Power Train
- Full V8 powertrain, 5.0 L gas engine (29.7 mpg!)
- Electric hybrid (215 HP)
- 442 HP peak (combined)
- All wheel drive
- Dual variable valve timing (intake valve camshaft driven by electric motors not belt)
- Electronic continuously variable transmission

Suspension
- Adaptive pneumatic variable suspension system

Safety
- Pre-Collision System
  - Front Pre-crash: radar continuously monitors frontal distance and closing speed
    - Pre-emptive tightening of seatbelt if crash is imminent
  - Rear Pre-crash: radar monitors rear of car
    - Pre-emptive movement of front headrests if rear-crash is imminent
- Driver monitoring
  - Alert driver if head is turned an obstacle detected
    - Radar and image processing from stereo cameras
- Emergency steering assist
  - Improve steering and suspension response if an obstacle is sensed
- Adaptive cruise control
  - Throttle and/or brakes automatically adapted if obstacle detected
- Lane keeping assist
  - Lane departure warning
    - Audiovisual warning and corrective steering
    - Lane keeping corrective steering if lane departure sensed while in cruise control
- Anti-lock and electronically controlled brakes
- Brake Assist
  - Monitors brake pedal position
  - Preps master cylinder accordingly
    - “In some instances, drivers fail to push the brake pedal hard enough to engage the Anti-lock Braking System (ABS). Brake Assist senses a panic-stop scenario by judging how quickly and how forcefully the driver hits the brake pedal, automatically applying increased braking boost until the driver releases pedal pressure.”
- Vehicle Dynamics Integrated Management System
  - “enhances handling and traction control systems that normally react to an already unstable condition by anticipating tire slippage before a skid, slide or wheel spin occurs and make stabilizing corrections that maximize dynamic capability.”
    - Integrates:
      - Vehicle Stability Control (VCS)
      - Traction Control (TRC)
      - Electronically Controlled Brakes (ECB)
      - Brake Assist (BA)
      - Anti-lock Brakes (ABS)
      - Electronic Throttle Control (ETC)
      - Electric Power Steering (EPS)
      - Variable Gear Ratio Steering (VGRS – more at lower speeds, less at higher speeds)

Comfort
- Body heat sensing-climate control system
  - IR sensors
  - Six, independent cabin matrix cells
- Low-beam LED headlights

Other References