

[illegible]

9Axis IMU

I2C Mode

0x1C address

0x1D address

SPI Mode

0x2D address

0x2E address

POWER

The schematic diagram illustrates the power supply section of a USB-powered device. It includes a battery (B1) connected to a voltage divider (C6) to provide Vbat. A 3V regulator (U4) takes Vbat and provides Vdd. A USB connector (J2) provides Vusb and D-. A USB detector circuit (U3) uses a 73832 IC to monitor Vusb and provide a USB DETECT signal. Various resistors (R2, R3, R4, R6, R7) and capacitors (C5, C7, C8) are used for biasing, detection, and decoupling.

NAND

The diagram illustrates a NAND flash memory circuit. The memory block U1 is connected to a VCC supply and a GND supply. The I/O pin is connected to a pull-up resistor R1 and a capacitor C1. The control signals are connected to FLASH R/B, FLASH CE1, FLASH CE2, FLASH RE, FLASH CLE, FLASH ALE, and FLASH WE. The I/O pin is also connected to a pull-up resistor R1 and a capacitor C1.

OTHER SENSORS / IO

The schematic diagram illustrates the connection of various sensors and actuators to the STM32F405 microcontroller. The microcontroller is shown with its pin headers: BCL1, SDA1, SCL, SDA, and GND.

LEDs and RGB LED CA:

- RED1:** Connected to pin 330.
- GREEN2:** Connected to pin 100.
- BLUE3:** Connected to pin 100.
- D1 (RGB LED CA):** Connected to pins 330, 100, and 100. The CA pin is connected to V_{SS}.
- D6, D5, D4, D3, D2:** LEDs connected to pins 330, 100, 100, 100, and 100 respectively. The CA pins are connected to V_{SS}.
- LED4:** Connected to pin 100.
- LED5:** Connected to pin 100.

Motor and Vibe Motor:

- MOTOR:** Connected to pin 330.
- M2 (VIBE MOTOR):** Connected to pin 100.

Other Components:

- R18, R19:** 2.2k resistors connected to pins 5 and 6.
- R20:** 10k resistor connected to pin 7.
- R22, R23:** 100 resistors connected to pins 100 and 100.
- U11 (N-FET):** Connected to pin 330.
- U13 (NTC5042E3103FLT):** Connected to pin 330.
- U12 (APDS-9905):** Connected to pin 330.

The diagram also shows the connection of the microcontroller to the STM32F405 and the STM32F405 to the STM32F405.

PAN1326 module

The schematic diagram illustrates the electrical connections for the PAN1326 module. Key components include:

- U9: SHIFTER X4**, connected to input pins SCT8, SRT8, SR0, STX, BT_EN, and BT_CLK.
- U10: 1-BV Voltage Regulator**, powered by Vbt and outputting Vout.
- C16: 1µF Capacitor**, connected to the Vout pin of U10.
- M1: PAN1326 Module**, featuring multiple pins for control and data signals such as CL1.S, LDO_IN, MDDO_IN, MDDO_OUT, VDD_ID, GND1, TX_DBG, AUD_FSYNC, AUD_OUT, AUD_IN, and AUD_CLK.
- R14 (47k), R15 (1k), R16 (100k), and R17 (100k)**: Resistors used for signal conditioning and biasing.

The circuit is powered by Vbt and includes various ground connections (GND) throughout the assembly.

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REV: <NONE>

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