

Category Award

E-Bus LKA/FCW ADAS Systems



ELAN Microelectronics Corp.

義隆電子股份有限公司

[Company Website](#)

Winning Reason

Elan independently developed several technologies for this platform: the AI detection model, MLOps system, ADAS database, and VR/AR data collection. Chi Mei Motor provides the hardware computing platform and Rotatech International provides parts such as steering motors, which, together with Elan's innovations, form a national innovative electric bus ADAS solution with great market potential. The company has collaborated with carmakers such as Master and Rac Electric Vehicles Inc. to demonstrate their system on domestically produced electric busses. It passed the ARTC test, meeting domestic regulations to be VSCC certified. The next step is to expand into the North American market by working with OMI, under US-based international manufacturer Optimal-EV, and North American commercial pickup truck companies.

Product Feature

All AI technologies in this project, including AI detection models, MLOps, ADAS database collection, and VR/AR data collection, are self-developed by Elan Microelectronics, with hardwares (computing platforms and automotive cameras) provided by a subsidiary of Elan Microelectronics (Chimei Motor Electronic). The entire supply chain is domestically produced. 1. We designed a unified model for real-time edge ADAS AI with multi-tasking capabilities and achieved a frame rate of over 30fps. 2. Our MLOps platform includes data collection and labeling, with automated data selection using deep active learning. 3. VR/AR technology was used for special data collection, solving corner case data collection issues and improving AI detection precision, a first among domestic ADAS manufacturers.