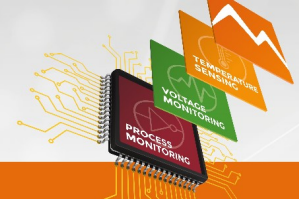


## Moortec Support Canaan-Creative's Mass Production ASIC on TSMC's 7nm Process

In-Chip Monitoring  
Subsystem Solutions



Plymouth, UK, 13th May 2019

Moortec, the market leading PVT Monitoring IP specialists are proud to have helped Canaan-Creative achieve mass production on TSMC's 7nm process of their ASIC by utilising Moortec's complete In-Chip Monitoring Subsystem IP for Process, Voltage and Temperature Sensing in the design. Moortec themselves have now shipped 2000 wafers on TSMC's 7nm process to multiple customers globally, across multiple applications.



"We have cooperated with Moortec for several years, the high-quality PVT IP and excellent customer support provided by Moortec has helped us meet our target specifications and schedule," said Mark Wu, Canaan's VP of Technology.

Moortec's In-Chip Monitoring Subsystem solution has been developed on TSMC's industry leading 7nm FinFET technology and supports the semiconductor design community's demands for increased device reliability and enhanced performance optimization. By detecting process variability for each chip manufactured and monitoring the dynamic changes to temperature and voltage supply conditions, the IP can be used to enable Static Voltage Scaling (SVS) across our product range and continuous Adaptive Voltage Scaling (AVS) optimisation schemes.

The subsystem delivery also includes a sophisticated PVT Controller with standard interfacing, supporting multiple monitor instances, statistics gathering, production test access support as well as other compelling features. In advanced node ASICs power consumption and performance is of critical importance to develop a successful product in the market place.

Moortec CEO Stephen Crosher said, “We have developed a strong relationship with Canaan over the last few years, and have been proud to support them in their High Performance Computing ASIC developments. Working with progressive companies like Canaan at advanced node level really helps us shape our roadmap in terms of our high accuracy, highly featured and expertly supported monitoring IP solutions.”

#### **About Canaan Creative**

Founded in 2013, Canaan (Canaan Creative) is the worldwide leader in designing ASIC chip solutions. Canaan products are sold globally. Canaan continues to innovate by producing custom designed ASIC chips. With the efforts of its highly skilled development team, Canaan strives to bring in new thoughts to the area of advanced technology ASIC chips and beyond.

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#### **About Moortec**

Established in 2005 Moortec provides compelling embedded sub-system IP solutions for Process, Voltage & Temperature (PVT) monitoring, targeting advanced node CMOS technologies from 40nm down to 7nm. Moortec’s in-chip sensing solutions support the semiconductor design community’s demands for increased device reliability and enhanced performance optimization and power management control systems. Moortec also provides excellent support for IP application, integration and device test during production.

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