

Avery, CAST, and Rianta Roll Together on Automotive Ethernet and CAN FD IP and VIP Solutions

TEWKSBURY, MA. — November 10, 2015 — Avery Design Systems Inc., an innovator in functional verification productivity solutions, Rianta Solutions, Inc., a Verification IP provider and System-on-Chip (SoC) integration specialist, and CAST, Inc., a semiconductor intellectual property (IP) provider, today announced they are combining their strengths to develop and deliver superior solutions for the design and verification of automotive networking systems. The resulting set of verification IP (VIP) and IP cores for the [CAN FD](#), [LIN](#), and automotive Ethernet buses will support the latest developments in automotive industry standards and provide more complete integrated design and verification solutions for next-generation automotive sensors, microcontrollers, and Ethernet switch chips and subsystems.

Modern automotive platforms employ different in-car network domains—powertrain, chassis, Advanced Driver Assistance Systems (ADAS), human-machine interfaces (HMI), and future “connected car” systems—that all need to coexist and communicate. Designs are rapidly evolving to use a shared switched Ethernet network backbone with support for heterogeneous subnets and gateways for CAN Flexible Data (ISO 11898-2), LIN, and FlexRay (ISO 17458-1–5) based control systems. System designers need proven, reliable IP cores to integrate these complex functions in an efficient and cost-effective manner. Additionally, test and verification requirements for conformance, interoperability, performance, and security can be greatly enhanced through the use of commercial verification IP models, protocol checking, and compliance testsuite options.

“We are pleased to collaborate with Avery Design to support and build on Avery’s solid VIP foundation in the industry to address the rapidly progressing automotive Ethernet networking and control systems market,” said Richard Deboer, CEO of Rianta. The Rianta Ethernet VIP provides Ethernet layer 2 MAC model plus layer 3 and 4 functions for 100M-100G applications. For automotive Ethernet layer 3 functions include 802.1AS (precise synchronization), 802.1Qav (FQTSS), 802.1Qat (SRP), 802.3u (100 Base-TX), and 802.3az (EEE). VIP is developed in native SystemVerilog UVM and includes traffic generation, protocol checking, and coverage.

“We are excited to work with Avery to help automotive engineers develop safer systems quicker through the industry’s first integrated CAN FD soft IP core and VIP package,” said Nikos Zervas, chief executive officer of CAST. Sourced from CAST partner Fraunhofer IPMS, the feature-rich [CAN FD Controller Core](#) is available today in synthesizable RTL for ASICs or optimized netlists for FPGAs. A ready-to-run [reference design board](#) and other development aids are also available from CAST to further shorten the time to market for CAN FD based systems.

The Avery CAN 2.0 and FD VIP supports the latest ISO specifications including the latest 11898-2 revision. Models and compliance testsuites for all modes are supported. VIP is developed in native SystemVerilog UVM and includes traffic generation, protocol checking, and coverage.

Visit us at the DVCon Europe (DAC) November 11-13 in booth #E2 to learn more about Avery, Rianta, and CAST IP and VIP solutions.

About Avery Design Systems

Founded in 1999, Avery Design Systems, Inc. enables system and SOC design teams to achieve dramatic functional verification productivity improvements through the use of formal analysis applications for RT-level and gate-level X verification; robust core-through-chip-level Verification IP for PCI Express, USB, AMBA, UFS, MIPI CSI, DSI, Soundwire, and Unipro, DDR/LPDDR, HBM, HMC, ONFI/Toggle, NVM Express, SATA Express, eMMC, SD/SDIO, CAN FD, and I2C standards. The company has established numerous Avery Design VIP partner program affiliations with leading IP suppliers. More information about the company may be found at www.avery-design.com.

About Rianta Solutions

The Rianta team has been working together for over 15 years delivering solutions to complex problems for leading datacenter equipment and semiconductor vendors. With a long history of consistently delivering high quality multi-hundred million gate SoCs, turnkey FPGAs and UVM verification environments, Rianta partners with our customers by taking joint ownership in successfully delivering silicon products. More information about Rianta is found at www.riantasolutions.com.

About CAST

CAST is a twenty-year-old developer, integrator, and aggregator of IP cores for ASICs and FPGAs. The company offers some of the best available choices for low-power, high-value IP, including 8051s and BA2x 32-bit Processors; video, image, and data compression; security, interfaces and other functions needed for complete system on chip designs. Visit www.cast-inc.com, or follow [@castcores](https://twitter.com/castcores) on Twitter.

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