

## 3 External Connectors

The SensiLPWAN 1.0 exposes two low profile connectors. First J1 is 14 pin while second J2 is 13 pin Board to Board connectors. The recommended mating connectors for Custom board interfacing are:

Pin Name: J1, J2

J1 - 14 pins 1row 1.27 Female

J2 - 13 pins 1row 1.27 Female

Pin #:	Pin Number
Schematic Name:	MCU name description
Type:	Pin type & description
	S – Power Pin and/or Ground Pin
	I/O – GPIO
Func (#):	Function Number 1 to 4
Description:	Description of the Pin

### 3.1 Pin Mux

Table 2 and Table 3 explain function of connectivity pins in SensiLPWAN 1.0 module as well Pin MUX and alternate function available.

**Table 2 – SensiLPWAN 1.0 J1, Alternate Function**

Pin #	Schematic Name	Type	Func 1	Func 2	Func 3	Func 4	Description
1	+5V	S	–	–	–	–	Input voltage from USB +5V
2	VDD_MCU	S	–	–	–	–	+2.8V from voltage regulator
3	PC2	I/O	ADC1_IN3	–	SPI2_MISO	–	–
4	PC4	I/O	ADC1_IN13	–	–	–	–
5	PB10	I/O	LPUART1_RX	TIM2_CH3	SPI2_SCK	I2C3_SCL	LoRa module TX
6	PA5	I/O	SPI1_SCK	TIM2_CH1	ADC1_IN10	–	–
7	PA6	I/O	SPI1_MISO	TIM16_CH1	ADC1_IN11	–	–

8	PA7	I/O	SPI1_MOSI	TIM17_CH1	ADC1_IN12	I2C3_SCL	–
9	PB7	I/O	USART1_RX	TSC_G2_IO4	–	I2C1_SDA	–
10	PB6	I/O	USART1_TX	TSC_G2_IO3	–	I2C1_SCL	–
11	SWCLK	I/O	–	–	–	–	Serial clk pin SWD
12	SWDIO	I/O	–	–	–	–	Serial data pin SWD
13	nRESET	I/O	–	–	–	–	Reset pin
14	GND	S	–	–	–	–	Ground pin

**Table 3 – SensiLoRa J2, Alternate Function**

Pin #	Schematic Name	Type	Func 1	Func 2	Func 3	Func 4	Description
1	PC1	I/O	ADC1_IN2	SPI2_MOSI	LPUART1_TX	I2C3_SDA	–
2	GND	S	–	–	–	–	Ground pin
3	PC12	I/O	TSC_G3_IO4	SYS_WKUP3	–	–	–
4	PB11	I/O	LPUART1_TX	TIM2_CH4	–	I2C3_SDA	LoRa module RX
5	PC0	I/O	ADC1_IN1	–	LPUART1_RX	I2C3_SCL	–
6	PA15	I/O	TIM2_CH1	TSC_G3_IO1	–	–	–
7	PA0	I/O	TIM2_CH1	SYS_WKUP1	ADC1_IN15	–	–
8	PB14	I/O	TSC_G1_IO3	SPI2_MISO	–	I2C3_SDA	–
9	PB13	I/O	TSC_G1_IO2	SPI2_SCK	–	I2C3_SCL	–
10	PC6	I/O	GPIO_EXTI6	–	–	–	–
11	PA10	I/O	TIM1_CH3	–	USART1_RX	I2C1_SDA	–
12	PB8	I/O	I2C1_SCL	TIM16_CH1	SAI1_CK1	–	–
13	PB9	I/O	I2C1_SDA	TIM17_CH1	SAI1_D2	–	–