

The schematic diagram illustrates the pin connections for the ATSAM21G18A microcontroller. The device is represented by a central block with pins numbered 1 through 24 on the left and 48 through 25 on the right. The connections are as follows:

- Power and Ground:**
 - UCC:** Connected to pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18*2, 19, 20, 21, 22, 23, 24, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25.
 - GND:** Connected to pins 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18*2, 19, 20, 21, 22, 23, 24, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25.
- Peripheral Signals:**
 - AD0:** Connected to pin 1.
 - AD1:** Connected to pin 6.
 - AD2:** Connected to pin 7.
 - AD3:** Connected to pin 8.
 - AD4:** Connected to pin 9.
 - SW:** Connected to pin 11.
 - SDA2:** Connected to pin 13.
 - SCL2:** Connected to pin 14.
 - SDA1:** Connected to pin 21.
 - SCL1:** Connected to pin 22.
 - IO10:** Connected to pin 27.
 - SCL0:** Connected to pin 26.
 - SDA0:** Connected to pin 25.
 - PB03:** Connected to pin 48.
 - PB02:** Connected to pin 47.
 - PB01:** Connected to pin 46.
 - PB30:** Connected to pin 45.
 - UDDIN:** Connected to pin 44.
 - VDDCORE:** Connected to pin 43.
 - GND3:** Connected to pin 42.
 - PA28:** Connected to pin 41.
 - RESETN:** Connected to pin 40.
 - TX LED/IO26:** Connected to pin 39.
 - DBG_RXD:** Connected to pin 38.
 - DBG_TXD:** Connected to pin 37.
 - VDDIO2:** Connected to pin 36.
 - GND2:** Connected to pin 35.
 - USB_P:** Connected to pin 34.
 - USB_N:** Connected to pin 33.
 - SCL3:** Connected to pin 32.
 - SDA3:** Connected to pin 31.
 - PA22:** Connected to pin 30.
 - PA21:** Connected to pin 29.
 - PA20:** Connected to pin 28.
 - PA19:** Connected to pin 27.
 - PA18:** Connected to pin 26.
 - PA17:** Connected to pin 25.
 - PA16:** Connected to pin 24.

Diagram showing the pinout for four SM05B sensors (J8, J9, J10, J11). Each sensor has 5 pins:

- J8:** GND (1), 3V3 (2), SCL1 (3), SDA1 (4), AD1 (5)
- J9:** GND (1), 3V3 (2), SCL0 (3), SDA0 (4), AD0 (5)
- J10:** GND (1), 3V3 (2), SCL2 (3), SDA2 (4), AD2 (5)
- J11:** GND (1), 3V3 (2), SCL3 (3), SDA3 (4), AD3 (5)

Pin connections for the STM32F103C8T6 microcontroller:

- J2: DBG_RXD
- J3: DBG_TXD
- J4: SWDIO
- J5: SWCLK
- J6: RESET

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