C412, C415, C417, C425, C427, C432, C438, C450, C456, C473, C478, C491, C493, C496, C503, C504, C506, C508, C514, C516, C520, C521
26-12351-00	12n,0603,50V,X5R	C47, C49
26-22251-00	2.2n,0603,50V,X7R	C50, C51, C203, C228, C111, C112, C204

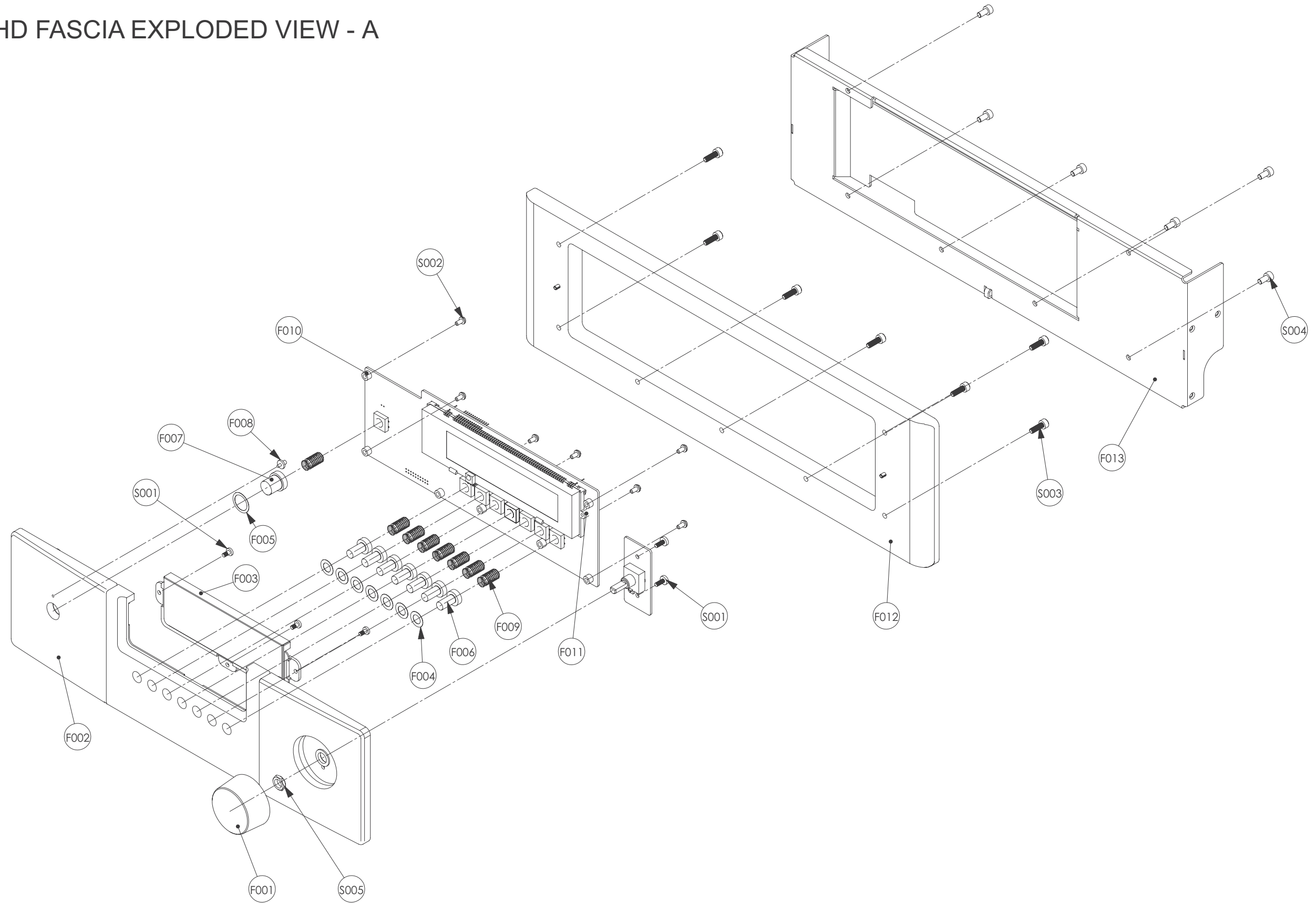
PART NO.	VALUE	DESIGNATOR
26-10660-00	10u,0603,6.3V,X5R	C52, C58, C76, C78, C80, C90, C103, C136, C157, C198, C214, C229, C230, C235, C285, C298, C322, C340, C368, C384, C390, C397, C398, C404, C407, C410, C414, C455, C494, C510, C511
26-22051-00	22P,0603,50V,NPO	C54, C60, C66
26-33051-00	33P,0603,50V,NPO	C55, C56, C61, C62, C67, C68, C437
26-10521-10	1uF,25V,±10%,0603,X5R	C59, C83, C94, C101, C122, C191, C218, C220, C239, C255, C256, C308, C400
26-18051-00	18P,0603,50V,NPO	C69, C70
26-82311-00	82n,0603,16V,X7R	C72, C476
26-47451-00	470n,0603,50V,Y5V	C110, C179, C194, C195, C216
26-22560-00	2.2u,0603,6.3V,X5R	C118, C187, C205, C207, C233
26-20151-00	200p,0603,50V,NPO	C119
26-27251-00	2.7n,0603,50V,X7R	C184, C199
26-12051-00	12p,0603,50V, X7R	C188, C206, C208, C234
26-33251-10	3.3n,0603,50V,NPO	C186, C200, C221
26-15451-00	0.15u,0603,50V,Y5V	C297, C313
26-15051-00	15p,0603,50V,NPO	C373, C484
26-10251-00	1n,0603,50V,X7R	C472
26-82251-00	8.2n,0603,50V,X7R	C475
26-10611-01	10u,0805,10V	C1, C17, C23, C24, C30, C138, C193, C222, C223, C246
26-10251-01	1n,0805,50V,X7R	C2, C8, C19, C22, C28, C29, C31, C32, C33, C36
26-22660-21	22u,0805,6.3V	C121, C190, C217, C219, C238, C261, C347, C382, C395, C396, C444, C454, C485
26-10760-03	100u,1210,6.3V,X5R	C10, C18, C27, C34, C35, C37, C39, C40, C192
06-22121-09	220u,25V,±20%,105°C	C9, C21
06-47111-13	470u,16V,±20%,105°C	C20
06-68111-01	680u,16V,±20%,105°C	C522
27-10160-00	100u,3528,6.3V,	C3, C4, C5, C6, C7, C11, C12, C13, C14, C15, C16, C25, C46, C57, C63, C64, C71, C87, C88, C89, C97, C99, C100, C196, C197, C224, C242, C253, C292, C301, C314, C325, C336, C346, C378, C401, C421
<b>RESISTOR</b>		
07-90560-18	56R,R0402X2,0.063W	RN50, RN56, RN57, RN58, RN59, RN60
07-90560-28	56R,R0402X4,0.063W	RN51, RN61
07-90560-38	56R,R0402X8,0.063W	RN1, RN2, RN3, RN4, RN5, RN6, RN7, RN8, RN9, RN10, RN44, RN45, RN46, RN47, RN48, RN49, RN62, RN63
07-90220-18	22R,R0402X2,0.063W	RN23, RN30, RN33, RN34, RN37, RN38
07-90220-28	22R,R0402X4,0.063W	RN21, RN31
07-90220-38	22R,R0402X8,0.063W	RN11, RN12, RN13, RN14, RN15, RN16, RN17, RN18, RN19, RN20, RN22, RN24, RN25, RN26, RN27, RN28, RN29, RN32, RN35, RN36, RN39, RN40, RN41, RN42, RN43, RN52, RN53, RN54, RN55

PART NO.	VALUE	DESIGNATOR
07-90000-00	0R,0603,1/10W,±5%	R28, R46, R47, R76, R77, R97, R99, R114, R117, R123, R124, R125, R129, R132, R133, R134, R135, R136, R137, R143, R158, R163, R171, R173, R189, R211, R240, R244, R246, R248, R252, R259, R269, R294, R305, R332, R51, R61, R69, R350, R351, R356, R357
07-91211-00	1.21K,0603,1/10W,±1%	R174, R212
07-91471-00	1.47K,0603,1/10W,±1%	R172
07-90152-00	1.5K,0603,1/10W,±5%	R267, R279, R297, R336
07-91621-00	1.62K,0603,1/10W,±1%	R159
07-91691-00	1.69K,0603, 1/10W, 1%	R78
07-91821-00	1.82K,0603, 1/10W, 1%	R118
07-91961-00	1.96K,0603,1/10W,±1%	R156
07-90104-00	100K,0603,1/10W,±5%	R32, R290
07-90101-00	100R,0603,1/10W,±5%	R280, R296
07-90103-00	10K,0603,1/10W,±5%	R116, R152, R157, R168, R170, R209, R230, R235, R243, R271, R292, R310, R312, R313, R316, R318, R331, R340, R364, R365, R366, R367
07-90100-00	10R,0603,1/10W,±5%	R130, R164, R195, R196, R232
07-91402-00	14K,0603,1/10W,±1%	R18, R41, R103, R322, R334
07-90153-00	15K,0603,1/10W,±5%	R348
07-91690-00	169R,0603,1/10W,±1%	R44, R45
07-90102-00	1K,0603,1/10W,±5%	R3, R23, R24, R29, R30, R35, R36, R38, R49, R111, R127, R192, R210, R213, R214, R217, R236, R238, R245, R247, R251, R253, R255, R256, R257, R260, R270, R281, R291, R303
07-90105-00	1M,0603,1/10W,±5%	R75
07-92151-00	2.15KΩ,0603,1/10W,±1%,RC0603	R169
07-92002-00	20K,0603,1/10W,±1%	R121
07-92102-00	21KΩ,0603,1/10W,±1%,RC0603	R161
07-90220-00	22R,0603,1/10W,±5%	R20, R21, R31, R37, R42, R54, R79, R80, R100, R101, R102, R104, R179, R180, R181, R182, R183, R184, R185, R186, R187, R188
07-92492-00	24.9K,0603,1/10W,±1%	R176
07-92499-00	24.9R,0603, 1/10W, 1%	R85, R86, R88, R94, R96, R98
07-92802-00	28K,0603,1/10W,±1%	R216, R178
07-90202-00	2K,0603,1/10W,±5%	R317, R342, R343
07-90209-00	2R,0603,1/10W,±5%	R120, R160, R175, R177, R215
07-93091-00	3.09K,0603, 1/10W, 1%	R115
07-93012-00	30.1K,0603,1/10W,±1%	R223, R249, R288, R327, R346, R349
07-93010-00	301R,0603,1/10W,±1%	R59, R68, R74, R197, R198, R199, R200, R201, R202, R203, R204, R205
07-90330-00	33R,0603,1/10W,±5%	R39
07-93749-00	37.4R,0603, 1/10W, 1%	R81, R87, R89, R90, R91, R92, R93, R95, R107, R108, R109, R110
07-94021-00	4.02K,0603,1/10W,±1%	R126, R162, R190, R191, R222
07-94121-00	4.12K,0603,1/10W,±1%	R48, R50
07-90472-00	4.7K,0603,1/10W,±5%	R4, R5, R6, R14, R17, R19, R27, R33, R34, R40, R43, R52, R60, R62, R63, R82, R83, R84, R105, R106, R226, R233, R234, R239, R241, R250, R254, R261, R265, R268, R282, R289, R293, R314, R329, R338, R354, R355, R360, R361, R362, R363



PART NO.	VALUE	DESIGNATOR
07-94871-00	4.87K,0603,1/10W,±1%	R208
07-94992-00	49.9K,0603,1/10W,±1%	R22, R26, R140, R150, R153, R207, R221, R231, R263, R266, R272, R307, R315, R319, R320
07-94999-00	49.9R,0603,1/10W,±1%	R323, R325, R328, R330, R333, R335
07-94990-00	499R,0603,1/10W,±1%	R1, R8, R9, R12, R13, R15, R218, R219, R220, R224, R228, R276, R286, R302, R337
07-90519-00	5.1R,0603,1/10W,±5%	R113, R154, R165, R166, R194
07-95112-00	51.1K,0603,1/10W,±1%	R287
07-90560-00	56R,0603,1/10W,±5%	R119, R122, R131, R138, R141, R142, R144, R145, R146, R147, R148, R149, R341, R345
07-96040-00	604R,0603,1/10W,±1%	R55, R56, R64, R65, R70, R71, R274, R275, R284, R285, R300, R301
07-90750-00	75R,0603,1/10W,±5%	R57, R58, R66, R67, R72, R73, R155, R237, R264, R273, R277, R278, R283, R295, R299, R321
07-98870-00	887R,0603,1/10W,±1%	R326
07-99761-00	9.76K,0603,1/10W,±1%	R167
07-92008-01	2R,0805,1/8W,±1%	R2, R7, R10, R11, R16
<b>INDUCTOR</b>		
08-04900-01	DLW21SN900HQ2L	T1, T2, T3, T4
08-04181-10	180uH,DO3316T	L1
08-04509-10	5uH,MSS7341	L2
08-04100-08	10uH,MSS7341	L3, L6, L8
08-04749-10	7.4uH,MSS7341	L5
08-04150-10	15uH,MSS7341	L9
08-04398-00	390nH,0603	L12, L15, L17
08-04100-02	10uH, ±10%, 0805	L11, L14, L16
08-04221-04	BLM21PG221SN1D(Ferrite/2A)	L4, L7, L10, L13, L18, L19, L20, L21
<b>CRYSTALS</b>		
04-12002-02	20.0000MHz	Y1
04-12862-00	28.63636MHz	Y2
04-12702-04	27.000MHz	Y3
<b>CONNECTOR</b>		
17-08119-01	HMR41-AK5200	J1, J2, J5, J9, J10
<b>CONNECTOR</b>		
13-12502-15	2.54mm 2Pin	JP4, JP1
13-12503-13	2.54mm 3Pin	JP5, JP6
13-22514-10	2.54mm 2*7Pin	J3
13-22504-12	2.54mm 4pin	J6
13-22510-12	2.54mm 2*5Pin	P2
67-151005-2	SECC-N5 T=1.0mm	
<b>01-11513-00</b>	<b>ZONE2 BOARD assembly</b>	
<b>CONNECTOR</b>		
13-22003-00	DIP2MM/3P	CON4002
17-01001-29	RCA,	J4007
67-114001-0	SECC-N5 T=1	

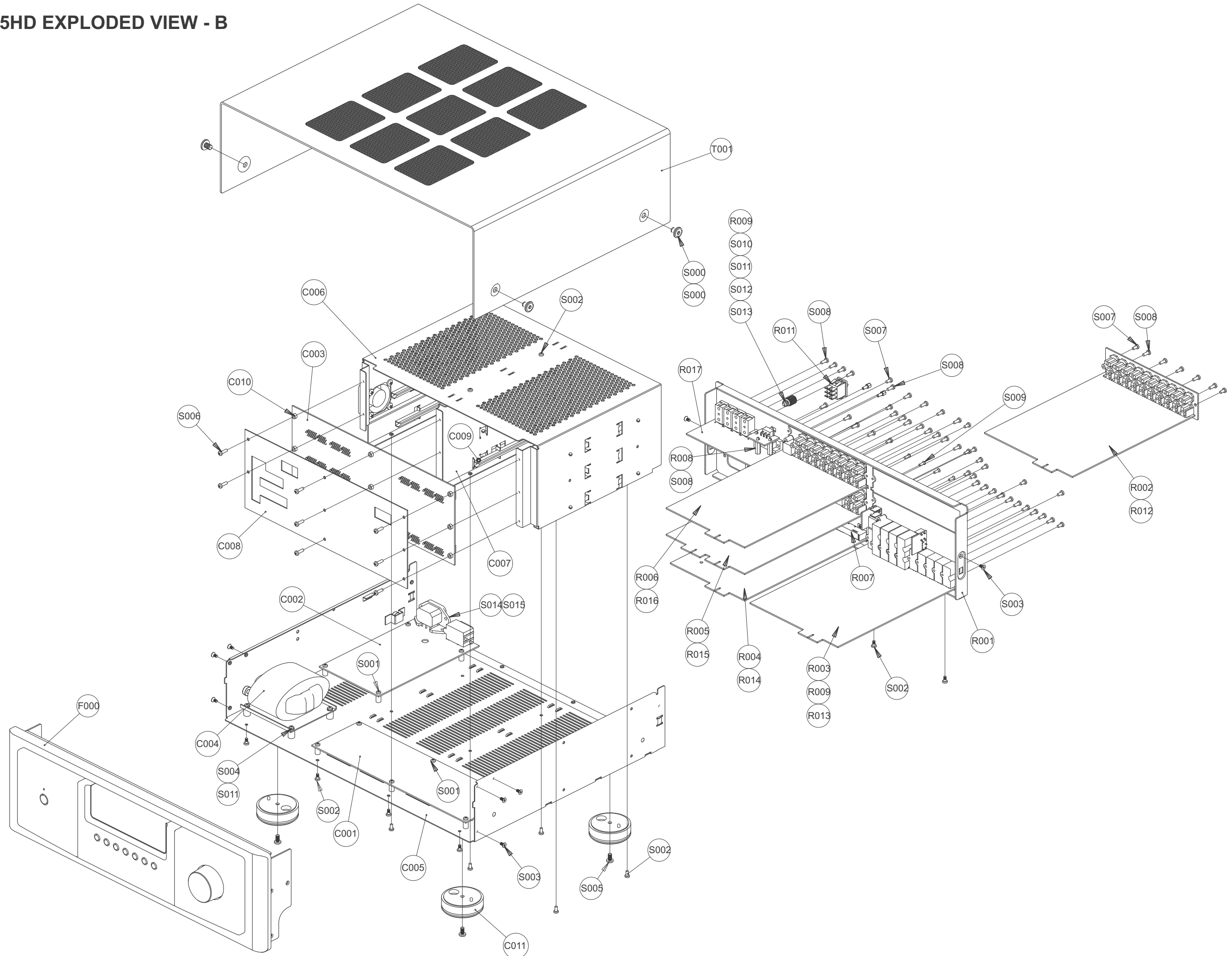
# M15HD FASCIA EXPLODED VIEW - A



## EXPLODED VIEW A PART LIST

ITEM	PART NO.	DESCRIPTION	QTY
F001	71-048010-0	Vol. Knob Assy	1
F002	70-151002-0C	M15 HD Fascia 2	1
F003	76-151001-0	Window lens	1
F004	87-048002-0	Button pad	7
F005	87-048003-0	Power pad	1
F006	70-048012-1	Input Button	7
F007	70-048013-0	Power Button	1
F008	76-008001-0	LED Lens	1
F009	92-151001-0	Spring	8
F010	70-151003-0	Spacer	7
F011	75-123001-0	VFD Bracket	1
F012	J70-151001-1A	M15 HD Fascia 1	1
F013	67-151002-2	Subfascia	1
S001	61-023206-0	Self Taping Screws BTB3X6	5
S002	61-023212-0	Self Taping Screws BTB3X12	7
S003	61-224512-1	Hex Screws GB/T70.1, 4X12,	7
S004	61-224508-1	Hex Screws GB/T70.1, 4X8	6

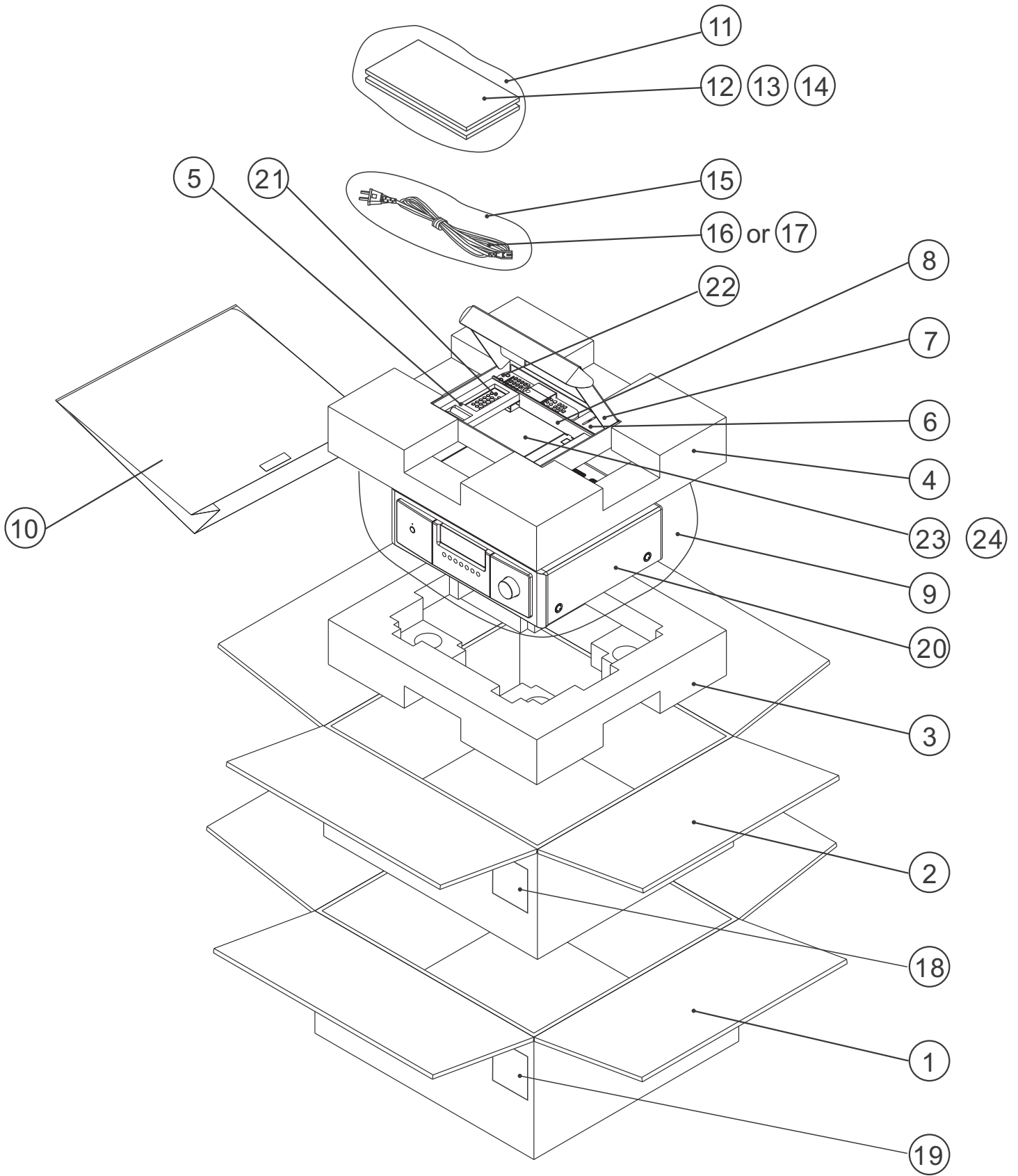
# M15HD EXPLODED VIEW - B



## EXPLODED VIEW B PART LIST

ITEM	PART NO.	DESCRIPTION	QTY
F000		FASCIA	1
T001	67-043001-2	Top Cover	1
T002	76-046001-0	Screw Washer	4
C001	01-11508-02	PSU BOARD B	1
C002	01-11508-11/21	PSU BOARD A AH/C	1
C003	01-11506-00	I/O CONNECTION BOARD	1
C004	A18-15050-00	R Type Transformer	1
C005	67-151001-3	Chassis	1
C006	67-151003-2	Bracket	1
C007	67-151004-0	Middle Bracket	1
C008	67-151014-2	CONNECT PCB COVER	1
C009	85-151002-0	PCB Guide	10
C010	70-151004-0	Spacer	8
C011	J83-048010-0	Foot Assy	4
R001	67-151008-3B	Rear Panel	1
R002	67-151007-0B	Rear Panel Audio	1
R003	67-151012-1B	Rear Panel VIDEO	1
R004	67-151011-2B	Rear Panel HDMI	1
R005	67-151010-1A	Rear Panel DSP	1
R006	67-151006-0A	Rear Panel 7.1 I-O	1
R007	67-151005-2	HDMI Bracket	1
R008	85-151001-0	Spacer	3
R009	76-151002-0	HDMI Insulation Pad	1
R010			
R011	A11-01101-03	Rocker Switch	1
R012	01-11501-00	Audio PCB	1
R013	01-11504-00	VIDEO PCB	1
R014	01-11503-00	HDMI PCB	1
R015	01-11505-00	DSP PCB	1
R016	01-11502-00	7.1 I-O PCB	1
S000	61-246508-0	Machine Screws	4
S001	61-373506-0	Self Taping Screws	10
S002	61-023106-0	Self Taping Screws	30
S003	61-063106-0	Self Taping Screws	8
S004	61-034508-0	Machine Screws	4
S005	61-024108-0	Self Taping Screws	4
S006	61-023110-0	Self Taping Screws	8
S007	61-023506-0	Machine Screws	12
S008	61-023208-0	Self Taping Screws	38
S009	61-062506-6	Machine Screws	4
S010	61-024510-1	Machine Screws	1
S011	63-020411-0	Spring Washers	5
S012	63-010408-0	Plain Washer	1
S013	62-010402-0	Nut	1
S014	61-023508-0	Machine Screws	2
S015	62-010302-2	M3 Nut	2

# PACKING DIAGRAM & PART LIST



## PACKING DIAGRAM PART LIST

ITEM	PART NO.	DESCRIPTION	QTY
1	88-151001-0B	Shipping Box	1
2	88-151002-0B	Gift Box	1
3	89-043001-1	M15Polyfoam-Bottom	1
4	89-043002-1	M15Polyfoam-Cap	1
5	89-043003-1	M15Accessories A	1
6	89-043004-0	M15Accessories B	1
7	88-043003-0	M Series Accessories Box	1
8	88-043004-0	M Series Box Sheet	1
9	87-043003-0	Non-woven bag	1
10	90-005001-0	Polybag	1
11	90-001002-0	Manu Polybag	2
12	30-45151-01	Instruction Manual	1
13	30-45151-02	Instruction Manual	1
14	94-043006-0	Guarantee Card (AH version)	1
15	90-001013-0	AC Cord Polybag	1
16	JA15-15120-00	AC Cord, LP30B & LS13 SVT 18AWG 105C Black 3C L=1800mm (AH version)	1
17	JA15-16250-03	AC Cord, LP34&LS-60 H05VV-F 0.75mm <sup>2</sup> 3C Black L=1800mm (C version)	1
18	94-151001-0	Version Label for gift box	2
19	94-151013-0	Version Label for shipping box	2
20	30-05000-00	Desiccant 50g 90×110	1
21	J30-11151-00	Remote Control HTRM	1
22	J30-17251-00	Remote Control KRC-L1860RC(ZR5)	1
23	30-25150-10	Batteries	4
24	30-28601-10	Batteries CR2025	1

# SERVICE MANUAL

**M15 HD**

AV Surround sound Preamplifier