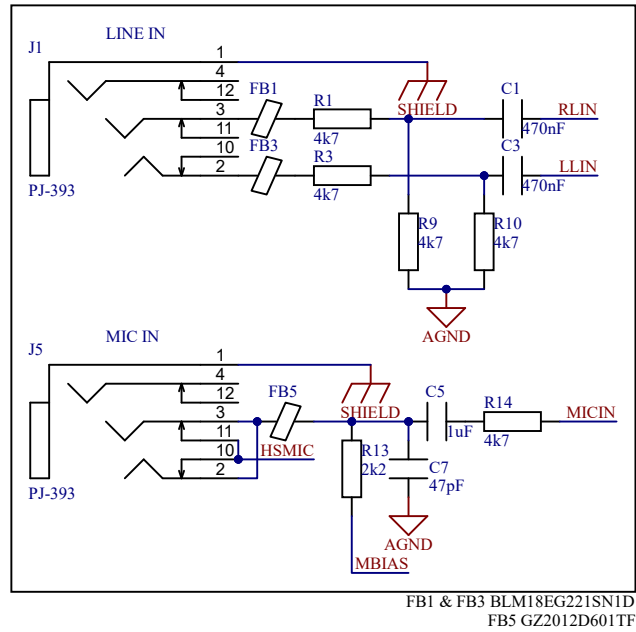
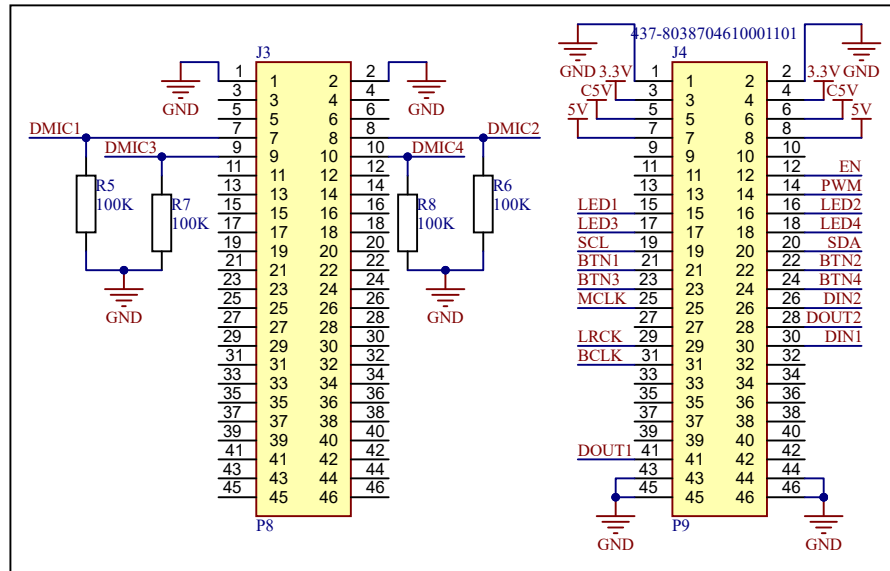


INPUT

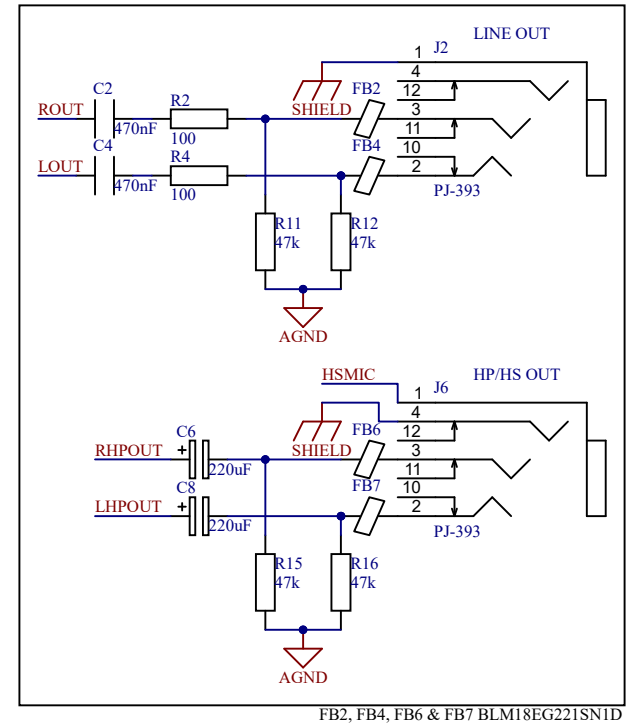


FB1 & FB3 BLM18EG221SN1D
FB5 GZ2012D601TF

HEADERS

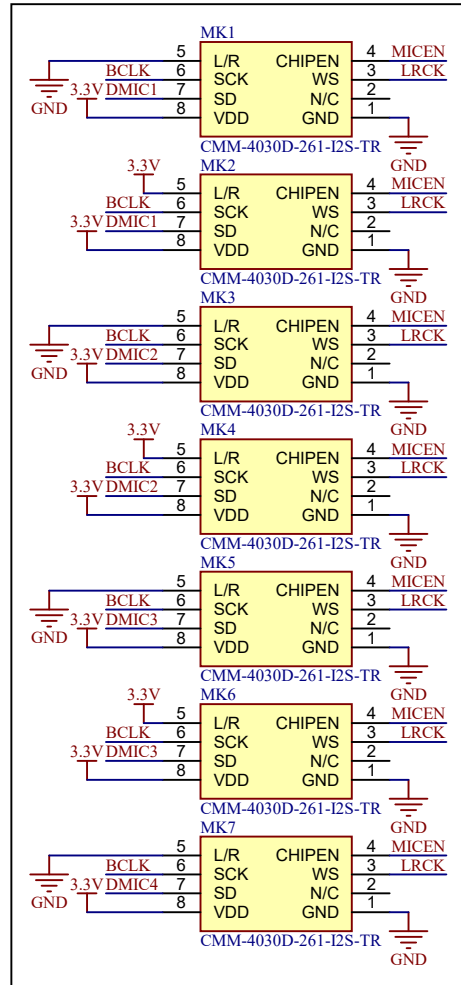


OUTPUT

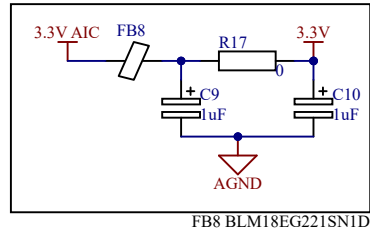


FB2, FB4, FB6 & FB7 BLM18EG221SN1D

MEMS

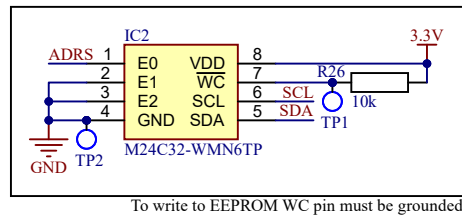


POWER FILTER



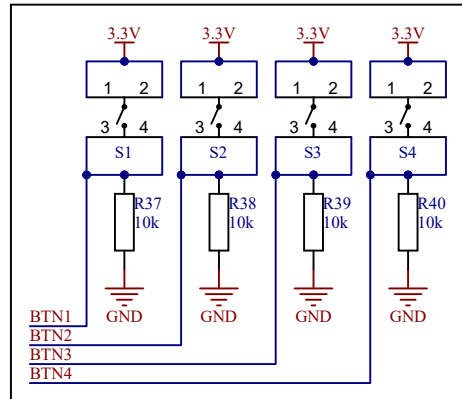
FB8 BLM18EG221SN1D

EEPROM

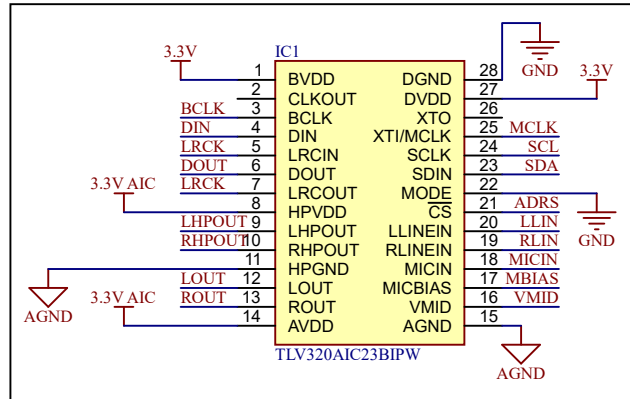


To write to EEPROM WC pin must be grounded

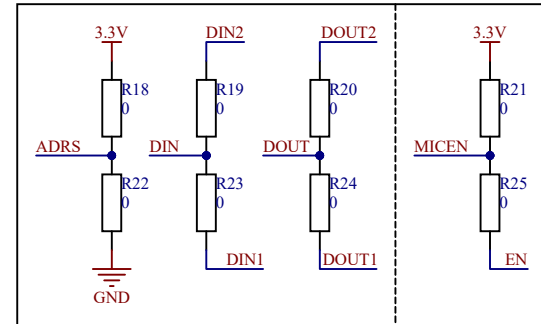
BUTTONS



CODEC



SETTINGS

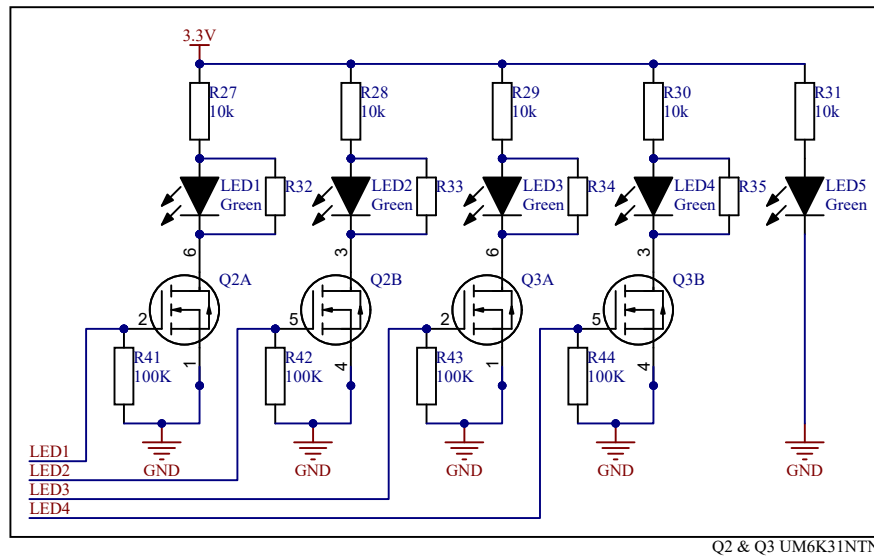


I2C ADDRESS

ADRS	CODEC	EEPROM
3.3V	0X1A	0X50
GND	0X1B	0X51

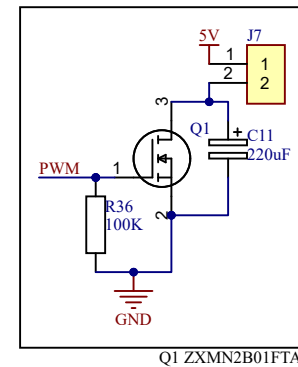
7bit address

LED



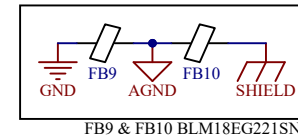
Q2 & Q3 UM6K31NTN

FAN



Q1 ZXMN2B01FTA

GROUND



FB9 & FB10 BLM18EG221SN1D

Notes

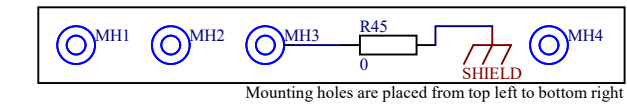
All resistors in audio path should be 0.1% 1/16W
All capacitors in audio path should be low ESR or C0G/NP0
All resistors should be at least 10% 1/16W
All capacitors should be at least 10% 25V

R32-R35 are DNP

MESM microphones, capacitors C12-C25 and resistors R5-R8 are optional.

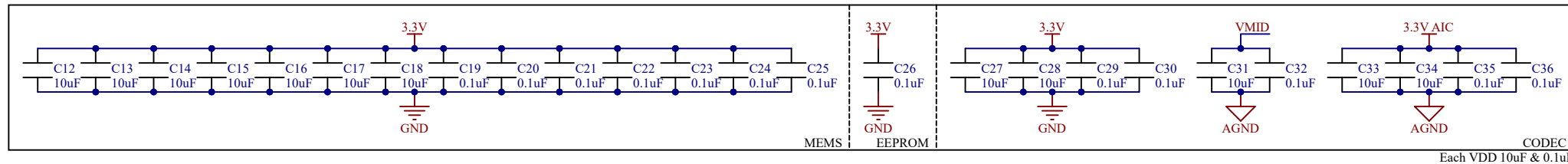
Resistors in SETTINGS section are placed with common pad to avoid shortages.

MOUNTING HOLES



Mounting holes are placed from top left to bottom right

DECOUPLING





MEMS

EEPROM

CODEC

Each VDD 10uF & 0.1uF

APPROVALS		DATE			Fakulta elektrotechniky a komunikačních technologií Vysoké učení technické v Brně Technická 3058/10 616 00 Brno-Královo Pole	
ENGINEER: Bc. Karel Benko		23.05.2022				
DESIGNER: Bc. Karel Benko		23.05.2022				
REFERENCE DOCUMENTS						
BOM DOC: BBAIAEB.BomDoc					Beaglebone AI - Audio Expansion Board	VER: B
ASSY DOC: BBAIAEB_ASSY.PCBDwf						
FAB DOC: BBAIAEB_FAB.PCBDwf						
PCB DOC: BBAIAEB.PcbDoc						
FILE NAME: BBAIAEB.SchDoc				SHEET: 1 OF 1		