

FROST & SULLIVAN

SEMTECH

2022
COMPANY
OF THE
YEAR

GLOBAL
IoT HARDWARE INDUSTRY

Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Semtech Corporation (Semtech) excels in many of the criteria in the IoT hardware space.

AWARD CRITERIA	
<i>Visionary Innovation & Performance</i>	<i>Customer Impact</i>
Addressing Unmet Needs	Price/Performance Value
Visionary Scenarios Through Mega Trends	Customer Purchase Experience
Implementation of Best Practices	Customer Ownership Experience
Leadership Focus	Customer Service Experience
Financial Performance	Brand Equity

Addressing IoT Market Needs with Groundbreaking LoRa¹ Technology

The internet of things (IoT) is a catalyst for a new, digital paradigm where connected devices are critical for data-driven decisions. IoT solutions are becoming essential tools for businesses to optimize processes, reduce risks and costs, and improve efficiency.

IoT would not be possible without the contribution of hardware vendors offering essential components like chipsets, gateways, and modules to enable end-to-end systems. Within the IoT hardware market, Semtech is a pioneer in designing a product capable of addressing the unmet needs of clients seeking the connection of numerous devices over long distances at a low cost.

After acquiring Cycleo, a business that initiated the development of a long-range, low-power modulation technology with chirp spread spectrum (CSS), in 2012, Semtech improved the LoRa^{®2} (from long range) technology and created chips and Cloud-based management capabilities. LoRa-enabled hardware disrupted the market by allowing clients to remotely connect end nodes and low-power wide area networks for IoT solutions easily and inexpensively. Semtech’s LoRa devices support the development of

¹ LoRa is a registered trademark of Semtech Corporation.

² Semtech owns and licenses LoRa, a wireless communication technology based on spread spectrum modulation technique from chirp spread spectrum (CSS) technology.

Massive IoT use cases in different verticals (for example, smart cities, smart homes, smart buildings, utilities, agriculture, asset tracking, and logistics). With sophisticated capabilities of high performance, high capacity, and inexpensive connectivity, Semtech's superior LoRa technology is gaining mass adoption rates reaching over 5 million gateways in service and 270 million end node connections with LoRa devices deployed worldwide as of September 2022³.

Sierra Wireless Acquisition Will Enable New, Innovative Solutions for Customers and Support IoT Revenue Growth for the Industry

With a well-established reputation for best-in-class LoRa chipsets, Semtech announced closure of the acquisition of Sierra Wireless, a Mobile Virtual Network Operator (MVNO) and top provider of Cellular IoT modules, gateways, routers and managed services, for \$1.2 billion in January 2023. Sierra Wireless is a leading provider of Cellular Low-Power Wide-Area Network (LPWAN) modules, which includes NB-IoT and LTE-M connectivity technologies. Although Cellular LPWAN is another wireless technology that ensures connectivity for Massive IoT, what differentiates it from LoRa is that the former operates in the licensed spectrum for LTE mobile networks, while the latter is adaptable for unlicensed spectrums. Although the quality of service (QoS) of proprietary LPWAN like LoRa is not as optimal as Cellular and interference can occasionally emerge, the use of the bands is free of charge, among additional benefits. A key differentiator is that LoRa devices and LoRaWAN^{®4} networks have a lower energy consumption than Cellular, with battery life reaching up to 10 years. Moreover, Cellular LPWAN can transmit large volumes of data, while LoRaWAN is designed to transmit small messages (less than 20 bytes).

Frost & Sullivan finds that Semtech's acquisition strategy aligns with its future-driven vision of expanding LPWAN adoption. Notably, the rollout of LPWAN networks across the globe is accelerating quickly. By incorporating Cellular LPWAN technologies in its product portfolio, Semtech can pursue new growth opportunities in the IoT market and reach new customers with LoRa-based offerings.

As part of its customer-centric approach, Semtech is focused on making the development process for IoT connectivity simpler and making it easier to merge the best of LoRa's sensing capabilities with cellular. Semtech's comprehensive IoT platform that combines LoRa's low power features with Cellular bandwidth traits will allow developers to easily build smart solutions that solve major industry challenges, including interoperability, ease of use, scalability and more.

Beyond driving flexibility for developers, Semtech's acquisition is expected to bring growth opportunities for the company in the IoT hardware and services market. Its LoRa + cellular offering will help maintain Semtech's customer base and acquire new customers. Frost & Sullivan anticipates that by 2025 there will be 1.7 billion connected devices to LoRaWAN and Cellular networks. With its strategic acquisition and investment, Semtech is poised for significant revenue increase. The company will likely capture market share formerly dominated by Cellular LPWAN hardware providers, expanding its IoT's serviceable addressable market to \$10 billion through 2027, as claimed in its acquisition announcement.⁵

³ [Semtech Investor Presentation](#)

⁴ LoRaWAN[®] specification is developed and maintained by the LoRa Alliance[®].

⁵ Semtech Press Release: 'Semtech Corporation to Acquire Sierra Wireless', August 2nd, 2022.

Cellular LPWAN and LoRa Combination Ensures the Best Value to Customers

Semtech's commitment to innovative and transformative technologies remains its main competitive advantage, which makes it a preferred provider over other players. As part of its strategy of developing simple, affordable, and secure solutions while addressing clients' most pressing needs, Semtech's expanded offering of cellular and non-cellular technologies in hardware delivers the best value for developers compared with competitor products in the market.

Customers will choose the technology that best fits their application requirements and connect sensors to different connectivity networks. The possibility of orchestrating a combined solution in different ways across verticals is why Semtech remains a trusted partner, earning a reputation for offering the overall best value in the IoT hardware industry. For instance, developers can leverage the IoT platform using the tools that most meet their demands, like Cellular LPWAN, M2M connectivity (2G, 3G, 4G, or 5G), and/or LoRaWAN standard.

Finally, the IoT platform enables new low-power, multi-mode solutions, including IoT Cellular Connectivity Services, LoRa Cloud Services, Mission Critical IoT Gateways, IoT Multi Radio Modules, LoRa Gateway Chips, and LoRa End Node Chips.

Semtech's innovative IoT platform will address one of the main industry challenges in the IoT hardware industry, ensuring the connectivity of a diverse range of devices and endpoints in different verticals. As each end node requires different power consumption, bandwidth, and range capabilities, developers can utilize the modules and networks to address different verticals and use cases.

Acquisition Strategy Fuels Semtech's IoT Hardware Market Leadership Position and Revenue Growth

Semtech's launch of the high-performance and comprehensive IoT platform with LoRa technology, cellular modules, and public and private gateways, in tandem with cloud services, strengthens its footprint and competitive advantage in the IoT space.

Frost & Sullivan attributes Semtech's market leadership largely to its ability to develop effective strategies that balance short-term performance needs with long-term aspirations and overall company vision. As part of its far-reaching vision, the company strives to simplify IoT through a total platform offering, enable access to IoT markets, and allow network coverage for IoT verticals. Semtech also aspires to maximize its offering through its Multi-Radio Platform and Chip to Cloud Service and disseminate LoRa capabilities of long range, low power, highest efficiency, and smartest technology implementation to optimize application solutions.

Semtech stays ahead of the rapidly evolving IoT landscape by continuously focusing on new product innovation. The company's Sierra Wireless acquisition brings a high-performance cloud services portfolio, including heightened security, device management, and geolocation features to address IoT solutions. The company states that cloud service promises recurring revenues worth \$100 million of high-margin IoT

cloud services.⁶

Following a well-crafted strategy, the company anticipates business performance success and expects to

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**– Cecilia Pérez,
Industry Analyst**

double the annual revenue increase from \$1.3 billion in 2021 to \$3 billion by the calendar year 2027⁷. Additionally, its Sierra Wireless deal is expected to generate \$40 million of run-rate operational synergies within 12 to 18 months post-transaction close, improving profitability.

Customer Ownership Experience

Semtech is making its mark in delivering targeted and innovative solutions tailored to customers’ specific needs across verticals, driving market growth. According to the company, customers

purchasing Semtech’s LoRa hardware report high satisfaction through their positive testimonials.

Two notable use cases highlighted by Semtech include the following:

- Demand for IoT solutions in the utility sector is accelerating as smart sensors are essential tools to address industry challenges such as electrical power blackouts. Oiken, the largest electricity distributor in the Swiss canton Valais, was looking for a solution to enhance electrical grids by accurately detecting the correct location of failures in power line networks. The customer selected Semtech’s LoRa to remotely monitor voltage levels and the flow of electrical current in substations (the interface between the distribution grid and transmission systems). Leveraging LoRa-based hardware, including gateways, sensors connected to the cloud, and private LoRaWAN networks, the client was able to connect 1,200 substations and detect grid failure in real time. Oiken executives’ testimonies highlighted the business value brought by LoRa, such as cost and time savings and efficiency in the substation monitoring systems.
- Logistics customers also cite a positive experience after implementing Semtech’s LoRa devices. WITRAC, a Spanish company specializing in solutions that provide value chain visibility, included Semtech’s LoRa offerings for its innovative track-and-trace smart platform service that transports cold chain assets. Semtech’s LoRa device-to-cloud platform enabled the client to increase cargo transportation efficiency to 350 trips from the peninsula to the Canary Islands. The cost-efficient LoRa device and first-rate LoRaWAN network empowered WITRAC to track in real time thousands of containers, reducing loss or damage and delivering improved services to its customers.

Semtech’s Sierra Wireless acquisition provides customers with a unified Cellular and LoRaWAN offering. Semtech will expand its reach into new segments where the two complement and intersect, including chain, logistics and asset management; utilities, including water, gas and electric metering; smart cities

⁶ Semtech Press Release: ‘Semtech Corporation Completes Acquisition of Sierra Wireless’, January 12, 2023.

⁷ [Semtech Investor Deck Source](#)

and building, including air quality monitoring and public safety; and smart agriculture and species protection.

Conclusion

With its pioneering LoRa technology, Semtech has disrupted the IoT market by delivering low-power, affordable, and simple devices to address Massive IoT applications. Continuous efforts to support the rapid growth of LoRa positions Semtech as a preferred hardware provider in the IoT space. Furthermore, its acquisition of technology counterpart Sierra Wireless is an industry milestone, opening up the opportunity for a much larger addressable market. For the first time, customers will have access to a comprehensive IoT platform with both LoRa and Cellular capabilities. Semtech's state-of-the-art technology is expected to solve the most critical industry challenges, including interoperability.

With its strong overall performance, Semtech earns Frost & Sullivan's 2022 Global Company of the Year Award in the IoT hardware industry.

What You Need to Know about the Company of the Year Recognition

Frost & Sullivan's Company of the Year Award is its top honor and recognizes the market participant that exemplifies visionary innovation, market-leading performance, and unmatched customer care.

Best Practices Award Analysis

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

Visionary Innovation & Performance

Addressing Unmet Needs: Customers' unmet or under-served needs are unearthed and addressed by a robust solution development process

Visionary Scenarios Through Mega Trends:

Long-range, macro-level scenarios are incorporated into the innovation strategy through the use of Mega Trends, thereby enabling first-to-market solutions and new growth opportunities

Leadership Focus: Company focuses on building a leadership position in core markets and on creating stiff barriers to entry for new competitors

Best Practices Implementation: Best-in-class implementation is characterized by processes, tools, or activities that generate a consistent and repeatable level of success

Financial Performance: Strong overall business performance is achieved in terms of revenue, revenue growth, operating margin, and other key financial metrics

Customer Impact

Price/Performance Value: Products or services provide the best value for the price compared to similar market offerings

Customer Purchase Experience: Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

Customer Ownership Experience: Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

Customer Service Experience: Customer service is accessible, fast, stress-free, and high quality

Brand Equity: Customers perceive the brand positively and exhibit high brand loyalty

