



# Service Manual

## IRX112BT

Powered 12" Portable Speaker with Bluetooth





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## HIGHLIGHTS ■

### Big Sound, Small Box

Class-leading output and frequency response in a compact design

### Bluetooth 5.0 Audio Streaming

Easily stream audio with greater wireless range, speed and accuracy using Bluetooth 5.0

### Feedback Suppression

dbx® Automatic Feedback Suppression for trouble-free operation

### EQ Presets

Four selectable EQ presets to easily tune the speaker for a range of applications

### Music Ducking

Soundcraft®-designed ducking automatically attenuates music when speech is detected

The JBL IRX112BT portable powered speaker delivers class-leading output and clarity, total ease of use and an unrivaled feature set at our most affordable price point. Sound amazing with a custom, pro-grade PA engineered to outperform larger competing systems. EQ presets let you dial in optimal tone in an instant—no experience necessary—and built-in dbx feedback suppression lets you crank it up with confidence. Play music, soundtracks and backing tracks with Bluetooth 5.0 audio streaming, and ensure your voice carries over background music with one-touch ducking. Two mic/line combo inputs and an XLR pass-thru output round out this lightweight, durable PA.

Performers, content producers, fitness instructors and presenters on the go can count on the versatile, full-featured IRX112BT to serve up stunning, pro-quality sound, every time.

## KEY MESSAGES ■

### CLASS-LEADING OUTPUT AND CLARITY

The IRX112BT draws from seven decades of legendary JBL engineering to deliver the highest measured output and the widest frequency response in its class, with SPL, wattage and performance ratings equivalent to larger competitive loudspeakers.

### BLUETOOTH AND AUDIO I/O

Bluetooth 5.0 audio streaming lets you play backing tracks, video soundtracks or recorded music between sets with greater wireless range, speed and accuracy—even link two speakers to create a true stereo image. Two XLR/TRS combo inputs and an XLR pass-thru output to connect additional speakers round out I/O options.

### RUGGED AND ROAD-TESTED

Like every JBL speaker, the IRX112BT undergoes 100 hours of stress testing to ensure it'll perform flawlessly in real-world conditions.

## IN THE BOX ■

IRX112BT  
IEC Power Cable  
Quick Start Guide

### TAKE THE GUESSWORK OUT OF GREAT SOUND

Sound your best in seconds with four EQ presets modeled after a range of common performance scenarios. Built-in dbx feedback suppression protects speakers—and your ears—by automatically stopping feedback before it starts. One-touch, Soundcraft-designed ducking automatically lowers music volume when speech input is detected, ensuring every word is heard loud and clear.

### POWERFUL GETS MORE PORTABLE

The IRX112BT is engineered to deliver big-system sound in a compact footprint. Its ultra-lightweight, durable polypropylene cabinet will have you loading in and out in minutes, and ergonomic handles make transport a breeze. In short, you'll enjoy big, crystal-clear sound without the hassle of hauling a huge system.

## APPLICATIONS ■

### MUSICIANS/PERFORMERS

Musicians and performers looking for a great-sounding, easy-to-use sound reinforcement speaker in a portable, affordable package.

### PRESENTERS/INSTRUCTORS

Mobile presenters and fitness instructors looking for an easy-to-use, compact PA solution with Bluetooth audio and built-in music ducking.

### HOSPITALITY/GOVERNMENT INSTALLATIONS

Hospitality/government installations requiring professional sound quality with ease of use and minimal setup time.

## FEATURES ■

- Four EQ presets take the guesswork out of optimizing sound
- dbx AFS stops feedback before it starts
- Bluetooth integration allows stereo streaming of music, soundtracks and backing tracks
- One-touch ducking automatically lowers music volume when speech input is detected
- Wide frequency response: 53 Hz – 20 kHz
- Lightweight design
- 2 XLR/TRS combo input jacks and 1 XLR output offer a range of connectivity choices
- Input accepts mic or line source to enhance versatility
- Ergonomic handles make transport quick and easy
- Durable honeycomb steel grille is road-tested for reliability
- Built-in pole mount expands system setup options

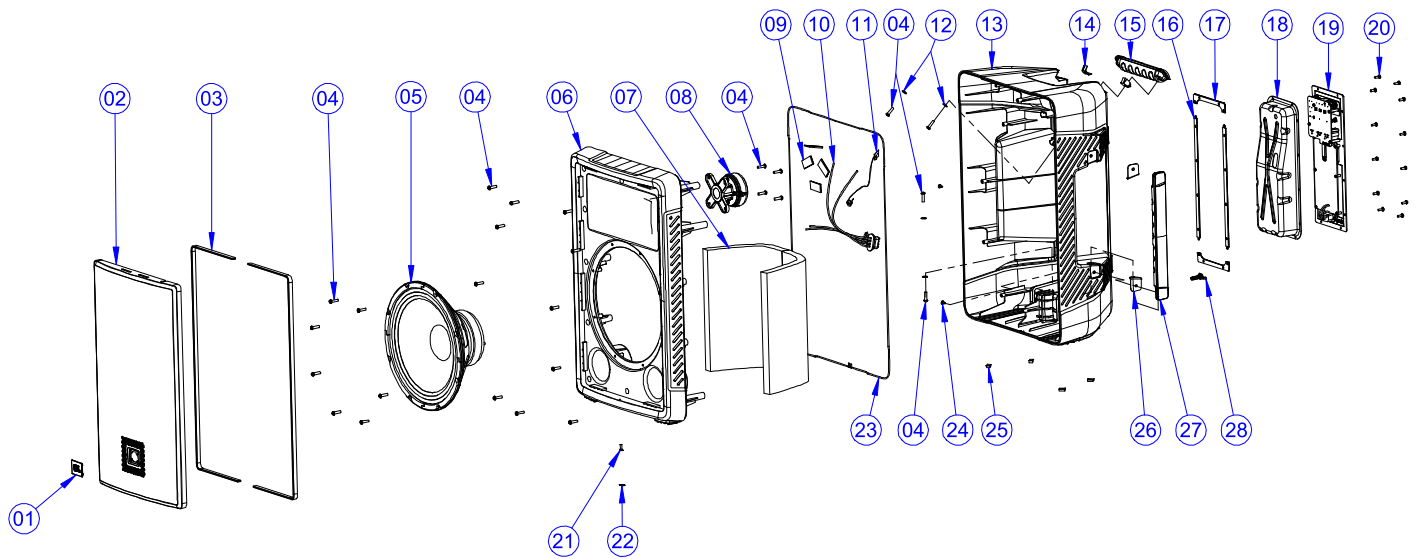
## TECHNICAL SPECIFICATIONS ■

<b>SYSTEM TYPE:</b>	Powered 12" two-way
<b>CABINET:</b>	Polypropylene with full grille
<b>MAX SPL:</b>	129 dB peak
<b>FREQUENCY RESPONSE (±3 dB):</b>	53 Hz – 20 kHz
<b>POWER RATING:</b>	1300 watts peak
<b>INPUT IMPEDANCE:</b>	10k ohm balanced
<b>COVERAGE PATTERN:</b>	90° (horizontal) x 60° (vertical) nominal
<b>BLUETOOTH:</b>	Audio streaming, Bluetooth version 5.0
<b>DSP:</b>	4 presets, feedback suppression, ducking
<b>I/O:</b>	2 XLR/TRS combo mic/line inputs, 1 XLR pass-thru output
<b>MOUNTING:</b>	35 mm pole socket
<b>NET WEIGHT:</b>	27.3 lb (12.4 kg)
<b>DIMENSIONS (D x W x H):</b>	11.77 x 15.75 x 24.35 in (299 x 400 x 618.4 mm)

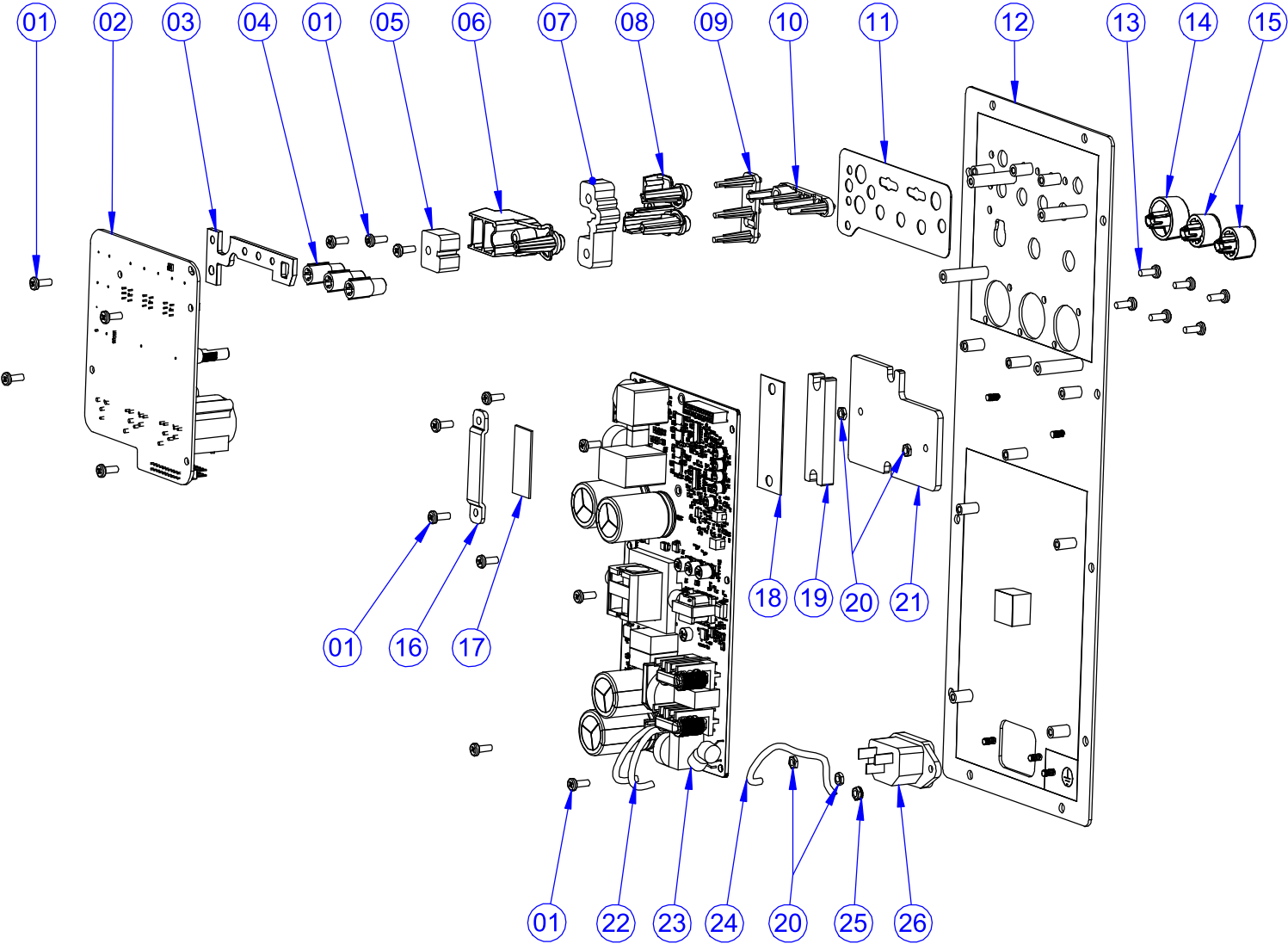
## ORDER SPECIFICATIONS ■

<b>SHIPPING CARTON (L x W x H):</b>	12.64 x 16.61 x 25.59 in (321 x 422 x 650 mm)
<b>SHIPPING WEIGHT:</b>	32 lb (14.51 kg)
<b>UPC CODE:</b>	691991033544

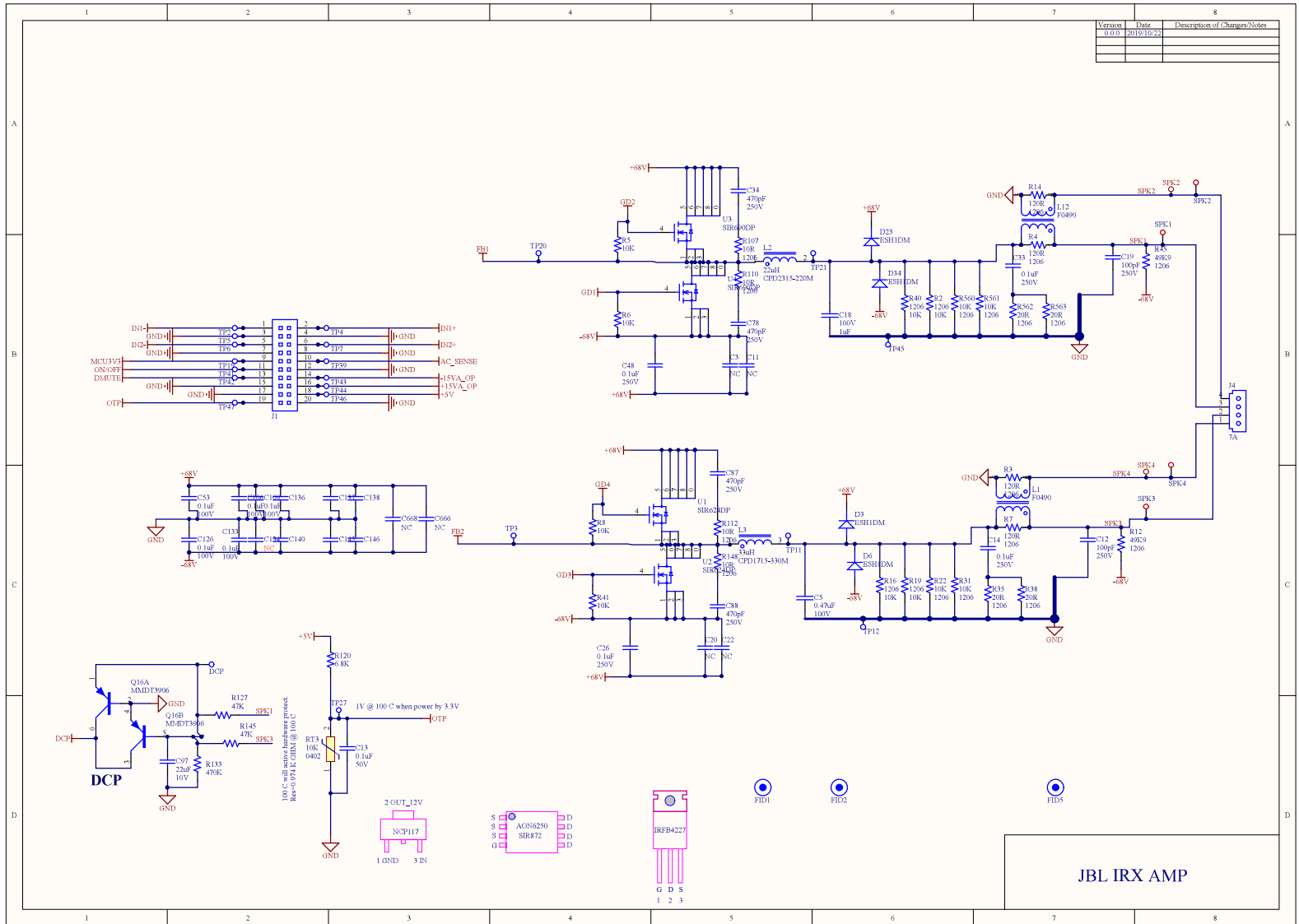
IRX112BT\_MAIN ASSY\_EXPLODED VIEW



IRX112BT\_REAR PLATE ASSY\_EXPLODED VIEW



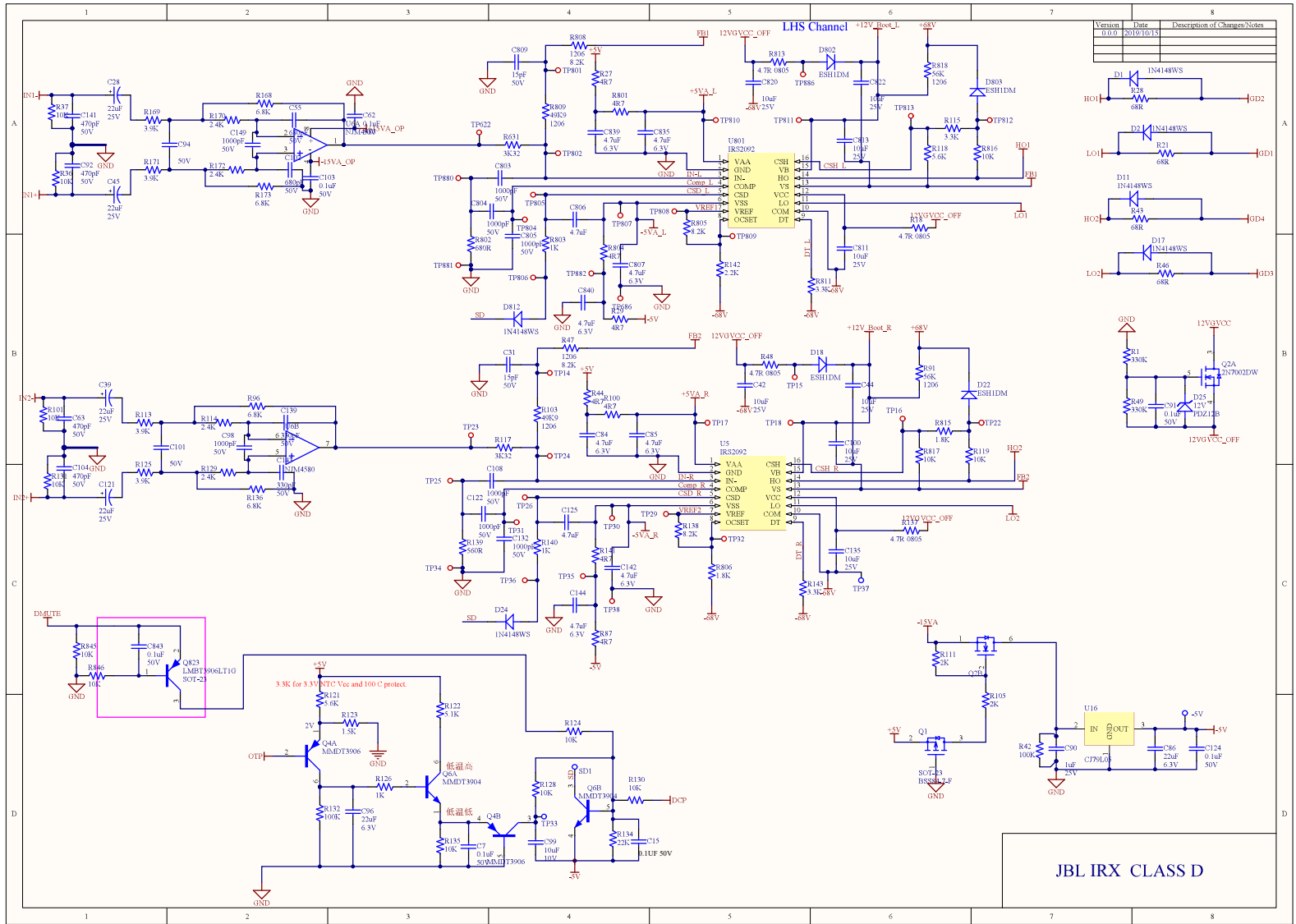




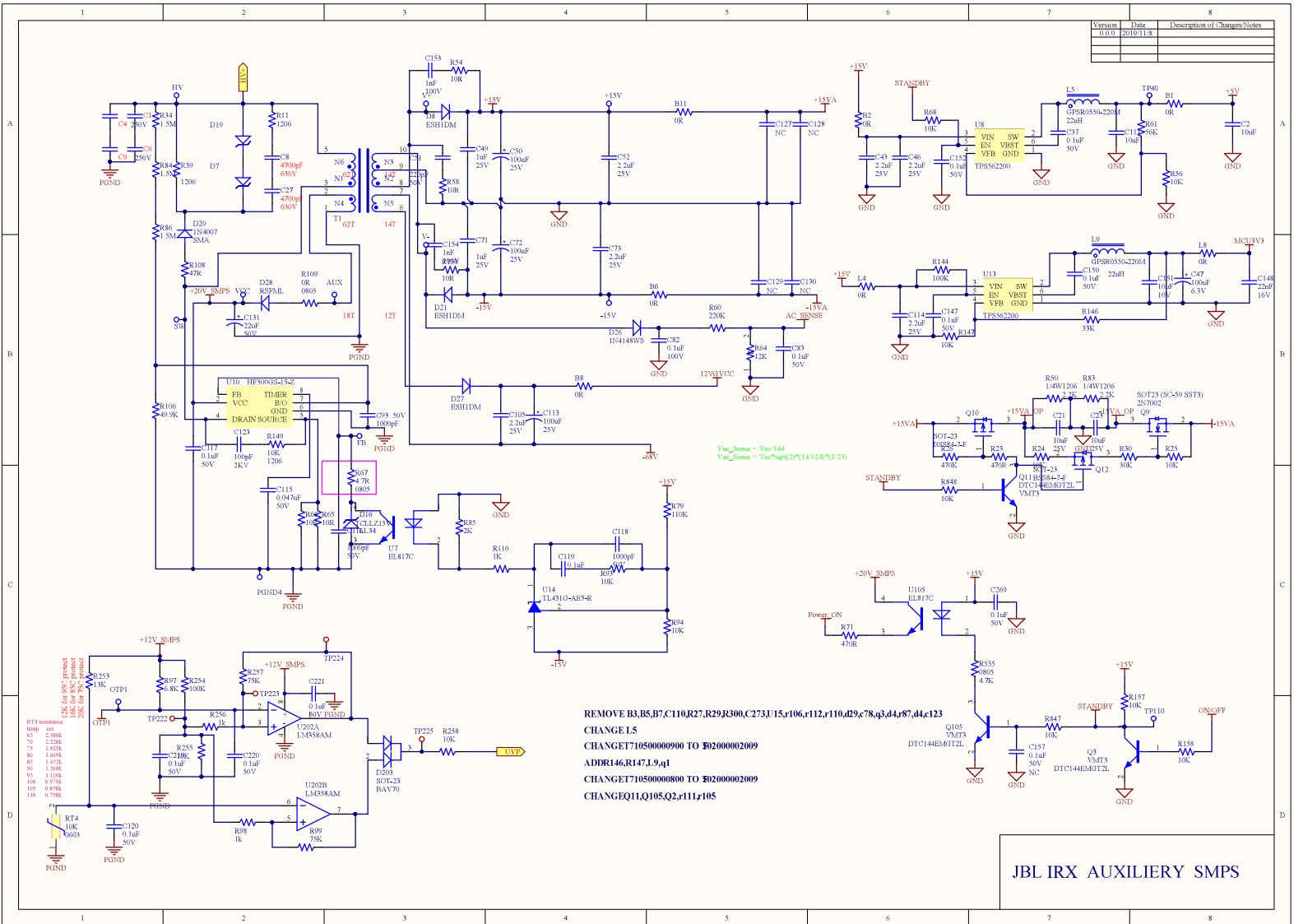
Version	Date	Description of Changes/Notes
0.0.0	2019.10.22	

JBL IRX AMP

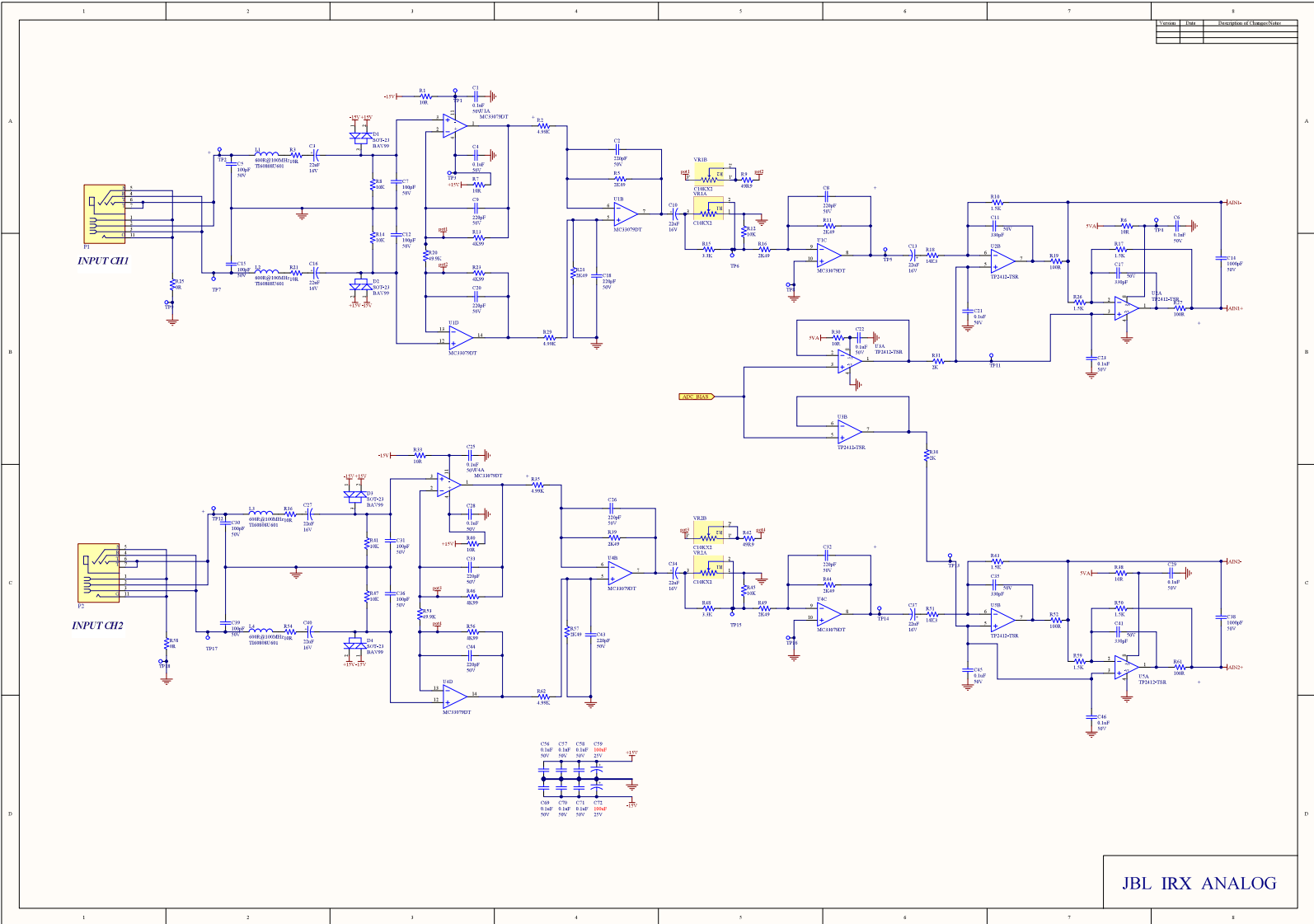




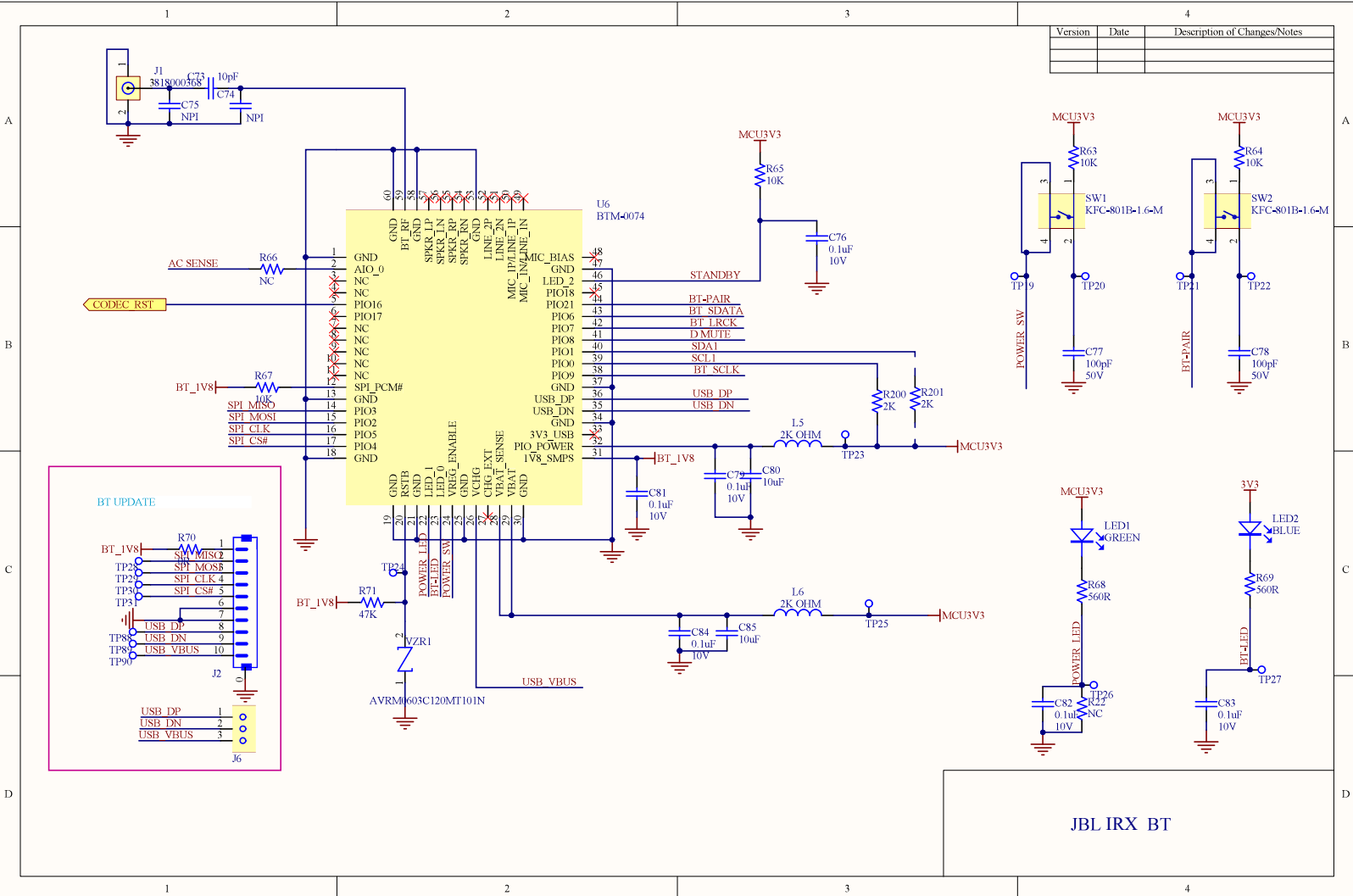
JBL IRX CLASS D

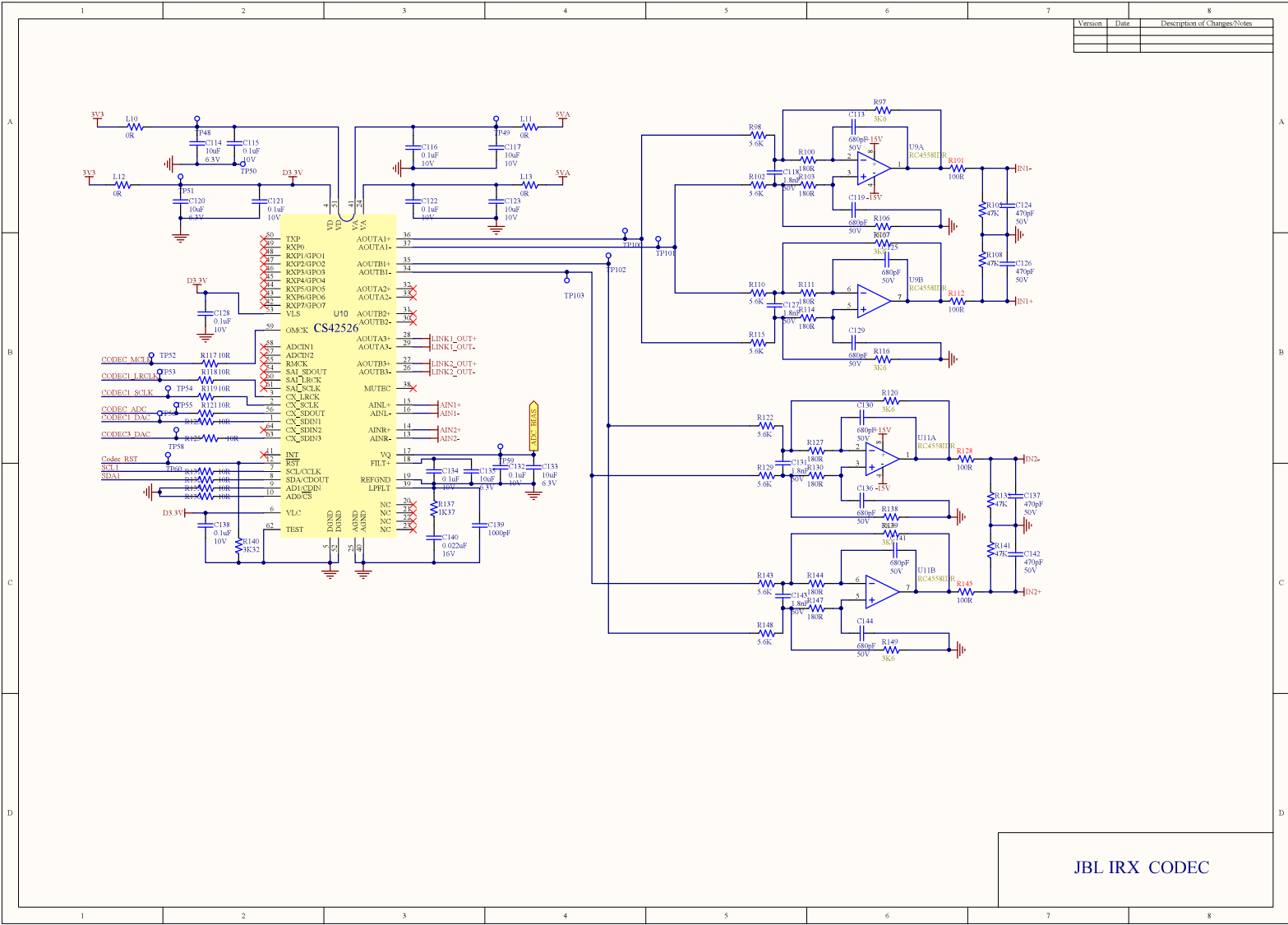


Version	Date	Description of Changes/Notes
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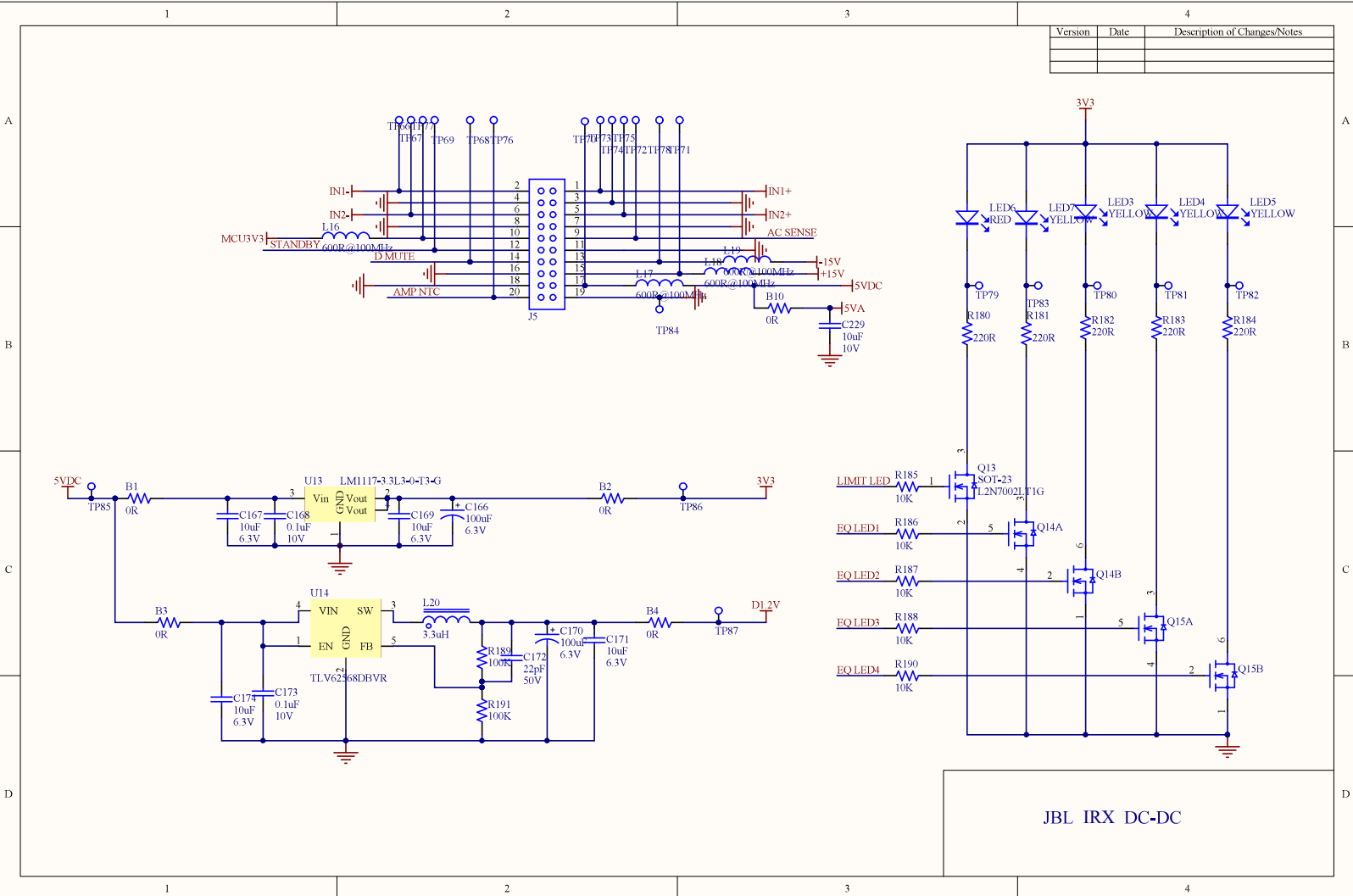


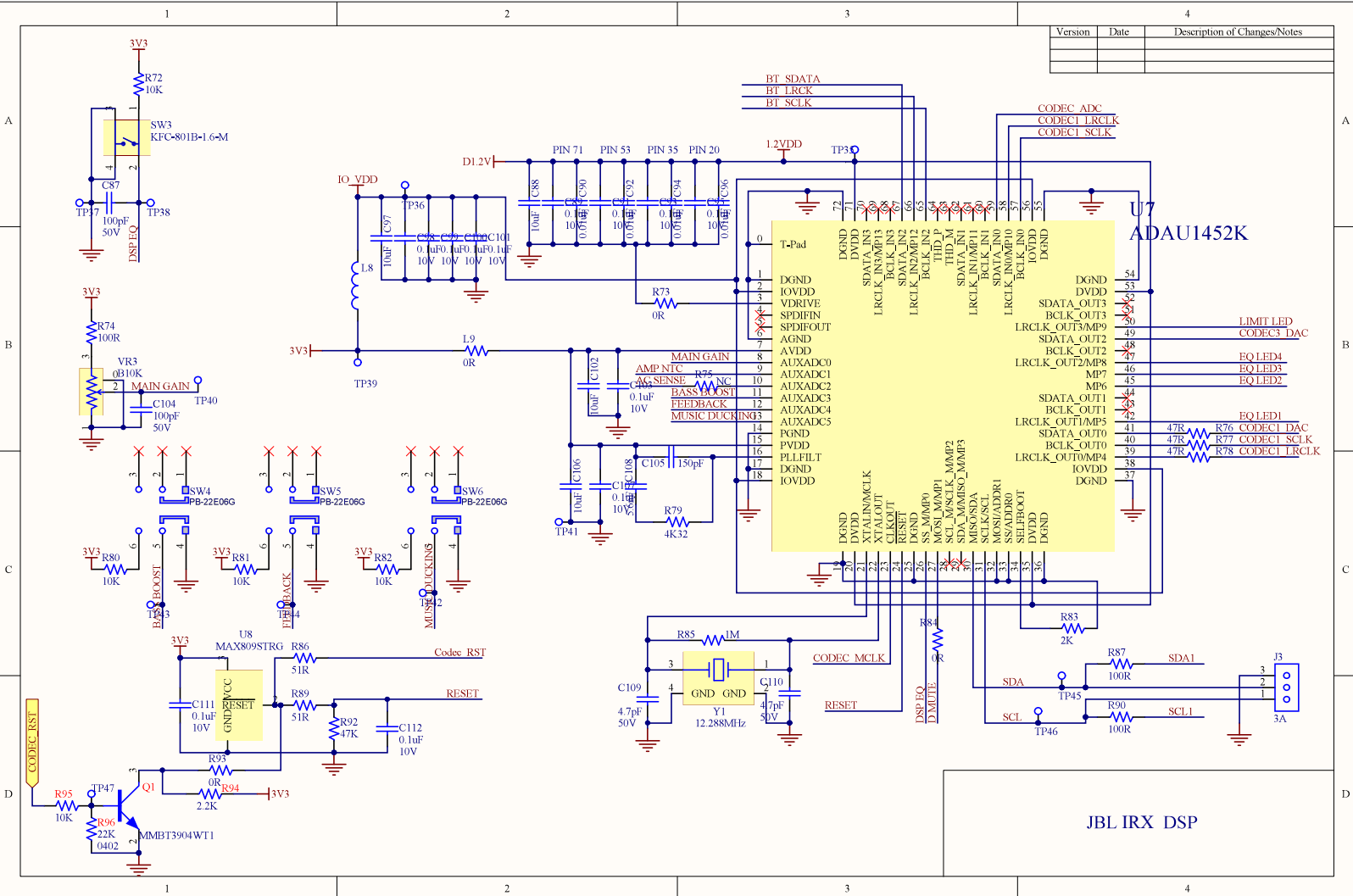
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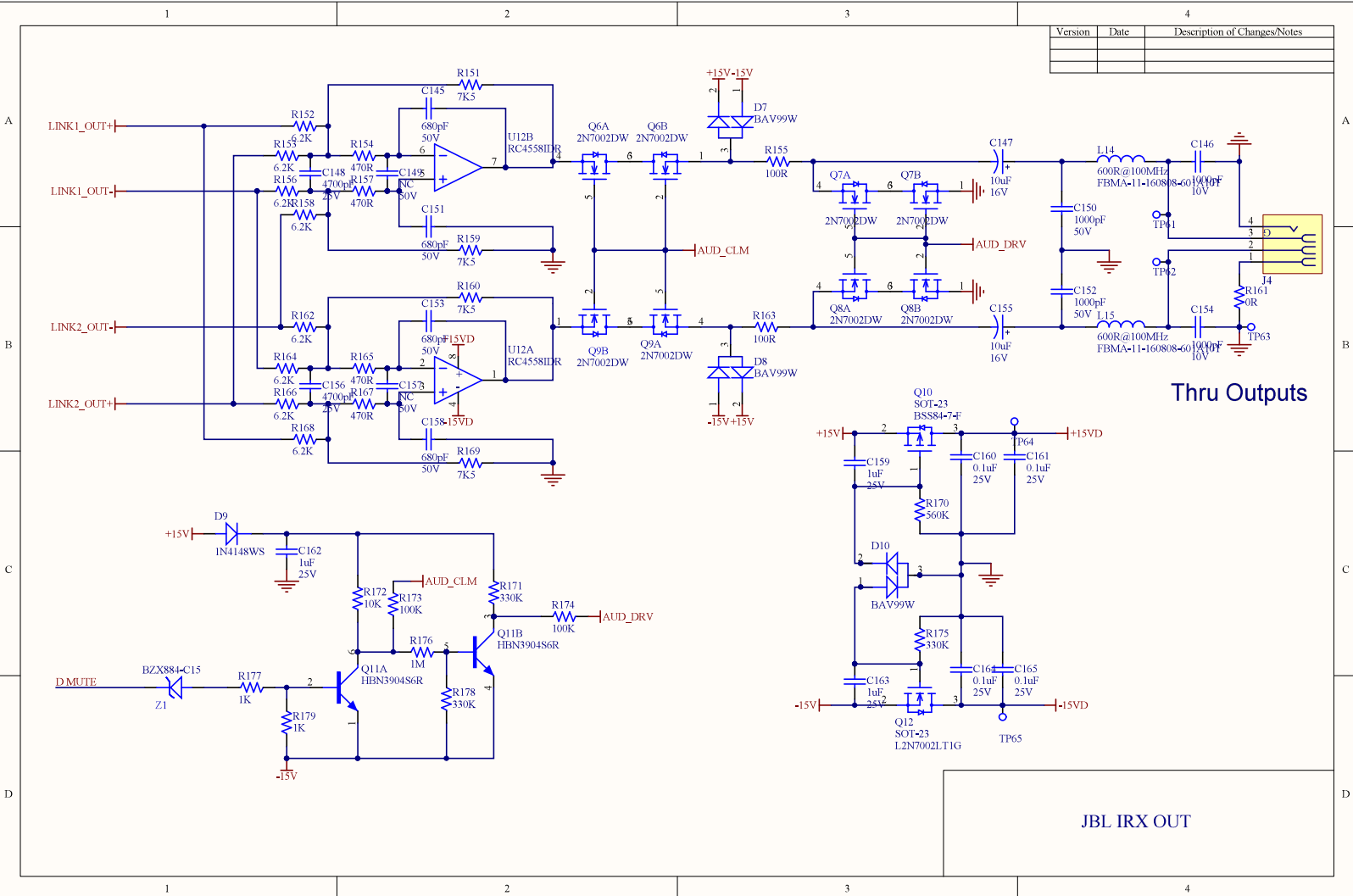
JBL IRX CODEC





Version	Date	Description of Changes/Notes

JBL IRX DSP





Bill of Materials(MAIN ASSY)			
Ref ID	Description	Qty	SKU
1	LOGO ABS PA-75 94HB BLACK K	1	
2	IRX112 GRILLE SPCC NATUR COLOR K	1	
3	IRX112BT GRILLE EVA 38° ADHESIVE K	2	
4	SCREW T5XL20MM 2.2P BLUE ZINC+CED K	28	
5	DRIVER ASSY FOR 12INCH WOOFER K	1	
6	IRX112 ENCLOSURE PP FORMOS 94HB BLACK K	1	
7	IRX112BT WADDING PET FR-W0025 HF-1 20KG\M3 BLACK	1	
8	25MM COMPRESSION TI FE PL FP 40 K	1	
9	IRX112BT TWEETER EVA 38° ADHESIVE K	3	
10	JRK-348A 320+300MM 4PIN 3.96MM K	1	
11	ANT ANTENN 495.4M 50 OHM 2.4 INPAQ K	1	
12	WASHER OD12XID5.3XT1.0 STEEL CED K	4	
13	IRX112 ENCLOSURE PP FORMOS 94HB BLACK K	1	
14	IRX112BT TOP HANDLE EVA 38° ADHESIVE K	2	
15	IRX112 HANDLE TOP ASSY K	1	
16	IRX108BT REAR PLATE EVA B 38° ADHESIVE K	2	
17	IRX108BT REAR PLATE EVA A 38° ADHESIVE K	2	
18	EMC SHIELDING AL1050 NATUR COLOR K	1	
19	PCB,ASY,AMPLIFIER ASSY,IRX112,NA	1	IRX112BT_NA
	PCB,ASY,AMPLIFIER ASSY,200-240V,IRX112	1	IRX112BT_CN IRX112BT_EU IRX112BT_AU
20	SCREW T4XL14MM 1.4P ZN-NI ALLOY K	12	
21	SCREW T4.0XL17 1.3P BZN+CED+HT K	1	
22	IRX108 PC SHEET ADHESIVE DS11 K	1	
23	COMPACT SANTONPRENE FOAM RUBBER	1	
24	SCREW M3XL8 1.06P ZINC+CED COA K	2	
25	IRX112BT RUBBER FEET 50° ADHESIVE K	4	
26	IRX112BT SIDE HANDLE EVA 38° ADHESIVE K	2	
27	IRX112 HANDLE SIDE ASSY K	1	
28	SCREW M6XL25MM 0.75P K	1	

Bill of Materials(REAR PLATE ASSY)			
Ref ID	Description	Qty	SKU
1	SCREW M3.0XL8 0.5P STEEL BLUE ZI K	15	
2	JBL VE SMPS& TEST ASSY K	1	
3	VE108BT LENS EVA A 38° ADHESIVE K	1	
4	BUTTON ON OFF ABS PA-75 94HB BLACK K	3	
5	VE112BT EQ BUTTON EVA 48° BLACK K	1	
6	BUTTON EQ ABS PA-75 94HB BLACK K	1	
7	VE112BT BUTTON POWER EVA 48° BLACK K	1	
8	UTTON POWER BT ABS PA-75 94HB BLACK K	1	
9	LENS B PC-110 94HB TRANS K	1	
10	LENS A PC-110 94HB TRANS K	1	
11	VE108BT EVA 38° L97XW41.5XT0.5MM K	1	
12	ENCL,PLATE REAR SECC NATUR COLOR,IRX112	1	IRX112BT_CN IRX112BT_EU IRX112BT_AU
	ENCL,PLATE REAR SECC NATUR COLOR,IRX112,NA	1	IRX112BT_NA
13	SCREW T3XL8MM 1.05P CED+HI K	6	
14	KNOB MASTER ABS PA-75 94HB BLACK K	1	
15	KNOB VOLUME ABS PA-75 94HB BLACK K	2	
16	HEATSINK B ALUMINUM NATUR COLOR K	1	
17	VE108BT THERMAL PAD SILICONE H400 K	1	
18	VE108BT INSULATOR SHEET H160-ISP05 GREY K	1	
19	VE112 HEATSINK-D AL6063 NATUR COLOR K	1	
20	NUT M3.0X0.5PXOD5.5XL2.3 NICKEL PLATE K	4	
21	VE112BT HEATSINK AL 1050 NATUR COLOR K	1	
22	2P JUMPER CABLE UL1672 #16 K	1	
23	JBL VE112 AMPLIFIER TEST ASSY K	1	
24	JRK-346A 60MM 1PIN K	1	
25	NUT M3XOD6.3XL2.4 COLOR K	1	
26	PLUG 250VA 10A NA LECl K	1	