

GLOBAL SMART DRIVING CAR MARKET SHIPMENT ANALYSIS 2026

Published: September 2021



Smart driving, also known as driverless or autonomous driving, smart driving cars can be safely driven with the help of devices such as artificial intelligence, visual computing, radar, monitoring settings and global positioning systems, with no one manipulating the car. Smart driving can avoid drunk driving, fatigue driving and other safety hazards by coordinating travel routes and planning times, and to some extent reduce the occurrence of road traffic congestion and safety accidents.

The global passenger car market will reach 55.835 million units in 2020, down 16.9% YoY, and is expected to reach 70.48 million units in 2026, growing at a CAGR of 4% from 2020 to 2026. 2020 passenger car production in China will reach 1999.4 million units, down 6.4% YoY, and is expected to reach 29.398 million units in 2026, growing at a CAGR of 6.6% from 2020 to 2026. The compound annual growth rate for 2020-2026 is 6.6%. The new crown virus has had an impact on the global automotive industry, but is in the process of gradually recovering.

Chart 1 Global Passenger Car Shipments (ten thousand)

	2020	2021	2022	2023	2024	2025	2026	CAGR (20-26)
Global passenger vehicle volume	5583.5	6756.3	6814.6	6873.0	6931.3	6989.6	7048.0	4.0%
Annual Growth Rate		21.0%	0.9%	0.9%	0.8%	0.8%	0.8%	
Number of passenger vehicles in China	1999.4	2482.1	2573.7	2665.2	2756.8	2848.3	2939.8	6.6%
Annual Growth Rate		24.1%	3.7%	3.6%	3.4%	3.3%	3.2%	
China's share of passenger cars	35.81%	36.74%	37.77%	38.78%	39.77%	40.75%	41.71%	2.6%
Annual Growth Rate		2.6%	2.8%	2.7%	2.6%	2.5%	2.4%	

The American Society of Automotive Engineering (SAE) classifies smart driving cars into six levels according to the degree of autonomous driving. level L0 is completely manned, level L1 can assist the driver in certain driving tasks under certain circumstances, level L2 smart driving can complete certain driving tasks, but the driver needs to always observe the surrounding environment and take over at the necessary moment, level L3 smart driving can do almost no Always ready to take over, the car can automatically complete the driving, L4 level means in some specific conditions completely without the driver's control, L5 level can complete the automatic driving under any conditions. As the policy on smart driving is not yet perfect, the safety issue has not yet been solved, and is currently in the transition stage from L2 to L3 level of advanced assisted driving.

With the development of intelligent cities, people's demand for smart driving cars is getting higher and higher. Smart driving car L0 level penetration rate gradually reduced, L1 level penetration rate will also gradually decreasing, is expected to 2026 L1 level penetration rate will reach 52.73%, L2 level reached 29.72%. L1 level and L2 level will become the most important automatic driving level in the next 5 years.

Chart 2 Global Smart Driving Penetration rate(%)

	2020	2021	2022	2023	2024	2025	2026	CAGR (20-26)
L0	52.81%	50.45%	44.34%	37.28%	28.16%	21.70%	16.06%	-18.0%
Annual Growth Rate		-4.47%	-12.12%	-15.91%	-24.47%	-22.94%	-25.99%	
L1	31.89%	32.89%	36.20%	40.50%	46.33%	49.96%	52.73%	8.7%
Annual Growth Rate		3.13%	10.09%	11.88%	14.38%	7.84%	5.56%	
L2	15.25%	16.55%	19.21%	21.61%	24.43%	27.11%	29.72%	11.8%
Annual Growth Rate		8.58%	16.04%	12.51%	13.05%	10.95%	9.65%	
L3	0.04%	0.08%	0.19%	0.45%	0.87%	0.98%	1.17%	76.6%
Annual Growth Rate		112.07%	130.57%	139.93%	90.91%	12.74%	20.06%	
L4-L5	0.01%	0.03%	0.06%	0.15%	0.22%	0.26%	0.31%	70.0%
Annual Growth Rate		112.07%	130.57%	139.93%	43.59%	19.69%	19.51%	

Chart 3 Global Shipments of Smart Driving (ten thousand)

	2020	2021	2022	2023	2024	2025	2026	CAGR (20-26)
L0	2,949	3,409	3,021	2,562	1,952	1,517	1,132	-14.8%
Annual Growth Rate		15.6%	-11.4%	-15.2%	-23.8%	-22.3%	-25.4%	
L1	1,780.5	2,221.9	2,467.1	2,783.8	3,211.0	3,491.9	3,716.7	13.0%
Annual Growth Rate		24.8%	11.0%	12.8%	15.3%	8.7%	6.4%	
L2	851.3	1,118.5	1,309.0	1,485.4	1,693.5	1,894.7	2,094.9	16.2%
Annual Growth Rate		31.4%	17.0%	13.5%	14.0%	11.9%	10.6%	
L3	2.2	5.5	12.9	31.2	60.1	68.3	82.7	83.6%
Annual Growth Rate		156.6%	132.6%	142.0%	92.5%	13.7%	21.1%	
L4-L5	0.7	1.8	4.3	10.4	15.1	18.2	21.9	76.7%
Annual Growth Rate		156.6%	132.6%	142.0%	44.8%	20.7%	20.5%	
Total (L1-L5)	2,634.7	3,347.7	3,793.3	4,310.7	4,979.6	5,473.1	5,916.2	14.4%
Annual Growth Rate		27.1%	13.3%	13.6%	15.5%	9.9%	8.1%	

According to the penetration rate of each level of smart driving (L1-L5) , it is estimated that in 2020, the passenger car shipments of smart driving cars will be 26.347 million, and it is expected to reach 59.162 million in 2026, with a compound annual growth rate of 14.4%.



At ICV TANK we are passionately curious about New Technology and we strive to deliver the most robust market data and insights, to help our customers make the right strategic decisions.

We bring together the deepest intelligence across the widest set of capital-intensive industries and markets. By connecting data across variables, our analysts and industry specialists present our customers with a richer, highly integrated view of their world.

That is the benefit of The New Intelligence. We're able to isolate cause and effect, risk and opportunity in new ways that empower our customers to make well-informed decisions with greater confidence.

RM4, 16/F HO KING COMM CTR 2-16 FAYUEN ST MONGKOK KLN HONG KONG

t: +00 852 5485 1518 e: infer@icvtank.com