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Analog Devices and Renesas Electronics Collaborate on 77/79-GHz Automotive RADAR Technology to Improve ADAS Applications and Enable Autonomous Vehicles

New RADAR Sensor Demonstrator Includes RH850/V1R-M Microcontroller from Renesas Autonomy™ Platform and Analog Devices' Drive360™ Advanced 28nm CMOS RADAR Technology

NORWOOD, Mass. & TOKYO--(BUSINESS WIRE)-- Analog Devices, Inc. (NASDAQ: ADI), the leading global high-performance analog technology company, and Renesas Electronics Corporation (TSE: 6723), a premier supplier of advanced semiconductor solutions, announced today they are collaborating on a system-level 77/79-GHz RADAR sensor demonstrator to improve Advanced Driver Assistance Systems (ADAS) applications and enable autonomous driving vehicles. The new demonstrator combines two cutting-edge technologies that include the RH850/V1R-M microcontroller (MCU) from the Renesas autonomy Platform and ADI's Drive360 advanced 28nm CMOS RF-to-bits technology. The seamless system-level operation of these two technologies will make driving safer by enabling earlier detection of smaller and faster moving objects at greater distances. It will also lower RADAR system integration efforts and reduce evaluation risks for automotive OEMs and Tier One suppliers.

"RADAR sensors play a crucial role for all ADAS or automated driving functions," said Jean-Francois Chouteau, vice president of Renesas Global ADAS Centre. "This cooperation ideally combines the best of ADI and Renesas assets to deliver performance and enable OEMs and Tier One suppliers to reduce development cost and time to market. We are delighted to join forces with ADI, whose 28nm solution provides cutting-edge RF performance for target detection."

"Analog Devices' collaboration with Renesas will be a key enabler for the highest performance RADAR systems," said Chris Jacobs, general manager, ADAS & Automotive Safety, Analog Devices. "This innovative system approach will significantly reduce risk by providing digital interoperability at the system level for our customers. The new RH850/V1R-M MCU, coupled with ADI's high-performance Drive360 RADAR platform, will bring unparalleled performance to advanced ADAS and autonomous driving systems."

About Analog Devices Drive360 28nm CMOS RADAR Technology

Analog Devices Drive360 28nm CMOS RADAR technology platform builds on the company's established ADAS, MEMS, and RADAR technology portfolio widely used throughout the automotive industry for the past 20 years. Drive360 is already revolutionizing sensor performance for ADAS applications with the world's first automotive RADAR technology based on advanced 28nm CMOS with unparalleled RF performance for target identification and classification. ADI's high-performance RADAR solution enables earlier detection of smaller and faster moving objects. High output power enables greater range and identification of smaller objects, while lowest phase noise enables best unambiguous detection of smaller objects in the presence of large objects.

About the Renesas Autonomy Platform and RH850/V1R-M RADAR MCU

Renesas is the only automotive semiconductor supplier in the industry to offer end-to-end solutions from secure cloud connectivity and sensing to autonomous control. Leveraging decades of experience and technological expertise, the new Renesas autonomy Platform is an open, innovative, and trusted platform for ADAS and automated driving, supported by Renesas' sustainable and scalable SoC and MCU roadmaps. The RH850/V1R-M MCU was specifically designed for use in RADAR applications as part of the sustainable and scalable portfolio. The new MCU includes optimized programmable digital signal processing (DSP), a dual CPU cores each operating at 320 megahertz (MHz) with industry-leading high speed flash of 2 megabyte (MB), and 2 MB internal RAM, while meeting the industry's highest temperature requirements.

About Analog Devices

Analog Devices is the leading global high-performance analog technology company dedicated to solving the toughest engineering challenges. We enable our customers to interpret the world around us by intelligently bridging the physical and digital with unmatched technologies that sense, measure, power, connect and interpret. Visit <http://www.analog.com>

About Renesas Electronics Corporation

Renesas Electronics Corporation delivers trusted embedded design innovation with complete semiconductor solutions that enable billions of connected, intelligent devices to enhance the way people work and live—securely and safely. The number one global supplier of microcontrollers, and a leader in Analog & Power and SoC products, Renesas provides the expertise, quality, and comprehensive solutions for a broad range of Automotive, Industrial, Home Electronics (HE), Office Automation (OA) and Information Communication Technology (ICT) applications to help shape a limitless future. Learn more at

<http://www.renesas.com>

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Renesas autonomy is a trademark of Renesas Electronics Corporation.

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