



KitSprout

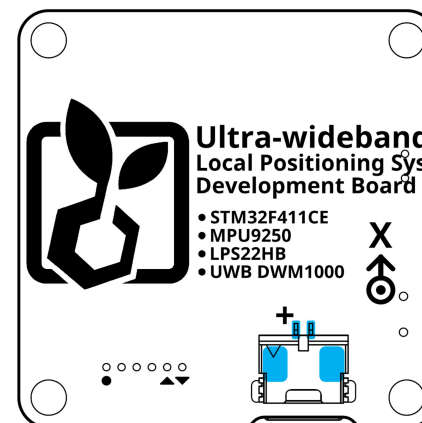
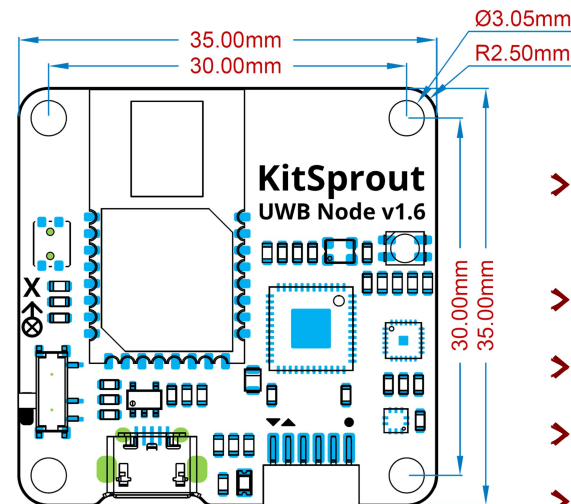
UWBNode

2017.09.01
Ver. v1.6D
Lib. v3.2

PAGE

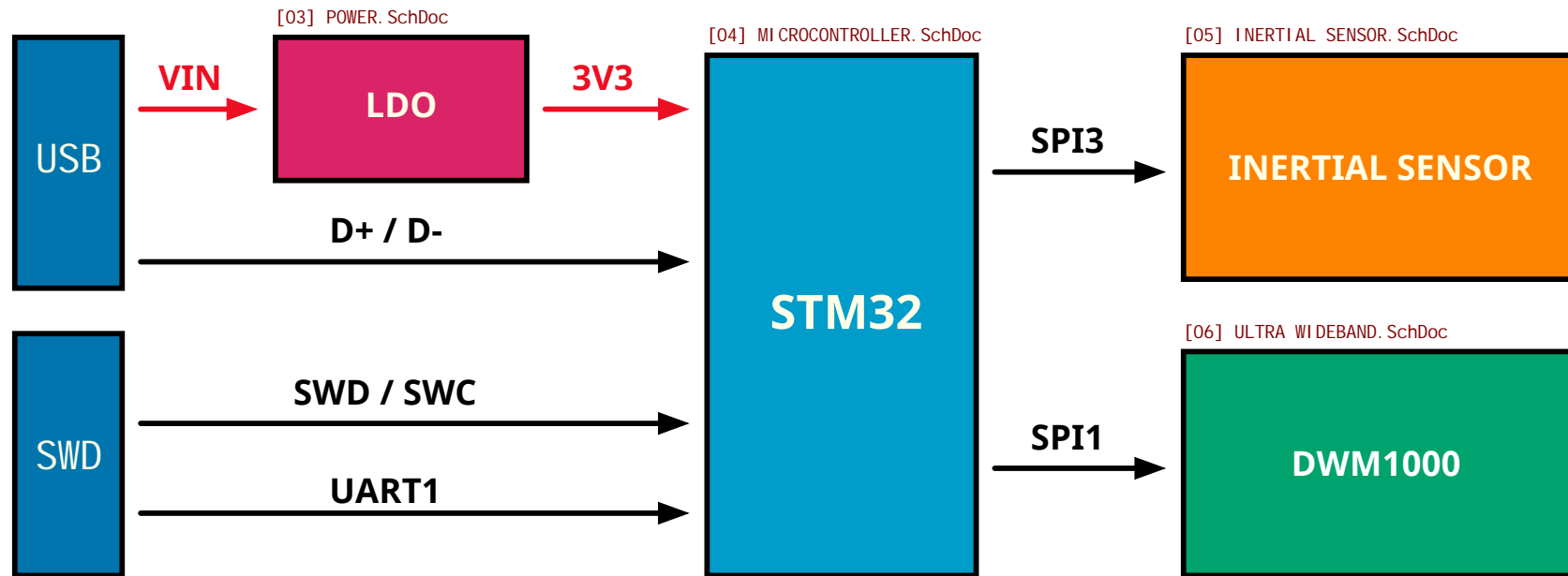
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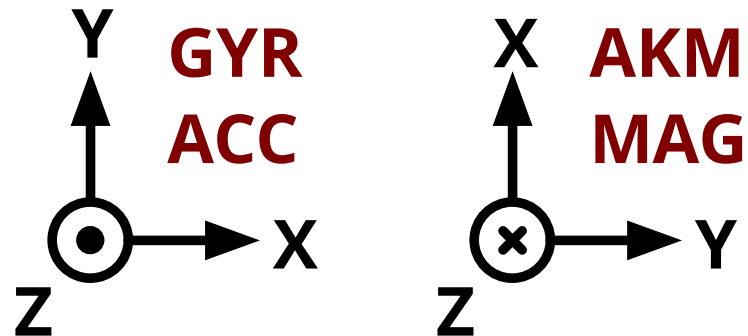


- > STM32F411CE
CORTEX-M4F 100MHZ
- > RGB LED (LOW - ON)
- > KEY (LOW - ON)
- > MICRO USB
- > SWD (WITH UART)
- > MPU9250 (SPI)
3-AXIS GYR/ACC/MAG
- > LPS22HB (SPI)
BAROMETER/THERMOMETER
- > DWM1000 (SPI)
ULTRA-WIDEBAND MODULE

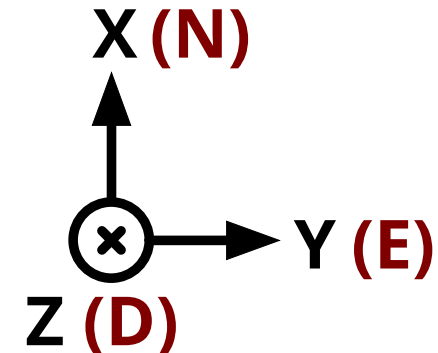
[02] BLOCK DIAGRAM.SchDoc



Sensor on Board Axis



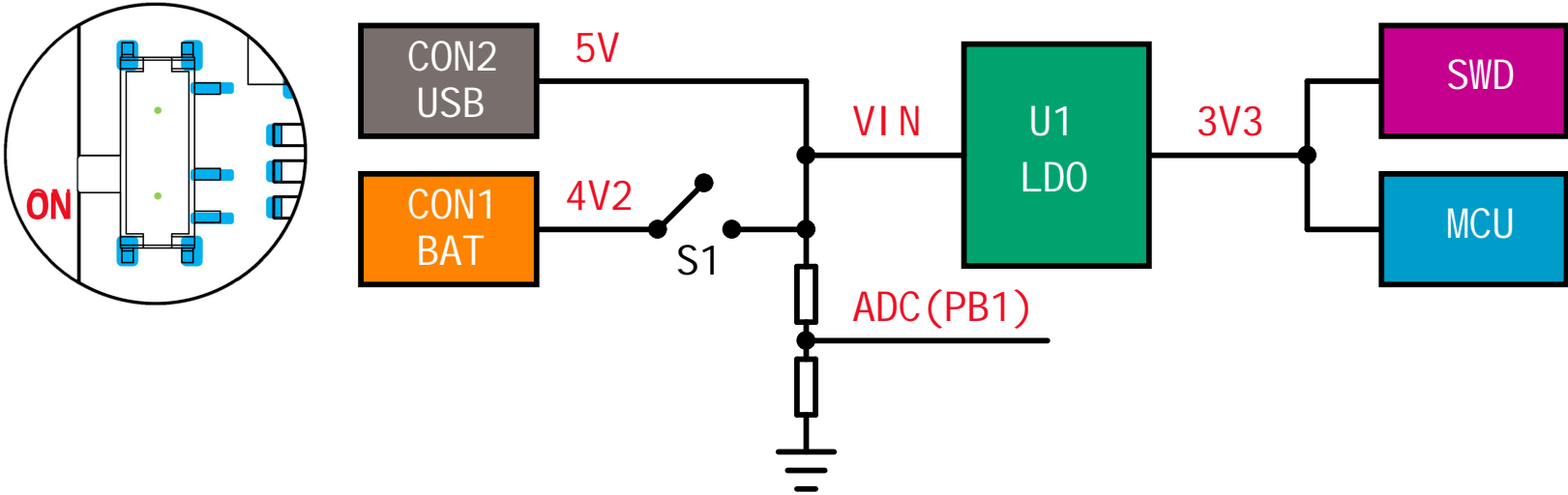
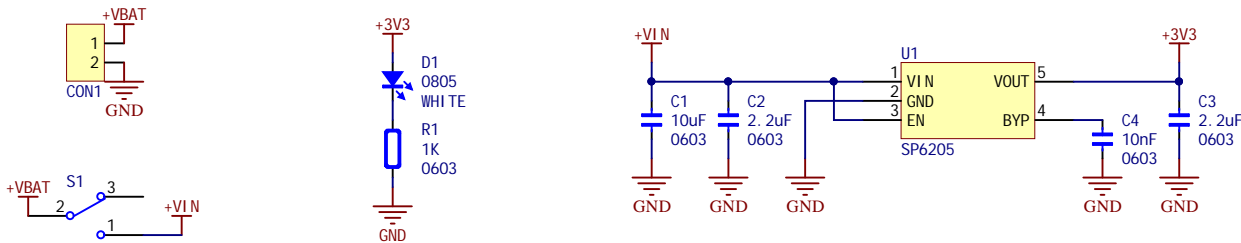
Coordinate System (NED)



[03] POWER.SchDoc

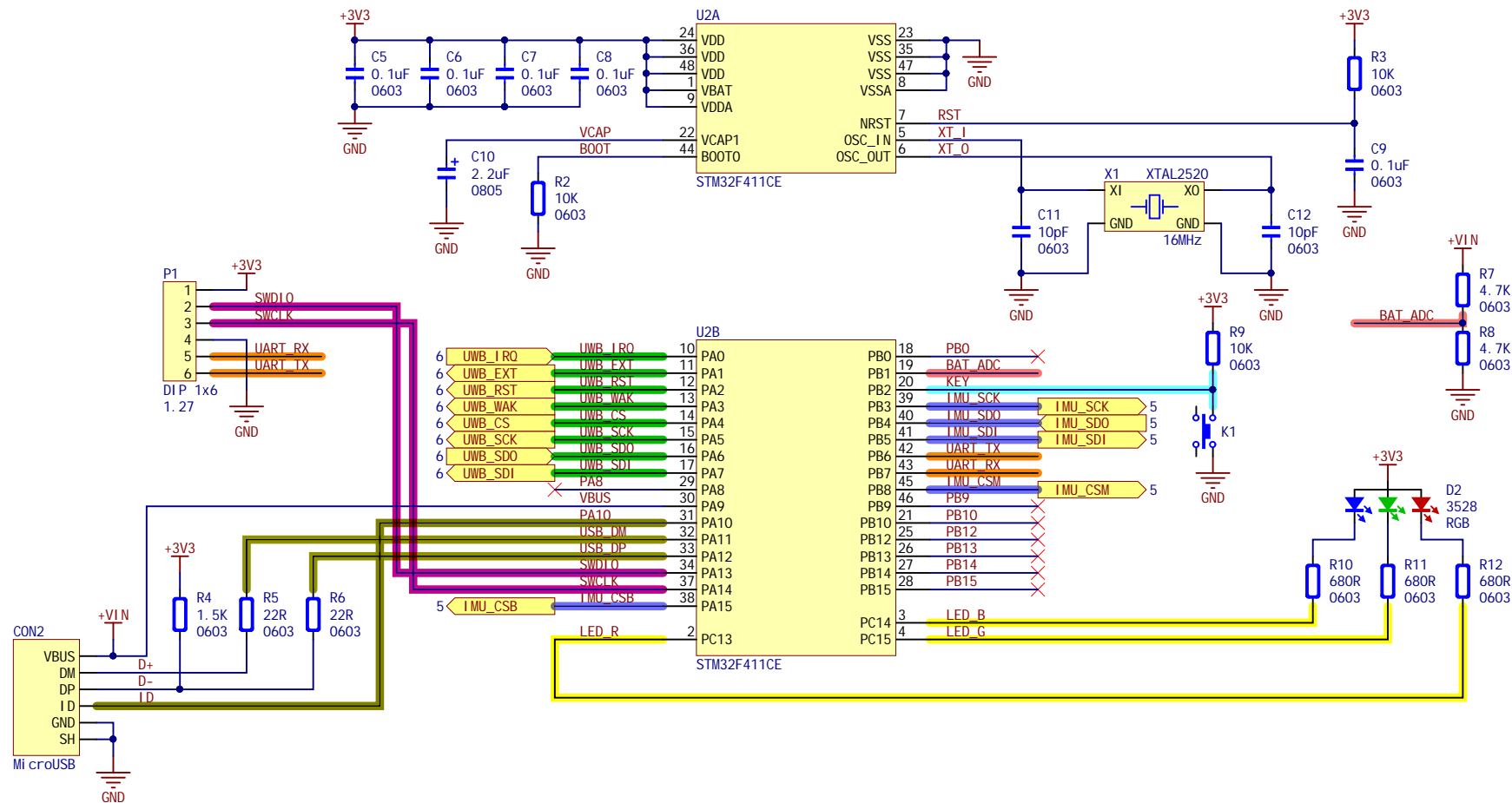
CONNECTOR POWER LED

Low-Dropout Linear Regulator
VIN : 6V (MAX)
VOUT : 3V3 / 500mA

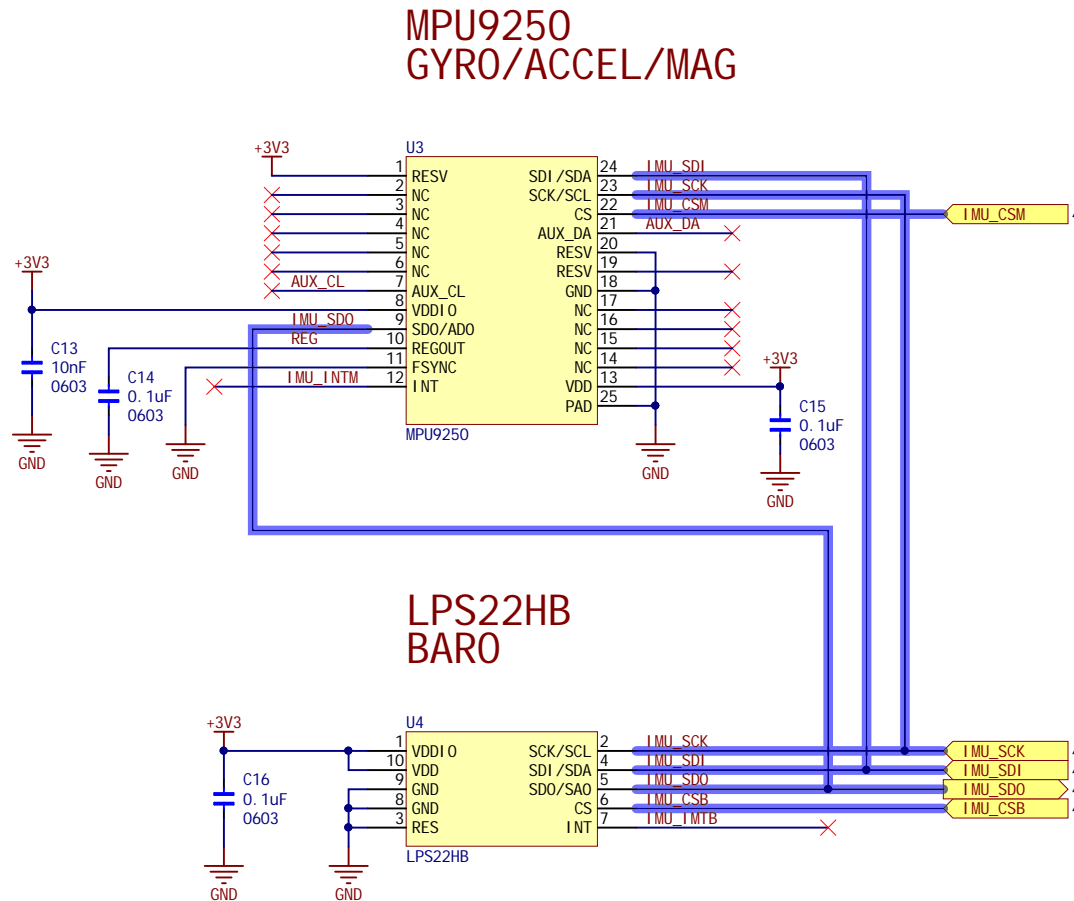


[04] MICROCONTROLLER.SchDoc

MI CROCONTROLLER
STM32F411CE
CORTEX-M4F 100MHz



[05] INERTIAL SENSOR.SchDoc



- Gyroscope (MPU6500)
±250/500/1000/2000 dps
- Accelerometer (MPU6500)
±2/4/8/16 g

Device ID = 0x71
I2C Address = 0xD0 (AD0 = 0)
= 0xD2 (AD0 = 1)

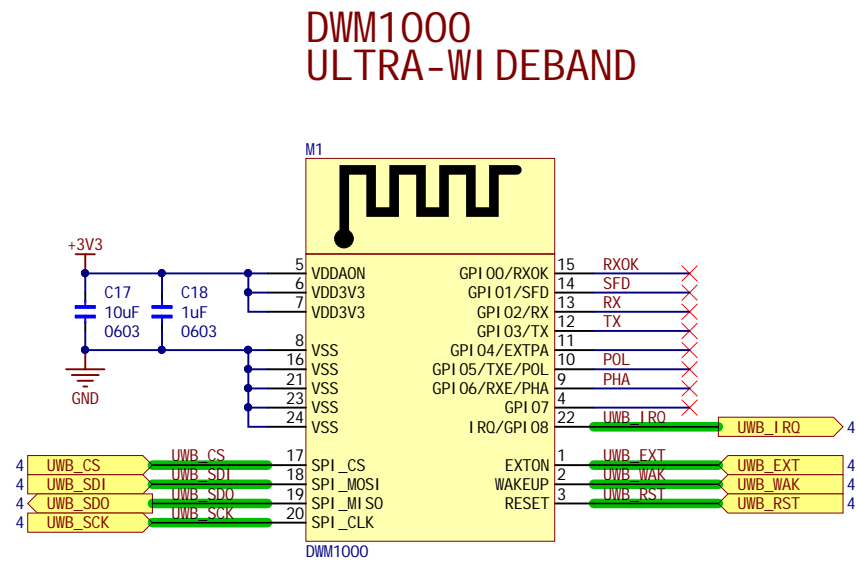
- Magnetometer (AK8963)
±4800 uT

Device ID = 0x48
I2C Address = 0x0C

- Barometer (LPS22HB)
260-1260 hPa

Device ID = 0xB1
I2C Address = 0xB8 (SA0 = 0)
= 0xBA (SA0 = 1)

[06] ULTRA WIDEBAND.SchDoc



POL	PHA	SPI	MODE
0	0	0	default
0	1	1	
1	0	2	
1	1	3	

MODE 0
Data is sampled on the rising
(first) edge of the clock and
launched on the falling