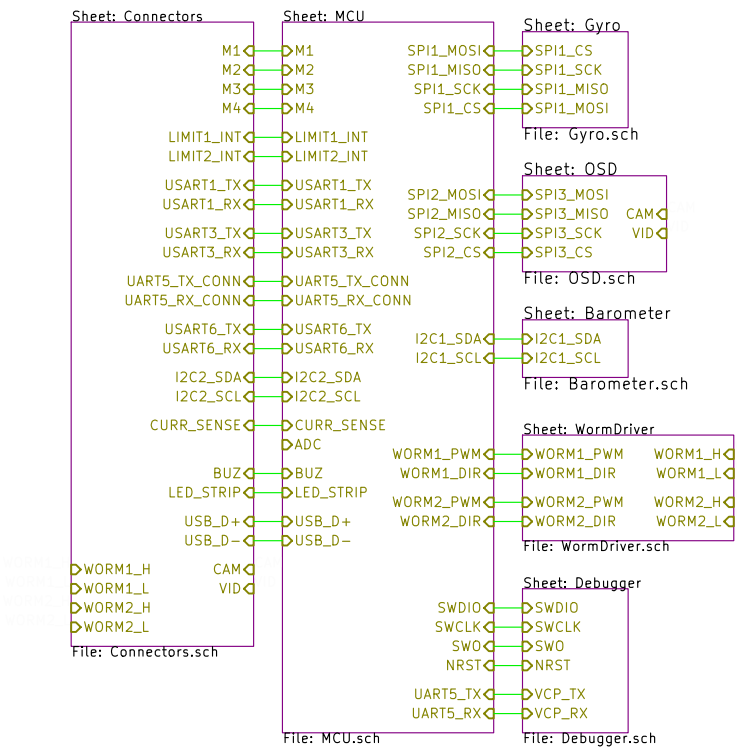


Main

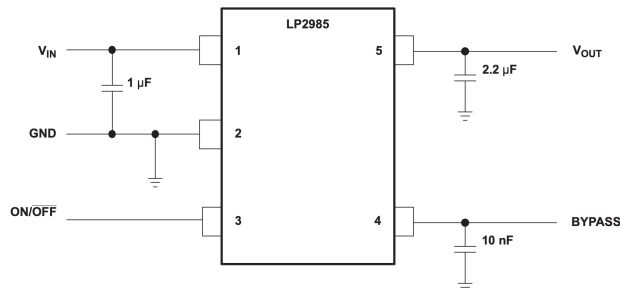
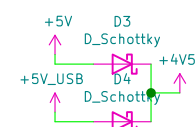
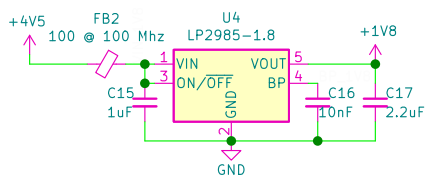
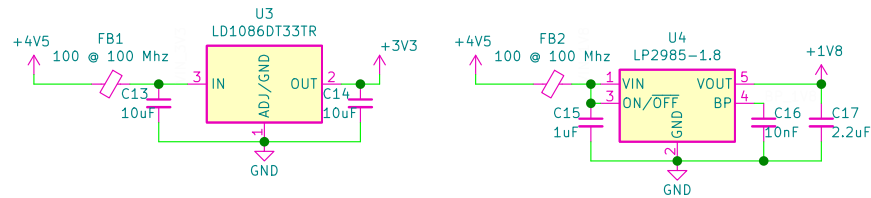
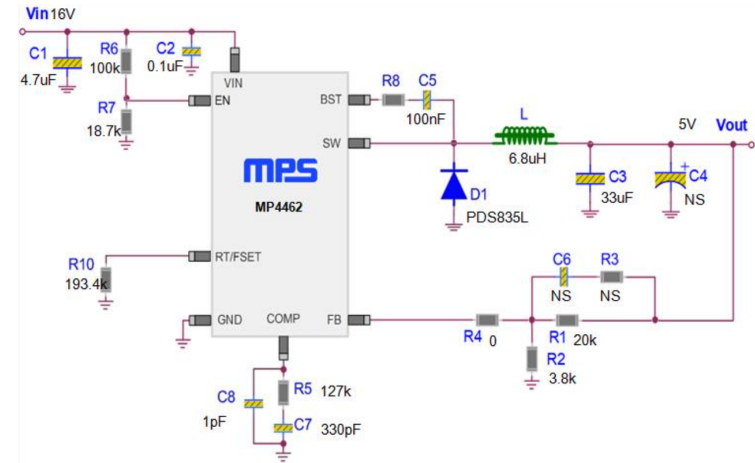
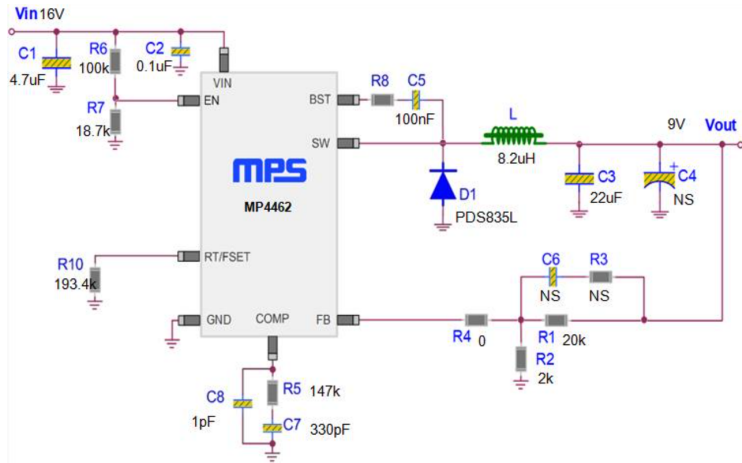
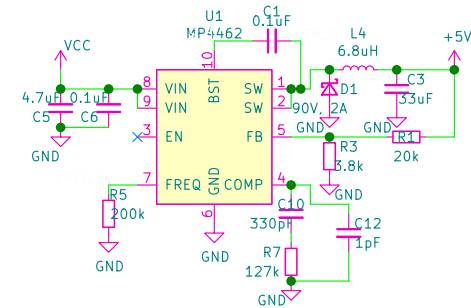
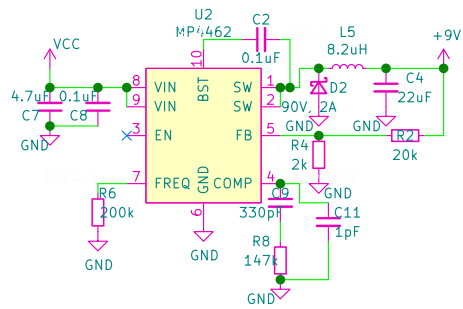


Mounting Holes

Images

Sheet: /		
File: Autodrone.sch		
Title: F722 Flight Controller		
Size: A4	Date:	Rev:
KiCad E.D.A. kicad (5.1.6-0-10_14)		Id: 1/9

Power



Sheet: /Power/
File: Power.sch

Title:

Size: A4

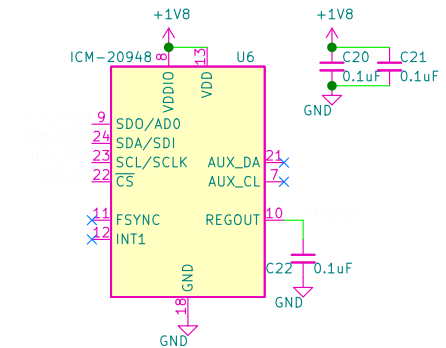
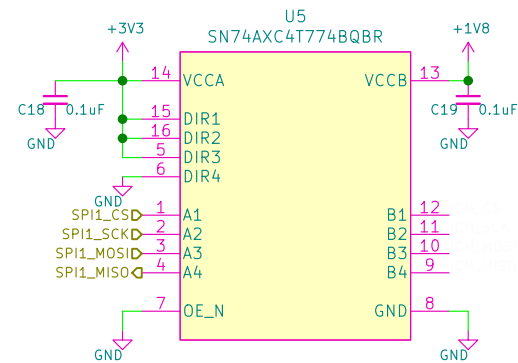
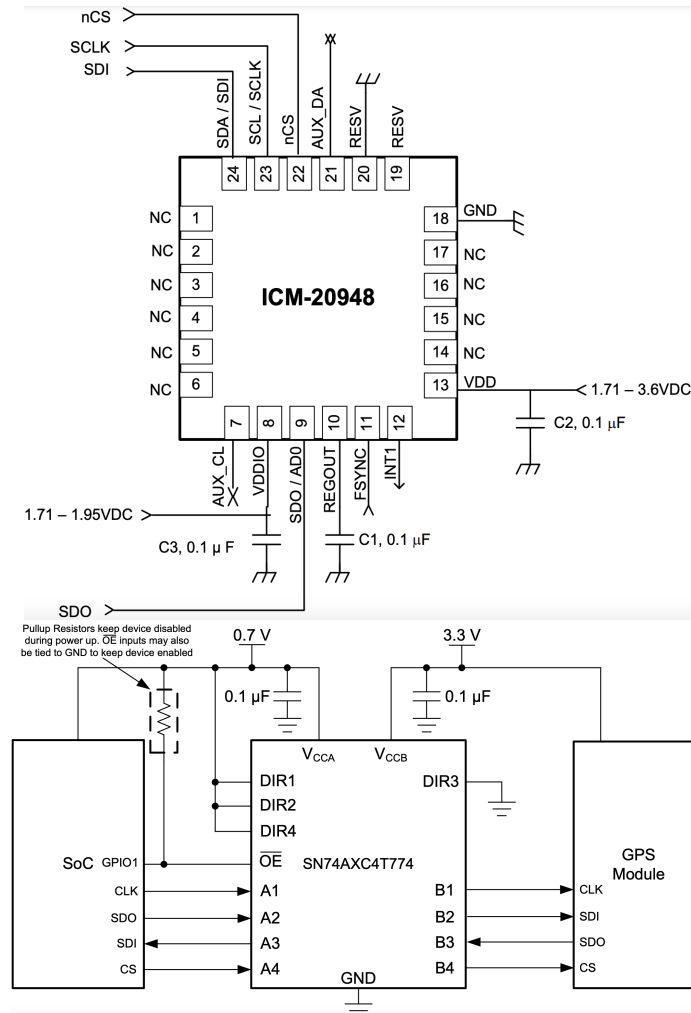
Date:

KiCad E.D.A. kicad (5.1.6-0-10_14)

Rev:

Id: 2/9

Gyro



Sheet: /Gyro/
File: Gyro.sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad (5.1.6-0-10_14)

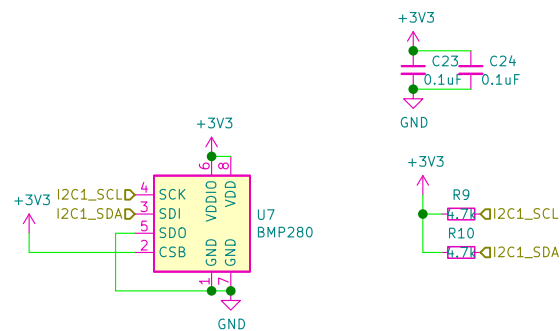
Rev:

Id: 3/9

Barometer

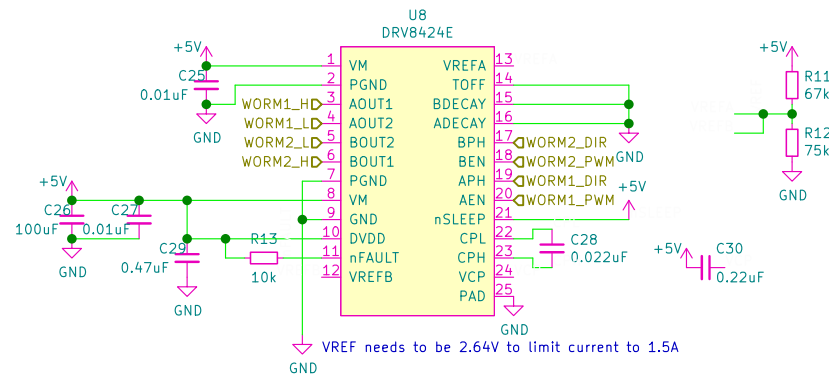
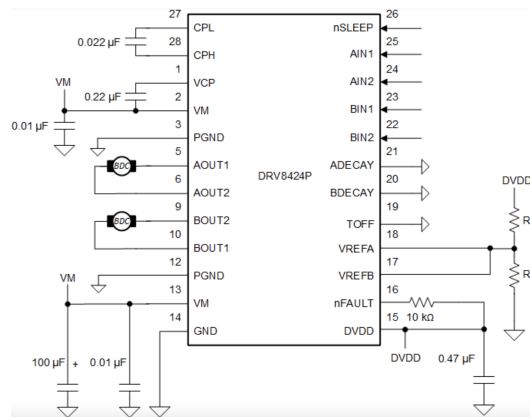
The diagram illustrates the PCB design for a barometer module. It includes three main views:

- TOP VIEW (pads not visible):** Shows the physical layout of the components on the top layer. A central square pad contains a circular "Vent hole". Eight pads are arranged around it:
 - Pad 8: V_{DD}
 - Pad 7: GND
 - Pad 6: V_{DDIO}
 - Pad 5: SDO
 - Pad 4: SCK
 - Pad 3: SDI
 - Pad 2: CSB
 - Pad 1: GNDExternal connections include V_{DD}, V_{DDIO}, I2C address bit 0 (GND: '0'; V_{DDIO}: '1'), C₁, C₂, SDA, and SCL.
- Schematic View:** Shows the electrical connections between the component models.
 - U7 BMP280:** The barometer IC. Its pins are connected as follows:
 - V_{DD} (pin 8) to +3V3
 - V_{DDIO} (pin 9) to +3V3
 - GND (pins 1, 2, 10) to GND
 - I2C1_SCLD (pin 4) to I2C1_SCL (R9)
 - I2C1_SDAD (pin 3) to I2C1_SDA (R10)
 - SDO (pin 5) to SDO (pad 5)
 - CSB (pin 2) to CSB (pad 2)
 - SCK (pin 4) to SCK (pad 4)
 - SDI (pin 3) to SDI (pad 3)
 - C23, C24:** Decoupling capacitors (0.1µF) connected from +3V3 to GND.
 - R9, R10:** Pull-up resistors (6.7kΩ) for the I2C lines.



Title:		
Size: A4	Date:	Rev:
KICad E.D.A. kicad (5.1.6-0-10_14)		Id: 4/9

Worm Motor Driver



Sheet: /WormDriver/
File: WormDriver.sch

Title:

Size: A4

Date:

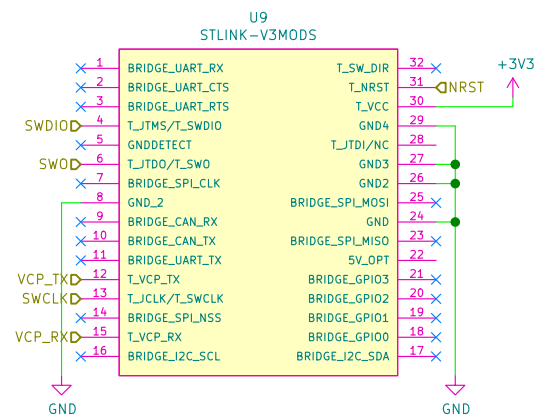
KiCad E.D.A. kicad (5.1.6-0-10_14)

Rev:

Id: 5/9

Debugger

Side	Pin #	Pin description	Type
LEFT	1	Bridge UART RX ⁽¹⁾	I
	2	Bridge UART CTS	I
	3	Bridge UART RTS	O
	4	T_JTMS/T_SWDIO	O
	5	GNDDetect ⁽²⁾	I
	6	T_JTDO/T_SWO ⁽³⁾	I
	7	Bridge SPI CLK	I/O
	8	GND	S
	9	Bridge CAN RX ⁽¹⁾	I
	10	Bridge CAN TX ⁽⁴⁾	O
	11	Bridge UART TX ⁽⁴⁾	O
	12	T_VCP_TX	I
	13	T_JCLK/T_SWCLK	O
	14	Bridge SPI NSS	I/O
	15	T_VCP_RX	O
	16	Bridge I2C SCL	O
RIGHT	17	Bridge I2C SDA	I/O
	18	Bridge GPIO0	I/O
	19	Bridge GPIO1	I/O
	20	Bridge GPIO2	I/O
	21	Bridge GPIO3	I/O
	22	Reserved ⁽⁵⁾	-
	23	Bridge SPI MISO	I/O
	24	GND	S
	25	Bridge SPI MOSI	I/O
	26	GND	S
	27	GND	S
	28	T_JTDI/NC ⁽⁶⁾	O
	29	GND	S
	30	T_VCC ⁽⁷⁾	I
	31	T_NRST	O
	32	T_SW_DIR	O



Sheet: /Debugger/
File: Debugger.sch

Title:

Size: A4

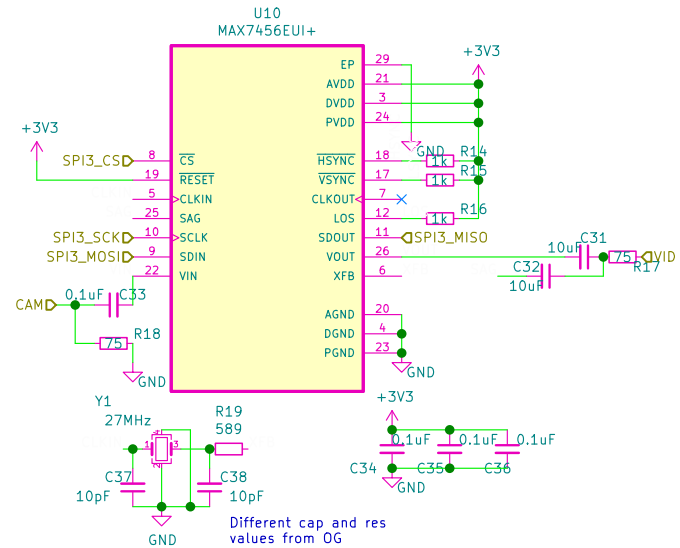
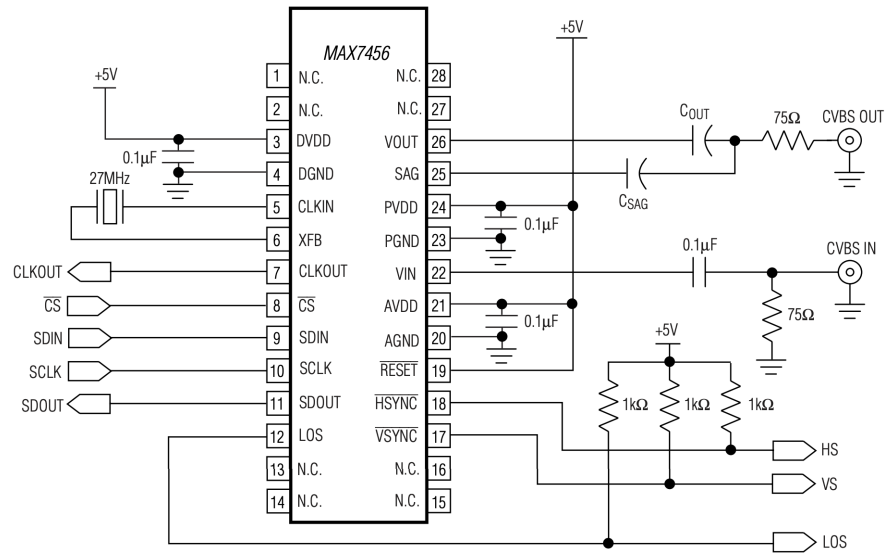
Date:

KiCad E.D.A. kicad (5.1.6-0-10_14)

Rev:

Id: 6/9

OSD



Sheet: /OSD/
File: OSD.sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad (5.1.6-0-10_14)

Rev:

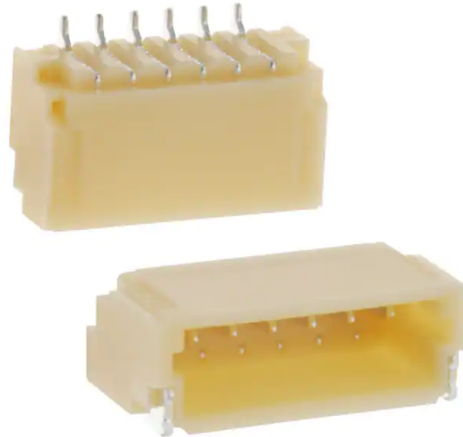
Id: 7/9

Connectors

JST 8 Pin Conn



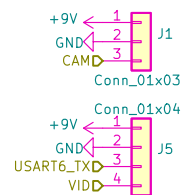
JST 6 Pin Conn



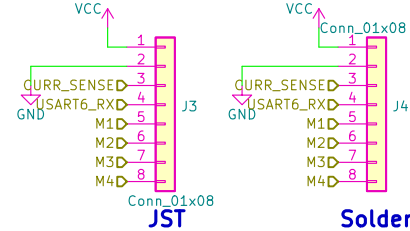
USB Conn



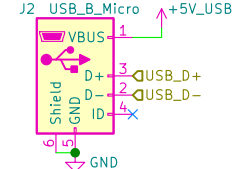
CAMERA



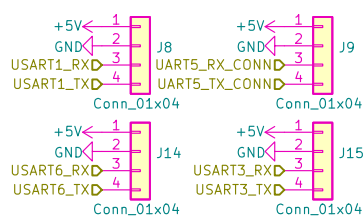
FC to ESC Harness



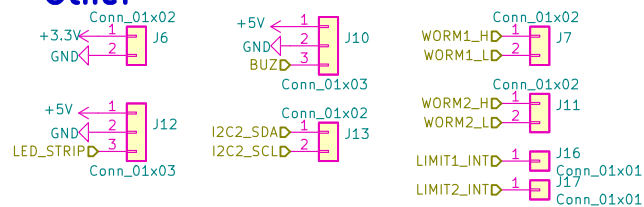
USB



UARTS



Other



Sheet: /Connectors/
File: Connectors.sch

Title:

Size: A4

Date:

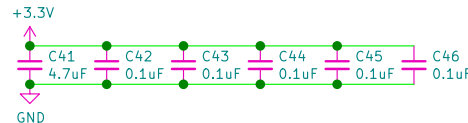
KiCad E.D.A. kicad (5.1.6-0-10_14)

Rev:

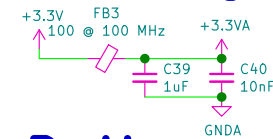
Id: 8/9

MCU

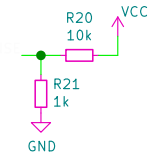
Input Filtering



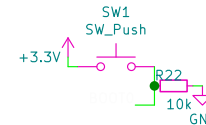
Analog Filtering



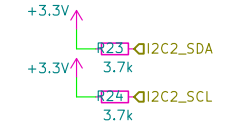
Voltage Sense



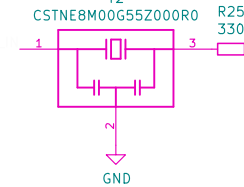
Button



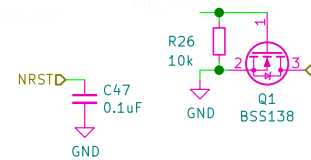
I2C PullUps



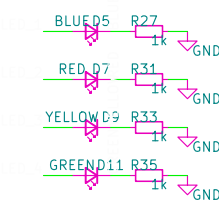
Oscillator



Buzzer



User LEDs



Power LEDs

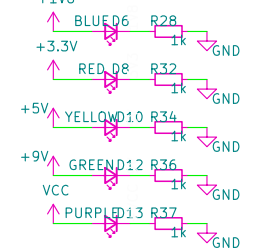
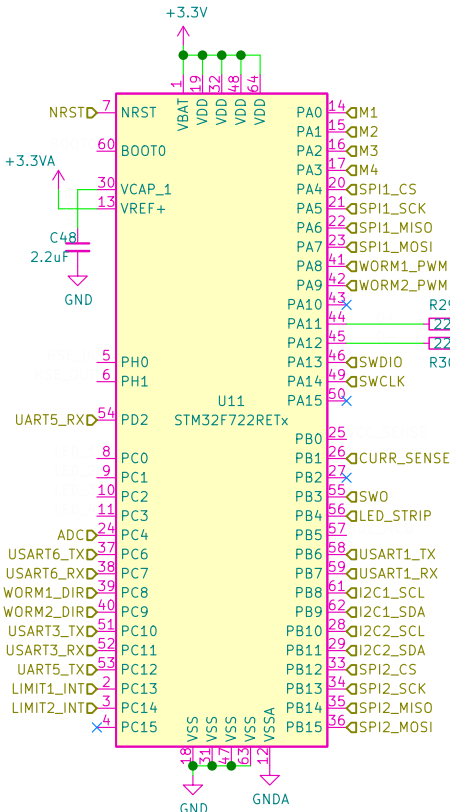
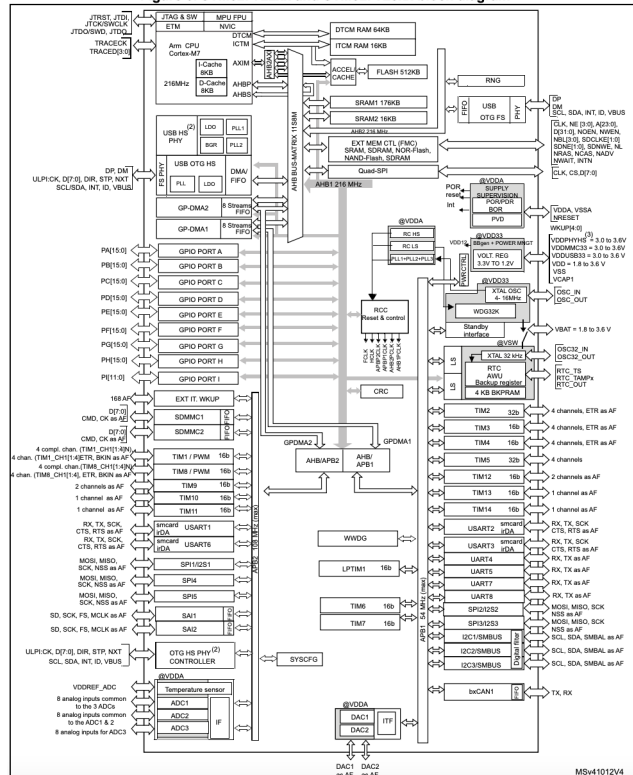


Figure 6. STM32F722xx and STM32F723xx block diagram



Sheet: /MCU/
File: MCU.sch

Title:

Size: A4

Date:

KiCad E.D.A. kicad (5.1.6-0-10_14)

Rev:

Id: 9/9