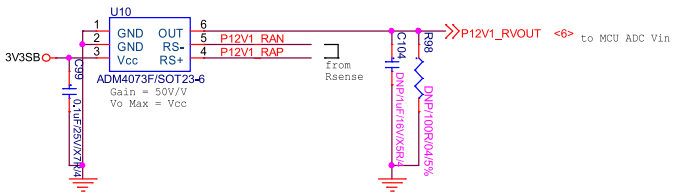
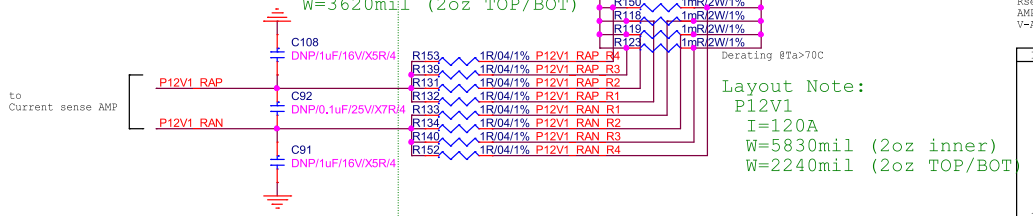
P12V1 Current Sensor





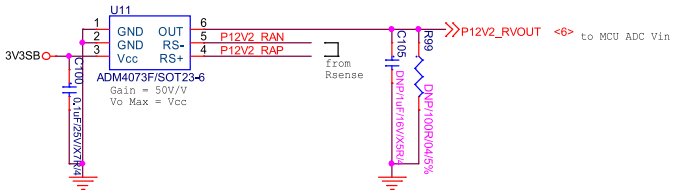
Layout Note:
12V
I=170A
W=9420mil (2oz inner)
W=3620mil (2oz TOP/BOT)

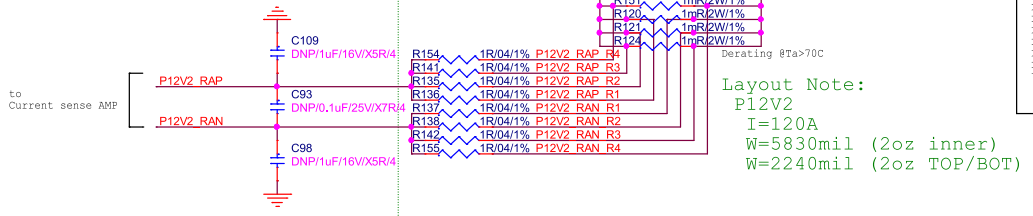
Layout Note:
P12V1
I=120A
W=5830mil (2oz inner)
W=2240mil (2oz TOP/BOT)

Rsense = 0.25mR
AMP Gain = 50V/V
V-ADC = I-load * Rsense * Gain
= I-load * 12.5m

I-load	P-load	V-ADC
40A	480W	0.5000V
45A	540W	0.5625V
50A	600W	0.6250V
55A	660W	0.6875V
60A	720W	0.7500V
65A	780W	0.8125V
70A	840W	0.8750V
75A	900W	0.9375V
80A	960W	1.0000V
85A	1,020W	1.0625V
90A	1,080W	1.1250V
95A	1,140W	1.1875V
100A	1,200W	1.2500V
105A	1,260W	1.3125V
110A	1,320W	1.3750V
115A	1,380W	1.4375V
120A	1,440W	1.5000V
125A	1,500W	1.5625V
130A	1,560W	1.6250V
135A	1,620W	1.6875V
140A	1,680W	1.7500V
145A	1,740W	1.8125V
150A	1,800W	1.8750V
155A	1,860W	1.9375V
160A	1,920W	2.0000V

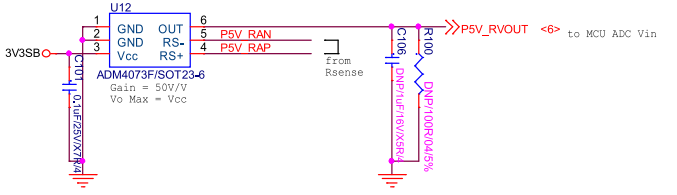
P12V2 Current Sensor

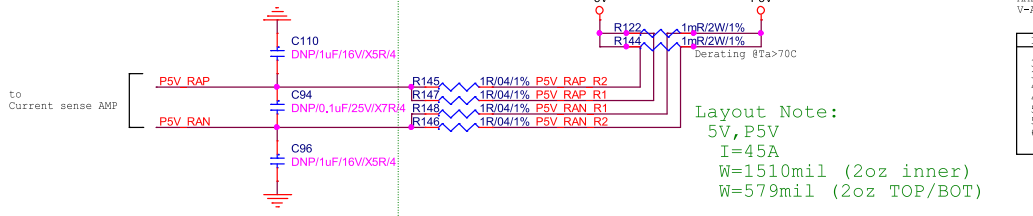




Layout Note:
P12V2
I=120A
W=5830mil (2oz inner)
W=2240mil (2oz TOP/BOT)

5V Current Sensor



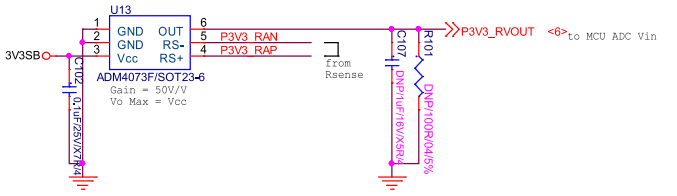


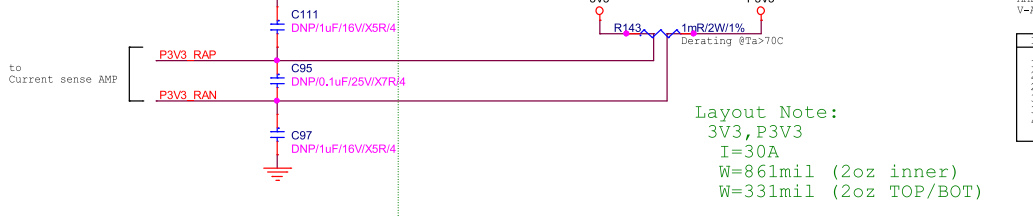
Layout Note:
5V,P5V
I=45A
W=1510mil (2oz inner)
W=579mil (2oz TOP/BOT)

Rsense = 0.5mR
AMP Gain = 50V/V
V-ADC = I-load * Rsense * Gain
= I-load * 25m

I-load	P-load	V-ADC
30A	150W	0.750V
35A	175W	0.875V
40A	200W	1.000V
45A	225W	1.125V
50A	250W	1.250V
55A	275W	1.375V
60A	300W	1.500V

3.3V Current Sensor





Layout Note:
3V3,P3V3
I=30A
W=861mil (2oz inner)
W=331mil (2oz TOP/BOT)

Rsense = 1mR
AMP Gain = 50V/V
V-ADC = I-load * Rsense * Gain
= I-load * 50m

I-load	P-load	V-ADC
15A	49.5 W	0.75V
20A	66.0 W	1.00V
25A	82.5 W	1.25V
30A	99.0 W	1.50V
35A	115.5 W	1.75V
40A	132.0 W	2.00V

Layout Note:
Sensor trace = 8mil
Place conponent close IC

Layout Note:
Sensor trace = 8mil
Place 1mR&1R as Summing Network

Place& Routing Reference
<Summing Network>