

# V2X

At Cohda Wireless, our mission is to make roads safer, not only for drivers, but also for the most vulnerable road users – pedestrians, cyclists and motorcyclists.

The US Department of Transport estimates 94% of crashes involve human error. Improvements in vehicle and infrastructure safety have reduced the global road toll significantly in recent decades, and now our V2X applications are leading the way to prevent crashes from happening in the first place.

V2X has the potential to eliminate or mitigate up to 80% of non-impaired-driving collisions. Beyond that, it can also better utilise infrastructure, reducing congestion and pollution. Cohda Wireless V2X will make cities safer and more productive.

Cohda Wireless hardware-agnostic V2X stacks are used in more than 60% of all connected vehicle trials worldwide. Our history, backed by more than 100,000's km of real-world testing, has made us the OEM supplier of choice for production vehicles, with Cohda selected for the world's first and second production deployments.

# V2X Stack

Cohda Wireless has a proven suite of 'Day One applications that have become the industry standard in automotive V2X production. Our mature, hardware agnostic V2X applications are the most widely deployed in this rapidly evolving sector, including major commuting projects, pioneering truck platooning initiatives and collision avoidance systems.

Cohda's V2X solutions are already making cities safer, smarter and greener, and setting the benchmark for the industry worldwide. Both Development Licenses and Production Licenses are available to developers of automotive V2X equipment.

Conda Wireless is a global leader in the development of Connected Vehicles and Connected Autonomous Vehicle software with proven applications for Smart City, Mining and other environments.

Cohda Wireless' V2X technology is proven with inclusion in the first two production vehicles giving Cohda Wireless practical experience in bringing automotive ITS solutions to industry.



# **V2X Solutions**

#### MK6 OBU & RSU

Cohda Wireless 6th-generation On-Board Unit (OBU), and Road-Side Unit (RSU) are the most advanced V2X units on the market with dual V2X technology using the latest connectivity with:

- DSRC with 2x NXP RoadLink® SAF5400 chipset
- C-V2X with Qualcomm SA515 chipset supporting 3GPP R15, 5G
- Cellular 5G NR with fallback support for 4G (LTE Cat 19)/3G/2G
- Wi-Fi 802.11 a/b/g/n/ac
- Bluetooth v5.1

MK6 offers a robust, secure foundation for intelligent transport systems of the future no matter the technology choice.

# MK5 OBU & RSU

Cohda Wireless' 5th generation On-Board Unit (OBU), and Road-Side Unit (RSU) are proven ready for DSRC large—scale field trials, aftermarket deployments, or to serve as a reference design for automotive production and for developers of Smart City infrastructure.

The MK5 exchanges data at high speeds over extended distances, providing class-leading reaction times to potential hazards and safety-critical scenarios. In challenging outdoor conditions where no line-of-sight is available, its radio performance is unmatched.

# **V2X-Locate**

Typically, GNSS positioning performance degrades in areas such as urban canyons, tunnels, parking garages, and any other compromised sky views, resulting in unpredictability in determination of vehicle position. The utility of V2X-Locate is particularly evident in such GNSS challenged locations.

V2X-Locate uses ranging measurements to fixed RSU's to enable enhanced positioning accuracy. The ranges from spatially separated RSUs are fed into Cohda's enhanced V2X-Locate positioning engine to accurately position vehicles equipped with OBU's. Through the advanced processing capabilities of Cohda's software designed radio, the V2X Locate solution is able to calculate a true line-of-sight path regardless of the existence of multipath signals, allowing the vehicle to know its position with accuracy <1m 95% of the time.

\*Based on recommended deployment set-up

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