

# Teradyne and Syntiant Collaborate to Significantly Shorten Time to Market for Innovative Artificial Intelligence Neural Decision Processors

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NORTH READING, Mass., Jan. 12, 2021 (GLOBE NEWSWIRE) -- [Teradyne, Inc.](#) (NASDAQ:TER), a leading supplier of automated test solutions, today announced that the company's [UltraFLEX test platform](#) has enabled AI chip company [Syntiant Corp.](#) to successfully ship millions of its microwatt-power, deep learning Neural Decision Processors™ to customers worldwide.

Built from a clean sheet, hardware/software co-design methodology that optimizes silicon and deep learning models together, the Syntiant® NDP100™ and Syntiant® NDP101™ Neural Decision Processors™ bring hands-free, cloud-free, always-on voice and sensor AI applications to battery-powered edge devices.

“Our deep learning NDP10x chips leverage our custom designed near-memory compute architecture, so we were looking for a partner with a deep understanding of the AI chip market. The UltraFLEX power supplies were critical for the low current measurements needed to characterize our device, and drive quality and yield in production,” said Pieter Vorenkamp, COO at Syntiant. “Teradyne’s testing methodology supported our aggressive go-to market strategy, enabling us to go from qualification to production in just eight short weeks. We look forward to working closely with Teradyne as we introduce our second generation products and significantly accelerate our volume ramp.”

Syntiant’s NDP10x chips run AI workloads under 140uW and improve efficiency by 100x and throughput by 10x compared to traditional MCUs. Syntiant’s architecture supports dozens of application-defined audio classifications, such as keyword spotting, wake word detection, speaker identification, audio event and environment classification, as well as sensor analytics.

“From startups to hyperscalers, Teradyne is committed to providing the lowest cost of test and collaborating with our customers as a consultative solution partner,” said Regan Mills, Vice President of Marketing at Teradyne. “For Syntiant, our Protocol Aware tester architecture, IG-XL software, and extensive applications expertise were key in accelerating the qualification process. We look forward to continuing to work with Syntiant in bringing their innovative AI Neural Decision Processors to market.”

Using its UltraFLEX test platform, Teradyne is currently supporting the qualification and production ramp of the Syntiant® NDP120™ and Syntiant® NDP121™ Neural Decision Processors, Syntiant Corp’s second generation hardware platform to run multiple audio applications simultaneously at under 1mW power consumption.

For more information about Teradyne’s AI offerings, visit: <https://www.teradyne.com/ai>

## **About Teradyne**

**Teradyne** (NASDAQ:TER) brings high-quality innovations such as smart devices, life-saving medical equipment and data storage systems to market, faster. Its advanced test solutions for semiconductors, electronic systems, wireless devices and more ensure that products perform as they were designed. Its Industrial Automation offerings include collaborative and mobile robots that help manufacturers of all sizes improve productivity and lower costs. In 2019, Teradyne had revenue of \$2.3 billion and today employs 5,500 people worldwide. For more information, visit [teradyne.com](http://teradyne.com). Teradyne<sup>®</sup> is a registered trademark of Teradyne, Inc. in the U.S. and other countries.

## **About Syntiant**

Founded in 2017 and headquartered in Irvine, Calif., Syntiant Corp. is moving artificial intelligence and machine learning from the cloud to edge devices. Syntiant's advanced chip solutions merge deep learning with semiconductor design to produce ultra-low-power, high performance, deep neural network processors for always-on applications in battery-powered devices, such as smartphones, smart speakers, earbuds, hearing aids and laptops. The company is backed by several of the world's leading strategic and financial investors, including Intel Capital, Microsoft's M12, Applied Ventures, Robert Bosch Venture Capital, the Amazon Alexa Fund and Atlantic Bridge Capital. Syntiant continues to be recognized as an industry leader, being named to Gartner's April 2020 Cool Vendors in AI Semiconductors; Fast Company's prestigious list of the World's Most Innovative Companies for 2020; and as a CES<sup>®</sup> 2020 and CES<sup>®</sup> 2021 Best of Innovation Awards Honoree; among others. More information on the company can be found by visiting [www.syntiant.com](http://www.syntiant.com) or by following Syntiant on Twitter [@Syntiantcorp](https://twitter.com/Syntiantcorp).

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