

## Portwell's Latest High-Performance NANO-ITX Embedded Board Solution

NANO-6051 built with Intel® 8thGeneration Core™ i7/i5/i3 processors (formerly Whiskey Lake-U)

FREMONT, CALIFORNIA, UNITED STATES, March 20, 2020 /EINPresswire.com/ -- American Portwell Technology, Inc., (https://www.portwell.com) a whollyowned subsidiary of Portwell, Inc., a world-leading innovator in the Industrial PC (IPC) market and a member of the Intel Internet of Things (IoT) Solutions Alliance, has launched its new NANO-6051, a NANO-ITX form factor embedded board featuring Intel 8th Gen Core i7/i5/i3 processors up to 4 cores/8 threads with a low 15W thermal design power (TDP), formerly



codenamed Whiskey Lake. The processors integrate Intel Gen 9.5 graphic engine with 24 execution units that deliver enhanced media conversion, fast frame rates, and 4K Ultra HD (UHD) video, and provides significant 3D multimedia performance. According to Maria Yang, American

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NANO-6051 provides an optimized balance of high performance, accelerated graphic processing, lower power consumption and energy efficient capability." *Maria Yang*  Portwell's product marketing engineer, NANO-6051 provides an optimized balance of high performance, accelerated graphic processing, lower power consumption and energy efficient capability.

"Operating with thermal design power (TDP) of 15W and a compact footprint (120mm x 120mm; 4.72" x 4.72")," says Yang, "our new NANO-6051 adopts a heat spreader as an efficient thermal solution for space-limited environments that makes it suitable for fan-less systems and can fit specific design configurations with performance and low-

power requirement, especially where space is at a premium."

Portwell's new NANO-6051 features DDR4 2400MHz non-ECC SO-DIMM up to 32GB and storage interface 1 x M.2 Key M 2280 socket for SSD. For functionality extension, it provides 2 x USB 3.2 Gen 2 (10Gb/s) on rear I/O and 4 x USB 3.2 Gen 1 (5Gb/s) on board header to ensure fast data transmission with low-power consumption. 1 x M.2 Key E 2230 socket for wireless module connectivity including Wi-Fi and Bluetooth which can make it an ideal solution for communication and IoT applications. Intel I210AT and Intel I219LM Ethernet Controllers provide dual Gigabit Ethernet LAN access via the two RJ-45 connectors. 1 x RS-232/422/485 is selectable by BIOS adjustment. The Intel Gen 9.5 graphic engine supports dual mini DisplayPort (DP) on rear I/O with resolution up to 4096x2304. It provides a selection of multiple connections such as displays, graphic cards, cameras, storage and more on the same system. Moreover, NANO-6051 offers combo Audio Jack and DC 12V input on rear I/O, ATX 4-pin 12V on

board, on-board TMP 2.0 for application security, and supports multiple operating systems including Microsoft<sup>®</sup> Windows<sup>®</sup> 10 IoT Enterprise, Ubuntu<sup>®</sup>, real-time Yocto Project<sup>®</sup> (YP) and Wind River<sup>®</sup>.

Meanwhile, NANO-6051 also takes advantage of Intel advanced technologies such as Intel Optane<sup>™</sup> Memory, Turbo Boost, Hyper-Threading, Virtualization (VTx), Thermal Monitoring, Trusted Execution and Speed Step<sup>™</sup> Technology. As a whole, it can offer a wide variety of expansion capability for various applications such as industrial factory automation, automated test equipment, semiconductor equipment, robotic control, automatic unmanned vehicle, medical/healthcare equipment, digital signage, industrial IoT gateway, digital security surveillance, broadcasting systems, transportation applications and more.

Compact, Powerful and Reliable "Portwell's NANO-6051 NANO-ITX embedded board is powered by Intel's 8th Generation Core i7/i5/i3 processors," states Jack Lam, American Portwell's senior product marketing director. "Compared to the previous generation, it offers more cores and more flexible high-speed I/O lanes, plus more cache for storing



frequently used data. NANO-6051 delivers higher performance per watt; its low power characteristics make it suitable for the fanless system in diverse applications; its compact design and thermal solution make it more than suitable for space-limited industrial applications. End-user demands for high-quality video output are met through smooth 4K content streaming on dual independent displays. Its support for multiple operating systems makes it more than ready for systems integration. Plus," Lam adds, "our customers also benefit from the peace of mind they get from the 10+ years long product life span support inherent with this Portwell product."

## About American Portwell Technology

American Portwell Technology, Inc., is a world-leading innovator in the embedded computing market and an Associate member of the Intel Internet of Things Solutions Alliance. American Portwell Technology designs, manufactures and markets a complete range of PICMG computer boards, embedded computer boards and systems, rackmount systems and network communication appliances for both OEMs and ODMs. American Portwell is an ISO 9001, ISO 13485, ISO 14001 and TL 9000 certified company. The company is located in Fremont, California. For more information about American Portwell's extensive turnkey solutions and private-label branding service, call 1-877-APT-8899, email info@portwell.com or visit us at https://www.portwell.com.

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## Maria Yang

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