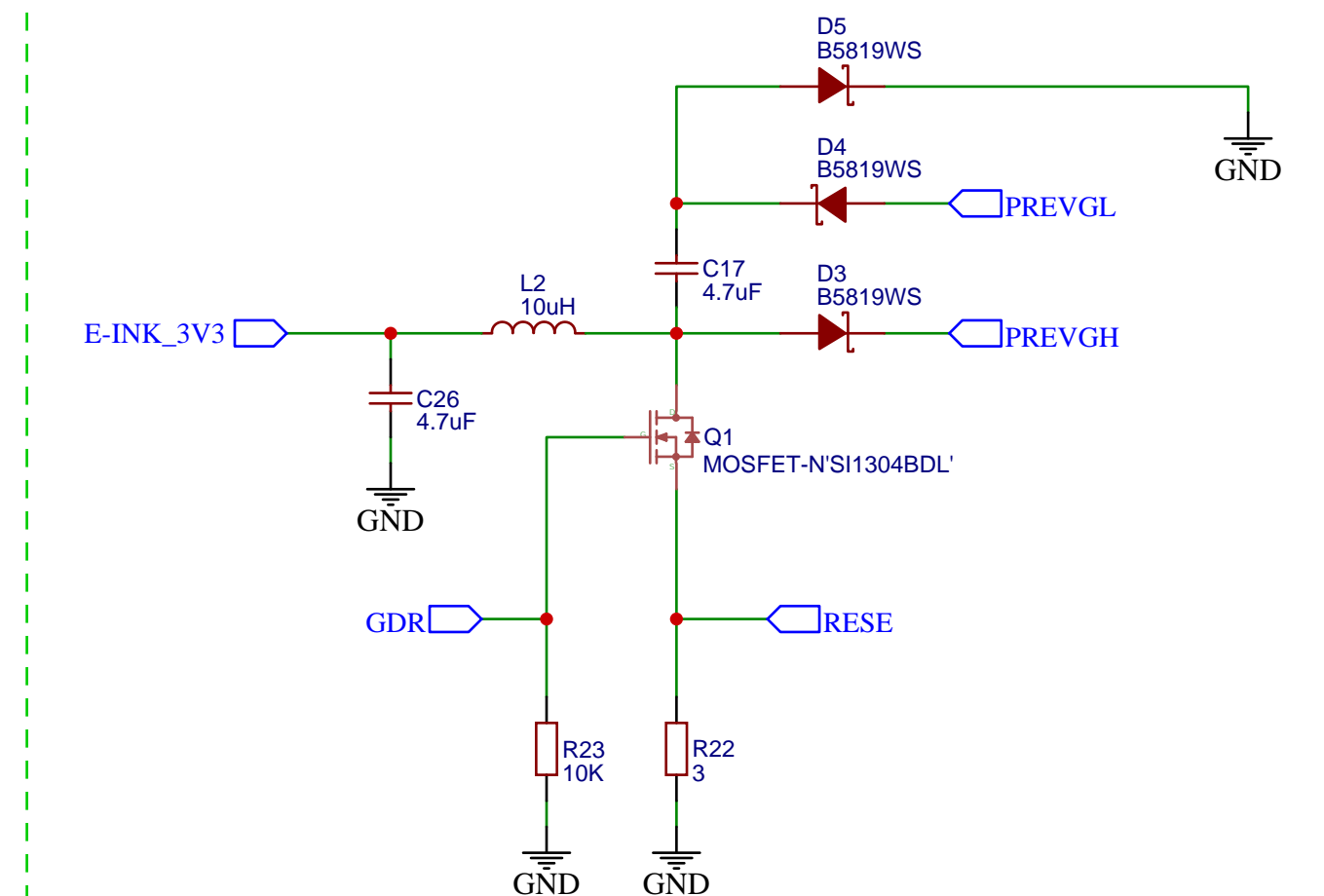


The image displays four identical circuit diagrams arranged vertically, each showing a different GPIO pin configuration. Each diagram consists of a green horizontal line representing a wire. On the left, a blue component labeled 'ESP_3V3' is connected to the wire at a red dot. A green bracket below the wire indicates a connection point with pins 1, 2, 3, and 4. A red line connects the wire to a red dot, which is then connected to a resistor (R16, R17, R18, or R19) leading to a ground symbol (GND). On the right, the wire is connected to a blue component labeled 'GPIO33', 'GPIO32', 'GPIO27', or 'GPIO26' respectively. A green bracket below the wire indicates a connection point with pins 1, 2, 3, and 4. The entire image is enclosed in a dashed green border.

3.0V or even 2.8V version can be used for more efficiency
This will further decrease power consumption



The diagram illustrates a USB-powered LiPo battery charger circuit. It features a TP4056 U2 module as the central component. The circuit is powered by a USB+ connection (D1, B5819WS) which provides input to the module's CHRG pin (pin 7) via a resistor R12. A USB- connection is also shown. The module's VCC pin (pin 4) is connected to a VIN input (H2 Header-Male-2.54_1x2) through a P-FET and a resistor R9. The module's BAT pin (pin 5) is connected to the same VIN input through a resistor R9. The module's CE pin (pin 8) is connected to ground. The module's STDBY pin (pin 6) is connected to ground. The module's TEMP pin (pin 1) is connected to a 6.8K resistor (R10) which is connected to ground. The module's PROG pin (pin 2) is connected to ground. The module's GND pin (pin 3) is connected to ground. The module's CHRG pin (pin 7) is connected to a LiPo battery (L1, L4) through a resistor R13. The module's BAT pin (pin 5) is connected to the LiPo battery. The module's CE pin (pin 8) is connected to the LiPo battery. The module's STDBY pin (pin 6) is connected to the LiPo battery. The module's TEMP pin (pin 1) is connected to the LiPo battery. The module's PROG pin (pin 2) is connected to the LiPo battery. The module's GND pin (pin 3) is connected to the LiPo battery.

