Part of the IoT Technologies & Verticals Service Area Package
Provides a comprehensive view on the components, devices, and connectivity technologies coming together to drive the Internet of Things.

“Digital transformation is happening in all industries and in every region, which presents both near and long-term opportunities for IoT as enterprises seek greater automation, reduced human intervention and visibility over remote assets.”

Josh Builta
Director, IoT and AI
HOW OMDIA HELPS YOU

- Analysis and granular forecasts for modules and ICs used in cellular, low-power wireless and high performance wireless IoT
- Up-to-date shipment and installed base data on IoT devices spanning 25 application categories.
- Market share data and competitive analysis for key suppliers for cellular modules and low-power ICs
- Examination of other key IoT hardware to include gateways and sensors
- Topical reports with further insight into areas such as new wireless technologies and regional dynamics
- Vertical market growth opportunities with specific focus on smart cities.

KEY QUESTIONS ADDRESSED

- What is the current adoption of 5G in IoT and what is the outlook by use case (eMBB, massive IoT, URLLC) and region?
- Are unlicensed LPWAN technologies gaining more traction and in which IoT applications are they experiencing the greatest uptake?
- Which verticals are driving the IoT at the greatest rate? What are the key drivers and challenges in areas like smart cities?
- What can we expect for adoption of WiFi6 Ultra wideband (UWB) in IoT?
- How are the emergence of Chinese vendors impacting the module market?
- What semiconductor vendors are leading the market in low power wireless shipments?
- Who are the leading service providers in terms of cellular connections?
IoT Devices & Components: Our Expert Analysts

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IoT Devices & Asia & Oceania Activity
IoT Devices & Components: Deliverables

MARKET TRACKERS
—Quarterly—
- IoT Devices
- Low-power Wireless
- High-performance Wireless
- Cellular IoT
- Smart Cities Project Database

ANALYST INSIGHTS
—Ongoing—
Analyst commentary on market shifts, technology and regional developments, vendors, events, and more.

ANALYST ACCESS
—Ongoing—
For prompt responses to urgent and unique questions.

REPORTS & SURVEYS
—2021 Editions—
- Status of the Cellular IoT Market
- Low Power Wide Area Network (LPWAN) Market Report
- Cellular IoT in Commercial Fleet Vehicles
- LPW & HPW Market Shares
- Sensors in IoT
- An Update on 5G in IoT and Emerging Use Cases
- Wi-Fi 6 Market Report
- IoT Enterprise Survey: Executive Summary
- IoT in Private Cellular Networks
- Cellular IoT Gateways: Competitive and Strategic Trends
- IoT Application Analysis, Smart Street Lighting
- IoT Application Analysis, Utility Meters
- Smart City Profiles (multiple)
- And many, many more…
## IoT Devices & Components: Market Data

### IoT Devices Market Tracker

Provides data and forecasts for IoT installed base and IoT device shipments by region (Americas, Asia & Oceania, and EMEA) and splits by connectivity technology at a global level for 33 connectivity technologies.

### DETAILS

- **Frequency:** Quarterly

### MEASURES

- Installed base of Internet-connectable devices (2015-30)
- Shipments of Internet-connectable devices (2015-30)
- Connectivity ICs by application type (2018-2024)
- Connectivity Modules by application type (2018-2024)

### REGIONS

- Worldwide
- Americas
- EMEA
- APAC

### TECHNOLOGIES

- 2G cellular
- 3G cellular
- 4G cellular
- 5G cellular
- 802.11a/b/g
- 802.11a/b/g | Bluetooth
- 802.11ac
- 802.11ac | Bluetooth
- 802.11ad
- 802.11.ax
- 802.11ax | Bluetooth
- 802.11n
- 802.11n | Bluetooth
- ANT +
- ANT + | Bluetooth Low Energy
- Bluetooth Low Energy
- Bluetooth Classic & Dual-Mode
- Cellular LPWAN
- DECT ULE
- EnOcean
- ISA100.11a
- Non-cellular LPWAN
- Other 2.4 GHz
- Other 802.15.4
- Other Sub-GHz
- Thread
- Wired
- Wireless Hart
- ZigBee Multi-Protocol
- ZigBee PRO
- ZigBee RF4CE
- Z-Wave

### VERTICALS & APPLICATIONS

#### Automotive & Transportation
- Aerospace & military
- Automotive - commercial transportation
- Automotive – light vehicles

#### Commercial & Industrial Electronics
- Commercial electronics
- Industrial automation
- Other commercial & industrial electronics
- Power & energy
- Security & building automation

#### Communications
- Backbone
- Consumer CPE
- Enterprise CPE
- Licensed mobile radio terminals & infrastructure
- Mobile handsets & infrastructure

#### Computers
- Desktop
- Portable computers
- Servers

#### Consumer
- Consumer – other
- Home appliances
- Home automation
- Home CE
- PC peripherals and printers
- Sports, fitness, and activity

#### Medical
- Clinical care devices
- Consumer medical devices
This quarterly report includes updates to the low-power wireless market tracker. Provides market sizes and forecasts of low-power wireless semiconductor shipments segmented by technology and application.

**DETAILS**

- **Frequency:** Quarterly

**Measures**
- IC unit shipments
- Revenues
- Average selling prices (ASPs)

**Regions**
- Worldwide
- Americas
- EMEA
- APAC

**Segments**
- Application
- Frequency
- Integration type
- Technology

**TECHNOLOGIES**
- ANT
- ANT|BLE
- Bluetooth Low Energy
- DECT ULE
- EnOcean
- LoRa
- Sigfox
- Thread
- UWB
- WirelessHART
- Zigbee Multi-Protocol
- Zigbee PRO
- Zigbee RF4CE
- Z-Wave
- Other 2.4 GHz
- Other 802.15.4
- Other Sub GHz

**APPLICATIONS**
- Agriculture & Environment
- Asset Tracking
- Audio
- Automotive
- Beacons & Proximity
- Building Automation
- Consumer Health
- Energy Production
- Home Appliances
- Home Automation
- Home CE
- Industrial Automation
- Lighting
- Municipal Infrastructure
- PC Peripherals
- Security
- Smart Metering
- Smartphone
- Smart Toys
- Smart Watch
- Sports & Fitness
- Wireless Charging
- Other Commercial Applications
- Other Consumer Applications
- Other Industrial Applications
IoT Devices & Components: Market Data

High Performance Wireless Market Tracker

This market tracker covers high-performance wireless technologies often found in platform devices such as smartphones, tablets, laptops, digital voice assistants, digital streaming media players, and many others.

**DETAILS**
- **Frequency:** Quarterly
- **Measures**
  - Device shipments
  - IC shipments & revenue
  - Module shipments & revenue
- **Regions**
  - Worldwide
  - Americas
  - EMEA
  - APAC
- **Segments**
  - Technology
  - Protocol
  - MIMO
  - WLAN IC integration level
  - Bluetooth type

**COVERAGE**

**Technologies**
- 802.11 a/b/g
- 802.11 n
- 802.11 ac Wave1
- 802.11 ac Wave2
- 802.11 ad
- 802.11 ax
- Bluetooth Classic/Smart Ready
- Ethernet
- GPS
- NFC

**Verticals & Applications**

**Automotive**
- Auto Infotainment Systems
- Auto Telematics Units
- Consumer OBD-II Dongles

**Consumer CPE**
- Access Points and Routers
- Cable CPE
- DSL CPE

**Desktop Computing**
- Desktop PCs

**Enterprise CPE**
- Carrier Access Points
- Enterprise Access Points

**Home Appliance**
- Dish Washers
- Dryers
- Large Cooking Appliances
- Refrigerators
- Room Air Conditioners
- Washing Machines

**Home Automation**
- Consumer and DIY Video
- Digital Voice Assistants
- Garage Door Operators
- Smart Door Locks
- Smart Fire Detectors
- Smart Plugs
- Smart Thermostats
- Wireless Video Doorbells
- Consumer OBD-II Dongles

**Home CE**
- Blu-ray DVD players
- Digital Cordless Phones
- Digital Picture Frames
- Home Audio Devices
- OTT Set-Top Boxes
- Paid and FTA Set-top Boxes
- Televisions
- Video Game Consoles

**Industrial Automation**
- Remote Terminal Units

**Lighting**
- Residential Lighting

**Mobile Handsets**
- Feature Phones
- Smartphones

**PC Peripherals**
- PC Peripherals
- Personal Enterprise Printers
- Video Game Controllers
- WLAN Client Access

**Portable CE**
- Bluetooth Headphones
- Bluetooth Headsets
- Digital Camcorders
- Digital Cameras
- E-readers
- Handheld Game Consoles
IoT Devices & Components: Market Data

Cellular IoT Market Tracker

This analysis provides the latest updates on the global cellular IoT market in five regions, nine applications, and 10 air interfaces.

**DETAILS**
- **Frequency:** Quarterly
- **Measures**
  - Cellular IoT connections
  - Cellular IoT connection revenue
  - Cellular IoT module shipments
  - Cellular IoT module revenue
- **Regions**
  - North America
  - Latin America
  - Europe
  - Middle East & Africa
  - Asia Pacific
- **Technologies**
  - 3GPP-standard cellular technologies used in IoT applications

**COVERAGE**

**Applications**
- Automotive
- Consumer
- Energy & Utilities
- Healthcare
- Industrial IoT
- Others
- Remote Monitoring
- Retail & Payments
- Smart Cities
- Transportation & Logistics

**Air Interface**
- 2G: GSM/GRPS/EDGE, CDMA 1xRTT
- 3G: CDMA/HSPA/CDMA EV-DO
- 4G: Cat-1, Cat 3/4, Highspeed LTE
- 5G: eMBB, URLLC, C-V2X, Massive IOT
- LPWA: LTE-M, NB-IoT

Smart Cities Project Database

Excel database that logs, classifies, and details over 2,400 publicly announced IoT smart city projects dating back to 2000.

**DETAILS**
- **Frequency:** Bi-annually
- **Measures**
  - Project customer and scale
  - Project partners
  - Project vertical/applications
- **Regions**
  - Country, city-level analysis

**Energy & Resource Efficiency**
- Smart grid
- Smart metering
- Irrigation management
- V2G

**Healthcare**
- Telehealth
- Remote patient monitoring

**Physical Infrastructure**
- Smart street lighting
- Smart buildings
- Environmental sensors
- Waste management

**Safety & Security**
- Integrated video surveillance
- Predictive analytics
- Safe city platforms
IoT Devices & Components: Highlighted Reports in 2021

**Low Power Wide Area Network (LPWAN) Market Report**
This report examines the global market for low power wide area network (LPWAN). It covers key metrics for LoRa, LTE-M, NB-IoT, and Sigfox split by application, region, and connection type (public or private).

**Cellular IoT Status of the Market Report**
This report provides an overview of the 1.81 billion cellular-connected IoT devices by region, application, and technology, and includes the latest cellular IoT market trends and market shares of the major cellular IoT module vendors.

**Ultra Wideband (UWB) Market Report**
Ultra wideband (UWB) will become a ubiquitous technology in IoT radios alongside Wi-Fi and Bluetooth. This report provides an overview of the technology as well as forecasts by application and region.

**AI/ML and Analytics for IoT**
Examines the development of AI/ML technology for deployment at the IoT edge (including endpoints). Key AI/ML technology trends are analyzed from the perspective of IoT product and service developers and 21 key ML vendors are profiled.

**LPW Market Shares Report**
This analysis estimates semiconductor vendor market shares for Bluetooth Low Energy (BLE), Zigbee PRO, Zigbee RF4CE, and Thread. It also includes vendor shares for multiprotocol chips and profiles of select vendors.

**Cellular Status of the Market**
An overview of the cellular-connected IoT devices by region, application (vertical), and technology. The report includes the latest cellular IoT market trends and the market shares of the major cellular IoT module vendors.

**Sensors in IoT**
Extensive analysis of applications and use cases for IoT sensors. Covers applications like asset management, automation and process control, medical electronics, precision farming, and smart home for a broad overview of this growing market.

**Wi-Fi 6 & 6E Market Report**
This report examines the evolving market for Wi-Fi 6 devices, including Wi-Fi 6E operating in the 6 GHz band. The dataset includes forecasts and penetration rates for Wi-Fi 6 and 6E by device type and region.
Internet Of Things (IoT) Overview

About Omdia’s IoT Research

Omdia provides valuable, detailed, and comprehensive research on the core elements of the IoT ecosystem. This analysis is provided via a team of expert analysts with decades of collective research experience and time spent working for many of the key players within the IoT industry.

Our research portfolio spans the entire IoT value chain, from hardware components to network connectivity through IoT software platforms. Omdia’s IoT research also provides insight into the drivers and barriers in key vertical markets and examines the challenges, investment strategies, and supplier choices of enterprises that are in the process of deploying IoT projects.

Omdia’s syndicated IoT research is delivered via three distinct intelligence services: IoT Devices & Components, IoT Services & Platforms, and IoT Viewpoints. Through a rich collection of reports, forecasts, and surveys, each of these services provides our clients with insight into the latest IoT business and technology trends and how these issues will affect the market (and their organization) in the future. Our clients also enjoy access to our analyst team, thus ensuring their questions are answered completely and promptly.
Our “Ask an Analyst” Service Provides Best in Class Customer Support

Whether you need guidance to navigate the service, information regarding our methodologies or you want to better understand a data trend, Omdia’s support team is here to help.

**Draw on our expertise**
- Make the right decisions
- Sanity-check your own findings
- Get the most out of your subscription
- Understand more about our methodologies

Our Ask an Analyst service gives you direct contact via telephone, email or face-to-face session with our expert analyst team:

- **Tom Coate**
  Customer Success Manager

- **Kāren Dyer**
  Customer Success Manager

96% of our customers rate our service as Excellent or Very Good
Omdia is a global technology research powerhouse, established following the merger of the research division of Informa Tech (Ovum, Heavy Reading, and Tractica) and the acquired Omdia technology research portfolio*. We combine the expertise of more than 400 analysts across the entire technology spectrum, covering 150 markets. We publish over 3,000 research reports annually, reaching more than 14,000 subscribers, and cover thousands of technology, media, and telecommunications companies. Our exhaustive intelligence and deep technology expertise enable us to uncover actionable insights that help our customers connect the dots in today’s constantly evolving technology environment and empower them to improve their businesses—today and tomorrow.

* The majority of Omdia technology research products and solutions were acquired by Informa in August 2019 and are now part of Omdia.