

Automobile

Weekly: Mandatory ADAS Content Favours Scale

Highlights

- China recently announced its first mandatory L3/L4 ADAS standard, which takes effect on 1 Jul 27. This marks a regulatory shift from encouraging innovation to demanding verifiable safety evidence.
- The previously published L2 standard will take effect on 1 Jan 27, covering assistance systems already fitted in over 70% of new cars.
- Chery, BYD and Geely were the first OEMs to receive L2 certifications, while the only two approved L3 models so far are Changan's and BAIC Arcfox's.
- Primary beneficiaries include Desay SV and Joyson Electronic Hesai, RoboSense, Momenta, Horizon Robotics, and Pony.ai.
- Maintain MARKET WEIGHT. Top BUYS: BYD, Geely, CATL, Hesai, and Desay SV.

Analysis

- China's first L3/L4 Advanced Driver Assistance System (ADAS) standard marks a fundamental shift from "innovation encouragement" to "safety-first" regulation.** The standard was published for public comment from 17-24 Jun 26, with implementation set for 1 Jul 27. It introduces a "Safety Case" mechanism requiring automakers to prove system safety through verifiable evidence rather than marketing claims. L3 systems must demonstrate robust human-machine handover capabilities, while L4 systems must operate without relying on remote assistance. The all-weather perception mandates require L3/L4 systems to handle rain, snow, fog, changing light and tunnels, with quantitative benchmarks: forward detection must reach 130 metres at 120km/h, with lateral detection extending nine metres on each side.
- For OEMs**, compliance cost is fixed per platform rather than per vehicle, so it falls hardest on low-volume brands such as XPeng and Li Auto. BYD (1211 HK/BUY/Target: HK\$135.00) and Geely (175 HK/BUY/Target: HK\$27.00) absorb it most easily, because they develop in-house and spread the same bill across millions of cars a year rather than a few hundred thousand.

Peer Comparison

Company	Ticker	Rec*	Price 6 Aug 26 (Lcy)	Target Price (Lcy)	Upside To TP (%)	Last Year End	2025 (x)	2026F (x)	2027F (x)	Yield 2026F (%)	ROE 2026F (%)	Market Cap. (Lcy m)	Price/ NAV ps (x)
BYD - H	1211 HK	BUY	89.85	135.00	50.3	12/25	21.8	15.7	12.6	0.6	15.3	330,953	2.5
Geely	175 HK	BUY	18.56	27.00	45.5	12/25	11.3	9.9	7.8	2.8	17.8	200,172	2.6
Great Wall Motor - H	2333 HK	HOLD	8.83	9.90	12.2	12/25	6.7	7.1	5.8	2.6	10.2	20,362	0.7
Li Auto	2015 HK	SELL	49.12	40.00	(18.6)	12/25	194.1	61.2	75.7	0.0	2.0	102,415	1.2
XPeng	9868 HK	BUY	46.04	90.00	95.5	12/25	Loss	146.2	17.6	0.0	1.7	72,165	2.4
Fuyao Glass - H	3606 HK	BUY	57.10	100.00	75.1	12/25	13.9	13.0	10.9	5.1	27.2	34,646	3.0
Huizhou Desay SV	002920 CH	BUY	93.30	150.00	60.8	12/25	22.7	22.6	19.2	1.5	24.8	55,682	3.2
Mintih	425 HK	BUY	28.84	56.00	94.2	12/25	10.4	9.9	8.5	2.9	11.7	33,786	1.1
Nexteer	1316 HK	BUY	4.44	8.30	86.9	12/25	14.0	10.7	9.6	4.2	6.2	11,144	0.6
Ningbo Joyson	600699 CH	BUY	21.28	43.00	102.1	12/25	22.4	16.8	14.8	1.2	9.9	29,700	1.6
Ningbo Tuopu	601689 CH	BUY	49.77	100.00	100.9	12/25	32.1	28.5	24.8	0.0	11.7	86,492	3.5
Pony AI	PONY US	BUY	7.81	16.00	104.9	12/25	Loss	Loss	Loss	0.0	n.a.	2,759	0.3
Weichai Power - H	2338 HK	HOLD	34.34	35.00	1.9	12/25	43.3	22.5	21.2	2.7	10.7	66,724	2.7
Zhejiang Sanhua	002050 CH	BUY	38.71	57.00	47.2	12/25	40.5	34.5	29.9	1.2	14.2	144,446	4.7
Hesai	2525 HK	BUY	17.25	33.00	91.3	12/25	38.3	34.4	20.8	0.0	5.9	21,686	2.0
RoboSense	2498 HK	BUY	23.04	50.00	117.0	12/25	Loss	104.1	24.0	0.0	2.4	10,875	2.4
CATL	300750 CH	BUY	388.00	585.00	50.8	12/25	24.5	18.7	14.2	2.7	20.8	1,702,156	4.5
EVE Energy	300014 CH	BUY	54.13	83.50	54.3	12/25	27.2	14.3	10.9	1.8	6.8	117,641	2.2
Ganfeng Lithium - H	1772 HK	BUY	39.34	120.00	205.0	12/25	44.5	21.5	13.2	0.9	(1.2)	19,005	1.4
Tinci Materials	002709 CH	BUY	39.25	75.00	91.1	12/25	55.5	15.6	13.1	1.9	5.4	80,014	3.4

Source: UOB Kay Hian

MARKET WEIGHT (Maintained)

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Segmental Rating

Segment	Rating
OEMs	MARKET WEIGHT (Maintained)
Auto parts	MARKET WEIGHT (Maintained)
Battery and battery materials	OVERWEIGHT (Maintained)

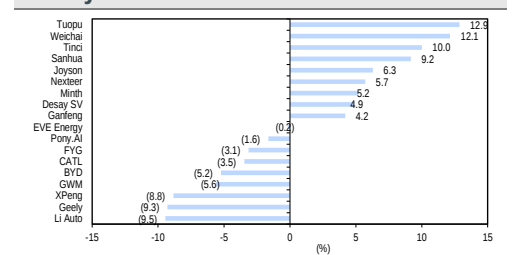
Source: UOB Kay Hian

Sector Picks

Company	Ticker	Rec	Share (Lcy)	Price Target (Lcy)
BYD	1211 HK	BUY	89.85	135.00
Geely	175 HK	BUY	18.56	27.00
CATL	300750 CH	BUY	388.00	585.00
Hesai	2525 HK	BUY	17.25	33.00
Desay SV	002920 CH	BUY	93.30	150.00

Source: Bloomberg, UOB Kay Hian

Weekly Stock Performance

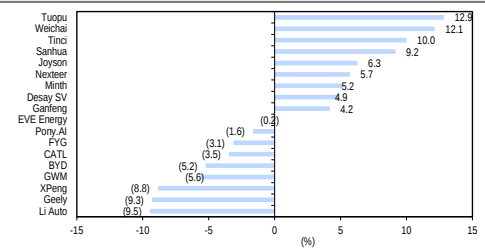


Source: Bloomberg

Chery, BYD and Geely are the first automakers to pass China's mandatory GB 47955-2026 safety management certification for combined driver assistance (L2); BYD and Geely co-drafted the standard, and Geely received the first certificate (No. 001). On L3, no covered OEM yet holds a production licence — the only two approved models are Changan's and Arcfox's, and BYD, Geely and Li Auto are still testing.

- **For Tier 1 suppliers, the standards turn optional features into mandatory content.** Driver state monitoring becomes required fitment and an automated-driving data recorder becomes compulsory for L3 and L4 vehicles; Desay SV (002920 CH/BUY/Target: Rmb150.00) and Joyson Electronic (600699 CH/BUY/Target: Rmb43.00) already sell both.
- **For leading LiDAR makers Hesai and RoboSense,** the standard's all-weather safety requirements drive demand for LiDARs, though not mandated. The implicit requirement for robust all-weather perception — particularly in heavy rain and fog where cameras physically struggle — creates strong OEM demand pull. Industry estimates suggest 3-6 units per L3 vehicle as penetration accelerates.
- **For software and chip suppliers, the standards raise the fixed cost of a compliant stack.** Momenta (6880 HK) spreads that cost across 24 OEM customers and 68 models, and Horizon Robotics across every carmaker using its Journey platforms. A single carmaker cannot, so more should buy rather than build.
- **The L3/L4 standard validates Pony.ai's fully driverless L4 approach** by banning remote assistance for dynamic tasks, while imposing stringent verification costs. Its 1,700 robotaxis, operational data, and 1:20 monitor ratio position it ahead of rivals, making Pony.ai a regulatory winner if it clears new safety benchmarks.
- **BYD (1211 HK/BUY/Target: HK\$135.00) – furthest ahead of any carmaker on compliance.**
 - It took China's first L3 highway test licence in Jul 23 and was in the first batch of national access and road pilot companies named in Jun 24.
 - It helped draft the L2 standard, passed first-batch certification on 28 Jul 26, and has run over 150,000km of L3 road validation in Shenzhen.
 - God's Eye is tiered A, B and C, with C fitted down to the Rmb80,000 segment, and its own 4nm Xuanji A3 chip supports L3, so it can move quickly from 1 Jul 27.
- **Geely (175 HK/BUY/Target: HK\$27.00) – building the technical ceiling rather than the volume base.**
 - It plans highway L3 and low-speed L4 functions in 2026 where regulation allows, with Qianli Haohan already fitted on Zeekr and Lynk models.
 - It runs five tiers from H1 to H9, and the flagship H9 uses two Nvidia Thor-U chips for 1,400 TOPS, the highest specification offered.
 - Its Xingrui computing centre 2.0 provides 23.5 EFLOPS, the largest of any Chinese carmaker, supporting the simulation testing the standard requires.
- **XPeng (9868 HK/BUY/Target: HK\$90.00) – has chosen to skip L3 and go straight to L4.**
 - XPeng is not certifying an L3 product, so 1 Jul 27 matters less to it than to BYD or Geely, and XNGP already operates without maps.
 - It has said it will meet whatever the regulation requires, so this is a sequencing choice rather than a compliance gap.
 - The cost is giving up the marketing advantage of selling a certified L3 car in 2027 while carrying the heavier evidence burden L4 attracts.
- **Li Auto (2015 HK/SELL/Target: HK\$40.00) – hardware is ready, but compliance is not what is holding the shares back.**
 - Its flagship models already carry L3-capable hardware and it has begun testing an L3 system, so it is not disadvantaged by the rules.

Weekly Stock Performance



Source: Bloomberg

- The binding constraints are elsewhere: the extended-range segment is contracting and the relaunched L8 faces a difficult reception, so we remain cautious and maintain SELL with a target price of HK\$40.00.
- **Desay SV (002920 CH/BUY/Target: Rmb150.00)** – the broadest exposure to both standards.
 - Driver state monitoring becomes required fitment from 1 Jan 27, and Desay SV already supplies an integrated system in volume.
 - Its millimetre-wave radar is in mass production, which matters because the all-weather requirement is met by combining sensor types rather than improving one.
 - L3 adds redundant computing and an auditable architecture, so a supplier that can document both lowers the carmaker's evidence burden and raises its own content per vehicle.
- **Joyson Electronic (600699 CH/BUY/Target: Rmb43.00)** – the data recorder is the clearest new mandate.
 - L3 and L4 vehicles must carry a data recorder logging system state, takeover requests and the period around an incident, which becomes the basis for liability.
 - Joyson Electronic already has a compliant recorder in mass production, which shortens the qualification path for carmakers working towards 1 Jul 27.
 - The minimum risk manoeuvre also requires redundant braking, a second source of content in the same portfolio.
- **Hesai (2525 HK/BUY/Target: HK\$33.00)** – no rule requires LiDAR, but carmakers need it to prove all-weather safety.
 - Its automotive-grade LiDAR is already specified on L3-capable programmes, so the standards raise the fitment rate rather than create it.
 - The gain is in volume rather than price, as LiDAR moves into the Rmb70,000-150,000 band where unit pricing is severe.
 - Volvo removed LiDAR from the EX90 and ES90 on 29 Jul 26 and compensated owners, showing that a carmaker can still judge the cost not worth paying.
- **RoboSense (2498 HK/BUY/Target: HK\$50.00)** – the same demand, weighted to mid-market models.
 - The all-weather requirement is the strongest argument for fitting LiDAR alongside cameras and radar, because cameras degrade most in heavy rain and fog.
 - It gains more from the L2 standard reaching over 70% of new cars than from the two-model L3 pilot.
 - Its robotics business reduces its dependence on car fitment alone.

Valuation/Recommendation

- **We maintain MARKET WEIGHT on China's auto sector, with preference for battery and battery materials > auto parts > OEMs.** The two standards do not change our segmental preference, but they do change the ranking inside the auto parts segment. We now prefer the parts suppliers whose content the rules make compulsory, and the sensor makers.
- **Top BUYs:** BYD, Geely, CATL, Desay SV, and Hesai.

Sector Catalyst/Risk

- **Catalysts:** MIIT's certification rules for GB 44721-2026; the second batch of L3 approvals; the L2 standard starting 1 Jan 27; NOA penetration above 34.2%.
- **Risks:** Certification rules delayed, pushing L3 beyond 2H27; carmakers deleting LiDAR to protect margins; compliance cost passed back to suppliers.

Stock Impacts of the New ADAS Standards

Company	Segment	Products	Comments
Desay SV	Tier-1 supplier of ADAS EEA	ADAS and cockpit domain controllers, millimetre-wave radar, integrated driver monitoring	Widest exposure of the tier-ones. Driver monitoring required from 1 Jan 27; L3 adds redundant computing. Content per vehicle rises.
Hesai	LiDAR manufacturer	Automotive-grade LiDAR already specified on L3-capable programmes	No mandate; carmakers fit LiDAR to prove all-weather safety. A volume story, not a price story.
RoboSense	LiDAR manufacturer	Automotive-grade LiDAR; robotics sensors	Same demand as Hesai but weighted to mid-market, so it gains more from the L2 standard's reach. Robotics reduces reliance on car fitment.
Momenta	Full-stack ADAS software provider	Urban and highway navigation assistance licensed to OEMs	Fixed compliance cost spread over 24 OEM customers and 68 models. Pushes carmakers below about 1m NOA units a year to buy rather than build.
Horizon Robotics	ADAS chips, base algorithms and toolchain	Journey compute platforms; Carizon joint venture with Volkswagen	L3 redundancy lifts silicon content per vehicle. Volkswagen's China L3 launch in 2H27 runs on Carizon.
Pony.ai	L4 robotaxi operator	Driverless robotaxi fleet and operating data	The ban on relying on remote assistance validates its driverless approach but raises verification cost.
BYD	OEM with in-house full stack	God's Eye A/B/C; self-developed 4nm Xuanji A3 chip	Furthest ahead: first L3 test licence Jul 23, access pilot Jun 24, L2 certification 28 Jul 26, over 150,000km of validation.
Geely	OEM with in-house full stack	Qianli Haohan H1 to H9; Xingrui computing centre 2.0	Plans highway L3 and low-speed L4 in 2026 where allowed. H9 runs 1,400 TOPS; 23.5 EFLOPS supports simulation testing.
XPeng	OEM with in-house full stack	XNGP mapless navigation assistance	Skipping L3 for L4, so 1 Jul 27 matters less. Gives up the certified-L3 marketing advantage in 2027.
Li Auto	OEM with in-house stack	L3-ready hardware pre-installed on flagship models	Not disadvantaged by the rules, but compliance is not the constraint. EREV segment contracting; L8 reception difficult. Maintain SELL.

Source: UOB Kay Hian

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