

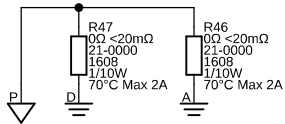
Umbilical
Charging

Solar
Panels

PV_IN-0
PV_IN-1
PV_IN-2
PV_IN-3
PV_IN-4
PV_IN-5
PV_IN-6
PV_IN-7

Note: Each cell is 1W
MPPT ICs output (PV_IN):
CV 4.1V
CC 300mA

Note: Umbilical charger output (UMB_IN):
CV 4.1V
CC 1A



Switching

Switching

Battery
A

Battery
B

Note: Each battery
can output 4A
continuously

Note: Each SMPS
can output 3A
continuously

3.3V
SMPS
A

3.3V
SMPS
B

Power
ORing

EPS

Switching

- PR 3.3V-0: 20mA
- PR 3.3V-1: 60mA
- PR 3.3V-2: 20mA
- PR 3.3V-3: 45mA
- PR 3.3V-4: 55mA
- PR 3.3V-5: 90mA
- PR 3.3V-6: 105mA
- PR BATT-5: 300mA
- PR BATT-6: 400mA
- PR 3.3V-7: 50mA
- PR 3.3V-8: 390mA
- PR 3.3V-9: 25mA
- PR 3.3V-10: 15mA
- PR 3.3V-11: 390mA
- PR 3.3V-12: 0mA
- PR BATT-0: 250mA
- PR BATT-1: 0mA
- PR BATT-2: 0mA
- PR BATT-3: 0mA
- PR BATT-4: 0mA

Note: Each power rail channel (PR_) is rated for 1A
PR_DEPLOY is rated for 2A
Currents shown are the expected consumption



Title:	Power Rails	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.6
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4

5

6

A

B

C

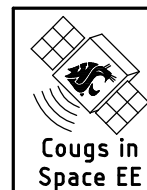
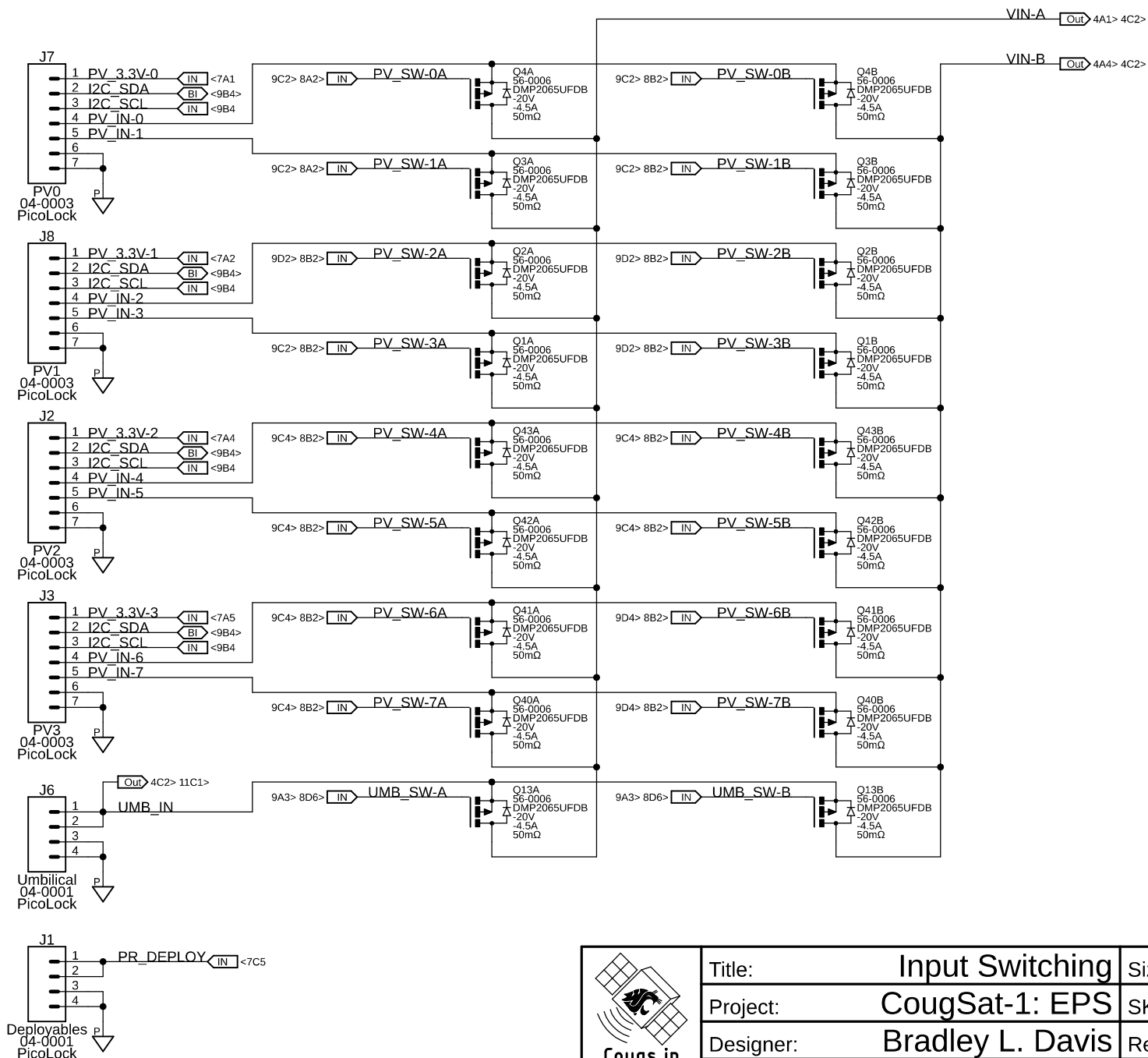
D

A

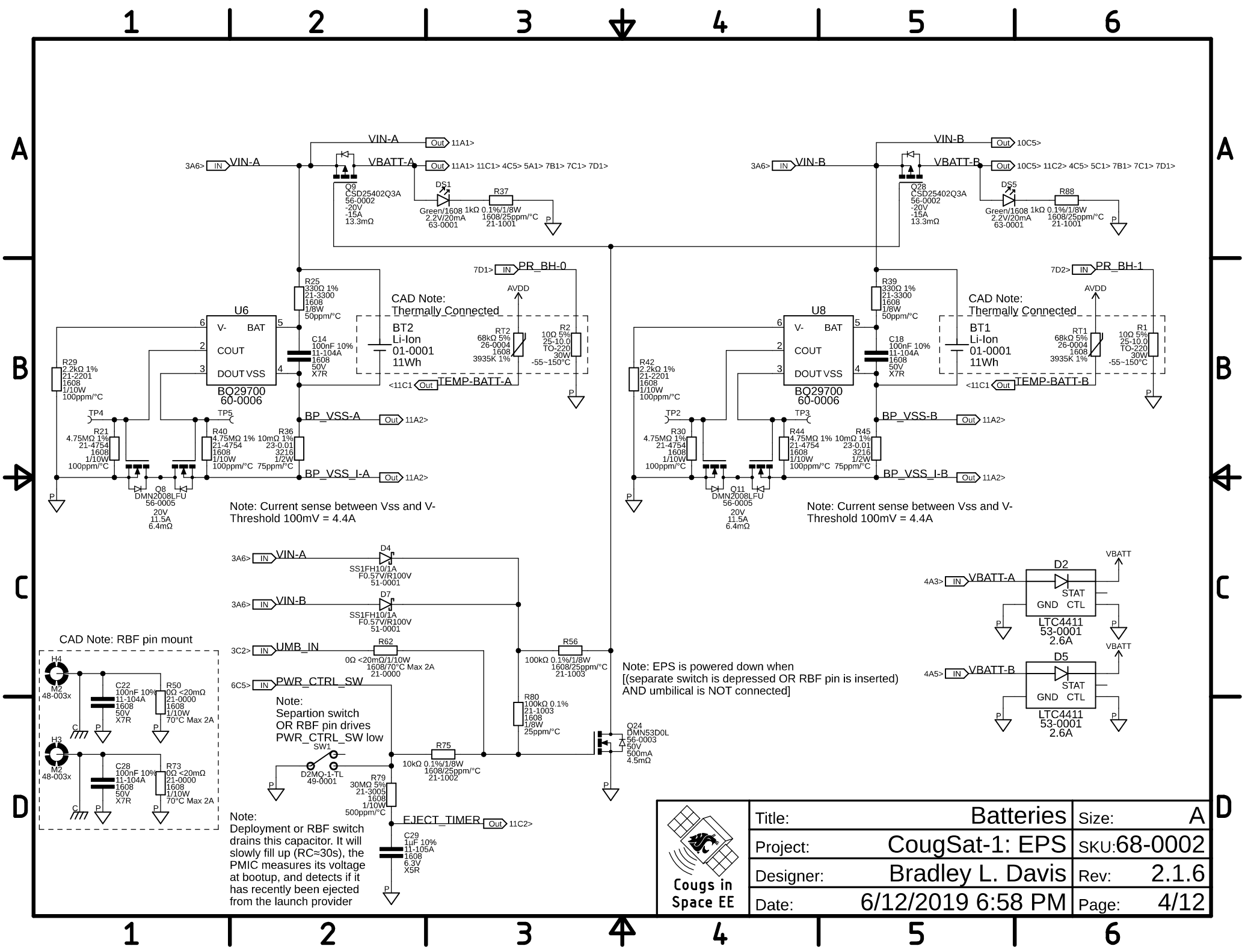
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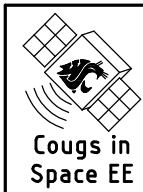
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Title:	Input Switching	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.6
Date:	6/12/2019 6:58 PM	Page:	3/12



	Title:	Batteries	Size:	A
	Project:	CougSat-1: EPS	SKU:	68-0002
	Designer:	Bradley L. Davis	Rev:	2.1.6
	Date:	6/12/2019 6:58 PM	Page:	4/12



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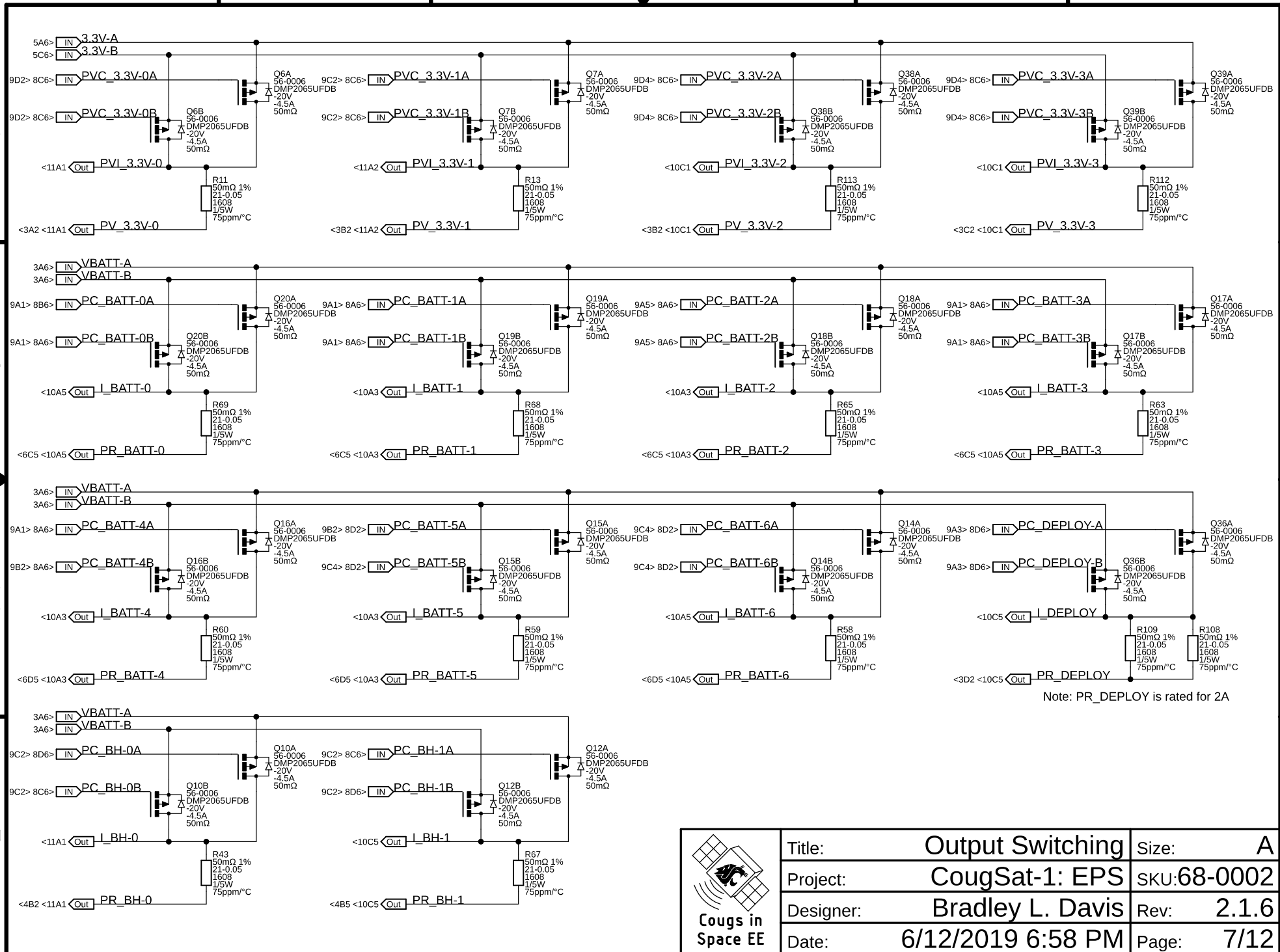
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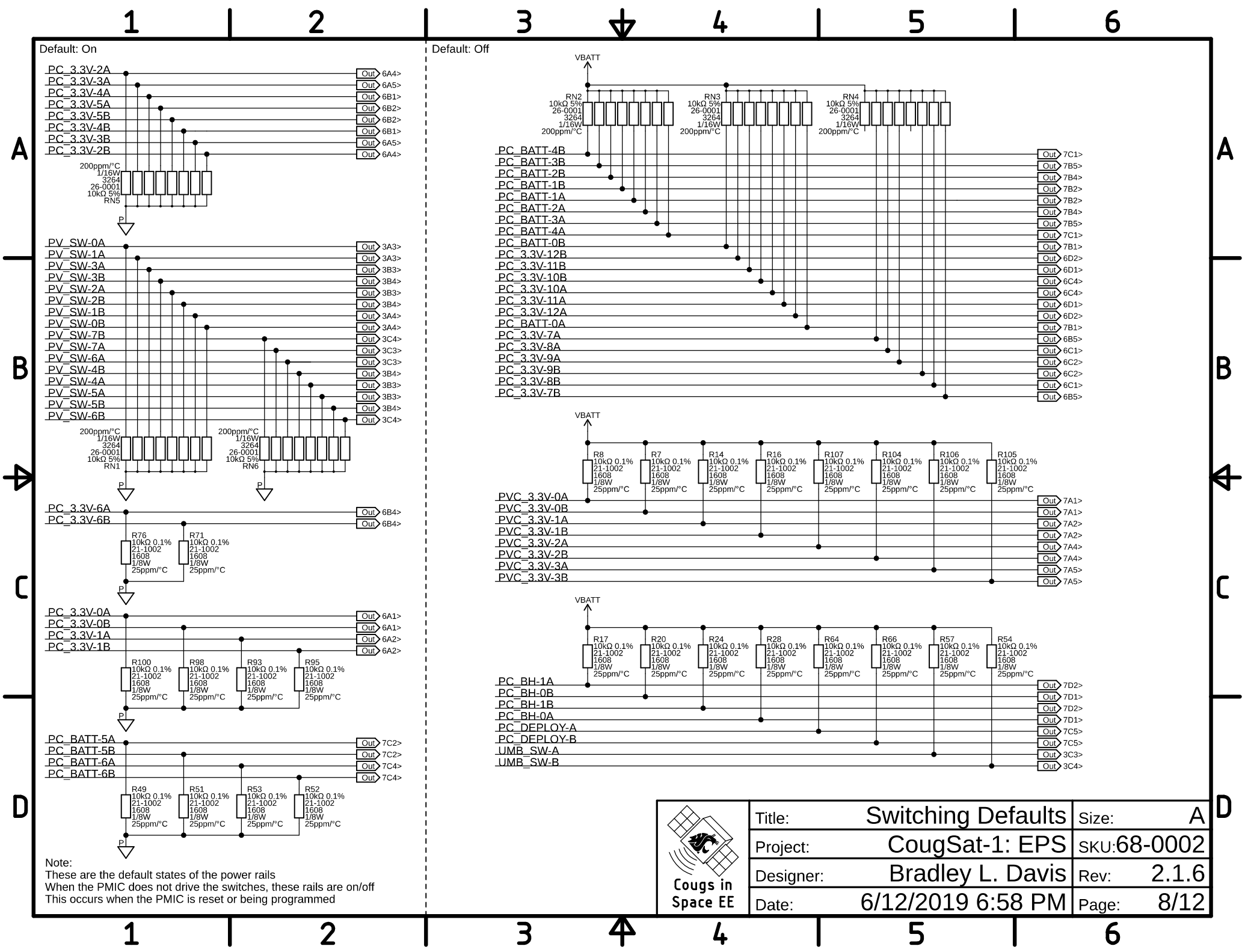
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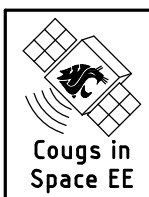
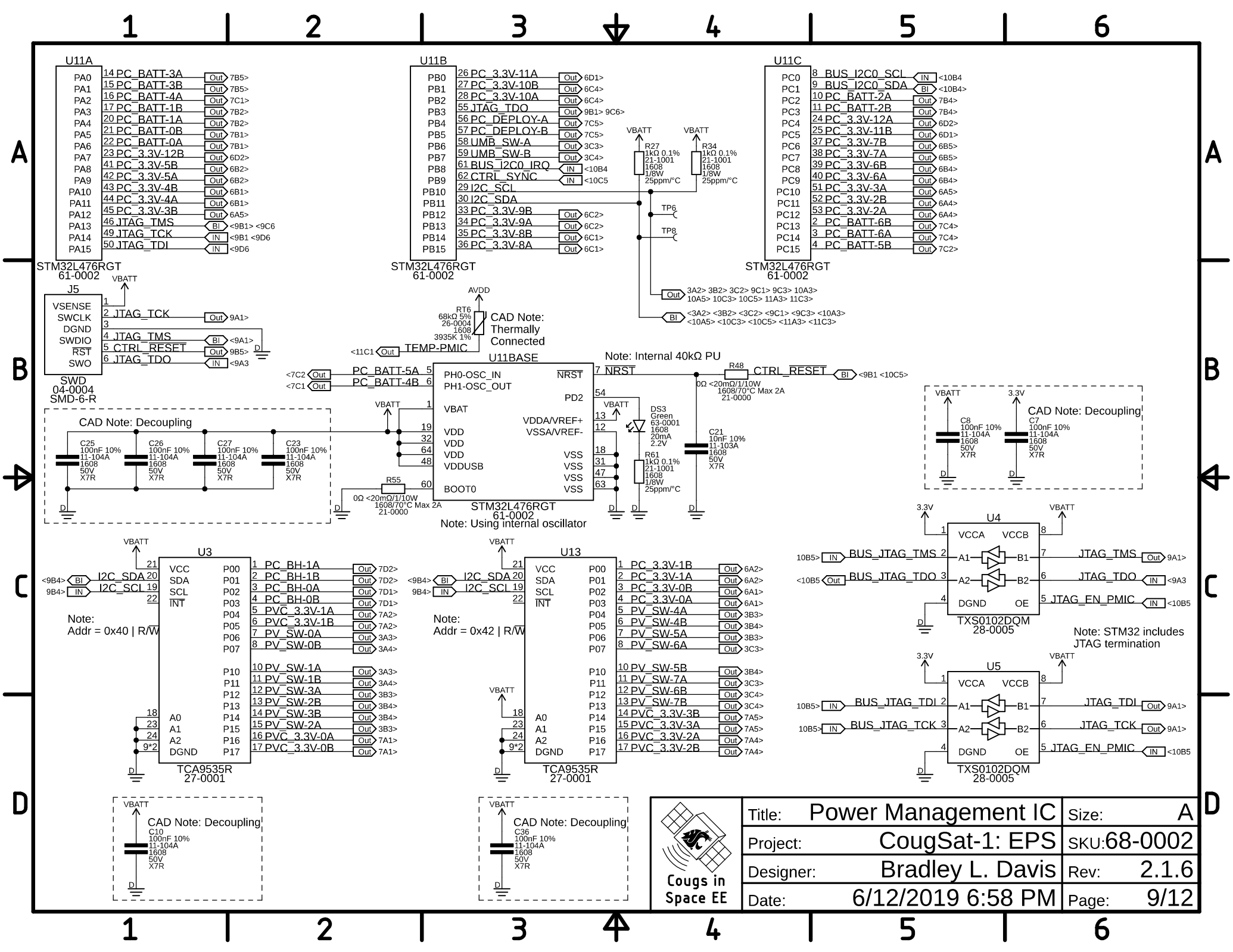
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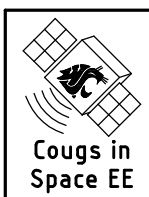
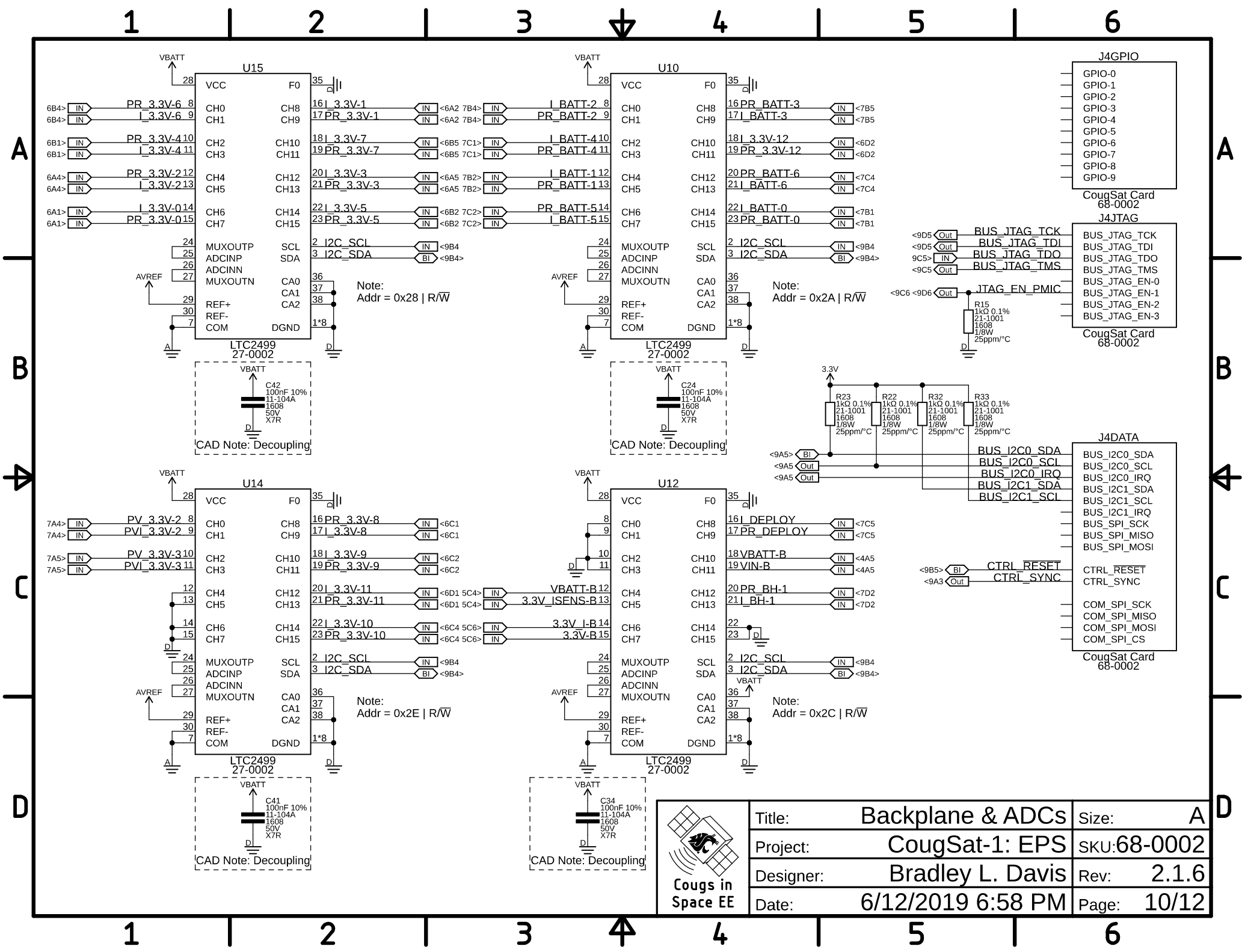






Cougs in
Space EE

Title:	Power Management IC	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.6
Date:	6/12/2019 6:58 PM	Page:	9/12



Title:	Backplane & ADCs	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.6
Date:	6/12/2019 6:58 PM	Page:	10/12

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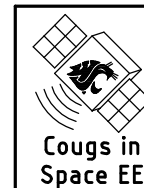
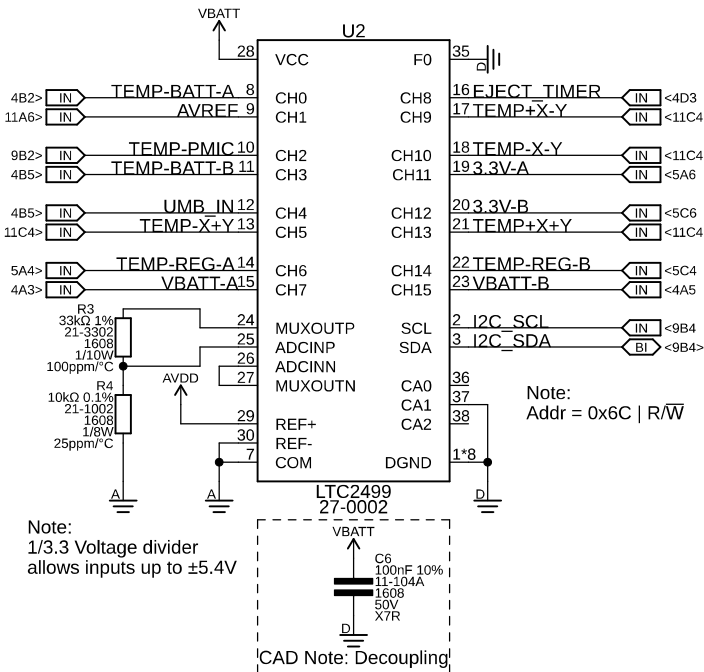
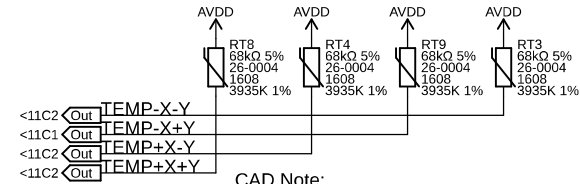
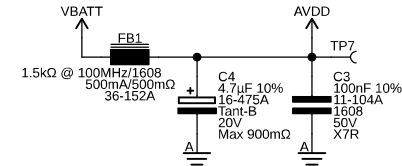
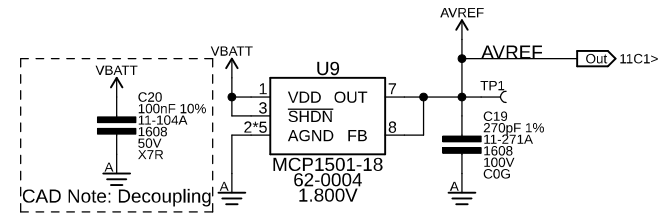
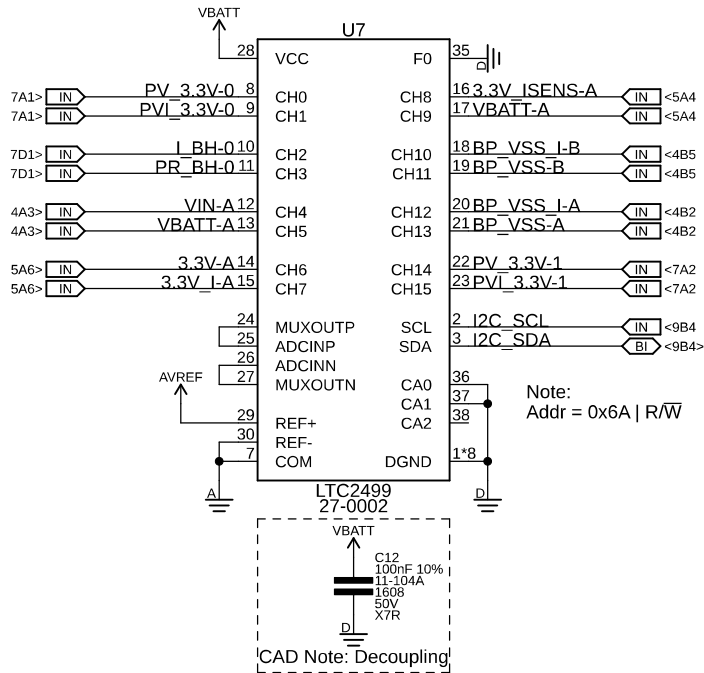
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Title:	ADCs	Size:	A
Project:	CougsSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.6
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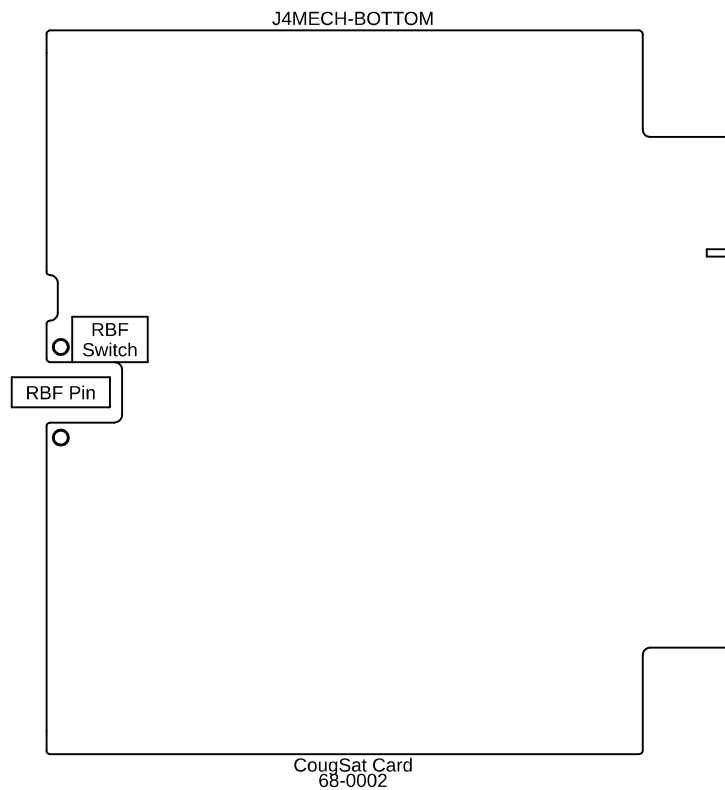
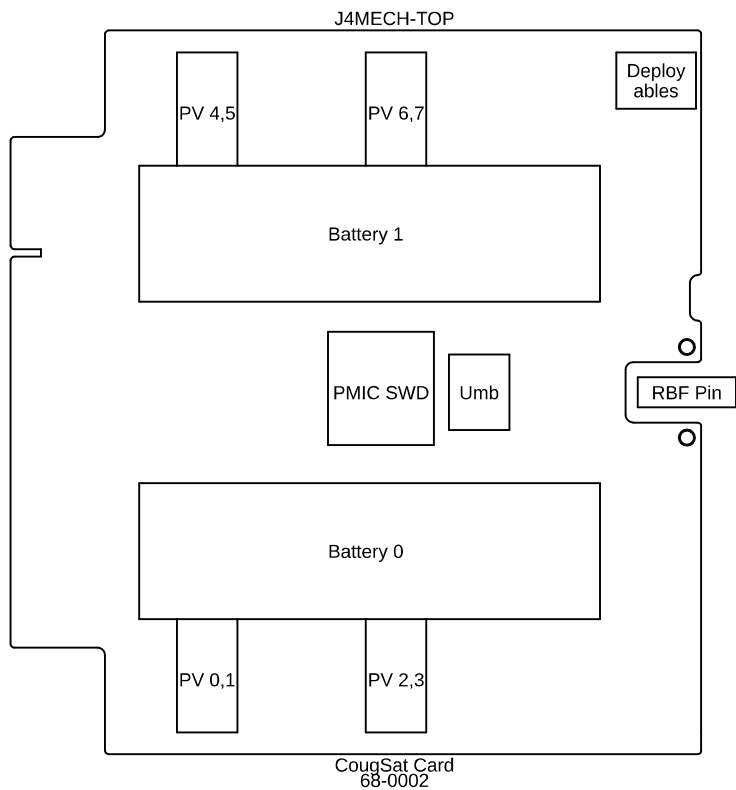
B

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C

D

D



LOGO1
Satellite 16mm

**Cougs in
Space**

LOGO2
Signature



**Cougs in
Space EE**

Title:	Mechanical	Size:	A
Project:	CougSat-1: EPS	SKU:	68-0002
Designer:	Bradley L. Davis	Rev:	2.1.6
Date:	6/12/2019 6:58 PM	Page:	12/12