

The schematic diagram shows the EVQPNF05M component with the following connections:

- S1 (EVQPNF05M):** Connected to **nRST** and has a pull-up resistor to **3V3**.
- S2 (EVQPNF05M):** Connected to **SLEEP** and has a pull-up resistor to **3V3**.
- GND:** Connected to the ground symbol.
- 3V3:** Connected to the power supply.
- ERASE:** Connected to the Erase pin.

The schematic diagram illustrates the bumper sensor circuit. A 3V3 supply is connected to a 4K7 resistor (R17) and one pin of a 2-pin Molex KK HDR (H1). The other pin of H1 is connected to a bumper sensor (J5), which is also connected to ground (GND).

Diagram illustrating the pin header connections for the JA\_PIN\_Header 8:

- Pin 1: 5V
- Pin 2: 3V3
- Pin 3: PA20
- Pin 4: PA19
- Pin 5: PA18
- Pin 6: PA17
- Pin 7: GND
- Pin 8: GND

[illegible]

The schematic diagram illustrates the power supply section for the SAM4S microcontroller, divided into two main parts: SAM4S Power and Buck-converter.

**SAM4S Power:** This section features a 3V3 regulator (U1B) and a buck converter (U14). The 3V3 regulator is powered by VDDIN (3V3) and provides VDDOUT (3V3) to the SAM4S microcontroller. The buck converter is powered by VBAT and provides VOUT (3V3) to the SAM4S microcontroller. The buck converter is configured with a 5.2uH inductor (L2) and a 30V diode (D1).

**Buck-converter:** This section includes a buck converter (U14) and a 3V3 regulator (U1B). The buck converter is powered by VBAT and provides VOUT (3V3) to the SAM4S microcontroller. The 3V3 regulator is powered by VDDIN (3V3) and provides VDDOUT (3V3) to the SAM4S microcontroller. The buck converter is configured with a 5.2uH inductor (L2) and a 30V diode (D1).

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