

# Power and Battery

# SOC and FLASH

The diagram illustrates the electrical connection between a System-on-Chip (SOC) and a Flash memory device.

**SOC (W26Q32/P55) Connections:**

- Power:** VCC (pin 1) and GND (pin 2) are connected to a 3V0 supply.
- Control:** CS (pin 3) and CLK (pin 4) are connected to the QSPI interface.
- Data:** DQ[0:1] (pins 5, 6) and DQ[2:3] (pins 7, 8) are connected to the QSPI interface.
- Reset:** RESET (pin 9) is connected to the QSPI interface.

**Flash (BMD-340-A-R) Connections:**

- Power:** VCC1 (pin 17) and VBUS (pin 18) are connected to a 3V0 supply.
- Control:** SWCLK (pin 19), SWA0 (pin 20), and SWA1 (pin 21) are connected to the QSPI interface.
- Data:** DQ[0:1] (pins 22, 23) and DQ[2:3] (pins 24, 25) are connected to the QSPI interface.
- Reset:** RESET (pin 26) is connected to the QSPI interface.

**QSPI Interface:**

- QSPI\_CLK:** Connected to pin 6 of the SOC and pin 19 of the Flash.
- QSPI\_CS:** Connected to pin 3 of the SOC and pin 17 of the Flash.
- QSPI\_DQ[0:1]:** Connected to pins 5, 6 of the SOC and pins 22, 23 of the Flash.
- QSPI\_DQ[2:3]:** Connected to pins 7, 8 of the SOC and pins 24, 25 of the Flash.
- QSPI\_RST:** Connected to pin 9 of the SOC and pin 26 of the Flash.

**Other Connections:**

- SWCLK:** Connected to pin 19 of the Flash.
- SWA0:** Connected to pin 20 of the Flash.
- SWA1:** Connected to pin 21 of the Flash.
- RESET:** Connected to pin 26 of the Flash.
- QSPI\_CLK:** Connected to pin 19 of the Flash.
- QSPI\_CS:** Connected to pin 17 of the Flash.
- QSPI\_DQ[0:1]:** Connected to pins 22, 23 of the Flash.
- QSPI\_DQ[2:3]:** Connected to pins 24, 25 of the Flash.
- QSPI\_RST:** Connected to pin 26 of the Flash.

**Notes:**

- The text "Can't be swapped" is present near the SWCLK pin, indicating that the SWCLK and SWA0 pins cannot be swapped.
- The text "QSPI\_CLK" is present near the QSPI\_CLK pin, indicating that the QSPI\_CLK and QSPI\_CS pins cannot be swapped.

# Testpoints

RESET TP11

SWCLK TP1

SWDIO TP2

D+ TP3

D- TP4

IIC\_SDA TP5

IIC\_SCL TP6

+3V0 VBUS +5P

TP7 TP8 TP10

TP9

GND

[illegible]

# LEDs

The diagram shows a MOSFET (Q3, DMG3414U) driving two LEDs (B2 and D3, SK6812). The MOSFET's gate is connected to a 100k resistor (R20) and a YBUS line. The MOSFET's drain is connected to a 100k resistor (R20) and a YBUS line. The MOSFET's source is connected to a 100k resistor (R20) and a YBUS line. The MOSFET's gate is connected to a 100k resistor (R20) and a YBUS line. The MOSFET's drain is connected to a 100k resistor (R20) and a YBUS line. The MOSFET's source is connected to a 100k resistor (R20) and a YBUS line.