

| | | | |
|-----------|----------------------|-------|---------|
| Title: | Block Diagram | Size: | A |
| Project: | CougSat-1: Backplane | SKU: | 68-0005 |
| Designer: | Bradley L. Davis | Rev: | 2.1.1 |
| Date: | 9/20/2018 2:32 PM | Page: | 1/5 |

1

2

3

4

4

5

6

A

A

B

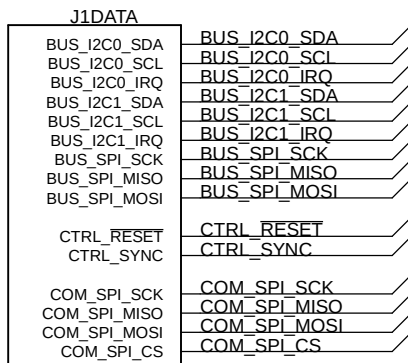
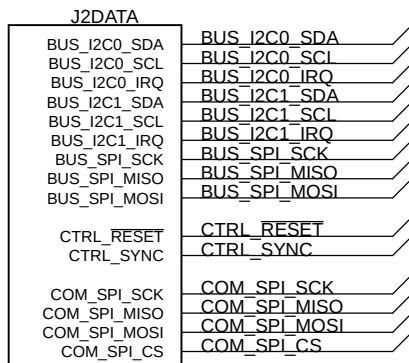
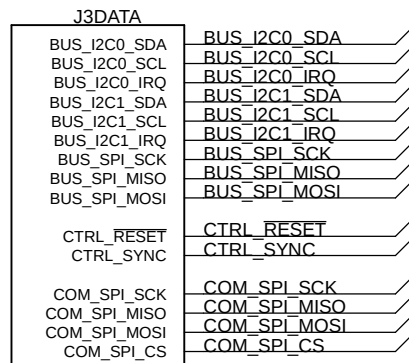
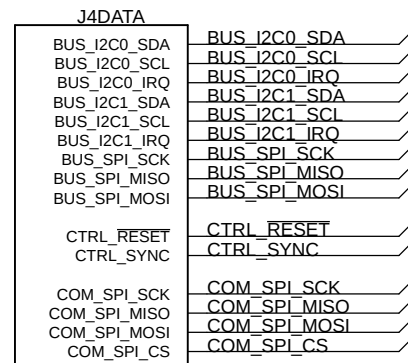
B

C

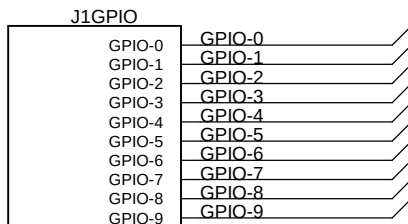
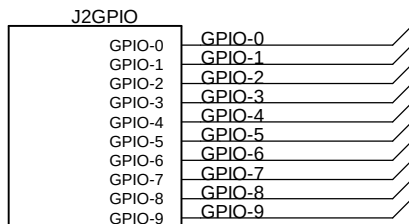
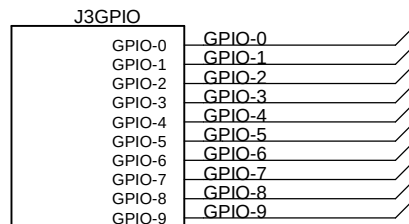
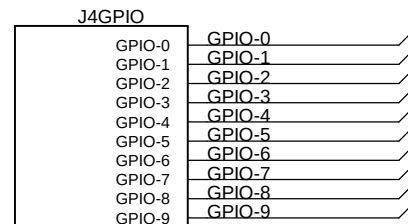
C

D

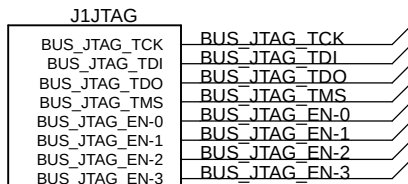
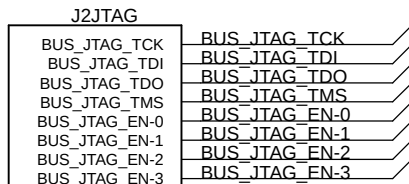
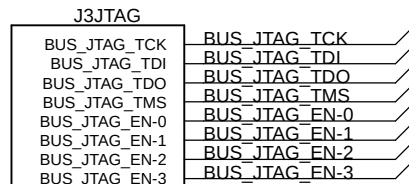
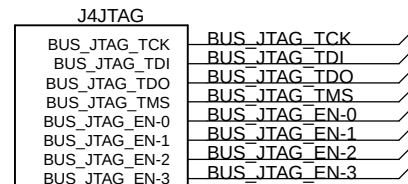
D

CougSat Socket
04-0006CougSat Socket
04-0006CougSat Socket
04-0006CougSat Socket
04-0006

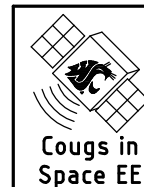
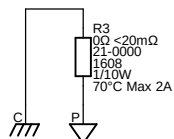
BI <3A6>

CougSat Socket
04-0006CougSat Socket
04-0006CougSat Socket
04-0006CougSat Socket
04-0006

BI <3B6>

CougSat Socket
04-0006CougSat Socket
04-0006CougSat Socket
04-0006CougSat Socket
04-0006

BI <3C6>

Cougs in
Space EE

| | | | |
|-----------|----------------------|-------|---------|
| Title: | Data Bus Slots 0 - 3 | Size: | A |
| Project: | CougSat-1: Backplane | SKU: | 68-0005 |
| Designer: | Bradley L. Davis | Rev: | 2.1.1 |
| Date: | 9/20/2018 2:32 PM | Page: | 2/5 |

1

2

3

4

4

5

6

1

2

3

4

4

5

6

A

A

B

B

C

C

D

D

J5DATA

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

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

CTRL_RESET
CTRL_SYNC

COM_SPI_SCK
COM_SPI_MISO
COM_SPI_MOSI
COM_SPI_CS

COM_SPI_SCK
COM_SPI_MISO
COM_SPI_MOSI
COM_SPI_CS

CougSat Socket
04-0006

J6DATA

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

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

CTRL_RESET
CTRL_SYNC

COM_SPI_SCK
COM_SPI_MISO
COM_SPI_MOSI
COM_SPI_CS

COM_SPI_SCK
COM_SPI_MISO
COM_SPI_MOSI
COM_SPI_CS

CougSat Socket
04-0006

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

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

CTRL_RESET
CTRL_SYNC

COM_SPI_SCK
COM_SPI_MISO
COM_SPI_MOSI
COM_SPI_CS

COM_SPI_SCK
COM_SPI_MISO
COM_SPI_MOSI
COM_SPI_CS

CougSat Socket
04-0006

J8DATA

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

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

CTRL_RESET
CTRL_SYNC

COM_SPI_SCK
COM_SPI_MISO
COM_SPI_MOSI
COM_SPI_CS

COM_SPI_SCK
COM_SPI_MISO
COM_SPI_MOSI
COM_SPI_CS

CougSat Socket
04-0006

BI <2A6>

J5GPIO

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

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

CougSat Socket
04-0006

J6GPIO

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

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

CougSat Socket
04-0006

J7GPIO

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

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

CougSat Socket
04-0006

J8GPIO

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

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

CougSat Socket
04-0006

BI <2B6>

J5JTAG

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

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 Socket
04-0006

J6JTAG

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

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 Socket
04-0006

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

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 Socket
04-0006

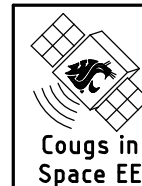
J8JTAG

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

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

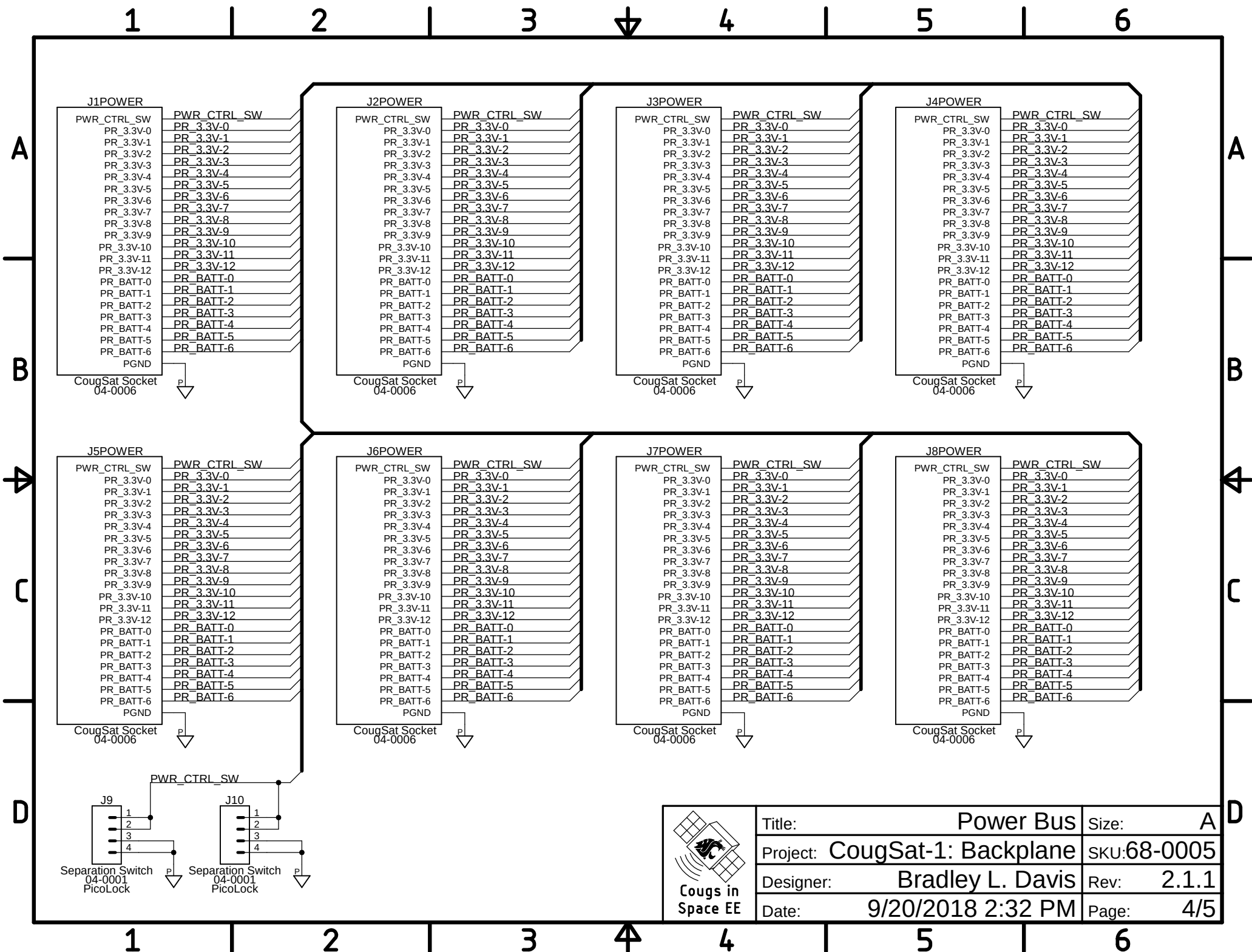
CougSat Socket
04-0006

BI <2C6>



Cougs in
Space EE

| | | | |
|-----------|----------------------|-------|---------|
| Title: | Data Bus Slots 4 - 7 | Size: | A |
| Project: | CougSat-1: Backplane | SKU: | 68-0005 |
| Designer: | Bradley L. Davis | Rev: | 2.1.1 |
| Date: | 9/20/2018 2:32 PM | Page: | 3/5 |



1

2

3



4

5

6

A

A

B

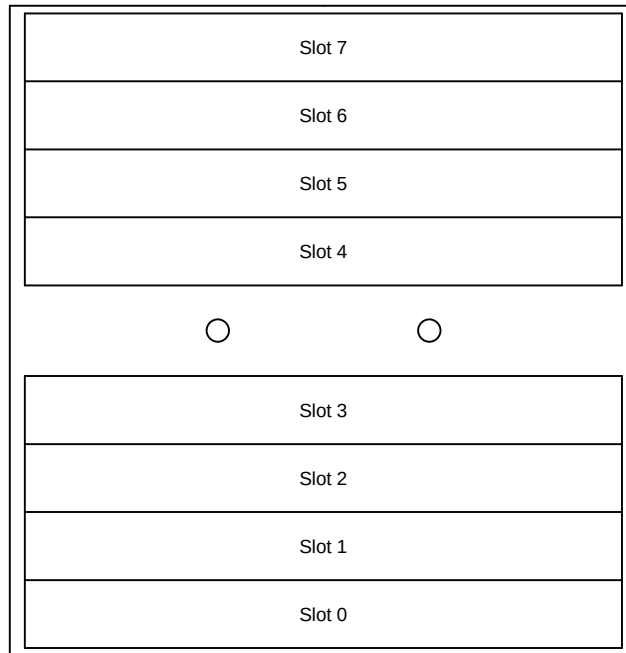
B

C

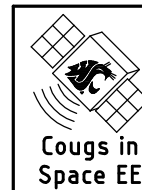
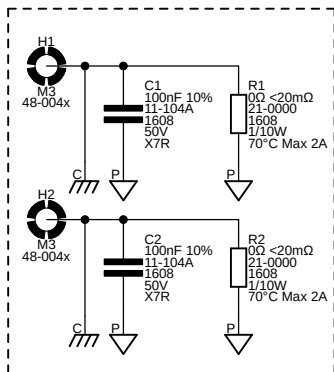
C

D

D



CAD Note: Mounting Holes



| | | | |
|-----------|----------------------|-------|---------|
| Title: | Mechanical | Size: | A |
| Project: | CougSat-1: Backplane | SKU: | 68-0005 |
| Designer: | Bradley L. Davis | Rev: | 2.1.1 |
| Date: | 9/20/2018 2:32 PM | Page: | 5/5 |