



Technical Manual

DOLBY DECODER RDA-975

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THE ROTEL CO., LTD.
SHINSEN-BLD. 4F 10-10 SHINSEN-CHO, SHIBUYA-KU,
TOKYO 150-0045, JAPAN

Serial. NO. Beginning

Parts List (1/5)

SYMBOL	PART NO.	DESCRIPTION	SPECIFICATION
	651B2U56B21P	AC CORD	SPT-2 #18AWG
	85A556*****	ACRY	A-556
	85A491*****	ACRYLIC,LIGHT GUIDER	A-491 ROUND
	85A499*****	ACRYLIC,LIGHT GUIDER	A-499
	75L63300177*	AL PLATE	L-633
	93AU1*****	ALL PLATIC WIRE CONNECTOR	S-1
	97D161*****	ALUMINUM FOIL	D-161
TRANSFORMER	78C233701015	BOTTOM PLATE	C-2337
	78C206000587	BRACKET,U-TYPE	C-2060
	78233801027*	BREAKET,LEFT	C-2338
	78C233601014	BREAKET,RIGHT	C-2336
	98BSB4F1K***	BUSHING	SB4F-1
POWER SWITCH	594722ERKCBW	CAPACITOR,VDE	472/250V
TRANSFORMER TO B2882 J2	66HD686*****	CONNECTOR	ED-686 3P
TRANSFORMER TO B2882 J1	66HD463*****	CONNECTOR	ED-463 2P
TV3	92S064*****	COPPER POST 12MM	S-064
	85A560*****	FILM	A-560
	85A544*****	FILTER	A-544
	81A4TSH19***	FOOT CUSHION	4TSH-19#2 50Φ
	78C230501013	FRONT PLATE	C-2305
B2882 F1-F3	2652000222*2	FUSE 19195	2A/250V T 5x20
SIZE 493x390x127	91IRDA975***	INSIDE CARTON	G00065
	60B2880*****	P.C.B.	B2880
	60B2881*****	P.C.B.	B2881 KEY
	60B2882*****	P.C.B.	B2882 POWER
	60B2403A****	P.C.B.	B2403B Z38500
KEY	85A480*****	LIGHT BOX	A-480
80MM	85A561*****	ORNAMENT END CAP	A-561 4TR-2797#2
SIZE 503x406x320	91CRDA975***	OUTER CARTON	G00066
	SCCR*P1809B*	PLASTIC SCREW	1/8x9
	80TQF15*****	POWER PUSH KNOB	4TQF-15
	20PSDLB1007U	POWER SWITCH	SDDL1007U TV3
	80KB383*****	PUSH KNOB 2P	KB-383
	80KB382*****	PUSH KNOB 3P	KB-382
	85A4TTL15***	PUSH SW CONNECTOR	4TTL-2(A-365)
	97DS072*****	PUSH SW SPRING	TR-1988A(S-072)
	85A358*****	PVC,UPPER	A-358(4TR-2418)
B2881x8.B2882x4.B2880x3	78C230601017	REAR PLATE	C-2306
	SCCR*T3006Y*	SCREW	CRTS 3x6
	SCCR*T3006B*	SCREW	CRTS 3x6 B
FOOT CUSHION	SCCR*T3008B*	SCREW	CRTS 3x8 B
	SCCR*T3006B*	SCREW	CRTS 3x6 B
TV3.B2880x3.B2403Ax4	SCCR*M3006Y*	SCREW	CRMS 3x6 Y
TRANSFORMER	SCCRWM4008B*	SCREW	CRWMS 4x8 B
	SCCB*R3008B*	SCREW	CRTS 3x8 B
	SCCF*T3008W*	SCREW FLAT	CRTS 3x8 W
	78C233101018	SI-STEEL SHIELD	C-2331
	94D175*****	SPONGE,EVA	D-175 11x11x25
REAR PLATE		STICKER	EL-008
INSIDE CARTON		STICKER	EL-009
	9903RDA975**	STYROFOAM	TZ-165-1-1
	E53018M212**	TRANSFORMER	E53018M212**
POWER	990130ULB***	TUBE,SLEEVE	30Φ BLACK
	78C230701016	UPPER COVER	C-2307
	85A506*****	WASHER,LED	A-506
		WASHER,PUSH SW	4TQF-13
	85A418*****	WASHER,RCA	A-418

Parts List (2/5)

SYMBOL	PART NO.	DESCRIPTION	SPECIFICATION
ACCESSORIES			
	68DB25*****	DB25 CABLE	WGC-1
	99ORDA975***	OWER'S MANULAN	RDA-975
	9905RDA975**	WARRANTY STATEMENT	
PCB B 2 8 8 0			
C9	491021HREFDT	CAPACITOR CERAMIC	102/50V F/Z
C34.35.36.37.38.39.40.97.101	491031HRZFDT	CAPACITOR CERAMIC	103/50V F/Z
C11.12.13.102.103.104.128-133	490471HRKSDT	CAPACITOR CERAMIC	47P/50V SL/K
C24.25.26	491011HRKSDT	CAPACITOR CERAMIC	100P/50V SL/K
C14.56.57.61.62.66.67.71.72.76.77.81.82.105. 120.122.124.126.135.138-145	561041HRZFDT	CAPACITOR CERAMIC	X7R 104/50V
C114.115.116.117.118.119	401001H0511T	CAPACITOR ELEC	10U/50V
C10.58.59.60.63-65.68-70.73-75.78-80.83-85	404701E0511T	CAPACITOR ELEC	47U/25V
C121.123.125.127	401011E6311T	CAPACITOR ELEC	100U/25V
C23	481001H0511T	CAPACITOR ELEC	10U/50V NP
C1.2.3.4.5.6.8.52.53.54.55.96.100.134.137	484701E0811T	CAPACITOR ELEC	47U/25V NP
C42.44.46.48.50.136	501021HRJENT	CAPACITOR MYLAR	102J/50V
C27.28.29.30.31.86.87.88.89.98.99	501041HRJENT	CAPACITOR MYLAR	104J/50V
C32	502241HRJEMT	CAPACITOR MYLAR	224J/50V MIN
C33	503331HRJENT	CAPACITOR MYLAR	333J/50V
C7	508231HRJENT	CAPACITOR MYLAR	823J/50V
C41.43.45.47.49.51	503321HRJENT	CAPACITOR MYLAR	332J/50V
C90.91.92.93.94.95	531722AWORKF	CAPACITOR PP-D	172/50V
F1.2.3.4.5.6.EMIF1.2.3.4.5.6	21FILTER102*	CERAMIC FILTER	102
	68DBR25MTKO*	DB25 JACK	DBR25MTKO MALE
D1.2.3.4.7	131N4007****	DIODE	1N4007
D5	131N4148****	DIODE	1N4148
Y1	73B3C2T7P5P8	FERRITE BEAD	3.5x7.5x0.8
U19.20.21.22.25.26	11NJU201AD*D	IC	NJU201AD
U6.18	11NE5532AN*D	IC	NE5532AN
U24	11NJM353D**D	IC	NJM353
U11.12.13	11OPA2604APD	IC	OPA2604AP
U2.3.4.5.7.8.9.10.14.23.42	11AD712*****	IC	AD712JN
U15.16.17	11PCM1710U*S	IC SMT	PCM1710U
	60B2880*****	P.C.B	B2880
J13	68HSP246V634	RCA JACK	HSP-246V6-34 6P
R135	300220C4TJ2T	RESISTOR CARBON	1/4W T 220
R4.13.20.25.30.46.68.70.74	3002K2C4TJ2T	RESISTOR CARBON	1/4W T 2K2
R11.45.49.82	3002K7C4TJ2T	RESISTOR CARBON	1/4W T 2K7
R6.36.57.58.59.60.61	3004K7C4TJ2T	RESISTOR CARBON	1/4W T 4K7
R99.107.118	3005K6C4TJ2T	RESISTOR CARBON	1/4W T 5K6
R65.85.87.89.91.93.95.134	3006K8C4TJ2T	RESISTOR CARBON	1/4W T 6K8
R7.8.9.10.98.108	30010KC4TJ2T	RESISTOR CARBON	1/4W T 10K
R42.50.51.55.72.100	30012KC4TJ2T	RESISTOR CARBON	1/4W T 12K
R48.78.79.80.81	30015KC4TJ2T	RESISTOR CARBON	1/4W T 15K
R37.38.39.40	30018KC4TJ2T	RESISTOR CARBON	1/4W T 18K
R41.43.52.56.71	30022KC4TJ2T	RESISTOR CARBON	1/4W T 22K
R53.54.62.63.64.73.75.76.77.83.115	30047KC4TJ2T	RESISTOR CARBON	1/4W T 47K
R5.12.21.26.31.35.44.67.69.97.106.109-114.117	30100KC4TJ2T	RESISTOR CARBON	1/4W T 100K
R116	30330KC4TJ2T	RESISTOR CARBON	1/4W T 330K
R86.88.90.92.94.96	39033001MJ**	RESISTOR M.O.F	1W 330
R1.2.15.16.17.18.22.23.28.29.32.33	324K02C4TF2T	RESISTOR METAL	1/4W T 4K02
R3.14.19.24.34.47	325K36C4TF2T	RESISTOR METAL	1/4W T 5K36
R27.101.102.103.104.105	326K04C4TF2T	RESISTOR METAL	1/4W T 6K04
SW2.SW4 NO MONO NO	20S04P022BY*	SLIDE SWITCH	SS004-P022BY-PF8
SW1.SW3 NO OFF NO	20S04P223BS*	SLIDE SWITCH	SS004-P223BS-PF8

Parts List (3/5)

SYMBOL	PART NO.	DESCRIPTION	SPECIFICATION
Q7	122SA970BL*T	TRANSISTOR	2SA970BL/GR
Q8.9.10.11	122SC1815BLT	TRANSISTOR	2SC1815BL/GR
Q1.2.3.4.5.6	122SC3327**T	TRANSISTOR	2SC3327
J11	66W504508R**	WAFER	5045-8P
J1.3.4	66W504504R**	WAFER	5045-4P
J12	66W504503R**	WAFER	5045-3P
J2	66W396302R**	WAFER	5045-2P
D6	13Z4P70P5***	ZENER DIODE	4.7V/0.5W
Z1	13Z5P60P5***	ZENER DIODE	5.6V/0.5W
PCB B 2 8 8 1			
C27	492021HRZFDT	CAPACITOR CERAMIC	202/50V F
C14.15	490301HRKSDT	CAPACITOR CERAMIC	30P/50V SL
C29-38.39-43	561041HRZFDT	CAPACITOR CERAMIC	104/50V
C26	404701E0511T	CAPACITOR ELEC	47U/25V
C17	401011E6311T	CAPACITOR ELEC	100U/25V
C16	482201H0811T	CAPACITOR ELEC	22U/50V NP
B2881 J6 TO B2880 J2	66HD945*****	CONNECTOR	ED-945 2P
B2881 J3 TO B2880 J12	66HD757*****	CONNECTOR	ED-757 3P
B2881 J4 TO B2403A J11	66HDA42*****	CONNECTOR	ED-A42 4P
B2881 J5 TO B2882 J3	66HD948*****	CONNECTOR	ED-948 3P
B2881 J2 TO B2403A J1	66HDA43*****	CONNECTOR	ED-A43 5P
B2881 J1 TO B2403A J7	66HDA41*****	CONNECTOR	ED-A41 6P
Y1	21CSA1200MTZ	CRYSTAL OSC CERAMIC	12MHZ
D25.26	131N4148****	DIODE	1N4148
DIS2	18SDC0311EWA	DISPLAY LED	DC03-11EWA
DIS1	18SC0312EWA*	DISPLAY LED	SC03-12EWA
Q8	11M51951BSLB	IC	M51951B
U11	11F16V8B15PD	IC	ATF16V8B
U2	1156A11251*D	IC	AOC 56A1125-1
U18	11BA618****D	IC	BA618
C3.4.5.6.7.17	11CD74HC573E	IC	CD74HC573E
U1	1127C256R12D	IC	M27C256B
U12.13.14.15	11DT5C114E*D	IC	DT5C114E
U16	11TC74HC02AP	IC	74HC02AP
U8.9	1174HC244AED	IC	74HC244AP
U10	1193C46****D	IC	93C46
D5.6.7.8.9.10.11.24	18L3XAT*****	LED	L-3XAT
D16.17.18.20.21.22.23.33	18L934IT****	LED	L-934IT
1.2.3.4.19.27.28.32	18L3XGT*****	LED	L-3XGT
D12.13.14.15	18L937EYC***	LED	L-937EYC
B2881 P2 TO B2403A B	W1007264000*	MULTI THREAD	1007#26 400MM
B2881 C26 + TO B2881 Q8.3	W100726210**	MULTI THREAD	1007#26 210MM
B2881 D31 + TO B2881 +5V	W100726030**	MULTI THREAD	1007#26 30MM
	60B2881*****	P.C.B	B2881
R2-16.32.38.39.42	300472C4TJ2T	RESISTOR CARBON	1/4W T 470
R20.21.22.23.24.25.26.45	30001KC4TJ2T	RESISTOR CARBON	1/4W T 1K
R17.18.19	3004K7C8TJ2T	RESISTOR CARBON	1/8W T 4K7
R27.28.29	3005K6C8TJ2T	RESISTOR CARBON	1/8W T 5K6
R33.34	30010KC8TJ2T	RESISTOR CARBON	1/8W T 10K
R1	30022KC8TJ2T	RESISTOR CARBON	1/8W T 22K
R35.36	30022KC8TJ2T	RESISTOR CARBON	1/8W T 100K
R37	30001MC8TJ2T	RESISTOR CARBON	1/8W T 1M
B2881 Q7(E) TO R40	3002K2C4TJ5B	RESISTOR CARBON	1/4W T 2K2
30.31	29C44730807J	RESISTOR NETWORKS	47K x 7
U1	10A28PBD****	SOCKET,IC	28P Pith 2.54
U11	10A20PBD****	SOCKET,IC	20P Pith 2.54
SW1-10.SW12.13	20GB3F1050**	TACT SWITCH	B3F-1050

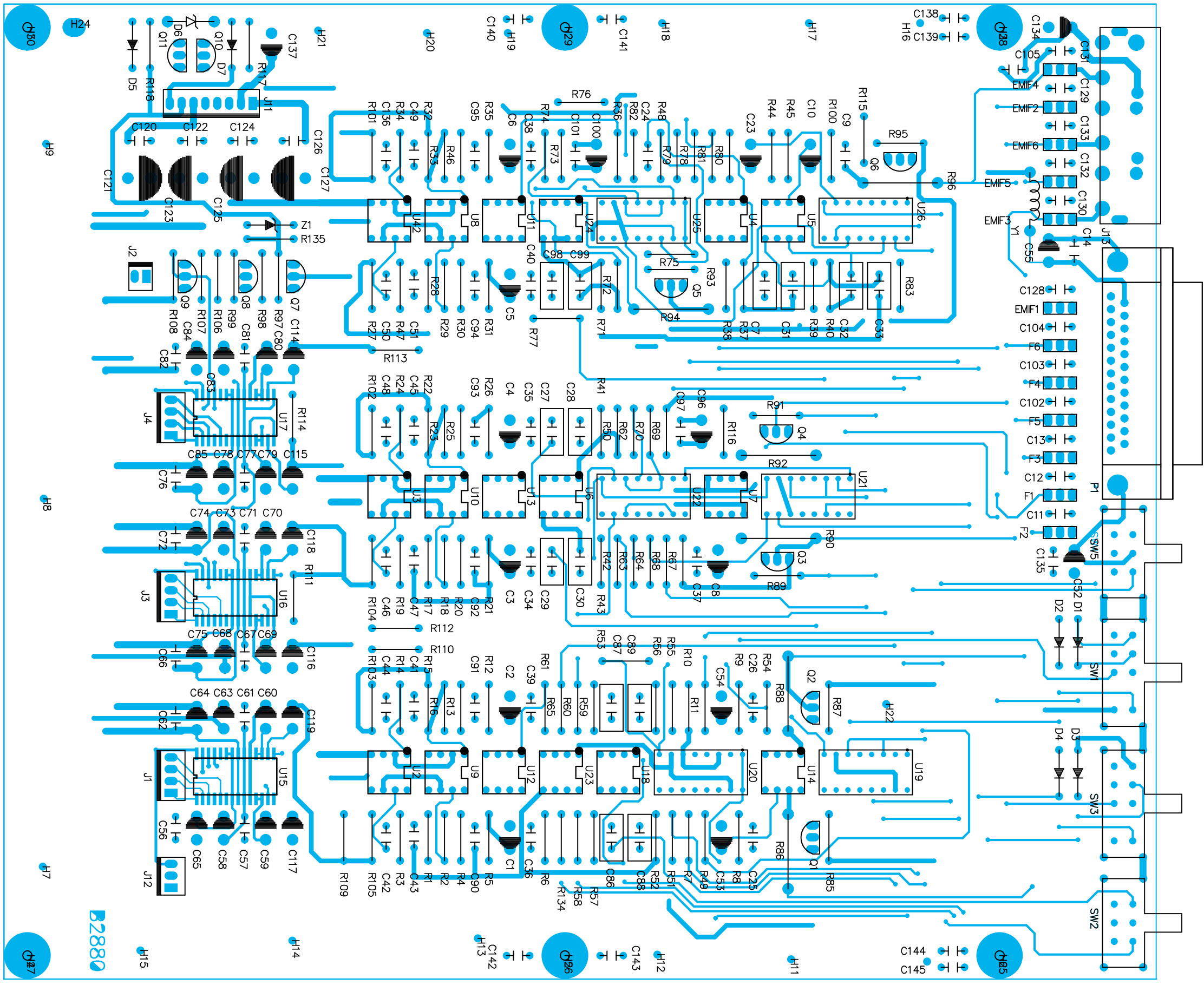
Parts List (4/5)

SYMBOL	PART NO.	DESCRIPTION	SPECIFICATION
Q1.5.6	122SC2235Y*T	TRANSISTOR	2SC2235Y
Q2.3.4	122SC2240BLT	TRANSISTOR	2SC2240BL/GR
P2	31005K06H***	TVR	6Φ H-TYPE 5K
PCB B 2 8 8 2			
C11	401001H0511T	CAPACITOR ELEC	10U/50V
C3.4.16	401011C6311T	CAPACITOR ELEC	100U/16V
C17.19	402211E8115T	CAPACITOR ELEC	220U/25V
C1	482211E1020T	CAPACITOR ELEC	220U/25V NP
C9.10.12	401021E1220B	CAPACITOR ELEC	1000U/25V
C5.6.8	404721E1831B	CAPACITOR ELEC	4700U/25V
C7.13.14.15.18	522242EWCRKF	CAPACITOR MPP-C	0.22K/250V
C2	521042CWORFK	CAPACITOR MPP-D	0.1/160V
B2882 J4 TO B2880 J11	66HDA40*****	CONNECTOR	ED-A40 8P
D3.5	131N4007****	DIODE	1N4007
D1.2	13S4VB20****	DIODE	S4VB20
F1-F3	67A05*****T	FUSE HOLDER	PFC5000-0202 5Φ
D1	76H02500129*	HEAK SINK	H-025
Q3	76H04200127*	HEAT SINK	H-042
U3.4	76H522000134	HEAT SINK	H-522
U1	76H521000135	HEAT SINK	H-521
U2	117805CT***D	IC	7805CT
U1	11AN7805***D	IC	AN7805
U3	11AN7815***D	IC	AN7815
U4	11AN7915***D	IC	AN7915
	60B2882*****	P.C.B	B2882
R2	30047KC4TJ2T	RESISTOR CARBON	1/4W T 47K
R1	30150KC4TJ2T	RESISTOR CARBON	1/4W T 150K
R5	300100C2TJ**	RESISTOR CARBON	1/2W T 100
R4	302P2KC2TJ**	RESISTOR CARBON	1/2W T 2K2
R3	39001K01MJ**	RESISTOR M.O.F	1W 1K
U1.3.4	SCCR*T3008Y*	SCREW	CRTS 3x8 Y
Q3	SCR*T3006Y**	SCREW	CRTS 3x6 Y
H025	SCCR*T3015Y*	SCREW	CRTS 3x15 Y/B
Q1	122SC1815BLT	TRANSISTOR	2SC1815BL/GR
Q2	122SC2235Y*T	TRANSISTOR	2SC2235Y
Q3	122SB633E**B	TRANSISTOR	2SB633E
J5	66W504502R**	WAFER	5045-2P
J3	66W504503R**	WAFER	5045-3P
J1	66W396302R**	WAFER	3963-2P
J2	66W396303R**	WAFER	3963-3P
	SCWSY3Φ****	WASHER,SPRING	3Φ
D4	13Z4P70P5*2T	ZENER DIODE	4.7V/0.5W
PCB B 4 0 3 B			
C2.3.8.10-43.45.47-62.64.67-70.76.78-81.86.87	561041HCZFST	CAPACITOR CERAMIC SMT	104/50V 0805
C84.85	541032EWCRKF	CAPACITOR PS-C	0.01/100V
EMIF1.EMIF5	21FILTER101*	CERAMIC FILTER	101
EMIF2.EMIF3.EMIF4	21FILTER104*	CERAMIC FILTER	104
L1-L3	73C047UH****	CHOKE	47uH
B2403A J2 TO B2882 J5	66HD578*****	CONNECTOR	ED-578 2P
B2403A (J4)(J5)(J6) TO B2880(J1)(J3)(J4)	66HD870*****	CONNECTOR	ED-870 4P
OSC1	17OSC33MHZ*B	CRYSTAL	33MHz
D2.3.4.20.11.12.13	131N4148****	DIODE	1N4148
Y1.2.3.8	73B3C2T7P5P8	FERRITE BEAD	3.5T x 7.5Φ x 0.8M
U1	11CSB8412CP*	IC	CSB8412-CP
U2	11ZR38500PQS	IC SMT	ZR38500
U3-U5	11AS7C25620S	IC SMT	AS7C256-20JC

Parts List (5/5)

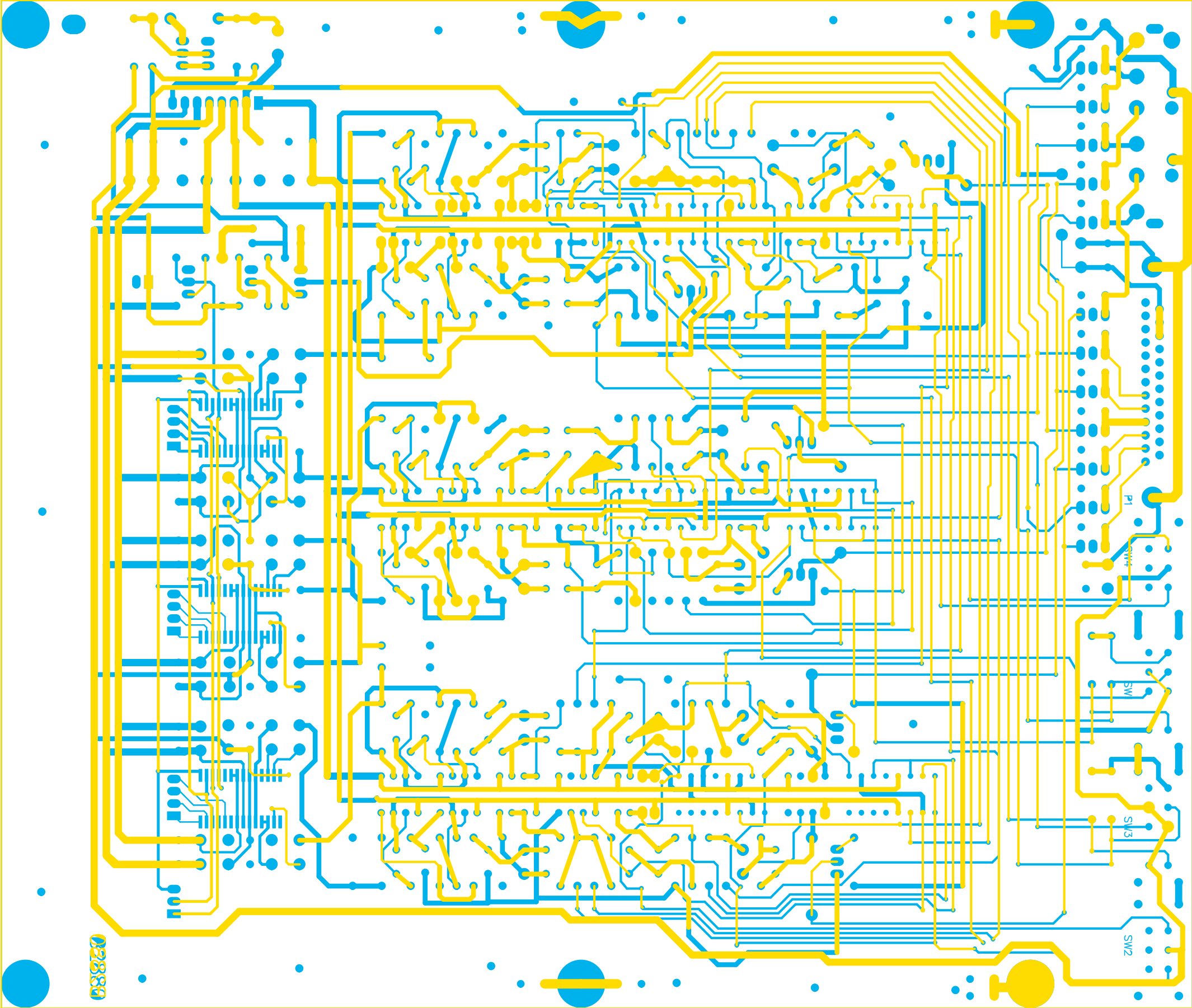
SYMBOL	PART NO.	DESCRIPTION	SPECIFICATION
U6	1174HC123DTS	IC SMT	74HC123D
U7	1174HC595DTS	IC SMT	74HC595D
U8	1174HC74DT*S	IC SMT	74HC74D
U9.10.15	1174HC04DT*S	IC SMT	74HCU04D
U11	1174HC02DT*S	IC SMT	74HC02D
U17	1174HC125DTS	IC SMT	74HC125D
U18	1174HC08DTS	IC SMT	74HC08D
D1	18L32HD****	LED	L-32HD 3Φ
IR1	14TORX176***	OPTICAL RECIEVER	TORX176
	60B2403A****	P.C.B	B2403B
R44 UP	87010119****	PIN	1x1x19
J8.9	680501040YG*	RCA JACK	0501040-YG
R20.21	300010C80805	RESISTOR CARBON SMT	1/8W 10
R34.38	300075C80805	RESISTOR CARBON SMT	1/8W 75
R7-R18	300100C80805	RESISTOR CARBON SMT	1/8W 100
R1.2.22.23.28-30.42	30001KC80805	RESISTOR CARBON SMT	1/8W 1K
R44	3003K3C80805	RESISTOR CARBON SMT	1/8W 3K3
R36.40	3004K7C80805	RESISTOR CARBON SMT	1/8W 4K7
R3.5.6.37.41	30010KC80805	RESISTOR CARBON SMT	1/8W 10K
R4.35.39.50	30022KC80805	RESISTOR CARBON SMT	1/8W 22K
R43	30100KC80805	RESISTOR CARBON SMT	1/8W 100K
R48	30001MC80805	RESISTOR CARBON SMT	1/8W 1M
R49	3004M7C80805	RESISTOR CARBON SMT	1/8W 4M7
C1.5	531031HCZFST	RESISTOR CARBON SMT	103/50V 0805
C4	564731HCZFST	RESISTOR CARBON SMT	473/50V 0805
C73.75	490101HCJNST	RESISTOR CARBON SMT	10P/50V 0805
C66	444R71H0511T	RESISTOR ELEC	4.7U/50V KULR
C6.7.44.46.63	403301C0511T	RESISTOR ELEC	33U/16V
CX1.CX4-CX6.77	404701E0511T	RESISTOR ELEC	47U/25V
C9	402211C8115T	RESISTOR ELEC	220U/16V
C72.74	484701E0811T	RESISTOR ELEC	47U/25V NP
Q1	122SC2458GRT	TRANSISTOR	2SC2458GR
J11	66W504504R**	WAFER	5045-4P
J1	66W504505R**	WAFER	5045-5P
J7	66W504506R**	WAFER	5045-6P

B2880 Top Side



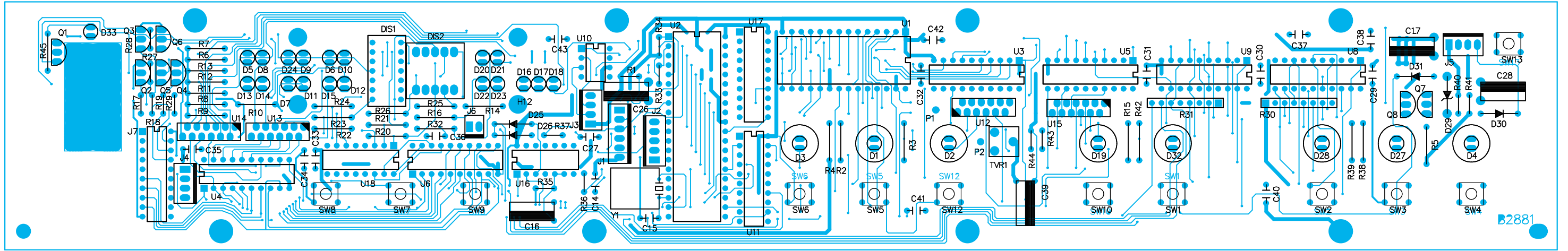
PCB Assembly

B2880 Patterns of Top and Bottom

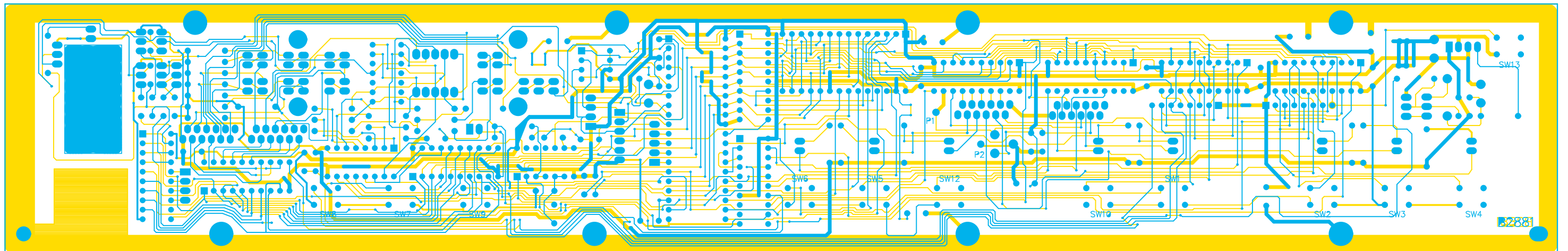


PCB Assembly

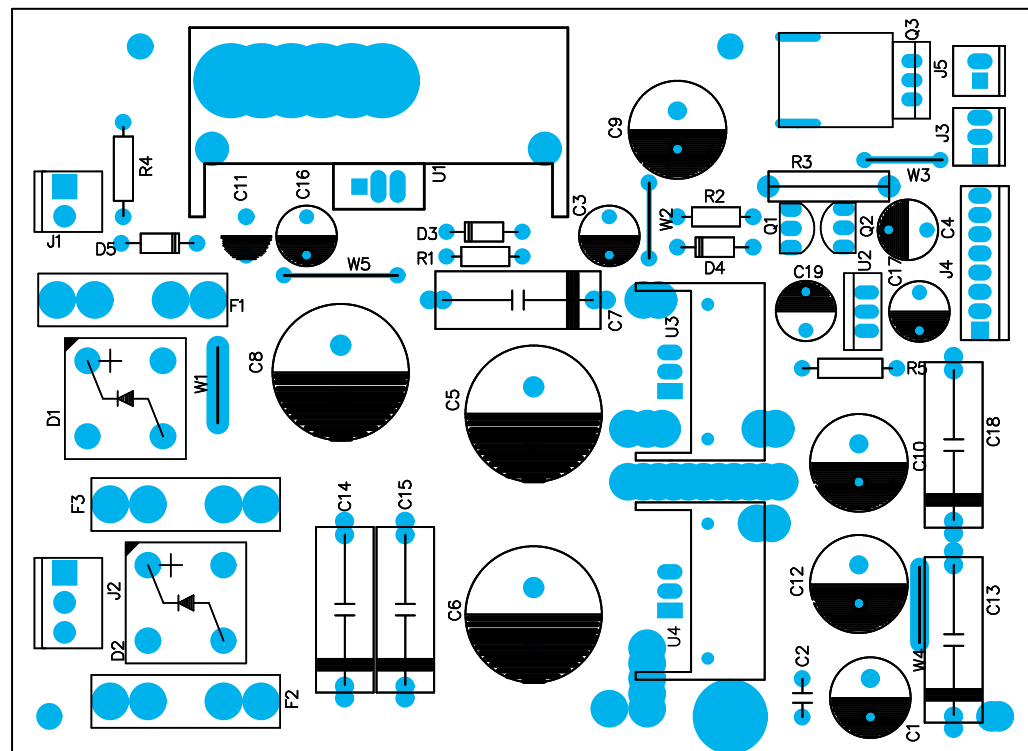
B2881 Top Side



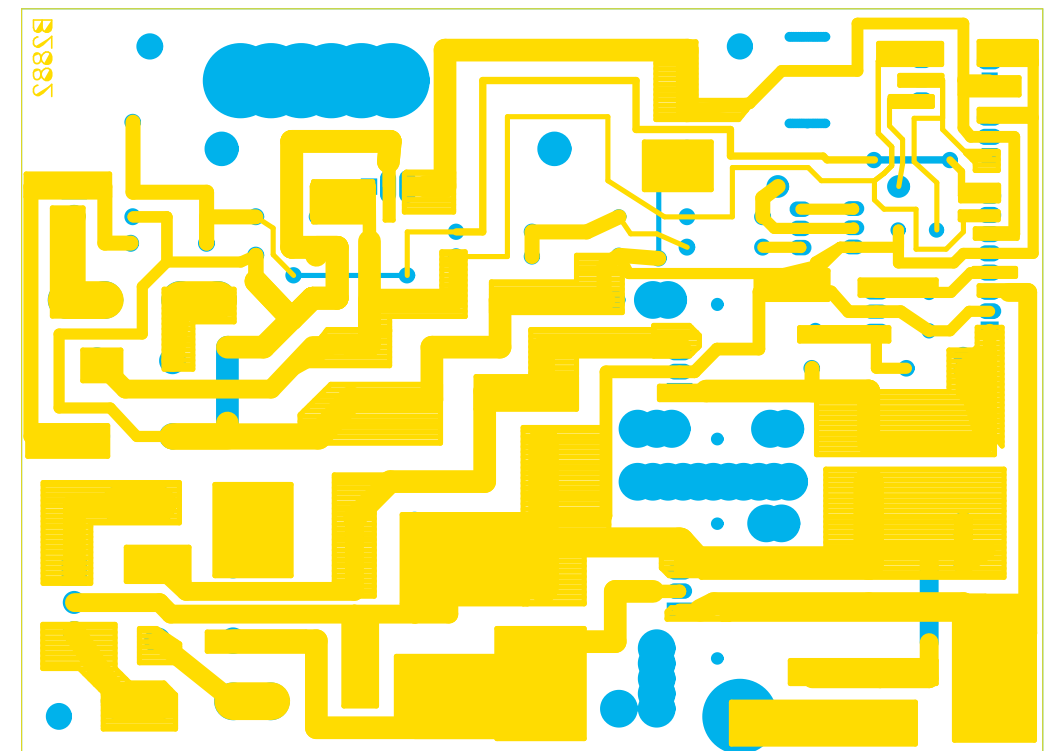
B2881 Patterns of Top and Bottom



B2882 Top Side

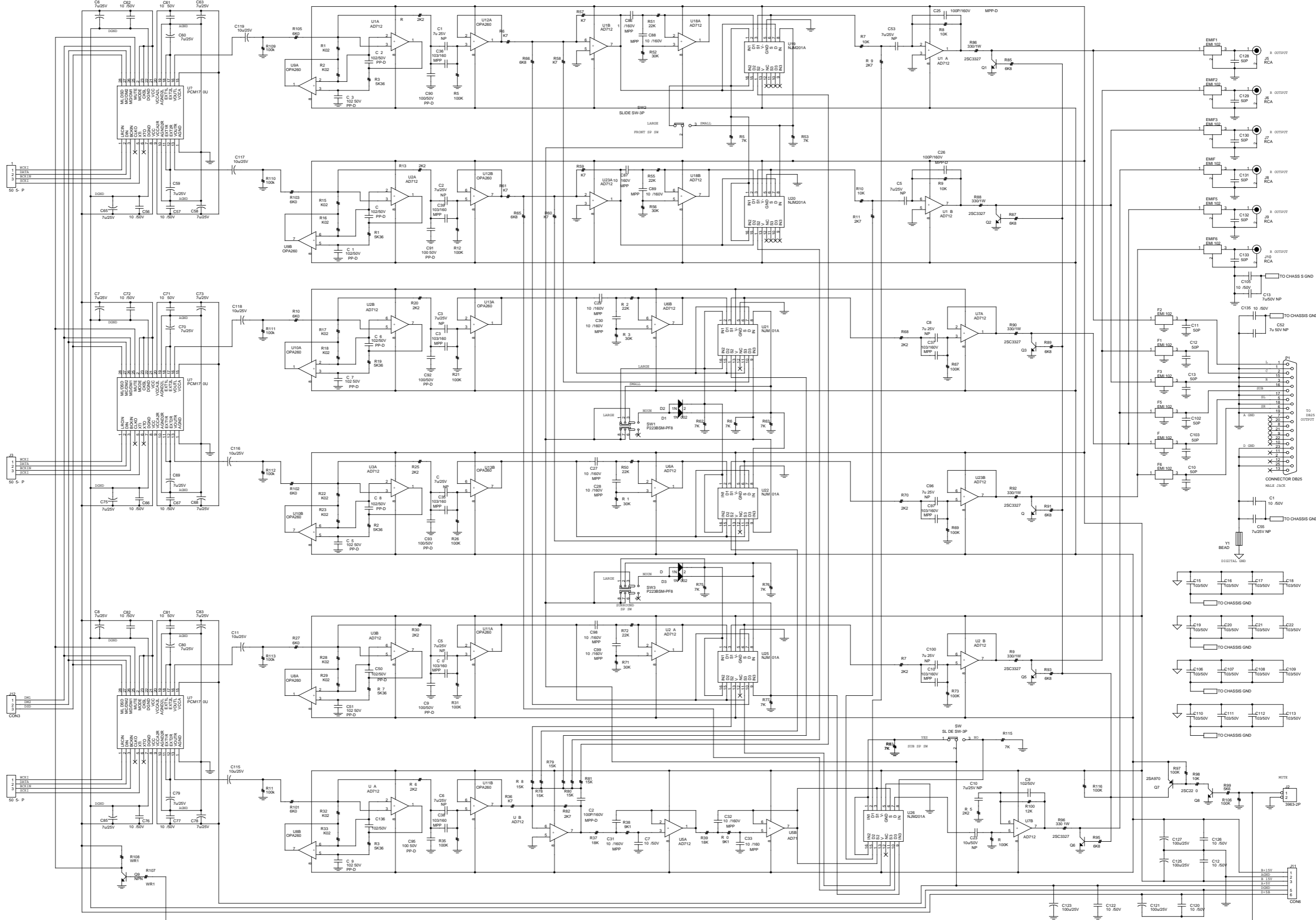


B2882 Patterns of Top and Bottom



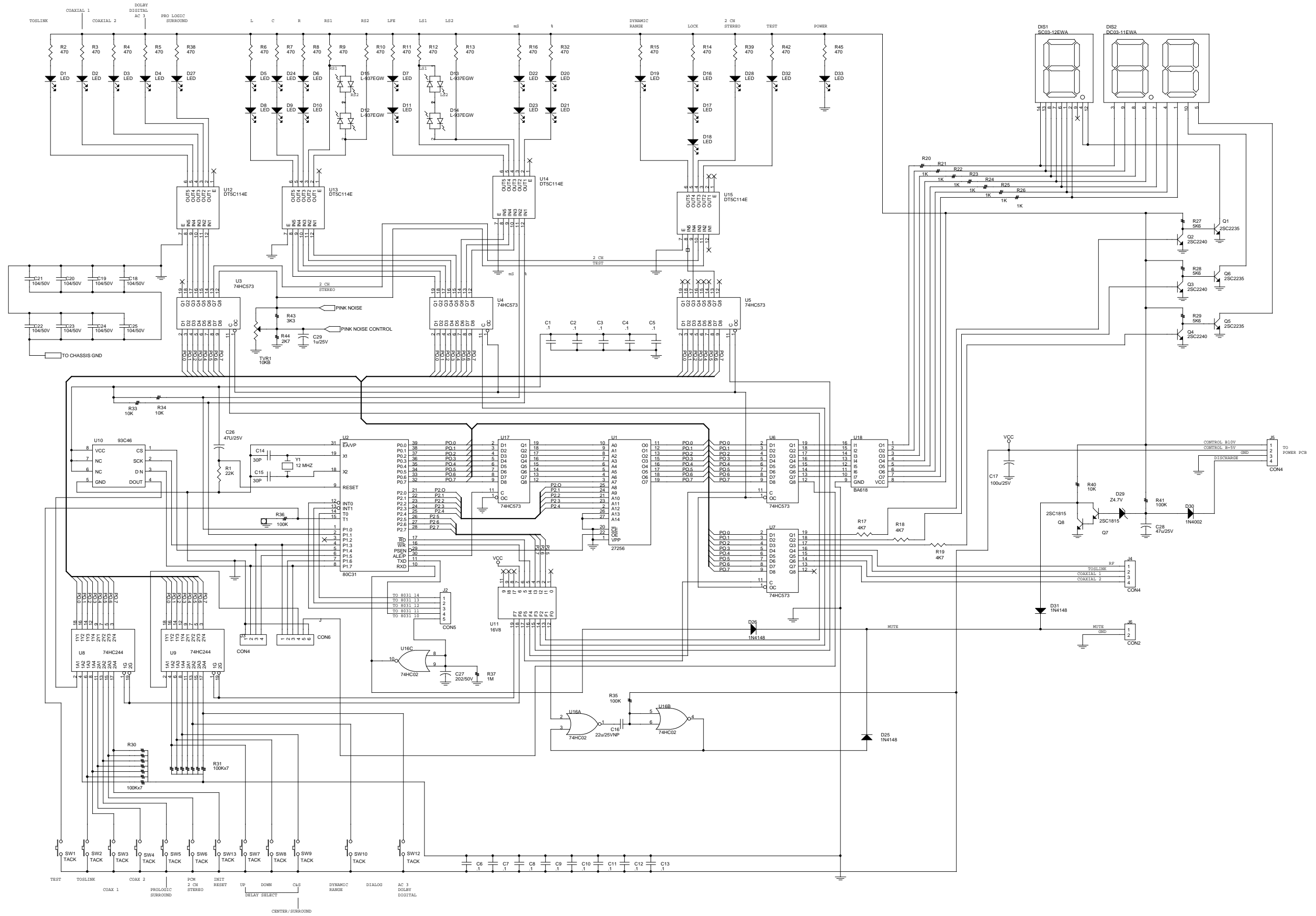
Schematic Diagram

B2880



Schematic Diagram

B2881



Memo

Schematic Diagram

B2882

