

PEOPLE • PRODUCT • PROCESS

# AUTOMOTIVE A Industries



New era for  
outsourcing  
– DHL

Focus on  
**FlexRay**

**Fresh**  
environmental  
spotlight

Ford's plans  
to **fly high**



# Full video with one twisted pair

German manufacturer, Inova Semiconductor has entered the automotive market with APIX, a link that allows optimum connection of high-resolution displays and cameras to automotive PCs using only two wires.

According to the company, APIX requires only one twisted cable pair for full video and sideband operations. It can be used for displays of in-car information, automotive dashboard, car head-up, rear-seat infotainment, automotive vision systems, adaptive cruise control, lane departure warning systems, lane change assistant, obstacle detection, sign recognition, rear and side mirror replacement, blind spot detection, passenger infotainment systems, security systems, machine vision and military head-up and helmet displays.

Automotive Industries (AI) spoke to Robert Kraus, chief executive officer of Inova Semiconductors, and asked about Inova's plans for the automotive market.

Kraus: With ever busier traffic, intelligent systems will be needed to assist the driver in critical situations or help him to escape traffic jams. With our new APIX products, we have a technology which not only can be used to establish multiple display or camera-link with one and the same product, they also are "seamless" with respect to EMI interference - a feature which will be ever important in the car. The concept of our product also does allow for new and intelligent "video networks" in the car including embedded solutions.

AI: What are your projections for growth in the auto market?

Kraus: Knowing the cycles in the automotive market, the revenues will ramp in 2008. Yet, we are positively surprised to see after-market applications like in-car PC



Robert Kraus, chief executive officer of Inova Semiconductors.

/ telematic systems already starting in early 2007, on top our APIX chips are attracting a lot of interest across the field: it's mainly camera/ surveillance applications - first automotive color-cameras with digital APIX interface already are out in the market - but also medical diagnostic systems like endoscopes or even interactive mini-display for white goods. With APIX we have launched a truly enabling technology. We expect this new platform to become a major contributor for our further growth.

AI: What are some of the future products you are working on for the automotive market?

Kraus: APIX is a product and platform at the same time. The actual products are designed for a maximum bandwidth of 1

Gbit/s, however, the underlying physical layer is verified for up to 4 Gbit/s and more to accommodate the ever increasing need for bandwidth, also in the car. In combination with our special frame architecture, and the embedded return channel, the technology is ready to spin-off numerous new system products, also adding value-added functionality on top of pure camera- or display-link applications. A first "APIX" system level product is already in definition together with a major car manufacturer.

AI: Will it be in-vehicle navigation, safety and infotainment systems that will drive car sales in the future?

Kraus: I think so. With the roads becoming ever more crowded, traditional car features like horse power and top speed will more and more move to the background. Even on German Highways, famous for "no speed limits", fast driving is wishful thinking. Only 2% of the highways are without speed limits - a dense traffic on the road means an average cruising speed of 120-160 km/h - that's it. As more traffic is regulated and controlled, and as more drivers look for other features and differentiators in the car, I believe intelligent infotainment and driver assistance will be a key. Not ignoring market researchers, you sometimes only need to watch your surroundings to see where the trend is going: my father, who just turned 70, recently bought a new car and what is he most excited about? Not the top speed or lowest gas consumption, but the iDrive and 3-D navigation.

However, it is important that any new technology you move into the car has the potential to save costs at the other end by intelligent system concepts or embedded solutions - exactly what we are offering with APIX.

AI