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Always-on applications are expected to drive ultra-low power AI chip market to $3.3 billion by 2027

MENLO PARK, CA, USA, April 18, 2022 /EINPresswire.com/ -- Driven by always-on applications, a new market for AI chips has emerged in the past two years, according to a new research report by market intelligence firm JP Data. This new segment of AI chips consuming less than 100 milli watt

AI Market Intelligence

(mW), referred to as ultra-low power AI chips, is expected to reach $3.3 billion by year 2027 at a CAGR of 65.5%. Always-on AI applications will drive the demand for ultra-low power AI chips to 2.9 billion units annually by 2027.

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>
> *Anand Joshi*

Popularity of speech enabled devices that are always listening for wake words, such as Alexa, has driven demand for chips that consume very little power while monitoring sound.   Emerging sensor and computer vision applications are further fueling the need for ultra-low power AI chips. A wide range of devices, such as smart watches, smart phones, hearables, and wearables are incorporating such chips to enable new features and use cases.

"Ultra-low power AI chip shipments have already reached 10s of millions," said Anand Joshi, Managing Director of JP Data. "Edge intelligence is on the rise driven by privacy and security concerns. Ultra-low power chips keep data on-device and enable incorporation of AI in battery powered devices. Several AI chip start-ups have delivered on their promise in this market segment and are ramping up on volume."

The AI/ML algorithms today in ultra-low power chips   primarily use CPUs and DSPs as classical, shallow machine learning methods are commonplace. With the increasing popularity of deep neural networks, it is expected that hardware accelerator will become a common feature of such chips in the future. Devices incorporating ultra-low power AI chips often come with specific

power, performance, and bill-of-material targets and a wide range of solutions is expected to emerge. The variety of architecture is expected to lead to fragmentation and each needing its own software development flow.

JP Data's 2022 report 'Ultra-low power AI chips: Technologies and Markets' assess industry dynamics, technology issues, and market landscape, ecosystem and forecast. The report segments revenue and shipment by different architectures (CPUs, GPUs, FPGAs, and ASICs), and provides readers with market data by use cases (speech, sensors, and vision). The report analyzes market drivers, trends, challenges, and presents user with market forecasts through 2027. The study also includes profiles of key industry players and a comprehensive listing of vendors, products, devices and use cases.

An [Executive Summary](#) of the report is available for free download on the firm's website.

About JP Data

JP Data is a market intelligence firm based in Silicon Valley with focus on Artificial Intelligence. The company covers entire AI landscape from chips to development infrastructure to applications for enterprise as well as edge. Company complements its qualitative analysis in each report with comprehensive data for companies, ecosystem, products, pricing, and volume. Visit JP Data web site to learn more about latest reports available.

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