

Socionext Expands Lineup of “Smart” Controllers, Featuring Enhanced Security Support for High-Resolution, Wide Format Displays

New SC1702 and SC1701 ICs Deliver Scalable Vehicle Remote Capabilities to Meet Expanding Automotive Display Requirements

Yokohama, December 10, 2020 --- Socionext Inc., a provider of integrated automotive SoC solutions, has introduced its new display controller SC1702 to meet the growing needs for high-resolution widescreen automotive displays. The company has also developed a new addition to the existing SC1701 series, providing low-cost, optimal safety functions for meter clusters. This lineup of “smart” display controllers delivers scalable in-vehicle remote display systems that achieve high levels of safety.

The use of automotive displays is rapidly expanding in instrumentation and vehicle control operations, including meters, climate controls and other dashboard indicators integrated into graphics. Additionally, head-up displays (HUD) and e-mirror displays are being added to many vehicles, resulting in a broader set of display requirements and options. These range from conventional small displays to large format, wide screens with some spanning across the entire dashboard.



Smart Controllers SC1702 /SC1701

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New Interface and Conformance with HDCP 2.3 Encryption

The new SC1702 is capable of transferring data at rates of up to 12 Gbps using the latest APIX[®]3 technology. It is equipped with a newly developed Panel Interface Port (PIP) that supports the most advanced, high-resolution wide landscape format display such as 8K x 1K, which cannot be supported with conventional interfaces. In addition, the SC1702 was designed to conform to the latest encryption technology HDCP 2.3, making it possible to effectively utilize rich, 4K-resolution content for multi-displays and other uses in a vehicle. Supporting these new technologies, the SC1702 can detect display abnormalities that are unobservable with current technology. In addition to the conventional safety features, displays can now recognize panel link loss, inconsistencies of CRC of pixel data and other behaviors at the source drivers and gate drivers, enhancing the capabilities to meet further safety requirements.

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New SC1701 Lineup Delivers Added Capabilities

The SC1701BH5-300 is a new addition to the SC1701 lineup providing additional functions to existing meter systems. With the new device, safety features such as multi-window signature unit, picture freeze detection, and watchdog -- as well as the 2D rendering capability of Deep Color (30 bpp) built-in graphics engine -- are now available at competitive pricing.

SC1701 / 1702 Series Main Lineup and Specifications

	SC1701BK3-100	SC1701BH5-100	SC1701BH5-300 (new)	SC1702AK3 (new)
Package – Pin	HS-BGA -319	EP-LQFP -216	EP-LQFP -216	HS-BGA -319
Size	23 mm x 23 mm	24 mm x 24 mm	24 mm x 24 mm	23 mm x 23 mm
Video Channels	2	1	1	2
Video Output Resolution	3840 x 2160	1920 x 1200	1920 x 1080	7680 x 1080
Video Output	Dual TCON, LVDS, OpenLDI, mini-LVDS	TCON, LVDS, OpenLDI, mini-LVDS	TCON, LVDS, OpenLDI	Dual TCON, LVDS, OpenLDI, mini-LVDS, PIP
Video-Link Input	2x6Gbps APIX3 Rx with HDCP 1.4	2x3Gbps APIX3 Rx with HDCP 1.4	-	2x6Gbps APIX3 Rx with HDCP 2.3
Video Input	LVDS, OpenLDI	LVDS, OpenLDI	LVDS, OpenLDI	-

Samples of the SC1701BH5-300 are now available. Sample shipment of the SC1702AK3 will start in February 2021.

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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