Transportation Examples

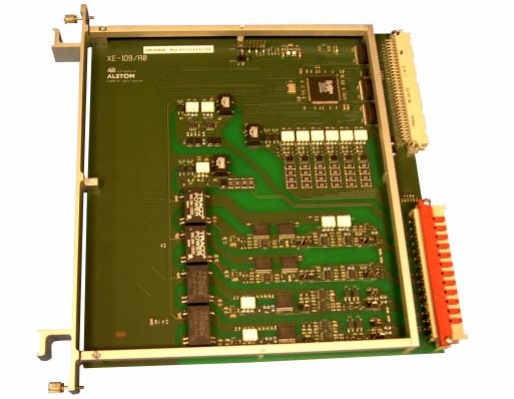
Control systems

Since 1996 AcQ Inducom develops various CPU VMEbus boards for ALSTOM Transport in the Netherlands that are still being produced. These CPU boards are used in busses, trolleys, trams and trains.
One of these boards, the XE-MPR5, is mainly used for train- and trainset control. A command of the driver of the train is translated in the trainset and is transmitted to the coupled trainsets. E.g. commands for switching on the lights, for releasing to open the doors, for drive- and brake commands to the traction and for power management. The system composes diagnoses by means of failure reports from the train equipment. These reports are shown to the train driver by means of a display device and/or lamps on the driver's desk.
Another board, the XE-MPR6, is used for controlling of the traction drive. On the MPR6 CPU board the complex control of the power electronics for the traction drive is located. This power electronics drives the electromotors for driving and electrically braking. Also the diagnostic functions of the traction drive are located on this CPU board.

EL Display

For ALSTOM Transport in the Netherlands AcQ Inducom developed and supplies a ruggedized EL Display terminal, capable of operating over a wide temperature range. In combination with a matrix keyboard it behaves like a VT100 terminal with a limited number of keys. The display is mounted in train driver's desks and presents status and alarm information of the train to the train driver. De displays are used in trains of BLS AG in Switzerland.

General purpose IO Board



For ALSTOM Transport in the Netherlands AcQ Inducom developed a general purpose I/O board. The board was developed according the EN50155 standard and has several kinds of I/O, like digital, analog and serial. The board was developed as a 100% Form-Fit-Function compatible board of its predecessor which became obsolete.

Graphic controller

For Telecomputer in Spain AcQ Inducom supplies graphics controllers with a VMEbus interface including a high bandwidth graphic switch, providing a redundant video system used for graphical presentation of tracks and trains for the Spanish Railways. The system is designed to display the information of two redundant systems on a single high-resolution display alternately, if a system fails the information of the system still working is displayed and fail situation is indicated. The VME systems are installed in Spain and other countries.

Traffic control

For Vialis Traffic and Mobility in the Netherlands AcQ Inducom developed, to customer specification, a single board system, based on Motorola's MC68060 microprocessor. Featuring onboard Ethernet and XPI bus. The project included the porting on OS-9 real-time operating system with TCP/IP support. The board developed is used by Vialis in traffic control installations such as traffic lights and traffic regulating centres.

Metro application

RATP in France uses the M381 DSP module with analog inputs as well as the M383 DSP module with analog outputs of AcQ for implementation in automatic test equipment for the French metro. Both the M381 and the M383 are designed according to RATP's requirement specification.