

TASCAM
TEAC Professional Division

SERVICE MANUAL

FW-1884

Professional Control Surface/FireWire Audio-MIDI Interface

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INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

1. SPECIFICATIONS

仕様

Specifications

Analog I/O

Mic input 1-8 (Balanced)

Connector: 3-pin XLR jack x 8
(1: GND, 2: Hot, 3: Cold)
Input impedance: 2.2k ohm
Adjustable Input range: -56dBu (TRIM max) to
-2 dBu (TRIM min)
Maximum gain : +54 dB

Line input 1-8 (Balanced)

Connector: 1/4 inch TRS jack x 8
Input impedance : 10k ohm at LINE/MIC
1M ohm at GUITAR (LINE Input: 8 Switchable)
Adjustable input range: -42 dBu (TRIM max) to
+12 dBu (TRIM min.)
Maximum gain : +54 dB

Insert 1-8 (Unbalanced)

Connector: 1/4 inch TRS jack with tip SW x 8
(T=SEND,R=RETURN, S=GND)supported.

Send

Impedance : 100 ohm
Normal level : -2 dBu
Maximum level : +14 dBu
Return
Impedance: 10k ohm
Normal level : -2 dBu
Headroom : 16 dB

Stereo / Surround monitor output (Balanced)

Connector: 1/4 inch TRS jack x 8
Output impedance: 100 ohm
Nominal output level: +4 dBu
Maximum output level: +20 dBu

Phones output (Stereo)

Connector: 1/4 inch TRS jack
(T = L, R = R, S = GND) x 1
Max output power: 52 mW + 52 mW (32 ohm)

Digital I/O

Digital input (Coaxial)

2ch serial digital audio signal input terminal. ADAT/Optical Input terminal is selectable. In the case of Hi sampling, Hi-speed mode is supported.

Connector: RCA jack x 1
Input impedance: 75ohm
Format: AES3-1992 or IEC60958

Audio bit length:length: 24bit

定格

アナログ入出力

MIC (1~8)入力端子 [バランス]

コネクター: XLR-3-31
(1: GND, 2: HOT, 3: COLD)
入カインピーダンス: 2.2 kΩ
入力レベル: -56 dBu (TRIM max) ~
-2 dBu (TRIM min)
最大ゲイン: +54 dB

LINE IN (1~8)入力端子 [バランス]

コネクター: 6φ TRS ホンジャック
(チップ: HOT, リング: COLD, スリーブ: GND)
入カインピーダンス: 10 kΩ
1 MΩ (LINE IN 8, GUITARポジション時)
入力レベル: -42 dBu (TRIM max) ~
+12 dBu (TRIM min)
最大ゲイン: +54 dB

INSERT (1~8)端子 [アンバランス]

コネクター: 6φ TRS ホンジャック
(チップ: SEND、リング: RETURN、スリーブ: GND)

Send

出カインピーダンス: 100 Ω
規定出力レベル: -2 dBu
最大出力レベル: +14 dBu

Return

入カインピーダンス: 10 kΩ
規定入力レベル: -2 dBu
ヘッドルーム: 16 dB

SURROUND MONITOR (BAL)

(1~8)出力端子 [バランス]

コネクター: 6φ TRS ホンジャック
(チップ: HOT, リング: COLD, スリーブ: GND)
出カインピーダンス: 100 Ω
規定出力レベル: +4 dBu
最大出力レベル: +20 dBu

PHONES出力端子

コネクター: 6φ TRS ホンジャック
(チップ: L, リング: R, スリーブ: GND)
最大出力: 52 mW + 52 mW (32 Ω負荷時)

デジタル入出力 (DIGITAL I/O)

COAXIAL IN端子

(2チャンネルデジタルオーディオ入力用。ハイサンプリング周波数にも対応)

コネクター: RCA ピンジャック
入カインピーダンス: 75 Ω
フォーマット: AES3-1992 (AES/EBU)
またはIEC60958 (S/PDIF) (自動判別)
オーディオビット長: 24ビット

Digital output (Coaxial)

2ch serial digital audio signal output terminal. ADAT/Optical Output is selectable. In the case of Hi sampling, Hi-speed mode is supported.

Connector: RCA jack x 1
 Output impedance: 75 ohm
 Format: IEC60958 (Selectable)
 Audio bit length: 24bit

ADAT/Optical input (Light-pipe)

ADAT optical format digital multi audio or 2CH serial audio signal input terminal. In the case of 2CH serial audio signal, DIGITAL IN (COAXIAL) is selectable.

Connector: Light-pipe optical x 1
 Format: ADAT OPTICAL at ADAT
 AES3 -1992 or IEC60958
 (auto matically detected) at Optical

Audio bit length : 24bit

ADAT/Optical output (Light-pipe)

ADAT optical format digital multi audio or 2CH serial audio signal output terminal. In the case of 2CH serial audio signal, DIGITAL OUT (COAXIAL) is selectable.

Connector: Light-pipe optical x 1
 Format: ADAT OPTICAL at ADAT
 IEC60958 at Optical
 Audio bit length: 24bit at ADAT
 24bit at Optical

Misc. I/O**Word sync input**(Word clock signal input terminal)

Connector: BNC x 1
 Input impedance: 75 ohm
 Input level: TTL level

Word sync output(Word clock signal output for Word sync)

Connector: BNC x 1
 Output level: TTL level

MIDI input 1-4(MIDI input terminal)

Connector: 5-pin DIN connector
 (conforms to MIDI specifications x 4)
 Format : MIDI

MIDI output 1-4(MIDI output terminal)

Connector: 5-pin DIN connector
 (conforms to MIDI specifications x 4)
 Format : MIDI

FireWire(IEEE 1394 digital interface)

Connector: IEEE 1394 connector x 2
 Format: IEEE 1394
 Transmit rate: 400Mbps

COAXIAL OUT端子

(2チャンネルデジタルオーディオ出力用。ハイサンプリング周波数にも対応。)

コネクター: RCA ピンジャック
 出カインピーダンス: 75 Ω
 フォーマット: IEC60958 (S/PDIF)
 オーディオビット長: 24ビット

ADAT/OPT IN端子

(ADATオプティカルフォーマットデジタルマルチオーディオまたは2チャンネルデジタルオーディオ入力用)

コネクター: オプティカルタイプ
 フォーマット: ADAT OPTICAL/AES3-1992
 (AES/EBU) またはIEC60958
 (S/PDIF) (自動判別)
 オーディオビット長: 24ビット

ADAT/OPT OUT端子

(ADATオプティカルフォーマットデジタルマルチオーディオまたは2チャンネルデジタルオーディオ出力用)

コネクター: オプティカルタイプ
 フォーマット: ADAT OPTICAL IEC60958
 (S/PDIF)
 オーディオビット長: 24ビット

その他の入出力**WORD SYNC IN端子**

コネクター: BNC (アンバランス)
 入カインピーダンス: 75 Ω
 入力レベル: TTL レベル

WORD SYNC OUT端子

コネクター: BNC (アンバランス)
 出力レベル: TTL レベル

MIDI IN (1~4)端子

コネクター: 5 ピンDIN コネクター
 (MIDI 規格準拠)
 フォーマット: MIDI

MIDI OUT (1~4)端子

コネクター: 5 ピンDIN コネクター
 (MIDI 規格準拠)
 フォーマット: MIDI

FireWire (1, 2)端子 (IEEE 1394デジタルインタフェース)

コネクター: IEEE 1394コネクター
 フォーマット: IEEE 1394
 通信速度: 400Mbps

Foots witch

Punch In/Out of DAW application

Connector: Normally-open 1/4-inch TS jack

Overall System Specifications**Sampling frequency**Internal clock : 44.1kHz / 48.0kHz / 88.2kHz /
96.0kHzExternal clock: Word sync input / Digital input /
ADAT input**AD/DA converter****Analog to Digital**Resolution: 24 bit
Dynamic range: 103 dB (Fs=44.1kHz, A-weight)
AD input level Maximum: +8.1dBu (0dBFS)
Nominal: -7.9dBu (-16dBFS)**Digital to Analog**Resolution: 24 bit
Dynamic range: 106 dB (Fs=44.1kHz, A-weight)
Analog output level Maximum: +7.8dBu (0dBFS)
Nominal: -8.2dBu (-16dBFS)**Signal delay**< 1.5 ms (Fs = 48.0kHz. LINE IN to STEREO OUTPUT)
< 0.75 ms (Fs = 96.0kHz. LINE IN to STEREO OUTPUT)**Analog I/O**THD (Level: +4dBu): < 0.005 % (20 Hz - 20 kHz, LINE IN
1 kHz to INSERT SEND)
< 0.008 % (20 Hz - 20 kHz, LINE IN
1 kHz to STEREO OUTPUT)

Frequency response (@ nominal level)

20Hz - 20 kHz : ±0.5 dB,
(MIC/LINE IN to INSERT SEND)20Hz - 40kHz : +0.5dB / -1.0 dB,
(MIC/LINE IN to INSERT SEND)20Hz - 20kHz : ±0.5 dB
(LINE IN to STEREO OUTPUT)20Hz - 40kHz : +0.5dB / -1.5 dB,
(LINE IN to STEREO OUTPUT)Noise level (20Hz - 20kHz, TRIM max, 150 ohm)
< -124 dBu(EIN)

(MIC IN to INSERT SEND)

< -64dBu

(LINE IN to STEREO OUTPUT)

Crosstalk (@ 1kHz)

> 80dB (STEREO OUTPUTS)

FOOT SW端子

(DAWアプリケーションのパンチイン/アウト用)

コネクター: 6φ (2極) ホンジャック

システム仕様**サンプリング周波数**内部クロック: 44.1 kHz / 48.0 kHz /
88.2 kHz / 96.0 kHz外部クロック: WORD SYNC IN入力 /
COAXIAL IN入力 / ADAT/OPT入力**AD/DAコンバーター****AD**分解能: 24 bit
ダイナミックレンジ: 103 dB (Fs=44.1 kHz, A-weight)
AD最大入力レベル: +8.1 dBu (0 dBFS)
AD規定入力レベル: -7.9 dBu (-16 dBFS)**DA**分解能: 24 bit
ダイナミックレンジ: 106 dB (Fs=44.1 kHz, A-weight)
DA最大出力レベル: +7.8 dBu (0 dBFS)
DA規定出力レベル: -8.2 dBu (-16 dBFS)**信号ディレイ**1.5 ms以下 (Fs = 48.0 kHz. LINE IN → STEREO OUTPUT)
0.75 ms以下 (Fs = 96.0 kHz. LINE IN → STEREO OUTPUT)**アナログオーディオ入出力特性**歪率(THD): 0.005%以下 (20 Hz - 20 kHz, LINE IN
1 kHz + 28 dBu入力 → INSERT SEND)
0.008%以下 (20 Hz - 20 kHz, LINE IN
1 kHz + 28 dBu入力 → STEREO OUTPUT)

周波数特性 (規定レベル時):

20 Hz - 20 kHz、 ±0.5 dB
(MIC, LINE IN → INSERT SEND)20 Hz - 40 kHz、 +0.5 dB / -1.0 dB
(MIC, LINE IN → INSERT SEND)20 Hz - 20 kHz、 ±0.5 dB
(LINE IN → STEREO OUTPUT)20 Hz - 40 kHz、 +0.5 dB / -1.5 dB
(LINE IN → STEREO OUTPUT)ノイズレベル (150 Ω、 20 Hz - 20 kHz、 TRIM最大)
-124 dBu以下 (EIN)

[MIC → INSERT SEND]

-64 dBu以下

[(LINE IN → STEREO OUTPUT)]

クロストーク (@ 1 kHz):

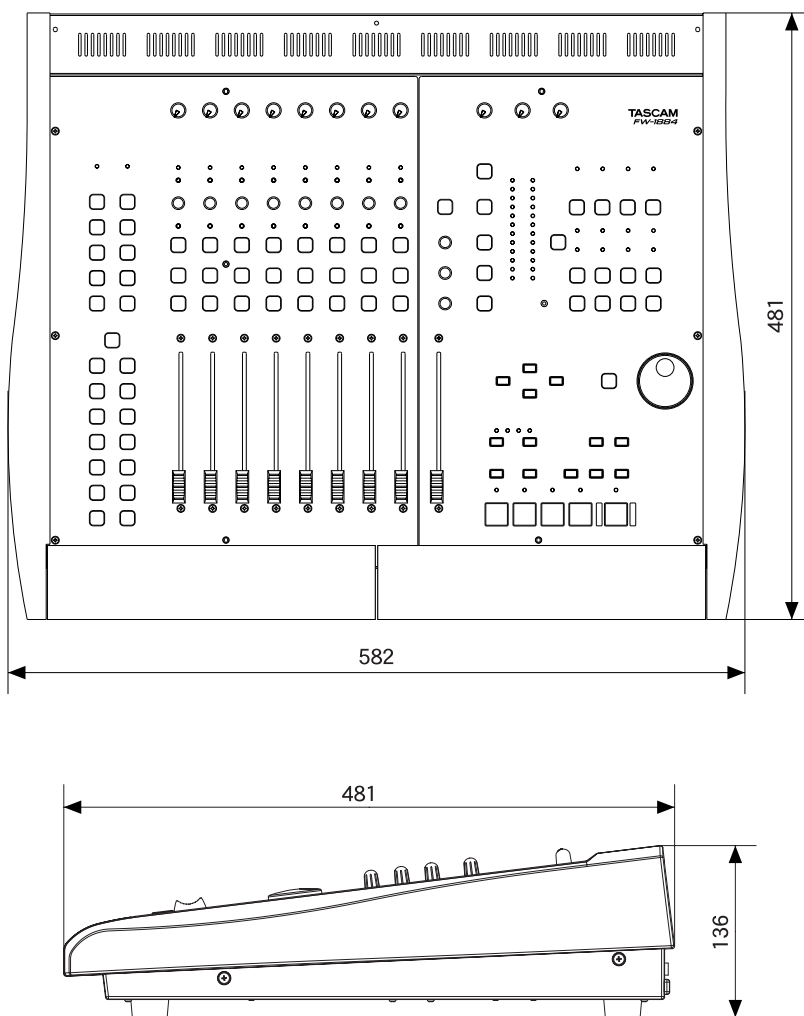
80 dB以上 (STEREO OUTPUT)

Physical specification, etc.

Dimensions W 22.9 x H 5.4 x 18.9
 (W 582mm x H 136mm x D 481mm)
 Weight 22.7 lbs (10.3 kg)
 Power requirements 100V AC, 50/60Hz/100V / 200V type
 Power consumption 23 W

機械的仕様

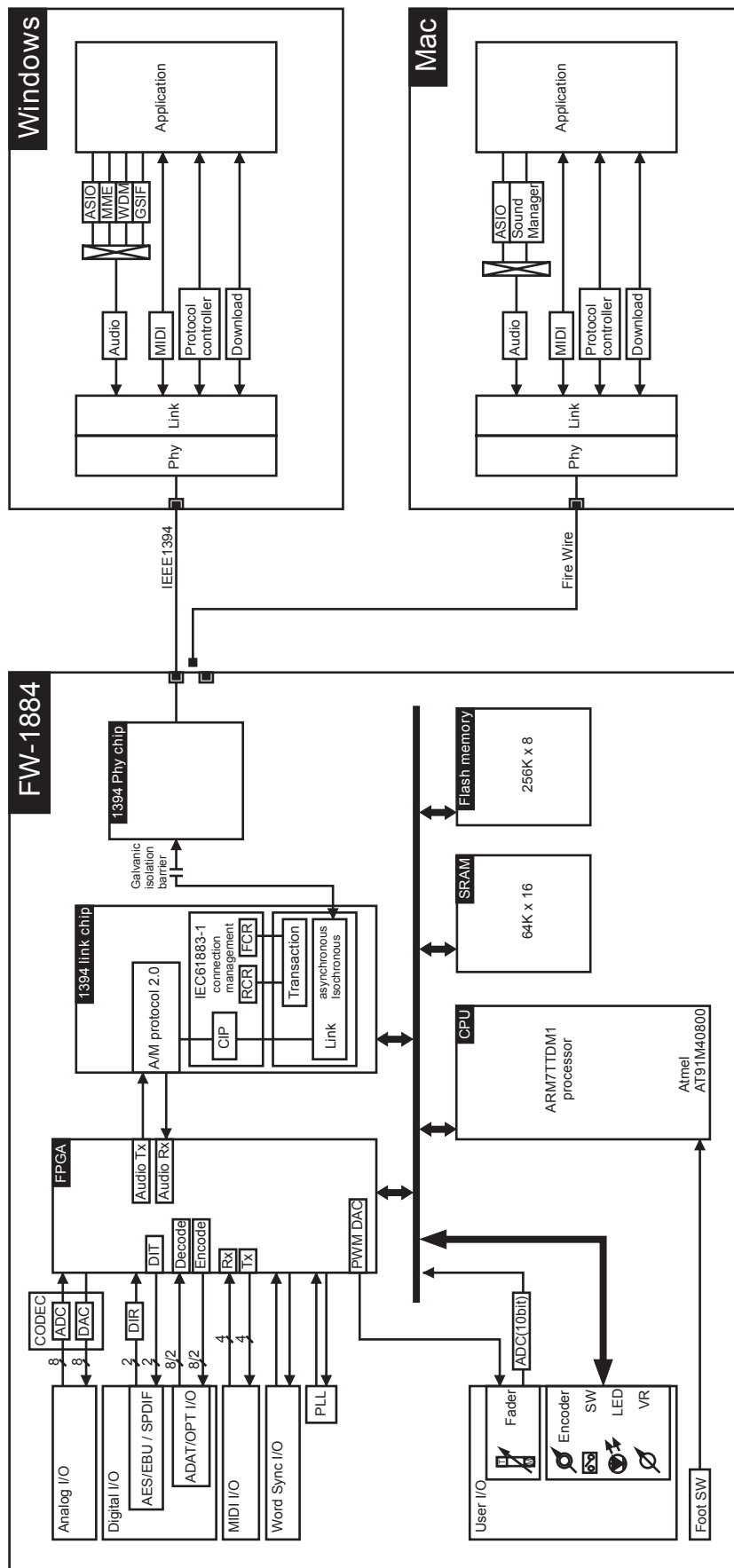
外形寸法： 582(幅) × 136(高さ) × 481(奥行) mm
 質量： 10.3 kg
 電源： 100 V、50/60 Hz AC
 消費電力： 23 W



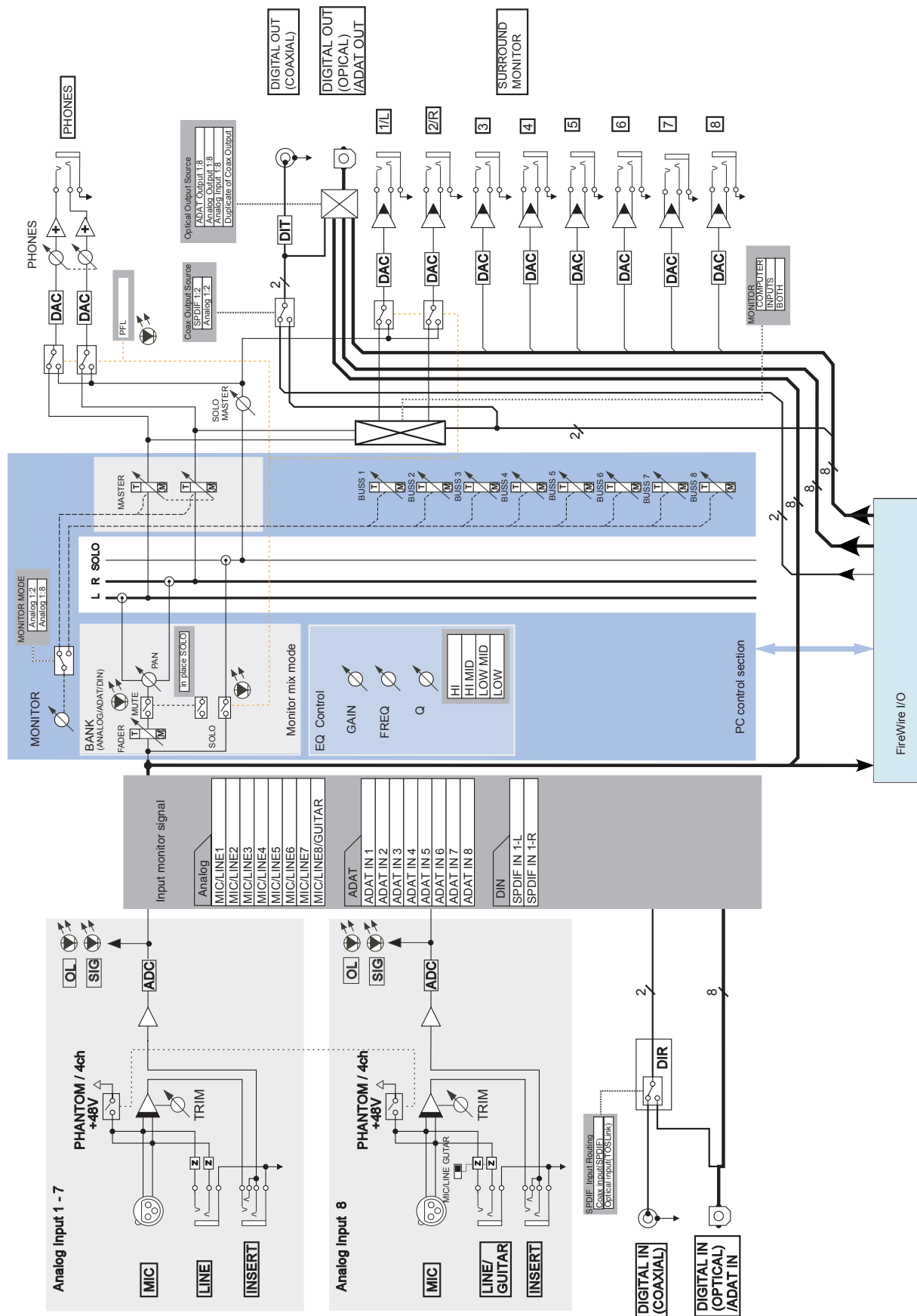
2. BLOCK DIAGRAM

ブロックダイアグラム

SYSTEM BLOCK DIAGRAM

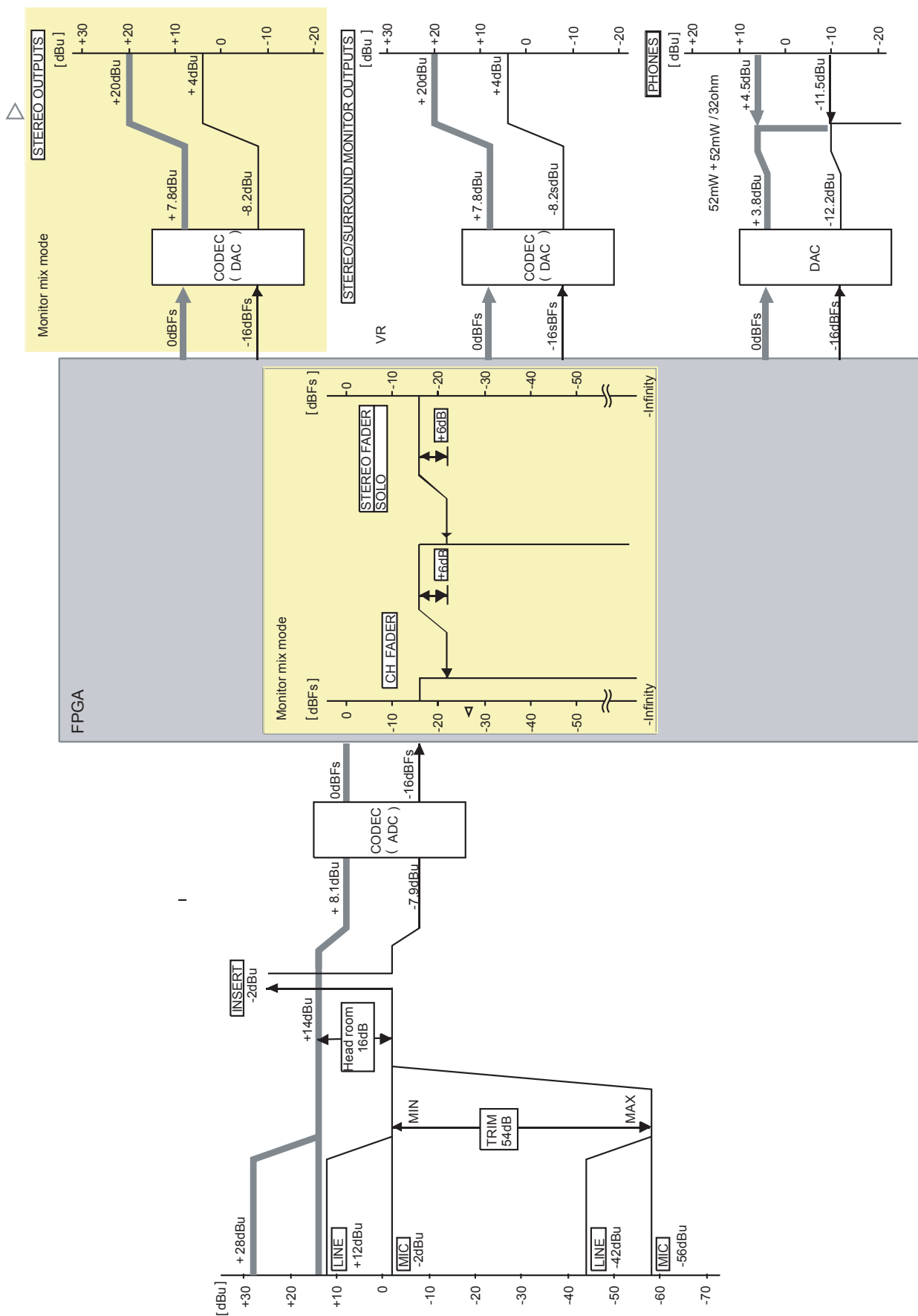


ANALOG BLOCK DIAGRAM



3. LEVEL DIAGRAM

レベルダイアグラム



PARTS LIST SECTION

NOTES

- PC boards shown are viewed from parts side.
- Parts marked with * require longer delivery time.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in the manual.
- △ Parts marked with this sign are safety critical components. They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [] mark can be used only with the version designated.
[J]: JAPAN [US/C]: U.S.A./CANADA [K]: KOREA [E]: EUROPE
[UK]: U.K. [A]: AUSTRALIA

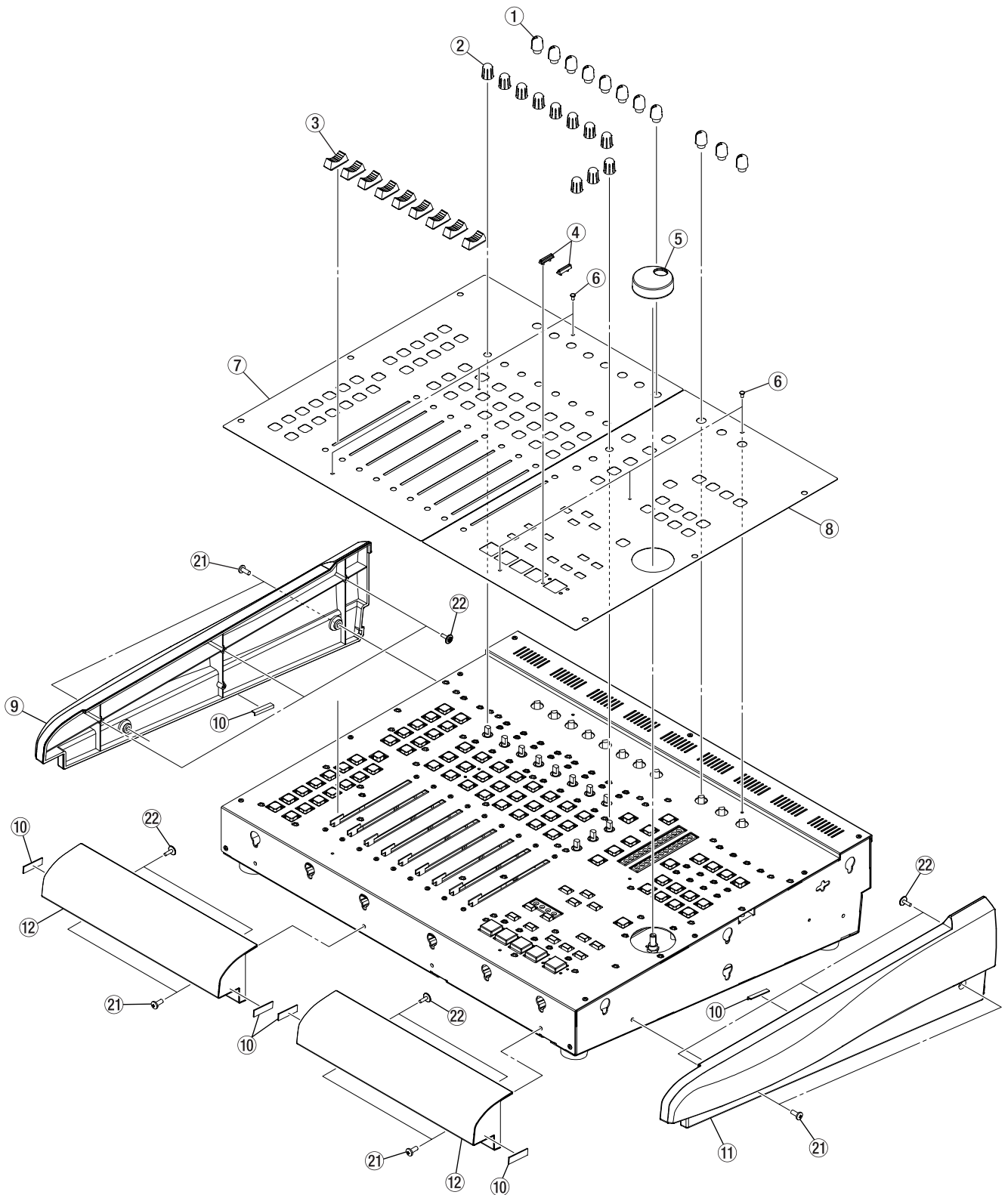
注意

- プリント基板は部品面が示されています。
- *印の部品は納期が若干かかります。
あらかじめご了承ください。
- 分解図に部番のない部品及び品番のない部品は供給しません。
- 標準の抵抗、コンデンサーは省略してあります。
回路図を参照してください。
- △は安全重要部品です。
交換する時は必ずティアック指定の部品を使用してください。
- 仕向先
[J]: JAPAN [US/C]: U.S.A./CANADA [K]: KOREA [E]: EUROPE
[UK]: U.K. [A]: AUSTRALIA

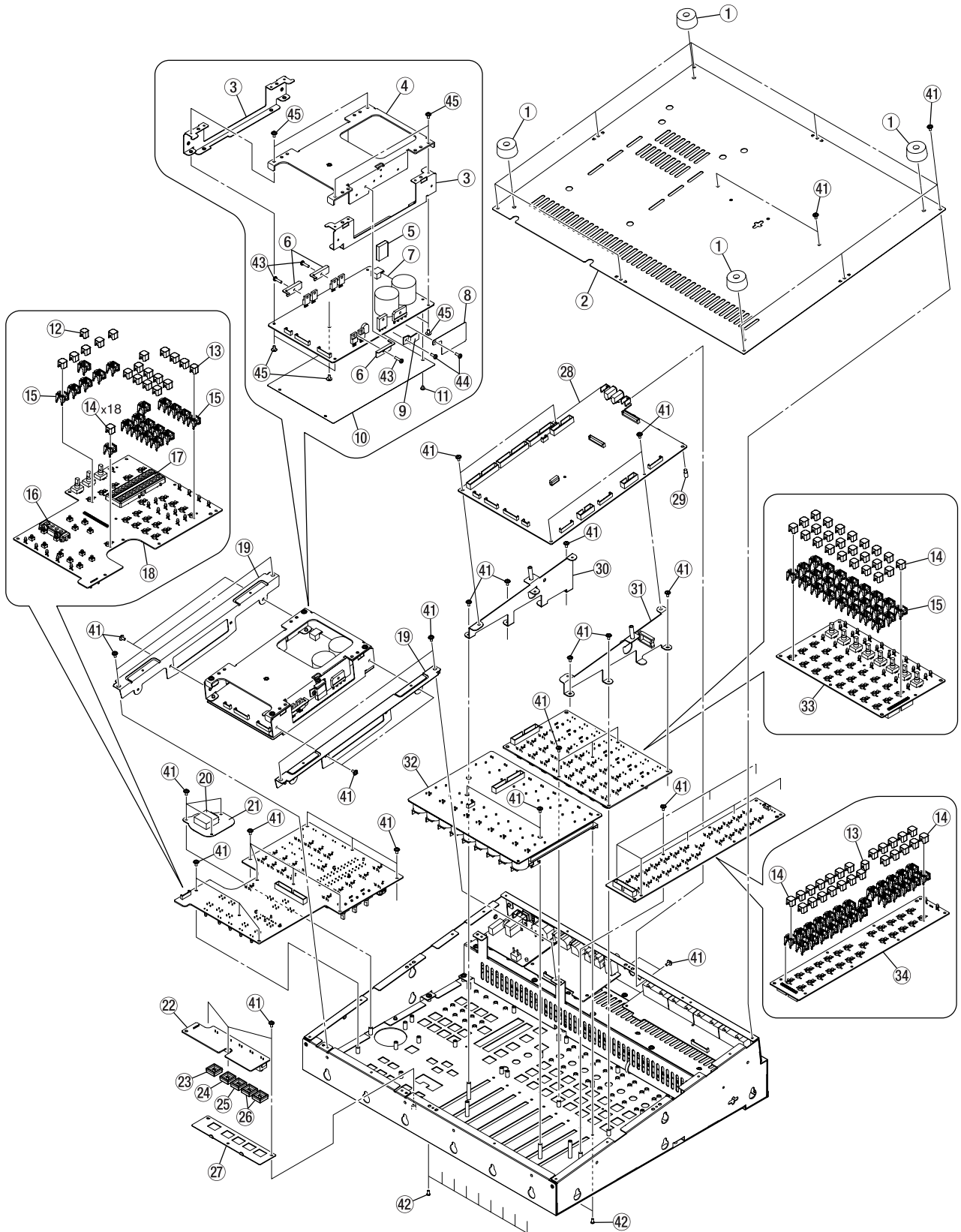
4. EXPLODED VIEW AND PARTS LIST

分解図とパーツリスト

EXPLODED VIEW-1



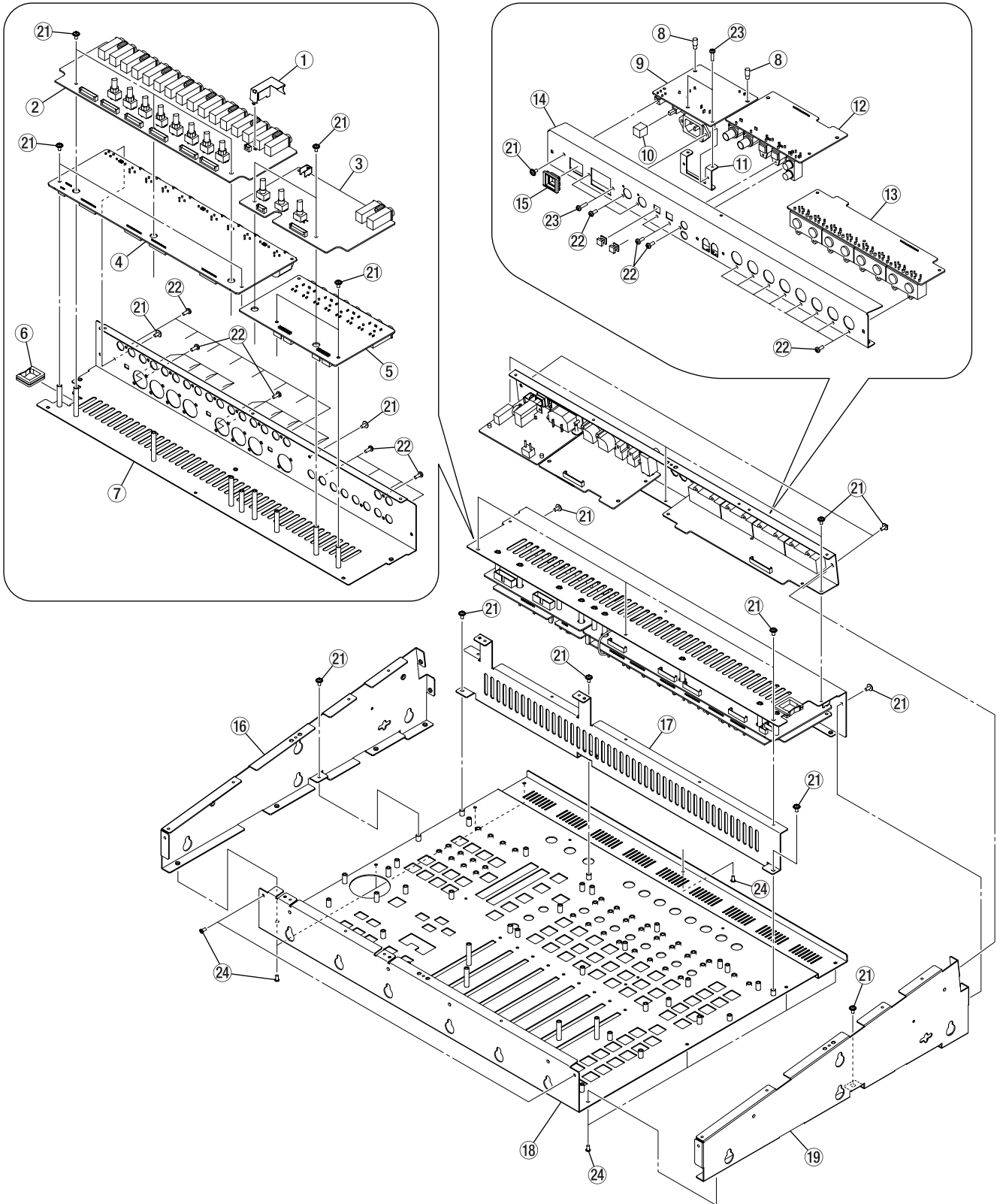
EXPLODED VIEW-2



EXPLODED VIEW-1 & -2

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1- 1	3M0218300A	KNOB, TRIM N61/N64	
1- 2	M01534700A	KNOB, ENCODER N64	
1- 3	9260401001	S-VR KNOB, FW1884	
1- 4	M00207800A	ESCUTCHEON GUARD	
1- 5	M01352900B	KNOB, JOG US-224	
1- 6	3M0182300A	PUSH RIVETS P2632	
1- 7	M01533400B	SHEET, LEFT	
1- 8	M01533500B	SHEET, RIGHT	
1- 9	M01534400A	PANEL, SIDE L	
1-10	M01643200A	SHEET, PANEL FRONT	
1-11	M01534500A	PANEL, SIDE R	
1-12	M01534600A	PANEL, FRONT	
1-21	3B0700210A	SCREW BH M4*10 (BLK)	
1-22	B00134000A	SCREW PTITE 3*10D10 ZNY	
2- 1	3M0187400A	FOOT FF015	
2- 2	M01534300A	CHASSIS, BOTTOM	
2- 3	M01532400A	BRACKET, POWER	
2- 4	M01532500A	HEAT SINK POWER	
2- 5	3M0154500A	TUBE, TO-3PCV	
2- 6	M01532700A	BRACKET, TR	
2- 7	E95162920A	PCB ASSY, POWER FW T/C	CAUTION(Refer to page 18)
2- 8	E95162950A	PCB ASSY, POWER FW EUR	CAUTION(Refer to page 18)
2- 9	M01650300A	SHIELD SHEET, DIODE	
2-10	3M0155200A	BRACKET, TRK-1	
2-11	M01532600A	SHIELD SHEET, POWER	
2-12	3M0155300A	PUSH RIVET SR345	
2-13	M01531701A	BUTTON, RED	
2-14	M01531702A	BUTTON, GRY	
2-15	M01531700A	BUTTON, CLEAR1-21	
2-16	M01603900A	BRACKET, LED B	
2-17	M01603800A	BRACKET, LED A	
2-18		PCB, CONT FW.....	PCB ASSY, GATHER CONT FW (Refer to page 20)
2-19	M01534200A	FRAME, POWER	
2-20	E00804900A	ENCODER, EC202A128A	
2-21	M01533800A	BRACKET, JOG	
2-22		PCB, TRANSPORT FW	PCB ASSY, GATHER CONT FW (Refer to page 20)
2-23	3M0218000A	BUTTON REC	
2-24	3M0217900A	BUTTON PLAY	
2-25	3M0217800A	BUTTON STOP	
2-26	3M0217700A	BUTTON REW	
2-27	M01531500A	BRACKET, TRANSPORT	
2-28	E95162800A	PCB ASSY, MAIN FW	
2-29	3M0182100A	SPACER SUPPORT MC-8	
2-30	M01534000A	BRACKET, MAEN R	
2-31	M015339-00A	BRACKET, MAEN L	
2-32	E951682-00A	PCB ASSY, FADER RM FW	
2-33	E951624-00A	PCB ASSY SELECT FW	
2-34		PCB, MODE FW.....	PCB ASSY, GATHER CONT FW (Refer to page 20)

EXPLODED VIEW-3



EXPLODED VIEW-3

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3- 1	M01652500A	SHIELD CASE, JACK	
3- 2		PCB, INPUT FW.....	.PCB ASSY, GATHER IN FW (Refer to page 23)
3- 3		PCB, PHONE FW.....	.PCB ASSY, GATHER OUT FW (Refer to page 22)
3- 4		PCB, MIC FW.....	.PCB ASSY, GATHER IN FW (Refer to page 23)
3- 5		PCB, OUTPUT FW.....	.PCB ASSY, GATHER OUT FW (Refer to page 22)
3- 6	3M0217600A	BUSHING SQB-3	
3- 7	M01533000A	BRACKET, ANALOG	
3- 8	3M0182100A	SPACER SUPPORT MC-8	
3- 9		PCB, INLET FW.....	.PCB ASSY, GATHER OUT FW (Refer to page 22)
3-10	5801503800	BUTTON EJECT (P-N15-A)	
3-11	9260320701	BRACKET, PWRSW	
3-12		PCB, SYNC FW.....	.PCB ASSY, GATHER OUT FW (Refer to page 22)
3-13		PCB, MIDI FW.....	.PCB ASSY, GATHER OUT FW (Refer to page 22)
3-14	M01533200A	BRACKET, DIGITAL	
3-15	5801486601	ESCUTCHEON (D P-N15-A)	
3-16	M01533700A	CHASSIS, SIDE R	
3-17	M01533100A	PLATE, ANALOG	
3-18	M01533300A	CHASSIS, TOP	
3-19	M01533600A	CHASSIS, SIDE L	
3-21	3B0011306A	SCREW, J. S. M3X6 N1	
3-22	3B0702408A	SCREW BPP M3X8 (N1)	
3-23	3B0700112A	SCREW BPB M3*12 (N1)	
3-24	3B0700604A	SCREW WHIS BIND M3*4 (BLK)	

5. PC BOARDS AND PARTS LIST

基板図とパーツリスト

MAIN FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*E95162800A	PCB ASSY, MAIN FW
		PCB, MAIN FW
D1, D2	9174027030	LED KP-1608IT
D3	3S007224	DI, FM4002 CHIP
D4	3S007164	DIODE, RB160L-60
D5	9174026830	LED KP-1608YT
D7	9174027030	LED KP-1608IT
D8, D10	9165028930	DIODE, HVC376B
D9	3S002984	DIODE, 1SS355 TE-17 TP
D11-D52	3S002984	DIODE, 1SS355 TE-17 TP
D53	3S007234	ZDI, 39V 02CZ39 CHIP
D54-D57	3S007244	DI, SB05-05CP CHIP
J1, J2	3E021540	CONNECTOR, 1394UR-06
L1	3E021554	COIL, ELLATV470M
L2, L3	3E021564	COIL, B5W-857CM-0009
L4, L5	5286051500	COIL, CHIP 2.7UH K LK2125
L6-L9	3E020884	COIL, LQH4C100K04
L10	3E021554	COIL, ELLATV470M
L11-L14	3E020884	COIL, LQH4C100K04
P1	3E029430	PIN, HEADER 2.54MM 1*3P
P2, P8	9144510010	CONNECTOR 2316S-40G
P3	3E023280	CONNECT, 12P A2502WV WHT
P4	3E010360	CONNCT PLUG B 4B-PH-K-S
P5	9144546110	CONNECTOR 2316S-26G
P6	9144521010	CN 2316S-34G
P7	3E023270	CONNECT, 11P A2502WV WHT
P14	3E022080	CONNECT, 12P A2001WV WHT
P15, P17	9144523710	CN 2316S-16G
P16	3E022230	CONNECT, 12P A2001WV RED
P18	3E023400	CONNECT, 9P A2502WV RED
P19	3E029450	PIN, HEADER 2.54MM 2*4P
P24	3E029460	PIN, HEADER 2.54MM 2*10P
P25	3E023260	CONNECT, 10P A2502WV WHT
P26	3E023250	CONNECT, 9P A2502WV WHT
P27	3E023200	CONNECT, 4P A2502WV WHT
P28	3E022010	CONNECT, 5 P A2001WV WHT
P29	3E029440	PIN, HEADER 2.54MM 1*5P
Q1	3S006984	DTR, DTA124EKAT-146
Q2	S0018524	TR 2SC3661
Q3, Q4	3S006984	DTR, DTA124EKAT-146
Q13-Q20	S0018524	TR 2SC3661
Q21	3S008974	TR, 2SB12600 CHIP
Q22, Q23	3S007274	TR, 2SC2873Y (CHIP)
SW2, SW1	9136003020	TACT SW EVQ11L05R
TR1	3E021580	TRANS, EEH116
U1	3S007284	IC, MAX809SEUR-T
U2	S0050193	IC, XC9536XL-10PC44C
U3	3S007304	IC, MX29LV400TTC-70
U4	3S007314	IC, AT91M42800A-33A1
U5	3S009474	IC, CY7C1041CV33-12ZCT
U6	3S007334	IC, PDI1394L40BE
U7	3S007344	IC, 4N37S
U8	3S007354	IC, LM2574M-3.3

MAIN FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
U9	3S007364	IC, PDI1394P23BD
U10	S0050203	IC, XC2S100-5PQ208C
U11	3S007134	IC, NJM2870F33
U12, U14	9167068030	IC, MC74HC4046ADR2 (16P)
U13	3S006664	IC, TC74VHCU04F (14P)
U15	3S007384	IC, AK4117VF
U16	3S006874	IC, PLL1700E
U17-U40	3S005364	IC, NJM4580M
U41-U44	3S007394	IC, AK4528VF
U45	3S007404	IC, AK4380VT
U46	3S005364	IC, NJM4580M
U47	3S007414	IC, M5237ML
U48	3S007424	IC, LM29371MP-2.5
U49	3S006844	IC, NJM7805DL1A-TE1
U51	3S007434	IC, SN74LV573ANSR
U52	9167051630	IC, TD62M8600F
U53	3S008994	IC, SN74LV00APWR
U54, U55	3S009004	IC, SN74LV08APWR
U56-U59	3S008994	IC, SN74LV00APWR
X1	9173019130	XTAL 24.576MHZ SDS
X2	9173018830	CRYSTAL 27MHZ LIM55A

GATHER CONT FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*E95162300A	PCB ASSY GATHER CONT FW
		PCB, CONT FW
D301-D303	9174027620	LED, SLR-332DU T32 (ORG)
D304, D313	E021612	LED, SLR-342DU TC7
D305-D308	3E021622	LED, SLR-342MG TC7
D309, D318	3E021602	LED, SLR-342VR TC7
D310-D312	9174027620	LED, SLR-332DU T32 (ORG)
D314-D317	3E021622	LED, SLR-342MG TC7
D319-D322	9174027620	LED, SLR-332DU T32 (ORG)
D323-D326	3E021622	LED, SLR-342MG TC7
D327, D335	3E021602	LED, SLR-342VR TC7
D328-D330	9174027620	LED, SLR-332DU T32 (ORG)
D331	3E021612	LED, SLR-342DU TC7
D332-D334	3E021622	LED, SLR-342MG TC7
D336, D337	9174027620	LED, SLR-332DU T32 (ORG)
D338, D339	3E021612	LED, SLR-342DU TC7
D340-D342	3E021622	LED, SLR-342MG TC7
D343, D350	3E021602	LED, SLR-342VR TC7
D344, D351	9174027620	LED, SLR-332DU T32 (ORG)
D345, D346	3E021612	LED, SLR-342DU TC7
D347-D349	3E021622	LED, SLR-342MG TC7
D352, D353	3E021612	LED, SLR-342DU TC7
D354-D356	3E021622	LED, SLR-342MG TC7
D357	3E021602	LED, SLR-342VR TC7
D358	9174027620	LED, SLR-332DU T32 (ORG)
D359, D360	3E021612	LED, SLR-342DU TC7
D361-D363	3E021622	LED, SLR-342MG TC7
D365-D370	3S000241	DI, 1SS133 T-77
D372-D376	3S000241	DI, 1SS133 T-77
D378-D382	3S000241	DI, 1SS133 T-77
D384-D388	S000241	DI, 1SS133 T-77
D390-D412	3S000241	DI, 1SS133 T-77
P301	9144510010	CONNECTOR 2316S-40G
P302	3E023220	CONNECT, 6P A2502WV WHT
Q301-Q310	9163018420	DTR, DTC123ES
SW301-304	9136003020	TACT SW EVQ11L05R
SW305	3E018241	SW, TACT SKHHDAA010
SW306-308	3E021640	ENCODER, EC12E24104A6
SW309-311	9136003020	TACT SW EVQ11L05R
SW312, 313	3E018241	SW, TACT SKHHDAA010
SW314-316	9136003020	TACT SW EVQ11L05R
SW317, 318	3E018241	SW, TACT SKHHDAA010
SW319-321	9136003020	TACT SW EVQ11L05R
SW322	3E018241	SW, TACT SKHHDAA010
SW323, 324	9136003020	TACT SW EVQ11L05R
SW325, 326	3E018241	SW, TACT SKHHDAA010
SW327, 328	9136003020	TACT SW EVQ11L05R
SW329, 330	3E018241	SW, TACT SKHHDAA010
SW331, 334	9136003020	TACT SW EVQ11L05R
SW332, 333	3E018241	SW, TACT SKHHDAA010
SW335	3E018241	SW, TACT SKHHDAA010
SW336	9136003020	TACT SW EVQ11L05R

GATHER CONT FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
		PCB, MODE FW
D1-D24	9174027620	LED, SLR-332DU T32 (ORG)
D26, D52	3E021602	LED, SLR-342VR TC7
D27-D51	3S000241	DI, 1SS133 T-77
P1	3E023190	CONNECT, 3P A2502WV WHT
P2	E00771700A	HARNESS ASSY, MAI-MOD
Q1-Q4	9163018420	DTR, DTC123ES
SW1-SW25	9136003020	TACT SW EVQ11L05R
		PCB, TRANSPORT FW
P101	E00771600A	HARNESS ASSY, TRANSPORT
SW101-105	9135041400	PUSH SW, SKBMFA000A-TK

FADER RM FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*E95168200A	PCB ASSY, FADER RM FW
		PCB, FADER RM FW
D101-D103	3S002984	DIODE, 1SS355 TE-17 TP
D201-D203	3S002984	DIODE, 1SS355 TE-17 TP
D301-D303	3S002984	DIODE, 1SS355 TE-17 TP
D401-D403	3S002984	DIODE, 1SS355 TE-17 TP
D501-D503	3S002984	DIODE, 1SS355 TE-17 TP
D601-D603	3S002984	DIODE, 1SS355 TE-17 TP
D701-D703	3S002984	DIODE, 1SS355 TE-17 TP
D801-D803	3S002984	DIODE, 1SS355 TE-17 TP
D901-D903	3S002984	DIODE, 1SS355 TE-17 TP
MF101, 201	R00979400A	VAR, RES 5KB T-SENSE
MF301, 401	R00979400A	VAR, RES 5KB T-SENSE
MF501, 601	R00979400A	VAR, RES 5KB T-SENSE
MF701, 801	R00979400A	VAR, RES 5KB T-SENSE
MF901	R00979400A	VAR, RES 5KB T-SENSE
P1	9144510010	CONNECTOR 2316S-40G
P2	3E023350	CONNECT, 4P A2502WV RED
U1, U3	3S007484	IC, SN74LV541ANS
U10	3S005344	IC, NJM072BM
U101, U301	S0035334	IC, BA5983FM
U102, U302	S0023994	IC, NJM4565M-T1
U2, U4	3S005344	IC, NJM072BM
U201, U401	S0023994	IC, NJM4565M-T1
U5	3S007464	IC, SN74LV165ANSR
U501, U701	S0035334	IC, BA5983FM
U502, U702	S0023994	IC, NJM4565M-T1
U6	3S007444	IC, TLV1543CDW
U601, U801	S0023994	IC, NJM4565M-T1
U7, U9	3S005344	IC, NJM072BM
U8	3S007494	IC, LM29371MP-3.3
U81, U82	3S007454	IC, SN74LV14ANSR
U83-U85	9167065530	IC, HD74LV86AFPPEL
U901	S0035334	IC, BA5983FM
U902	S0023994	IC, NJM4565M-T1

GATHER OUT FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*E95162700A	PCB ASSY, GATHER OUT FW
		PCB, OUTPUT FW
J1-J4	9143385010	CPJ-066-005
P3 P4	E00772500A	HARNESS ASSY, MAI-OUT
		PCB, PHONE FW
D101, D201	3S000241	DI, 1SS133 T-77
J5	9143385010	CPJ-066-005
MB2	M01510100A	BRACKET, PCB-A
P100 P200	E00772400B	HARNESS ASSY, MAI-PHO RED
Q101, Q201	3S006232	TR, 2SC-2878A TP
R136, R137	3R020150	RN, METAL OXIDE 1/2W 100HM
U101, U201	3E013130	FILTER, EMT103DT
U102	3S004860	IC NJM4580L (SIP)
VR1	9172038700	VR RK09K12CZ007 10KAX2
VR2, VR3	3R017500	VR, RK09D1130C49 5K
		PCB, MID1 FW
D001-D004	3S000241	DI, 1SS133 T-77
J001-J004	9144437001	MINI DIN JACK HDC-052A-12
P001	E00772700A	HARNESS ASSY, MAI-MID
Q001-Q004	9163018420	DTR, DTC123ES
U001-U004	3S006780	PHOTO COUPLER, PC-900
U005-U012	3E013950	FILTER, EMT102BT
		PCB, SYNC FW
D901-D904	3S000241	DI, 1SS133 T-77
J901	9144522100	2RCA HSP-242 V2-23
J902, J903	9144488000	BNC COH2201-A
P901	E00772800A	HARNESS ASSY, MAI-SYN
U901	3S007654	IC, TC74ACT04P(14P)
U902	3E027222	FILTER, EXCEMT101BT TP
U903	3E027222	FILTER, EXCEMT101BT TP
U904	5220084800	IC DGTL SN74S140N
U905	3S007710	IC, GP1FA553RZ
U906	3S007720	IC, GP1FA553TZ
		PCB, INLET FW
C1-C3	△ 3C020750	CQ, 0.1UFAC250V
C4	△ 9120000101	SPARK KILLER 0.0047M 250V
C5, C6	△ 3C020830	CC, 2200PF AC250V
D1	△ 3E021860	SURGE ABSORBER, DC470V ERZ
F1	3E006220	FUSE HOLDER 5.0 FUSE
F1	△ 3E021830	FUSE, SLOWBLOW AC250V 5A
L1, L2	△ 3E021750	CM COIL, 2.2MH 1.3A LF2020
MB1	M01510100A	BRACKET, PCB-A
P1	△ E0076040	AC, INLET M1908A
P2	E00773400A	HARNESS ASSY, INL-POW
S1	△ 9135037200	SW, SFDLB11M7U TK

GATHER IN FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*E95162600A	PCB ASSY, GATHER IN FW
		PCB, GATHER IN FW
J1-J5	3E021650	JACK, CPJ066-40-5
P1-P4	E00773300A	HARNES ASSY, INP-MIC
P5	E00772100A	HARNES ASSY, MAI-IN1
P6	E00772200A	HARNES ASSY, MAI-IN2
R102 R202	3R017490	VR, 20K RK09D1130C4B
R302 R402	3R017490	VR, 20K RK09D1130C4B
R502 R602	3R017490	VR, 20K RK09D1130C4B
R702 R802	3R017490	VR, 20K RK09D1130C4B
		PCB, MIC FW
	M01652500A	SHIELD CASE, JACK
J7-J8	3E021650	JACK, CPJ066-40-5
J9-J16	3E021930	JACK, XLR NC3FAH1-0
MB1	M01510100A	BRACKET, PCB-A
P11	E00772300A	HARNES ASSY, MODE-MA1
P13	E00833400A	HARNES ASSY, INP-MIC2
Q101, Q201	S0039452	TR, 2SA1084E
Q102, Q202	S0039452	TR, 2SA1084E
Q103, Q203	3S002371	TR, 2SC5395-T12-F
Q104, Q204	3S002371	TR, 2SC5395-T12-F
Q105, Q205	9163021320	TR, 2SA1048GR
Q106, Q206	9163021320	TR, 2SA1048GR
Q301, Q401	S0039452	TR, 2SA1084E
Q302, Q402	S0039452	TR, 2SA1084E
Q303, Q403	3S002371	TR, 2SC5395-T12-F
Q304, Q404	3S002371	TR, 2SC5395-T12-F
Q305, Q405	9163021320	TR, 2SA1048GR
Q306, Q406	9163021320	TR, 2SA1048GR
Q501, Q601	S0039452	TR, 2SA1084E
Q502, Q602	S0039452	TR, 2SA1084E
Q503, Q603	3S002371	TR, 2SC5395-T12-F
Q504, Q604	3S002371	TR, 2SC5395-T12-F
Q505, Q605	9163021320	TR, 2SA1048GR
Q506, Q606	9163021320	TR, 2SA1048GR
Q701, Q801	S0039452	TR, 2SA1084E
Q702, Q802	S0039452	TR, 2SA1084E
Q703, Q803	3S002371	TR, 2SC5395-T12-F
Q704, Q804	3S002371	TR, 2SC5395-T12-F
Q705, Q805	9163021320	TR, 2SA1048GR
Q706, Q806	9163021320	TR, 2SA1048GR
Q807	3S006702	FET, 2SK117BL (TPE2)
SW1-SW3	3E021670	SLIDE SW, SW2-2 SSSF H9
U1-U4	3S004860	IC NJM4580L (SIP)

SELECT FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*E95162400A	PCB ASSY SELECT FW
		PCB, SELECT FW
D1, D2	9174027720	LED, SLR-332MG T32 (GRN)
D3, D9	9174027620	LED, SLR-332DU T32 (ORG)
D4, D6	3E021602	LED, SLR-342VR TC7
D5, D11	3E021622	LED, SLR-342MG TC7
D7, D8	9174027720	LED, SLR-332MG T32 (GRN)
D10, D12	3E021602	LED, SLR-342VR TC7
D13, D14	9174027720	LED, SLR-332MG T32 (GRN)
D15, D21	9174027620	LED, SLR-332DU T32 (ORG)
D16, D18	3E021602	LED, SLR-342VR TC7
D17, D23	3E021622	LED, SLR-342MG TC7
D19, D20	9174027720	LED, SLR-332MG T32 (GRN)
D22, D24	3E021602	LED, SLR-342VR TC7
D25, D26	9174027720	LED, SLR-332MG T32 (GRN)
D27, D33	9174027620	LED, SLR-332DU T32 (ORG)
D28, D30	3E021602	LED, SLR-342VR TC7
D29, D35	3E021622	LED, SLR-342MG TC7
D31, D32	9174027720	LED, SLR-332MG T32 (GRN)
D34, D36	3E021602	LED, SLR-342VR TC7
D37, D38	9174027720	LED, SLR-332MG T32 (GRN)
D39, D45	9174027620	LED, SLR-332DU T32 (ORG)
D40, D42	3E021602	LED, SLR-342VR TC7
D41, D47	3E021622	LED, SLR-342MG TC7
D43, D44	9174027720	LED, SLR-332MG T32 (GRN)
D46, D48	3E021602	LED, SLR-342VR TC7
D49-D88	3S000241	D1, 1SS133 T-77
P1	E00771900A	HARNES ASSY, MAI-SEL
Q1-Q6	9163018420	DTR, DTC123ES
SW1-SW8	3E021640	ENCODER, EC12E24104A6
SW9-SW32	9136003020	TACT SW EVQ11L05R

POWER FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*E95162920A	PCB ASSY, POWER FW T/C [J. US/C]
	*E95162950A	PCB ASSY, POWER FW EUR [E. UK. A. K]
		PCB, POWER FW
C7, C8	△ 3C020910	CE, 390UF250V 105/3000H
C19	△ 3C020930	CE, 5600UF10V 105/2000H
C23-C25	△ 3C020842	CE100U10V105/1000HP=5MMTP
C32, C33	△ 3C020920	CE, 470UF25V 105/2000H
C40	△ 3C020930	CE, 5600UF10V 105/2000H
C47	△ 3C020940	CE, 680UF16V 105/2000H
C53	△ 3C020882	CE22U100V105/2000HP=5MMTP
D2	△ 3S007520	ZDI, BRIDGE 6A 600V D3SB60
D3	3S007570	DI, UFAST 0.7A 1000V RG-1C
D5	3S033534	ZDI, UDZS18B
D6	3S007544	DI, SCHOTTKY 1A40V SFPB-54
D7, D9	3S007590	DI, UFAST 1.5A 200V EL-1Z
D8, D18	△ 3S007530	DI, SCHOTTKY 10A40V FMB24L
D10	9174019810	LED, GL3PR8
D11, D12	△ 3S007560	DI, SCHOTTKY 3.5A90V RK-49
D13, D14	3S007590	DI, UFAST 1.5A 200V EL-1Z
D15, D16	3S007544	DI, SCHOTTKY 1A40V SFPB-54
D17, D20	3S007590	DI, UFAST 1.5A 200V EL-1Z
D19	△ 3S007550	DI, SCHOTTKY 3.5A60V RK46
D21	△ 3S007580	DI, UFAST 0.7A 400V EG-01
L10	3E021800	COIL, 47UA 0.95A LF236A
L11	3E021790	COIL, 470UH 0.3A LF177B
L4, L9	3E021760	COIL, 10UH 3.6A LF175B
L5	3E021770	COIL, 15UH 1.6A LF235A
L6, L7	3E021780	COIL, 220UH 1.1A LF173B
L8	3E021840	MAG AMP, ZXP0006-3L5
P3	△ 3E024990	CONNECT, 3P A3963WR WHT
P4	3E023250	CONNECT, 9P A2502WV WHT
P5	3E023260	CONNECT, 10P A2502WV WHT
P6	3E023200	CONNECT, 4P A2502WV WHT
Q1	△ 3S009010	FET, 2SK2611
Q2	3S009020	TR, 2SA1244Y
Q3-Q5	3S003124	TR, 2SC2412K T146Q
R1	△ 3E021850	POWER THERMISTOR, 16D-13
R2	△ 3R006384	RM, 1/10W 2.2K OHM J 0603
R7	△ 3R021340	RN, WIRE-WOUND 2W0.330HM J
R10	△ 3R014244	RM, 1/2W 470 OHM J 2010
R14	△ 3R014004	RM, 1/2W 47 OHM J 2010
R22, R25	△ 3R006064	RM, 1/10W 100 OHM J 0603
R31	△ 3R014084	RM, 1/2W 100 OHM J 2010
R33	△ 3R014204	RM, 1/2W 330 OHM J 2010
T1	△ 3E021870	TRANS, ZXP0006-3T1B
U1	△ 3S007640	IC, FA5511P
U2, U6	3S007634	IC, AN1431M SMT

POWER FW PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
U3	3S007620	IC, 3.3V 1A UPC2933HF
U4	3S007610	IC, 12V 1A UPC2412AHF
U5	3S003030	IC, NJM7912FA
U7	△ 3S000650	IC, NJM7805FA
U8	△ 3S007660	IC, PHOTOCOUPLER, PC123Y22
U9	△ S0052000	PC814X

CAUTION

Difference of a POWER FW PCB Assy.

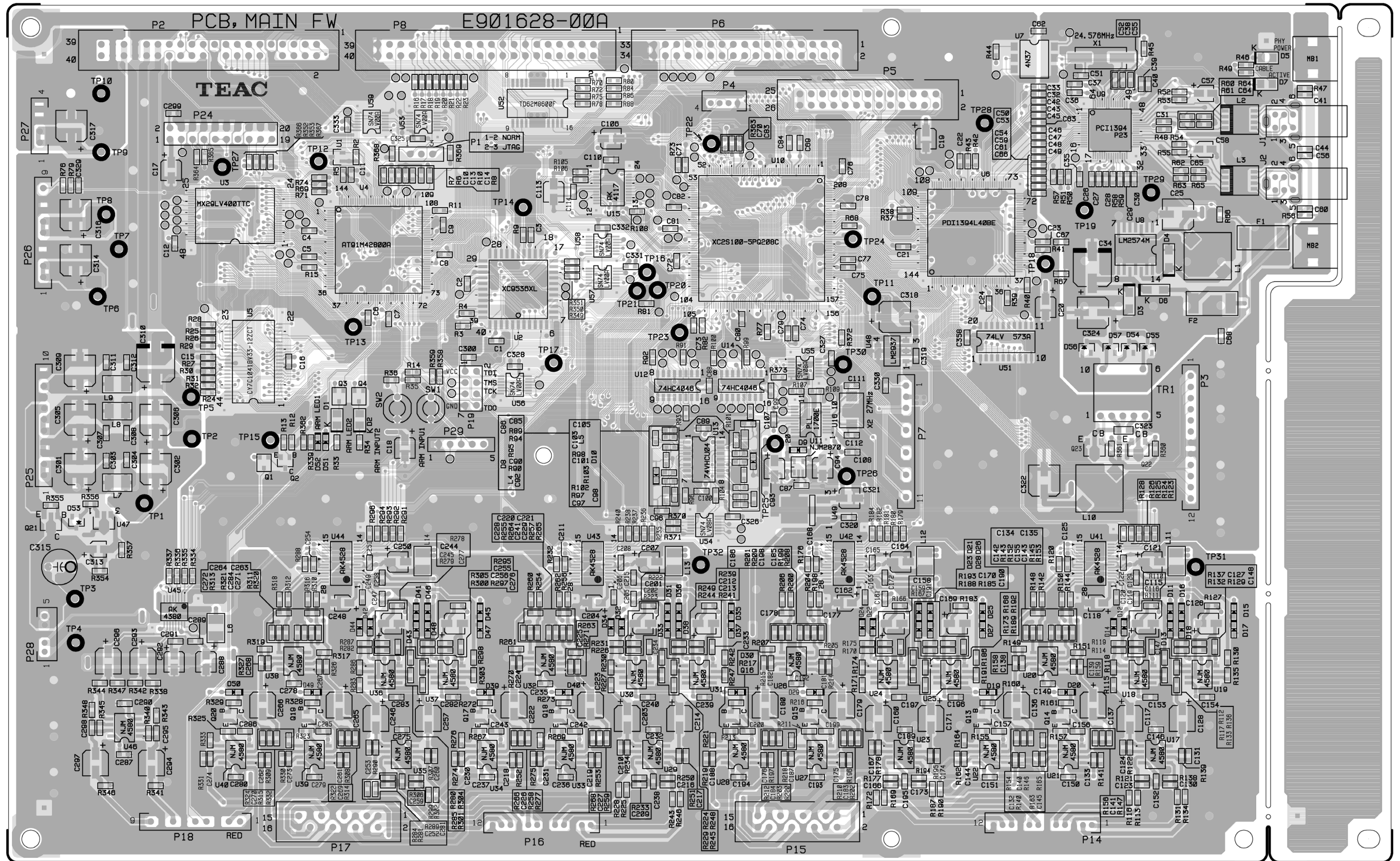
PCB ASSY, POWER FW T/C [J.US/C]

R3	No Mount
W1	3R003481 JUMPER RES, 10MM
W2	3R003541 JUMPER RES, 15MM

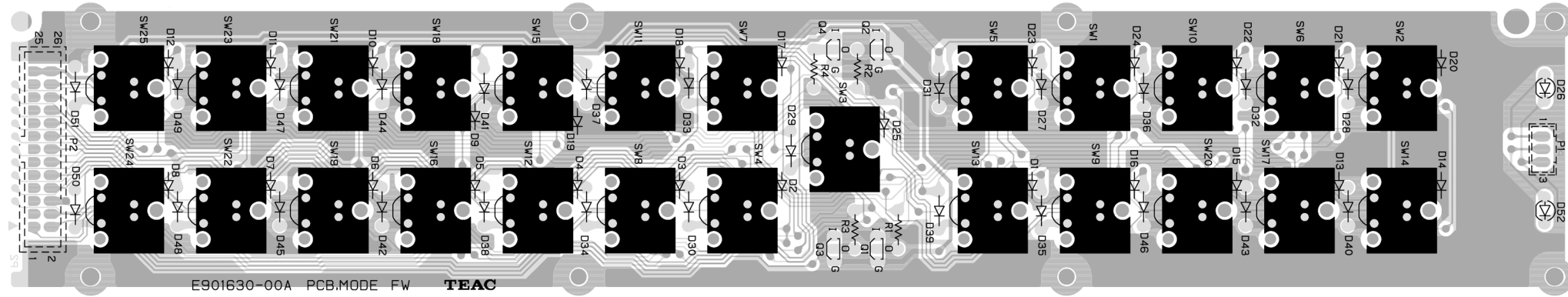
PCB ASSY, POWER FW EUR [E.UK.A.K]

R3	3R018790 RN, METAL OXIDE5W 27KOHM J
W1	No Mount
W2	No Mount

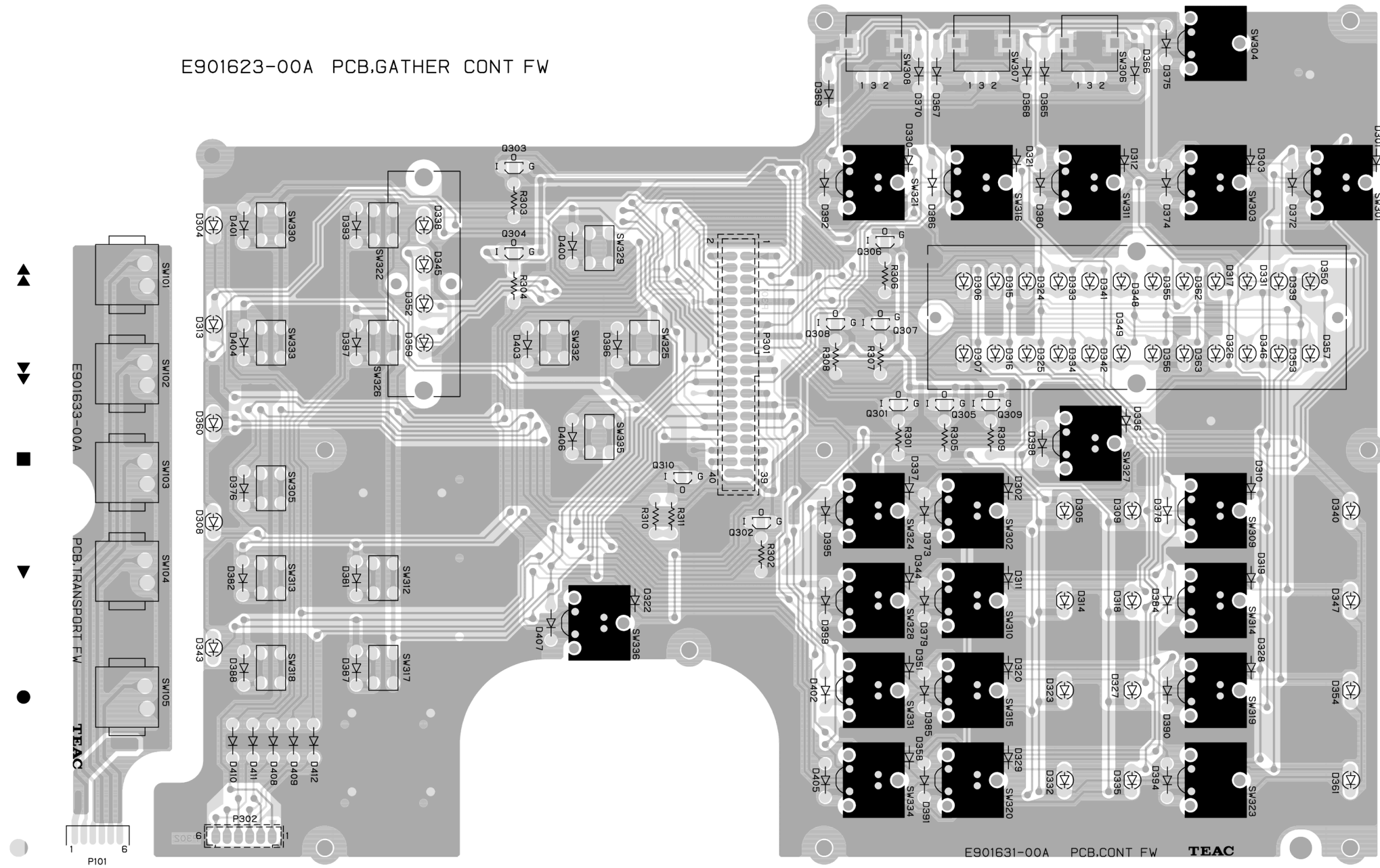
MAIN FW PCB



GATHER CONT FW PCB (CONT FW PCB, MODE FW PCB, TRANSPORT PCB)



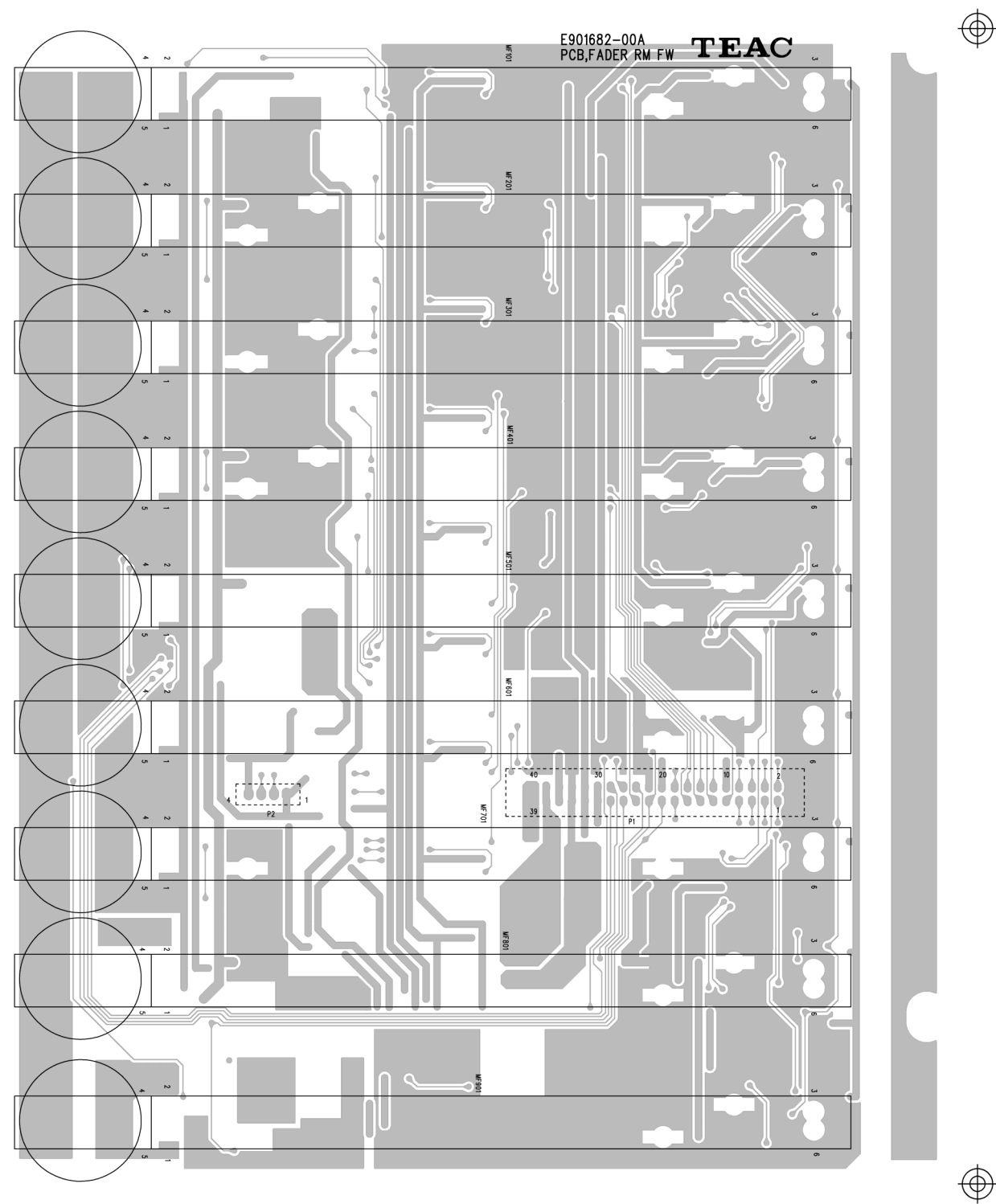
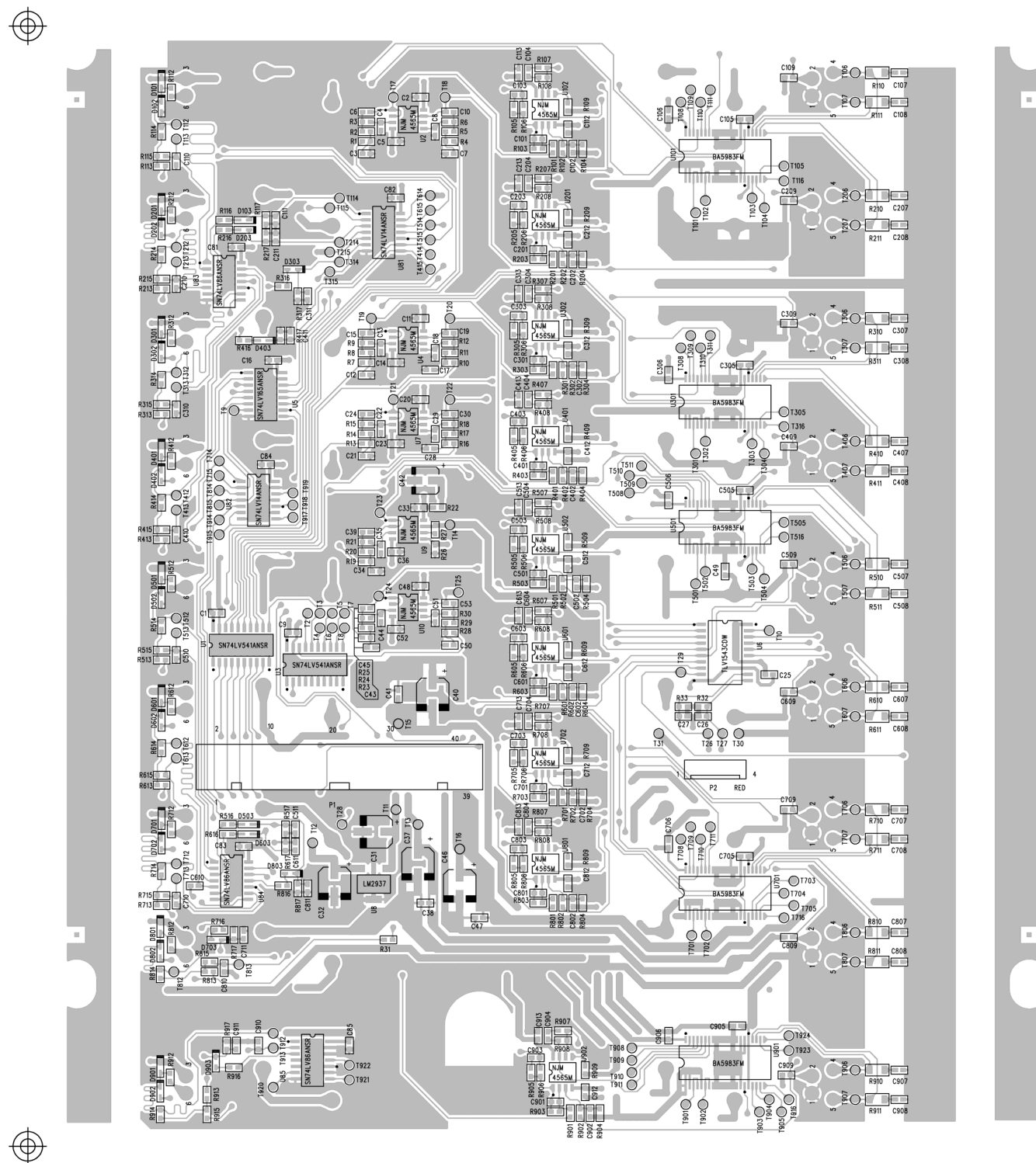
E901623-00A PCB.GATHER CONT FW



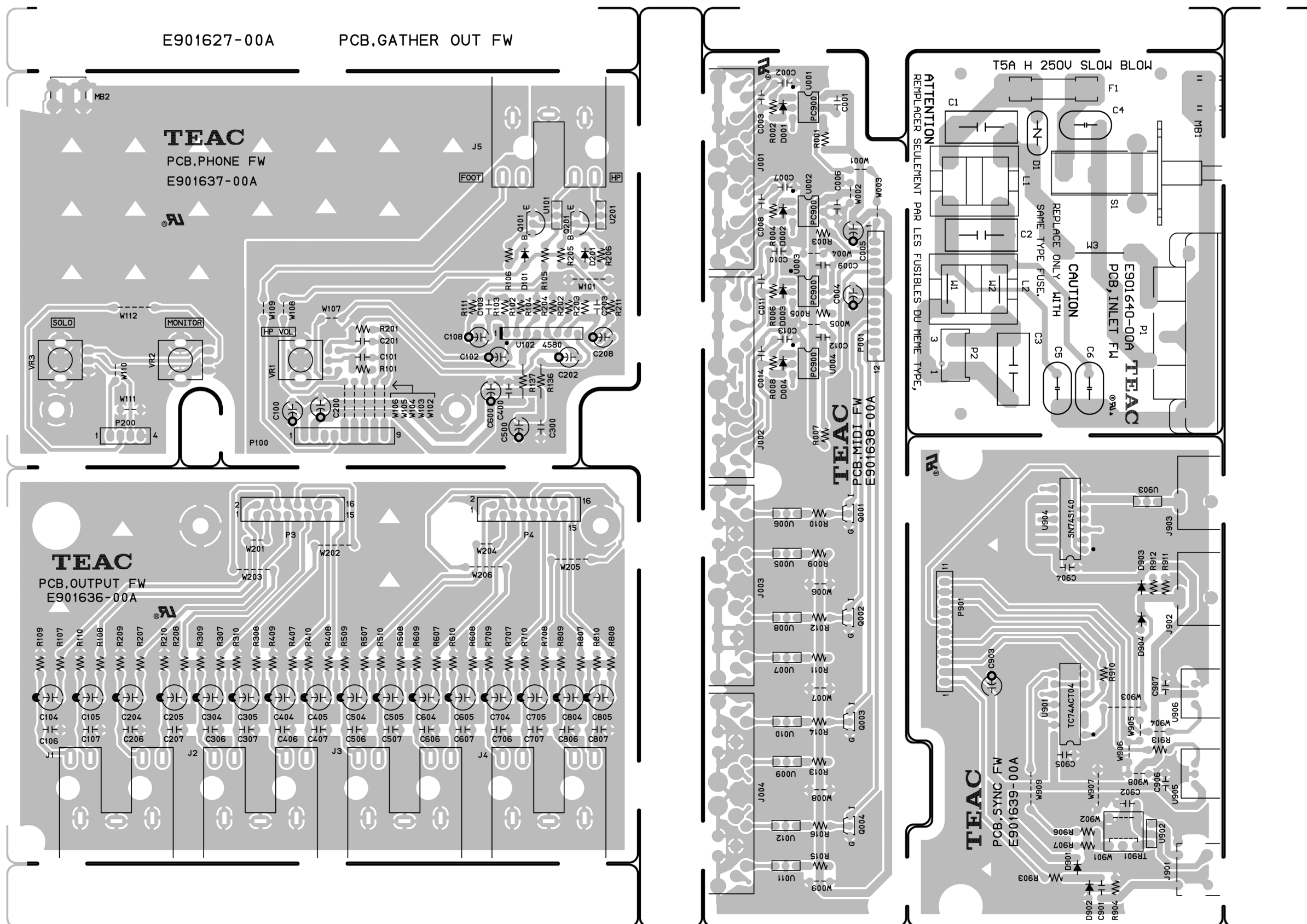
FADER FW PCB

BOTTOM SIDE

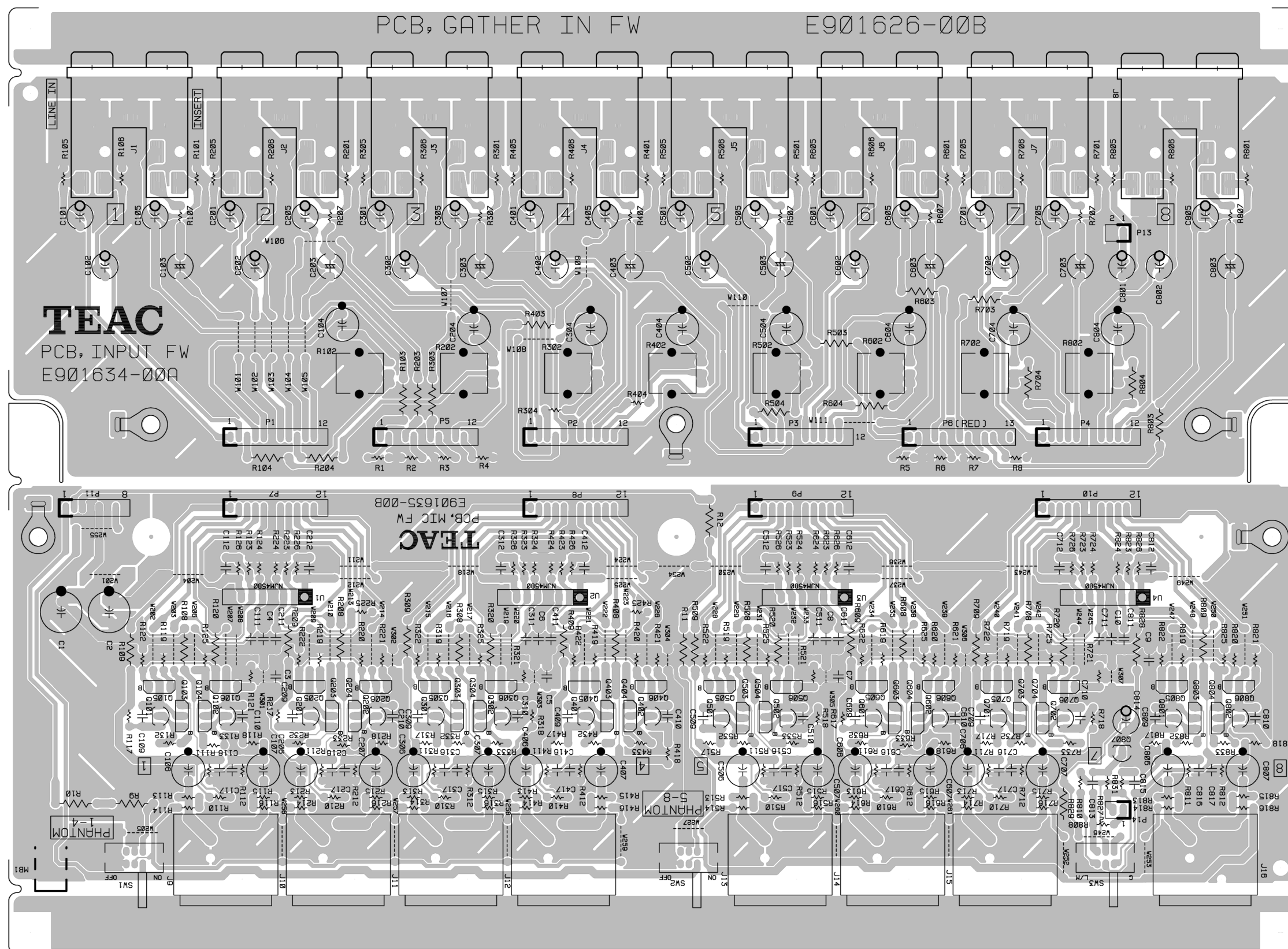
TOP SIDE



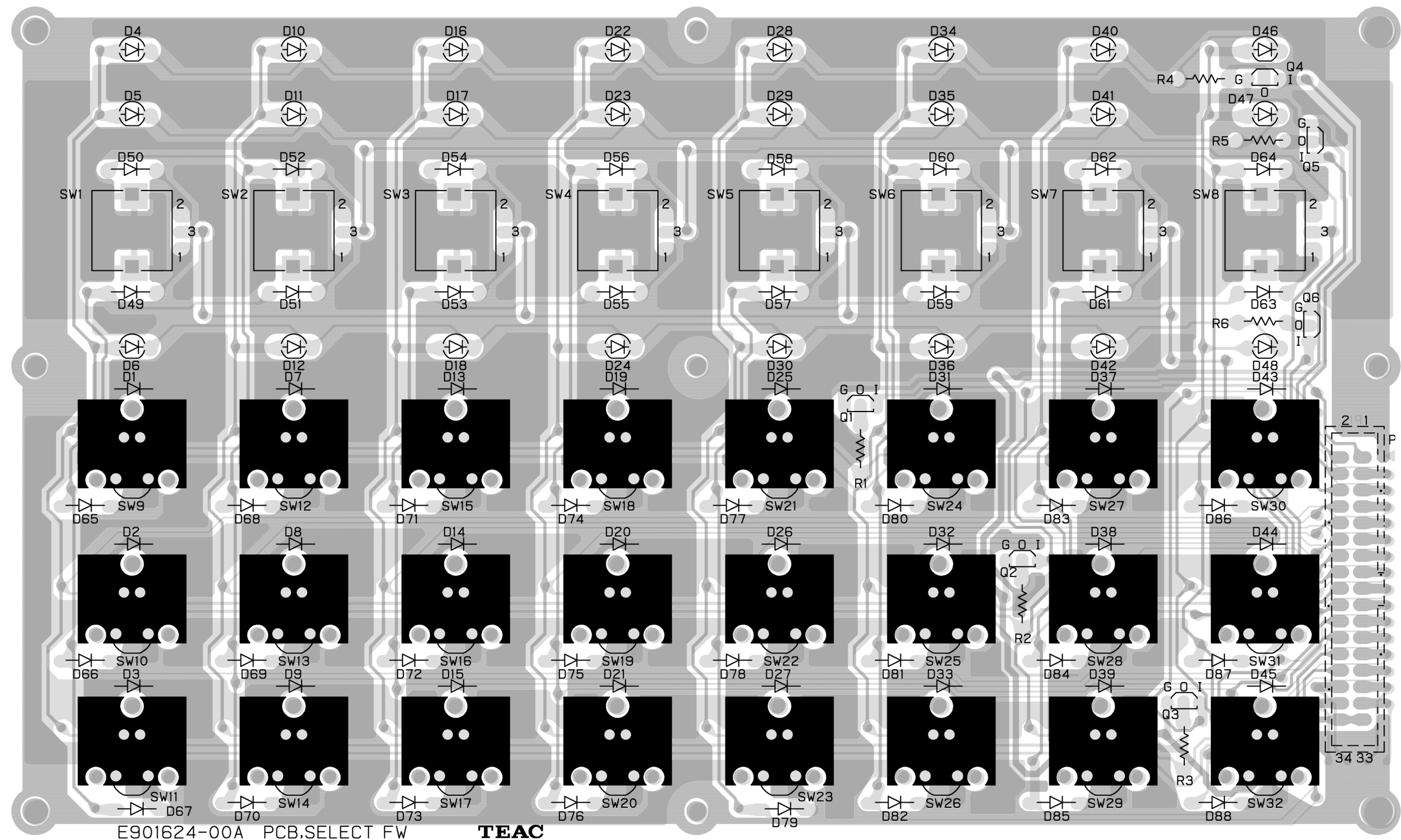
GATHER OUT FW PCB (PHONE FW PCB, OUTPUT FW PCB, MIDI FW PCB, INLET FW PCB, SYNC FW PCB)



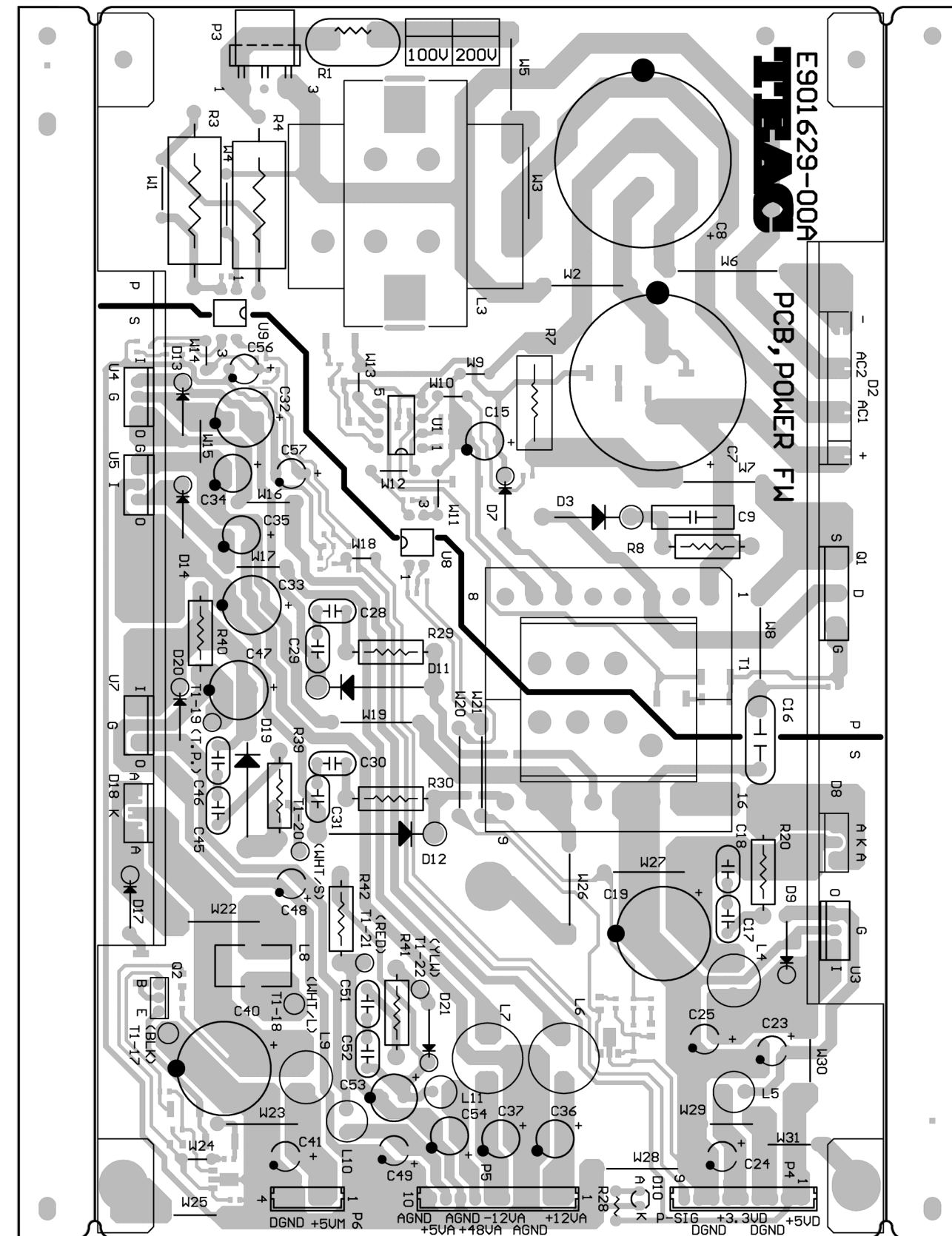
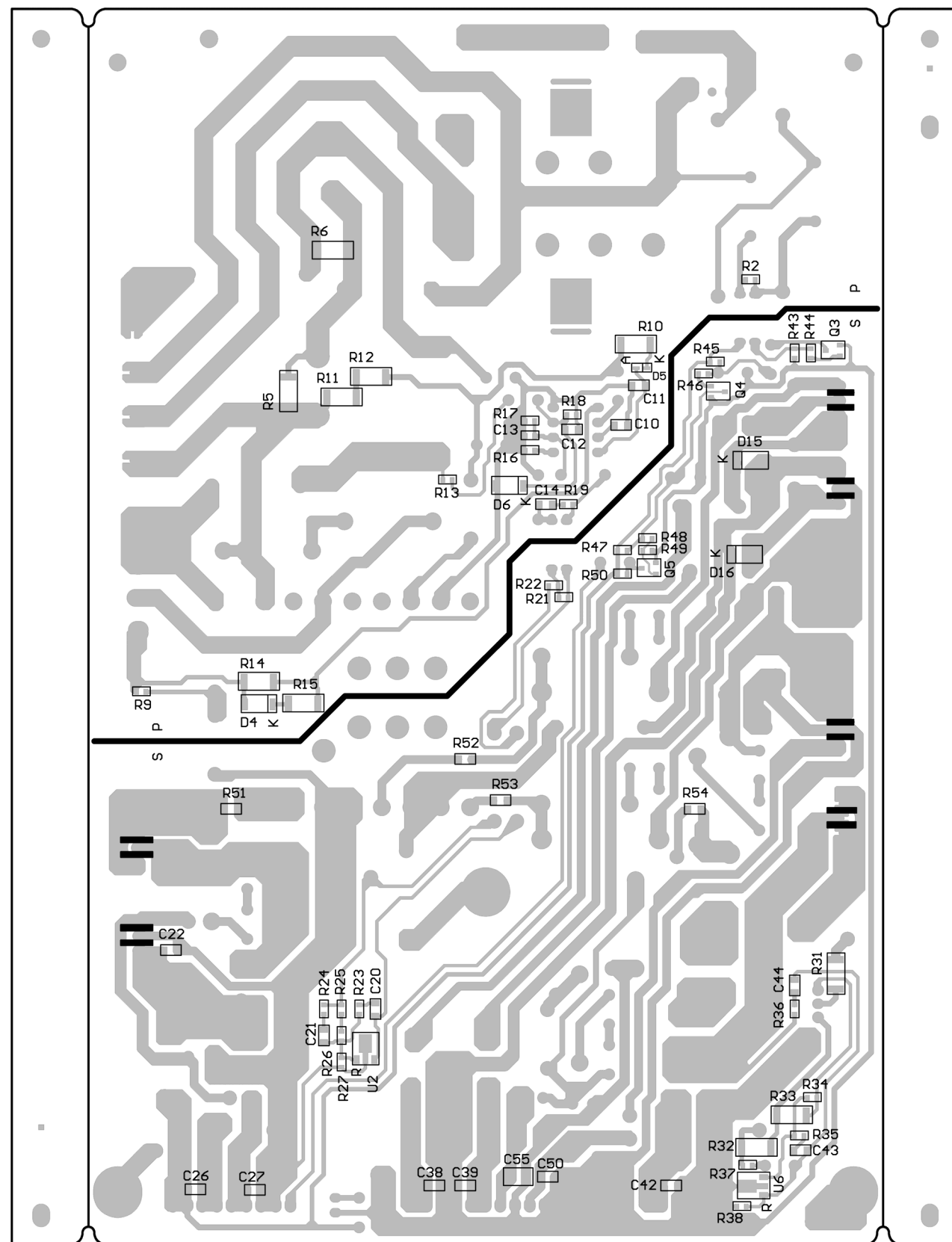
GATHER IN FW PCB (INPUT FW PCB, MIC FW PCB)



SELECT FW PCB



POWER FW PCB



6. INCLUDED ACCESSORIES

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INCLUDED ACCESSORIES

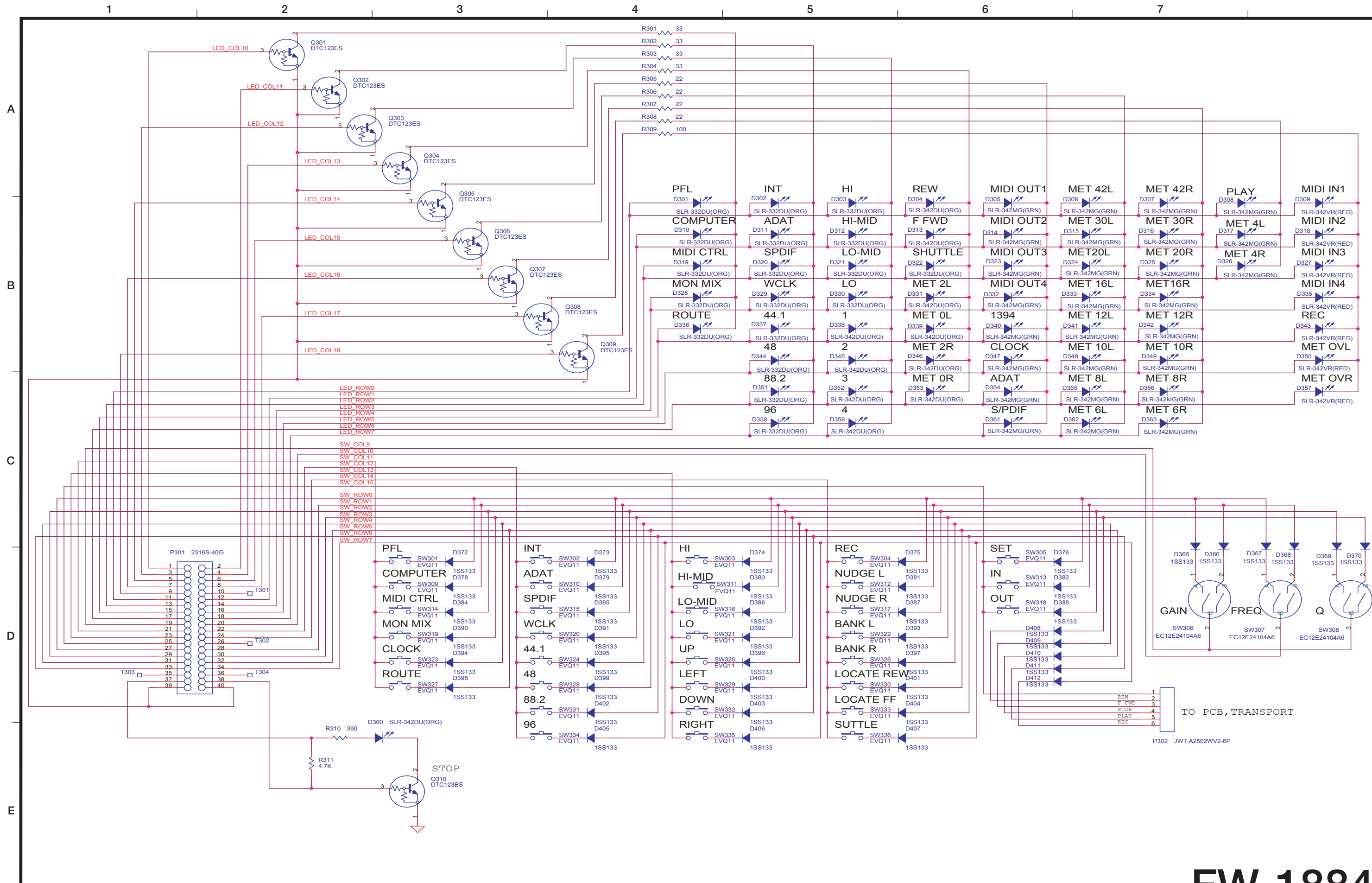
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	D00731400A	OWNERS MNL, FW1884 J	[J]
	D00731500A	OWNER'S MNL, FW1884E	[US/C. E. A. UK. K]
	D00756600A	OWNERS MNL, SET UP FW J	[J]
	D00756700A	OWNER'S MNL, SET UP FW E	[US/C. E. A. UK. K]
	D00756800A	OWNER'S MNL, SET UP FW F	[E]
	D00757000A	OWNER'S MNL, SET UP FW G	[E]
	D00757100A	OWNER'S MNL, SET UP FW I	[E]
	M01727700A	SLEEVE, CD	
	T00104200A	DISC FW1884	
	T00096800A	DISC, CD-ROM G1GA24B	
	3D0068700A	QUICK START GUIDE (F) X-9	
	△ 3E014140	POWER CORD, DM	[J]
	△ 3E014150	POWER CORD, UL	[US/C,]
	△ 3E014160	POWER CORD, EUR	[E, K]
	△ 3E014170	POWER CORD, UK	[UK]
	△ 3E014180	POWER CORD, AUS	[A]

SCHEMATIC DIAGRAMS

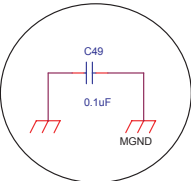
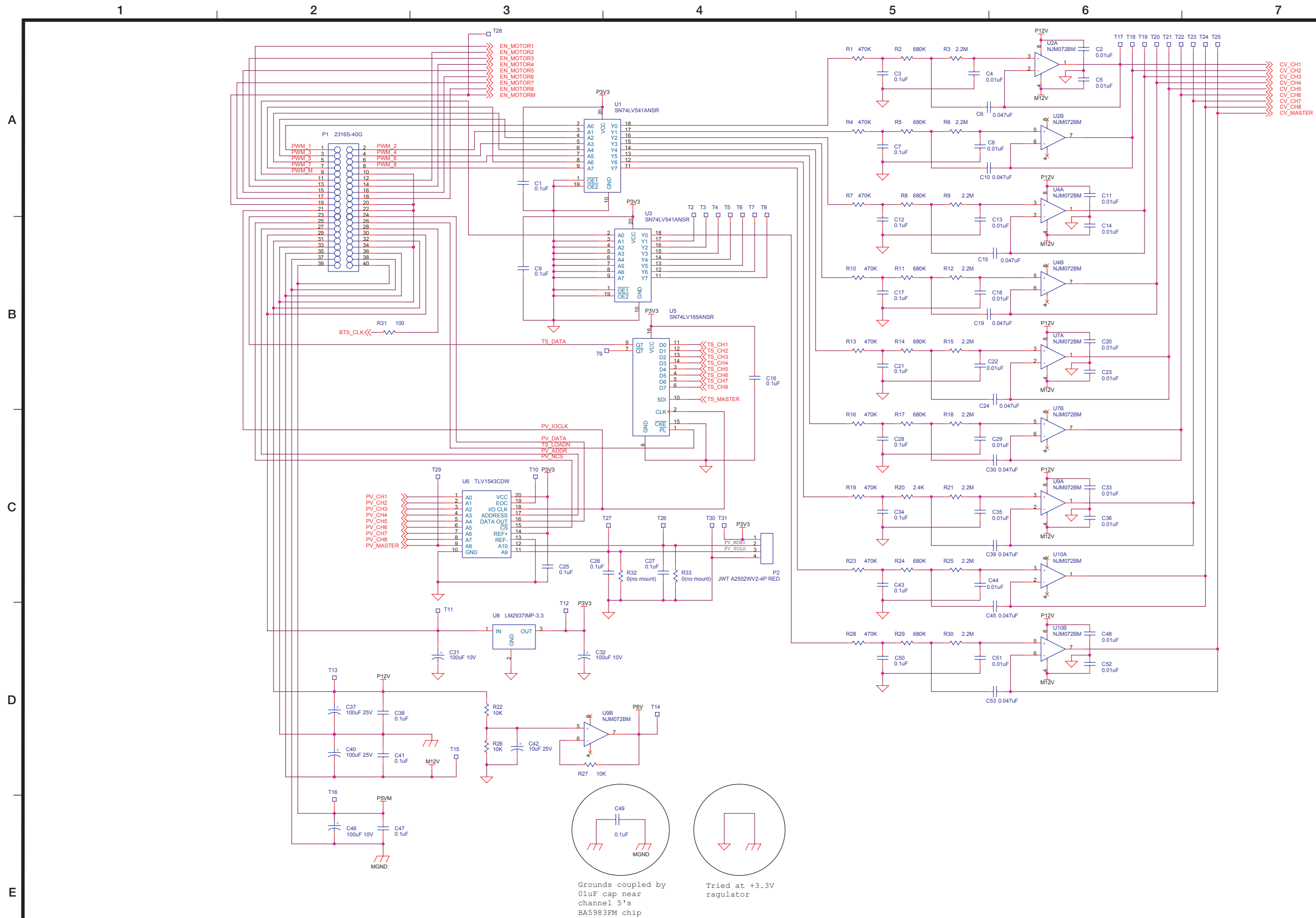
回路図

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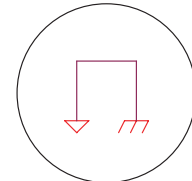
CONTROL	2
FADER(1/3)	3
FADER(2/3)	4
FADER(3/3)	5
INLET & TRANSPORT & SYNC	6
INPUT	7
MAIN (1/11) (CPU)	8
MAIN (2/11) (1394 LINK)	9
MAIN (3/11) (1394PHY)	10
MAIN (4/11) (FPGA)	11
MAIN (5/11) (CLOCK)	12
MAIN (6/11) (ANALOG 1/2)	13
MAIN (7/11) (ANALOG 3/4)	14
MAIN (8/11) (ANALOG 5/6)	15
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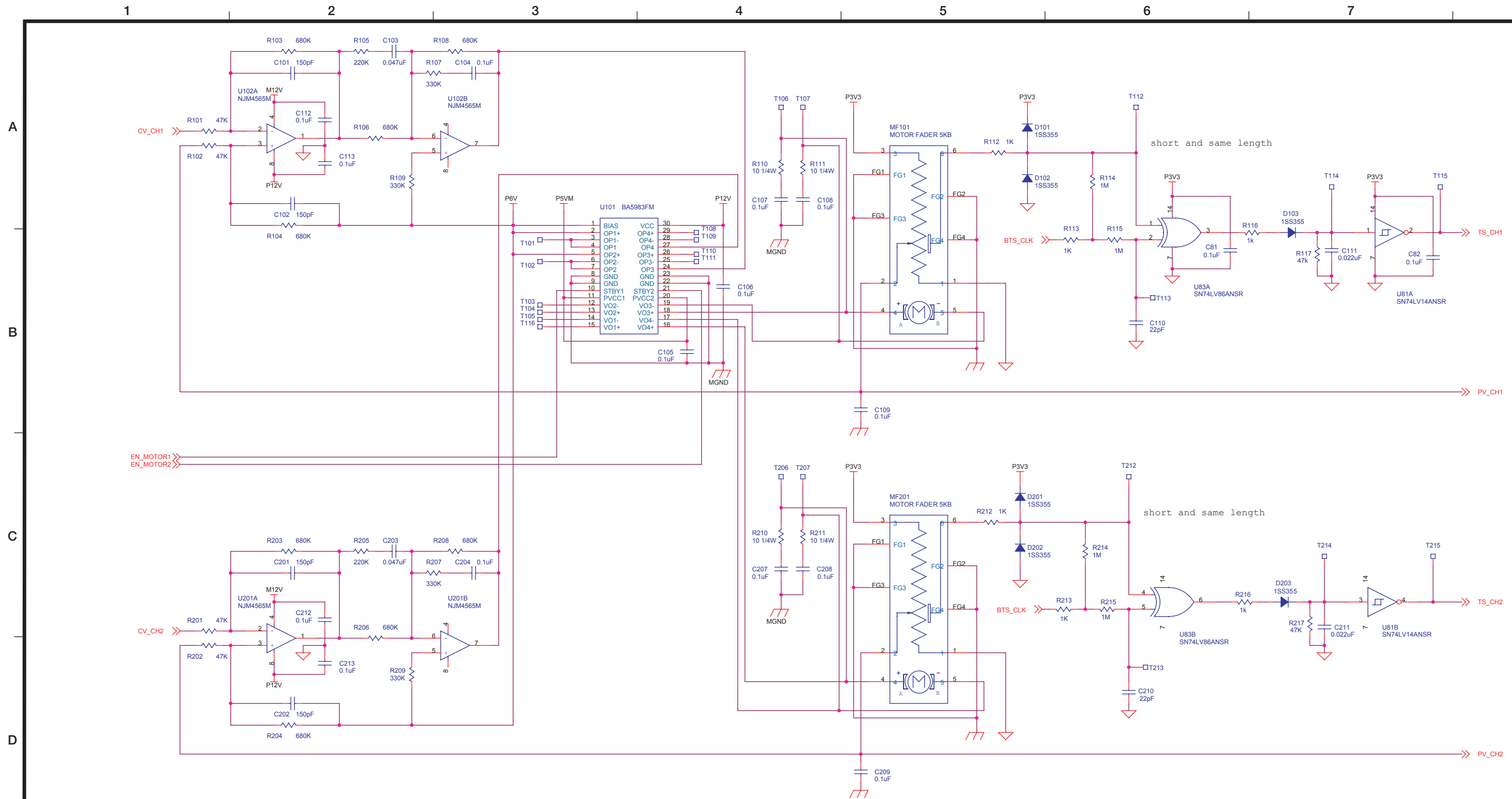
Professional Control Surface/FireWire Audio-MIDI Interface **FW-1884**



Grounds coupled by 0.1uF cap near channel 5's BA5983FM chip

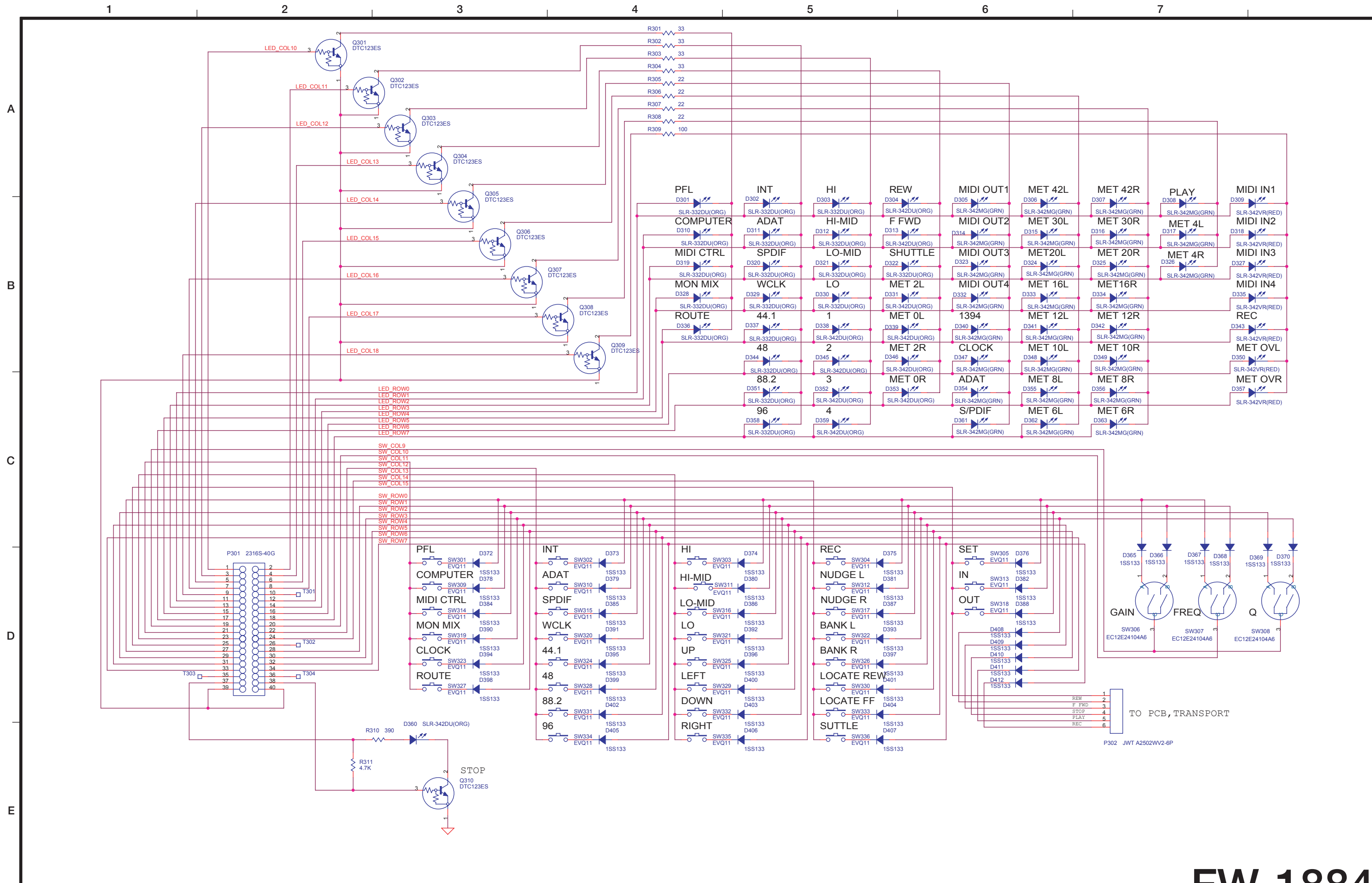


Tried at +3.3V regulator



By the channel, a REFERENCE NO is changed as follows.

CH	REFERENCE NO	CH	REFERENCE NO
CH1	R 1 01	CH5	R 5 01
CH2	R 2 01	CH6	R 6 01
CH3	R 3 01	CH7	R 7 01
CH4	R 4 01	CH8	R 8 01



Professional Control Surface/FireWire Audio-MIDI Interface **FW-1884**

1

2

3

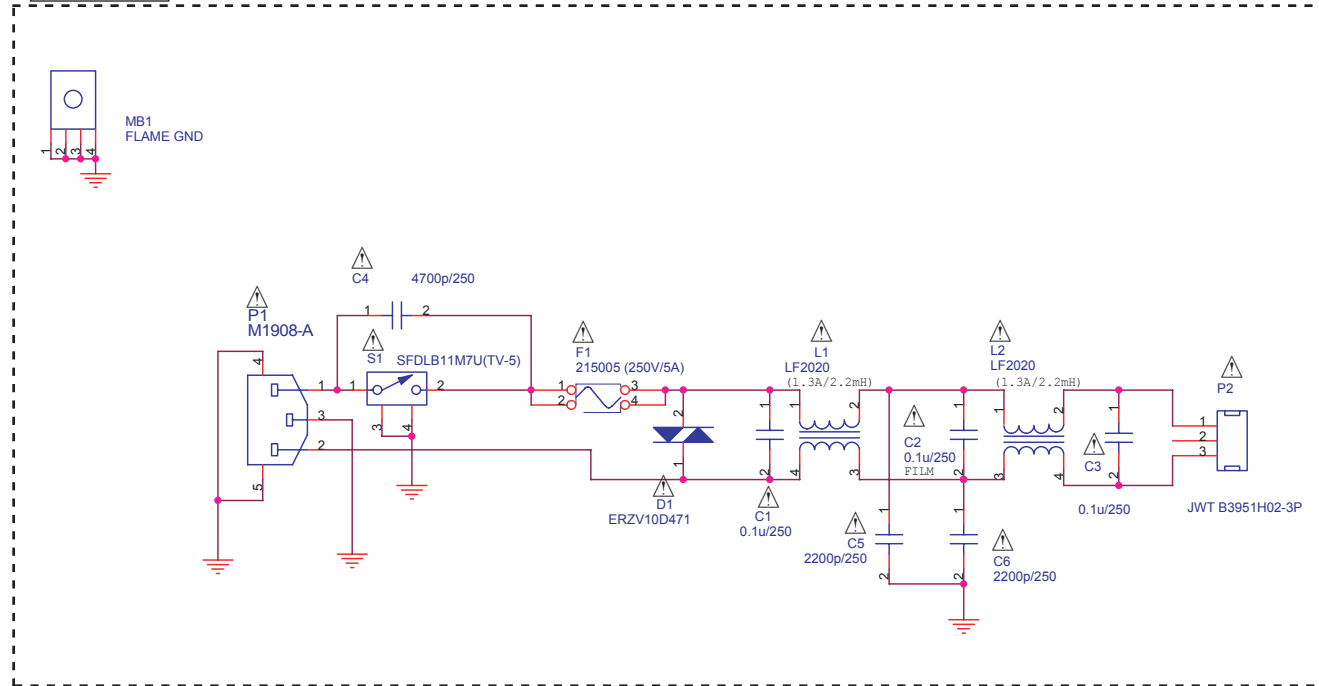
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5

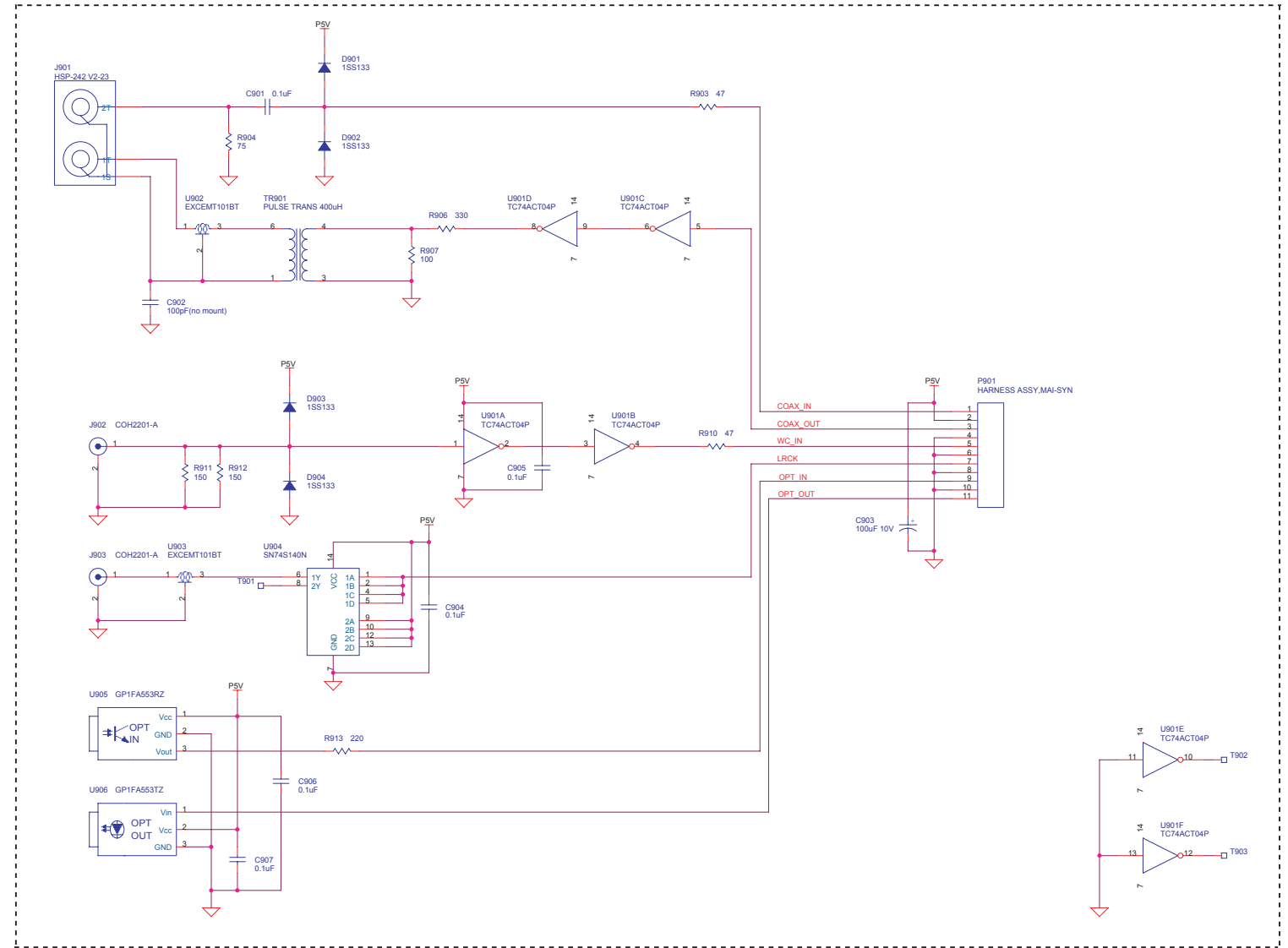
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7

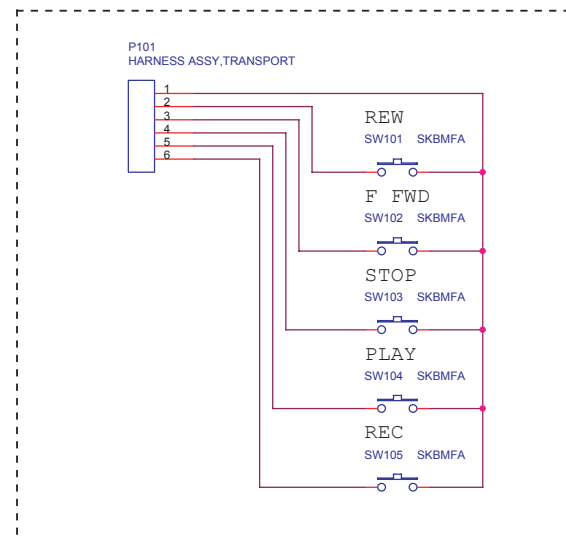
INLET



SYNC



TRANSPORT



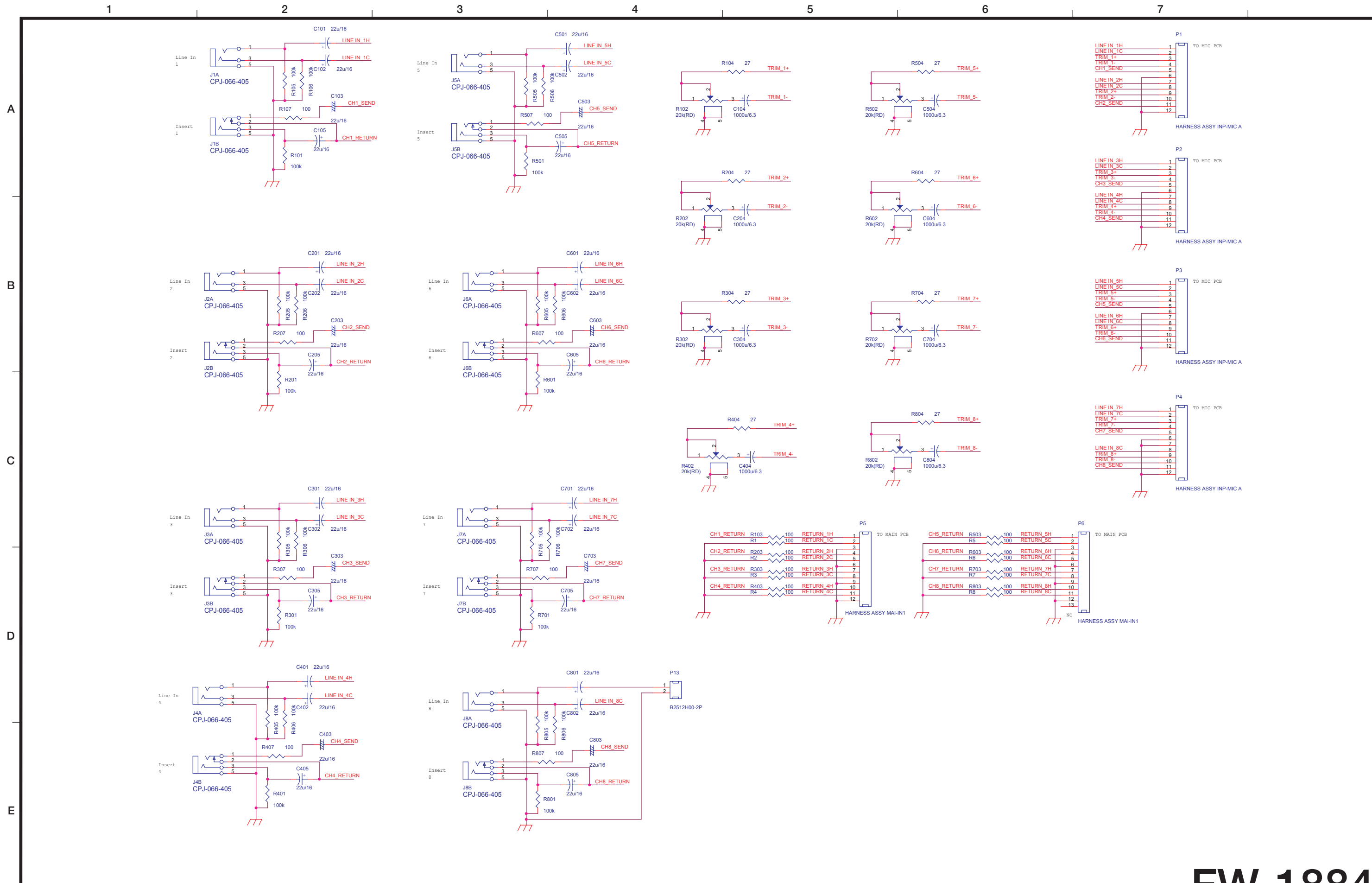
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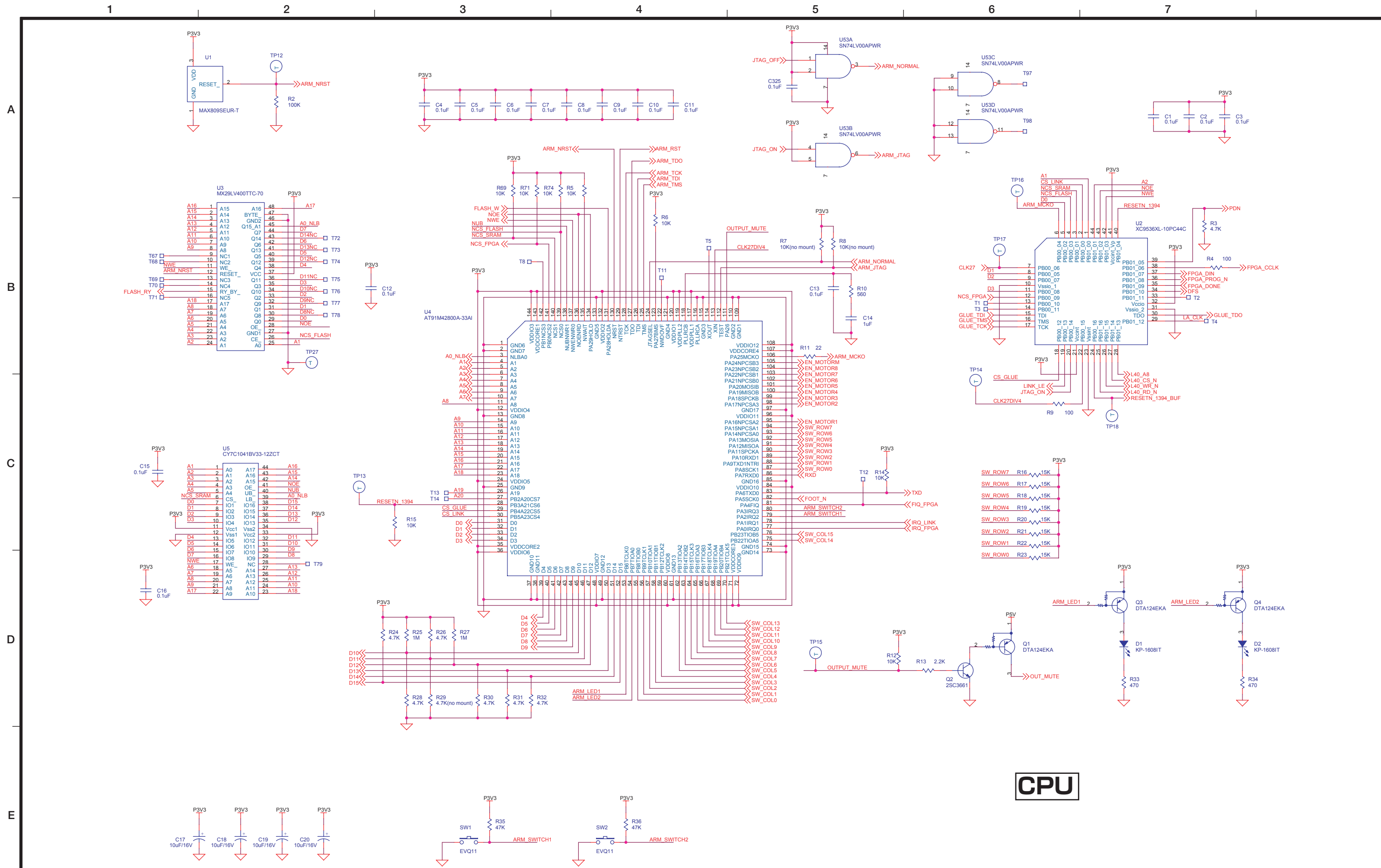
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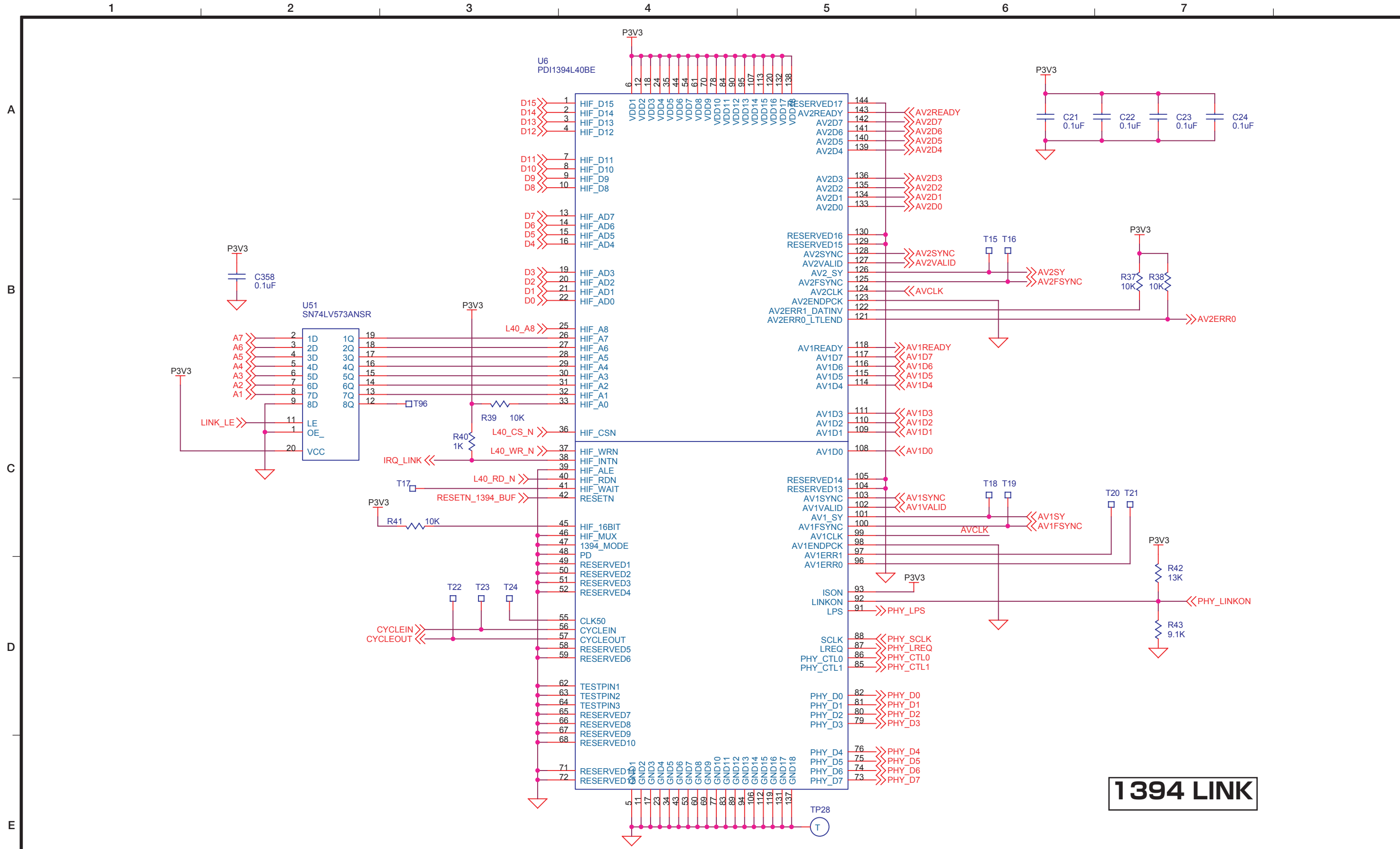
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E

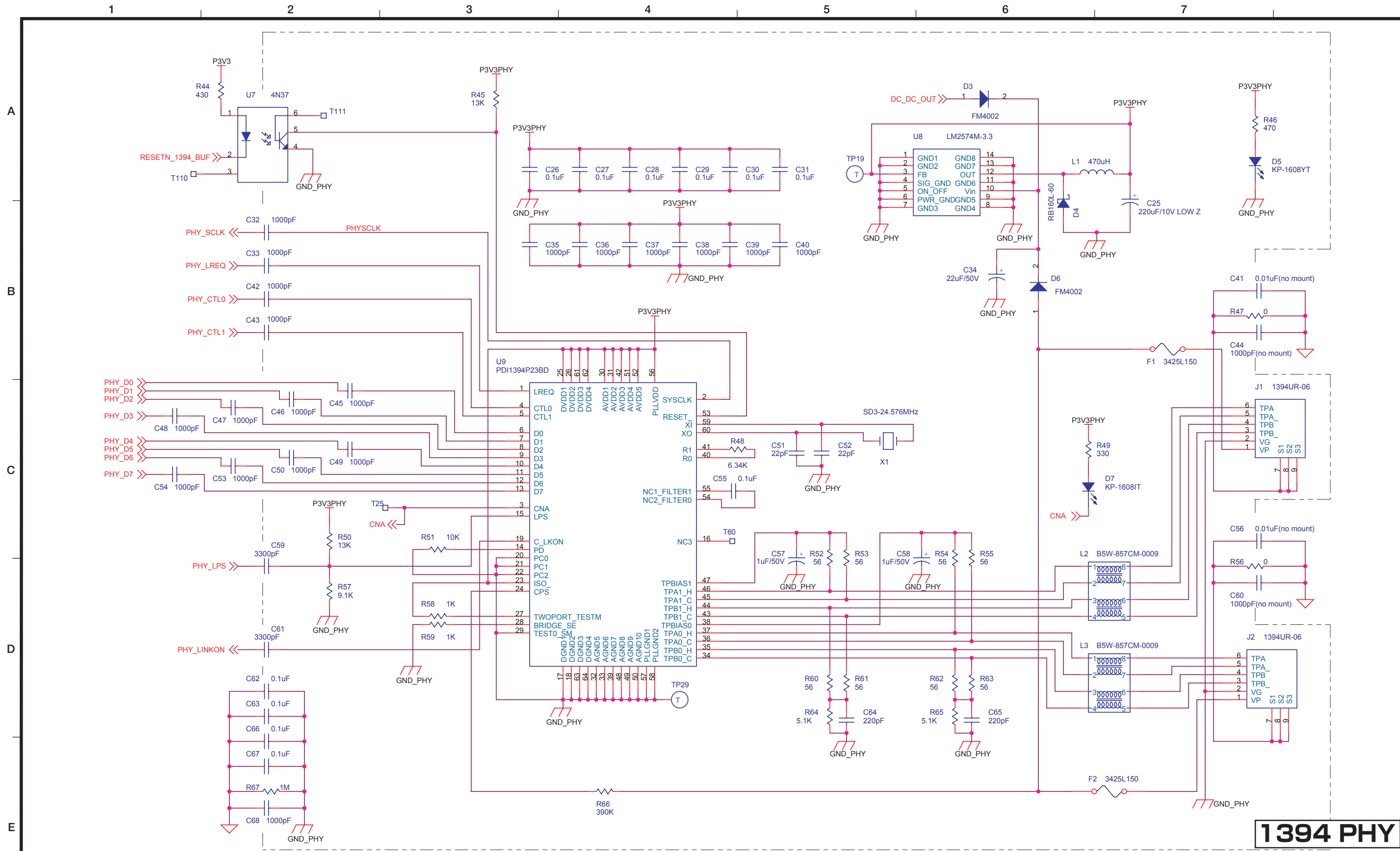




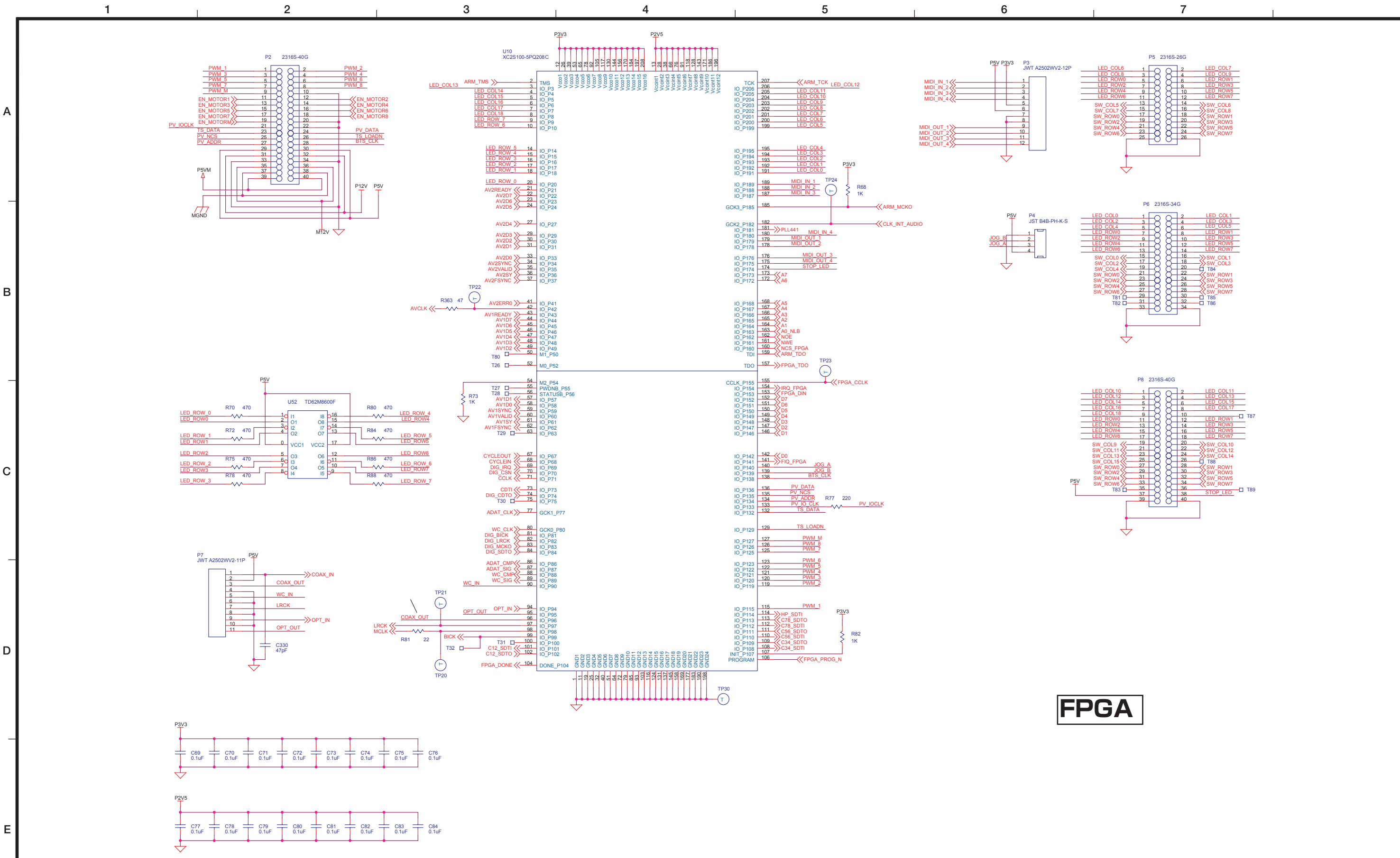
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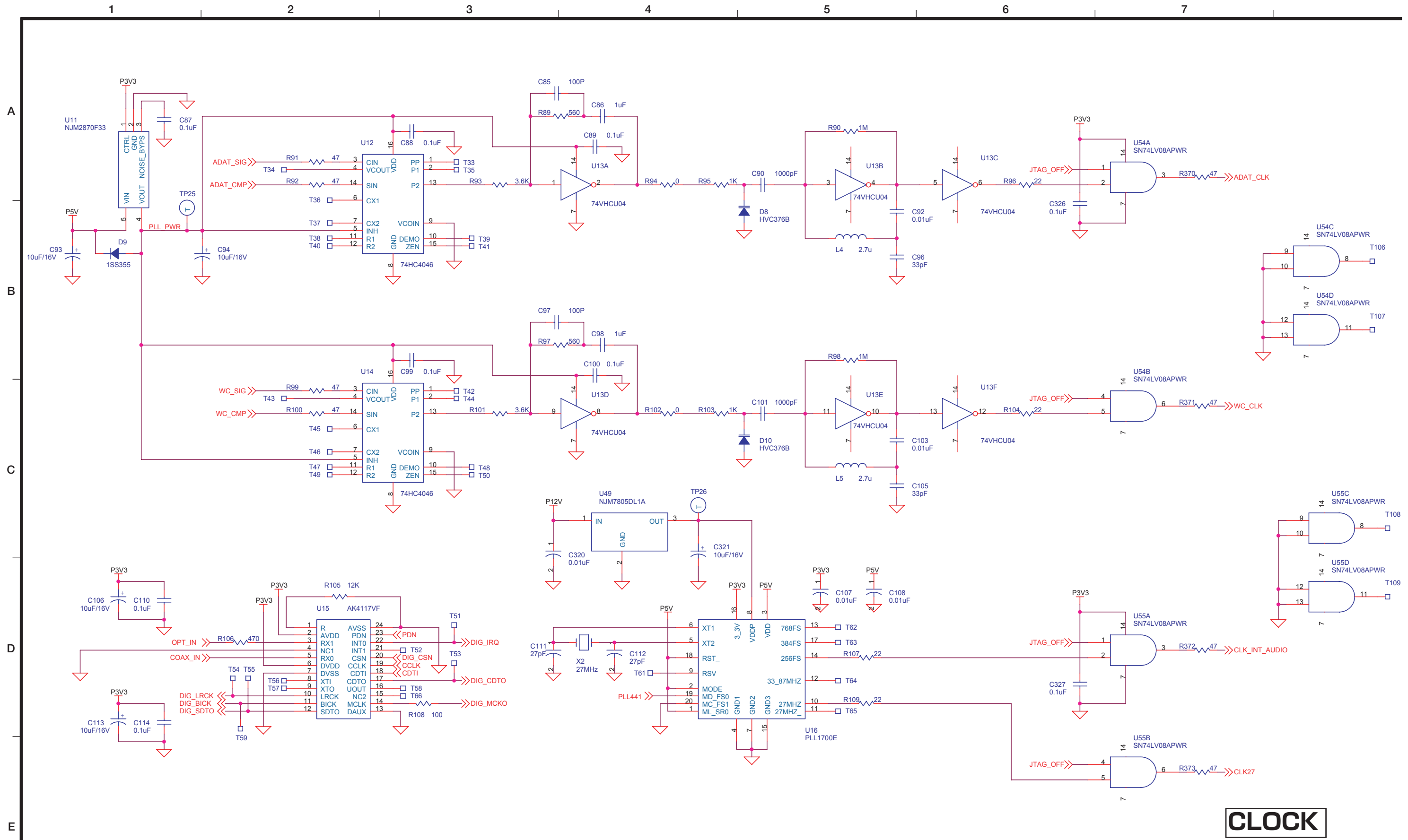
1394 LINK



1394 PHY

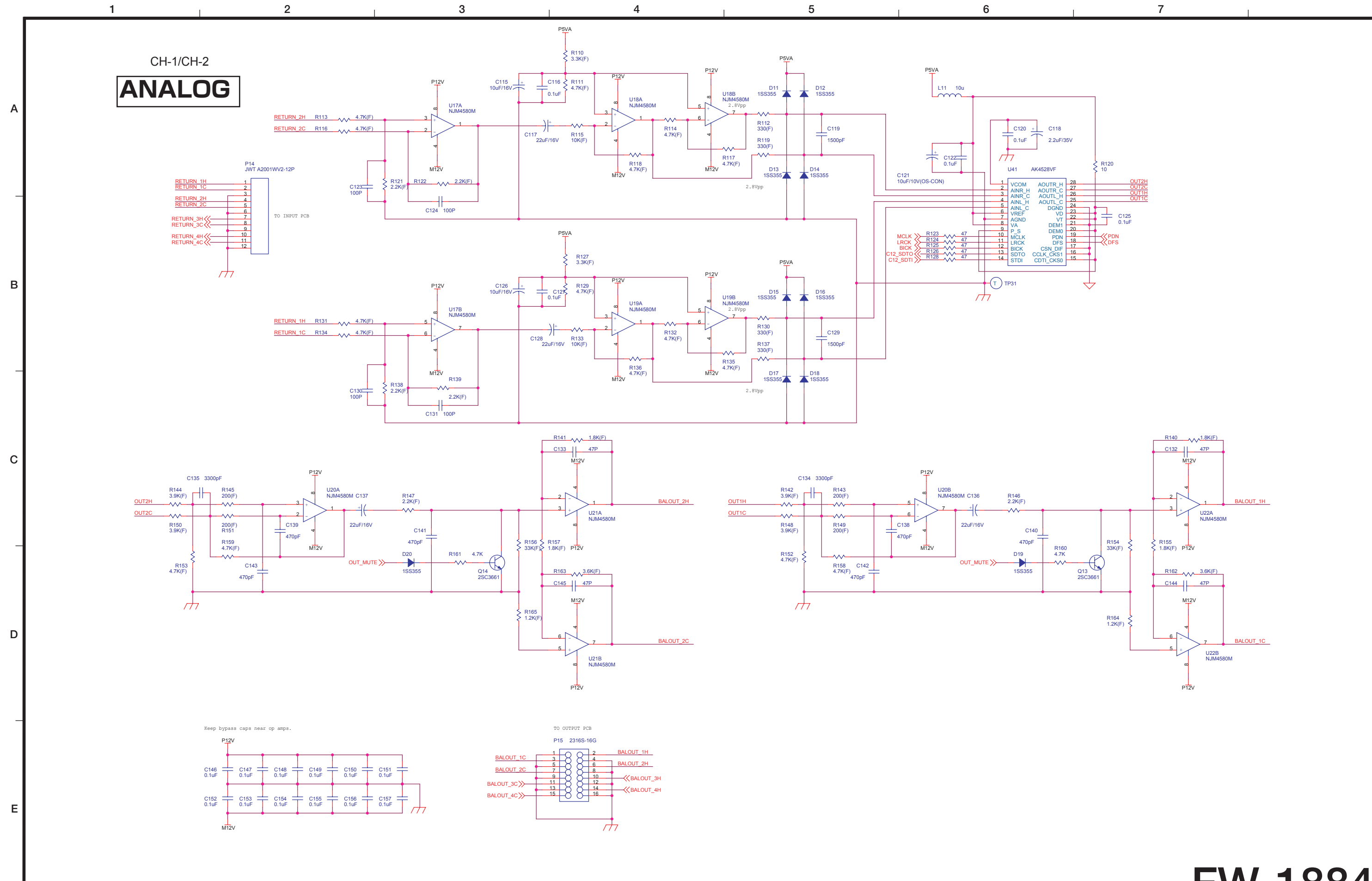


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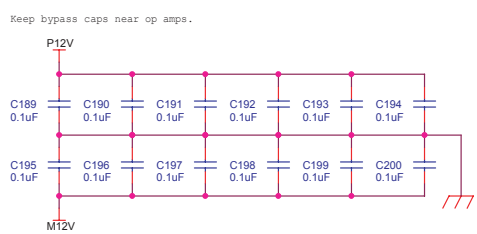
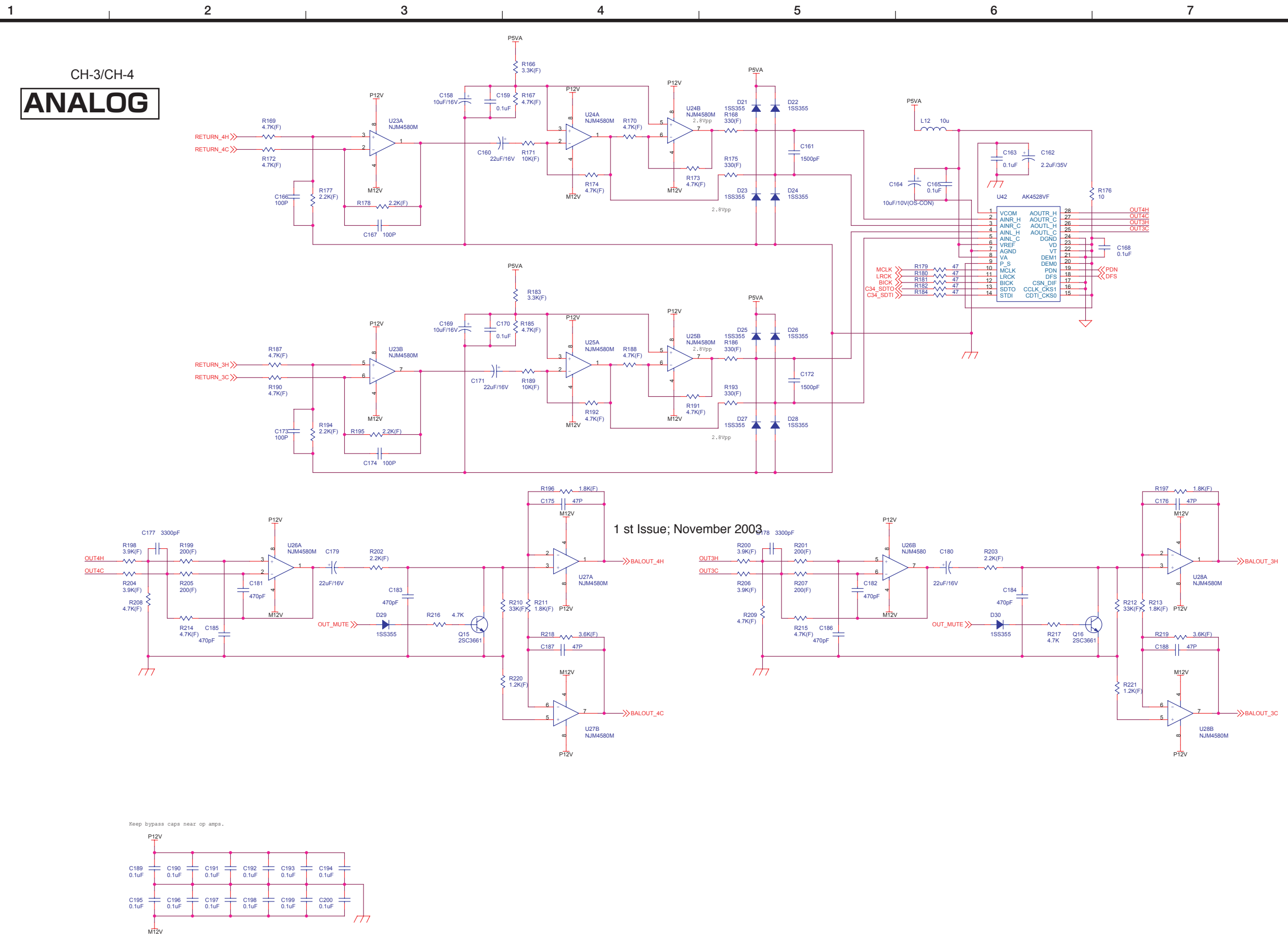


CLOCK

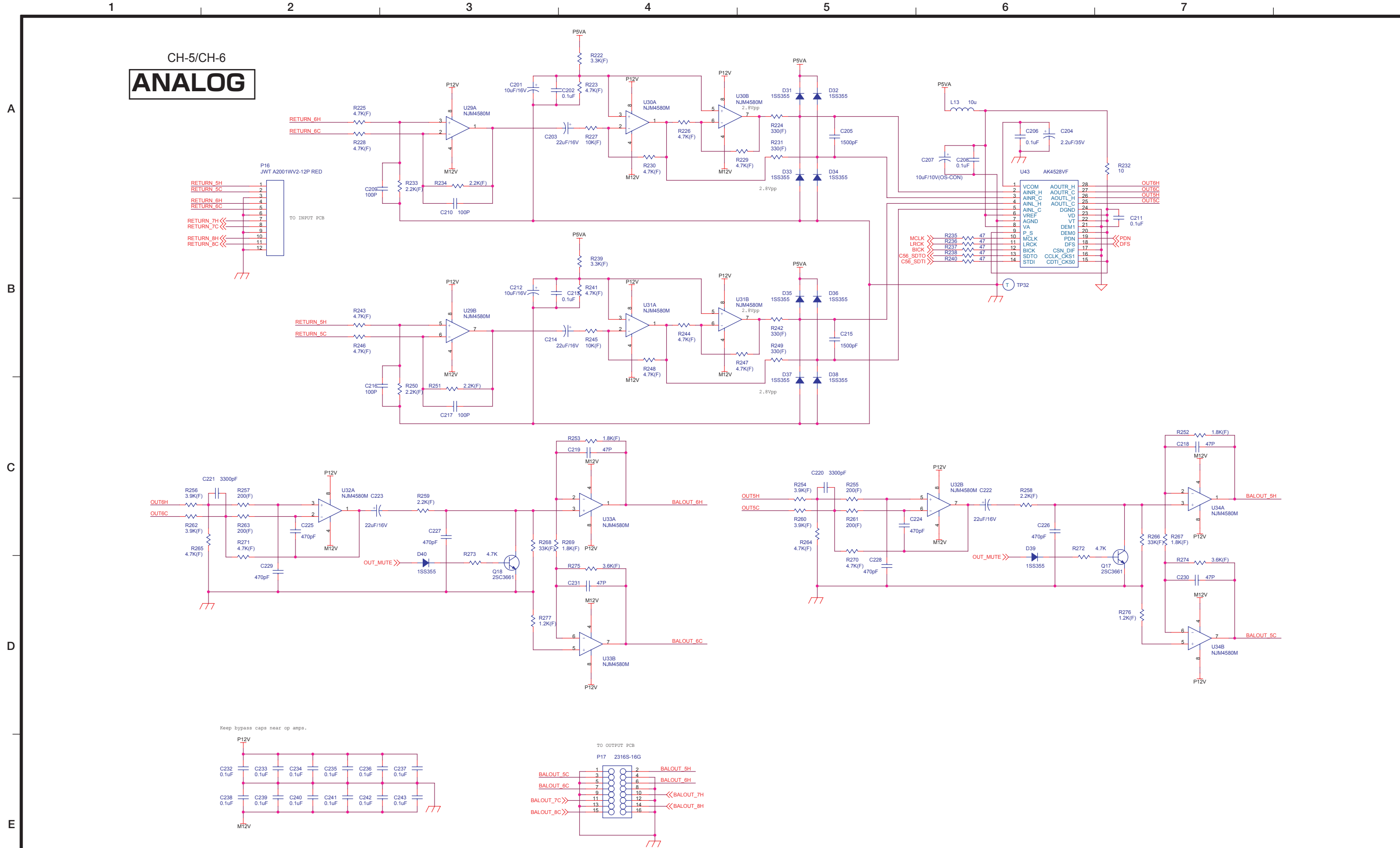
CH-1/CH-2
ANALOG



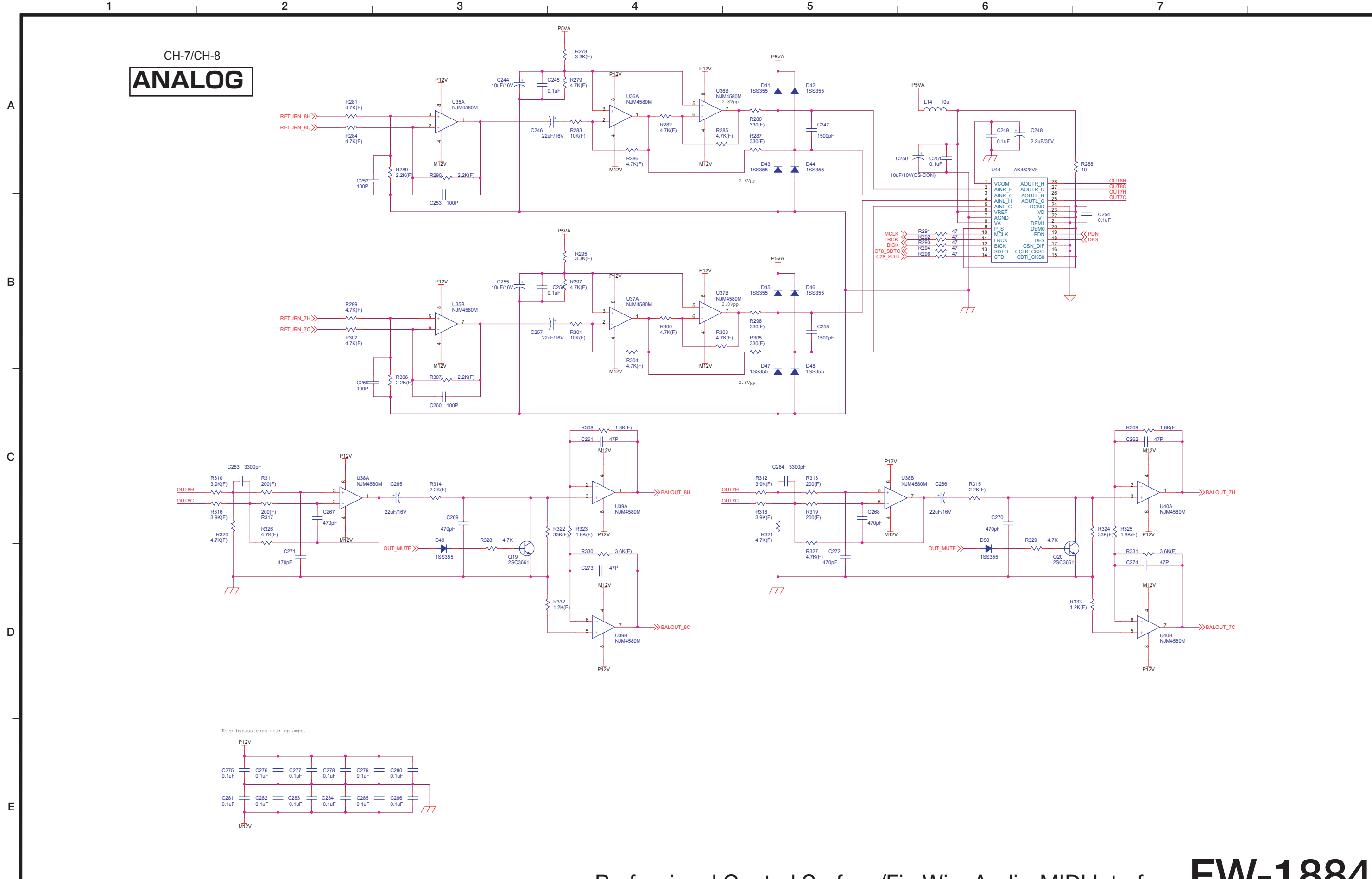
CH-3/CH-4
ANALOG

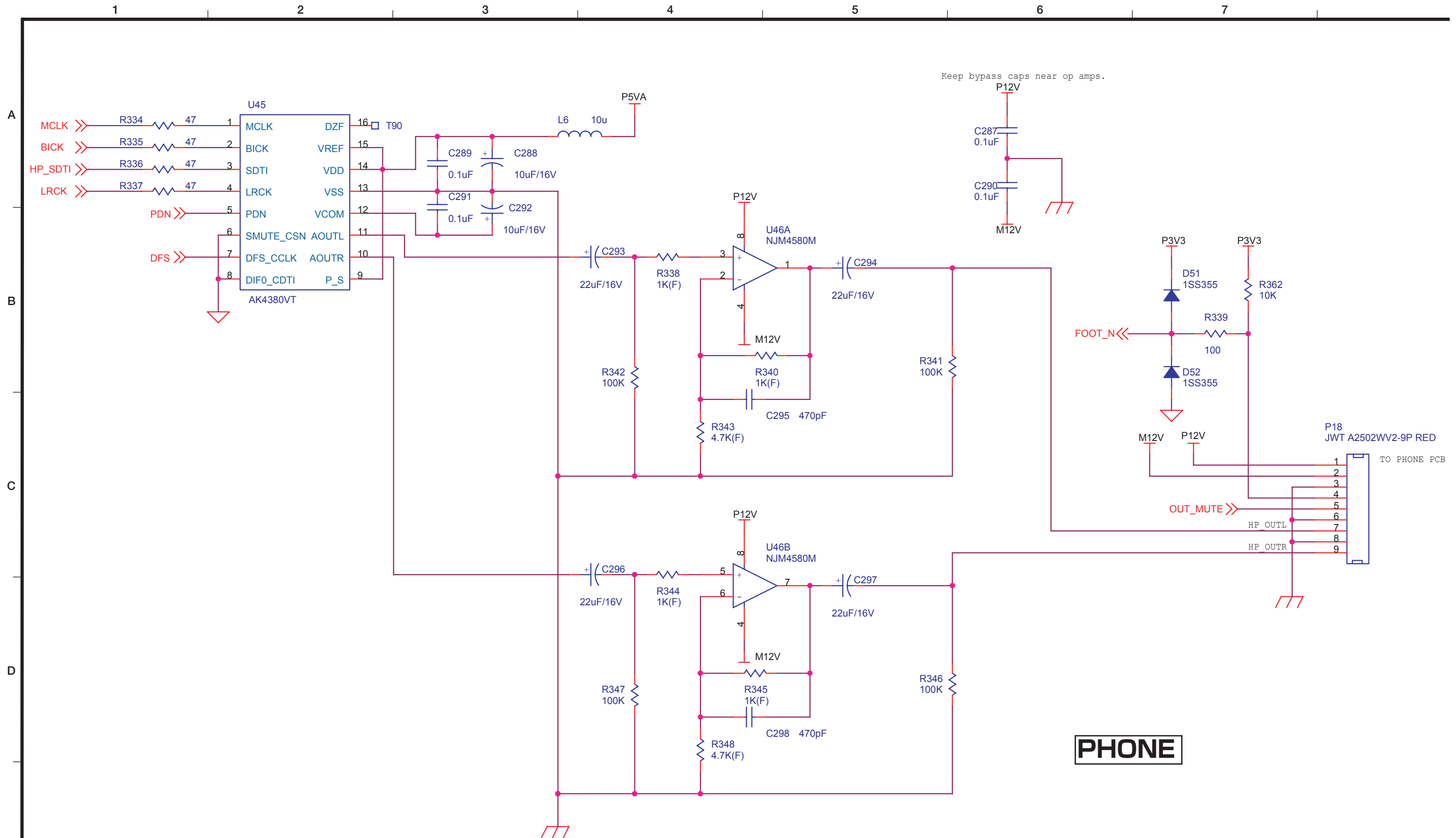


CH-5/CH-6
ANALOG



CH-7/CH-8
ANALOG

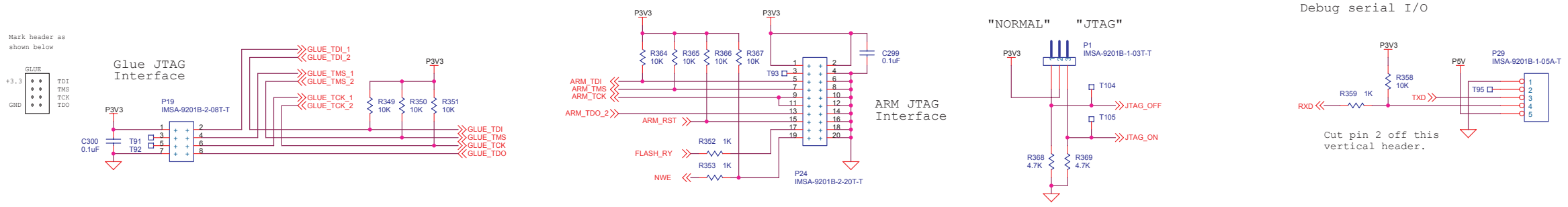




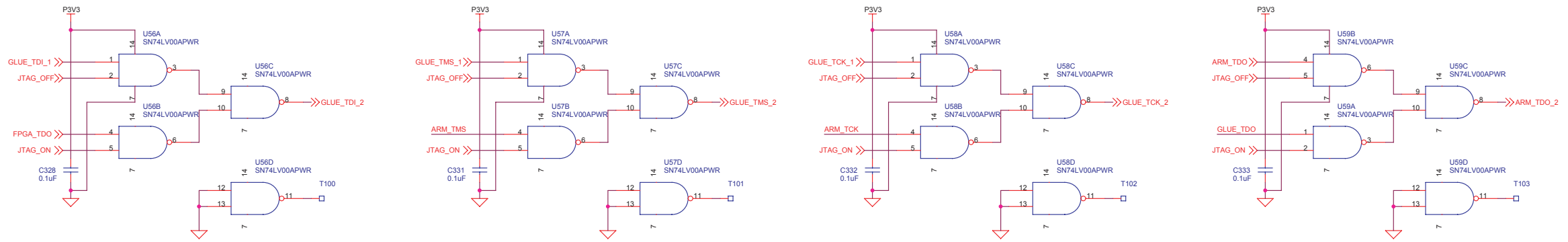
PHONE

1 2 3 4 5 6 7

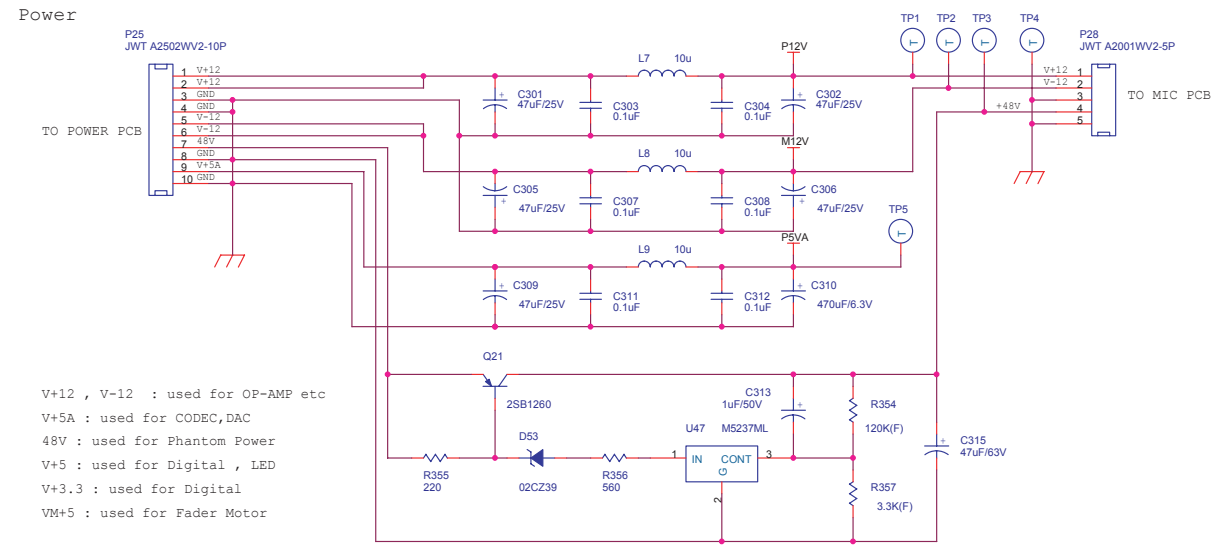
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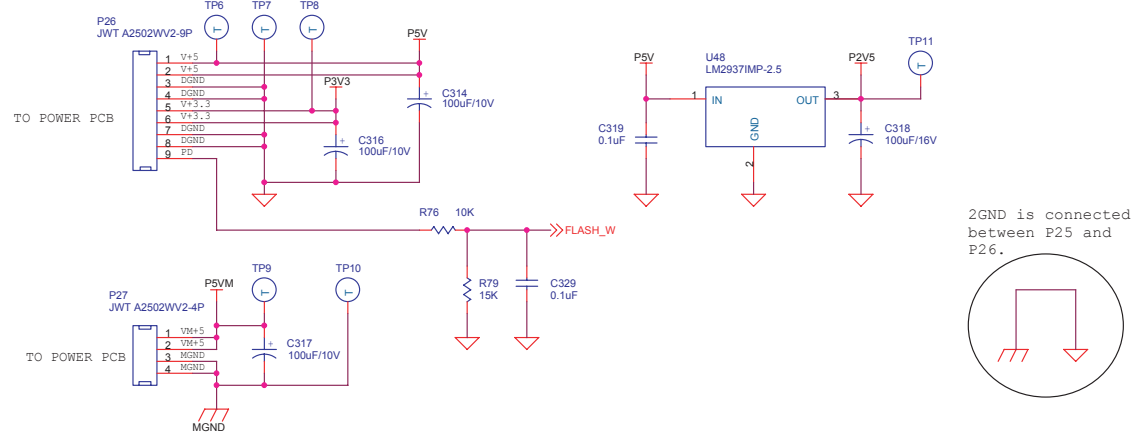
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C

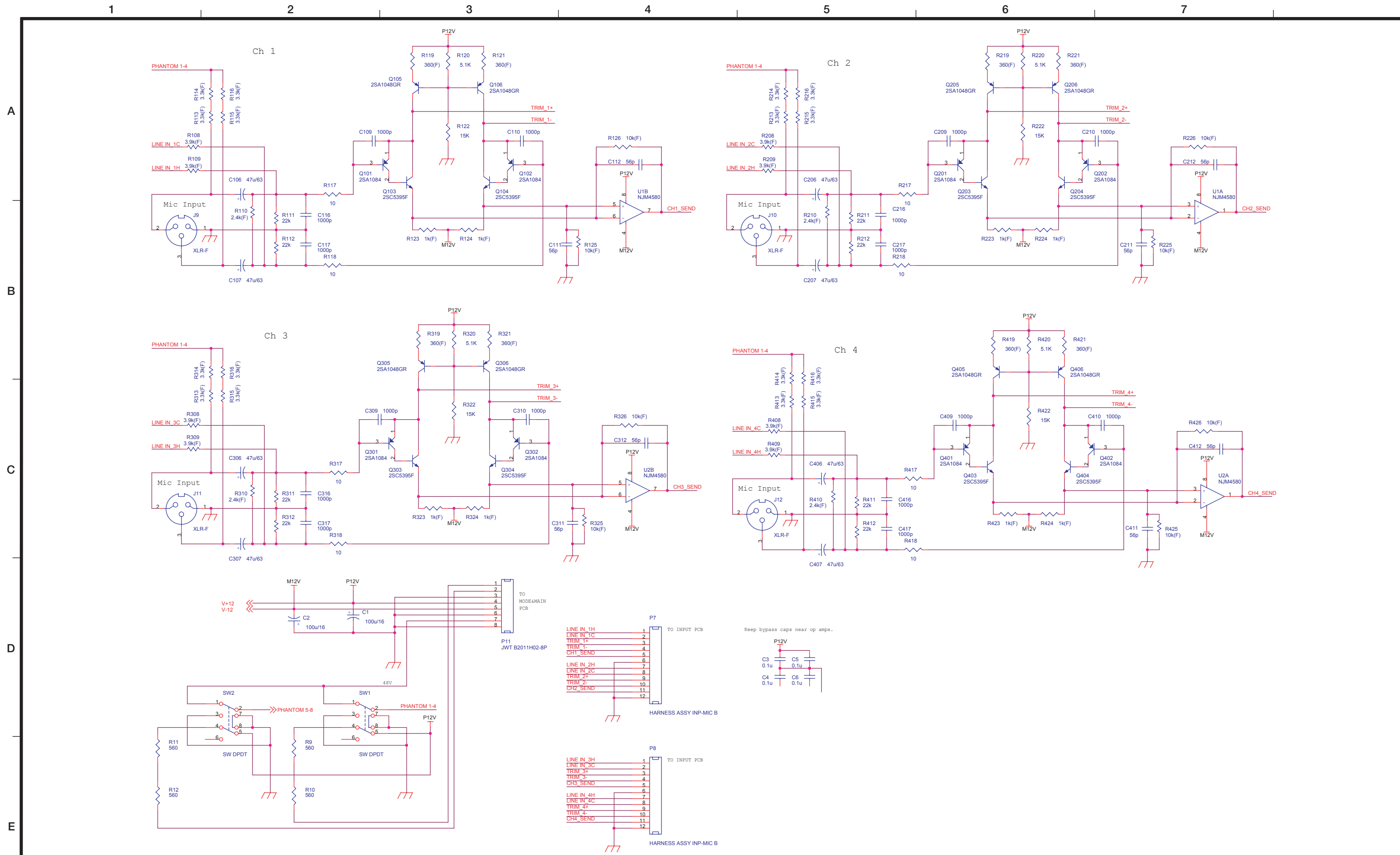


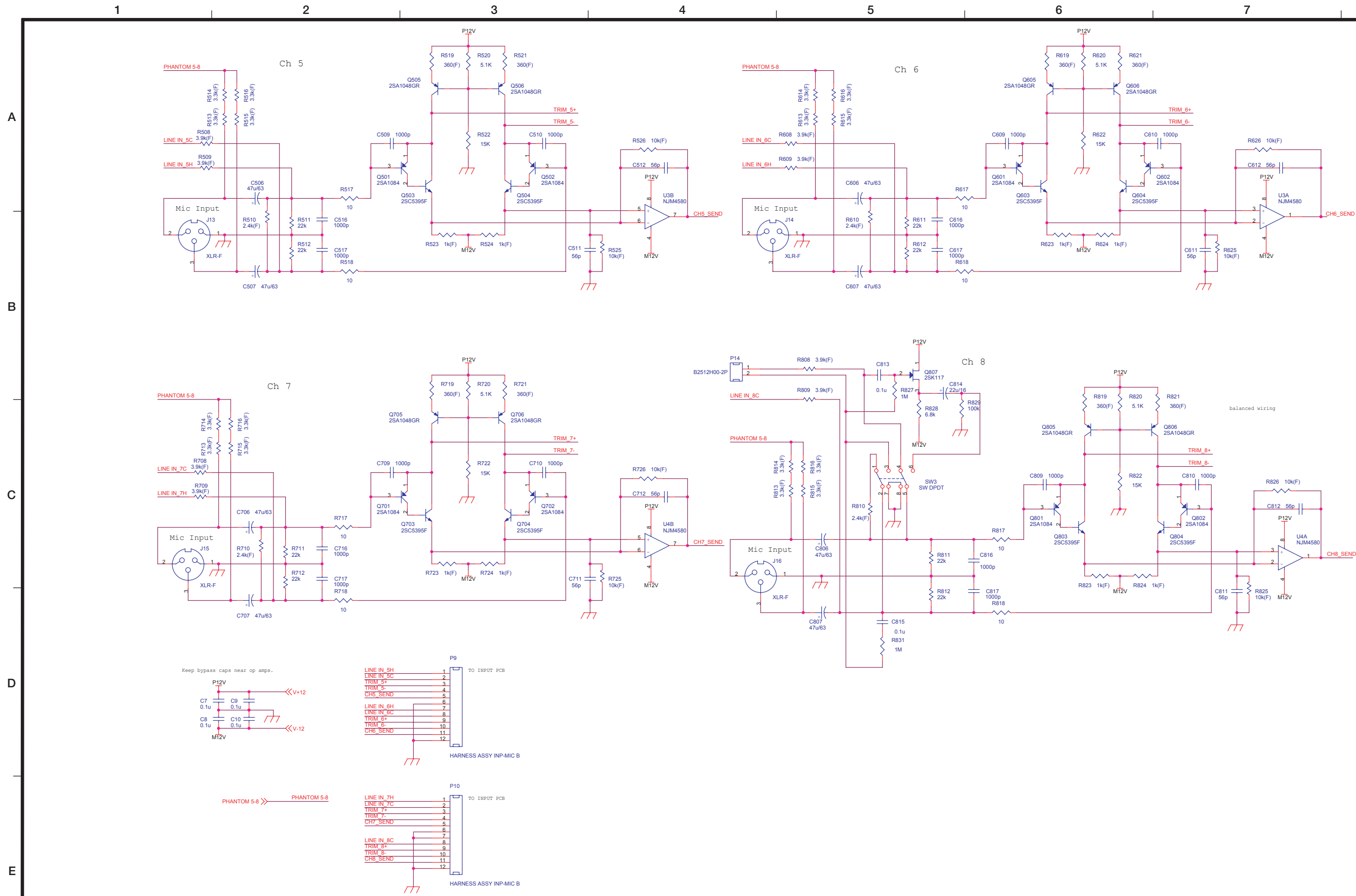
D



E

POWER & ETC





1

2

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7

MIDI

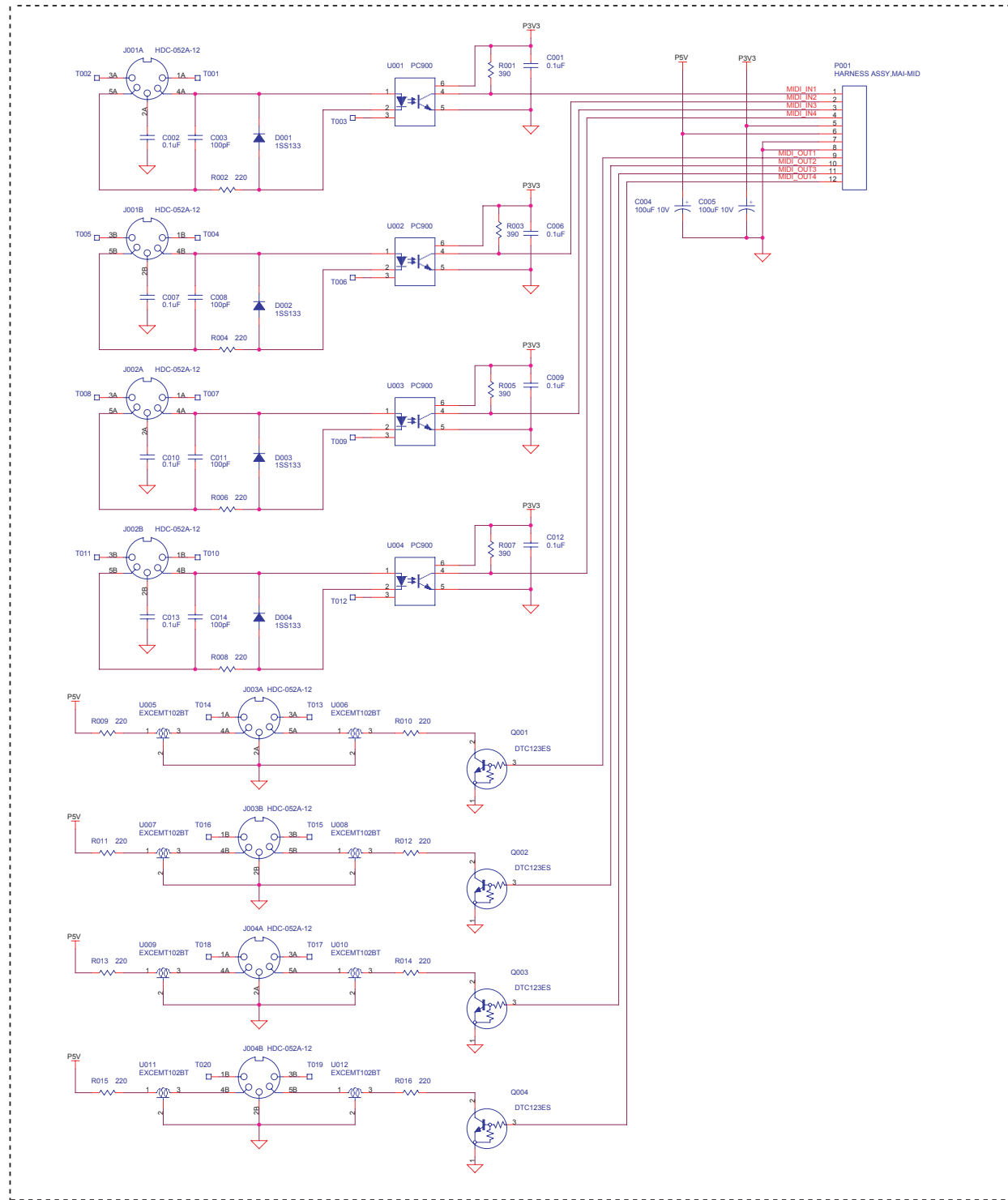
A

B

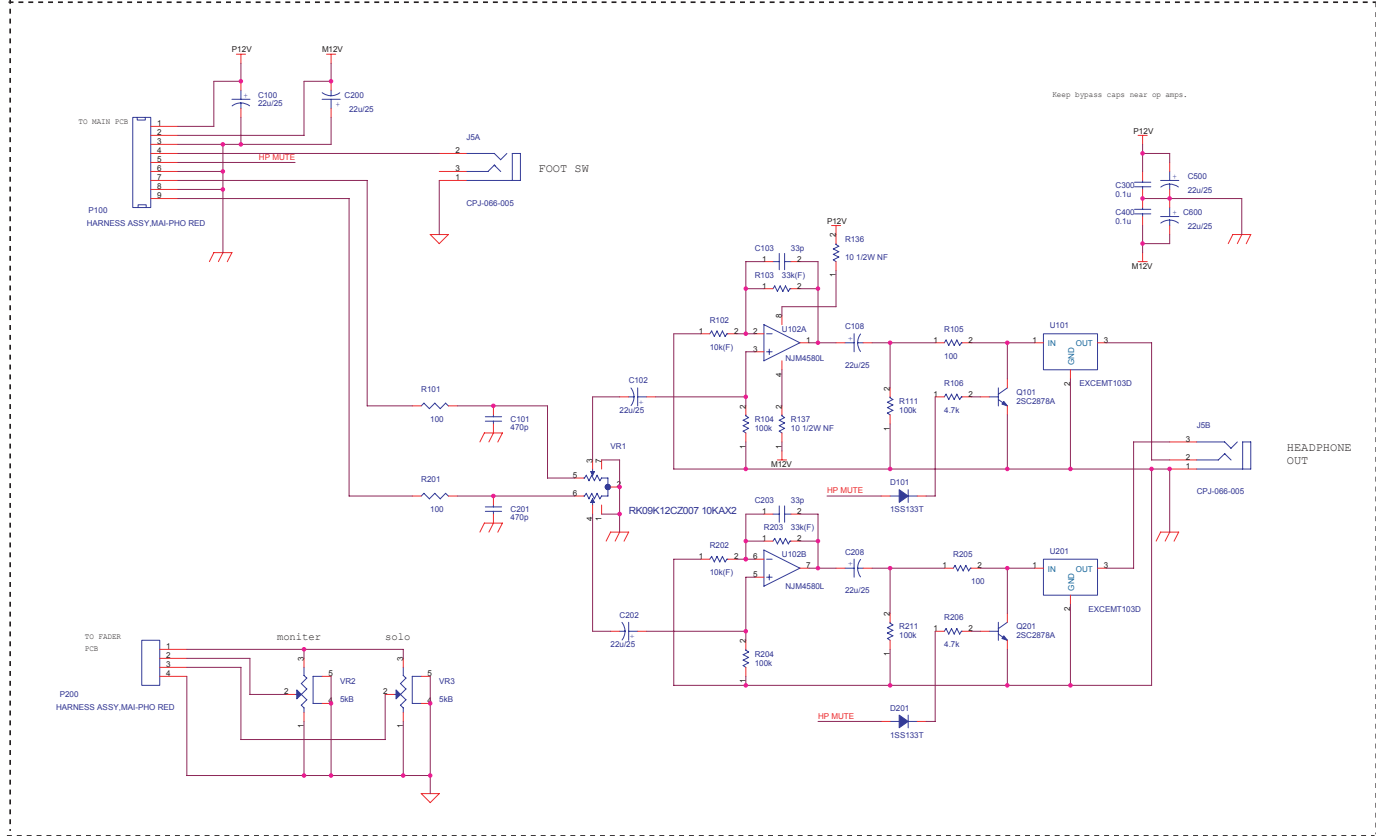
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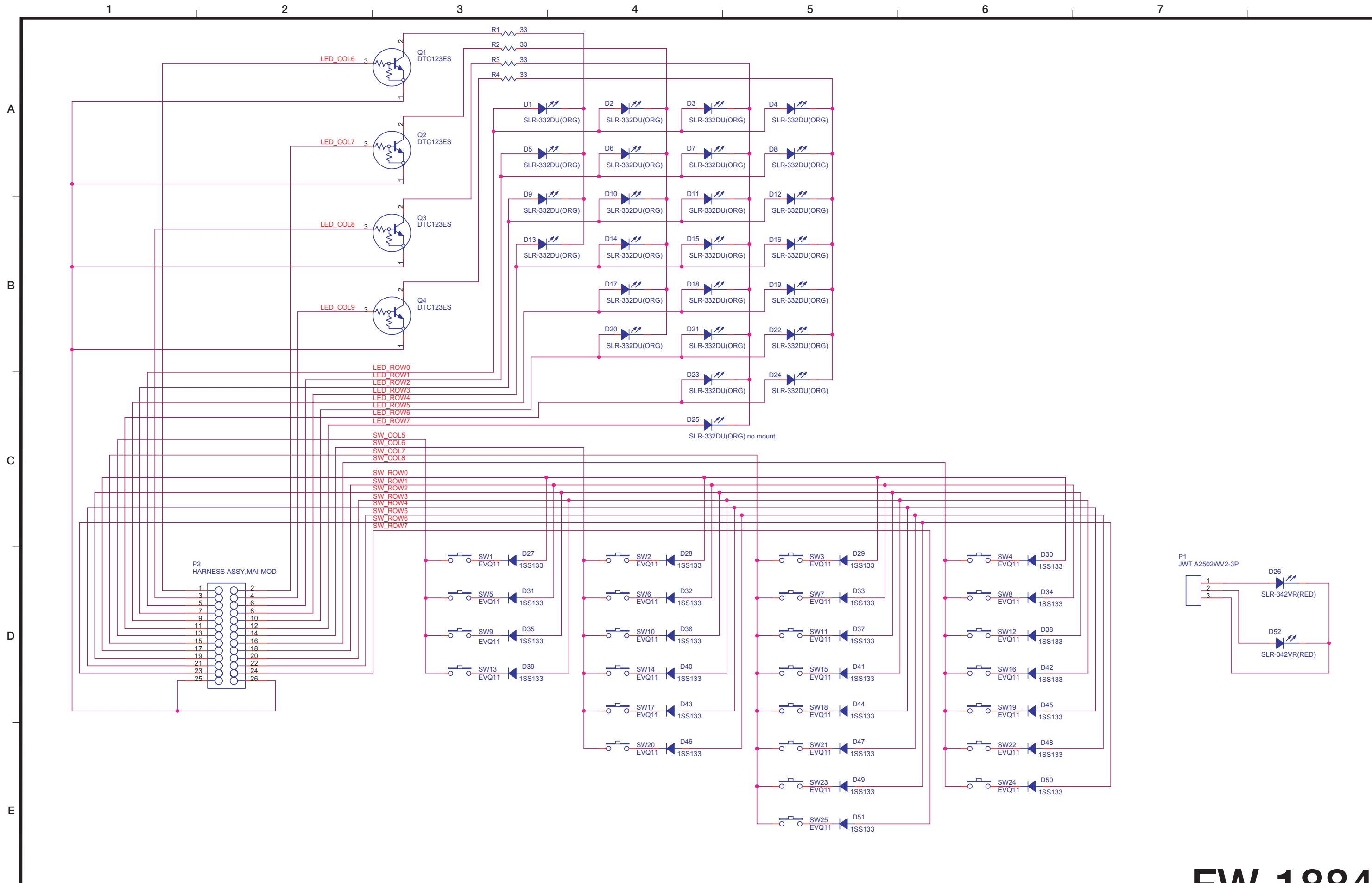
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E

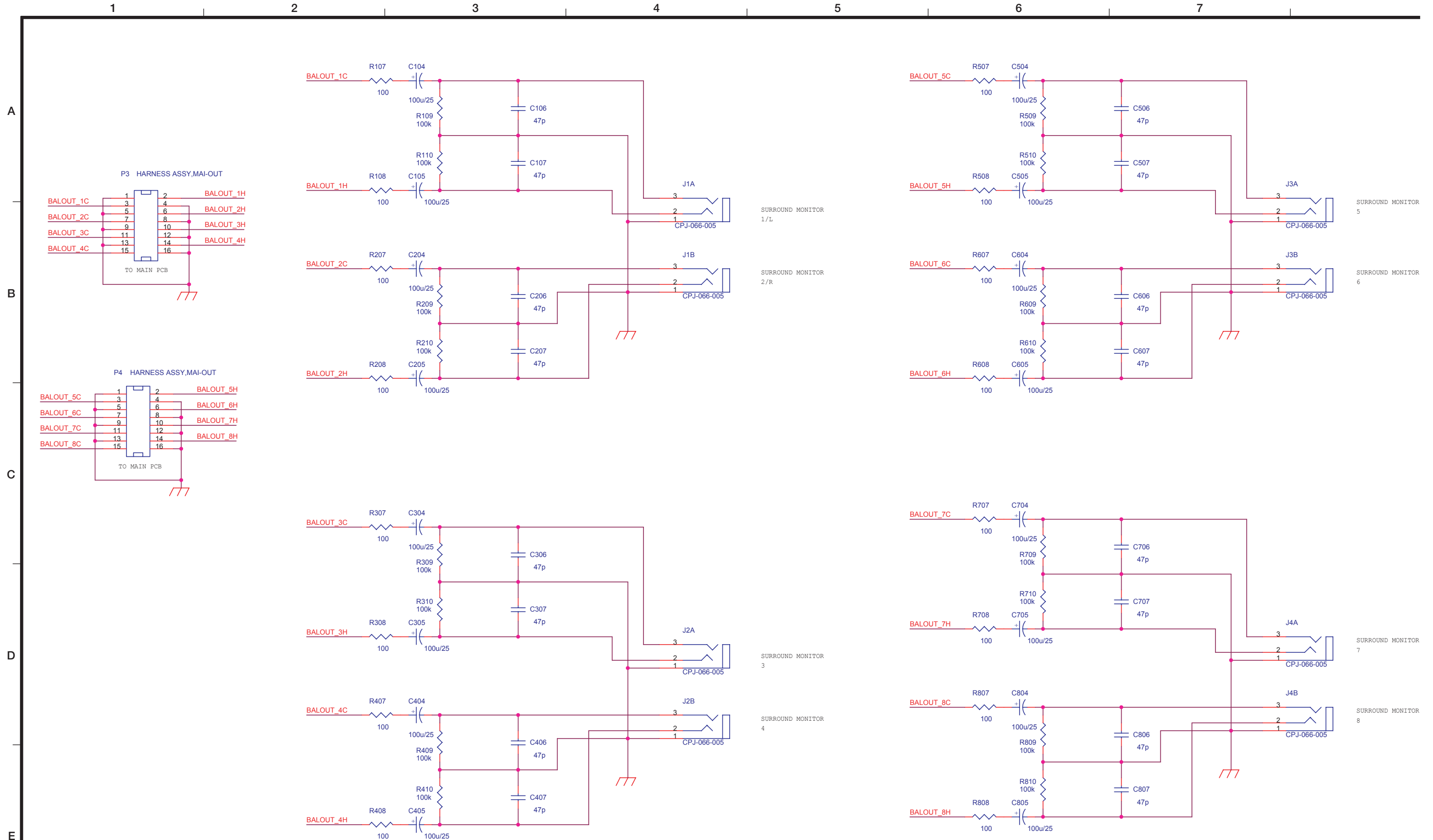


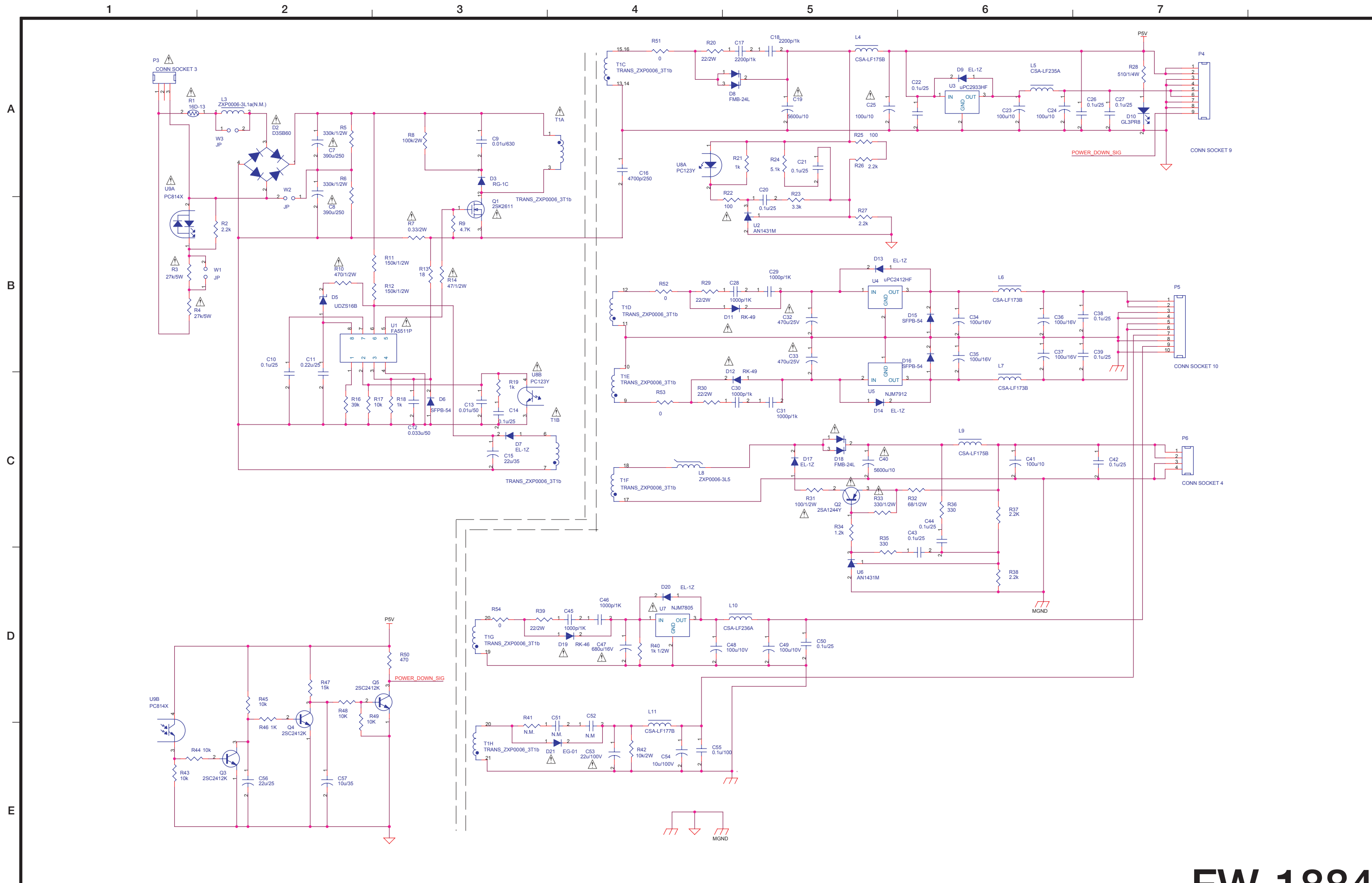
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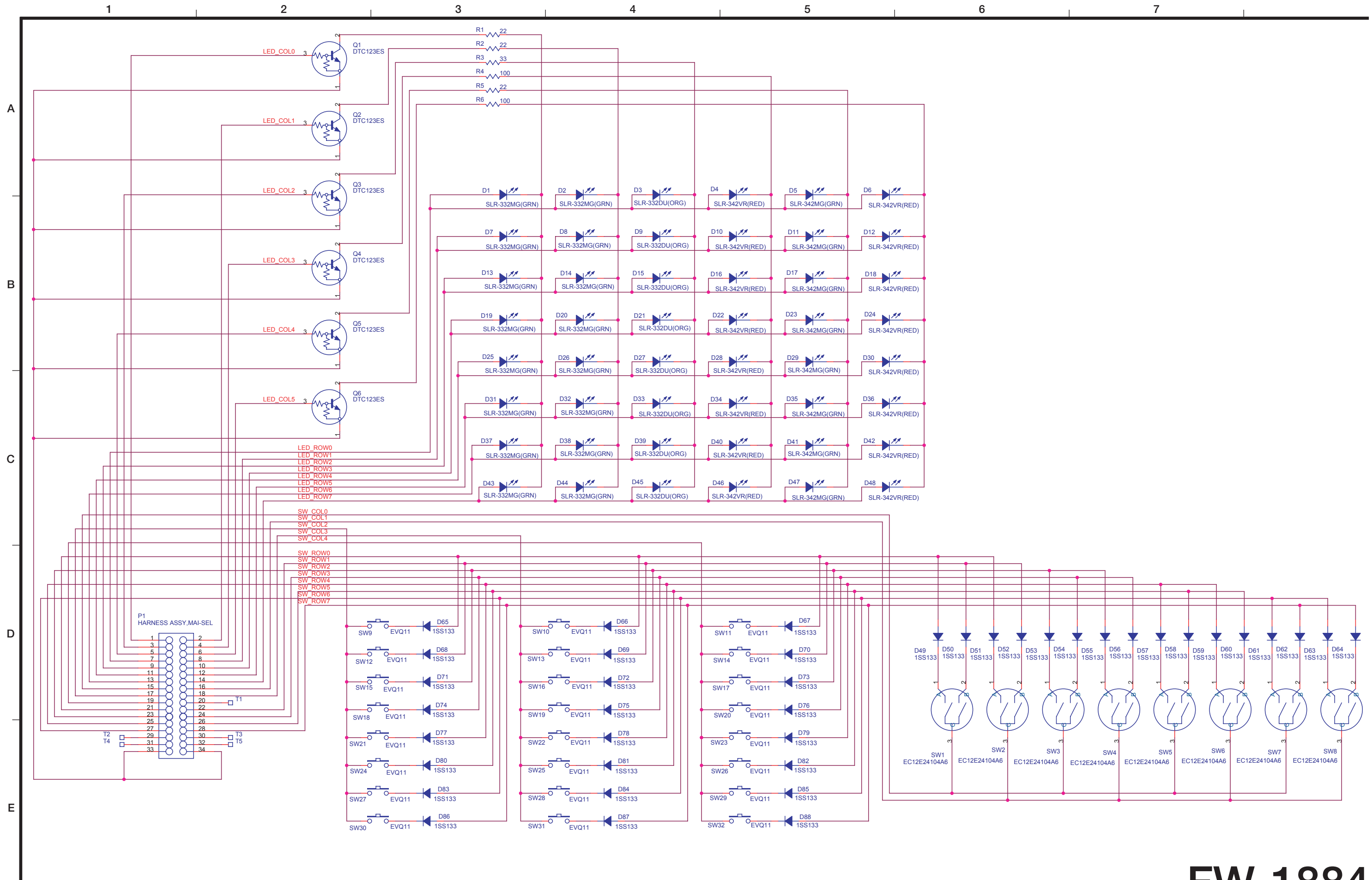


Professional Control Surface/FireWire Audio-MIDI Interface **FW-1884**





Professional Control Surface/FireWire Audio-MIDI Interface **FW-1884**



FW-884 Wiring Diagram

A

B

C

D

E

