

A banner image showing a close-up, angled view of a grid of dark, square integrated circuit chips. Each chip has the "AIVA" logo and some alphanumeric codes printed on it. A semi-transparent dark grey box with a green vertical bar on the left side is overlaid on the bottom left of the image, containing the section header and a paragraph of text.

## AIVA & S2C

The S2C validation platform provided AIVA stable software and hardware collaborative work environment, especially in the early stage of chip development.

3D vision technology is rapidly evolving. Compared to 2D vision technology that deals with planar information, 3D vision works with physical information, including depth, which makes it possible to recognize and measure objects with curved surfaces and arcs, for example. In addition, as deep machine learning and big data computing technologies develop, 3D vision AI chips are continually improving their ability to process visual data with higher accuracy, faster speed, and lower power consumption. This has caused an explosion in demand for both the industrial and consumer markets.

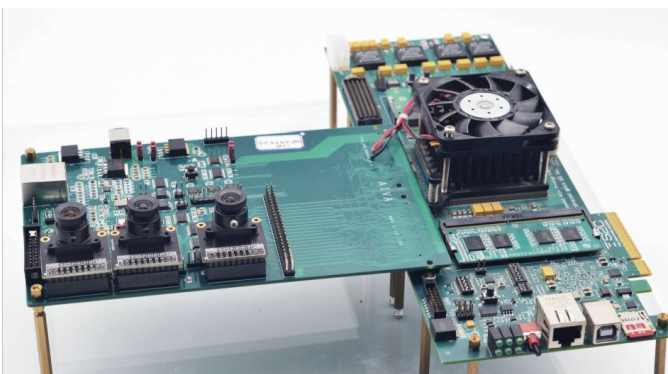
Aivatech is an industry-leading solution provider for chip design and visual algorithm systems. With a focus on the smart terminal market, it provides open modular 3D vision AI software and hardware platforms with ultra-low power consumption. In May 2020, Aivatech successfully released Ai3100, its first new-generation 3D visual AI chip. In December 2021, the company launched an upgraded 3D visual AI chip: Zhuiying Ai3101. This provided the smart terminal market with a full-stack solution, pushing forward the rapid deployment of AI technologies such as smart door locks, robots, hardware, and new retail.

Zhuiying Ai3101 is a new generation of 3D-vision AI chips based on heterogeneous architecture. With a built-in neural processing unit (NPU), 3D engine, HDR, ISP, and

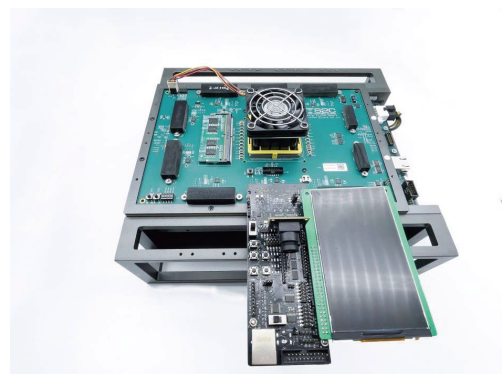
more, the chip is a leader in its field in terms of efficient and intelligent processing, analysis, and low power management. Ai3101 has a very powerful and flexible 3D depth engine (i.e., a fusion accelerator for depth calculations): it allows depth to be measured from 0.2 m to 6 m, with a 50 mm baseline. With a distance of 1 m, the detection accuracy can reach up to 1 mm, which allows the terminal products to better perceive and understand complex environments. In addition, the asset reusability of the Ai3101 framework allows the hardware computing units to be flexibly allocated, making it suitable for computing needs in different scenarios. This achieves a perfect combination of "core" + "computing", providing the end-users of smart products with a solution that is easily deployed, scaled, and integrated.

Aivatech is a system solution provider that focuses its technological innovation on chip design and visual algorithms. With a focus on the terminal market, it provides open modular 3D vision AI software and hardware platforms with ultra-low power consumption. Aivatech has set up its offices in Shanghai, Shaoxing (in Zhejiang province), and Shenzhen. The team brings together high-end talents from world-renowned chip design companies such as AMD, Intel, Broadcom, and more. Their expertise covers diverse fields, such as algorithms, chips, and products.

With the mission of "Empowering smart terminals with 3D vision AI", and based on its self-developed Zhuiying™ series of AI chips and supporting vision modules, Aivatech has already launched an industry-leading full-stack solution empowering door entry access control, robots, smart hardware, new retail, and many other AI applications.



IP validation with the S2C PCIE VU440 platform



Single VU440 LS platform



"S2C and Aivatech have had a long-term, stable relationship. We currently use two FPGA validation platforms: PCIE VU440 and Single VU440 LS. Using the PCIE VU440, our R&D team has carried out the core IP prototyping and system verification; and based on the Single VU440 LS, they've accelerated SOC design verification and firmware driver development. The S2C validation platform provided us stable software and hardware collaborative work environment, especially in the early stage of chip development."

——Wang Yun, General Manager of Aivatech

"Both products are high-capacity, flexible, and scalable while also equipped with multiple interfaces. This makes them suitable for our R&D needs and greatly shortens the R&D cycle. S2C's professional engineering support team provided a tremendous deal of support and peace of mind when it came to developing our 3D vision AI chip project."

——Guo Wei, Vice President of Engineering at Aivatech

