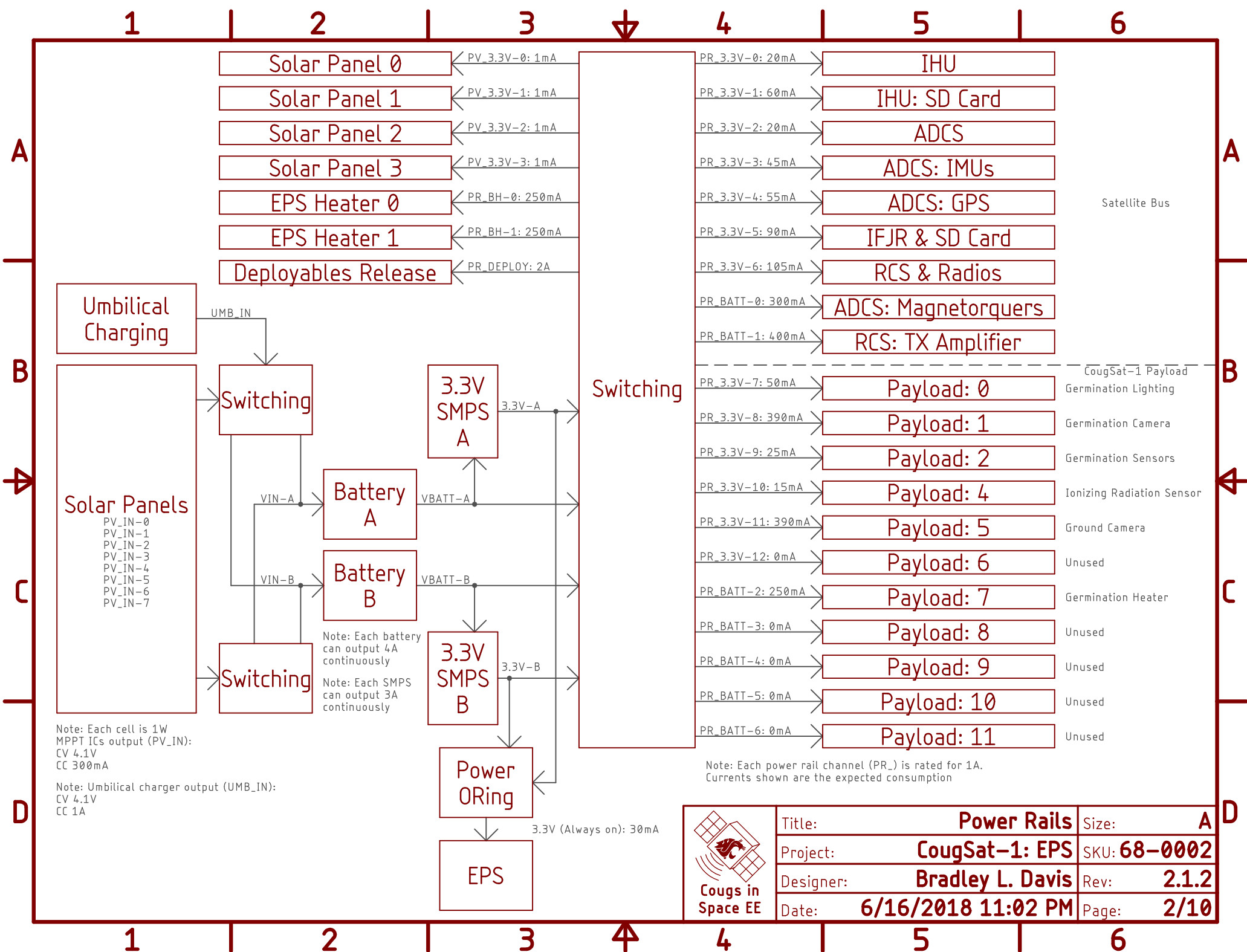


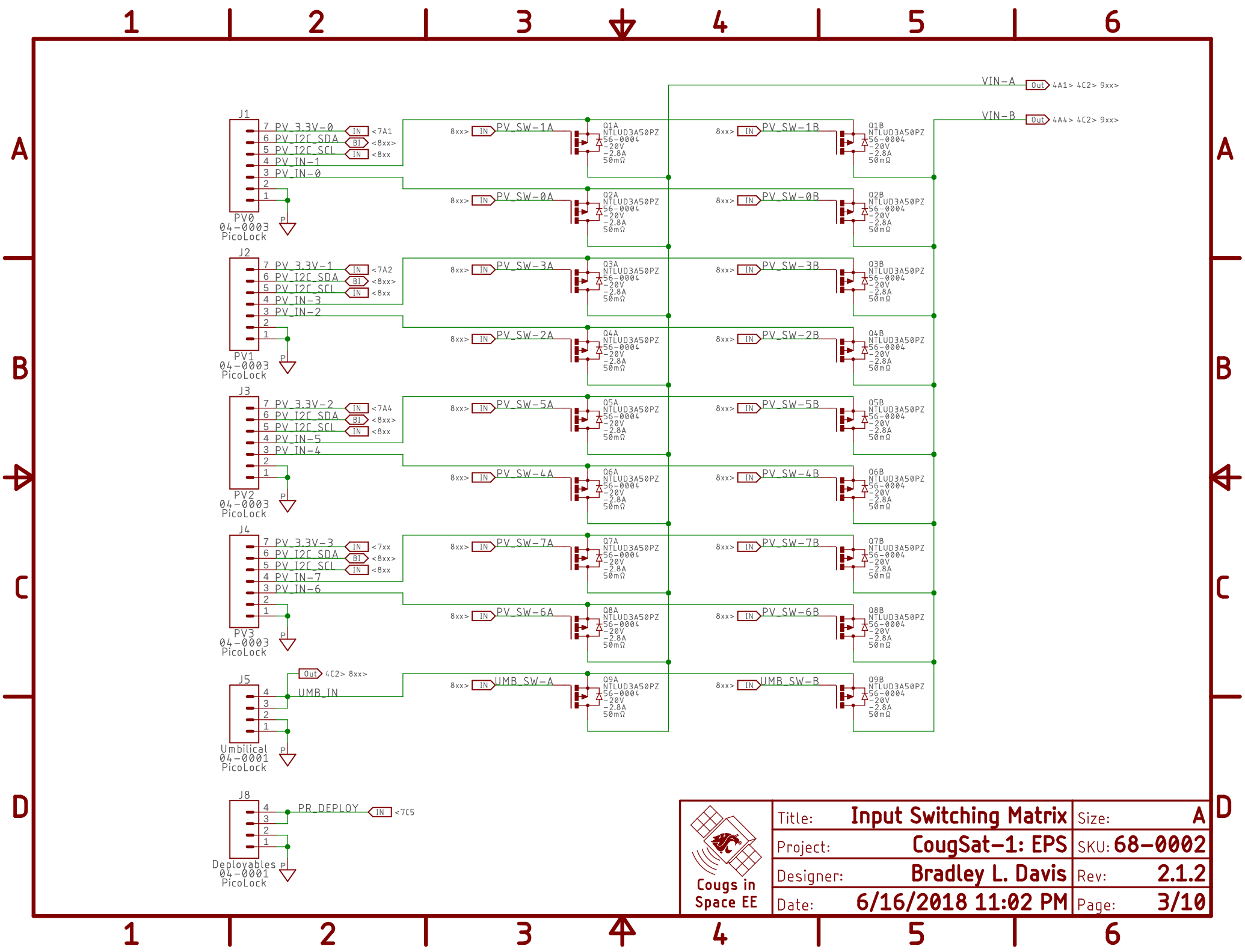
Page 1: Block Diagram  
Page 2: Power Rails  
Page 3: Input Switching Matrix  
Page 4: Batteries  
Page 5: 3.3V Regulation  
Page 6: Output Switching Matrix  
Page 7: Output Switching Matrix  
Page 8: PMIC  
Page 9: ADCs

Page 10: Mechanical Layout

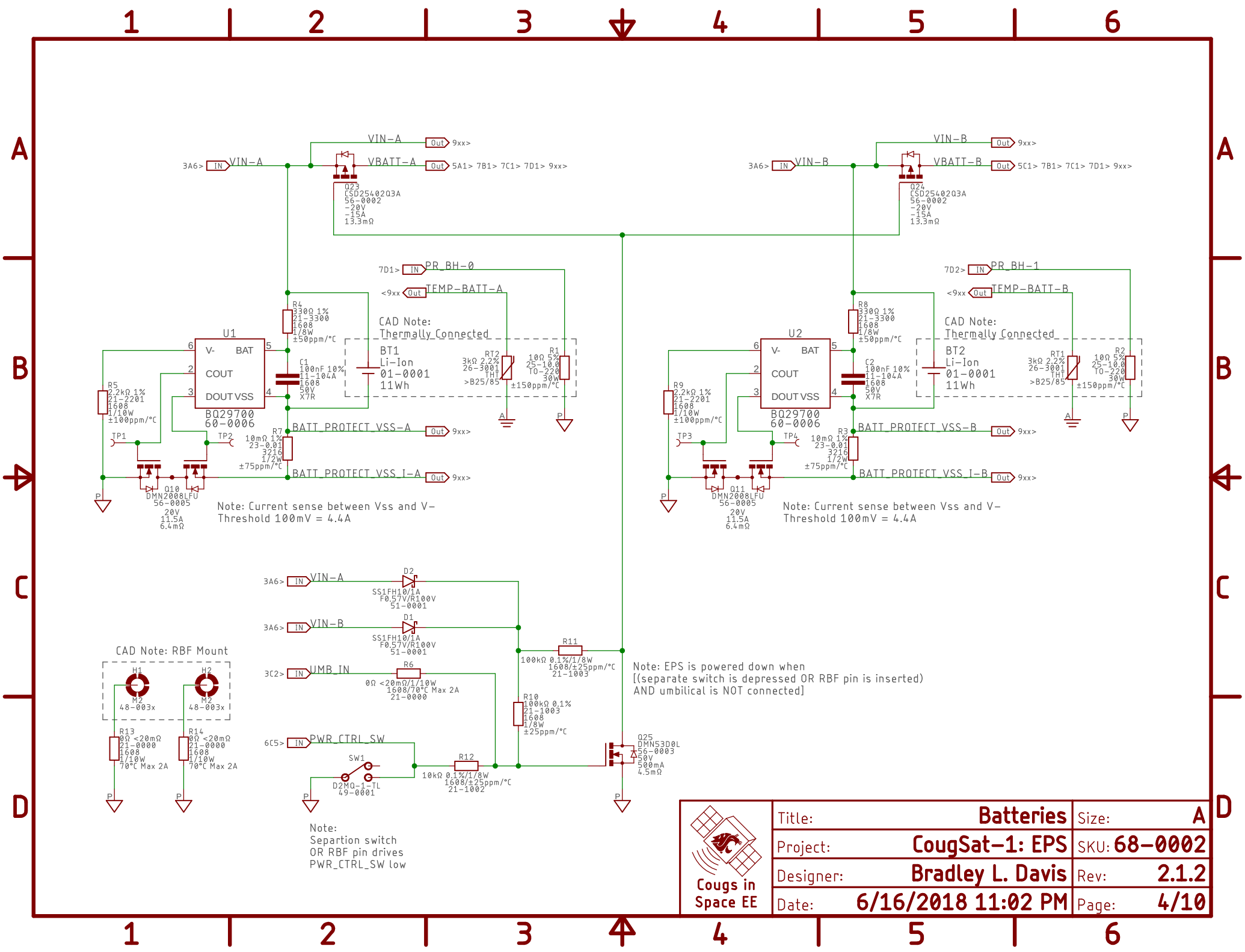


Title:	Block Diagram	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/16/2018 11:02 PM	Page:	1/10

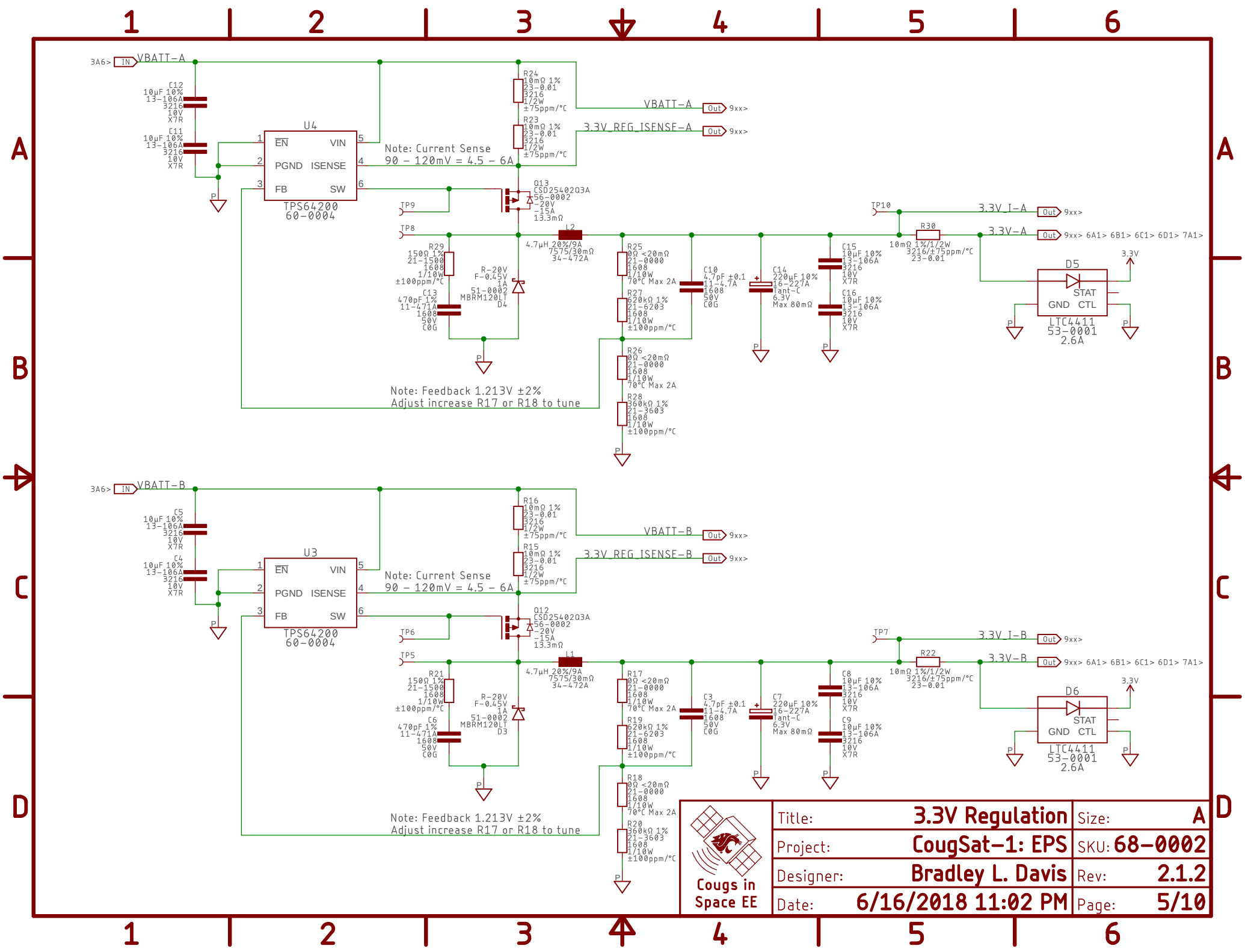




Title:	Input Switching Matrix	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/16/2018 11:02 PM	Page:	3/10



Title:	Batteries		Size:	A
Project:	CougSat-1: EPS		SKU:	68-0002
Designer:	Bradley L. Davis		Rev:	2.1.2
Date:	6/16/2018 11:02 PM		Page:	4/10





1

2

3

4

5

6

A

A

B

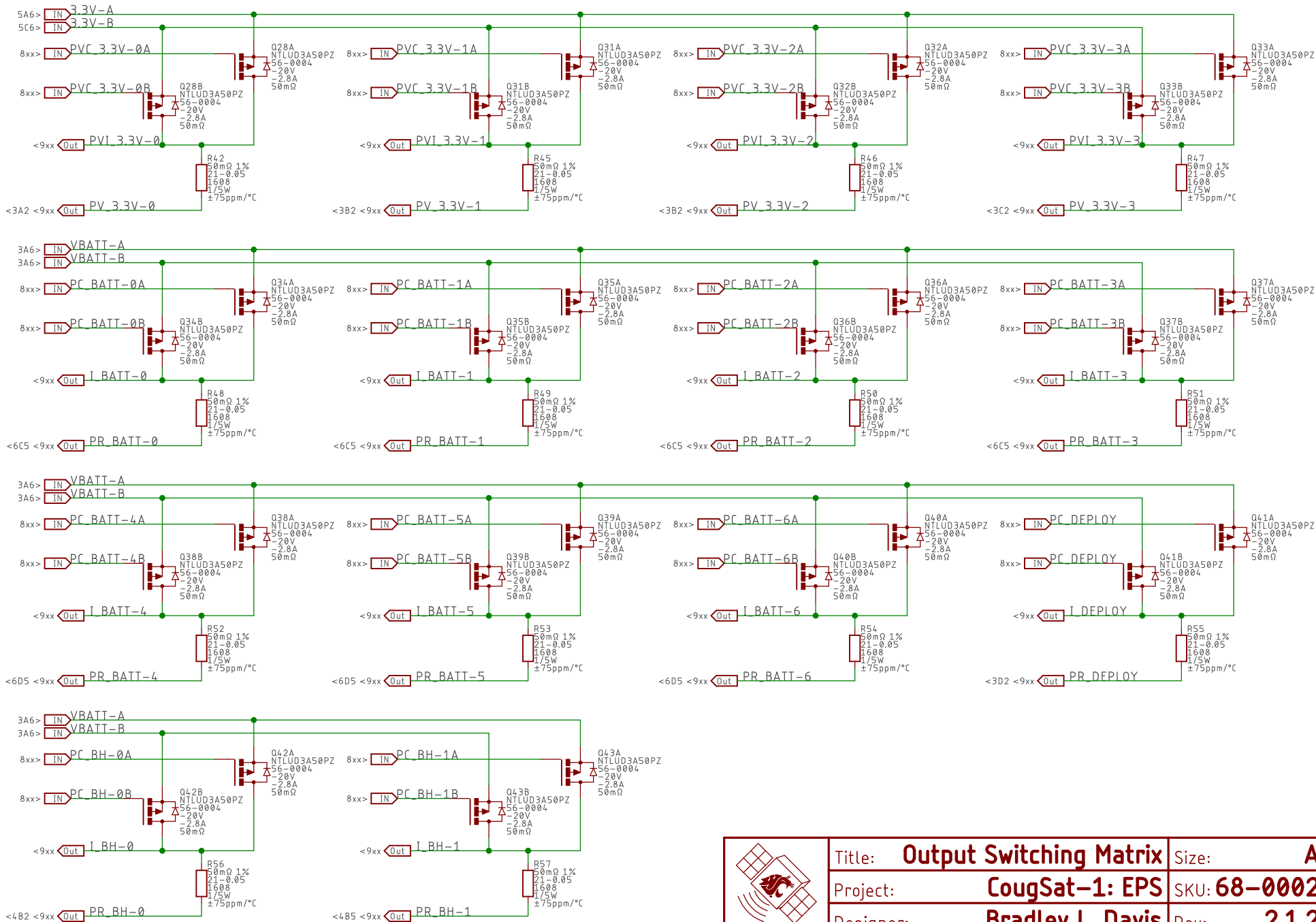
B

C

C

D

D



Title: <b>Output Switching Matrix</b>	Size: <b>A</b>
Project: <b>CougSat-1: EPS</b>	SKU: <b>68-0002</b>
Designer: <b>Bradley L. Davis</b>	Rev: <b>2.1.2</b>
Date: <b>6/16/2018 11:02 PM</b>	Page: <b>7/10</b>

1

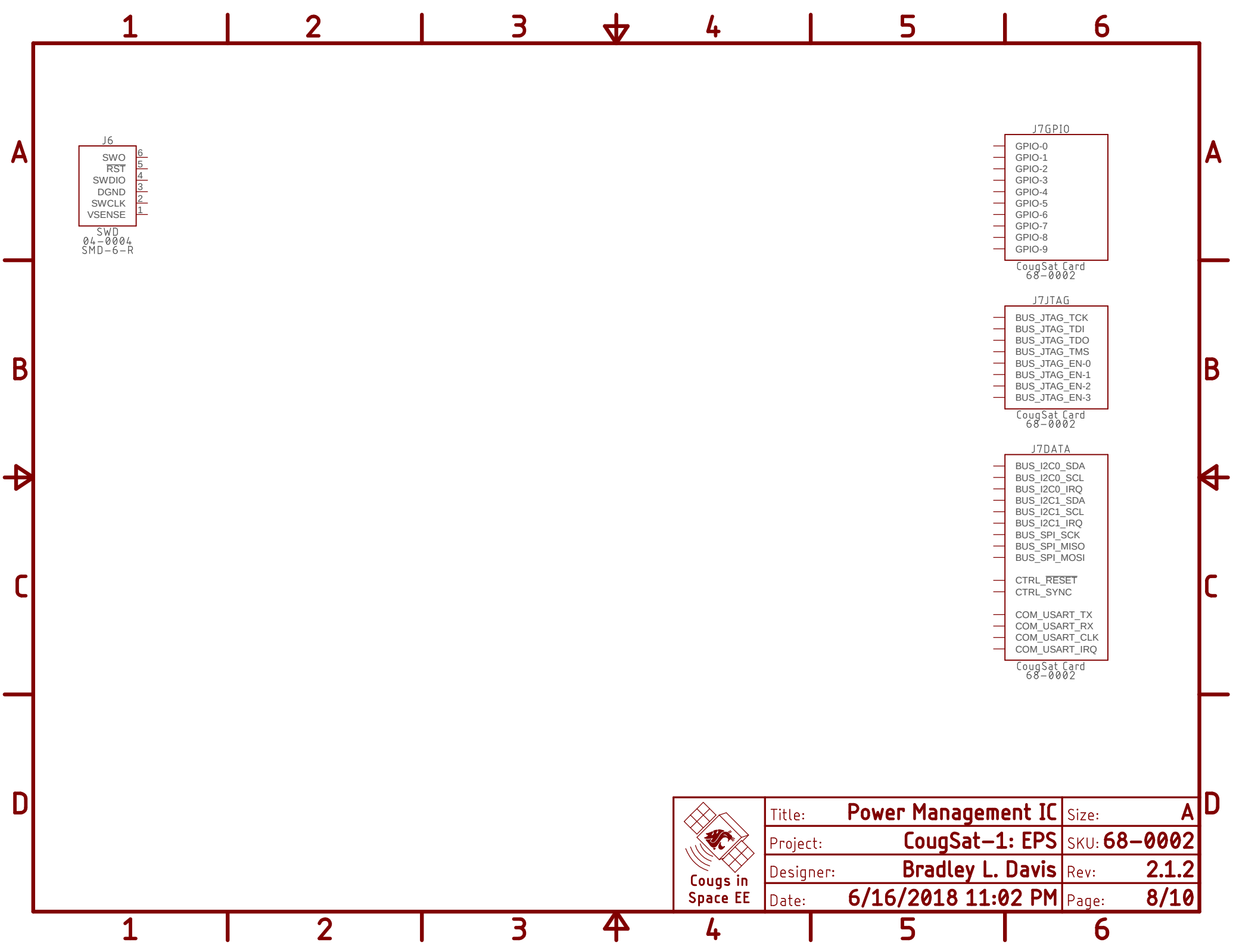
2

3

4

5

6



J6

SWO	6
RST	5
SWDIO	4
DGND	3
SWCLK	2
VSENSE	1

SWD  
04-0004  
SMD-6-R

J7GPIO

GPIO-0
GPIO-1
GPIO-2
GPIO-3
GPIO-4
GPIO-5
GPIO-6
GPIO-7
GPIO-8
GPIO-9

CougSat Card  
68-0002

J7JTAG

BUS_JTAG_TCK
BUS_JTAG_TDI
BUS_JTAG_TDO
BUS_JTAG_TMS
BUS_JTAG_EN-0
BUS_JTAG_EN-1
BUS_JTAG_EN-2
BUS_JTAG_EN-3

CougSat Card  
68-0002

J7DATA

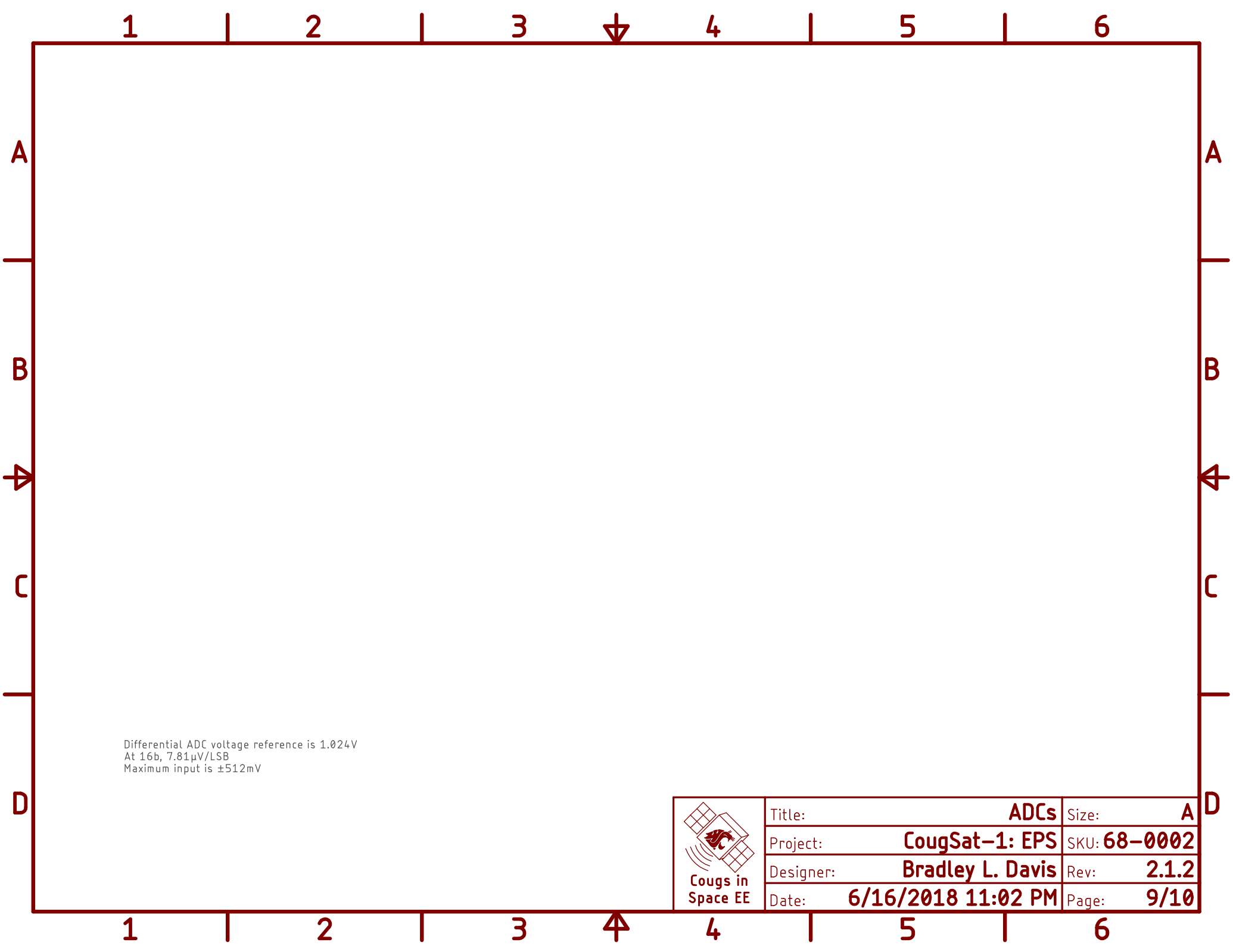
BUS_I2C0_SDA
BUS_I2C0_SCL
BUS_I2C0_IRQ
BUS_I2C1_SDA
BUS_I2C1_SCL
BUS_I2C1_IRQ
BUS_SPI_SCK
BUS_SPI_MISO
BUS_SPI_MOSI
CTRL_RESET
CTRL_SYNC
COM_USART_TX
COM_USART_RX
COM_USART_CLK
COM_USART_IRQ

CougSat Card  
68-0002



Title:	Power Management IC	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/16/2018 11:02 PM	Page:	8/10

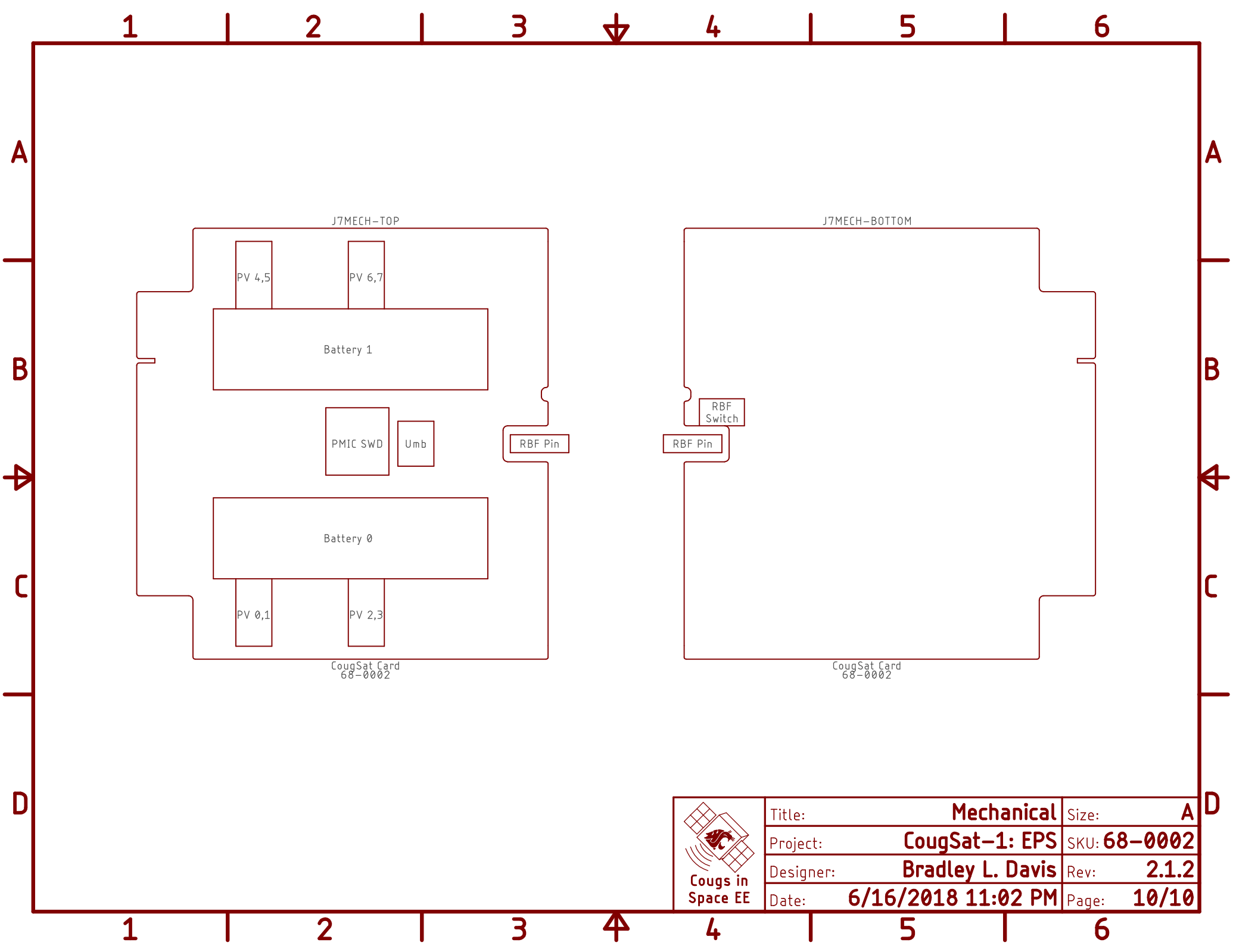




Differential ADC voltage reference is 1.024V  
At 16b, 7.81μV/LSB  
Maximum input is ±512mV



Title:	ADCs	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/16/2018 11:02 PM	Page:	9/10



Title:	Mechanical	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/16/2018 11:02 PM	Page:	10/10