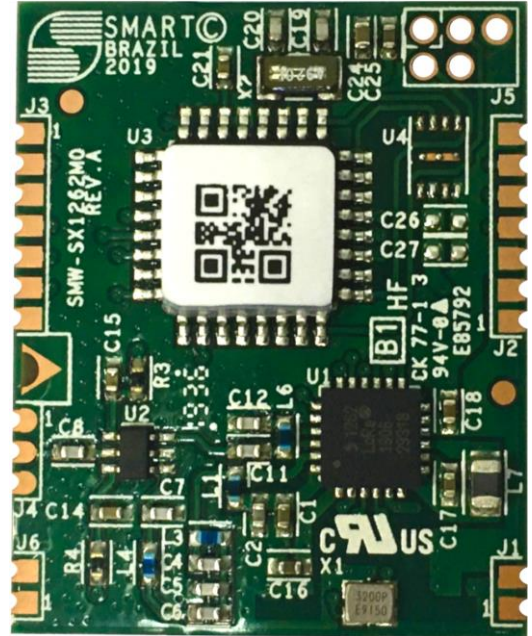


LoRa[®] WAN

LoRa[®] Modem

The Long-Range module (LoRa[®]) is a wireless technology capable of transmitting and receiving peer-to-peer information over long distances with low power consumption in many worldwide Internet of Things (IoT) networks. LoRa[®] technology enables a variety of intelligent IoT applications designed to solve challenges such as energy management, natural resource control, pollution control, infrastructure efficiency, disaster prevention and other related issues, operating via AT commands sent over a serial port (9600 bps)



Features and Benefits

- LoRa[®] modulation
- Frequency operation band: 902~907.4MHz and 915.2~927.8MHz
- 170 dB max. link budget (SX1262)
- RF Output level +22 dBm
- RX low-power current of 4.6 mA
- Programmable bit rate up to 62.5 kbps (LoRa[®])
- 128Kbytes of Flash memory, 36Kbytes of SRAM
- Stand-by current < 5μA
- Arm Cortex M0+ core up to 64MHz
- 19 dB co-channel rejection in LoRa[®] mode
- 2 serial ports
- 6 GPIOs
- High sensibility up to -148 dBm
- 88 dB of immunity blockage at 1 MHz offset
- Automatic detection of channel activity with ultra-fast AFC

Characteristics & Specification

ARM Cortex M0+: STM32G071RB76

Flash Memory (Kbyte)	128
SRAM (Kbyte)	32 (with parity) or 36 (without parity)
UART	2
Timers	1 Advanced Controller (16-bit)
	5 General Purpose (16-bit)
	2 Basic (16-bit)
	1 SysTick
	2 Watchdog
GPIO	4
CPU maximum frequency	64 MHz
Operational Voltage	2.0 - 3.6 V

LoRa® transceiver: SEMTECH SX1262

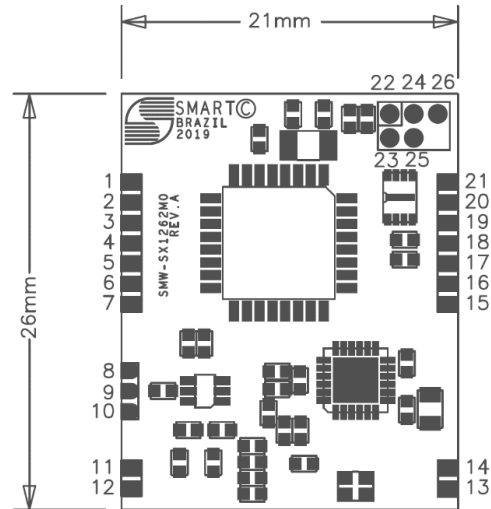
Supported modulation	LoRa®
Sensitivity	Up to -148 dBm
Programmable bit rate	Up to 62,5 kbps LoRa®
	300 kbps FSK
Immunity Blockage (LoRa®)	88 dB to 1 MHz offset
	90 dB to 2 MHz offset
	99 dB to 10 MHz offset
Immunity Blockage (FSK)	68 dB to 1 MHz offset
	70 dB to 2 MHz offset
	80 dB to 10 MHz offset
Programmable ramp time of the power amplifier	From 10µs to 3400µs
Co-channel rejection	LoRa® 19dB
Maximum RF Output Power	+22dBm
Programmable bit rate	From 0.6 to 300 kb/s
Programmable BW signal, LoRa®	From 7.8 to 500kHz

Temperature

Operation	-40 to +85° C.
Storage	-55 to +125° C.

Dimensions

Length(X)	21.00mm
Width (Y)	26.00mm



Pinout	
Pin Number	Pin Name
1	UART1_RX
2	UART1_TX
3	GND
4	GPIO1
5	GPIO2
6	GPIO3
7	GND
8	GND
9	RF_OUT
10	GND
11	GND
12	GND
13	GND
14	GND
15	3V3
16	3V3
17	GND
18	GPIO4
19	GPIO5
20	GPIO6
21	GND
22	3V3
23	TCK
24	TMS
25	NRST
26	GND

For information regarding the set of programming instructions for the module LoRa® SMW-SX1262M0, see Appendix A. The Labeling and Homologation Certificate information according to Brazil is shown below:



“Este produto contém a placa SMW-SX1262M0 código de homologação 08465-19-06485.”

Contact

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