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Panasonic Debuts SPACe_C: A Scalable eMobility Concept

A 48V lifestyle platform vehicle designed for mobility, commerce and services that delivers more power and more versatility in a smaller package

Osaka, Japan - Panasonic Corporation announced today that it has developed the next generation of a new 48V ePowertrain platform for small electric vehicles (EVs). The new platform is significantly improved from the CES 2018 model by doubling the output while reducing the size of its volume and weight. At CES 2019 (from January 8 to 11, 2019, in Las Vegas), the company will exhibit SPACe_C*1, a conceptual small mobility vehicle. It is based on this platform and can be separated into upper and lower structures.

Global demand for EVs is expected to expand rapidly, along with a wide variety of new mobility, which suit various lifestyles and uses in each region. Panasonic Corporation developed a 48V ePowertrain platform for small EVs that meets the demand, and introduced it at CES 2018. The platform Panasonic developed is an energy-efficient, safe powertrain that features integrated compactness, high efficiency, and flexible scalability. The platform will help reduce costs and lead time for vehicle development by scaling up or down the combination of basic units in accordance with vehicle specifications such as size, speed and torque.

The new platform consists of basic units, including a power unit (with an on-board charger, junction box, inverter and DC-to-DC converter) and a motor unit. The output is 18 kW, which is double that of the conventional product (8 kW) for the same volume (output density: two-fold). This has been achieved by reviewing the motor design and cooling structure. The conventional product required parts that consisted of two units to attain the same output. Due to the increased output, the number of units required has been reduced to one, resulting in the reduced size of the platform. The new platform will help further reduce the weight of small EVs, increase cabin space, and extend driving range. The company will offer the new platform to various partners and continue to contribute to the widespread use of EVs and creation of new businesses.

SPACe_C is a small mobility vehicle based on a new concept that employs the new platform. It is designed to closely connect people with products and services, support people's lives, propose new applications for small mobility vehicles in tourist and urban areas, and revitalize communities. The expected use case of SPACe_C is to deliver temperature controlled food, packages for a consumption and online world, serve to educate riders while moving to location, act as a meeting zone for busy professionals, become the next hot retail pop-up store as a delicious food truck to feed hungry travelers or merely for people to utilize to get around town.

The vehicle can be separated into upper and lower structures so that it can meet the needs for small mobility vehicles in various regions in the world. The upper structure is a cabin for transporting people and products, and for offering services. The lower structure is e-Torta,*2 which serves as the basis for small mobility vehicles and includes the 48V ePowertrain platform.

By replacing its upper structure, SPACe_C can be used for various purposes. It can serve as a mobility vehicle for transporting people or products or for offering services at events. It can also be customized to meet the needs in different regions. As Panasonic Group has diverse housing related business such as lighting equipment, lightning devices and ventilation systems, a multi-purpose cabin platform for transporting people has been achieved by applying the housing technology.



Applicable for various purposes by replacing the cabin



The Connected Mobility area in the Panasonic booth at CES2019 will feature SPACe_C, a mobility vehicle for transporting people. The model will be available to drive for demonstration. Also on exhibit will be mock-ups of the SPACe_C eMart food delivery cabin (as an example of a mobility vehicle for transporting products) and the ePowertrain CES2019 model (which is the core of the e_Torta).

*1. SPACe_C is an acronym for Sharing, Pod, Autonomous, Connected, e-Mobility, and Community (concept keywords for small mobility vehicles).

*2. e_Torta is a coined word derived from Spanish by adding the Japanese concept of oyagame-kogame (a baby turtle on the shell of a parent turtle). This name is familiar-sounding to Japanese people and brings to mind the image of a parent turtle that carries a baby turtle (i.e., transport of people, products, and services).

■ SPACe_C

■ ePowertrain CES2019 model



Total length: 3.85 m
 Total width: 1.68 m
 Height: 1.95 m
 Weight of the main body: 1.4 t



Capacity: 10 L
 Weight: 29 kg

About Panasonic

Panasonic Corporation is a worldwide leader in the development of diverse electronics technologies and solutions for customers in the consumer electronics, housing, automotive, and B2B businesses. The company, which celebrated its 100th anniversary in 2018, has expanded globally and now operates 591 subsidiaries and 88 associated companies worldwide, recording consolidated net sales of 7.982 trillion yen for the year ended March 31, 2018. Committed to pursuing new value through innovation across divisional lines, the company uses its technologies to create a better life and a better world for its customers. To learn more about Panasonic: <https://www.panasonic.com/global>.

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