THine Introduces THEIA-CAM™ 13MP PDAF Camera Kit for NVIDIA® Jetson Orin™ NX/Nano

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SANTA CLARA, CALIFORNIA, UNITED STATES, April 23, 2024 /EINPresswire.com/ -- THine Introduces THEIA-CAM™ 13MP PDAF Camera Kit for NVIDIA® Jetson Orin™ NX/Nano

NVIDIA® Jetson™ Orin Platform Users Can Now Quickly & Easily Integrate THine's Leading-Edge Video Imaging Capabilities

Applications include embedded vision systems, medical scopes, AR/VR systems, barcode scanners, vision assistive glasses, drones, surveillance cameras, body cams, USB webcams, biometric devices, and proof of concept for platform development for AI and IoT vision systems.

THine Introduces THEIA-CAM™ 13MP PDAF Camera Kit for NVIDIA® Jetson Orin™ NX/Nano

THine Solutions, Inc. today announced the new THEIA-CAM™ 13MP PDAF Camera, THSCJ101, for the NVIDIA® Jetson Orin™ NX and Jetson Orin™ Nano platforms. Along with its pre-optimized ISP firmware and Linux driver, Jetson users are now able to easily integrate advanced imaging capabilities into their systems.

The THSCJ101 Kit is a Camera reference design kit for embedded camera applications that are using the NVIDIA® Jetson Orin™ NX or the Jetson Orin™ Nano platform. The THSCJ101 Kit is based on THine's THP7312-P Image Signal Processor (ISP) and Sony's IMX258 13MP CMOS PDAF image sensor.
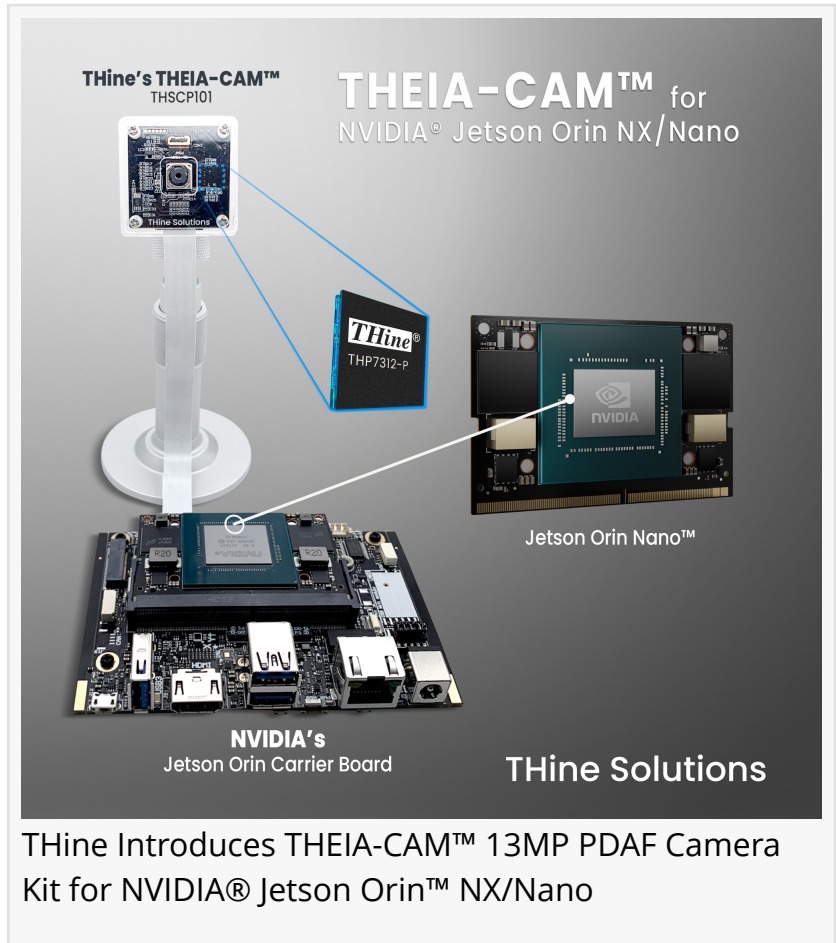
THine's optimized ISP firmware provides ultra-quick autofocus using Phase Detection Autofocus (PDAF) technology and Best-in-Class image quality. The Kit hardware includes all items required to interface with Jetson Orin™ carrier boards with a 22-pin MIPI CSI-2 input connector, including a Camera Board in an acrylic case and a Flat Flexible Cable.

The Video4Linux2 (V4L2) driver for the THSCJ101 is also available to control various video functions. The performance of each Kit is repeatable for use in high volume production due to our production process to characterize the image parameters of each image sensor and to calibrate the image signal processing to compensate for variation from sensor to sensor.

THine's THEIA-CAM™
THSCJ101

The THSCJ101 Kit is a Camera reference design kit for embedded camera applications using the NVIDIA® Jetson Orin™ NX or Jetson Orin™ Nano platform

All technical information including the reference circuit schematics, ISP firmware, and V4L2 Driver are available to customers. Also, for customers that require unique image performance features, THine can provide a GUI based software development tool that customizes the ISP firmware and/or the image sensor selection. As a result, the THSCJ101 can accelerate NVIDIA® Jetson Orin™ NX/Nano platform users' time-to-market without expensive integration cost or additional effort for developing embedded camera systems.

> "
> The key breakthrough we are providing with this solution is the quickest and reliable integration of Best-in-Class image quality and imaging performance into the world-leading AI platform.""
>
> *Tak Iizuka, Chief Solution Architect of THine Solutions, Inc.*

"We are providing the quickest and most reliable integration of Best-in-Class image quality and imaging performance into the world-leading AI platform," said Tak Iizuka, Chief Solution Architect of THine Solutions, Inc. "By bypassing the camera system development and image quality tuning hassle as well as all in-production camera issues, AI system designers are able to focus on the AI development relying on our THEIA-CAM™ support."

THSCJ101 Key Features
 Designed for NVIDIA® Jetson Orin™ NX/Nano

Various High Resolution options including but not limited to 13MP at 20fps, 4K2K at 30fps, and 1080p at 60fps, in YUV422 format.
 Ultra-Quick Phase Detection Autofocus (PDAF)
 Best-in-Class Image Quality with well-optimized Auto White Balance and Auto Exposure
 Perfect Unit-to-Unit Image Quality for High Volume Production
 Single 1.38" x 1.38" (35mm x 35mm) Camera Board
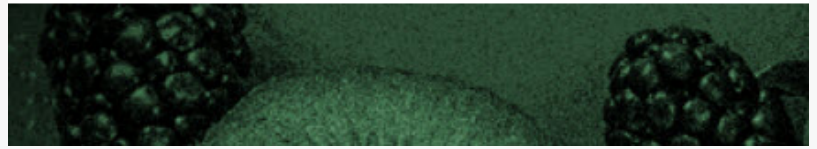
Our products target embedded camera systems that require smart image processing and high-speed data transmission.

About THEIA-CAM™ Family

THEIA-CAM™ is designed for embedded vision systems. Using and optimizing THine's own ISP, THine offers Best-in-Class image quality and high production quality suitable for any project phase from proof of concept to high volume production. THEIA-CAM™ supports various Operating Systems including Windows®, macOS®, Android™, and Linux®, and various platforms including Raspberry Pi, Jetson Orin™, i.MX 8M families, and MediaTek Genio series. THEIA-CAM™ addresses wide-ranging camera applications including but not limited to AI + IoT devices, AR Glasses, Barcode Reading Devices, Biometric Devices, Bodycams, Document Scanners, Machine Vision systems, Medical Scopes, Microscopes, Surveillance Cameras, Vision Assistance Glasses, and Webcams. THSCU101, the first Kit in the family, is a 13MP PDAF USB Video Class (UVC) Camera.

Availability
The THSCJ101 is available for purchase at Amazon and Digi-Key.
 [Amazon] https://www.amazon.com/dp/B0CXCQZT8Z
 [Digi-Key] https://www.digikey.com/en/products/detail/thine-solutions-inc/THSCJ101/22492686

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About THine: THine Solutions, Inc. (TSI), headquartered in Santa Clara, CA is a subsidiary of THine Electronics, Inc. (TYO: 6769), a Japanese company headquartered in Tokyo, Japan. TSI is responsible for worldwide sales and marketing of our THS Series Kit Solutions including THEIA-CAM™ Family, as well as for sales and marketing of THine IC products in the Americas, EMEA, and India territories. | Our products target embedded camera systems that require smart image processing and high-speed data transmission. Our combination of ICs, Solution reference designs, design tools, and design support provides a unique value to small, medium, and large customers. | We offer Image Signal Processor (ISP) ICs and reference designs to use these ICs in

our THEIA-CAM™ camera solutions. Our THEIA-CAM™ supports various Operating Systems including Windows®, macOS®, Android™, and Linux®, and various platforms including Raspberry Pi, Jetson, i.MX 8M families, and MediaTek Genio platform. We also have Camera Development Tools to support customizing ISP firmware development. | Our SerDes ICs support various interfaces including our own proprietary V-by-One® HS high-speed transmission protocol that is the de facto standard driving television displays, LVDS (Open LDI), MIPI CSI-2, and Parallel (LVCMOS). | End product markets we serve include medical scopes, AR/VR systems, barcode scanners, vision assistive glasses, multifunction printers, drones, surveillance cameras, biometric devices, body cams, USB webcams, surgical microscopes, high-resolution displays, and automotive infotainment systems. | TSI supports fulfilment directly and through our distribution partners including Arrow Asia, Avnet, and Digi-Key.

Website: https://www.thinesolutions.com/.

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