


MOTOR BOARD SCHEMATIC

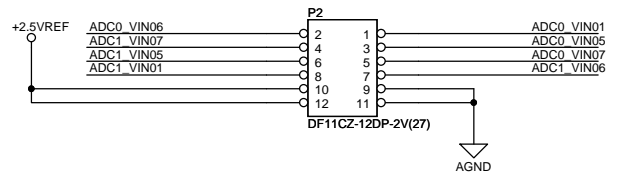
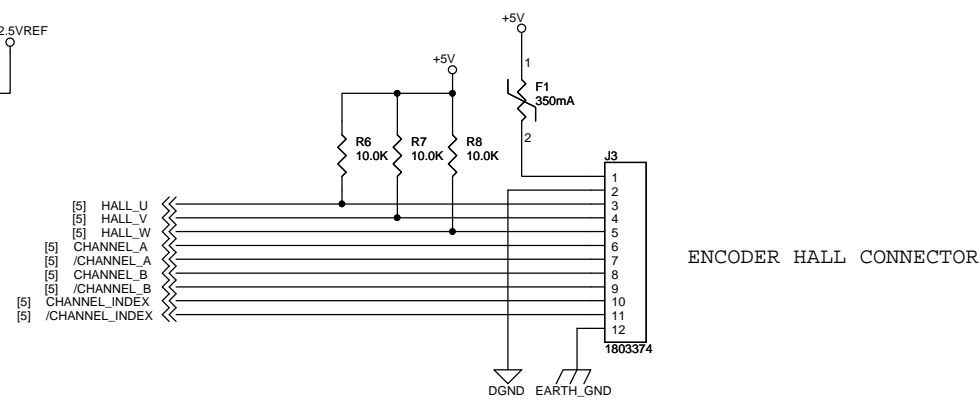
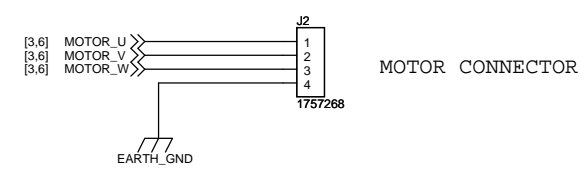
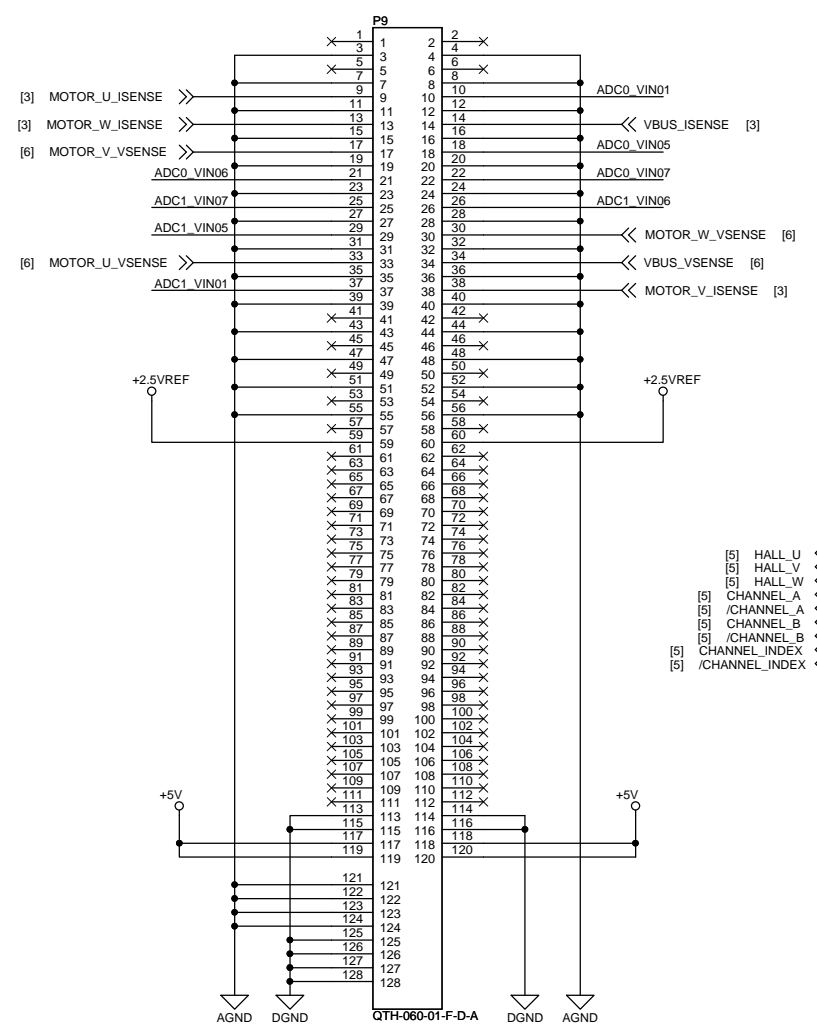
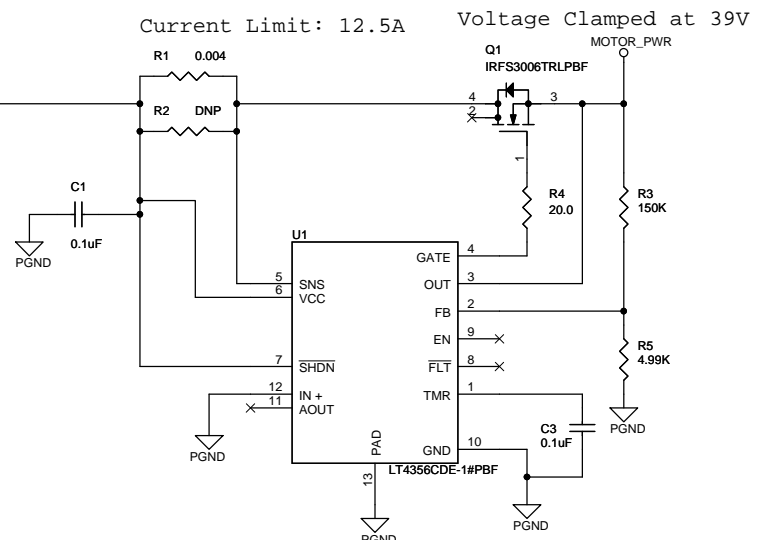
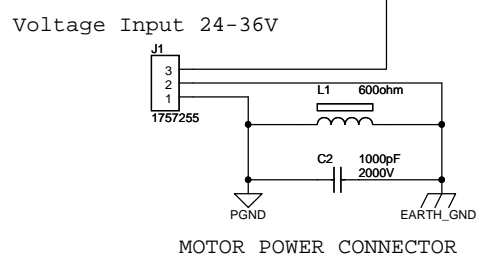
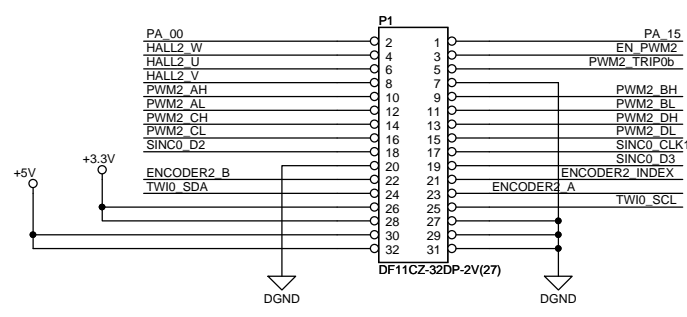
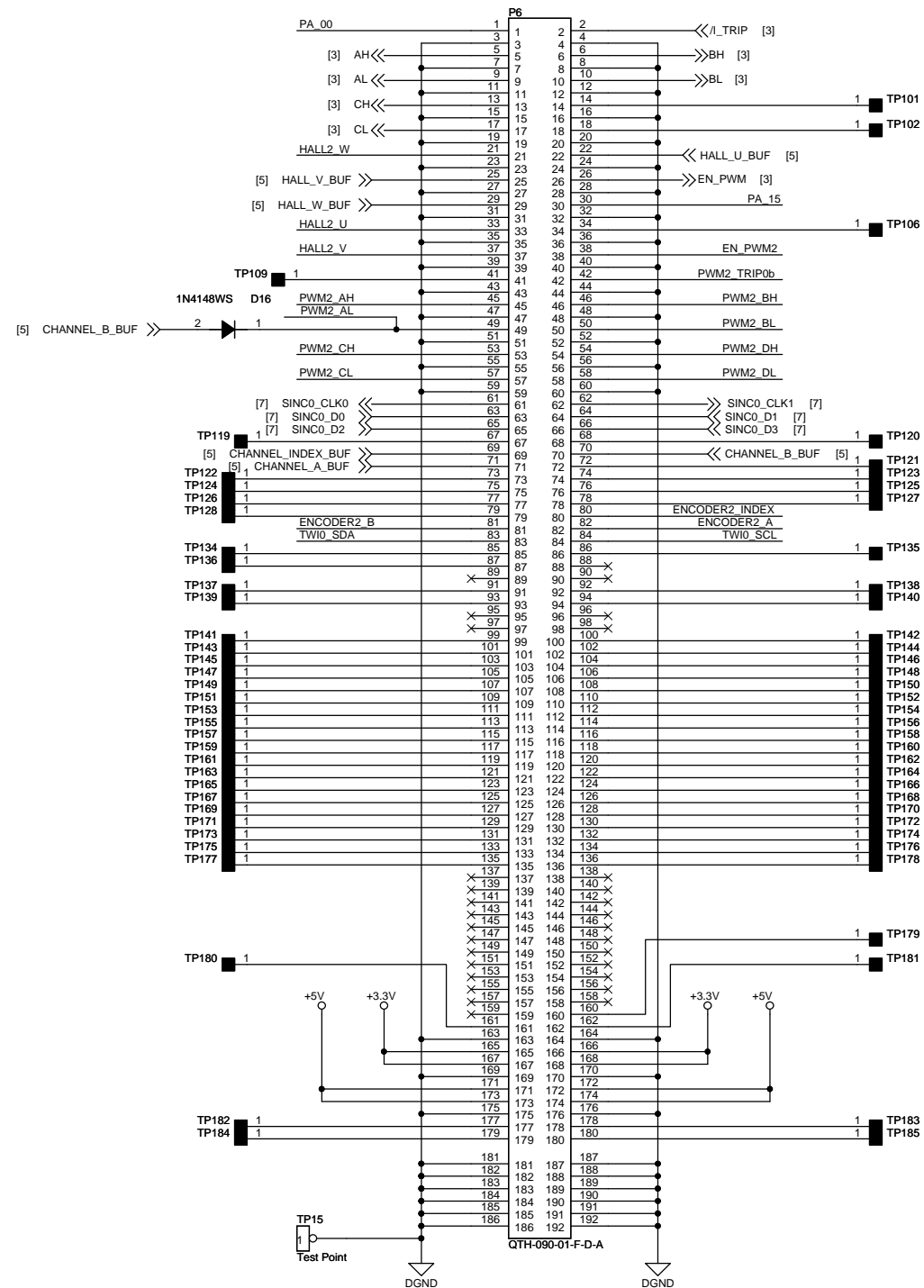
Table of Contents

| | |
|---------|---------------------|
| PAGE 1: | COVER |
| PAGE 2: | CONNECTORS |
| PAGE 3: | MOTOR DRIVER |
| PAGE 4: | POWER SUPPLIES |
| PAGE 5: | BUFFER, DAC |
| PAGE 6: | SIGNAL CONDITIONING |

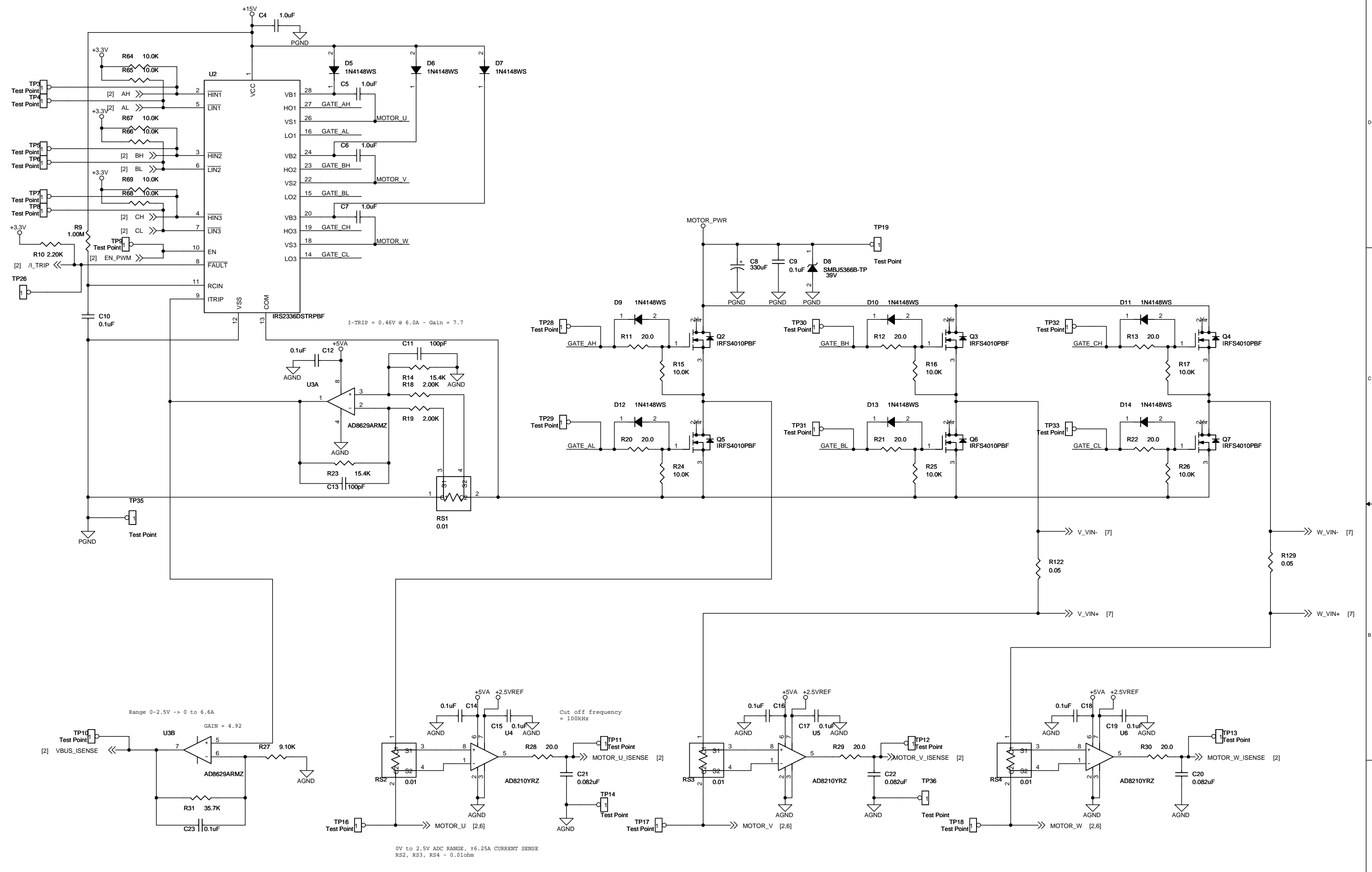
Revision History

- Rev 1 : Initial Draft
- Rev 2 : Update refer to request on changes
- Rev 3 : Add 0 ohm Resistor R189 across DGND and PGND
Reverse D15 pin number
Change R184, R186, R187, R188 to 0 ohm
Change C20, C21, C22 to 1.0uF
Change C11, C13 to 100pF
- Rev 4 : Re-route CHANNEL_B_BUF to TM0_TMR0 (PB07) Connector P6 Pin49
Change C20, C21, C22 to 0.082uF
Add pullup resistors R64, R65, R66, R67, R68, R69
Change R10 to 2.20kohm
Add R190 R191 0 ohm resistors
Add Connectors P1 P2 to bring out signals
Add more test points

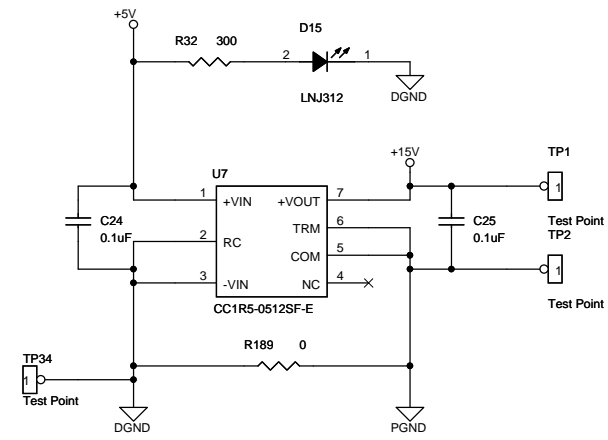
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|--|-------------|---------|----------|---|--|-----------------------------|-----|
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| | IR DATE | | | | COVER | | |
| | LAST CHANGE | | | | | | |
| | DRAWN BY | Z. WONG | 03/23/10 | | | | |
| | CHECKED BY | | | | | | |
| APPROVED BY | | | | SIZE | CAGE CODE | DWG NO | REV |
| | | | | C | 1NST2 | 2892G01 | 4 |
| BARE PCB P/N | | | | <small>Wednesday, March 12, 2014</small> | | <small>SHEET 1 OF 7</small> | |
| ASSY PCB P/N | | | | | | | |



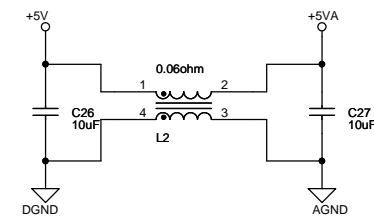
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| BOSTON ENGINEERING | | WALTHAM, MASS SUITE 114 <OrgAddr> <OrgAddr> | |
| CONNECTORS | | | |
| SIZE | CAGE CODE | DWG NO | REV |
| C | 1INST2 | 2892G01 | 4 |
| Tuesday, March 04, 2014 | | SHEET 2 OF 7 | |



| | | | |
|---------------------|---------------------------|--|-----------------|
| | | WALTHAM, MASS SUITE 114 <OrgAddr3> <OrgAddr4> | |
| MOTOR DRIVER | | | |
| SIZE C | CAGE CODE 1NST2 | DWG NO 2892G01 | REV 4 |
| | | Wednesday, March 12, 2014 | SHEET 3 OF 7 |



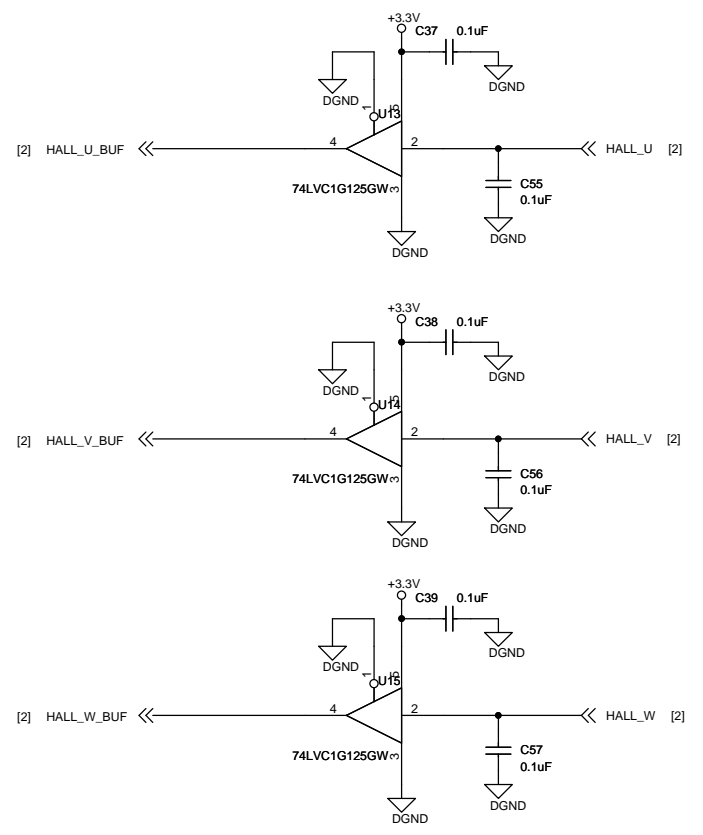
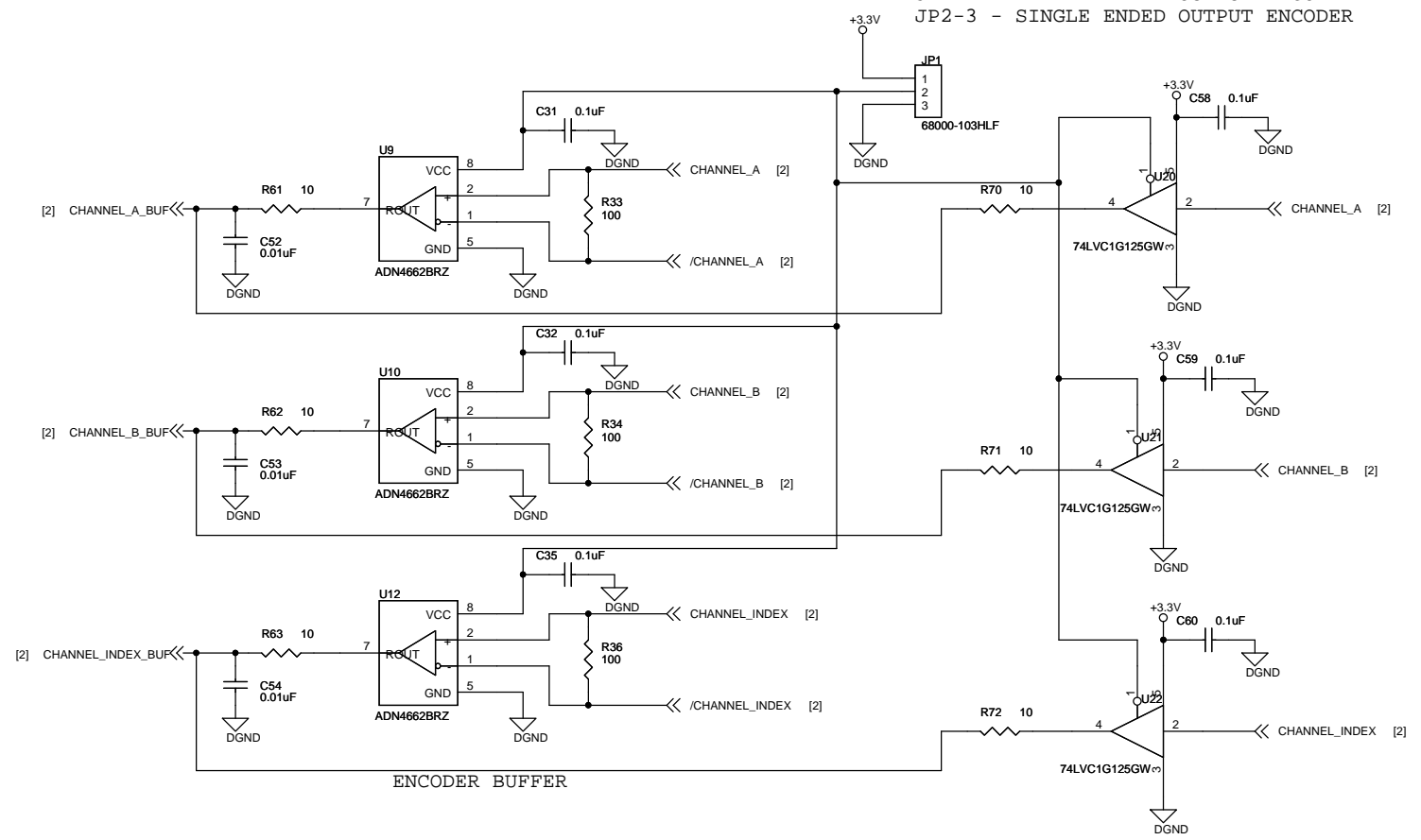
+15V@100mA POWER SUPPLY



+5V ANALOG POWER

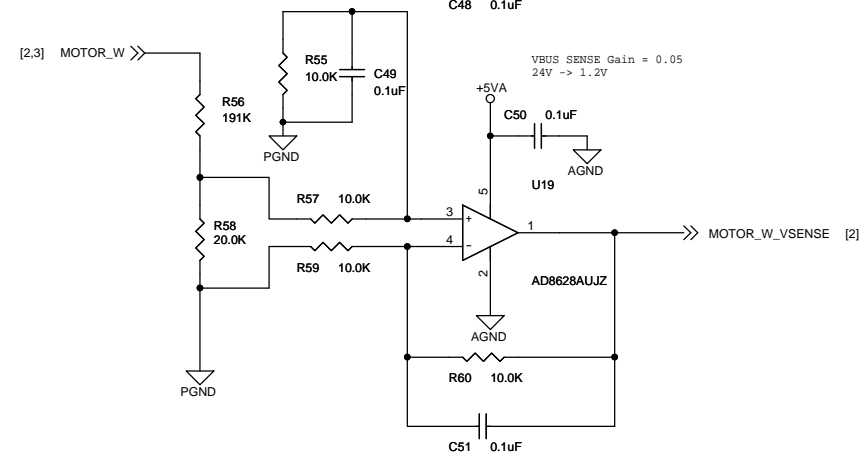
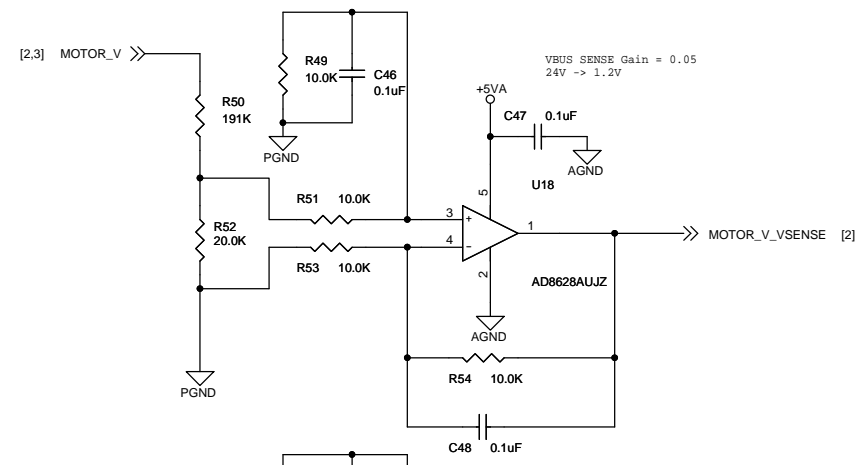
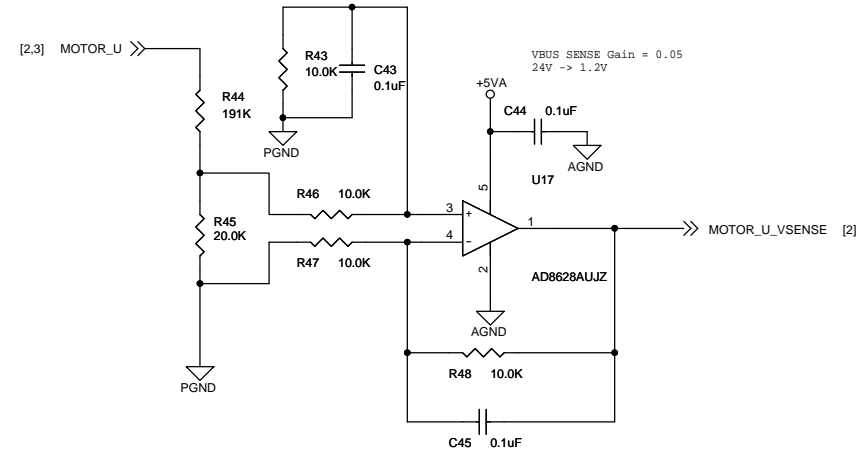
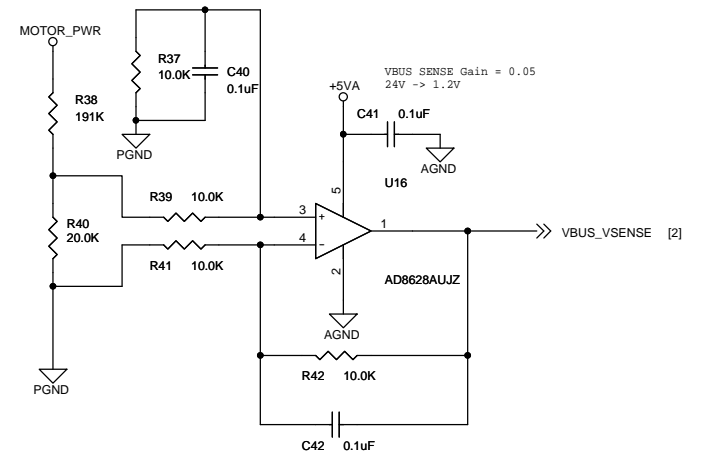
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|------------------|---------------------------|--|-----------------|
| | | WALTHAM, MASS SUITE 114 <OrgAddr3> <OrgAddr4> | |
| | | POWER SUPPLIES | |
| SIZE C | CAGE CODE 1NST2 | DWG NO 2892G01 | REV 4 |
| | | Wednesday, March 12, 2014 | SHEET 4 OF 7 |

JUMPER SETTING
 JP1-2 - DIFFERENTIAL OUTPUT ENCODER
 JP2-3 - SINGLE ENDED OUTPUT ENCODER

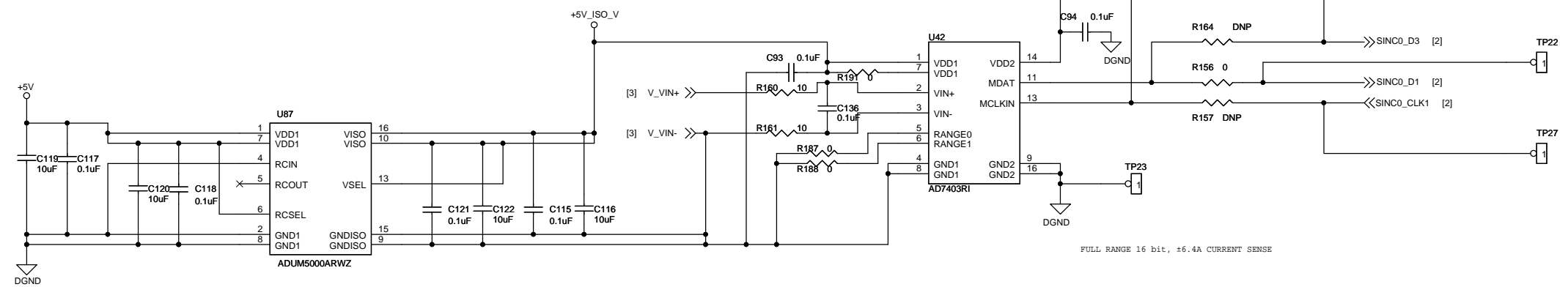
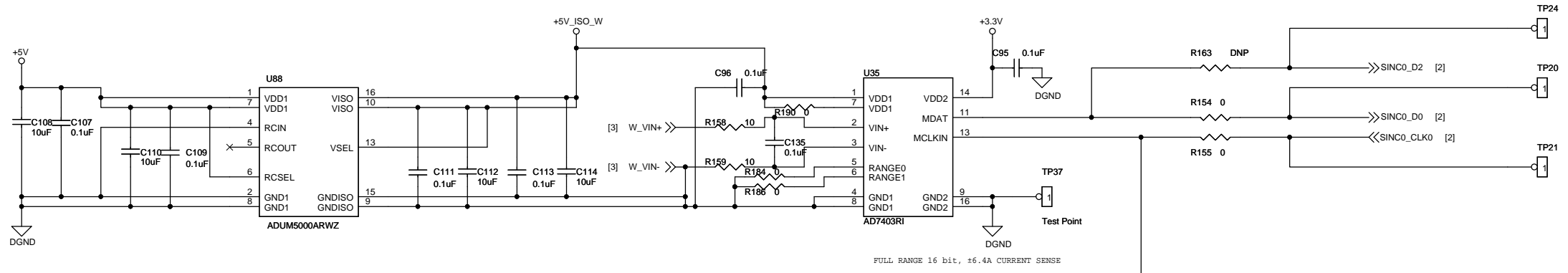


HALL BUFFER

| | | | |
|----------|--------------|--|--------------|
| | | WALTHAM, MASS SUITE 114 <OrgAddr3> <OrgAddr4> | |
| | | BUFFER, DAC | |
| SIZE | CAGE CODE | DWG NO | REV |
| C | 1NST2 | 2892G01 | 4 |
| | | Monday, March 03, 2014 | SHEET 5 OF 7 |



| | | | |
|----------|--------------|--|--------------|
| | | WALTHAM, MASS SUITE 114 <OrgAddr3> <OrgAddr4> | |
| | | SIGNAL CONDITIONING | |
| SIZE | CAGE CODE | DWG NO | REV |
| C | 1NST2 | 2892G01 | 4 |
| | | Monday, March 03, 2014 | SHEET 6 OF 7 |



| | | | |
|------------------------------|--------------|--|--------------|
| | | WALTHAM, MASS SUITE 114 <OrgAddr> <OrgAddr> | |
| SIGMA-DELTA MODULATOR | | | |
| SIZE | CAGE CODE | DWG NO | REV |
| C | 1NST2 | 2892G01 | 4 |
| | | Wednesday, March 12, 2014 | SHEET 7 OF 7 |