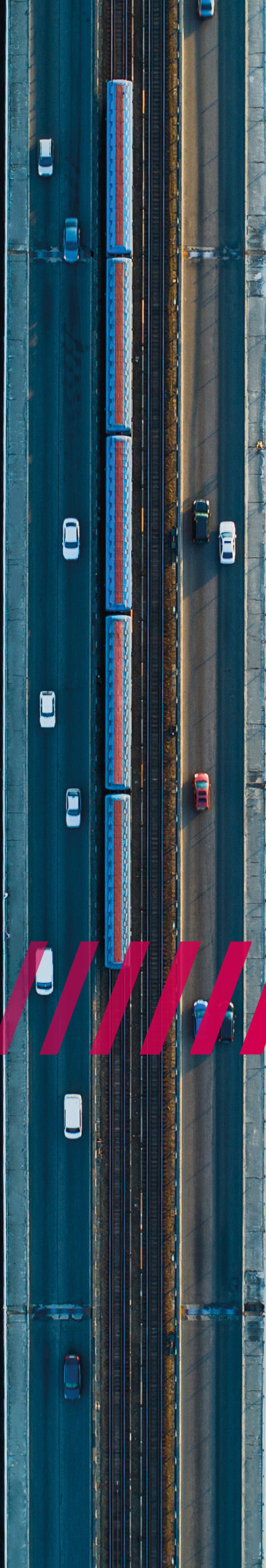


Connectivity that moves

Next generation infotainment
and connectivity technology



Drivers Passengers Support

Next generation infotainment and connectivity technology

VNC Automotive deliver ingenious connectivity and telematics technology for the vehicles of tomorrow. Our solutions enable time spent in-vehicle to be more entertaining and more productive than ever, whilst relentlessly adhering to safety and security protocols.

From proof-of-concept to start-of-production

Partners work with us from In-Vehicle Infotainment (IVI) connectivity and telematics concepts, through to embedded production-grade deployments, licensed from VNC Automotive across millions of vehicles. Our platform agnostic software and hardware supports all popular vehicle connectivity standards and a vast range of desired user experiences.

1

Our products

Cobalt Cube®
Command control at your fingertips.

2

Cobalt Link / Cobalt Link+
Device connectivity for drivers.

3

Cobalt Share
Multimedia and productivity for passengers.

4

Cobalt Remote
Vehicle telematics for helpdesk support.

Command control at your fingertips

Cobalt Cube® is a system-on-chip (SoC) device that provides a consistent, intelligent applications hosting platform, with the vehicle HMI acting as the display. Increasingly popular for OEM line-fit or aftermarket fitment, it allows OEMs to provide applications and services for its customers independent of smartphone handset, head unit or global location. Cobalt Link+ is embedded within Cobalt Cube and provides virtually instantaneous connectivity between the device and the in-built vehicle display.



Bringing together essential apps from the infotainment screen.



Feature rich

Fully loaded, feature rich device that is integrated discreetly within the vehicle during production or as an aftermarket option.



Expandability

Enables car makers to vastly expand the functionality of their infotainment system in a cost-effective way. For example, Android applications can run independently of head unit or OS.



Simple updates

Software updates are simplified via the Cobalt Cube rather than traditional embedded systems.



Customisable

User interface and user experience can be fully customised, branded and controlled by the automaker, OEM or Tier 1.



Configuration

Pre-configured for seamless access to maps, multimedia and any other specific applications the customer defines.



Screen mirroring

Full screen display and control of smartphone user interface from the dashboard screen, via bridging from Cobalt Cube.

Cobalt Cube®

Technical

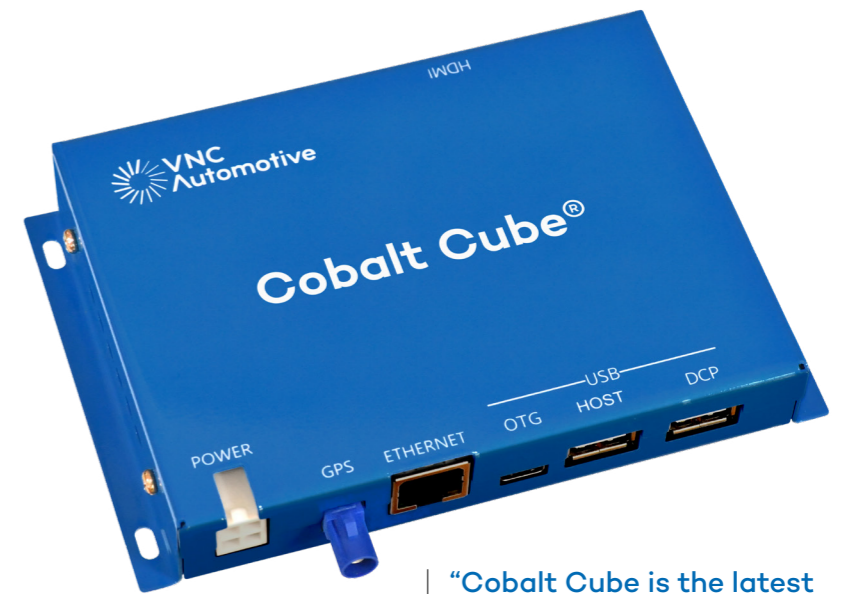
Specification



Technical specification

- > **Compliance:** FCC, CE and UKCA
- > **Power:** 12V (flexible jack/adaptor options available) In, 5V USB Type-C In, 5V USB Type-A Out
- > **Average power consumption*:** 4.6W
- > **CPU:** Quad-Core ARM Cortex A53
- > **GPU:** Embedded ARM 3D; OpenCL 1.2; OpenGL ES 3.1
- > **Networking:** Wi-Fi (802.11 a/b/g/n/ac) 2.4/5 GHz, Ethernet 10/100MB/s, Bluetooth 5.0
- > **GPS/GLONASS QN40**
- > **Car connectivity:** Android Auto (wireless and wired), Cobalt Link+ (wireless and wired), MirrorLink
- > **Memory:** RAM: LPDDR3. 4GB; ROM: eMMC 8/16/32GB; USB flash via USB Type-A port
- > **USB ports:** 1 x USB 2.0 Type-A, 1 x USB 2.0 Type C (OTG), 1 x USB A (5V out, dedicated charging)
- > **Display out:** HDMI 1.4, 2.0 (HDCP 1.4, HDCP 2.2)
- > **Telematics:** Cobalt Remote
- > **Operating System:** Android 9
- > **Dimensions:** 143 x 94 x 22.1 mm

*Cobalt Cube mirroring PC to Android Auto head unit.



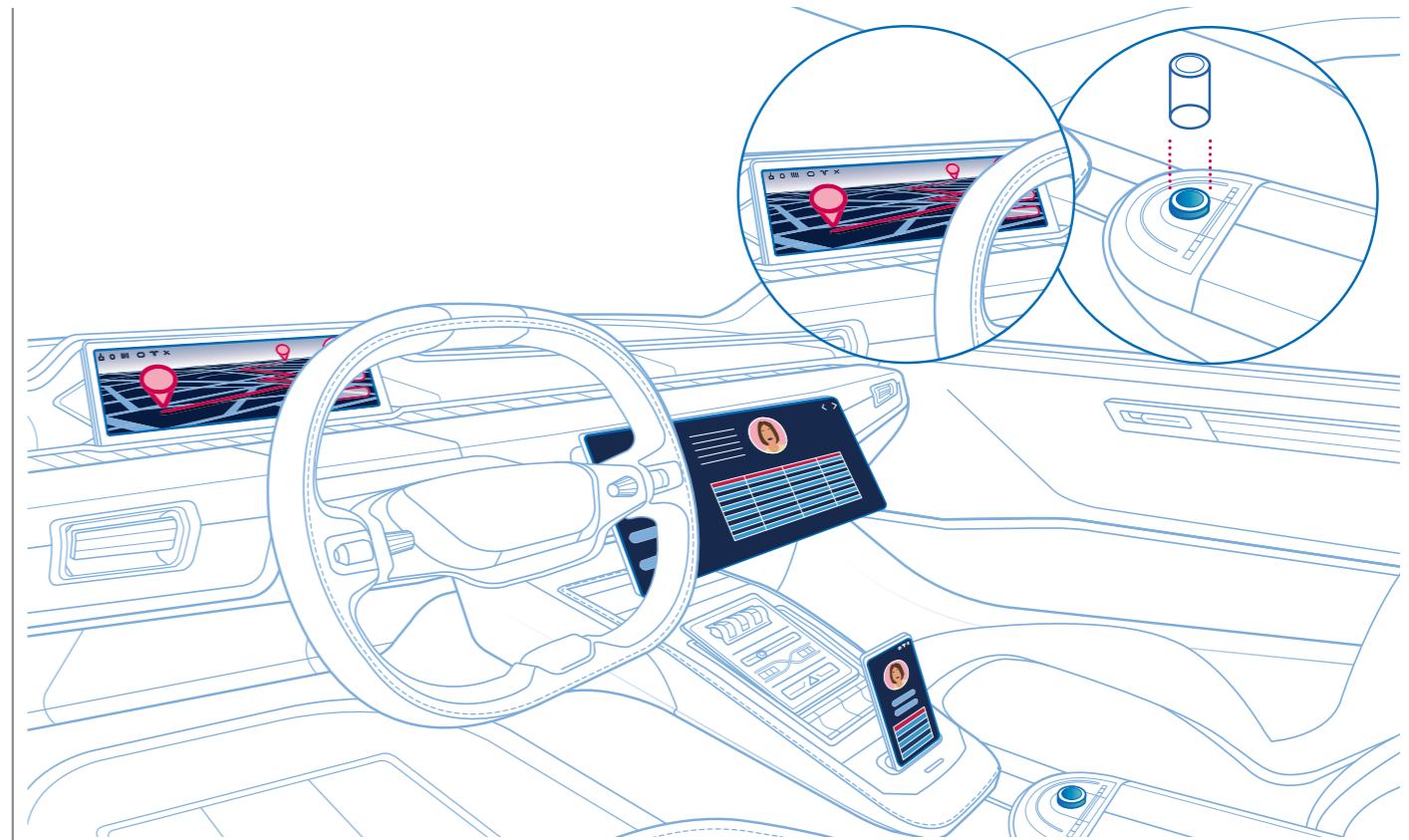
“Cobalt Cube is the latest addition to our successful Cobalt product line and it provides a flexible, extensible and future-proof set up for the IVI.”

Peter Galek
Product Engineering Director

Cobalt Link

Device connectivity for drivers

Access to drive safe smartphone content from the dash. Popular vehicle connectivity standards supported including Cobalt Link+, Android Auto and CarPlay. User interface mirroring of smartphone or other device, integration with and control from the vehicle infotainment system, head unit, voice or console.

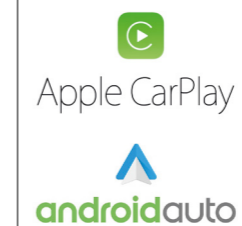


Cobalt Link+

Same secure and seamless device connectivity for drivers but with full access to smartphone native content, apps and services from the IVI. Full mobile and infotainment integration, user interface mirroring and control and OEM or Tier 1 customisation of user interface and user experience.

- > Access to drive safe smartphone applications from the dash including maps, music and audio content.
- > OEM or Tier 1 customisable UI or UX with Cobalt Link+.
- > Thin Client head unit for smartphone centric intelligence & connectivity without the burden of updating head unit based software. Simplifying the in-vehicle technology cycle.
- > Add-On Box (SoC) integration for aftermarket or port installed option – local maps, navigation, fleet management scenarios.

Platform agnostic



Other protocols available. Please enquire with a member of the team.

“Cobalt Link provides the most comprehensive and mature solution, with the widest range of cross-platform device support and features. The VNC Automotive team have been instrumental in the successful and timely delivery of our project.”

Clarion

Multimedia and productivity for passengers

Access to smartphone content, home and enterprise systems from front and rear screens. As the move toward autonomous vehicles continues, content consumption and productivity scenarios increase. Content can be streamed from multiple devices or the Cloud to any vehicle display, personalising the in-vehicle experience.



Cobalt Share

- > Rear screen multimedia streaming of device or cloud centric content – movies, gaming etc.
- > Simultaneous connection of multiple devices (driver, passengers). Access to enterprise (work) systems from the dash or any vehicle screen.
- > Access to and interaction with home automation systems on the move.

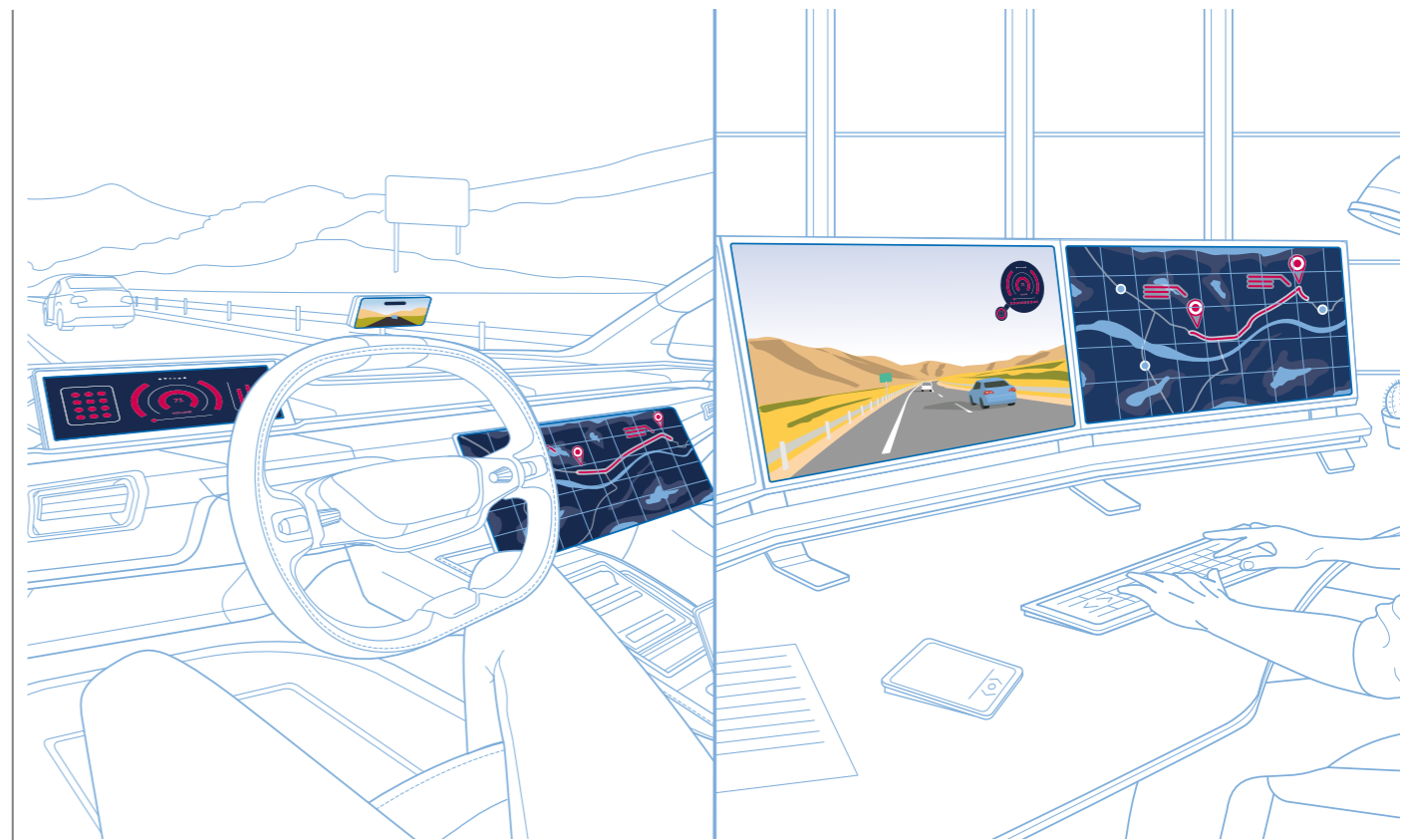
“Deploying Cobalt Share within our multimedia technology for IVI systems brings consumers the best entertainment experience right from their car.”

MediaTek



Vehicle control for helpdesk

Cobalt Remote provides enhanced passenger safety, customer service and vehicle efficiency scenarios via secure remote operator access to vehicle screens, systems and telematics. Highly secure, reliable, continual and bi-directional connection between vehicles and the Cloud. Remote access to vehicle IVI systems, digital instrument clusters, on-board diagnostics and telemetry data continues to present opportunities to improve driver safety & vehicle efficiency.



Cobalt Remote

- > Helpdesk & concierge services direct from the dash.
- > Use of mission critical systems whilst in the field from the IVI.
- > Driverless, remote control of vehicle for harsh or hazardous environments.
- > Fleet management services.
- > Predictive and pre-emptive vehicle maintenance.
- > Firmware over the air (FOTA) updates.

“Cobalt Remote allows mission control centres to connect with patrol vehicles in real-time, controlling certain systems such as sirens and providing crucial navigation information to its officers driving the vehicle.”

Fiat Chrysler



Proven

Proven record of ultra-high quality and performance

Partners choose to work with our industry accredited software for its high quality and leading performance. Every stage of delivery has been optimised and packaged for turn-key integration, minimising customer-led development and time to market. The customer maintains full customisation capabilities and control of branding and user experience.



Simple to evaluate

Provision of our universal sample stack is fast and pre-built for embedding into hardware with minimal engineering overhead.



Fast proof of concept (POC)

Software comes fully optimised for integration and readily configured for customised and branded POC showcases.



Shortest time to market

Provision of our universal sample stack is fast and pre-built for embedding into hardware with minimal engineering overhead.



Trusted partner

Strong and widespread connections within the automotive ecosystem grants us early release access to OS, hardware and silicon.



Unrivalled

Unrivalled range of software stacks

Automotive manufacturers, mobile device and IVI suppliers deploy our technology to deliver best-in-class vehicle connectivity experiences for their end users. Across any combination of operating system or silicon platforms.

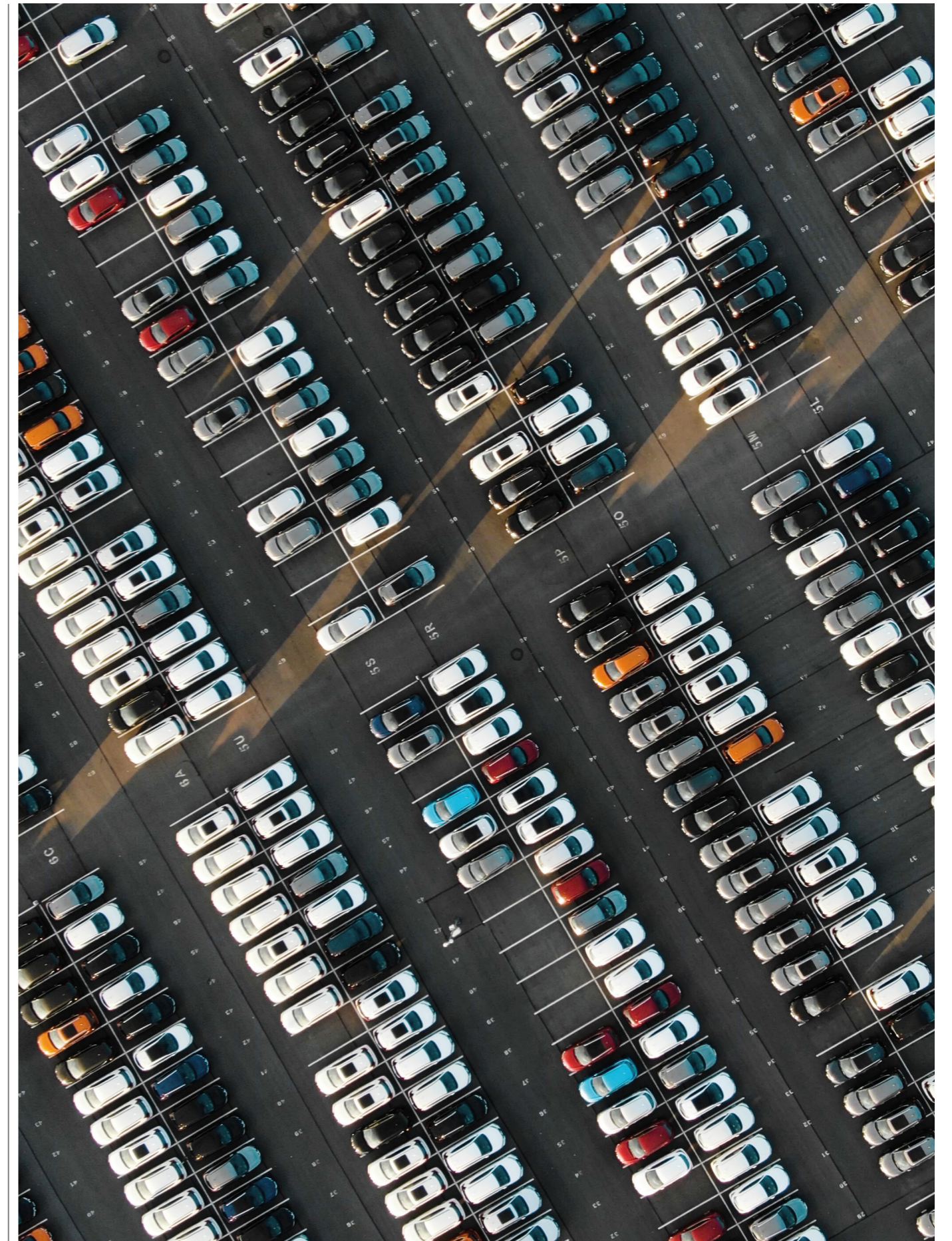
OS and platforms Multiple versions supported



Silicon Multiple versions supported



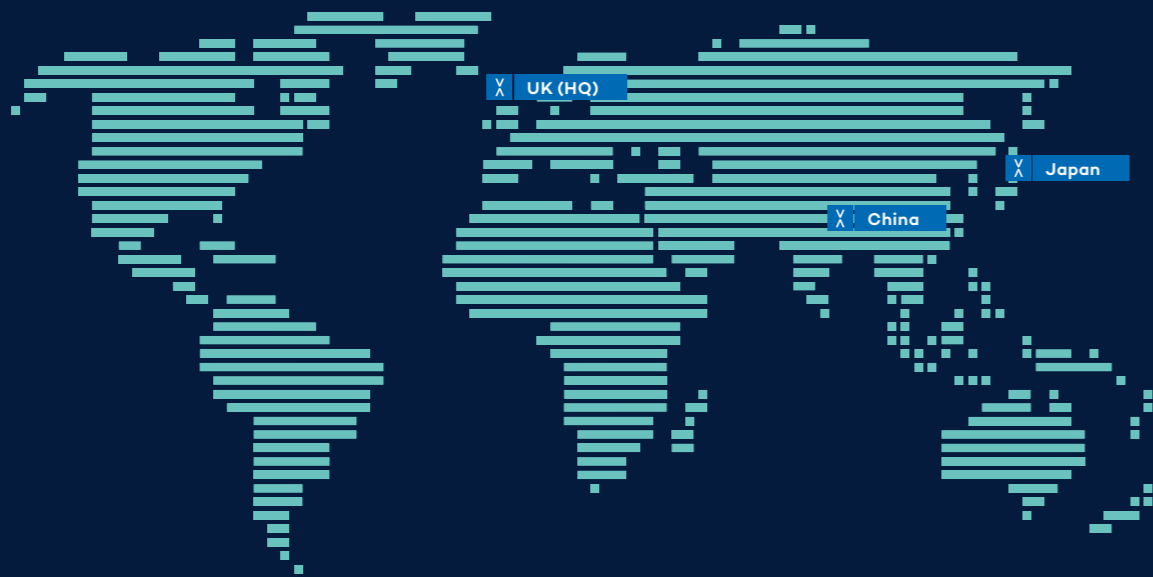
Consortia Building an extensive automotive ecosystem



World class

World class engineering expertise

Headquartered in Cambridge (UK) we operate in the heart of one of the world's largest technology clusters. The technical calibre of our engineering team is award winning, and we are renowned for providing the highest level of service and technical support to our customers across the automotive ecosystem. Which has led us to being in 35 million vehicles, 100s of millions of devices and counting.



Let's discuss your project

As industry pioneers, we will help you cut through the complexity and deliver ingenious connectivity technology for the vehicles of tomorrow.

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