



Automotive Industry Weekly Digest

12 Apr – 16 Apr 2021





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[OEM Highlights] GMC reveals Hummer electric SUV, ahead of early 2023 availability

IHS Markit perspective

Implications GMC has revealed the GMC Hummer electric SUV, debuted during a college basketball championship tournament on 3 April. The new EV is due in early 2023 as a 2024 model year product.

Outlook Between the October 2020 reveal of the GMC Hummer electric pick-up and the Hummer electric SUV, GM has continued to push forward with announcements relative to investment and plans for an all-electric light-vehicle range by 2035. The GMC Hummer electric SUV and pick-up both are to set expectations on delivery of high levels of capability and performance. Although the SUV is priced slightly below the pick-up truck, a top price of USD110,595 reinforces that this technology and capability does and should come at a price, rather than attempting cost parity.

GMC has revealed the GMC Hummer EV sport utility vehicle (SUV), debuted during a college basketball championship tournament on 3 April. The new electric vehicle (EV) is due in early 2023 as a 2024 model year product. GMC is pitching the Hummer EV pick-up and SUV as “the most capable and compelling electric supertrucks ever,” a quote from Duncan Aldred, the global vice-president of Buick and GMC. The Hummer EV SUV is due to go into production in early 2023, more than a year after the full-size Hummer EV pick-up truck. General Motors (GM) has released initial dimensions, pricing, trim levels, key EV propulsion system specifications and launch cadence for each trim level of the SUV.

GMC Hummer EV SUV Pricing and availability					
	Hummer EV SUV	Hummer EV SUV	Hummer EV SUV	Hummer EV SUV	Hummer EV SUV
	4x4	4x4	4x4	4x4	4x4
MSRP (including destination)	USD 71,995	USD 81,995	USD 91,995	USD 101,995	USD 111,995
Availability (U.S. market)	Q3 2023	Q3 2023	Q3 2023	Q4 2023	Q1 2024
Range (EPA est.)	75 miles	85 miles	95 miles	105 miles	115 miles
Top speed	Up to 100	Up to 100	Up to 100	Up to 100	Up to 100
0 to 60 (sec)	4.5	4.5	4.5	4.5	4.5
Max GVWR	2,000 lbs	2,000 lbs	2,000 lbs	2,000 lbs	2,000 lbs
Options	4x4, 100 miles, 100 miles, 100 miles, 100 miles, 100 miles	4x4, 100 miles, 100 miles, 100 miles, 100 miles, 100 miles	4x4, 100 miles, 100 miles, 100 miles, 100 miles, 100 miles	4x4, 100 miles, 100 miles, 100 miles, 100 miles, 100 miles	4x4, 100 miles, 100 miles, 100 miles, 100 miles, 100 miles



2024 GMC Hummer EV SUV, Photo courtesy of General Motors



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The two products revive the Hummer H2 design cues faithfully, with a modern twist and materials. For the SUV, forward of the C-pillar largely carries over, according to GM executives during a post-reveal media briefing attended by IHS Markit. The interior of the Hummer EV SUV carries on from the Hummer EV pick-up in the cabin, including the 12.3-inch driver cluster and 13.4-inch infotainment cluster. Among the differences in the cabin are in colour combinations for the SUV, which has a lower contrast look. The SUV also benefits from a closed cargo area designed for maximum flexibility; its wheelbase is nine inches shorter, and it is 20 inches shorter overall. The SUV features a swing-out rear door, with hinges that enable it to open wider than the vehicle and a full-size spare tyre, touches expected to resonate with adventure and lifestyle users.



2024 GMC Hummer EV SUV, Photo courtesy of General Motors

They have the same front overhangs and approach angles, but the SUV's longer wheelbase and shorter rear overhang improve maximum departure and breakover angles. The SUV will be more manoeuvrable in off-road situations. Both have the same maximum water fording depth, similar maximum ground clearance and similar maximum approach angle. The SUV will debut a new satellite-rendered trail mapping feature, which provides details on the trail, monitors energy consumption in real time and forecasts usage for the trail through the myGMC app. The app will estimate the amount of charge needed for the trail and route the driver to the nearest charge point after the trail. The SUV also adds an optional Power Station generator, not as yet announced for the pick-up. The Power Station provides up to 3 kilowatts of power that can be used for other equipment. Other impressive off-road capabilities announced for the pick-up are carried over, as expected. These include the CrabWalk (enables the vehicle to move diagonally, thanks to the optional four-wheel steer capability) and Extract Mode (raises the vehicle six inches). Another benefit of sharing from the C-pillar forward and using the same Ultium architecture is that the SUV is able to offer the Infinity Roof system of the pick-up, creating essentially a convertible off-roader.

GMC Hummer EV specifications	SUV	Pick-up
Wheelbase (inches)	120.7	126.0
Wheelbase (inches) (short wheelbase)	108.5	110.0
Wheelbase (inches) (long wheelbase)	120.7	126.0
Maximum gross vehicle weight (inches)	70	70
Front overhang (inches)	34.7	34.7
Rear overhang (inches)	25.5	46.5
Maximum approach angle (degrees)	42.5	45.7
Maximum departure angle (degrees)	42	36.4
Maximum breakover angle (degrees)	34.4	20.3
Maximum water fording depth (inches)	37	37
Track width (inches)	73.3	73.3
Turning circle with full lock (feet)	35.4	37.1
Suspension travel (inches)	13	13

Similar to the Edition 1 pick-up, for the Edition 1 SUV power and torque are generated by three motors within two Ultium drive units to create e4WD propulsion with torque vectoring. The top three trim levels of the SUV will use a three-motor, 20-module configuration for motors and battery, with compatibility with 800-volt DCFC (DC fast charging). By comparison, the pick-up truck uses 24 modules for its three-motor variant; those extra modules improve range, speed and charge time for the pick-up compared with the SUV. In the second quarter of 2023, a two-motor, 20-module, 800v version will be for the SUV. That base version is standard with a two-motor, 16-module setup and a 400v pack. The three-motor SUV delivers 830 hp and the two-motor setup steps down to 625 hp, still well above the performance option for most other



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ICE SUVs. The top version of the truck delivers up to 1,000 hp and is estimated for 350-plus miles of range. GMC has confirmed the pick-up will offer a two-motor version, although it has not yet confirmed specifications. Both the top SUV and top pick-up deliver up to 11,500 lb/ft of torque; the two-motor SUV drops to up to 7,400 lb/ft. Al Oppenheiser, the chief engineer for the GMC Hummer EV project, said that the decision to use fewer modules for the SUV was based on the tradeoff for cargo room; using more modules would have compromised the rear cargo space and flat floor for the SUV. GMC is not suggesting any performance variant at this point, but work on developing the next generation of batteries and modules for more energy and less weight and size is ongoing. All performance targets, estimates and capability specifications for the SUV released so far are “based on computer-aided analysis and simulation using virtual engineering tools.” Road-test validation began for the pick-up in late 2020.

Like the pick-up, the SUV has a Watts to Freedom feature, which delivers a boost that will enable 60 mph in about 3.5 seconds (for the pick-up, Watts to Freedom enables a launch to 60 miles in 3 seconds). Although both versions of the Hummer EV have 800-volt DC public fast-charging compatibility, the SUV has fast-charging capability of up to 300 kilowatts and the pick-up up to 350 kilowatts. GM estimates that, at that speed, the SUV can provide nearly 100 miles of range in 12 minutes (the pick-up, which can support 350kW charging instead of 300kW, can charge about 100 miles in 10 minutes). Along with charging a little slower than the pick-up, the SUV’s range is estimated at 300-plus miles for most trim levels, but adding the extreme off-road package drops range to at least 280 miles.



2024 GMC Hummer EV SUV, Photo courtesy of General Motors

The SUV will launch with the Edition 1 but expand to four trim levels. Aldred also noted that the company expects the SUV to outsell the pick-up, and that Factory Zero is highly flexible and capable of shifting the mix to easily meet demand. The SUV launches priced slightly below the pick-up truck, with GMC again releasing the most expensive model first. The Edition 1 trim is first, at USD105,595, and the extreme off-road package adds USD5,000. By comparison, the Edition 1 pick-up’s price was USD112,595. GMC opened reservations for the SUV along with its reveal on 3 April, and Aldred indicated on 5 April that the Edition 1 reservations were filled in “record time,” although he declined to specify the time or the number of Edition 1 SUVs which were available. This is the same approach taken with the pick-up, including not confirming how many are allocated. Whether SUV or pick-up, the trim levels carry the same designations, and the least-expensive models arrive last. The vehicle launch cadence will roll out over just over a year-long period, with the first SUV not available for about 12 months from the date of the first reservations.

Other than adding the trail map and the Power Station, the features and technology on the SUV have a similar mix as the pick-up. This will include Super Cruise with lane change, CrabWalk and Extract mode. The extreme off-road package offers the same equipment for the SUV as the pick-up, with 18-inch wheels, 35-inch Goodyear Wrangler Territory MT tyres; underbody armour and rock sliders; underbody cameras; front eLocker and rear virtual lockers; and heavy-duty ball-spline half-shafts. All but the base model will have standard 4-wheel-steer, crabwalk, the adaptive air suspension that enables the Extract Mode and 22-inch wheels with 35-inch all-terrain tyres. As with the pick-up, the SUV has no traditional transfer case or four-wheel-drive system and the torque splits and four-wheel-steering settings are controlled electronically; the drive mode control system has several modes for different conditions.



Outlook and implications

Between the October 2020 reveal of the pick-up and the SUV, GM has continued to push forward with announcements relative to investment and plans for an all-electric light-vehicle range by 2035. While the investments and forward strategy statements support that the GMC Hummer EV in pick-up and SUV variants are not one-off or compliance-oriented products, none of it has changed the role of the GMC Hummer EV for GM's electric ambitions. The SUV and pick-up are both to set expectations on delivery of high levels of capability and performance. Although the SUV is priced slightly below the pick-up truck, a top price of USD110,595 reinforces that this technology and capability does and should come at a price, rather than attempting cost parity.

As we noted with the reveal of the pick-up, efforts to create an EV market through introducing compact cars with incentives trying to cover that they are notably more expensive have largely been a failure, in terms of sales volume. The conclusion has been that Tesla has demonstrated the potential for converting ICE buyers to EVs with a compelling product. However, the relatively high cost of the GMC Hummer EV SUV suggests it will be relatively low volume, and not necessarily prove that EVs are truly in demand. What the GMC Hummer EV will do is prove GM's capability and every indication is that, particularly playing to its strengths in full-size truck and SUVs, GM is fully capable of creating an emotional, captivating EV. The Hummer EV products are some of the building blocks for GM's transition away from ICE vehicles.

With the least-expensive Hummer EV not due until the second quarter of 2024, and at USD79,995 nearly twice the average cost of a vehicle in the US, pricing will limit demand. The GMC Hummer EVs are about proving the technology and establishing a technological leadership for GM. They set the tone for GM's battery electric platform (BET), which is expected to deliver other products in future. Future products will be more affordable and more focused on daily needs for drivers, rather than the extreme capability of the Edition 1 Hummer EV products. But without something like the Edition 1, GM may continue to have difficulty convincing buyers to believe in its EV future. With the Hummer EV products, the opportunity is for GM to demonstrate the capability and raise interest in other, more affordable segments.

[OEM Highlights] Xiaomi to invest up to USD10 bil. in EV production

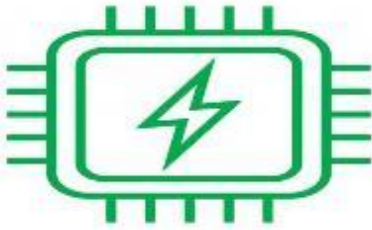
Xiaomi Corporation, a leading Chinese consumer electronics company, has confirmed previous media reports regarding its plan to launch an electric vehicle (EV) business. According to a company statement issued in the name of Xiaomi CEO Lei Jun, Xiaomi will set up a wholly owned subsidiary to manage its smart EV business. The company plans to spend CNY10 billion (USD1.5 billion) in the initial phase of the development and has committed to a total investment of USD10 billion over the course of the next 10 years to support its EV business. Lei will serve as CEO of Xiaomi's smart EV subsidiary. According to Bloomberg, Xiaomi will finance its EV projects on its own to have full control of the EV business.



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Outlook and implications

Xiaomi is China's leading smartphone maker and the company also produces a variety of consumer electronics ranging from vacuum cleaners and rice cookers to smart watches. According to local media reports, the company has begun studying the possibilities of entering an EV making business at the beginning of the year, and since then reports have come out suggesting that it is seeking a partnership with existing carmakers to manufacture EVs under the Xiaomi brand. Great Wall Motor has denied reports that surfaced last week suggesting that it was in talks with Xiaomi over contract manufacturing for the latter. At this stage, it seems that Xiaomi is still at a very early stage of planning for its EV business and its upcoming models are likely to be manufactured by a partner engaged in contracting manufacturing. Its future models are likely to be positioned in the entry and standard price segment to appeal to first-time EV buyers.



[Sales Highlights] GM to unveil Envision Plus SUV on 18 April, reports sales growth of 69% y/y in China during Q1

IHS Markit perspective

Implications	GM's first-quarter sales surged in the Chinese market owing to a low base of comparison. The automaker only delivered 461,700 vehicles in the same quarter of 2020 as COVID-19 virus-induced business suspensions smashed auto sales in China
Outlook	Demand for Baojun models is expected to further contract during 2021 to around 303,200 units. For the full year 2021, IHS Markit anticipates GM's sales in China to reach around 2.94 million units, down by 1% from 2.97 million units in 2020.

General Motors (GM) has announced that the Envision Plus, a mid-size sport utility vehicle (SUV) from Buick, will make its global debut in Shanghai on 18 April ahead of this year's Shanghai Motor Show, which is set to begin on 19 April. The automaker did not share much details regarding the specification of the Envision Plus apart from saying that the model will have an extended wheelbase of 2,833 mm and will also feature GM's new electric architecture and a new propulsion system. Local media reports indicate that the Envision Plus will have a seven-seat configuration and offer an Avenir version, which is the highest trim available for Buick vehicles. The Cadillac Lyriq, GM's first battery electric vehicle (BEV) based on its Ultium architecture, will be showcased for the first time in China at the Shanghai Motor Show as a highlight of GM's display. Separately, GM has announced its first-quarter sales results for the Chinese market. The automaker, along with its joint ventures (JVs), delivered 780,200 vehicles in China in the first quarter, up by 69% from a year ago. Buick's sales in the first quarter increased by 73% year on year (y/y) to 224,700 units. Sales of Cadillac surged by 114% y/y to 57,400 units, setting a new quarterly record. Chevrolet's sales reached 64,800 units in the first quarter, up by 27% from 50,900 units sold in the same quarter last year. Sales of Wuling and Baojun totalled 347,100 units and 86,200 units in the first quarter, up by 101.5% and 4.9%, respectively.



Outlook and implications

GM's first-quarter sales surged in the Chinese market owing to a low base of comparison. The automaker only delivered 461,700 vehicles in the same quarter of 2020 as COVID-19 virus-induced business suspensions smashed auto sales in China. The launch of the Buick Envision Plus will help GM broaden the Envision SUV family, which currently consists of the Envision SUV and Envision S. With the Envision Plus positioned at the top end of the Envision family, the Envision product line will be able to cover an even wider price range starting from CNY160,000 (USD24,454) to CNY350,000. Local media reports indicate that the Envision Plus will not receive significant updates over the Envision S, although GM claims that this will be an "all-new" model featuring its latest electric



architecture. The model is likely to share similar design features with the Envision S, but its three-row seven-seat layout would help attract family-oriented SUV buyers.

In the entry-level vehicle market, GM continues to lose share to Chinese automakers. The weakening of the Chevrolet and Baojun brands will pressure GM to review its business strategies to cope with rising competition in the SUV market. Baojun has launched a new product line in 2019, which houses a range of new models designed to appeal to the younger generation of consumers. The initiative has yet to translate into higher sales for the budget brand. IHS Markit data indicate that sales of the Baojun brand fell from 1.112 million units in 2017 to less than 400,000 units in 2020. Demand for Baojun models is expected to further contract during 2021 to around 303,200 units. For the full year 2021, IHS Markit anticipates GM's sales in China to reach around 2.94 million units, down by 1% from 2.97 million units in 2020.

[Sales Highlights] BYD posts sales growth of 33% y/y during March

Chinese automaker BYD sold 40,817 vehicles in March, marking an increase of 33.4% year on year (y/y). The sales figure includes new-energy vehicles (NEVs) and traditionally fuelled vehicles. BYD's sales of NEVs, which consist of battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), totalled 24,218 units last month, up 97.6% y/y. Passenger BEVs remained the top-selling category in the automaker's NEV line-up, their sales totalling 23,386 units in March, up 98.8% y/y, while sales of its passenger PHEVs totalled 7,085 units, compared with 1,330 units in March 2020. Sales of BYD's traditionally fuelled vehicles totalled 16,599 units last month, down 9.5% y/y. Of this total, sedan sales reached 4,707 units, up from 2,339 units in March 2020, while sales of sport utility vehicles (SUVs) totalled 10,341 units, compared with 14,335 units in March 2020. Sales of multi-purpose vehicles (MPVs) reached 1,551 units in March, compared with 1,669 units in the same month last year. In the year to date (YTD), BYD's sales are up 69.97% y/y at 104,145 units.



Outlook and implications

BYD's sales surged in March thanks to a low base of comparison as the automaker's sales in March 2020 were hit hard by the coronavirus disease 2019 (COVID-19) virus outbreak. The launch of the Qin Plus DM-i PHEV in March has strengthened BYD's PHEV sales. The DM-i hybrid system will enable BYD's plug-in hybrid models, such as the Song and Tang SUVs, to compete with fully hybrid models and small-engine-displacement internal combustion engine (ICE) vehicles introduced by its rivals. With regard to BYD's traditionally fuelled vehicle product line-up, its



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sedan and SUV sales contracted during March, indicating the weakening of its ICE product line. Overall, BYD's traditionally fuelled vehicles still accounted for nearly 50% of its sales in the first quarter.



[Shanghai Motor Show 2021] MG to unveil Cyberster sports car

MG has released new images and details of the MG Cyberster ahead of the model's full debut at the upcoming Shanghai Motor Show 2021, which will begin on 19 April. The concept sports car is said to be able to deliver a maximum driving range of 800 km and accelerate from 0 km/h to 100 km/h in under 3.0 seconds. According to Chinese media Autohome, the vehicle will feature cell-to-pack (CTP) battery technologies and will also have Level 3 autonomous vehicle capabilities. MG is expected to start crowdfunding for the Cyberster. The target is to raise at least CNY50 million (USD7.6 million) to bring the vehicle to the market.



Outlook and implications

Local media reports indicate that MG intends to roll out a sub-brand, Cyber, at the Shanghai Motor Show 2021. The company will use the Cyberster to tease the launch of this new sub-brand, which will house a new product line created to emphasise personality and sportiness. MG is said to have planned two new models under Cyber, with the first one being a sport utility vehicle (SUV). It will provide more details regarding this new sub-brand and the Cyberster on 19 April at the show.

[Shanghai Motor Show 2021] Xpeng to unveil P5 electric sedan

Chinese electric vehicle start-up Xpeng will unveil a new battery electric sedan at the upcoming Shanghai Motor Show 2021, also known as the Auto Shanghai 2021. According to local media reports, the model's unveiling will be scheduled on 19 April, the first press day of the auto exhibition.



Outlook and implications

The P5 is expected to be a compact electric sedan positioned lower than the P7. The model will be the first in Xpeng's line-up to feature lidar sensors. Livov, a Chinese tech company backed by China's leading drone manufacturer DJI, will be the supplier of lidar technologies for the P5. Teaser images of the P5 indicate that the model will be shaped by the same design language of its larger sibling, the P7. The lidar sensors on the P5 will enable the vehicle to perform Level 2 and above autonomous vehicle (AV) operation based on Xpeng's XPILOT system. The start-up claims that the P5 will also have hardware that support Level 4 AV operation. In March, it



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delivered 5,102 vehicles, consisting of 2,855 units of the P7 and 2,247 units of the G3 sport utility vehicle (SUV). In the first quarter, Xpeng's deliveries jumped by 487% year on year to 13,340 units.



[GSP] Greater China Sales and Production Commentary -2021.03

Greater China sales

February 2021: +377.9%; 1.32 million units vs. 0.28 million units

YTD 2021: +70.5%; 3.67 million units vs. 2.15 million units

- In February 2021, a total of 1.32 million light vehicles were sold in Greater China, an increase of 377.9% compared with the same period in 2020. Specifically, light vehicle sales in mainland China rose 421.6% from 0.25 million units in February 2020 to 1.3 million units. Passenger vehicles recorded sales of 1.12 million units, for an increase of 476% year on year (y/y), while light commercial vehicle (LCV) sales increased 224.3% y/y, to 0.17 million units. The extremely high year-on-year growth rate could be attributed to a low base of comparison. The market experienced a free fall in February last year because of the COVID-19 virus outbreak.
- On a year-to-date (YTD) basis, light vehicle sales in mainland China jumped 72.4% from 2.08 million units to 3.59 million units. Precisely, passenger vehicle sales increased 73.7% y/y, to 3.14 million units, while LCV sales increased 63.4% y/y, to 0.45 million units. Segment-wise, YTD sedan sales rose 80.5% y/y from 0.84 million units to 1.51 million units, and the sport utility vehicle (SUV) segment increased 69.4% y/y from 0.9 million units to 1.52 million units. For multipurpose vehicles (MPVs), YTD sales increased 48.8% y/y, to 0.11 million units.



- On a YTD basis, passenger vehicle sales of local brands soared by 89.6% y/y, to 1.17 million units, and their market share went up from 34% to 37.1%. Local brands are no longer simply relying on low-price strategies to survive in the market. In fact, part of the incremental sales come from new models with a higher market position, such as the WEY Tank 300 and the BYD Han.
- The recent COVID-19 outbreaks in northern China have been largely contained as confirmed new cases have plateaued since early February. However, the semiconductor shortage has weighed on the passenger car market at the beginning of 2021. OEMs such as VW experienced a sharp reduction in vehicle production in January, with a potential loss of production estimated to hit 347,000 units in the first quarter. The impact of the semiconductor shortage will likely last until the end of second quarter 2021 and could result in a net loss of 120,000 units of vehicle demand this year. Nonetheless, mainland China's vehicle market in 2021 will continue to be cushioned by regional incentives, although at a reduced magnitude, as five cities and provinces (including Beijing, Tianjin, Shenzhen, Wuhan, and Hainan) have announced an extension of vehicles incentives in 2021. Light vehicle sales in mainland China should grow 5.6%, to 24.98 million units, in 2021.



Greater China Production

February 2021: +382.6%; 1.26 million units vs. 0.26 million units

YTD 2021: +78.4%; 3.46 million units vs. 1.94 million units

- Greater China's light vehicle production in February recorded 1.26 million units, marking an extremely strong rebound of 382.6% year on year (y/y). In mainland China, light vehicle production increased 407.1% y/y, to 1.24 million units. The huge surge was mainly due to the particularly low base, which was 0.26 million units during the containment period last year. However, production was still 6.5% behind production in the same period in 2019 before the pandemic outbreak, suggesting that the auto market has not completely recovered from the crisis. That said, the "Lunar New Year stay put" policy has also boosted local consumer activities, especially in higher-tier regions. The optimistic economic results in 2020 also provided confidence to the market, helping to increase more consumer demand.
- The full-year 2021 light vehicle production forecast for Greater China is set at 24.90 million units, with a 5.6% y/y increase. In mainland China, production will likely increase to 24.66 million units—with 5.6% growth y/y. Adversely affected by the chip shortage, major OEMs may have to face the risk of stopping production in the second quarter. The market will likely suffer an additional 220,000 units of output loss in the next few months. Nevertheless, the situation will improve, and part of the loss can be offset in the second half, given that semiconductor manufacturers and carmakers are making adjustments and searching for solutions to solve the shortage issue.



[Supplier Trends and Highlights] HKT uses 5G standalone network with network slicing for trials of C-V2X applications

First trial of the smart mobility project was conducted in March on a 14-km (8.7-miles) route



Source: Getty Images/gmast3r

HKT has developed a 5G Standalone (SA) network architecture with network slicing cellular vehicle-to-everything (C-V2X) applications on public roads, according to a company press release on 31 March.

According to the company, it is the first time that 5G SA technology will be used for a vertical industry application in Hong Kong.

“Smart mobility is one of the key elements of the Government’s Smart City Blueprint and C-V2X is the enabling technology that will transform urban transport. With the emerging 5G technology, autonomous driving will revolutionize the experience of transport and help Hong Kong evolve into a world-class smart city,” said Peter Lam, MD of Engineering, HKT.

Outlook and implications

C-V2X is an important method towards full autonomous vehicles and with the deployment of 5G, and its low latency properties, real-time updates will be issued with minimal errors.

The first trial of the smart mobility project was conducted last month on a 14-km (8.7-miles) route from the Hong Kong Science Park to Shatin town. C-V2X roadside units (RSU) were installed on traffic light poles and lamp posts for providing real-time traffic intelligence to onboard units (OBU) installed inside the vehicles. This trial showed that 5G technology is ready to be used for real C-V2X applications.

[Supplier Trends and Highlights] Commsignia combines cloud and V2X messaging in 4G, 5G V2N solution

Solution can be applied to avoid traffic jams and prevent accidents in semi-static situations



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Source: Getty Image/ Scharfsinn86

Commsignia has developed a process to transmit vehicle-to-everything (V2X) messages, including the cloud, with the use of 4G and 5G connections, it said in a press release in March. The vehicle-to-network (V2N) solution can be applied, for instance, to avoid traffic jams and prevent accidents in semi-static situations.

The solution has the capacity to aggregate information from various suppliers' cloud databases, infrastructure data from roadside sensors and cameras, and sensor data from vehicles with V2X services.

“One of the big challenges in digital traffic safety is reaching most drivers, and it makes sense to combine multiple channels such as direct V2X communications and the 4G or 5G cellular networks. The aggregation and verification of different information sources offer a robust and reliable messaging solution, all based on automotive grade V2X standards,” said András Váradi, research director, Commsignia.

Outlook and implications

Commsignia's solution combines network-based V2N, infrastructure-based vehicle-to-infrastructure (V2I) and vehicle-based vehicle-to-vehicle (V2V) data, which enables precise warnings, wider base receiving driver alert notifications, and increased road safety.

In February, Commsignia announced that its V2X software and security stack is available with the Qualcomm Snapdragon Automotive 4G and 5G platforms for vehicular and roadside units. The solution uses Qualcomm's Snapdragon 2150 platform for computational power.

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