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# **Chinese Independent OEMs' ADAS and Autonomous Driving Report, 2022**

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# Chinese independent brands plan implementation of L4 autonomous driving in 2024/2025

ResearchInChina released "Chinese Independent OEMs' ADAS and Autonomous Driving Report, 2022". This report combs through and summarizes status quo (installations, installation rate), function application, market layout, development trends, etc. of leading conventional OEMs in China in the current ADAS and autonomous driving market.

This report sorts out the autonomous driving development plans and product implementation of each company. In terms of L4 autonomous driving, they set almost the same goal: implementation in 2024/2025.

- ◆ In its strategy "Smart Geely 2025", Geely proposes commercialization of L4 autonomous driving, complete mastery of L5 autonomous driving, and realization of full-stack self-development in 2025.
- ◆ GAC will release a strategic model (AH8) in 2024, which will be based on Huawei's MDC810 platform and support L4 autonomous driving.
- ◆ In April 2022, HAOMO.AI, an autonomous driving subsidiary of Great Wall Motor, announced its roadmap for HPilot, an intelligent driving product for passenger cars, and the plan of launching HPilot 4.0 in 2023, a product that supports L4 autonomous driving.

**ADAS/AD Implementation Time and Planning of Chinese Independent OEMs**

OEM	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Changan		L1				L2		L2.5		L2.9	L4
GWM		L1				L2	L2.5	L2.9		L4	
BYD			L1			L2		L2.5		L2.9	L4
FAW				L1		L2	L2.5			L3	L4
Geely		L1			L2		L2.5	L2.9		L3	L4
GAC			L1		L2		L2.5	L2.9			L4
BAIC					L1	L2	L2.5		L2.9		L4
SAIC			L1			L2	L2.5		L2.9		L4
Chery				L1		L2		L2.5		L2.9	L4
Dongfeng Motor					L1		L2	L2.9			L4

Source: ResearchInChina

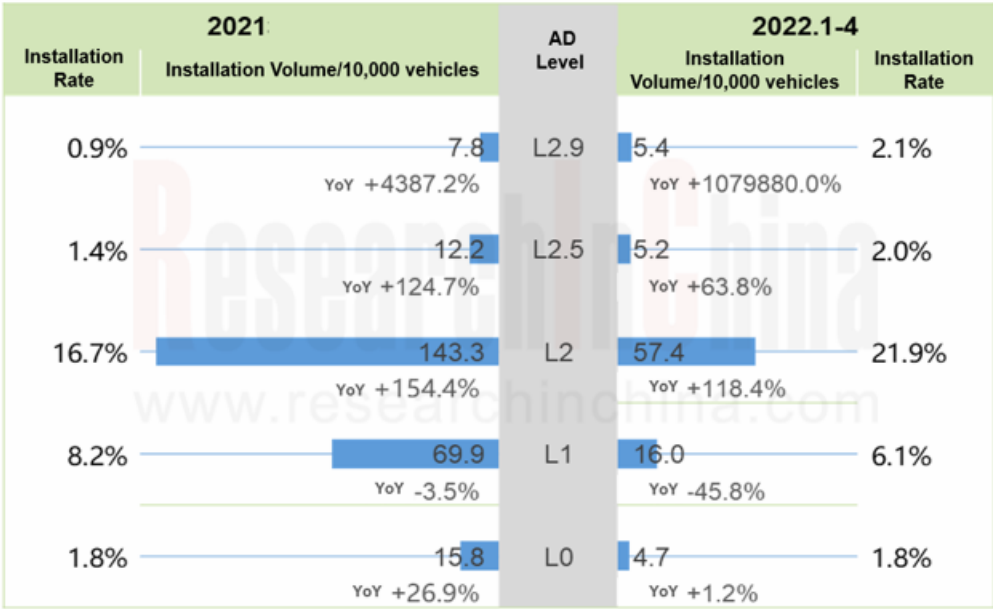
Following their progressive development strategy, Chinese independent brands have kept rolling out vehicle models with L0-L2.9 functions. In sales' term, their performance also shines.

# Chinese independent brands have been in the battle position of L2 ADAS and launch an offensive in L2.5/2.9

ResearchInChina's data show that Chinese independent brands had 2.489 million vehicles equipped with ADAS functions in 2021 (installation rate: 29.1%), an upsurge of 69.6% year on year; from January to April 2022, the ADAS installations sustained growth, up from 636,000 vehicles in the same period of the previous year to 887,000 units (installation rate: 33.9%). It is clear that the ADAS installation has not been hampered by negative factors such as the epidemic or chip shortage, but instead taken a big step forward.

From sub-functions, it can be seen that with the battle position in L2 ADAS, Chinese independent brands go on the offensive in L2.5/L2.9. In 2021, Chinese auto brands gradually doubled down on L2, and thus enjoyed growth in both installations and installation rate. Between January and April 2022, L2 installations soared by 118.4% on the previous year to 574,000 units, and the installation rate also reached 21.9%; the installations of L2.5 and L2.9 surged to 106,000 units, and the combined installation rate rose to 4.1%.

L2/L2+ Installation of Chinese Independent Passenger Car OEMs, 2021-Jan-Apr 2022



Source: ResearchInChina

Around 2021, quite a few OEMs such as Changan, GWM and BYD added the lane change turn signal capability, plus TJA+ICA+LKA, enabling highway assist (HWA), which meant they stepped into L2.5 autonomous driving. Furthermore, the upgrade of HD maps and sensors empowers vehicles with the function of navigation guided pilot (NGP) or navigate on pilot (NOP), realizing the L2.9 autonomous driving function. Examples include WEY Mocha, Lynk & Co 01EM-F and new ARCFOXαS HI version.

# BYD is way ahead in L2 ADAS market, and local suppliers follow local OEMs to rise

As of April 2022, among all the Chinese independent competitors (including emerging carmakers), 47 and 14 brands have delivered L2 and L2.5 models to users, respectively, of which BYD, Haval and Geely were at the forefront.

Entering 2022, BYD still gains popularity in market, becoming a sought-after brand among multiple consumers. The average monthly installations of L2 in Song PLUS and Han models outnumber 10,000, helping BYD to claim the top spot on the OEMs' ranking list by L2 installations.

The boom of Chinese independent OEMs in the L2 passenger car market has also boosted local L2 suppliers, among which HAOMO.AI, Jingwei HiRain Technologies, Hongjing Drive and Freetech among others lead the way.

**Ranking of L2/L2+ Suppliers of Chinese Independent Passenger Car Brands by Market Share, Jan-Apr 2022**

Rank	Supplier	Market Share
1	Bosch	24.8%
2	HAOMO.AI	18.1%
3	Veoneer	10.3%
4	Continental	9.3%
5	HiRain Technologies	7.0%
6	Hongjing Drive	5.3%
7	Xpeng Motor	4.7%
8	NIO	4.3%
9	Freetech	3.4%
10	Aptiv	2.7%
11	iMotion Technology	2.4%
12	Dahua	2.3%
13	Huawei	1.4%
14	Neta	1.3%
	Other	1.6%

Note: this ranking includes L2, L2.5 and L2.9 models.

Source: ResearchInChina

# Ranking of Chinese Independent Brands by L2.5 Installations

In the L2.5 camp, there are few companies, 14 in total, having actually delivered cars to users, of which 5 are conventional brands. From both installations and installation rate, it can be said that GWM WEY is an outstanding typical conventional automaker in L2.5.

Thanks to the full-stack self-development of autonomous driving algorithms of Great Wall Motor's autonomous driving subsidiary HAOMO.AI, the full range of WEY Mocha models rolled out in May 2021 carry standard L2.5 functions, gaining the lead in the industry. In addition, in April 2022 BYD introduced 2022 Han, a model equipped with highway assist (HWA) and interactive lane change assist (ILCA) systems. This model is expected to be a trump card for BYD to forge into the L2.5 market.

**Ranking of Chinese Independent Brands by L2.5 Installations, Jan-Apr 2022**

Rank	Brand	Installation Volume/10,000 vehicles	Installation Rate
1	Xpeng	20,206	46.4%
2	ZEEKR	10,452	100.0%
3	Leap Motor	8,709	32.4%
4	Changan	4,101	1.7%
5	Lynk&Co	2,759	5.2%
6	WEY	2,477	23.5%
7	BYD	1,096	0.3%
8	WM Motor	901	6.1%
9	GAC Aion	479	1.0%
10	Hongqi	470	0.6%
11	HiPhi	315	19.0%
12	Neta	158	0.4%
13	NIO	130	0.4%
14	Dongfeng AEOLUS	16	0.0%

\*This data is based on the ResearchInChina database, combined with the amount of insurance coverage by Chinese independent OEMs (Chinese market only) and the ADAS function installation situation.

Source: ResearchInChina



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