# Driver Interface Module for an Electric Racecar
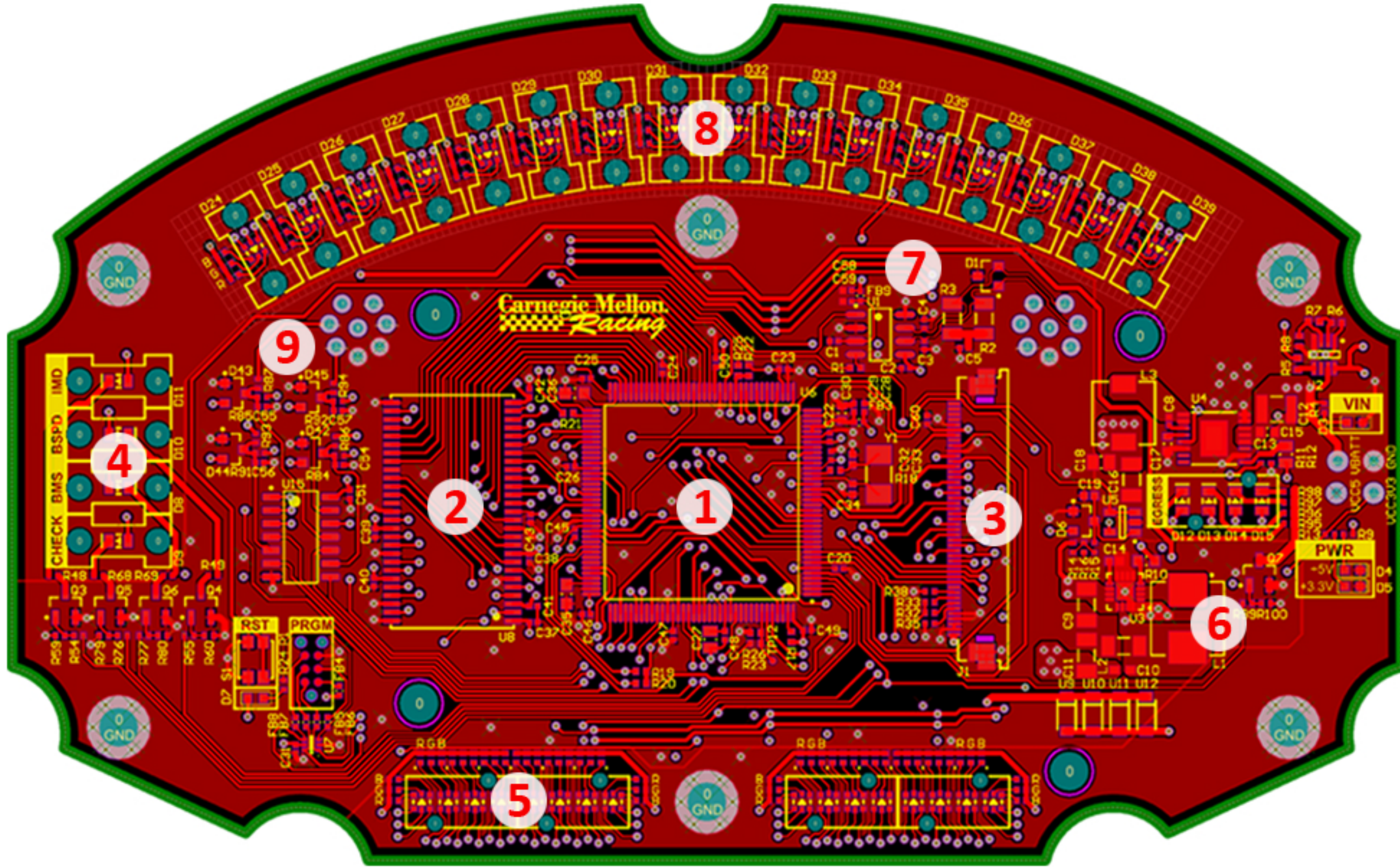
**18-549 Embedded Design Capstone, Spring 2016**
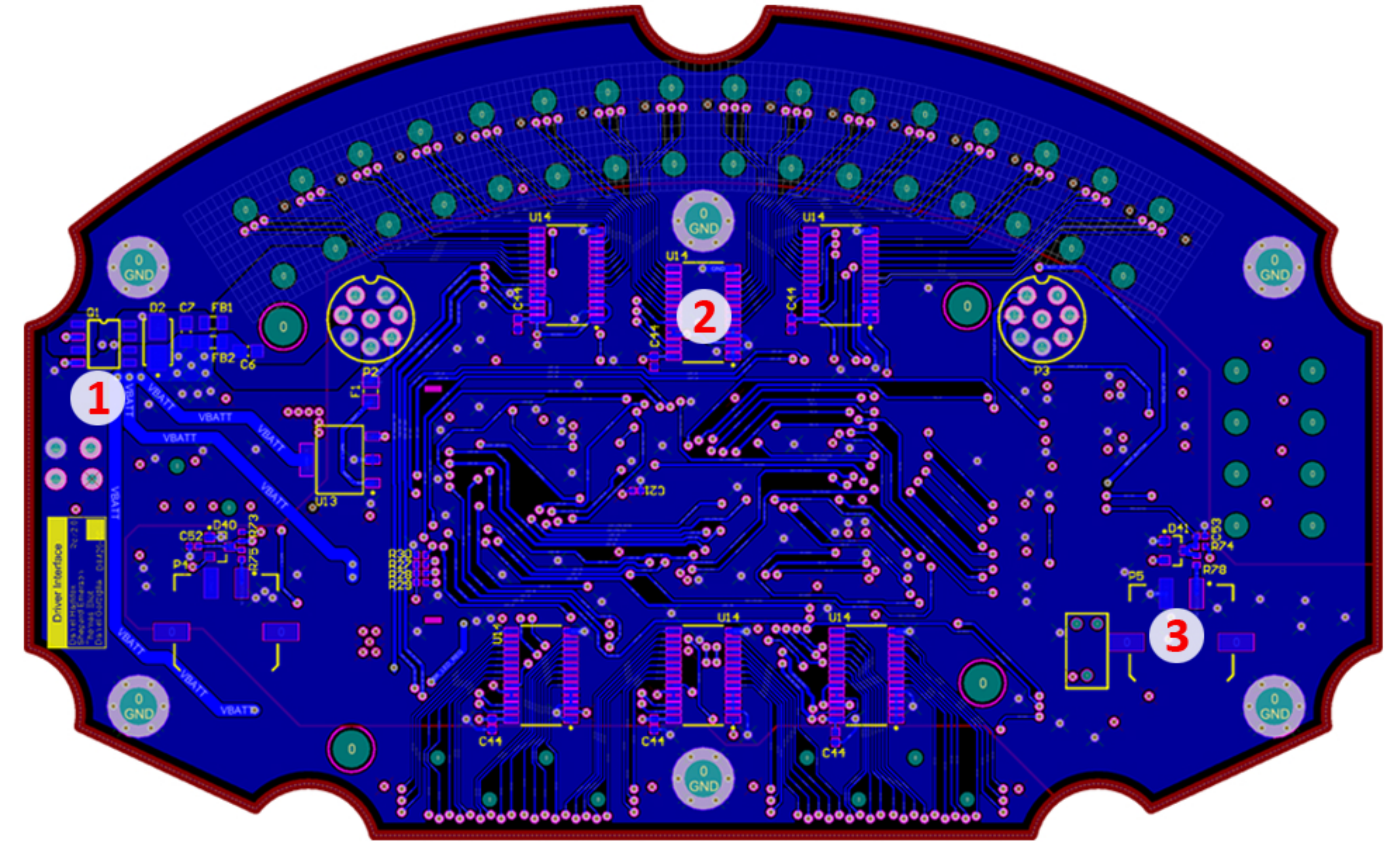
## Hardware Overview

### 4 layer PCB, with power and ground planes
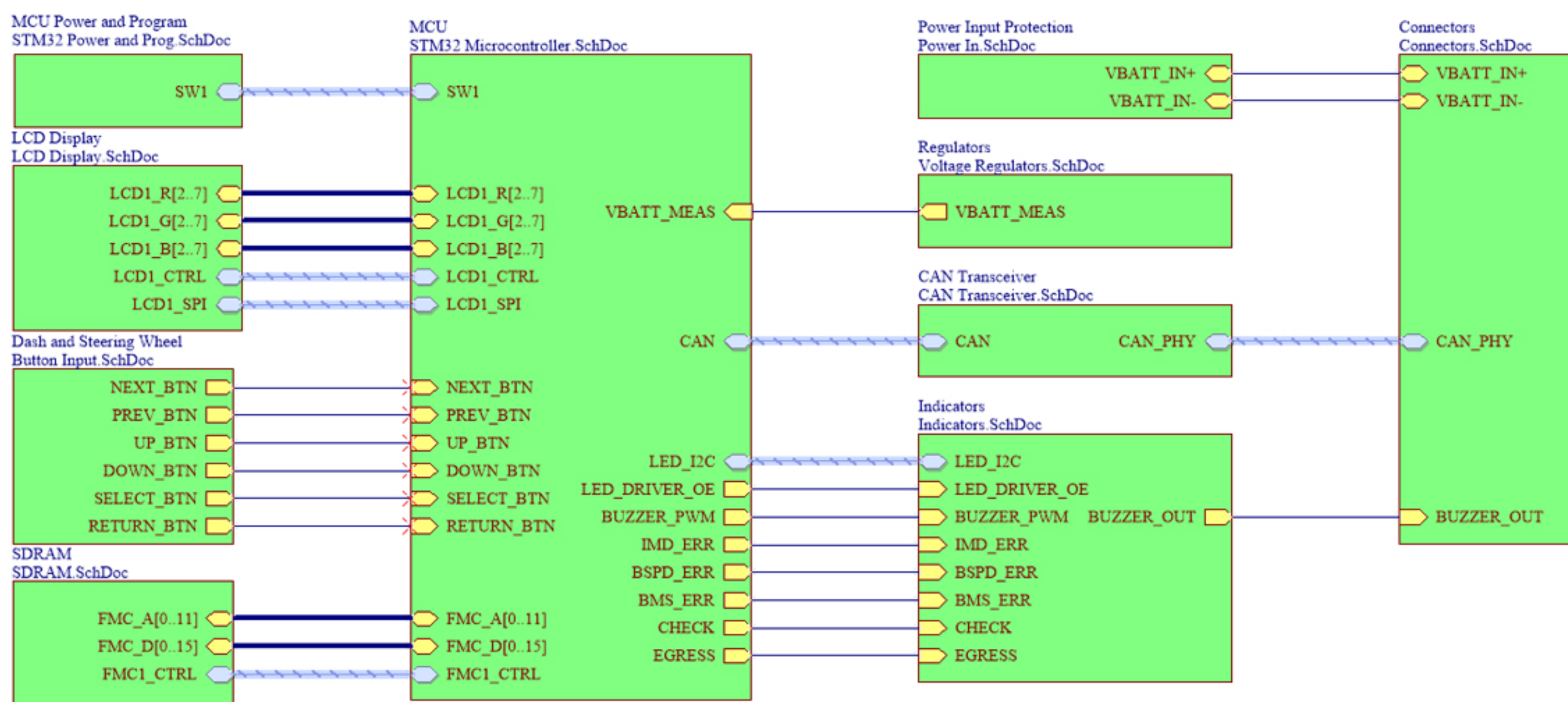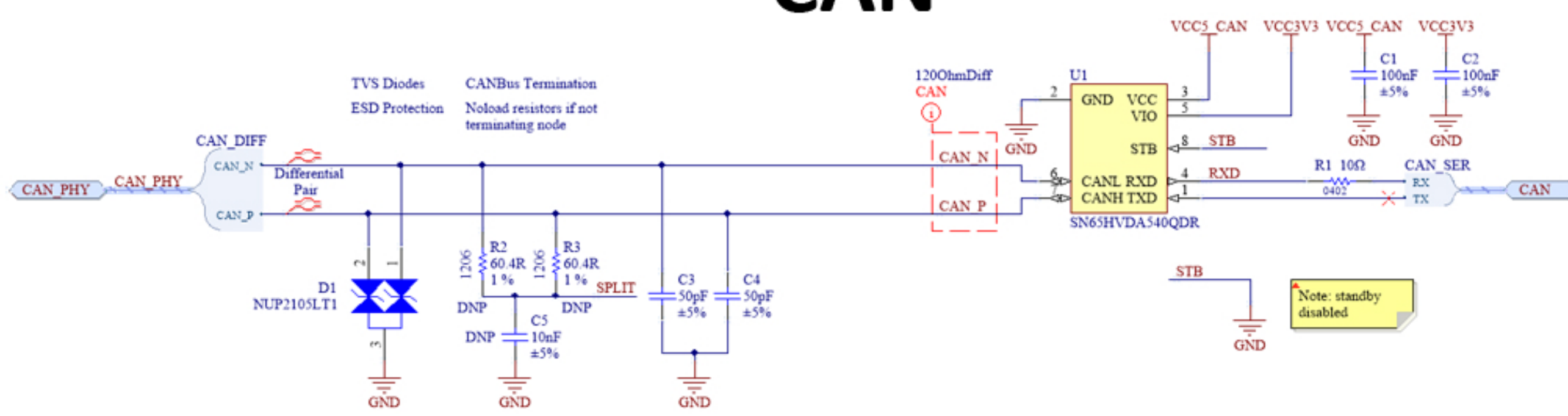
**Top Layer**



**Bottom Layer**



(1) 32-bit ARM Cortex M4, (2) 64 Mbit SDRAM, (3) Connector for 2.8" Color LCD Display, (4) Safety critical LED indicators, (5) Auxilary LED bargraph, (6) 5V and 3.3V power supplies, (7) CAN transceiver, (8) Auxilary LED arc, (9) Connector / input protection

(1) Power input transient/under/over/reverse voltage protection, (2) I2C LED drivers, (3) Connector for buttons

## High Level Schematics



## Microcontroller



## CAN