

GPA-UWT-788

Variant: [No Variations]

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s.10

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s.11

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Introduction

This board manages power control and distribution for my Octapod.

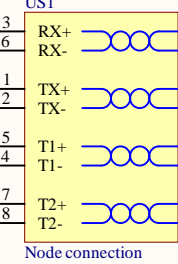
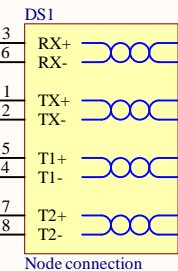
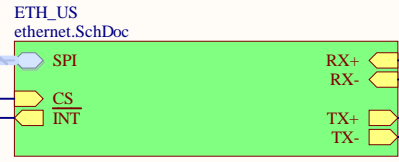
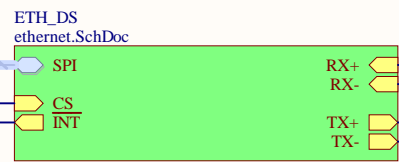
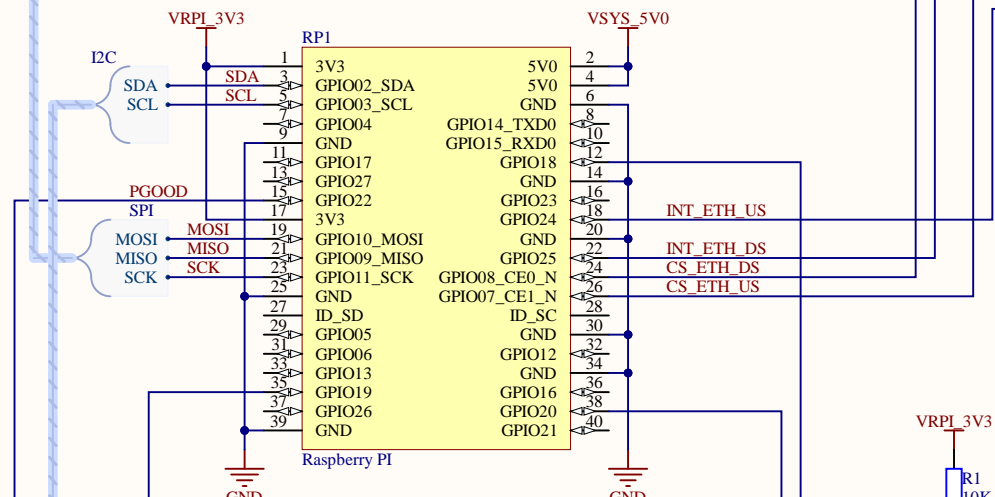
The power board has the following responsibilities:

- * Regulate servo voltage from 2 or 3S Li-ion battery packs.
- * Measure voltage and current to servos.
- * Supply the main board with power (not regulated).
- * Provide soft-start functionality for servos.
- * Control power on/off to servos.
- * Protect batteries with UVLO and OVLO.
- * USB-C supply.
- * Provide an interface for both main board MCU(I2C) and NVM(serial-SCPI).

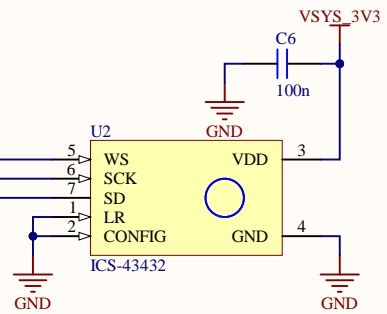
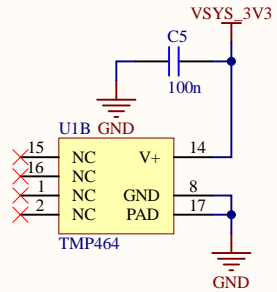
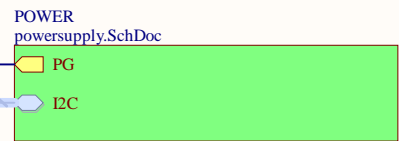
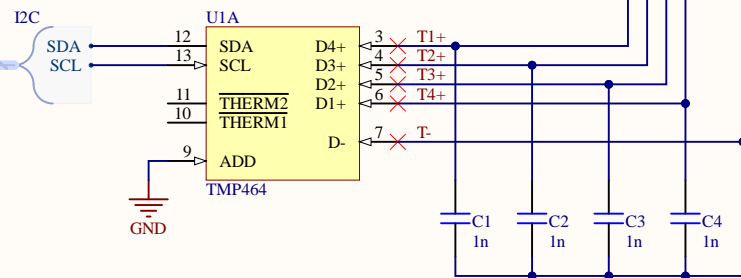
Specifications

- * Serial interface
- * I2C control address:
 - CONTrol: 0x70
 - EYEs: 0x48
- * I2C slave addresses:
 - USB-PD: 0x28
 - AUX-isense: 0x8A
 - Mux: 0x70 (1,2)
 - Reg-isens: 0x80
 - Leg-control: 0x60-0x63
 - Leg-isense: 0x70-0x73

Raspberry PI Zero



Temperature sense



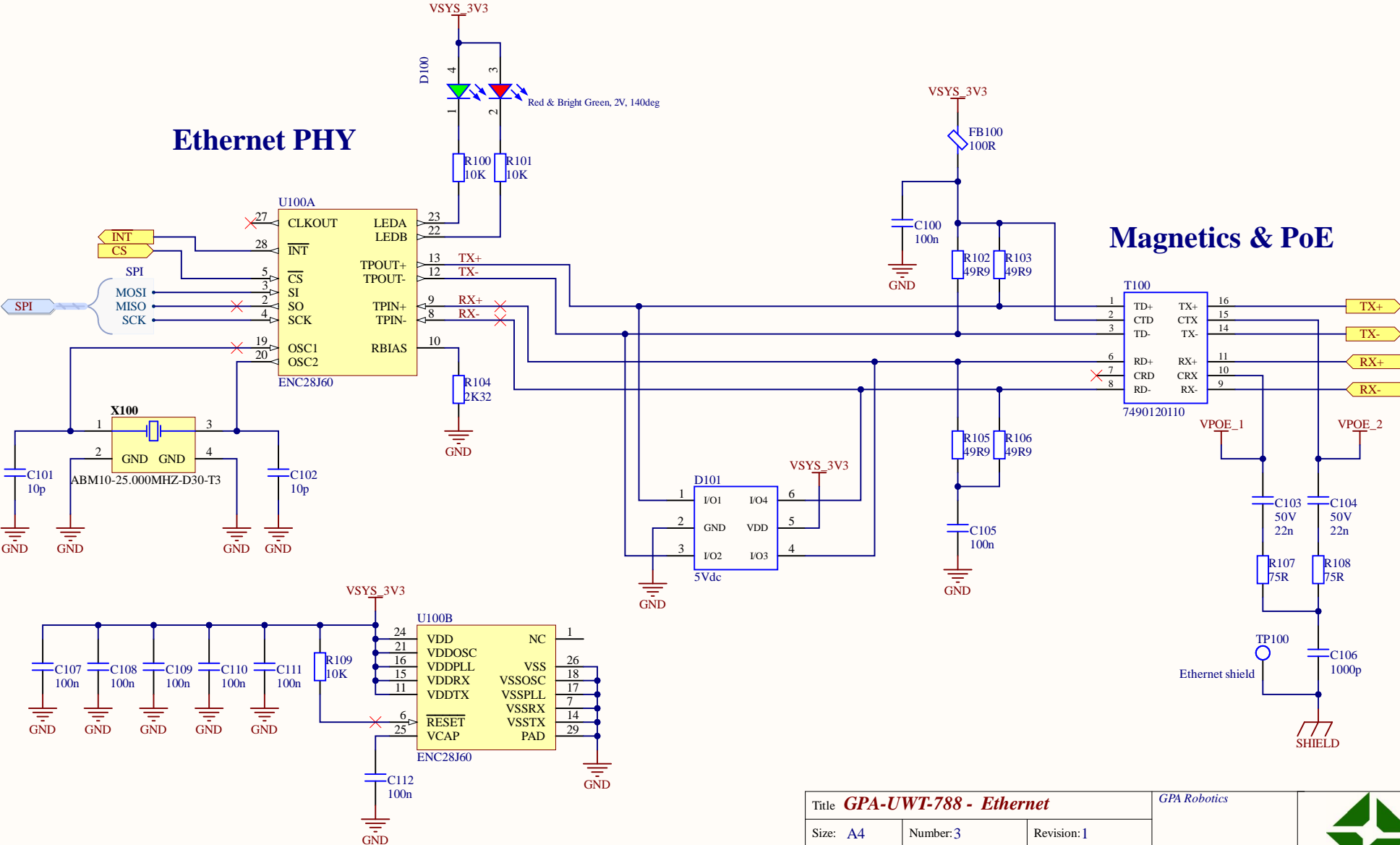
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Size: A4	Number: 2	Revision: 1
Date: 2020-10-30	Time: 07:23:09	Sheet 2 of 4
Repo: TODO		

GPA Robotics



Ethernet PHY

Magnetics & PoE



Title **GPA-UWT-788 - Ethernet**

GPA Robotics

Size: **A4**

Number: **3**

Revision: **1**

Date: **2020-10-30**

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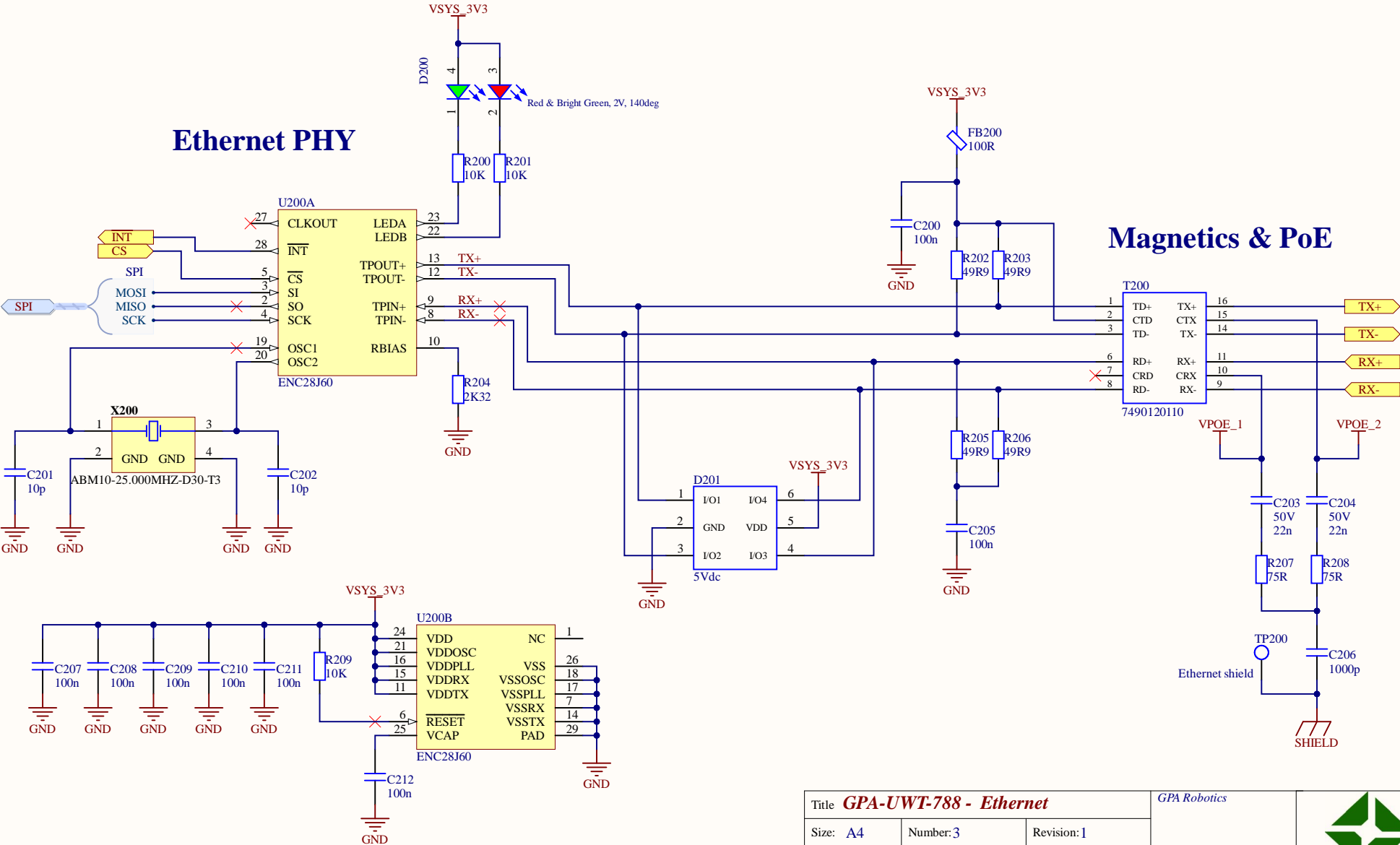
Sheet **3** of **4**

Repo: **TODO**



Ethernet PHY

Magnetics & PoE



Title **GPA-UWT-788 - Ethernet**

GPA Robotics

Size: **A4**

Number: **3**

Revision: **1**

Date: **2020-10-30**

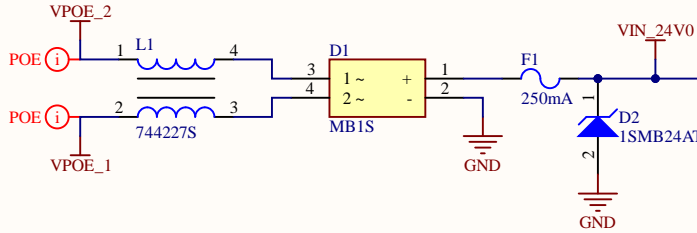
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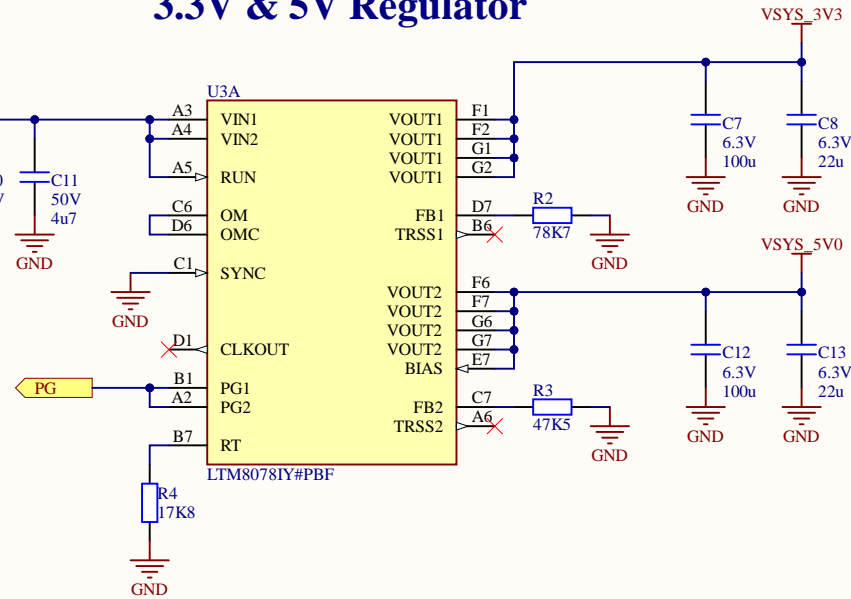
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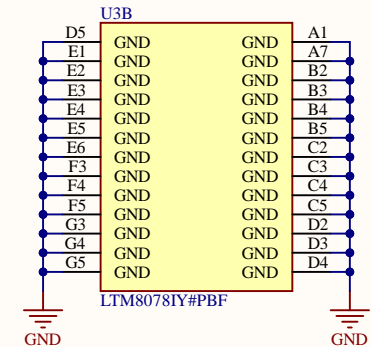
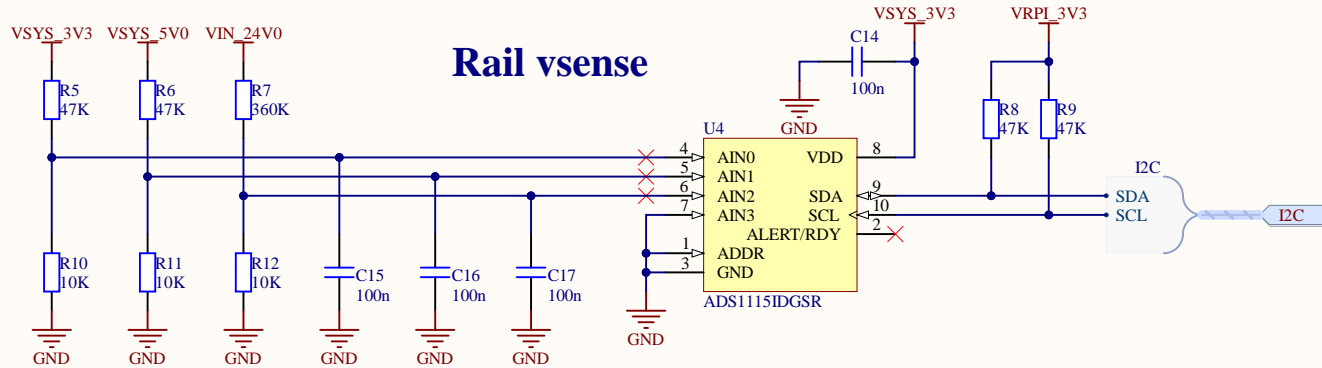
Input filter



3.3V & 5V Regulator



Rail vsense



Title **GPA-UWT-788 - Power supply**

GPA Robotics

Size: **A4**

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Repo: **TODO**

