



RangerEdge

Description 1
Description 2

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Version Revision:

v0.1 - dd.mm.yyyy

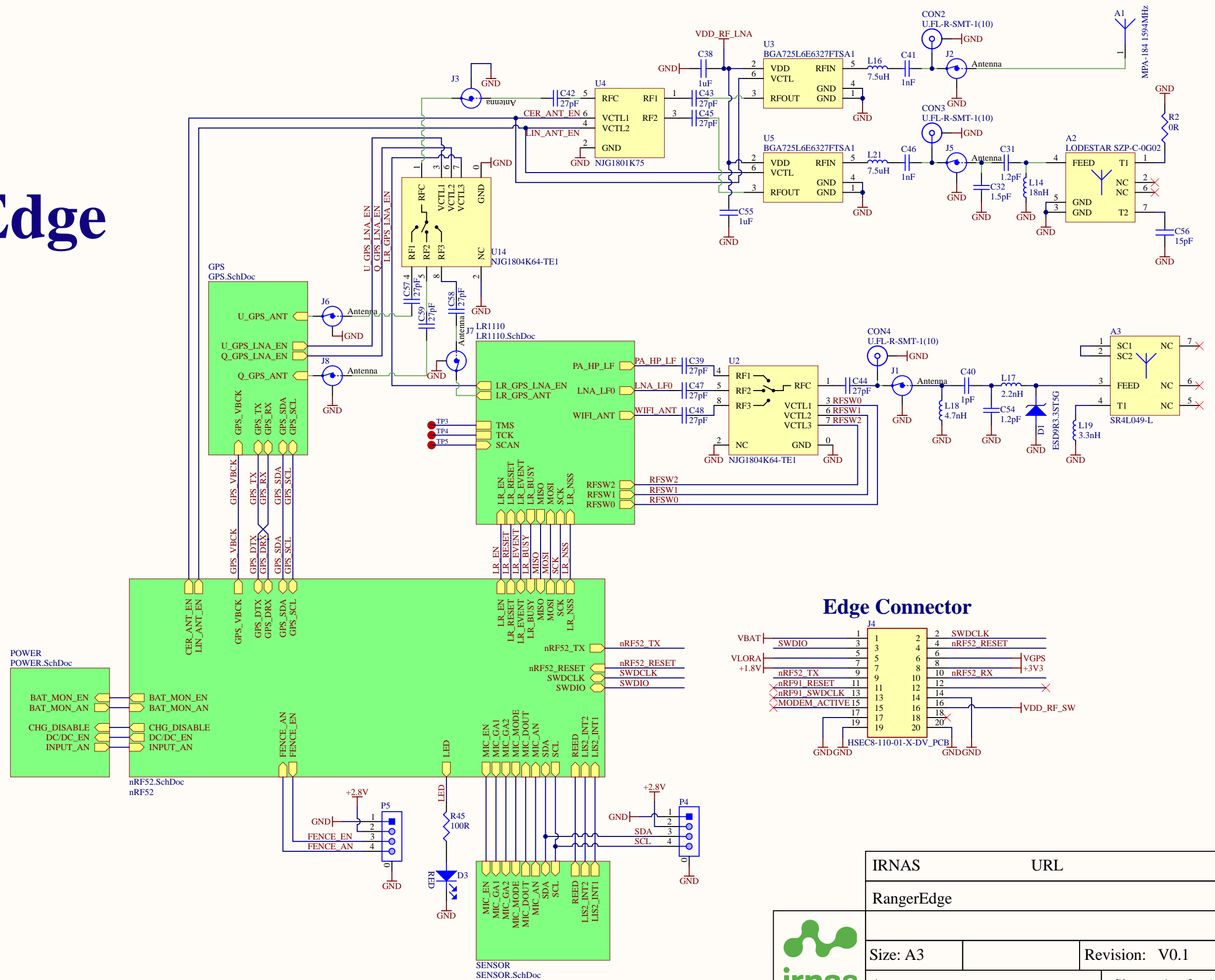
v0.2 - dd.mm.yyyy

DESIGN CONSIDERATIONS

DESIGN NOTE:
Example text for informational
design notes.

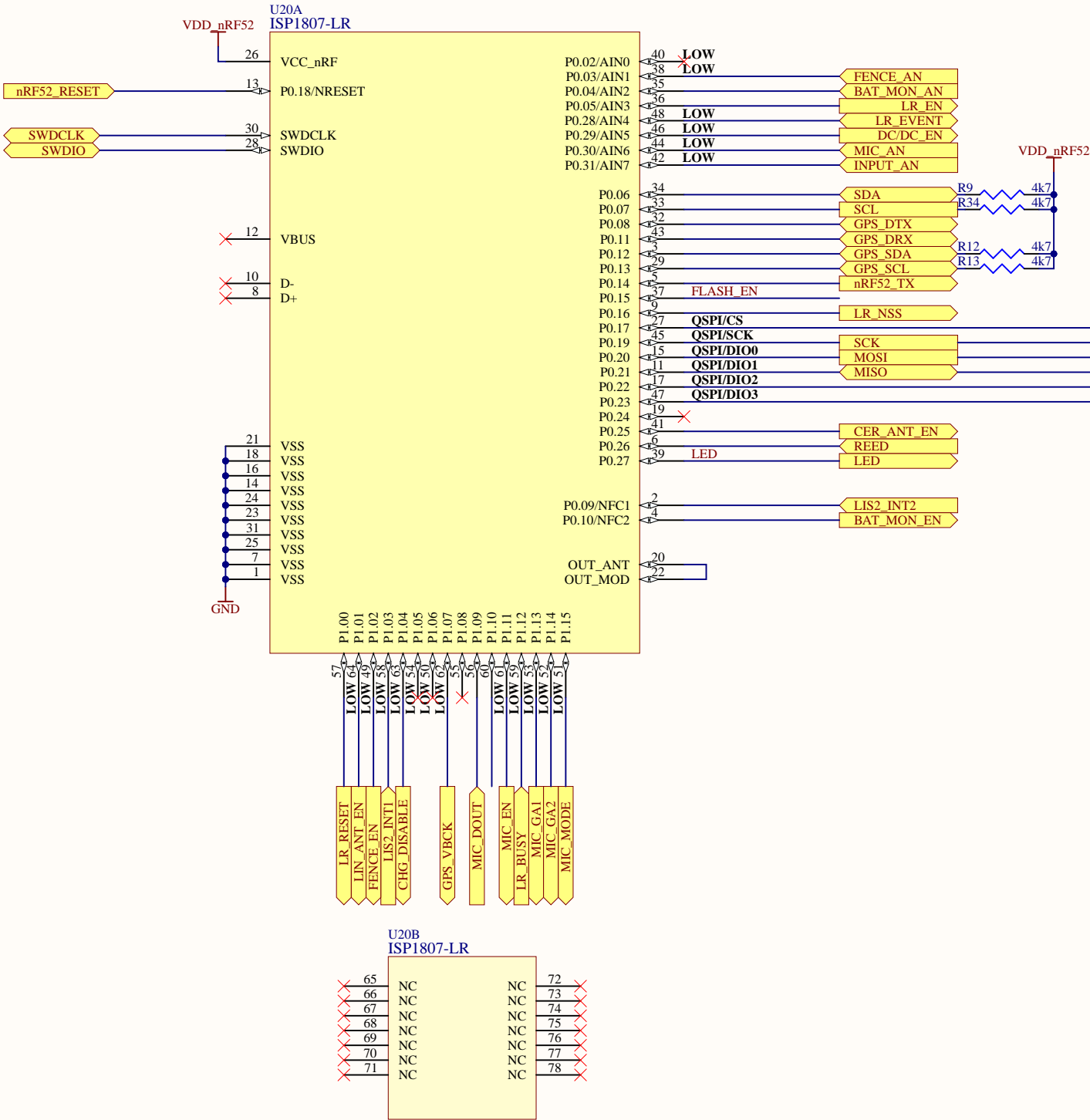
DESIGN NOTE:
Example text for critical
design notes.

LAYOUT NOTE:
Example text for critical
layout guidelines.



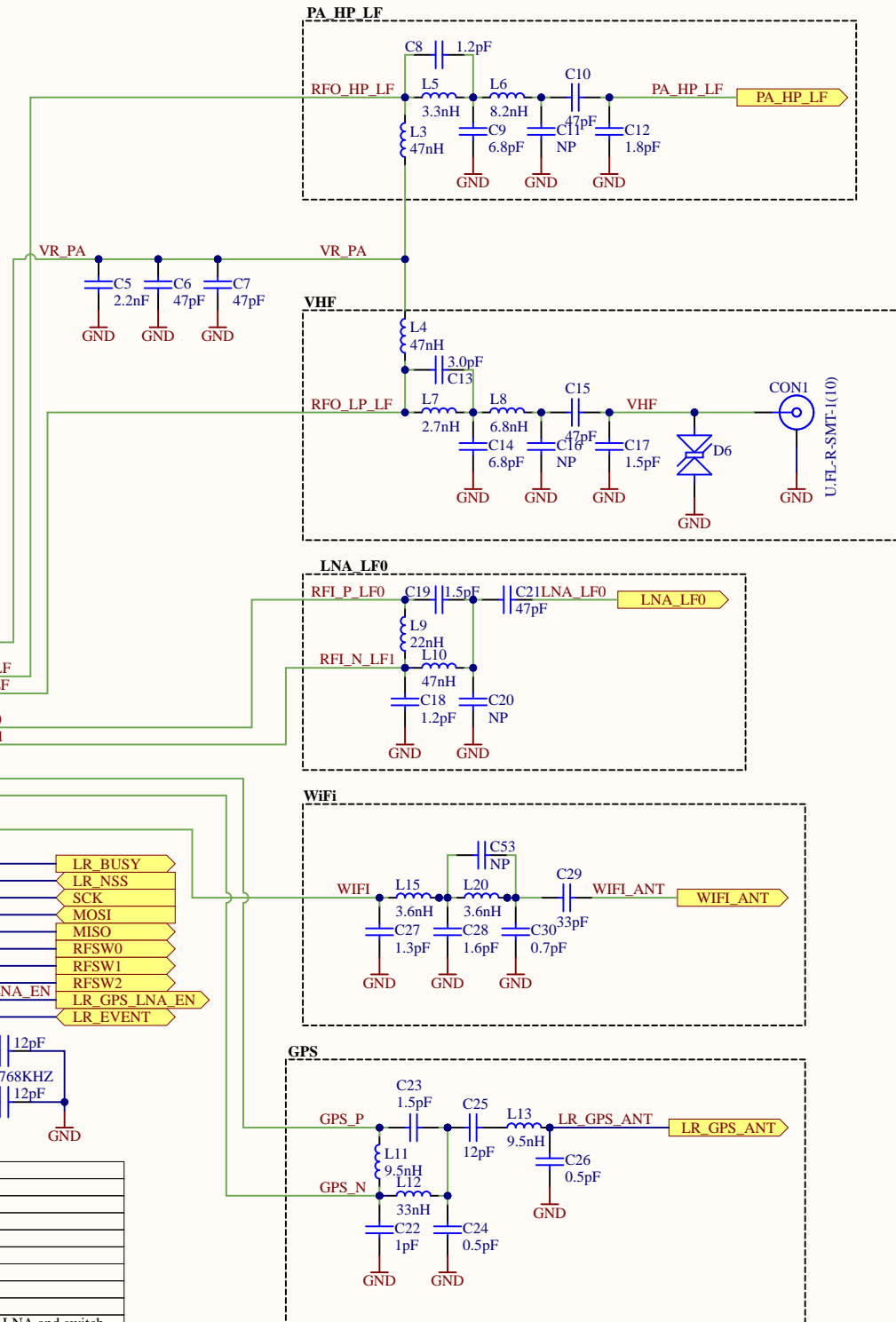
IRNAS		URL	
RangerEdge			
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Pin number	Pin type	Pin name	Function
P0.02	Analog	INPUT_AN	Analog value to meashure input voltage 0-32V
P0.03	Analog	VSWR_AN	Analog value for voltage standing wave ratio. Enable VSWR_EN for analog
P0.04	Analog	BAT_MON_AN	Analog value to meashure battery voltage
P0.05	Digital	LR_RESET	LR1110 reset. Active on low.
P0.06	Digital	SDA	I2C SDA communication to sensors
P0.07	Digital	SCL	I2C SCL communication to sensors
P0.08	Digital	GPS_DTX	GPS UART TX communication
P0.11	Digital	GPS_DRX	GPS UART RX communication
P0.12	Digital	GPS_SDA	GPS I2C SDA communication
P0.13	Digital	GPS_SCL	GPS I2C SCL communication
P0.14	Digital	nRF52_RX	nRF52 UART RX communication
P0.15	Digital	nRF52_TX	nRF52 UART TX communication
P0.16	Digital	LR_NSS	LR1110 chip select signal. Active on high.
P0.17	Digital	FLASH_CS	Flash chip select signal. Active on high.
P0.19	Digital	SPI - CLK	SPI SCK clock signal
P0.20	Digital	SPI - MOSI	SPI MOSI master output signal
P0.21	Digital	SPI - MISO	SPI MISO master input signal
P0.22	Digital	FLASH_WP	Flash write protect signal.
P0.23	Digital	FLASH_HOLD	Flash hold signal.
P0.24	Not used		
P0.25	Digital	DTC_SEN	Digital tunable capacitor chip select signal. For comnication use SPI
P0.26	Digital	REED	Reed relay input signal
P0.27	Digital	LED	Output for LED
P0.28	Digital	LR_EVENT	LR1110 event signal
P0.29	Digital	DC/DC_EN	Enable for 1.8V power supply. Set high to turn on Ublox GPS
P0.30	Digital	LR_EN	LR1110 enable. This gives power to LR1110. Active on high.
P0.31	Digital	RFSW3	RF swich enable for BT antenna. Do not enable if LR1110 WIFI active!
P1.00	Not used		
P1.01	Digital	VSWR_EN	Enable mesurment for voltage standing wave ratio. Meashure analog vale on VSWR_AN
P1.02	Digital	GPIO1	General input output pin. Used for hack the poucher.
P1.03	Digital	LIS2_INT1	Interupt pin from accelerometer
P1.04	Digital	CHG_DISABLE	Disable charging signal. Active on high
P1.05	Not used		
P1.06	Not used		
P1.07	Digital	UBLOX_VBCK	Output for UBLOX backup power. Keep high to keep GPS date for short hot fix time. Pull high after successful cold fix.
P1.08	Not used		
P1.09	Not used		
P1.10	Not used		
P1.11	Not used		
P1.12	Digital	LR_BUSY	LR1110 busy signal
P1.13	Not used		
P1.14	Not used		
P1.15	Not used		

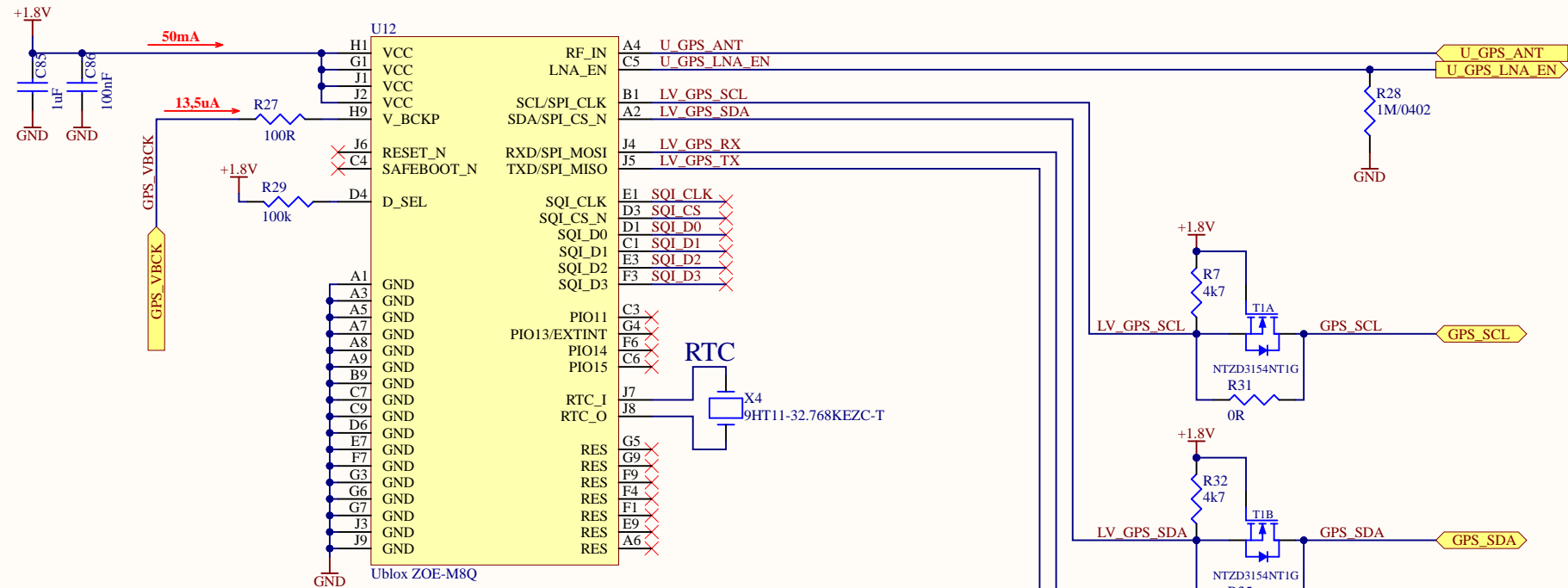




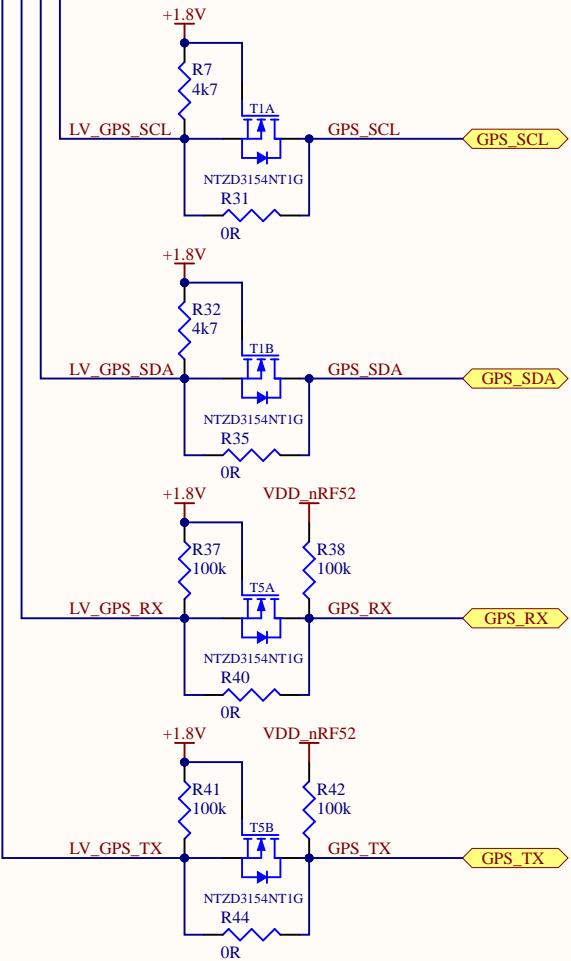
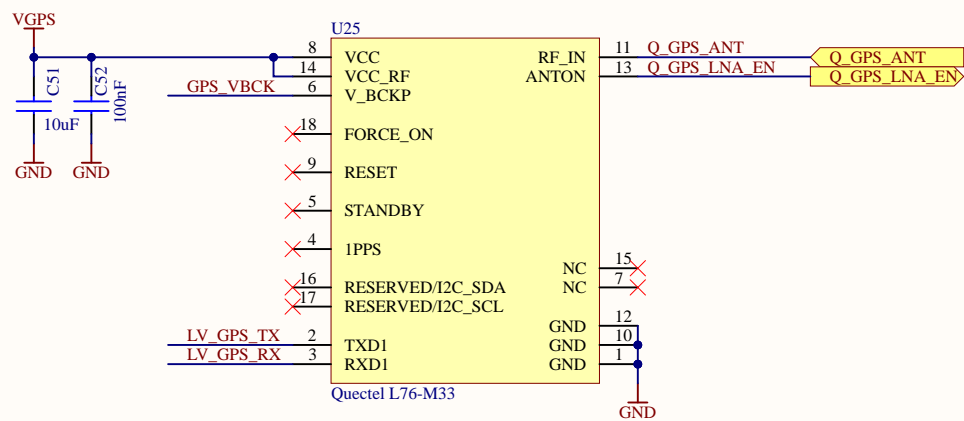
Pin number	Pin type	Pin name	Function
DIO0	Digital	LR_BUSY	LR1110 busy signal
DIO1	Digital	LR_NSS	LR1110 chip select signal
DIO2	Digital	SCK	SPI - SCK
DIO3	Digital	MOSI	SPI - MOSI
DIO4	Digital	MISO	SPI - MISO
DIO5	Digital	RFSW0	RFSW0 signal
DIO6	Digital	RFSW1	RFSW0 signal
DIO7	Digital	RFSW2	RFSW0 signal
DIO8	Digital	LR_GPS_LNA_EN	LR1110 signal to enable GPS LNA and switch
DIO9	Digital	LR_EVENT	LR1110 event signal



UBLOX GPS

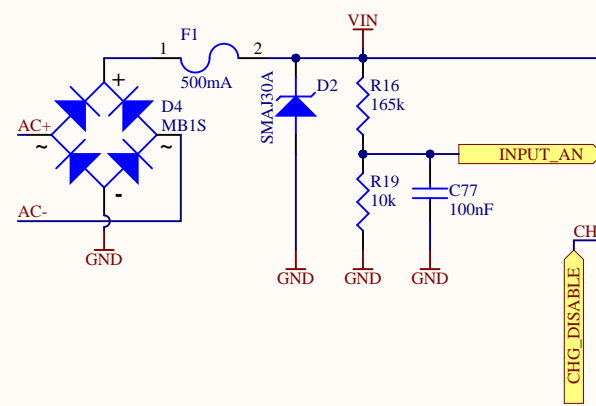


Quectel GPS

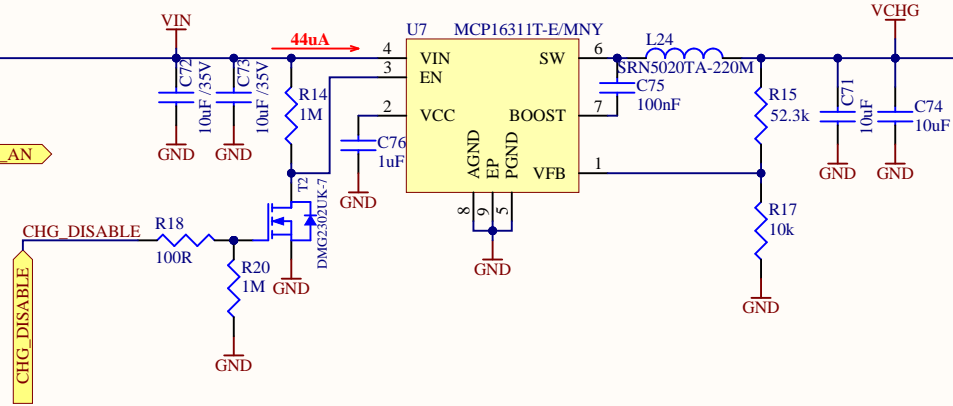


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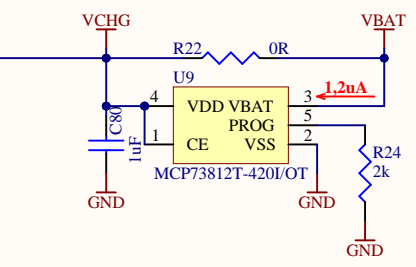
Input stage (32V max.)



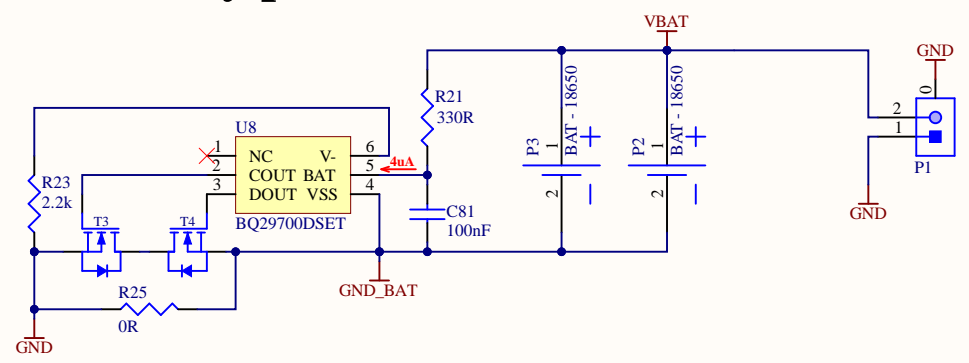
5V DC/DC converter



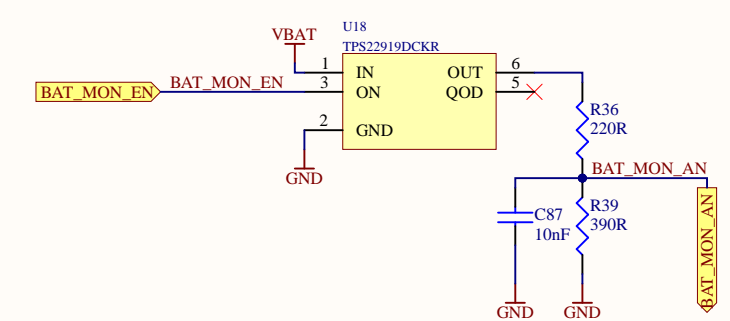
Battery charger



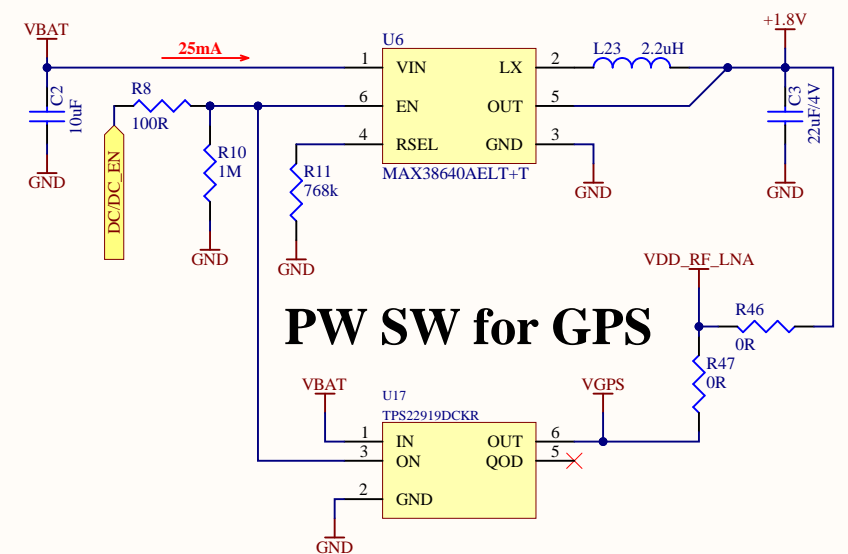
Battery protection



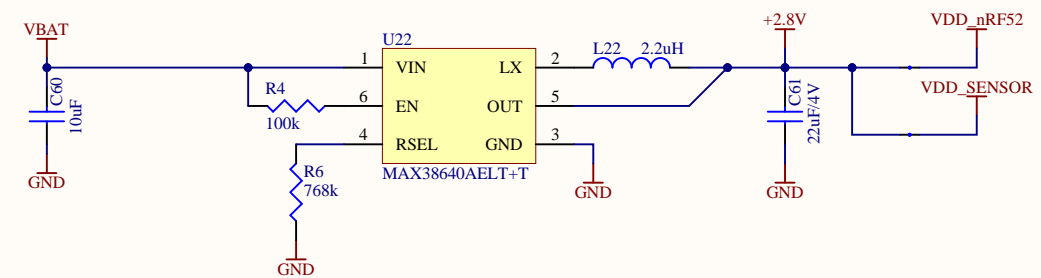
Battery measurement



1.8V DC/DC converter



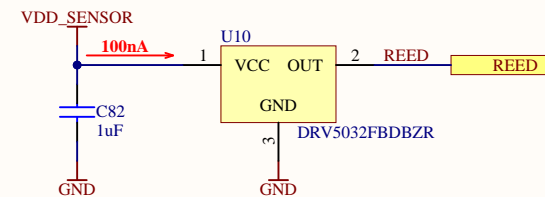
1.8V DC/DC converter



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Hall sensor



Accelerometer

