

# COMMUNICATION SUBSYSTEM MAIN BOARD

## PN: 01-10-01

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Inductor parameters labeled in schematics: Name, Tolerance, Value, DC Current, Saturation Current, Max DC Resistance

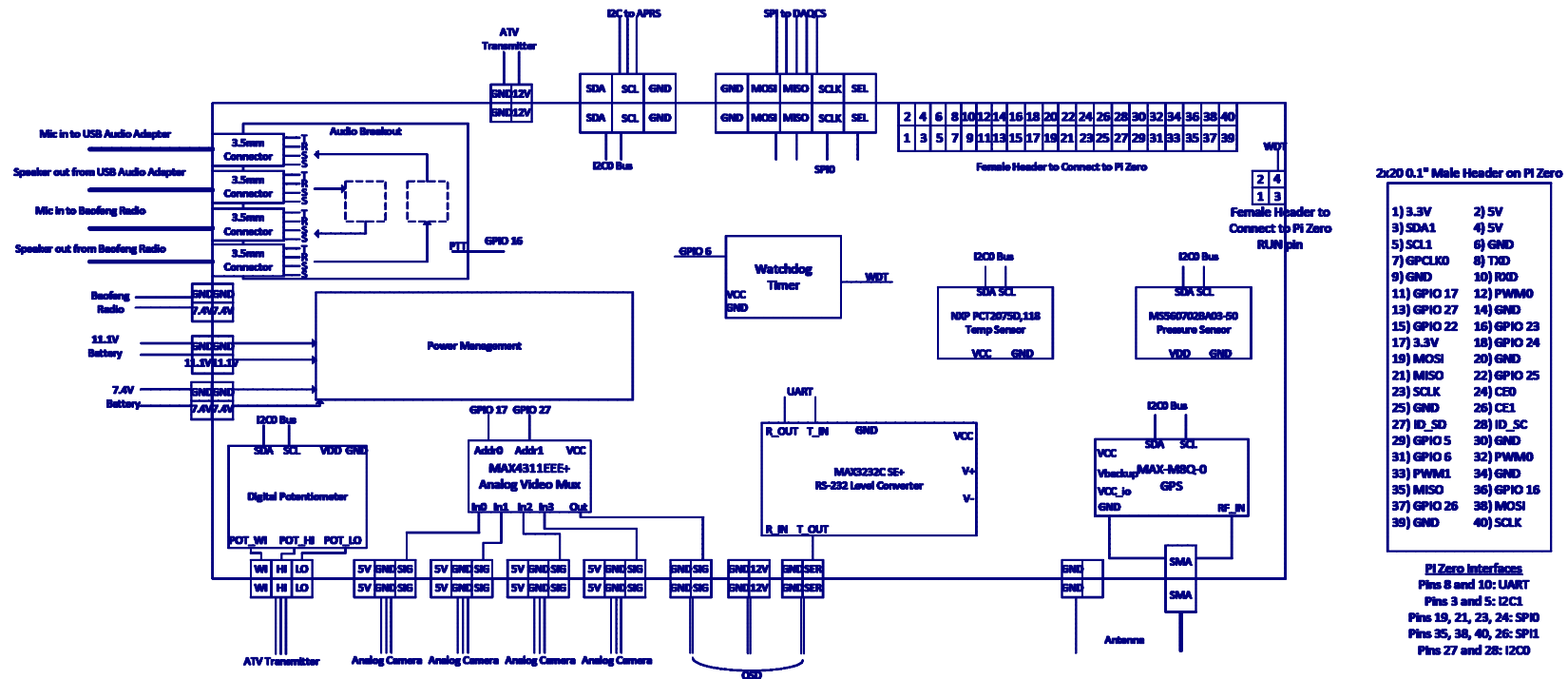
Resistor parameters labeled in schematics: Name, Tolerance, Value, Power

Capacitor parameters labeled in schematics: Name, Value, Tolerance, Voltage Rating

LOGO

Title Page and TOC
Comms_Main
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# COMMS Custom PCB Block Diagram



NOTE: See next page for a block diagram of the Power Management portion

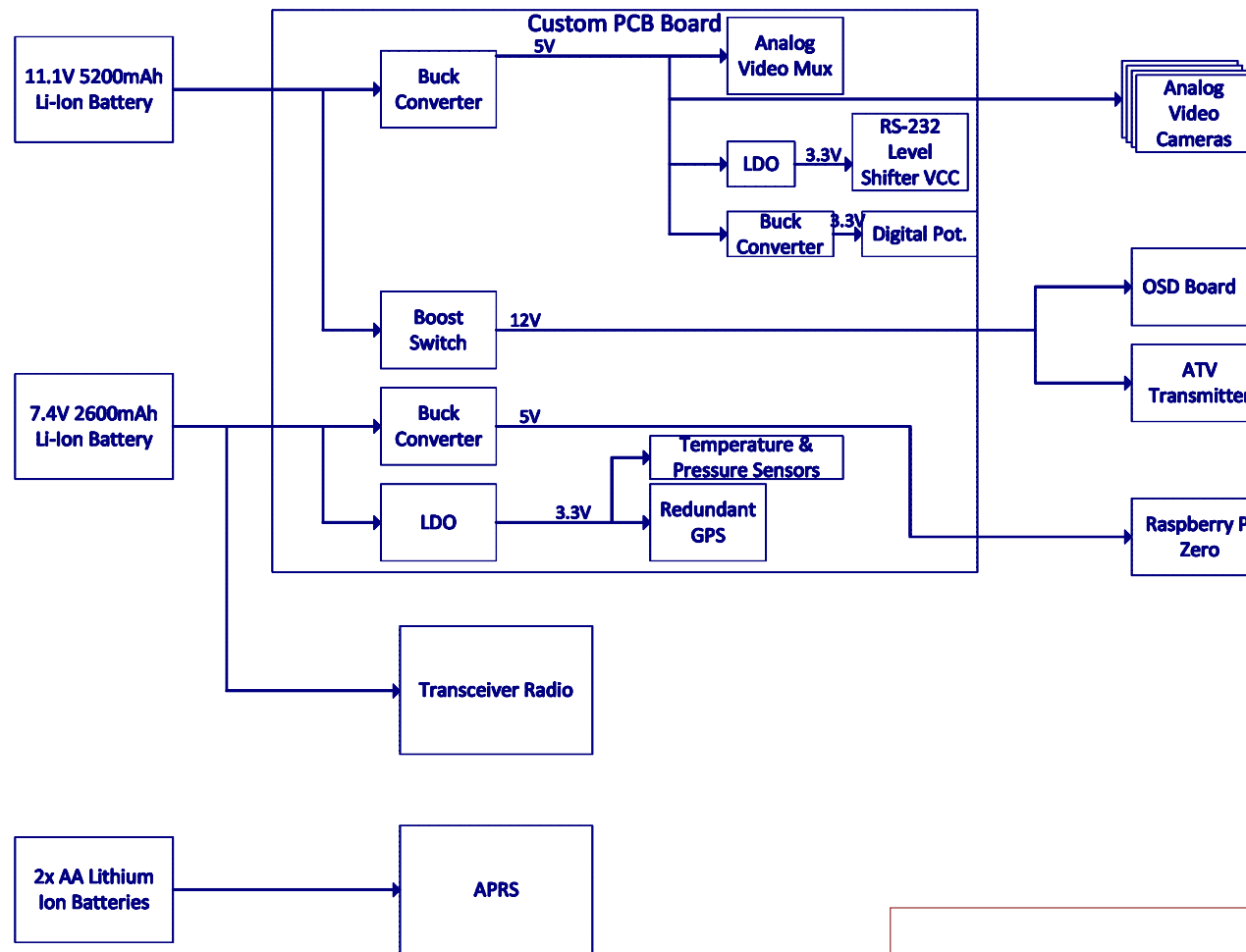
Main Block Diagram

Comms\_Main

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# Communication Subsystem Power Management



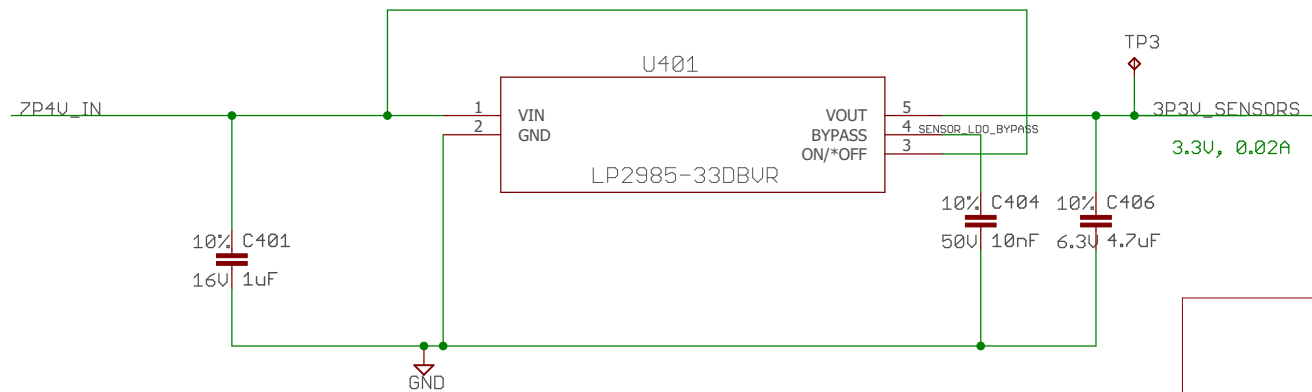
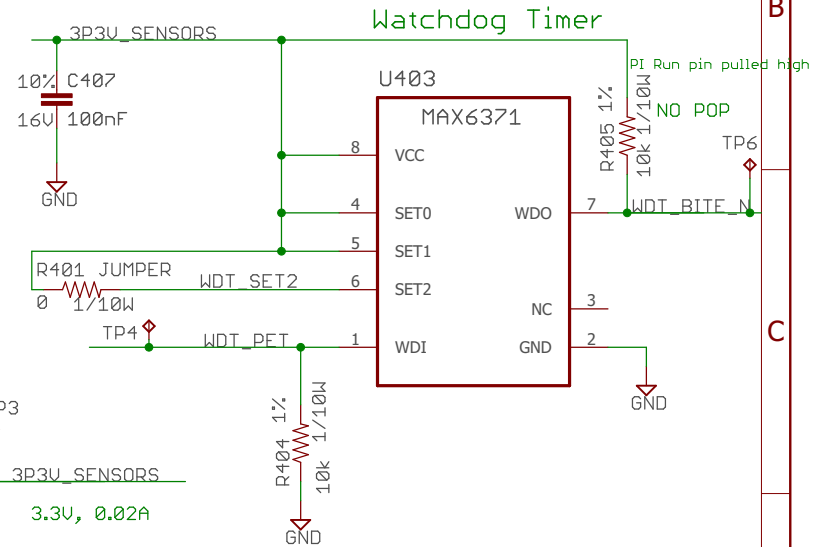
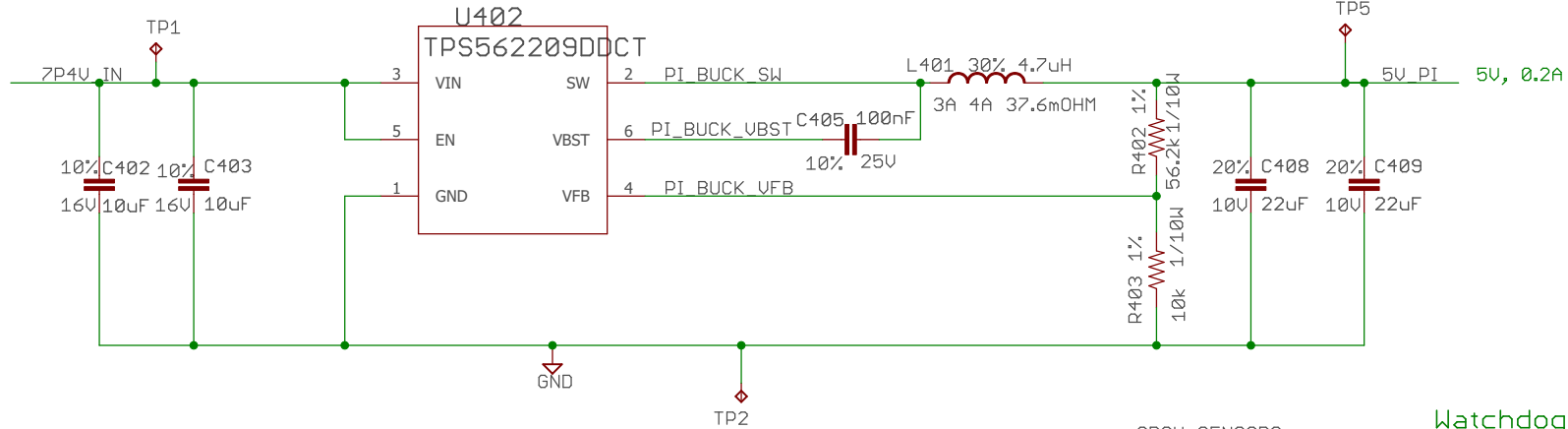
Power Block Diagram

Comms\_Main

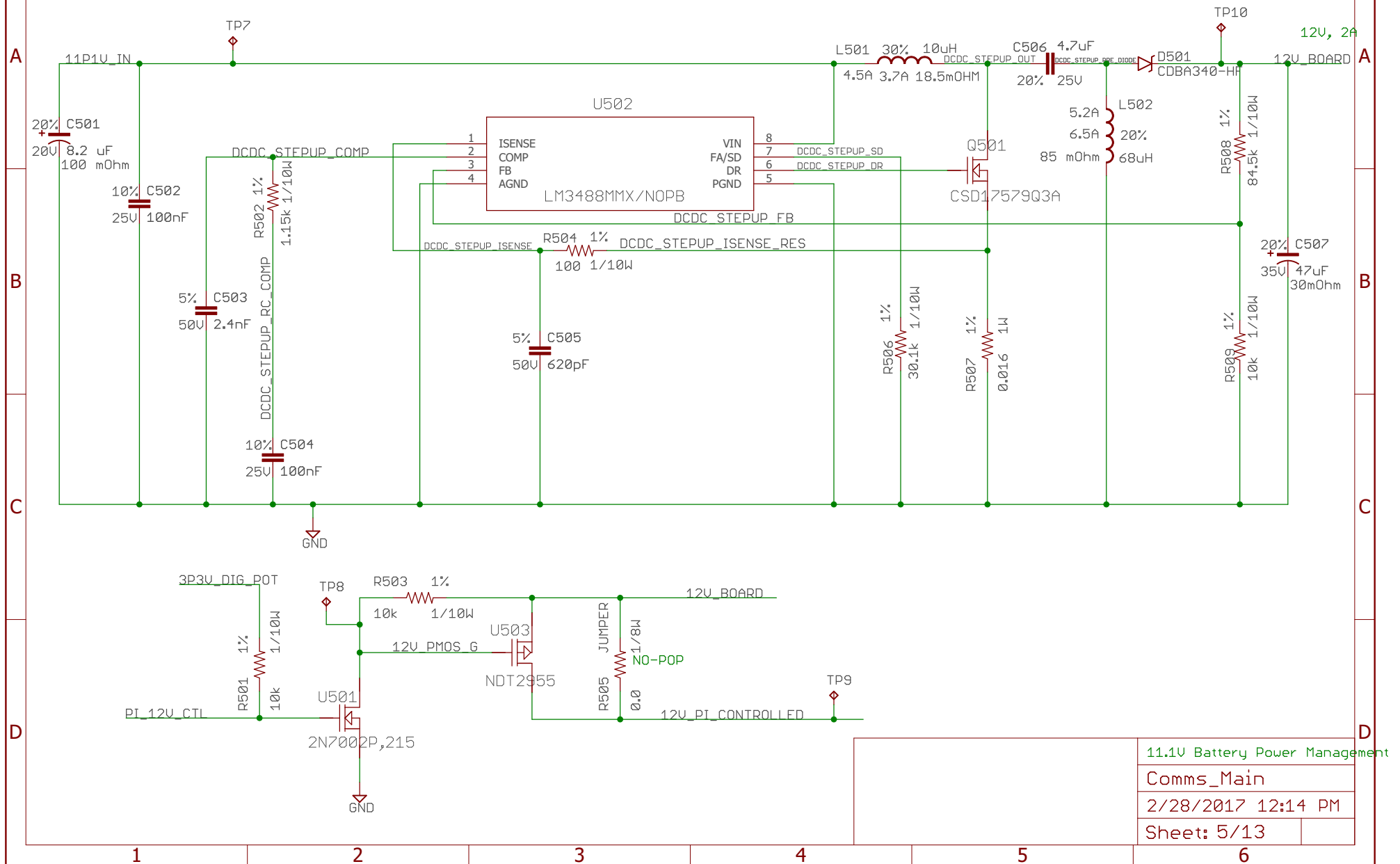
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# COMMS 7.4V Battery Power Management

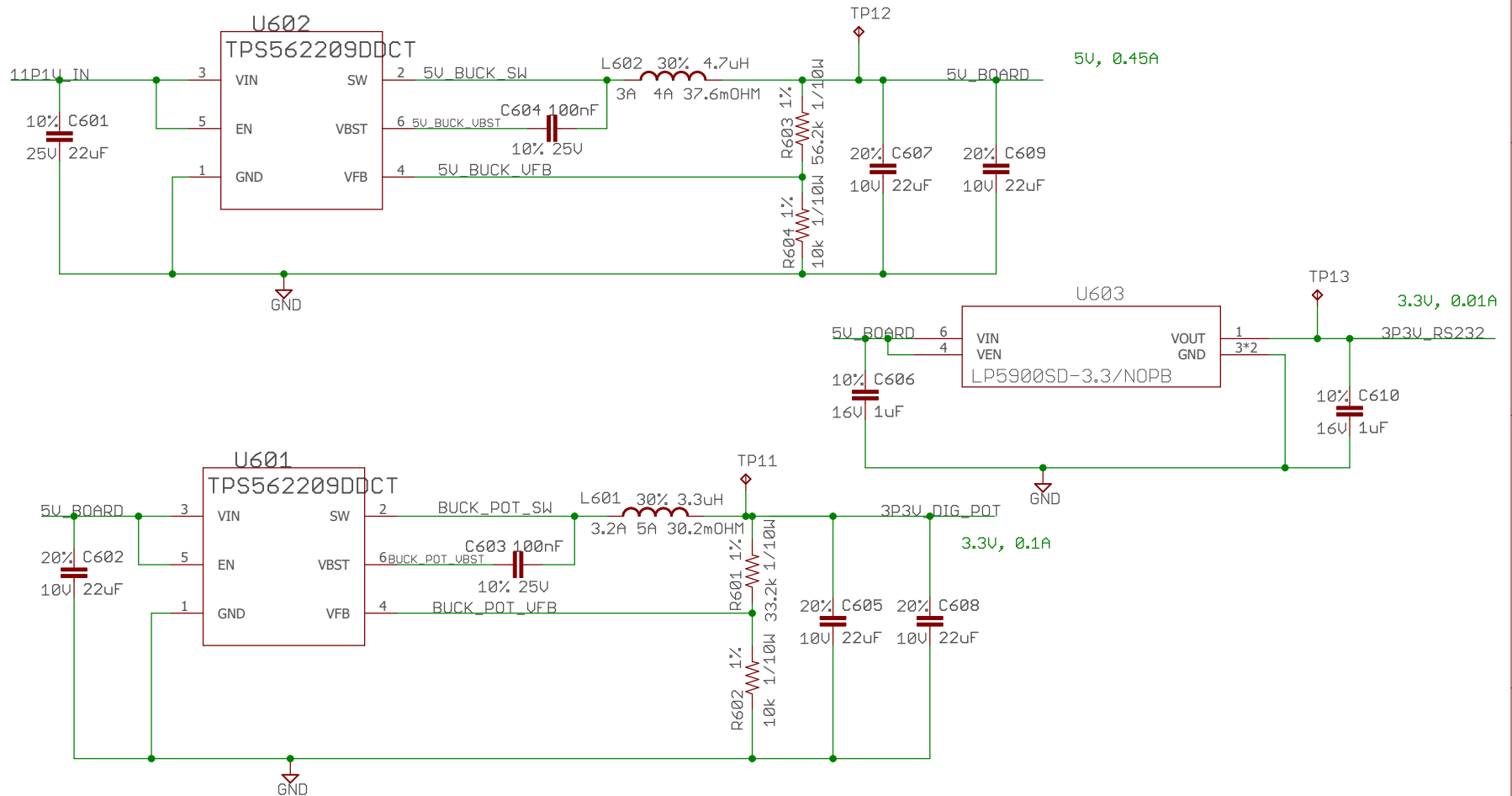


# COMMS 11.1V Battery Power Management



11.1V Battery Power Management	
Comms_Main	
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# COMMS 11.1V Battery Power Management



COMMS MAX-M8Q Primary 2m GPS

Controlled impedance of 50ohm to connector on PCB

J701

WRL-00593

300mA

L701

5%

0.550mOHM

27nH

GPS\_UCC\_RF\_RLC

10% C701

50V 10nF

SDA

SCL

GND

R701 1% 1/10W

GPS\_UCC-RF

10

FB702

BLM15HD102SN1D

GPS\_SDA

FB701

BLM15HD102SN1D

GPS\_SCI

U701

MAX-M8Q

10\_GND

11\_RF\_IN

12\_GND

13\_ANTON

14\_VCC\_RF

15\_RESERVED

16\_SDA2

17\_SCL2

18\_RESERVED

9\_V\_RESET

8\_VCC

7\_VCC\_IO

6\_V\_BCKP

5\_EXTINT0

4\_TIMEPULSE

3\_RXD1

2\_TXD1

1\_GND

3P3V\_SENSORS

GPS\_EXTINT

GPS TIMEPULSE

GPS\_RXD

GPS\_TXD

TP16

TP18P17

R702 1% 1/8W

390

GPS\_LED\_DRIVE

LED701

LTST-C170CKT

GPS Lock LED For ~4mA

10% C702

16V 100nF

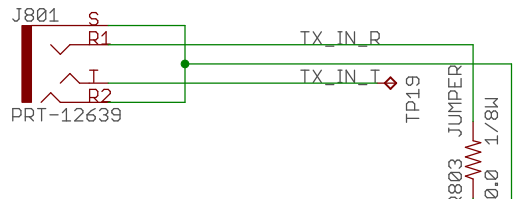
GPS Module	
Comms_Main	
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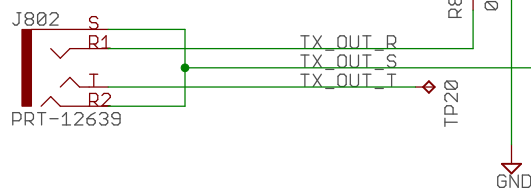
# COMMS 2m Transceiver Audio Jumpers

Pi -> 2m Transceiver

Pi

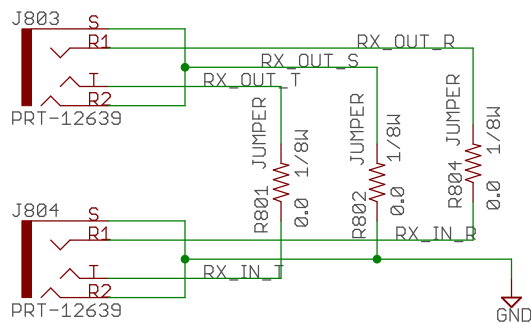


2m Transceiver

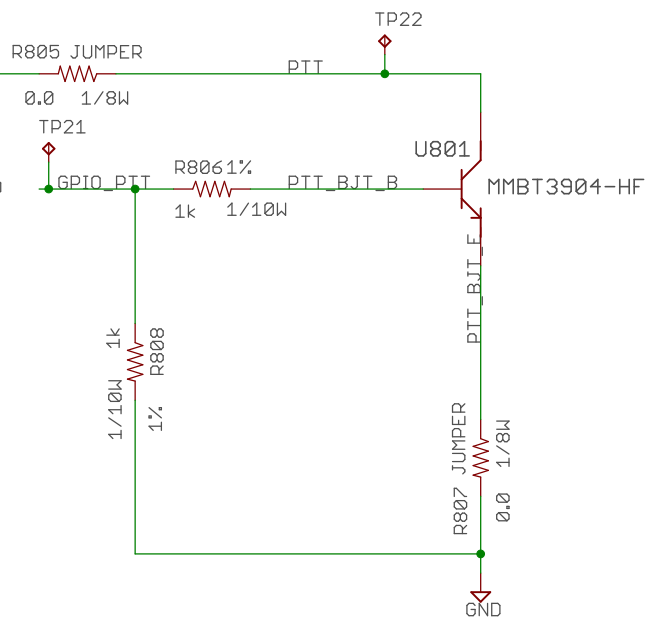


2m Transceiver -> Pi

Pi



2m Transceiver



Transceiver Audio Jumpers

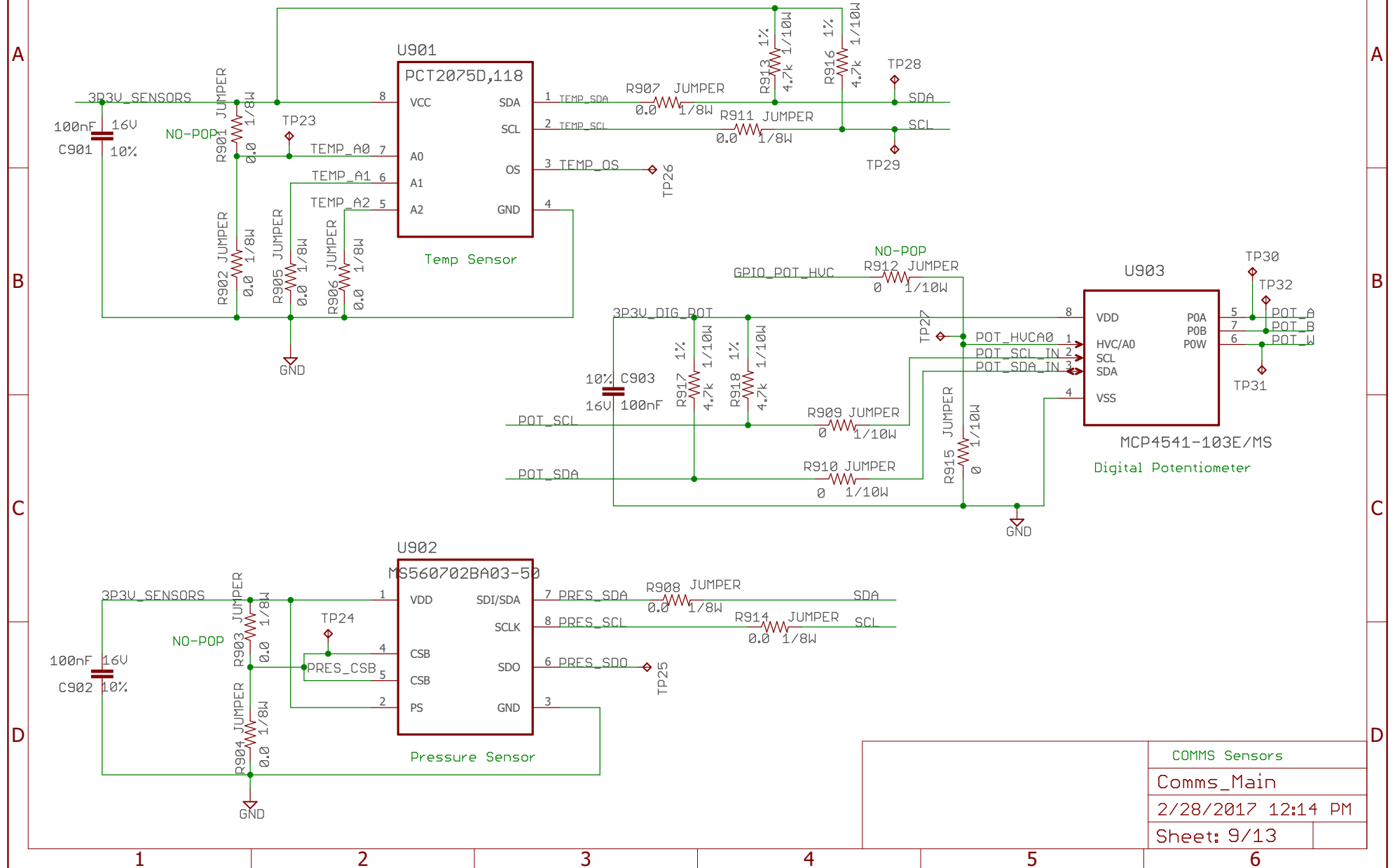
Comms\_Main

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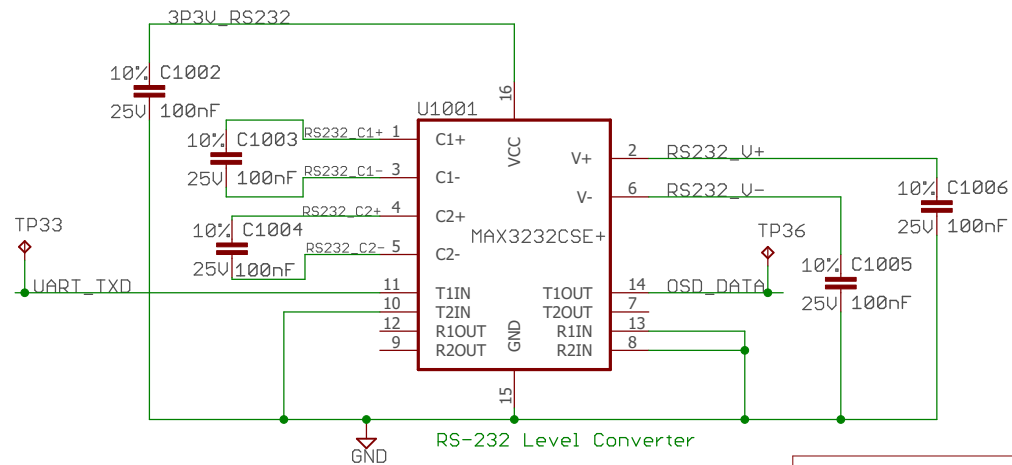
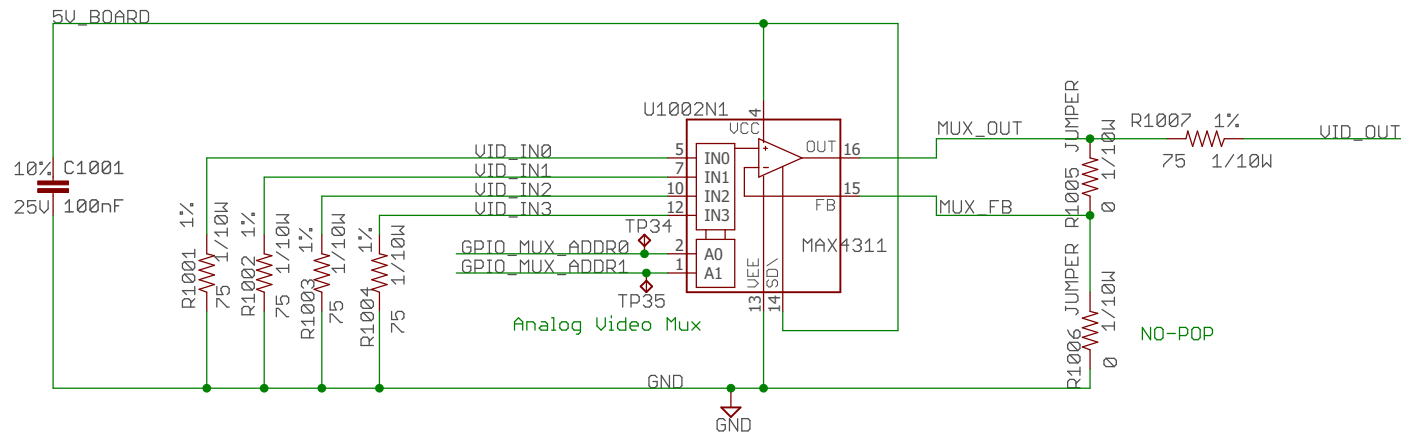
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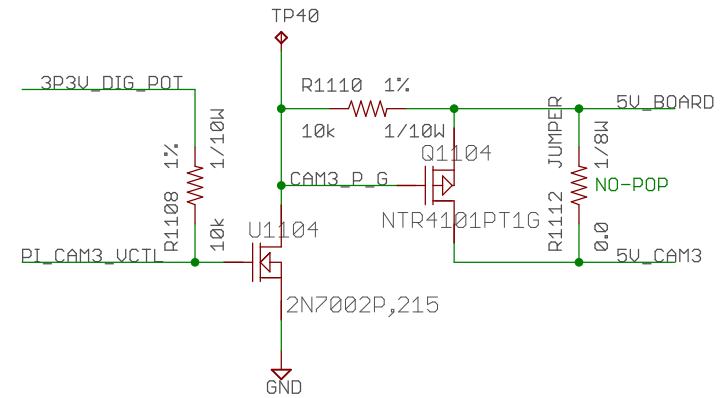
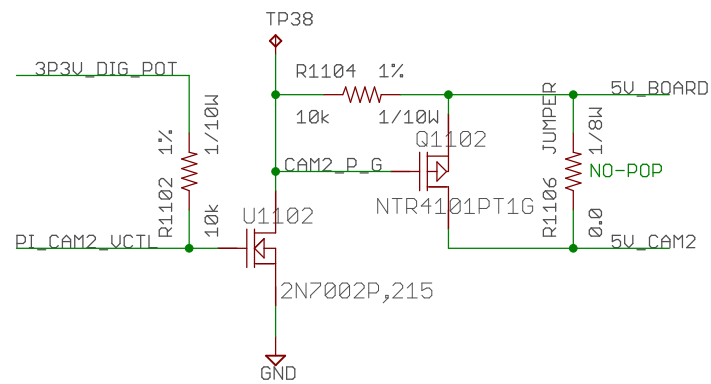
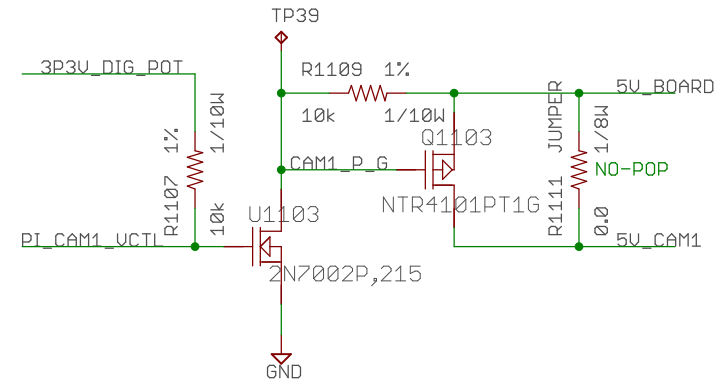
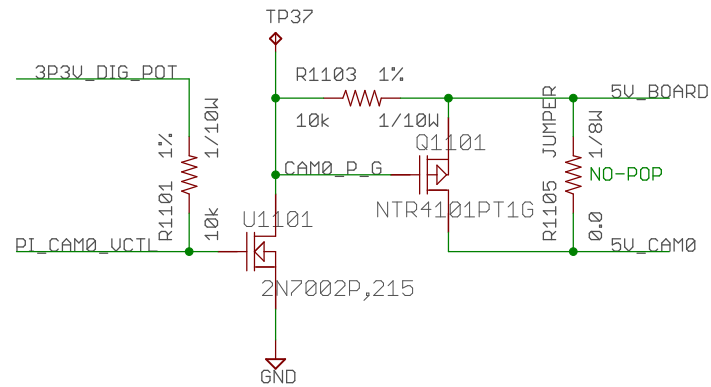
# COMMS Sensors



# COMMS Video



# NTSC Camera Voltage Control





# COMMS CONNECTORS (70cm/Cameras)

