IAR Expands Support for TMC THA6 Gen2 Series Automotive MCUs, Driving Innovation in Automotive Electronics

Uppsala, Sweden—January 22, 2025 — IAR, a global leader in embedded development solutions, announces its support for the THA6 Gen2 series automotive-grade MCUs from Tongxin Microelectronics Co., Ltd. (TMC). This collaboration, achieved through the latest release of IAR Embedded Workbench for Arm v9.60.3, enables developers to meet next-generation automotive electronics's high-performance and functional safety demands.

The TMC THA6 Gen2 series is the first Arm Cortex-R52+ ASIL D MCU in China. Operating at a frequency of 400 MHz, it is built on the modern Armv8 architecture, offering both performance and scalability. Additionally, it integrates the latest GTM 4.1 (Generic Timer Module), supports high-resolution PWM (Pulse Width Modulation), and complies with EVITA-Full, a standard for automotive cybersecurity ensuring secure communication and encryption. Featuring a built-in hardware RDC (Resolver-to-Digital Converter) module, the chip supports both software and hardware decoding of resolver signals, which are critical for motor position sensing. This combination provides a reliable foundation for E/E architectures (Electrical/Electronic architectures), addressing the demands of applications such as powertrain, chassis, body systems, and intelligent driving. By integrating IAR's advanced development tools, this collaboration streamlines the creation of safe and high-performance automotive systems, reducing manufacturers' time to market.

Advancing Functional Safety and Performance

IAR Embedded Workbench for Arm Functional Safety Edition is certified by TÜV SÜD and supports ISO 26262 ASIL D compliance, making it an industry benchmark for functional safety. Developers benefit from a robust toolchain that includes:

- **Highly optimized code generation:** Ensuring compact and high-performance applications.
- **Integrated debugging tools:** Simplifying the identification and resolution of complex issues.
- **Advanced analysis capabilities:** Tools like C-STAT for static code analysis and C-RUN for runtime analysis help ensure robust code quality and early detection of potential issues.

These features empower developers to fully leverage the TMC THA6 series, ensuring system compliance with the automotive industry's stringent safety standards.

Enabling Rapid Innovation in Automotive Electronics

Jun Huang, Senior Vice President of TMC, added, "IAR's extensive support enhances the development resources and toolchains for our automotive MCUs, significantly reducing our customers' development cycles. This collaboration strengthens the foundation for rapid iteration and innovation in automotive electronics. With our combined technical expertise and robust R&D capabilities, we are poised to drive the industry forward and unlock new opportunities."

Anders Holmberg, CTO at IAR, commented, "Supporting TMC's THA6 series underscores IAR's commitment to providing developers with tools to address modern automotive challenges. With ASIL D compliance, the THA6 series demands solutions that optimize performance while ensuring functional safety. By integrating advanced debugging, code analysis, and optimization, we help developers streamline workflows, reduce complexity, and deliver reliable automotive applications, meeting the demands of safety-critical systems."

Contact

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About IAR

At IAR, we provide world-leading software and services for embedded development, empowering companies globally to bring secure products that shape the future. Since its founding in 1983, our solutions have been instrumental in ensuring quality, security, reliability, and efficiency in the development of over one million embedded applications for a wide range of industries, including Automotive, Industrial Automation, IoT, MedTech, Military, and Public Safety sectors. With support for 15,000 devices from over 70 semiconductor partners, we are dedicated to fostering innovation and enabling our customers' success.

The company is headquartered in Uppsala, Sweden, with a global presence of sales and support offices strategically located across the world. IAR is an I.A.R. Systems Group AB subsidiary, listed on NASDAQ OMX Stockholm, Mid Cap (ticker symbol: IAR B). To learn more, visit us at www.iar.com.

About TMC

As a key player of automotive electronics and smart chip in the Tsinghua UnigGroup, TMC has over 20 years of expertise in security chips and consistently upholds its business philosophy of being the "excellent choice across all domains". The company has fully entered the automotive electronics sector by launching a comprehensive range of automotive chip products, including Automotive MCUs, Automotive SE, and Power Devices. These products are widely applied in fields such as powertrain, chassis, body, smart cockpit, and intelligent driving, earning recognition from leading OEMs and well-known Tier1 suppliers. For more information, visit www.tsinghuaic.com.

Image Attachments

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Attachments

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