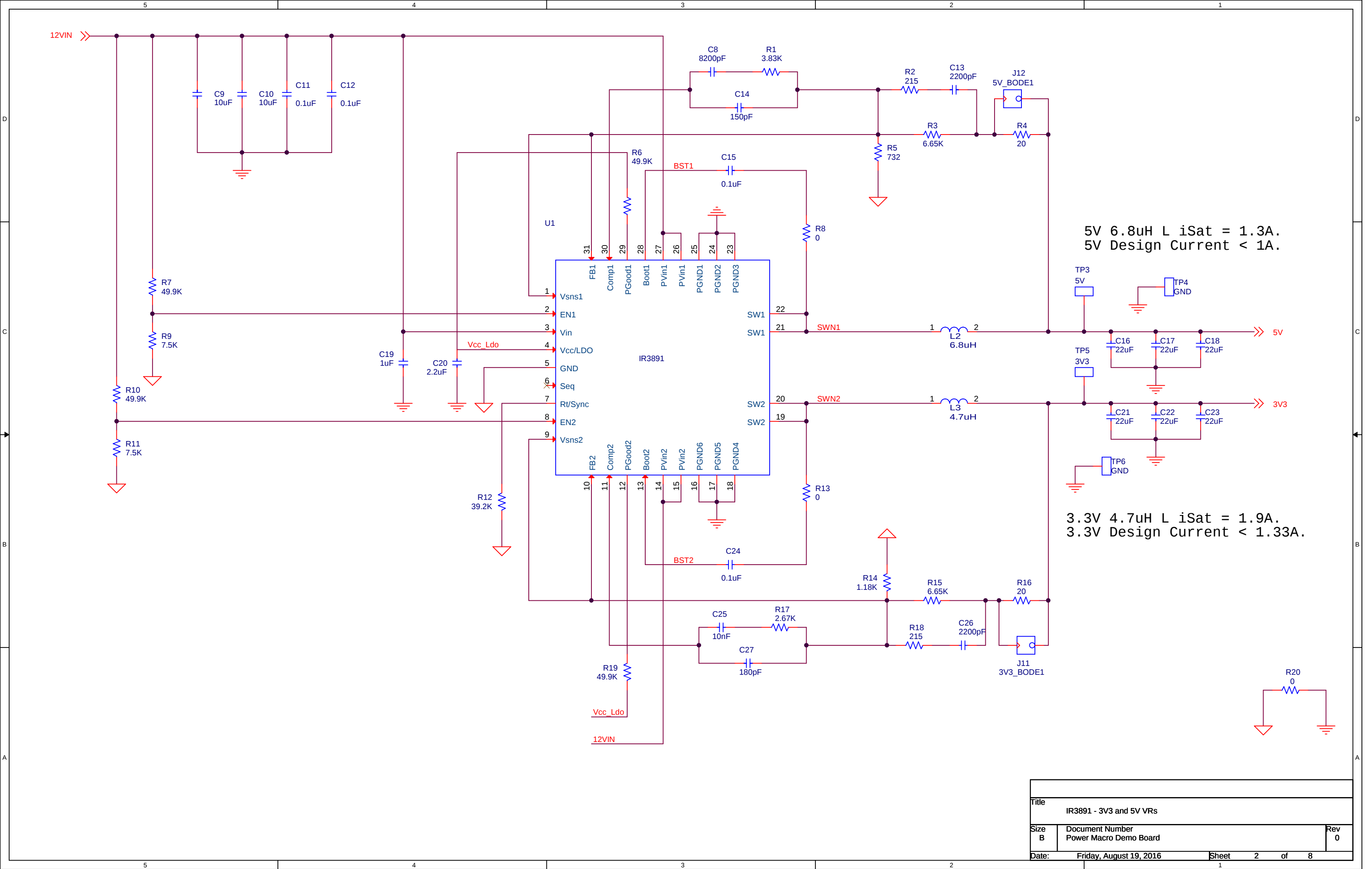
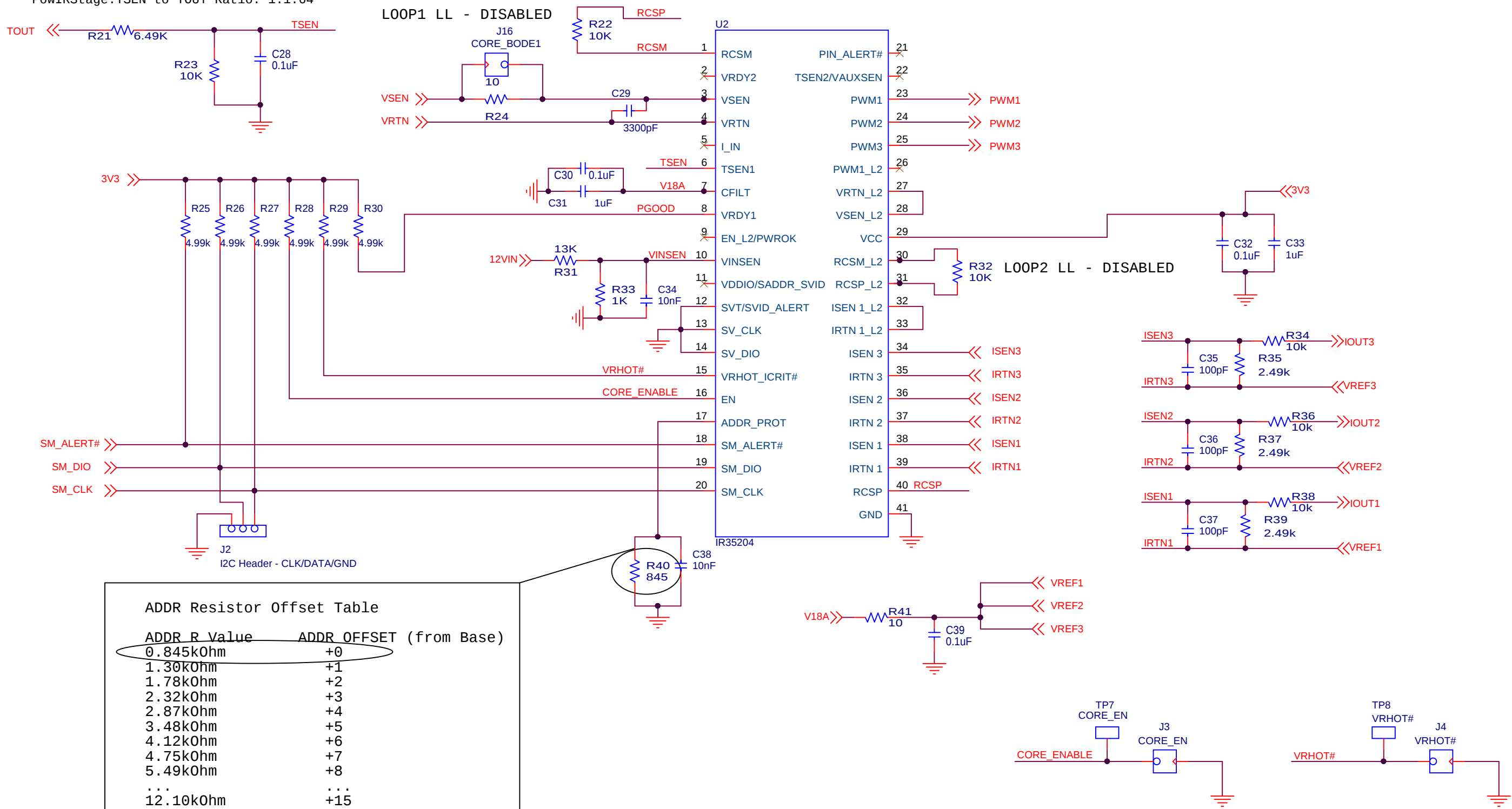


|             |                         |              |
|-------------|-------------------------|--------------|
| Title       |                         |              |
| Input Power |                         |              |
| Size        | Document Number         | Rev          |
| A           | Power Macro Demo Board  | 0            |
| Date:       | Friday, August 05, 2016 | Sheet 1 of 8 |



|                         |                         |              |
|-------------------------|-------------------------|--------------|
| Title                   |                         |              |
| IR3891 - 3V3 and 5V VRs |                         |              |
| Size                    | Document Number         | Rev          |
| B                       | Power Macro Demo Board  | 0            |
| Date:                   | Friday, August 19, 2016 | Sheet 2 of 8 |

PowIRStage:TSEN to TOUT Ratio: 1:1.64



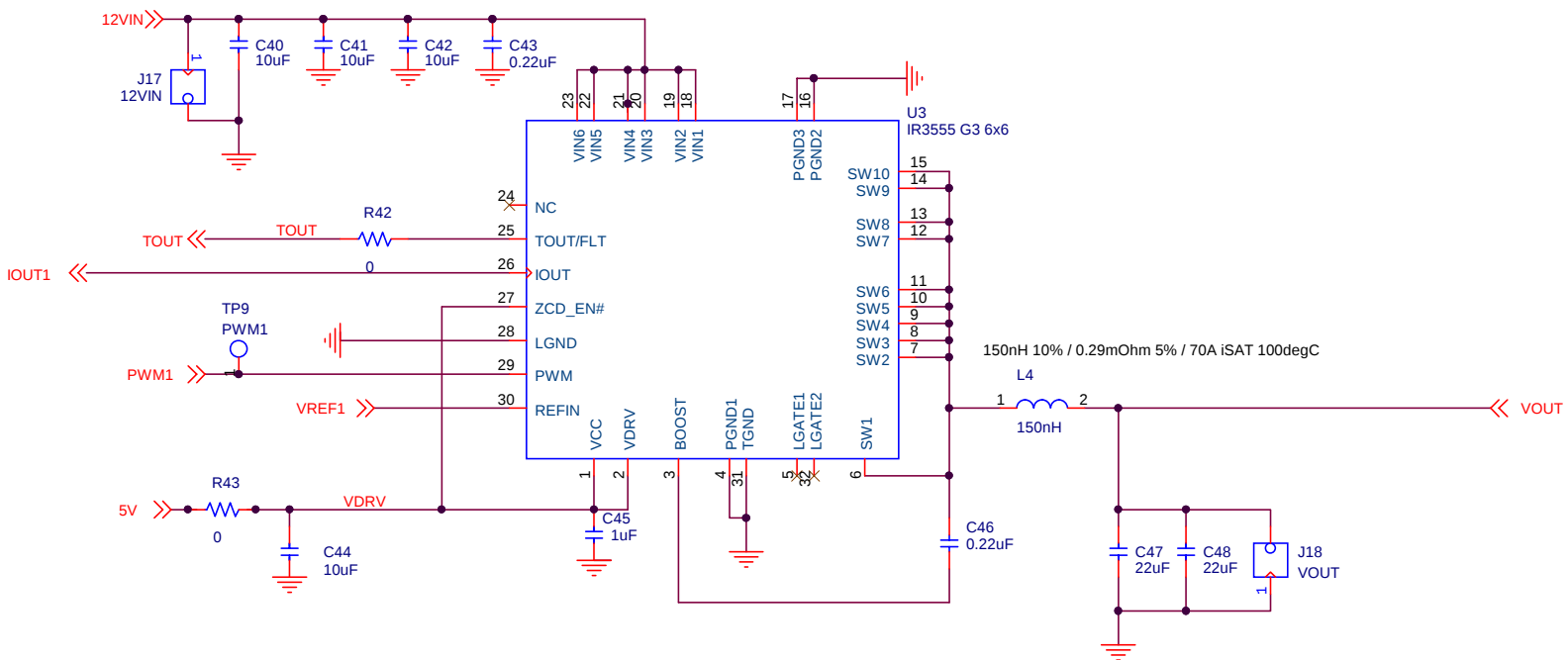
ADDR Resistor Offset Table

| ADDR R Value | ADDR OFFSET (from Base) |
|--------------|-------------------------|
| 0.845kOhm    | +0                      |
| 1.30kOhm     | +1                      |
| 1.78kOhm     | +2                      |
| 2.32kOhm     | +3                      |
| 2.87kOhm     | +4                      |
| 3.48kOhm     | +5                      |
| 4.12kOhm     | +6                      |
| 4.75kOhm     | +7                      |
| 5.49kOhm     | +8                      |
| ...          | ...                     |
| 12.10kOhm    | +15                     |

DEFAULT ADDRESSING:  
I2C BASE ADDR = 0x10  
PMBus BASE ADDR = 0x50

Resulting Addressing:  
I2C - 0x10  
PMBus - 0x50

|                           |                         |              |
|---------------------------|-------------------------|--------------|
| Title                     |                         |              |
| CORE - IR35204 Controller |                         |              |
| Size                      | Document Number         | Rev          |
| B                         | Power Macro Demo Board  | 0            |
| Date:                     | Monday, August 08, 2016 | Sheet 3 of 8 |

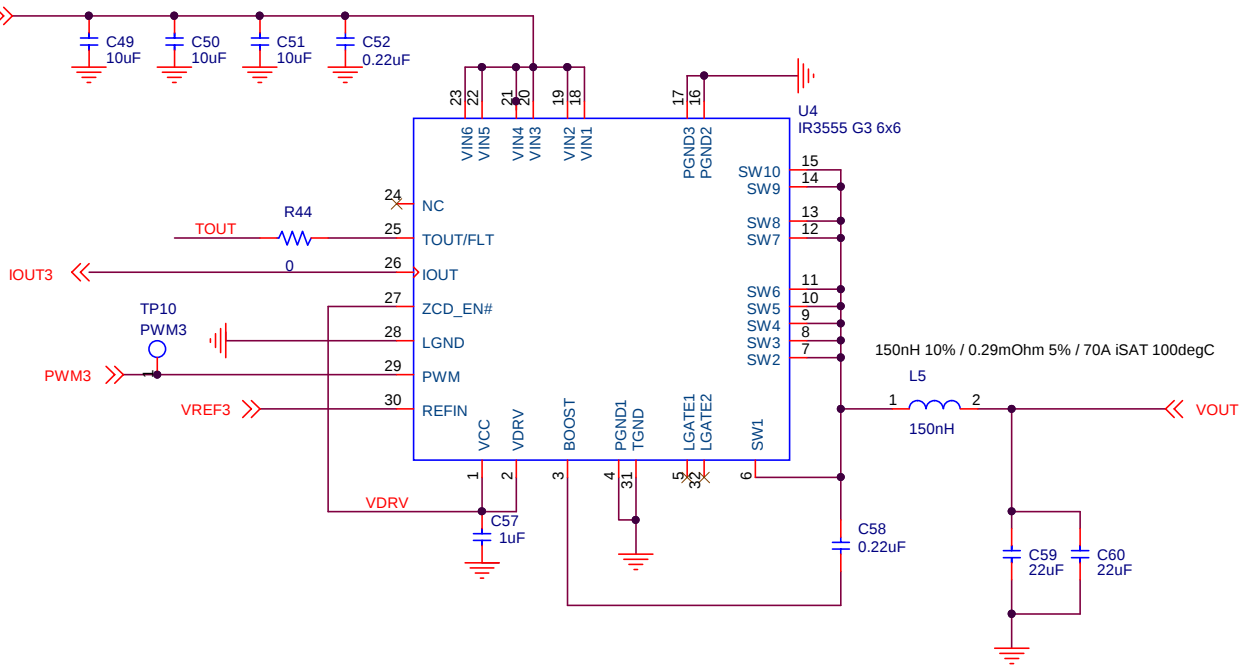
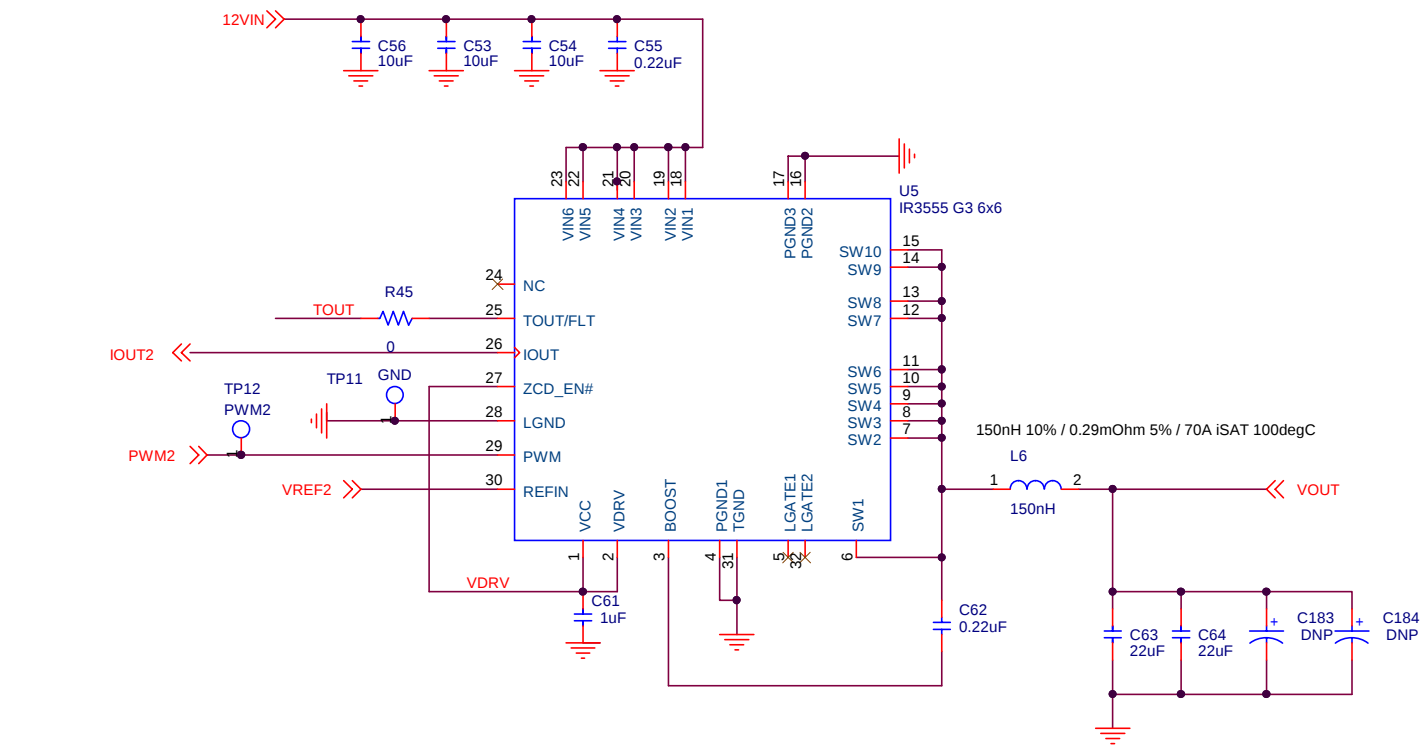


Inductor Crosses:

- Delta HCFE107010-151-79
- Eaton FP1010R1-R150-R
- Pulse PA4390.151HL
- Eaton FP1007R3-R15-R

PowIRStage Crosses:

- IR3555 6x6mm QFN 60A Device (~25A TDC)
- IR3556 6x6mm QFN 50A Device (~20A TDC)
- IR3557 6x6mm QFN 40A Device (~15A TDC)



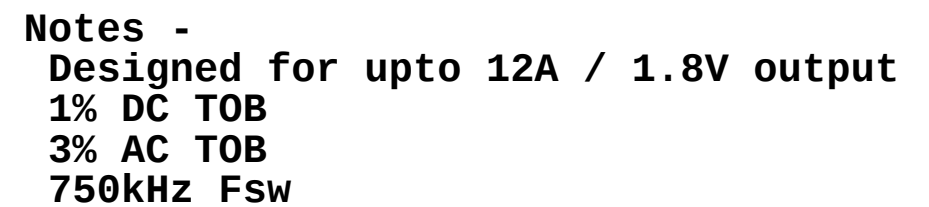
Notes -

- Designed for upto 25A / Phase AVG Current (75A RMS)
- Designed for upto 35A / Phase PEAK Current (105A Peak)
- Designed for low ripple and high transient performance
- 500kHz Fsw

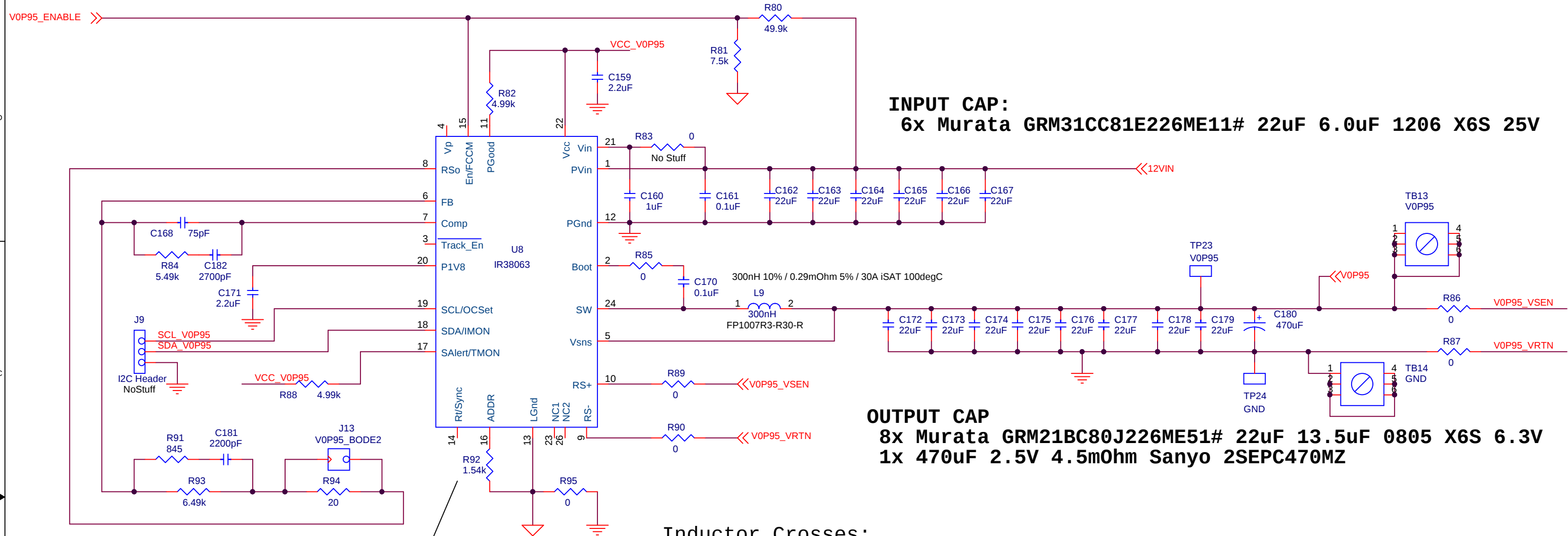
|                      |                          |              |
|----------------------|--------------------------|--------------|
| Title                |                          |              |
| CORE - IR3555 Phases |                          |              |
| Size                 | Document Number          | Rev          |
|                      | Power Macro Demo Board   | 0            |
| Date:                | Tuesday, August 30, 2016 | Sheet 4 of 8 |







|                      |                                           |       |          |
|----------------------|-------------------------------------------|-------|----------|
|                      |                                           |       |          |
| Title                |                                           |       |          |
| IR3894 - 1.8V 12A VR |                                           |       |          |
| Size<br>B            | Document Number<br>Power Macro Demo Board |       | Rev<br>0 |
| Date:                | Thursday, August 11, 2016                 | Sheet | 7 of 8   |



**INPUT CAP:**  
6x Murata GRM31CC81E226ME11# 22uF 6.0uF 1206 X6S 25V

**OUTPUT CAP**  
8x Murata GRM21BC80J226ME51# 22uF 13.5uF 0805 X6S 6.3V  
1x 470uF 2.5V 4.5m0hm Sanyo 2SEPC470MZ

Inductor Crosses:  
- Delta HCFE107010-301  
- Eaton FP1010R1-R300-R  
- Pulse PA4390.301HL  
- Eaton FP1007R3-R30-R

Notes -  
1% DC TOB  
3% AC TOB  
750kHz Fsw  
~100kHz BW  
Supports upto 25A  
Transient Model - 4.8A Loadstep ~ +/- 18mV AC TOB

| R     | VAL | OFFSET |
|-------|-----|--------|
| 0.00k | /   | +0     |
| 1.05k | /   | +1     |
| 1.54k | /   | +2     |
| 2.05k | /   | +3     |
| 2.61k | /   | +4     |
| 3.24k | /   | +5     |
| 3.83k | /   | +6     |
| 4.53k | /   | +7     |
| 5.23k | /   | +8     |
| 6.04k | /   | +9     |
| 6.98k | /   | +10    |
| 7.87k | /   | +11    |
| 8.87k | /   | +12    |
| 9.76k | /   | +13    |
| 10.7k | /   | +14    |
| 11.8k | /   | +15    |

(Default BASE: 0x10 I2C / 0x40 PMBus)  
Resulting Address: 0x12 / 0x42

|                                 |                                           |              |
|---------------------------------|-------------------------------------------|--------------|
| Title<br>IR38063 - 25A PMBus VR |                                           |              |
| Size<br>B                       | Document Number<br>Power Macro Demo Board | Rev<br>0     |
| Date:                           | Thursday, August 11, 2016                 | Sheet 8 of 8 |