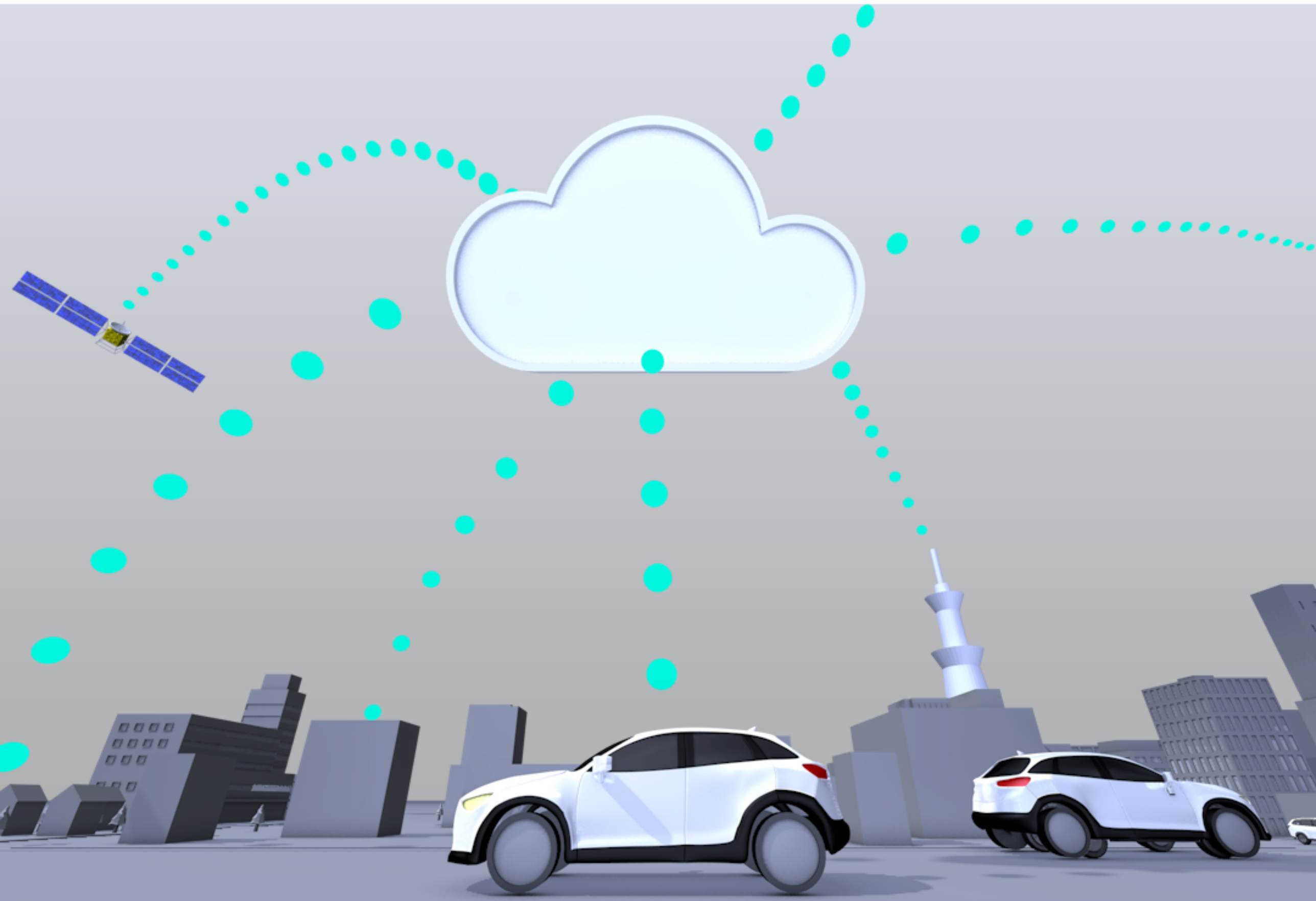
Panasonic AUTOMOTIVE

FICOSA



Telematic Control Unit

2G, 3G, 4G, Wi-Fi, GNSS, CAN, HMI and other communications interfaces

Benefits :

- Incorporating module connectivity 4G into the vehicle making available a Wi-Fi hotspot to the service of its passengers.
- The bandwidth that provides the new telephony network 4G/LTE to surf along the internet.
- A web interface customized for each vehicle manufacturer with the possibility of having applications for mobiles and portable devices.

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Telematic Control Unit

2G, 3G, 4G, Wi-Fi, GNSS, CAN, HMI and other communications interfaces

Technical Advantage :

- Linux based.
- 2G,3G and 4G connectivity available. 5G in Roadmap.
- Cost effective and compact electronic design.
- Optimal design and performance of integrated antennas with the option of external antennas.
- It's a totally scalable solution, so it can grow with your business(up to 6 CAN buses, Ethernet connection...).

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Telematic Control Unit

2G, 3G, 4G, Wi-Fi, GNSS, CAN, HMI and other communications interfaces

Application :

- eCALL & ERA-GLONASS regulation. Backup battery.
- Car To Cloud, IoT & Connected Car.
- Security (stolen vehicle tracking, roadside assistance).
- Remote car management & monitoring services.
- Wi-Fi hotpot connection.
- USB connection
- Totally scalable solution, so it can grow with your business (up to 6 CAN buses, Ethernet connection...).
- Cost effective, compact and easy installation.

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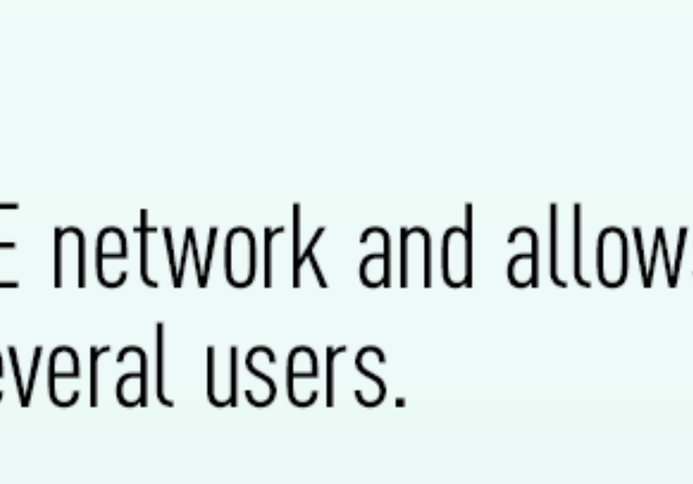
Smart Connectivity Module

CONNECTIVITY PLATFORM FOR DRIVERS AND PASSENGERS

Benefits :

- Provides connectivity 4G into the vehicle making available a Wi-Fi hotspot to the passengers.
- Provides new Telephony network 4G / LTE network and allows surfing the Internet at great speed for several users. (5G also in Roadmap).
- Web interface for each vehicle with the possibility of having Apps for IOS or Android on mobile and portable devices.

Hidden concept



Shark-fin concept

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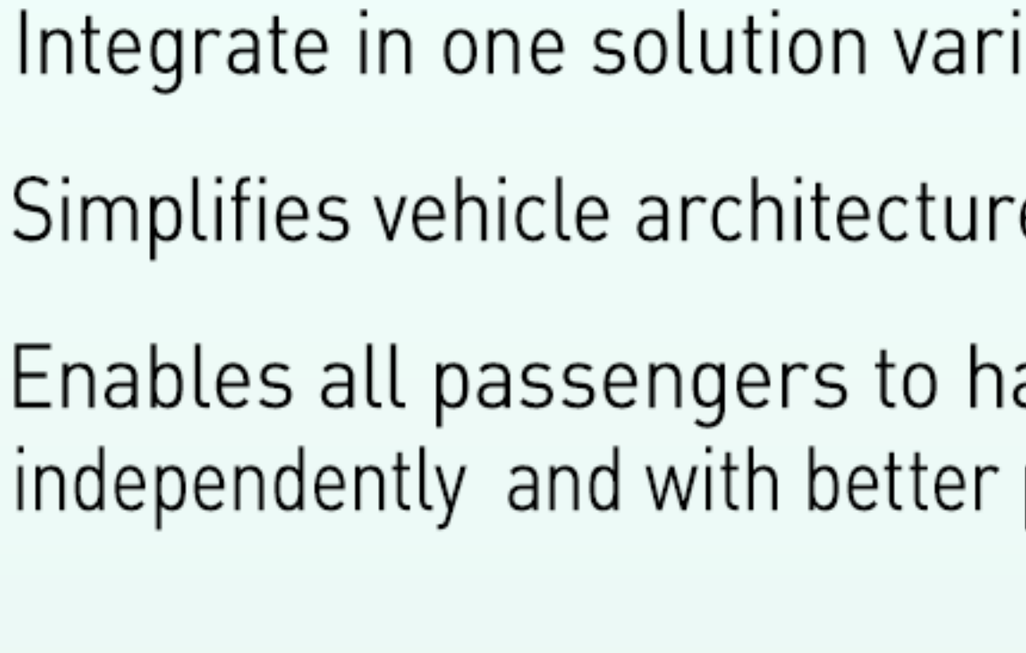
Smart Connectivity Module

CONNECTIVITY PLATFORM FOR DRIVERS AND PASSENGERS

Technical Advantage :

- Integrate in one solution various internal and external antennas.
- Simplifies vehicle architecture meaning significant cost reduction.
- Enables all passengers to have connectivity simultaneously, independently and with better performance (emitter/receiver closer).



Features:

- Telephony (3G/4G/5G)
- Positioning (GNSS)
- Wi-Fi
- DSRC
- AMFM,DAB,DRM
- Satellite Radio (SDARS)
- RKE

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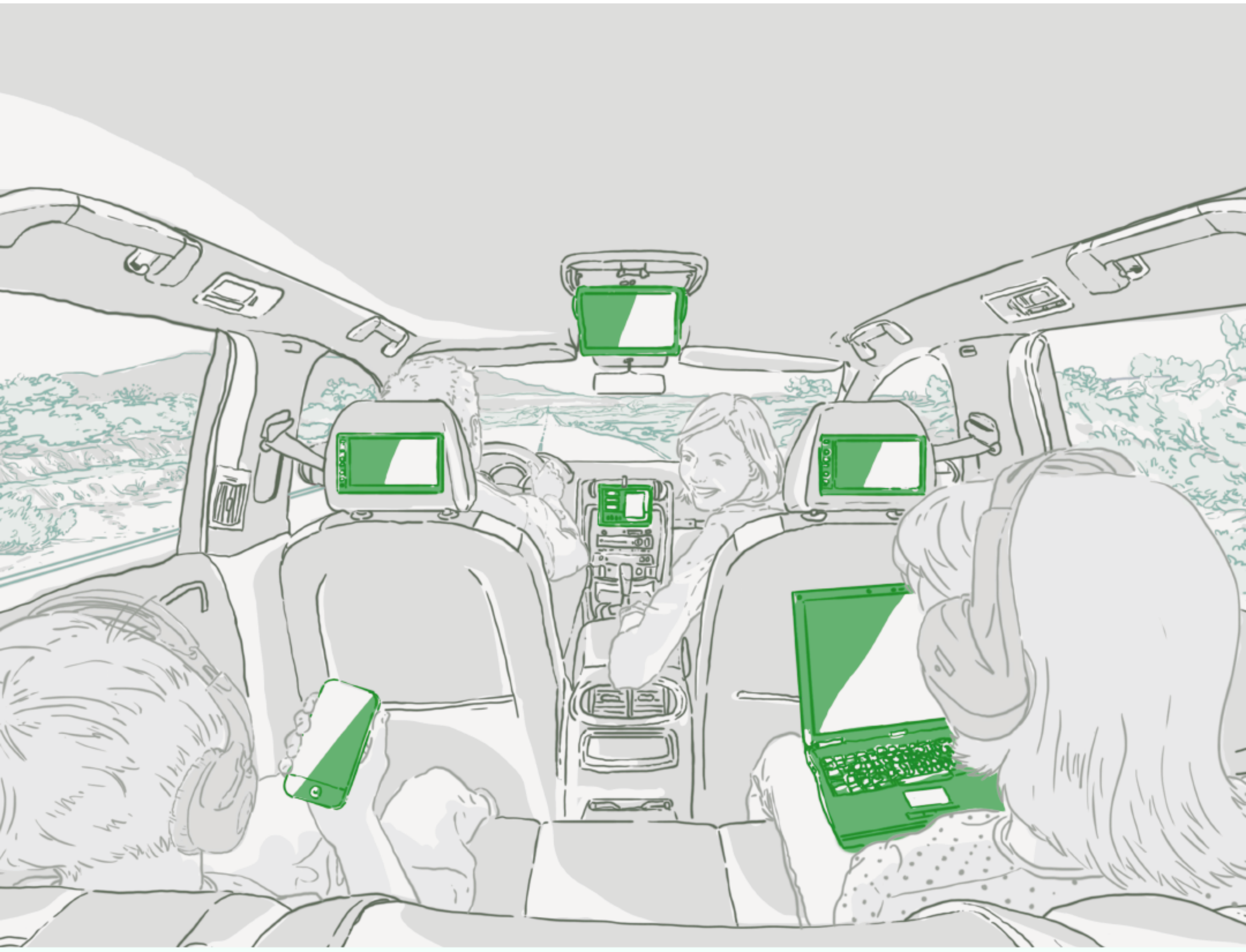
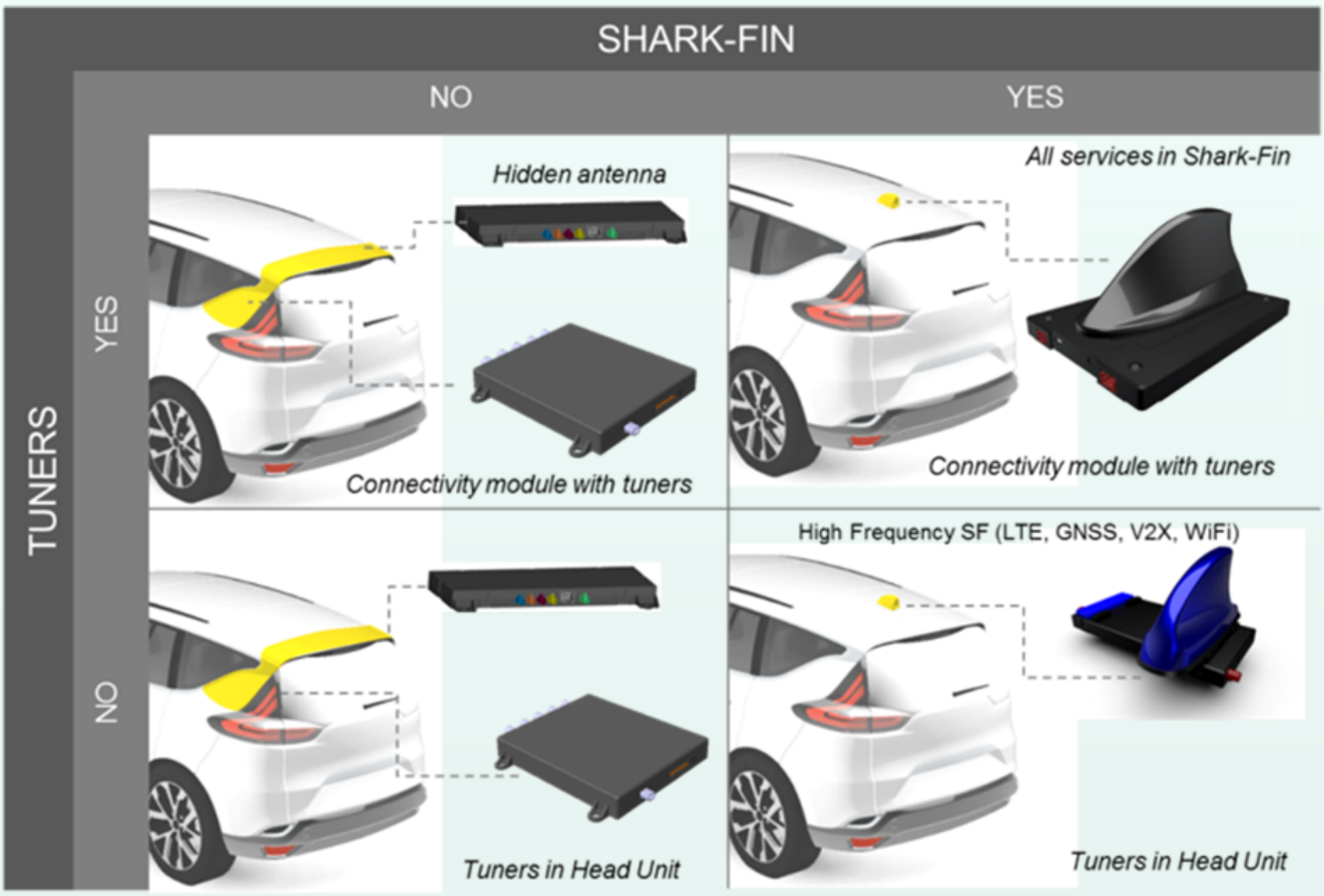


Smart Connectivity Module

CONNECTIVITY PLATFORM FOR DRIVERS AND PASSENGERS

Application :

- The connected car. Infotainment & connectivity.



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Hidden Antenna Module

LTEx4, GNSS, SDARS, RKE

Benefits :

- Invisible : Embedded inside car roof.
- Multiservice : Includes LTE (MIMO up to 4x4), GNSS, SDARS and RKE.
- Modular : Single design, compatible with most car platforms.

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GNSS | FRACTAL ANTENNA | SDARS | 2X2 LTE MIMO | Version 1

GNSS | FRACTAL ANTENNA | SDARS | 4X4 LTE MIMO | AM FM | DAB | DAB + | HD Radio | DMB | Version 2

Hidden Antenna Module

LTEx4, GNSS, SDARS, RKE

Technical Advantage :

- Single module.
- MIMO Configurations available for LTE
- Design optimized to improve services coexistence and LTE MIMO performance.
- In cars without roof, antenna module can be embedded in alternative locations.(Spoiler, Decklid)
- As an option and additionally, a low frequency module can be added.(AM,FM,DAB,TV)

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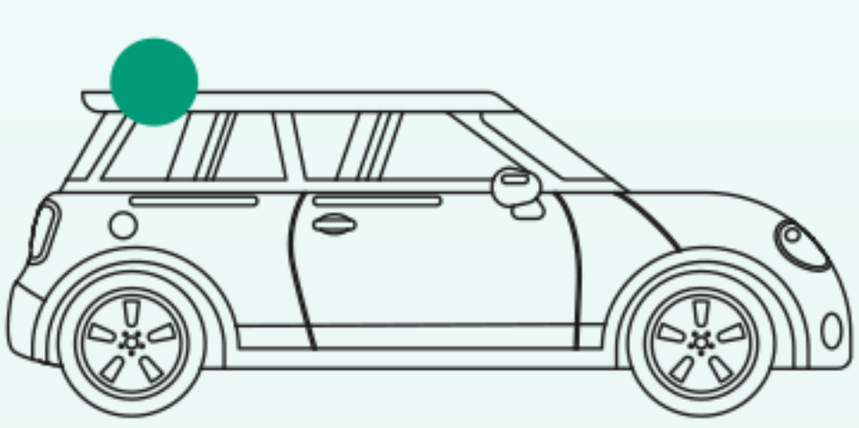
Hidden Antenna Module

LTEx4, GNSS, SDARS, RKE

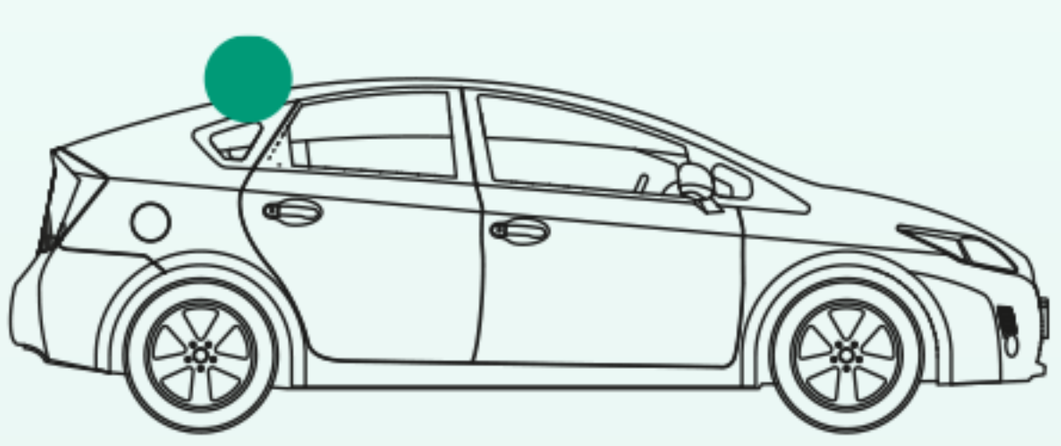
Application :

Transversal compatible with different car platforms.

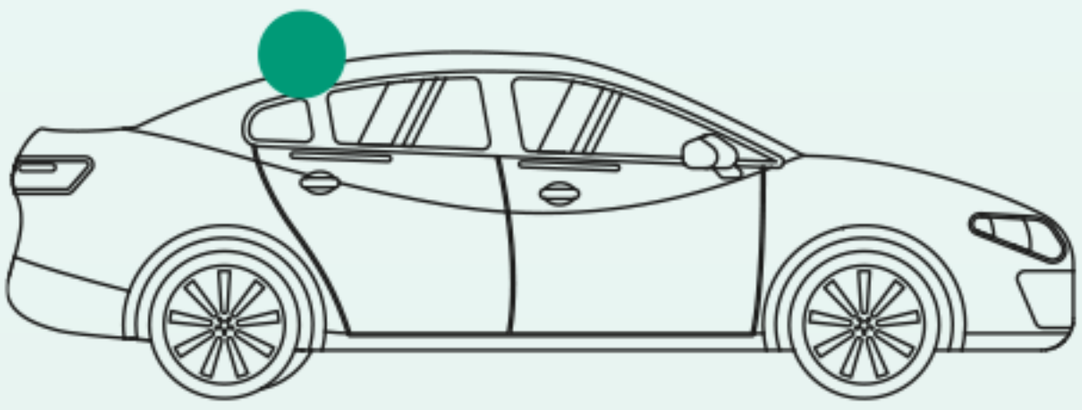
- Sedan
- Hatchback
- Touring
- SUV's
- Coupe
- Crossovers
- Vans



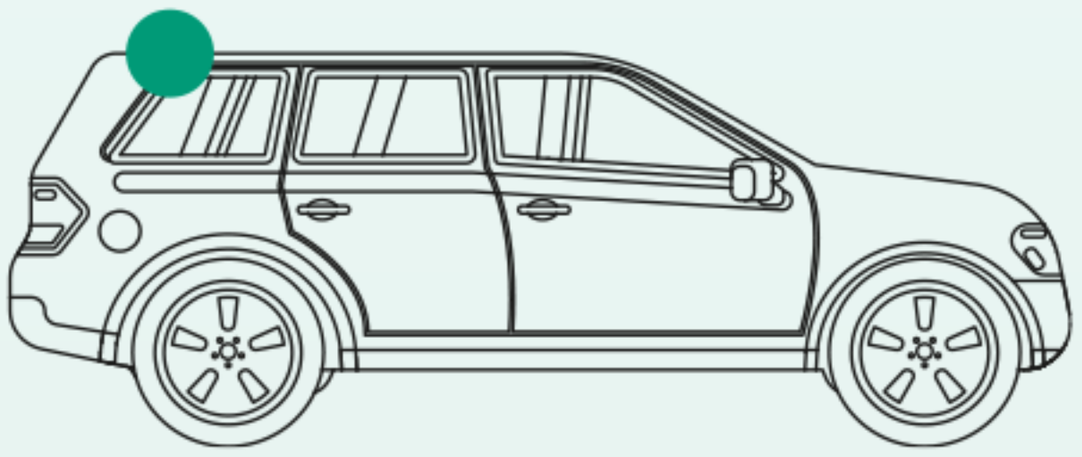
3doors



5doors



Sedan



Wagon