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Socionext Showcases its latest Automotive, Edge AI and Video Distribution Technologies at Embedded World 2020

Yokohama, January 30, 2020 --- Socionext Inc. will exhibit (Hall 3A, Booth 129) at this year's Embedded World, the leading international fair for embedded systems to be held in Nuremberg, Germany from 25 – 27 February 2020. The company will also make a presentation at the event in the Electronic Displays Conference.

Highlights on the booth are a range of automotive solutions including an edge AI demonstration, time sensitive networking (TSN) IP for the industrial sector and an AV1 cloud-based encoding solution for video distribution.

Automotive Solutions

Smart Display Controller SC1701 Series - ideal for next generation cluster and center information display (CID) applications, this SoC offers excellent safety features including an integrated APIX3. It also aids system integration of peripheral devices. Key safety features can be supported independently from the video link, which can be found in two different demos on the booth.

SEERIS^TM 2D Graphics IP - a configurable soft IP for creating graphic solutions for automotive instrument clusters and driver assistance systems. It can also be used for industrial consumer SoCs. SEERIS IP is available as part of Socionext's ASIC services or through stand-alone IP licensing.

Neural Network Accelerator (NNA) Engine - an optimized unit for AI processing on edge computing devices. This compact, low power engine has been designed specifically for deep learning inference processing. It performs various computer vision processing functions with deep learning, as well as conventional image recognition. This engine is based on Socionext's own quantization DNN technology obtained from a project commissioned by the New Energy and Industrial Technology Development Organization (NEDO).

> NEDO Project Title:
> Project for Innovative AI Chips and Next-Generation Computing Technology Development /
> Development of innovative AI edge computing technologies /
> Updatable and Low Power AI-Edge LSI Technology Development

Automotive ASIC - Socionext's industry-leading custom SoCs for automotive markets enable the evolution of safe and secure automotive systems. They are used in automotive cameras, 360-degree around view systems, ADAS sensors, head-up displays, parking assistant, and rear seat entertainment among others. Socionext is also helping customers differentiate their products with solutions including support for ISO 26262 (Functional Safety).

Industrial

Time-Sensitive Network (TSN) - Socionext's TSN IP realizes true deterministic Ethernet and is suitable for FPGA or ASIC implementation. The IP is compliant with the next-generation network Ethernet TSN communication standard (IEEE 802.1 Subset) and its evaluation environment. The IP will come with start-up manuals and driver software along with an evaluation board. Users can evaluate and develop industrial applications equipped with TSN at an early stage and develop ASICs with Socionext.

Video Distribution

AV1 Cloud-Based Encoding Solution - AV1 is a new, advanced video data compression standard established by the Alliance for Open Media (AOMedia), of which Socionext is a member. AV1 is capable of compressing data 30% more effectively than HEVC, whilst keeping the same image quality. This solution ensures AV1 high-quality video streaming in real-time to significantly reduce processing time and distribution costs.

Presentation at the Electronic Displays Conference

Date: 26 February 2020
Time: 13:15 – 13:35
Venue: Messezentrum NCC Ost
Speaker: Nobutaka Yamagishi, Manager Technical Co-ordination HW Development, Socionext Europe
Subject: `**Realizing remote display systems for safety applications**´

Integrating intelligent systems into automotive displays is one of the major challenges for vehicle manufacturers today. In order to address these challenges Socionext has introduced the next generation of highly integrated Smart Display Controllers for automotive remote display applications.

About Socionext Europe GmbH

Socionext Europe GmbH (SNEU) plays a major role in the worldwide activities of Socionext Inc. Founded in 2015, Socionext Europe is headquartered in Langen, near Frankfurt, with other locations in Munich and Maidenhead (UK). For more information, visit eu.socionext.com

About Socionext

Socionext is a global, innovative enterprise that designs, develops and delivers System-on-Chip solutions to customers worldwide. The company is focused on technologies that drive today's leading-edge applications in consumer, automotive and industrial markets. Socionext combines world-class expertise, experience, and an extensive IP portfolio to provide exceptional solutions and ensure a better quality of experience for customers. Founded in 2015, Socionext Inc. is headquartered in Yokohama, and has offices in Japan, Asia, United States and Europe to lead its product development and sales activities. For more information, visit www.socionext.com/

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