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Alps Electric Launches the World's Smallest Automotive 4G LTE Communication Module Powered by Marvell's ARMADA Mobile Solution

Marvell's ARMADA Mobile PXA1801 multi-mode 4G LTE modem is at the core of Alps' UMDZ Series high-speed data module with complete support of 2G, 3G and 4G LTE

SANTA CLARA, Calif., Dec. 10, 2014 /PRNewswire/ -- [Marvell](#) (NASDAQ: MRVL) a worldwide leader in providing complete silicon solutions from mobile communications to storage, Internet of Things (IoT), cloud infrastructure, digital entertainment and in-home content delivery and [Kinoma](#)® software enabling the "Smart Life and Smart Lifestyle," today announced that Alps Electric Co., Ltd. has launched the world's smallest automotive 4G LTE high-speed data communication module, the UMDZ series, with dimensions of 28.90 × 29.80 × 4.22 mm. Powered by Marvell's ARMADA® Mobile PXA1801 multi-mode 4G LTE modem, the Alps Electric UMDZ Series module supports 2G, 3G and 4G LTE communication protocols and worldwide deployment including Europe, North America, China and Japan. The ARMADA Mobile PXA1801 supports Category 4 data rates, achieving throughputs of up to 150 megabits-per-second (Mbps) on the downlink and 50Mbps on the uplink. The modem's flexible and efficient architecture allows fast implementation of reliable, secure and cost-effective data communication devices for automotive, smart meters, machine-to-machine, digital signage and other emerging applications. Combined with Marvell's PXA1801 4G LTE modem, the Alps' UMDZ communication module also features Marvell's PMIC components and 88RF858 RF transceiver.

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"I am very pleased to see the successful launch of the world's smallest automotive 4G LTE communication module by Alps Electric. I'm very proud of our close collaboration with top global operators and key ecosystem partners in leading the industry delivering advanced in-vehicle connectivity solutions to global consumers," said Weili Dai, President and Co-Founder of Marvell. "4G LTE is not only an important technology for smart phones and tablets but also a key enabler of many new and exciting applications such as automotive, machine-to-machine, smart home, and Internet of Things. I am very thankful to the dedicated Alps and Marvell teams for delivering this groundbreaking product to the mass market around the world."

"We are very pleased to partner with Marvell a leading global semiconductor company to launch the world's smallest automotive 4G LTE module. Marvell's innovative mobile platform is a very mature and complete solution that enabled us to develop such a premium, high

performing module," said Hideo Izumi, Senior Manager of Wireless Connectivity Engineering Department M6 of Alps Electric. "We look forward to continuing our collaboration with the Marvell team."

Automotive manufacturers are increasingly seeking technology that links high-speed data communication in vehicles to the outside world. By utilizing Alps Electric's advanced communication module, automotive manufacturers can perform key functions of in-vehicle navigation systems including map updates, destination and traffic information, as well as offer high-speed data for in-vehicle entertainment, cloud and big data services, eCall, and general Internet access.

Key features of the UMDZ Series LTE Module include:

- Dimensions of 28.90 × 29.80 × 4.22 mm make it the world's smallest automotive LTE module
- Built-in multimode support for LTE (4G), as well as 2G and 3G
- Worldwide deployment including Europe, North America, China and Japan
- Module-level certification for different regions

Key features of the Marvell [ARMADA Mobile PXA1801](#) include:

- Supports Release 9 LTE FDD/ TDD with MIMO, R8 WB-CDMA, and GSM/GPRS/EDGE
- Fully integrated platform solution validated via extensive IOT, PTCRB, GCF field testing and carrier certification
- Multi-band LTE, Multi-band WB-CDMA, Quad-band EDGE/GSM with DigRF3G/4 support
- Supports multi-radio platform capability, 3G/WLAN/BT coexistence enables support for IMS, VoIP and other advanced carrier devices
- ARM and DSP cores including a Marvell-designed ARM auxiliary core with packet processing accelerators
- L1 Instruction and Data Cache
- L2 Cache
- ITCM and DTCM

About Marvell

Marvell (NASDAQ: MRVL) is a global leader in providing complete silicon solutions and Kinoma software enabling the "Smart Life and Smart Lifestyle." From mobile communications to storage, Internet of Things (IoT), cloud infrastructure, digital entertainment and in-home content delivery, Marvell's diverse product portfolio aligns complete platform designs with industry-leading performance, security, reliability and efficiency. At the core of the world's most powerful consumer, network and enterprise systems, Marvell empowers partners and their customers to always stand at the forefront of innovation, performance and mass appeal. By providing people around the world with mobility and ease of access to services adding value to their social, private and work lives, Marvell is committed to enhancing the human experience.

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