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The schematic diagram illustrates the EZFET board's internal components and their connections to the MSP430F5528IRGCT microcontroller (U5). The microcontroller is shown with its pins and associated signals, color-coded to match the board's components.

Microcontroller (U5) Pins and Signals:

- Pins 1-26:** P1.0/TA0CLK/ACLK, P1.1/TA0.0, P1.2/TA0.1, P1.3/TA0.2, P1.4/TA0.3, P1.5/TA0.4, P1.6/TA1CLK/CBOUT, P1.7/TA1.0
- Pins 34-38:** P3.0/UCB0SIMO/UCB0SDA, P3.1/UCB0SOM/UCB0SCL, P3.2/UCB0CLK/UCA0STE, P3.3/UCA0TXD/UCA0SIMO, P3.4/UCA0RXD/UCA0SOMI
- Pins 9-13:** P5.0/A8/VREF+/VREF+, P5.1/A9/VREF-/VREF-, P5.2/XT2IN, P5.3/XT2OUT, P5.4/XIN, P5.5/XOUT
- Pins 50-52:** PU.0/DP, PU.1/DM
- Pins 51:** PUR
- Pins 55:** V18
- Pins 17:** VCORE
- Pins 53:** VBUS
- Pins 54:** VUSB
- Pins 11:** AVCC1
- Pins 15:** DVCC1
- Pins 40:** DVCC2

Peripheral Components and Connections:

- LEDs:** EZFET LED0 (Red) and EZFET LED1 (Green) are connected to P1.0 and P1.1 respectively, with current-limiting resistors R40 and R41.
- UART:** EZFET UARTTXD and EZFET UARTRXD are connected to P3.2 and P3.3.
- USB:** EZFET VUSB is connected to P5.4. The USB interface includes a USB-to-UART bridge (Y4) and various capacitors (C31, C37, C35, C39, C30, C32, C44).
- Power:** EZFET VREF is connected to P5.0. The board includes a 3.3V regulator (R37) and a 50V capacitor (C36) for power filtering.
- Test Points:** EZFET TDO, EZFET TDI, EZFET TMS, EZFET TCK, EZFET RST, and EZFET TEST are connected to P.J.0/TDO, P.J.1/TDI/TCLK, P.J.2/TMS, P.J.3/TCK, RST/NMI/SBWDIO, and TEST/SBWTCK respectively.

The diagram also shows the connection of the microcontroller to the QFN PADS (Pads) and the various capacitors (C30, C31, C32, C35, C37, C39, C44) used for decoupling and timing.

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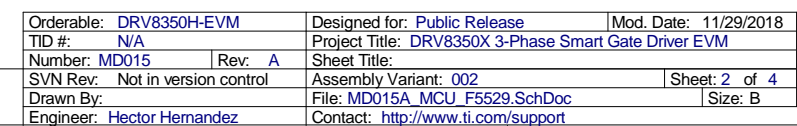
Schematic diagram of the HUB_DP2 circuit. The circuit includes the following components and connections:

- Input:** EZFET PUR
- Resistor R44:** 1.40k, connected in series with the input.
- Node 1:** The output of R44 is connected to a node labeled EZFET PU.1/DM and EZFET PU.0/DP.
- Resistor R50:** 1.00M, connected from Node 1 to GND.
- Resistor R49:** 27, connected from Node 1 to Node 2.
- Node 2:** The output of R49 is connected to a node labeled HUB_DP2 and HUB_DM.
- Capacitor C43:** 50V 10pF, connected from Node 2 to GND.
- Capacitor C41:** 50V 10pF, connected from Node 2 to GND.
- Resistor R47:** 27, connected from Node 2 to the output HUB_DM.
- Ground:** GND is connected to the bottom of R50, C43, and C41.

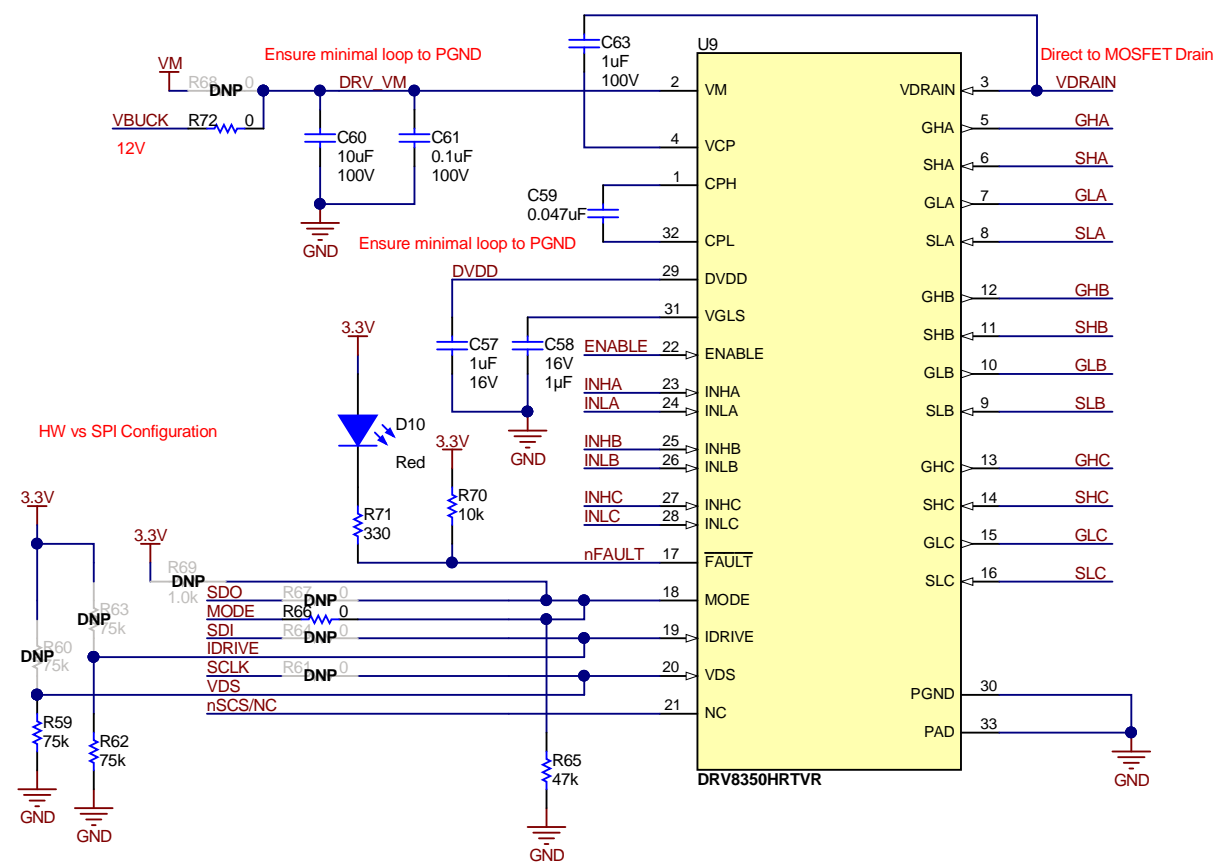
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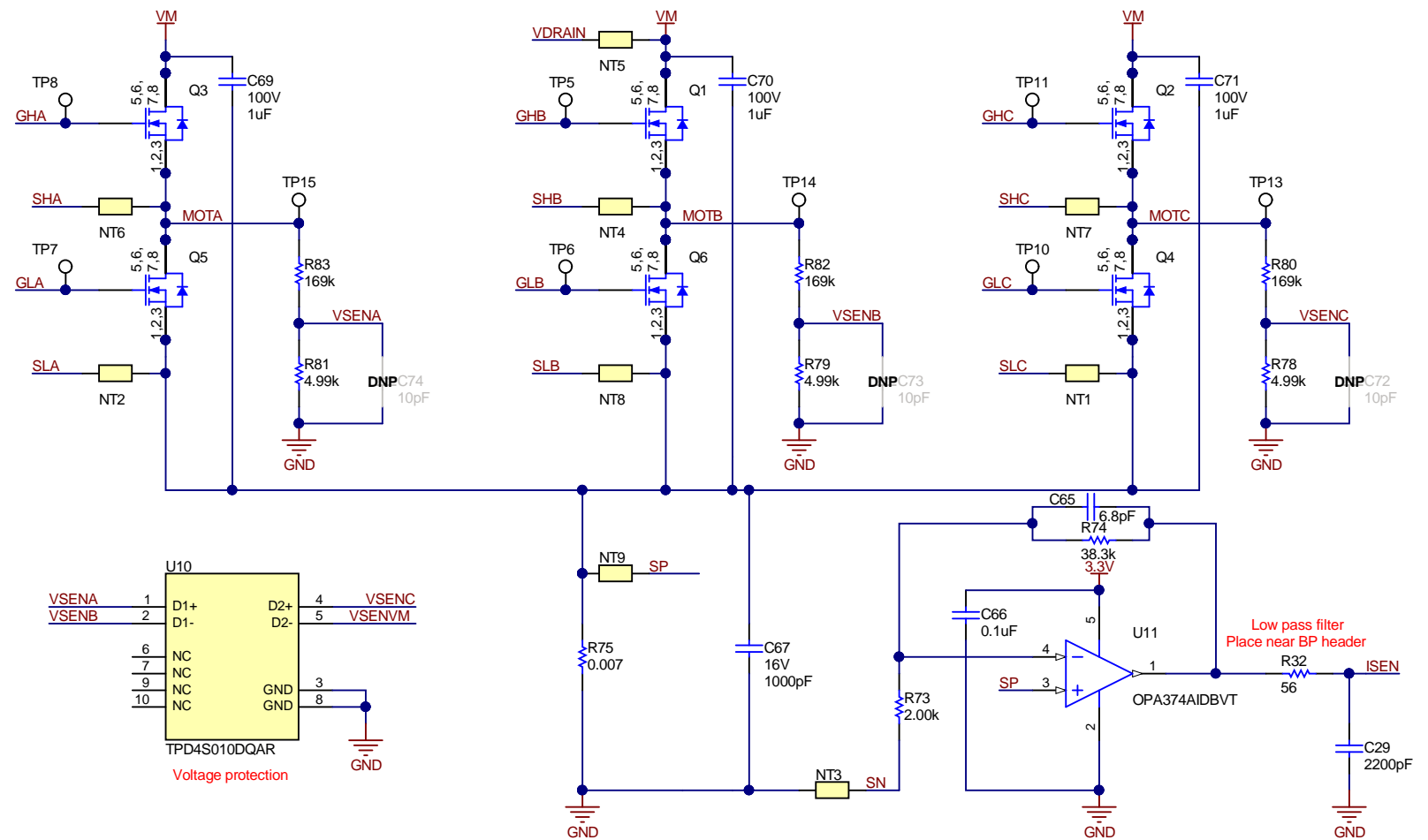
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DRV8350X



HALF-BRIDGES & SENSE



VM, MOT, GND, HALL CONNECTORS & INTERFACE

