

BYD Semiconductor collaborates with TSMC and MediaTek on advanced automotive chips

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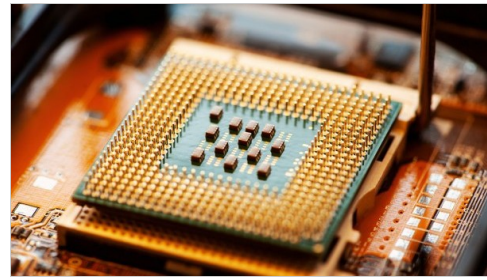
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The collaboration develops chips for smart driving and cockpit systems, attracting significant investment and challenging industry leaders

BYD Semiconductor, a chip design offshoot of BYD, has been collaborating with TSMC and Mediatek in the development of a central automotive controller chip and a cutting-edge, 4-nanometer (nm) smart cockpit chip, according to a report published by eeNews Automotive on Nov. 20.



Source: Yulia Shaihudinova/iStock/Getty Images Plus via Getty Images

The central controller chip designed by BYD Semiconductor is highlighted for its capability, boasting a performance of 80 tera operations per second (TOPS) in its smart driving system. This innovation is poised to challenge the current dominance of Nvidia Orin and Horizon Robotics' J6E chips in the market for highway Navigate on Autopilot (NOA) or SAE Level 3 advanced driver assistance systems.

The company's achievements in semiconductor development have attracted investments from notable industry players such as smartphone manufacturer Xiaomi, ARM China, Lenovo, SK Telecom (owner of SK Hynix) and Chinese foundry SMIC.

Furthermore, BYD's collaboration with Mediatek has led to the creation of the BYD9000 smart cockpit chip. This chip, produced using a 4-nm automotive process from TSMC, is a specialized version of the Mediatek Dimensity 9000 series. It features an ARMv9 core, 5G baseband and DDR5 memory interface and can support up to 11 connected screens. The BYD9000 chip is set to debut in vehicles such as the Formula Leopard series and the Denza Z9, showcasing BYD Semiconductor's contributions to advancing automotive technology.

CONTACTS

The Americas

+1 877 863 1306

Europe, Middle East & Africa

+44 20 7176 1234

Asia-Pacific

+852 2533 3565

www.spglobal.com/mobility

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