

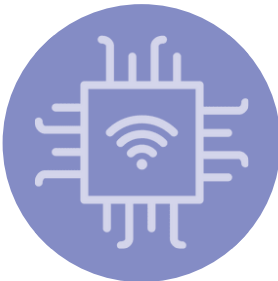
# The MiP Series



A family of high performance LPWAN wireless communication modules designed for IoT applications with micro on-board



## MAIN FEATURES



### High Radio Performance

The cutting edge technology for the radio chipset performance for Europe (+14 dBm) and USA (+20 dBm)



### Multiple Protocols in one single chip

More protocols in one single MiP wireless module like: wM-Bus + LoRaWAN or LoRa + SigFox



### LPWAN Protocols

wM-Bus, LoRaWAN, LoRa Mipot, LoRa Modem, Sigfox, Ml0Ty



### Secure element

Optional hardware secure element



### Built-in-up-to-date IOT Stacks



### World Wide SubGHz Frequency Bands

# NEW MODULES



## WORLDWIDE CHIP SOLUTION



**Worldwide frequency range**  
SubGHz Frequencies



The Mip series supports a variety of international **Public Networks:** LoRaWAN, Sigfox.

**Private Network:** wM-Bus, Mioty and other private networks.

## TECHNICAL CHARACTERISTICS



Micro on-board: Single Core M4 / Dual Core M4 M0+



LoRaWAN / LoRa / wM-Bus / SigFox / Mioty



LGA form factor with 52 pads



11.30 mm x 8.90 mm (Size)



SubGHz frequencies (868 MHz ÷ 960 MHz)



SPI, I<sup>2</sup>C, UART, LPUART (Peripheral Interfaces)



Secure element (Optional)



- 40°C + 85°C (Temperature Range)



- 115 dBm@wM-Bus  
- 135 dBm@LoRa



+14 dBm@868 MHz  
+ 20 dBm@915 MHz



50 Ω antenna pad



Power consumption:  
100 mA@+14 dBm  
140 mA@+20 dBm



Power Down 2.2 μA

PART NUMBER	COUNTRIES	PROTOCOLS	CERTIFICATIONS	DESCRIPTION
32001505AEU	Europe	wM-BUS	CE	MiP-Wm-1C128N-US – Single Core
32001506AEU	Europe	wM-BUS	CE	MiP-Wm-2C256N-EU – Dual Core
32001505BEU	Europe	LoRaWAN	LoRa Alliance, CE	MiP-Lw-1C128N-US – Single Core
32001506BEU	Europe	LoRaWAN	LoRa Alliance, CE	MiP-Lw-2C256N-EU – Dual Core
32001505CEU	Europe	LoRa Mipot	CE	MiP-LoMi-1C128N-EU – Single Core
32001506CEU	Europe	LoRa Mipot	CE	MiP-LoMi-2C256N-EU – Dual Core
32001505DEU	Europe	LoRa Modem	CE	MiP-LoMo-1C128N-EU – Single Core
32001506DEU	Europe	LoRa Modem	CE	MiP-LoMo-2C256N-EU – Dual Core
32001505FEU	Europe	LoRaWAN + LoRa Modem	LoRa Alliance, CE	MiP-LwMo-1C128N-EU – Single Core
32001506FEU	Europe	LoRaWAN + LoRa Modem	LoRa Alliance, CE	MiP-LwMo-2C256N-EU – Dual Core
32001505BUS	USA, Canada	LoRaWAN	LoRa Alliance, FCC, IC	MiP-Lw-1C128N-US - Single Core
32001506BUS	USA, Canada	LoRaWAN	LoRa Alliance, FCC, IC	MiP-Lw-2C256N-US - Dual Core
32001514HW	Worldwide	Hardware	N/A	MiP Hardware Only

## APPLICATIONS

### Harness the power of IoT

The Internet of Things (IoT) has transformed the way that modern human lives.

**Discover the main sectors** in which it is possible to integrate the potential of a new MiP (Mipot IoT Protocols) wireless modules series for low power wide area network (LPWAN).



## IOT SECTORS

- Smart Metering (Gas + Water + Electric metering)
- Smart Cities
- Smart Parking
- Smart Lighting
- Building management (Smart Building, Home Automation, Smart Home)
- Smart Logistics
- Waste Management
- Renewable Smart Energy System
- Smart Asset Management in the utility market
- IIoT (Industrial Internet of Things)
- Smart Agriculture
- Fleet Tracking
- Smart Mobility & Smart Car
- Oil & Gas Sector
- Healthcare Monitoring System



## DEVELOPER KIT FOR MIP SERIES

### The DevKits are a series of single boards for the development and test of MiP series

Equipped with 3 pin strip connectors, the kit allows easy interfacing with all LGA pads on the MiP module via jump wires or a perfboard.

The developer can use the Devkit both in **host-based mode**, connecting his own controller to the board, or **as a stand-alone product** exploiting the full potential of the MiP Series modules. The package includes a **development board** with SMA connector, a **monopole antenna** for 868 MHz and 915 MHz frequency bands and a reference sheet.

PRODUCT CODE	COUNTRIES	DESCRIPTION
30001505AEU	Europe	Developer Kit 32001505AEU
30001505BEU	Europe	Developer Kit 32001505BEU
30001505BUS	USA, Canada	Developer Kit 32001505BUS
30001505CEU	Europe	Developer Kit 32001505CEU
30001505DEU	Europe	Developer Kit 32001505DEU
30001505FEU	Europe	Developer Kit 32001505FEU
30001514HW	Worldwide	Developer Kit 32001514HW





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MIP SERIES LANDING PAGE

<https://mip.mipot.com>