



Andes and IAR Together Enable Leading Vendor ILITEK to Accelerate the Development of its ISO 26262 Ready TDDI SoC ILI6600A

The joint Functional Safety solution from Andes and IAR helps ILITEK develop its High-Performance Touch and Display Driver Integration (TDDI) SoC

Hsinchu, Taiwan and Uppsala, Sweden— Feb 16, 2023— Andes Technology ([TWSE:6533](#)) and IAR together announce that [ILITEK](#)'s Touch and Display Driver Integration (TDDI) SoC, ILI6600A, adopts the Andes N25F-SE ISO 26262 certified V5 RISC-V CPU core, and the IAR certified Embedded Workbench toolchain for RISC-V, to support Automotive Functional Safety in its state-of-the-art SoC. ILI6600A is a highly integrated Amorphous / LTPS / Oxide TFT LCD driver with an In-Cell touch controller. The joint solution from Andes and IAR is ISO 26262-certified with a robust design methodology. It can help accelerate time-to-market for customers by shortening the rigorous certification process.

The LCD driver in ILI6600A supports up to 3 chips cascading and provides a number of colors up to 16.7M. Its IIE (Impressive Image Enhancement) function can achieve a high-quality display and visual experience. The touch panel controller of ILI6600A uses a 32-bit high-performance single-cycle instruction-set MCU. Its built-in high-speed and high-performance hardware-accelerated computing modules provide superior data processing capabilities. With ILITEK's driver technology and algorithms, the touch controller brings excellent user experience performance, strong anti-noise ability, and a high signal-to-noise ratio.

ILI6600A adopts the AndesCore™ N25F-SE, the world's first ISO 26262 full-compliance RISC-V CPU. As a Safety Enhancement edition of N25F, one of the bestselling RISC-V cores, the N25F-SE is designed for Automotive Functional Safety to prevent systematic and random hardware failures. IAR Embedded Workbench for RISC-V is a certified integrated development environment including the powerful IAR C/C++ Compiler and a comprehensive debugger. The combined solution and expertise of the two companies provide their customers with best-in-class performance and safety for automotive applications.

"The ILI6600A is our first ISO 26262 ASIL B ready product, providing robust, real-time, and certified Fail detection functions. Its higher SNR makes excellent touch panel performance and brings a perfect user experience. Our engineering resource will provide in-time, on-site service. Also, ILI6600A has remote AI tuning tools, which have been built with plenty of TDDI project experience for customers. We are happy to partner with Andes and IAR on our automotive TDDI SoC solution to address the increasing demand for in-vehicle display devices with higher resolution," said Luen Wey, CEO of ILI Technology Corp. "ILI6600A AFE can scan up to 960ch touch sensors and supports both of LongV and LongH scan. Moreover, the ILI6600A also supports virtual touch keys and Knob functions. The most important part of the Automotive application, ILI6600A, has passed the automotive ESD, EMI, and EMS tests and will soon be an AEC-Q100 grade 2 qualified product. With high performance, low power consumption, and necessary safety features, Andes RISC-V N25F-SE is the ideal processor to help ILI6600A meet its design goal."

"We are thrilled to collaborate with IAR to support ILITEK on the product development of Automotive TDDI SoC. With the N25F-SE, we ensure customers can leverage our ISO 26262-certified CPU IP and Safety Package in their product certification process. ILITEK has licensed several Andes V3 CPUs, the generation before its RISC-V compliant V5 cores. Their continued licensing and designing of the latest Andes CPU IP into their SoC speaks a lot about ILITEK's recognition of Andes CPU quality across multiple generations," said Dr. Charlie Su, President and CTO of Andes Technology. "Andes is the first ISO 26262 certified RISC-V CPU IP company. We have established the ISO 26262-certified development process for automotive



processor cores up to ASIL-D. With the certified development process in place, we are ready to support the automotive supply chain with the roadmap of our ISO 26262 functional safety certified RISC-V cores.”

“It’s great to see how IAR’s partnership with Andes is helping ILITEK ensure functional safety in their TDDI products. RISC-V technology continues to move fast forward and break new ground for innovations. We will continue to drive change in the industry by supporting both the ecosystem and customers with professional development tools,” said Anders Holmberg, CTO of IAR.

[The functional safety edition of IAR Embedded Workbench for RISC-V](#) is certified by TÜV SÜD according to ten different standards, including ISO 26262. Along with strong technology, IAR offers guaranteed support for the sold version for the longevity of the customer support contract, validated service packs, and regular reports of known deviations and problems.

About IAR

IAR provides world-leading software and services for embedded development, enabling companies worldwide to create the products of today and the innovations of tomorrow. Since 1983, IAR’s solutions have ensured quality, reliability, and efficiency in developing over one million embedded applications. The company is headquartered in Uppsala, Sweden, and has sales and support offices worldwide. IAR Systems Group AB is listed on NASDAQ OMX Stockholm, Mid Cap. Learn more at www.iar.com.

About ILITEK

ILITEK’s core technologies are Display and Touch. ILITEK becomes one of Taiwan TOP5 IC design house and TDDI market share achieve worldwide No.2 with its great products and strong service bases which are located in China, Korea, Europe and USA.

About Andes Technology

As a Founding Premier member of RISC-V International, Andes (TWSE: 6533; SIN: US03420C2089; ISIN: US03420C1099) is a leading supplier of high-performance/low-power 32/64-bit embedded processor IP solutions, and the driving force in taking RISC-V mainstream. Andes’ fifth generation AndeStar™ architecture adopted the RISC-V as the base. Its V5 RISC-V CPU families range from tiny 32-bit cores to advanced 64-bit cores with DSP, FPU, Vector, Linux, superscalar, and/or multicore capabilities. The annual volume of Andes-Embedded SoCs has exceeded 3 billion since 2021 and continues to rise. In the end of 2021, the cumulative volume of Andes-Embedded™ SoCs has surpassed 10 billion.

Contacts

IAR

Hanna Laurentz, Head of Corporate Communications, IAR
Tel: +46-18-16-78-00 E-mail: hanna.laurentz@iar.com

Andes Technology

Jonah McLeod, Press Contact, Andes Technology:
Tel: +1 510 449 8634 Email: Jonahm@andestech.com

ILI Technology Corp.

Bert Chang, Product/Sales Manager, ILI Technology Corp.
Tel : +886-911-425656 Email : bert_chang@ilitek.com

Editor’s Note: IAR, IAR Embedded Workbench, Embedded Trust, C-Trust, C-SPY, C-RUN, C-STAT, IAR Visual State, I-jet, I-jet Trace, IAR Academy, IAR, and the logotype of IAR are trademarks or registered trademarks owned by IAR Systems AB. All other product names are trademarks of their respective owners.