

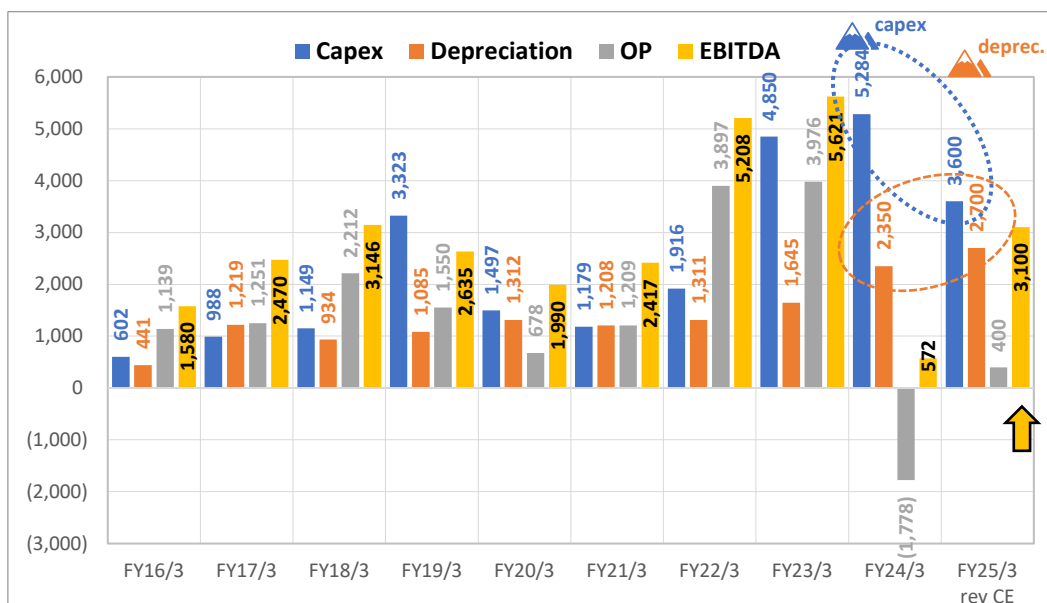
Downward revision to FY25/3 forecasts Recovery in demand is slower than initial expectations →2025 opportunity in Windows 10 end-of-service, AI PCs

SUMMARY

▶ TOREX SEMICONDUCTOR announced 1H FY25/3 consolidated financial results at 16:00 on Thursday 11/14, and it held a results briefing on Tuesday 11/19 at 16:00. Headline numbers were consolidated net sales -5.5% YoY, operating profit +277.2% YoY, and profit attributable to owners of parent turning into the black. However, in a pattern similar to the three months for Q2-only last term, profits dropped into losses, from an operating loss of JPY 133 million for FY24/3 Q2 (OPM -1.9%) → an operating loss of JPY 28 million for FY25/3 Q2 (OPM -0.4%), partly reflecting the high electricity rates for Phenitec, citing the prolonged adjustment of distribution inventories due to a slowdown in demand for industrial equipment as well as general consumer electronics, and a pause in the recovery of the China market. In addition, the Company recorded a non-operating foreign exchange loss of JPY 330 million as a result of the yen's sharp appreciation in Q2 (foreign exchange loss by quarter: Q1 JPY 32mn, Q2 JPY 298mn).

▶ In a separate press release, the Company announced a downward revision to its full-term forecasts for FY25/3, details shown in the table on P2, noting that the original budget had anticipated a completion of the adjustment of distribution inventories during the 1H, and a clear recovery in demand from the 2H. Since it has yet to see convincing signs of that in current orders, the Company accordingly revised down its outlook for the 2H. However, revised EBITDA is still on course to recover to the peak level before the pandemic. In the TOPICS section on P5, we provide an overview of the expected recovery in PC shipments in 2025 from replacement demand due to the end of support for Windows 10, as well as growing adoption of new AI PCs. **EV/EBITDA 5.5x and DY 4.50% are now 36% below and 82% above their respective historical averages.**

TOREX SEMICONDUCTOR Group Revised FY25/3 Forecasts (JPY mn)



Source: compiled by SIR from IR results briefing materials.

Q2 Follow-up



Focus Points:

Power management IC specialist with attractive growth profile from new applications driven by 5G/IoT, EV/ADAS and highly energy efficient next-gen power devices.

Key Indicators

Share price (12/9)	1,244
YH (24/7/17)	2,035
YL (24/12/9)	1,231
10YH (21/11/30)	3,960
10YL (15/8/25)	830
Shrs out. (mn shrs)	11.554
Mkt cap (JPY bn)	14.373
EV (JPY bn)	16.896
Equity ratio (9/30)	53.6%
25.3 P/E (CE)	—x
25.3 EV/EBITDA (CE)	5.5x
24.3 ROE (act)	-19.0%
24.9 P/B (act)	0.68x
25.3 DY (CE)	4.50%

6M daily share price trend



Chris Schreiber CFA

Company Specialist

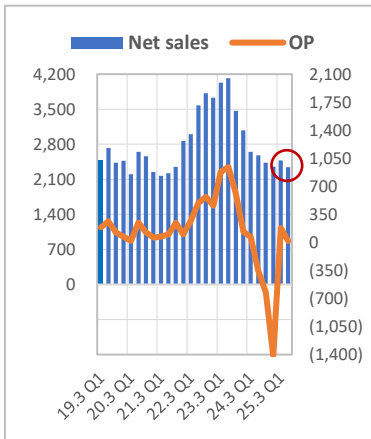
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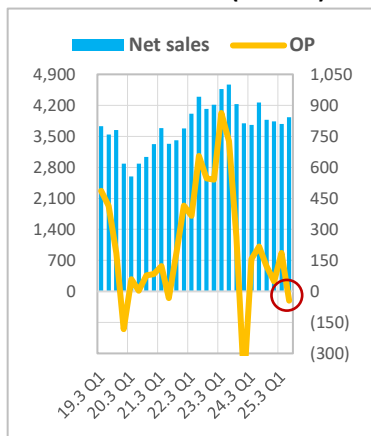
This report was prepared by Sessa Partners on behalf of TOREX SEMICONDUCTOR, LTD. Please refer to the legal disclaimer at the end for details.



TOREX Parent (JPY mn)



Phenitec contrib. (JPY mn)



Source: compiled by SIR from IR results briefing materials.

1H RESULTS SUMMARY BY ENTITY

▶ Regarding Q2 and 1H consolidated results, it is worth noting that, similar to the pattern seen in the previous fiscal year, GPM dropped from Q1 29.6% → Q2 23.9% (FY24/3 Q1 25.6% → Q2 18.8%), which is partly due to the high summer electricity rates in manufacturing costs for subsidiary Phenitec. Regarding the revised FY25/3 consolidated forecast, the Company assumes 2H net sales flat versus the 1H at JPY 12.5bn, however, as can be seen from the table below, revised depreciation of JPY 2,700mn minus 1H actual JPY 1,066mn leaves JPY 1,634mn for the 2H, making it difficult for a 2H recovery. Revised 2H OP is JPY 64mn.

▶ By entity, TOREX parent 1H net sales declined -7.9% YoY (Q1 -6.5%, Q2 -9.3%), by application industrial equipment -11.4% and others (includes consumer electronics) -10.4%, and by design-in based region Japan -26.3% and Europe -16.7%, still seeing no signs of a pick-up in demand from Japanese customers. The 1H operating loss last term of JPY 285mn swung to a 1H operating profit this term of JPY 195mn, due to the currency and the inventory valuation losses last term of JPY 570mn swinging to writing back JPY 310mn this term. For the Phenitec contribution, 1H net sales declined -3.9% YoY (Q1 +0.5%, Q2 -7.9%), with all regions other than China posting YoY declines. 1H OP declined -62.3% YoY from JPY 374mn last term to JPY 141mn this term, mainly due to the decline in net sales and subsequent lower factory operating rates.

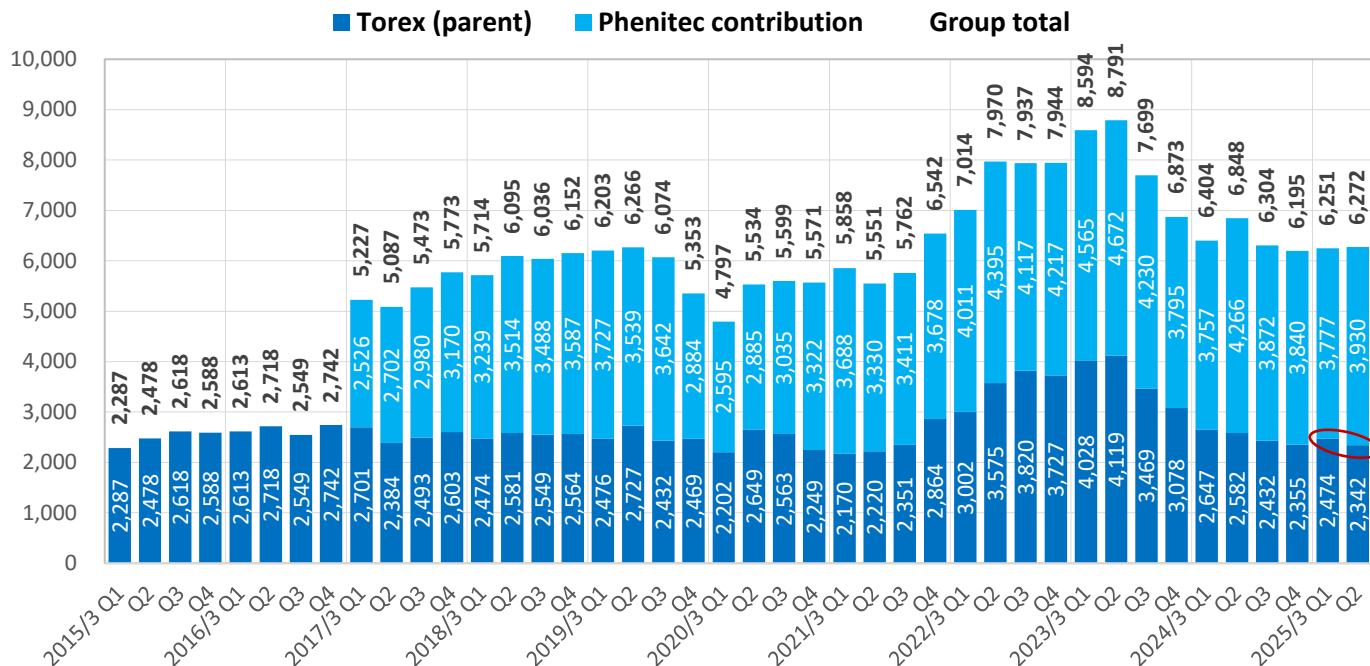
TOREX SEMICONDUCTOR 1H FY25/3 Consolidated Financial Results Summary

JPY mn, yen per share, %	FY22/3	FY23/3	FY24.3	FY25/3	FY25/3	FY25/3	FY25/3	FY25/3
[J-GAAP]	act	act	act	init CE	rev CE	Q1 act	Q2 act	1H act
Net sales	30,864	31,956	25,751	28,000	25,000	6,251	6,272	12,524
YoY	30.2	3.5	(19.4)	8.7	(2.9)	(2.4)	(8.4)	(5.5)
Overseas sales ratio (%)*	67.6%	70.0%	66.5%	—	—	70.6%	—	70.2%
Average yen-dollar rate	¥112.9	¥134.9	¥144.4	¥150.0	¥150.0	¥156.5	—	¥152.2
Operating Profit	3,897	3,976	(1,778)	1,000	400	365	(28)	336
YoY	222.3	2.0	—	—	—	64.1	—	277.2
OPM (%)	12.6%	12.4%	—	3.6%	1.6%	5.8%	-0.4%	2.7%
Ordinary profit	4,124	3,981	(2,452)	1,000	100	340	(271)	69
Profit ATOP	3,157	2,179	(4,297)	700	0	83	(78)	5
EPS (¥)	¥288.60	¥198.69	¥390.73	¥63.63	—	¥7.57	¥7.06	¥0.51
ROE (%)	14.9	9.2	—	—	—	—	—	—
DPS (¥)	¥44.00	¥56.00	¥56.00	¥56.00	¥56.00	—	—	¥28.00
Payout ratio (%)	15.2	28.2	—	88.0	NM	—	—	NM
BPS (¥)	¥2,078	¥2,236	¥1,869	—	—	¥1,882	—	¥1,833
Equity ratio (%)	65.4	66.4	56.1	—	—	52.4	—	53.6
Depreciation	1,311	1,645	2,350	3,000	2,700	498	568	1,066
Capex	1,916	4,850	5,284	3,600	3,600	1,221	475	1,696
Net sales by entity								
TOREX parent	14,124	14,694	10,016	—	—	2,474	2,342	4,817
YoY	47.0	4.0	(31.8)	—	—	(6.5)	(9.3)	(7.9)
Phenitec contribution	16,740	17,262	15,753	—	—	3,777	3,930	7,707
YoY	18.7	3.1	(8.7)	—	—	0.5	(7.9)	(3.9)
OP by entity								
TOREX parent	1,789	2,567	(2,322)	—	—	179	16	195
YoY	246.7	43.5	—	—	—	171.2	—	—
Phenitec contribution	2,108	1,409	544	—	—	186	(44)	141
YoY	204.2	(33.2)	(61.4)	—	—	19.2	—	(62.3)

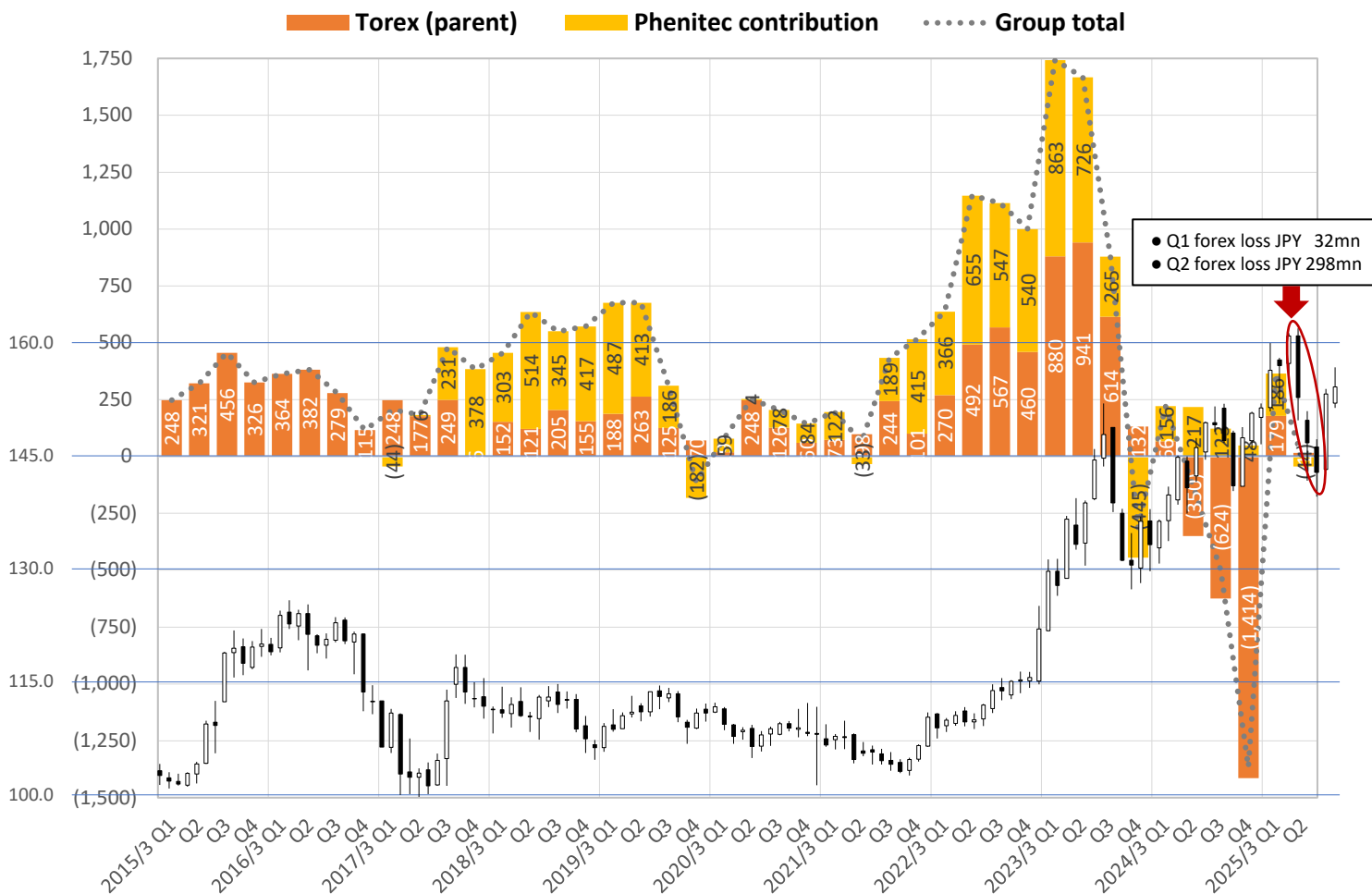
Source: compiled by SIR from TANSHIN financial results summaries and IR results briefing materials.

*Note: overseas sales ratio: ratio of sales denominated in foreign currencies.

TOREX Group Quarterly Trend of Consolidated Net Sales by Entity (JPY mn)

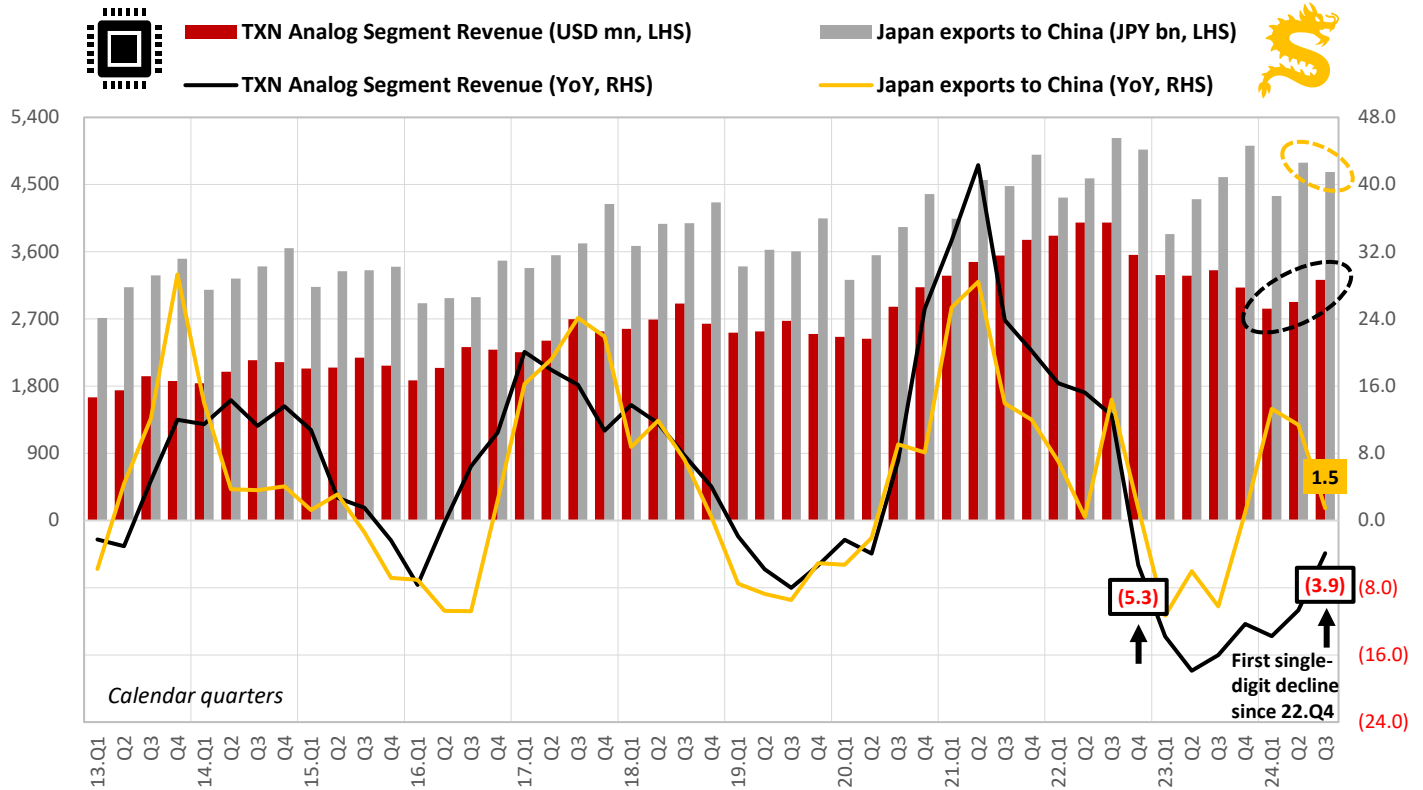


TOREX Group Quarterly Trend of Consolidated Operating Profit/Loss by Entity (JPY mn); Monthly Yen-Dollar



Source: compiled by SIR from IR results briefing materials. Forex overlay chart compiled by SIR from Yahoo Finance historical price data.

★ Key indicators tracked by SIR: while China exports are pausing, TXN Analog revenue is clearly recovering



Source: Customs and Tariff Bureau, Ministry of Finance, Texas Instruments (NASDAQ: TXN) historical financial statements, quarterly segment revenue.

Monthly Trend of Japan Exports to China for Selected Categories Since the Recent Peak

JPY bn, %	Exports to PRC (total)	YoY	General Machinery	YoY	Electrical / Electronics	YoY	Semicon / Components	YoY	ICs	YoY	Autos	YoY
2022.07	1,783	12.8	373	8.7	410	15.6	137	21.2	100	28.6	126	18.2
2022.08	1,612	13.4	332	8.7	340	7.9	90	(13.8)	59	(20.6)	92	55.2
2022.09	1,731	17.0	370	14.8	405	16.5	137	20.1	103	26.8	112	336.8
2022.10	1,720	7.7	357	(3.0)	396	9.6	133	8.5	98	13.3	82	71.8
2022.11	1,632	3.5	350	(3.2)	355	2.7	118	2.2	85	2.2	93	11.3
2022.12	1,618	(6.2)	351	(7.7)	376	(2.4)	132	3.9	99	10.9	57	(50.2)
2023.01	968	(17.1)	208	(16.2)	241	(16.0)	100	(2.5)	80	7.9	29	(52.1)
2023.02	1,316	(10.9)	301	(11.8)	279	(12.1)	100	1.6	75	9.5	51	(34.2)
2023.03	1,552	(7.7)	387	2.0	335	(11.3)	120	14.9	89	33.3	32	(62.7)
2023.04	1,446	(2.9)	323	9.4	302	(10.8)	94	2.5	63	12.5	64	(27.3)
2023.05	1,341	(3.4)	285	(3.0)	291	(3.2)	109	14.3	83	28.4	66	50.5
2023.06	1,519	(10.9)	372	1.2	339	(11.7)	119	(12.8)	87	(10.9)	74	(7.6)
2023.07	1,543	(13.4)	362	(2.8)	325	(20.6)	114	(16.8)	80	(19.4)	97	(23.5)
2023.08	1,435	(11.0)	304	(8.6)	322	(5.1)	113	25.5	82	39.4	90	(2.3)
2023.09	1,624	(6.2)	375	1.4	344	(15.1)	106	(22.9)	75	(27.2)	121	7.6
2023.10	1,651	(4.0)	373	4.4	343	(13.5)	102	(23.3)	71	(27.8)	109	31.8
2023.11	1,596	(2.2)	371	6.1	320	(9.8)	99	(15.9)	67	(21.9)	110	18.2
2023.12	1,771	9.5	470	33.8	349	(7.1)	103	(22.0)	70	(29.2)	101	78.7
2024.01p	1,250	29.2	279	34.1	264	9.7	93	(6.7)	66	(17.2)	62	11.4
2024.02	1,349	2.5	353	17.4	279	0.0	96	(4.3)	70	(7.0)	62	22.5
2024.03	1,747	12.6	465	20.0	355	6.0	118	(1.6)	83	(6.7)	71	120.6
2024.04	1,587	9.6	390	20.5	325	7.4	110	17.1	77	22.0	87	36.0
2024.05	1,581	17.8	393	37.7	308	5.9	112	3.0	85	1.9	82	23.4
2024.06	1,627	7.2	391	5.2	336	(0.8)	113	(4.6)	82	(5.5)	92	25.1
2024.07	1,655	7.2	376	3.8	356	9.6	119	4.0	87	8.8	106	10.2
2024.08	1,509	5.2	374	23.2	332	3.1	116	2.8	86	4.7	62	(30.9)
2024.09	1,505	(7.3)	382	1.8	327	(4.8)	109	3.2	82	8.8	72	(40.3)
2024.10p	1,675	1.5	406	8.9	341	(0.4)	109	6.1	79	12.2	71	(34.0)

Source: compiled by SIR from monthly Trade Statistics of Japan, Customs and Tariff Bureau, Ministry of Finance. *p = provisional.



Major PC vendors are ramping up rollout of new AI PC models



AI PC Shipments Forecast

mn units	CY23	CY24	CY25
AI laptops	20.14	40.52	102.42
AI desktops	1.40	2.51	11.80
AI PC total	21.53	43.03	114.23

Source: Gartner (September 2024)

Windows 10 end-of-service on October 14, 2025 is expected to drive big replacement demand



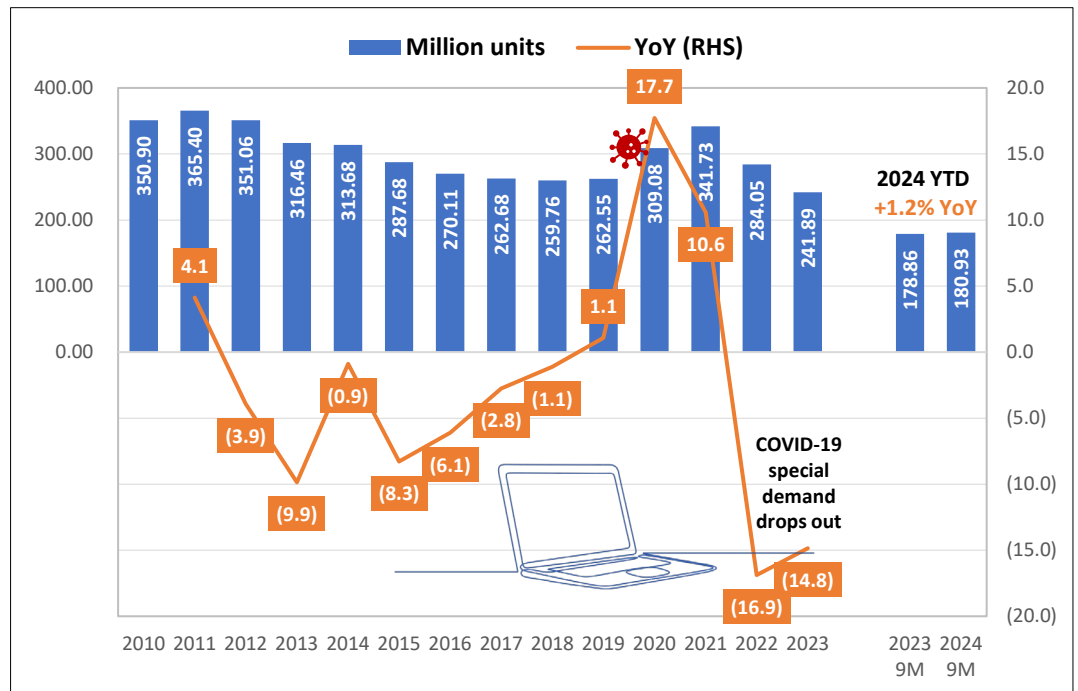
2025 opportunity in Windows 10 end-of-service PC replacement, AI PCs

For notebook PCs, TOREX SEMICONDUCTOR manufactures various power management ICs for camera modules, battery management, AI modules etc. As can be seen from the graph below, worldwide PC shipments suffered double-digit declines in 2022 and 2023 following the special demand boom during COVID-19 in 2020 and 2021 dropping out. According to Gartner, while 2023 shipments declined -14.8% YoY, 4Q 2023 increased +0.3%, ending 8 consecutive quarters of declines. In the first nine months of 2024, shipments are up +1.2%, which Gartner attributes to excess inventories normalized, and end demand beginning to return.

Microsoft support for Windows 10 will end on October 14, 2025 (meaning the end of security updates leaving users subject to vulnerability), and this is expected to spur a significant boost in replacement demand. Taiwan-based TrendForce expects a moderate recovery in late 2024, and for **global notebook shipments to increase +4.9% in 2025 to 183 million units as a result of Windows 10 end-of-service**. One caveat to this forecast is the potential impact of US import tariffs that may be imposed by the incoming Trump Administration, as China is the dominant hub for notebook PC production, accounting for roughly 89% of total capacity.

Regarding a new category of devices called AI PCs, Gartner defines AI PCs as PCs that are equipped with dedicated AI accelerators or cores, neural processing units (NPUs), designed to optimize and accelerate AI tasks on the device. This provides improved performance and efficiency in handling AI and GenAI workloads without relying on external servers or cloud services. Microsoft's CoPilot+ PC branding is for Windows systems with an NPU that performs at 40 TOPS or greater. TOPS is an acronym for Tera Operations Per Second (alternatively described as Trillions of Operations Per Second). Currently, AI-capable PCs carry a 10-15 percent price premium over standard PCs, something that will likely need to change in order to shift demand from enthusiast early adopters to enterprise customers.

Gartner Trend of Worldwide PC Unit Shipments: Headed for Recovery in 2025



Source: compiled by SIR from Gartner Worldwide PC Shipments quarterly press releases. Note: data includes desktop and laptop PCs that are equipped with Windows, macOS and Chrome OS.



Performance and Valuations:
SESSA Smart Charts

- ✓ The current P/B of 0.68x and DY of 4.50% are trading 38% below and 82% above historical averages, respectively.
- ✓ Revised OP guidance for FY25/3 OP of JPY 400mn puts EV/EBITDA on 5.5x, 36% below its historical average.
- ✓ Structural growth drivers for TOREX include 5G rollout/IoT device proliferation, EV/hybrid ramp, and demand for next-gen power devices to combat climate change.



Analyst's view

10-Year Monthly Share Price, 6M/12M/24M MA, Volume and Valuations Trend



Source: compiled by SIR from SPEEDA historical earnings and price data. Valuations calculated based on LTM and CE.



Updated to reflect revised FY25/3 CE on Q2 results

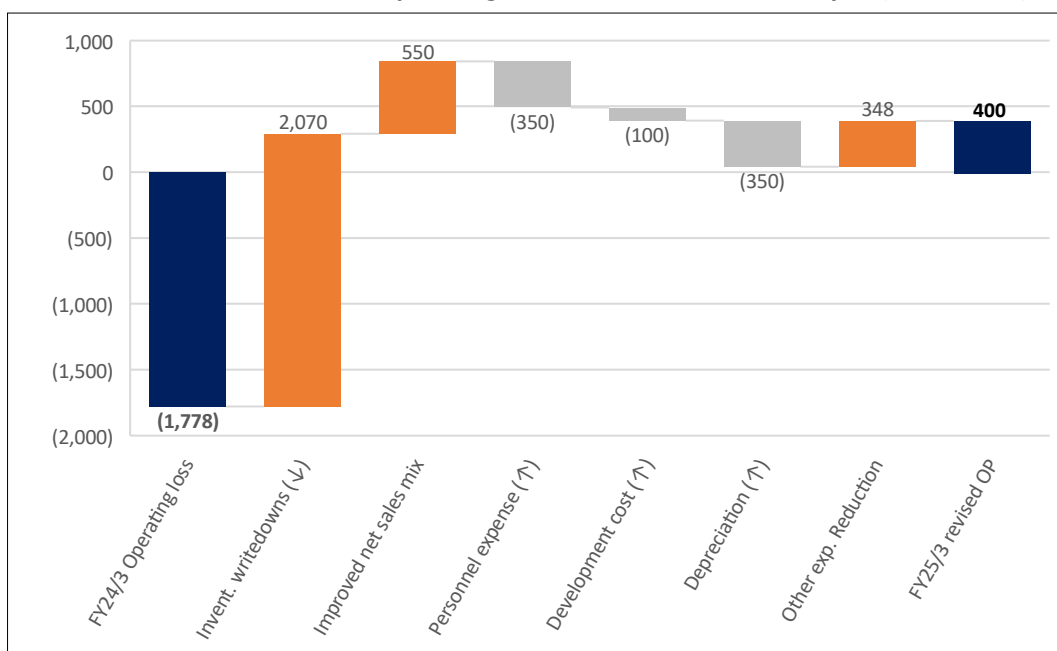
FY25/3 Management Policy and Key Initiatives to Strengthen Sales Expansion

▶ In his first time hosting the TOREX SEMICONDUCTOR Group’s results Q4 briefing as newly appointed President from April 1, Takeshi Kimura noted that while there is a sense the overall semiconductor market has bottomed, current underlying demand has yet to show signs of a strong recovery. While progress has been delayed in inventory adjustments in the distribution supply chain, TOREX is working towards a recovery in sales going forward, and the top priority for this term is strengthening sales expansion initiatives. As can be seen from the graph below showing a factor analysis for the revised FY25/3 consolidated OP forecast, in addition to a contribution of JPY 550mn from the improved net sales mix, the decrease of JPY 2,070mn in inventory write-downs in manufacturing cost of sales will drive a steady recovery in OP. Although capex is set to decline -31.9% YoY to JPY 3,600mn (mainly for equipment being installed in the new Phenitec Kagoshima Fab clean room), having peaked out last term, depreciation will increase +14.9% YoY to JPY 2,700mn on the new clean room starting operations.

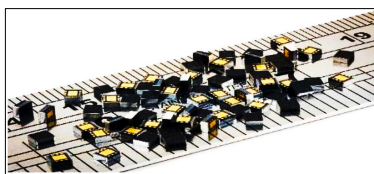
▶ Regarding management policy for FY25/3, the three pillars of sustainability for sustainable development of the Group include: 1) **Environmental Protection** – providing environmentally friendly products and services such as highly energy efficient and power conservation DC/DC, XCL series and power devices, etc., 2) **Social Development** – establishing a work environment where employees and the organization can grow and work with satisfaction, and 3) **Economic Development** – constantly focusing on innovation and strengthening the Group’s competitive edge to enhance corporate value and market presence. Specifically, the TOREX SEMICONDUCTOR Group will promote the following initiatives to increase its presence in the semiconductor market.

- **TOREX: Early commercialization of medium- and high-voltage products** → High-performance, high-quality products for industrial equipment and automotive equipment applications → micro DC/DC converters, XCL Series DC/DC converters with built-in inductor coils, etc.
- **Phenitec: Promotion of power device business** → Development of original technologies → SiC devices, Si (power MOSFETs, IGBTs), gallium oxide, etc.

FY25/3 Revised Consolidated Operating Profit Forecast Factor Analysis (JPY million)



Source: compiled by SIR from Q4 FY24/3 IR results briefing materials and Q2 follow-up interview.



Powerfully small

“Micro DC/DC” XCL Series
Ultra small DC/DC converters that integrate a coil and a control IC. Simultaneously achieve **space-saving, high efficiency, low noise, high heat dissipation, low cost.**

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