

## Market Analysis & Forecasts



### **ADAS & Automotive IR Vision Driver Monitoring Systems — 2020 Edition**

Analysis of global and regional trends with forecasts to 2026  
November 2019 | 74 Pages

\$9,000 for Enterprise License (includes PDF and Excel deliverables)



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## **ADAS & Automotive IR Vision Driver Monitoring Systems — Overview**

2019 will be another reality check for the autonomous driving industry, with Cruise, Uber and Waymo unlikely to launch commercially viable robotaxi services.

In the mass-market, traditional OEMs understand clearly the commercial and legal risks associated with conditional automation at Level 3. With the testing, validation and ground-truthing of safe autonomous driving at Level 4 and Level 5 set to last for many years – and possibly decades – the focus of development at the OEMs has rapidly shifted to ADAS and driver monitoring and to making human drivers safer drivers.

According to the World Health Organization, more than 1.3 million people died in road crashes in 2018. Mass adoption of ADAS at Level 1 and Level 2 and a highway assist function at Level 2+/3– (where the human driver is liable at all times) might reduce this death toll by over 90%, equating to a ten-fold improvement in human driving standards.

Awareness of the costs of the sensor suite and CPUs/GPUs necessary for automated driving has risen, with OEMs moving towards the adoption of lower cost camera- and radar-based systems for mass-market models. The medium-term trend is thus towards rising installation of ADAS functions – in particular autonomous emergency braking (AEB), lane keep assistance (LKAS), blind spot monitoring (BLIS) – and driver monitoring systems (DMS).

This study was developed to aid electronics, semiconductor and software suppliers to obtain a comprehensive overview of on-going trends for ADAS and DMS and allows suppliers to obtain an up-to-date analysis of the market.

### **Key features of the study include:**

- Analysis of market trends for eight systems in nine geographic regions.
- Analysis of system installation rates, units and ECU ASP for each system, in each region. Base year is 2019, with forecasts to 2026.
- Analysis of light vehicle production by automation level (L0-5).
- ADAS/DMS supplier market share estimates in 2019.
- Highly quantitative analysis, with discussion summarized in short, easy to read bullet points.
- PDF and Excel delivery.



## System Coverage

- Intelligent Cruise Control
- Exterior ADAS Vision & Sensing
- IR Vision Driver Monitoring Systems
- Automated Park Assist
- Blind Spot Monitoring
- Head-Up Display
- Night Vision
- AEB/ESC

## Regional Analysis

For each system, regional breakdowns in terms of region of vehicle production are presented as follows:

- North America
- China
- Russia
- Europe
- South Korea
- Brazil
- Japan
- India
- Rest of the World

## Market Metrics

Further segmentation is provided by region, by system type, as follows:

- Installation Rate
- Revenues (\$)
- Units Installed
- ECU ASP (\$)

## Scope Includes:

- Passenger cars and light trucks (up to 10,000 lbs; approx. 4,500 kgs)
- Standard series-production vehicles
- Factory-fit (OEM) systems

## Scope Excludes:

- Heavy truck, bus and coach
- Robotaxis (e.g. Cruise, Uber, Waymo) and R&D (test-level) vehicles
- Time-of-flight (ToF) and time-on-task (“coffee cup”) driver monitoring systems
- Aftermarket/retrofit systems

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### Example Table

An example table taken from the report showing the format used to present the market forecasts is shown below.

World Market for IR Vision Driver Monitoring Systems by Region

Region	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	CAGR (19/26)	DIFF (19-26)	SUM (19>26)
<b>North America</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
<b>Europe</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
<b>Japan</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
<b>China</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
<b>South Korea</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
<b>India</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
<b>Russia</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
<b>Brazil</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
<b>Rest of the World</b>													
Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
World Installation Rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
World Units Installed /KU	0	0	0	0	0	0	0	0	0	0	-	0	0
World ECU ASP /\$	0	0	0	0	0	0	0	0	0	0	-	0	0
World Revenues /\$m	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Year-on-year Growth	-	-	-	-	-	-	-	-	-	-			

Source: Semicast Research

Table Revised: October 2019



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## Analyst Biography



Colin Barnden - Principal Analyst

Colin is principal analyst at Semicast Research and has 25 years of experience as an industry analyst. He is considered a world expert on market trends for automotive IR vision driver monitoring systems (DMS) and suppliers such as Seeing Machines, SenseTime, Smart Eye, Affectiva, Eyesight and Jungo Connectivity.

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