APTIV

Automated Parking

Parking automation is a critical component of Aptiv's Gen 6 ADAS platform. The parking features described here build on Aptiv's deep experience developing and manufacturing industry-leading automated driving and automotive radar systems.

SYSTEM
- Integrated into Gen 6 ADAS platform
- Software deployable on different hardware platforms, SoCs
- Scalable architecture that works with the sensor set in the vehicle

FEATURES
- Auto Parking Assist: Parallel (0°), perpendicular (90°) and fishbone (45°) parking
- Memory Park Assist
- Auto Valet Parking
- Surround View

VISION SENSORS
- Supports up to 4 HD cameras
- Detects parking spot markings on floor, in different colors
- Works with large variety of line types
- Works in low light conditions
- Performs object classification (vehicles, two-wheelers, pedestrians, static objects)

RADAR SENSORS
- Supports up to 5 radars

ULTRASONIC SENSORS
- Supports up to 12 ultrasonic sensors

ADDITIONAL FEATURES

- Remote Parking Assist
- Low Speed Automatic Emergency Braking
- Trailer Reverse Assist (planned)
- Narrow Space Assist (planned)
- Reverse Assist (planned)

CAPABILITIES ACROSS FEATURES

- Parking in-and-out capability
- Parking between two vehicles (no floor markings needed)
- Parking in free space (floor markings needed)
- 360° field of view coverage

OBSTACLE DETECTION AND CLASSIFICATION

- Movable objects (parked and moving cars, trucks, buses, shopping carts, etc.)
- Static obstacles (poles, curbs, walls, etc.)
- Vulnerable road users (motorcycles, bicycles, pedestrians, etc.)

HIGH AVAILABILITY

- Works with large variety of parking lot lines
- Accurate parking space detection
- 360° field of view coverage
- Low light capable

HIGH ACCURACY

- Fusion of multiple sensors for more accurate functionality
- Object detection and classification
- Neural network for extended object detection

SURROUND VIEW MODES

- Overlays (e.g. reversing trajectory, detections)
- 360° Surround View mode
- Bird's Eye View
- Bowl View (dynamic virtual viewing angle)
- Glass Bottom View
- Curbstone View

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ABOUT APTIV

Aptiv is a global technology company that develops safer, greener and more connected solutions enabling a more sustainable future of mobility.
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