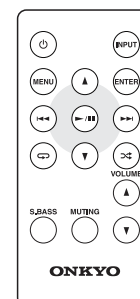
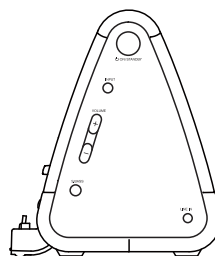
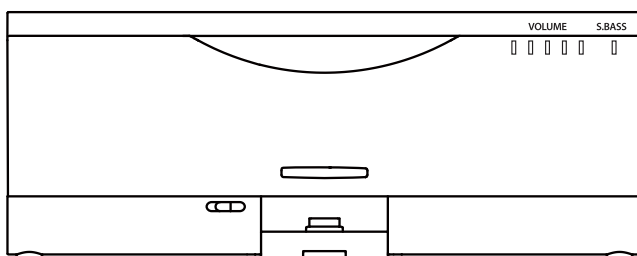
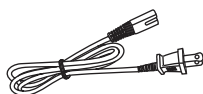


# ONKYO® SERVICE MANUAL

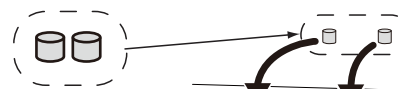
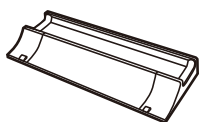
## DOCK MUSIC SYSTEM MODEL SBX-200(B)



AC Adapter




Power Cord

Cushion  
for iPadiPad基座  
<CMR> only

### Black model

B CMR/CMP	100-240V AC, 50/60Hz
-----------	----------------------

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

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

ONKYO SOUND & VISION CORPORATION  
Service Department

Exploded view

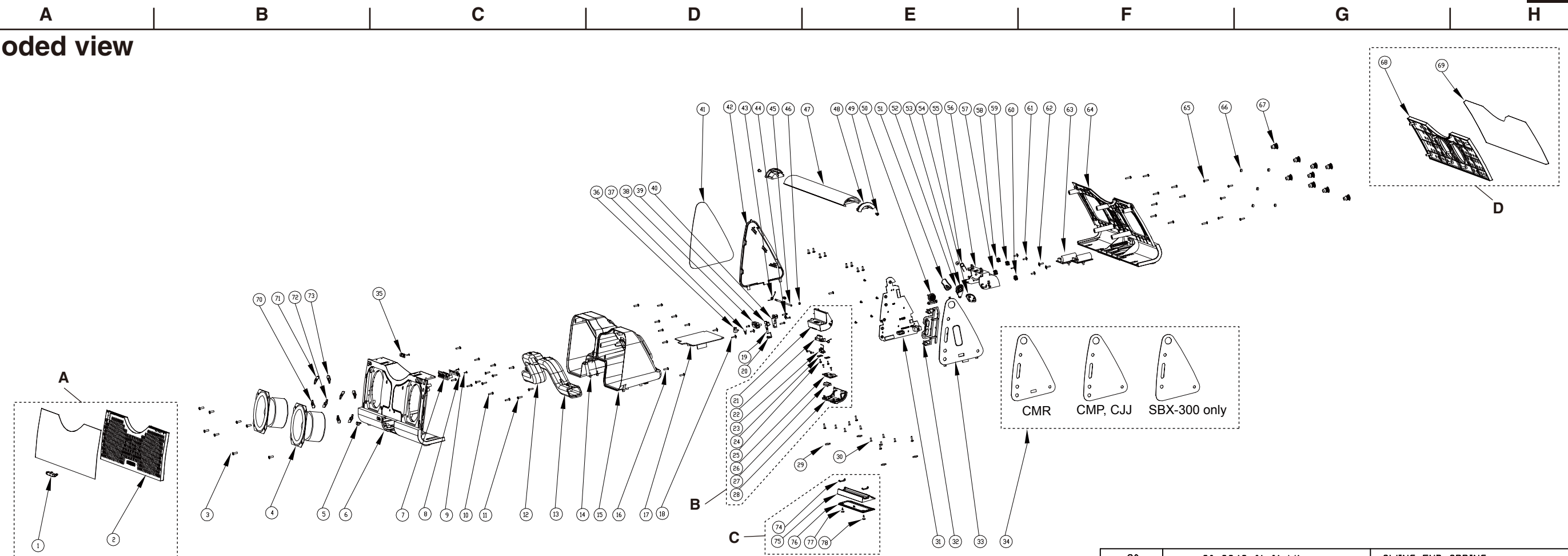
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< CMR, CJJ > only

ITEM	P/N	DESCRIPTION	QTY
<b>C</b>	646-SBX20X-07B	iPad Stand	
78	30-3685-01-01-V1	RUBBER FOOT SMALL	2
77	372-K26060-NTNX1	SCREW	2
76	300-N01223-000V0	LDC-BOTTOM	1
75	300-N01222-000V0	LDC-TOP	1
74	30-3690-01-01-V1	RUBBER FOR LDC	2
73	300-N01442-000V0	SPEAKER WASHER 2	2
72	300-N01440-000V0	SPEAKER WASHER 4	2
71	300-N01443-000V0	SPEAKER WASHER 1	2
70	300-N01441-000V0	SPEAKER WASHER 3	2
<b>D</b>	646-SBX-20B-07B	Rear Cover	
69	30-3683-01-01-V1	CLOTH	2
68	300-N01208-000V0	FRAME-NET-R	1
67	30-3688-01-01-V1	GROMMET	9
66	300-N01348-000V0	PLASTIC WASHER	5
65	372-P17080-BTNX1	SCREW	5
64	300-S00112-000V0	REAR	1
63	300-N01199-000V0	DC PCBA	1
62	377-W30100-YTNX1	SCREW	2
61	377-P26080-NTNX1	SCREW	5
60	30-3560-01-01-X1	RUBBER-DAMPER-DOWN	1
59	30-3593-01-01-X1	RUBBER-DAMPER-UP	1
58	30-3594-01-01-X1	RUBBER-DAMPER-LOCATION	1
57	30-3643-01-01-X1	RUBBER-DAMPER-DOWN-R	1

ITEM	P/N	DESCRIPTION	QTY
56	300-N01200-000V0	DOCK HOUSING	1
55	20-3840-01-01-V1	DOCK LOCK SPRING	1
54	300-N01201-000V0	GEAR	1
53	300-N00851-000X0	DAMPER 25G	1
52	300-N01199-000V0	LEVER DAMPER	1
51	300-N01202-000V0	DOCK LOCK	1
50	300-N01211-000V0	POWER KNOB	1
49	372-B40120-YTNX1	SCREW	2
48	300-N01210-000V0 300-N01210-100V0	HANDLE COVER (S) (B)	2
47	20-3834-01-01-V1 20-3834-02-01-V1	HANDLE BAR (S) (B)	1
46	20-3750-01-01-V1	E-RING	3
45	20-3835-01-01-V1	SHAFT	1
44	20-3839-01-01-V1	SWING ROD SPRING	1
43	20-3837-01-01-V1	DOCK LOCK SPRING	1
42	300-N01215-000V0	L SIDE PANEL	1
41	30-3691-01-01-V1	L-SIDE-PC	1
40	300-N01251-000V0	SWING ROD COVER	1
39	300-N01250-000V0	SWING END	1
38	300-N01204-000V0	SWING ROD	1
37	20-3849-01-01-V1	LOCK KNOB SPRING	1

ITEM	P/N	DESCRIPTION	QTY
36	300-N01203-000V0	KNOB PRESS	1
35	270-ST0031-B10V1	REMOTE PCBA	1
34	30-3692-01-01-V1 30-3692-01-02-V1 30-3692-01-03-V1	R-SIDE-PC < CMR > < CMP, CJJ > SBX-300 only	1
33	300-N01214-000V0	R SIDE PANEL	1
32	300-N01209-000V0 300-N01209-010V0	FUNCTION KNOB SBX-200 only SBX-300 only	1
31	690-SBX20*-01W 690-SBX20*-07W 690-SBX30*-47B	KEY PCBA < CMR > < CMP, CJJ > SBX-300 only	1
30	372-K30100-BTNX1	SCREW	8
29	30-3684-01-01-V1	RUBBER FOOT	4
<b>B</b>	648-SBX20*-07B	Dock Station	
28	300-N01199-000V0	DOCK BOX B	1
27	300-N01213-000V0	POWER LENS	1
26	688-SBX20*-01W?	BACK LIGHT PCBA	1
25	372-B26060-NTNX2	SCREW	5
24	20-3836-01-01-V1	PRESS PLATE	2
23	686-SBX20*-01W	IPAD PCBA	1
22	300-N01205-000V0	IPAD CONTACT	1
21	300-N01198-000V0	DOCK BOX T	1

ITEM	P/N	DESCRIPTION	QTY
20	20-3848-01-01-V1	SWING END SPRING	1
19	20-3847-01-01-V1	SWING END SHAFT	1
18	377-P26100-BTNX1	SCREW	2
17	652-SBX20*-01W 652-SBX20*-02B 652-SBX20*-07B 652-SBX20*-07W 652-SBX30*-47B	MAIN PCBA < CMR > < CMP > < B, CJJ > < S, CJJ > SBX-300 only	1
16	372-B30140-BTNX1	SCREW	14
15	300-N01217-000V0	SPEAKER BDX R	1
14	300-N01216-000V0	SPEAKER BDX L	1
13	G31-SBX20R-07BV0	PIPE R ASM	1
12	G31-SBX20L-07BV0	PIPE L ASM	1
11	372-B30120-NTNX1	SCREW	15
10	372-B30100-BTNX2	SCREW	12
9	372-U20060-YTNX2	SCREW	8
8	688-SBX20*-01W?	LED PCB A	1
7	300-N01212-000V0	LED LENS	1
6	300-S00111-000V0	FRONT	1
5	300-N01206-000V0	LOCK KNOB	1
4	200-011004-371X0	SPEAKER	2
3	372-B40100-BTNX1	SELF TAPPING B-HEAD 4x10mm	8
<b>A</b>	646-SBX20A-07B	Front Cover	
2	300-N01207-000V0	SPEAKER FRAME F	1
1	30-3686-01-01-V1	RUBBER SURPORT	1

Schematic diagrams - 1  
Block Diagram

SBX-200 BLOCK DIAGRAM

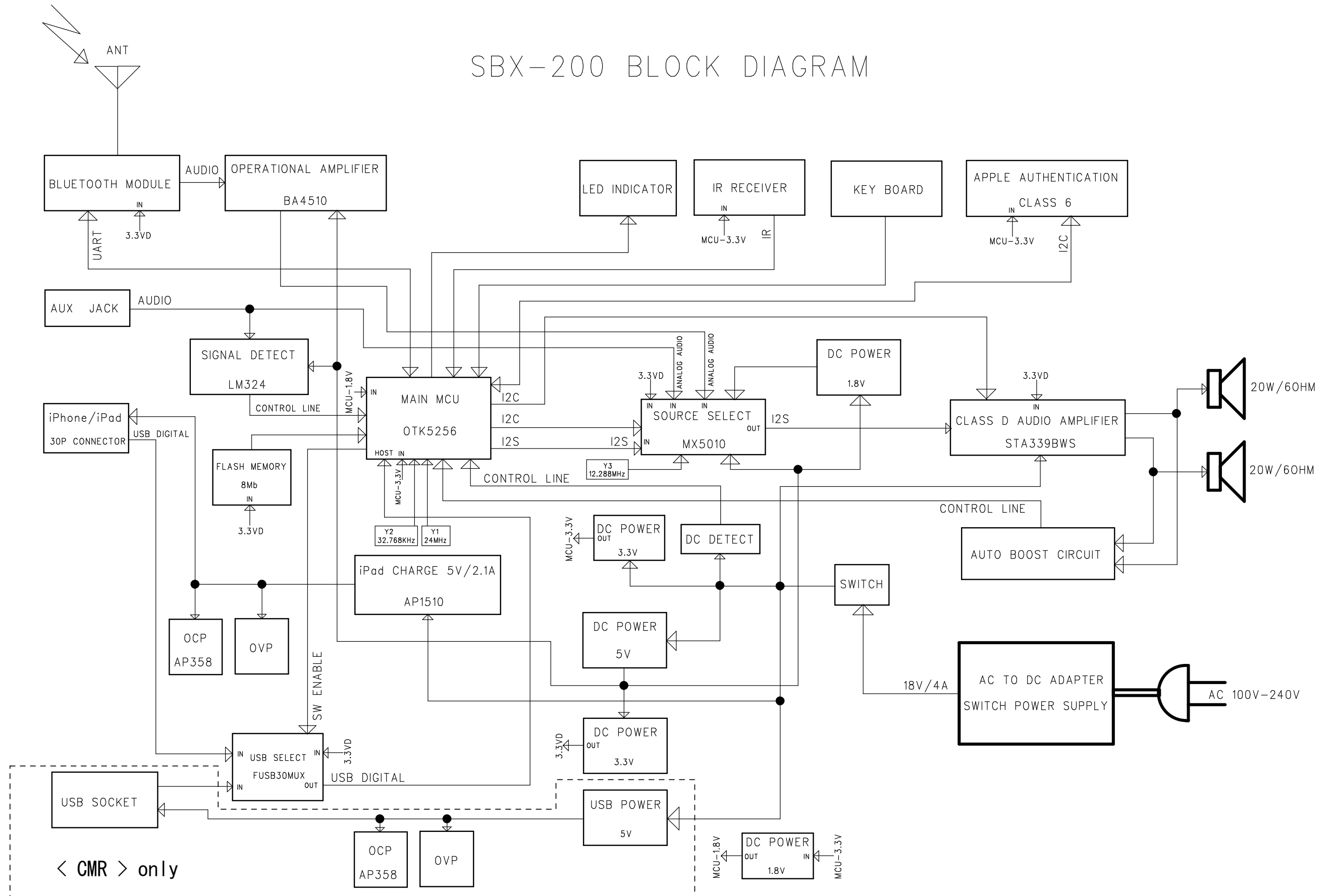
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# Schematic diagrams - 2

## Main - 1

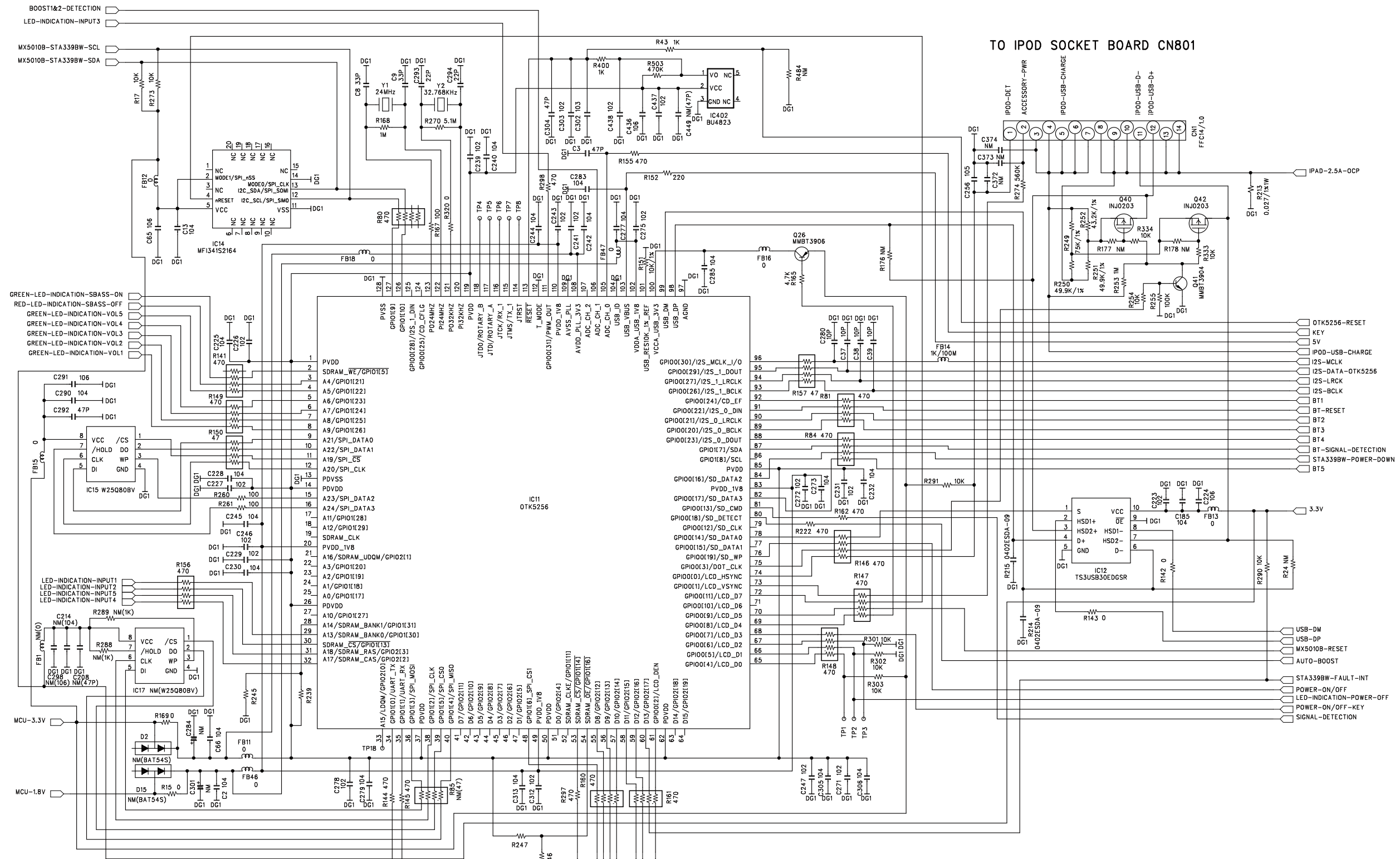
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TRUE TABLE FOR EACH VERSION SELECTION(FIRMWARE)

MCU NO.28PIN	MCU NO.54PIN		R239	R245	R247	R246
1	0	JAPAN(silver)	10K	NM	NM	10K
1	1	JAPAN/EUROPE(black)	10K	NM	10K	NM
0	0	USA(black)	NM	10K	NM	10K
IGNORE	IGNORE	CHINA(silver)	NM	NM	NM	NM

- BT-UART-BX
- BT-UART-TX
- USB-POWER-CONTROL
- IPDOD-POWER-CONTROL
- IPDOD-CHARGE-PROTECT
- IPDOD-DC-DETECTION
- IPDOD-CHARGE-BOOST1
- USB-POWER-PROTECT
- IPDOD-CHARGE-BOOST2
- IR

TO IPOD SOCKET BOARD CN801

- OTK5256-RESET
- KEY
- 5V
- IPOD-USB-CHARGE
- I2S-MCLK
- I2S-DATA-OTK5256
- I2S-LRCK
- I2S-BCLK
- BT1
- BT-RESET
- BT2
- BT3
- BT4
- BT-SIGNAL-DETECTION
- STA339BW-POWER-DOWN
- 3.3V
- USB-DW
- USB-DP
- MX5010B-RESET
- AUTO-BOOST
- STA339BW-F-AULT-INT
- LED-INDICATION-POWER-OFF
- POWER-ON/OFF-KEY
- SIGNAL-DETECTION

# Schematic diagrams - 3

## Main - 2

DEL THIS SECTION FOR USA/CANADA

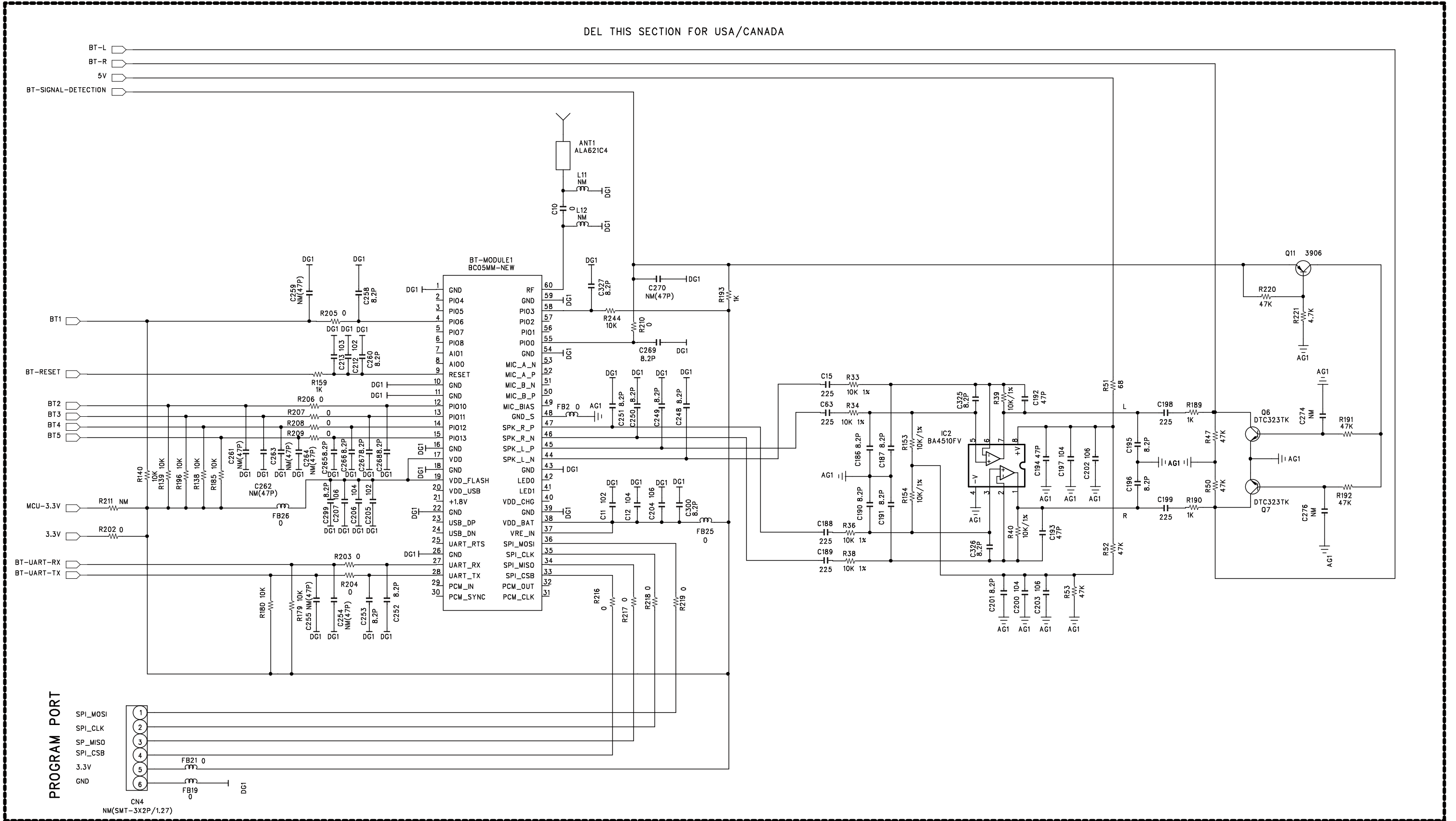
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# Schematic diagrams - 4

## Main - 3

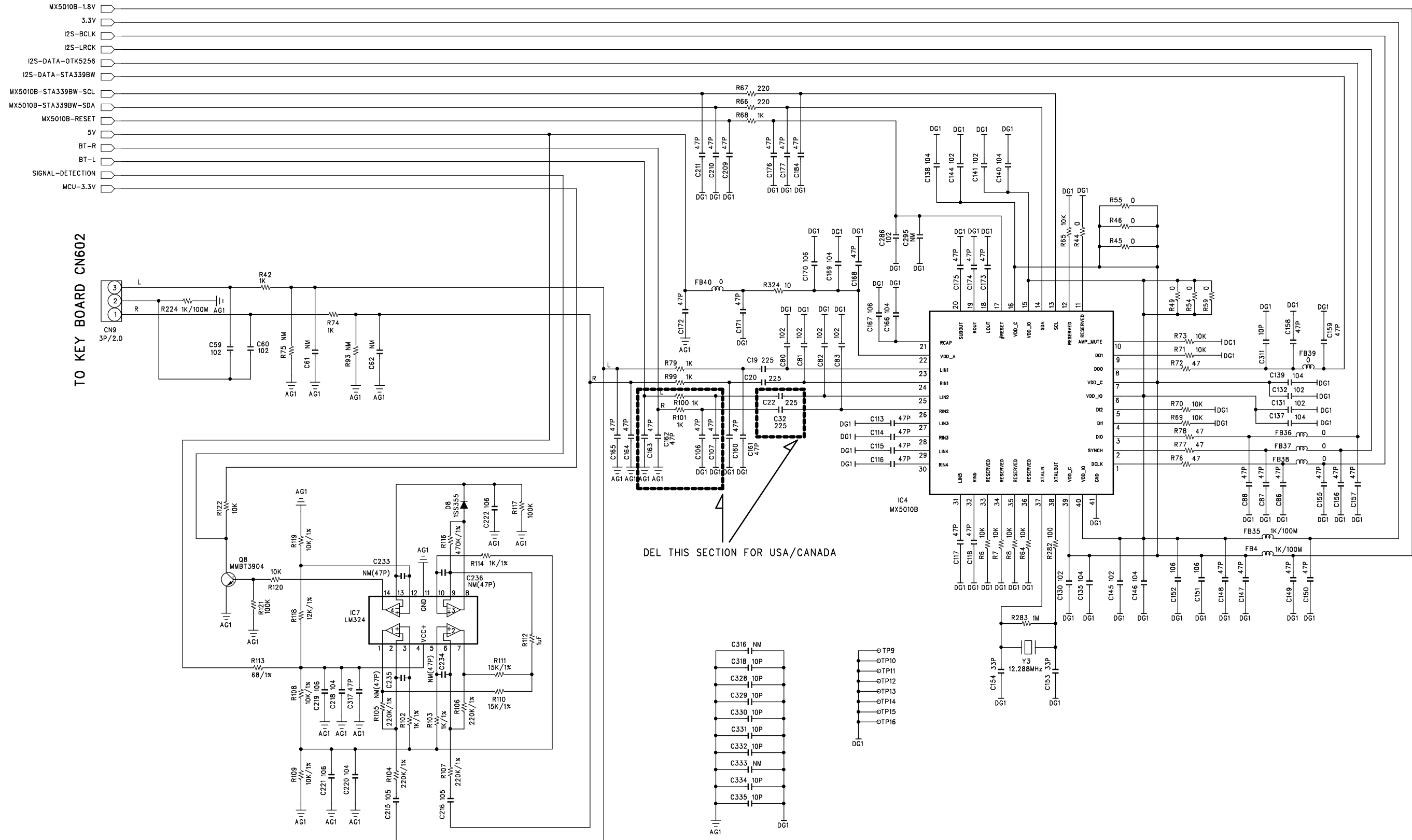
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# Schematic diagrams - 5

## Main - 4

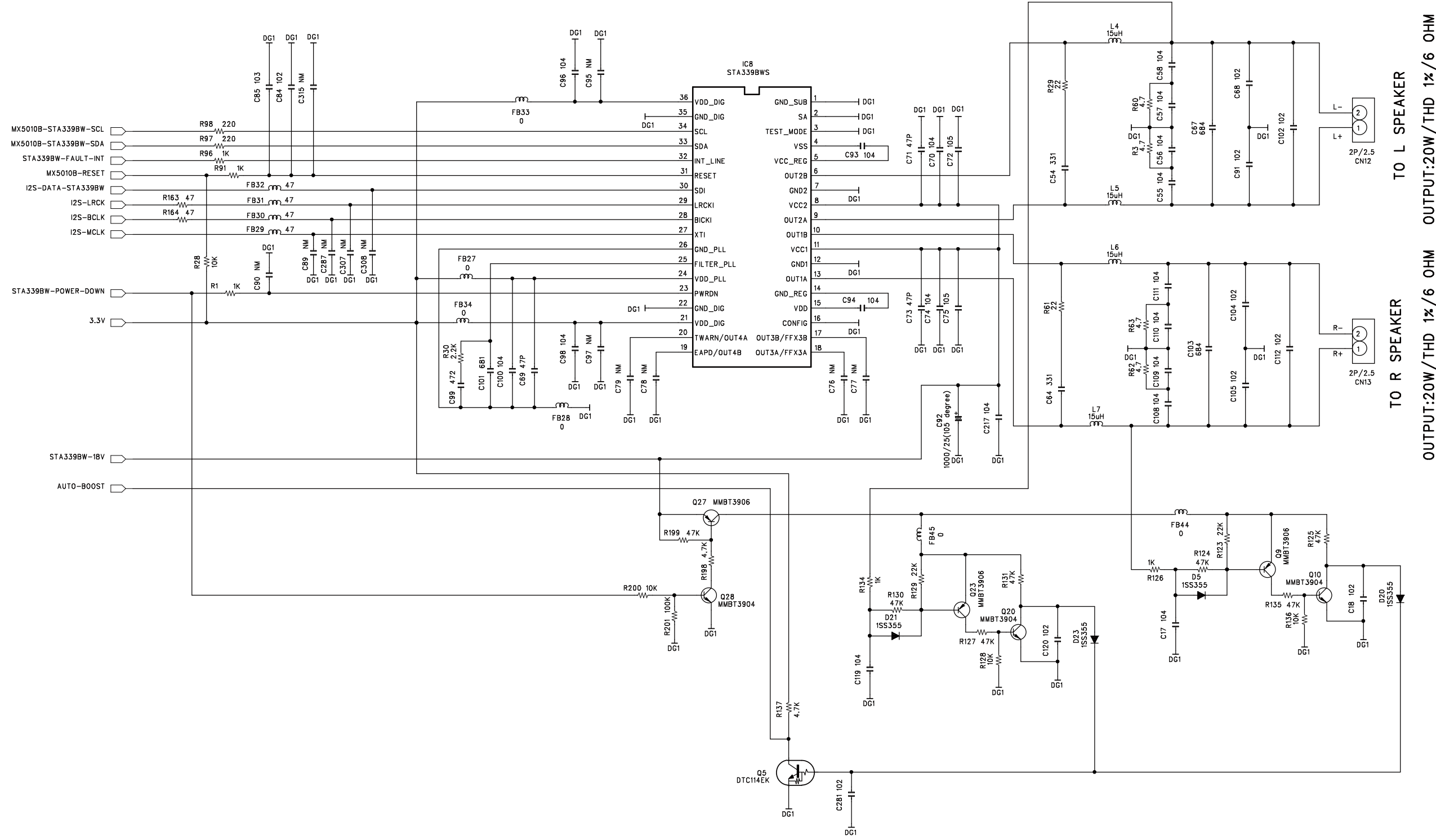
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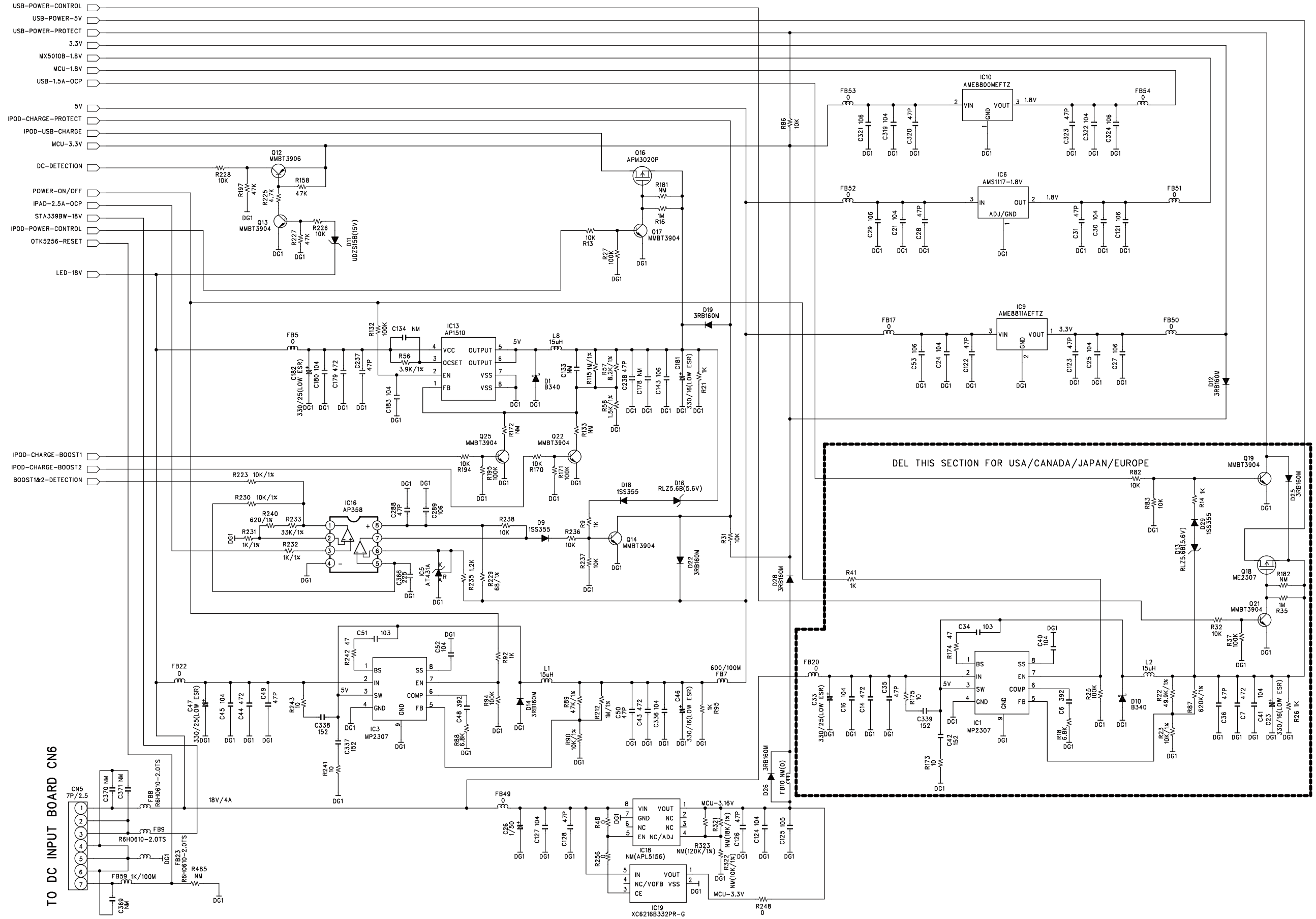
TO L SPEAKER OUTPUT:20W/THD 1%/6 OHM

TO R SPEAKER OUTPUT:20W/THD 1%/6 OHM

# Schematic diagrams - 6

## Main - 5

1  
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# Schematic diagrams -7

## Main - 6

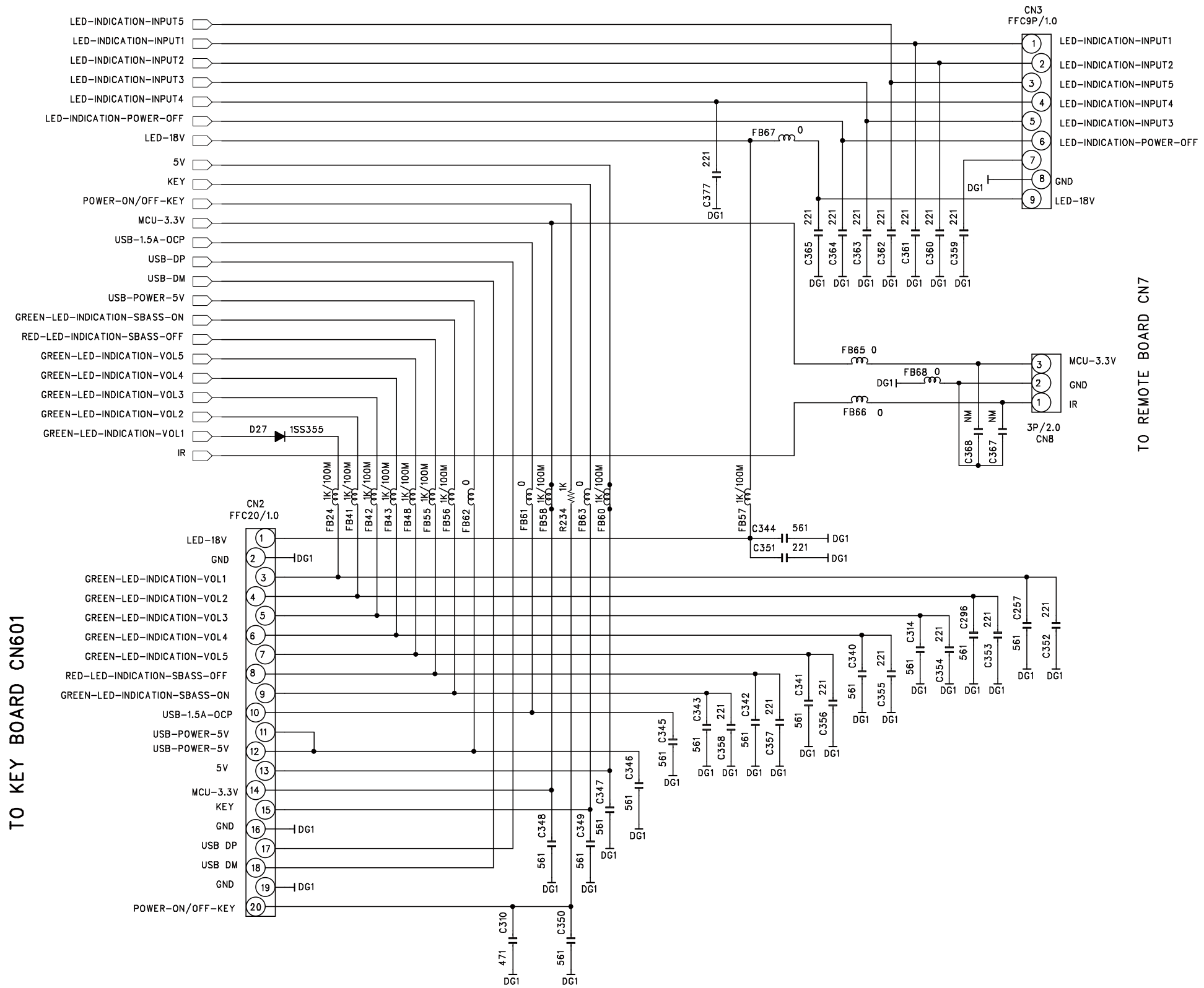
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TO KEY BOARD CN601

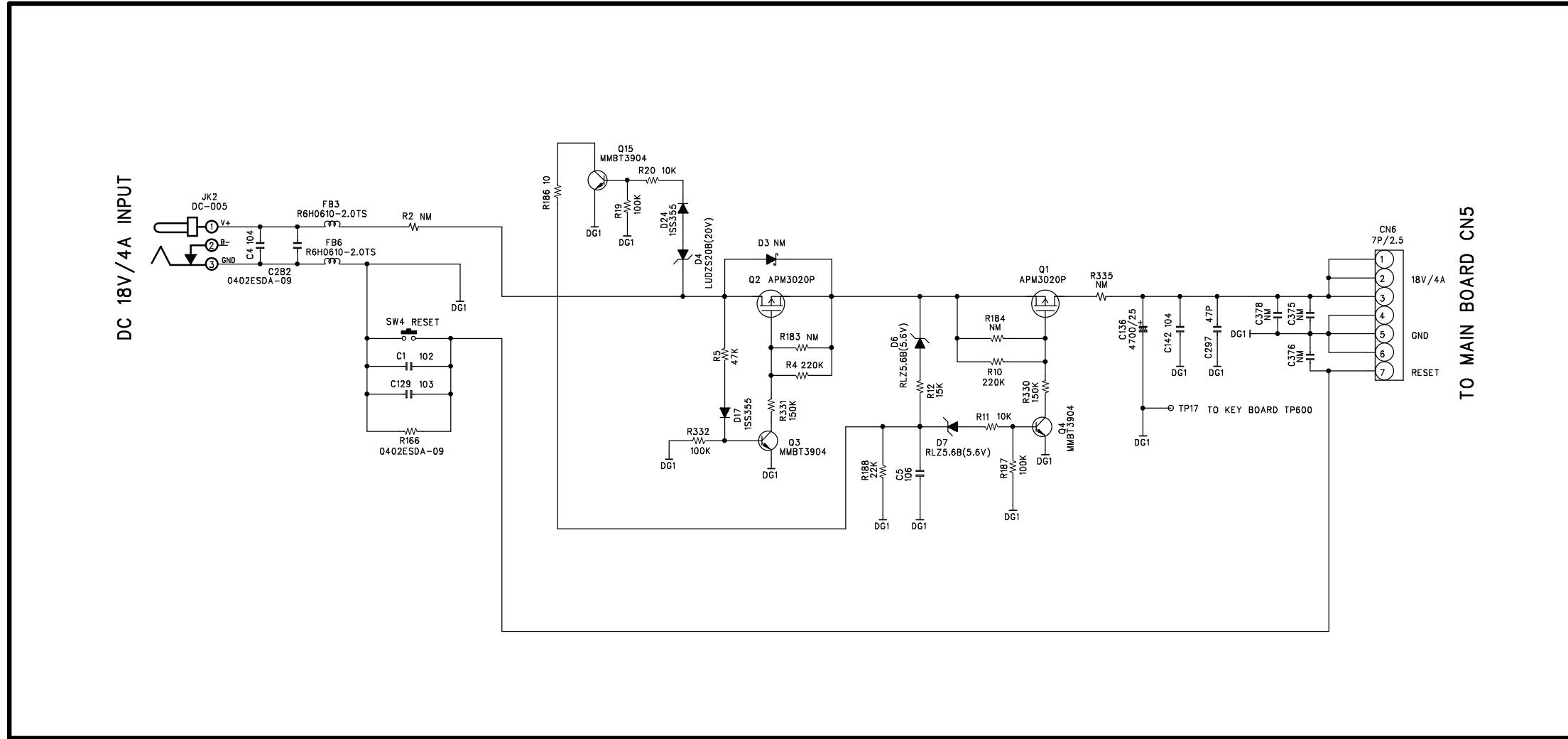
TO REMOTE BOARD CN7

TO BACKLIGHT BOARD CN803

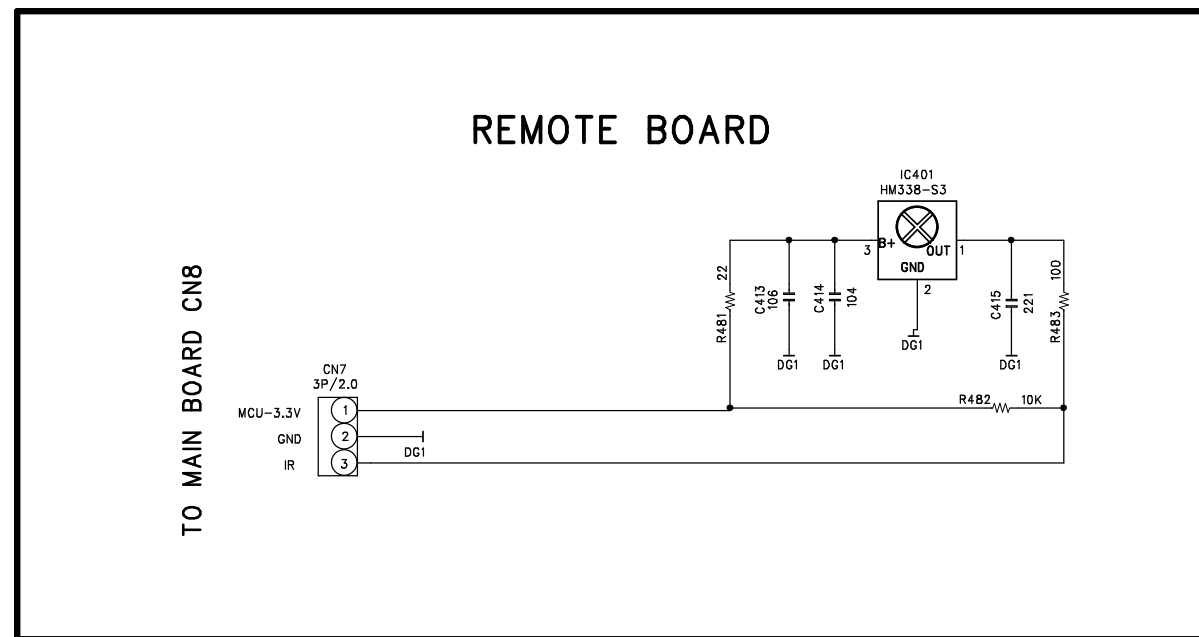
Schematic diagrams - 8

Main - 7

DC INPUT BOARD



REMOTE BOARD



Schematic diagrams - 9  
iPod Connector

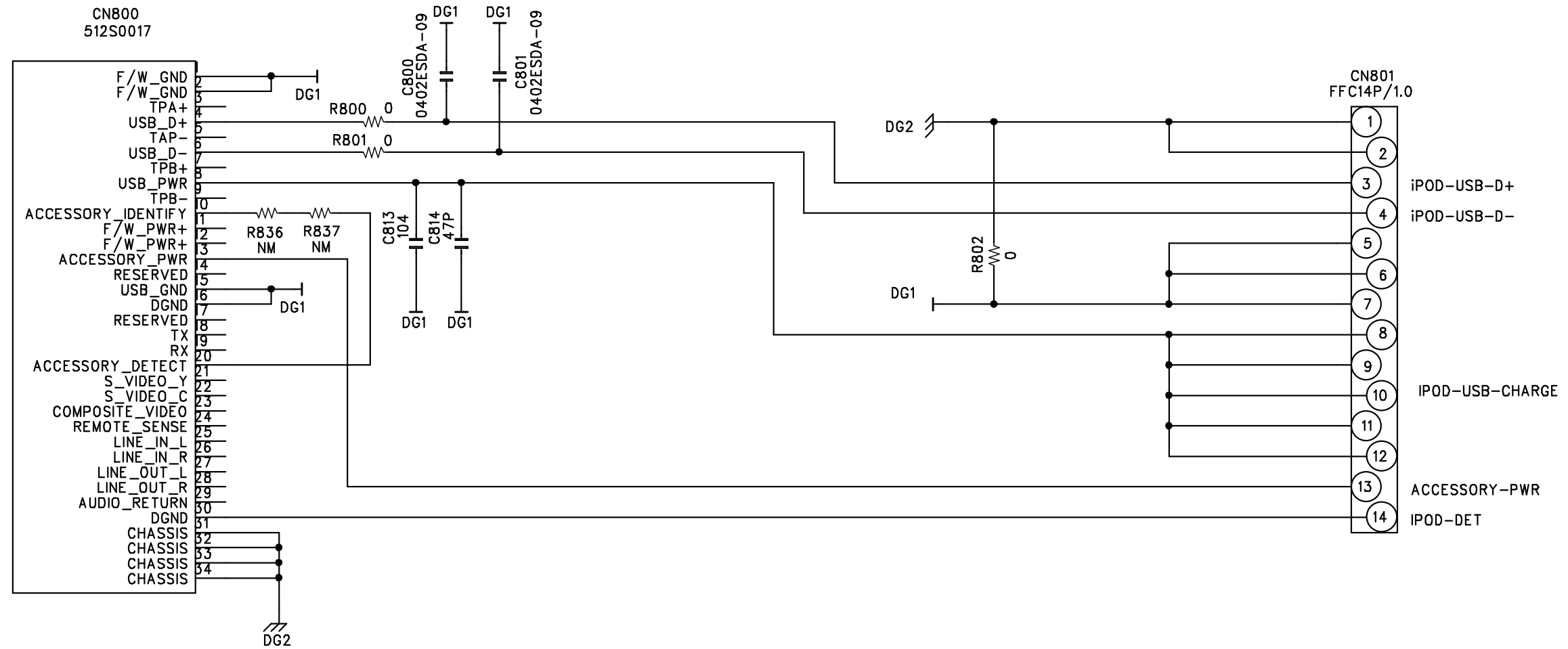
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FROM MAIN BOARD CN1

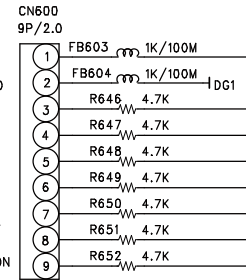
# Schematic diagrams - 10

## Key board / USB terminal

1

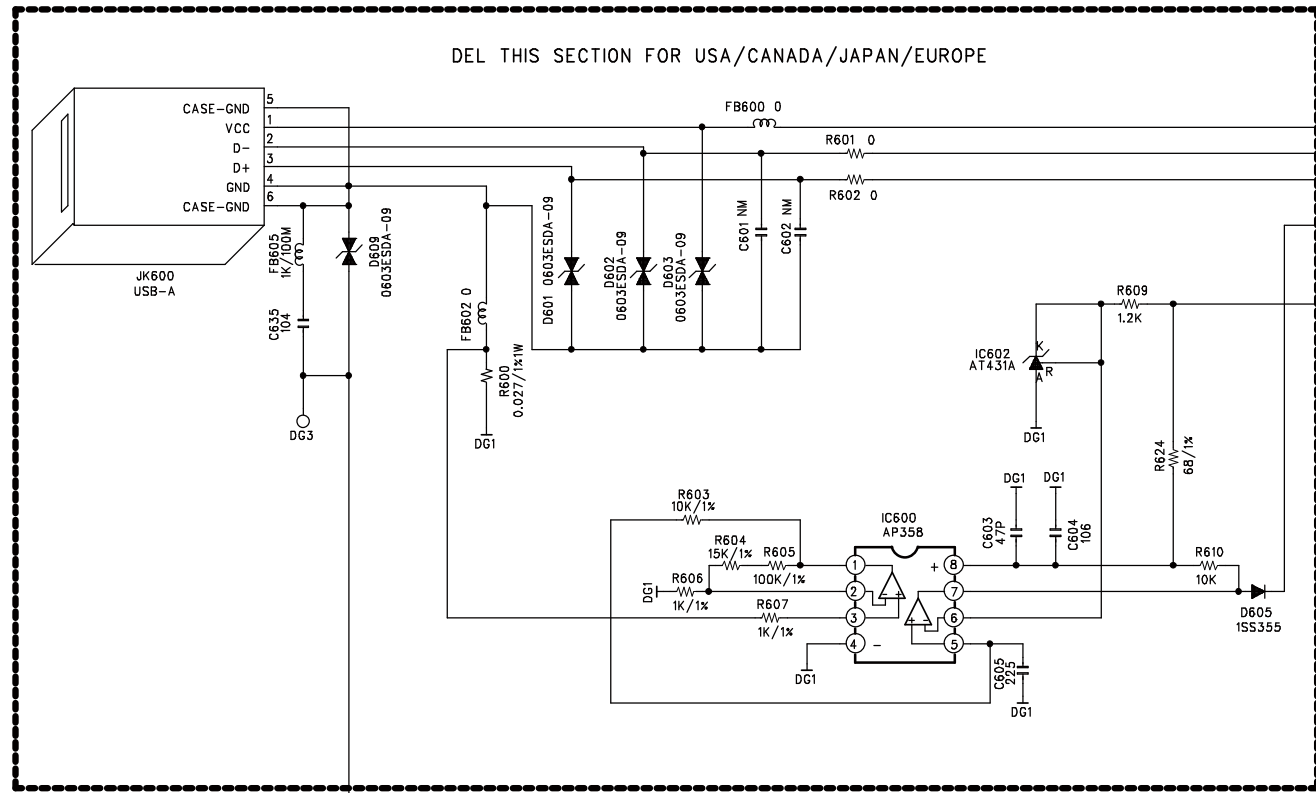
TO LED BOARD CN802

- LED-18V
- GREEN-LED-INDICATION-VOL1
- GREEN-LED-INDICATION-VOL2
- GREEN-LED-INDICATION-VOL3
- GREEN-LED-INDICATION-VOL4
- GREEN-LED-INDICATION-VOL5
- RED-LED-INDICATION-SBASS-OFF
- GREEN-LED-INDICATION-SBASS-ON



2

DEL THIS SECTION FOR USA/CANADA/JAPAN/EUROPE



3

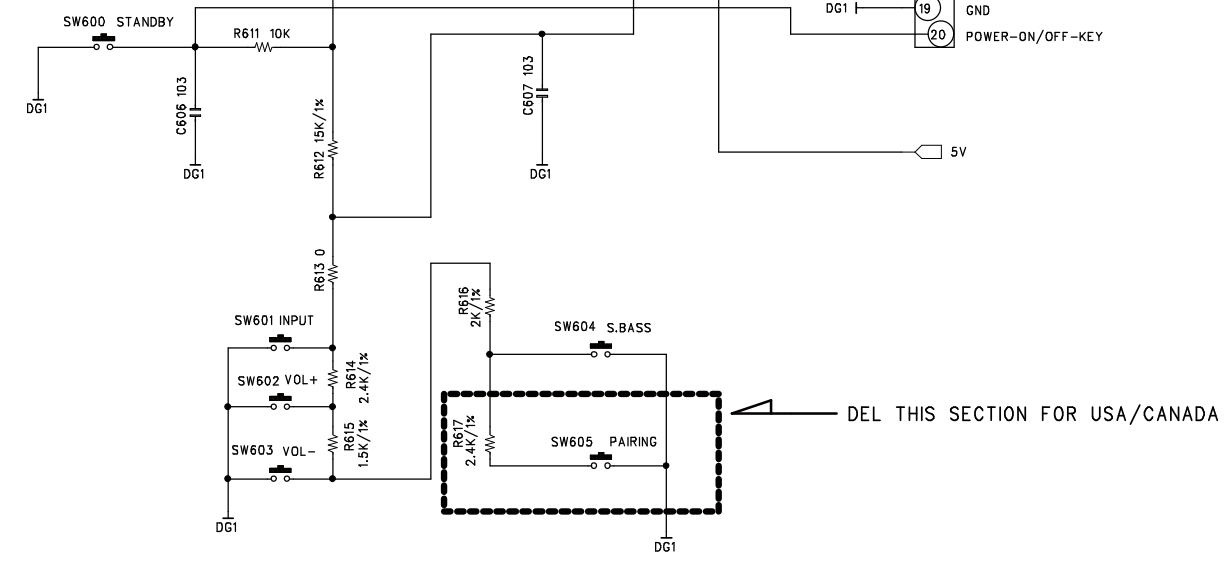
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CN601 FFC20/1.0

- 1 LED-18V
- 2 GND
- 3 GREEN-LED-INDICATION-VOL1
- 4 GREEN-LED-INDICATION-VOL2
- 5 GREEN-LED-INDICATION-VOL3
- 6 GREEN-LED-INDICATION-VOL4
- 7 GREEN-LED-INDICATION-VOL5
- 8 RED-LED-INDICATION-SBASS-OFF
- 9 GREEN-LED-INDICATION-SBASS-ON
- 10 USB-1.5A-OCV
- 11 USB-POWER-5V
- 12 USB-POWER-5V
- 13 5V
- 14 MCU-3.3V
- 15 KEY
- 16 GND
- 17 USB DP
- 18 USB DM
- 19 GND
- 20 POWER-ON/OFF-KEY

TO MAIN BOARD CN2



DEL THIS SECTION FOR USA/CANADA

Schematic diagrams - 11  
AUX input

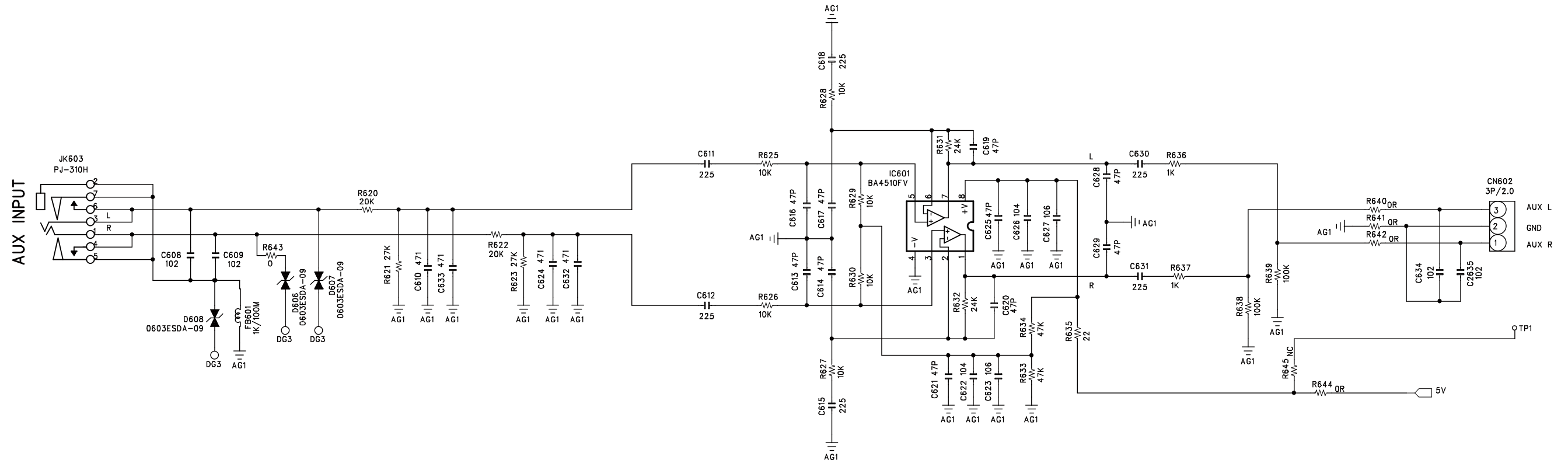
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TO MAIN BOARD CN9

Schematic diagrams - 12  
LED - 1

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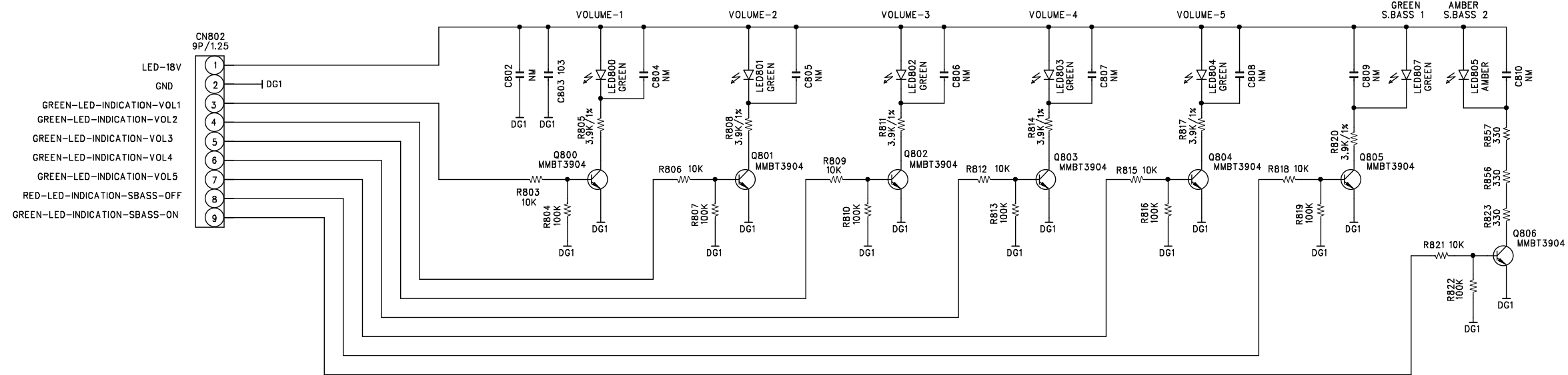
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LED BOARD

TO KEY BOARD CN600



Schematic diagrams - 13  
LED - 2

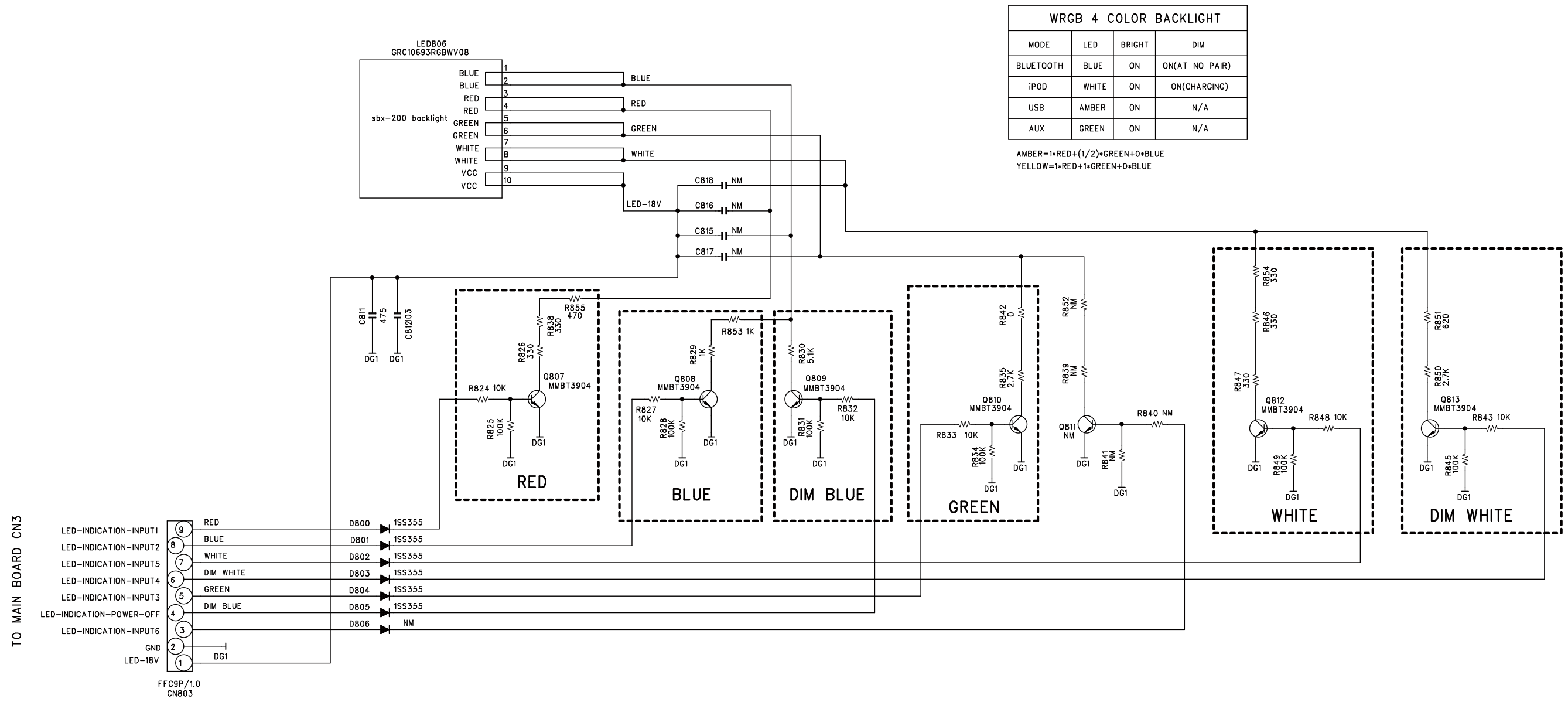
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WRGB 4 COLOR BACKLIGHT			
MODE	LED	BRIGHT	DIM
BLUETOOTH	BLUE	ON	ON(AT NO PAIR)
iPOD	WHITE	ON	ON(CHARGING)
USB	AMBER	ON	N/A
AUX	GREEN	ON	N/A

AMBER=1\*RED+(1/2)\*GREEN+0\*BLUE  
YELLOW=1\*RED+1\*GREEN+0\*BLUE

TRUE TABLE FOR COLOUR DISPLAY

FUNCTION	DISPLAY COLOUR	LED-INDICATION-INPUT1 MCU NO.29PIN	LED-INDICATION-INPUT2 MCU NO.30PIN	LED-INDICATION-INPUT5 MCU NO.31PIN	LED-INDICATION-INPUT4 MCU NO.32PIN	LED-INDICATION-INPUT3 MCU NO.111PIN	LED-INDICATION-POWER-OFF MCU NO.66PIN
iPOD & USB CHARGE OVERLOAD PROTECTION	RED	1	0	0	0	0	0
iPOD SOURCE	WHITE	0	0	1	0	0	0
BLUETOOTH SOURCE(AT PAIR OK)	BLUE	0	1	0	0	0	0
LINE IN SOURCE	GREEN	0	0	0	0	1	0
USB SOURCE	AMBER	1	0	0	0	1/2 PULSE	0
SHUFFLE(AT USB SOURCE)	YELLOW	1	0	0	0	1	0
iPOD CHARGING(AT STANDBY)	DIM WHITE	0	0	0	1	0	0
BLUETOOTH SOURCE(AT NO PAIR)	DIM BLUE	0	0	0	0	0	1

# ONKYO

## **ONKYO SOUND & VISION CORPORATION**

Technical Support, Service Department  
2-1, Nisshin-cho, Neyagawa-shi, OSAKA 572-8540, JAPAN  
Tel: 072-831-8023 Fax: 072-831-8163

## **ONKYO U.S.A. CORPORATION**

18 Park Way, Upper Saddle River, N.J. 07458, U.S.A.  
Tel: 800-229-1687, 201-785-2600 Fax: 201-785-2650  
<http://www.us.onkyo.com/>

## **ONKYO EUROPE ELECTRONICS GmbH**

Liegnitzerstrasse 6, 82194 Groebenzell, GERMANY  
Tel: +49-8142-4401-0 Fax: +49-8142-4208-213  
<http://www.eu.onkyo.com/>

## **ONKYO EUROPE ELECTRONICS GmbH (UK BRANCH)**

The Coach House 81A High Street, Marlow, Buckinghamshire, SL7 1AB, UK  
Tel: +44-(0)1628-473-350 Fax: +44-(0)1628-401-700

## **ONKYO CHINA LIMITED**

Unit 1033, 10/F, Star House, No 3, Salisbury Road, Tsim Sha Tsui Kowloon, Hong Kong.  
Tel: 852-2429-3118 Fax: 852-2428-9039  
<http://www.onkyochina.com/>

## **ONKYO CHINA PRC**

1301, 555 Tower, No.555 West NanJin Road, Jin an, Shanghai,  
China 200041, Tel: 86-21-52131366 Fax: 86-21-52130396  
<http://www.cn.onkyo.com/>