iMCP - HTLRBL32L

System-in-package

Highly compact and low-power wireless communication device featuring LoRa® and Bluetooth®.



The iMCP HTLRBL32L system-in-package enables easy integration and prototyping of long and short range IoT solutions.

The combination of ST Microelectronics BlueNRG SoC (ARM Cortex M0+ with Bluetooth Low Energy radio) and Semtech SX1262 LoRa® radio transceiver delivers outstanding performance at a minimum power consumption, enabling years-long battery life applications.

Accessible MCU and internal memory, and a full range of interfaces for analog and digital peripherals provide high configurability and flexibility for IoT applications.

The secure element ensures authentication and data management services to a local or remote host for high-level security.

The iMCP HTLRBL32L is ready for multi-region LoRaWAN® applications, and device commissioning, wireless firmware update and mesh networking capabilities using Bluetooth® Low Energy 5.2.



Short and long range connectivity



Secure element embedded



Easy integration and prototyping



LoRaWAN® multi-region ready



Accessible MCU and internal memory



Full range of peripheral interfaces



KEY FEATURES

Part number	HTLRBL32L-00
Dimensions / Package	13×13×1.1 mm LGA — 32 pins
LoRa® Transceiver	Semtech SX1262
MCU with integrated Bluetooth® LE Transceiver	STMicroelectronics BlueNRG-355VC
Operation zones	EU863-870, US902-928, AU915-928, AS923, R920-923, IN865-867, RU864-870
Memory	256 KB flash (for app code and stack)
GPIO	20 pins
Communication interfaces	1× USART, 1× LPUART, 1× I2C, 1× SPI, 1× I2S
ADC	5x (12 bits)
Input voltage	2.7 ~ 3.6 V
LoRa® TX output power consumption	+20.5 dBm 130 mA
LoRa® RX sensitivity level consumption	-137 dBm 6.6 mA
Bluetooth® TX output power consumption	+6 dBm 6.4 mA
Bluetooth® RX sensitivity level consumption	-93 dBm @ 1 Mbps 6.5 mA
Embedded secure element	STSAFE-A110







documentation on GitHub!

github.com/htmicron



HT Micron provides advanced semiconductor products. The portfolio includes memories for computers, mobile phones and smart TVs, as well as System-in-Package connectivity solutions for the Internet of Things. HT Micron is a Brazilian company, having as the main shareholder the South Korean group HANA Micron, and is based in the city of São Leopoldo, RS, in Brazil.