

• APTIV •

Gen 8 Front Radar | FLR8



Gen 8

Range: 325 m

Accuracy ± 0.1 m

Product Overview

This forward-facing radar offers 4D perception, a detection range well beyond 300 meters, and excellent angular resolution. It reliably supports higher levels of automation through advanced safety features such as debris detection and adaptive cruise control. The ultra-short HD scan (UWB mode) enables short-range parking-assist features. It also supports AI/ML-based perception.



Key Benefits

- Built-in Aptiv IP **enhances radar performance without additional cost**
- 4D radar supports **higher levels of automation**
- Ultra-short range HD scan (UWB) supports **advanced parking capabilities**
- **Advanced safety features** include drivable surface estimation and debris detection
- **Excellent angular resolution** facilitates reliable lane assignment and target selection in ACC applications
- **Future resilience** is achieved through compatibility with zonal architecture, optional Ethernet interface, and the ability to add ML for higher levels of autonomy
- **Wide range of driving use cases** is enabled through capabilities such as over/under-drivability



Key Value Drivers

- Range is 15% greater than that of the previous generation and meets **Euro NCAP 2025 5-star specifications**
- Supports compliance of **NCAP 2026 and beyond, as well as FMVSS 127**
- UWB-capable radars enable **short-range parking** features
- **Flexible application** supports standalone, satellite and streaming architectures
- System supports **over-the-air** flash programming

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TECHNICAL DETAILS

Hardware

ANTENNA ARRAY

32 channels

INTERCONNECT

CFD2xEth100

Performance

DETECTION RANGE, RESOLUTION*

325m, 0.2m

AZIMUTH ANGLE DISCRIMINATION*

1.5°

Supported Architecture

Satellite

Standalone

Autonomy Solutions

L0-L2

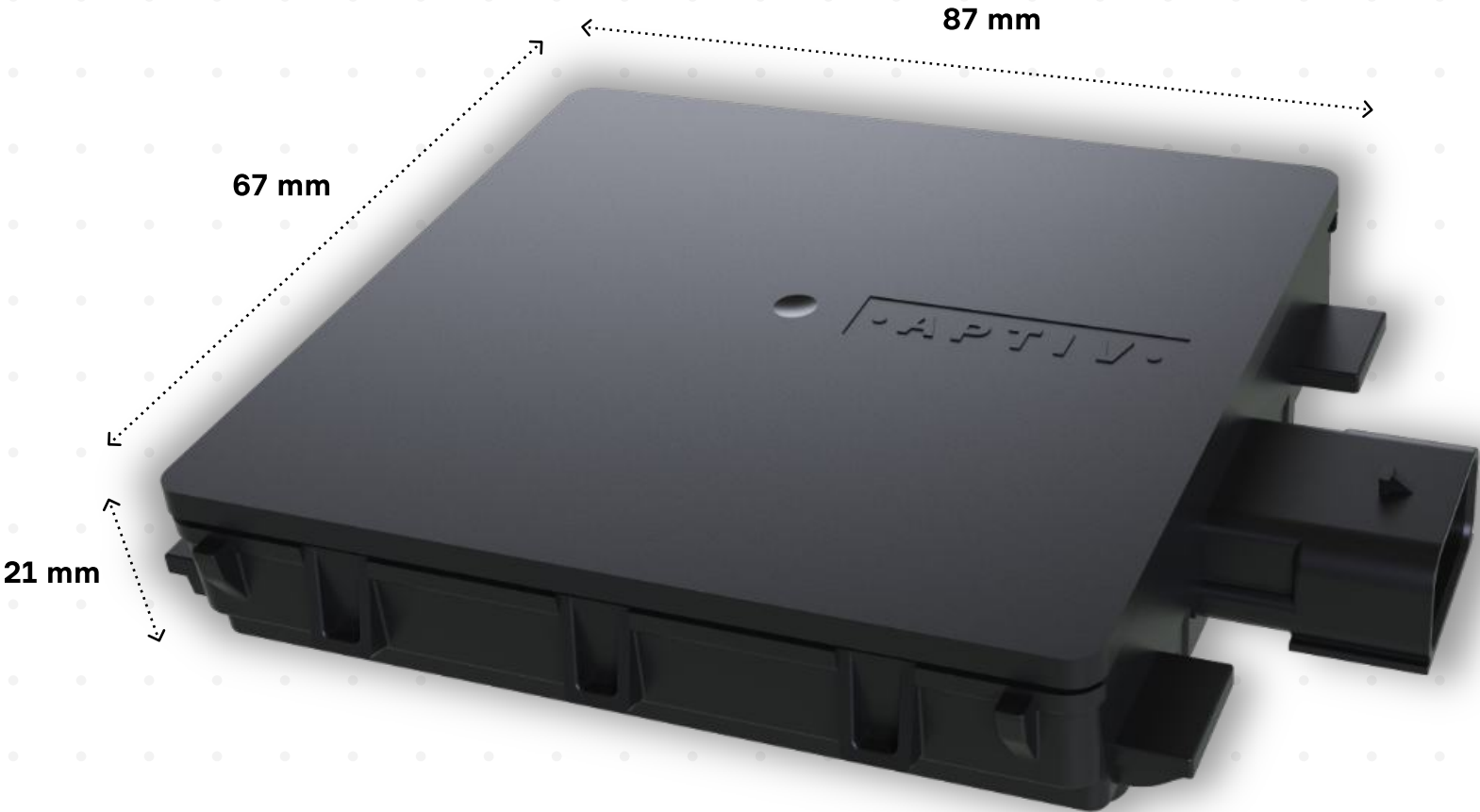
Core

L2+

Plus

L2++

Pro



RANGE*	Motorbike Detect (5dBsm)	325m
	Resolution (Bin Size) Normal / Parking	0.2m / 0.1m
SPEED*	Resolution (Bin Size)	0.09m/s
	Accuracy	±0.05m/s
AZIMUTH ANGLE*	Coverage	±60°
	Discrimination	1.5°
	Accuracy	±0.5°
ELEVATION ANGLE *	Coverage	±17°
	Discrimination	3.0°
	Accuracy	±0.5°
PACKAGE SIZE* (mm³)		87x67x21
INTERCONNECT: 100Mb/s & 1Gb/s Ethernet (for “R” version) & CAN-FD		

* Pd = 50% Swr III; Nom radar; ambient temp; with CI, -4dB Facia, 3° misalignment
~KPI's dependent upon specific installation and use conditions and final design
Package size dimensions may change