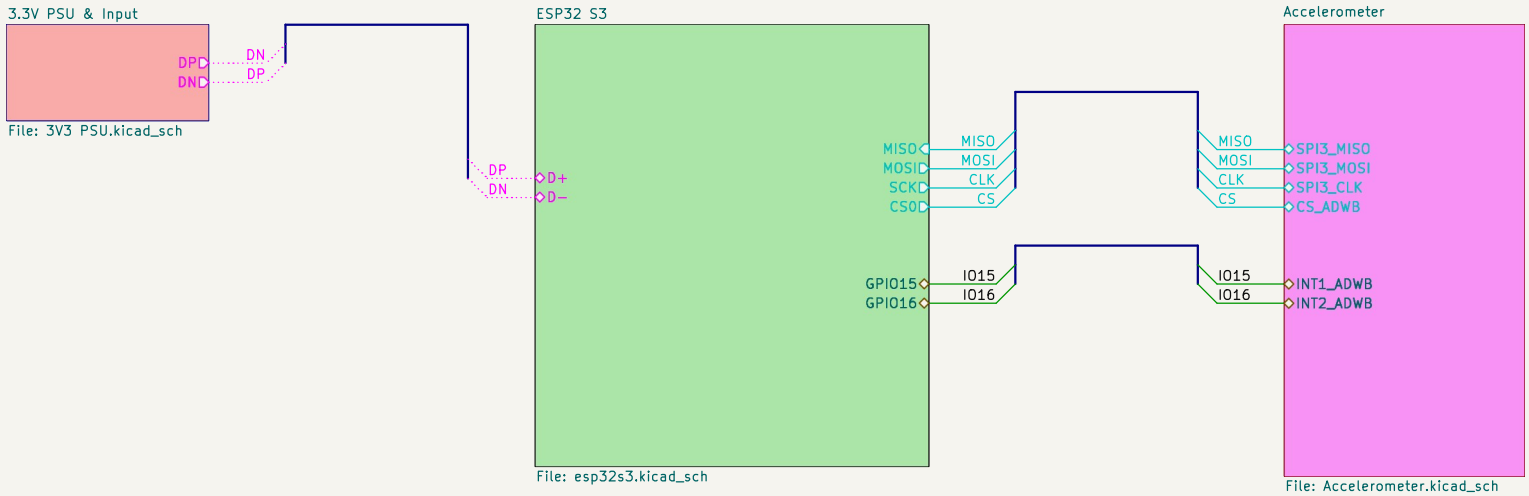


H1
MountingHole

H2
MountingHole

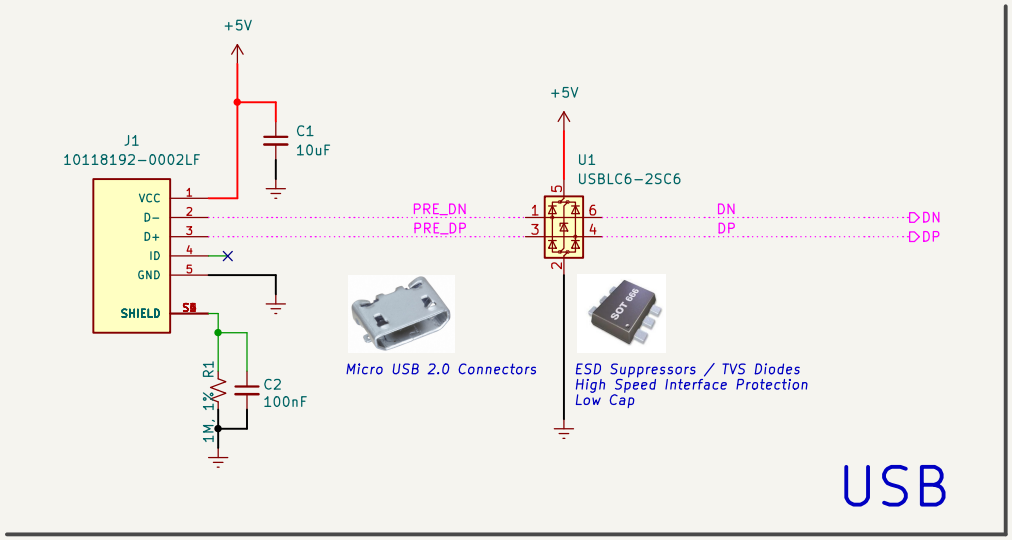
H3
MountingHole

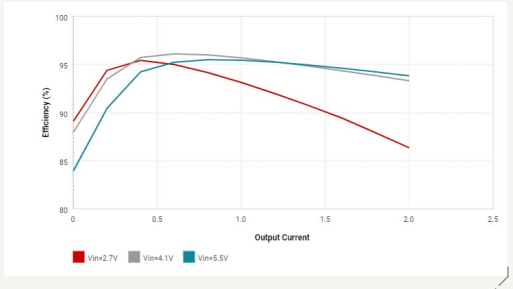
H4
MountingHole

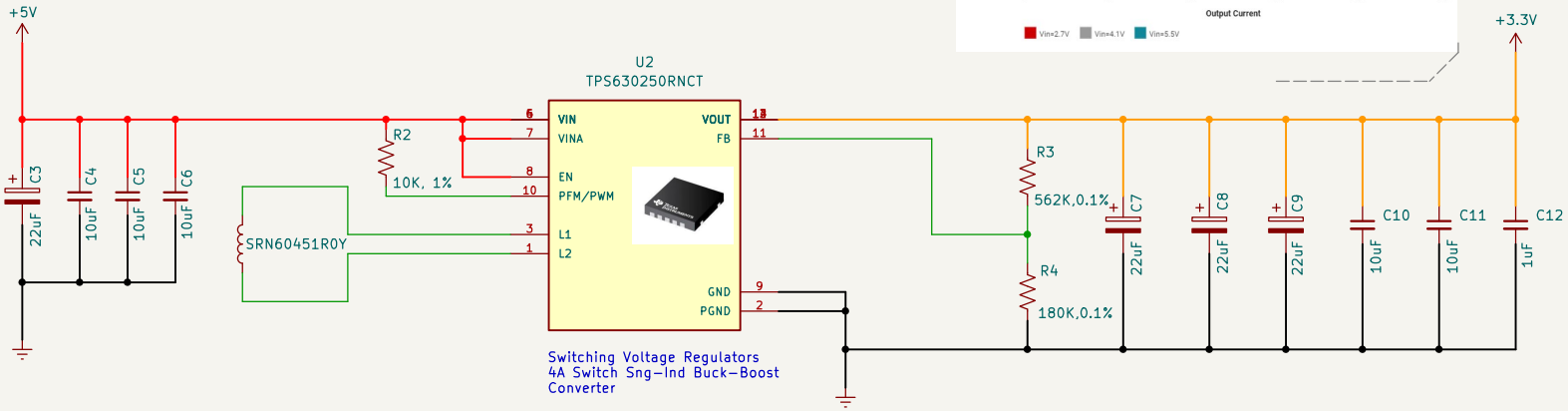
Sheet: /
File: SourceFile.kicad_sch

Title: SMART MONITORING SYSTEM

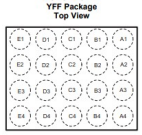
Size: A4	Date: 2024-07-07	**Rev: 03**
KiCad E.D.A. 9.0.0		Id: 1/4



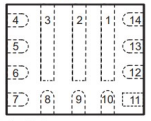




DSBGA 20-Pin
YFF Package
Top View



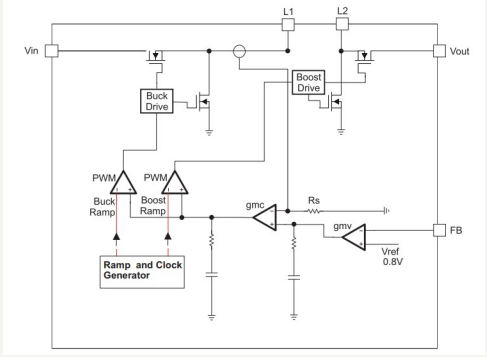
VQFN 14-Pin
RNC Package
Top View



Product Preview

Pin Functions

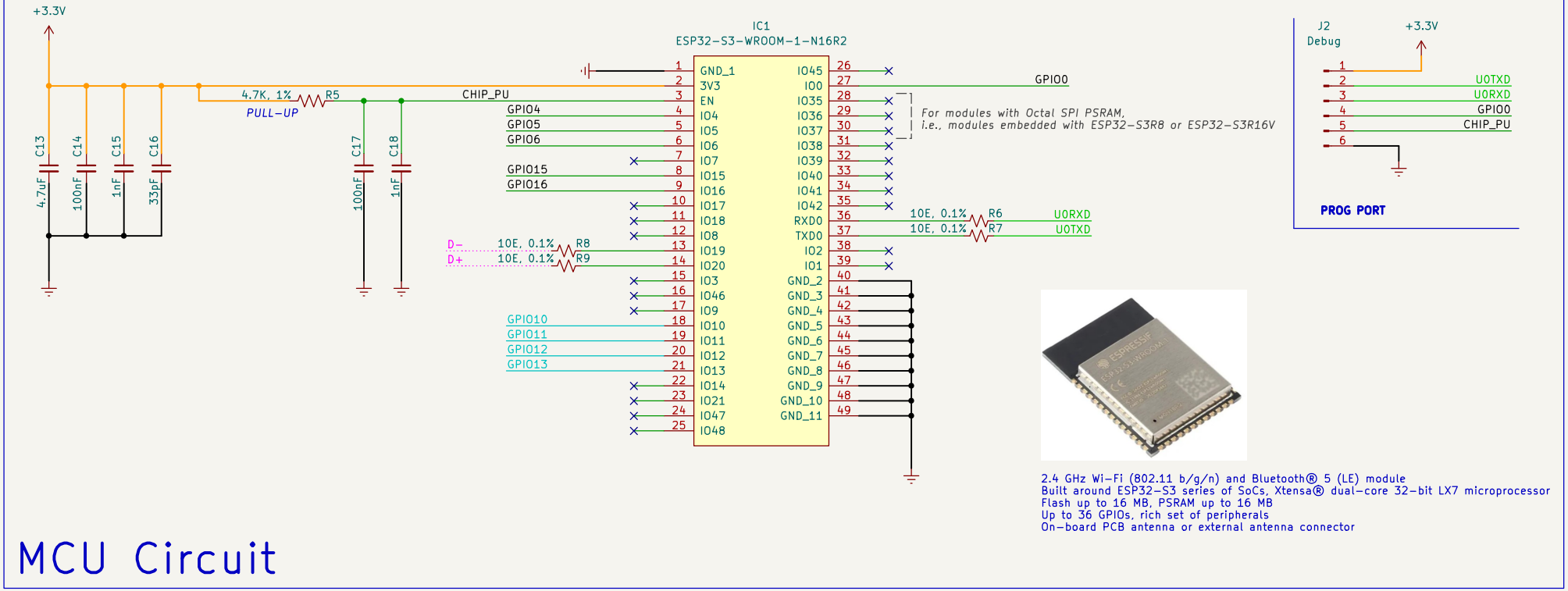
PIN			I/O	DESCRIPTION
NAME	DSBGA	RNC		
VOUT	A1,A2,A3	12, 13, 14	PWR	Buck-Boost converter output
FB	A4	11	IN	Voltage feedback of adjustable version, must be connected to VOUT on fixed output voltage versions
L2	B1,B2,B3	1	PWR	Connection for Inductor
PFM/PWM	B4	10	IN	set low for PFM mode, set high for forced PWM mode. It must not be left floating
PGND	C1,C2,C3	2	PWR	Power Ground
GND	C4	9	PWR	Analog Ground
L1	D1,D2,D3	3	PWR	Connection for Inductor
EN	D4	8	IN	Enable input. Set high to enable and low to disable. It must not be left floating.
VIN	E1,E2,E3	4, 5, 6	PWR	Supply voltage for power stage
VINA	E4	7	PWR	Supply voltage for control stage.



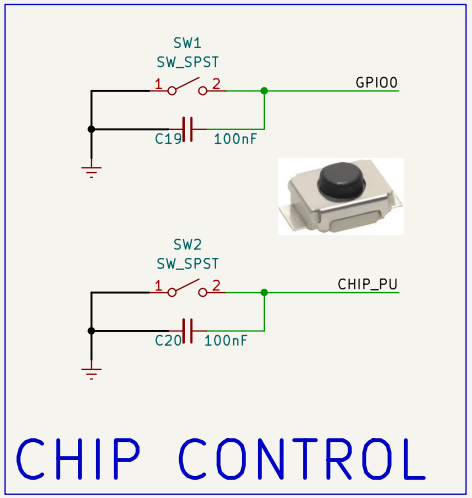
Sheet: /3.3V PSU & Input/
File: 3V3 PSU.kicad_sch

Title: POWER SUPPLY UNIT

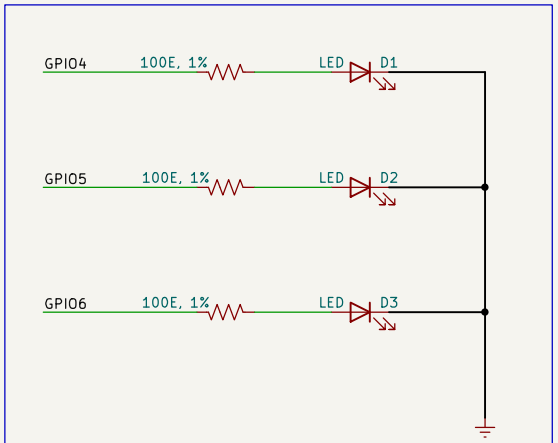
Size: A4	Date: 2024-07-07	**Rev: 03**
KiCad E.D.A. 9.0.0		Id: 2/4



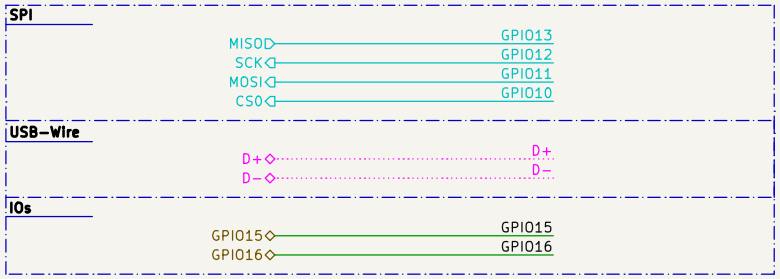
MCU Circuit



CHIP CONTROL



LED

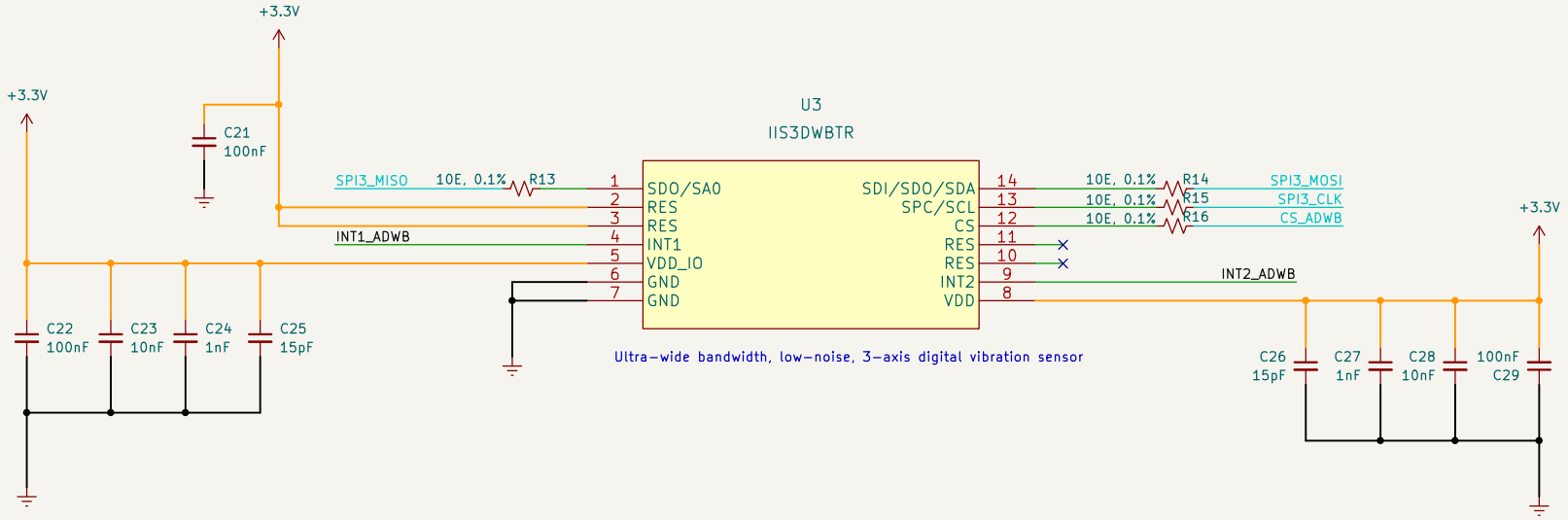


Novo AI

Sheet: /ESP32 S3/
File: esp32s3.kicad_sch

Title: MicroController Unit

Size: A4	Date: 2024-07-07	Rev: 03
KiCad E.D.A. 9.0.0		Id: 3/4

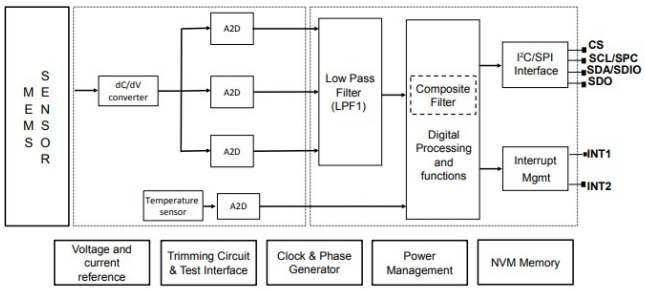


LGA-14L
(2.5 x 3.0 x 0.83 mm) typ.

Table 2. Default pin status

Pin#	Name	Function	Default status	Recommended connection
1	SDO/SA0	SPI 4-wire interface serial data output (SDO) I²C least significant bit of the device address (SA0)	Input without pull-up Pull-up is enabled if bit SDO_PU_EN=1 in reg 02h	Application specific
2	RES	Reserved	Input without pull-up	Connect to VDD_IO or GND
3	RES	Reserved	Input without pull-up	Connect to VDD_IO or GND
4	INT1	Programmable interrupt #1	Input with pull-down	Must be set to 0 or left unconnected during device power-up. After device power-up, connection is application specific.
5	VDD_IO	Power supply for I/O pin	-	
6	GND	Ground	-	
7	GND	Ground	-	
8	VDD	Power supply	-	
9	INT2	Programmable interrupt #2	Output forced to GND	Application specific
10	RES	Reserved	Input with pull-up	Connect to VDD_IO or leave pin electrically unconnected and soldered to PCB
11	RES	Reserved	Input with pull-up	Connect to VDD_IO or leave pin electrically unconnected and soldered to PCB
12	CS	I²C/SPI mode selection (1: SPI idle mode / I²C communication enabled; 0: SPI communication mode / I²C disabled)	Input with pull-up Pull-up is disabled if bit I2C_DISABLE=1 in reg 13h	Application specific
13	SPC/SCL	SPI serial port clock (SPC) I²C serial clock (SCL)	Input without pull-up	Application specific
14	SDI/SDO/SDA	SPI serial data input (SDI) 3-wire interface serial data output (SDO) I²C serial data (SDA)	Input without pull-up	Application specific

Figure 9. Accelerometer architecture



Peripherals

SPI3_CLK	SPI3_CLK
SPI3_MOSI	SPI3_MOSI
SPI3_MISO	SPI3_MISO
CS_ADWB	CS_ADWB
INT1_ADWB	INT1_ADWB
INT2_ADWB	INT2_ADWB

Sheet: /Accelerometer/
File: Accelerometer.kicad_sch

Title: Accelerometer Unit

Size: A4	Date: 2024-07-07	**Rev: 03**
KiCad E.D.A. 9.0.0		Id: 9/4