



QUANTUM DUO

2.0 Computer speaker with Bluetooth, on speaker lighting control, USB and Aux in and headphone out connection

SKU: JBLQUANTUMDUOBLKAM , JBLQUANTUMDUOBLKEU ,
JBLQUANTUMDUOBLKAS , JBLQUANTUMDUOBLKCN,
JBLQUANTUMDUOBLKJN , JBLQUANTUMDUOBLKBR ,
JBLQUANTUMDUOBLKIN



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1. Technical Specifications

Model Name	Quantum Duo
Bluetooth version:	4.2
Support:	A2DP V1.3, AVRCP V1.6
Transducer:	2x2.5" woofer+2x0.75" tweeter
Rated power:	20W RMS
Frequency response:	70 Hz - 20 kHz
Signal-to-noise ratio:	>80 dB
Bluetooth transmitter power:	≤10 dBm
Bluetooth transmitter frequency range:	2.402 – 2.480 GHz
2.4GHz SRD FREQUENCY RANGE:	2.407 – 2.475 GHz
Bluetooth transmitter modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Dimension (W x D x H):	96 X 96 x 207 mm
Weight:	1260 G

2.Safety Instruction, Warning & Notes

IMPORTANT SAFETY INSTRUCTIONS

For all products:

1. Read these instructions.
2. Keep these instructions.
3. Read all warnings.
4. Follow all instructions.
5. Do not block any ventilation. Install this apparatus in accordance with the manufacturer's instructions.
6. Do not install this apparatus near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that heat.
7. Do not defeat the safety purpose of the polarized or grounding-type plug.
A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong, the wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
8. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
9. Use only attachment/accessories specified by the manufacturer.
10. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over. 
11. Unplug this apparatus during lightning storms or when unused for long periods of time.
12. To disconnect this apparatus from the AC mains completely, disconnect the power-supply cord plug from the AC receptacle.
13. The mains plugs of the power-supply cord shall remain readily operable.
14. Do not expose batteries to excessive heat such as sunshine, fire or the like.
15. This apparatus is intended to be used only with the power supply and /or charging cable provided by the manufacturer.

CAUTION

RISK OF ELECTRIC SHOCK. DO NOT OPEN



THE LIGHTNING FLASH WITH AN ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED DANGEROUS VOLTAGE WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTION IN THE LITERATURE ACCOMPANYING THE PRODUCT.

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

CAUTION FCC AND IC STATEMENT FOR USERS (USA AND CANADA ONLY)

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. CAN ICES-3(B)/NMB-3(B)

FCC SDOC SUPPLIER'S DECLARATION OF CONFORMITY

HARMAN International hereby declares that this equipment is in compliance with the FCC Part 15 Subpart B.

The declaration of conformity may be consulted in the support section of our Web site, accessible from www.jbl.com

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.

Caution: Changes or modifications not expressly approved by HARMAN could void the user's authority to operate the equipment.

For Products That Transmit RF Energy FCC AND IC INFORMATION FOR USERS

This device complies with Part 15 of the FCC rules and Industry Canada license-exempt RSS standards(s).

Operation is subject to the following two conditions: (1) This device may not cause harmful interference; and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC/IC Radiation Exposure Statement

This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

For Wi-Fi 5G device

FCC Caution

High power radars are allocated as primary user of the 5.25 or 5.35 GHz and 5.65 to 5.85 GHz bands. These radar stations can cause interference with and/or damage this device.

No configuration controls are provided for this wireless equipment allowing any change in the frequency of operations outside the FCC grant of authorization for US operation according to Part 15.407 of the FCC rules.

IC Caution

User should also be advised that:

(i) The device for operation in the band 5150-5250MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems; (ii) the maximum antenna gain permitted for devices in the bands 5250-5250MHz and 5470-5725MHz shall comply with the e.i.r.p. limit; and (iii) The maximum antenna gain permitted devices in band 5725-5825MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

(iv) User should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350MHz and 5650-5850MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Exposure of humans to RF fields (RSS-102)

The computers employ low gain integral antennas that do not emit RF field in excess of Health Canada's Web site at <http://www.hc-sc.gc.ca/>

The radiated energy from the antennas connected to the wireless adapters conforms to The IC limit of the RF exposure requirement regarding IC 102, Issue 5 clause 4.SAR tests are conducted using recommended operating positions accepted by the FCC/ RSS with the device transmitting at its highest certified power level in all tested frequency band without distance attaching away from the body. Non-compliance with the above restrictions may result in violation of FCC RF exposure guidelines.

Use Restriction Attention in France, operation is limited to indoor use within the band 5150-5350MH.

For products with Radio Receivers That can Use an external Antenna (USA ONLY): CATV(Cable TV)or Antenna Grounding

If an outside antenna or cable system is connected to this product, be certain that it is grounded so as to provide some protection against voltage surges and static charges. Section 810 of the National Electrical Code (NEC),ANSI/NFPA NO.70-1984,provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes and requirements of the grounding electrode.

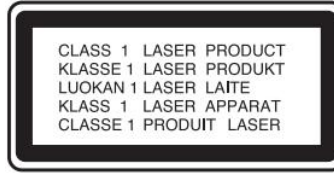
Note to CATV System Installer:

This reminder is provided to call the CATV(cable TV) system installer's attention to article 820-40 of the NEC, which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible

For CD/DVD/Blu-ray Disc™ Players:

Caution:

This product uses a laser system. To prevent direct exposure to the laser beam, do not open the cabinet enclosure or defeat any of the safety mechanisms provided for your protection DO NOT STARE INTO THE LASER BEAM. To ensure proper use of this product, please read the owner's manual carefully and retain it for future use. Should the unit require maintenance or repair. Please contact your local JBL service center.Refer servicing to qualified personnel only.



FOR ALL EU COUNTRIES:

For products that include audio out

Prevention of hearing loss



Caution: Permanent hearing loss may occur if earphones or headphones are used at high volume for prolonged periods of time

For France, the products have been tested to comply with the Sound Pressure Level requirement laid down in the applicable NF EN 50332-1: 2013 and/or EN 50332-2: 2013 standards as required by French Article L.5232-1

Note: To prevent possible hearing damage, do not listen at high volume levels for long periods

WEEE Notice

The Directive on Waste Electrical and Electronic Equipment(WEEE), which entered into force as European law on 14/02/2014, resulted in a major change in the treatment of electrical equipment at end-of-life

The purpose of this Directive is, as a first priority, the prevention of WEEE, and in addition, to promote the reuse, recycling and other forms of recovery of such wastes so as to reduce disposal

The WEEE logo on the product or on its box indicating collection for electrical and electronic equipment consists of the crossed-out wheeled bin, as shown below.



This product must not be disposed of or dumped with your other household waste. You are liable to dispose of all your electronic or electrical waste equipment by relocating over to the Specified collection point for recycling of such hazardous waste.Isolated collection and proper Recovery of your electronic and electrical waste equipment at time of disposal will allow us to help conserving natural resources. Moreover, proper recycling of the electronic and electrical waste equipment will ensure safety of human health and environment. For more information about electronic and electrical waste equipment disposal, recovery, and collection points, please Contact your local city center,household waste disposal service,shop from where you purchased the equipment, or manufacturer of the equipment

RoHS Compliance

This is product is in compliance with Directive 2011/65/EU and (EU)2015/863 of the European Parliament

and of the Council of 31/03/2015 on the restriction of the use of certain hazardous substances in electrical and electronic equipment

REACH

REACH (Regulation No 1907/2006) addresses the production and use of chemical substances and their potential impacts on human health and the environment. Article 33(1)of REACH Regulation requires suppliers to inform the recipients ifan article contains more than 0. 1%(per weight per article) of any substance(s)on the Substances of Very High Concern(SVHC) Candidate List (REACH candidate list'). This product contains the substance"lead"(CAS-No. 7439-92-1)in a concentration of more than 0. 1% per weight.

At the time of release of this product, except for the lead substance, no other substances of REACH candidate list are contained in a concentration of more than 0. 1% per weight in this product

Note: On June 27, 2018, lead was added to the REACH candidate list. The inclusion of lead in the REACH candidate list does not mean that lead-containing materials pose an immediate risk or results in a restriction of permissibility of its use.

For Products That Include Batteries

EU Batteries Directive 2013/56/EU

A new battery directive 2013/56/EU on Battery and Accumulator replacing directive entered into force on the01/07/2015.The directive applies to all types of batteries and accumulators /AA, AAA, button cells, lead acid, rechargeable packs) including those incorporated into appliances except for military, medical and power tool applications. The directive sets out Rules for collection, treatment, recycling and disposal of batteries,and aims to prohibit certain hazardous substances and to improve environmental performance of batteries and all operators in the supply chain.

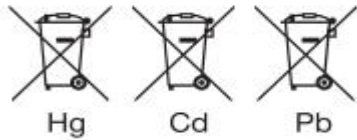
Instructions for Users on Removal, Recycling and Disposal of Used Batteries

To remove the batteries from your equipment or remote control, reverse the procedure described In the owners manual for inserting batteries For products with a built-in battery that lasts for the lifetime of the product, removal may not be possible for the user. In this case, recycling or recovery centers handle the dismantling of the product and the removal of the battery. If, for any reason,it becomes necessary to replace such a battery, this procedure must be performed by authorized service centers. In the European Union and other locations, it is illegal to dispose Of any battery with household trash. All batteries must be disposed of in an environmentally sound manner. Contact your local waste-management officials for information regarding the

WARNING: Danger of explosion if battery is incorrectly replaced. To reduce risk of fire or burns, don't disassemble, crush, puncture, short external contacts, expose to temperature above 60C (140F), or dispose of in fire or water. Replace only with specified batteries. The symbol indicating "Separate collection" for all batteries and accumulators shall be the crossed-out wheeled bin. Shown below:



In case of batteries, accumulators and button cells containing more than 0.0005% mercury, more than 0.002% cadmium or more than 0.004% lead, shall be marked with the chemical symbol for the metal concerned: Hg, Cd or Pb respectively. Please Refer to the below symbol



WARNING

DO NOT INGEST BATTERY, CHEMICAL BURN HAZARD [The remote control supplied with) This product contains a coin/button cell battery. If the coin/button cell battery is swallowed, it can cause severe internal burns in just 2 hours and can lead to death. Keep new and used batteries away from children. If the battery compartment does not close securely, stop using the product and keep it away from children. If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention.

For All Products Except Those with Wireless Operation

HARMAN International hereby declares that this equipment is in compliance with the EMC 2014/30/EU Directive, LVD 2014/35/EU Directive. The declaration of conformity may be Consulted in the support section of our Web site accessible from www.jbl.com.

For All Products with Wireless Operation

HARMAN International hereby declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The declaration of Conformity maybe consulted in the support section of our Web site accessible from www.jbl.com

HARMAN

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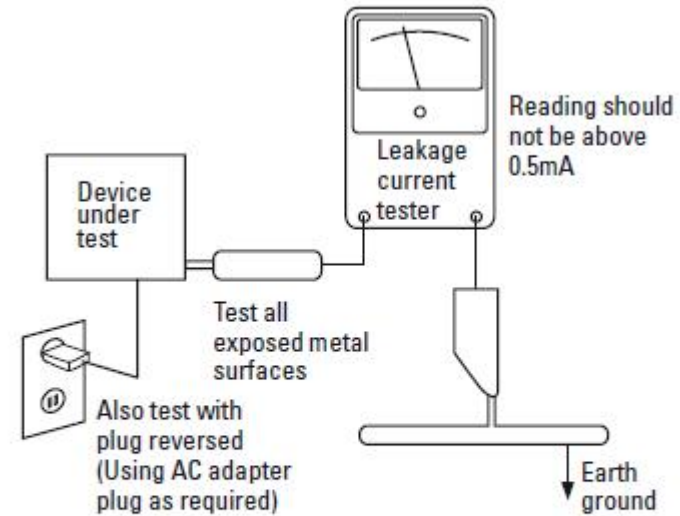
www.jbl.com

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

3. Software upgrade Instruction

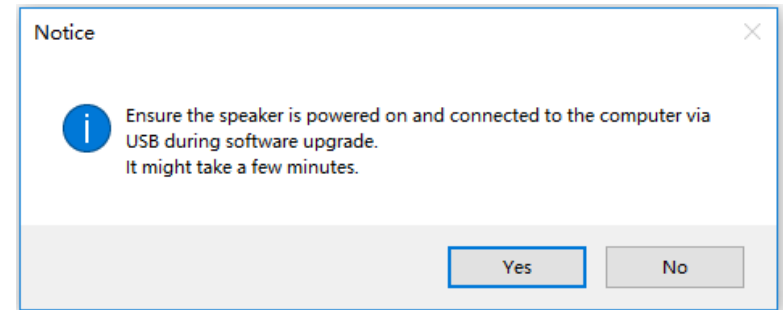
3.1 Open the speaker and connect the computer to the host with a USB cable.



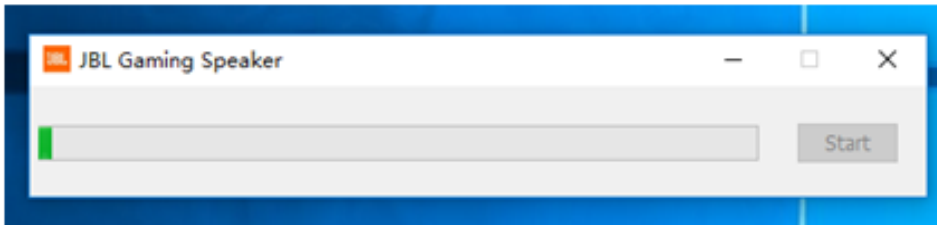
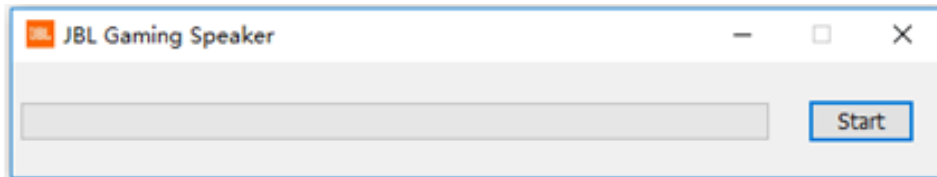
3.2 Double-click to upgrade software.



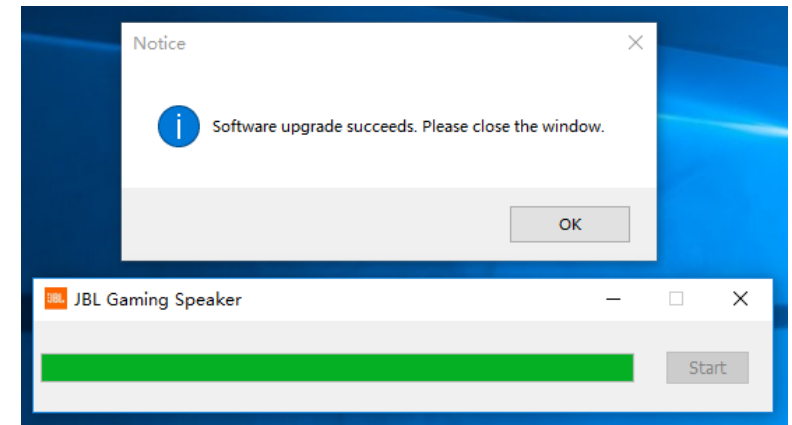
3.2 Pop up the window and click "Yes".



3.3 Pop up the window and click "Start", Start To upgrade.



3.4 Upgrade is completed, computer pops up the window.



4. Disassembled Instruction

Tool List

Item	Description	Remark
1	Screw driver (small)	2.0
2	Screw driver (Middle)	3.0
3	Screw driver (Big)	4.0
4	knife	“-“type knife, wrapped by tape
5	Electric screw driver	
6	Soldering iron	



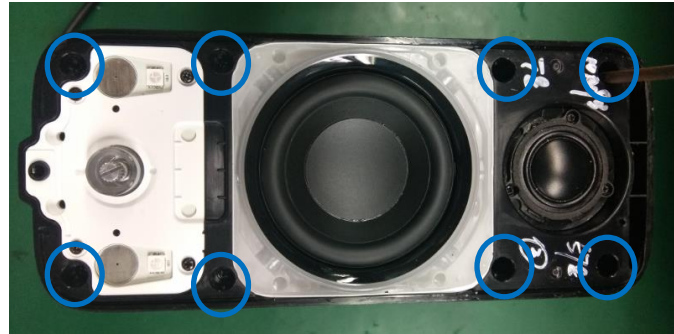
Disassembly instruction (main unit)

Disassembly main machine

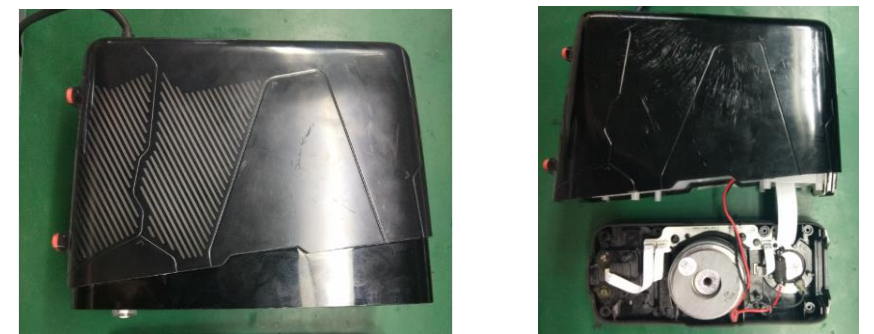
1. Use tool to open the front-panel



2. Unscrew the 8 screws on the front shell



3. Separate the rear shell from the front shell by hand

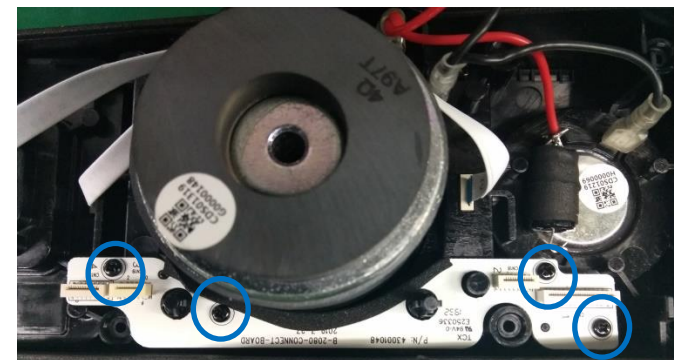


4. Disassembly the front shell

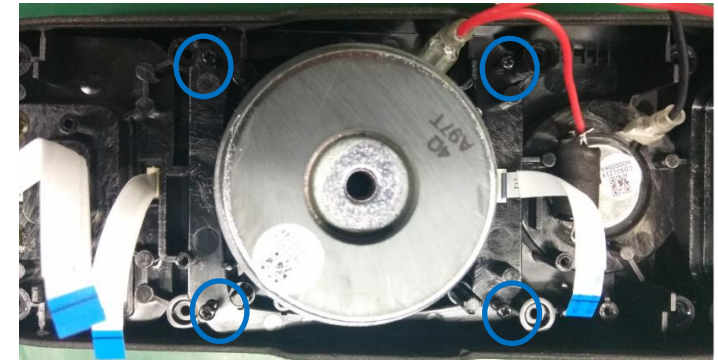
4.1 Unscrew the 3 screws, remove the tweeter.



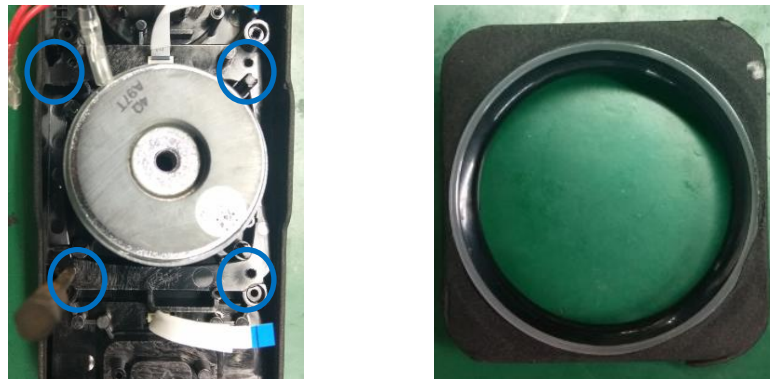
4.2 Unscrew the 4 screws, remove adapter plate.



4.3 Unscrew the 4 screws round the woofer.



4.4 Push the guide ring out of the screw hole with a tool.



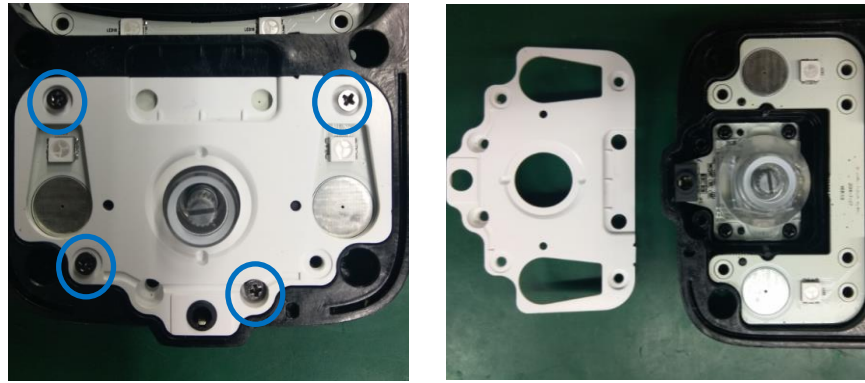
4.5 Unscrew the 4 screws, remove woofer .



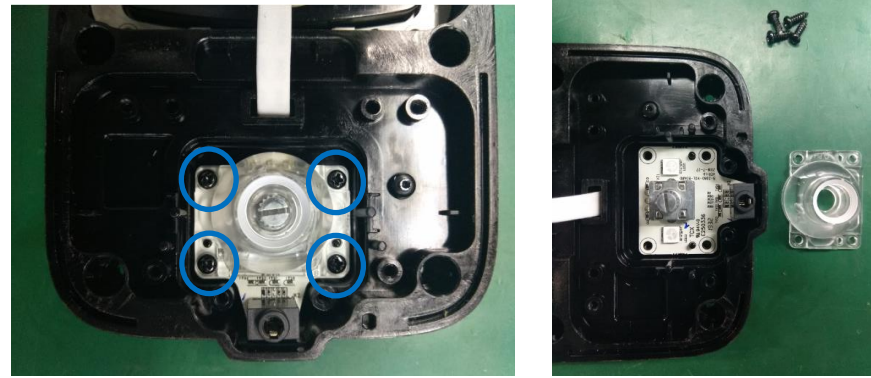
4.6 Unscrew the 2 screws, remove light guide plate .



4.7 Unscrew the 4 screws, remove touch button holder and plate.

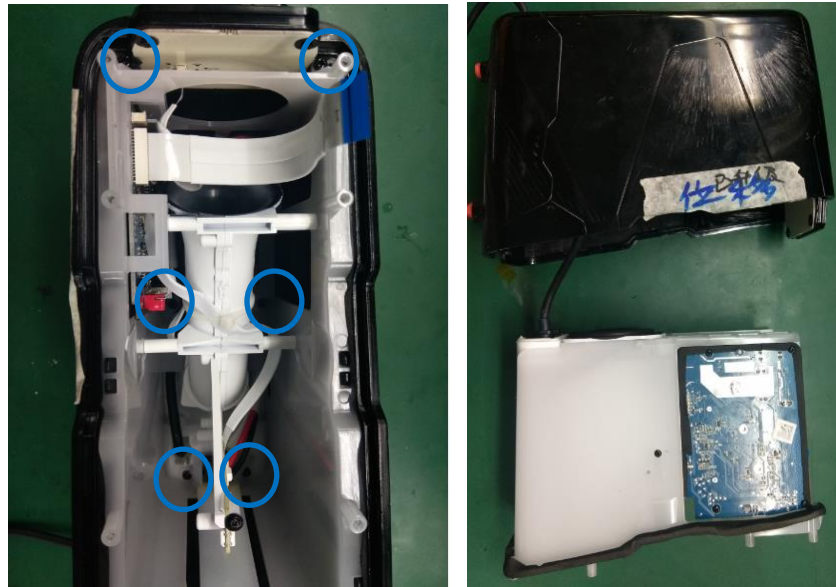


4.8 Unscrew the 4 screws, remove knob button holder and plate.



5. Disassembly the back shell

5.1 Unscrew the 6 screws, remove inner shell.



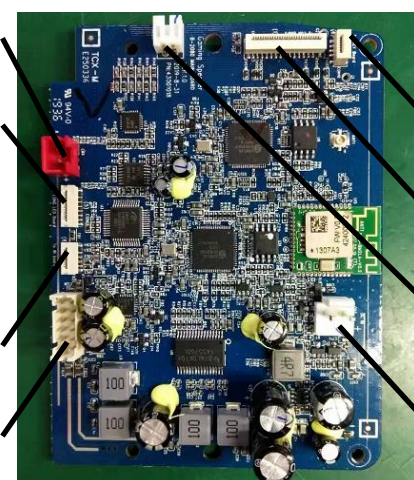
5.2 Unscrew the 4 screws, remove Mechanical key circuit board and mechanical key.



5.3 Unscrew the 4 screws, remove the main board.

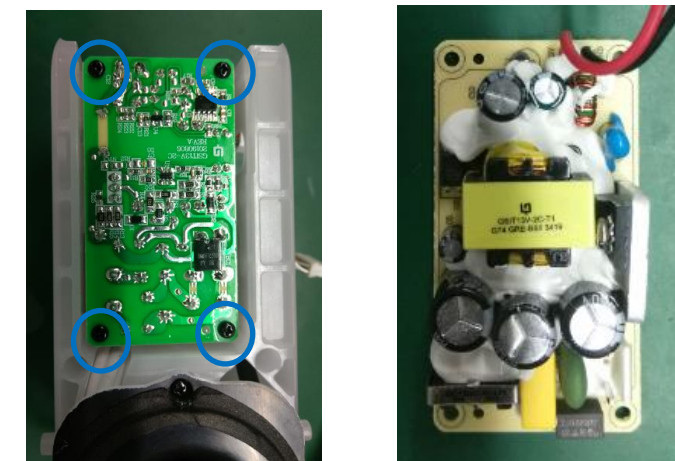


- Connect the speaker
- Connect the light guide plate
- Connect the USB plate
- Connect TYPE-C plate

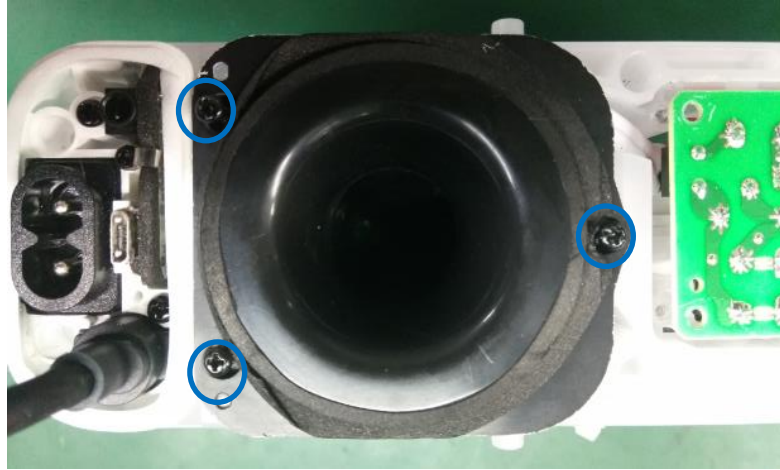


- Connect keypad plate
- Connect the adapter plate
- Connect the adapter plate
- Connect power panel

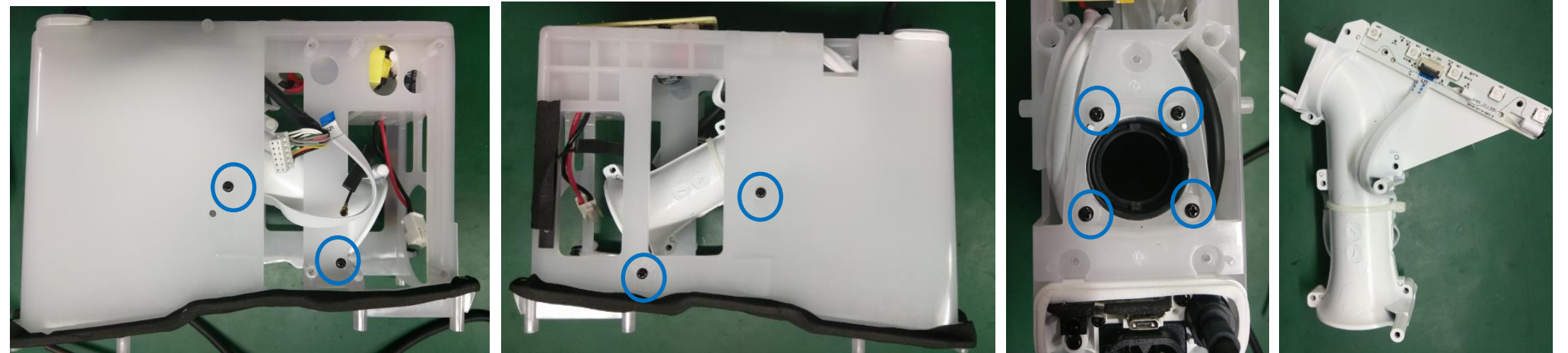
5.4 Unscrew the 4 screws, remove the power board.



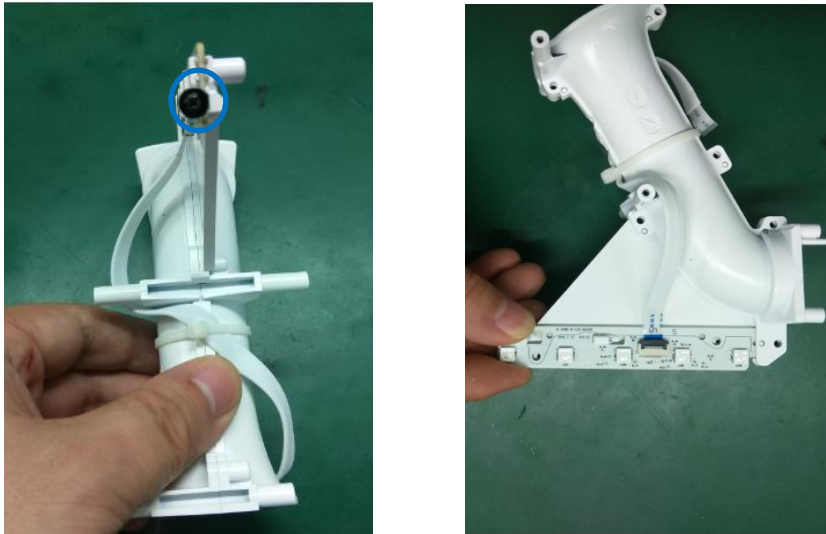
5.5 Unscrew the 3 screws, remove the duct mouth.



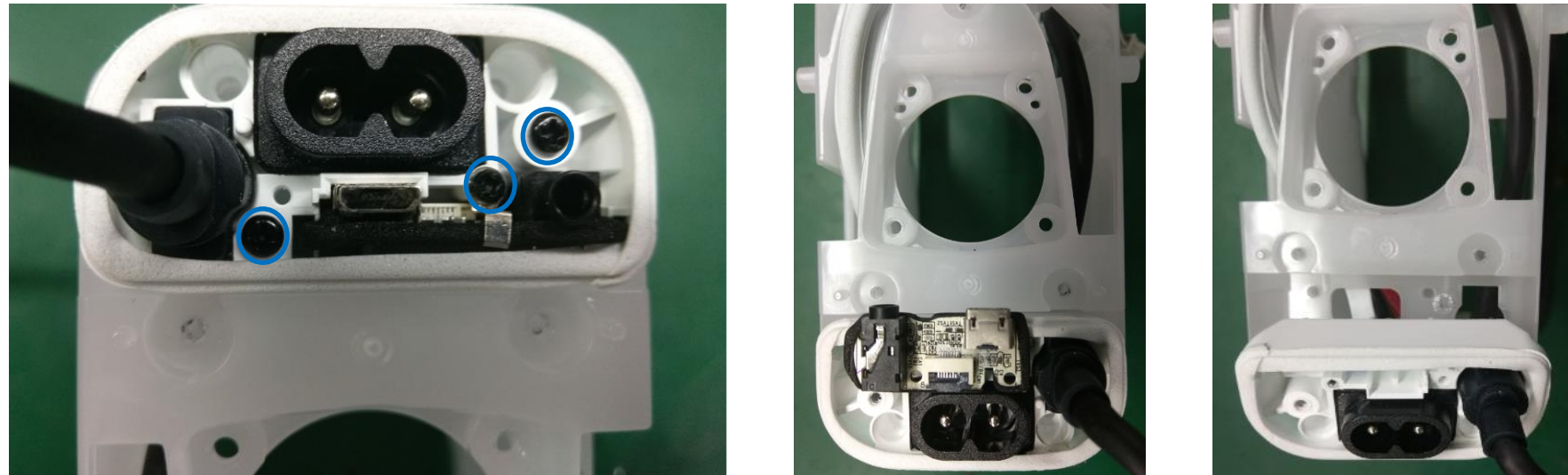
5.6 Unscrew the 8 screws on both sides of the inner shell and at the end of the duct, remove the duct.



5.7 Unscrew a screw, remove the light guide plate.

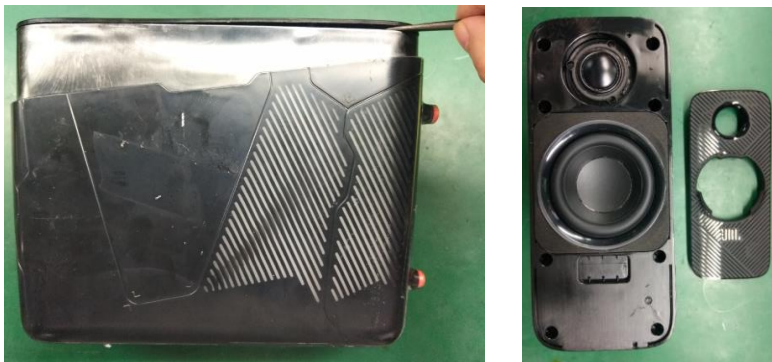


5.8 Unscrew the 3 screws, remove the light guide USB board and power socket.

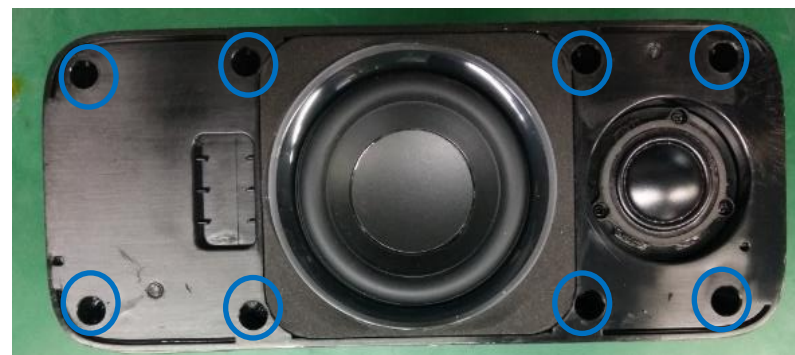


Disassembly Second machine

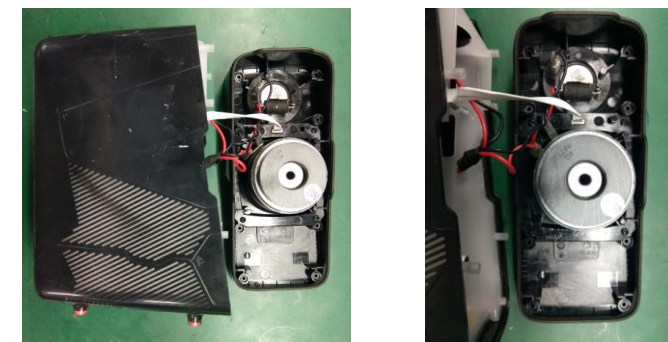
1. Use tool to open the front-panel



2. Unscrew the 8 screws on the front shell

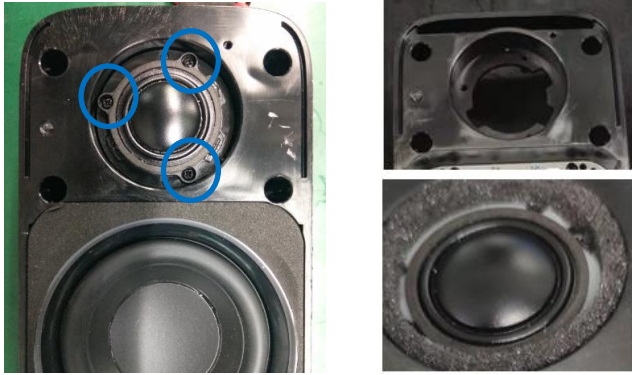


3. Separate the rear shell from the front shell by hand

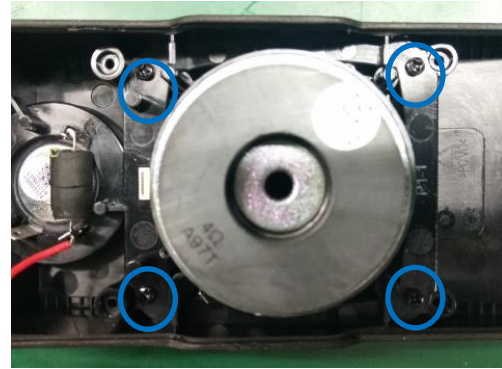


4. Disassembly the front shell

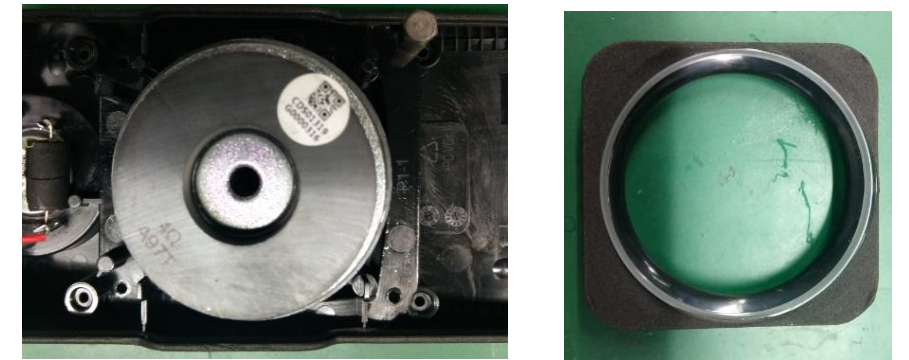
4.1 Unscrew the 3 screws, remove the tweeter.



4.2 Unscrew the 4 screws round the woofer.



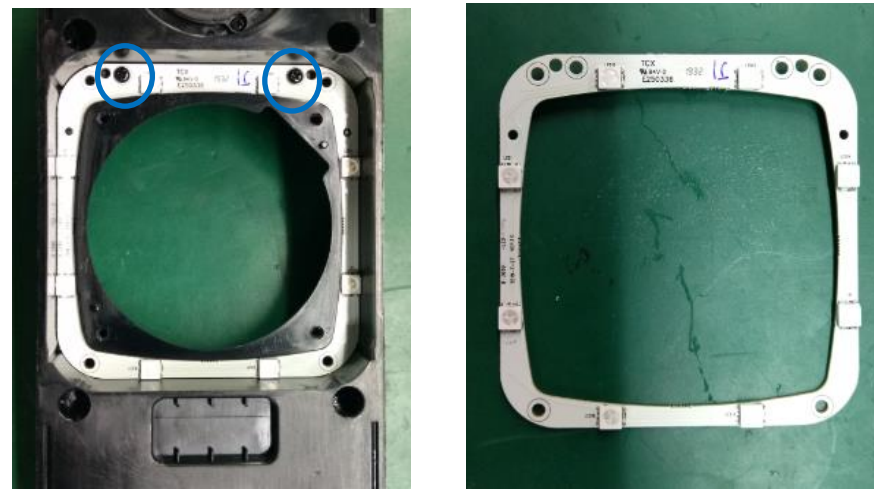
4.3 Push the guide ring out of the screw hole with a tool.



4.4 Unscrew the 4 screws, remove the woofer .

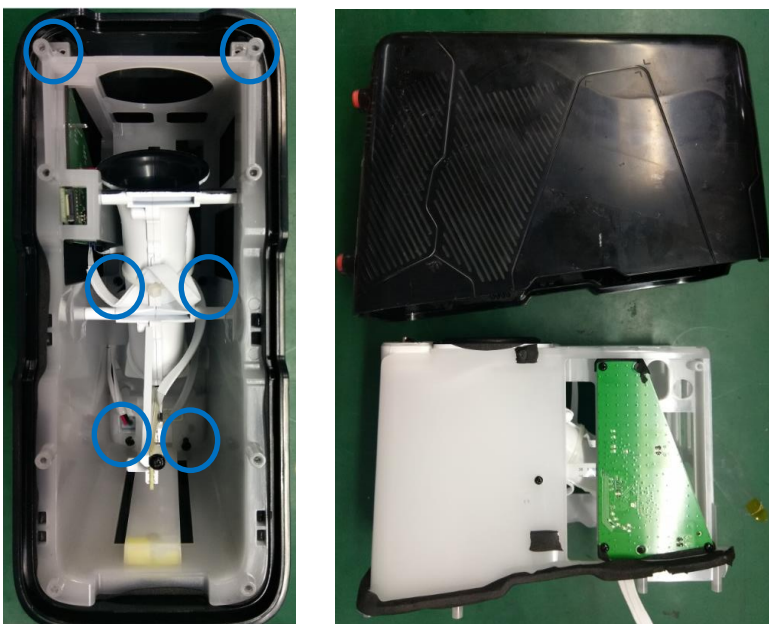


4.5 Unscrew the 2 screws, remove light guide plate .

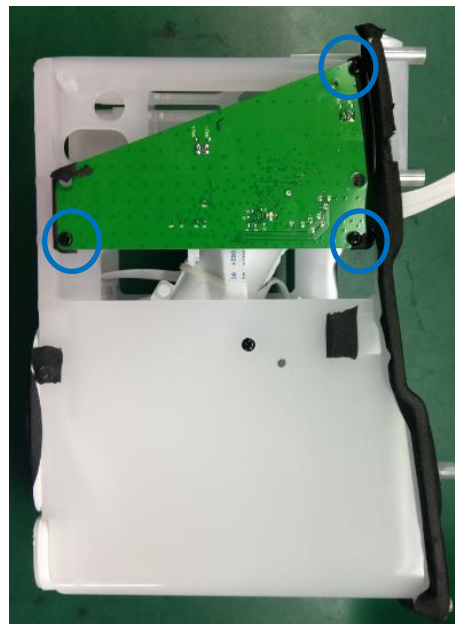


5. Disassembly the back shell

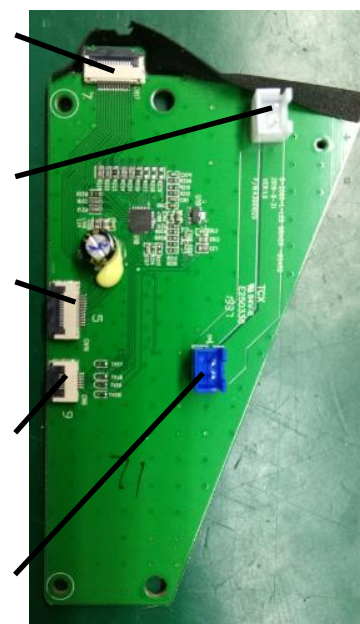
5.1 Unscrew the 6 screws, remove inner shell.



5.2 Unscrew the 3 screws, remove the main board.



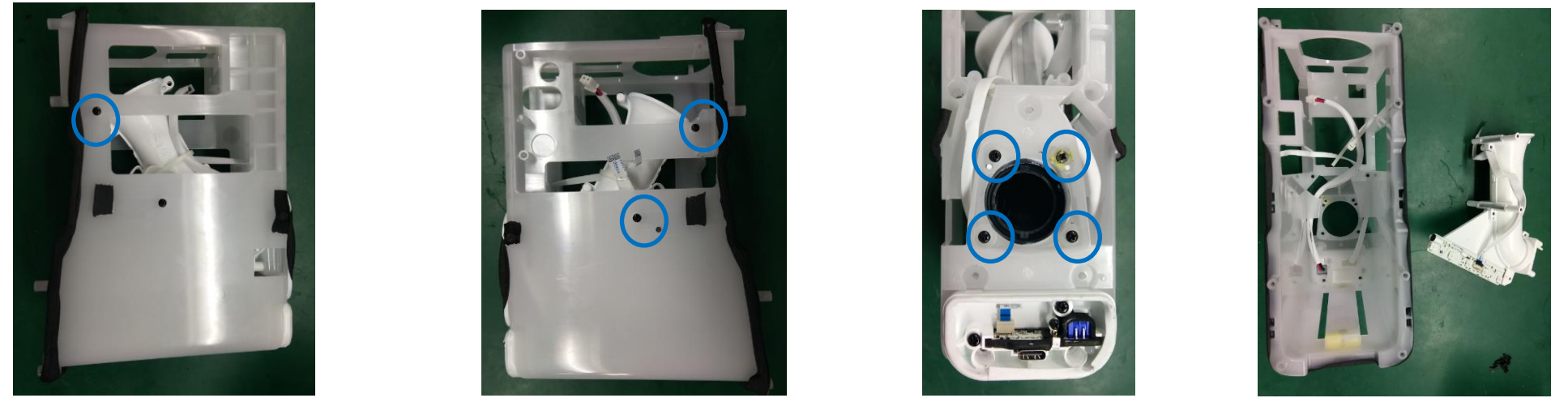
- Connect the light guide plate
- Connect the speaker
- Connect the USB plate
- Connect the adapter plate
- Connect the USB plate



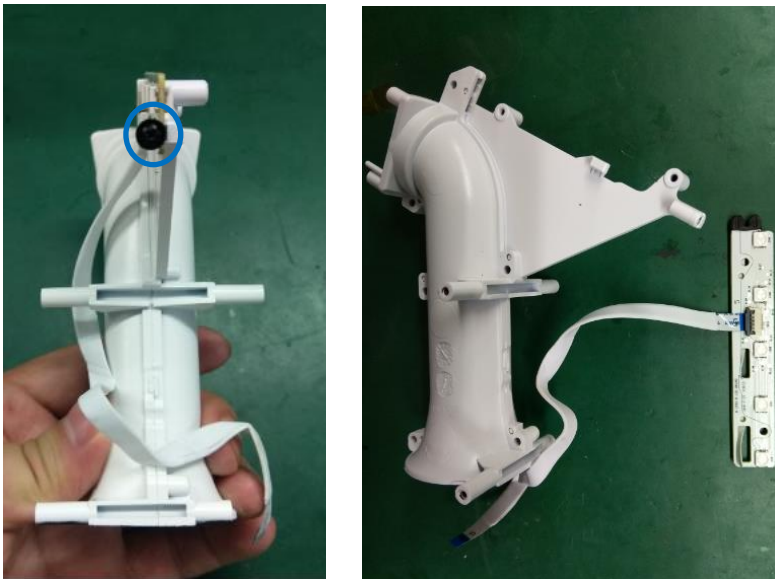
5.3 Unscrew the 3 screws, remove the duct mouth.



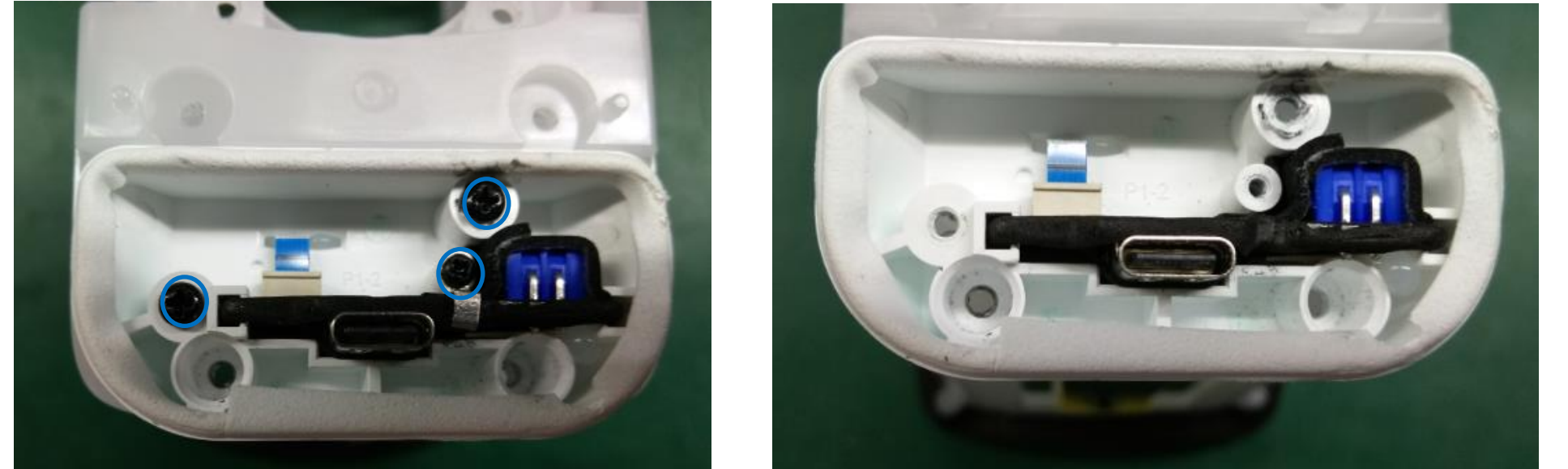
5.4 Unscrew the 8 screws on both sides of the inner shell and at the end of the duct, remove the duct.



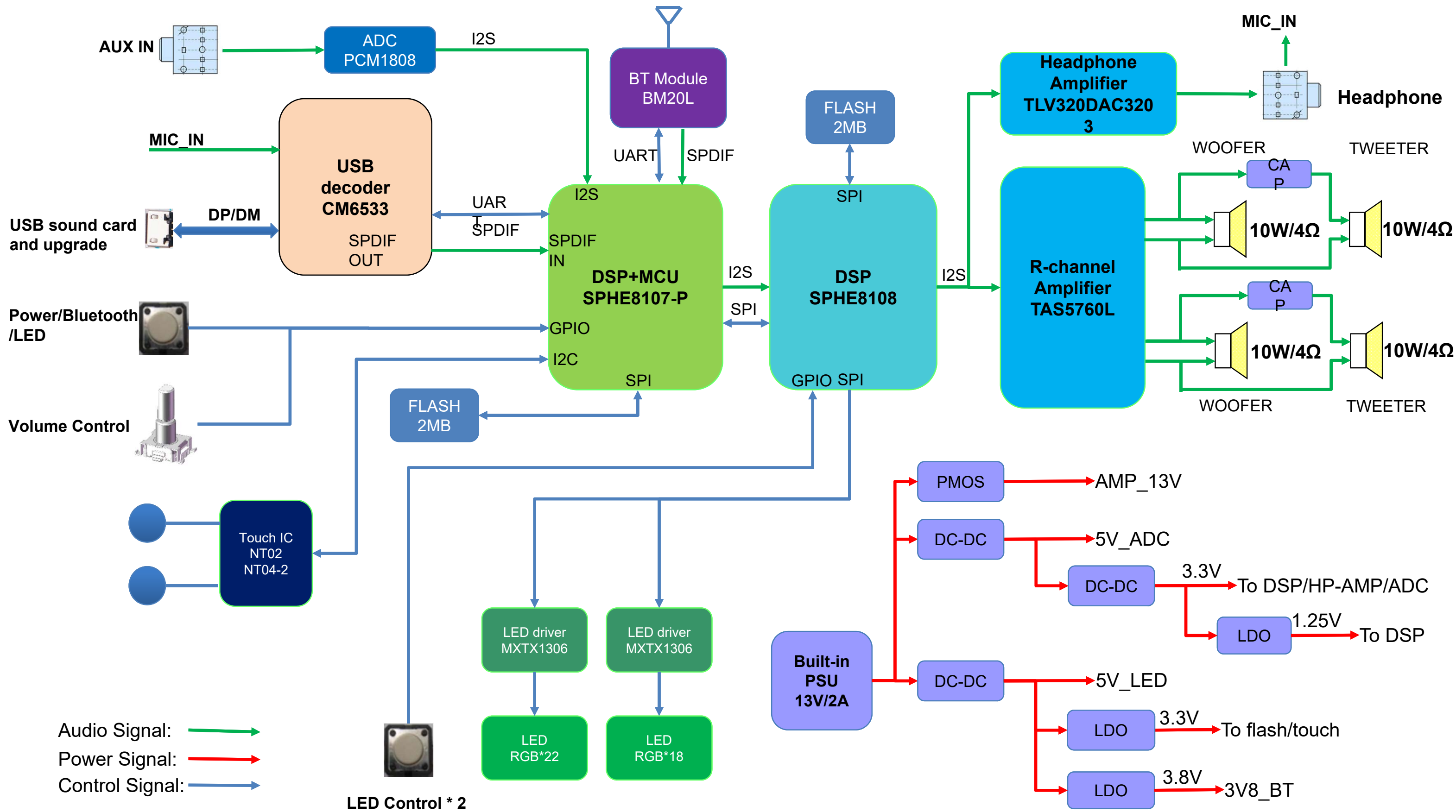
5.5 Unscrew a screws, remove the light guide plate.



5.6 Unscrew the 3 screws, remove the light guide USB board

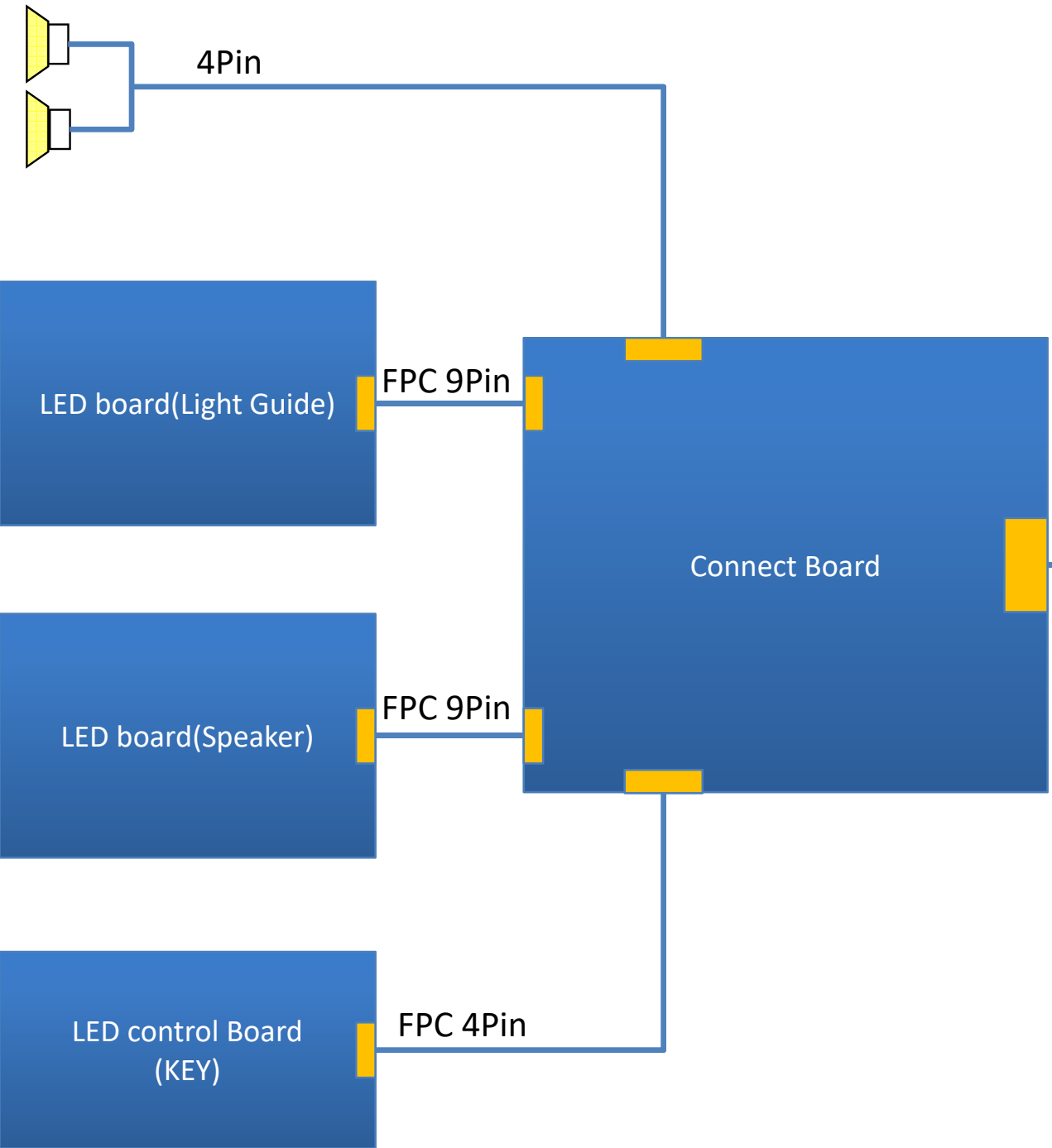


5. Block diagram

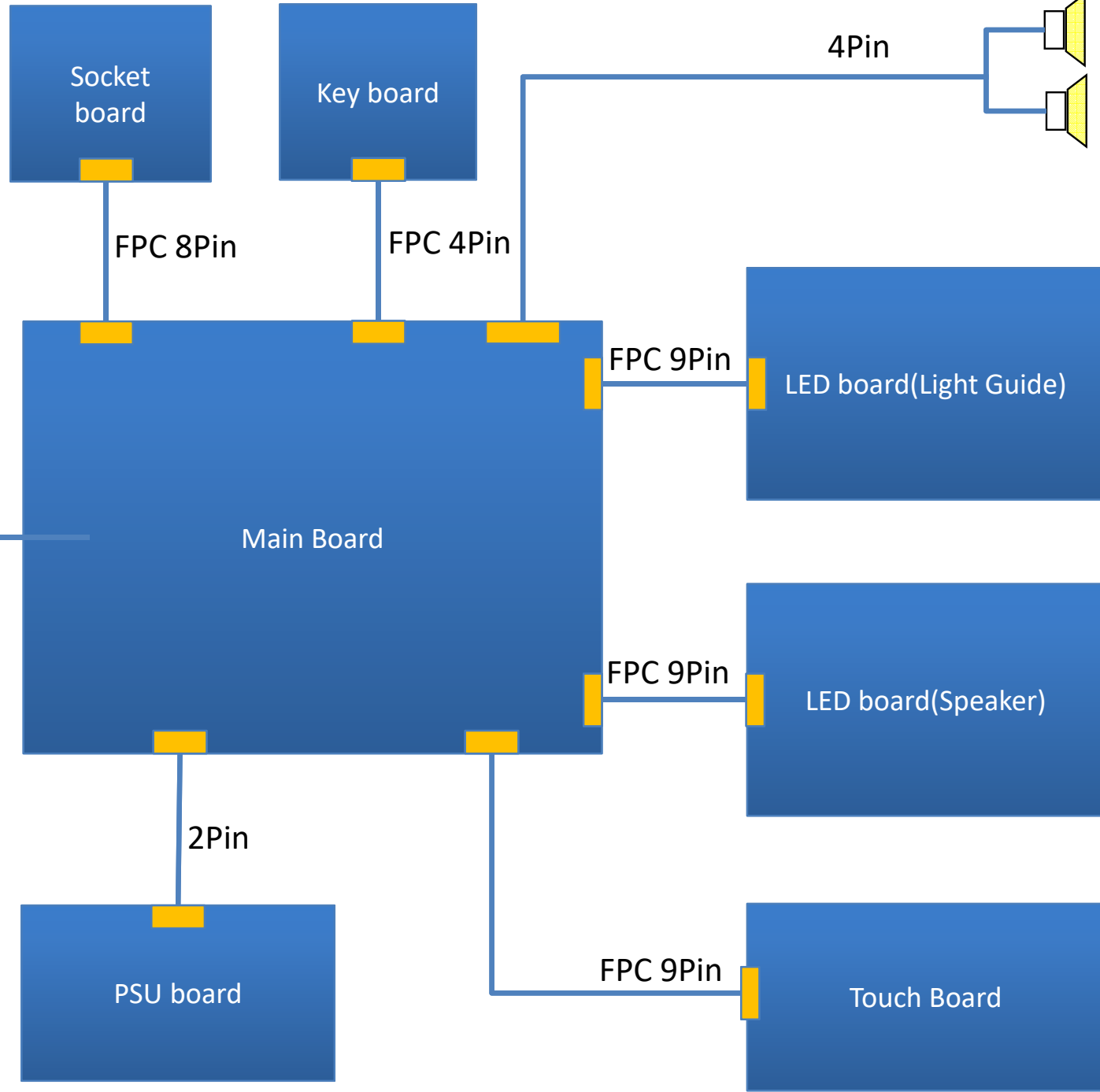


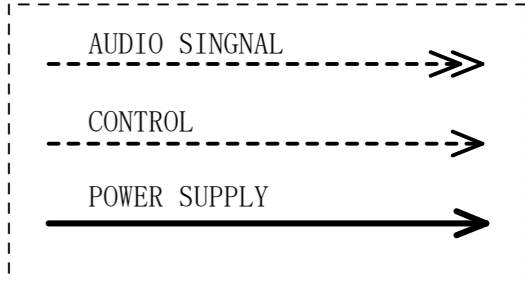
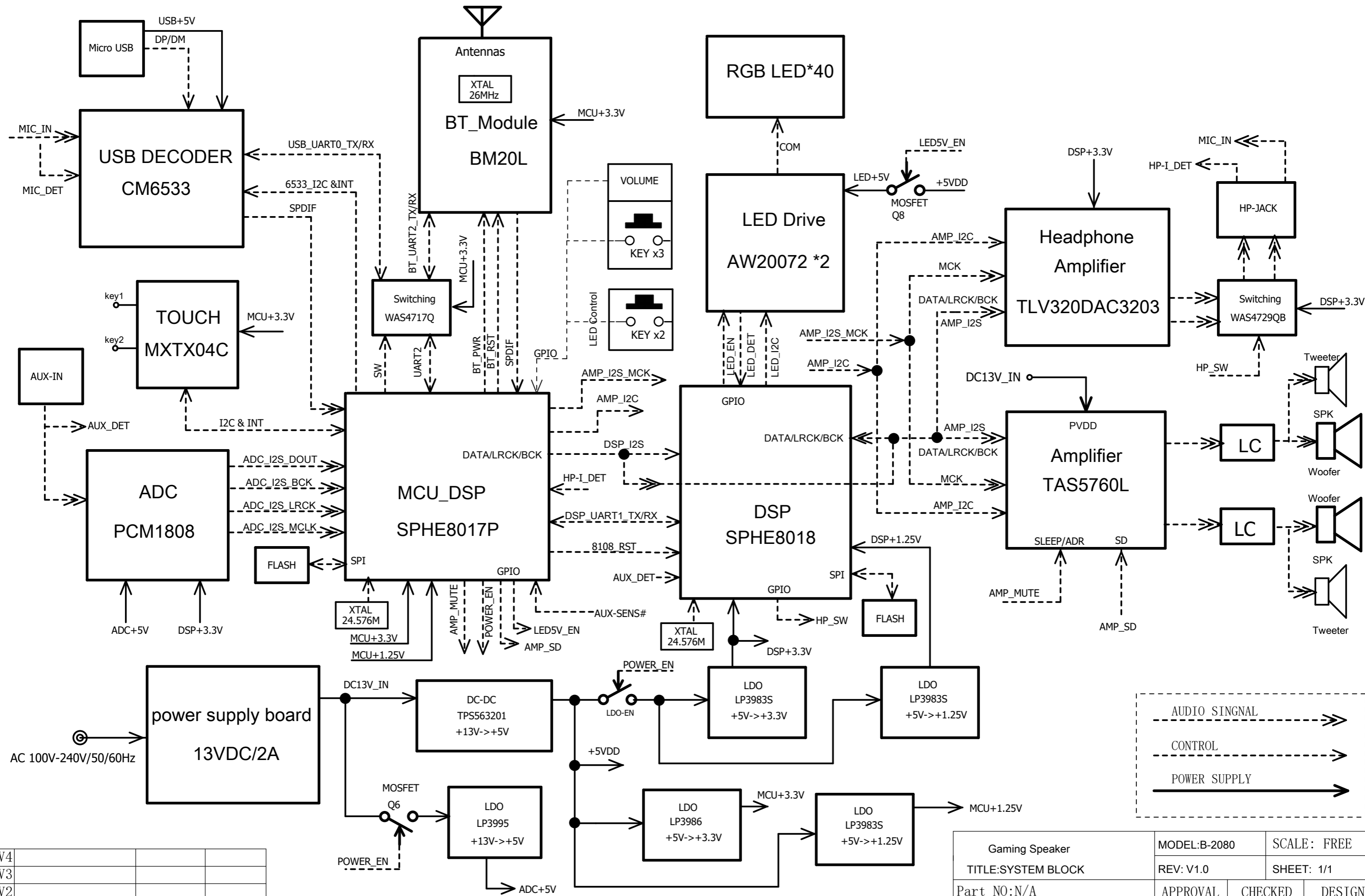
6. Wiring Diagram /Layout Diagram

Left Speaker



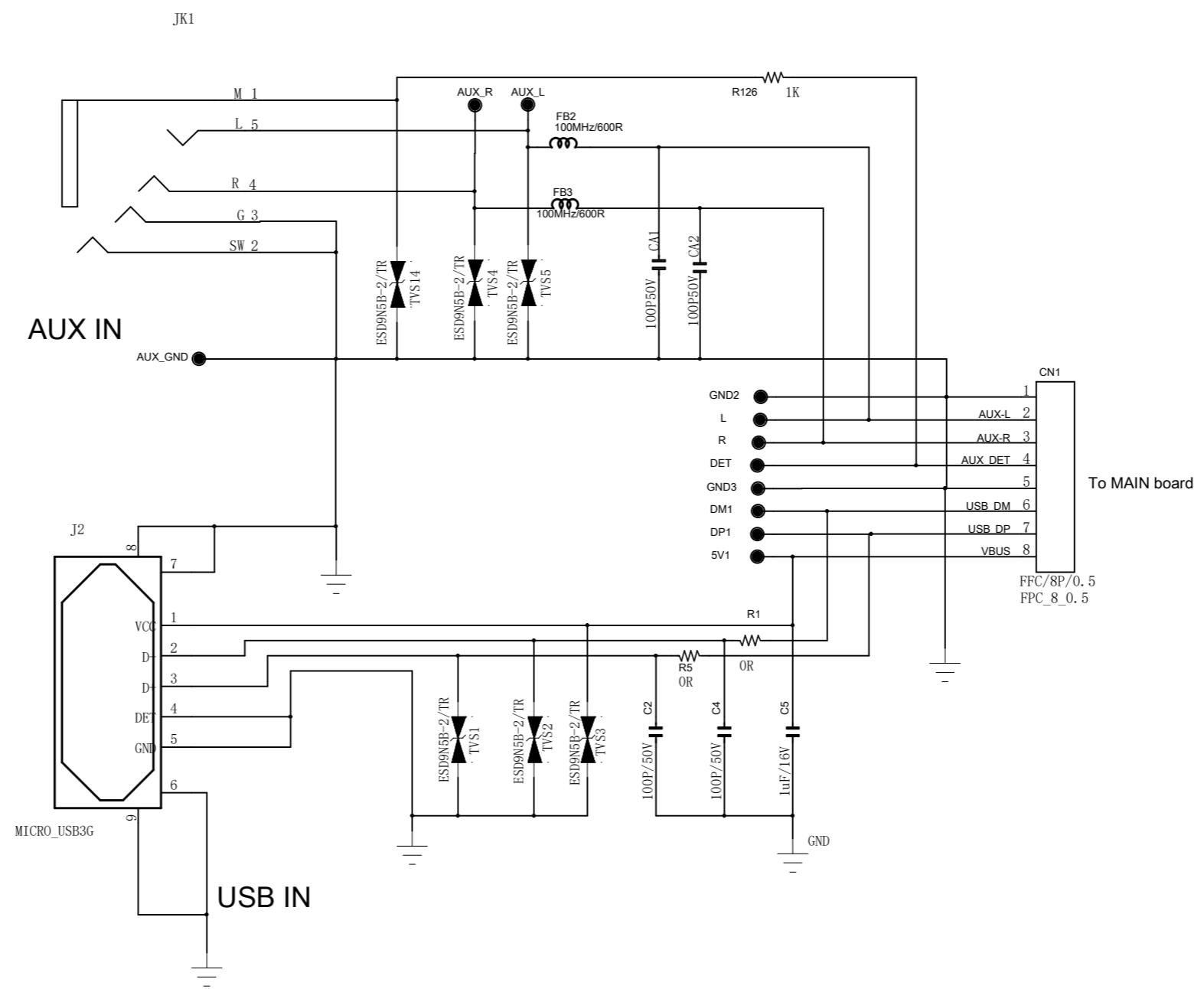
Right Speaker





V4			
V3			
V2			
V1			
V0.1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

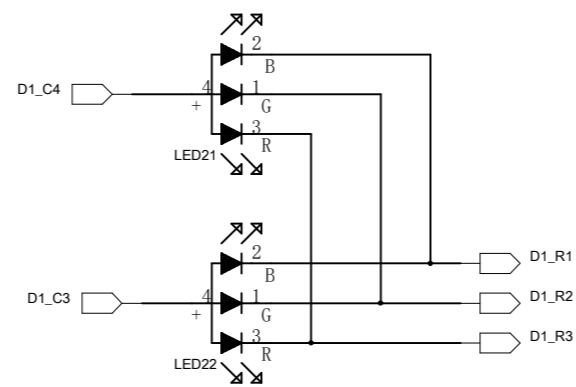
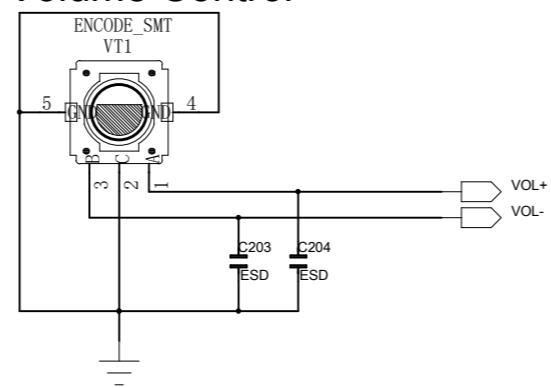
Gaming Speaker		MODEL: B-2080		SCALE: FREE	
TITLE: SYSTEM BLOCK		REV: V1.0		SHEET: 1/1	
Part NO: N/A		APPROVAL	CHECKED	DESIGN	
		Yingbo.Li	YangMJ	HuangHua	
			2019.10.28	2019.10.26	



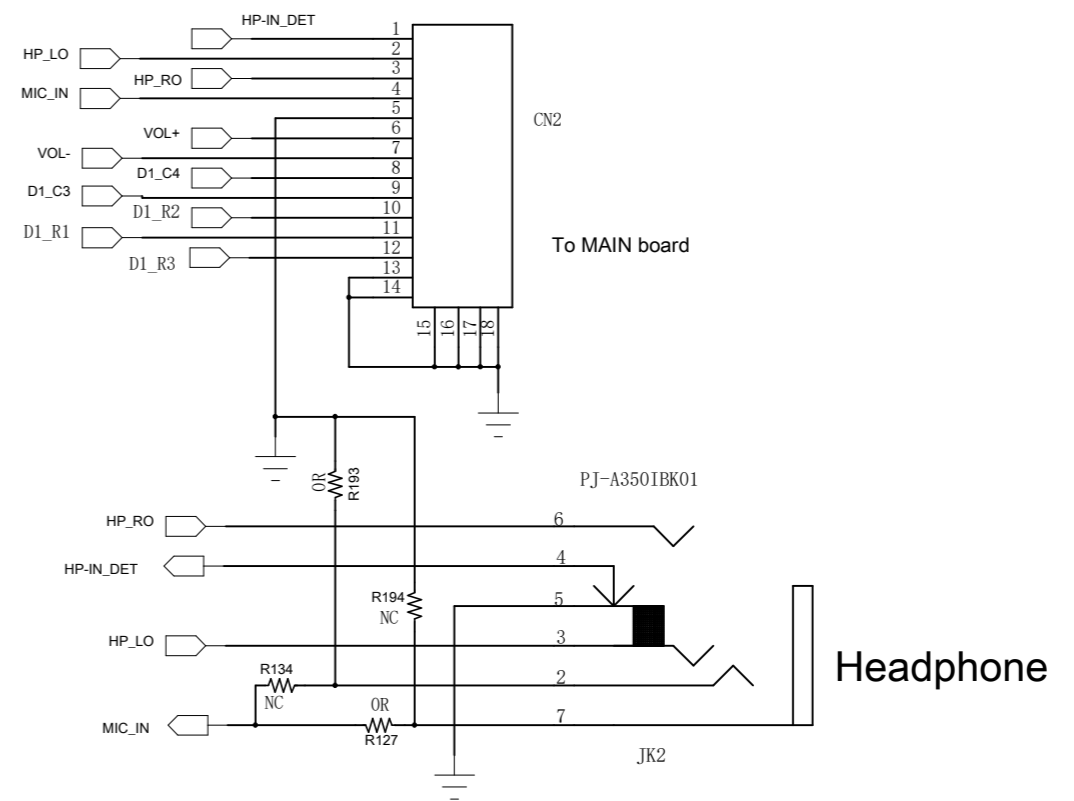
V4			
V3			
V2			
V1			
V0.	1 PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker TITLE:Schematic	MODEL:B-2080	SCALE: FREE	
	REV: V1.0	SHEET: 1/13	
Part NO:N/A	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.28	2019.7.26

Volume Control



Volume LED



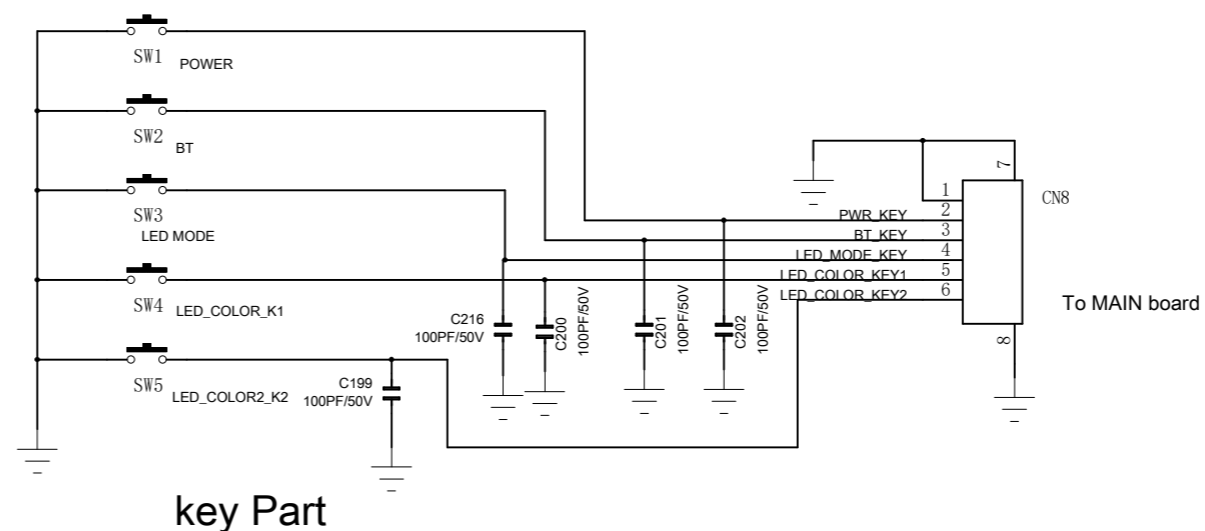
Interface settings for headphones

Standard	R127	R193	R134	R194
CTIA	0R	0R	NC	NC
OMTP	NC	NC	0R	0R

V4			
V3			
V2			
V1			
VO.	1 PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker TITLE:Schematic	MODEL:B-2080		SCALE: FREE
	REV: V1.0		SHEET: 2/13
Part NO:N/A	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.28	2019.10.26

D



key Part

A

V4			
V3			
V2			
V1			
V0.1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker TITLE:Schematic	MODEL:B-2080		SCALE: FREE
	REV: V1.0		SHEET: 3/13
Part NO:N/A	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.28	2019.10.26

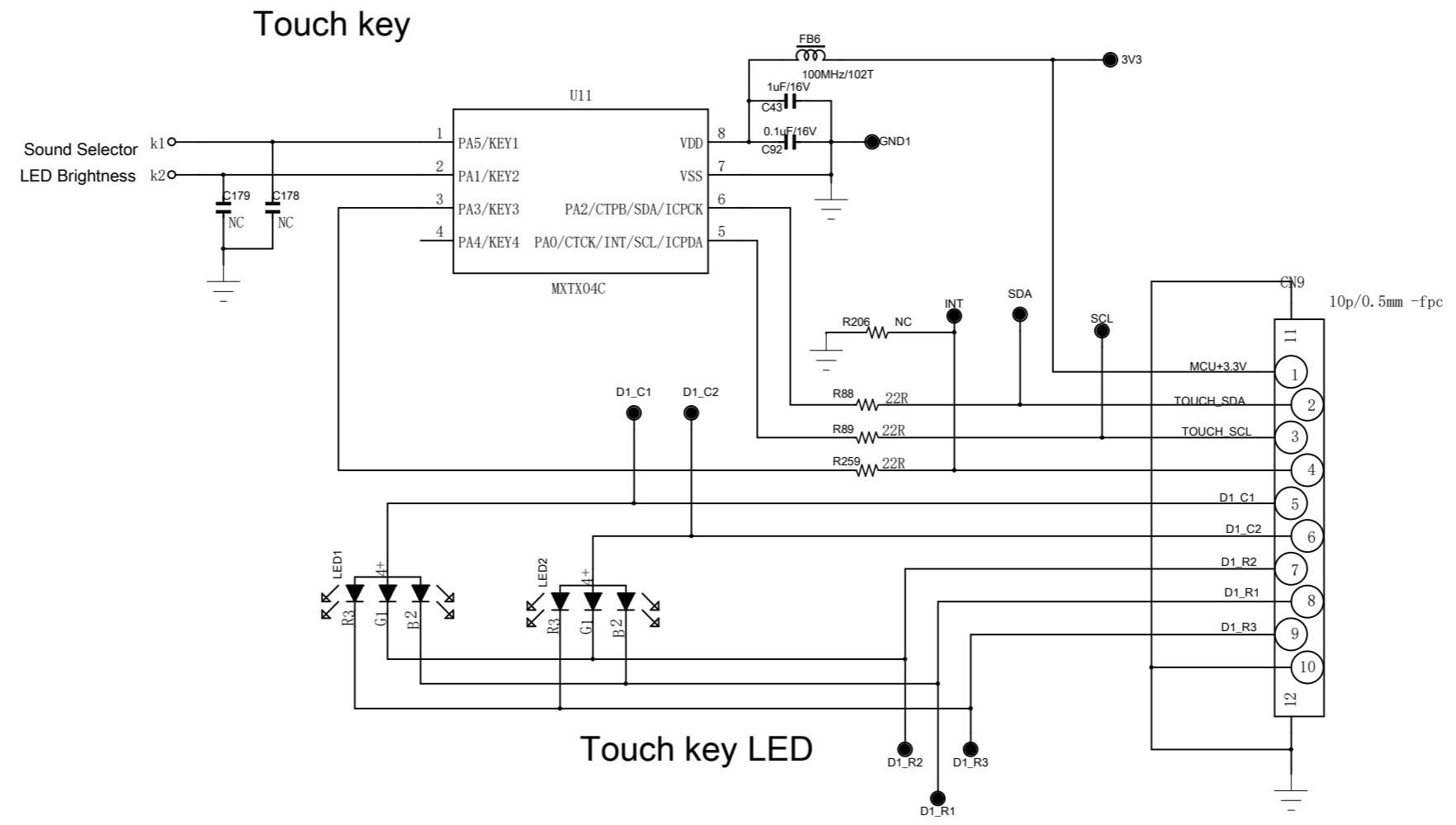
1

2

3

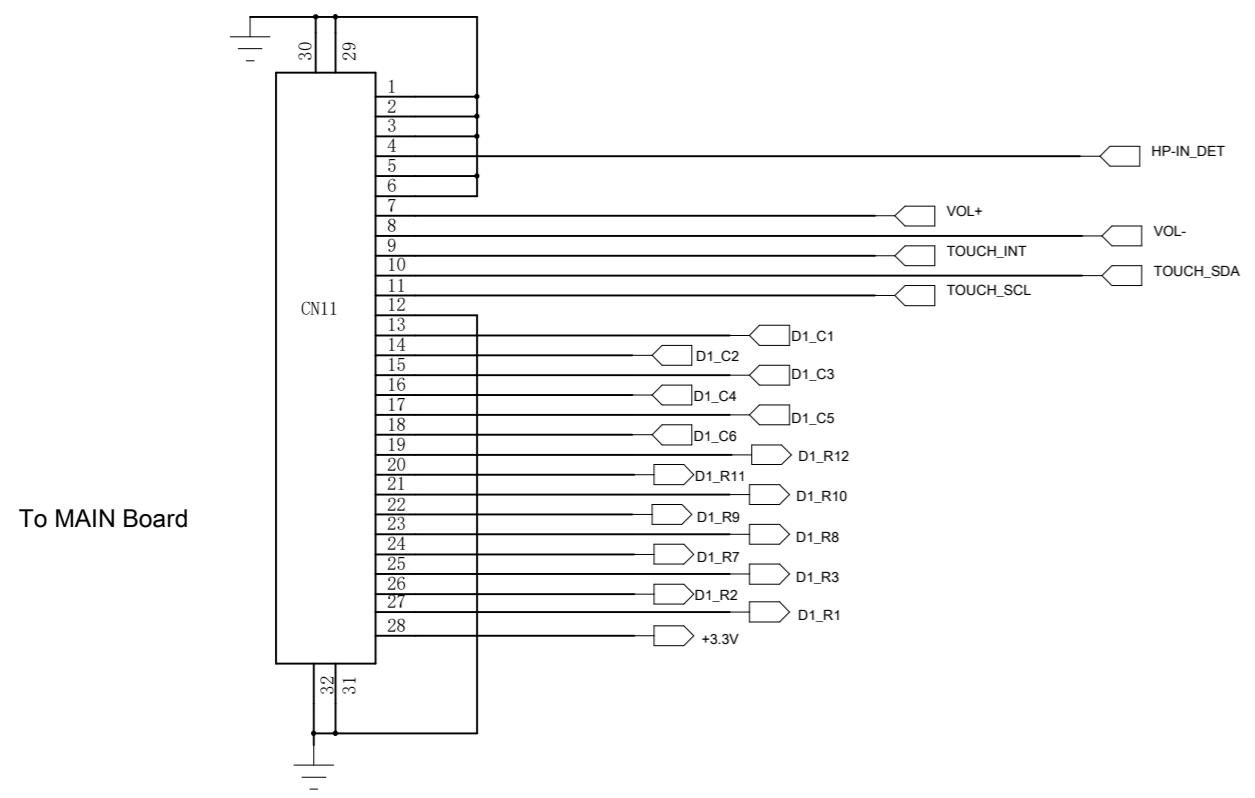
4

5

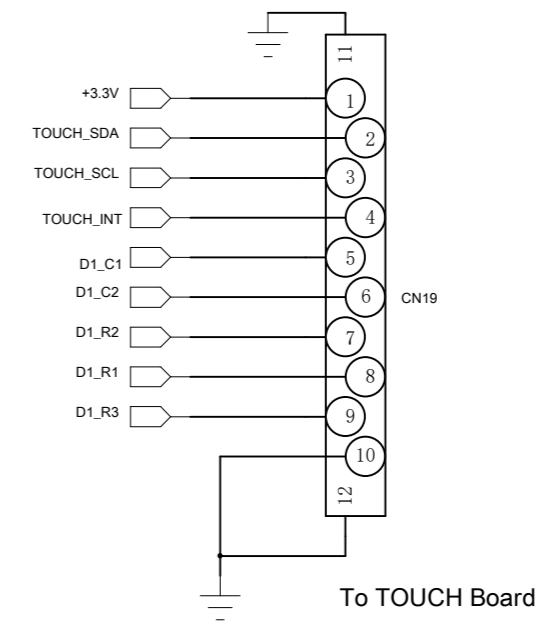


V4			
V3			
V2			
V1			
V0.1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

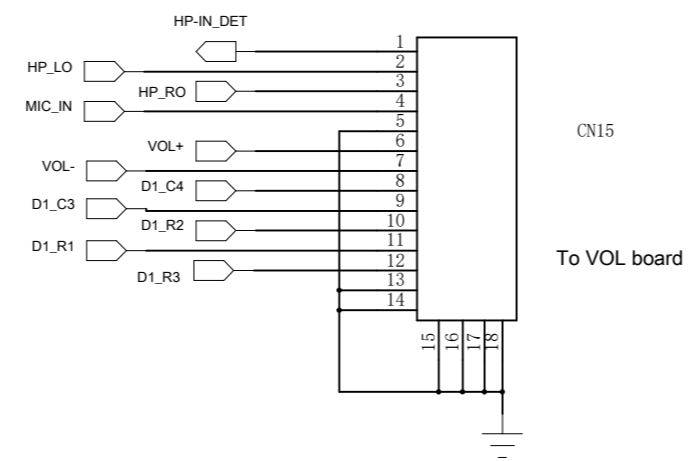
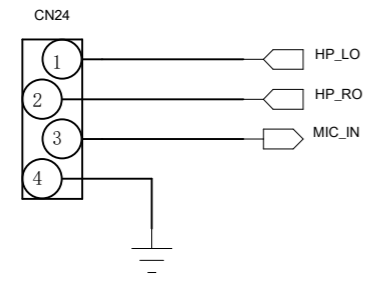
Gaming Speaker TITLE:Schematic	MODEL:B-2080		SCALE: FREE	
	REV: V1.0		SHEET: 4/13	
Part NO:N/A	APPROVAL	CHECKED	DESIGN	
	Yingbo.Li	YangMJ	HuangHua	
		2019.10.28	2019.10.26	



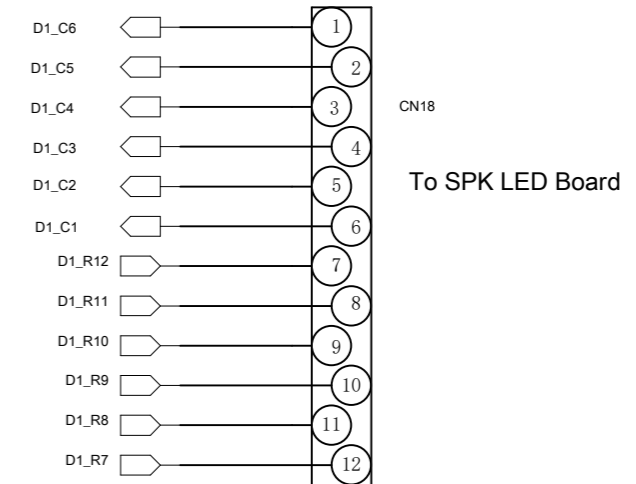
To MAIN Board



To TOUCH Board



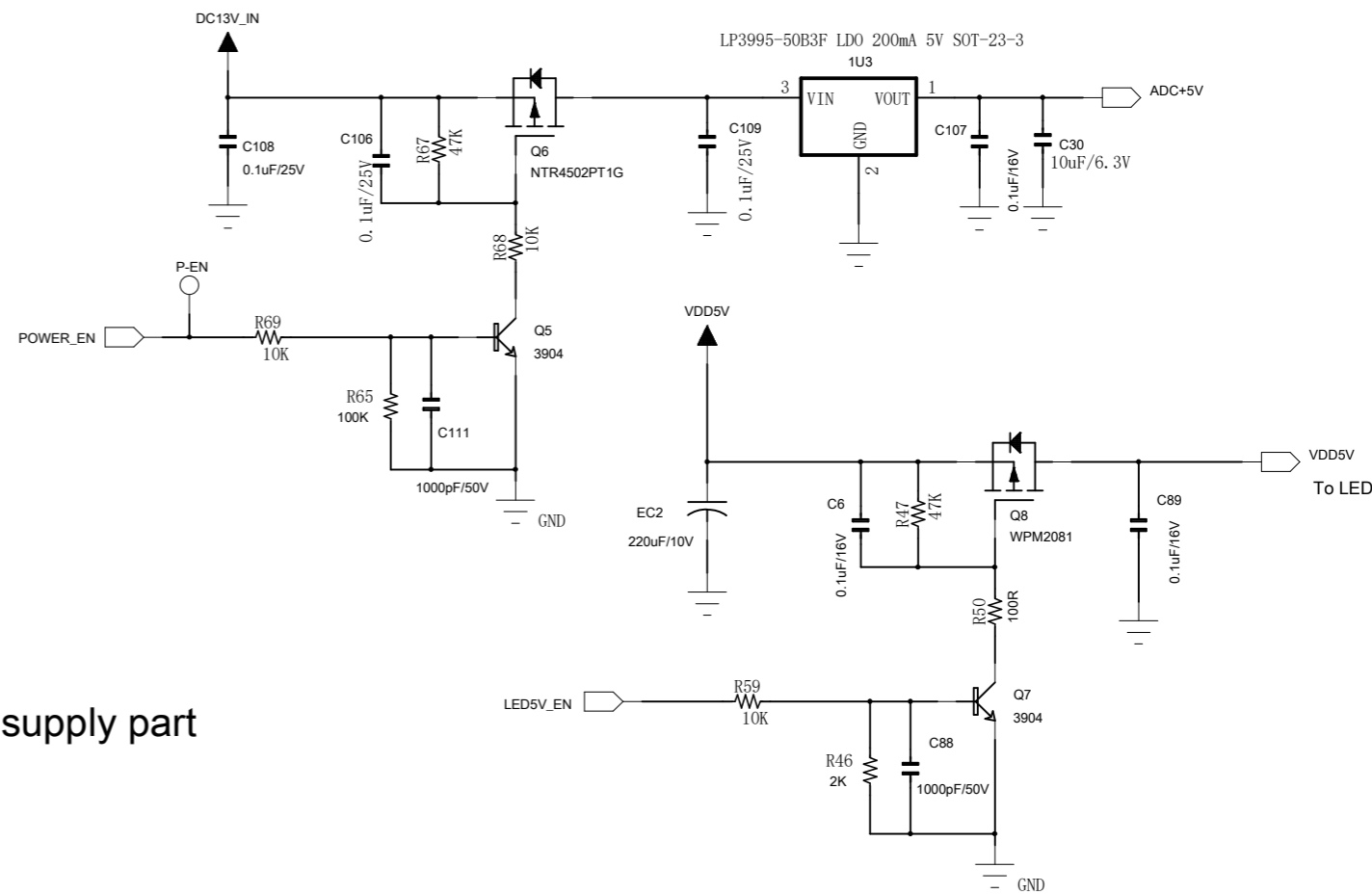
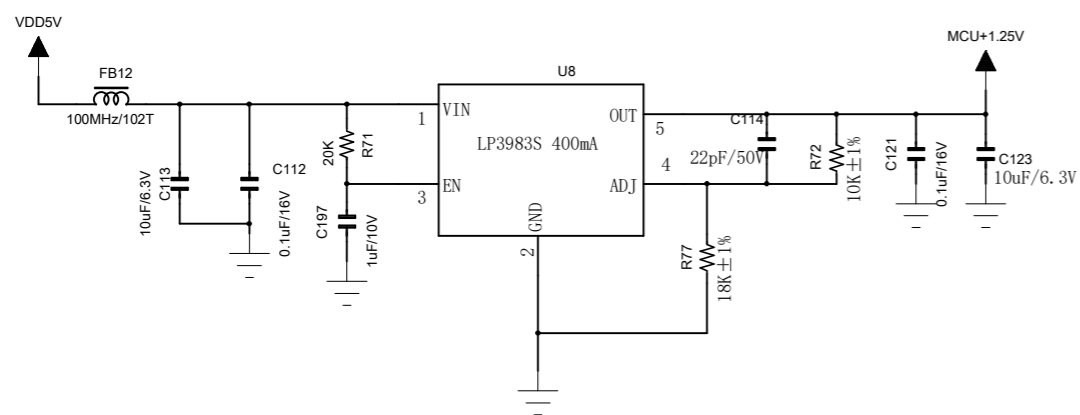
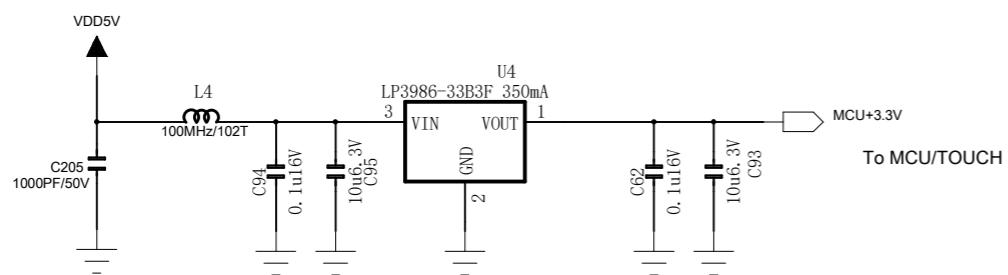
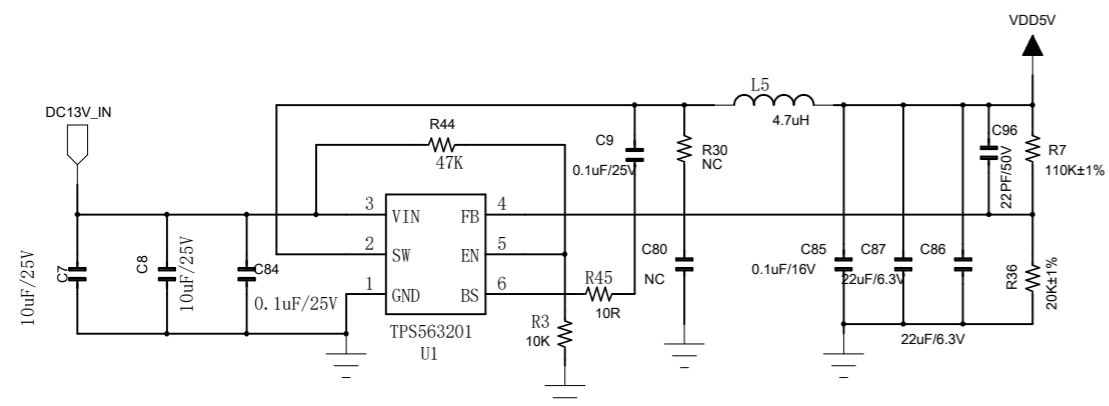
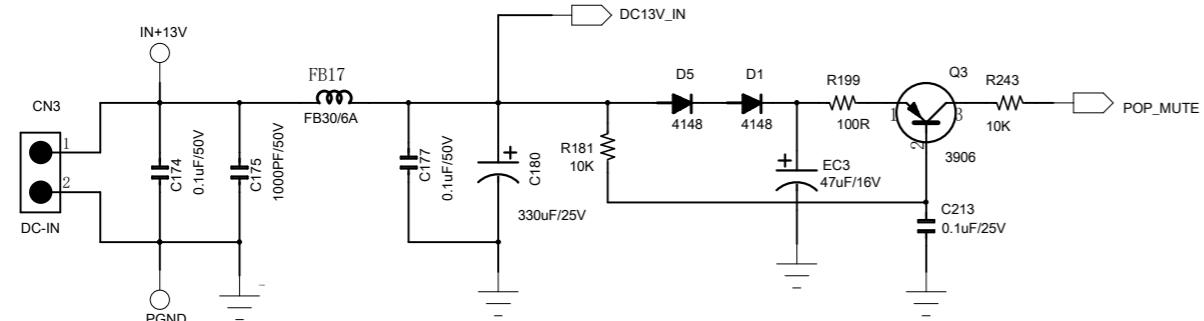
To VOL board



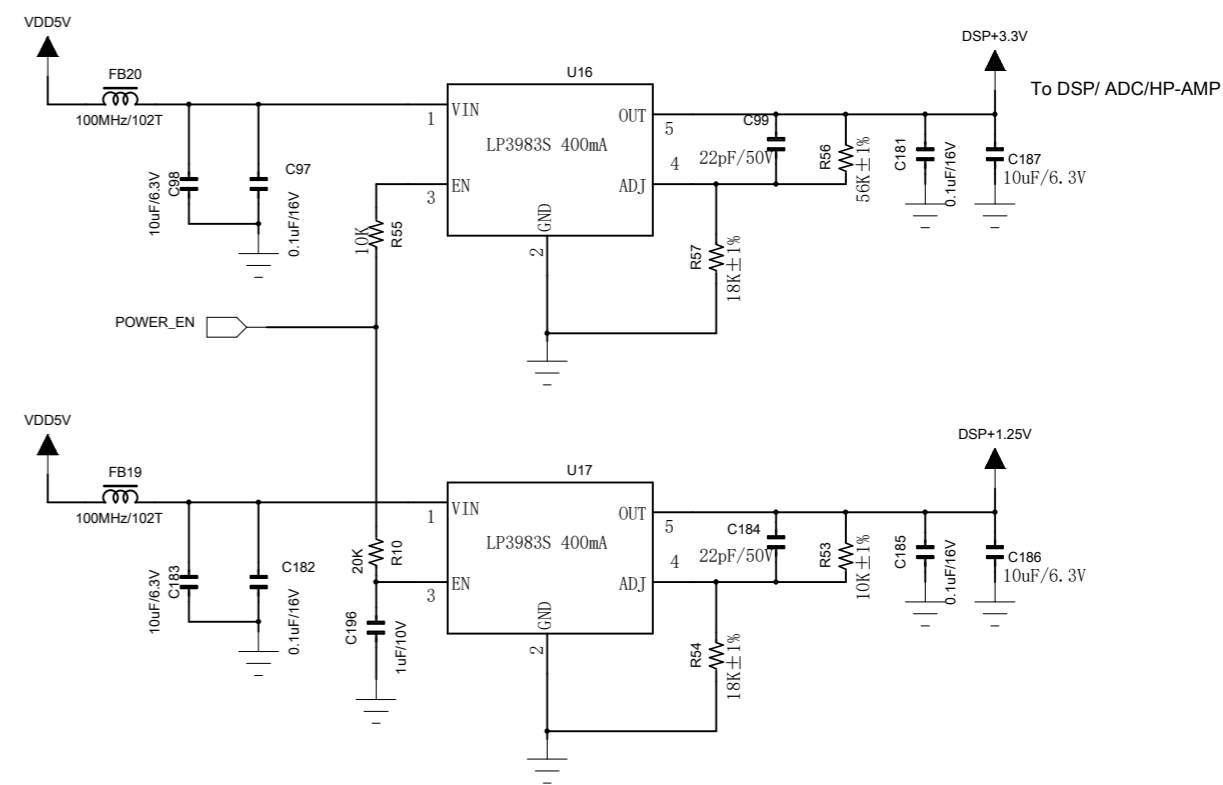
To SPK LED Board

V4			
V3			
V2			
V1			
V0.1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker TITLE:Schematic	MODEL:B-2080		SCALE: FREE
	REV: V1.0		SHEET: 5/13
Part NO:N/A	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.28	2019.10.26



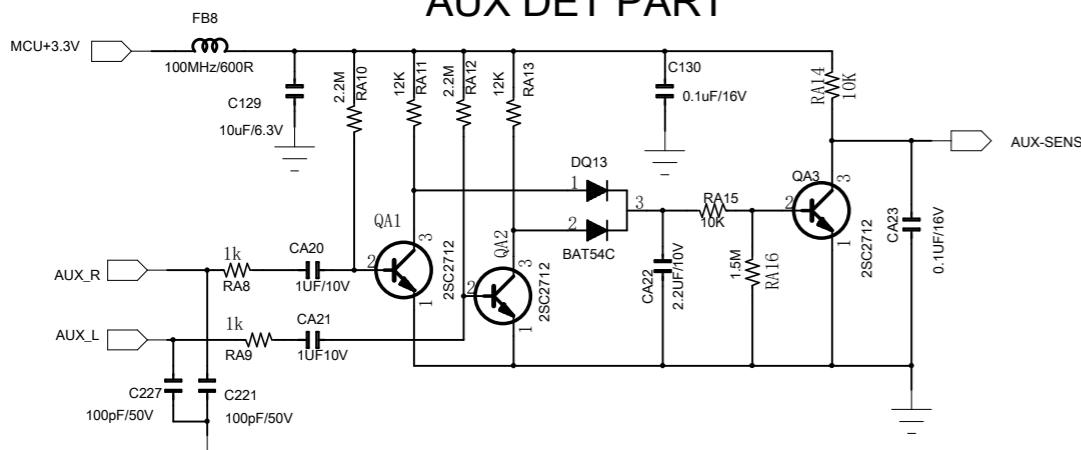
Power supply part



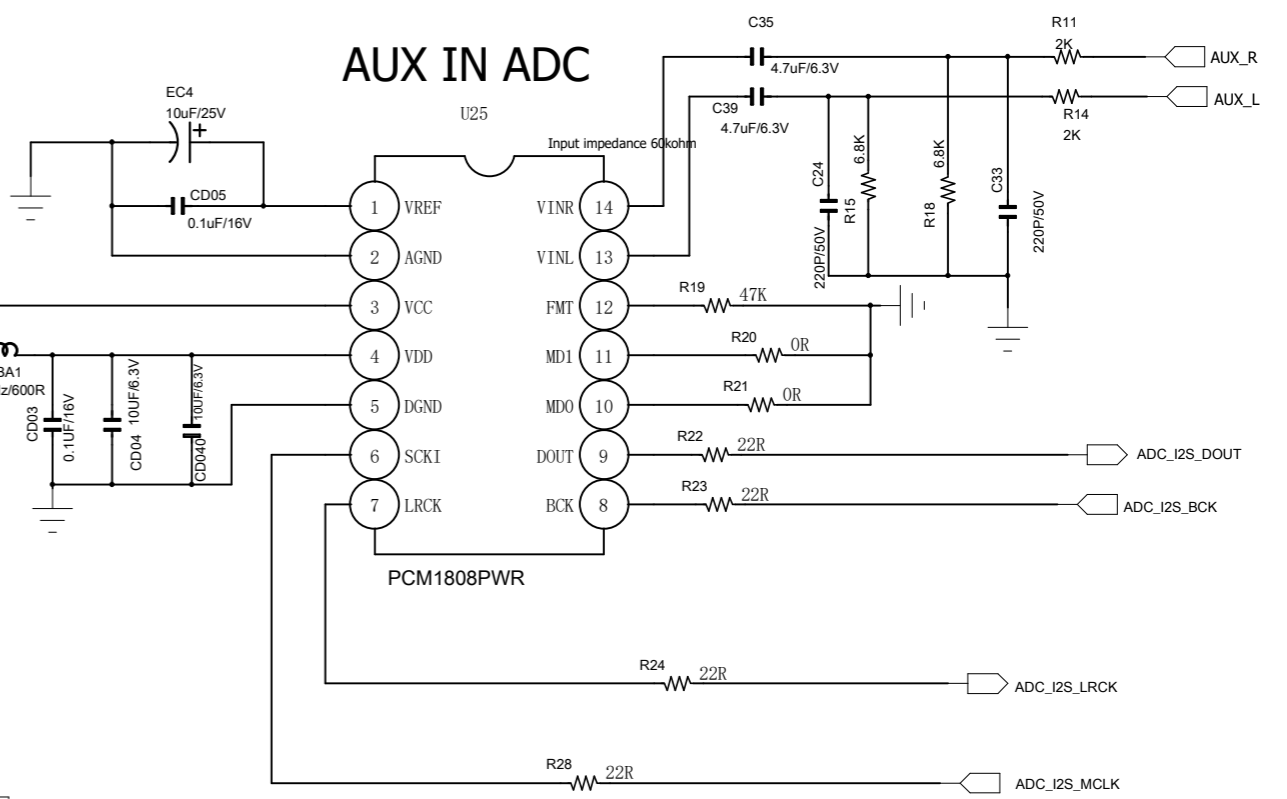
Gaming Speaker TITLE: Schematic	MODEL: B-2080		SCALE: FREE	
	REV: V1.0		SHEET: 6/12	
Part NO: N/A	APPROVAL	CHECKED	DESIGN	
	Yingbo.Li	YangMJ	HuangHua	
		2019.10.28	2019.10.26	

V4			
V3			
V2			
V1			
VO. 1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

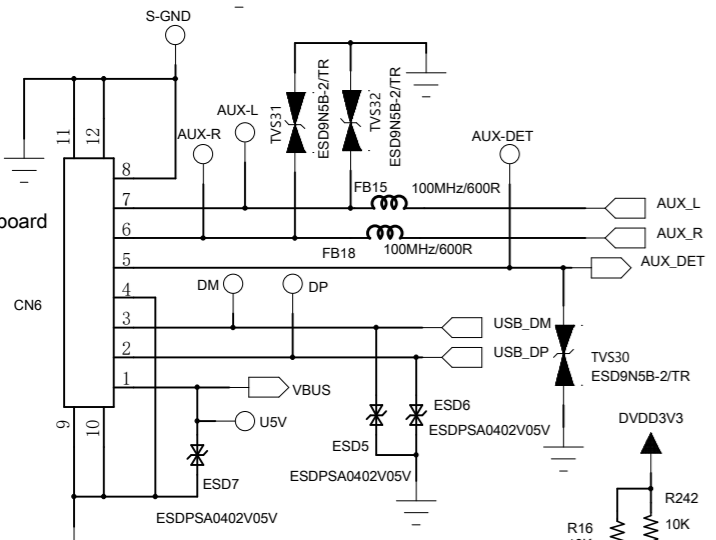
AUX DET PART



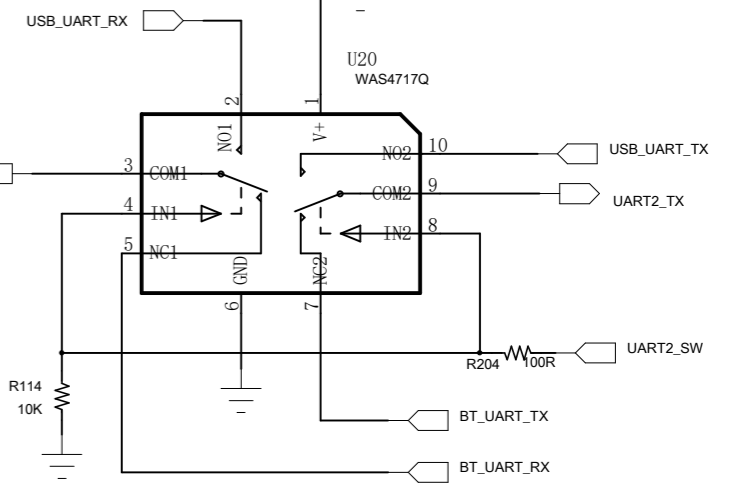
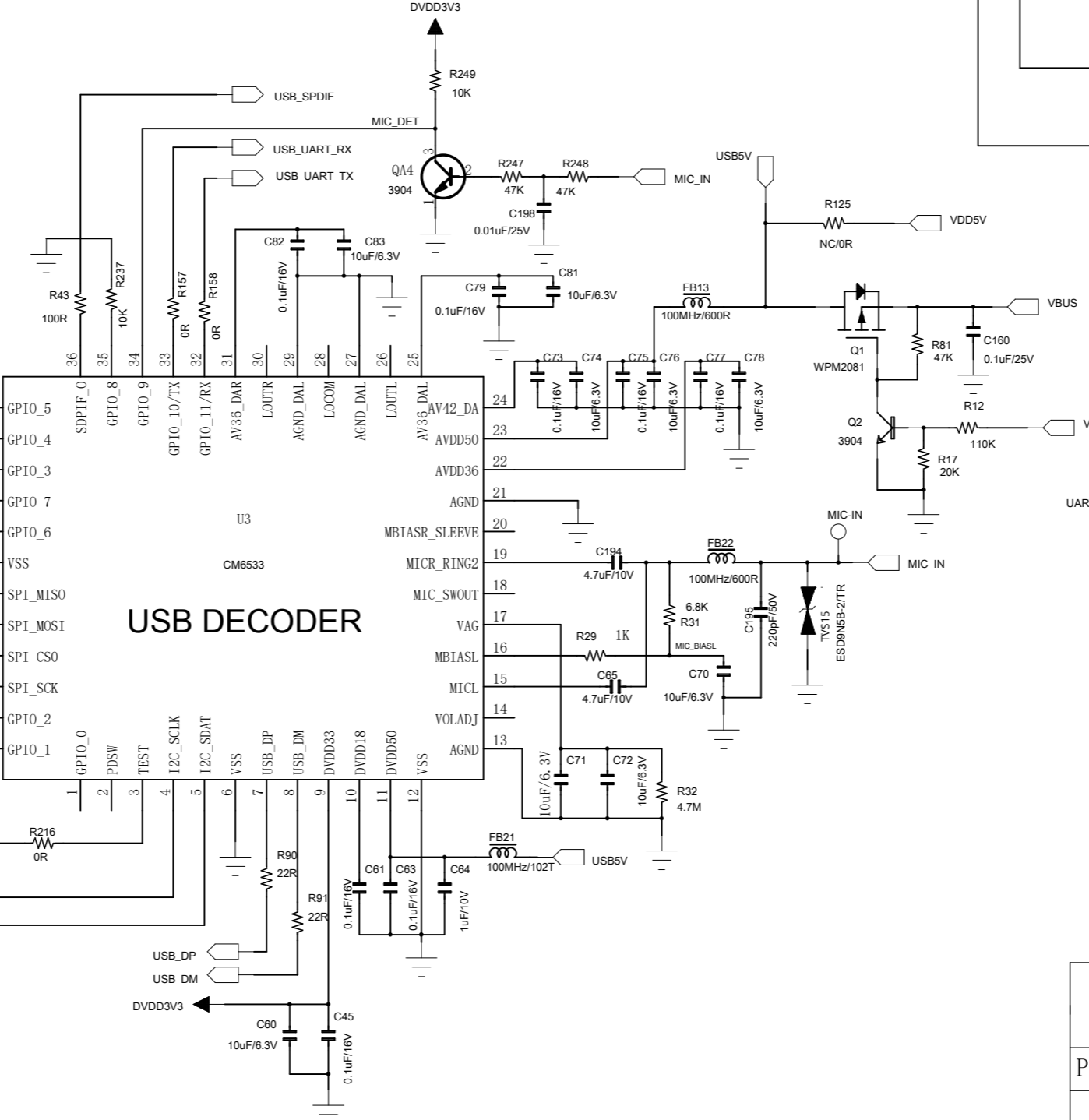
AUX IN ADC



To IN board

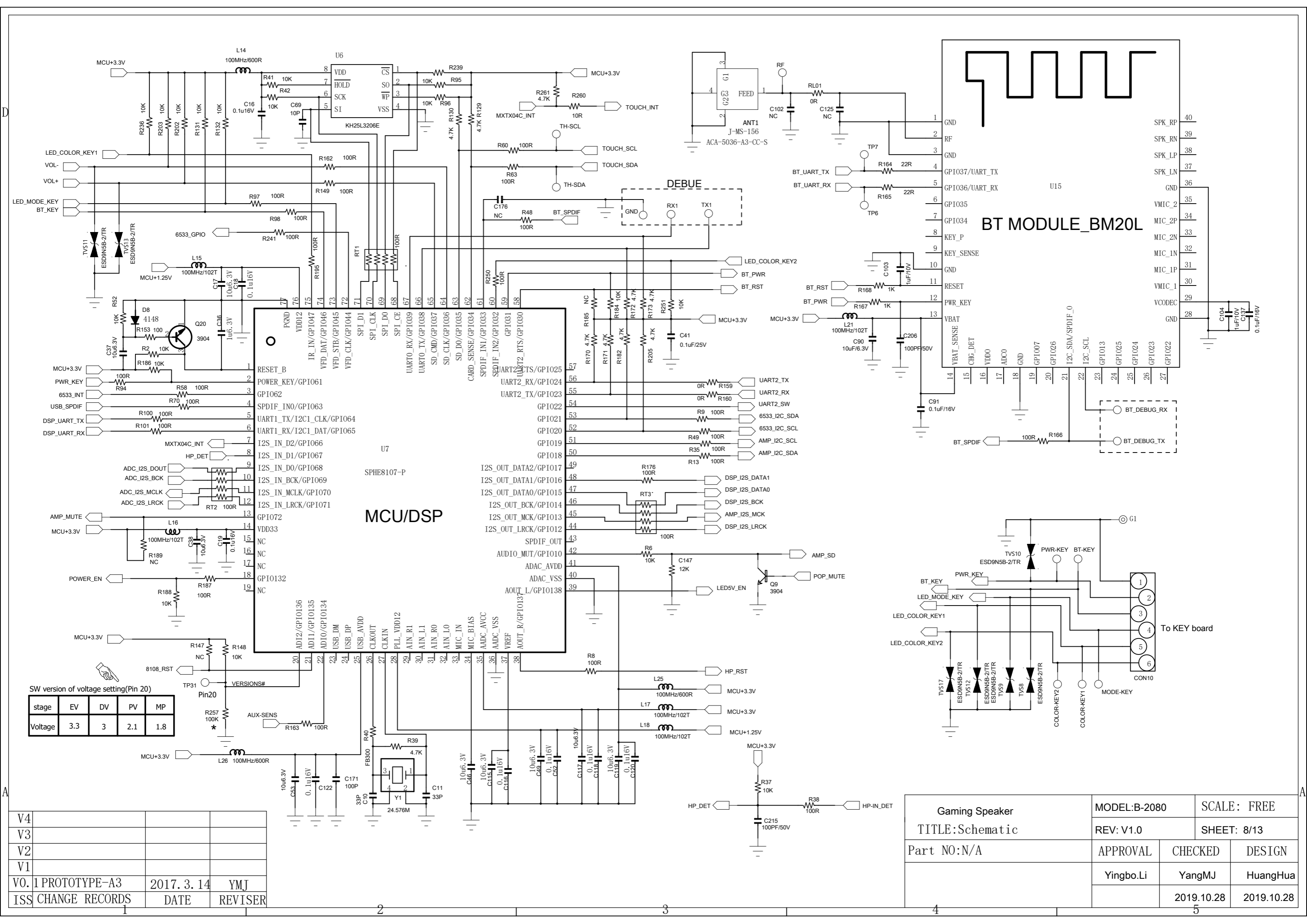


USB DECODER



V4			
V3			
V2			
V1			
V0.1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker		MODEL:B-2080		SCALE: FREE	
TITLE:Schematic		REV:V1.0		SHEET: 7/13	
Part NO:N/A		APPROVAL	CHECKED	DESIGN	
		Yingbo.Li	YangMJ	HuangHua	
			2019.10.28	2019.10.26	

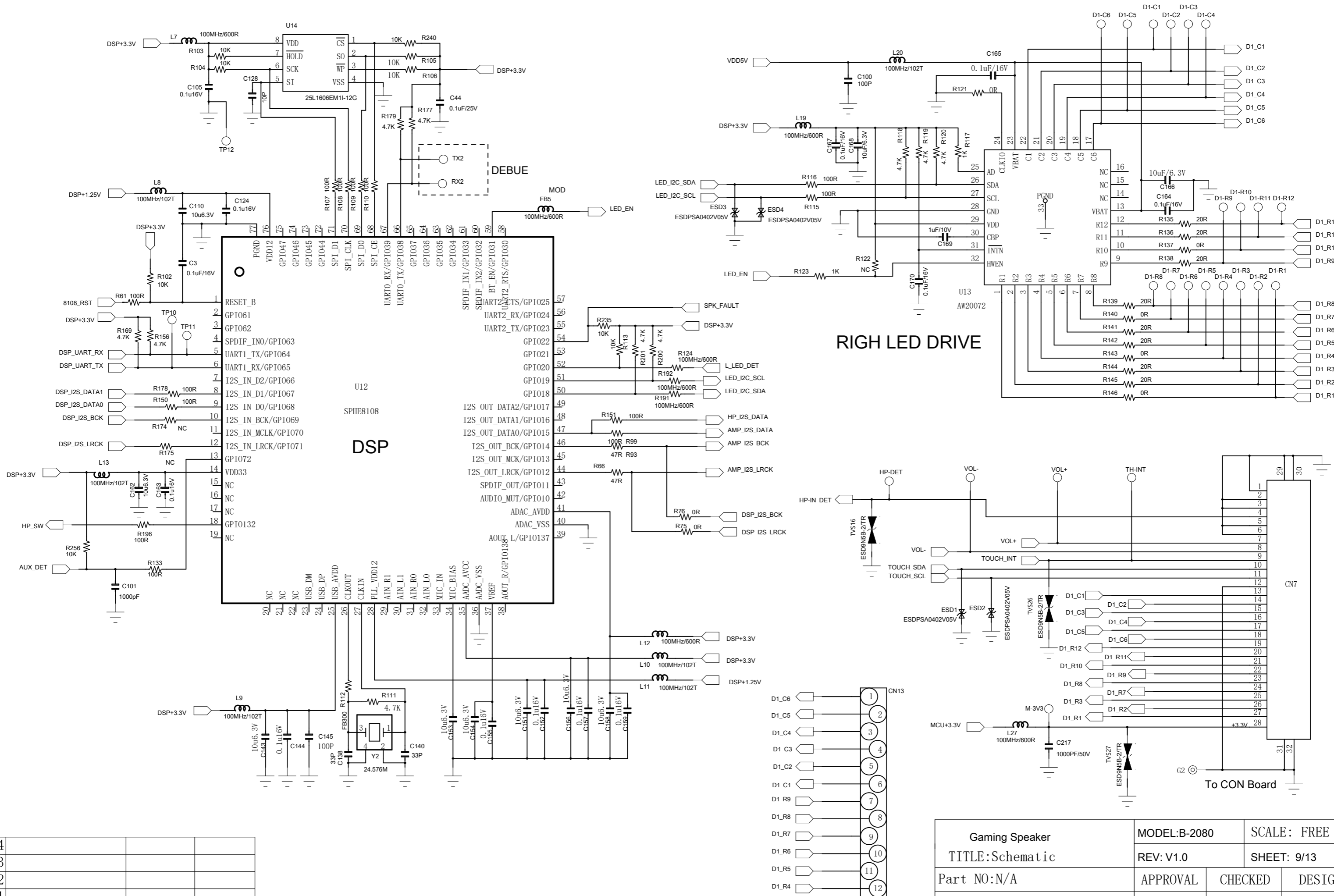


SW version of voltage setting(Pin 20)

stage	EV	DV	PV	MP
Voltage	3.3	3	2.1	1.8

Gaming Speaker TITLE: Schematic	MODEL: B-2080		SCALE: FREE	
	REV: V1.0		SHEET: 8/13	
Part NO: N/A	APPROVAL	CHECKED	DESIGN	
	Yingbo.Li	YangMJ	HuangHua	
		2019.10.28	2019.10.28	

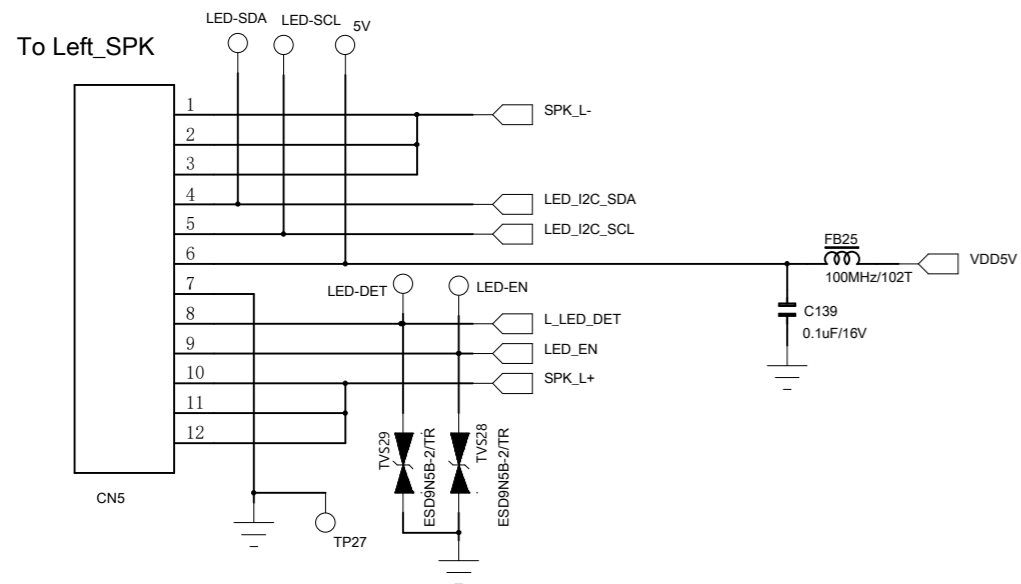
V4			
V3			
V2			
V1			
VO.1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER



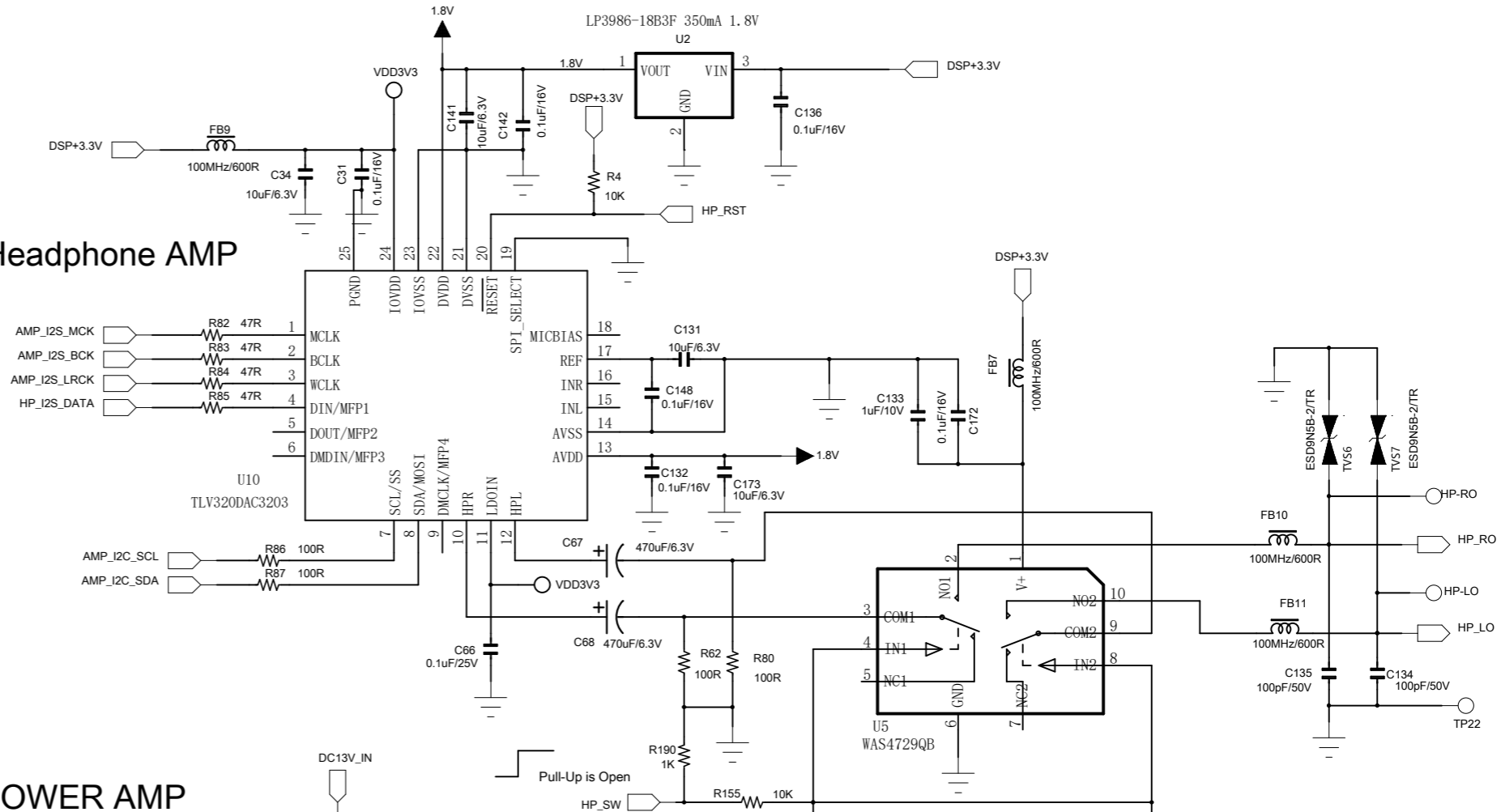
RIGHT LED DRIVE

Gaming Speaker TITLE: Schematic	MODEL: B-2080	SCALE: FREE	
	REV: V1.0	SHEET: 9/13	
Part NO: N/A	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.28	2019.10.28

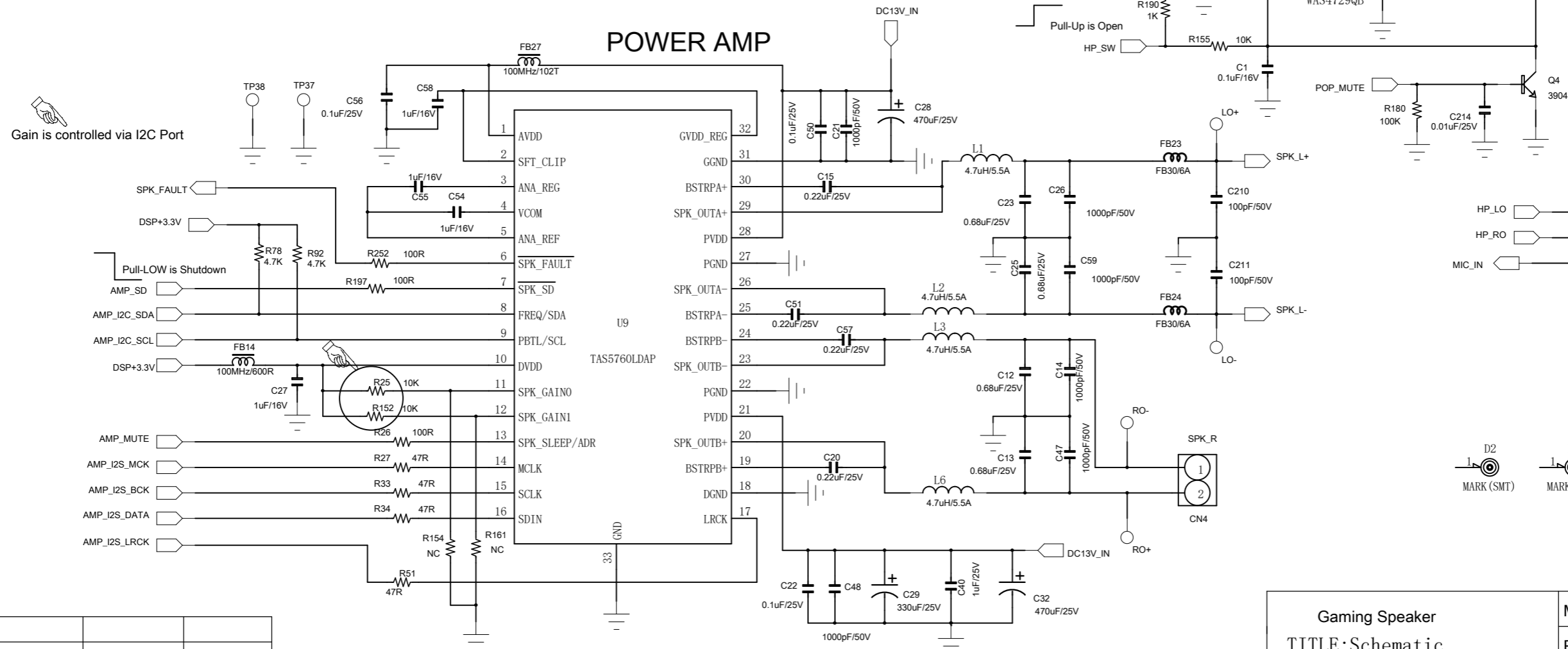
V4			
V3			
V2			
V1			
VO. 1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER



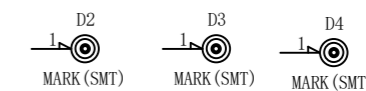
Headphone AMP



POWER AMP

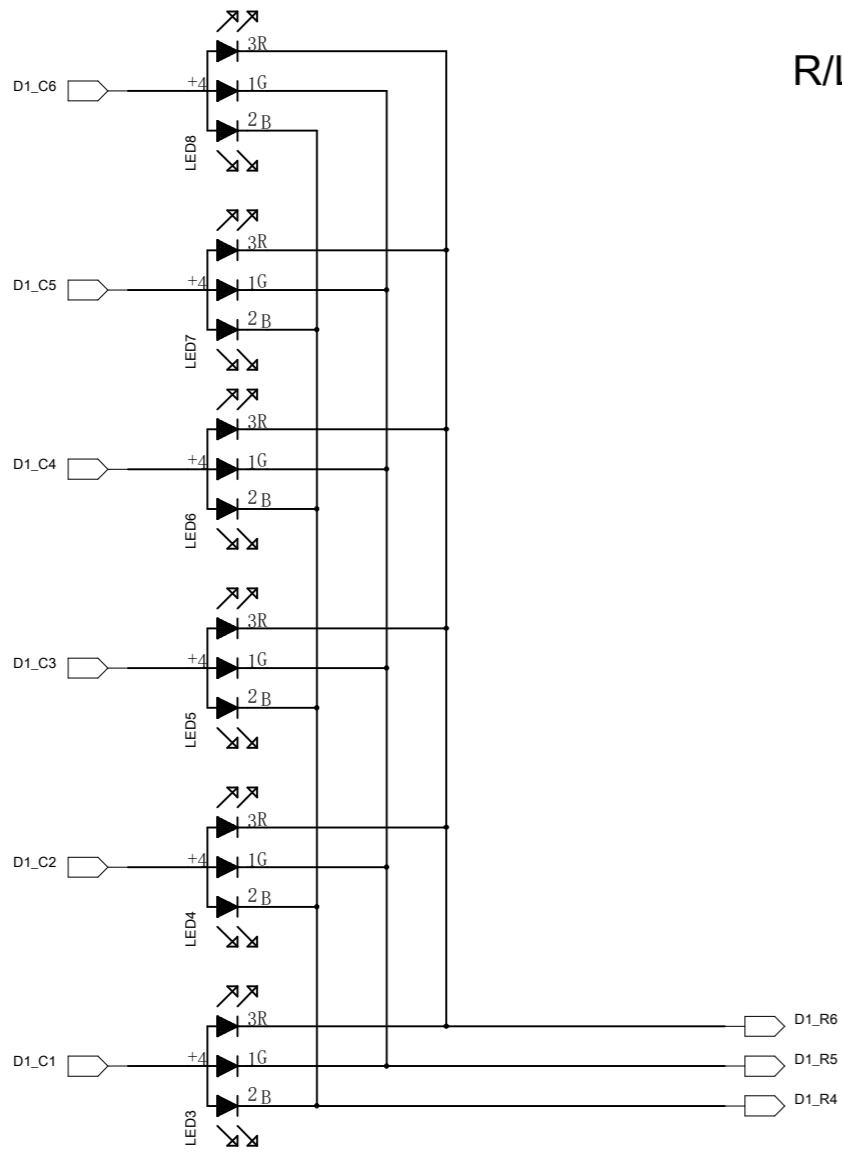


Gain is controlled via I2C Port

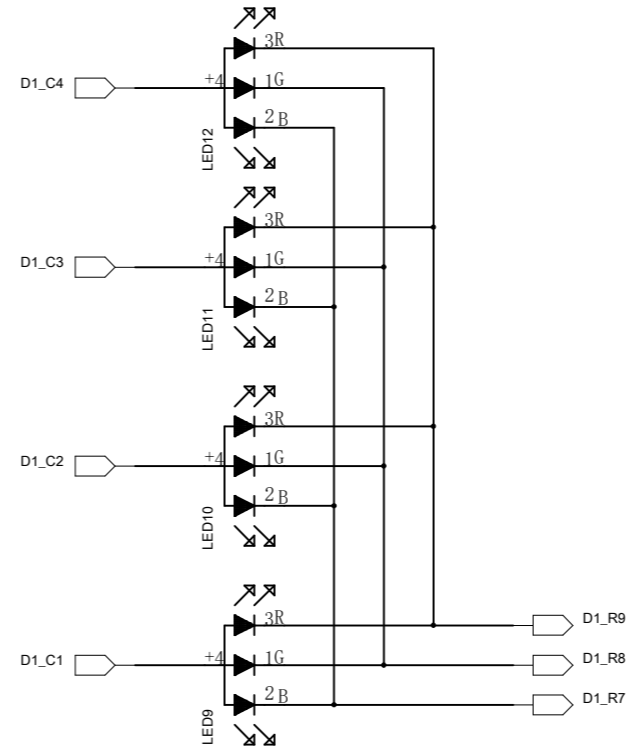


Gaming Speaker TITLE: Schematic	MODEL: B-2080		SCALE: FREE	
	REV: V1.0		SHEET: 10/13	
Part NO: N/A	APPROVAL	CHECKED	DESIGN	
	Yingbo.Li	YangMJ	HuangHua	
		2019.10.28	2019.10.28	

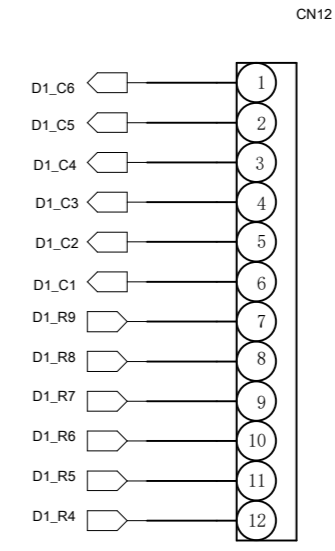
V4			
V3			
V2			
V1			
VO. 1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER



R/L LONG LED Part

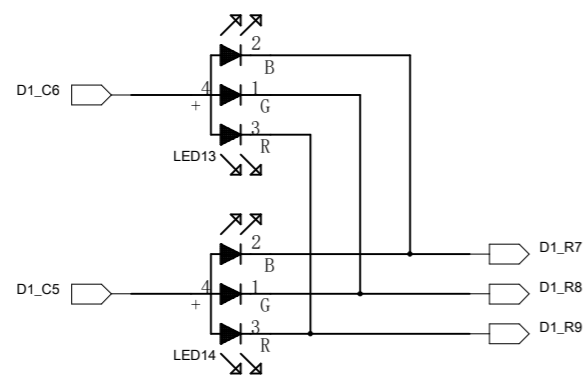


LONG LED Board *2PC

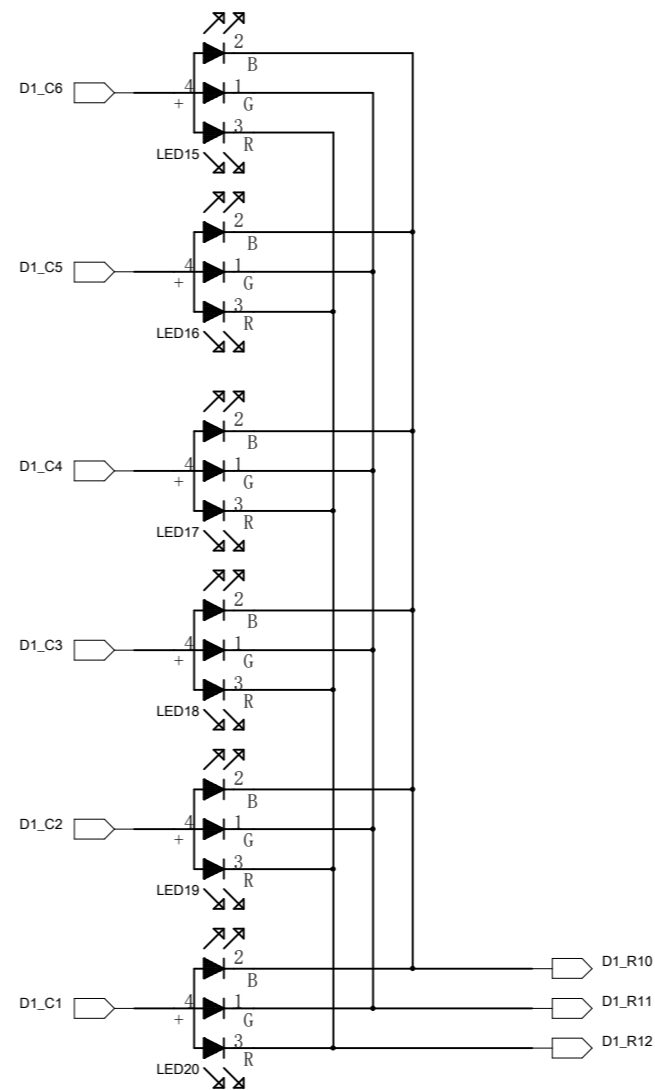


V4			
V3			
V2			
V1			
V0.1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker TITLE:Schematic	MODEL:B-2080		SCALE: FREE
	REV: V1.0		SHEET: 11/13
Part NO:N/A	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.28	2019.10.26

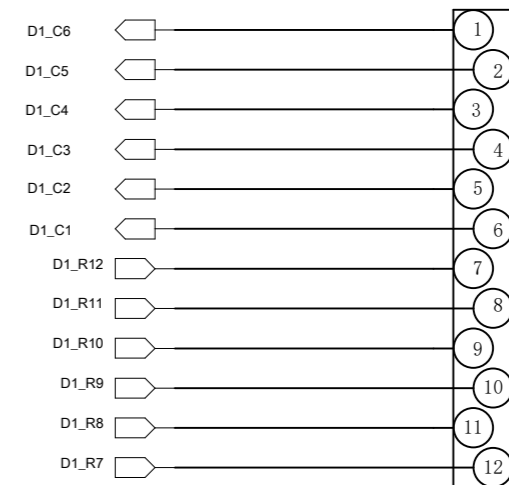


R/L SPK LED Part



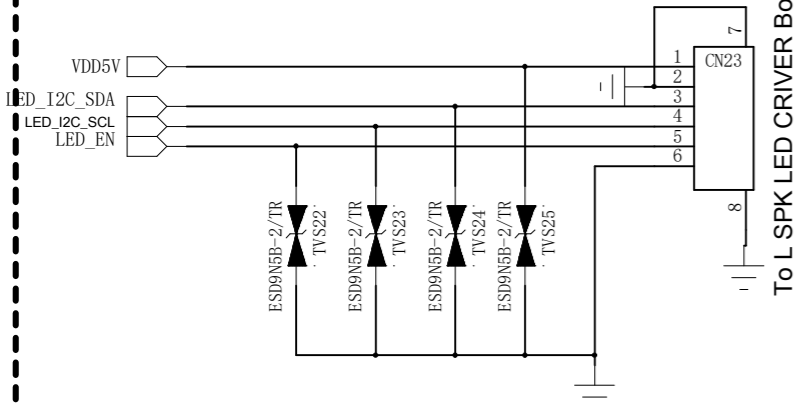
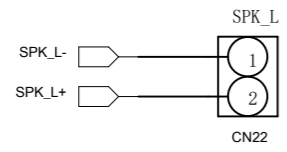
SPK LED Board *2PC

CN14
FPC-12P/0.5-V

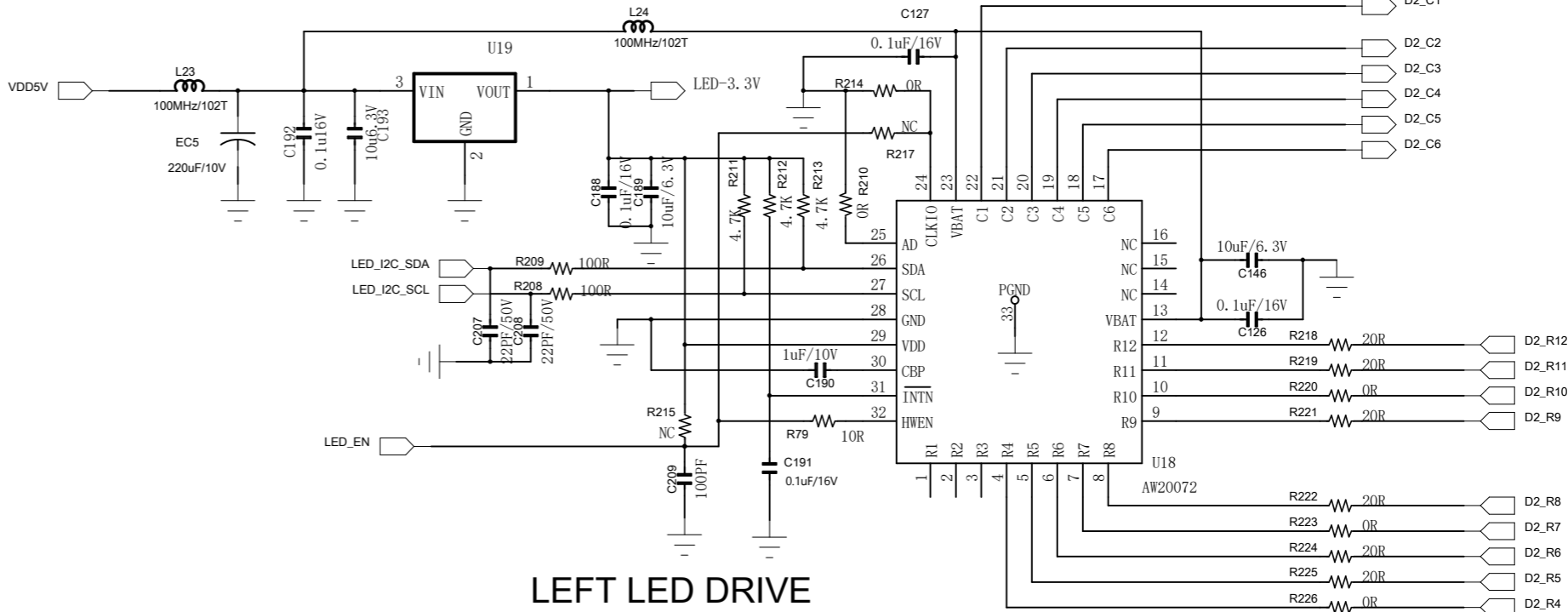
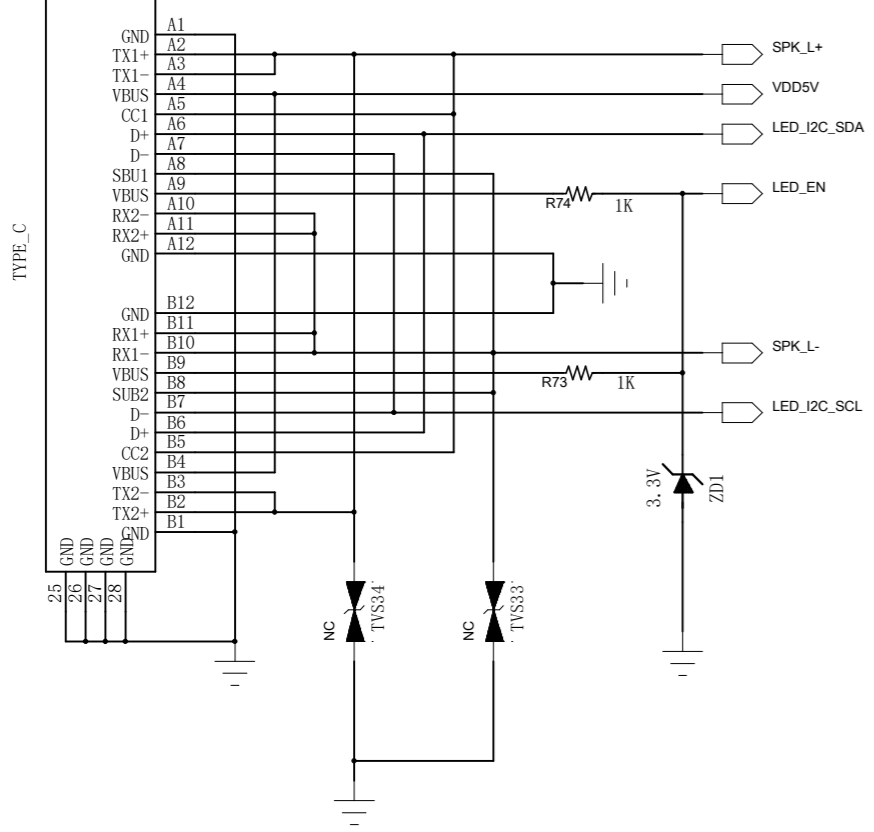


V4			
V3			
V2			
V1			
V0.1	PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

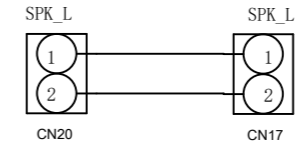
Gaming Speaker TITLE:Schematic	MODEL:B-2080		SCALE: FREE
	REV: V1.0		SHEET: 12/13
Part NO:N/A	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.28	2019.10.26



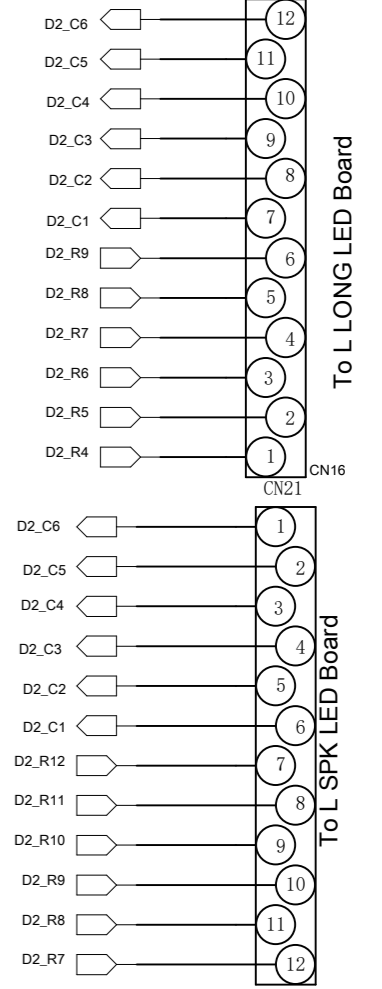
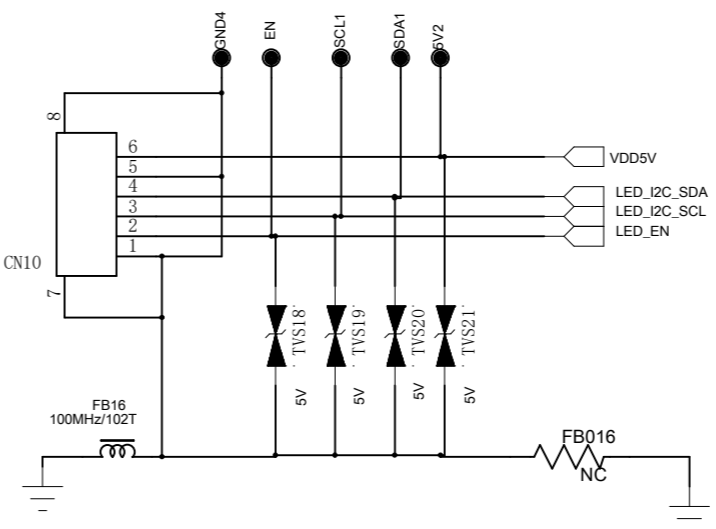
L JACK Board



LEFT LED DRIVE

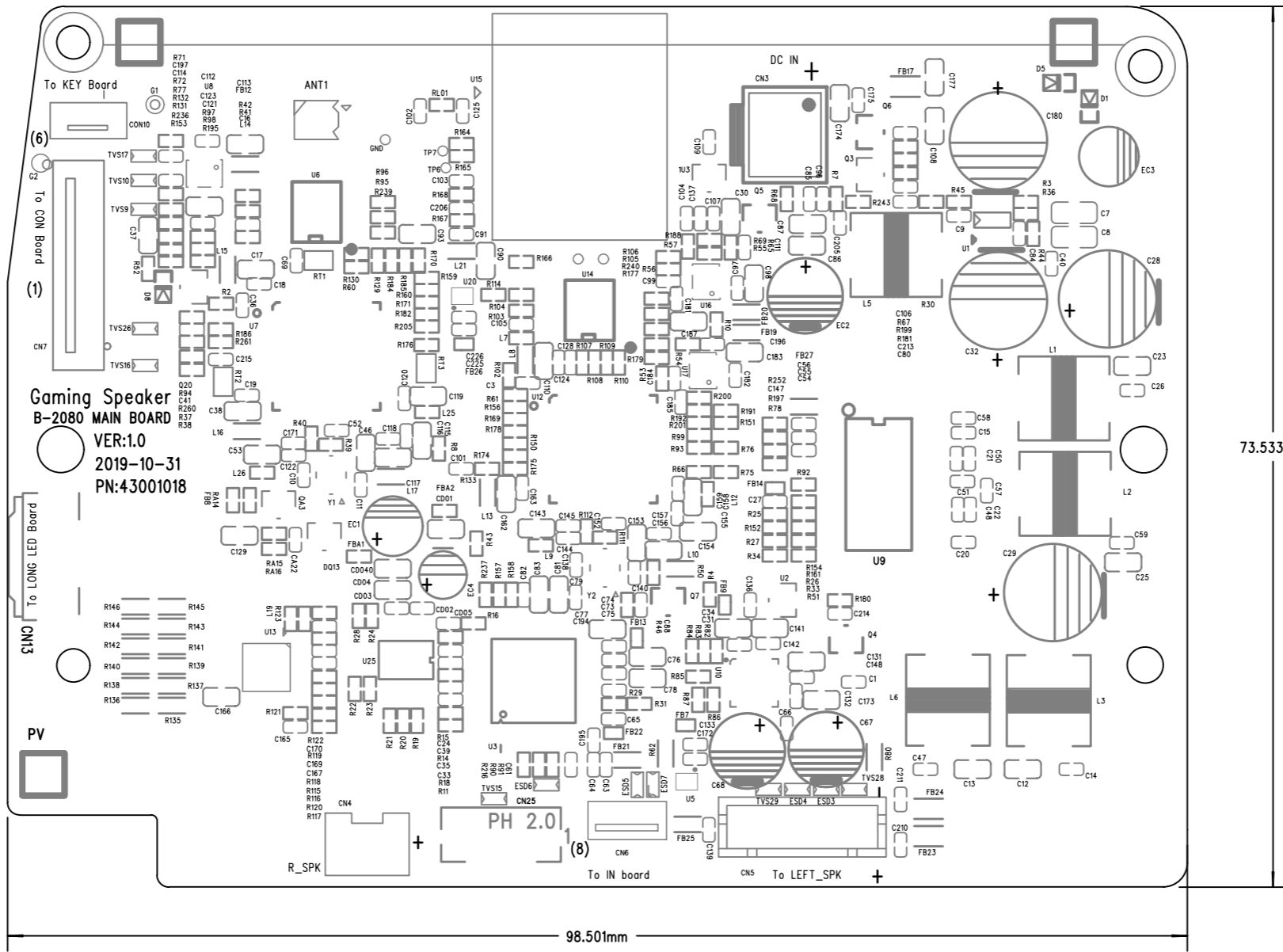


To L SPK JACK Board



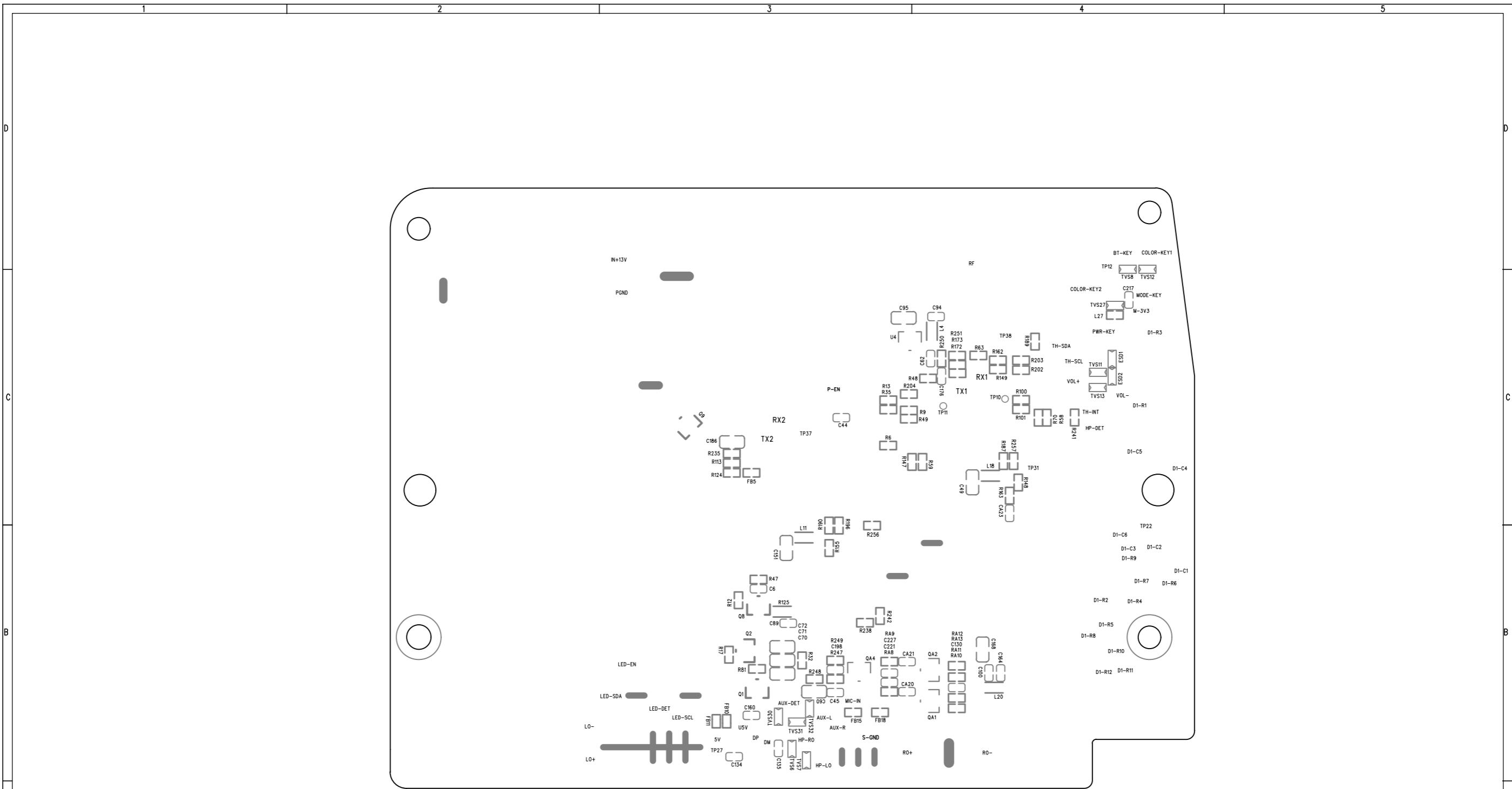
V4			
V3			
V2			
V1			
V0.	1 PROTOTYPE-A3	2017. 3. 14	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker TITLE: Schematic	MODEL: B-2080	SCALE: FREE	
	REV: V1.0	SHEET: 13/13	
Part NO: N/A	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.28	2019.10.26



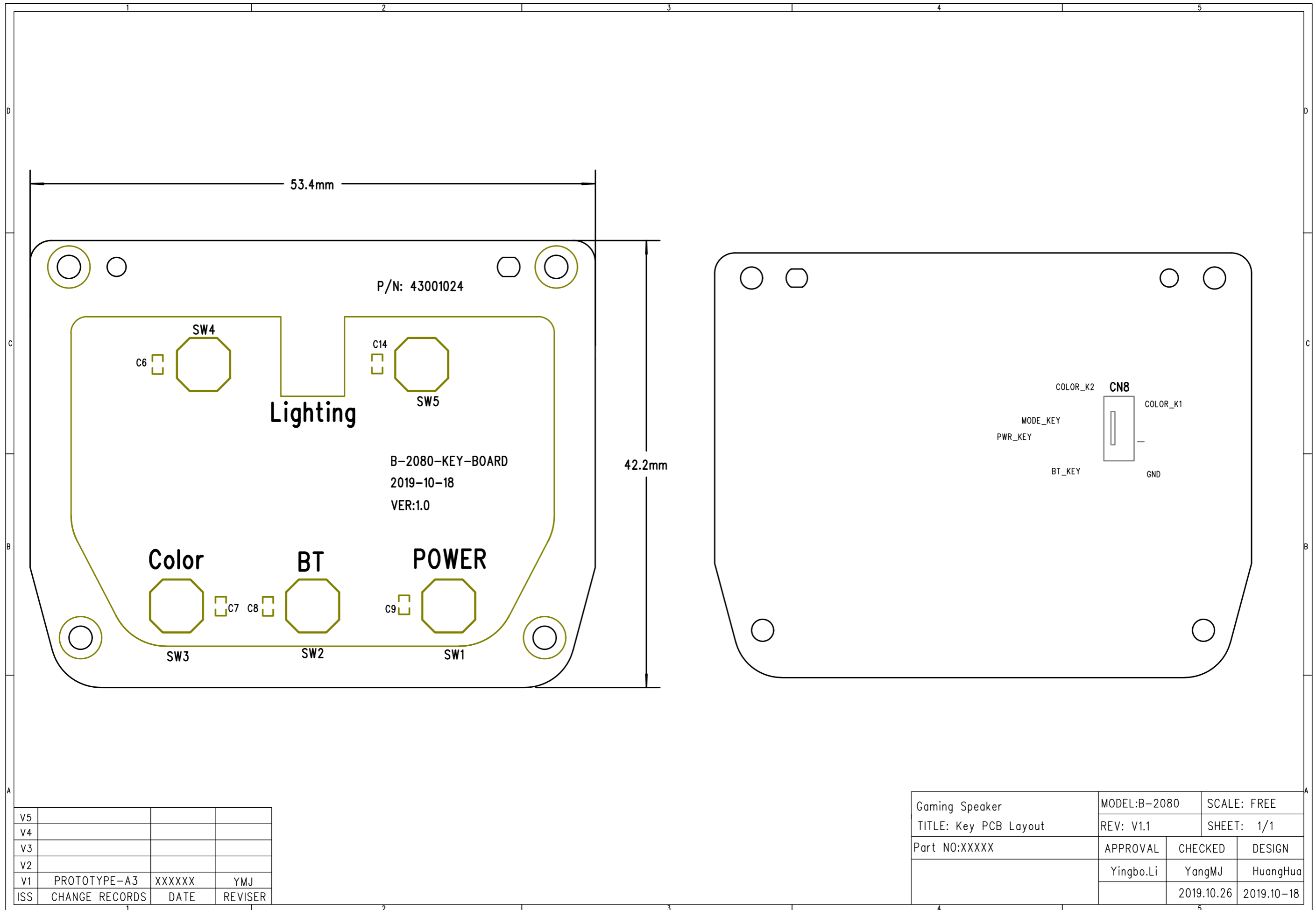
V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker TITLE: MAIN PCB Layout Part NO:XXXXX	MODEL:B-2080	SCALE: FREE	
	REV: V1.0	SHEET: 1/1	
	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



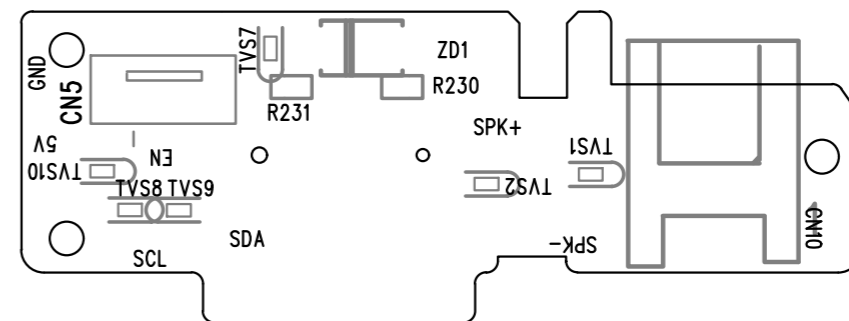
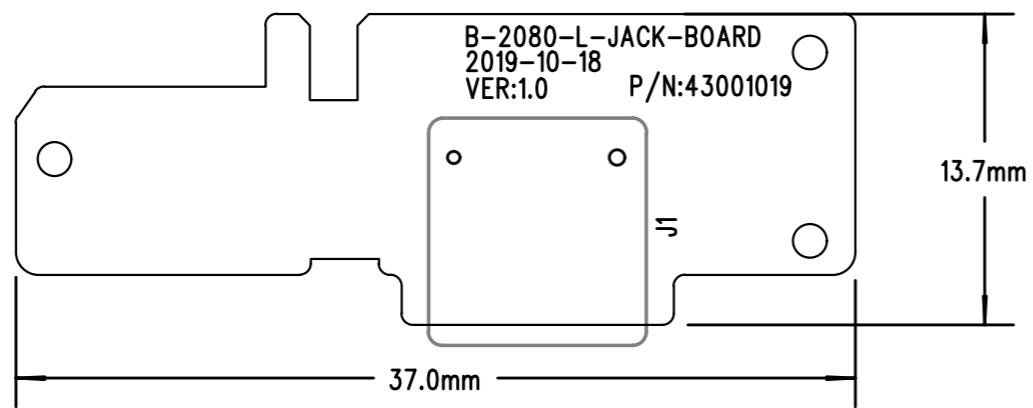
V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker	MODEL:B-2080	SCALE: FREE	
	TITLE: MAIN PCB Layout	REV: V1.0	SHEET: 1/1
Part NO:XXXXX	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



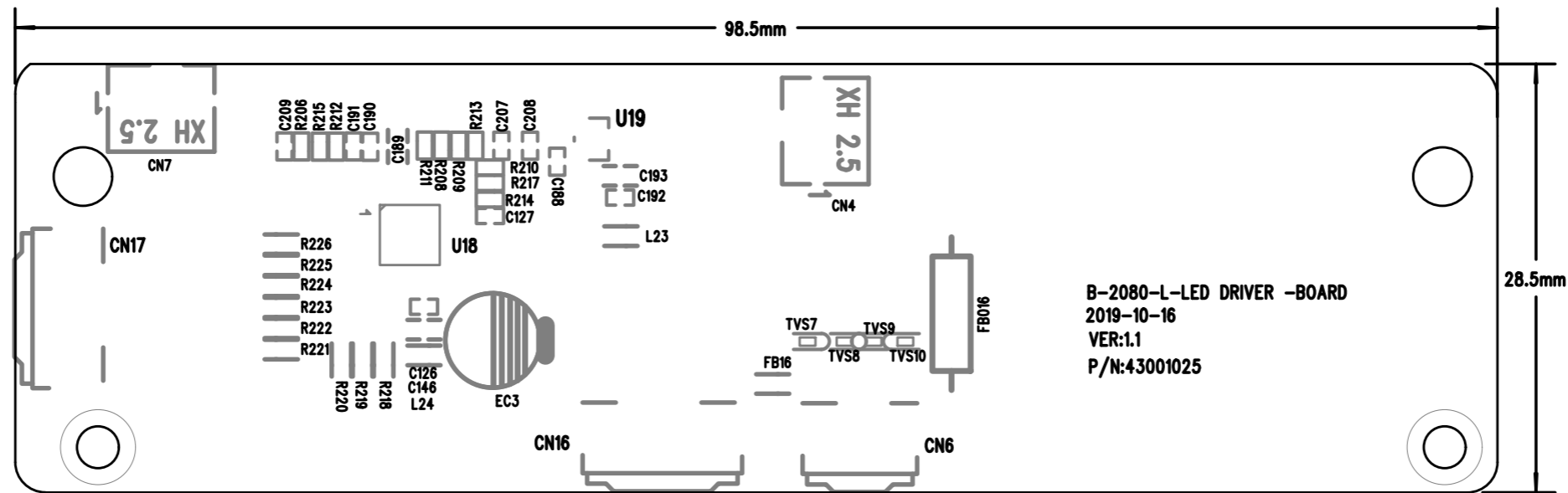
V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker	MODEL:B-2080	SCALE: FREE	
TITLE: Key PCB Layout	REV: V1.1	SHEET: 1/1	
Part NO:XXXXX	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

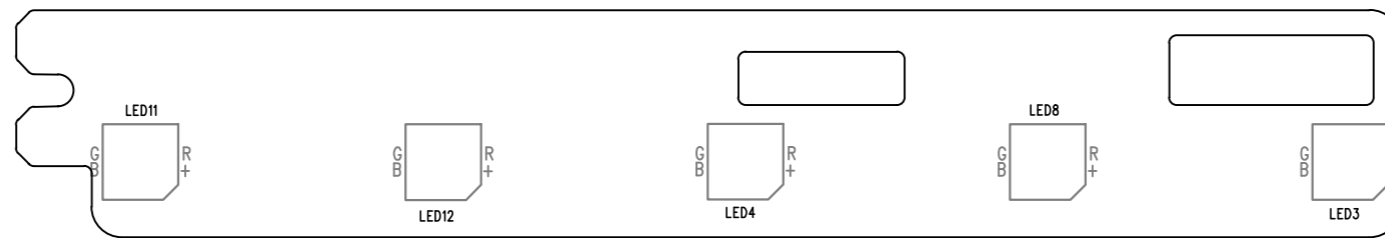
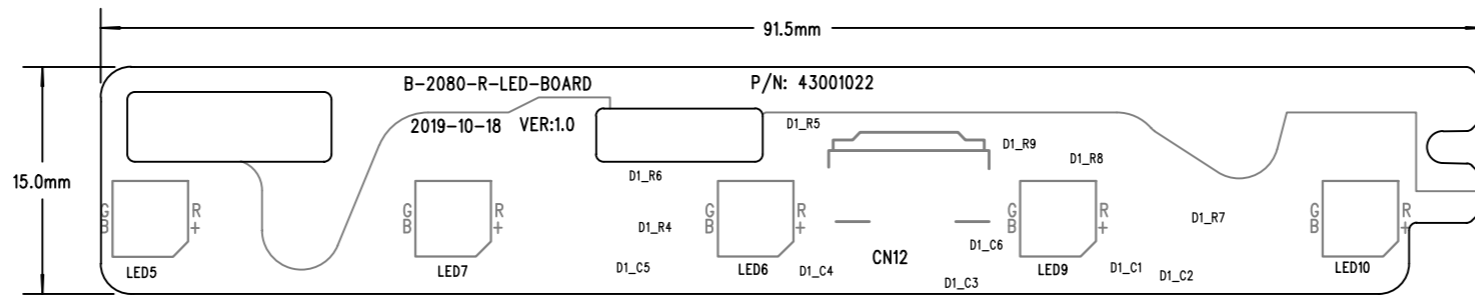
Gaming Speaker	MODEL:B-2080	SCALE: FREE	
TITLE: L_JACK PCB Layout	REV: V1.1	SHEET: 1/1	
Part NO:XXXXX	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



B-2080-L-LED DRIVER -BOARD
 2019-10-16
 VER:1.1
 P/N:43001025

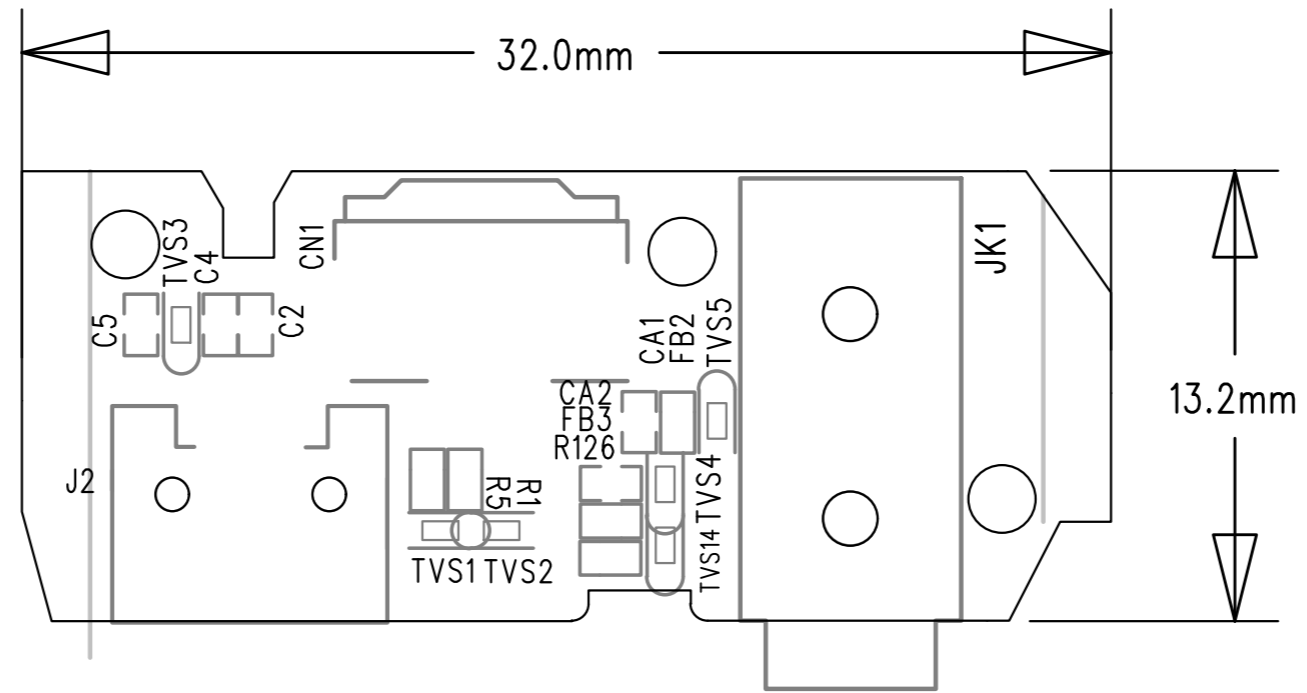
V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker	MODEL:B-2080	SCALE: FREE	
TITLE: LED Drive PCB Layout	REV: V1.1	SHEET: 1/1	
Part NO:XXXXX	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



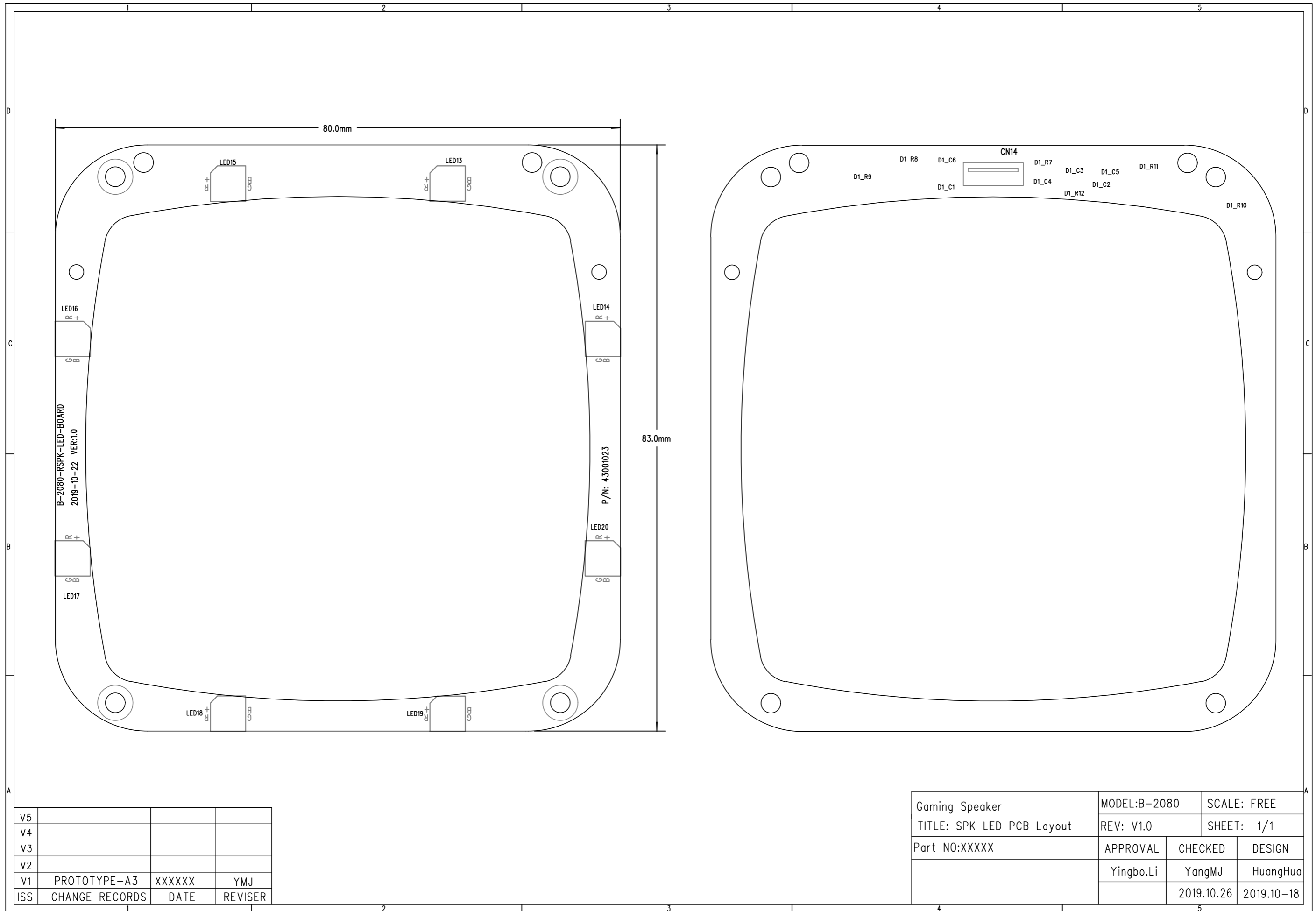
V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker	MODEL:B-2080	SCALE: FREE	
TITLE: LONG LED PCB Layout	REV: V1.0	SHEET: 1/1	
Part NO:XXXXX	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



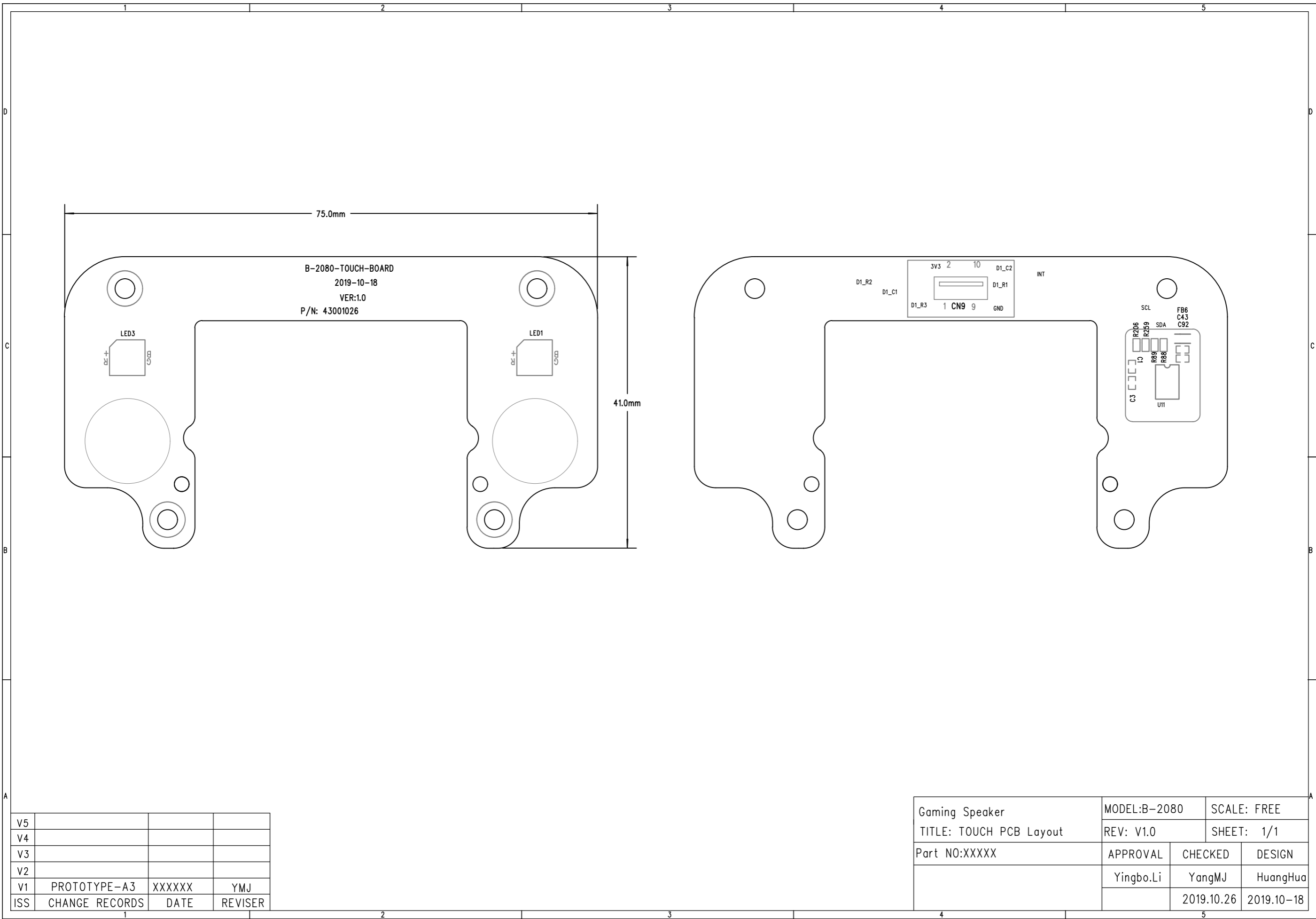
V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker	MODEL:B-2080	SCALE: FREE	
TITLE: R_JACK PCB Layout	REV: V1.0	SHEET: 1/1	
Part NO:XXXXX	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

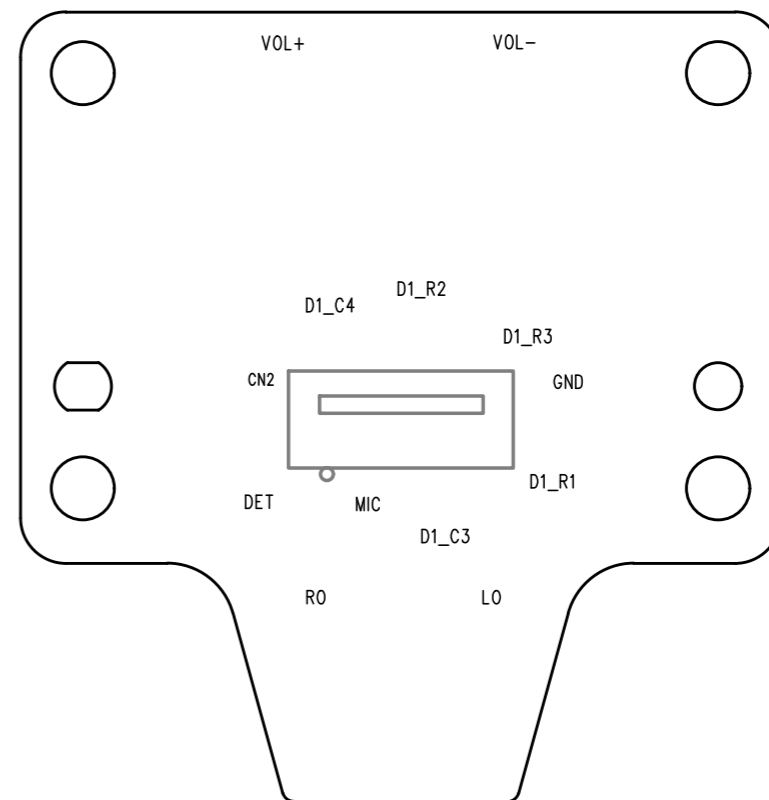
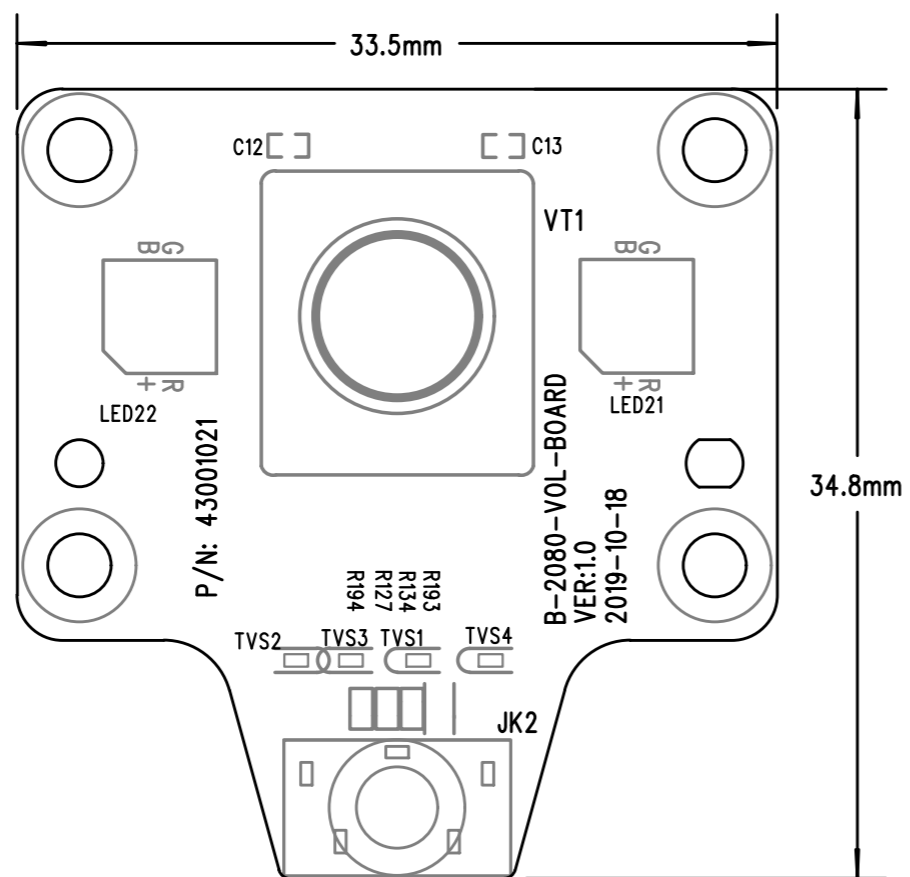
Gaming Speaker	MODEL:B-2080	SCALE: FREE	
TITLE: SPK LED PCB Layout	REV: V1.0	SHEET: 1/1	
Part NO:XXXXX	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



B-2080-TOUCH-BOARD
 2019-10-18
 VER:1.0
 P/N: 43001026

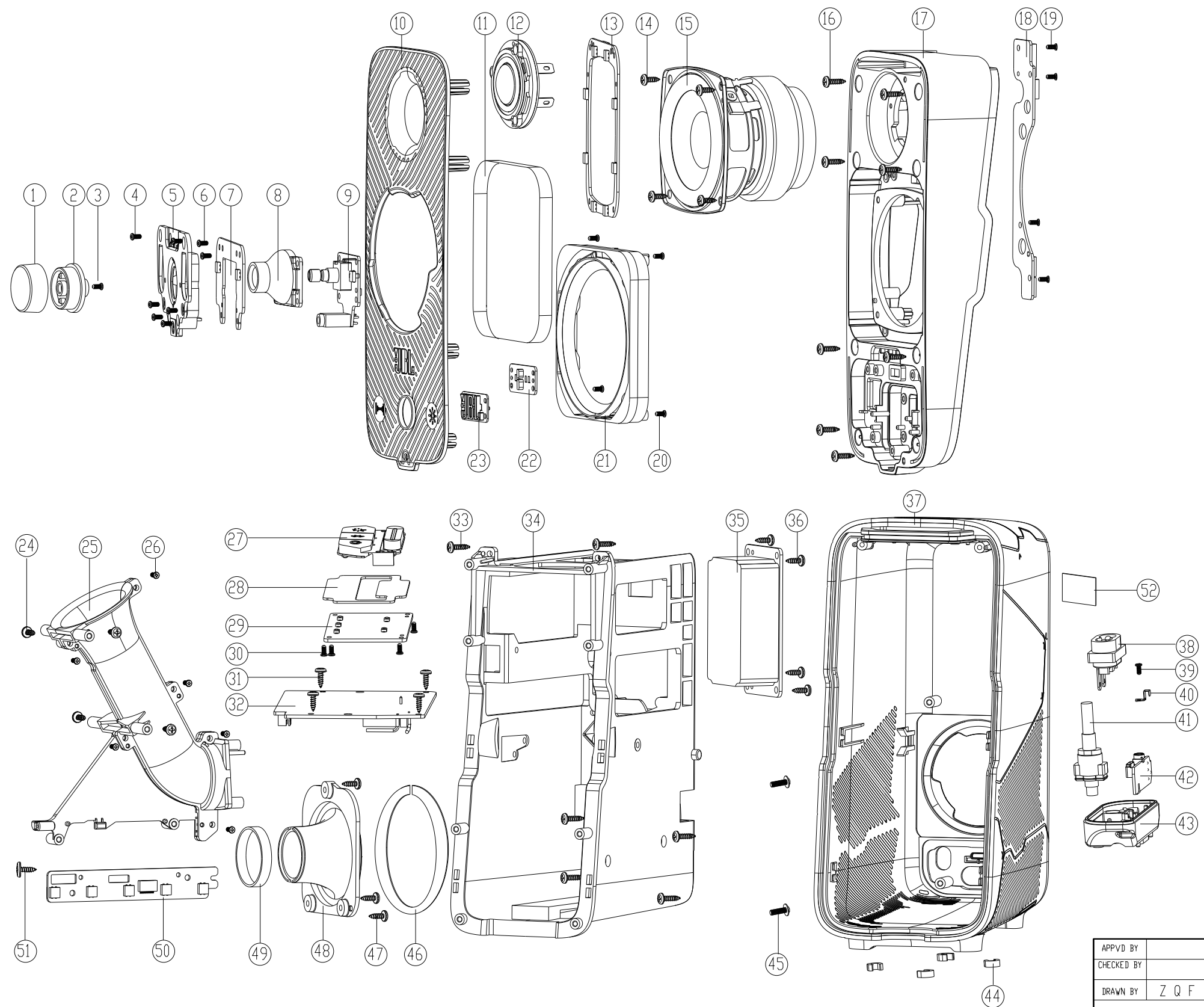
V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker	MODEL:B-2080	SCALE: FREE	
TITLE: TOUCH PCB Layout	REV: V1.0	SHEET: 1/1	
Part NO:XXXXX	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



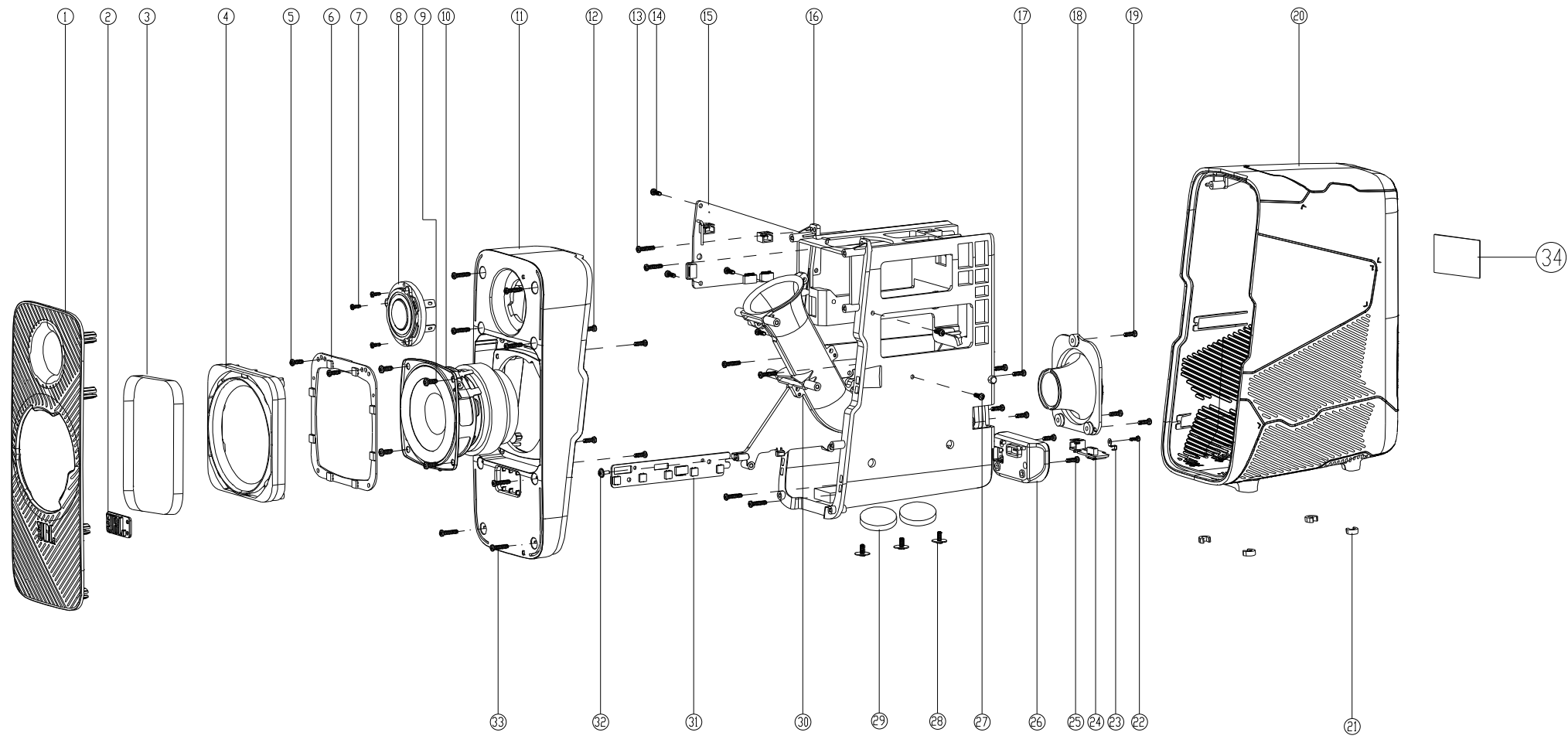
V5			
V4			
V3			
V2			
V1	PROTOTYPE-A3	XXXXXX	YMJ
ISS	CHANGE RECORDS	DATE	REVISER

Gaming Speaker TITLE: VR PCB Layout Part NO:XXXXX	MODEL:B-2080	SCALE: FREE	
	REV: V1.0	SHEET: 1/1	
	APPROVAL	CHECKED	DESIGN
	Yingbo.Li	YangMJ	HuangHua
		2019.10.26	2019.10-18



NUM	NAME	PART NUMBER	QTY
52	JBL-PC片	45500567	1
51	SCREW PW2*6	45300143	1
50	RGB PANEL	31602141	1
49	EVA	45701214	1
48	SOUND PIPE COVER	31103641	1
47	SCREW CT2, 6*8	45300291	3
46	EVA	45701215	1
45	SCREW PA2*8	45300066	2
44	SILICONE FEET	45901390	4
43	SEALED COVER	31103638	1
42	JACK PANEL	31602132	1
41	SPEAKER CABLE	42001077	1
40	PCB PANEL BRACKET	45200835	1
39	SCREW BR2*4, 5	45300201	1
38	AC SOCKET	41600341	1
37	REAR CABINET	31301060	1
36	SCREW CT2, 6*8	45300291	4
35	SWITCHING POWER PANEL	42200309	1
34	MAIN BRACKET	31103637	1
33	SCREW BA2, 6*12	45300642	6
32	MAIN PANEL	31602130	1
31	SCREW CT2, 6*8	45300291	4
30	SCREW PW2*6	45300143	4
29	KEY PANEL	31602137	1
28	EVA	45701150	1
27	TOP BUTTON	31300935	1
26	SCREW CT2, 6*8	45300291	6
25	SOUND PIPE	31200939	1
24	SCREW CT2, 6*8	45300291	4
23	LOGO	31500054	1
22	LOGO B	31103625	1
21	DRIVER FRAME	31103629	1
20	SCREW BA2, 6*10	45300205	4
19	SCREW CT2, 6*8	45300291	4
18	PINBOARD	31602280	1
17	FRONT HOUSIG	31103627	1
16	SCREW BA2, 6*10	45300205	8
15	DRIVER	81200695	1
14	SCREW PWA 3*10mm	45300160	4
13	LED PANEL	31602142	1
12	TWITTER	81200682	1
11	EVA	45701151	1
10	FRONT PANEL	31103623	1
9	VR BOARD	31602139	1
8	SWITCH BRACKET	31103631	1
7	TOUCH PANEL	31602136	1
6	SCREW CT2, 6*8	45300291	2
5	TOUCH BRACKET	31103630	1
4	SCREW CT2, 6*8	45300291	4
3	SCREW BR2*4, 5	45300201	1
2	KNOB BRACKET	31103632	1
1	VOLUME KNOB	31103787	1

APPVD BY		DWG NAME	MAIN UNIT EXPLODE		
CHECKED BY		MODEL NO.	B-2080	PROJECTION	VER. V0.1
DRAWN BY	Z Q F	2019-12-10	PART NO.		METRIC MM
		MATERIAL		SCALE	1:1
		FINISHING		SIZE	A3



NUM	NAME	PART NUMBER	QTY
34	JBL-PC片	45500567	1
33	SCREW BA2.6*10	45300205	8
32	SCREW PWB2*6	45300143	1
31	RGB PANEL	31602141	1
30	SOUND PIPE	31200939	1
29	BALANCING WEIGHT	45200908	2
28	SCREW PWA2.6*6	45300147	3
27	SCREW CT2.6*8	45300291	4
26	MINOR SEALED COVER	31103639	1
25	SCREW PB 2*8	45300061	2
24	JACK PANEL	31602131	1
23	PCB PANEL BRACKET	45200835	1
22	SCREW BB2*4.5	45300201	1
21	SILICONE FEET	45901390	4
20	SED REAR CABINET	31301061	1
19	SCREW CT2.6*8	45300291	3
18	SOUND PIPE COVER	31103641	1
17	SCREW BB2*4.5	45300291	4
16	MAIN BRACKET	31103637	1
15	CONTROLLED PANEL	31602144	1
14	SCREW CT2.6*8	45300291	3
13	SCREW BA2.6*12	45300642	6
12	SCREW CT2.6*8	45300291	4
11	MINOR FRONT PANEL	31103628	1
10	DRIVER	81200695	1
9	SCREW PWA 3*10mm	45300160	4
8	TWITTER	81200682	1
7	SCREW PB2*8	45300061	3
6	LED PANEL	31602142	1
5	SCREW CT2.6*8	45300291	2
4	DRIVER FRAME	31103629	1
3	EVA	45701151	1
2	LOGO	31500054	1
1	MINOR FRONT PANEL	31103624	1

APPVD BY		DWG NAME	SECOND UNIT EXPLODE		
CHECKED BY		MODEL NO.	B-2080	PROJECTION	VER. V0.1
DRAWN BY	Z Q F	2019-12-10	PART NO.		METRIC MM
			MATERIAL		SCALE 1:1
			FINISHING		SIZE A3

JBL QUANTUM DUO SPARE PARTS LIST V1.0

Which used	Pos. No.	P/N	Description	UoM	Usage
MASTER	M1	31103787	VOLUME KNOB QUANTUM DUO MASTER	EA	1
	M2	31103632	KNOB BRACKET QUANTUM DUO MASTER	EA	1
	M5	31103630	TOUCH PANEL BRACKET QUANTUM DUO MASTER	EA	1
	M7	31602136	TOUCH PANEL BOARD QUANTUM DUO MASTER	EA	1
	M8	31103631	SWITCH BRACKET QUANTUM DUO MASTER	EA	1
	M9	31602139	VR BOARD QUANTUM DUO MASTER	EA	1
	M10	31103623	FRONT PANEL QUANTUM DUO MASTER	EA	1
	M17	31103627	FRONT HOUSING QUANTUM DUO MASTER	EA	1
	M18	31602280	ADAPTER BOARD QUANTUM DUO MASTER	EA	1
	M22	31103625	LOGO B QUANTUM DUO MASTER	EA	1
	M27	31300935	TOP BUTTON QUANTUM DUO MASTER	EA	1
	M29	31602137	KEY BOARD QUANTUM DUO MASTER	EA	1
	M32	31602130	MAIN BOARD QUANTUM DUO MASTER	EA	1
	M35	42200309	SWITCHING POWER BOARD QUANTUM DUO MASTER	EA	1
	M37	31103633	REAR CABINET QUANTUM DUO MASTER	EA	1
	M38	41600341	AC SOCKET QUANTUM DUO MASTER	EA	1
	M41	42001077	SPEAKER CABLE 2M QUANTUM DUO MASTER	EA	1
	M42	31602132	JACK BOARD QUANTUM DUO MASTER	EA	1
	M43	31103638	SEALING COVER QUANTUM DUO MASTER	EA	1
SLAVE	S1	31103624	FRONT PANEL QUANTUM DUO SLAVE	EA	1
	S11	31103628	FRONT HOUSING QUANTUM DUO SLAVE	EA	1
	S20	31103634	REAR CABINET QUANTUM DUO SLAVE	EA	1
	S26	31103639	SEALING COVER QUANTUM DUO SLAVE	EA	1
	S24	31602131	JACK BOARD QUANTUM DUO SLAVE	EA	1
	S15	31602144	CONTROL BOARD QUANTUM DUO2 SLAVE	EA	1
MASTER & SLAVE	M12/S8	81200682	TWEETER QUANTUM DUO	EA	1
	M13/S6	31602142	LED BOARD QUANTUM DUO	EA	1
	M15/S10	81200695	WOOFER QUANTUM DUO	EA	1
	M21/S4	31103629	DRIVER FRAME QUANTUM DUO	EA	1
	M23/S2	31500054	LOGO QUANTUM DUO	EA	1
	M25/S30	31200939	PORT TUBE QUANTUM DUO	EA	1
	M34/S16	31103637	MAIN BRACKET QUANTUM DUO	EA	1
	M44/S21	45901390	RUBBER FOOT QUANTUM DUO	EA	4
	M48/S18	31103641	PORT TUBE COVER QUANTUM DUO	EA	1
M50/S31	31602141	RGB BOARD QUANTUM DUO	EA	1	
		42001082	2P CABLE 200MM 2P VHR QUANTUM DUO	EA	1
		42001160	2P CABLE L130MM VHR QUANTUM DUO	EA	1
		42001098	FFC L150MM 2P 18AWG QUANTUM DUO1	EA	1
		42001195	FFC L180MM 4P 28AWG QUANTUM DUO1	EA	1
		42001112	FFC L100MM WHT 28P NO"1" QUANTUM DUO1	EA	1
		42001111	FFC L57MM WHT 12P NO"2" QUANTUM DUO1	EA	1
		42001090	FFC L75MM WHT 10P NO"3" QUANTUM DUO1	EA	1
		42001159	FFC L68MM WHT 14P NO"4" QUANTUM DUO1	EA	1
		42001086	FFC L150MM NO"5" QUANTUM DUO	EA	1
		42001089	FFC L80MM WHT 6P NO"6" QUANTUM DUO1	EA	1
		42001085	FFC L100MM 12P NO"7" QUANTUM DUO2	EA	1
		42001087	FFC L170MM WHT 8P NO"8" QUANTUM DUO1	EA	1
		42001088	FFC L200MM 6P NO"9" QUANTUM DUO2	EA	1
		42900805	AUX CABLE 3.5MM 1.5M 3P QUANTUM DUO	EA	1
		42900779	POWER CORD L1.5M EU PLUG QUANTUM DUO	EA	1
		42900794	POWER CORD L1.5M UK PLUG QUANTUM DUO	EA	1
		42900798	POWER CORD L1.5M CN PLUG QUANTUM DUO	EA	1
		42900796	POWER CORD L1.5M KR PLUG QUANTUM DUO	EA	1

		42900795	POWER CORD L1.5M TH PLUG QUANTUM DUO	EA	1
		42900800	POWER CORD L1.5M AU PLUG QUANTUM DUO	EA	1
		42900801	POWER CORD L1.5M AM PLUG QUANTUM DUO	EA	1
		47102347	GIFT BOX EU QUANTUM DUO	EA	1
		47102462	GIFT BOX CN QUANTUM DUO	EA	1
		47102461	GIFT BOX AS QUANTUM DUO	EA	1
		47102471	GIFT BOX AM QUANTUM DUO	EA	1

Revision List

Version 1.0

* Initial release. 2019-12