

LED Resistance Calculation
 Red LED voltage drop: 2.1V
 Green/Blue LED voltage drop: 3.1V

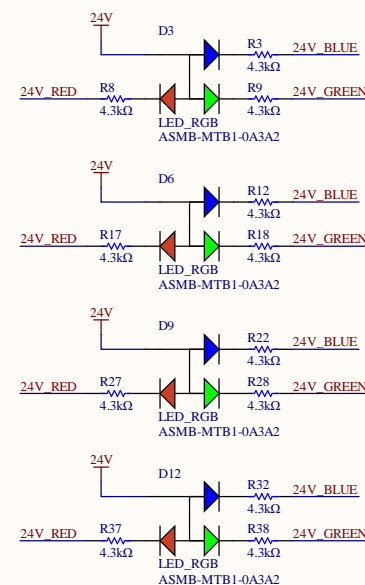
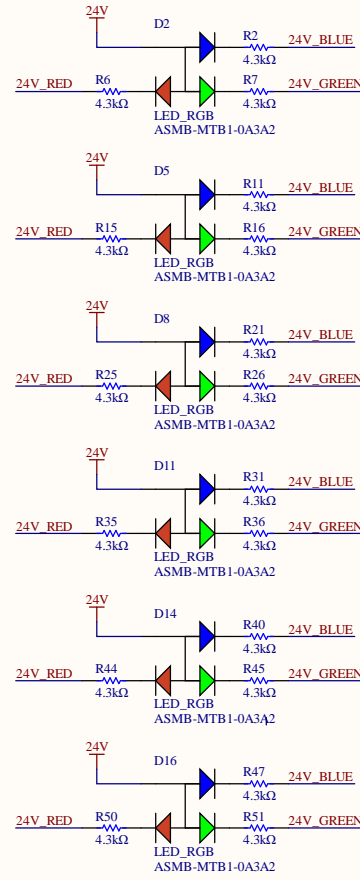
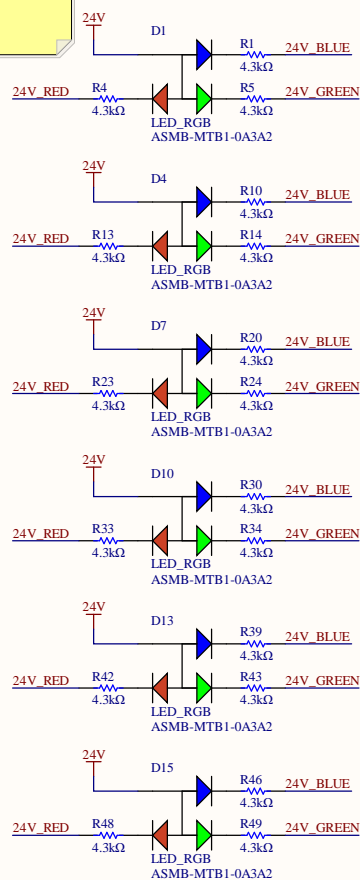
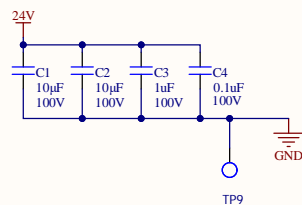
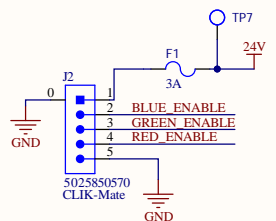
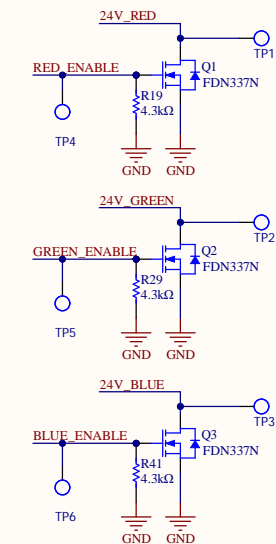
Resistance for red LEDs:
 $R = (24V - 2.1V)/5mA = 4380 \text{ ohms}$

Resistance for blue & green LEDs:
 $R = (24V - 3.1V)/5mA = 4180 \text{ ohms}$

Resistor Power Calculation
 Red LED resistor voltage drop: 21.9V
 Green/Blue LED resistor voltage drop: 20.9V

Power for red LED resistors:
 $P = 21.9V * 5mA = 0.1095W$

Power for green/blue LED resistors:
 $P = 20.9V * 5mA = 0.1045W$



Title: LED Matrix Page 1

Project: LED Matrix.PrjPeb

Rev: 2

Reviewer: Lance Bantoto

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Engineer: Farris Matar

Sheet: 1 of 2



