



congatec presents an APIX starter kit for the development of robust and inexpensive control units

APIX was originally developed for transferring image data in vehicles and, thanks to the new APIX starter kit, can now also be quickly and easily put to use in industrial applications. The APIX transfer process enables the use of ordinary Ethernet cables and makes it possible to simultaneously transmit video data and bi-directional control data as well as the power supply for the control or display units used.

The APIX Design Kit consists of a PCI Express add-on card, including the appropriate operating system drivers, and a remote display unit with integrated touch-screen. The image data, the coordinates from the touch-screen and the power supply are all transmitted using a normal Ethernet cable with RJ45 connectors. If high quality cables are used, distances of up to 40 metres or more can be covered.

The good value and robust APIX technology was developed by Inova Semiconductors especially for the automotive industry, although it can also be ideally used for industrial automation solutions and in medical technology, as well as for gaming machines, weighing scales or in the fast growing market for digital signage.

Remote displays or control units are often used in the field of automation technology. Until now, relatively expensive and costly "thin clients" or passive solutions have been used for this and these also require expensive special cabling. With APIX, displays and control units can be connected using one single, easily fitted cable, all without any additional network equipment, because APIX provides the power for the remote displays.

The PCI Express x1 add-on card has two APIX ports. This expansion card reads directly from the video memory and sends the data to the APIX channels at a current maximum resolution of 800 x 600 pixels. Up to 4 of these cards can be used per system, creating a maximum of 8 APIX channels. The sideband signal data, i.e. the return channel in an APIX solution, is also received by the PCI Express card and made available to the computer. PoA (Power over APIX) is used to supply power to the remote control units and allows a maximum current of 2 amps with a 12 volt supply voltage.

The receiver unit includes a touch controller, a 7" TFT panel with LED backlight and the "Indigo" chip from Fujitsu Microelectronics Europe (FME), which refines the transmitted signals. Depending on requirements, more complex or encrypted communication is also possible with the display unit.

The kit gives users the opportunity to quickly and easily evaluate the APIX display link interface. As well as all the necessary hardware, the kit contains comprehensive documentation, including all the required circuit diagrams, in order to allow the implementation of customer specific solutions to be designed as easily as possible.