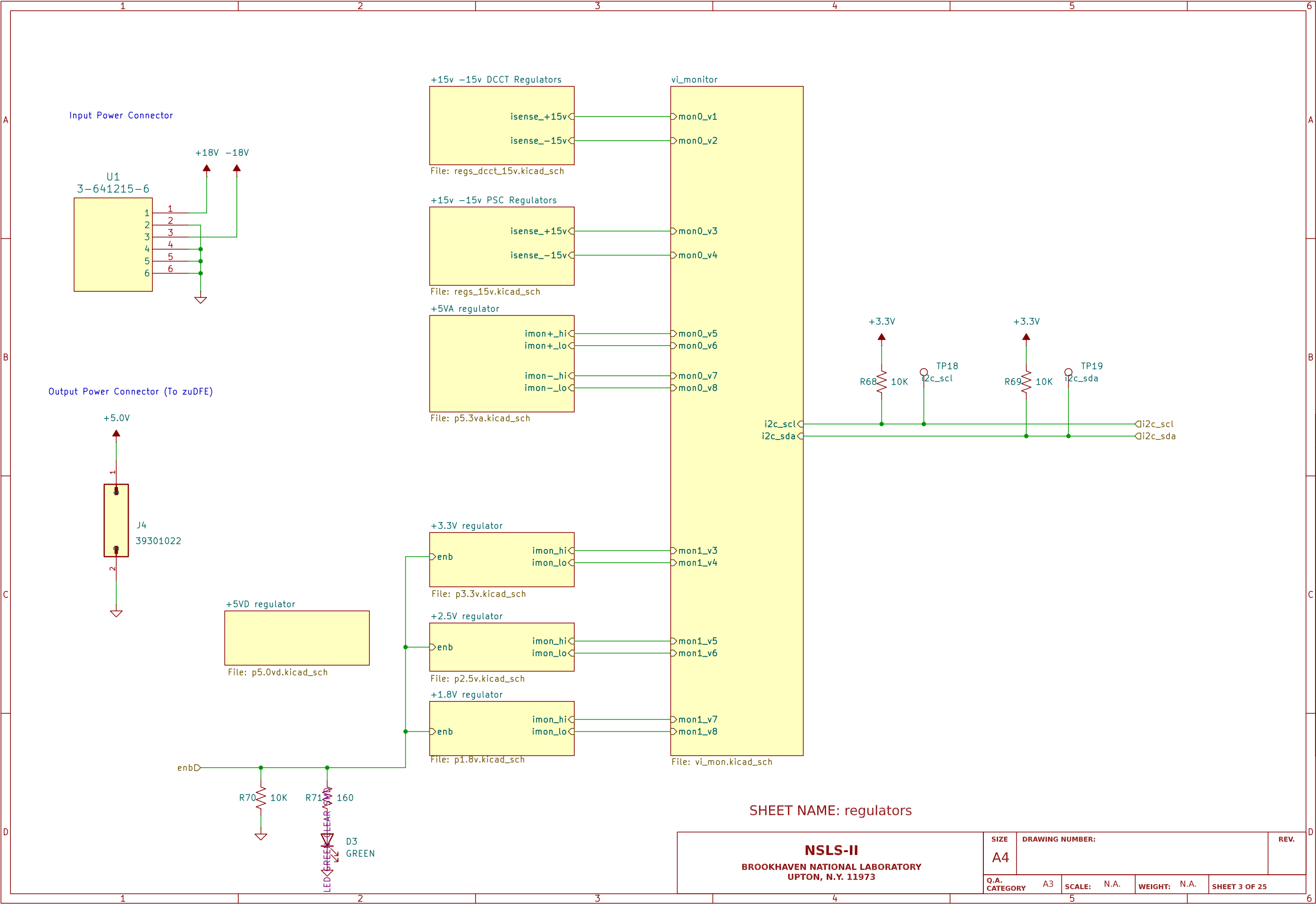


SHEET NAME: zuDFE Connectors

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973				SIZE B	DRAWING NUMBER:			REV.
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 2 OF 25		

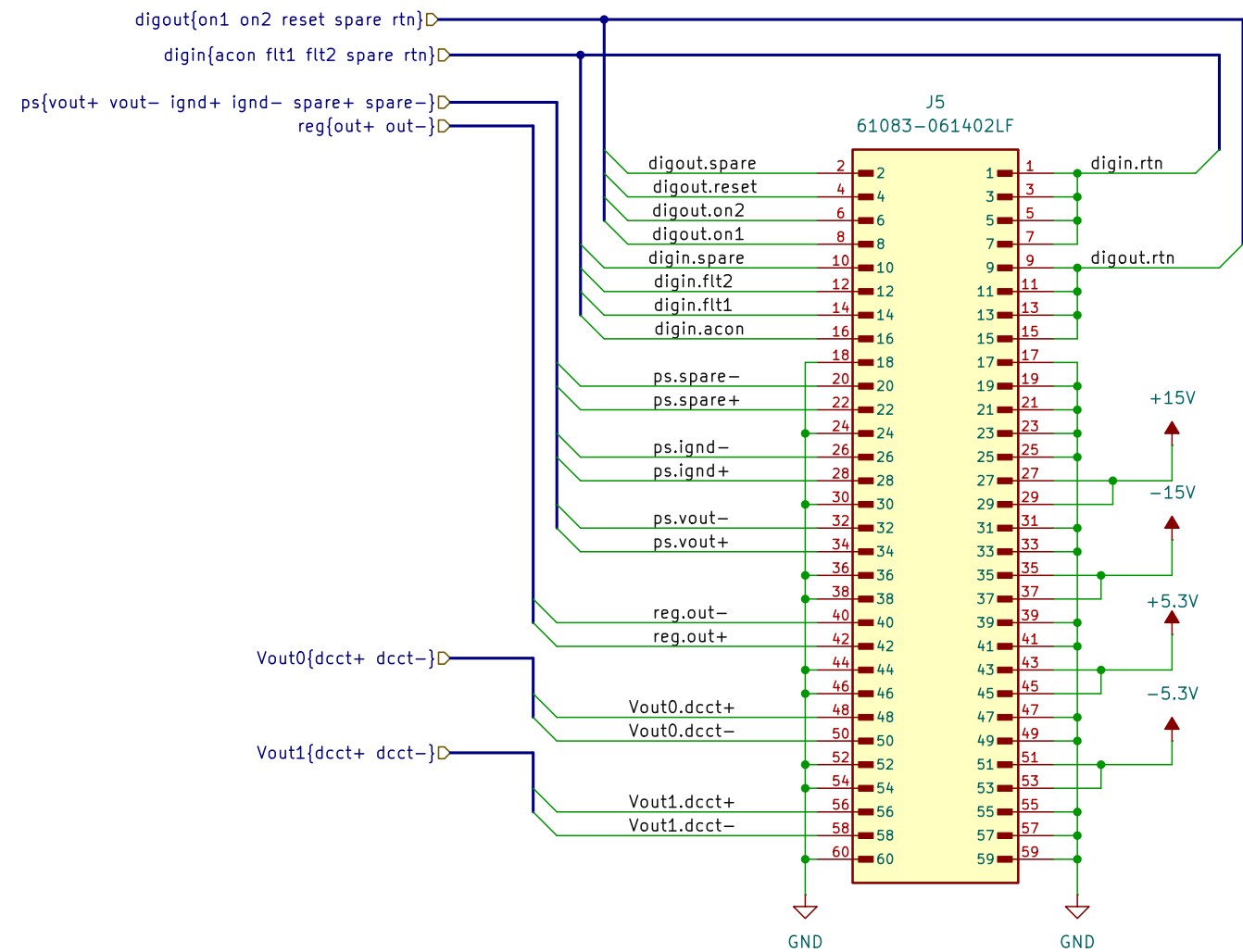


SHEET NAME: regulators

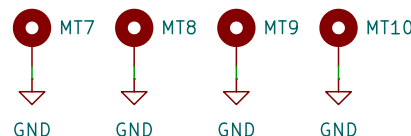
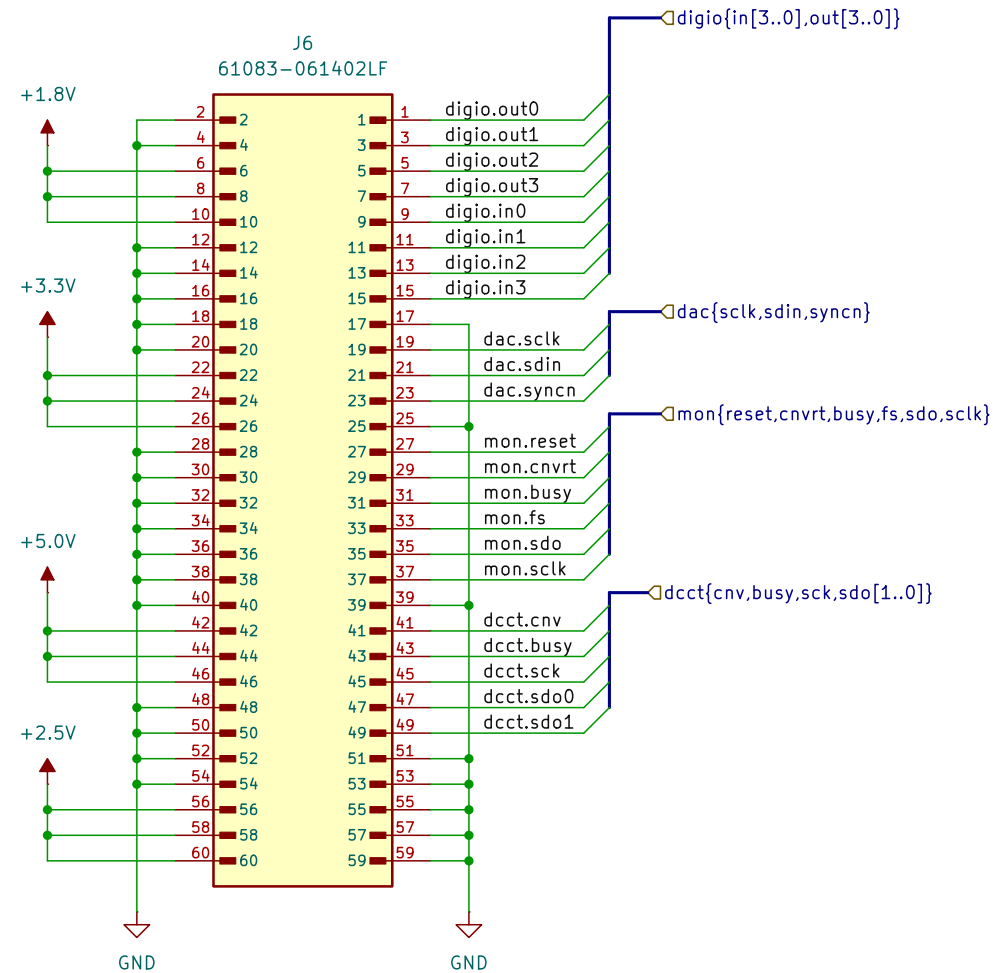
NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY A3	SCALE: N.A.	WEIGHT: N.A.	SHEET 3 OF 25	

Daughterboard Connectors

PS Connector

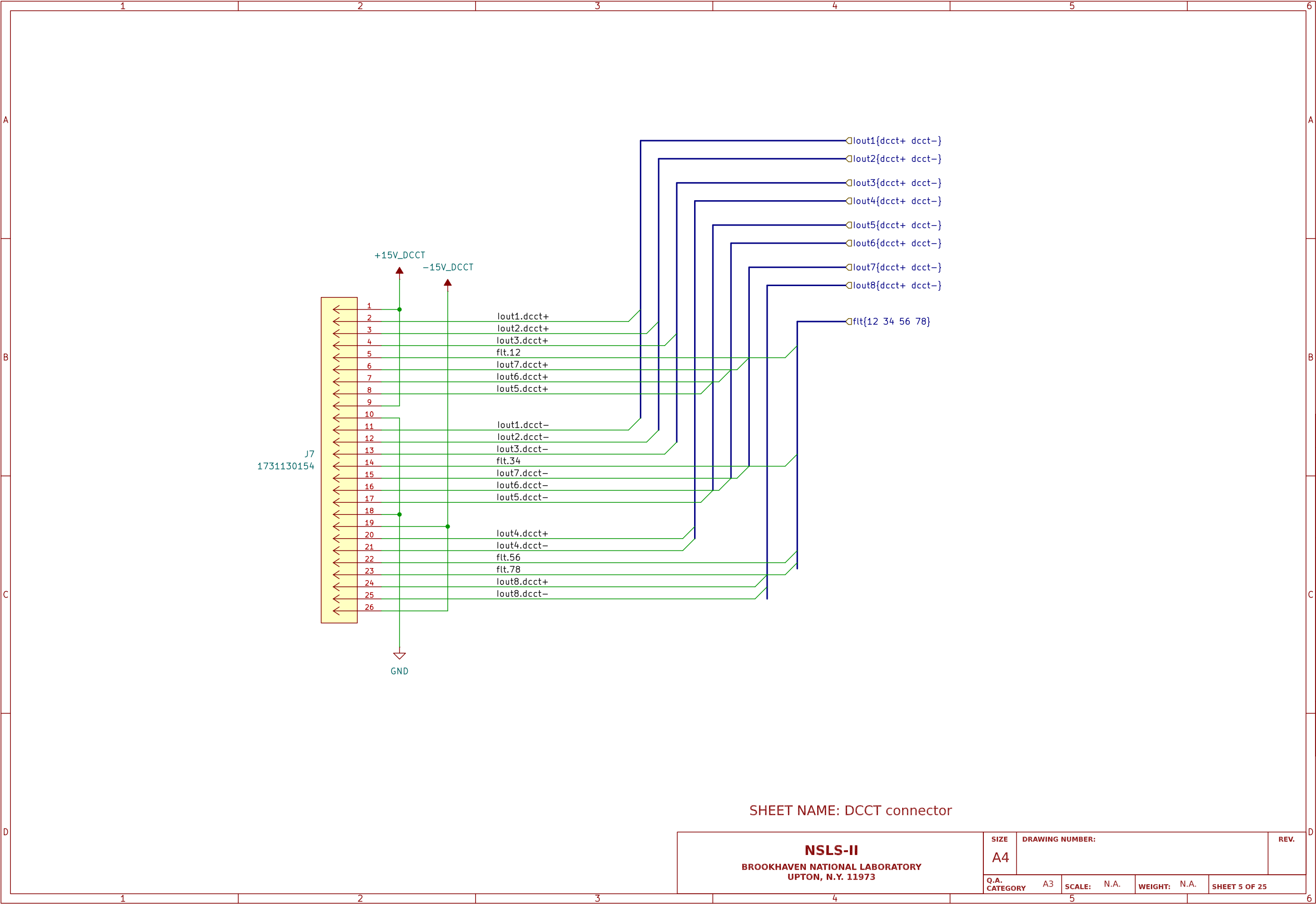


FPGA Connector



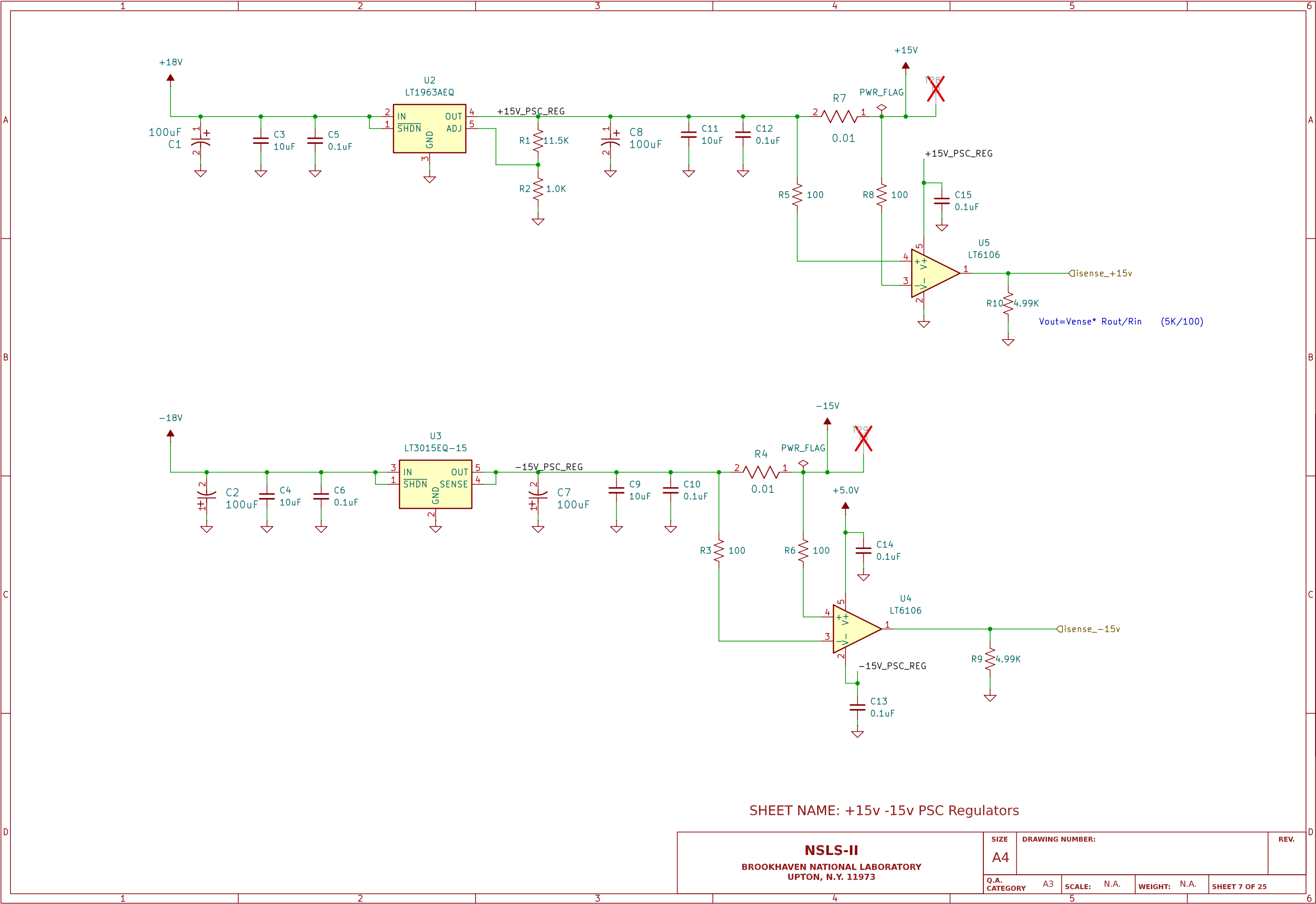
SHEET NAME: Ch1 Daughterboard

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973				SIZE A4	DRAWING NUMBER:			REV.
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 4 OF 25		



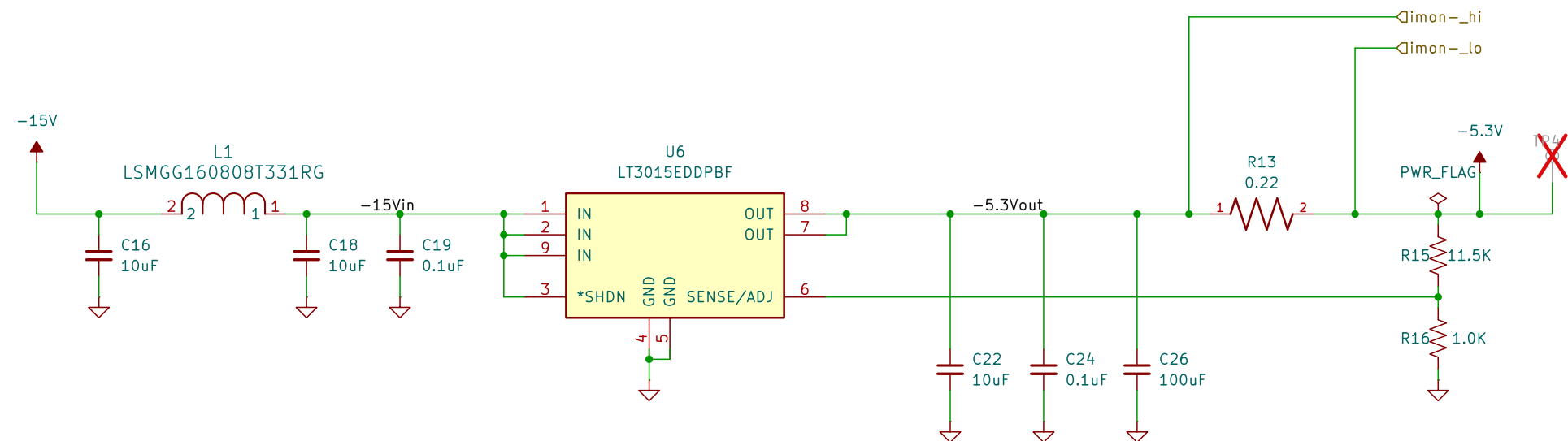
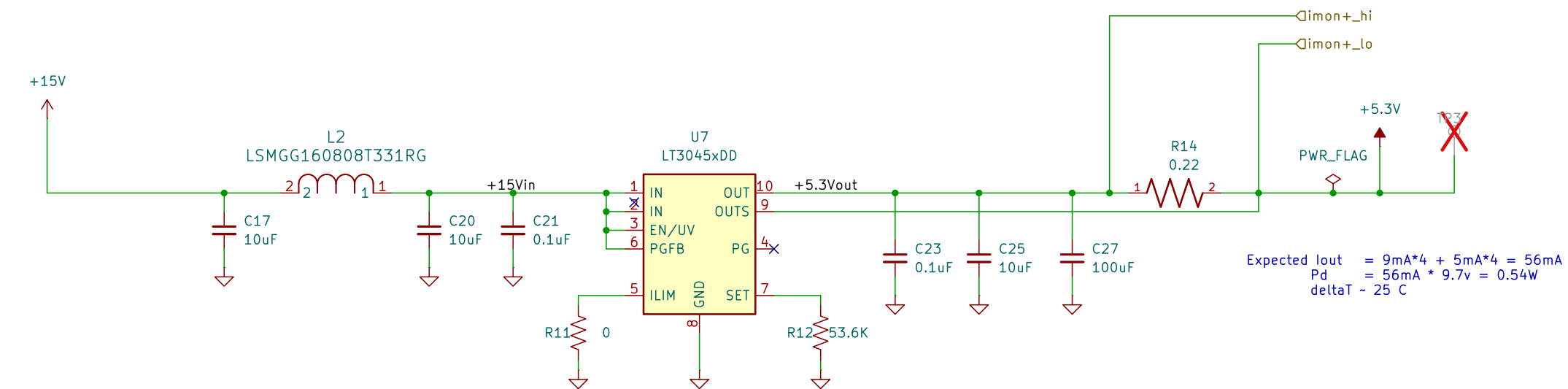
SHEET NAME: DCCT connector

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973				SIZE A4	DRAWING NUMBER:			REV.
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 5 OF 25		



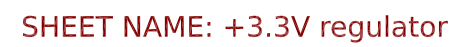
SHEET NAME: +15v -15v PSC Regulators

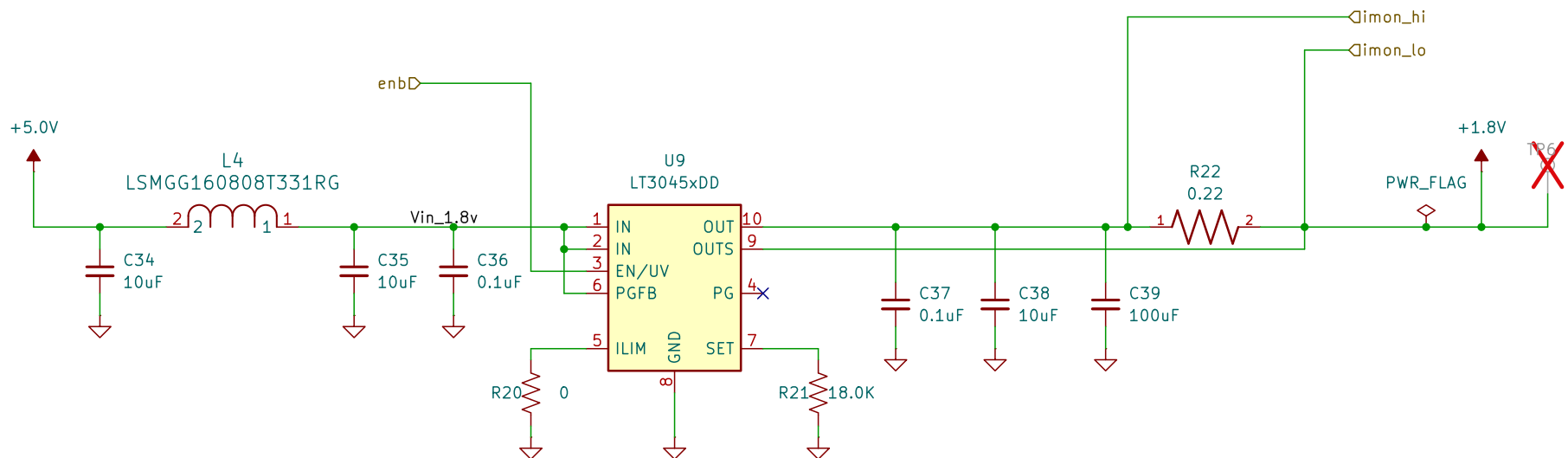
NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY A3	SCALE: N.A.	WEIGHT: N.A.	SHEET 7 OF 25	



SHEET NAME: +5VA regulator

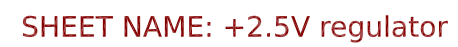
<p align="center">NSLS-II</p> <p align="center">BROOKHAVEN NATIONAL LABORATORY</p> <p align="center">UPTON, N.Y. 11973</p>	<p align="center">SIZE</p> <p align="center">A4</p>	<p align="center">DRAWING NUMBER:</p>				<p align="center">REV.</p>
	<p align="center">Q.A. CATEGORY</p> <p align="center">A3</p>	<p align="center">SCALE:</p> <p align="center">N.A.</p>	<p align="center">WEIGHT:</p> <p align="center">N.A.</p>	<p align="center">SHEET 8 OF 25</p>		

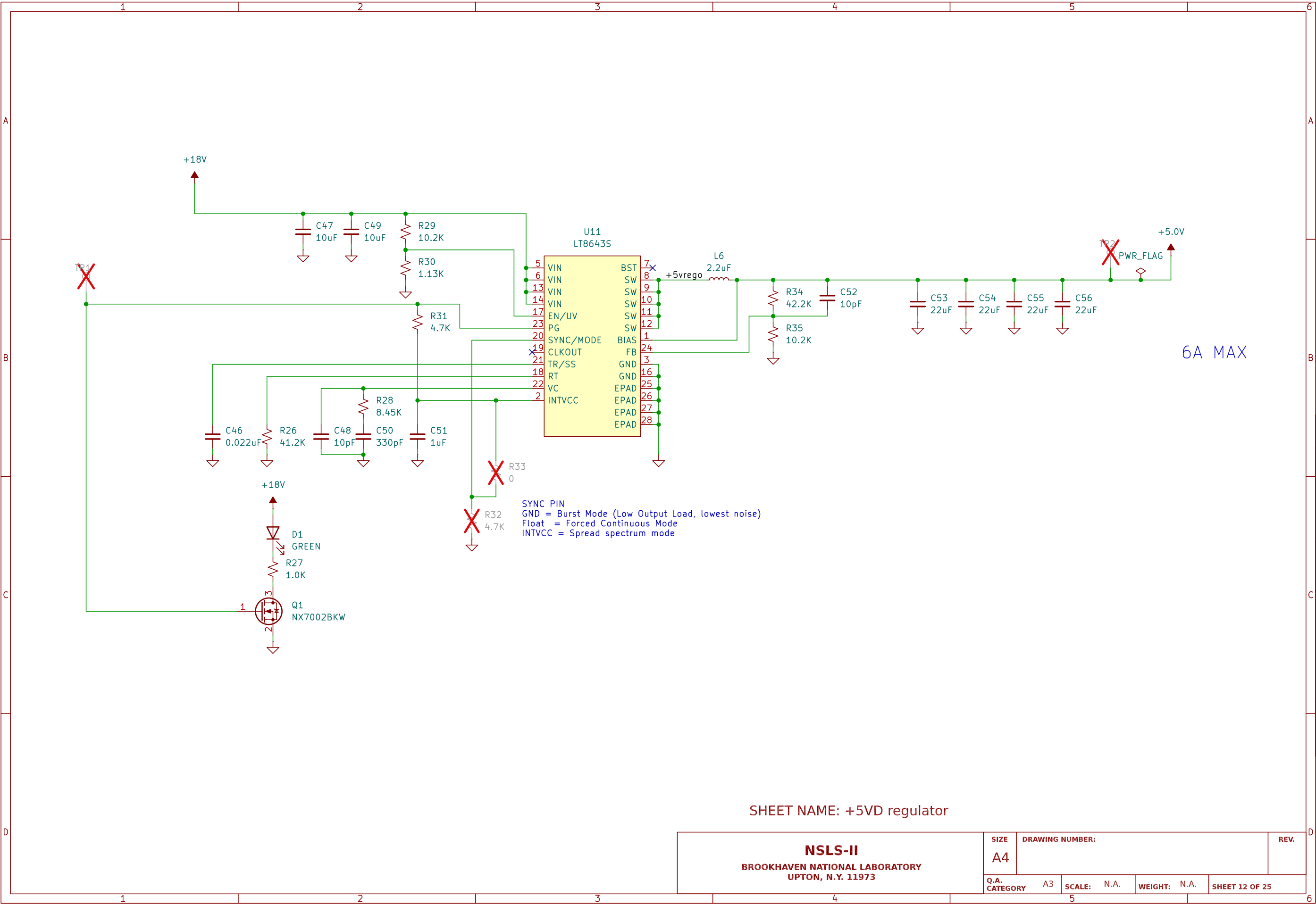
KiCad E.D.A. 9.0.4



SHEET NAME: +1.8V regulator

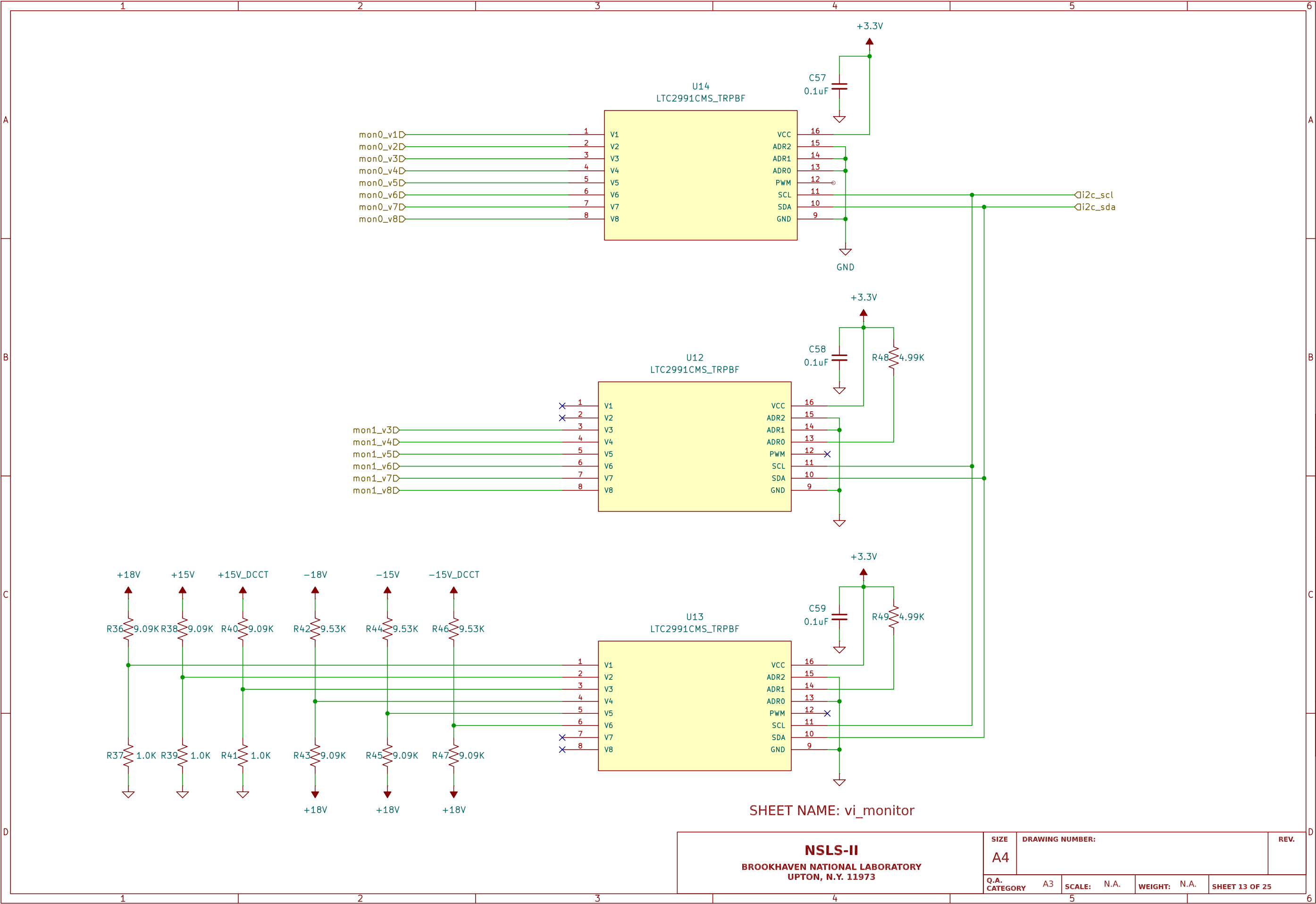
NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973	SIZE A4	DRAWING NUMBER:				REV.
	Q.A. CATEGORY A3	SCALE: N.A.	WEIGHT: N.A.	SHEET 10 OF 25		

KiCad E.D.A. 9.0.4



SHEET NAME: +5VD regulator

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY A3	SCALE: N.A.	WEIGHT: N.A.	SHEET 12 OF 25	



PS Connector

The diagram shows a 25-pin connector J8 (0836149012) with the following connections:

- reg.out+ (pin 1)** connects to **reg.out-** (pin 14).
- ps.vout+ (pin 2)** connects to **ps.vout-** (pin 15).
- ps.ignd+ (pin 3)** connects to **ps.ignd-** (pin 16).
- ps.spare+ (pin 4)** connects to **ps.spare-** (pin 17).
- digout.on1 (pin 6)** connects to **digin.acon (pin 19)**.
- digout.on2 (pin 7)** connects to **digin.flt1 (pin 20)**.
- digout.reset (pin 8)** connects to **digin.flt2 (pin 21)**.
- digout.spare (pin 9)** connects to **digin.spare (pin 22)**.
- digout.rtn (pin 10)** connects to **digin.rtn (pin 23)**.
- reg.out+ (pin 1)** connects to **reg.out-** (pin 14).
- ps.vout+ (pin 2)** connects to **ps.vout-** (pin 15).
- ps.ignd+ (pin 3)** connects to **ps.ignd-** (pin 16).
- ps.spare+ (pin 4)** connects to **ps.spare-** (pin 17).
- digout.on1 (pin 6)** connects to **digin.acon (pin 19)**.
- digout.on2 (pin 7)** connects to **digin.flt1 (pin 20)**.
- digout.reset (pin 8)** connects to **digin.flt2 (pin 21)**.
- digout.spare (pin 9)** connects to **digin.spare (pin 22)**.
- digout.rtn (pin 10)** connects to **digin.rtn (pin 23)**.

Legend:

- digout{on1 on2 reset spare rtn}
- ps{vout+ vout- ignd+ ignd- spare+ spare-}
- reg{out+ out-}
- digin{acon flt1 flt2 spare rtn}

SHEET NAME: Ch1 PS Connector

NSLS-II		SIZE	DRAWING NUMBER:			REV.
BROOKHAVEN NATIONAL LABORATORY		A4				
UPTON, N.Y. 11973						
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 14 OF 25

PS Connector

The diagram illustrates the wiring for a PS Connector, identified as J8 (0836149012). The connector is a 25-pin D-sub connector. The wiring is as follows:

- reg.out+ (Pin 1)** connects to **reg.out-** (Pin 14).
- ps.vout+ (Pin 2)** connects to **ps.vout-** (Pin 15).
- ps.ignd+ (Pin 3)** connects to **ps.ignd-** (Pin 16).
- ps.spare+ (Pin 4)** connects to **ps.spare-** (Pin 17).
- digout.on1 (Pin 6)** connects to **digin.acon (Pin 19)**.
- digout.on2 (Pin 7)** connects to **digin.flt1 (Pin 20)**.
- digout.reset (Pin 8)** connects to **digin.flt2 (Pin 21)**.
- digout.spare (Pin 9)** connects to **digin.spare (Pin 22)**.
- digout.rtn (Pin 10)** connects to **digin.rtn (Pin 23)**.

Legend:

- digout{on1 on2 reset spare rtn}
- ps{vout+ vout- ignd+ ignd- spare+ spare-}
- reg{out+ out-}
- digin{acon flt1 flt2 spare rtn}

SHEET NAME: Ch1 PS Connector

NSLS-II		SIZE	DRAWING NUMBER:			REV.
BROOKHAVEN NATIONAL LABORATORY		A4				
UPTON, N.Y. 11973						
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 14 OF 25

PS Connector

The diagram illustrates the wiring for a PS Connector, identified as J8 (0836149012). The connector is a 25-pin D-sub connector. The wiring is as follows:

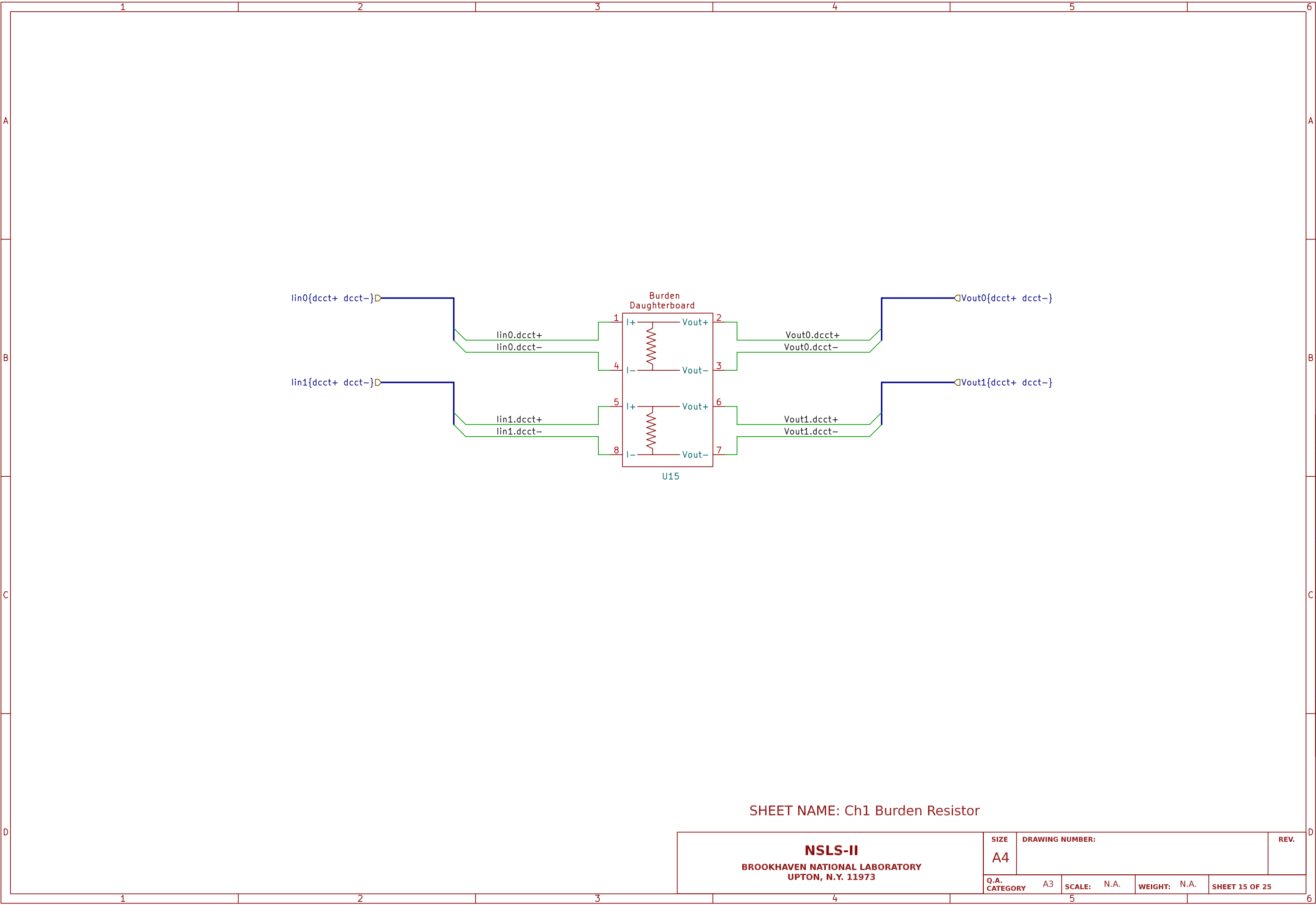
- reg.out+ (Pin 1)** connects to **reg.out-** (Pin 14).
- ps.vout+ (Pin 2)** connects to **ps.vout-** (Pin 15).
- ps.ignd+ (Pin 3)** connects to **ps.ignd-** (Pin 16).
- ps.spare+ (Pin 4)** connects to **ps.spare-** (Pin 17).
- digout.on1 (Pin 6)** connects to **digin.acon (Pin 19)**.
- digout.on2 (Pin 7)** connects to **digin.flt1 (Pin 20)**.
- digout.reset (Pin 8)** connects to **digin.flt2 (Pin 21)**.
- digout.spare (Pin 9)** connects to **digin.spare (Pin 22)**.
- digout.rtn (Pin 10)** connects to **digin.rtn (Pin 23)**.

Legend:

- digout{on1 on2 reset spare rtn}
- ps{vout+ vout- ignd+ ignd- spare+ spare-}
- reg{out+ out-}
- digin{acon flt1 flt2 spare rtn}

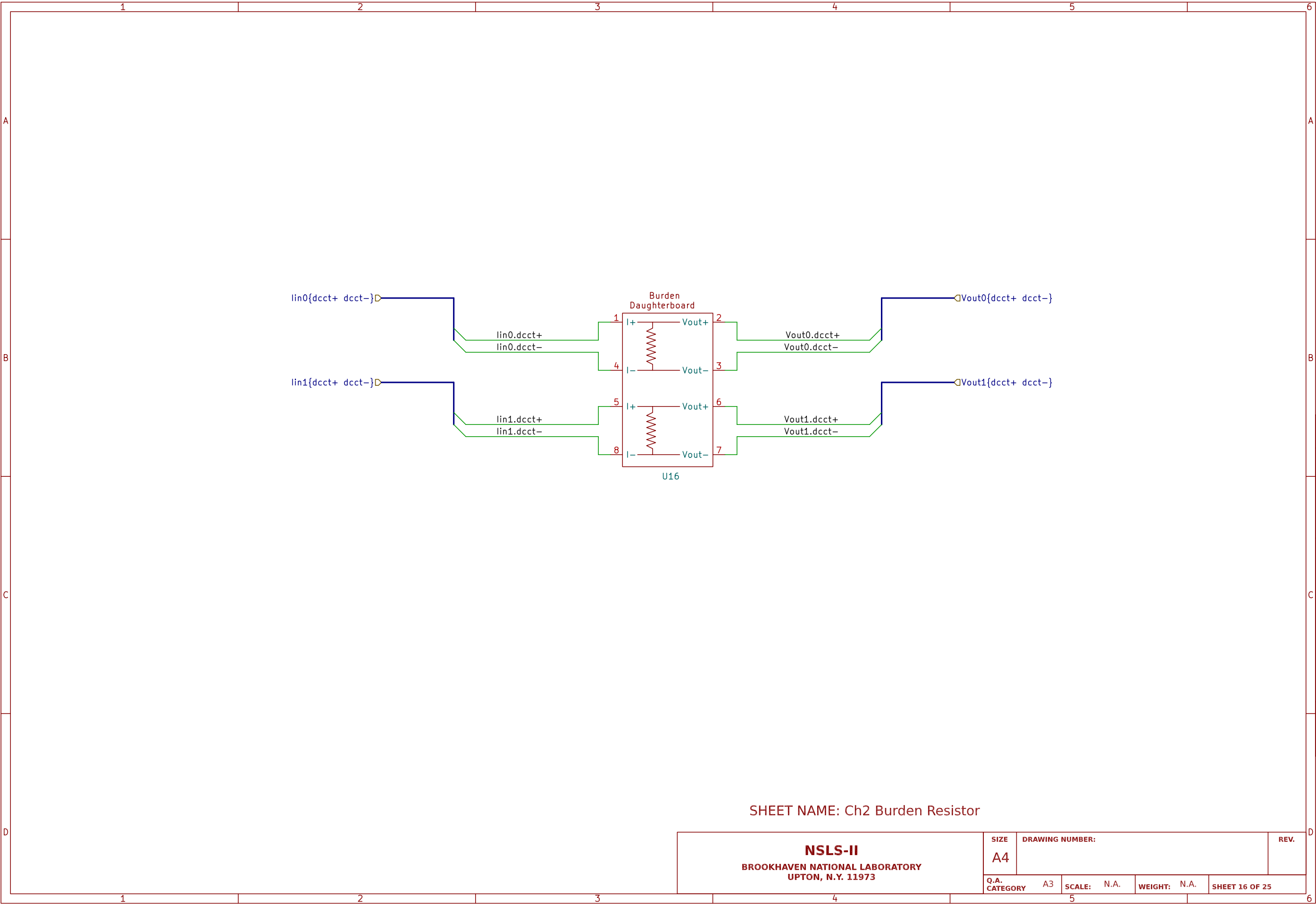
SHEET NAME: Ch1 PS Connector

NSLS-II		SIZE	DRAWING NUMBER:			REV.
BROOKHAVEN NATIONAL LABORATORY		A4				
UPTON, N.Y. 11973						
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 14 OF 25



SHEET NAME: Ch1 Burden Resistor

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY A3	SCALE: 5	N.A.	WEIGHT: N.A.	SHEET 15 OF 25

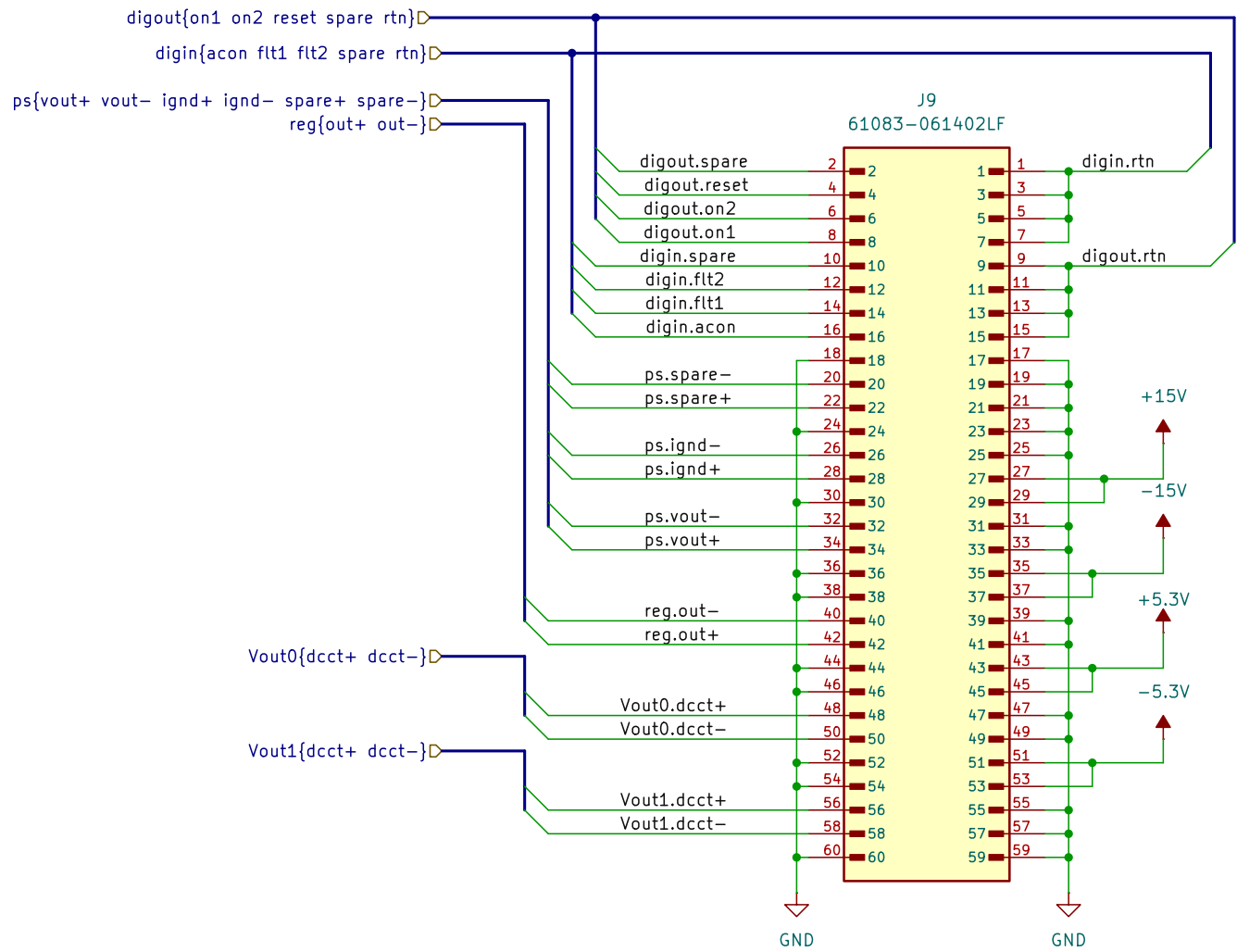


SHEET NAME: Ch2 Burden Resistor

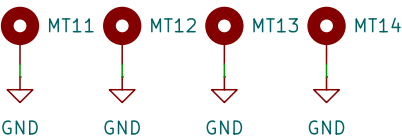
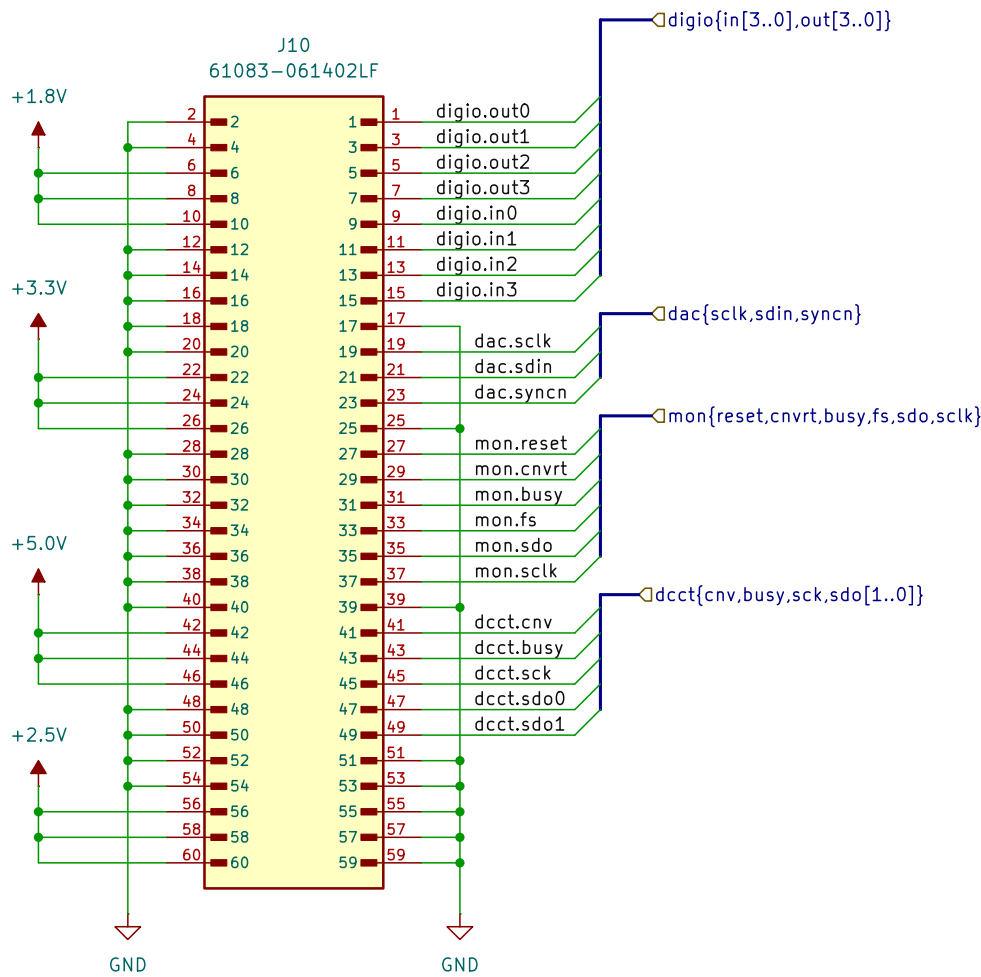
NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973	SIZE A4	DRAWING NUMBER:			REV.
	Q.A. CATEGORY A3	SCALE: 5	N.A.	WEIGHT: N.A.	SHEET 16 OF 25

Daughterboard Connectors

PS Connector

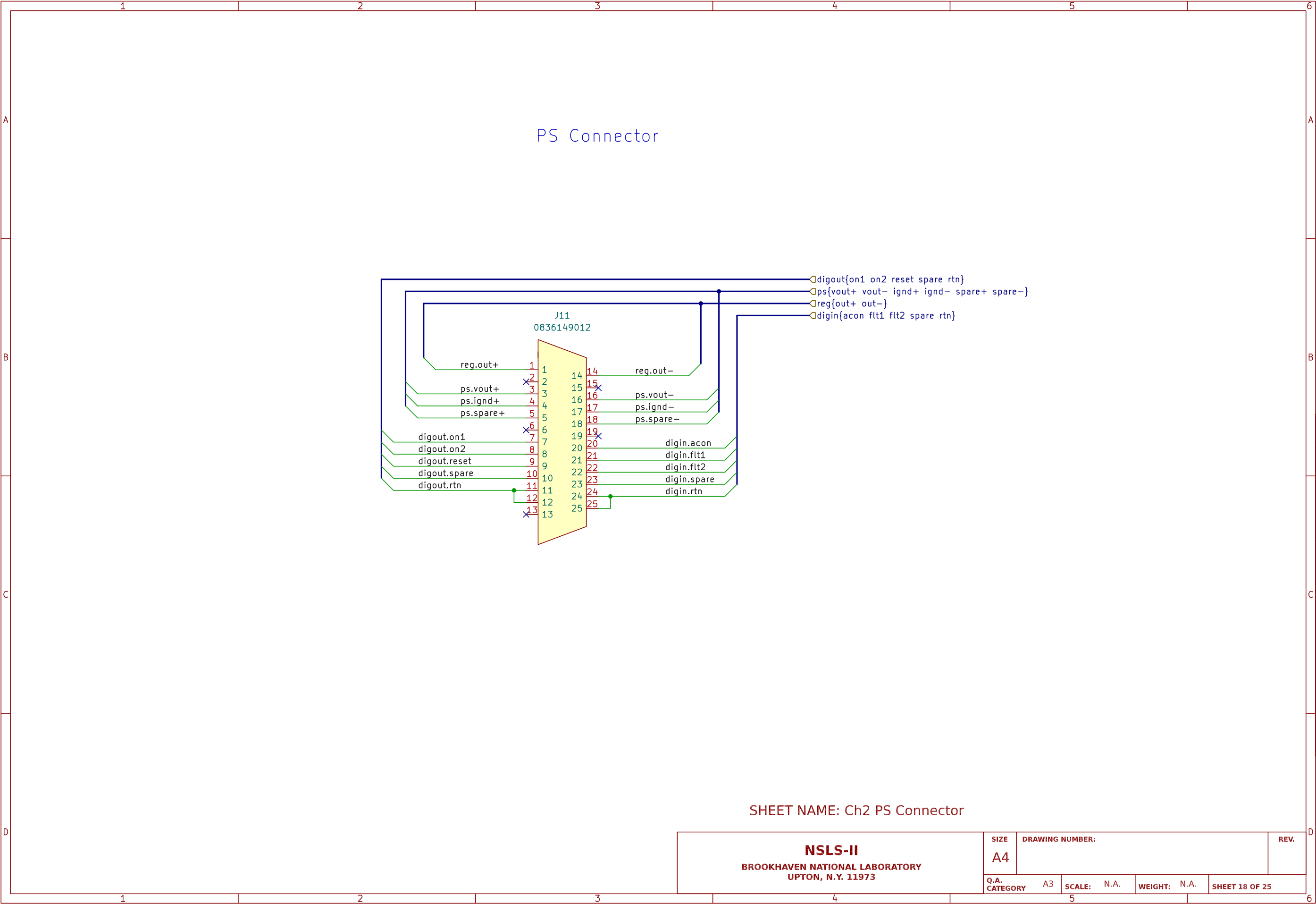


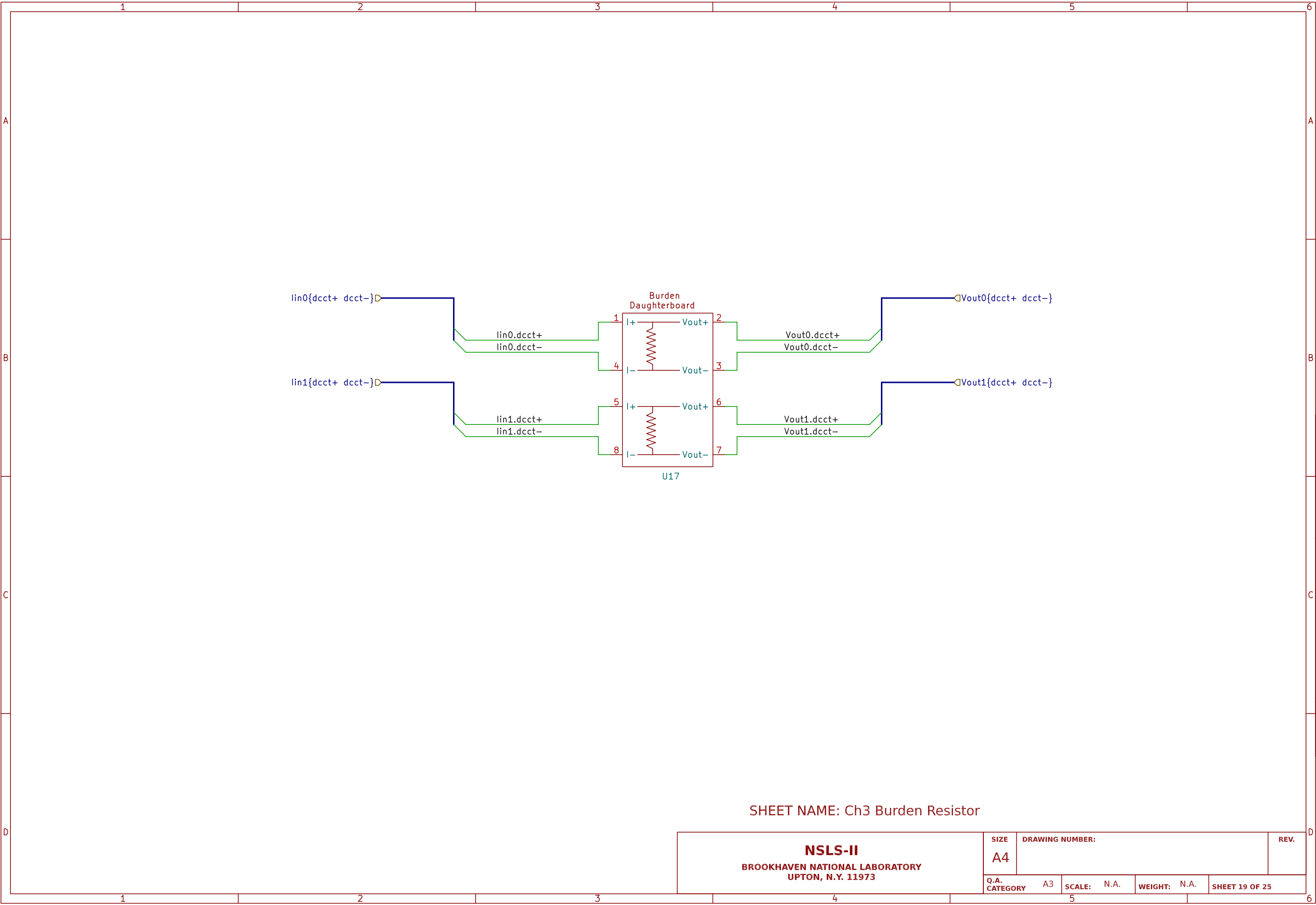
FPGA Connector



SHEET NAME: Ch2 Daughterboard

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973				SIZE A4	DRAWING NUMBER:			REV.
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 17 OF 25		



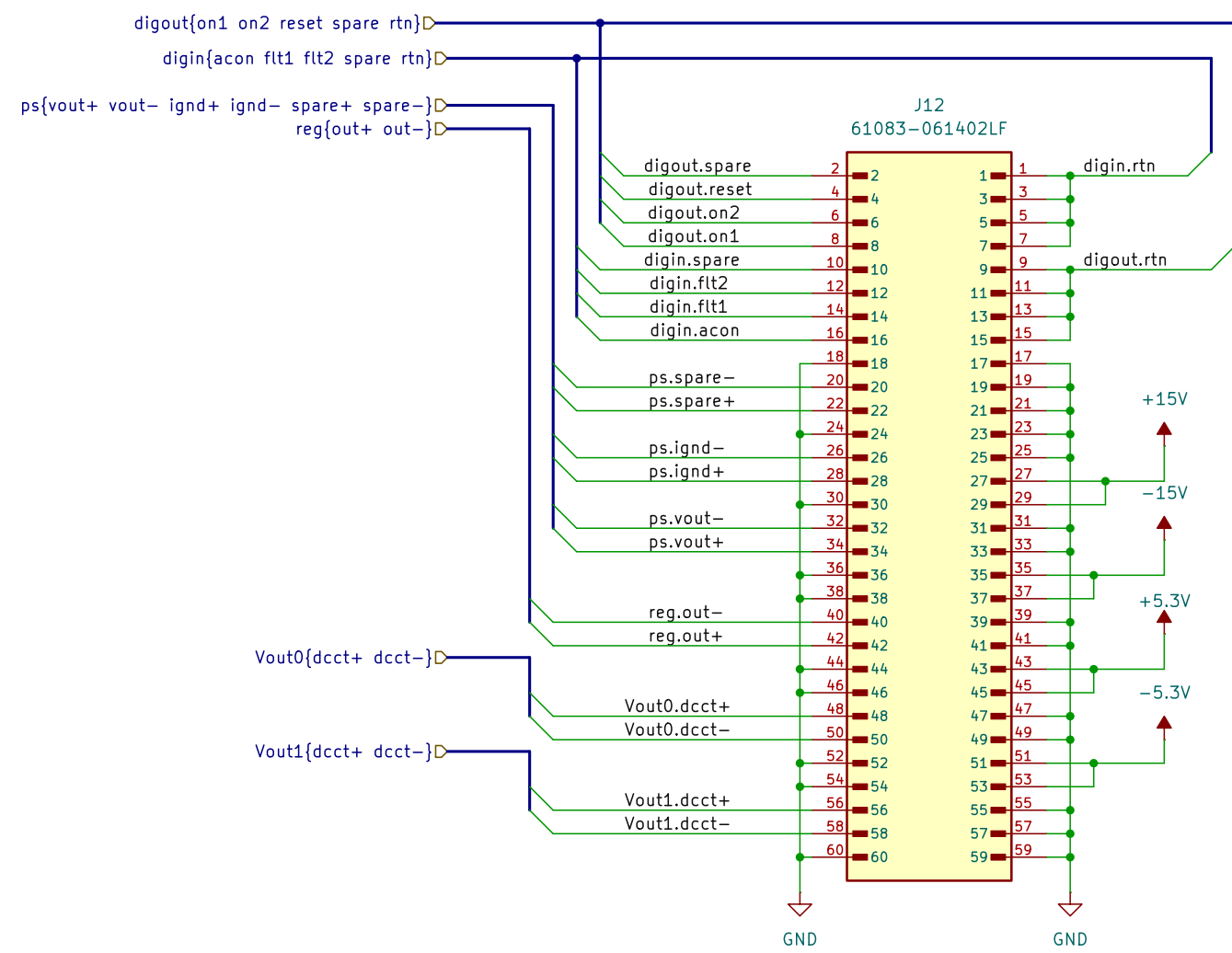


SHEET NAME: Ch3 Burden Resistor

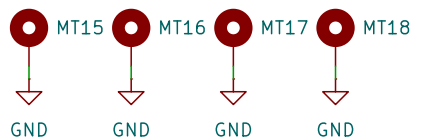
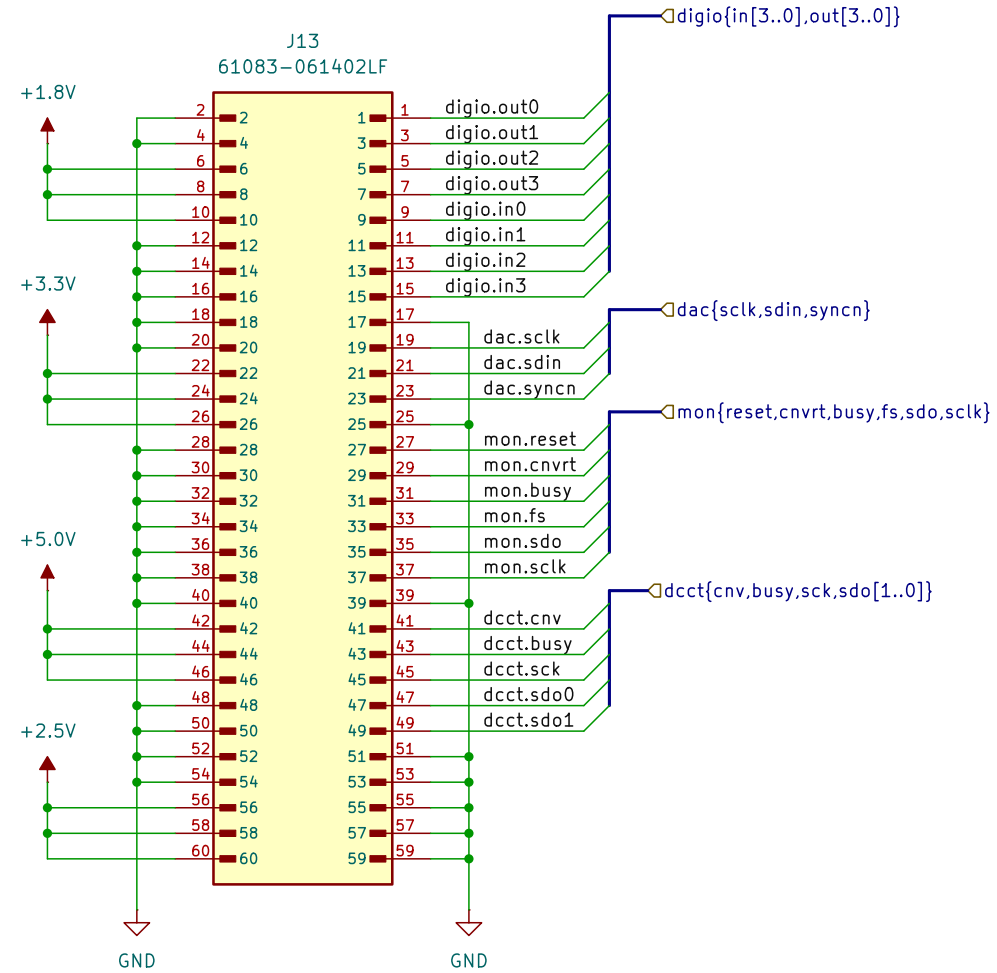
NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY A3	SCALE: 5	N.A.	WEIGHT: N.A.	SHEET 19 OF 25

Daughterboard Connectors

PS Connector

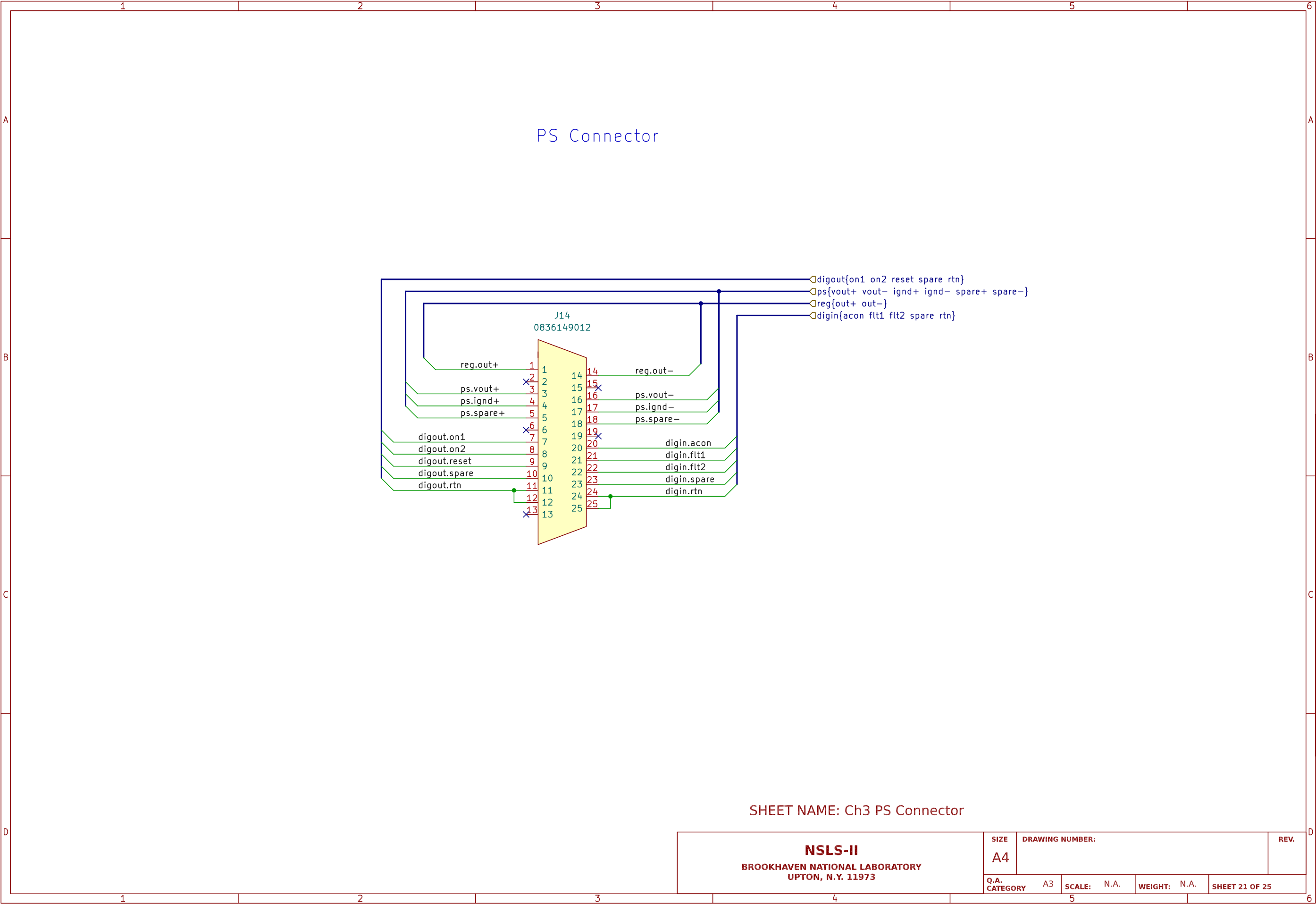


FPGA Connector



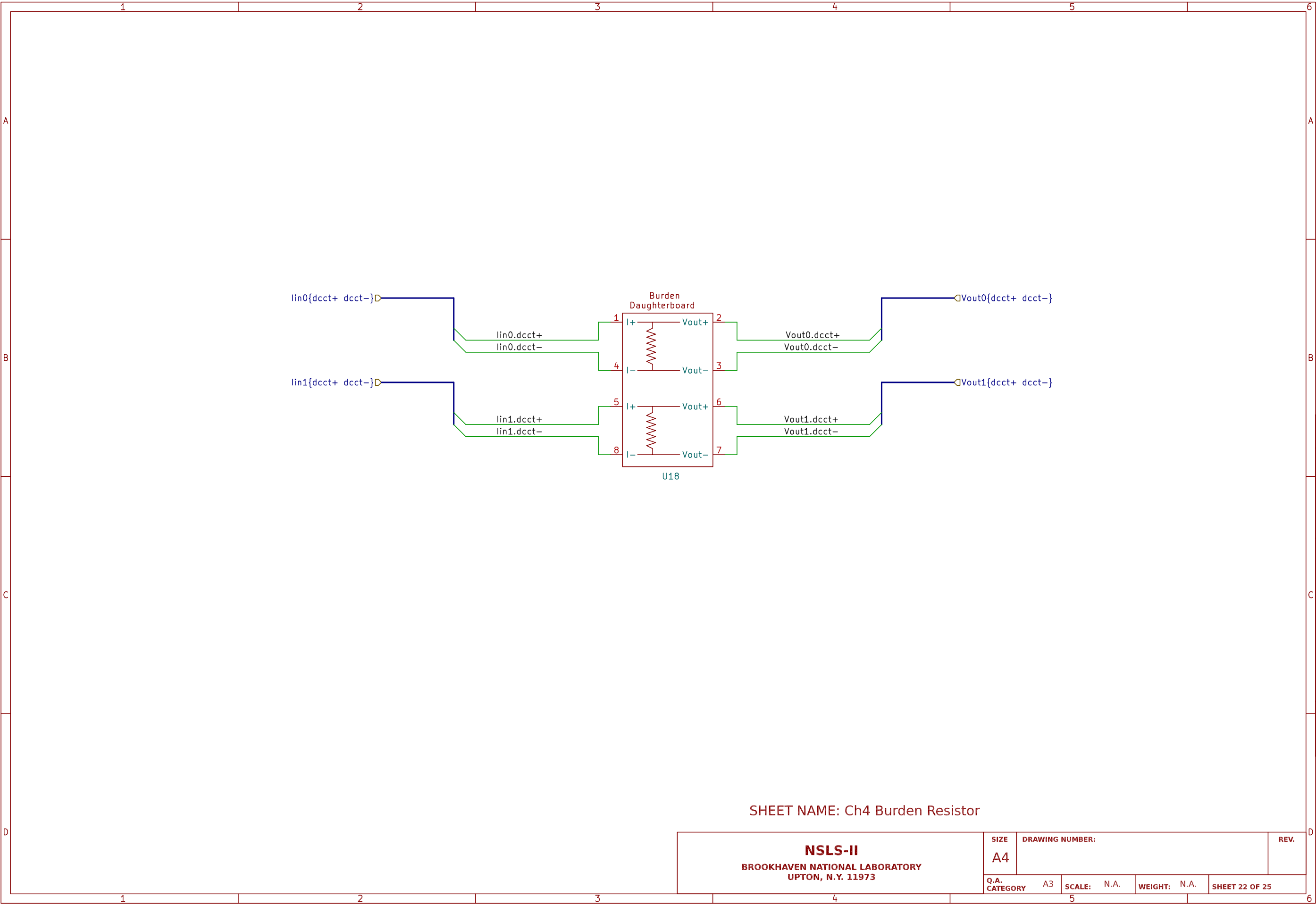
SHEET NAME: Ch3 Daughterboard

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY	A3	SCALE: N.A.	WEIGHT: N.A.	SHEET 20 OF 25



SHEET NAME: Ch3 PS Connector

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY A3	SCALE: 5	N.A.	WEIGHT: N.A.	SHEET 21 OF 25

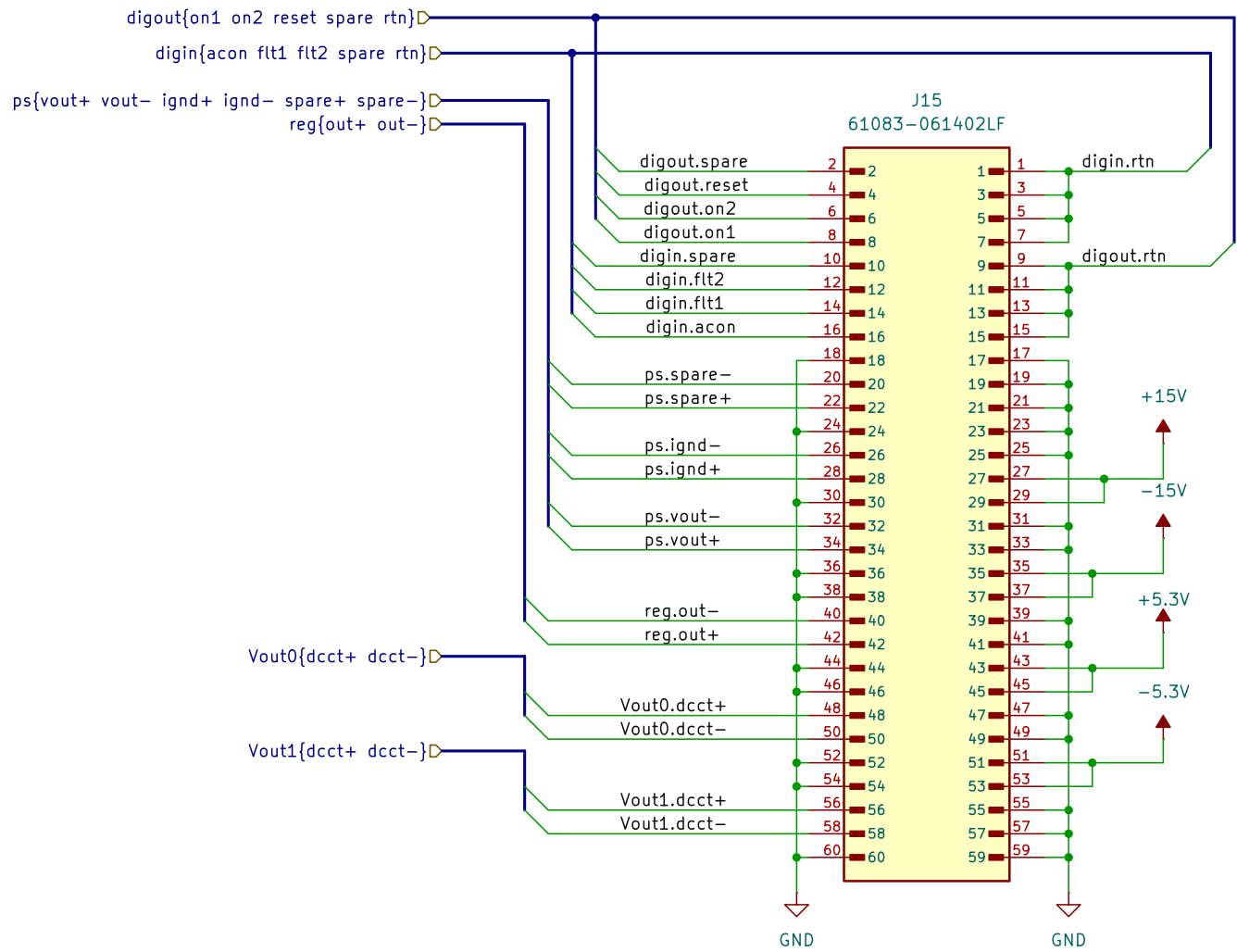


SHEET NAME: Ch4 Burden Resistor

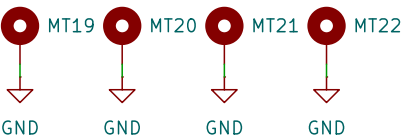
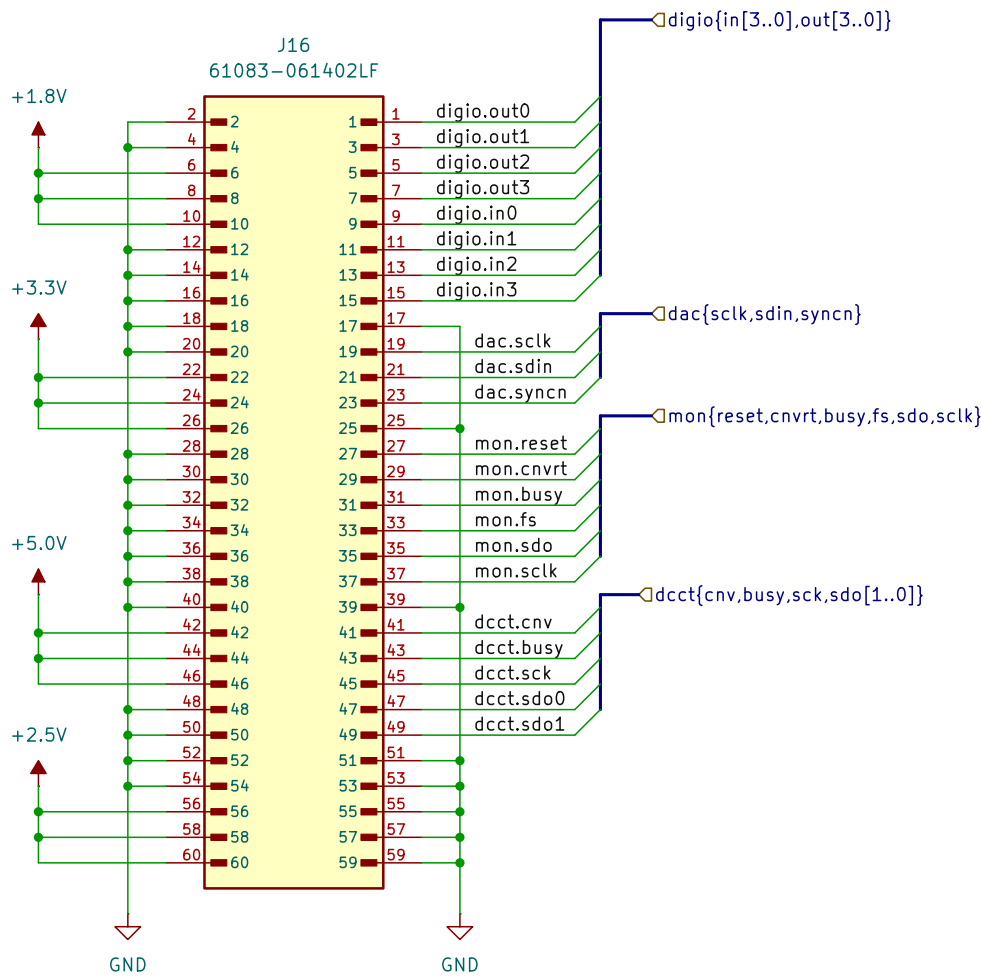
NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY A3	SCALE: 5	N.A.	WEIGHT: N.A.	SHEET 22 OF 25

Daughterboard Connectors

PS Connector



FPGA Connector



SHEET NAME: Ch4 Daughterboard

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY	A3	SCALE: N.A.	WEIGHT: N.A.	SHEET 23 OF 25

1 2 3 4 5 6

A

PS Connector

B

C

D

The diagram shows a 25-pin connector J17 (0836149012) with the following connections:

- reg.out+ (pin 1)** connects to **reg{out+ out-}** (blue line).
- ps.vout+ (pin 2)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- ps.ignd+ (pin 3)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- ps.spare+ (pin 4)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- digout.on1 (pin 6)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- digout.on2 (pin 7)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- digout.reset (pin 8)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- digout.spare (pin 9)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- digout.rtn (pin 10)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- reg.out- (pin 14)** connects to **reg{out+ out-}** (blue line).
- ps.vout- (pin 15)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- ps.ignd- (pin 16)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- ps.spare- (pin 17)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- digin.acon (pin 19)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).
- digin.flt1 (pin 20)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).
- digin.flt2 (pin 21)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).
- digin.spare (pin 22)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).
- digin.rtn (pin 23)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).

J17
0836149012

reg.out+ 1 14 reg.out-
ps.vout+ 2 15
ps.ignd+ 3 16
ps.spare+ 4 17
digout.on1 6 19
digout.on2 7 20
digout.reset 8 21
digout.spare 9 22
digout.rtn 10 23
11 24
12 25
13

reg{out+ out-}
ps{vout+ vout- ignd+ ignd- spare+ spare-}
digout{on1 on2 reset spare rtn}
digin{acon flt1 flt2 spare rtn}

SHEET NAME: Ch4 PS Connector

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY	A3	SCALE: N.A.	WEIGHT: N.A.	SHEET 24 OF 25

1 2 3 4 5 6

1 2 3 4 5 6

A

PS Connector

B

C

D

The diagram shows a 25-pin connector J17 (0836149012) with the following connections:

- reg.out+ (pin 1)** connects to **reg{out+ out-}** (blue line).
- ps.vout+ (pin 2)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- ps.ignd+ (pin 3)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- ps.spare+ (pin 4)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- digout.on1 (pin 6)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- digout.on2 (pin 7)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- digout.reset (pin 8)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- digout.spare (pin 9)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- digout.rtn (pin 10)** connects to **digout{on1 on2 reset spare rtn}** (blue line).
- reg.out- (pin 14)** connects to **reg{out+ out-}** (blue line).
- ps.vout- (pin 15)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- ps.ignd- (pin 16)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- ps.spare- (pin 17)** connects to **ps{vout+ vout- ignd+ ignd- spare+ spare-}** (blue line).
- digin.acon (pin 19)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).
- digin.flt1 (pin 20)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).
- digin.flt2 (pin 21)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).
- digin.spare (pin 22)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).
- digin.rtn (pin 23)** connects to **digin{acon flt1 flt2 spare rtn}** (blue line).

J17
0836149012

reg.out+ 1 14 reg.out-
ps.vout+ 2 15
ps.ignd+ 3 16
ps.spare+ 4 17
digout.on1 6 19
digout.on2 7 20
digout.reset 8 21
digout.spare 9 22
digout.rtn 10 23
11 24
12 25
13

reg{out+ out-}
ps{vout+ vout- ignd+ ignd- spare+ spare-}
digout{on1 on2 reset spare rtn}
digin{acon flt1 flt2 spare rtn}

SHEET NAME: Ch4 PS Connector

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		SIZE A4	DRAWING NUMBER:			REV.
		Q.A. CATEGORY	A3	SCALE: N.A.	WEIGHT: N.A.	SHEET 24 OF 25

1 2 3 4 5 6

PS Connector

The diagram shows a 25-pin connector J17 (0836149012) with the following connections:

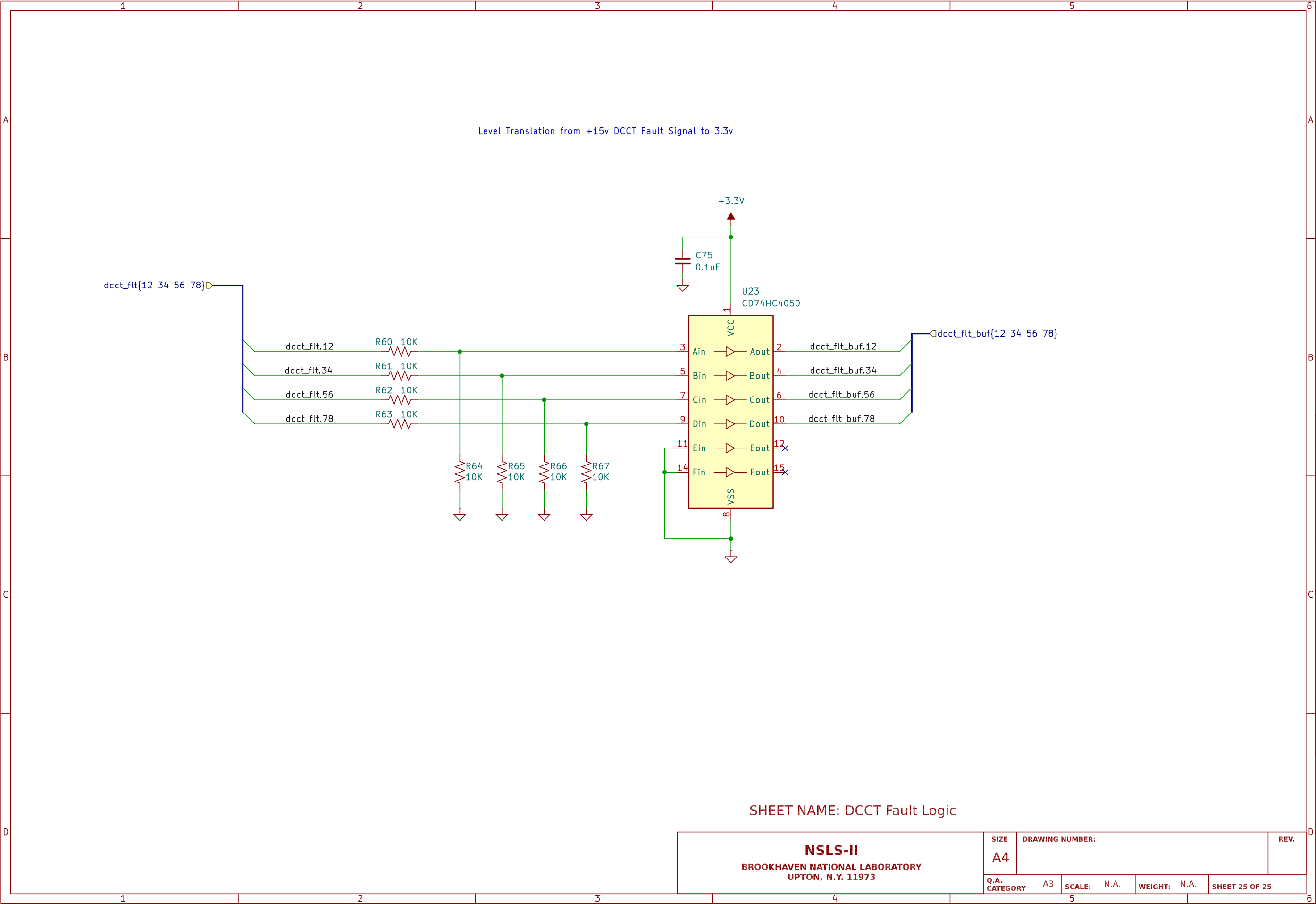
- reg.out+ (pin 1)** connects to **reg.out-** (pin 14).
- ps.vout+ (pin 2)** connects to **ps.vout-** (pin 15).
- ps.ignd+ (pin 3)** connects to **ps.ignd-** (pin 16).
- ps.spare+ (pin 4)** connects to **ps.spare-** (pin 17).
- digout.on1 (pin 6)** connects to **digin.acon (pin 19)**.
- digout.on2 (pin 7)** connects to **digin.flt1 (pin 20)**.
- digout.reset (pin 8)** connects to **digin.flt2 (pin 21)**.
- digout.spare (pin 9)** connects to **digin.spare (pin 22)**.
- digout.rtn (pin 10)** connects to **digin.rtn (pin 23)**.
- reg.out+ (pin 1)** connects to **reg.out-** (pin 14).
- ps.vout+ (pin 2)** connects to **ps.vout-** (pin 15).
- ps.ignd+ (pin 3)** connects to **ps.ignd-** (pin 16).
- ps.spare+ (pin 4)** connects to **ps.spare-** (pin 17).
- digout.on1 (pin 6)** connects to **digin.acon (pin 19)**.
- digout.on2 (pin 7)** connects to **digin.flt1 (pin 20)**.
- digout.reset (pin 8)** connects to **digin.flt2 (pin 21)**.
- digout.spare (pin 9)** connects to **digin.spare (pin 22)**.
- digout.rtn (pin 10)** connects to **digin.rtn (pin 23)**.

Legend:

- digout{on1 on2 reset spare rtn}
- ps{vout+ vout- ignd+ ignd- spare+ spare-}
- reg{out+ out-}
- digin{acon flt1 flt2 spare rtn}

SHEET NAME: Ch4 PS Connector

NSLS-II		SIZE	DRAWING NUMBER:			REV.
BROOKHAVEN NATIONAL LABORATORY		A4				
UPTON, N.Y. 11973						
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 24 OF 25



SHEET NAME: DCCT Fault Logic

NSLS-II BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973				SIZE A4	DRAWING NUMBER:			REV.
Q.A. CATEGORY	A3	SCALE:	N.A.	WEIGHT:	N.A.	SHEET 25 OF 25		

KiCad E.D.A. 9.0.4