

## mtes Neural Networks Selects QuickLogic's QuickAl HW/SW Platform for Al-Enabled Endpoint Devices

- The end-to-end QuickAl Hardware / Software (HW/SW) Platform can be implemented quickly and easily with minimal data science and firmware resources
- QuickAl enables local inferencing (decision making), which reduces latency, power consumption and costs by eliminating the need for high bandwidth cloud connections
- With QuickAl, algorithms can be updated remotely, which reduces maintenance costs while insuring optimal performance

SUNNYVALE, Calif., Dec. 5, 2018 /PRNewswire/ -- QuickLogic Corporation (NASDAQ: QUIK), a developer of ultra-low power multi-core voice-enabled SoCs, embedded FPGA IP, display bridge, programmable logic and Endpoint AI solutions, announced today that mtes Neural Networks (mtesNN) of Japan has selected its <a href="QuickAI™ Platform">QuickAI™ Platform</a> for a new generation of AI-enabled endpoint devices. With the complete end-to-end QuickAI Platform solution, mtesNN is accelerating new product designs that leverage the benefits of local decision making based on real-time sensor data. This significantly lowers decision latency, improves reliability and eliminates the cost and high power consumption of a full-time broadband connection to cloud-based AI processing.



mtesNN was founded in 2015 and has developed expertise in structural health and surveillance monitoring with sensor modules and cognitive cameras that leverage the benefits of AI. Sensor modules will be deployed around cities to analyze the impact of earthquake tremors on railways, bridges and tall buildings so that preventive maintenance can be deployed. Cognitive camera systems will be deployed for surveillance and actionable event detection along streets and in large venues to improve safety and provide real-time information for emergency responders.

The challenge mtesNN faced was that cloud-based AI processing is simply not suitable for its endpoint applications. Cloud-based AI systems require broadband connections to send large amounts of raw sensor data and images to the cloud for processing and decision

making. This requirement increases system costs, operating costs, latency, power consumption and the risk of downtime.

With the QuickAl Platform, the inferencing (decision making) is done locally with substantially reduced latency and power consumption. This is particularly important for mtesNN, which depends on solar power with battery back-up in some applications. The QuickAl Platform also allows mtesNN to lower system and operating costs and improve reliability by eliminating the need for continuous high-bandwidth connectivity. Because the QuickAl hardware and software Platform enables Al endpoint solutions to be developed easily and quickly with minimal data science and firmware engineering resources, mtesNN is also benefitting from lower product development costs while gaining valuable time-to-market advantages.

"We evaluated numerous design approaches before selecting QuickLogic's QuickAl Platform to develop new Al-enabled endpoint devices that leverage the many benefits of local Al processing," said Takaro Harada, CEO of mtes Neural Networks. "With QuickAl's end-to-end hardware and software, we are able to extend battery life while accelerating our new product development cycles. We are excited to use the QuickAl Platform for this and future generations of Al-enabled endpoint devices."

"We are very happy that mtes Neural Networks chose our QuickAl Platform to enable endpoint artificial intelligence in their next generation of Al-enabled endpoint devices," said Brian Faith, CEO of QuickLogic. "The unique heterogeneous multi-core architecture and end-to-end hardware /software solution provided by QuickAl Platform simplifies and accelerates the implementation of Al by providing standard interfaces to sensors and traditional digital computing resources while leveraging leading edge Neural Processing (NPU) technology. We look forward to continuing our work with mtes Neural Networks as it develops new Al-enabled endpoint devices."

## Availability

The QuickAl Platform and its associated Data Analytics Toolkit is available now. For more information, please visit <a href="www.quicklogic.com/platforms/sensor-processing/quickai">www.quicklogic.com/platforms/sensor-processing/quickai</a>. The mtes Neural Networks Sensor Module and Cognitive Camera will be available during Q1, 2019.

## **About QuickLogic**

QuickLogic Corporation (NASDAQ: QUIK) enables OEMs to maximize battery life for highly differentiated, immersive user experiences with Smartphone, Wearable, Hearable and IoT devices. QuickLogic delivers these benefits through industry leading ultra-low power customer programmable SoC semiconductor solutions, embedded software, and algorithm solutions for always-on voice and sensor processing. The company's embedded FPGA initiative also enables SoC designers to easily implement post production changes, and increase revenue by providing hardware programmability to their end customers. For more information about QuickLogic, please visit <a href="http://blog.quicklogic.com">www.quicklogic.com</a> and <a href="http://blog.quicklogic.com">http://blog.quicklogic.com</a>.

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