Rhino - Power

Power board for delivering power from battery to MCU, GPS, LORA and sensors

CONTENTS:

POWER.SchDoc - Power supply

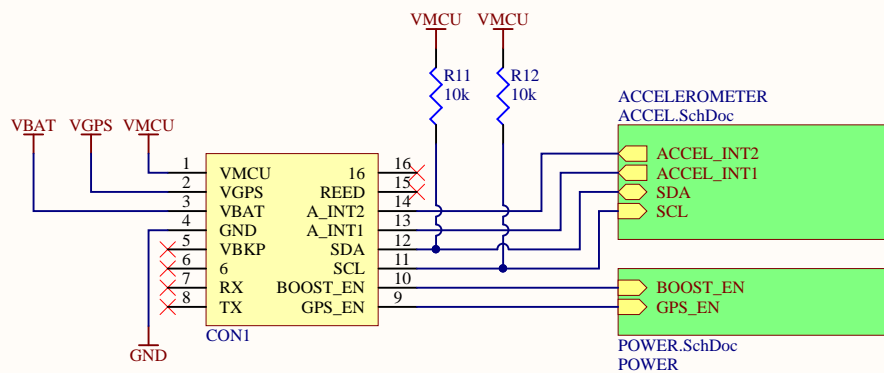ACCEL.SchDoc - Accelerometer

Version Revision:

V1 - dd.mm.yyyy

DIAGRAM

VMCU VMCU

R11 10k R12 10k

ACCELEROMETER
ACCEL.SchDoc

VBAT VGPS VMCU

	CON1	
1	VMCU	16
2	VGPS	REED 15
3	VBAT	A_INT2 14
4	GND	A_INT1 13
5	VBKP	SDA 12
6	6	SCL 11
7	RX	BOOST_EN 10
8	TX	GPS_EN 9

GND

ACCEL_INT2
ACCEL_INT1
SDA
SCL

BOOST_EN
GPS_EN

POWER.SchDoc
POWER

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.

U2 LP2985-25DBVR
- VBAT
- D1 BAT54HT1G
- C10 1uF
- C11 100nF
- 1 VIN
- 3 ON/OFF
- OUT 5
- BYPASS 4
- GND 2
- +2.5V
- C12 10nF
- C13 1uF
- C14 100nF
- GND

U3 TPS78318DDCT
- +2.5V
- R13 0R
- +1.8V
- R8 100R
- GPS_EN
- R2 100k
- C4 1uF
- 1 VIN
- 3 EN
- OUT 5
- GND 2
- GND 4
- C3 2.2uF 6V3
- GND

U4 STBB1-APUR
- VBAT
- C5 100nF
- C6 4u7/16V
- C7 4u7/16V
- R3 0R
- L1 2.2uH
- 4 VIN
- 5 VINA
- SW1
- 2 SW2
- VOUT 1
- +2.5V
- R4 402k
- C8 22u 6.3V
- C9 100nF
- 6 EN
- 7 MODE
- GND PGND PGND
- FB 10
- FB
- R7 100k
- BOOST_EN
- R9 100R
- R10 100k
- R5 0R
- R6 0R
- VBAT
- 9 0 3
- GND

IRNAS URL

Rhino - Power

Size: A3

Revision: V1

Sheet 2 of 3

www.irnas.eu

U1 — LIS2DW12TR

Pin	Name		Name	Pin
9	VDD	CS	2
10	VDDIO	SCL/SPC	1
		SDO/SA0	3
7	RES	SDA/SDI/SDO	4
5	NC		
6	GND	INT1	12
8	GND	INT2	11

+2.5V

C1 10uF
C2 100nF

SCL
SDA

ACCEL_INT1
ACCEL_INT2

R1 10k

GND

IRNAS   URL

Rhino - Power

Size: A3   Revision: V1

*   Sheet 3 of 3

www.irnas.eu