

- MNT_HOLE_BOLT_06 M1
- MNT_HOLE_BOLT_06 M2
- MNT_HOLE_BOLT_06 M3
- MNT_HOLE_BOLT_06 M4
- MOUNTING HOLES FOR #6 MACHINE SCREW
- FIDUCIAL150 FID1
- FIDUCIAL150 FID2
- FIDUCIAL150 FID3
- FIDUCIAL150 FID4
- FIDUCIAL150 FID5
- FIDUCIAL150 FID6
- FIDUCIAL150 FID7
- FIDUCIAL150 FID8

CCD DAO CRATE VOLTAGE	VICOR P.S. SLOT #	HEATER CONTROLLER CRATE VOLTAGE
2	1	1
3	1	1
4	3	2
5	3	2
6	5	8
7	5	8
8	7	7
9	7	7
10	9	6
11	9	6
12	11	5
13	11	5
14	13	4
15	13	4
16	15	3
17	15	3

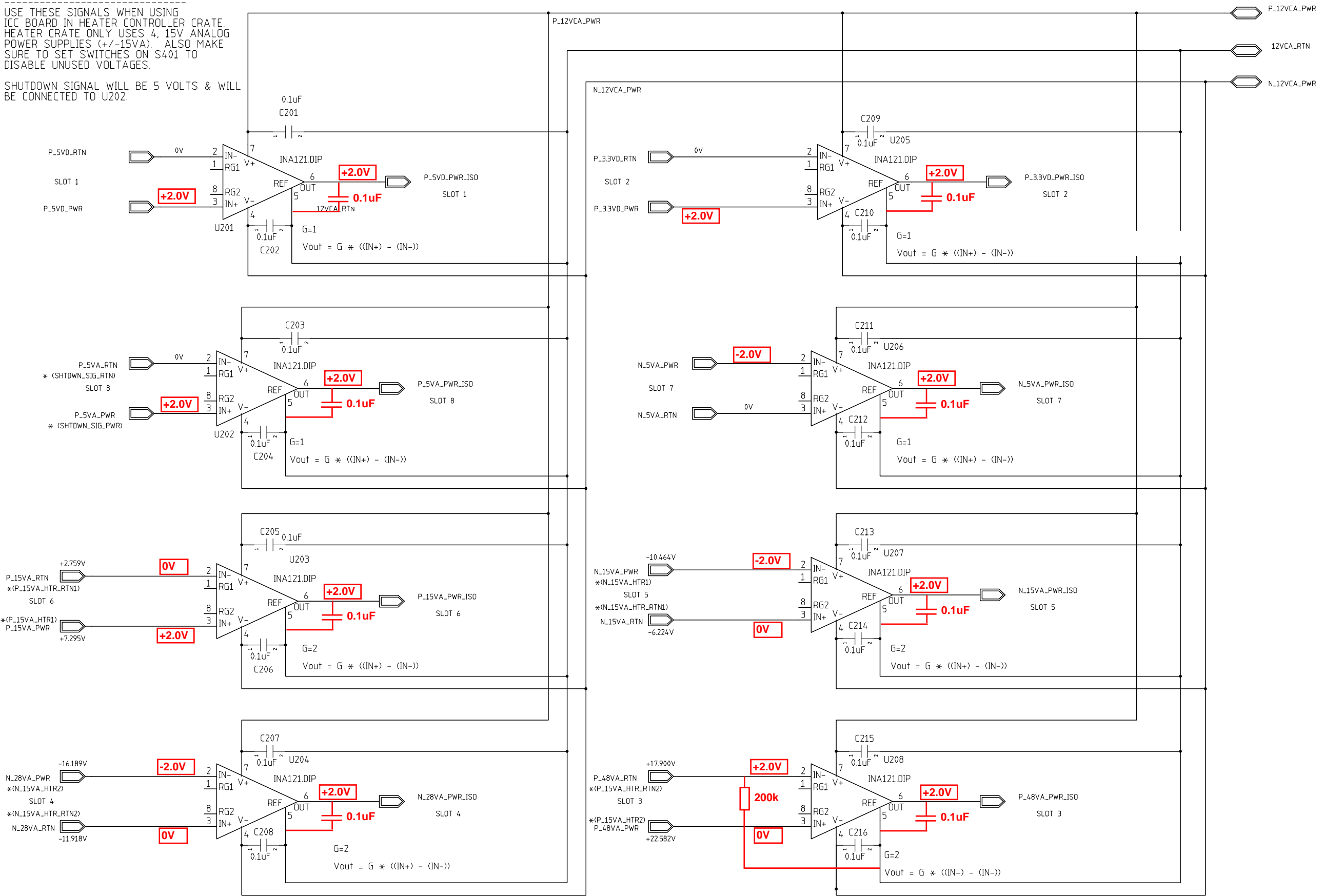
* NOTES:
 USE THESE SIGNALS WHEN USING ICC BOARD IN HEATER CONTROLLER CRATE. HEATER CRATE USES 4, 15V ANALOG POWER SUPPLIES (+/-15VA). ALSO MAKE SURE TO SET SWITCHES ON S401 TO DISABLE UNUSED VOLTAGES.
 SHUTDOWN SIGNAL WILL USE 5 VOLT POWER SUPPLY.

FROM VICOR FILTER BOX

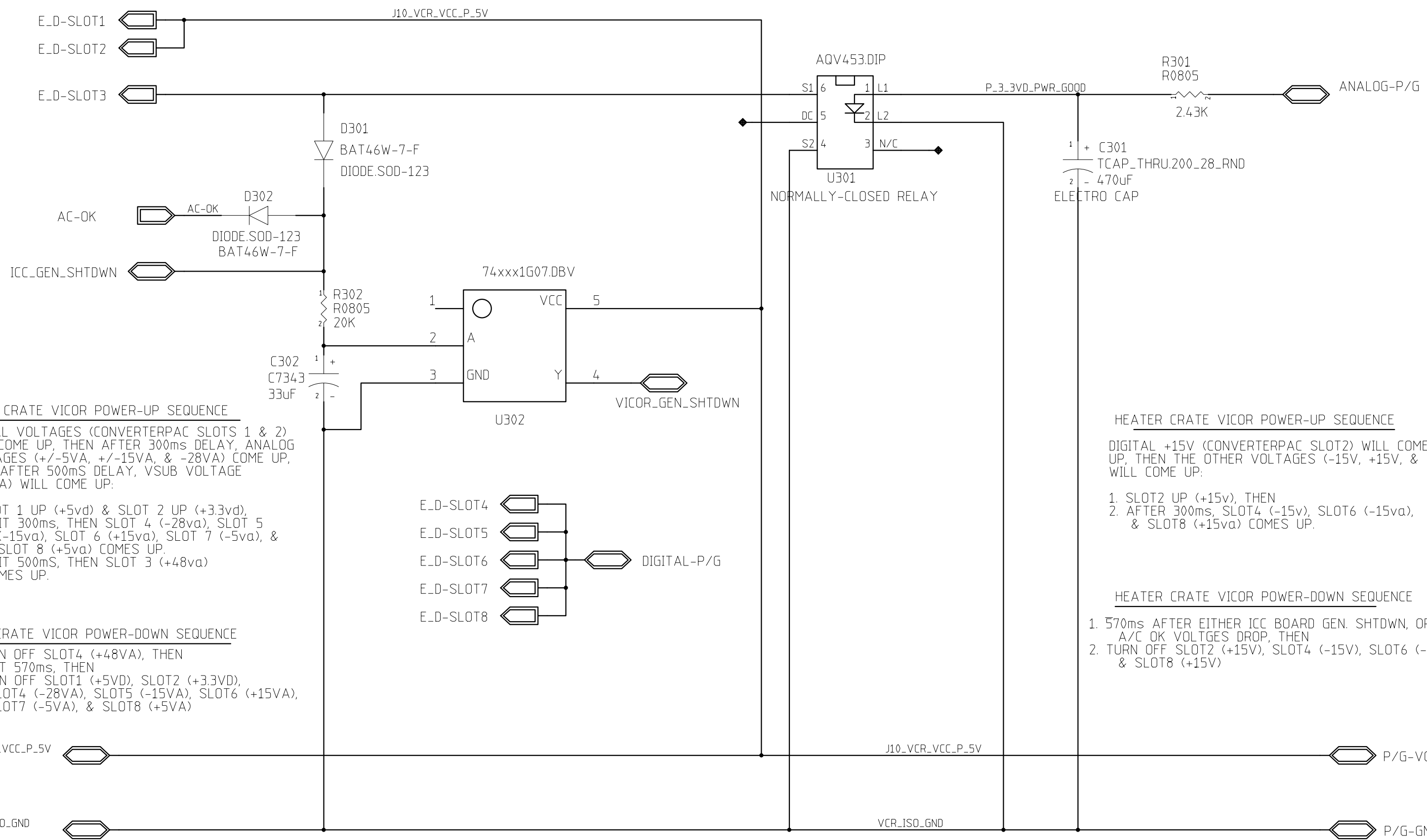
PROD_ICC_REV 3.3 1.19.11 (SEE 'DESIGN_REVISION_CHANGES_DOCUMENT' @ <http://des-docdb.fnal.gov:8080/cgi-bin/ShowDocument?docid=1527>)

* NOTES:
 USE THESE SIGNALS WHEN USING
 ICC BOARD IN HEATER CONTROLLER CRATE.
 HEATER CRATE ONLY USES 4, 15V ANALOG
 POWER SUPPLIES (+/-15VA). ALSO MAKE
 SURE TO SET SWITCHES ON S401 TO
 DISABLE UNUSED VOLTAGES.

SHUTDOWN SIGNAL WILL BE 5 VOLTS & WILL
 BE CONNECTED TO U202.



PROD_ICC_REV 3.3 -- 1.19.11 (SEE 'DESIGN_REVISION_CHANGES_DOCUMENT' @
<http://des-docdb.fnal.gov:8080/cgi-bin/ShowDocument?docid=1527>)



DAQ CRATE VICOR POWER-UP SEQUENCE

DIGITAL VOLTAGES (CONVERTERPAC SLOTS 1 & 2) WILL COME UP, THEN AFTER 300ms DELAY, ANALOG VOLTAGES (+/-5VA, +/-15VA, & -28VA) COME UP, THEN AFTER 500ms DELAY, VSUB VOLTAGE (+48VA) WILL COME UP:

1. SLOT 1 UP (+5vd) & SLOT 2 UP (+3.3vd),
2. WAIT 300ms, THEN SLOT 4 (-28va), SLOT 5 (-15va), SLOT 6 (+15va), SLOT 7 (-5va), & SLOT 8 (+5va) COMES UP.
3. WAIT 500mS, THEN SLOT 3 (+48va) COMES UP.

DAQ CRATE VICOR POWER-DOWN SEQUENCE

1. TURN OFF SLOT4 (+48VA), THEN
2. WAIT 570ms, THEN
3. TURN OFF SLOT1 (+5VD), SLOT2 (+3.3VD), SLOT4 (-28VA), SLOT5 (-15VA), SLOT6 (+15VA), SLOT7 (-5VA), & SLOT8 (+5VA)

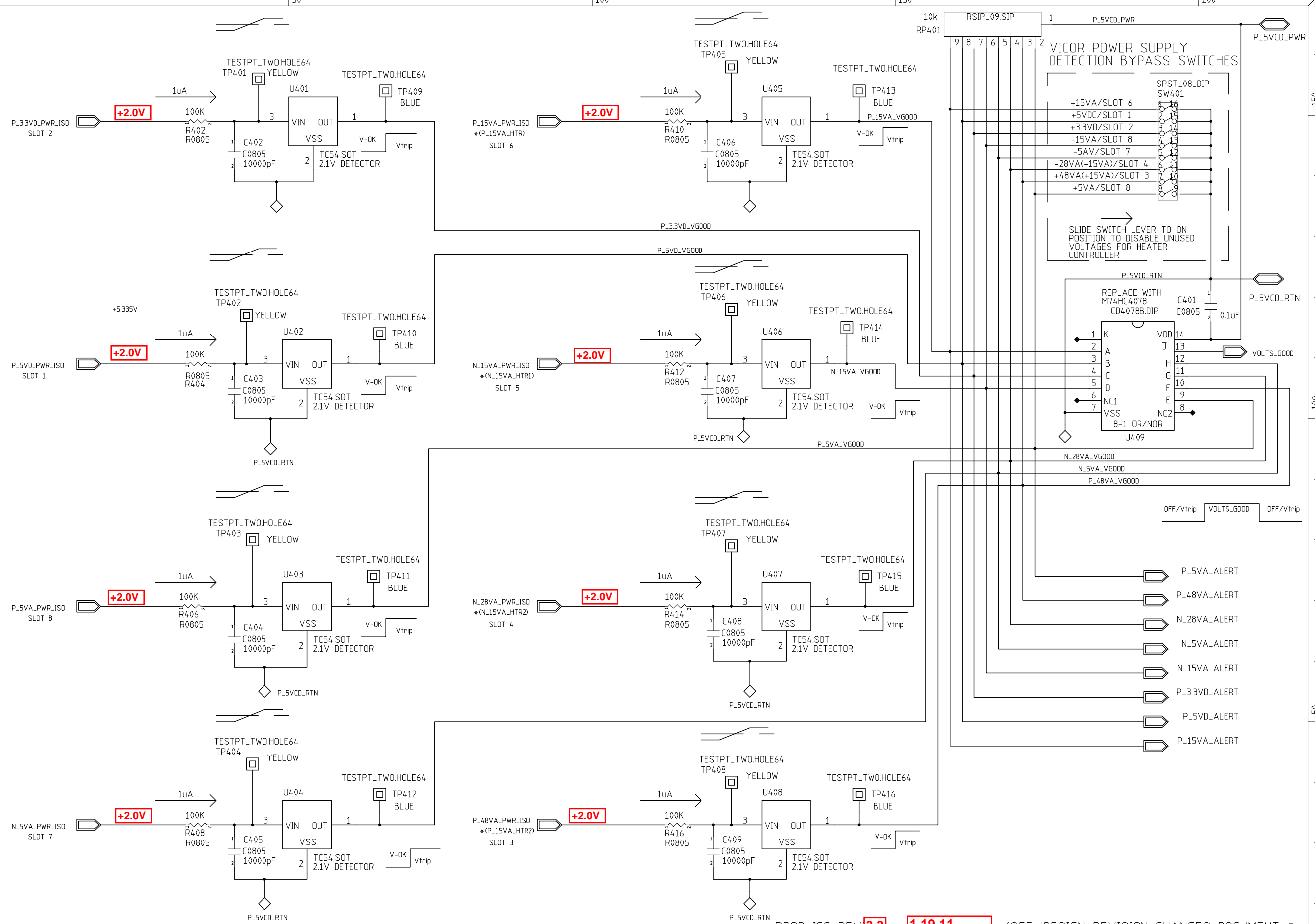
HEATER CRATE VICOR POWER-UP SEQUENCE

DIGITAL +15V (CONVERTERPAC SLOT2) WILL COME UP, THEN THE OTHER VOLTAGES (-15V, +15V, & -15V) WILL COME UP:

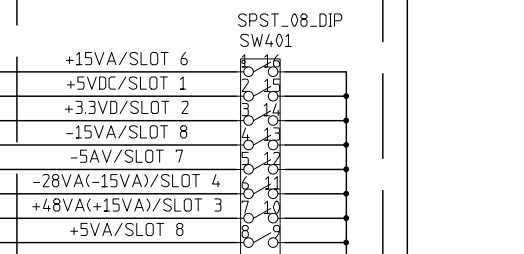
1. SLOT2 UP (+15v), THEN
2. AFTER 300ms, SLOT4 (-15v), SLOT6 (-15va), & SLOT8 (+15va) COMES UP.

HEATER CRATE VICOR POWER-DOWN SEQUENCE

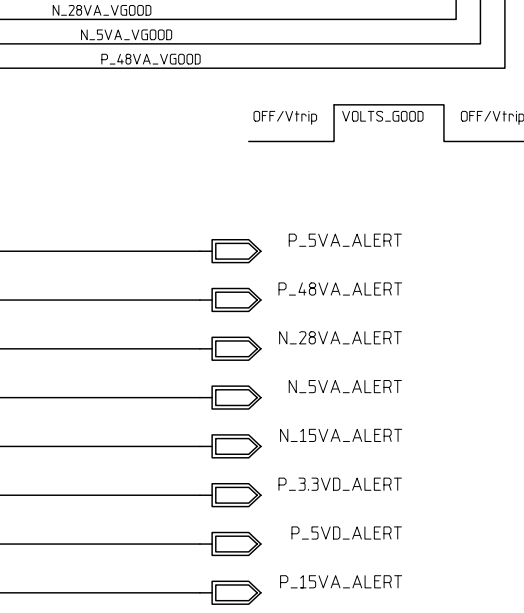
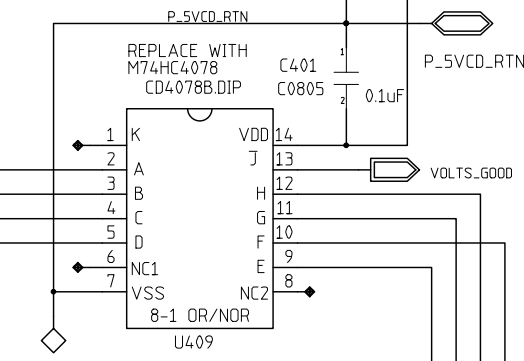
1. 570ms AFTER EITHER ICC BOARD GEN. SHTDWN, OR A/C OK VOLTGES DROP, THEN
2. TURN OFF SLOT2 (+15V), SLOT4 (-15V), SLOT6 (-15V), & SLOT8 (+15V)

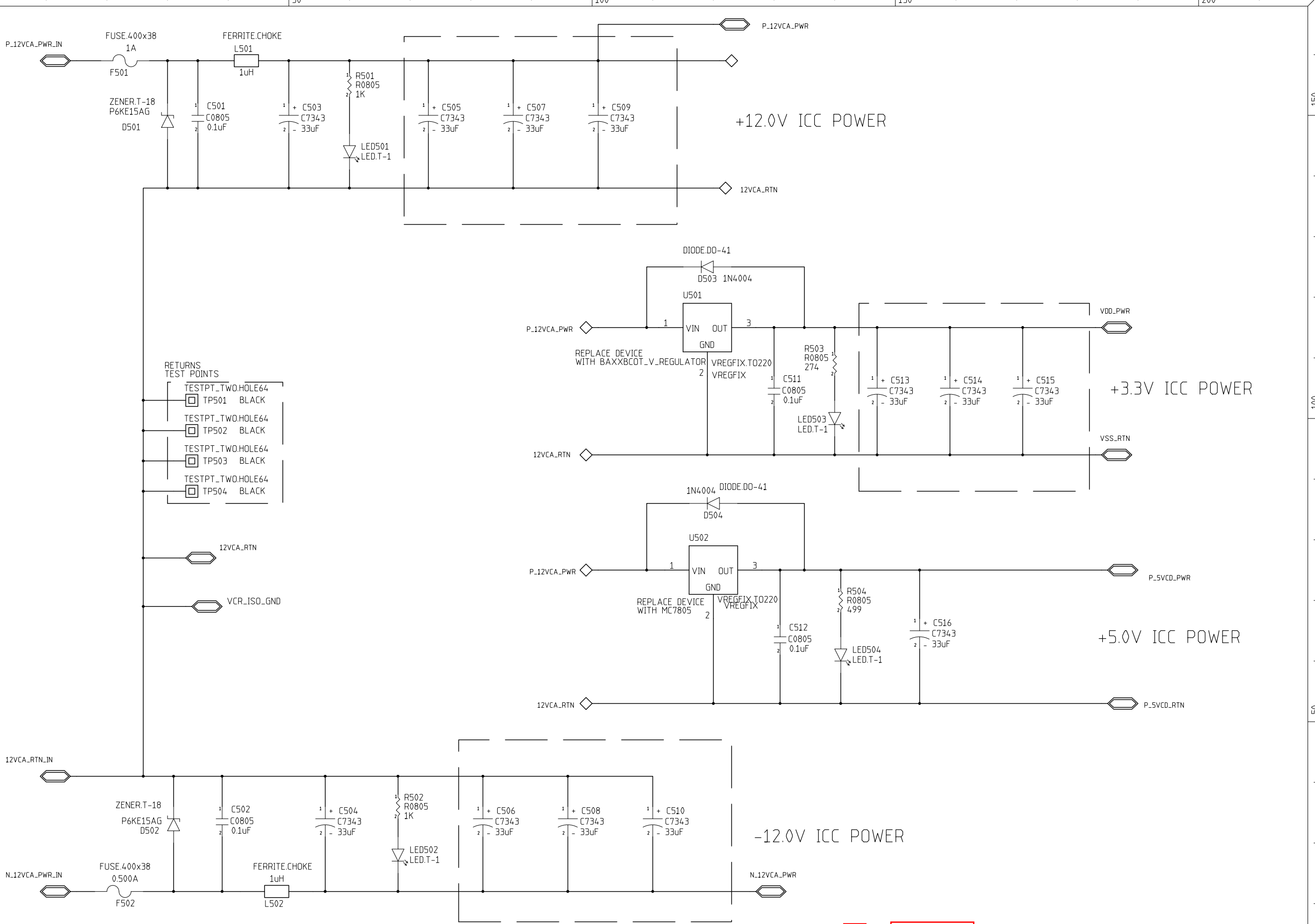


VICOR POWER SUPPLY
DETECTION BYPASS SWITCHES



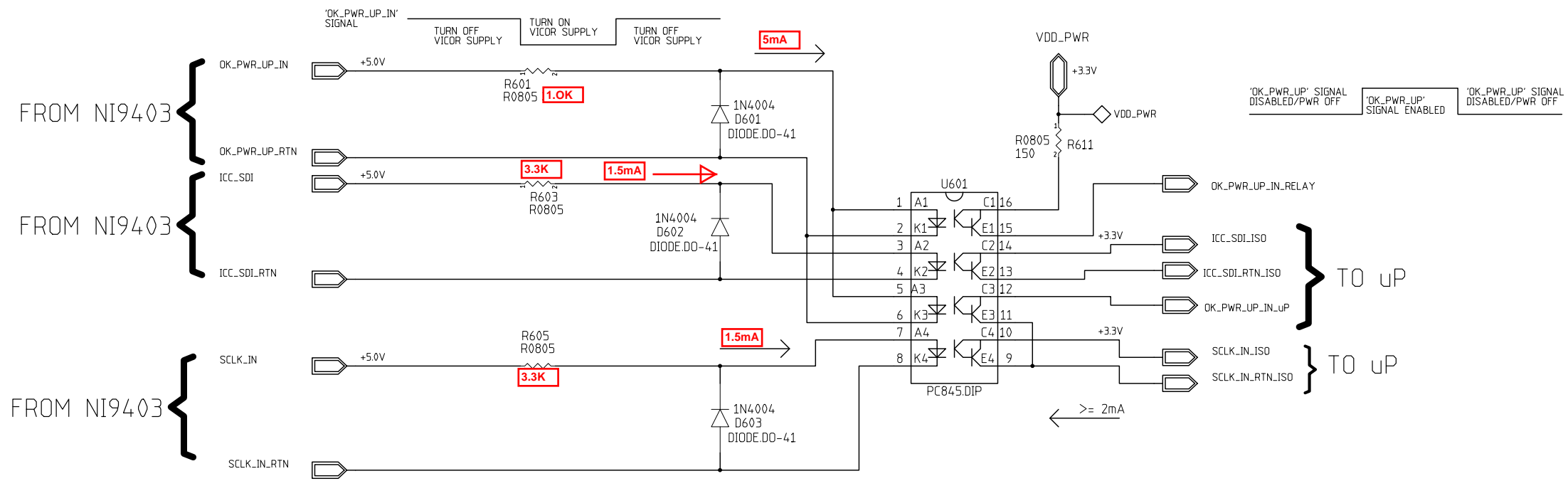
SLIDE SWITCH LEVER TO ON
POSITION TO DISABLE UNUSED
VOLTAGES FOR HEATER
CONTROLLER



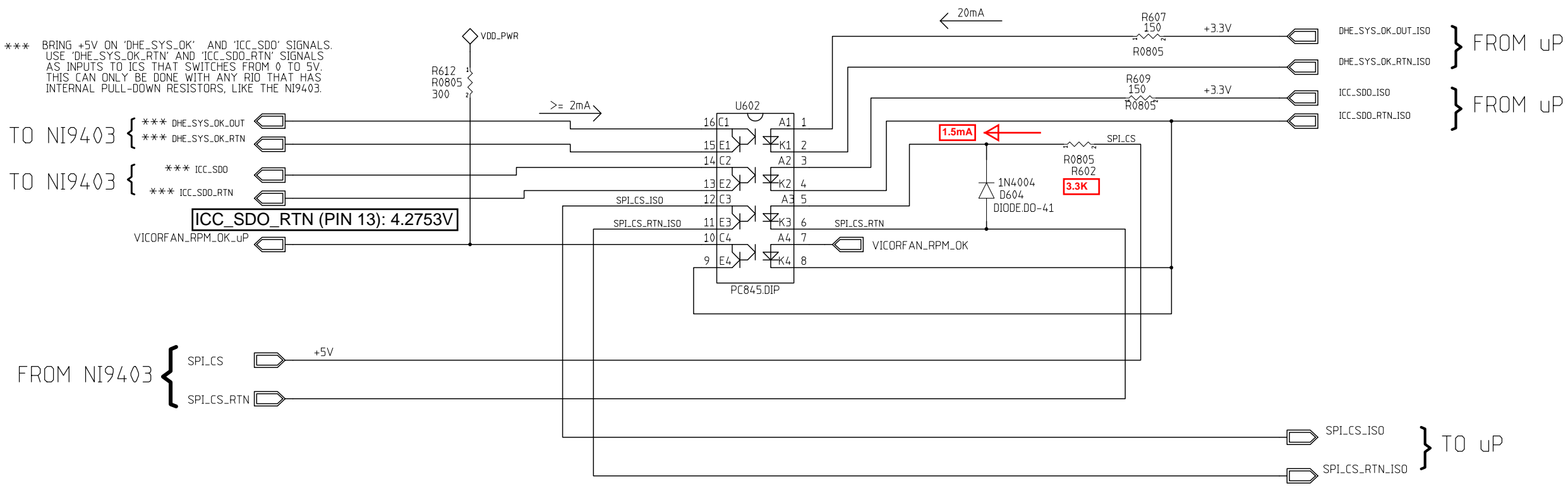


- RETURNS TEST POINTS
- TESTPT_TWO.HOLE64 TP501 BLACK
 - TESTPT_TWO.HOLE64 TP502 BLACK
 - TESTPT_TWO.HOLE64 TP503 BLACK
 - TESTPT_TWO.HOLE64 TP504 BLACK

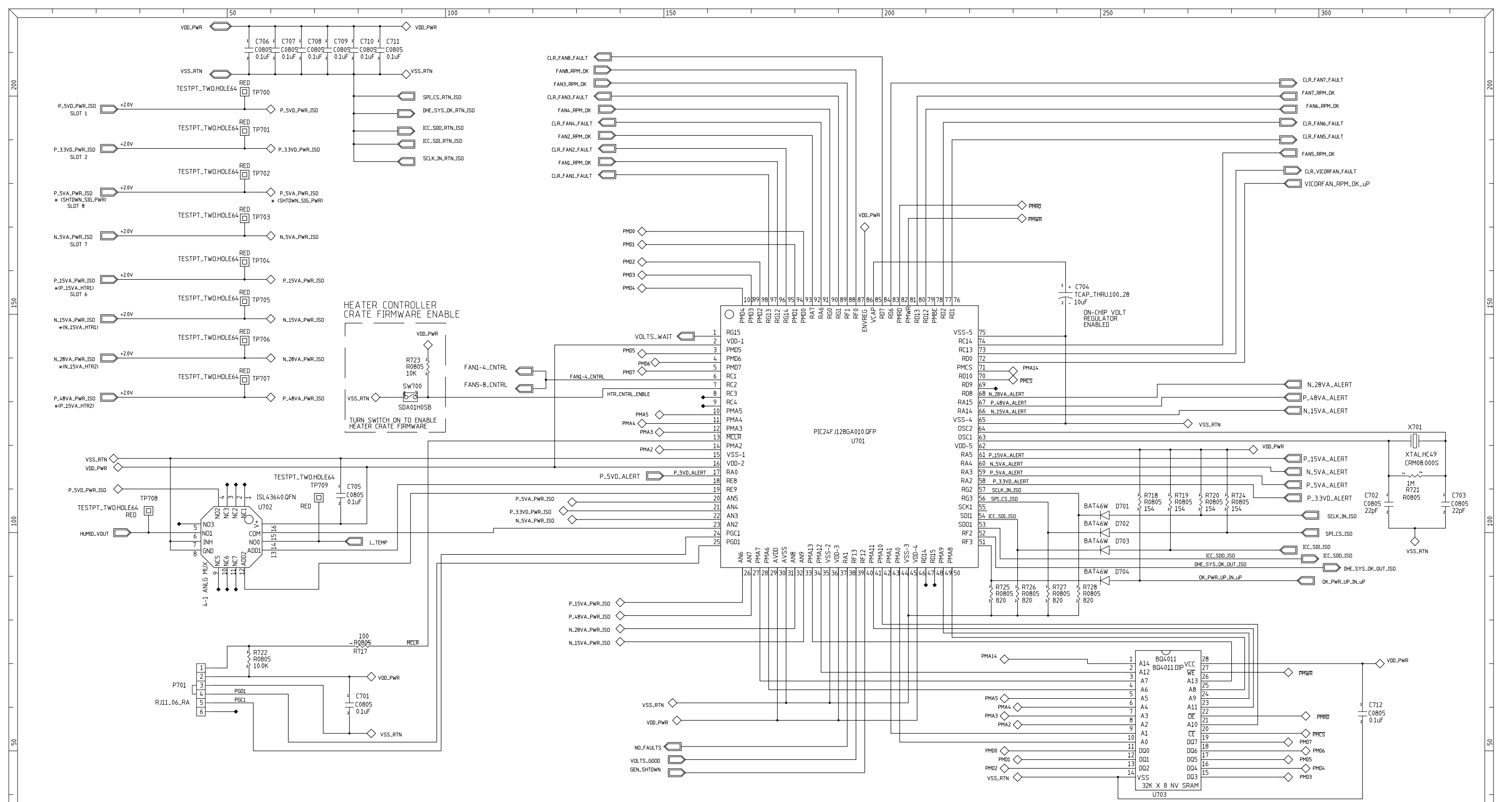
HIGH ENERGY PHYSICS GROUP HEPG	UNIVERSITY OF ILLINOIS URBANA - CHAMPAIGN	DESIGNED BY: T.MOORE	DATE DESIGNED: 12.18.07	USED ON:	TITLE: DARK ENERGY SURVEY DHE ICC VOLTAGE REGULATORS - PRODUCTION	FILE:	DRAWING NO.: Pg5_VOLT_REGULATORS.sbk	REV.:	DATE REVISED: 1.19.11
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*** BRING +5V ON 'DHE_SYS_OK' AND 'ICC_SDO' SIGNALS. USE 'DHE_SYS_OK_RTN' AND 'ICC_SDO_RTN' SIGNALS AS INPUTS TO ICS THAT SWITCHES FROM 0 TO 5V. THIS CAN ONLY BE DONE WITH ANY RIO THAT HAS INTERNAL PULL-DOWN RESISTORS, LIKE THE NI9403.



PROD_ICC_REV **3.3** -- **1.19.11** (SEE 'DESIGN_REVISION_CHANGES_DOCUMENT' @ <http://des-docdb.fnal.gov:8080/cgi-bin/ShowDocument?docid=1527>)

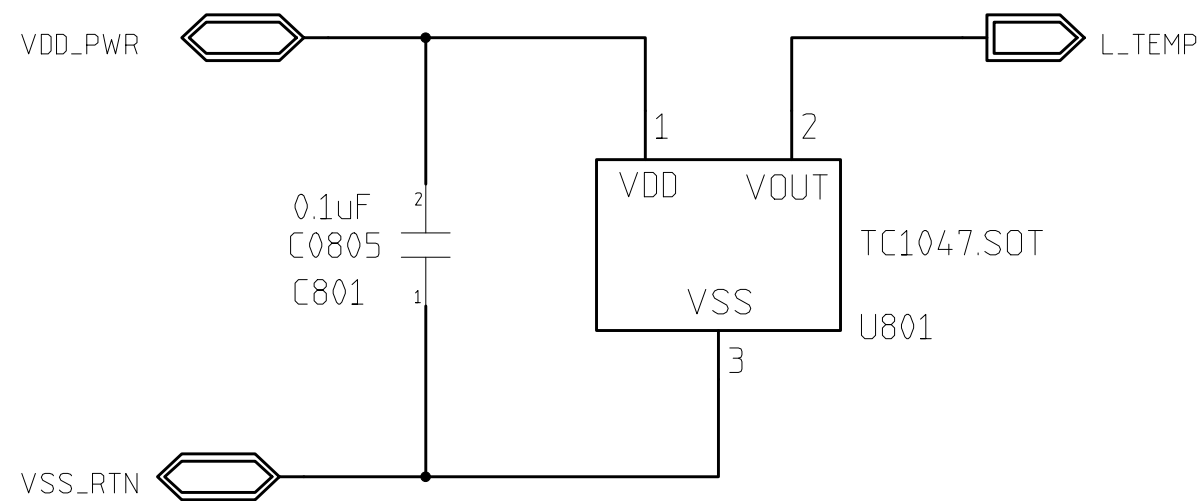


VOLTS@ PINS ON MICROPROCESSOR

RED = HIGH SIGNAL @ P105 (NI)
BLUE = LOW SIGNAL @ P105 (NI)

SDI (PIN 54): **659mv / 2.5732V**
 SCLK (PIN 57): **670mv / 2.5771V**
 SPI_CS (PIN 56): **670mv / 2.5793V**
 OK_PWR_UP (PIN 51): **632mv / 2.5709V**

PROD_ICC_REV: **3.3** - **1.19.11** (SEE 'DESIGN_REVISION_CHANGES_DOCUMENT' @ <http://des-docdb.fnal.gov:8080/cgi-bin/ShowDocument?docid=1527>)



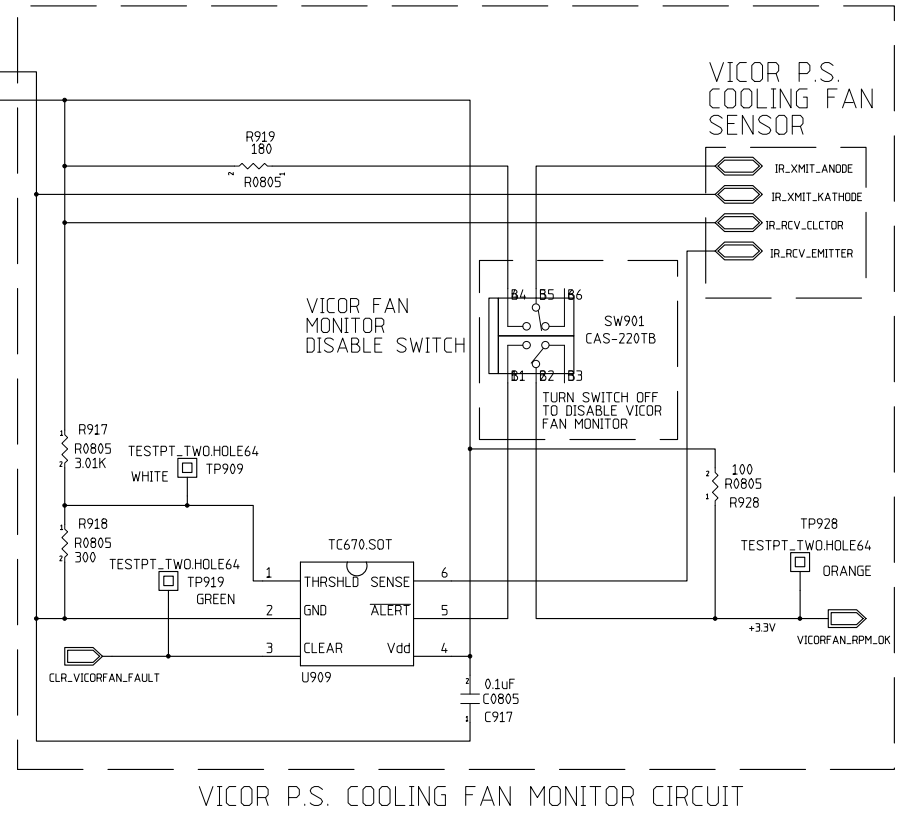
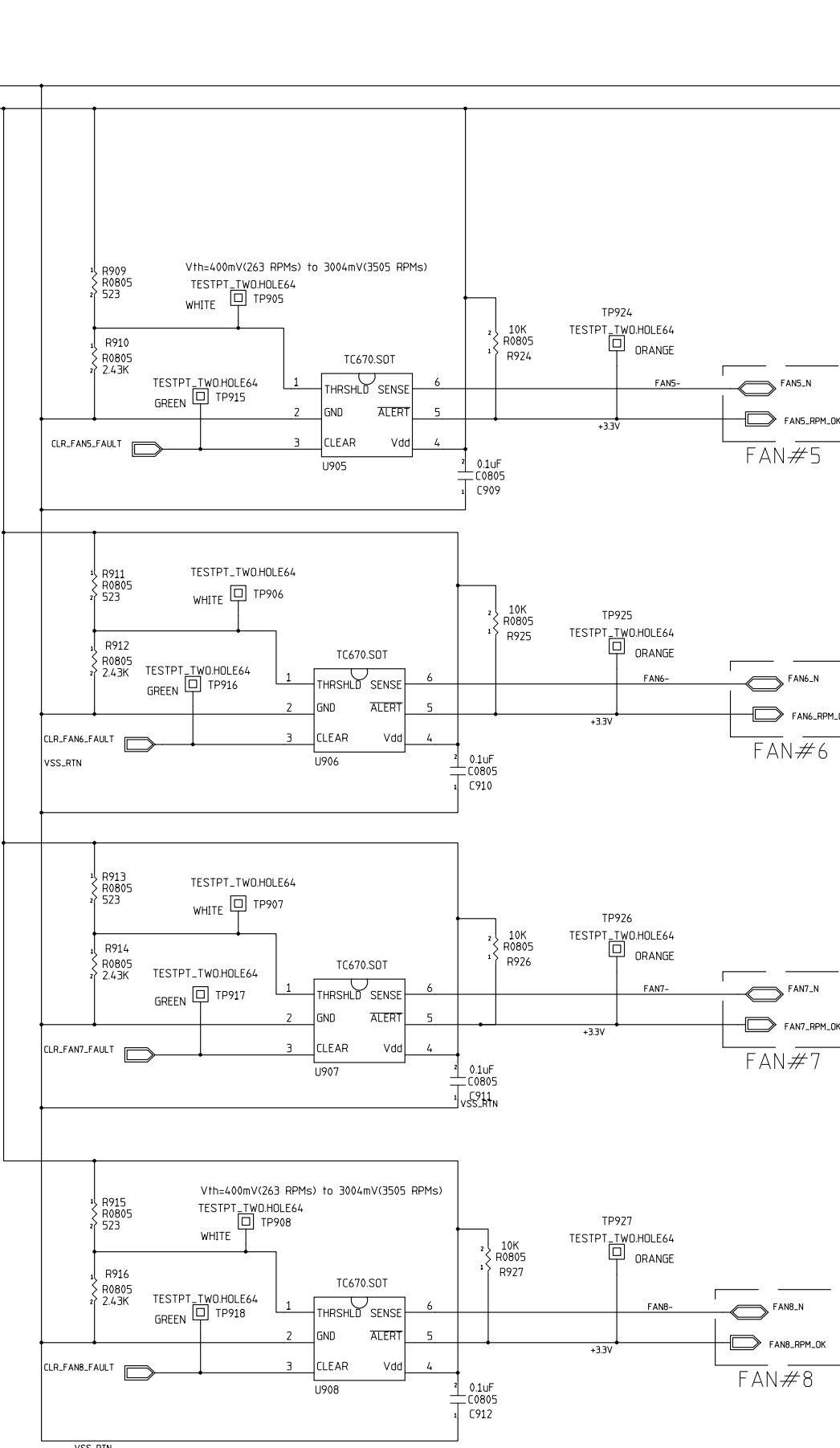
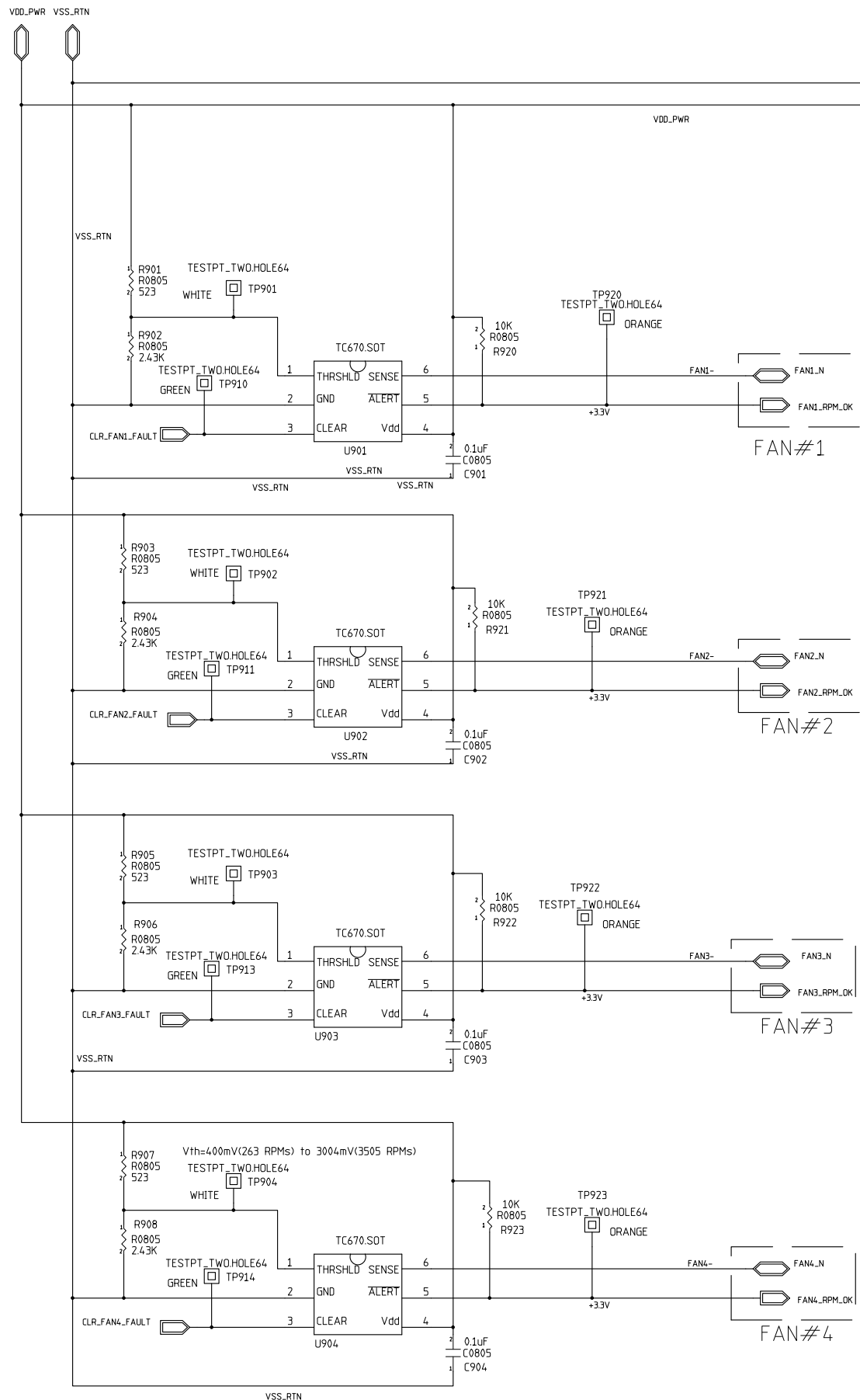
PROD_ICC_REV **3.3** -- **1.19.11** (SEE 'DESIGN_REVISION_CHANGES_DOCUMENT @
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Pg8_TEMP_SENSOR.sbk

DESIGNED BY: T.MOORE	DATE DESIGNED: 12.30.07	USED ON:	TITLE: DARK ENERGY SURVEY ICC TEMPERATURE SENSOR - PRODUCTION
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HIGH ENERGY PHYSICS GROUP	HEPG UNIVERSITY OF ILLINOIS URBANA - CHAMPAIGN	FILE:	DRAWING NO.:	REV.:	DATE REVISED: 1.19.11
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HEPG UNIVERSITY OF ILLINOIS URBANA - CHAMPAIGN	COPY OF DRAWING NO.: FAN_MONITOR.SBK	DESIGNED BY: T.MOORE	DATE DESIGNED: 11.12.07	USED ON: DES ICS	TITLE: DARK ENERGY SURVEY ICC DHE COOLING FAN MONITOR - PRODUCTION	FILE: Pg9_FAN_MONITOR.SBK	DRAWING NO.: Pg9_FAN_MONITOR.SBK	REV.: 1.19.11	DATE LAST REVISED: 1.19.11
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