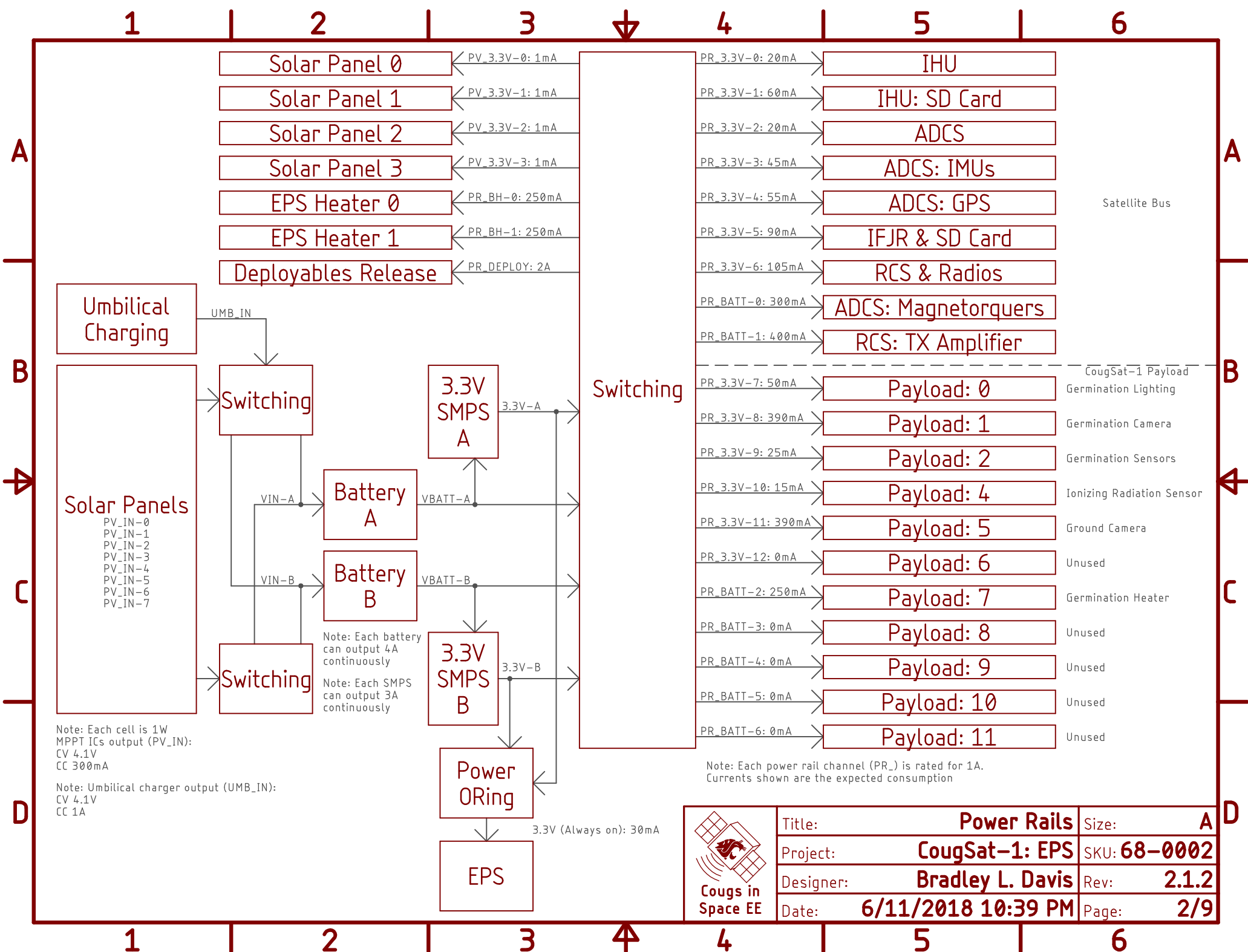



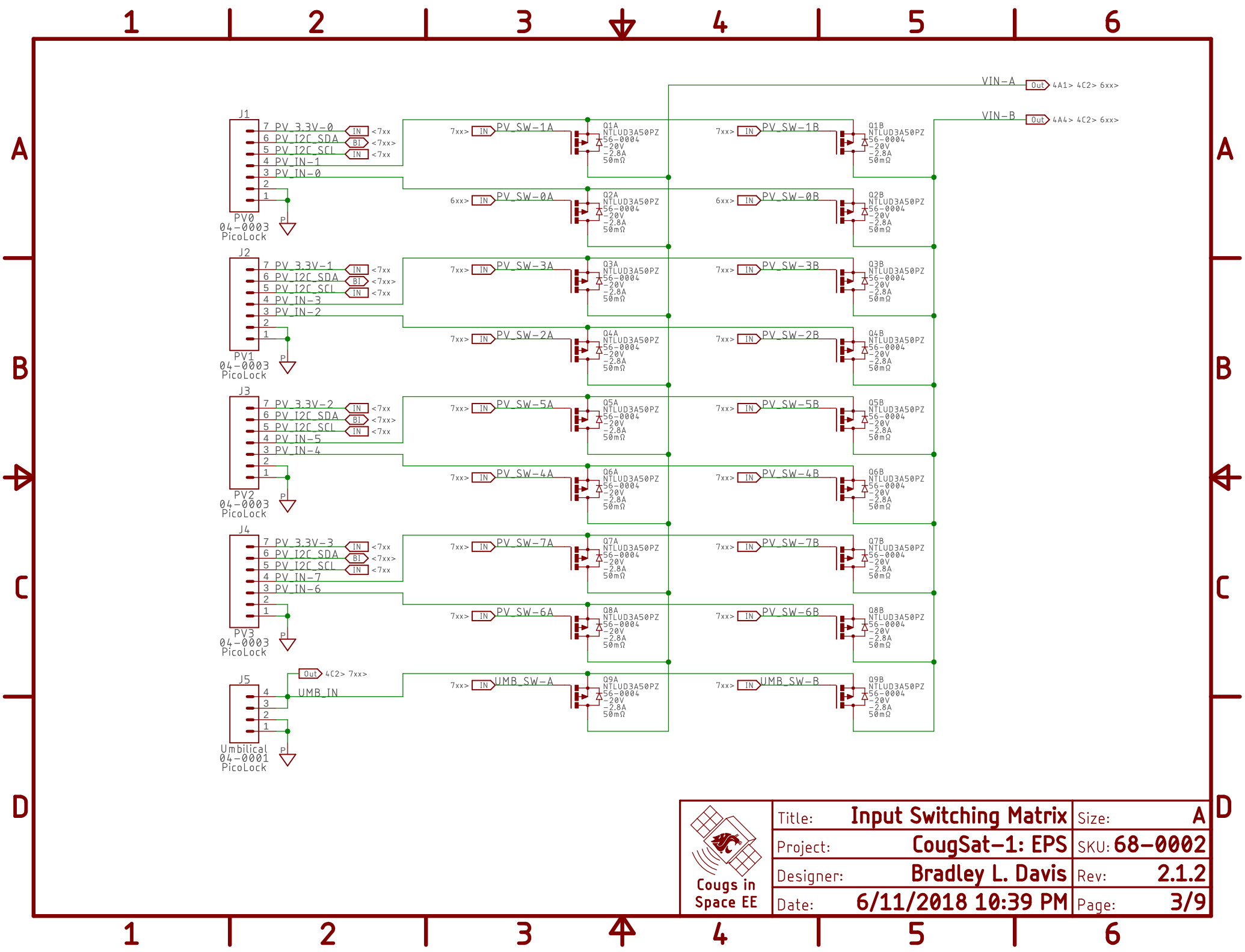
Page 1: Block Diagram
Page 2: Power Rails
Page 3: Input Switching Matrix
Page 4: Batteries
Page 5: 3.3V Regulation
Page 6: Output Switching Matrix
Page 7: PMIC
Page 8: ADCs
Page 9: Mechanical Layout



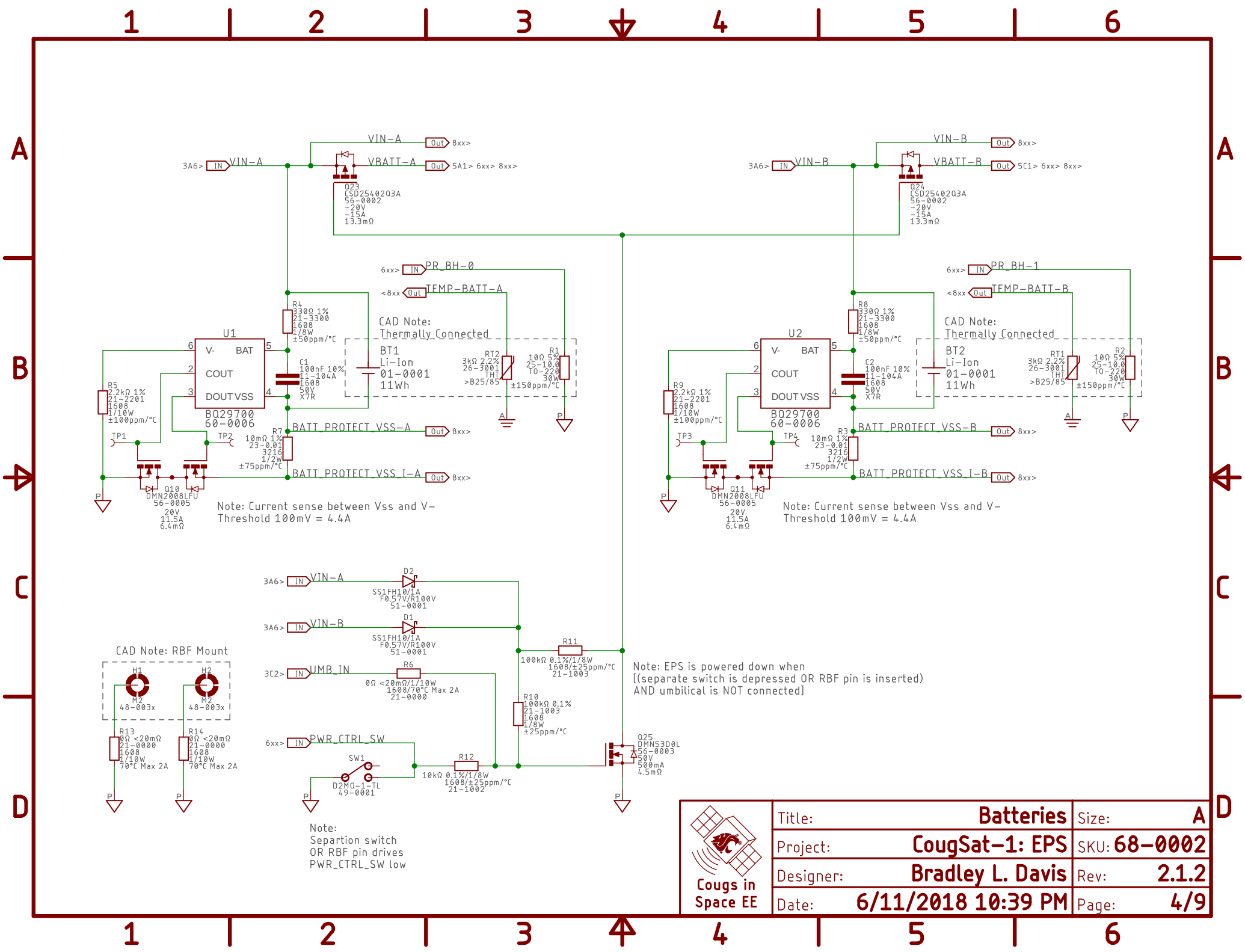
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Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/11/2018 10:39 PM	Page:	1/9



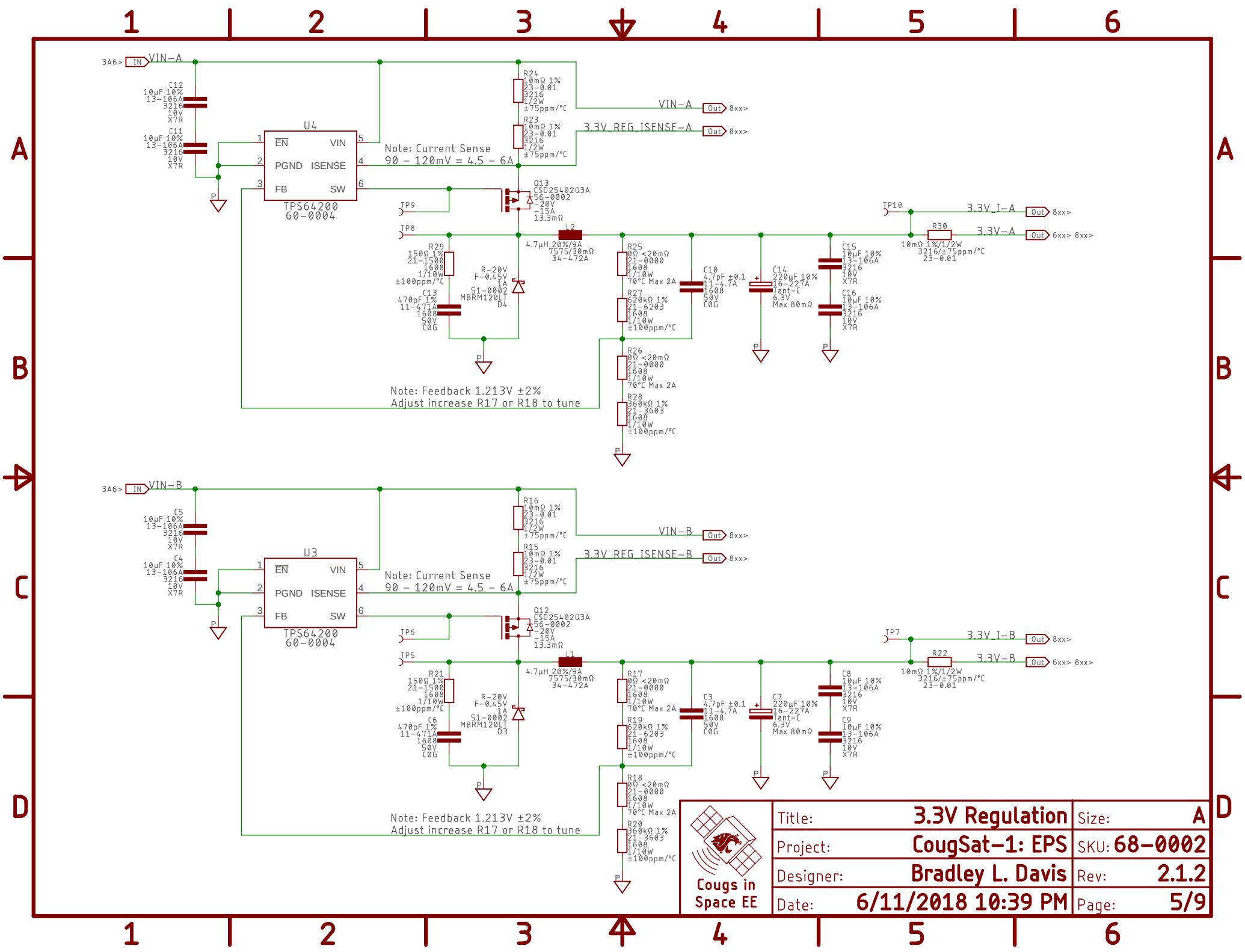
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	Project:	CougSat-1: EPS	SKU: 68-0002
	Designer:	Bradley L. Davis	Rev: 2.1.2
	Date:	6/11/2018 10:39 PM	Page: 2/9



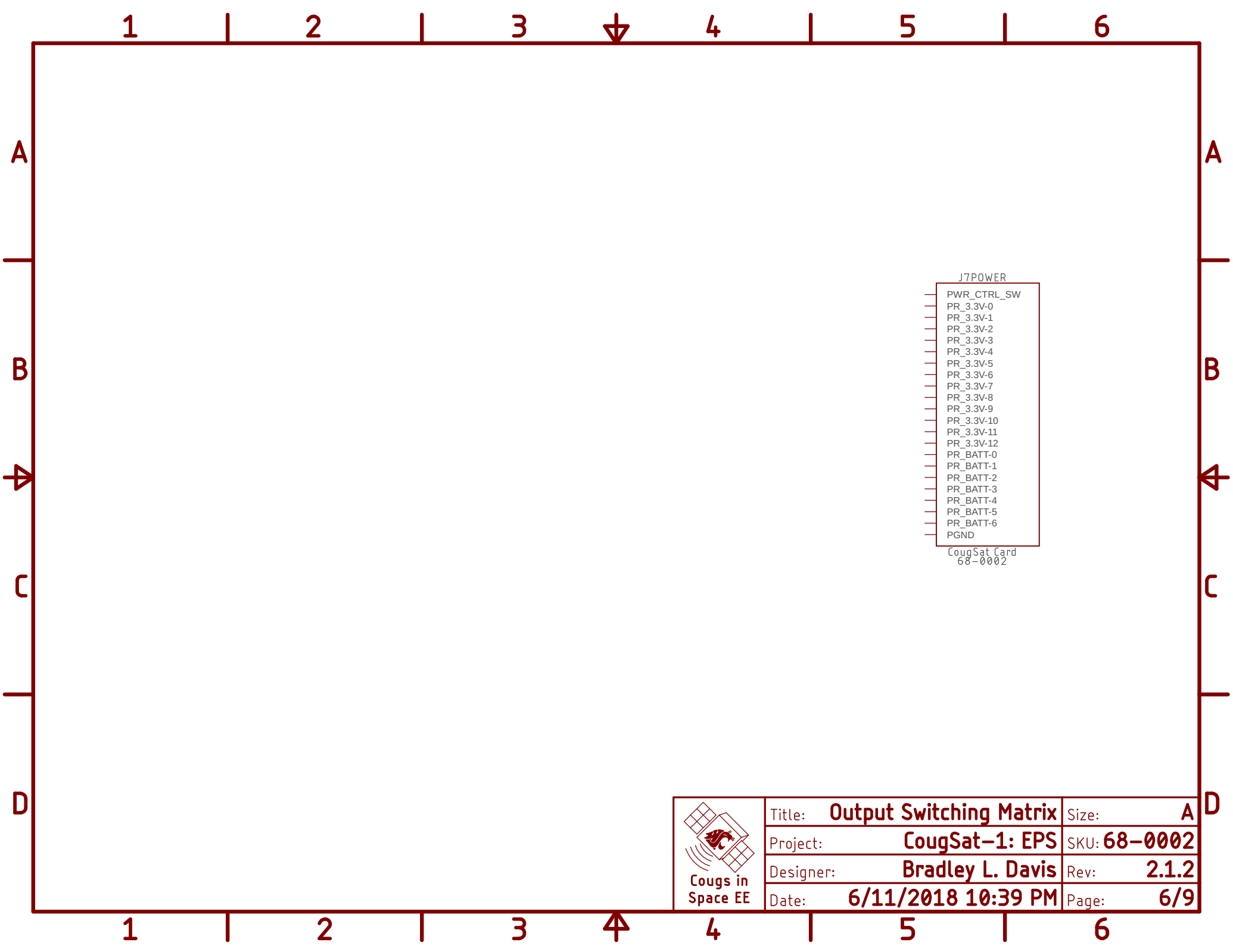
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Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/11/2018 10:39 PM	Page:	3/9



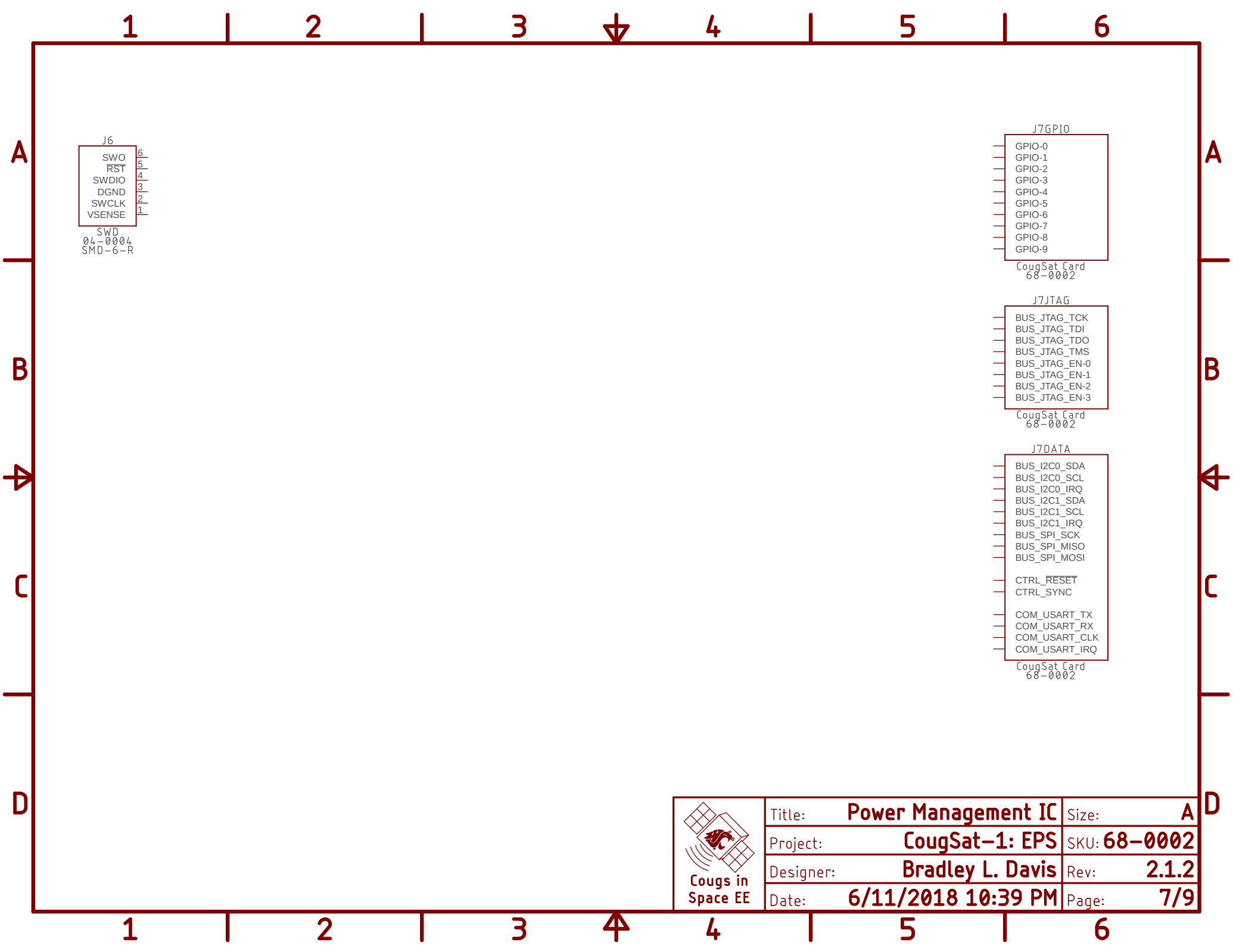
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Project:	CougSat-1: EPS		SKU:	68-0002
Designer:	Bradley L. Davis		Rev:	2.1.2
Date:	6/11/2018 10:39 PM		Page:	4/9



Title:	3.3V Regulation	Size:	A
Project:	CougsSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/11/2018 10:39 PM	Page:	5/9



Title:	Output Switching Matrix	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/11/2018 10:39 PM	Page:	6/9



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

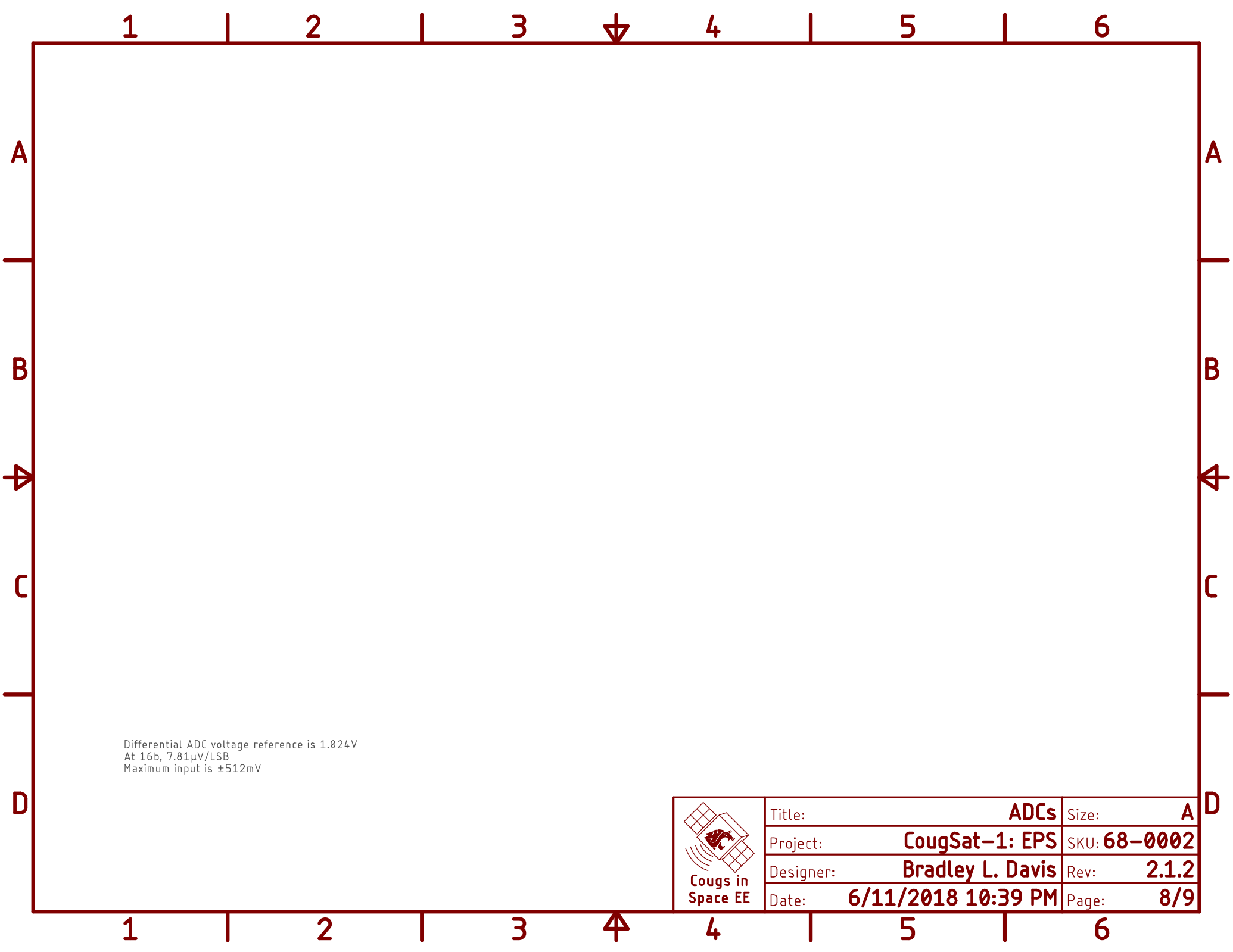
J7DATA

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



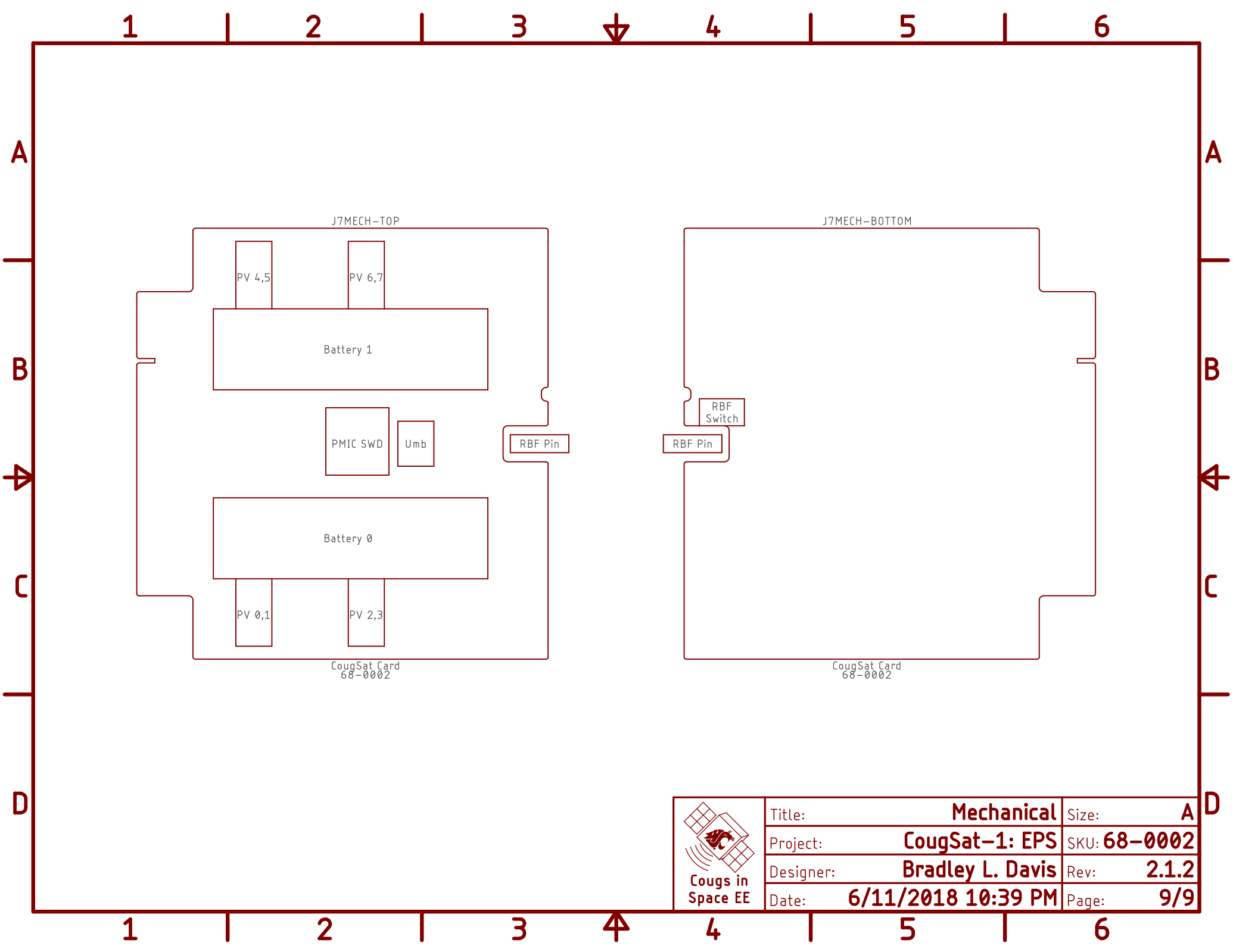
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Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/11/2018 10:39 PM	Page:	7/9



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:	6/11/2018 10:39 PM	Page:	8/9



Title:	Mechanical	Size:	A
Project:	CougsSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.2
Date:	6/11/2018 10:39 PM	Page:	9/9