

Global LoRaWAN End-Device Communication Module Supply, Demand and Key Producers, 2026-2032

<https://marketpublishers.com/r/GC2C03659EE5EN.html>

Date: August 2026

Pages: 168

Price: US\$ 4,480.00 (Single User License)

ID: GC2C03659EE5EN

Abstracts

The global LoRaWAN End-Device Communication Module market size is expected to reach \$ 401 million by 2032, rising at a market growth of 10.6% CAGR during the forecast period (2026-2032).

A LoRaWAN end-device communication module is an embedded wireless connectivity component designed for low-power wide-area IoT end devices. It typically integrates a LoRa radio transceiver, a low-power MCU or control core, a LoRaWAN protocol stack, RF matching and filtering circuitry, clocking, power-management functions, an antenna interface and host interfaces such as UART, SPI, I2C and GPIO. The module enables sensors, meters, industrial control nodes, asset trackers, building devices and environmental monitoring terminals to connect to LoRaWAN networks with shorter development cycles and lower RF engineering complexity. Its core value is to reduce OEM design effort in radio integration, protocol-stack implementation, regional certification and low-power optimization while supporting long-range, low-data-rate, low-power and secure bidirectional communication over license-free spectrum. This study focuses on module-level products used as the communication subsystem of end devices, mainly including LoRaWAN modem modules, node communication modules, MCU-plus-RF SiP/SoM products, pre-certified LPWAN modules and embedded modules supporting global or regional LoRaWAN frequency plans.

Based on our research, the LoRaWAN end-device communication module industry should be understood as a module-level connectivity market rather than a pure RF component market. A qualified product normally combines LoRa radio hardware, a low-power control core, a LoRaWAN stack, regional RF design, antenna interface, power optimization and OEM-friendly host interfaces. This is why the market boundary needs to be narrower than the broader LoRaWAN device market. Gateways, network servers,

complete sensors, trackers and pure LoRa transceiver chips are important parts of the ecosystem, but they do not represent the same procurement category as embedded LoRaWAN communication modules. Under this narrow definition, the market size is smaller than broad LoRaWAN hardware or IoT-device markets, yet it more accurately captures the value of the communication subsystem purchased by OEM device manufacturers.

From the demand side, smart metering, utilities, smart city infrastructure, industrial monitoring, smart buildings, asset tracking and agricultural sensing remain the most important growth drivers. The market is supported not only by public LoRaWAN networks, but also by private industrial networks, campus-level deployments, building sensor networks and utility-led projects. LoRaWAN modules benefit from long range, low power, license-free spectrum and relatively low connectivity cost, but they also face substitution pressure from NB-IoT, LTE-M, Wi-SUN, Bluetooth-based mesh systems and other local wireless technologies. We expect the market to remain in a growth phase through 2032, although the growth profile will become more project-driven and segmented by application, certification region and integration level.

This report studies the global LoRaWAN End-Device Communication Module production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for LoRaWAN End-Device Communication Module and provides market size (US\$ million) and Year-over-Year (YoY) Growth, considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of LoRaWAN End-Device Communication Module that contribute to its increasing demand across many markets.

Highlights and key features of the study

Global LoRaWAN End-Device Communication Module total production and demand, 2021-2032, (Units)

Global LoRaWAN End-Device Communication Module total production value, 2021-2032, (USD Million)

Global LoRaWAN End-Device Communication Module production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (Units), (based on production site)

Global LoRaWAN End-Device Communication Module consumption by region & country, CAGR, 2021-2032 & (Units)

U.S. VS China: LoRaWAN End-Device Communication Module domestic production,

consumption, key domestic manufacturers and share

Global LoRaWAN End-Device Communication Module production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (Units)

Global LoRaWAN End-Device Communication Module production by Type, production, value, CAGR, 2021-2032, (USD Million) & (Units)

Global LoRaWAN End-Device Communication Module production by Application, production, value, CAGR, 2021-2032, (USD Million) & (Units)

This report profiles key players in the global LoRaWAN End-Device Communication Module market based on the following parameters - company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include STMicroelectronics International N.V., Murata Manufacturing Co., Ltd., Microchip Technology Inc., Digi International Inc., Quectel Wireless Solutions Co., Ltd., Multi-Tech Systems, Inc., Ezurio LLC, W?rth Elektronik eiSos GmbH & Co. KG, RAKwireless Technology Ltd., Lierda Science & Technology Group Co., Ltd., etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World LoRaWAN End-Device Communication Module market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US\$ Millions), volume (production, consumption) & (Units) and average price (US\$/Unit) by manufacturer, by Type, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global LoRaWAN End-Device Communication Module Market, By Region:

United States

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global LoRaWAN End-Device Communication Module Market, Segmentation by Type:

LoRaWAN Modem Module

LoRaWAN MCU Module

Other LoRaWAN Module

Global LoRaWAN End-Device Communication Module Market, Segmentation by
LoRaWAN Device Class:

Class A Module

Class B Module

Class C Module

Other

Global LoRaWAN End-Device Communication Module Market, Segmentation by
Frequency Band Support:

Single-band Module

Dual-band Module

Multi-band Module

Other

Global LoRaWAN End-Device Communication Module Market, Segmentation by Power Design:

Ultra-low-power Module

Low-power Module

Performance-oriented Module

Other

Global LoRaWAN End-Device Communication Module Market, Segmentation by Application:

Metering Communication Module

Sensing Communication Module

Tracking Communication Module

Control Communication Module

Alarm Communication Module

Other

Companies Profiled:

STMicroelectronics International N.V.

Murata Manufacturing Co., Ltd.

Microchip Technology Inc.

Digi International Inc.

Quectel Wireless Solutions Co., Ltd.

Multi-Tech Systems, Inc.

Ezurio LLC

W?rth Elektronik eiSos GmbH & Co. KG

RAKwireless Technology Ltd.

Lierda Science & Technology Group Co., Ltd.

Seeed Technology Co., Ltd.

Chengdu Ebyte Electronic Technology Co., Ltd.

Dragino Technology Co., Ltd.

AcSiP Technology Corp.

GlobalSat WorldCom Corp.

SparkLAN Communications, Inc.

REYAX Technology Co., Ltd.

MOKO SMART

Miromico AG

Embit s.r.l.

RisingHF

Shenzhen Ai-Thinker Technology Co., Ltd.

Heltec Automation

DFRobot

Key Questions Answered:

1. How big is the global LoRaWAN End-Device Communication Module market?
2. What is the demand of the global LoRaWAN End-Device Communication Module market?
3. What is the year over year growth of the global LoRaWAN End-Device Communication Module market?
4. What is the production and production value of the global LoRaWAN End-Device Communication Module market?
5. Who are the key producers in the global LoRaWAN End-Device Communication Module market?
6. What are the growth factors driving the market demand?

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