

COMPANY UPDATE

2026. 6. 17

EV/Mobility Team

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▶ AT A GLANCE

BUY

Target price **KRW95,000** 34.6%

Current price **KRW70,600**

Market cap KRW3.3t/USD2.2b

Shares (float) 46,957,120 (68.3%)

52-week high/low KRW71,400/KRW32,650

Avg daily trading value (60-day) KRW37.5b/
USD24.8m

▶ ONE-YEAR PERFORMANCE

	1M	6M	12M
HL Mando (%)	14.4	34.7	113.3
Vs Kospi (%pts)	0.3	-35.5	-27.8

▶ KEY CHANGES

(KRW)	New	Old	Diff
Recommend.	BUY	BUY	
Target price	95,000	80,000	18.7%
2026E EPS	5,118	5,118	0.0%
2027E EPS	6,869	6,869	0.0%

▶ SAMSUNG vs THE STREET

No of estimates	21
Target price	76,200
Recommendation	3.9

※ Rating: 4 < → BUY, 3 = HOLD, 2 > → SELL



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HL Mando (204320)

Actuators with thermal management and the second EV wave

- Robot thermal management is based on air-cooled designs, with actuators and capacitors playing critical roles. HL Mando embeds thermal management functionality within its actuators through a multi-layered structural design.
- HL Mando supplies actuators for use in a quadruped robot and is a leading supplier of steering and IDB actuators for leading North American EV maker. Significant opportunities in the actuator domain are expected to emerge as robot mass-production is scaled up.
- US-Chinese supply chains are decoupling and earnings growth at HL Mando's global competitors is underperforming. In the smart chassis and robotic actuator markets, HL Mando possesses clear growth visibility.

WHAT'S THE STORY?

Raising target price: We raise our 12-month target price by 18.7% to KRW95,000. Robotic actuators not only enable mobility (of the robot) but also play a critical role in the robot's thermal management. HL Mando integrates advanced thermal management technologies directly into the design of its actuators.

- **HL Mando, alongside Hyundai Mobis, to stand at forefront of robotic thermal management value chain:** We raise our target P/E by 22% from 13.5x to 16.5x, based on the average of our 2026 and 2027 EPS forecasts. The 16.5x multiple reflects a 10% discount to Hanon Systems' 2016-2024 average P/E (18.4x; Hanon Systems is a leading supplier of EV thermal components). The discount stems from HL Mando having yet to confirm humanoid robot-related orders.

(Continued on the next page)

SUMMARY FINANCIAL DATA

	2025	2026E	2027E	2028E
Revenue (KRWb)	9,455	9,926	10,556	11,284
Operating profit (KRWb)	357	424	501	557
Net profit (adj) (KRWb)	123	256	343	388
EPS (adj) (KRW)	2,130	5,118	6,869	7,777
EPS (adj) growth (% y-y)	-23.0	140.2	34.2	13.2
EBITDA margin (%)	7.6	7.6	7.4	7.1
ROE (%)	3.8	8.5	10.5	10.9
P/E (adj) (x)	27.6	13.8	10.3	9.1
P/B (x)	1.0	1.1	1.0	0.9
EV/EBITDA (x)	5.8	5.8	4.9	4.2
Dividend yield (%)	1.3	1.7	2.0	2.0

Source: Company data, Samsung Securities estimates

Both HL Mando and Hyundai Mobis possess core automotive technologies (motors, sensors, steering, and gearboxes), which technologies are directly transferable to robotic actuators. With a manufacturing facility in the US, HL Mando is well-placed to supply robotic actuators to more US-based robotics companies.

- **Thermal management—key hardware bottleneck for humanoid robots:** The primary heat sources in robots are the actuators (which are located at each joint). While heat output per actuator is limited, continuous 24/7 operations lead to cumulative thermal buildup. Due to cable-free designs and confined internal spaces, liquid cooling (which requires piping) is impractical. Effective thermal dissipation relies on air-cooled designs, advanced materials, and optimized actuator-capacitor integration to enable sufficient passive heat release.

Actuator manufacturers' role in robotic thermal management: For robotic thermal management, actuator makers play a critical role through thermal isolation and low-friction designs.

- **Separation of gear heat and motor heat:** Frictional heat generated by meshing planetary or cycloidal gears, when combined with electric heat from the motor, can raise robot core temperatures to a point where magnets become demagnetized, leading to irreversible torque loss. Actuator suppliers mitigate this by applying advanced surface treatments such as diamond-like carbon (DLC) coatings to gear surfaces, significantly reducing friction and localized heat generation.
- **Integration of thermal interface materials (TIM):** At the actuator assembly stage, HL Mando systematically integrates high-conductivity thermal pads or gels to ensure rapid heat transfer from the motor windings to external cooling fins.
- **Selection of power semiconductor devices:** The thermal performance of motor driver ICs is optimized through component selection. Replacing conventional silicon MOSFETs with gallium nitride (GaN)-based power devices lifts switching speeds 10-100x, reducing overall heat generation.

Confident in attracting customers for robot actuator business: HL Mando should differentiate itself from Chinese competitors by leveraging its strengths in durability, quality, sourcing capabilities, North American manufacturing, and established customer relationships.

- **Humanoid robot market outlook:** The global humanoid robot market is projected to grow from KRW2t in 2025 to KRW445t by 2035. Actuators are estimated to account for 44% of total manufacturing costs. HL Mando aims to capture a 10% share of the robotic actuator segment, achieving KRW2.3t in annual sales.
- **Roadmap:** 2024-2025: Complete development of three master models and nine product-line specifications.
2026: Conduct technical validation (proof of concept) and pilot evaluations with key customers, internalize core technologies, and pursue M&As and JVs to secure foundational technologies.
2027-2028: Secure orders domestically and overseas, and begin pilot production in North America.
2029: Scale up mass-production in North America and Korea.
- **Weaknesses of Chinese actuators:** While Chinese actuators offer cost advantages, they suffer from lower durability and high component fatigue. They may be suitable for early-stage humanoid

robot prototypes, but mass-production should require tier-1 suppliers with comprehensive system-integration capabilities.

- **Competitive advantages:** We highlight four of HL Mando's major competitive advantages. First, six decades of experience in automotive control systems have established deep trust in the durability and quality of its products. Second, the firm has fully internalized core technologies for motors and sensors. For gearboxes, design capabilities are in-house, while high-precision harmonic drives are currently sourced from Japan's Harmonic Drive Systems—strategic M&As and JVs are underway to achieve full technology ownership. Third, the firm boasts strong, long-term partnerships with leading physical-AI pioneers, including a top North American EV manufacturer (13 years) and a leading Chinese SDV innovator (6 years), ensuring close alignment with customer roadmaps and technical requirements. Fourth, localized production and supply chain infrastructure in North America provide a strategic advantage in an era of escalating geopolitical risks.
- **Internalization of actuator thermal management:** The key to dealing with heat generation in robots at the actuator level lies in a multi-design approach encompassing mechanical, electric, software, and system engineering. Rather than adding separate cooling devices, the structure focuses on reducing the heat source and optimizing heat dissipation, thereby internalizing thermal management within the actuator design itself.

Second wave of EV adoption gaining momentum: EV demand is growing across all markets worldwide—except the US, where demand is likely to recover after September. Among global mobility suppliers, HL Mando has the highest exposure to the EV value chain and the firm is well positioned to capitalize on this structural shift from ICE autos to EVs.

- **Autonomous driving is accelerating the next EV wave:** The auto industry is entering a new phase, with Level 2+ and higher autonomous systems increasingly integrated into mainstream consumer vehicles, while robotaxis expand rapidly in some major cities. A North American EV manufacturer is seeing consistent quarterly growth in subscription additions for autonomy features. GM also reported a 40% adoption rate for its highway-level driver assistance in North America.

EVs are uniquely inherently suited for advanced autonomy, offering superior energy efficiency and faster real-time response to AI-driven controls. As consumer demand for these capabilities grows, it should further drive EV adoption.

- **Smart chassis sales and orders expanding:** Higher utilization at HL Mando's Mexico plant, which produces IDB systems, is boosting profitability. The company has also secured orders to supply steer-by-wire (SbW) products for robotaxi systems. It is now outpacing global tier 1 suppliers Bosch and Continental in terms of winning IDB and X-by-Wire contracts.
- **Bosch and Continental face profitability challenges:** In 2025, Bosch recorded automotive parts sales of USD63.1b, up 4.6% y-y, ranking as the world's largest parts maker, while Continental (Aumovio) posted sales of USD21b, down 1.3% y-y, ranking eighth globally. Bosch and Continental were both leaders in electrified braking and steering systems for ICE vehicles. Since the pandemic, however, their earnings have declined in tandem with those of their key European automotive customers, and they are losing their once-leading technological positions. Bosch's operating margin fell to 1.8% in 2025, roughly half its pre-pandemic level. Continental spun off its automotive parts

division into a sperate entity, Aumovio, and continues to restructure, yet Aumovio remains loss-making.

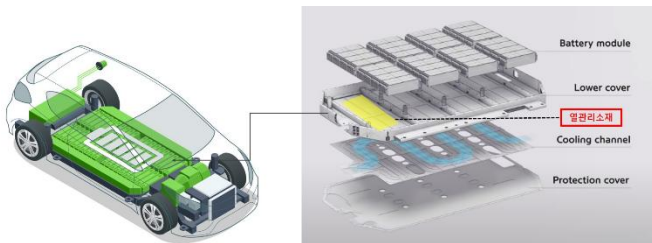
- **ADAS sales growing:** HL Mando's ADAS sales to Hyundai Motor Group, which had slowed amid competition from Hyundai Mobis, have returned to an uptrend on rising demand from India since 2025.

Difference in heat generation structure: EVs vs humanoid robots

Category	EV	Humanoid robot
Primary heat sources	Battery, drive motor	Actuators, inference chips
Heat distribution	Concentrated (clear thermal path from fixed components to cooling jacket)	Distributed (3+ heat sources coexist within a single joint)
Dominant cooling method	Liquid cooling (water jacket), oil cooling	Natural convection (no fan), indirect conductive cooling
Operating temperature range	-40°C to 120°C (engine compartment baseline)	0°C to 45°C (indoor factory environment), with cumulative thermal stress under high-cycle operation
Space constraints	Relatively ample (dedicated cooling jacket space available)	Extremely limited (must be integrated within joint housing)
Weight sensitivity	Low	Very high (gram-level weight optimization required)
Coolant circulation	External pump and radiator loop	No external loop possible → passive heat dissipation prioritized

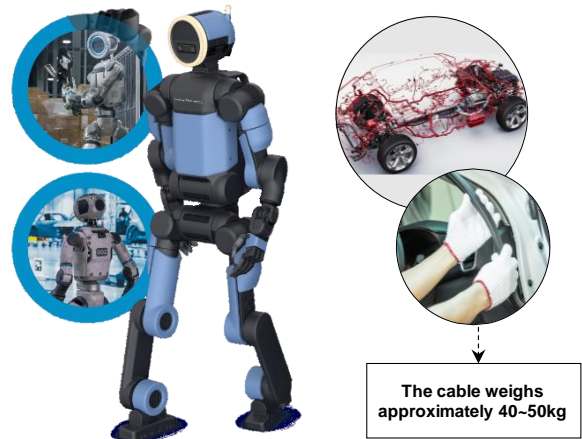
Source: Samsung Securities

Battery thermal management for EVs



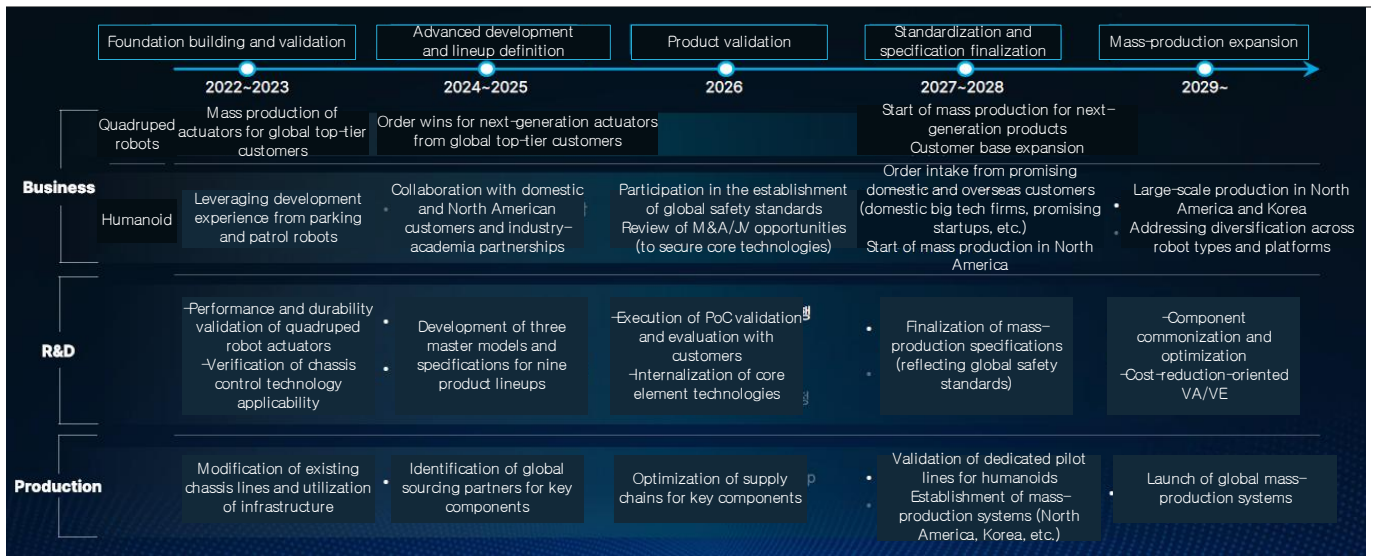
Source: Samyang Corporation

Atlas (3rd generation): Employs cableless actuator structure



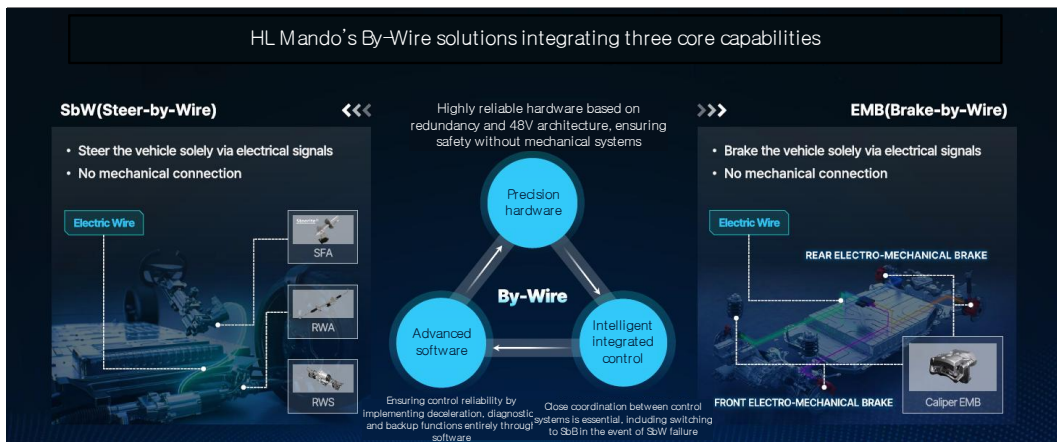
Source: Company data

HL Mando: Robot actuator business roadmap



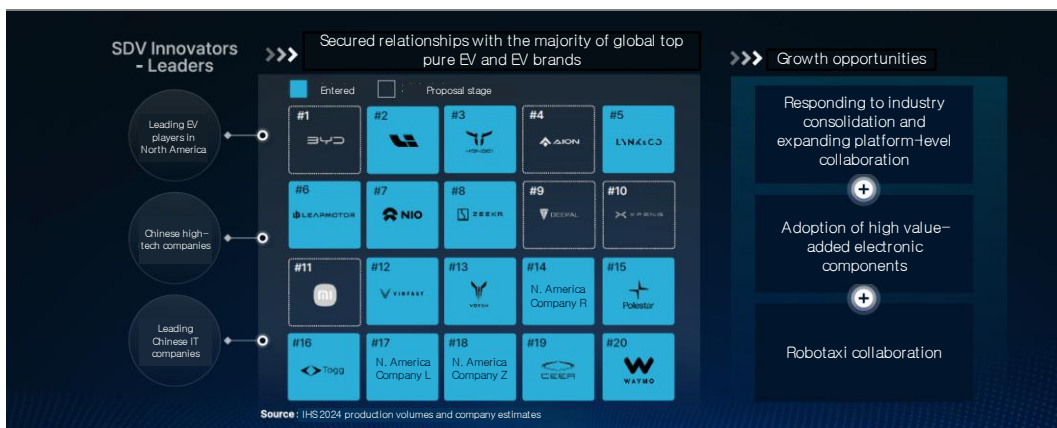
Source: Company data

HL Mando: By-wire solutions



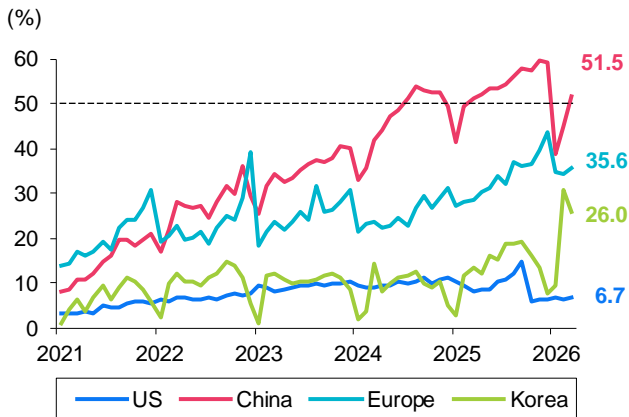
Source: Company data

HL Mando: SDV ecosystem and customer landscape



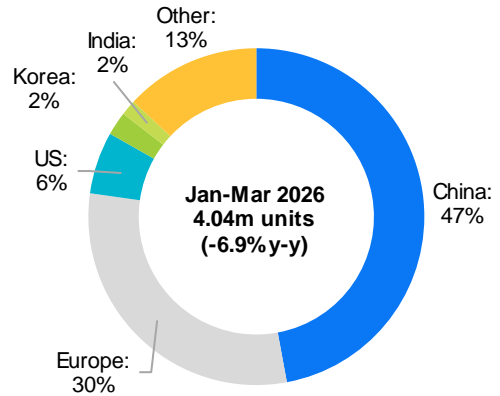
Source: Company data

EV penetration, by country and region



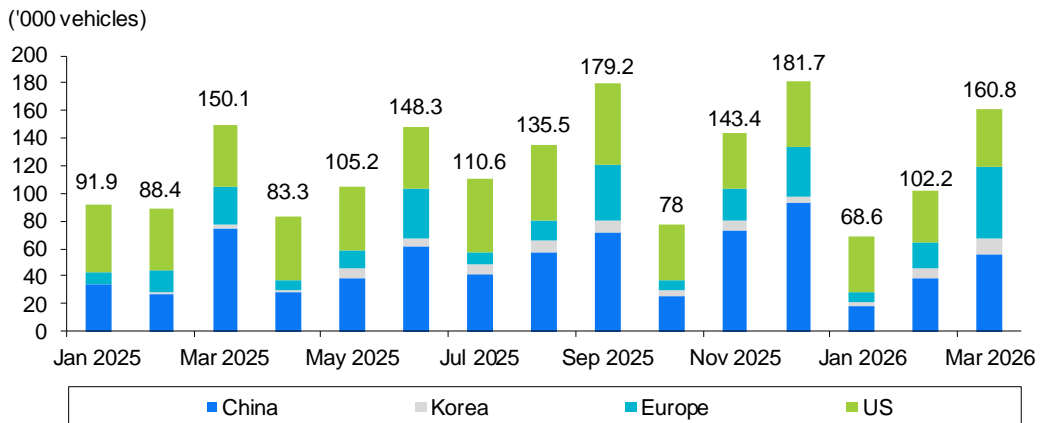
Source: EV-Volumes, Samsung Securities

Global EV demand portion, by country



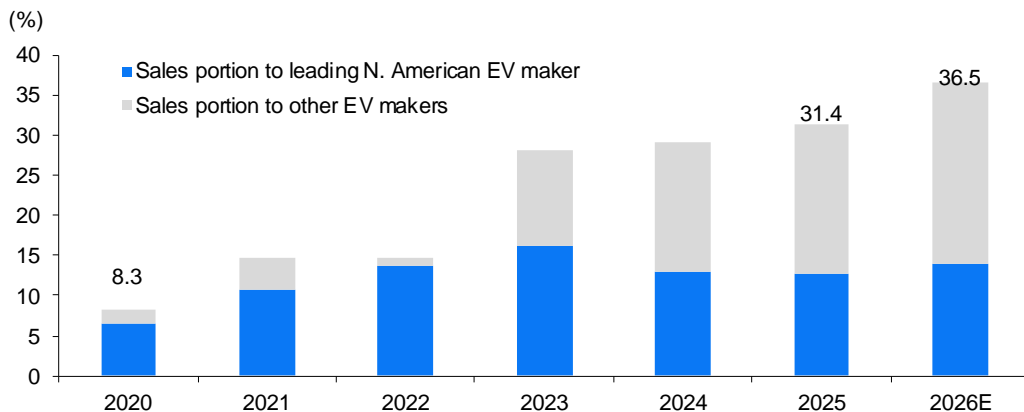
Source: EV-Volumes, Samsung Securities

Leading North American EV maker: Sales volume, by region



Source: CPCA, ACEA, KAIDA, Wards, Samsung Securities

HL Mando: EV component sales as portion of total



Source: Company data, Samsung Securities

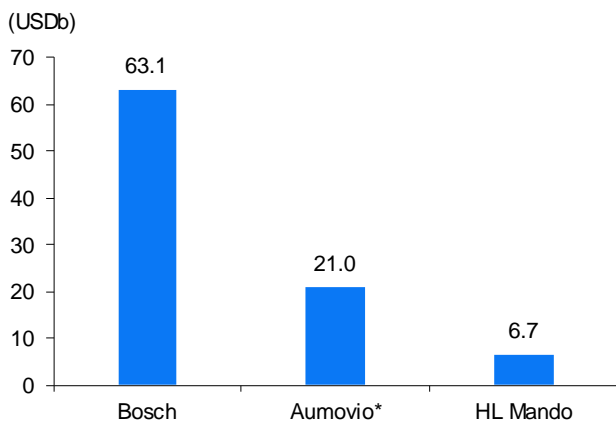
HL Mando: Robotaxi customer portfolio

		Brake	Steering	Suspension
China	Leading Chinese IT firm	✓	✓ (SbW; orders taken)	✓ (first order landed in Apr 2026)
	Leading Chinese IT company (B)		✓	✓
US	Leading N. American EV maker	✓	✓	✓
	N. American Big-Tech subsidiary (A)	✓	✓ (SbW)	
	Waymo	✓	✓	✓

Note: As of 1Q26

Source: Company data, Samsung Securities

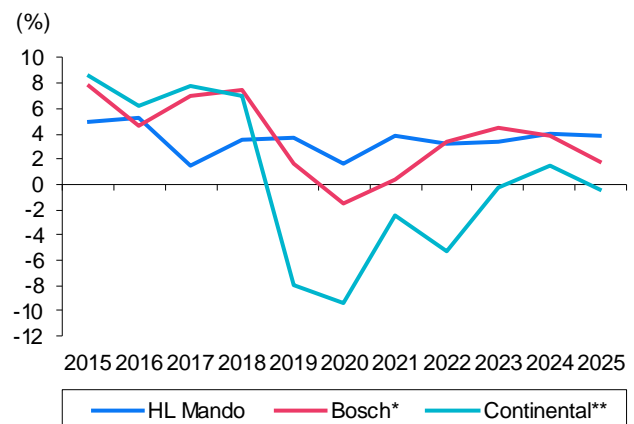
Global chassis companies: Revenue (2025)



Note: *Spun off from Continental's automotive unit in 2025

Source: Bloomberg, Samsung Securities

Global chassis companies: Operating margin

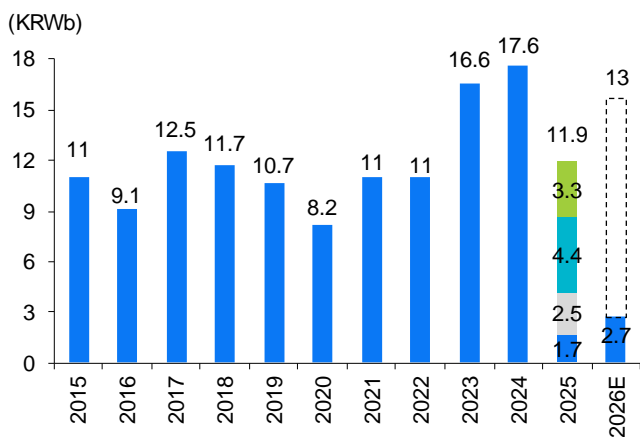


Note: *Automotive division;

**Automotive Group division (~2022), Aumovio (2023~)

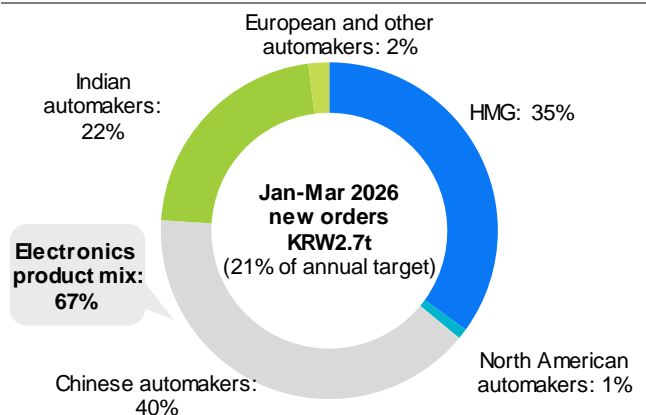
Source: Bloomberg, Samsung Securities

HL Mando: New orders vs guidance



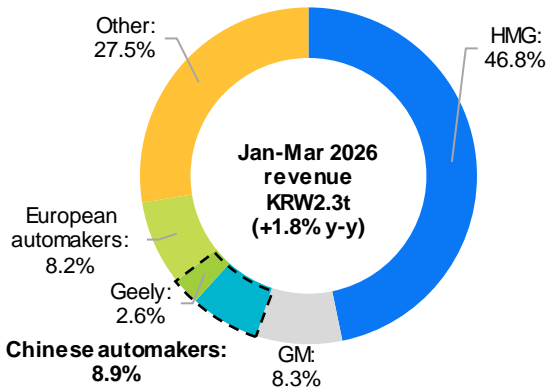
Source: Company data, Samsung Securities

HL Mando: New orders, by client



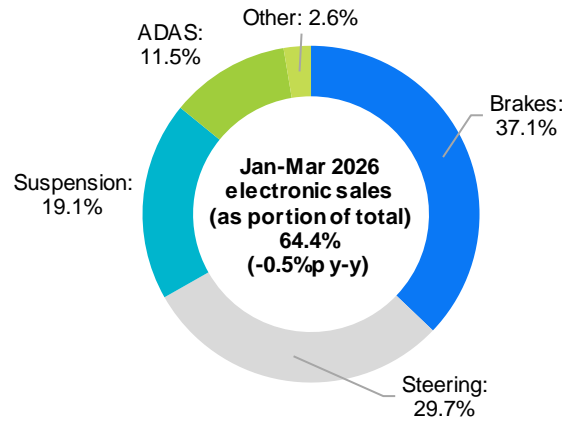
Source: Company data, Samsung Securities

HL Mando: Sales, by client



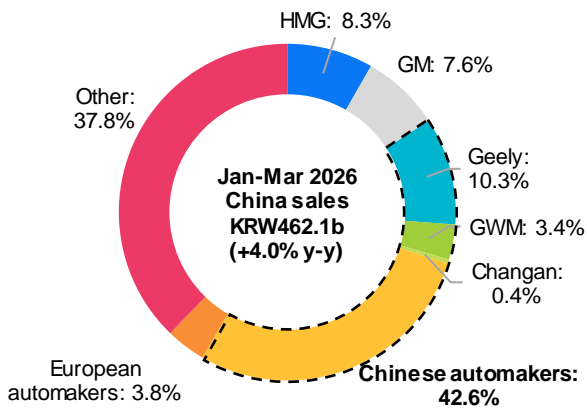
Source: Company data, Samsung Securities

HL Mando: Sales, by product



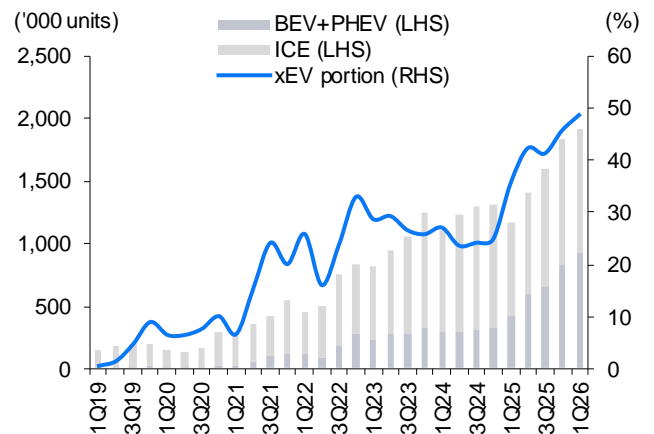
Source: Company data, Samsung Securities

HL Mando China: Sales, by client



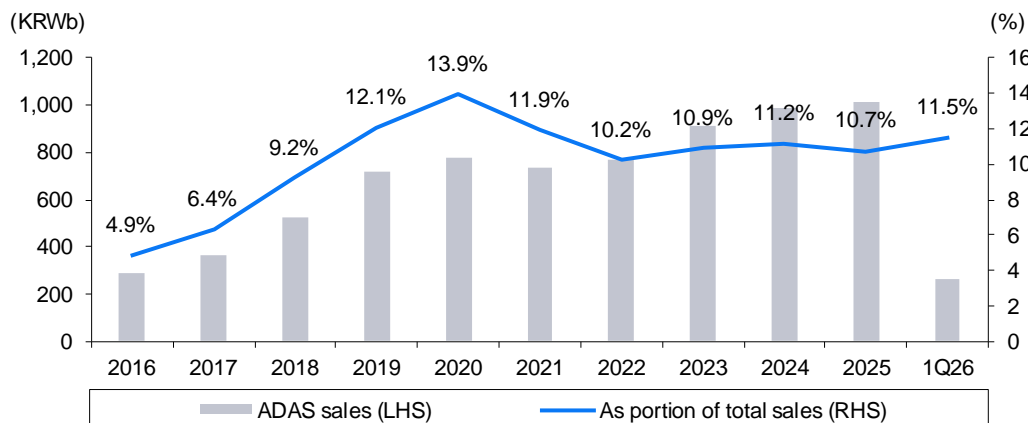
Source: Company data, Samsung Securities

China: Auto exports



Source: Company data, Samsung Securities

HL Mando: ADAS sales



Source: Company data, Samsung Securities

HL Mando: Result and forecasts

(KRWb)	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26E	3Q26E	4Q26E	2024	2025	2026E	2027E
KRW/USD (avg)	1,453	1,401	1,387	1,452	1,467	1,450	1,430	1,420	1,365	1,423	1,442	1,390
Sales	2,271	2,401	2,321	2,462	2,312	2,484	2,546	2,585	8,848	9,455	9,926	10,556
Chg (% y-y)	7.8	11.8	6.9	1.6	1.8	3.4	9.7	5.0	5.4	6.9	5.0	6.3
Gross profit	320	365	362	397	361	338	357	584	1,323	1,444	1,641	1,799
Operating profit	79	104	94	80	94	105	116	109	359	357	424	501
Chg (% y-y)	4.7	16.2	14.1	-28.2	18.2	0.8	22.8	37.2	28.5	-0.5	18.6	18.2
Operating profit	62	34	66	56	86	85	100	86	265	218	356	458
Net profit	35	10	49	29	53	64	75	64	158	123	256	343
Controlling profit	28	4	44	24	48	60	70	60	130	100	240	323
Margins (%)												
Gross profit	14.1	15.2	15.6	16.1	15.6	13.6	14.0	22.6	15.0	15.3	16.5	17.0
Operating profit	3.5	4.3	4.1	3.2	4.0	4.2	4.5	4.2	4.1	3.8	4.3	4.7
Net profit	1.5	0.4	2.1	1.2	2.3	2.6	2.9	2.5	1.8	1.3	2.6	3.3
Controlling profit	1.2	0.2	1.9	1.0	2.1	2.4	2.8	2.3	1.5	1.1	2.4	3.1

Source: Company data, Samsung Securities estimates

Income statement

Year-end Dec 31 (KRWb)	2024	2025	2026E	2027E	2028E
Sales	8,848	9,455	9,926	10,556	11,284
Cost of goods sold	7,525	8,011	8,285	8,756	9,336
Gross profit	1,323	1,444	1,641	1,799	1,949
Gross margin (%)	15.0	15.3	16.5	17.0	17.3
SG&A expenses	964	1,087	1,217	1,299	1,392
Operating profit	359	357	424	501	557
Operating margin (%)	4.1	3.8	4.3	4.7	4.9
Non-operating gains (losses)	-93	-139	-67	-43	-39
Financial profit	56	51	19	22	37
Financial costs	138	145	87	71	71
Equity-method gains (losses)	-5	-3	4	5	5
Other	-6	-42	-3	0	-10
Pre-tax profit	265	218	356	458	518
Taxes	107	95	100	114	129
Effective tax rate (%)	40.4	43.6	28.2	25.0	25.0
Profit from continuing operations	158	123	256	343	388
Profit from discontinued operations	0	0	0	0	0
Net profit	158	123	256	343	388
Net margin (%)	1.8	1.3	2.6	3.3	3.4
Net profit (controlling interests)	130	100	240	323	365
Net profit (non-controlling interests)	28	23	15	21	23
EBITDA	694	718	753	782	797
EBITDA margin (%)	7.8	7.6	7.6	7.4	7.1
EPS (parent-based) (KRW)	2,767	2,130	5,118	6,869	7,777
EPS (consolidated) (KRW)	3,370	2,615	5,445	7,308	8,273
Adjusted EPS (KRW)*	2,767	2,130	5,118	6,869	7,777

Cash flow statement

Year-end Dec 31 (KRWb)	2024	2025	2026E	2027E	2028E
Cash flow from operations	435	721	548	579	572
Net profit	158	123	256	343	388
Non-cash profit and expenses	532	632	491	435	395
Depreciation	302	323	298	255	218
Amortization	33	38	32	27	22
Other	197	271	161	154	154
Changes in A/L from operating activities	-163	67	-34	-41	-52
Cash flow from investments	-397	-364	-153	-4	-4
Change in tangible assets	-307	-333	-150	0	0
Change in financial assets	12	28	-3	-4	-4
Other	-103	-59	-0	0	0
Cash flow from financing	-177	-96	-693	-56	-66
Change in debt	10	-129	-658	0	0
Change in equity	0	0	0	0	0
Dividends	-51	-52	-35	-56	-66
Other	-136	85	-0	0	0
Change in cash	-79	264	-287	522	505
Cash at beginning of year	615	536	800	513	1,035
Cash at end of year	536	800	513	1,035	1,540
Gross cash flow	690	755	747	778	783
Free cash flow	125	377	398	579	572

Note: *Excluding one-off items

**Fully diluted, excluding one-off items

***From companies subject to equity-method valuation

Source: Company data, Samsung Securities estimates

Balance sheet

Year-end Dec 31 (KRWb)	2024	2025	2026E	2027E	2028E
Current assets	3,677	3,719	3,578	4,291	5,021
Cash & equivalents	536	800	513	1,035	1,541
Accounts receivable	2,020	1,859	1,952	2,076	2,219
Inventories	838	804	845	898	960
Other current assets	283	256	269	282	301
Fixed assets	3,375	3,417	3,240	2,962	2,727
Investment assets	235	222	225	229	233
Tangible assets	2,410	2,560	2,412	2,157	1,940
Intangible assets	220	229	197	170	148
Other long-term assets	510	406	406	406	406
Total assets	7,052	7,137	6,818	7,253	7,747
Current liabilities	2,900	3,047	2,492	2,629	2,788
Accounts payable	1,449	1,399	1,468	1,562	1,669
Short-term debt	233	331	331	331	331
Other current liabilities	1,218	1,317	693	736	787
Long-term liabilities	1,479	1,214	1,222	1,233	1,246
Bonds & long-term debt	1,176	966	966	966	966
Other long-term liabilities	303	248	256	267	280
Total liabilities	4,379	4,261	3,714	3,862	4,033
Owners of parent equity	2,519	2,714	2,927	3,193	3,493
Capital stock	47	47	47	47	47
Capital surplus	603	603	603	603	603
Retained earnings	1,237	1,311	1,516	1,782	2,082
Other	631	752	760	760	760
Non-controlling interests' equity	154	162	177	198	221
Total equity	2,673	2,876	3,104	3,391	3,714
Net debt	1,585	1,218	846	323	-184

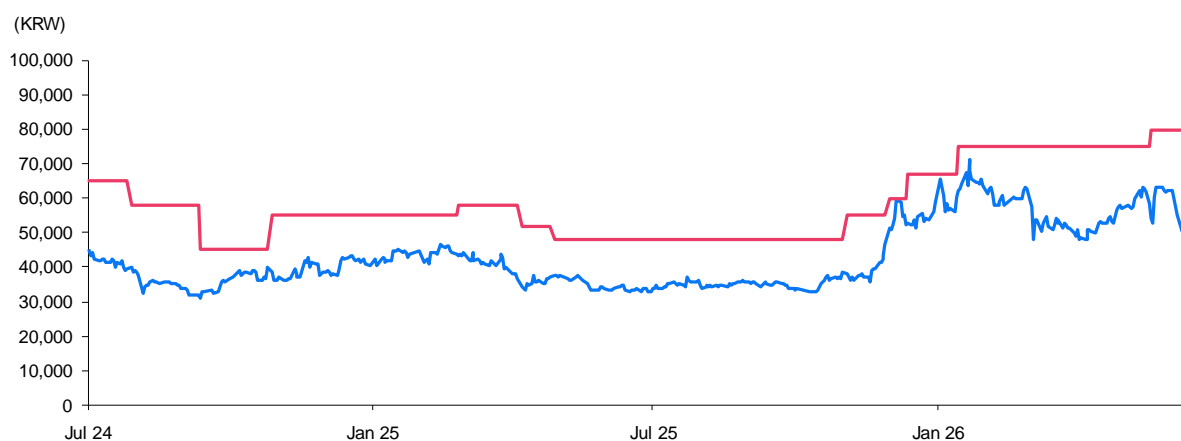
Financial ratios

Year-end Dec 31	2024	2025	2026E	2027E	2028E
Growth (%)					
Sales	5.4	6.9	5.0	6.3	6.9
Operating profit	28.5	-0.5	18.6	18.2	11.3
Net profit	2.4	-22.4	108.2	34.2	13.2
Adjusted EPS**	-4.2	-23.0	140.2	34.2	13.2
Per-share data (KRW)					
EPS (parent-based)	2,767	2,130	5,118	6,869	7,777
EPS (consolidated)	3,370	2,615	5,445	7,308	8,273
Adjusted EPS**	2,767	2,130	5,118	6,869	7,777
BVPS	53,635	57,793	62,333	68,002	74,379
DPS (common)	700	750	1,200	1,400	1,400
Valuations (x)					
P/E***	14.7	27.6	13.8	10.3	9.1
P/B***	0.8	1.0	1.1	1.0	0.9
EV/EBITDA	5.3	5.8	5.8	4.9	4.2
Ratios (%)					
ROE	5.5	3.8	8.5	10.5	10.9
ROA	2.4	1.7	3.7	4.9	5.2
ROIC	5.7	5.1	7.9	10.2	12.0
Payout ratio	25.3	35.2	23.4	20.4	18.0
Dividend yield (common)	1.7	1.3	1.7	2.0	2.0
Net debt to equity	59.3	42.4	27.3	9.5	-5.0
Interest coverage (x)	3.2	3.3	4.8	7.1	7.9

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Target price changes in past two years



Rating changes over past two years (adjusted share prices)

Date	2024/6/3	7/1	7/29	9/11	10/28	2025/2/25	4/7	4/28	11/3	12/1	12/12	2026/1/14
Recommendation	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY	BUY
Target price (KRW)	58000	65000	58000	45000	55000	58000	52000	48000	55000	60000	67000	75000
Gap* (average)	-21.93	-35.91	-39.90	-18.57	-24.91	-29.05	-31.59	-27.26	-29.25	-8.90	-16.17	-24.08
(max or min)**	-14.48	-32.15	-32.76	-10.67	-15.18	-23.88	-27.88	-19.69	-15.27	-1.33	-2.39	-4.80
Date	5/19	6/15										
Recommendation	BUY	BUY										
Target price (KRW)	80000	95000										
Gap* (average)	-27.52											
(max or min)**	-18.75											

Note: * [(average, maximum, or minimum share price over duration of target price minus target price) / target price] x 100%

** Maximum/minimum share price if new target is higher/lower than market close on the business day prior to target price change

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Company

- BUY** Expected to increase in value by 15% or more within 12 months and is highly attractive within sector
- HOLD** Expected to increase/decrease in value by less than 15% within 12 months
- SELL** Expected to decrease in value by 15% or more within 12 months

Industry

- OVERWEIGHT** Expected to outperform market by 5% or more within 12 months
- NEUTRAL** Expected to outperform/underperform market by less than 5% within 12 months
- UNDERWEIGHT** Expected to underperform market by 5% or more within 12 months

* Note: Effective Jul 27, 2023, BUY, HOLD, and SELL criteria are based on expectations of share-price moves of 15% or more within 12 months

Percentage of ratings in 12 months prior to 2026.03.31

BUY (85.2%)·HOLD (14.8%)·SELL (0%)

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