

LoRa[®] Bluetooth[®] 5 Low Energy Module

NM180100



Key Specifications

Category	Parameter	Value	
LoRa[®]	Chipset	Semtech SX1262	
	Frequency	Europe: 863 – 870 MHz US: 902 – 928 MHz	
	Maximum Transmit Power†	21.6 dBm	
	Receiver Sensitivity†	-147.6 dBm (BW=10.4kHz, SF=12)	
Bluetooth[®] Low Energy	Specification	Bluetooth 5 low-energy	
	Frequency	2.402 – 2.480 GHz	
	Maximum Transmit Power†	4 dBm	
	Receiver Sensitivity†	-95 dBm	
Host Processor	Architecture	Ambiq Apollo3 ARM [®] Cortex [®] M4 with FPU 48MHz nominal, 96MHz burst	
	Memory	Flash: 1 MB on-chip with external flash support RAM: 384 kB	
	Interfaces	42x GPIO 1x Dual/Quad/Octal SPI master 6x SPI/I2C master 1x SPI/I2C slave 1x I2C slave 2x UART with flow control 1x PDM Master 1x I2S slave	
	Security	ISO 7816 secure interface Secure Key Storage Secure Boot Secure OTA External Flash Inline Encryption/Decryption	
	Peripherals	15-Channel 14-bit ADC at 1.2MS/s Voltage Comparator Temperature Sensor	
	Power	Supply Voltage	2.8 – 3.6V
		Current Consumption	Processor 6uA / MHz BT Tx 0 dBm: 7mA, Rx: 3 mA LoRa Tx: 144 mA, LoRa Rx 125 kHz: 8.8 mA Sleep: 2.7uA in deep sleep mode 2, RAM retention, and RF section OFF
Environmental	Operating Temperature	-40° to 85°C	
Physical	Dimensions	LGA 81 pads 12.8 mm x 12.8 mm x 2.4 mm	

†All power and sensitivity values include the RF switch insertion loss.