



# Optorun Co., Ltd

## Consolidated Financial Results for FY12/2024

### Consolidated Overview for FY12/2024 and Medium-Term Management Targets

February 14, 2025

## ❑ Summary of Consolidated Financial Results for FY12/ 2024

Compared to the 3Q announcement, orders received in FY12/2024 exceeded internal expectations, and net sales were in line with the plan. Operating profit fell short of the plan due to a one-time loss on valuation of inventories, but ordinary profit was largely in line with the plan due to an increase in equity in earnings of affiliates resulting from the strong performance of Fanfeng, an equity-method affiliate. Net income attributable to shareholders of the parent company exceeded the plan due in part to a lower-than-expected effective tax rate. 52 yen per share (annual dividend) was paid, up 2 yen from the previous year, and the company repurchased approximately 2.53 million shares for approximately 4.8 billion yen. The average exchange rate for the period was ¥151.87/\$.

## ❑ Forecast of Consolidated Financial Results for FY12/2025

For FY12/2025 1, the company forecasts net sales of 38 billion yen, up 17% year-on-year; operating profit of 8.6 billion yen, up 16% year-on-year; ordinary income of 8.6 billion yen, up 5% year-on-year; net income attributable to shareholders of the parent company of 6.4 billion yen, up 1% year-on-year; and a dividend per share of 54 yen, up 2 yen year-on-year. Although the order book is not yet disclosed, it is expected to exceed the previous year's level by about 10%. The exchange rate assumptions are \$145/\$ and ¥21/yuan. Operating profit sensitivity is estimated to be -¥150 million for a ¥1 appreciation of the yen against the dollar and +¥100 million for a ¥0.1 appreciation of the yen against the yuan. Our target for the new model ratio is to exceed 40% of orders (35% in FY12/2024).

## ❑ Medium-Term Management Targets and Long-Term Management Vision

The medium-term management targets are net sales of 50 billion yen, operating profit of 10.8 billion yen (operating profit margin of 21.6%), ordinary income of 11.8 billion yen, net income attributable to owners of the parent of 8.4 billion yen, and ROE of 12% for FY12/2027. The exchange rate assumptions are 145 yen to the dollar and 21 yen to the yuan. Sales are expected to be 34.0 billion yen in the optical field (28.5 billion yen in FY12/2024) and 16.0 billion yen in the non-optical field (3.9 billion yen in FY12/2024). The company's long-term management vision is to achieve sales of 80 billion yen and an operating profit margin of 25.0% in FY12/2030 through the creation of new businesses.

## ❑ Cash allocation

The Company envisions stable dividends and strategic share buybacks based on a consolidated dividend payout ratio of 30% or more to increase shareholder value. Orders and business performance are highly dependent on optical thin-film equipment for smartphones. For future new equipment, we expect an increase in orders for new function-related products for smartphones with generative AI, cameras and sensors for EV/connected cars, and in-car display devices. Furthermore, a sharp increase in demand related to WDM (Wavelength Division Multiplexers, CWDM and DWDM) for optical transceivers for data centers and AR/VR related for spatial computers are expected to take off.

## □ Future Prospects

This document contains "forward-looking statements." These statements include those relating to expected growth and trends in our business and markets, industry outlook and demand factors, our investment and growth strategies, the development of new products and technologies, and current and future business prospects. Changes in various external and internal factors may cause the Company's expectations and plans to differ materially from these forward-looking statements, but the Company does not undertake any obligation to update or revise these statements.

## □ Foreign Exchange Risk

Export sales of manufacturing equipment, our main product, are affected by fluctuations in the U.S. dollar exchange rate due to our heavy reliance on U.S. dollar-denominated production. Manufacturing costs are affected by fluctuations in the Chinese yuan due to our heavy reliance on production in Greater China. The foreign exchange assumptions used in the forecast are based on past performance and are intended to reduce the impact of foreign exchange rate fluctuations. Although Greater China is highly dependent on export destinations, final demand destinations are spreading globally. To prepare for the era of decoupling, we are planning to expand our production and development facilities in Japan, Greater China, Vietnam, India, and other countries.

## □ Actions to Achieve Management Conscious of Cost of Capital and Stock Prices

As a policy to realize management that is conscious of the cost of capital and stock price, we have set "operating profit margin of 20% or more," "ROE (return on equity) of 10% or more," and "consolidated dividend payout ratio of 30% or more" in our mid-term management targets. In terms of cash allocation, we expect to pay stable dividends and flexibly repurchase shares to increase shareholder value. In addition, we plan to strategically implement R&D, capital investment, M&A, and business alliances with a view to sustainable growth.

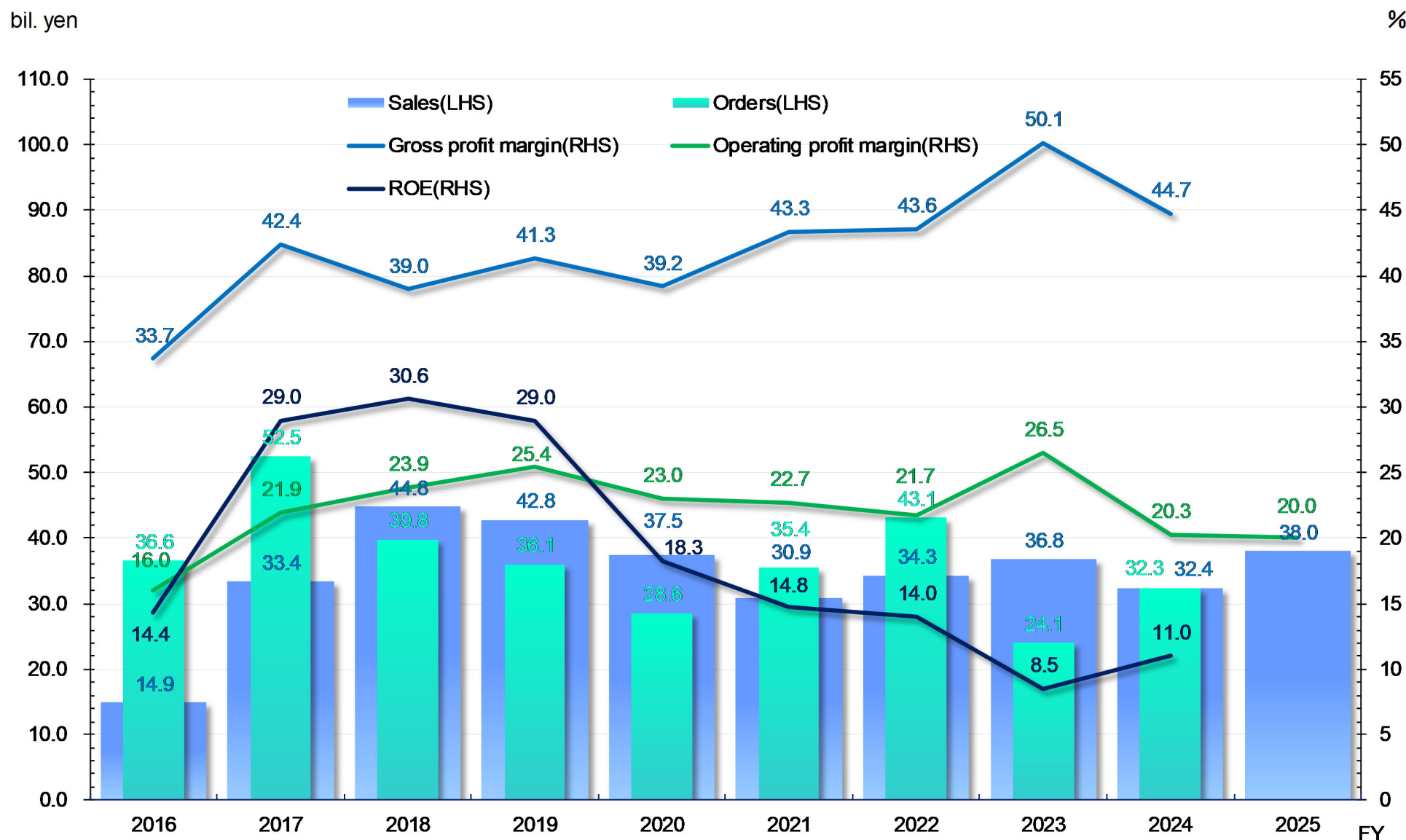
## □ Contact Information

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# I. Trends in Orders Received, Sales and Profitability/Profitability Indicators

Figure 1: Orders Received, Sales and Profitability/Profitability Indicators



Note: The exchange rate assumptions for FY12/2025 are \$145/\$ and ¥21.0/ yuan. Operating profit sensitivity (annualized) is -¥150 million for a \$1 appreciation of the yen against the dollar and +¥100 million for a ¥0.1 appreciation of the yen against the yuan.



# Orders and Performance Results and Guidance



Figure 2: Orders Received, Business Performance (in millions of yen, yen, %, days)

accounting period														
item	2023/12	2024/12	YoY%	2025/12E	YoY%	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	YoY%
Orders received	24,080	32,345	34.3			9,563	6,085	4,298	4,134	11,136	7,301	4,192	9,716	135.1
Order backlog	24,219	24,159	-0.3			37,447	31,670	27,960	24,219	24,058	25,979	21,659	24,159	-0.3
Net sales	36,807	32,406	-12.0	38,000	17.3	9,063	11,862	8,009	7,874	11,298	5,380	8,511	7,217	-8.3
Gross profit	18,454	14,499	-21.4			4,578	5,954	4,317	3,605	5,917	2,168	4,094	2,319	-35.7
R&D	4,329	3,397	-21.5	3,500	3.0	1,002	1,014	1,128	1,185	908	1,029	657	803	-32.2
Operating profit	9,752	6,570	-32.6	7,600	15.7	2,614	4,049	1,905	1,184	3,965	-23	2,377	251	-78.8
Non-operating income	386	1,996	417.2			103	497	174	-388	462	331	-114	1,318	-
Non-operating expenses	4,086	376	-90.8			902	2,097	1,007	80	102	216	-286	344	329.8
Ordinary income	6,051	8,191	35.4	8,600	5.0	1,815	2,449	1,071	716	4,325	92	2,549	1,225	71.0
Income before income taxes	5,998	8,185	36.5			1,815	2,449	1,071	663	4,321	92	2,547	1,225	84.8
Income taxes	1,325	1,807	36.4			414	348	399	163	1,030	165	251	361	120.8
Net income	4,632	6,351	37.1	6,400	0.8	1,403	2,068	628	533	3,284	-110	2,267	911	70.9
EPS	106.1	145.3	36.9	146.7	0.93	32.2	47.4	14.4	12.1	75.0	-2.6	51.5	21.5	77.4
DPS	50.0	52.0	4.0	54.0	3.85	0.0	0.0	0.0	50.0	0.0	26.0	0.0	26.0	-48.0
BPS	1,285.3	1,403.3	9.2			1,194.4	1,267.0	1,302.8	1,285.3	1,343.9	1,388.5	1,347.0	1,403.3	9.2
EX rate at end of term, ¥/\$	141.83	158.18	-16.4	145.00	13.2	133.53	144.99	149.58	141.83	151.41	161.07	142.73	158.18	6.9
EX rate average, ¥/\$	137.97	148.12	10.2	145.00	3.1	134.75	134.24	140.93	141.95	144.77	147.31	149.45	151.87	-8.5
BB ratio, Orders/Sales	0.65	1.00	0.34			1.06	0.51	0.54	0.52	0.99	1.36	0.49	1.35	0.82
Gross profit margin	50.1	44.7	-5.4			50.5	50.2	53.9	45.8	52.4	40.3	48.1	32.1	-13.7
R&D as % of Net sales	11.8	10.5	-1.3	9.2	-1.3	11.1	8.5	14.1	15.0	8.0	19.1	7.7	11.1	-3.9
Operating profit margin	26.5	20.3	-6.2	20.0	-0.3	28.8	34.1	23.8	15.0	35.1	-0.4	27.9	3.5	-11.6
Ordinary income margin	16.4	25.3	8.8	22.6	-2.6	20.0	20.6	13.4	9.1	38.3	1.7	29.9	17.0	7.9
Income taxes	22.1	22.1	-0.0			22.8	14.2	37.2	24.7	23.8	179.3	9.9	29.5	4.8
Net income margin	12.6	19.6	7.0	16.8	-2.8	15.5	17.4	7.8	6.8	29.1	-2.1	26.6	12.6	5.9
Inventory turnover days	357.7	321.3	-36.5			462.4	333.5	493.4	384.5	275.0	530.5	347.1	293.7	-90.9
Return on equity	8.5	11.0	2.5			11.4	15.7	4.6	3.9	23.7	-0.8	15.6	6.3	2.4

Note: Accounting is based on Japanese GAAP, figures are rounded to the nearest million yen, net income is attributable to shareholders of the parent company, and the % column for profit ratio is the change from the previous year.

# Balance Sheets and Statements of Cash Flows



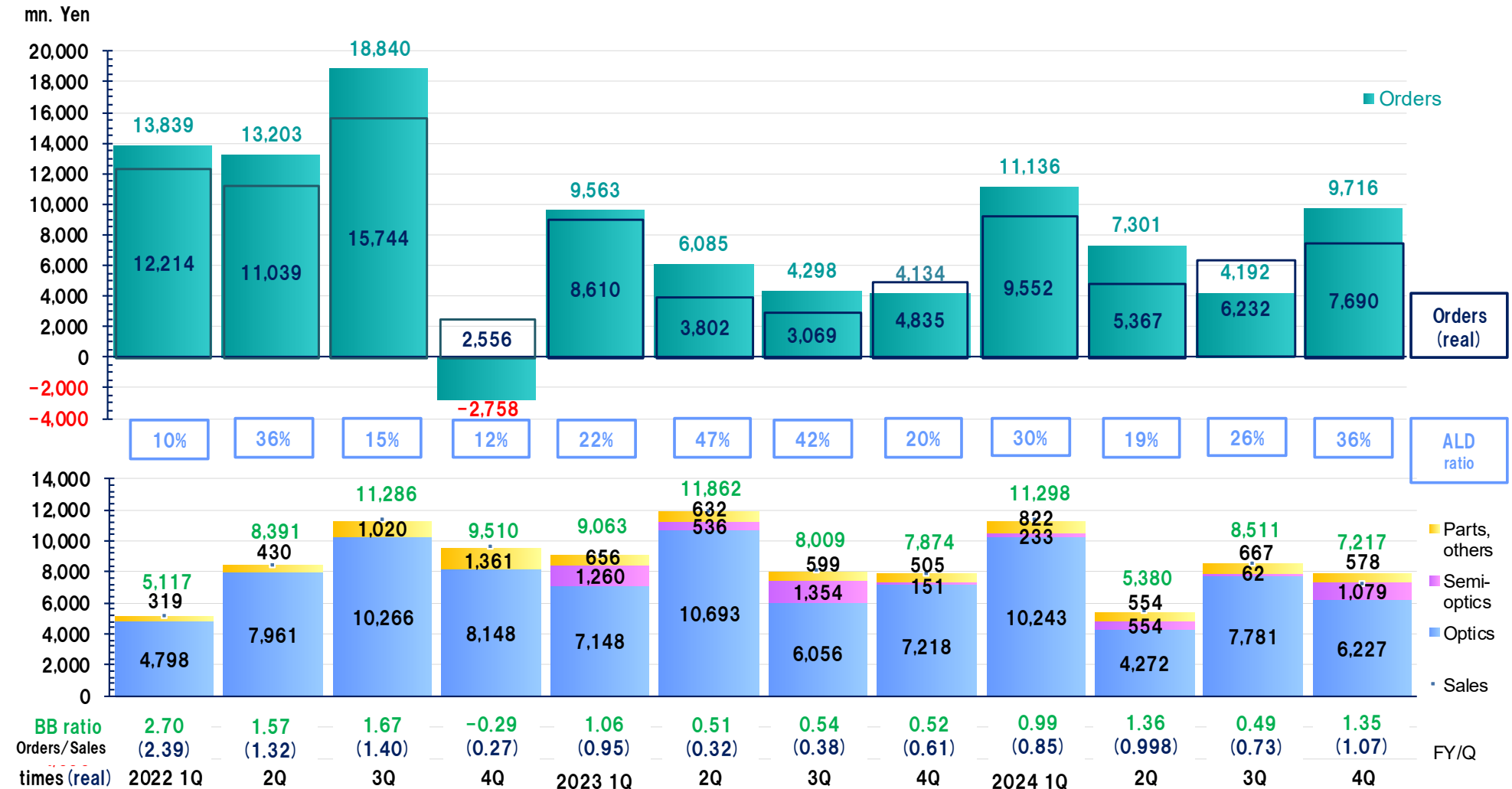
Figure 3: Summary of Balance Sheets and Statements of Cash Flows (in millions of yen)

item	accounting period				2023/12				2024/12			
	2023/12	Exp.	2024/12	Exp.	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
<b>Assets</b>												
Cash and deposits	33,054	42.1	32,531	39.9	33,926	33,421	33,937	33,054	33,329	32,193	30,967	32,531
Notes and accounts receivable-trade	4,882	6.2	4,355	5.3	6,788	6,634	6,222	4,882	3,206	4,353	4,518	4,355
Inventories	17,989	22.9	15,763	19.4	22,731	21,595	19,962	17,989	16,213	18,670	16,804	15,763
Raw materials and supplies	8,790	11.2	6,449	7.9	11,240	9,369	9,121	8,790	9,365	8,363	7,212	6,449
Goods in process	9,199	11.7	9,314	11.4	11,491	12,226	10,841	9,199	6,848	10,306	9,591	9,314
<b>Current assets</b>	<b>57,632</b>	<b>73.4</b>	<b>54,572</b>	<b>67.0</b>	<b>66,129</b>	<b>64,101</b>	<b>62,162</b>	<b>57,632</b>	<b>55,184</b>	<b>57,372</b>	<b>54,410</b>	<b>54,572</b>
Tangible fixed assets	11,407	14.5	14,152	17.4	9,572	9,780	11,295	11,407	11,874	13,450	13,300	14,152
Intangible fixed assets	424	0.5	210	0.3	516	524	655	424	381	339	259	210
Investments and other assets	9,029	11.5	12,505	15.4	8,561	9,187	9,569	9,029	9,521	10,322	9,321	12,505
<b>Fixed assets</b>	<b>20,859</b>	<b>26.6</b>	<b>26,868</b>	<b>33.0</b>	<b>18,648</b>	<b>19,491</b>	<b>21,519</b>	<b>20,859</b>	<b>21,775</b>	<b>24,111</b>	<b>22,879</b>	<b>26,868</b>
<b>Total assets</b>	<b>78,491</b>	<b>100.0</b>	<b>81,440</b>	<b>100.0</b>	<b>84,777</b>	<b>83,592</b>	<b>83,680</b>	<b>78,491</b>	<b>76,959</b>	<b>81,482</b>	<b>77,289</b>	<b>81,440</b>
<b>Liabilities</b>												
Notes and accounts payable-trade	1,284	1.6	1,083	1.3	4,672	2,029	1,023	1,284	2,326	1,848	1,657	1,083
Short-term interest-bearing debt	403	0.5	414	0.5	410.2	406.6	404.2	403.1	403	402	402	414
Contract liabilities	14,743	18.8	9,731	11.9	20,946	17,211	16,381	14,743	9,441	10,841	9,308	9,731
<b>Current liabilities</b>	<b>19,097</b>	<b>24.3</b>	<b>14,766</b>	<b>18.1</b>	<b>30,169</b>	<b>25,221</b>	<b>23,051</b>	<b>19,097</b>	<b>14,812</b>	<b>16,895</b>	<b>14,630</b>	<b>14,766</b>
Deferred tax liabilities	2,021	2.6	2,625	3.2	2,177	2,112	2,586	2,021	2,174	2,385	2,239	2,625
<b>Long-term interest-bearing debt</b>	<b>8</b>	<b>0.0</b>	<b>4,649</b>	<b>5.7</b>	<b>5</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>4,649</b>
<b>Fixed liabilities</b>	<b>2,478</b>	<b>3.2</b>	<b>7,672</b>	<b>9.4</b>	<b>2,610</b>	<b>2,556</b>	<b>3,032</b>	<b>2,478</b>	<b>2,637</b>	<b>2,777</b>	<b>2,637</b>	<b>7,672</b>
<b>Net assets</b>	<b>56,916</b>	<b>72.5</b>	<b>59,002</b>	<b>72.4</b>	<b>51,981</b>	<b>55,306</b>	<b>56,891</b>	<b>56,916</b>	<b>58,881</b>	<b>61,810</b>	<b>60,022</b>	<b>59,002</b>
<b>Shareholders' equity</b>	<b>56,315</b>	<b>71.7</b>	<b>58,688</b>	<b>72.1</b>	<b>51,981</b>	<b>55,306</b>	<b>56,891</b>	<b>56,916</b>	<b>58,881</b>	<b>61,114</b>	<b>59,339</b>	<b>58,688</b>
<b>Cash flow s</b>												
		Sales ratio		Sales ratio		1H		2H		1H		2H
Cash flow s from operating activities	3,180	9.3	5,050	15.6	-	495	-	2,685	-	1,353	-	3,697
Expenditure	-3,116	-9.1	-3,115	-9.6	-	-541	-	-2,575	-	-1,505	-	-1,610
Cash flow s from investing activities	-3,599	-10.5	-7,701	-23.8	-	-959	-	-2,640	-	-1,618	-	-6,083
Free cash flow	-419	-1.2	-2,651	-8.2	-	-464	-	45	-	-265	-	-2,386
Repurchase of treasury stock	-0	-0.0	-4,794	-14.8	-	0	-	-0	-	0	-	-4,794
Dividend payments	-2,174	-6.3	-3,334	-10.3	-	-2,173	-	-1	-	-2,190	-	-1,144
<b>Financial Cash Flow s</b>	<b>-2,207</b>	<b>-6.4</b>	<b>-2,207</b>	<b>-6.8</b>	<b>-</b>	<b>-1,916</b>	<b>-</b>	<b>-291</b>	<b>-</b>	<b>-2,168</b>	<b>-</b>	<b>-39</b>

Note: Figures are rounded to the nearest million yen; notes and accounts receivable take into account allowance for doubtful accounts; interest-bearing debt is the sum of borrowings and lease obligations.

## Correlation between orders and sales on a quarterly basis

Figure 4: Quarterly Orders, Sales by Business Area and BB Ratio



Note: Optics area of sales includes AI smartphones, EV/connected cars, and optical components; semiconductor optics fusion area includes optoelectronics, image sensors, and spatial computers; electronic devices area includes green energy, communication devices, and MEMS devices; semiconductor optics in the chart includes semiconductor optics fusion area and electronic devices. The figure for semiconductor optics is the sum of the semiconductor optics fusion area and the electronic devices area, and the figure for parts service and others is mainly consumables. BB ratios in parentheses are in real terms before currency translation adjustments.

# Details of Orders Received and Sales by Business Domain



Figure 5: Orders received and sales by business domain (Unit: millions of yen, yen/dollar, %)

Items	FY/Q	2023	2024	YoY%	2023 1Q	2Q	3Q	4Q	2024 1Q	2Q	3Q	4Q	QoQ%	YoY%
<b>Orders</b>														
Optics		15,973	22,753	42.4	7,386	2,214	2,415	3,958	7,952	3,783	5,056	5,962	17.9	50.6
AI smartphones		8,305	8,558	3.0	5,053	550	845	1,857	5,487	944	1,896	231	-87.8	-87.6
EV/connected car		3,274	5,939	81.4	846	421	544	1,463	1,299	1,452	1,022	2,166	112.0	48.0
Optical components		4,393	8,256	87.9	1,486	1,243	1,026	638	1,165	1,386	2,139	3,566	66.7	458.6
Semi. optical fusion and devices		1,826	2,785	52.5	455	948	52	371	615	141	950	1,079	13.5	190.7
Parts and services, others		2,518	3,304	31.2	770	641	602	505	985	1,444	225	649	188.1	28.4
Sub total orders		20,316	29,234	43.9	8,610	3,802	3,069	4,835	9,552	5,368	6,232	7,690	23.4	59.1
Forex Impact		3,764	3,504	-6.9	953	2,283	1,229	-701	1,584	1,933	-2,040	2,026	-	-
Total orders		24,080	32,345	34.3	9,563	6,085	4,298	4,134	11,136	7,301	4,192	9,716	131.8	135.0
ALD equip. ratio(%)		7%	9%	2%	6%	0%	7%	16%	24%	4%	0%	3%	3%	-13%
New model ratio(%)		23%	38%	16%	11%	29%	22%	39%	40%	28%	31%	51%	19%	11%
Orders backlog		24,219	24,159	-0.3	37,447	31,670	27,960	24,219	24,058	25,979	21,659	24,159	-16.6	-0.3
<b>Sales</b>														
Optics		31,116	28,523	-8.3	7,148	10,694	6,056	7,218	10,243	4,272	7,781	6,227	-20.0	-13.7
AI smartphones		20,489	18,549	-9.5	3,690	8,317	3,996	4,486	7,686	1,916	5,289	3,658	-30.8	-18.5
EV/connected car		3,069	4,917	60.2	1,392	391	431	854	1,174	1,582	1,273	889	-30.2	4.0
Optical components		7,558	5,056	-33.1	2,066	1,986	1,629	1,877	1,383	774	1,219	1,681	37.8	-10.5
Semi. optical fusion and devices		3,300	1,261	-61.8	1,260	536	1,354	151	233	554	63	411	548.6	172.9
Parts and services, others		2,391	2,622	9.6	655	632	599	505	822	554	667	578	-13.3	14.5
Total sales		36,807	32,406	-12.0	9,063	11,862	8,009	7,874	11,298	5,380	8,511	7,217	-15.2	-8.3
ALD equip. ratio(%)		34%	29%	-6%	22%	47%	42%	20%	30%	19%	26%	36%	7%	16%
New model ratio(%)		44%	42%	-3%	37%	53%	52%	32%	36%	32%	41%	59%	18%	27%
Gross profit margin(%)		50.1%	44.7%	-5.4%	50.5%	50.2%	53.9%	45.8%	52.4%	40.3%	48.1%	32.1%	-16.0%	-13.7%
Operating profit margin(%)		26.5%	20.3%	-6.2%	28.8%	34.1%	23.8%	15.0%	35.1%	-0.4%	27.9%	3.5%	-24.4%	-11.6%
Ordinary income margin		16.4%	25.3%	8.8%	20.0%	20.6%	13.4%	9.1%	38.3%	1.7%	29.9%	17.0%	-13.0%	7.9%
Net income margin		12.6%	19.6%	7.0%	15.5%	17.4%	7.8%	6.8%	29.1%	-2.1%	26.6%	12.6%	-14.0%	5.9%
<b>Forex rate</b>														
Yen/USD(Order Adjustment Rate)		141.83	158.18	-16.35	133.53	144.99	149.58	141.83	151.41	161.07	142.73	158.18	18.34	6.85
Yen/USD(Sales Recognition Rate)		137.97	148.12	-10.15	134.75	134.24	140.93	141.95	144.77	147.31	149.45	151.87	-2.14	-8.52

Note: ALD ratio of orders received and new model ratio are on an ex-foreign exchange rate basis.

## ❑ Orders in 4Q2024 recovered, up 59% YoY on a constant currency basis

In terms of orders (excluding the effect of foreign exchange rates), the optics area grew by 51% yoy, while the semiconductor optics fusion and electronic devices area achieved high growth of 191% yoy. In the optics area, AI smartphones were sluggish due to declining demand, but EV/connected cars grew by 48% YoY due to display-related contributions, and optical components jumped 5.6 times YoY driven by mirrorless camera-related demand. In terms of main products, the ALD equipment composition declined -13% y-o-y to 3%, but new equipment rose +11% y-o-y to 51%.

## ❑ Operating profit declined 78% y/y in 4Q2024 while ordinary income grew 71% y/y.

Gross profit margin declined -13.7%pts YoY to 32.1% due to one-time inventory write-downs and other factors, despite the contribution of highly profitable ALD equipment (ALD ratio rose +16%pts YoY to 36%). Operating profit was down 78% YoY, but ordinary income rose 71% YoY due to higher equity in earnings of Fanfeng, a vacuum components manufacturer, which improved significantly due to higher demand from U.S. solar cell manufacturers. Fanfeng repurchased approximately 2.53 million shares of its own stock for approximately 4.8 billion yen.

## ❑ Recapitalization of sub-subsidiary Optorun Semiconductor Technology, Inc.

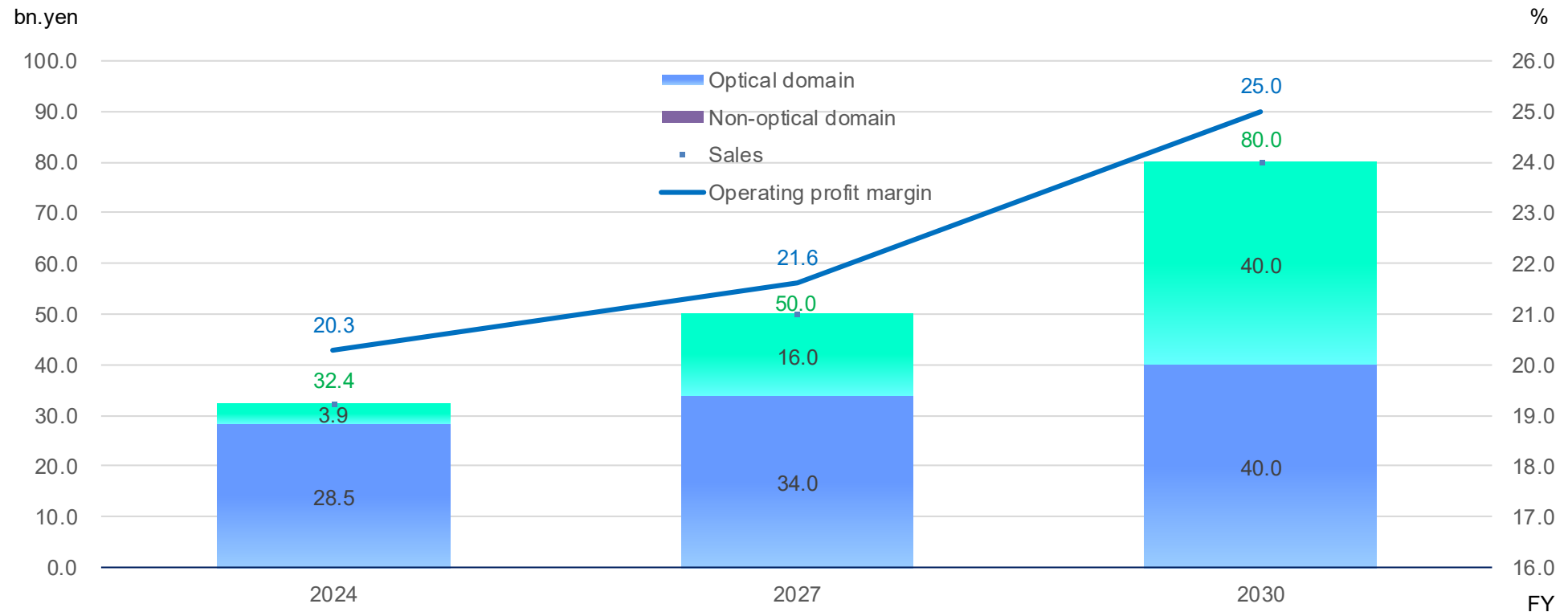
In October 2024, we implemented a capital increase of 200 million yuan (approximately 4 billion yen (20.46 yen/yuan)) through a third-party allotment to the Quzhou Lingben Juguang Equity Investment Fund by our sub-subsidiary, Guangxu Semiconductor Technology Co. The said capital increase will be used to accelerate the development of equipment demand and new customer development in the Chinese market, as well as for capital expenditures such as strengthening R&D and increasing production capacity. As an effect of this, cash and deposits increased while the equivalent amount of long-term interest-bearing debt increased.

## ❑ ALD equipment will contribute less to orders and earnings in FY12/2025, but new equipment to rise; capital and business alliance formed

The ratio of new equipment is expected to exceed 40% in FY12/2025 from 35% in FY12/2024 in terms of orders, and in FY12/2025 from 42% in FY12/2024 in terms of net sales to slightly increase in FY12/2025. The company plans to form a capital and business alliance with AI MECHATEC, Inc. and to develop new business fields in addition to launching the spatial computer (AR/VR) business at the joint venture NanoLithotics (investment ratio: 58.8%).

## II. Medium-Term Management Targets and Long-Term Management Vision

Figure 6: Medium-Term Management Targets and Long-Term Management Vision



### □ Medium-Term Management Targets

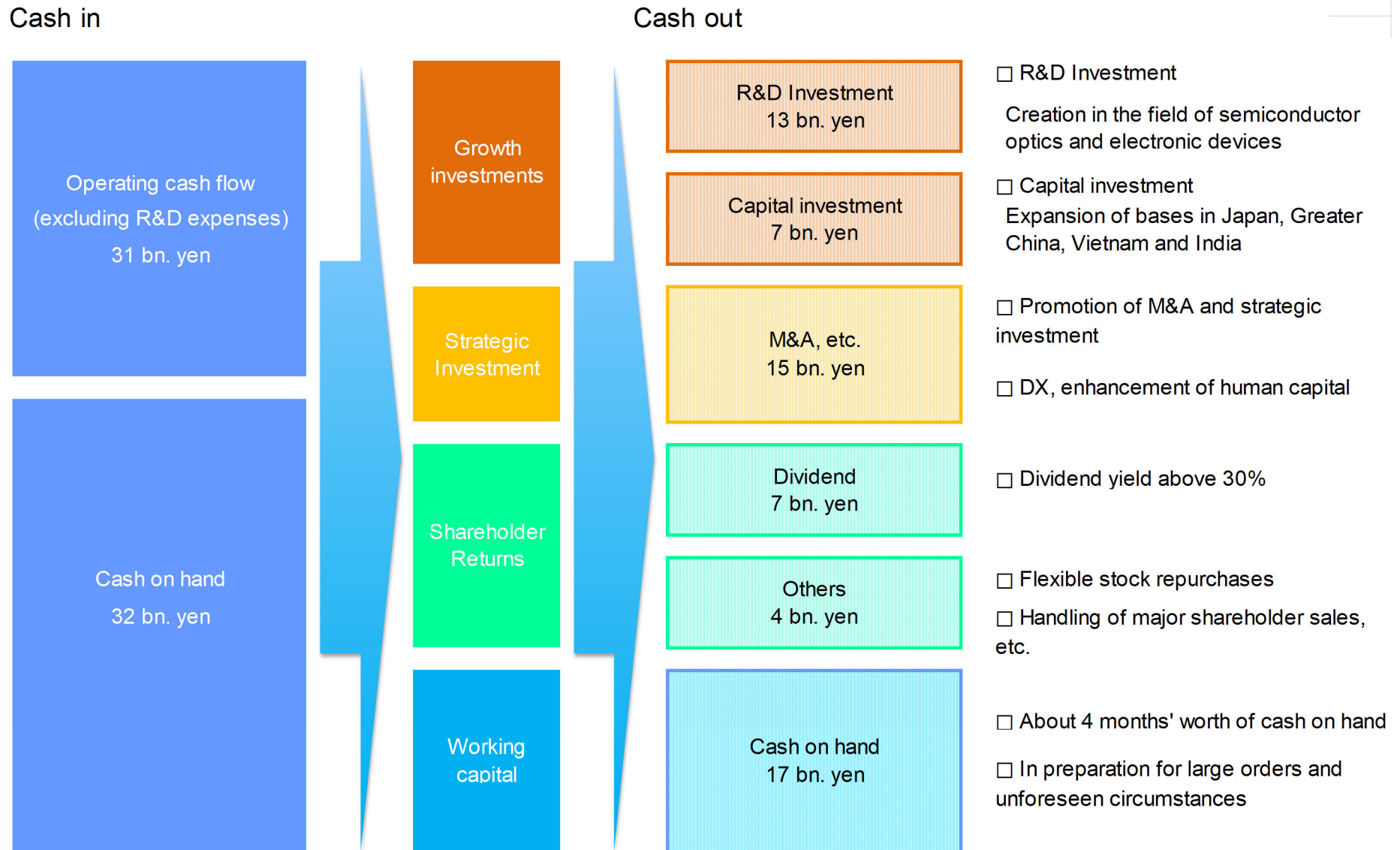
- Net sales of 50 billion yen, operating profit margin of over 20%, ROE (return on equity) of over 10%, and sales composition ratio of over 30% in the non-optical domain in FY12/2027
- Consider stable dividends based on a consolidated payout ratio of 30% or more and flexible and strategic share buybacks in order to increase shareholder value
- Strategically implement R&D, capital investment and M&A/business alliances with a view to sustainable growth

### □ Long-Term Management Vision

- By creating new businesses, target for FY12/2030 is 80 billion yen in net sales, 25% operating profit margin, and approximately 50% of net sales in non-optical areas.



Figure 7: Cash Allocation (3-year cumulative total)



Note: In addition to the enhancement of the Tsurugashima Plant, we expect to rebuild the Kawagoe Plant in Japan, expand the optical semiconductor plant in Greater China, and start operations in India.



# Capital Expenditure and R&D Expenditure Plan

Figure 8: Capital Expenditures, Depreciation and R&D Expenses

Japan Headquarters  
Tsurugashima



R&D base for semiconductor optics, electronic devices, and other advanced fields, to be operational in April 2024. Currently considering restructuring of the adjacent Kawagoe Plant.

Optorun Semiconductor Technology  
Shanghai



Production and R&D base for new technology equipment, such as ALD equipment, to begin operations in January 2024. New plant for optical lithium-ion semiconductors to be constructed in the medium term.

Near Hanoi,  
Vietnam



Equipment design and sales to customers in Southeast Asia. Equipment installation, maintenance and repair, parts processing and sales. Operation will start in December 2023. Considering expansion in the future.

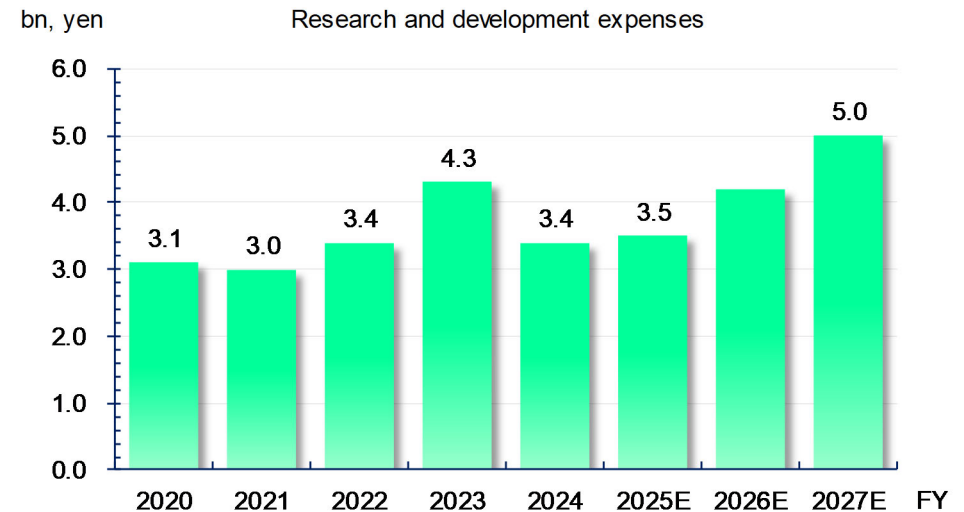
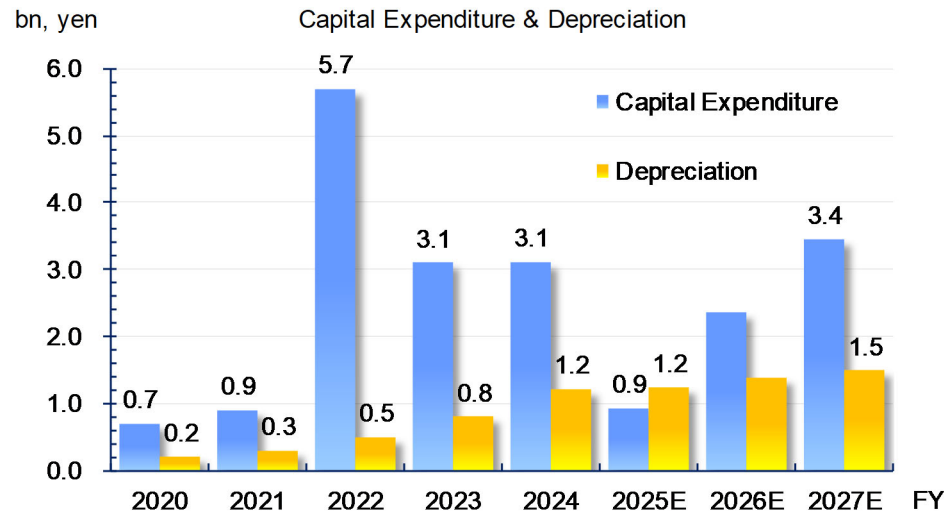


Figure 9: Optical Thin Film Technology, Business Domains and Investing Companies

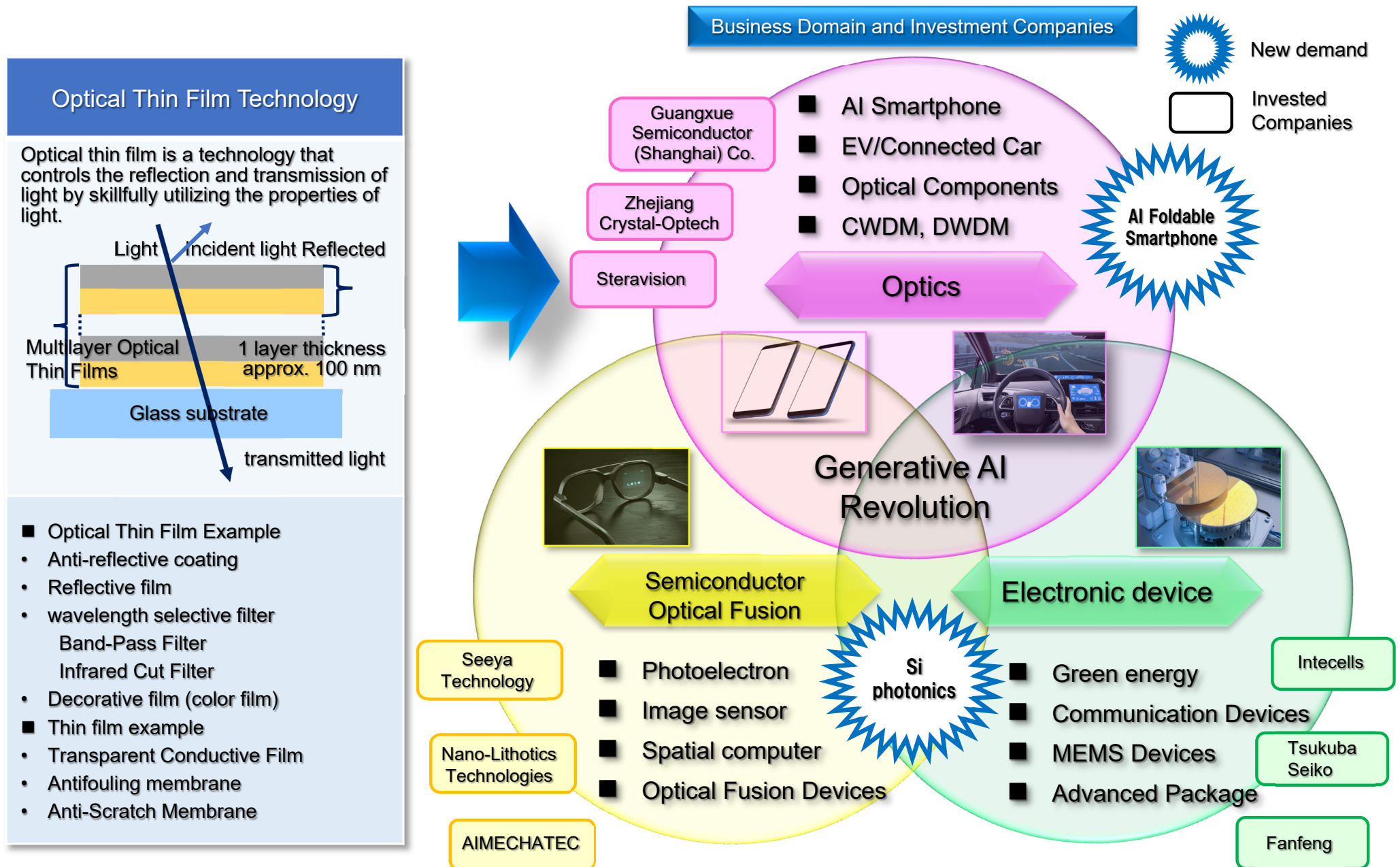


Figure 10: Optical Thin Film Device and Mechanism

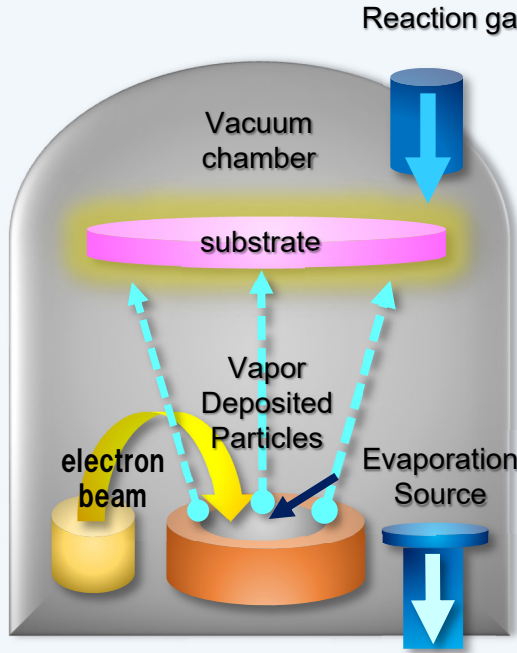
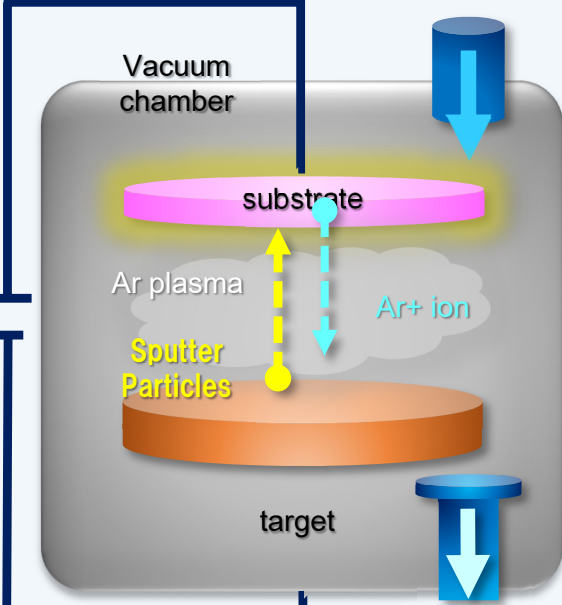
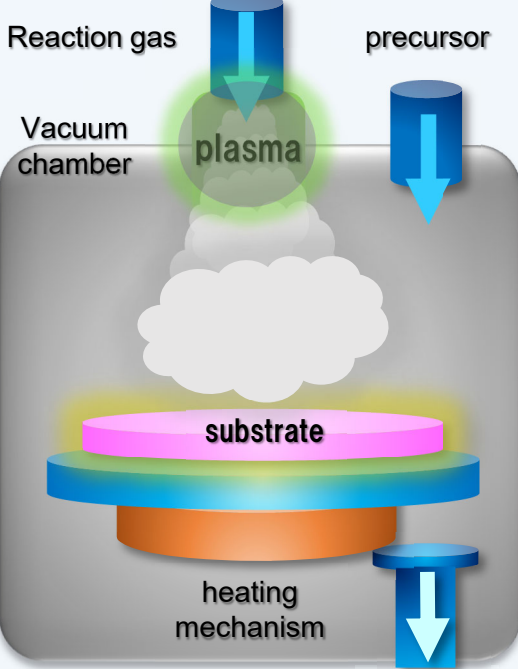
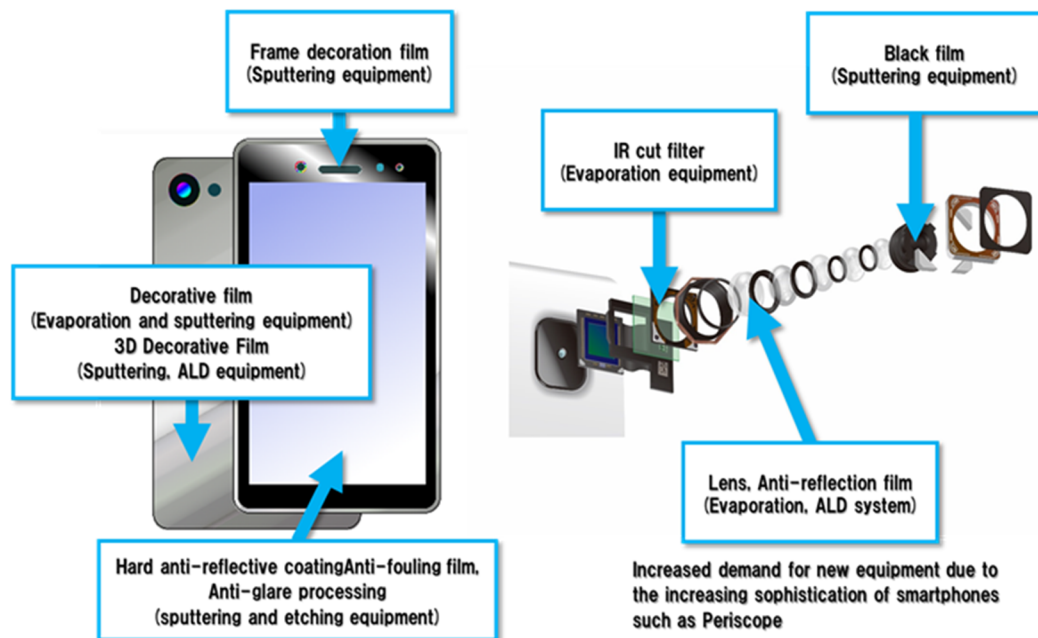
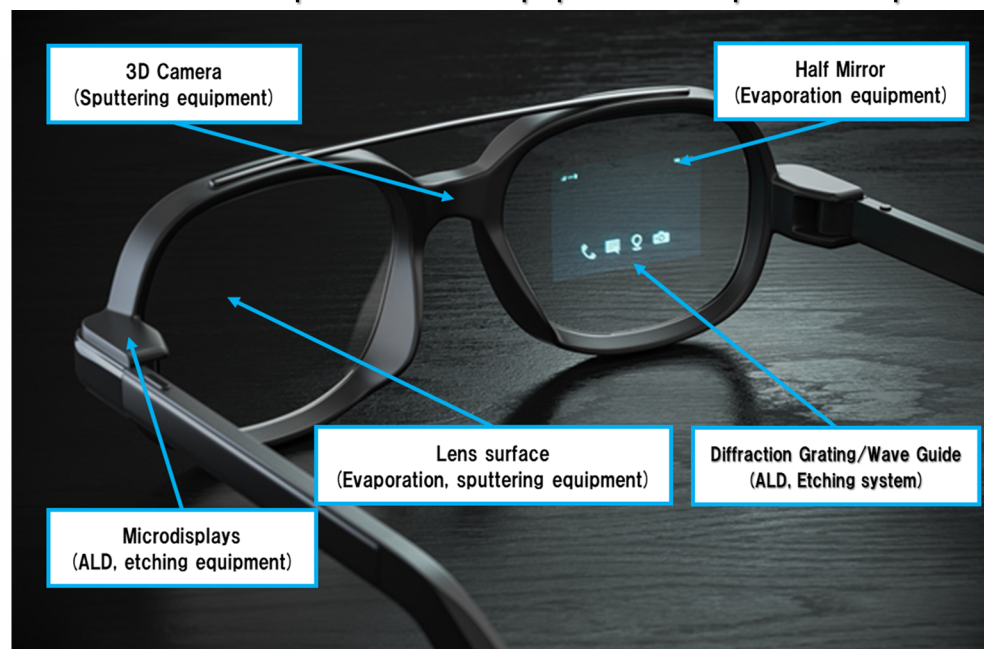
Evaporation Equipment	Sputtering equipment	ALD (Atomic Layer Deposition) system
 <p>Reaction gas</p> <p>Vacuum chamber</p> <p>substrate</p> <p>Vapor</p> <p>Deposited Particles</p> <p>electron beam</p> <p>crucible</p> <p>Evaporation Source</p> <p>exhaust</p>	 <p>Inert gas (Ar)</p> <p>Vacuum chamber</p> <p>substrate</p> <p>Ar plasma</p> <p>Sputter Particles</p> <p>target</p> <p>Ar+ ion</p> <p>exhaust</p>	 <p>Reaction gas</p> <p>precursor</p> <p>Vacuum chamber</p> <p>plasma</p> <p>substrate</p> <p>heating mechanism</p> <p>exhaust</p>
<p>A device that forms a thin film by heating evaporation materials in a vacuum, causing them to evaporate or sublime and adhere to the substrate surface. It is similar to heating materials in a bathtub by vacuum.</p>	<p>A device that forms a thin film by bombarding the thin film material with gas molecules instead of heat in vacuum evaporation. A familiar example of sputtering is an old fluorescent lamp with black edges.</p>	<p>Equipment for forming flat and dense thin films by controlling film thickness at the atomic layer level. It is capable of uniformly depositing films on everything from flat substrates to three-dimensional structures with high aspect ratios (aspect ratio).</p>



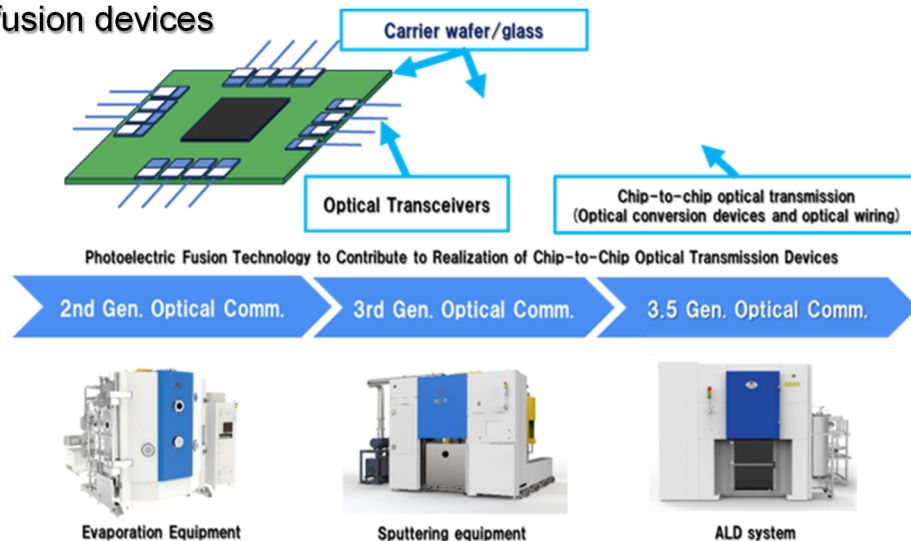
Figure 11: Optical Thin Film Equipment for AI Smartphones



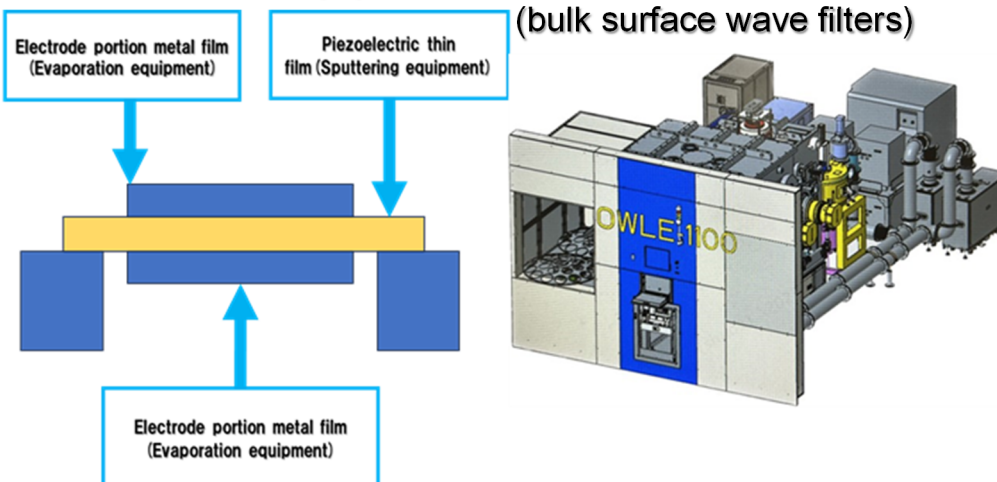
Semiconductor optical fusion equipment for spatial computers



Semiconductor optical fusion equipment for optoelectronic fusion devices

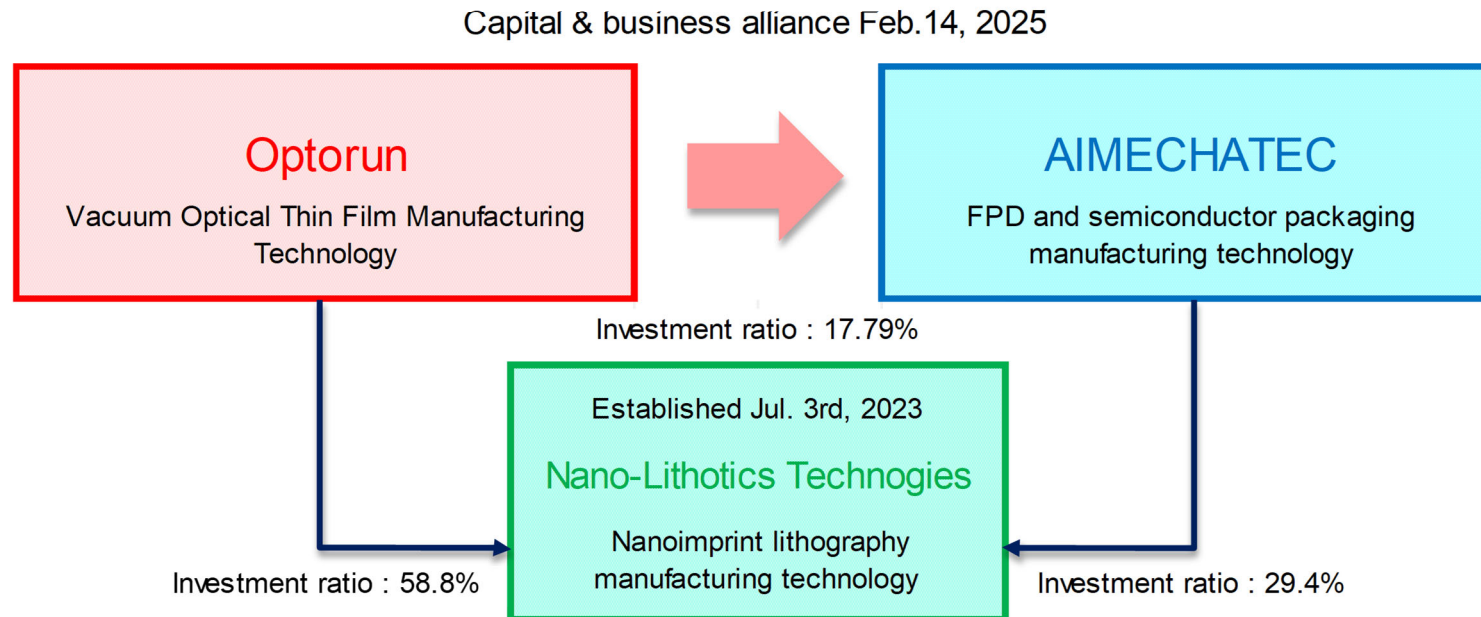


Electronic device equipment for BAW filters (bulk surface wave filters)



Note: BAW filter is an abbreviation for Bulk Acoustic Wave Filter, which is essential for mobile communication systems using 2GHz and above, and SAW (Surface Acoustic Wave) filter is used from 800MHz to 2GHz.

Figure 12: Capital and business alliance with AIMECHATEC



Note: Investment ratio of Nano-Lithotics other than indicated is JSR 11.8%; Optorun's voting rights in AIMECHATEC are 17.82%.

## □ Outline of Capital and Business Alliance

1. Strengthen nanoimprint lithography business
  - Expand joint ventures in nanolithotics by strengthening the sales and development structure through resource sharing, etc.
2. Collaboration through mutual complementation of technical capabilities
  - Strengthening of products and business through mutual support of both companies' technological capabilities
3. Collaboration through synergization of technological capabilities
  - Creation of new business areas through the sharing of technological areas and industry information owned by the two companies
4. Expansion of cooperative functions
  - Expand scope of collaboration to include mutual utilization of sales networks, etc.

Figure 13: Company History, Product Development, Application Demand and Performance (Sales and Operating Margin)

