



Nissan IMx KURO concept vehicle debuts at Geneva Motor Show

GENEVA (March 6, 2018) – The Nissan IMx KURO was unveiled today at the Geneva International Motor Show, marking the European debut of the IMx electric crossover concept vehicle.

Kuro, which means black in Japanese, comes to life on the IMx, which was first revealed at the Tokyo Motor Show in October 2017, with new look black trim and wheels, an updated grille and a new dark gray body color.

The Nissan IMx KURO provides a glimpse into the future of Nissan Intelligent Mobility, the company's vision for changing how cars are powered, driven and integrated into society. The innovative concept vehicle is designed to strengthen the link between car and driver as a close, reliable partner that delivers a safer, more convenient and more exciting drive.

Upgrades to the Nissan IMx KURO also include the integration of Nissan's pioneering Brain-to-Vehicle (B2V) technology. B2V interprets signals from the driver's brain to assist with driving and to help the vehicle's autonomous and manual systems learn from the driver.

"The IMx KURO zero-emission crossover concept vehicle embodies the future of Nissan Intelligent Mobility," said Jose Munoz, Nissan's chief performance officer. "Nissan Intelligent Mobility is Nissan's commitment to changing the way people and cars communicate, as well as how cars interact with society in the near future and beyond."

Making travel more enjoyable: Nissan Intelligent Driving

At the core of the Nissan IMx KURO's technological features is a future version of ProPILOT that offers fully autonomous operation. When ProPILOT drive mode is selected, the system stows the steering wheel inside the dashboard and reclines all seats, giving the driver more space and allowing the vehicle's occupants to relax and enjoy their commute. When Manual drive mode is selected, the vehicle returns the steering wheel and seats to their original position, seamlessly transferring control back to the driver.

The B2V technology featured in the Nissan IMx KURO promises to speed up reaction times for drivers and will lead to cars that keep adapting to make driving more enjoyable. This breakthrough from Nissan is the result of research into using brain decoding technology to predict a driver's actions and detect discomfort:

Predict: By catching signs that the driver's brain is about to initiate a movement – such as turning the steering wheel or pushing the accelerator pedal – driver assist technologies can begin the action more quickly. This can improve reaction times and enhance manual driving.

Detect: By detecting and evaluating driver discomfort, artificial intelligence can change the driving configuration or driving style when in autonomous mode.

Nissan's B2V technology is the world's first system of its kind. The driver wears a device that measures brain wave activity, which is then analyzed by autonomous systems. By anticipating intended movement, the systems can take actions – such as turning the steering wheel or slowing the car – 0.2 to 0.5 seconds faster than the driver, while remaining largely imperceptible.

The convenience and pleasure of electric driving: Nissan Intelligent Power

The Nissan IMx KURO zero-emission concept vehicle adopts Nissan's new electric vehicle platform, designed for maximum efficiency. It allows the floor to be completely flat, resulting in a cavernous cabin and enhanced driving dynamics. With a low center of gravity, the chassis delivers sharp handling that promises to redefine the crossover segment.

The powerful, yet quiet powertrain delivers enhanced excitement. The IMx KURO is propelled by a pair of high-output electric motors at the front and rear, giving it all-wheel-drive capability. They combine to produce 320 kW of power and an astounding 700 Nm of torque – more than the Nissan GT-R supercar - sourced from a high-capacity battery that's been redesigned and re-engineered for increased energy density. This new battery supports a driving range of more than 600 kilometers on a single charge, so occupants can enjoy an extended adventure without worrying about recharging.

Part of the social infrastructure: Nissan Intelligent Integration

The Nissan IMx KURO can also contribute to the social infrastructure like no other vehicle before it. For example, after transporting its owner to the airport, the IMx KURO can park itself in a spot where the vehicle can connect to the local power grid and act as a "virtual" power plant by returning electricity to the grid, an extension of its vehicle-to-home and vehicle-to-building features. Once the owner returns, the IMx KURO can pick them up at the terminal and drive home. The whole process is carried out efficiently, thanks in part to the increased battery capacity and connected-car technologies, including Seamless Autonomous Mobility.

New EV design philosophies for the autonomous era

Until now, vehicles have been designed with a clear differentiation between exterior and interior. Exterior design provides a sense of security from the outside, while the interior design gives drivers an appropriate environment for concentrating on driving.

This purpose-based differentiation is likely to change with the arrival of fully autonomous vehicles. Nissan's designers sought to redefine the interior space of the IMx to create a sense of openness, while maintaining a feeling of privacy. To achieve this, they endeavored to design a space that links up the inside and outside of the vehicle.

They also wanted to convey the key characteristics of electric vehicles – quiet and smooth with a sense of light, yet powerful and dynamic. They took inspiration from the Japanese concepts of *ma*, a sense of space and time, and *wa* (harmony), expressing the coexistence of two seemingly contradictory concepts – "stillness" and "motion."

Exterior design: showcasing the unique characteristics of electric vehicles

Since the IMx's debut at the Tokyo Motor Show, the Nissan design team, led by Alfonso Albaisa, senior vice president for global design, has made some small but significant changes to the vehicle – hence the new KURO designation.

The team simplified the grille to give it a stronger and more solid character and changed the color from pearl white to a deep smoky gray, with black finished wheels and trim. The new color treatment transforms the IMx, giving it a tougher, substantial presence.

The intention behind the changes to the styling was to test whether the IMx's concept as a showcase for Nissan's autonomous driving and electric vehicle leadership could work with a different, more robust personality.

The main design features that made such a strong impact in Tokyo remain unchanged – from the familiar V-motion grille design to the supple character line rises and flows to the hood and rear end. The broad surfaces of the distinctively shaped front fenders start from the grille and expand seamlessly onto the body sides, creating a sense of layers.

"After the Tokyo Motor Show, my team and I continued to consider the IMx's potential," Albaisa said.

"We asked ourselves if the basic concept of the IMx could be more SUV-inspired by making some relatively simple changes to details, accents and color."

"Taken all together, these relatively minor changes have combined to give the IMx KURO a completely different personality, and the addition of the KURO moniker reflects that. It looks purposeful and indestructible – which we think is an interesting position for this concept and the application of technologies that is showcased by the vehicle."

Interior design: spacious and relaxing, with simplicity

The IMx KURO concept vehicle's interior adheres to the basic concept of space that can be found in a traditional Japanese house, suggesting a sense of openness.

The car's panoramic OLED instrument panel displays a view of the external environment in the background. A separate, wood grain-patterned display, positioned below the instrument panel and wrapping around the interior door trims, gives occupants a subtle sense of the outside, similar to *shoji*, a traditional Japanese paper screen.

The *katanagare* diagonal pattern on the seats has been delicately etched with a laser cutter. The head rest – patterned like *kumiki*, a Japanese interlocking wood puzzle – is made from silicon-material cushioning and a frame produced by a 3D printer.

Artificial intelligence enables the driver to control the instrument panel with eye movements and hand gestures. This intuitive interface results in fewer physical controls and switches, making the cabin of the IMx simple, yet highly efficient, and adding to its supreme comfort.