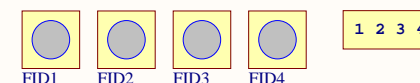


- 7-bit device adresses on I2C1 bus:
- text LCD display: (variant dependent)
    - Chipset PCF8574 - 0x20
    - Chipset PCF8574T - 0x27
    - Chipset PCF8574A - 0x38
    - Chipset PCF8574AT - 0x3F
  - OLED display (SSD1306) - 0x3C / 0x3D
  - EEPROM memory (M24C02) - 0x50 ... 0x57
  - HALL sensor (IIS2MDCTR) - 0x1E
  - ToF sensor (VL53L3CXVODH/1) - 0x29
  - Temperature & pressure BMP280- 0x76 (default) / 0x77
- 7-bit device adresses on I2C2 bus:
- TPM (ST33KTPM2X32DKG9) - 0x2E
  - accelerometer module LIS35DE - 0x1C / 0x1D (jumper dependent)



Tytuł: Dydaktyczny węzeł IoT Sub-1GHz  
Schemat Blokowy

Data: 07.10.2024 Rev.: 1.0 Rozm.: A4 Strona: 1 z 6 PBL4 subg\_team

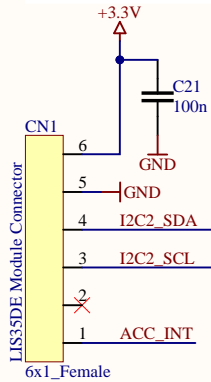
Politechnika Warszawska  
EITI

Opracował: Wojciech Bakun

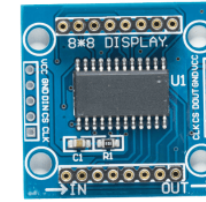
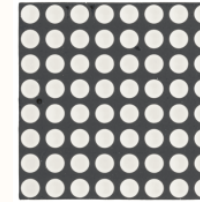
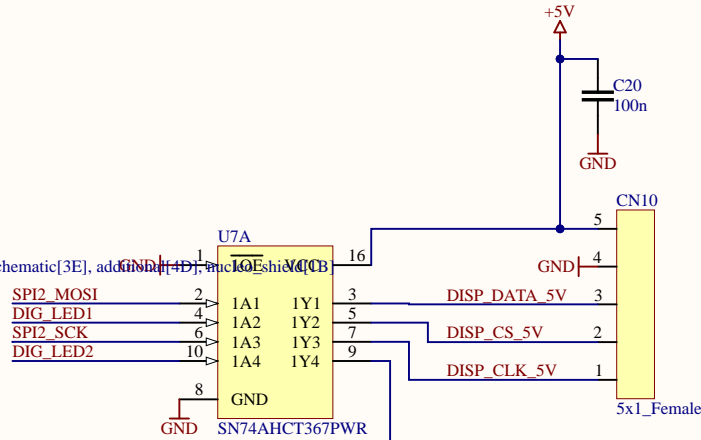


## ACCELEROMETER MODULE

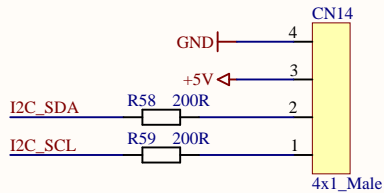
INT | INT2 Interrupt Pin of LIS35DE



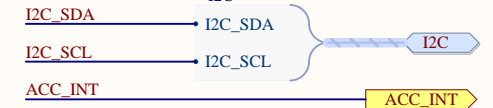
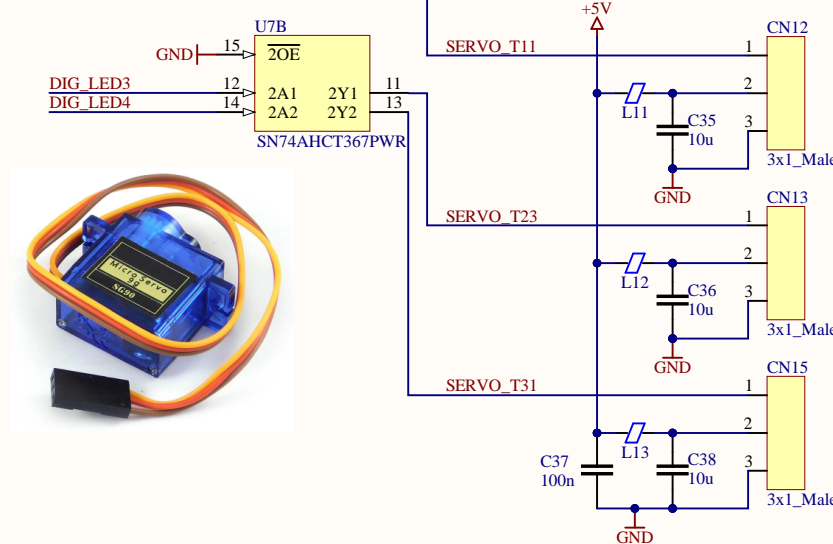
## LED DISPLAYS: 7-segment & matrix (MAX7219 driver)



## LCD DISPLAY



## SERVO



DIG\_LED[1..5] block\_schematic[4E], additional[6D], nucleo\_shield[1D]



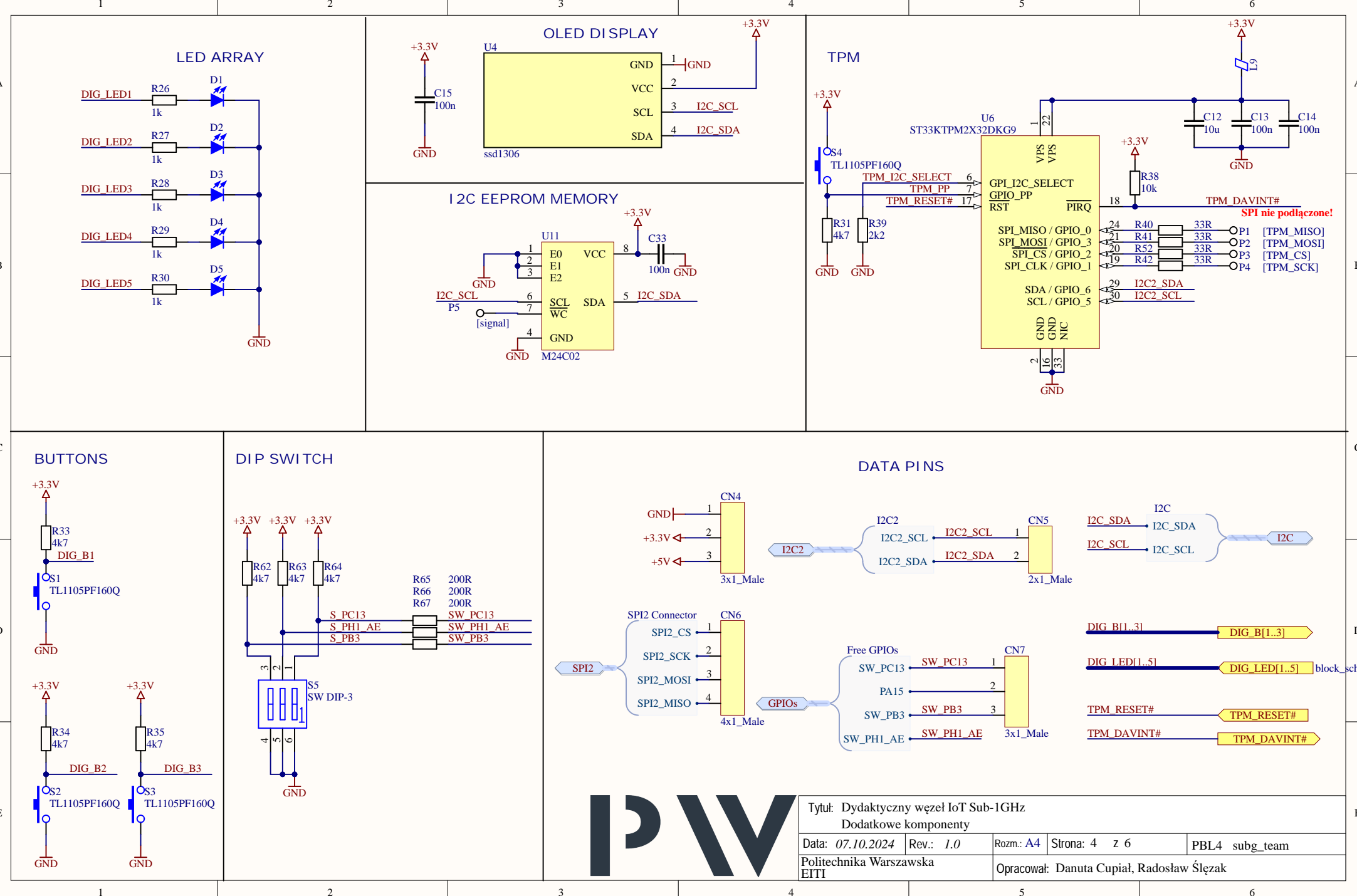
Tytuł: Dydaktyczny węzeł IoT Sub-1GHz

Dodatkowe komponenty

Data: 07.10.2024 Rev.: 1.0 Rozm.: A4 Strona: 3 z 6 PBL4 subg\_team

Politechnika Warszawska  
EITI

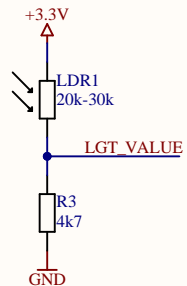
Opracował: Danuta Cupiał, Radosław Ślęzak





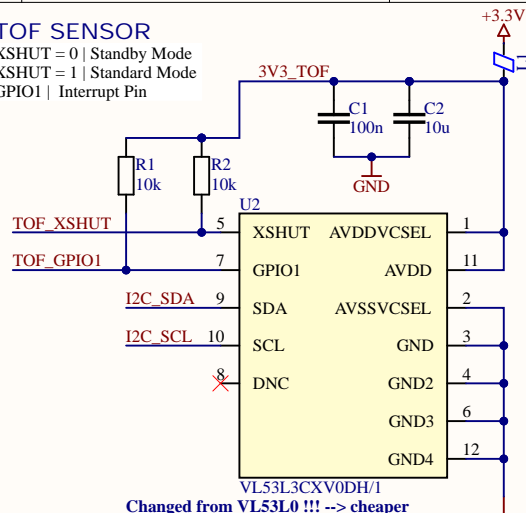
## LIGHT SENSOR

5537 Photoresistor Resistance  
30k | Covered  
15k | 432 Conditions  
5k | Standard Conditions  
1k | Near Window  
Output Voltage: 0.44V - 2.72V



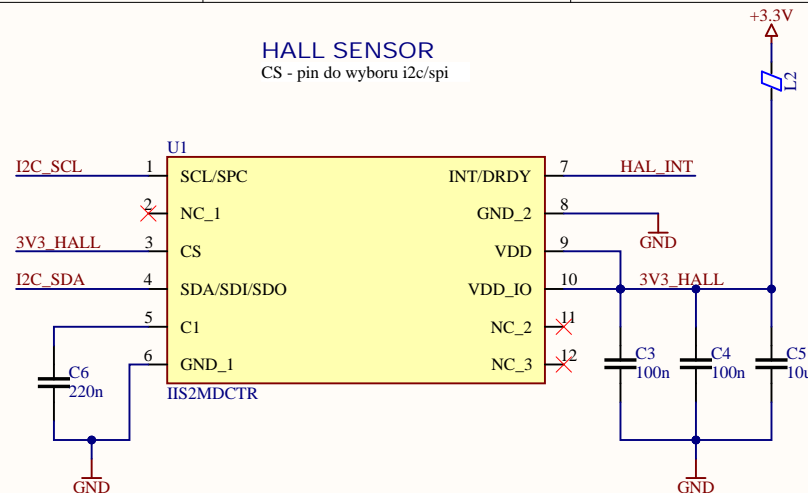
## TOF SENSOR

XSHUT = 0 | Standby Mode  
XSHUT = 1 | Standard Mode  
GPIO1 | Interrupt Pin



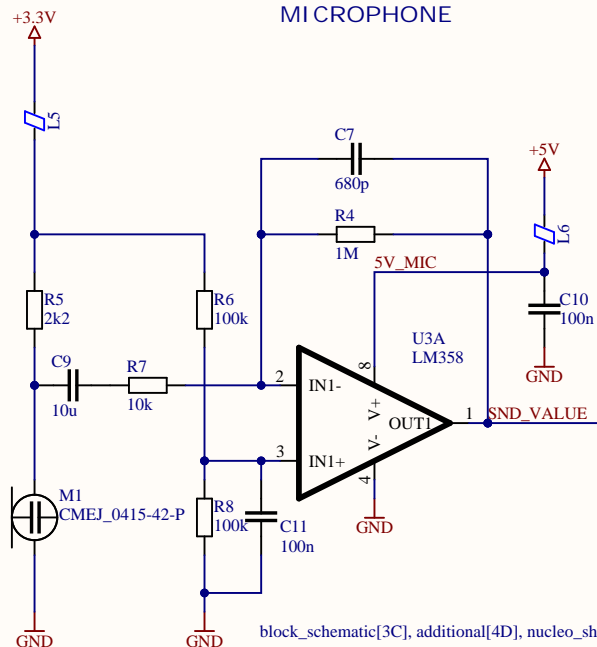
## HALL SENSOR

CS - pin do wyboru i2c/spi

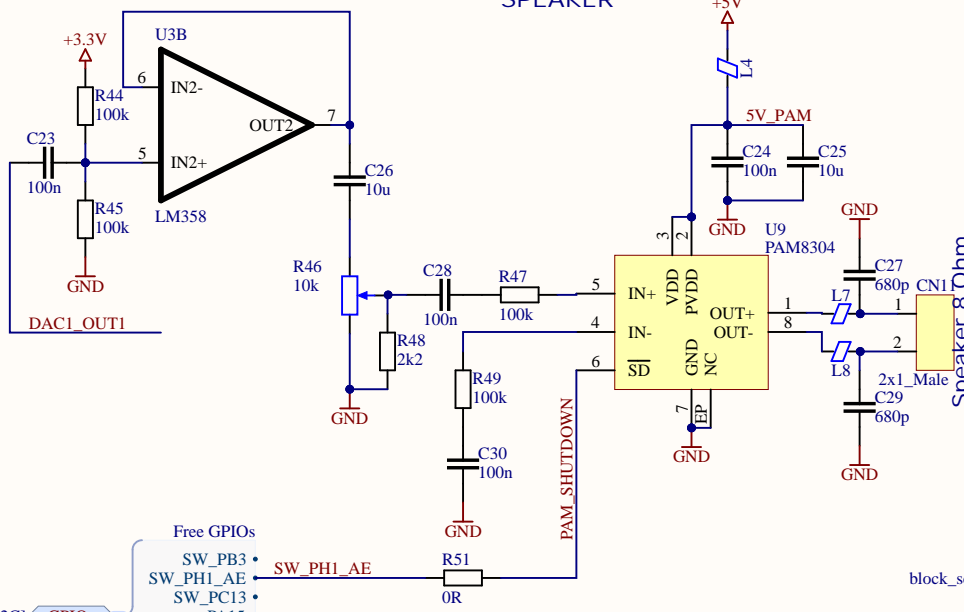


## MICROPHONE

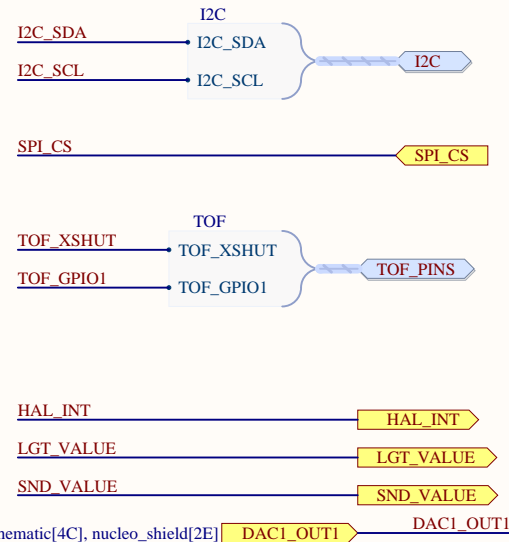
block\_schematic[3C], additional[4D], nucleo\_shield[2C]



## SPEAKER



## DATA PINS



Tytuł: Dydaktyczny węzeł IoT Sub-1GHz  
Sensory

Data: 07.10.2024 Rev.: 1.0 Rozm.: A4 Strona: 6 z 6 PBL4 subg\_team

Politechnika Warszawska EITI Opracował: Wojciech Bakun, Danuta Cupiał