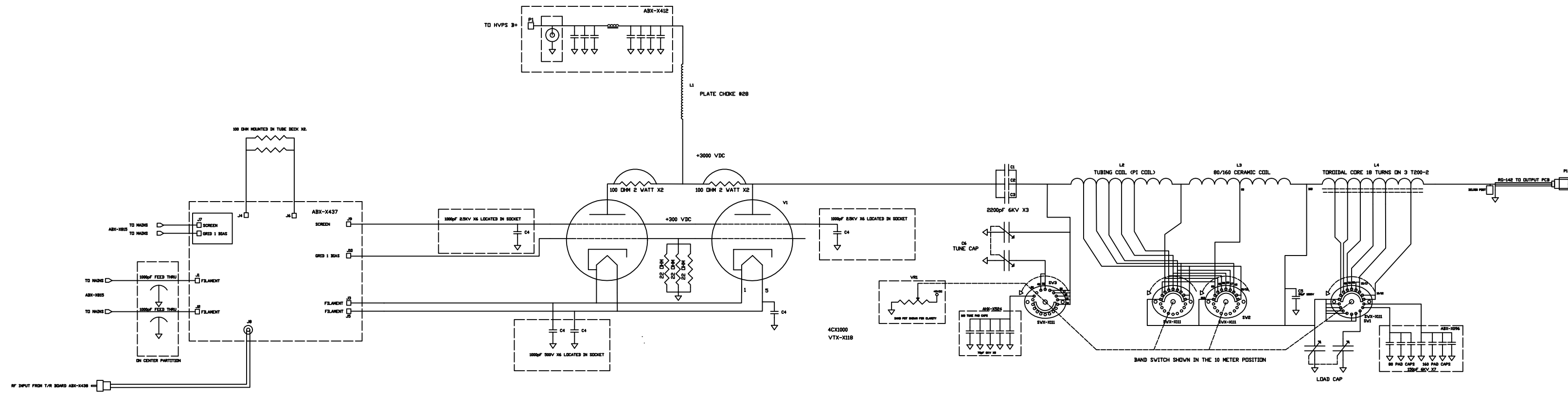


| | | | |
|--|-------------|--------------|-------|
| RF CONCEPTS LLC BOULDER, COLORADO 80303 | | | |
| 8410 BLOCK DIAGRAM | | | |
| DRAWN BY: B. FOCKEN | SIZE: | DWG NO. 8410 | REV A |
| DATE: 06/23/10 | SCALE: NONE | SHEET 1 OF 1 | |



6

5

4

3

2

1

D

D

C

C

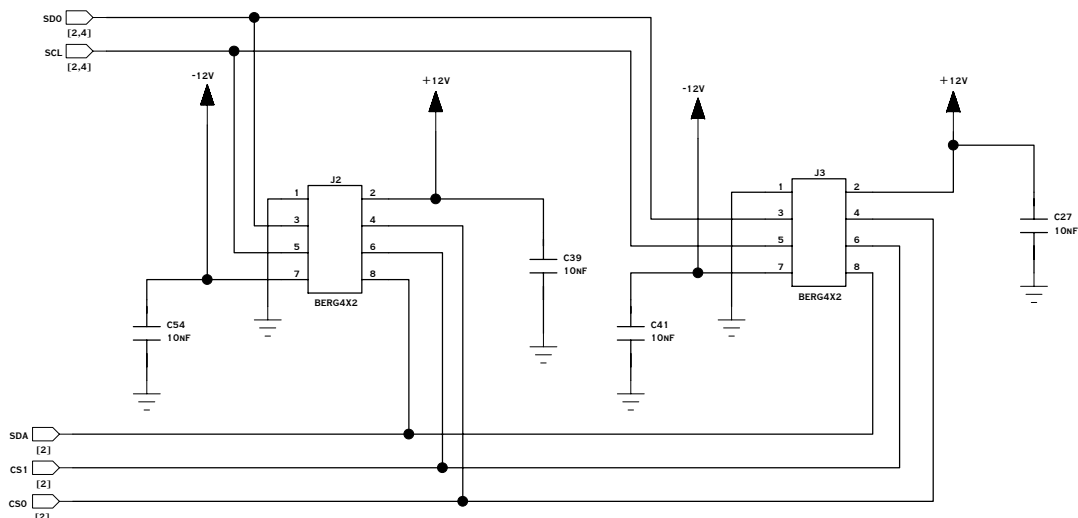
B

B

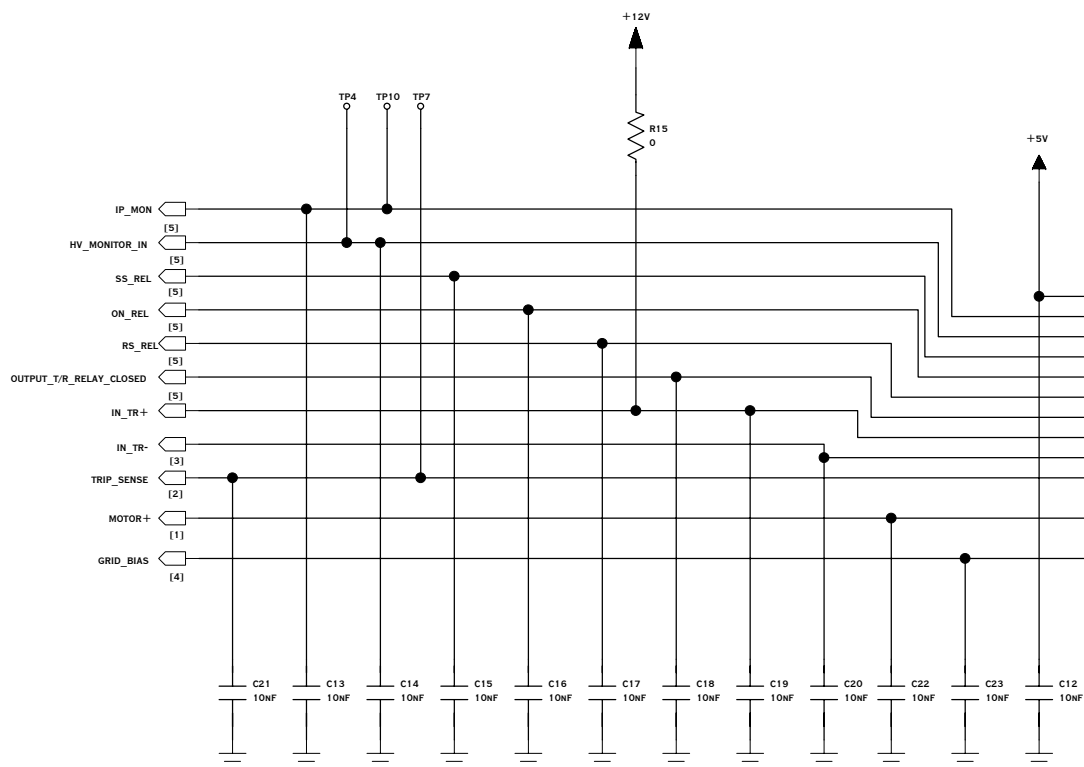
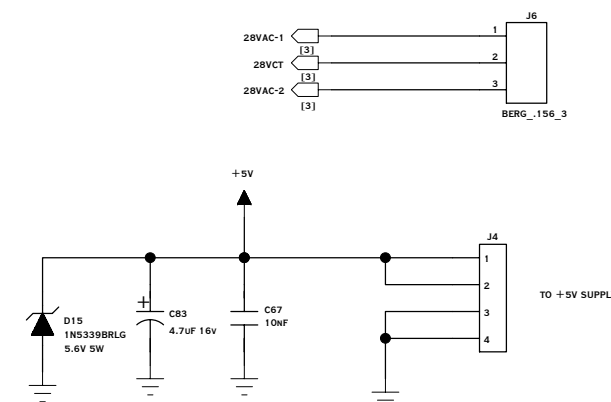
A

A

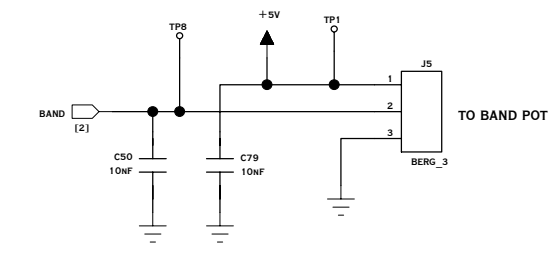
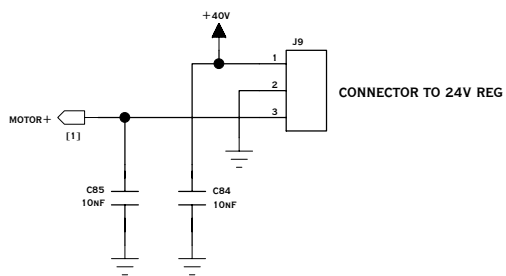
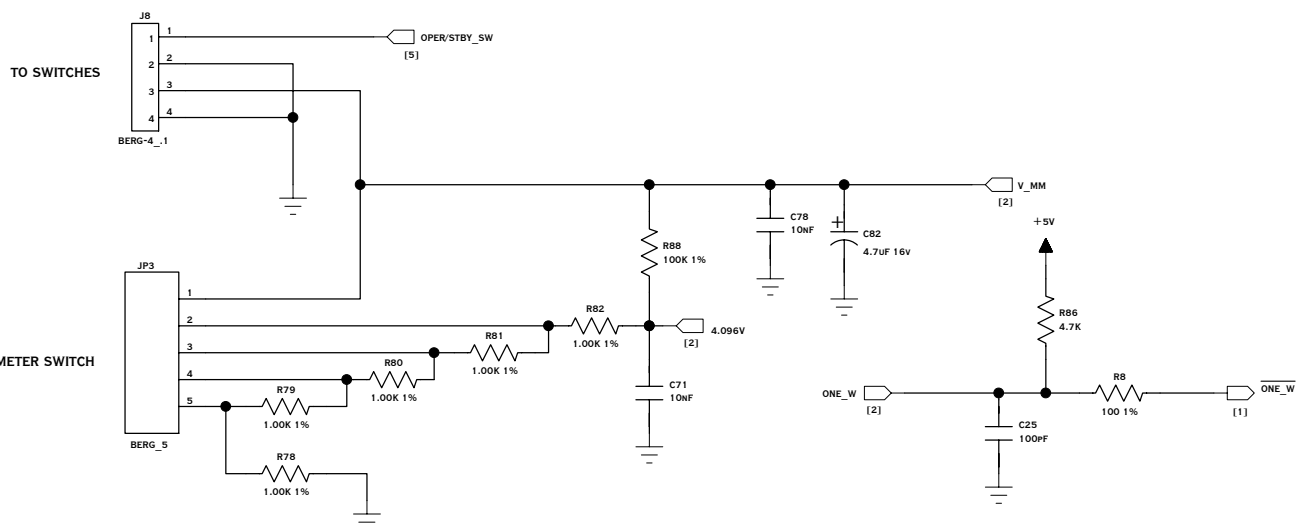
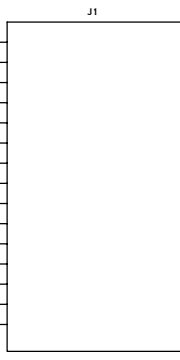
SPI CONNECTIONS



FROM TRANSFORMER SECONDARY

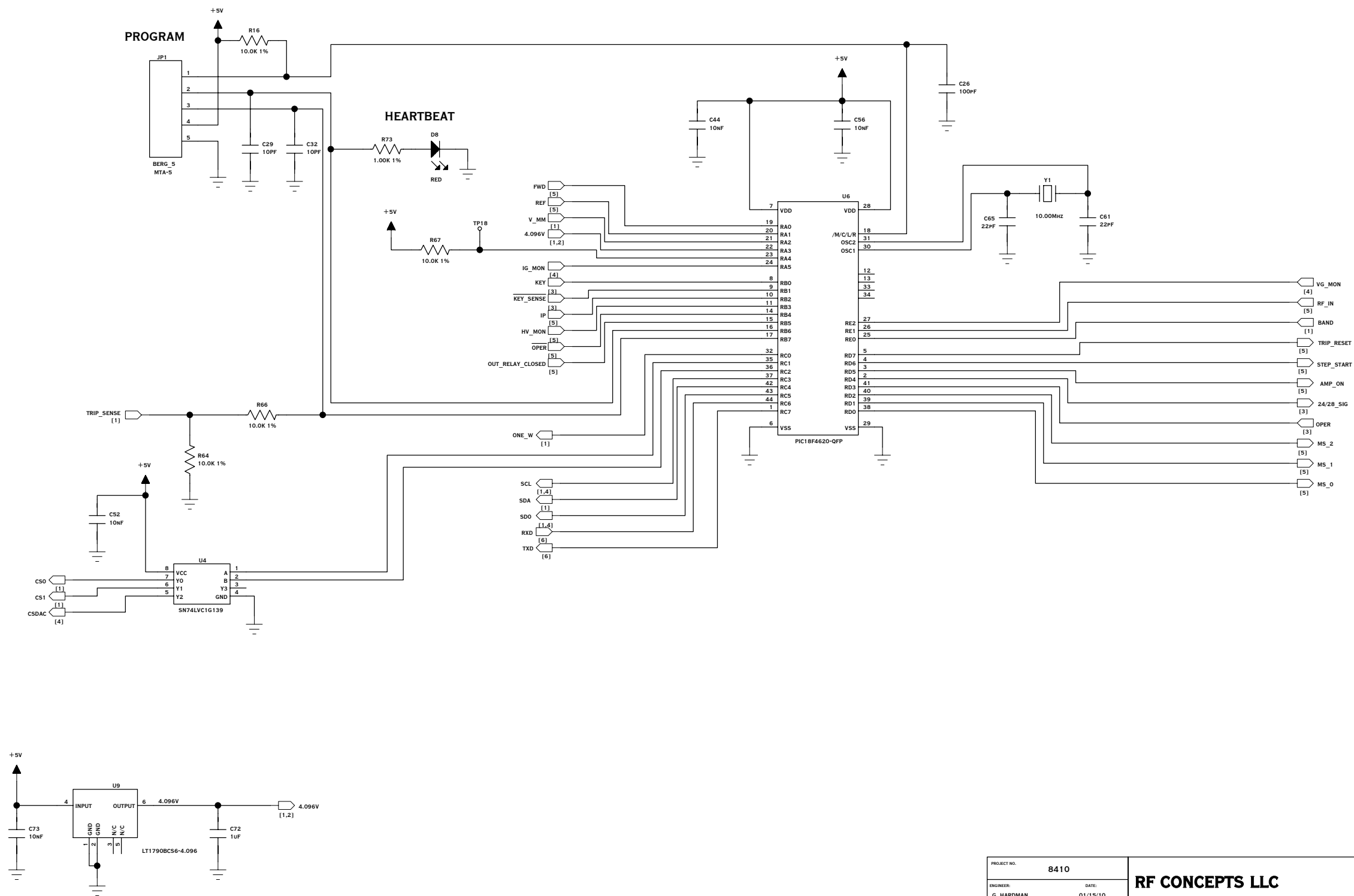


TO MAINS



| REVISION HISTORY | | | | | |
|------------------|---------|--------------------|-------------------|-------------------|------------------|
| REV | ECO NO. | DESCRIPTION | CHANGED BY & DATE | CHECKED BY & DATE | EFFECTIVITY DATE |
| A | | PRODUCTION RELEASE | BWF 12/18/09 | GEH 12/18/09 | 12/18/09 |

| | | |
|--|--|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX +/- 0.01 ANGLE: 0.5 XXX +/- 0.001 | PROJECT NO. 8410 | RF CONCEPTS LLC 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 |
| | ENGINEER: G. HARDMAN DATE: 01/15/10 DRAWN BY: B. FOCKEN DRAFT DATE: 01/15/10 DRAWING FILE: | |
| PROPRIETARY NOTICE: THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HEREWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF RF CONCEPTS LLC. | PROJECT NO. BCX-X439_REV_A.SCH CONNECTORS | SIZE C DRAWING # ABX-X439 |
| COMPONENT TYPE = ELECTRICAL CATEGORY = CUSTOM DESIGNATION = NONE | PADS POWERLOGIC DRAWING | SCALE SHEET 1 OF 6 |



| | | | |
|---|--|--|----------------------------|
| PROJECT NO. 8410 | | 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 | |
| ENGINEER: G. HARDMAN DATE: 01/15/10 | | RF CONCEPTS LLC | |
| DRAWN BY: B. FOCKEN DRAFT DATE: 01/15/10 | | TITLE: ALPHA 8410 CONTROLLER | |
| DRAWING FILE: BCX-X439_REV_A.SCH | | SIZE: C | DRAWING #: ABX-X439 |
| PROCESSOR | | SCALE: | REV. A |
| PADS POWERLOGIC DRAWING | | SHEET 2 OF 6 | |

D

C

B

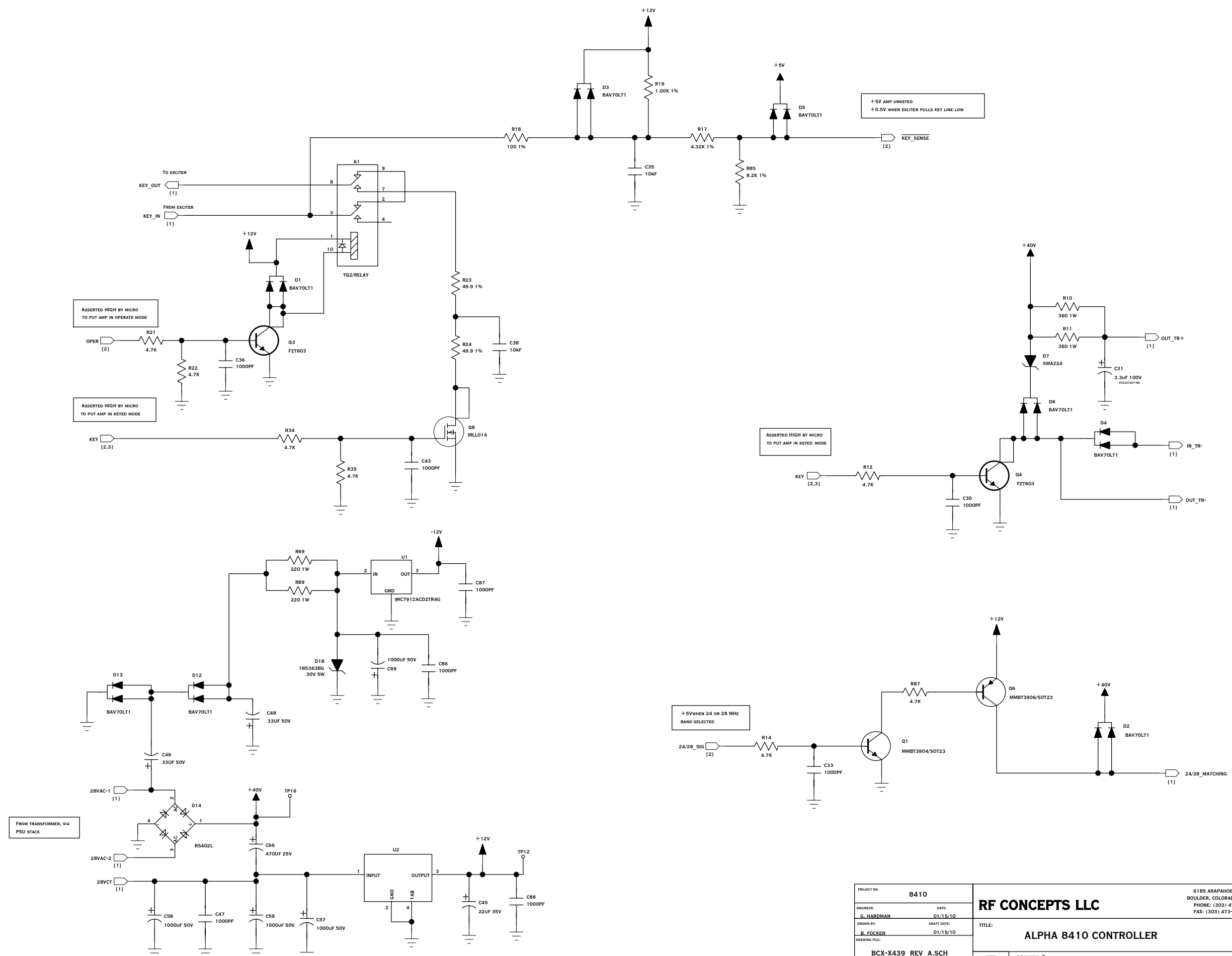
A

D

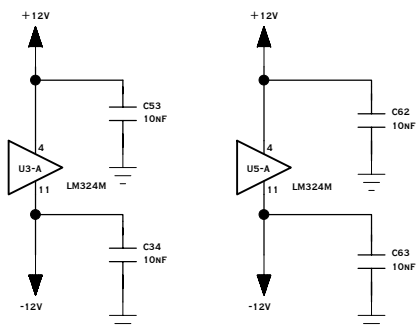
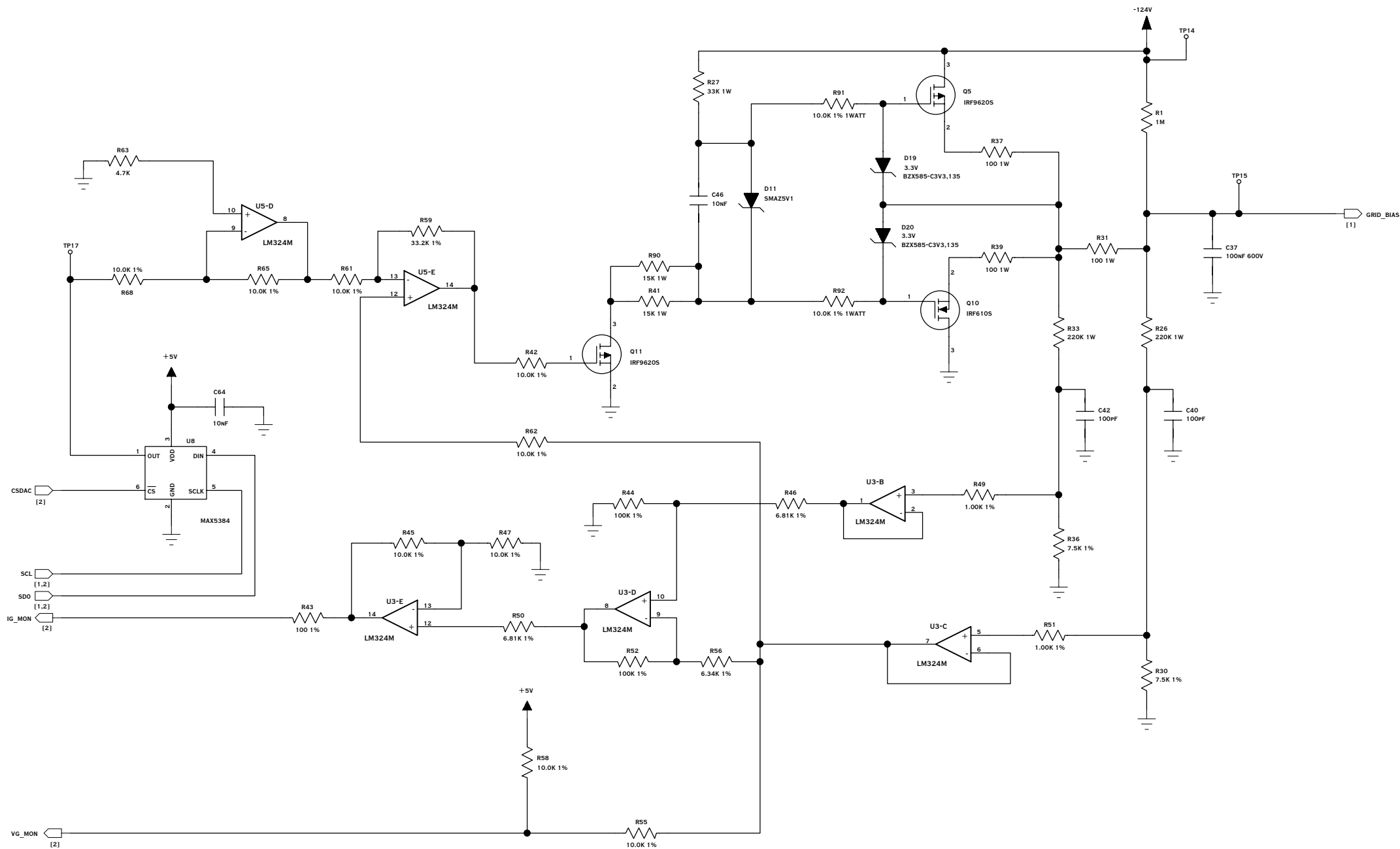
C

B

A



| | | | |
|--|--------------------------------|---|--|
| PROJECT NO. 8410 | RF CONCEPTS LLC | | 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 |
| ENGINEER: G. HARDMAN | DATE: 01/15/10 | TITLE: ALPHA 8410 CONTROLLER | |
| DRAWN BY: B. FOCKEN | DRAFT DATE: 01/15/10 | SIZE: C DRAWING #: ABX-X439 | |
| DRAWING FILE: BCX-X439_REV_A.SCH | LV POWER SUPPLY | | REV. A |
| PADS POWERLOGIC DRAWING | | SCALE | SHEET 3 OF 6 |



| | | |
|--|--|--|
| PROJECT NO. 8410 | 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 | |
| ENGINEER: G. HARDMAN | DATE: 01/15/10 | RF CONCEPTS LLC |
| DRAWN BY: B. FOCKEN | DRAFT DATE: 01/15/10 | |
| DRAWING FILE: BCX-X439_REV_A.SCH | | TITLE: ALPHA 8410 CONTROLLER |
| GRID BIAS | SIZE: C | DRAWING #: ABX-X439 |
| PADS POWERLOGIC DRAWING | SCALE: | REV. A |
| | | SHEET 4 OF 6 |

6

5

4

3

2

1

D

D

C

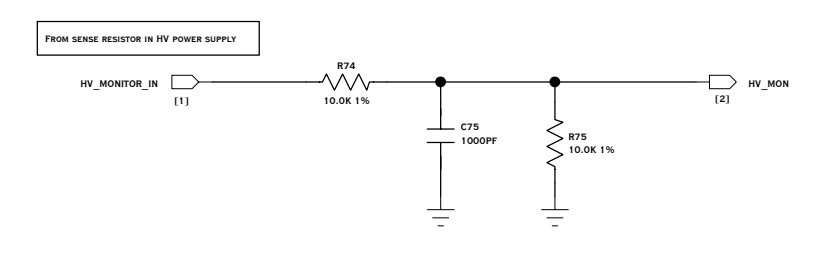
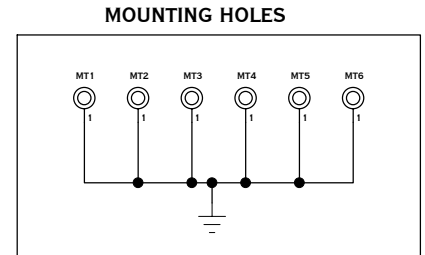
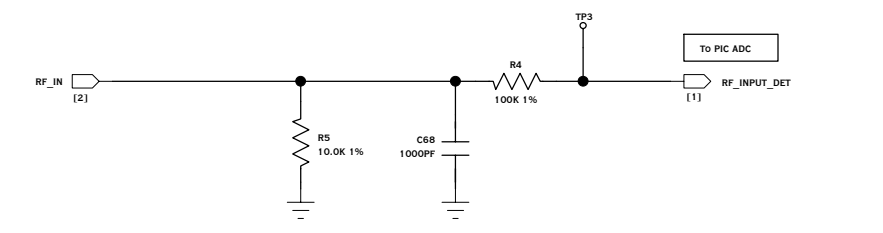
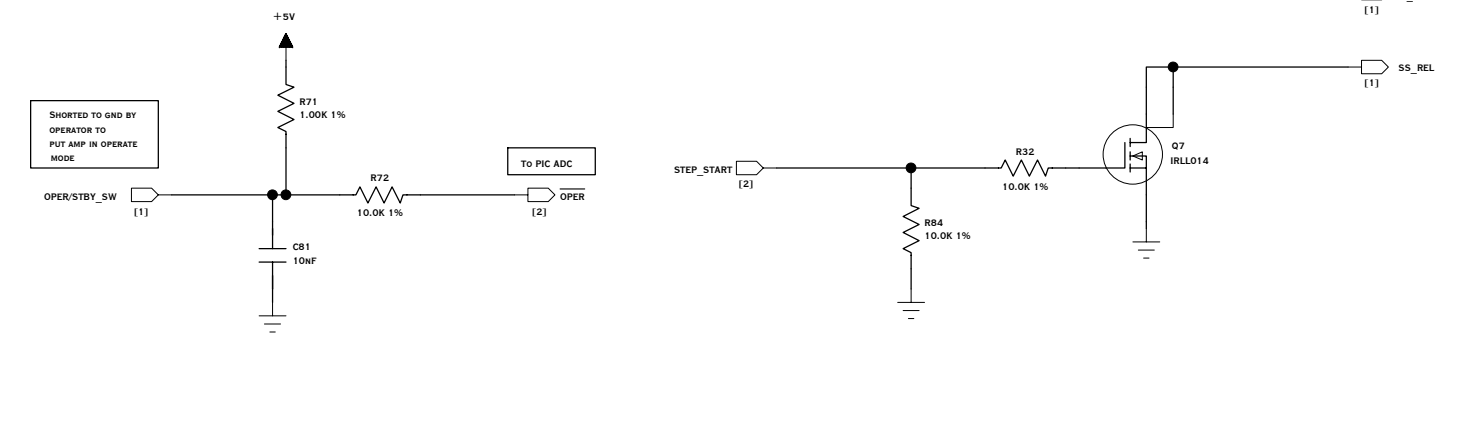
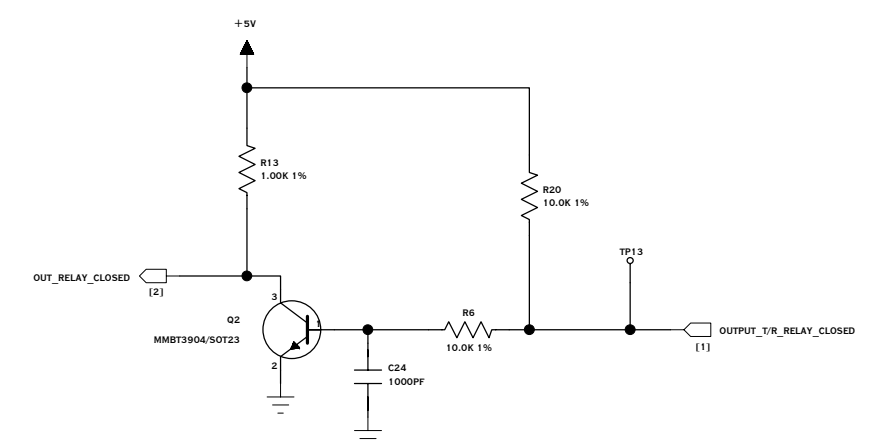
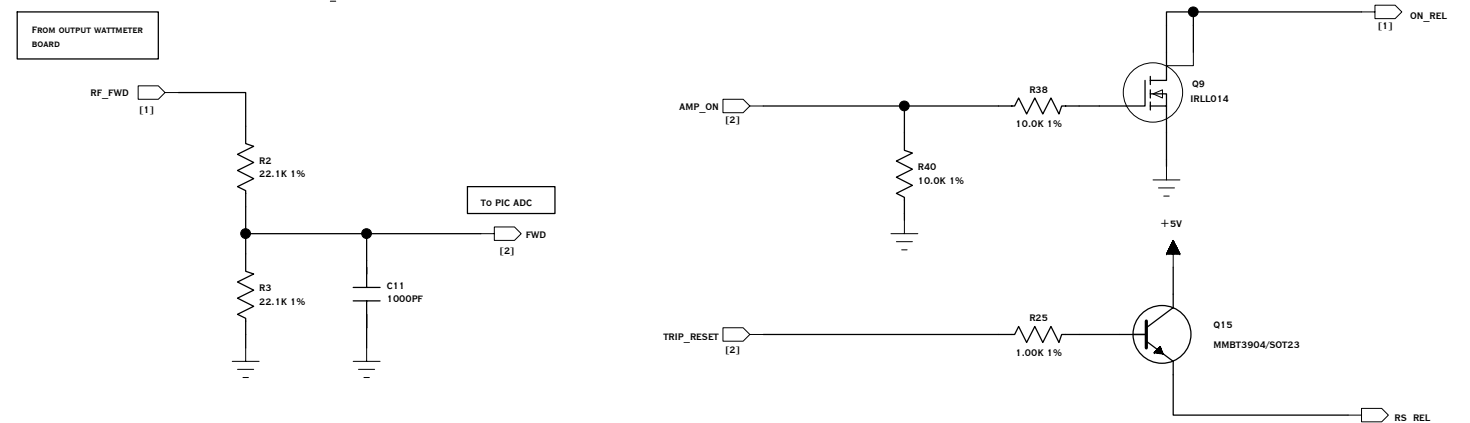
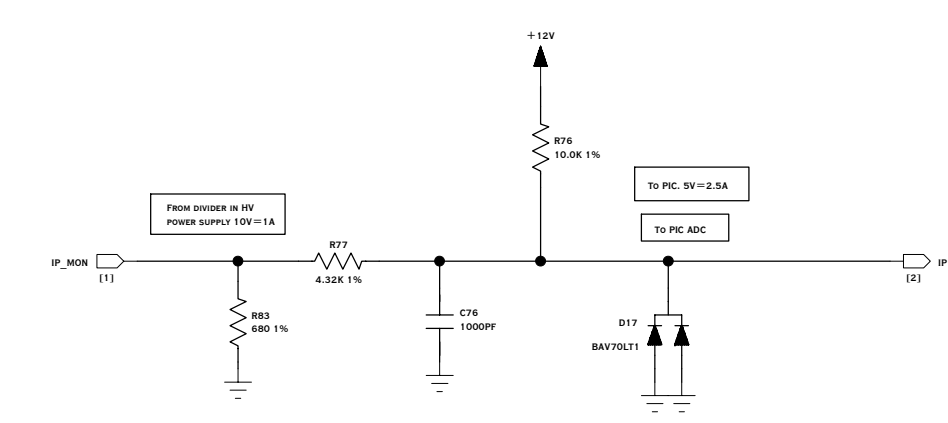
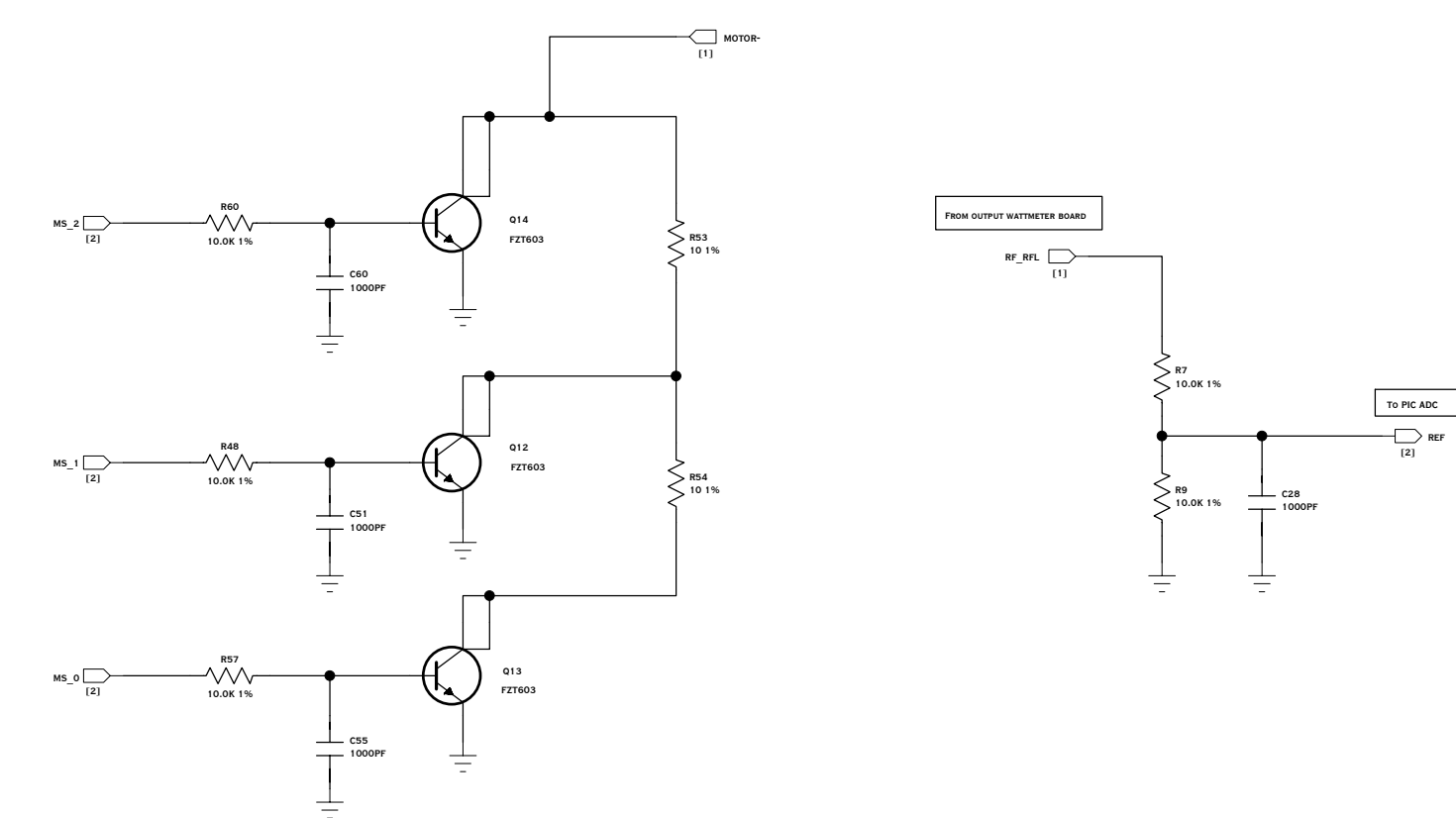
C

B

B

A

A



| | | | | |
|--|-----------------------|---------------------------------------|-----------------------|--|
| PROJECT NO. 8410 | DATE 01/15/10 | RF CONCEPTS LLC | | 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 |
| ENGINEER G. HARDMAN | DRAWN BY B. FOCKEN | TITLE ALPHA 8410 CONTROLLER | | |
| DRAWING FILE: BCX-X439_REV_A.SCH I/O | | SIZE C | DRAWING # ABX-X439 | REV. A |
| PADS POWERLOGIC DRAWING | | SCALE | SHEET 5 OF 6 | |

6

5

4

3

2

1

D

D

C

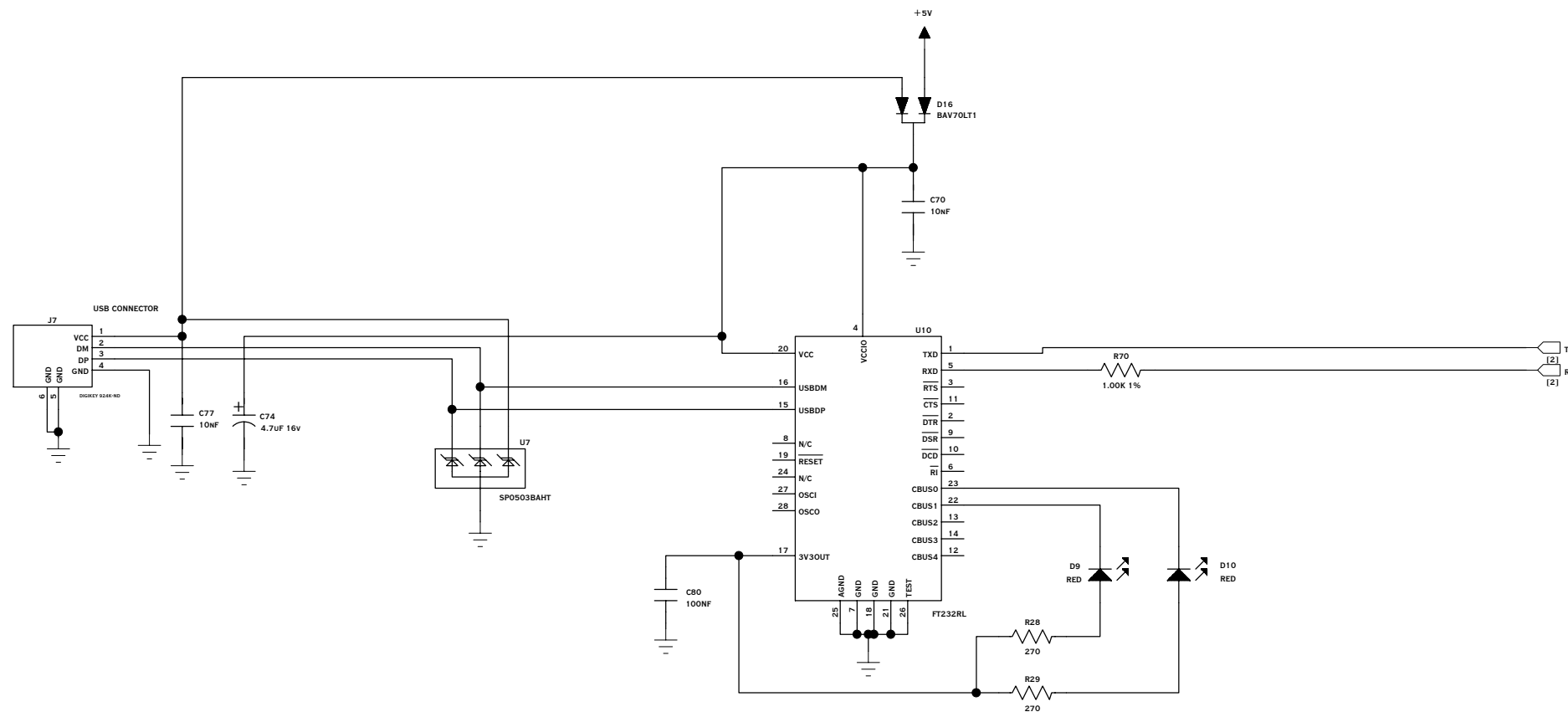
C

B

B

A

A



| | | | | | |
|--|--|--|--|--|--|
| PROJECT NO. 8410 | | RF CONCEPTS LLC | | 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 | |
| ENGINEER: G. HARDMAN | | | | PHONE: (303) 473-9232 | |
| DATE: 01/15/10 | | TITLE: ALPHA 8410 CONTROLLER | | | |
| DRAWN BY: B. FOCKEN | | DRAWING # BCX-X439 | | REV. A | |
| DRAFT DATE: 01/15/10 | | SCALE | | | |
| DRAWING FILE: BCX-X439_REV_A.SCH | | SHEET 6 OF 6 | | | |
| USB | | | | | |
| PADS POWERLOGIC DRAWING | | | | | |

6

5

4

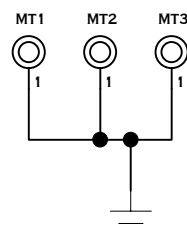
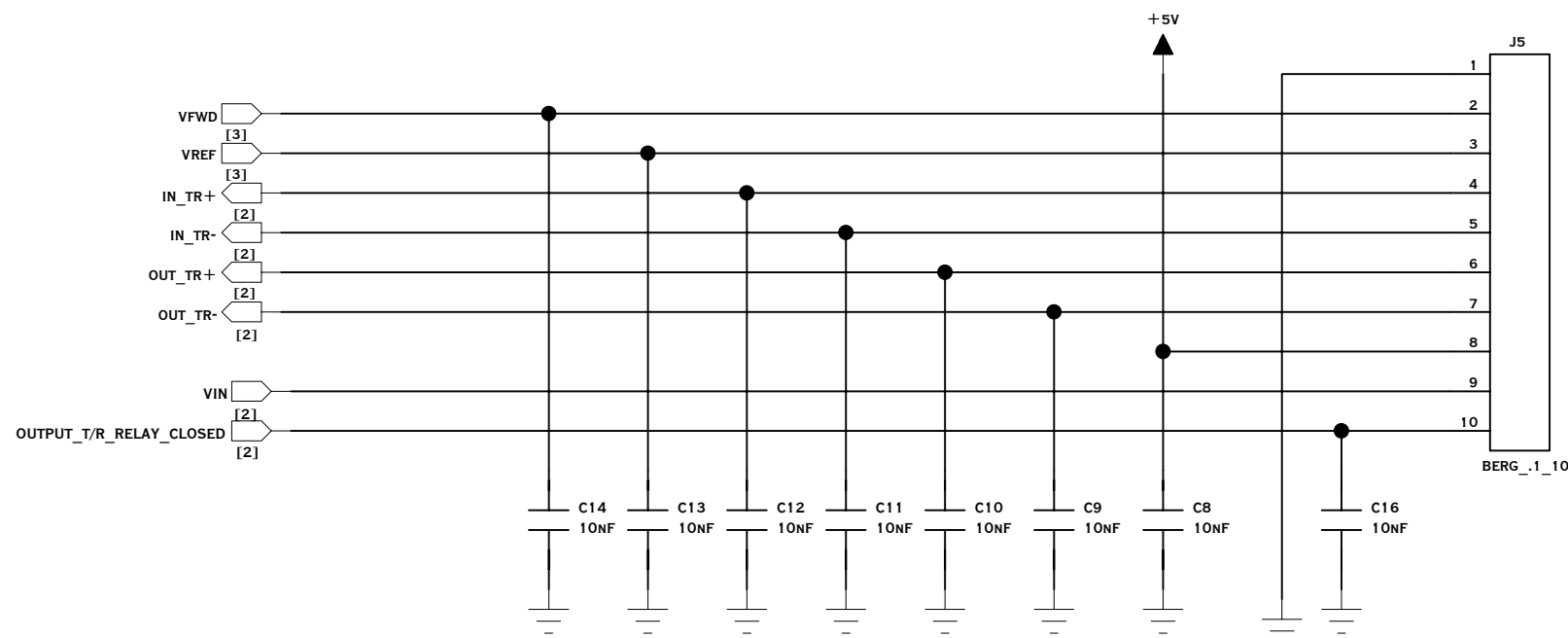
3

2

1

REVISION HISTORY

| REV | ECO NO. | DESCRIPTION | CHANGED BY & DATE | CHECKED BY & DATE | EFFECTIVITY DATE |
|-----|---------|-------------|-------------------|-------------------|------------------|
| | | | | | |



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
.XX +/- 0.01 ANGLE: 0.5
.XXX +/- 0.001

PROPRIETARY NOTICE:
THIS DOCUMENT AND DATA DISCLOSED
HEREIN AND HERewith IS NOT
TO BE REPRODUCED, USED,
OR DISCLOSED IN WHOLE OR
ANY PART TO ANYONE WITHOUT
THE PERMISSION OF RF CONCEPTS LLC.

PROJECT NO.
8410

ENGINEER: G. HARDMAN DATE: 02/09/09

DRAWN BY: B. FOCKEN DRAFT DATE: 02/09/09

DRAWING FILE:
BCX-X438_REV_2.SCH

PADS POWERLOGIC DRAWING

RF CONCEPTS LLC
6185 ARAPAHOE RD.
BOULDER, COLORADO 80303
PHONE: (303) 473-9232
FAX: (303) 473-9660

TITLE:
SCH,OUTPUT T/R

| | | |
|------------------|------------------------------|------------------|
| SIZE B | DRAWING # BCX-X438 | REV. 2 |
|------------------|------------------------------|------------------|

SCALE

SHEET 1 OF 3

D

D

C

C

B

B

A

A

6

5

4

3

2

1

D

D

C

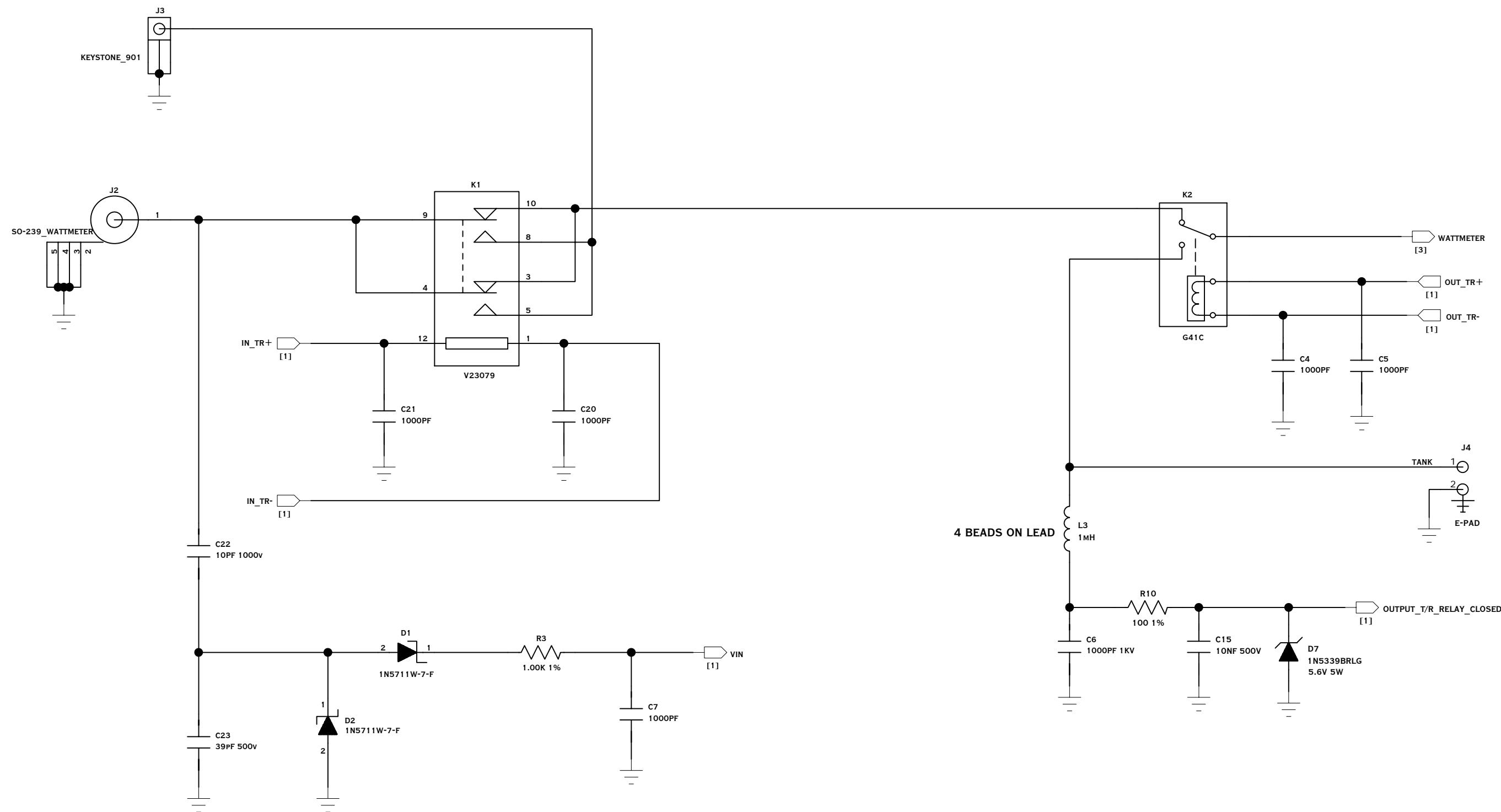
C

B

B

A

A



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
.XX +/- 0.01 ANGLE: 0.5
.XXX +/- 0.001

PROPRIETARY NOTICE:
THIS DOCUMENT AND DATA DISCLOSED
HEREIN AND HEREWITH IS NOT
TO BE REPRODUCED, USED,
OR DISCLOSED IN WHOLE OR
ANY PART TO ANYONE WITHOUT
THE PERMISSION OF RF CONCEPTS LLC.

PROJECT NO. **8410**
ENGINEER: **G. HARDMAN** DATE: **02/09/09**
DRAWN BY: **B. FOCKEN** DRAFT DATE: **02/09/09**

DRAWING FILE:
BCX-X438_REV_2.SCH
PADS POWERLOGIC DRAWING

RF CONCEPTS LLC
6185 ARAPAHOE RD.
BOULDER, COLORADO 80303
PHONE: (303) 473-9232
FAX: (303) 473-9660

TITLE:
SCH,OUTPUT T/R

| | | |
|------------------|------------------------------|------------------|
| SIZE B | DRAWING # BCX-X438 | REV. 2 |
| SCALE | | SHEET 2 OF 3 |

6

5

4

3

2

1

D

D

C

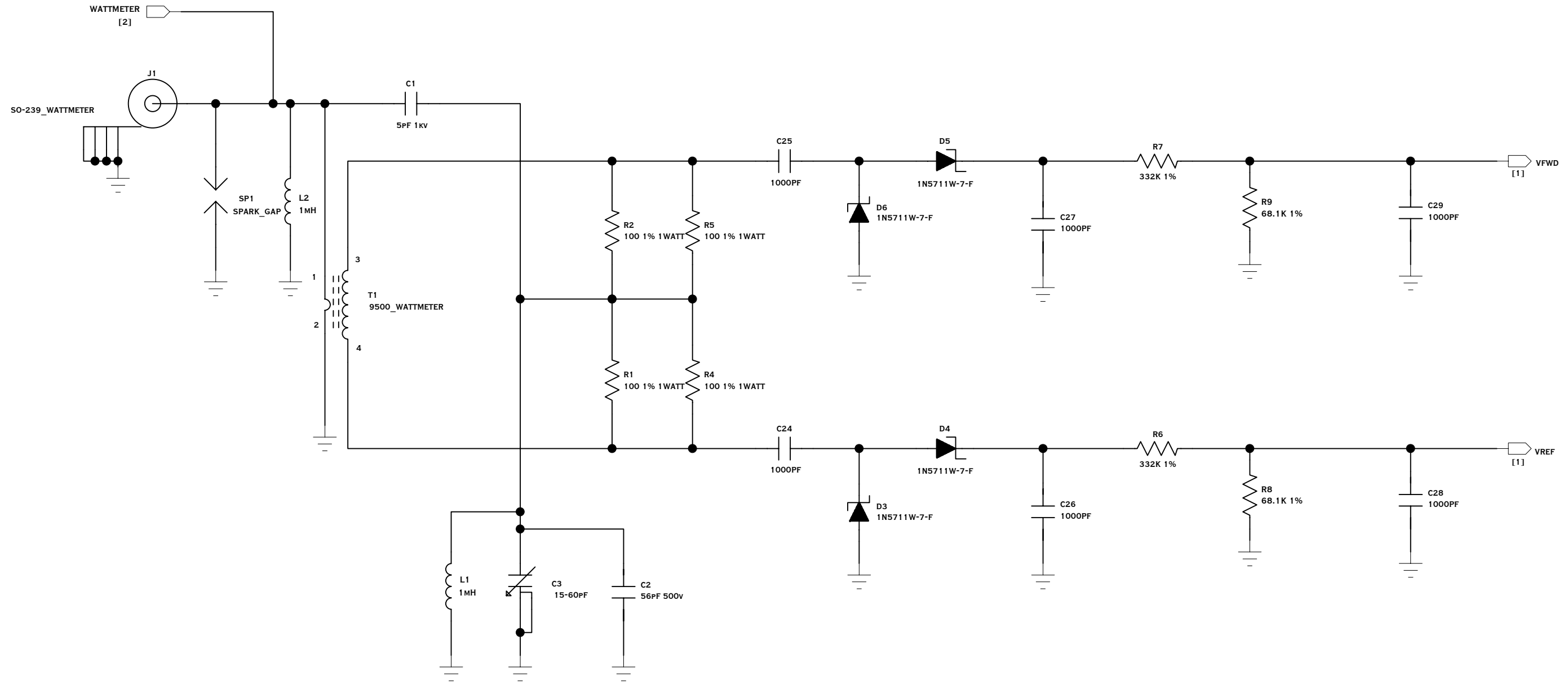
C

B

B

A

A



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ARE:
.XX +/- 0.01 ANGLE: 0.5
.XXX +/- 0.001

PROPRIETARY NOTICE:
THIS DOCUMENT AND DATA DISCLOSED
HEREIN AND HEREWITH IS NOT
TO BE REPRODUCED, USED,
OR DISCLOSED IN WHOLE OR
ANY PART TO ANYONE WITHOUT
THE PERMISSION OF RF CONCEPTS LLC.

PROJECT NO.
8410
ENGINEER:
G. HARDMAN DATE:
02/09/09
DRAWN BY:
B. FOCKEN DRAFT DATE:
02/09/09

DRAWING FILE:
BCX-X438_REV_2.SCH
PADS POWERLOGIC DRAWING

RF CONCEPTS LLC
6185 ARAPAHOE RD.
BOULDER, COLORADO 80303
PHONE: (303) 473-9232
FAX: (303) 473-9660

TITLE:
SCH,OUTPUT T/R

| | | |
|------------------|------------------------------|------------------|
| SIZE B | DRAWING # BCX-X438 | REV. 2 |
|------------------|------------------------------|------------------|

SCALE SHEET 3 OF 3

6

5

4

3

2

1

D

D

C

C

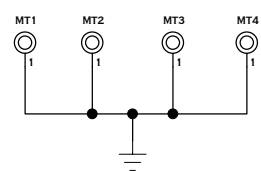
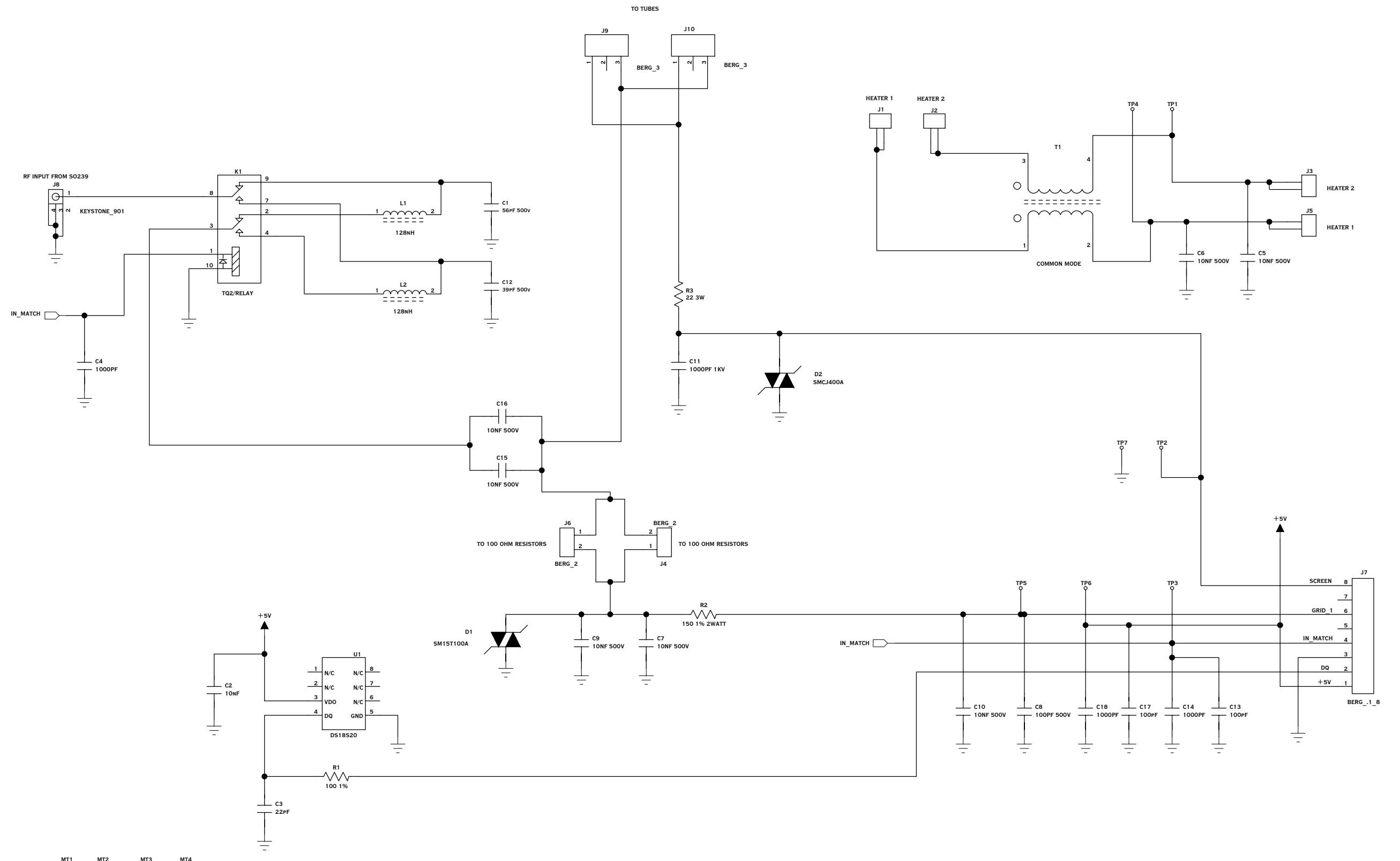
B

B

A

A

| REVISION HISTORY | | | | | |
|------------------|---------|-------------|-------------------|-------------------|------------------|
| REV | ECO NO. | DESCRIPTION | CHANGED BY & DATE | CHECKED BY & DATE | EFFECTIVITY DATE |
| | | | | | |



| | | |
|---|---|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX +/- 0.01 ANGLE: 0.5 .XXX +/- 0.001 | PROJECT NO. 8410 | RF CONCEPTS LLC 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 |
| | ENGINEER: G. HARDMAN DRAWN BY: B. FOCKEN | |
| PROPRIETARY NOTICE: THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HEREWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF RF CONCEPTS LLC. | DATE: 06/05/08 DRAFT DATE: 06/05/08 | TITLE: SCH,TUBE DECK,8410 |
| DRAWING FILE: BCX-X437_REV_1.SCH CONTROLLER | SIZE c | DRAWING # BCX-X437 |
| PADS POWERLOGIC DRAWING | SCALE | REV. 2 |
| SHEET 1 OF 1 | | |

6

5

4

3

2

1

D

C

B

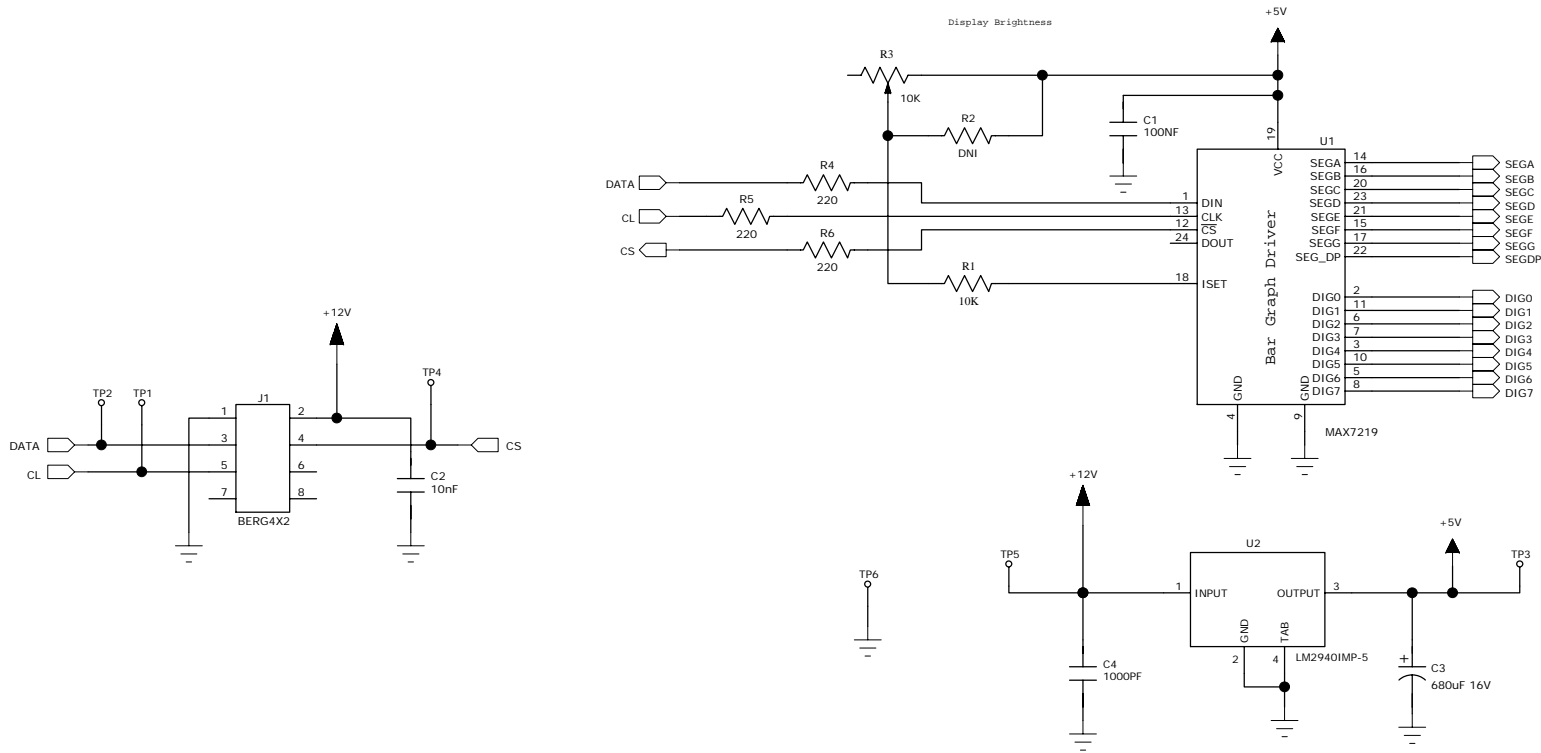
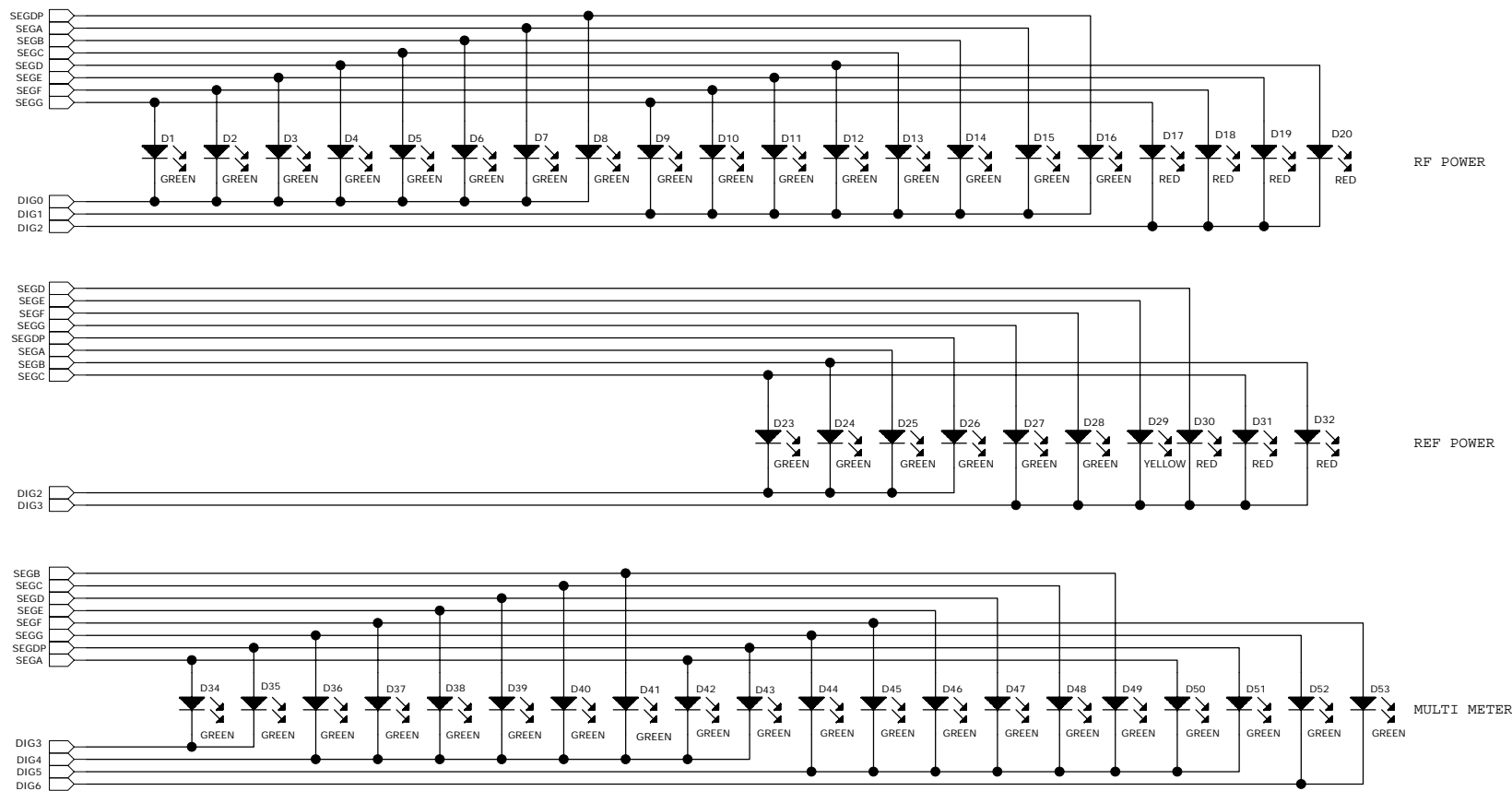
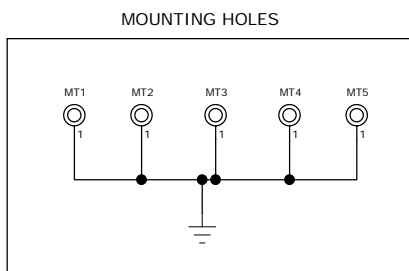
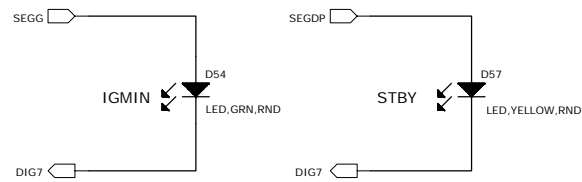
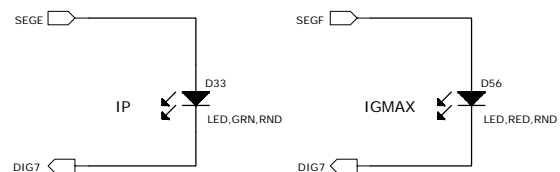
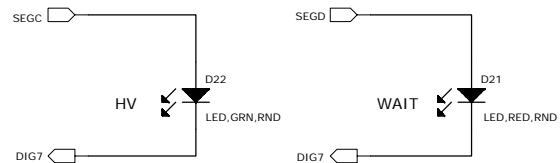
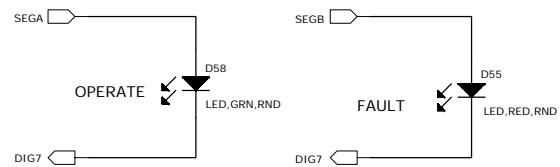
A

D

C

B

A

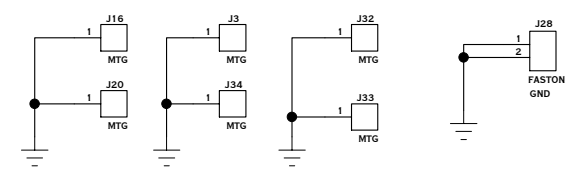
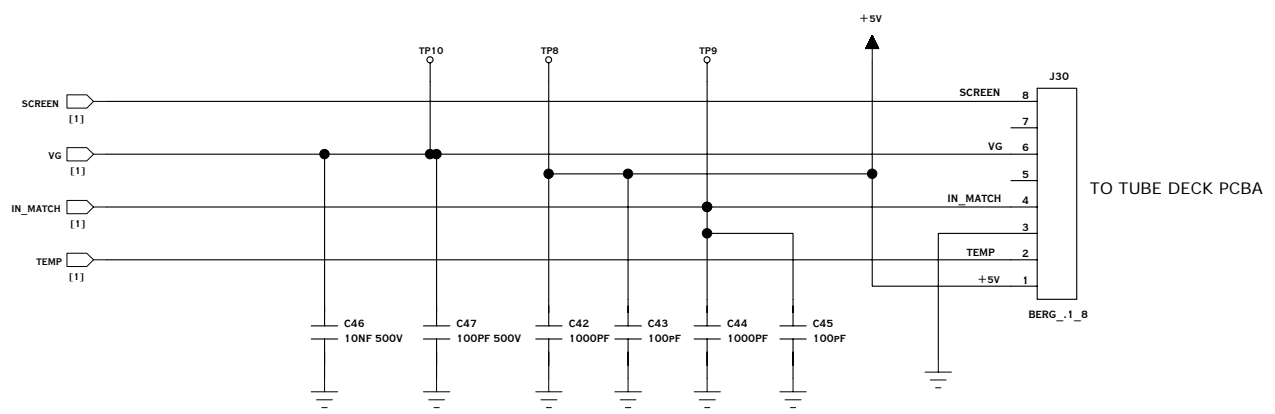
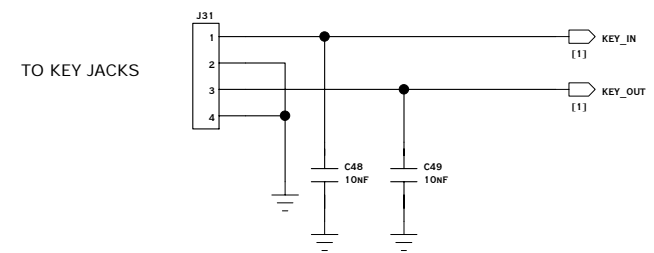
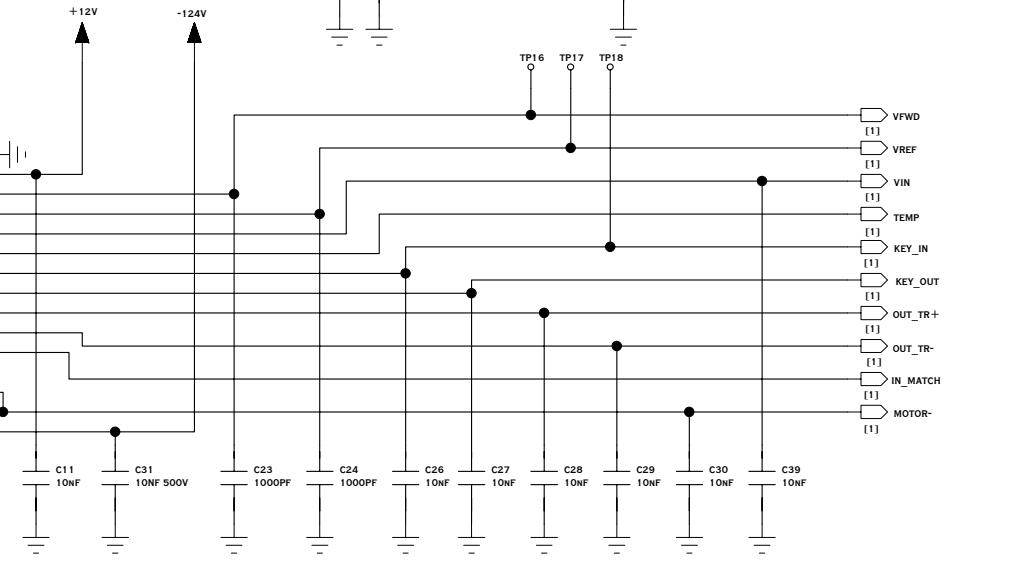
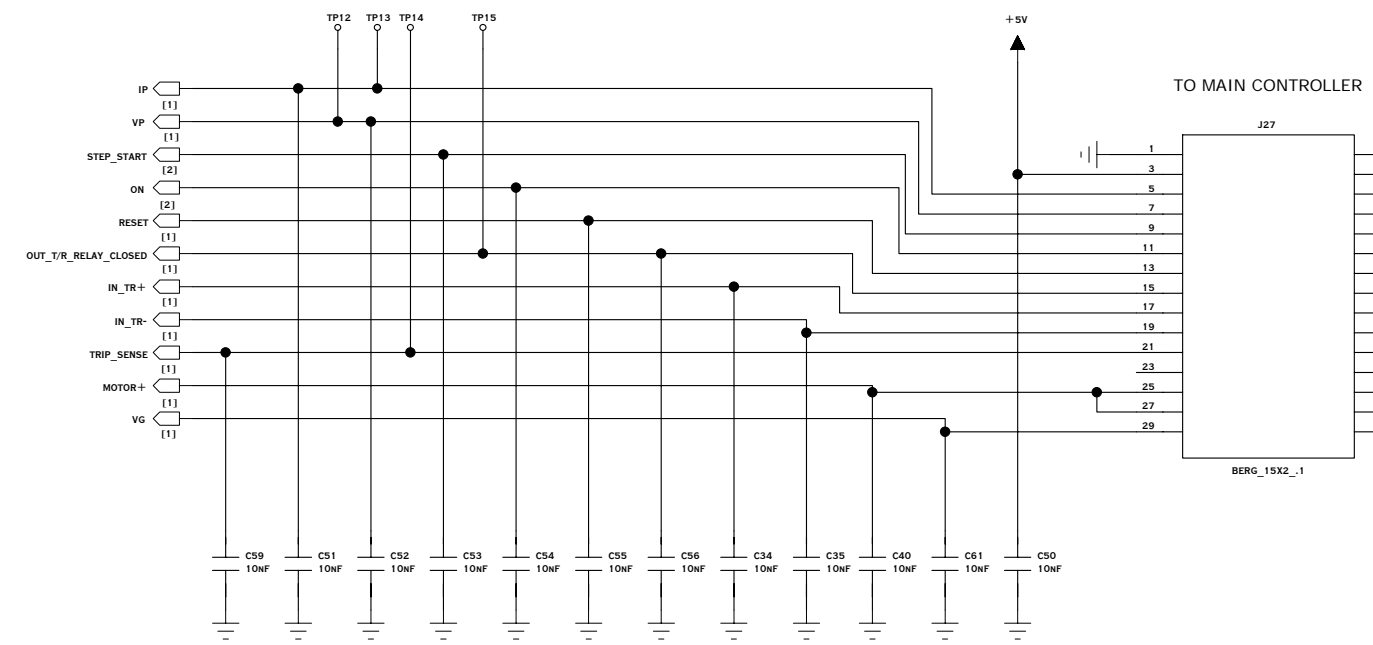
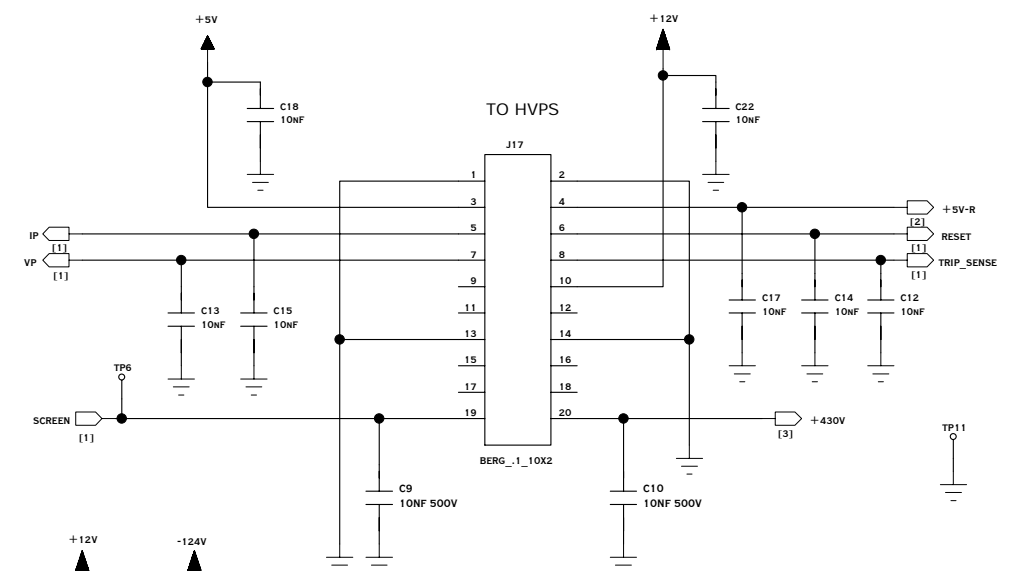
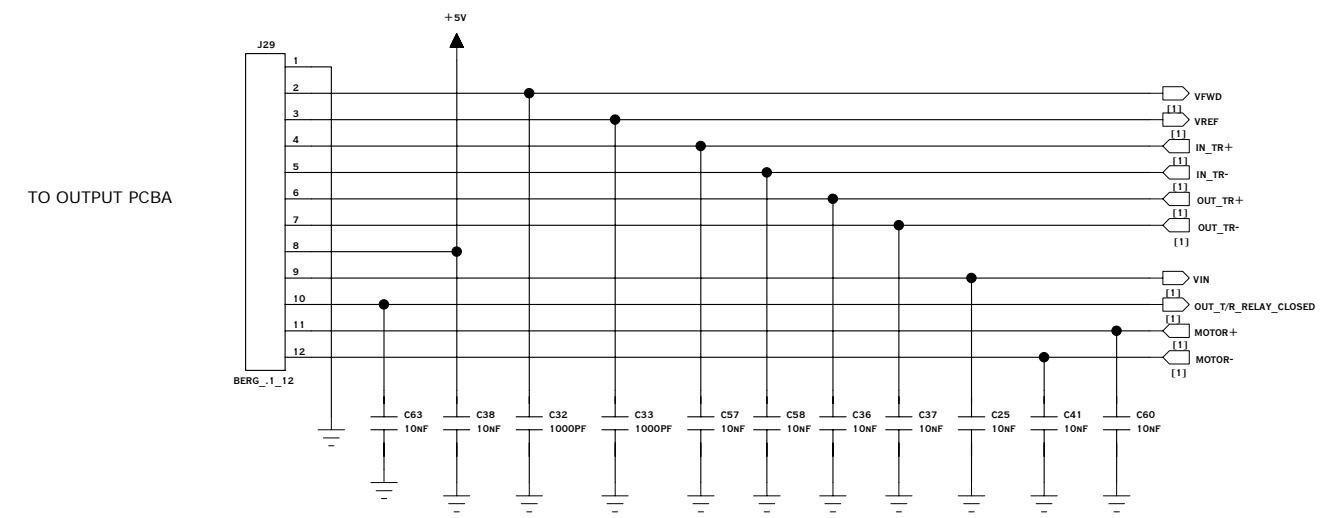


| | | |
|--|---|---|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX +/- 0.01 ANGLE: 0.5 XXX +/- 0.001 | PROJECT NO. 8410 | RF CONCEPTS LLC 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 |
| | ENGINEER: G. HARDMAN DATE: 12/15/08 DRAWN BY: B. FOCKEN DRAFT DATE: 12/15/08 | |
| PROPRIETARY NOTICE: THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HEREWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF RF CONCEPTS LLC. | TITLE: SCH,8410,DIGITAL DISPLAY | REV. 3 |
| PADS POWERLOGIC DRAWING | SCALE | SHEET 1 OF 1 |

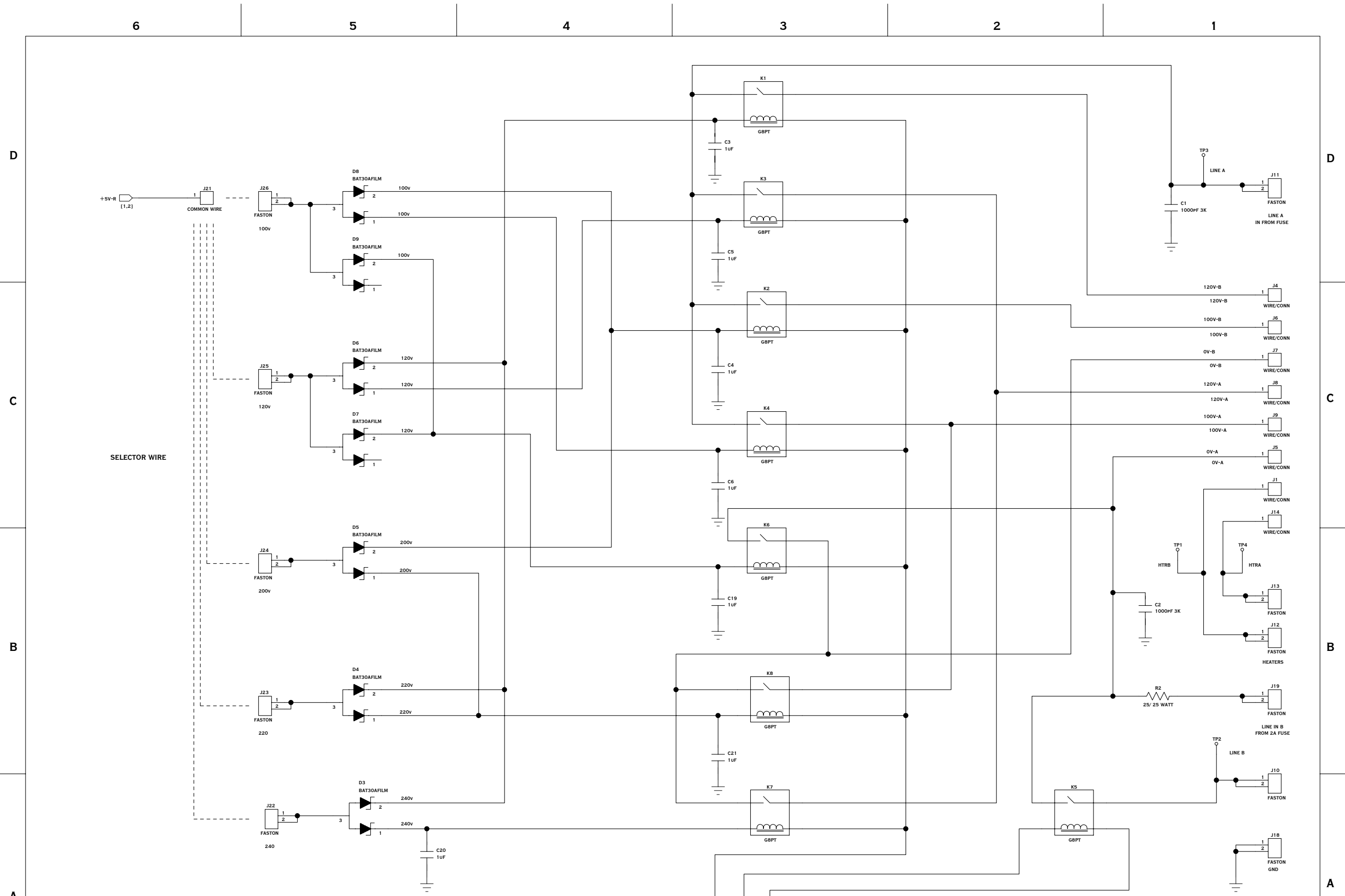
6 5 4 3 2 1

D
C
B
A

| REVISION HISTORY | | | | | |
|------------------|---------|-------------|-------------------|-------------------|------------------|
| REV | ECO NO. | DESCRIPTION | CHANGED BY & DATE | CHECKED BY & DATE | EFFECTIVITY DATE |
| | | | | | |



| | | |
|--|--|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX - .001 ANGLE: 0.5 | PROJECT NO. 8410 | RF CONCEPTS LLC 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 |
| | DRAWING FILE: BCX-X815_REV_2.SCH | |
| PROPRIETARY NOTICE: THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HERETHWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF RF CONCEPTS LLC. | DRAWING # BCX-X815 | REV. 2 |
| | PADS POWERLOGIC DRAWING | SCALE |



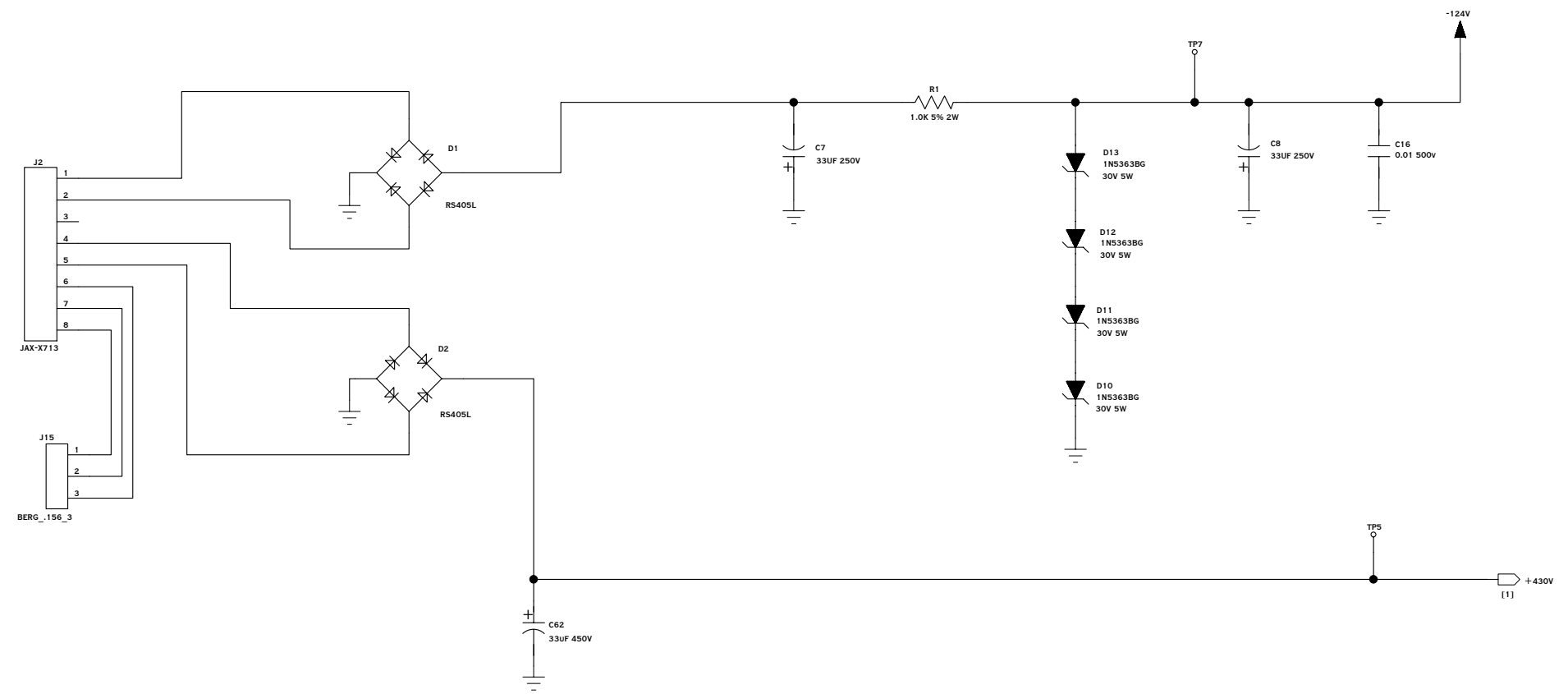
D
C
B
A

D
C
B
A

| | | | | |
|---|---|--|--|---------------------------------|
| <small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX +/- 0.01 ANGLE: 0.5 XXX +/- 0.001</small> | <small>PROJECT NO.</small> 8410 | RF CONCEPTS LLC <small>6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: 303-473-9232 FAX: 303-473-9660</small> | | |
| | <small>DRAWN BY:</small> B. FOCKEN | <small>DRAFT DATE:</small> 02/05/09 | <small>TITLE:</small> SCH,ALPHA 8410,MAINS | |
| <small>PROPRIETARY NOTICE:</small> THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HEREWITH IS NOT TO BE REPRODUCED, COPIED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF RF CONCEPTS LLC. | <small>DRAWING FILE:</small> BCX-X815_REV_2.SCH | <small>SIZE</small> C | <small>DRAWING #</small> BCX-815 | <small>REV.</small> 2 |
| <small>PADS POWERLOGIC DRAWING</small> | <small>SCALE</small> | <small>SHEET 2 OF 3</small> | | |

6 5 4 3 2 1

D
C
B
A



| | | | | |
|---|--|--|---|--------------------------|
| <small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX ±0.01 ANGLE: 0.5 XXX ±0.001</small> | <small>PROJECT NO.</small> 8410 | <small>6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: 303-473-9232 FAX: 303-473-9660</small> | | |
| | <small>DRAWN BY:</small> B. FOCKEN | <small>DRAFT DATE:</small> 02/05/09 | <small>TITLE:</small> SCH,ALPHA 8410 MAINS | |
| <small>PROPRIETARY NOTICE: THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HEREWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF RF CONCEPTS LLC.</small> | <small>DRAWING FILE:</small> BCX-X815_REV_2.SCH | <small>SIZE</small> C | <small>DRAWING #</small> BCX-815 | <small>REV.</small> 2 |
| | <small>PADS POWERLOGIC DRAWING</small> | <small>SCALE</small> | <small>SHEET 3 OF 3</small> | |

6

5

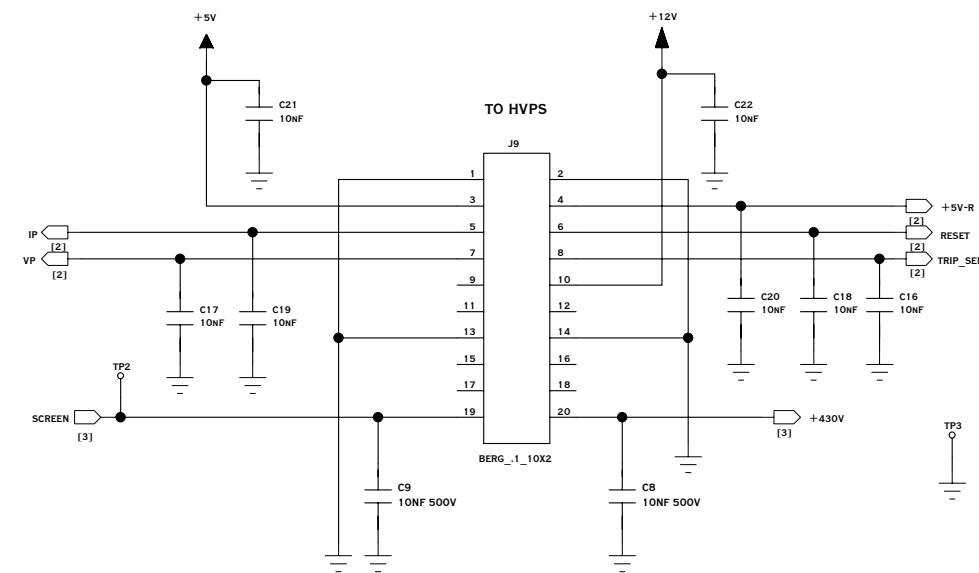
4

3

2

1

| REVISION HISTORY | | | | | |
|------------------|---------|-------------|-------------------|-------------------|------------------|
| REV | ECO NO. | DESCRIPTION | CHANGED BY & DATE | CHECKED BY & DATE | EFFECTIVITY DATE |
| | | | | | |



D

D

C

C

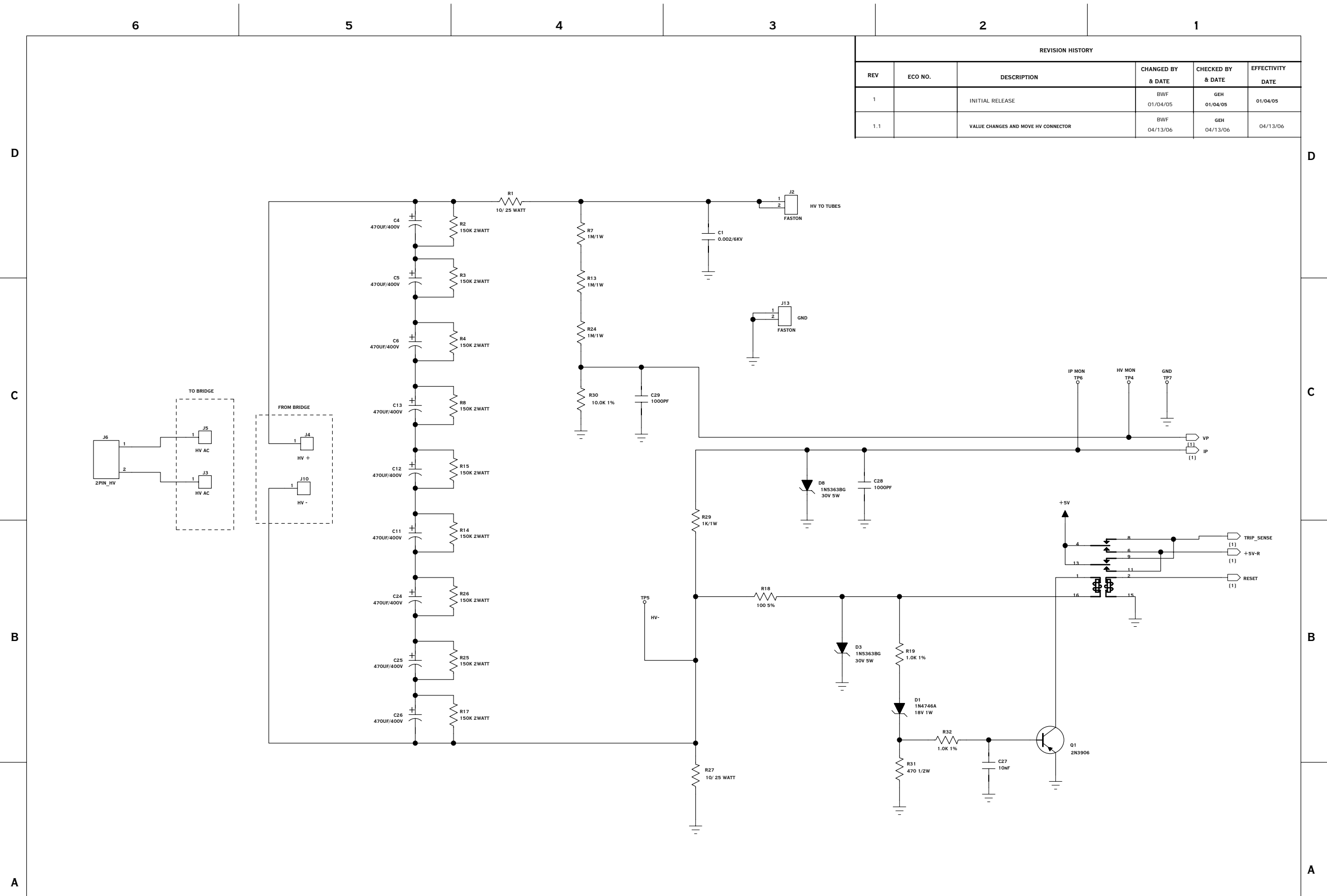
B

B

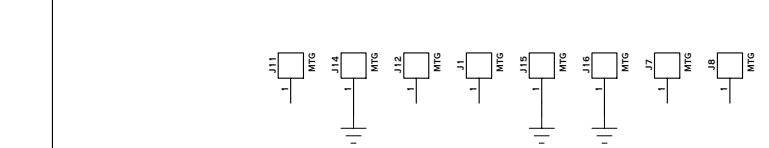
A

A

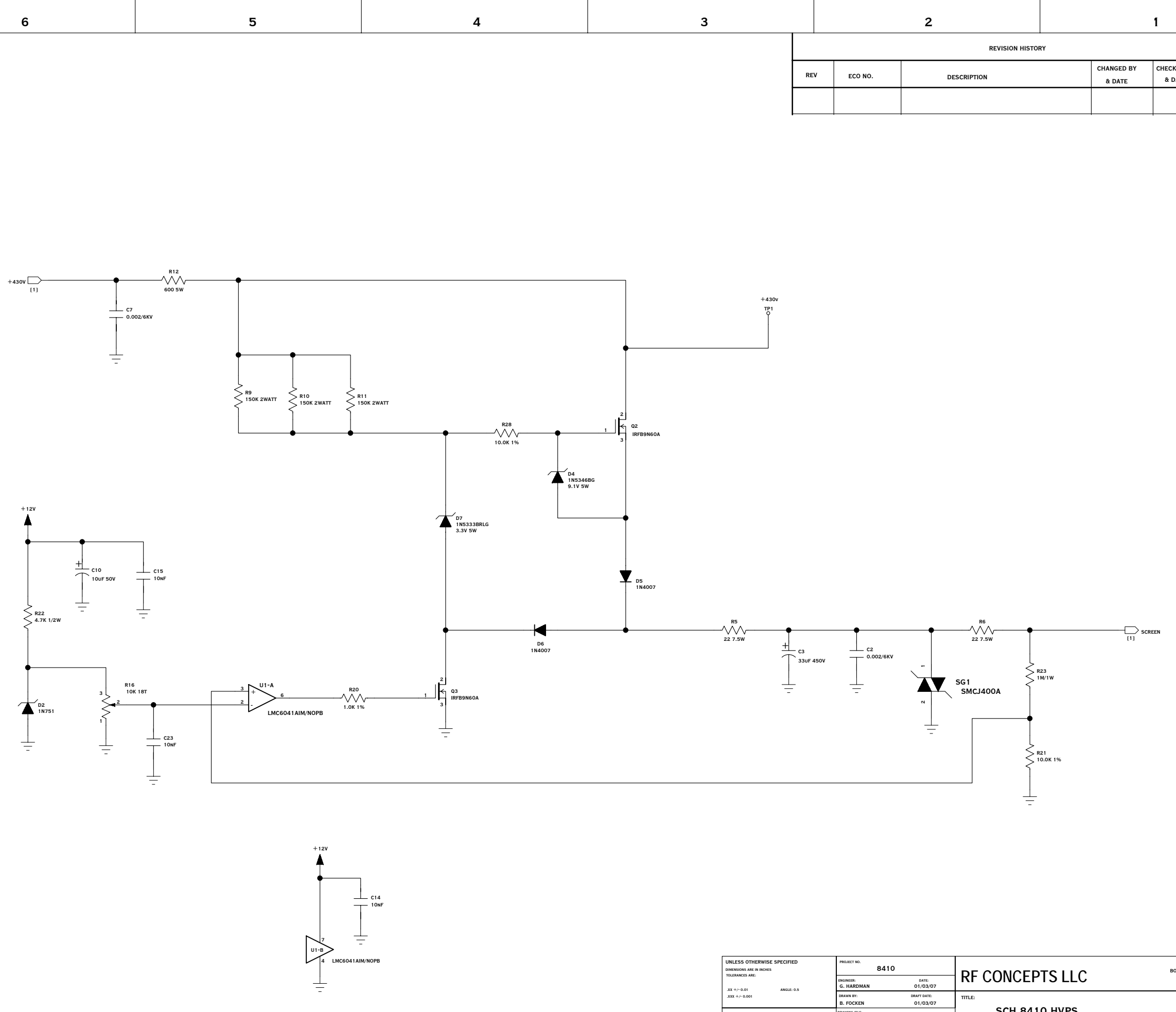
| | | | | |
|--|---|--|-----------------------|-----------|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX +/- 0.01 ANGLE: 0.5 XXX +/- 0.001 | PROJECT NO. 8410 | 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 | | |
| | ENGINEER: G. HARDMAN DATE: 01/03/07 | | | |
| PROPRIETARY NOTICE: THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HEREWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF 8410 CONCEPTS LLC. | DRAWN BY: B. FOCKEN DRAFT DATE: 01/03/07 | ALPHA RADIO PRODUCTS LLC | | |
| | DRAWING FILE: BCX-X816_REV_2.SCH | TITLE: SCH,8410,HVPS | | |
| COMPONENT TYPE = ELECTRICAL CATEGORY = CUSTOM DESIGNATION = NONE | PADS POWERLOGIC DRAWING | SIZE C | DRAWING # BCX-X816 | REV. 2 |
| SCALE | | SHEET 1 OF 3 | | |



| REVISION HISTORY | | | | | |
|------------------|---------|-------------------------------------|-------------------|-------------------|------------------|
| REV | ECO NO. | DESCRIPTION | CHANGED BY & DATE | CHECKED BY & DATE | EFFECTIVITY DATE |
| 1 | | INITIAL RELEASE | BWF 01/04/05 | GEH 01/04/05 | 01/04/05 |
| 1.1 | | VALUE CHANGES AND MOVE HV CONNECTOR | BWF 04/13/06 | GEH 04/13/06 | 04/13/06 |



| | | | |
|---|--------------------------------------|-----------------------------|--------------------|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: .XX +/- 0.01 ANGLE: 0.5 .XXX +/- 0.001 | PROJECT NO. 8410 | RF CONCEPTS LLC | |
| | ENGINEER: G. HARDMANN DATE: 01/03/07 | | |
| PROPRIETARY NOTICE: THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HEREIN IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF RF CONCEPTS LLC. | DRAWING FILE: BCX-X816_REV_2.SCH | TITLE: SCH,ALPHA 8410, HVPS | |
| | PADS POWERLOGIC DRAWING | SIZE C | DRAWING # BCX-X416 |
| | | SCALE | REV. 2 |



| REVISION HISTORY | | | | | |
|------------------|---------|-------------|-------------------|-------------------|------------------|
| REV | ECO NO. | DESCRIPTION | CHANGED BY & DATE | CHECKED BY & DATE | EFFECTIVITY DATE |
| | | | | | |

| | | |
|--|---|--|
| UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: XX +/- 0.01 ANGLE: 0.5 XXX +/- 0.001 | PROJECT NO. 8410 | RF CONCEPTS LLC 6185 ARAPAHOE RD. BOULDER, COLORADO 80303 PHONE: (303) 473-9232 FAX: (303) 473-9660 |
| | ENGINEER: G. HARDMAN DATE: 01/03/07 | |
| PROPRIETARY NOTICE: THIS DOCUMENT AND DATA DISCLOSED HEREIN AND HEREWITH IS NOT TO BE REPRODUCED, USED, OR DISCLOSED IN WHOLE OR ANY PART TO ANYONE WITHOUT THE PERMISSION OF RF CONCEPTS LLC. | DRAWN BY: B. FOCKEN DRAFT DATE: 01/03/07 | TITLE: SCH,8410,HVPS |
| COMPONENT TYPE = ELECTRICAL CATEGORY = CUSTOM DESIGNATION = NONE | DRAWING FILE: BCX-X816_REV_2.SCH | SIZE: C DRAWING #: BCX-X816 REV. 2 |
| | PADS POWERLOGIC DRAWING | SCALE: SHEET 3 OF 3 |