

# Press Release

## 15/09/2008

### **AT&S Solutions develops novel GPS/AGPS module with Hitachi High-Technologies Europe GmbH**

**AT&S Solutions, a division of Europe's largest and technologically most advanced manufacturer of printed circuit boards – AT&S – has developed a new GPS/AGPS module for Hitachi High-Technologies Europe GmbH. With high-precision position finding and signal acquisition, and embedded in a long-term technology roadmap, the GPS module AT&S eMD3620 is at the cutting edge of the latest developments in this area.**

“The AT&S eMD3620 is a complete, high sensitivity GPS/AGPS receiver module which, in combination with eRide's powerful navigation software, delivers fast, accurate positioning data in challenging locations like indoor environments and deep urban canyons,” says Michael Mayerhofer, Head of Design & Development at AT&S. The innovative device is based on Opus III™ technology from eRide, with Opus IIIeZ™ BB IC, the Prelude III™ RF IC receiver, flash memory, RTC, TCXO, SAW filters and internal voltage regulators. And Mayerhofer adds: “What we've done is create a fully functional plug-and-play version which – thanks to its integrated software – can be used straight out of the package. Our aim was also to offer a complete solution at a very attractive price.”

The module is designed as a 32-channel GPS/AGPS receiver in combination with a 2-channel SBAS receiver, which increases the location accuracy. Test results from the first prototypes developed for Hitachi High-Technologies Europe GmbH have demonstrated its performance capabilities: the sensitivity is around -161 dBm, Time to First Fix takes less than 1 second at -130 dBm and the position accuracy is 1.3 m outdoors and 12.5 m indoors (both at 50% CEP). The AT&S module measures 20x20x2.2 mm in size and has an operating temperature range of -40°C to +85°C. The module is equipped with two 50-ohm inputs, and can be operated either with an integrated passive antenna or an external active antenna, where the module automatically switches to the corresponding input. If the customer requires a solution with dead reckoning, the module is shipped with special software, allowing it to be directly connected to the engine Control unit via the second serial port. Unlike standard solutions, the AT&S module only requires the RPMs of the rear wheels. This dead reckoning solution offers an unsurpassed price/performance ratio since it does not need gyro sensors.

The module was developed as an end-to-end solution for use in hand-held – as well as in automotive devices. The main areas of application are in navigation systems, in tracking systems and in fleet management. AT&S Solutions takes care of the hardware development and production as well as the assembly of printed circuit boards. Hitachi High-Technologies Europe GmbH will market the modules through their worldwide distribution network. The roadmap already foresees the development of a 20x15 mm module for portable navigation systems and a 7x8 mm module for mobile devices. These are AT&S's next developments for Hitachi.



Austria Technologie & Systemtechnik  
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### About AT&S

AT&S Austria Technologie & Systemtechnik Aktiengesellschaft is European market leader and one of the world's strongest-performing printed circuit board manufacturers. AT&S is extremely well positioned in the market for high-tech HDI Microvia printed circuit boards, which are chiefly used in mobile devices. The company is also highly successful in the automotive, industrial, and medical sectors. As a high-growth international enterprise, AT&S has a global presence with six production facilities – three in Austria (Leoben, Fehring, Klagenfurt) and one each in India (Nanjangud), China (Shanghai), and Korea (Ansan, near Seoul) – and 17 sales and marketing offices. The Group employs more than 6,300 people worldwide and generates revenues of almost half a billion euro.

In addition to developing and manufacturing printed circuit boards, as a total solutions provider AT&S offers its customers a range of additional services, including design and population of circuit boards. Specialised prototype development and express services round out the portfolio.

For more information visit [www.ats.net](http://www.ats.net).

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