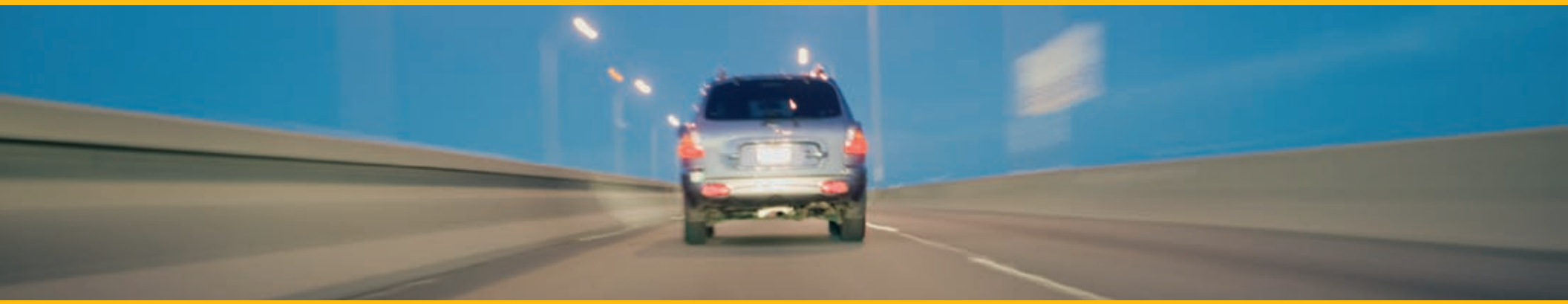
kapsch >>>
always one step ahead

Increasing Roadway Safety and Mobility.



Kapsch TrafficCom

Improving road safety has become the driving force toward creating intelligent solutions for road traffic. By utilizing state of the art communications platform based on Dedicated Short Range Communication (DSRC) at 5.9 GHz, equipped vehicles shall be able to communicate to each other and with roadside infrastructure, all ensuring to keep the vehicles and their passengers out of each other's way. Such technology will also serve as the backbone for a host of new applications in e-commerce, traffic management and mobility. Typically invisible to the driver, they will be the invaluable, in-vehicle aide for safety applications, providing warnings about road or traffic conditions, travel advisories or travel information, or as personal assistants offering information on demand in real time. Together with committed traffic management policies, these technologies can also contribute to alleviate traffic congestion and improve mobility.

The technology is available and ready for deployment. Charging for road use offers a viable means to finance the implementation of this technology.

Kapsch TrafficCom is a global supplier of products and solutions for intelligent road traffic telematics applications. The company develops and sells products, systems and services primarily for electronic toll collection (ETC) systems, specialized in solutions for open road tolling (ORT), multi-lane free-flow (MLFF) and high occupancy tolling (HOT). In addition, Kapsch TrafficCom supplies traffic management systems, with a focus on road safety and traffic control, and electronic access systems and parking management.

With more than 200 reference projects in over 30 countries in Europe, Australia, Latin America, in the Middle-East, in the Asian/Pacific region and in South Africa with almost 13 million on-board units (OBUs) and over 11,000 equipped lanes, Kapsch TrafficCom has positioned itself among the leading suppliers of ETC systems worldwide. Kapsch TrafficCom is headquartered in Vienna, Austria, and has subsidiaries and representative offices in 20 countries.

Kapsch TrafficCom has U.S. offices in Sterling, VA and Carlsbad, CA.

In the U.S., Kapsch TrafficCom provides infrastructure solutions and in-vehicle technology for ETC and Vehicle Infrastructure Integration (VII) applications based on 5.9 GHz Dedicated Short Range Communication (DSRC) / Wireless Access in a Vehicular Environment (WAVE). This technology platform enables e-commerce, mobility and vehicle safety applications and makes it possible to transmit traffic and road condition information from every major road within the transportation network.

With projects in New York, California and Michigan, and with roadside equipment installed in a number of VII proving centers, Kapsch TrafficCom has positioned itself among the leading suppliers of 5.9 GHz DSRC technology solutions and service for VII and ETC.

PASSENGER
CARS ONLY
9A
H. HUDSON
PKWY

The Products.

The Kapsch TrafficCom 5.9 GHz DSRC product portfolio includes:

- Multiband Configurable Networking Unit (MCNU) which is a wireless communication solution which supports Vehicle Infrastructure Integration (VII) and industry common protocols for vehicle communications operating in the 5.9 GHz Dedicated Short Range Communications (DSRC) band.

- Embedded WAVE Module “eWAVE” which is a compact 5.9 GHz DSRC module designed to create portable and integrated on-board vehicle communication systems. Due to its versatility and size, the eWAVE module can be integrated into a communications vehicle and roadside equipment platforms, offering easy configuration with 3rd party applications.

Kapsch 5.9 GHz DSRC products are compliant with the current IEEE 802.11 a/b/g and p, WAVE standards for Dedicated Short Range Communications (DSRC) as well as meet the ISO standards for Toll Collection.

The Systems.

Kapsch TrafficCom solutions portfolio focuses mainly on Toll Collection Systems, Urban Traffic Solutions, ITS and Traffic Telematics. The systems are designed for highway, city or any-road implementation and support charging schemes based on time, distance and/or place – or any combination thereof – and for all vehicle types. Kapsch TrafficCom offers expertise in road user charging systems which utilize DSRC, GPS/GNSS and GSM/GPRS technologies, and call for standards-compliant roadside equipment and in-vehicle on board units, comprehensive enforcement, vehicle detection, vehicle classification, vehicle registration, central systems, and program development.

An end to end solutions portfolio – from system concept and design, planning & roll out, development and manufacture of core products, system integration and implementation, customer support, maintenance and service to technical and commercial operation.

What is 5.9 GHz DSRC?

DSRC at 5.9 GHz was established for services involving vehicle-to-infrastructure (V2I) and vehicle-to-vehicle (V2V) communications. It is a low latency, short to medium range wireless protocol specifically designed for mobile use. It provides communication capabilities between vehicles and between vehicles and roadside equipment for the purpose of implementing intelligent safety and mobility applications along roadways.

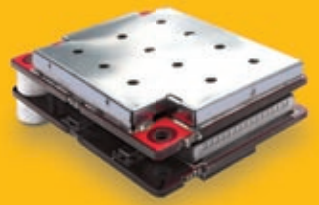
Kapsch TrafficCom has been a pioneer in the standardization of 5.9 GHz DSRC networking management protocols through the Institute of Electrical and Electronics Engineers (IEEE). DSRC uses IEEE 802.11p and 1609 (an adaptation of 802.11a) and offers data rates from 3 to 54 Mbps.

5.9 GHz DSRC delivers superior performance and new functionality with reduced infrastructure density and cost base, while forming a platform for VII & Intelligent Transportation System solutions. Users will benefit from VII applications such as collision avoidance or real time traffic and transit information, and road operators will have an open standard, interoperable system supporting open procurements and the benefit of multi-vendor sourcing. In addition 5.9 GHz systems are scalable, designed to meet changing needs.

What is VII?

The Vehicle Infrastructure Integration (VII) Initiative is a cooperative effort between the U.S. Department of Transportation (US DOT), state and local agencies, the automobile industry, and a number of technology stakeholders including Kapsch TrafficCom. The VII Initiative supports deployment of an interoperable communications infrastructure for ongoing real-time data communications between vehicles and between vehicles and roadside to enable a number of safety and mobility applications and to increase roadway safety.

An implemented VII communications infrastructure will enable travelers to access local traffic conditions and routing information, receive warnings about imminent roadside hazards, and conduct commercial transactions within their vehicles. More importantly, transportation agencies also will have access to road condition and traffic situation data to better manage traffic operations, support planning, and more efficiently manage maintenance services.



eWAVE module

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