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Audi News

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The sportiness of the Audi TT redesigned: The Audi TT Sportback concept show car

A speedy sports car with four seats and five doors – Audi is presenting the TT Sportback concept at the Paris Motor Show. The exterior of the show car invokes the design idiom of the classic TT*, developing it into a new, elongated sculpture. It is driven by a high-powered 2.0 TFSI engine that delivers 294 kW (400 hp).

“With the TT, Audi created one of the automotive design icons of the last 20 years,” says Prof. Dr. Ulrich Hackenberg, Audi Board Member for Technical Development. “In the years since, we have designed our sporty and elegant five-door Audi A5 Sportback* and Audi A7 Sportback*. In our Audi TT Sportback concept show car, we are now fusing both concepts to form a new member of a potential TT family.”

The Audi TT Sportback concept captivates with the power of 294 kW (400 hp) that flows through a seven-speed S tronic to the quattro permanent all-wheel drive. The sprint from 0 to 100 km/h (*62.1 mph*) takes just 3.9 seconds. The sophisticated suspension and the low center of gravity ensure dynamic handling, and the body integrates a number of lightweight aluminum components. A laser spot that complements the LED high beam is featured in each of the headlights – this innovation from Audi significantly boosts safety when driving in the dark.

The Audi virtual cockpit dominates the elegantly designed interior of the show car, with the 12.3-inch screen replacing the conventional instruments and the MMI monitor. The screen provides top-quality graphics and enables the driver to choose between multiple display levels. In the MMI terminal, the rotary push-button features a touchpad that is used to enter characters and gestures as with a smartphone. The operation of the climate control has been relocated to the air vents.

Exterior design

The five-door Audi TT Sportback concept is 4.47 meters (*14.7 ft*) long, 1.89 meters (*6.2 ft*) wide, and 1.38 meters (*4.5 ft*) high, featuring a wheelbase of 2.63 meters (*8.6 ft*). Compared with the new production TT, it is 29 centimeters (*11.4 in*) longer, 6 centimeters (*2.4 in*) wider and has a 12 centimeter (*4.7 in*) larger wheelbase; its height is 3 centimeters (*1.2 in*) less than that of the new TT.

Featuring Mars red paintwork, the body is a statement of powerful elegance: High-precision lines border athletically domed surfaces, and a flat greenhouse is positioned on a powerful body. The design makes use of the Audi TT's formal idiom to develop a new sporty and elongated sculpture that is highly taut.

The distinctive horizontal lines at the front end of the new Audi TT Sportback concept reinforce the broad and sporty look. Bearing the quattro badge on its lower edge, the Singleframe grille is flatter and wider than on the two-door coupe and features a honeycomb grille insert with a resplendent dark aluminum look.

The lateral borders of the Singleframe are continued across the hood as swage lines, giving it a sporty contour. Typically for Audi, the design forms a coherent whole, with all the lines and surfaces of the show car being linked to one another in a logical manner.

The front of the Audi TT Sportback concept has another characteristic feature in the form of the large, striking air inlets. Framed by pronounced edges, the air inlets have the look of individual structures and feature honeycomb inserts that fill their interior. A third, flat inlet underneath the Singleframe connects them to each other. The blade that gives the Singleframe structure sharpens the look of the show car whilst boosting the aerodynamics.

Another typical TT design feature are the newly designed headlights with separators that demonstrate a unique daytime running light signature. On the Audi TT Sportback concept, the high-beam spot is provided by laser technology – in each headlight, a module comprising four powerful diodes generates a beam of light that illuminates several hundred meters. The laser spot, which is activated at 60 km/h (37.3 mph) and above, supplements the LED high beam. For the driver, this is a significant boost to visibility and safety; a camera is used to detect and blank out other road users.

The lighting concept is rounded out by the indicator with a dynamized display that is also used in the LED rear lights. It comprises a series of individual diodes that light up one after the other from the inside to the outside, indicating the direction selected by the driver.

The side view of the four-seater show car is a particularly striking indication of the close relationship between it and the production TT. The Audi TT Sportback concept sits powerfully on the road and features short overhangs. The wide semicircles of the wheel arches, each of which protrudes by 3 centimeters (*1.2 in*), have a superimposed look. The front semicircle defines the edge of the hood, which runs as a sharp tornado line across the doors and to the rear end.

The trim of the side sill, which connects the wheel arches to one another, also has a broad and sporty appearance. In classic sports car style, the exterior mirrors and their angular housings are positioned on the door top shoulders. The right side part houses the circular filler cap, another classic TT icon.

The strong shoulders of the powerful vehicle body support a low greenhouse that is elongated towards the rear. This is in keeping with the Sportback line as implemented by Audi in its A5 and A7 model series. The flat C-pillar flows elegantly into the shoulder, and the rear has a compact and sleek look. The highly rounded corners of the rear window are a homage to the original TT.

The rear of the Audi TT Sportback concept is also focused and sculptural, with five horizontal lines emphasizing its width. The one-piece rear lights – which also include vertical separators inspired by the R18 – form independent structures. These are linked to one another by the handle edge of the luggage compartment, which constitutes a powerfully contoured continuous trim. The surface that bears the number plate is located in the shadow of the spoiler lip. The two large elliptical tailpipes of the exhaust system are embedded in the diffuser and linked by a trim.

Interior

The driver and the passengers enter the Audi TT Sportback concept through doors with frameless window panes. The interior fits around them with the precision of a sporty suit. In the interior, the uncompromising sportiness of the Audi TT meets the functionality of a five-door sedan. This is underlined by slimline applications on the dashboard and doors, as well as a long center console which continues through the entire interior. Handworked seams run along the center console and top shoulder from the front through to the luggage compartment, lending a sporty elegance to the interior. The headlining also features an elegant contour that accentuates the length of the interior. The super sport seats with the integrated head restraints are sharply contoured and highly adjustable.

There is space for two people in the rear, likewise on individual seats with integrated head restraints. They are separated by functional storage compartments and a comfortable armrest. The backrests can be folded down so that large objects can also be stowed in the luggage compartment beneath the tailgate.

The sinewy, taut lines created by the Audi designers in the interior of the show car are closely oriented to those of the production TT. When viewed from the top, the instrument panel resembles the wing of an airplane and the five round air vents are reminiscent of jet engines. The controls for the seat heating, air recirculation, temperature, distribution and strength of the air flow are located on their axes. The omission of the classic air conditioning control panel and the MMI monitor has made it possible to design the instrument panel within a sleek and light architecture that is fully focused on the driver.

The Audi virtual cockpit, the digital instrument cluster, replaces the conventional physical displays and the central MMI monitor. The driver can switch to the 12.3-inch display at multiple levels in order to view top quality graphics. The system is operated via the multifunction steering wheel or the MMI terminal. The touchpad located on the round rotary push-button is used to enter characters and also processes multiple finger gestures – the driver can zoom in on the map as they would on a smartphone.

In keeping with the character of sporty elegance, the interior of the Audi TT Sportback concept is defined by the use of high-quality materials. The instrument panel and the upper area of the door trims are dark granite gray in color. The door armrests, the center console and the seats see the use of a new soft leather in parchment beige – this is processed for a particularly near-natural look and has a silky sheen. The door top shoulder is upholstered in Alcantara, parchment beige. The seat upholstery features a diamond pattern. The side bolsters of the seats are trimmed with special accent strips in dark gray leather that are fixed with red thread using a special stitching technique.

The instrument panel and the door trims contain decorative surfaces with a dark aluminum look. Further accents in this look are provided by the clasps on the sides of the seats and the trim rings on the air vents. The color and material concept is rounded out by black floor mats made from the rubberized material that also covers the floor of the luggage compartment.

Drivetrain

The 2.0 TFSI engine in the Audi TT Sportback concept captivates with its performance characteristics: It generates 294 kW (400 hp) at 6,400 rpm, with a specific output of 147 kW (200 hp) per liter of displacement. The four-cylinder engine puts 450 Nm (331.9 lb-ft) of torque on the crankshaft between 2,400 and 6,000 rpm, with over 300 Nm (221.3 lb-ft) already available at just 1,900 rpm. The high-performance engine limits fuel consumption to an average of 7.0 liters per 100 kilometers (33.6 US mpg). This equates to CO₂ emissions of 162 grams per kilometer (260.7 g/mi).

As a member of the Audi EA 888 engine family, there is a comprehensive package of high-end technology on board for the turbocharged direct-injection unit. The camshaft adjustment on the intake and exhaust sides and the Audi valvelift system, which varies the stroke of the exhaust valves in two stages, ensure good filling of the combustion chambers. At part load, indirect injection complements the FSI direct injection. The exhaust manifold embedded in the cylinder head is an important component of the thermal management. The flow of coolant is managed by a powerful rotary slide module.

In order to generate the high power output, the 2.0 TFSI has undergone profound modifications, including special aluminum pistons with an integrated cooling channel and a crankshaft made from ultra-high-strength forged steel. The crankcase consists of a new, high-strength casting alloy and the cylinder head has been designed for the increased gas flow rate. The turbocharger has also been redeveloped and builds up a maximum relative boost pressure of 1.8 bar. It contains a mixed flow turbine wheel that is noted for its particularly fast start-up performance.

When driving, the four-cylinder unit's extreme dynamics are breathtaking. The turbocharged direct-injection engine accelerates the Audi TT Sportback concept from 0 to 100 km/h (62.1 mph) in 3.9 seconds, demonstrating excellent response characteristics and running at 7,200 rpm up to the maximum rated speed. The sporty sound is made even more resonant as the load and engine speed increase.

The force of the engine flows into a compact seven-speed S tronic with a three-shaft layout that performs direct gear changes in a few hundredths of a second. The driver can let the dual-clutch transmission operate in two automatic programs or take control using the paddles on the steering wheel.

Power is delivered to the road via quattro permanent all-wheel drive. For optimal weight distribution, the hydraulically actuated and electronically controlled multi-plate clutch is located on the rear axle. The quattro drive actively controls the distribution of torque between the axles in milliseconds, thus adding to the car's dynamic handling.

Chassis

The suspension also reflects the technological expertise behind the Audi TT Sportback concept. The front suspension is based on a McPherson system; aluminum components reduce the weight of the unsprung chassis masses. The four-link rear suspension can process the longitudinal and transverse forces separately.

The large wheels have a 21-inch diameter and a tire format of 255/30. The four brake discs in 18-inch format feature a weight-saving wave design.

The Electronic Stabilization Control (ESC) adds the final touch to the handling. A sub-function of the ESC is enabled at the cornering threshold – through minimal application of the brakes at the wheels on the inside of the curve, which are reduced of load, the wheel-selective torque control diverts the drive torque to the wheels on the outside of the curve. For the driver, this means a further boost in terms of neutrality, stability and traction.

Body

The body plays a leading role in the lightweight construction concept of the Audi TT Sportback concept on the basis of the modular transverse matrix (MQB). The entire front section is made from steel. The passenger compartment floor comprises high-strength, hot-shaped steel components which, thanks to their outstanding strength properties, feature thin walls and are correspondingly light. The compartment's structure, the outer skin, and the doors and lids are made of the classic Audi semi-finished aluminum products cast node, extruded profile and sheet metal.

With its composite concept, the body represents the latest evolution of the Audi Space Frame (ASF). Its hybrid construction ensures that the show car has a low center of gravity – ideal for sporty driving.

The new Audi TT Roadster and the Audi TTS Roadster

Purity in its most beautiful form: Audi is presenting the new TT Roadster* and the TTS Roadster* at the Paris Motor Show. The compact two-seater sets new standards in design, drive, and suspension. A particular highlight in the third TT generation is the Audi virtual cockpit. For the first time, the digital instrument cluster provides all information within the driver's field of vision – a concept that is causing a sensation. This has already led to the Audi TT's new display and control system receiving the Car Connectivity Award and the honor of Interior Innovation of the Year at the Automotive Interiors Expo Awards.

“The concept of designing a compact roadster following clear geometrical rules formed the original idea for the Audi TT in autumn 1994,” says Prof. Dr. Ulrich Hackenberg, Board Member for Technical Development at AUDI AG: “From the first generation on, it has been a sports car for the senses – a driving machine with an authentic design. With the new TT Roadster, we have developed this concept in a consistent manner and further improved the technical experience in the car with innovations such as the Audi virtual cockpit.”

A design that is full of character is fused with timeless aesthetics – the third-generation TT Roadster and the TTS Roadster mark the continuation of a great tradition. The Audi designers have reinterpreted the styling of this classic vehicle and complemented it with innovative components.

New from the ground up: the control system

The control system in the new Audi TT Roadster and TTS Roadster is fully focused on the driver. There are two variants of the new multifunction steering wheel available. Thanks to the fundamental redevelopment of the control logic, the reworked MMI terminal features six hard buttons. The natural language control also makes it easier to operate the system when driving.

In combination with the MMI navigation plus, the MMI touch – the touchpad on top of the rotary push-button – is also on board. The driver can use this to scroll through lists, zoom in on maps, and enter characters. The menu structure is inspired by the layout of a smartphone and includes free text search. All key functions can be reached with just a few clicks, and the buttons on the side provide access to intelligently linked functions and options.

Another top innovation in the new TT generation is the Audi virtual cockpit. With its versatile, detailed depictions, the digital instrument cluster replaces the analog instruments and the MMI monitor. It is possible to toggle between two levels of the 12.3-inch display. The classic view is dominated by the tachograph and the rev counter, whereas “infotainment” mode focuses on themes such as the navigation map. The TTS Roadster features a third, particularly sporty view that focuses on the rev counter as an important racing instrument.

A further highlight of the new model generation is the voice control, which has been made significantly easier. The system now understands phrasings from everyday language, meaning that hundreds of command variations are possible for each function. In the telephone menu, for example, calling a contact is as easy as saying “I want to talk to Peter” or “Connect me to Peter.” The natural language control is also integrated into the navigation, radio, and media menu items, providing customers with consistent language control.

The fun of open top driving: the concept

The new TT Roadster combines the dynamic ride of a sports car with the driving experience of an open-top two-seater. The basis for this consists of struts in the underbody and body that considerably improve both the torsional rigidity and the ride comfort.

The new TT Roadster is sporty, compact and low-slung stance on the road. At 4,177 millimeters (*13.7 ft*), the two-seater is 21 millimeters (*0.8 in*) shorter than its predecessor. The wheelbase, on the other hand, has grown by 37 millimeters (*1.5 in*) to 2,505 millimeters (*8.2 ft*). The overhangs are correspondingly short. Featuring a width of 1,832 millimeters (*6.0 ft*), the new TT Roadster is 10 millimeters (*0.4 in*) narrower than its predecessor and has a height of 1,355 millimeters (*4.4 ft*) (3 millimeters [*0.1 in*] less). Its drag coefficient is only 0.30 with the top closed – number one in the compact sports car segment. This is down to Audi having combined the distinctive design with excellent aerodynamics.

The front of the open-top sports car conveys power and energy through its accentuated horizontal lines. Similar to the Audi R8*, the Singleframe grille is wide and flat – the four rings are positioned on the hood in the style of a high-performance sports car. On the standard version, the air inlets are connected to one another and divided by two vertical slats.

Two vertical lighting elements are also positioned in the headlights and emit the daytime running lights. Audi optionally supplies the headlights in LED technology. The headlights will also be available in the new Matrix LED technology shortly after the market launch – in this case, the high beam is produced by small, individually controlled light emitting diodes. In the Matrix LED headlights, the indicator featuring a dynamized display – another brand innovation – runs in the direction selected by the driver.

The flat and taut top of the new TT Roadster and the TTS Roadster also provides a clear contrast with the body and is defined by the short side window design that is typical of the TT Roadster. When viewed from the side, many of the details invoke the first generation of the design classic. The shoulders have a muscular look and the sill contour forms a strong light-refracting edge. The broad wheel arches form their own geometric entities: The front wheel arch breaks through the hood gap that continues as the tornado line all the way to the rear end. The driver no longer needs to unscrew the cap underneath the classic round tank flap on the right side. Direct refueling is performed in true racing style.

At the rear, horizontal lines again underscore the width of the open-top sports car. The bars in the standard LED rear lights, which adopt the motif of the headlights, are permanently illuminated. The third brake light – a flat strip on the edge of the luggage compartment lid – connects the light silhouette at the rear. A diffuser incorporates the tailpipes of the exhaust system. At speeds of 120 km/h (*74.6 mph*) and above, a spoiler is electrically extended from the luggage compartment lid to provide additional downforce on the rear axle.

Light and quiet: the convertible top

As with all Audi Cabriolet models, the new TT Roadster and the TTS Roadster also feature an electrically actuated fabric top. This is available as standard in black, titanium gray and jive, and fits perfectly into the design line. With parts made from magnesium, aluminum, steel and plastic, the soft top weighs just 39 kilograms (*86.0 lb*) and is 3 kilograms (*6.6 lb*) lighter than its predecessor. This has a positive impact on the gross vehicle weight and the center of gravity of the open-top two seater.

While opening, the top forms a Z shape as it folds together into a flat package. When is stowed in the aluminum tray, it does not encroach on the 280-liter (9.9 cu ft) luggage compartment. The electric drive with the two electric motors performs opening and closing in 10 seconds, even when driving at speeds of up to around 50 km/h (31.1 mph). As a result of the elaborate clamping technology, the closed top is completely taut even at high speeds – it features a homogeneous look that conceals the cross bows.

The acoustic top is already fitted as standard on the Audi TT Roadster and Audi TTS Roadster and is noted for its extremely good thermal insulation and a low noise level, especially in the frequency range of the airflow. The thick fleece layer on the black inner headlining adds comfort. Depending on frequency, the noise level in the interior has been reduced by up to 6 dB compared with the predecessor. The aerials for radio reception are hidden from view by the convertible top. An electric mesh wind deflector and the S sport seats including headroom heating are optionally available.

Intelligent composite construction: the body

The body of the TT Roadster and the TTS Roadster represents a new evolution of the Audi Space Frame (ASF) based on the modular transverse matrix (MQB). Ultra-high-strength components made from hot-shaped steel reinforce the front section and the passenger compartment floor. The passenger compartment and all outer skin and attachment parts are made of the classic semi-finished aluminum products cast node, extruded profile and sheet metal.

With the 2.0 TFSI and manual transmission, the unladen weight of the TT Roadster (without driver) is only 1,320 kilograms (2,910.1 lb). The Audi engineers have also further improved the crash safety through the intelligent composite concept in the TT Roadster.

Compared with the Coupé, the body of the Roadster has been modified in important areas. The aluminum A-pillars each conceal a second steel pillar in their interior, which in turn houses a solid steel tube. Internal steel ribbing ensures the aluminum sills have high-strength properties. V-shaped steel struts reinforce the zones underneath the engine compartment and the luggage compartment, and connect the axle carriers.

In the TT Roadster and the TTS Roadster, a solid wall consisting of two box profiles separates the interior from the luggage compartment, and replaces the bottom cross member found on the Coupé. The upper area of this wall houses the steel roll-over bars, whose elegantly rounded form marks another classic design theme. Mounting plates seal the openings in the rear wall, which features through-loading as standard.

Powerful and efficient: the engines

The new TT Roadster is being launched with two turbocharged four-cylinder engines, a TDI and a TFSI. A powerful TFSI ensures efficient drive in the TTS Roadster. With power outputs between 135 kW (184 hp) and 228 kW (310 hp), they clearly surpass the respective predecessor engines in terms of power, while significantly undercutting them with regard to consumption.

Using the modular transverse matrix, all engines are mounted in the same place – their installation location has great advantages with regard to packaging. A start-stop system is included as standard. In combination with the optional driving dynamics system Audi drive select (fitted as standard on the TTS Roadster), the adjustable engine sound makes the sound even more sonorous.

Featuring 135 kW (184 hp) and 380 Nm (*280.3 lb-ft*) of torque, the 2.0 TDI ultra is already a sporty engine. As with all engines in the new TT family, the two-liter diesel engine meets the Euro 6 standard. It averages just 4.3 liters of fuel per 100 kilometers (*54.7 US mpg*), which equates to CO₂ emissions of 114 grams of CO₂ emissions per kilometer (*183.5 g/mi*) – a new best figure in its segment.

The 2.0 TFSI produces 169 kW (230 hp) and 370 Nm (*272.9 lb-ft*) of torque in the TT Roadster; in the TTS Roadster, these figures are as high as 228 kW (310 hp) and 380 Nm (*280.3 lb-ft*). The top model breaks into the high-performance range, sprinting from 0 to 100 km/h (*62.1 mph*) in 4.9 seconds on its way to an electronically governed top speed of 250 km/h (*155.3 mph*). The switchable flaps in the exhaust system underscore the sporty sound.

The 2.0 TFSI channels its output to a manual six-speed transmission; the output can optionally be channeled to a six-speed S tronic. The dual-clutch transmission shifts rapidly through the gears without any noticeable break in propulsive power and can be controlled by paddles on the steering wheel if desired. In efficiency mode in the Audi drive select system, the S tronic coasts when the driver takes their foot off the gas.

New technology: quattro permanent all-wheel drive

The quattro permanent all-wheel drive has been fully redeveloped; it is optionally available in combination with the 2.0 TFSI engine in the TT Roadster and is fitted as standard on the TTS Roadster. During regular driving, its electrohydraulic multi-plate clutch optimally distributes the drive torque between the front and rear axle depending on driving conditions, road characteristics and driver type.

Driving enjoyment and safety are combined at a new level by electronic clutch management. More power is routed to the rear axle during sporty driving, literally propelling the new TT Roadster and the TTS Roadster into corners. Safe, controlled drifts are possible on low-friction surfaces.

The third TT generation is the first in which the permanent all-wheel drive is integrated into the dynamic handling system Audi drive select. The driver can use this to toggle the engine characteristics and the operation of the steering support between the comfort, auto, dynamic, efficiency and individual modes. Audi drive select also accesses a series of optional technical modules including the adaptive damper control Audi magnetic ride (fitted as standard on the TTS Roadster) and the six-speed S tronic.

A synthetic hydrocarbon oil containing microscopically small magnetic particles circulates within the damper pistons. Each of the front dampers contains 154 milliliters (6.1 in), the rear dampers 185 milliliters (7.3 in) apiece. When a voltage is applied to a coil, a magnetic field is generated in which the alignment of the particles changes so that they are perpendicular to the oil flow, thereby inhibiting its flow through the shock absorber channels.

The control unit continuously analyzes the driving properties and the condition of the road. Depending on the setting in Audi drive select, the ride of the new Audi TT Roadster and the TTS Roadster is either relatively comfortable, balanced or decidedly taut. The dynamic mode unveils its full dynamic potential. The targeted bracing of the individual wheels during fast cornering ties the Roadster tightly to the road. It largely suppresses roll and makes steering response even more spontaneous. Audi magnetic ride reduces body pitch during braking.

Sporty and stable: the chassis

The McPherson principle is used for the front suspension of the new Audi TT Roadster and the TTS Roadster. Aluminum components reduce the weight of the unsprung masses. The steering rack of the standard progressive steering is designed so that the steering ratio becomes increasingly direct when turning. The rear axle, which features four steel links per wheel, can handle the longitudinal and transverse forces separately.

Together with the progressive steering, the sophisticated suspension and the taut tuning lead to high-precision dynamic handling. The body is lowered by 10 millimeters (*0.4 in*) on the TTS Roadster, in conjunction with the S line sports package and with Audi magnetic ride. The TT Roadster 2.0 TFSI and the TT Roadster 2.0 TDI roll on 17-inch lightweight wheels, each of which weighs only 8.7 kilograms (*19.2 lb*); the tire dimension is 225/50. On the TTS Roadster, the format is 18 inch and the tire size 245/40; the available options range up to 20-inch format. The newly developed tires are noted for their improved performance together with significant optimization of rolling resistance.

Brakes that can be precisely metered and convey a taut pedal feel are located behind the large wheels. The vented front discs have a diameter between 312 and 338 millimeters (*12.3 – 13.3 in*) depending on the engine version. The TTS Roadster features newly developed, particularly lightweight aluminum fixed-caliper brakes on the front axle. Another innovation, the electromechanical parking brake, takes effect at the rear wheels regardless of engine version.

The Electronic Stabilization Control (ESC), which can be switched off either partly or completely, perfectly complements the car's sporty handling. Wheel-selective torque control takes effect when cornering: Where necessary, it can distribute the drive torque from the front wheel on the inside of the curve to the front wheel on the outside of the curve (in the case of front-wheel drive). With quattro drive, this is also performed at the rear wheel. The car turns very easily into the curve thanks to the difference in propulsive forces, which is helpful for the driver. This enables more precise and neutral driving around curves, with the TT Roadster realizing a major boost in terms of dynamics and stability. Sports mode facilitates particularly sporty driving, facilitating steering and control when drifting.

New line: the interior design

The two-seat interior of the new TT Roadster and the new TTS Roadster fits around the driver like a custom-made suit. It has an intimate and protective feel, particularly when the fabric top is closed, without ever being restrictive. The curb clearance is high and the newly developed sport seats with integrated head restraints are mounted low. Together, they weigh five kilograms less than the seats in the predecessor. The S sport seats are optionally available (standard in the TTS Roadster) and feature particularly powerful, pneumatically adjustable bolsters.

With its light, almost floating lines, the interior continues the line of the exterior. The interior's central concept is focus on the driver. All controls are grouped around the driver – a statement in favor of sporty, dynamic driving. The door trims and the center tunnel console feature flowing forms that correspond with one another.

When viewed from above, the sleek instrument panel resembles the wing of an airplane; the round air vents – a further traditional TT feature – are reminiscent of jet engines. They conceal the operation of the air conditioning and the optional deluxe automatic air conditioning. The high-precision air vents are an example of the high standards to which the Audi aspires with respect to the function, design, and workmanship of the entire interior.

High quality: color and trim

The new Audi TT offers a far more distinct and varied range of colors than its predecessor. There are 11 exterior colors, one of which is exclusively for the S line. Seven of the colors in the palette are new for the TT, and two of these are completely new for Audi: nano gray and tango red. Panther black, crystal effect and the expressive Sepang blue are also available for the TTS.

There is also a new palette of colors for the interior. There are three interior colors to choose from for both the TT and the TTS. Besides black, these are rock gray and palomino brown. For the first time, customers can choose a second color – rotor gray – in combination with the S line package, naturally also with sporty contrasting stitching. TTS buyers can also choose the sporty leather shade express red.

The equipment for the new TTS includes extended interior elements that add individually selectable color accents to the trims of the S sport seats, the sides of the center console and the rings of the air vents. Audi offers customers with exquisite taste numerous options for customization. Upholstery in various grades of cloth, Alcantara and leather is available for the seats; there are also three leather packages. The S sport seats have characteristic diamond patterning on the high quality fine Nappa leather in the center panel.

The design selection admiral blue is a particular highlight, making an impression with matching leather colors, alternately contrasting stitching, dark aluminum, a coordinated paint finish and a special mesh floor mat.

For the TTS, Audi's design engineers have developed an innovative technical laser texture for the wings of the dashboard. This texture has a honeycomb-like, slightly raised structure that gives the TTS an unrivaled sporty appeal.

Convenient: the equipment

In Germany, sales of the new TT Roadster will begin with the Paris exhibition in October 2014; the TTS Roadster will follow at the start of 2015. The basic price of the 2.0 TFSI is €37,900. The generous standard equipment, which includes xenon plus headlights, air conditioning, and the MMI radio, can be expanded with numerous pieces of sporty, practical, and convenient optional equipment.

The optional driver assistance systems are also cutting edge. The Audi side assist included as standard in the 2.0 TFSI and TTS ensures safe lane changes with a radar measurement towards the rear, and the Audi active lane assist keeps the open top two seater in its lane with minor steering interventions. The park assist with display of surroundings automatically controls the car into and out of parking spaces. Traffic sign recognition is another optional system; attention assist is provided as standard.

Topping the modular infotainment program is MMI navigation plus with MMI touch. It already uses the second generation modular infotainment program with the Tegra 30 graphics processor from Audi's partner Nvidia. It goes without saying that the Audi TT features the high speed communication standard LTE (Long Term Evolution) on board. The supplementary module Audi connect additionally features the familiar tailored online services – from Google Earth and Google Street View through to Twitter and Facebook access. Another new feature is online media streaming. The MMI connect app enables access to services such as Aupeo! and Napster.

With the Audi phone box, the cell phone can be conveniently docked in the car and the seat belt microphone ensures excellent voice quality during calls even when the convertible top is open. The optional Bang & Olufsen sound system provides 680 watts of power and features 12 loudspeakers. The specially designed frames for the woofers are adorned with anodized aluminum elements bearing the logo of the Danish hi-fi specialists. A white LED light conductor makes the sound system a highlight even at night.

Fresh power for an established winner – the new Audi A6* and A6 Avant*

The winner in the business class has just gotten better – Audi has thoroughly updated the A6 family. New engines, transmissions and headlights, plus a new infotainment system make the Sedan and Avant more efficient, more powerful, more attractive and more sophisticated than ever. The versatile A6 allroad quattro* and the S6, S6 Avant and RS 6 sport models are also packed with numerous new features.

Sharp lines, emphasized horizontals, athletically taut surfaces – the design of the A6 models epitomizes precision and sporty elegance. It was carefully honed as part of the model refresh, with changes made to the Singleframe grille, the headlights, air inlets, bumpers, side sills, rear lights and tailpipes. Audi optionally offers headlights with LED technology or Matrix LED technology, combined with dynamic turn signals.

Thanks to its intelligent composite construction concept, the body is extremely rigid and safe. Numerous components of aluminum and hot-shaped steel form the backbone of a systematic lightweight construction concept. The new A6 1.8 TFSI has a curb weight (without driver) of just 1,535 kilograms (*3384.1 lb*). Vibrational comfort is excellent; cabin noise is extremely low.

The sinewy style of the exterior is echoed in the car's spacious interior. Every detail documents the uncompromising level of quality familiar to Audi drivers. Elegant colors and carefully selected materials emphasize the cultivated atmosphere. The new Audi design selection in the interior colors flint gray (A6 models) and salsa red (S6) address particularly discerning customers.

The front seats are available with optional ventilation and massage functions; the controls are simple. The MMI radio operating system and deluxe automatic air conditioning are standard. The luggage compartment of the Audi A6 Avant offers between 565 and 1,680 liters (*20.0 and 59.3 cu ft*) of space and many practical features. An optional sensor-controlled automatic tailgate combined with a power luggage compartment cover makes loading even easier.

The new A6 models are also way ahead of the competition when it comes to infotainment, with configurations ranging up to MMI navigation plus with MMI touch. The top-of-the-line navigation system with the power-retractable eight-inch monitor is now based on a new technology platform that uses the fast Tegra 30 graphics chip from Audi's partner Nvidia. The supplemental module Audi connect transfers data via the fast LTE standard and brings tailored online services into the car, including new media streaming apps.

The range of driver assistance systems is also extremely attractive, topped by adaptive cruise control with stop & go function. Audi side assist, which uses radar to check behind the car when changing lanes, works closely together with Audi active lane assist, which prevents unintended lane changes. The night vision assistant now includes even more functions, and the Audi pre sense basic safety system is standard. Important information can be called up via the optional head-up display.

Extensively updated: the engine lineup

The engine lineup for the new A6 and A6 Avant includes three TFSI units with output ranging between 140 kW (190 hp) and 245 kW (333 hp) and five TDI units ranging from 110 kW (150 hp) to 240 kW (326 hp). All engines comply with the limits of the Euro 6 emission standard, and their CO₂ emissions have been reduced by as much as 22 percent. At Audi, the most efficient gasoline and diesel engines bear the "ultra" label. Combined with the all-new S tronic transmission, the 1.8 TFSI ultra consumes just 5.7 liters of fuel per 100 kilometers (*41.3 US mpg*), corresponding to 133 grams CO₂ per kilometer (*214 g/mi*). The 2.0 TDI ultra with 110 kW (150 hp) achieves the extremely low consumption figure – with no restrictions with respect to equipment – of 4.2 liters of fuel per 100 kilometers (*56.0 US mpg*) corresponding to 109 grams CO₂ per kilometer (*175.4 g/mi*).

The top gasoline engine, the 3.0 TFSI, has been comprehensively revised. The engine developers have also completely redesigned numerous aspects of the 3.0 TDI clean diesel, which is available with either 160 kW (218 hp) or 200 kW (272 hp). The 3.0 TDI clean diesel biturbo produces 235 kW (320 hp). Another version with 240 kW (326 hp), which can be boosted briefly to 255 kW (346 hp), powers the A6 3.0 TDI competition and A6 Avant 3.0 TDI competition special-edition models, with which Audi is celebrating 25 years of TDI technology.

The high-performance diesel is paired with an eight-speed tiptronic. All other engine variants work together with either a newly designed six-speed manual transmission that is particularly lightweight and low-friction, or a seven-speed S tronic. In the versions with front-wheel drive, a fully redeveloped dual-clutch transmission replaces the multitronic. In engine configurations starting at 200 kW (272 hp), quattro permanent all-wheel drive can be supplemented with the sport differential, which actively distributes power between the rear wheels.

The chassis with its sophisticated wheel suspensions also combines supreme comfort with sporty handling. The Audi drive select dynamic handling system is standard, and Audi offers a choice of two sport suspensions and adaptive air suspension as options. In the Avant A6 2.0 TDI ultra with 140 kW (190 hp), the springs are made of glass fiber-reinforced polymer (GFRP) – an Audi innovation that saves approximately 4.4 kilograms (9.7 lb) of weight, reduces fuel consumption and improves both driving precision and vibrational comfort. The wheels measure between 17 and 20 inches in the diagonal. Models equipped with engines producing 160 kW (218 hp) and above are equipped with new lightweight brakes, and dynamic steering is available on models with 235 kW (320 hp) and up.

Sophisticated and masculine – the new Audi A6 allroad quattro

The new Audi A6 allroad quattro, which is based on the A6 Avant, features a raised body and stainless steel linings that encapsulate the underside of the front and rear ends. The design is robust and masculine, with vertical slats in the Singleframe grille. There are four 3.0-liter, V6 engines from which to choose – the 3.0 TFSI and three versions of the 3.0 TDI. The adaptive air suspension is standard.

Sportiness to the third power: the new S6, S6 Avant and RS 6 Avant

The new Audi S6 and the S6 Avant are sports cars for everyday. The 4.0 TFSI, a biturbo V8 producing 331 kW (450 hp), accelerates the Sedan from 0 to 100 km/h (62.1 mph) in 4.4 seconds. The S6 Avant completes the sprint in 4.6 seconds. Average fuel consumption is just 9.2 liters per 100 kilometers (25.6 S mpg) in the Sedan and 9.4 liters (25.0 US mpg) in the Avant, the equivalent of 214 and 219 grams CO₂ per kilometer (344.4 and 352.4 g/mi), respectively. This efficiency is due in large part to the cylinder on demand (COD) system, which only activates four of the eight cylinders when under part load.

Standard equipment in the new Audi S6 and S6 Avant includes quattro permanent all-wheel drive and the adaptive air suspension, which lowers the body by 20 millimeters (*0.8 in*). Matt black brake calipers grip the front discs mounted behind the 19-inch wheels.

The dynamic top model of the new A6 family is the Audi RS 6 Avant. The high-performance sports car for everyday driving and recreation accelerates to 100 km/h (*62.1 mph*) in 3.9 seconds and reaches a top speed of 305 km/h (*189.5 mph*). Its 4.0 TFSI engine produces 412 kW (560 hp), yet consumes on average just 9.6 liters of fuel per 100 kilometers (*24.5 US mpg*, corresponding to 223 grams CO₂ per kilometer (*358.9 g/mi*)). The COD system is also largely responsible for this efficiency.

An eight-speed tiptronic transfers the power from the biturbo V8. The standard quattro drivetrain uses a center differential with a higher locking rate. The RS adaptive air suspension lowers the body by 20 millimeters (*0.8 in*). Audi offers the taut RS sport suspension with Dynamic Ride Control (DRC) as an option. The large brake discs feature a weight-saving wave design, and the wheels measure 20 inches in diameter. 21-inch wheels are available as an option.

Delivery of the new Audi A6 family will begin in fall 2014. The base price in Germany for the Sedan with the 1.8 TFSI will be €38,400; the A6 Avant 1.8 TFSI begins at €40,900 and the A6 allroad quattro 3.0 TDI at €56,650. The Audi S6 is priced at €75,400, and the Audi RS 6 Avant lists for €108,900.

The new Audi A7 Sportback

Audi devoted tremendous effort to updating its A7 Sportback*. The spacious five-door coupe is now even more powerful and attractive – thanks to new engine configurations, new transmissions, new headlights, taillights and new infotainment systems. The new A7 Sportback combines the emotional appeal and sportiness of a coupe with the comfort of a sedan and the functional benefits of an Avant.

Back when the A7 Sportback debuted in 2010, Audi was already setting new standards in automotive design, embracing an athletic aesthetic and elegance in grand style. Its long engine hood, sporty, flowing C-pillars and the sharply dropping rear end create a dynamic overall impression. The revised version of the five-door model, measuring 4.97 meters (*16.3 ft*) in length, now has additional striking, sporty features.

The most striking changes are to the Singleframe grille, bumpers, tailpipes and headlights. LED technology is now standard. Upon request, Audi can supply Matrix LED headlights, which light the road optimally without dazzling other road users. Combined with the Matrix LED headlights, dynamic turn signals are also installed at the front; they come standard at the rear.

The body of the new Audi A7 Sportback consists primarily of aluminum and high-tech steel grades. It is extraordinarily lightweight and designed for maximum comfort in terms of noise. The cargo space under the long, electrically driven trunk lid has a base capacity of 535 liters (*18.9 cu ft*). When the rear seat backs are folded down it grows to 1,390 liters (*49.1 cu ft*).

The sporty style of the exterior is echoed in the car's interior. The dominant element is the horizontal line surrounding the driver and passenger. The dashboard gives an impression of lightness and elegance.

The new interior materials, including the aluminum/Beaufort walnut inlay and Valcona leather, are impressive for their finish. The color palette has been redesigned, offering five color options even for the seats.

The new Audi A7 Sportback is confident and relaxed to drive. The front seats can be optionally equipped with ventilation and massage functions, and there are four seat versions to choose from. The MMI radio operating system comes standard. It can be optionally supplemented with a head-up display that projects all important information onto the windshield.

Power and efficiency: two TFSI and three TDI engines

To start out, Audi is offering the new A7 Sportback with a choice of five powerful and highly efficient engines: two gasoline and three diesel units. Their power rating ranges from 160 kW (218 hp) to 245 kW (333 hp), and all of them comply with the Euro 6 emission standard. Many aspects of the 3.0 TDI clean diesel with 200 kW (272 hp) have been newly developed. In the “ultra” version with 160 kW (218 hp) and front-wheel drive, the three-liter V6 uses an average of just 4.7 liters of fuel per 100 km (*50.0 US mpg*), corresponding to CO₂ emissions of 122 grams per kilometer (*196.3 g/mi*). The top-of-the-line 4.0 TFSI is available in two models. In the Audi S7 Sportback, this engine delivers 331 kW (450 hp); in the Audi RS 7 Sportback, 412 kW (560 hp). Both versions feature innovative cylinder on demand technology (COD).

The 3.0 TDI biturbo clean diesel, which delivers 235 kW (320 hp), works with an eight-speed tiptronic transmission. All other engine configurations have a seven-speed S tronic transmission. In the versions with front-wheel drive, the dual-clutch transmission has been fully redeveloped, replacing the multitronic. In engine configurations starting at 200 kW (272 hp), quattro permanent all-wheel drive can be supplemented with the sport differential, which actively distributes power between the rear wheels.

The chassis, too, combines sporty precision with high comfort. The new Audi A7 Sportback features wheels with diameters ranging from 17 to 21 inches. Some engine configurations are equipped with new lightweight brakes. The power steering features an electromechanical drive for high efficiency. The Audi drive select dynamic handling system is standard.

Options include dynamic steering, two sport suspension versions and adaptive air suspension. On the S7 Sportback, the air suspension has a firmer setup.

The new Audi A7 Sportback leads the competition in terms of infotainment. The top system, MMI navigation plus with MMI touch, boasts the latest generation of the modular infotainment system; its highlight is a powerful graphics processor from Audi's partner Nvidia. Touchpad control lets the driver scroll and zoom in lists and maps.

The perfect supplement to MMI navigation plus is Audi connect, which links the five-door coupe with the Internet via the LTE high-speed data transmission standard. The Audi phone box links smartphones to the vehicle's antenna for improved reception. The top of the hi-fi line is the Bang & Olufsen Advanced Sound System.

The assistance systems – including adaptive cruise control with stop & go function, the further improved night vision assistant and the Audi pre sense safety system – are also state of the art. Audi side assist and Audi active lane assist work closely together to make lane changes even safer.

The new Audi A7 Sportback will begin arriving at dealerships in the late summer of 2014. Its base price in Germany will be 51,300 euros. The Audi S7 Sportback will be available starting at 82,300 euros; the Audi RS 7 Sportback will start at 113,300 euros.

Fuel consumption of the models named above:

Audi TT Roadster:

Combined fuel consumption in l/100 km (*US mpg*): 7.5 – 4.3 (31.4 – 54.7)**;

Combined CO₂-emissions in g/km (*g/mi*): 174 – 114 (280.0 – 183.5)**

Audi TT Coupé:

Combined fuel consumption in l/100 km (*US mpg*): 7.1 – 4.2 (33.1 – 56.0)**;

Combined CO₂-emissions in g/km (*g/mi*): 164 – 110 (263.9 – 177.0)**

Audi A5 Sportback:

Combined fuel consumption in l/100 km (*US mpg*): 7.7 – 4.2 (30.6 – 56.0)**;

Combined CO₂-emissions in g/km (*g/mi*): 179 – 109 (288.1 – 175.4)**

Audi A7 Sportback:

Combined fuel consumption in l/100 km (*US mpg*): 9.5 – 4.7 (24.8 – 50.1)**;

Combined CO₂-emissions in g/km (*g/mi*): 221 – 122 (355.7 – 196.3)**

Audi A6:

Combined fuel consumption in l/100 km (*US mpg*): 9.4 – 4.2 (25.0 – 56.0)**;

Combined CO₂-emissions in g/km (*g/mi*): 218 – 109 (350.8 – 175.4)**

Audi A6 Avant:

Combined fuel consumption in l/100 km (*US mpg*): 9.6 – 4.4 (24.5 – 53.5)**;

Combined CO₂-emissions in g/km (*g/mi*): 224 – 114 (360.5 – 183.5)**

Audi A6 allroad quattro:

Combined fuel consumption in l/100 km (*US mpg*): 8.0 – 5.6 (29.4 – 42.0)**;

Combined CO₂-emissions in g/km (*g/mi*): 185 – 149 (297.7 – 239.8)**

**A vehicle's fuel consumption and CO₂ emissions vary due to the choice of wheels and/or tires and not only depend on the vehicle using the fuel efficiently but are also influenced by the handling and other non-technical factors.