Audi activesphere concept - Design and function

As the fourth model in the series, the Audi activesphere concept marks the culmination of sphere concept vehicles brought forth by the brand with the four rings. Following on from the Audi skysphere roadster in 2021, and both the Audi grandsphere sedan, and the Audi urbansphere space concept in April 2022, a four-door crossover coupé with an astonishingly versatile body design is now making its debut.

Standing 4.98 meters long, the highly elegant car is more than a mere luxury-class sports car, with impressive ground clearance, and large 22-inch wheels announcing its off-road talent. The Sportback rear of the activesphere can turn into an open cargo bed (“active back”) at the touch of a button – perfect for carrying recreational equipment such as e-bikes or water and winter sports gear.

By combining opposites in perfect synthesis, the Audi activesphere proves to be a versatile crosser of boundaries, with a drive system and suspension which make it equally adept on both on and off the road. The steering wheel and pedals allow the driver to actively control the car, while also offering autonomous driving for a more relaxed time on the road. As a coupé that is as elegant as it is dynamic, it features classic proportions and lines, but in just a few seconds, the car transforms into a pickup for transporting top-class sports gear – there is even enough space for two e-bikes in the cargo bed.

The concept car was conceived and designed at the Audi Design Studio in Malibu, just a stone’s throw away from the Pacific Coast Highway, the legendary coastal road. Studio manager Gael Buzyn and his team are the creative minds behind the project. He describes the idea behind the project: “The activesphere is unique. It is a new type of crossover that cleverly combines the elegance of an Audi Sportback, the practicality of a SUV and true offroad capabilities.”

With an electric drive and quick-charging technology from Audi’s PPE modular system, the Audi activesphere joins the sphere family of concept vehicles. With no local emissions, a range of over 600 km, and extremely fast charging times thanks to 800-volt technology, it combines the sustainability, dynamics and long-distance capability of state-of-the-art electric vehicles.

Oliver Hoffmann, Member of the Board of Management for Technical Development: “The sphere concept vehicles show our vision for the premium mobility of the future. We are experiencing a paradigm shift, especially in the interior of our future Audi models. The

interior becomes a place where the passengers feel at home and can connect to the world outside at the same time. The most important technical innovation in the Audi activesphere is our adaptation of augmented reality for mobility. Audi dimensions creates the perfect synthesis between the surroundings and digital reality."

The autonomous chauffeuring capability on suitable terrain gives drivers and passengers a new level of freedom, which, thanks to the new display and operating technology, can be used in the activesphere in a variety of ways. The innovative operating concept, Audi dimensions, combines the physical and virtual worlds (i.e., mixed reality) by displaying digital content in the occupants' fields of vision in real time.

High-tech headsets provide a view of the real environment and the route, while simultaneously displaying 3D content and interactive elements– individually configurable for drivers and passengers.

This means all driver-relevant information, such as driving status and navigation, can be displayed. And in the interior, headset users can see control panels and other virtual displays in a tidy, minimalist design that remains hidden to the unaided eye. Mixed reality optics gives users the ability to interact precisely with these real, yet invisible, touch-sensitive zones, as the headsets display and carry out functions by reacting in real time when users touch them.

As a perfect all-rounder, the Audi activesphere concept is ideally suited for the high demands of a future-oriented generation of Audi customers – people for whom individual mobility and sustainability are not mutually exclusive. Also, owners who expect their vehicle to deliver the brand's typical aesthetics and dynamism in the highest degree, combined with future-oriented technology. For these customers, the Audi activesphere concept acts as a fascinating vision of crossing the boundaries between these dimensions.

Robust elegance – exterior design

Its dimensions – 4.98 meters long, 2.07 meters wide, and 1.60 meters high – make the Audi activesphere concept a member of the premium segment. Typical of an electric car, the wheelbase is a generous 2.97 meters, providing maximum legroom for passengers. The front and rear overhangs are correspondingly short for a much more compact impression than the mere numbers indicate. From all perspectives, the Audi activesphere concept appears monolithic, as if from a single mold.

Large 22-inch wheels and striking ground clearance, the flat cabin so typical of an Audi, and a dynamic roof arch give the car proportions that are distinctly reminiscent of a sports car.

The 285/55 tires are voluminous enough for all types of terrain, and their contoured tread highlights the activesphere's talent for off-road use. The wheels feature movable segments: when used off-road, they open for optimum ventilation, and they close on-road for optimum aerodynamics. The elegant, stylish camera mirrors on the two front doors are also designed specifically to minimize drag.

The absence of hard edges results in smooth transitions between convex and concave surfaces throughout the body, as well as in soft shadows. Viewed from the side and rear, the rear wheel wells appear markedly horizontal, visualizing the dynamic potential of the concept vehicle.

Glass surfaces make up a significant part of the vehicle's body – and by no means just at head height. The front end of the activesphere features the brand face, the Singleframe, designed as a transparent glazing to afford passengers an unobstructed view through the large frunk of the road in front of the vehicle.

There are also glass surfaces on the side in the lower door area, which seem to dissolve the boundary between the natural world and the interior when the activesphere is in off-road mode. The wide, curved tailgate features extensive glazing for optimum lighting, whilst even the roof itself is transparent, letting plenty of daylight into the interior.

The exterior look specifically signals the vehicle's off-road capability and, with its voluminous wheel arches, portrays the variable, electronically controlled quattro all-wheel drive. The Audi activesphere's ground clearance is also variable; ideal for off-road use, it can be increased by 40 millimeters from the basic height of 208 millimeters, or lowered by the same amount when driving on-road. This benefits both the center of gravity and aerodynamics when driving fast. The approach angle of the Audi activesphere – relevant for offroad drives - is 18.9 degrees, the departure angle 28.1 degrees.

The variable ground clearance is reminiscent of an Audi model family that has attracted an enthusiastic, loyal fan base in the C and later B segments since 2000 – the Audi allroad. From the first generation, this family also features air-spring suspension with variable ground clearance and a visually offset floor assembly with underride guard elements as a significant design feature. Equally significant for all allroad models is the Avant package option.

The activesphere marks the first time that a car with a Sportback hatchback incorporates the design elements and technical equipment of an allroad. For this reason, Audi calls the new body variant "active Sportback" in contrast to the allroad.

Another new variation of the allroad theme – the Audi activesphere concept features dark,

high-gloss paint finishes in Arctic Teal on the front and rear as well as underneath the doors in the side area, plus matte surfaces that visually juxtapose the floor assembly and cabin. Metal strips with slightly offset vertical studs, arranged parallel to one another, are integrated here. These elements deploy when the ground clearance is increased, visualizing the off-road mode.

As with its relative, the Audi grandsphere concept, the doors of the Audi activesphere, which are attached to the A- and C-pillars at the front and rear, open in opposite directions; there is no B-pillar here either. This innovation means the entire interior space opens up to passengers as soon as they get into the car.

Right and left above the Singleframe, the narrow headlight units appear like focused eyes. The lighting units echo the logo of the brand with the four rings by enlarging and isolating the intersection of two rings to form a pupil – a new, unmistakable digital light signature that Audi first introduced in the Audi grandsphere: the Audi eye. In the activesphere, this signature is now varied – on-road and off-road driving modes each have their own variant. Daytime running lights and rear lights use ultra-fine micro-LED technology for even greater precision and contrast.

Sportback and active back – variable rear architecture

The Audi activesphere concept is a crosser of boundaries, which means it is a master of metamorphosis. Its rear section in particular reflects the active lifestyle of its customers and makes it possible to transport even bulky sports gear– without sacrificing the elegance and sportiness of the Sportback silhouette.

If required, the transparent rear window slides are almost flush with the roof of the Audi activesphere. At the same time, the lower, vertical segment of the rear folds horizontally – this opens up an ample cargo bed called the active back that features brackets for e-bikes, for example. The lateral surfaces of the rear, the C-pillars, remain in position to maintain the activesphere’s dynamic silhouette, whilst a motorized bulkhead deploys from behind the rear seats in order to isolate the cabine from the elements.

A ski rack is integrated in the center of the roof structure. Completely flush in nominal position and practically invisibly in the roof arch, it extends if required, so that skis can be safely attached and transported.

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