

Innodisk (5289.TWO/5289 TT)

Memory module prices beginning to rise as of 4Q23F

Outperform · Maintained

Price as of November 6 (NT\$)	297.0
12M target price (NT\$)	425.0
Previous target price (NT\$)	425.0
Unchanged (%)	0.0
Upside (%)	43.1

Key message

Innodisk reported 3Q23 EPS of NT\$3.47, beating our forecast and consensus. Investors should engage at the current level.

Trading data

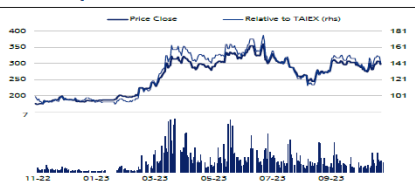
Mkt cap (NT\$/bn/US\$m)	26.25 / 815
Outstanding shares (mn)	88.40
Foreign ownership (mn)	26.35
3M avg. daily trading (mn)	0.95
52-week trading range (NT\$)	173.5 – 361.0

Performance	3M	6M	12M
Absolute (%)	3.3	2.9	76.8
Relative (%)	4.5	-3.6	49

Quarterly EPS

NT\$	1Q	2Q	3Q	4Q
2022	4.64A	6.41A	6.28A	4.47A
2023	4.02A	2.66A	3.47A	3.59F
2024	4.56F	5.79F	6.73F	6.51F

Share price chart



Source: TEJ

Event

Innodisk reported 3Q23 EPS of NT\$3.47, beating our forecast and consensus.

Impact

3Q23 earnings beat our forecast and consensus. 3Q23 EPS was NT\$3.47, beating our forecast of NT\$2.81 and consensus of NT\$ 3.40, as: (1) revenue grew 3% QoQ, in line with our forecast, reflecting their subsidiary Aetina's (TW; unlisted) client's completion of certification for new products, and resumption of previously paused projects; (2) gross margin came in at 34.5%, beating our forecast of 33.1%, on 3Q23 recognition of inventory gains from reversals, equivalent to around 1.3ppts of gross margin.

Memory module prices beginning to rise as of 4Q23F. Based on an update from management, we project 4Q23F revenue to grow 12% QoQ, and EPS to arrive at NT\$3.59, reflecting: (1) the effect of production cuts from major memory suppliers, boosting memory prices. We forecast 4Q23F DRAM and NAND Flash contract prices to rise at 5% QoQ and 10% QoQ, respectively; (2) the firm raised its product prices at the beginning of October, and management expects to conduct a sequential price hike MoM. We forecast 4Q23F Innodisk's DRAM and NAND Flash product prices to rise 6% and 9%, respectively; and (3) downstream industrial computer (IPC) vendors and distributors' purchases will be triggered by price hikes. However, as end-market demand has yet to recover meaningfully in 4Q23F, we trim Innodisk's shipment growth from 12% QoQ to 6% QoQ.

2024F end-market demand recovery to boost earnings. We maintain our 2024F EPS forecast of NT\$23.59. As end-market demand will gradually pick up, IPC customers' restocking will drive Innodisk's shipment growth. We forecast 2024F Innodisk's DRAM and NAND Flash product shipments to grow at 16% and 20% YoY, respectively. In our October 27 report, "Aetina Smart Factory seminar – Nvidia platform in the spotlight," we predicted the Smart Factory solution introduced by Aetina, Innodisk and Nvidia (US) would accelerate the number of AI project starts and executions. We forecast Innodisk's 2024F AI-related revenue weighting to arrive at 23%.

Valuation & Action

We maintain our target price of NT\$425, based on 18x 2024F EPS of NT\$23.59, and believe sales and gross margin growth will be boosted by the AIoT solution offered by the firm, resulting in a share re-rating. Investors should engage at the current level. Maintain Outperform.

Risks

AI project sales growth is weaker than expected.

Key financials and valuations

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue (NT\$m)	10,196	10,303	8,423	12,476	14,388
Gross profit (NT\$m)	3,092	3,459	2,922	4,443	5,148
Operating profit (NT\$m)	1,949	2,039	1,412	2,668	3,173
Net profit (NT\$m)	1,561	1,850	1,203	2,085	2,528
EPS (NT\$)	18.94	21.46	13.61	23.59	28.60
Cash DPS (NT\$)	11.52	13.80	7.50	13.00	15.70
EPS growth (%)	65.3	13.3	(36.6)	73.3	21.3
PE (x)	15.7	13.8	21.8	12.6	10.4
PB (x)	4.1	3.7	3.7	3.1	2.7
EV/EBITDA (x)	10.7	9.9	14.4	7.7	6.2
Net debt to equity (%)	Net cash	Net cash	Net cash	Net cash	Net cash
Dividend yield (%)	3.9	4.6	2.5	4.4	5.3
Return on average equity (%)	29.0	28.5	17.1	26.8	27.6

Source: Company data, KGI Research estimates

Figure 1: Breakdown of 3Q23 results & 4Q23 forecast revisions

NT\$m	3Q23							4Q23F						
	Result	KGI forecast	Diff. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	QoQ (%)	YoY (%)	Consensus	Diff. (%)
Sales	1,993	1,992	0.1	3.2	(22.2)	1,993	0.0	2,239	2,453	(8.7)	12.3	(2.1)	2,261	(1.0)
Gross profits	688	659	4.4	8.1	(24.9)	691	(0.5)	784	847	(7.4)	14.0	(8.9)	793	(1.2)
Operating income	314	269	16.9	18.5	(43.7)	316	(0.5)	386	441	(12.3)	23.1	(15.6)	419	(7.8)
Pretax Income	383	317	20.9	21.4	(45.2)	362	5.9	404	434	(6.9)	5.5	1.1	439	(8.0)
Net income	306	248	23.4	32.8	(43.5)	287	6.7	318	318	(0.0)	3.7	(17.5)	343	(7.2)
EPS (NT\$)	3.47	2.81	23.4	30.3	(44.7)	3.40	2.1	3.59	3.60	(0.0)	3.7	(17.5)	3.88	(7.2)
Gross margin (%)	34.5	33.1	1.4 ppts	1.5 ppts	(1.2)ppts	34.7	(0.2)ppts	35.0	34.5	0.5 ppts	0.5 ppts	(2.6)ppts	35.1	(0.1)ppts
OP margin (%)	15.8	13.5	2.3 ppts	2.0 ppts	(6.0)ppts	15.8	(0.1)ppts	17.3	18.0	(0.7)ppts	1.5 ppts	(2.8)ppts	18.5	(1.3)ppts
Net margin (%)	15.4	12.5	2.9 ppts	3.4 ppts	(5.8)ppts	14.4	1.0 ppts	14.2	13.0	1.2 ppts	(1.2)ppts	(2.7)ppts	15.1	(1.0)ppts

Source: KGI Research

Figure 2: Breakdown of 2023 & 2024 forecast revisions

NT\$m	2023F						2024F					
	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)	Revision	Previous	Chg. (%)	YoY (%)	Consensus	Diff. (%)
Sales	8,423	8,636	(2.5)	(18.3)	8,436	(0.2)	12,476	12,500	(0.2)	48.1	11,269	10.7
Gross profit	2,922	2,956	(1.1)	(15.5)	2,924	(0.1)	4,443	4,463	(0.4)	52.0	3,977	11.7
Operating income	1,412	1,421	(0.6)	(30.7)	1,446	(2.3)	2,668	2,688	(0.7)	88.9	2,347	13.7
Pretax profit	1,542	1,506	2.4	(31.9)	1,551	(0.6)	2,643	2,663	(0.7)	71.4	2,401	10.1
Net profit	1,203	1,145	5.1	(35.0)	1,195	0.7	2,085	2,085	(0.0)	73.3	1,901	9.7
EPS (NT\$)	13.61	12.95	5.1	(36.6)	14.17	(3.9)	23.59	23.59	(0.0)	73.3	22.29	9.7
Gross margin (%)	34.7	34.2	0.5 ppts	1.1 ppts	34.7	0.0 ppts	35.6	35.7	(0.1)ppts	0.9 ppts	35.3	0.3 ppts
OP margin (%)	16.8	16.5	0.3 ppts	(3.0)ppts	17.1	(0.4)ppts	21.4	21.5	(0.1)ppts	4.6 ppts	20.8	0.6 ppts
Net margin (%)	14.3	13.3	1.0 ppts	(3.7)ppts	14.2	0.1 ppts	16.7	16.7	0.0 ppts	2.4 ppts	16.9	(0.2)ppts

Source: KGI Research

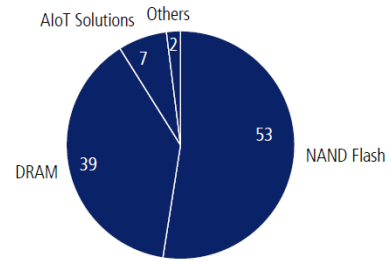
Figure 3: Company profile

Founded in 2005, with production sites in New Taipei City and Yilan, Taiwan, Innodisk is a service-oriented supplier of industrial storage devices. The company focuses on enterprise-grade, industrial, aerospace, medical, and national defense applications, providing industrial NAND Flash and DRAM modules. The firm sells products globally under the Innodisk brand. With subsidiaries/affiliates Aetina, Sysinno, Antzer Tech, and Millitronic, Innodisk provides products from memory modules to AIoT peripherals, with AIoT solutions from cloud to edge computing.

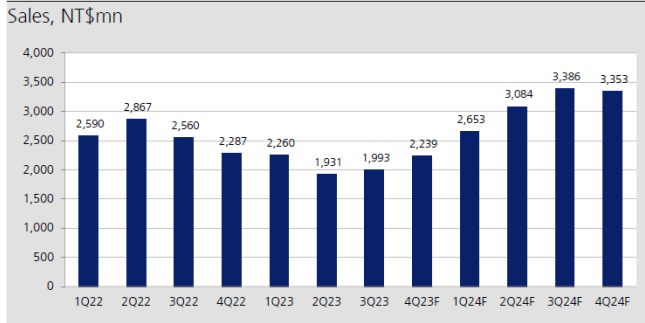
Source: KGI Research

Figure 4: Memory modules are the primary sales contributor

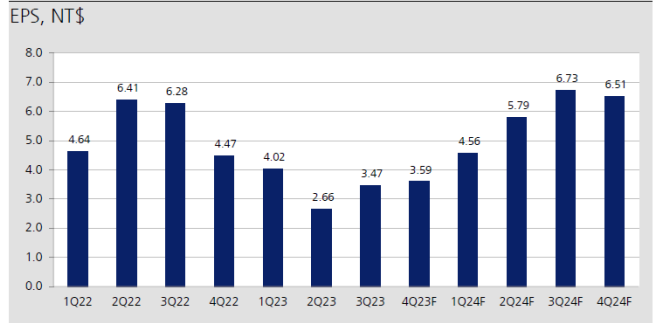
Sales weighting in 2022, percent



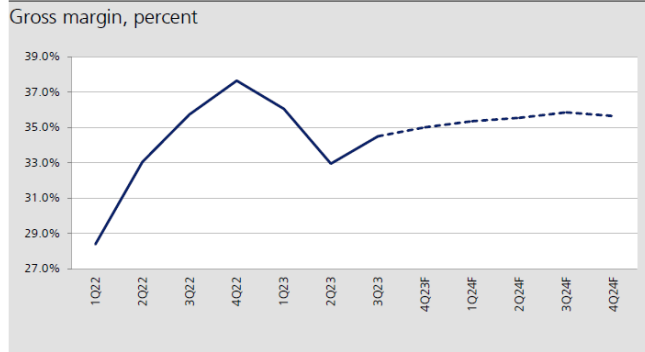
Source: KGI Research

Figure 5: Sales


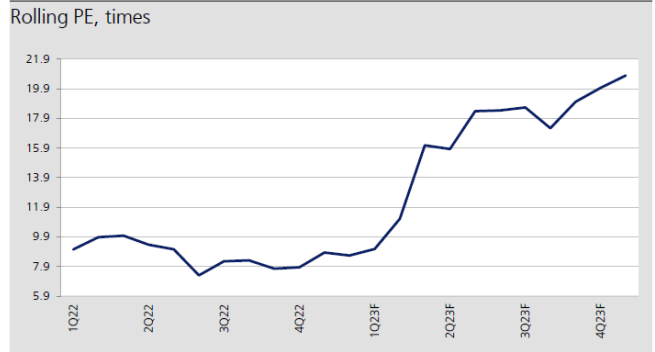
Source: KGI Research

Figure 6: EPS


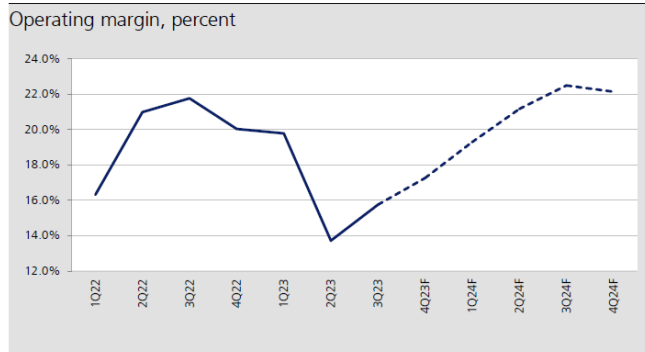
Source: KGI Research

Figure 7: Gross Margin


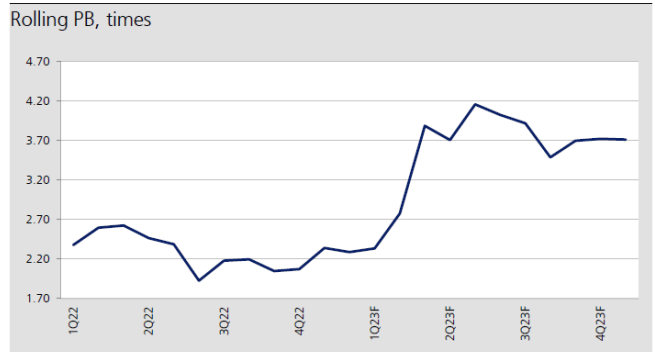
Source: KGI Research

Figure 8: Rolling PE


Source: KGI Research

Figure 9: Operating Margin


Source: KGI Research

Figure 10: Rolling PB


Source: KGI Research

Income statement

	Quarterly								Annually		
	Mar-23A	Jun-23A	Sep-23A	Dec-23F	Mar-24F	Jun-24F	Sep-24F	Dec-24F	Dec-23F	Dec-24F	Dec-25F
Income statement (NT\$m)											
Revenue	2,260	1,931	1,993	2,239	2,653	3,084	3,386	3,353	8,423	12,476	14,388
Cost of goods sold	(1,445)	(1,294)	(1,305)	(1,455)	(1,715)	(1,988)	(2,172)	(2,158)	(5,500)	(8,033)	(9,241)
Gross profit	815	636	688	784	938	1,096	1,214	1,195	2,922	4,443	5,148
Operating expenses	(368)	(371)	(374)	(397)	(426)	(444)	(453)	(453)	(1,510)	(1,775)	(1,975)
Operating profit	447	265	314	386	512	653	762	742	1,412	2,668	3,173
Depreciation of fixed assets	(35)	(36)	(37)	(20)	(32)	(32)	(32)	(32)	(129)	(129)	(129)
Amortisation of intangible assets	(7)	(6)	(5)	(8)	(7)	(7)	(7)	(7)	(26)	(26)	(26)
EBITDA	489	307	356	414	551	691	800	781	1,567	2,823	3,327
Interest income	4	14	-	3	4	4	4	4	30	15	15
Investment income	-	-	-	(1)	(1)	(1)	(1)	(1)	(5)	(5)	(5)
Other non-op income	5	4	16	15	-	(5)	(10)	(15)	110	(30)	20
Non-operating income	9	19	16	17	3	(3)	(8)	(13)	135	(20)	30
Interest expense	(2)	(1)	(2)	(0)	(1)	(1)	(1)	(1)	(5)	(5)	(5)
Investment loss	(2)	(1)	(1)	-	-	-	-	-	-	-	-
Other non-op expenses	(12)	35	55	-	-	-	-	-	-	-	-
Non-operating expenses	(16)	32	53	(0)	(1)	(1)	(1)	(1)	(5)	(5)	(5)
Pre-tax profit	441	315	383	404	513	649	753	729	1,542	2,643	3,198
Current taxation	(92)	(86)	(79)	(83)	(103)	(130)	(151)	(146)	(339)	(529)	(640)
Minorities	(1)	2	2	(3)	(8)	(8)	(8)	(8)	-	(30)	(30)
Normalised net profit	348	231	306	318	403	512	595	575	1,203	2,085	2,528
Extraordinary items	(0)	0	(0)	0	-	-	-	-	-	-	-
Net profit	348	231	306	318	403	512	595	575	1,203	2,085	2,528
EPS (NT\$)	4.02	2.66	3.47	3.59	4.56	5.79	6.73	6.51	13.61	23.59	28.60
Margins (%)											
Gross profit margin	36.1	32.9	34.5	35.0	35.4	35.5	35.9	35.6	34.7	35.6	35.8
Operating margin	19.8	13.7	15.8	17.3	19.3	21.2	22.5	22.1	16.8	21.4	22.1
EBITDA margin	21.6	15.9	17.9	18.5	20.8	22.4	23.6	23.3	18.6	22.6	23.1
Pretax profit margin	19.5	16.3	19.2	18.0	19.3	21.0	22.2	21.7	18.3	21.2	22.2
Net profit margin	15.4	12.0	15.4	14.2	15.2	16.6	17.6	17.2	14.3	16.7	17.6
Sequential growth (%)											
Revenue growth	(1.2)	(14.6)	3.2	12.3	18.5	16.3	9.8	(1.0)			
Gross profit growth	(5.3)	(21.9)	8.1	14.0	19.6	16.9	10.7	(1.6)			
Operating profit growth	(2.4)	(40.8)	18.5	23.1	32.5	27.5	16.7	(2.5)			
EBITDA growth	(2.1)	(37.2)	16.1	16.2	32.9	25.6	15.7	(2.4)			
Pretax profit growth	10.5	(28.5)	21.4	5.5	27.1	26.5	16.0	(3.2)			
Net profit growth	(9.6)	(33.7)	32.8	3.7	26.8	27.0	16.2	(3.2)			
YoY growth (%)											
Revenue growth	(12.7)	(32.7)	(22.2)	(2.1)	17.4	59.8	69.9	49.7	(18.3)	48.1	15.3
Gross profit growth	10.8	(32.9)	(24.9)	(8.9)	15.1	72.4	76.6	52.5	(15.5)	52.0	15.9
Operating profit growth	5.8	(56.0)	(43.7)	(15.6)	14.5	146.4	142.5	92.1	(30.7)	88.9	18.9
EBITDA growth	6.8	(51.9)	(40.4)	(17.1)	12.5	125.1	124.5	88.6	(28.6)	80.1	17.9
Pretax profit growth	(9.6)	(53.7)	(45.2)	1.1	16.4	105.9	96.7	80.5	(31.9)	71.4	21.0
Net profit growth	(9.8)	(57.0)	(43.5)	(17.5)	15.7	121.8	94.1	81.1	(35.0)	73.3	21.3

Source: Company data, KGI Research estimates

Balance sheet

NTSmn	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Total assets	8,231	9,301	9,200	10,852	12,461
Current assets	6,068	6,649	6,235	7,546	8,815
Cash & ST securities	2,738	4,000	3,966	5,278	6,546
Inventory	1,664	1,158	967	967	967
Accounts receivable	1,557	1,421	1,275	1,275	1,275
Other current assets	109	69	26	26	26
Non-current assets	2,163	2,652	2,965	3,306	3,646
LT investments	129	171	166	161	156
Net fixed assets	1,617	2,139	2,488	2,859	3,231
Other assets	418	342	312	286	260
Total liabilities	2,198	2,182	2,032	2,232	2,432
Current liabilities	1,861	1,691	1,271	1,271	1,271
Accounts payable	957	707	462	462	462
Interest bearing ST liabilities	2	11	18	18	18
Other current liabilities	901	974	792	792	792
Non-current liabilities	337	490	761	961	1,161
Long-term debt	140	310	503	703	903
Other L-T liabilities	10	6	258	258	258
Total equity	6,034	7,119	7,168	8,620	10,029
Share capital	827	866	884	884	884
Retained earnings reserve	3,317	4,012	4,552	5,488	6,628
Minority interests	73	107	110	140	170
Preferred shareholders funds	-	-	-	-	-

Key ratios

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue growth	42.6%	1.1%	(18.3%)	48.1%	15.3%
Operating profit growth	61.5%	4.6%	(30.7%)	88.9%	18.9%
EBITDA growth	56.5%	5.9%	(28.6%)	80.1%	17.9%
Net profit growth	67.5%	18.5%	(35.0%)	73.3%	21.3%
EPS growth	65.3%	13.3%	(36.6%)	73.3%	21.3%
Profitability					
Gross profit margin	30.3%	33.6%	34.7%	35.6%	35.8%
Operating margin	19.1%	19.8%	16.8%	21.4%	22.1%
EBITDA margin	20.3%	21.3%	18.6%	22.6%	23.1%
Net profit margin	15.3%	18.0%	14.3%	16.7%	17.6%
Return on average assets	21.6%	21.1%	13.0%	20.8%	21.7%
Return on average equity	29.0%	28.5%	17.1%	26.8%	27.6%
Stability					
Gross debt to equity	2.4%	4.5%	7.3%	8.4%	9.2%
Net debt to equity	Net cash	Net cash	Net cash	Net cash	Net cash
Interest coverage (x)	661.2	303.8	309.5	529.7	640.5
Interest & ST debt coverage (x)	1.0	1.0	1.0	1.0	1.0
Cash flow interest coverage(x)	276.8	336.1	291.1	454.9	543.6
Cash flow/int. & ST debt (x)	159.6	136.0	64.3	100.5	120.0
Current ratio (x)	3.3	3.9	4.9	5.9	6.9
Quick ratio (x)	2.4	3.2	4.1	5.2	6.2
Net debt (NT\$m)	(1,995)	(3,679)	(3,445)	(4,556)	(5,625)
Per share data					
EPS (NT\$)	18.94	21.46	13.61	23.59	28.60
CFPS (NT\$)	10.03	29.18	16.47	25.73	30.75
BVPS (NT\$)	72.11	81.02	79.85	95.93	111.53
Adj BVPS (NT\$)	72.32	81.35	79.85	95.93	111.53
SPS (NT\$)	123.69	119.52	95.29	141.15	162.78
EBITDA/share (NT\$)	25.13	25.45	17.73	31.94	37.64
Cash DPS (NT\$)	11.52	13.80	7.50	13.00	15.70
Activity					
Sales / avg assets	1.41	1.18	0.91	1.24	1.23
Days receivable	55.7	50.4	55.3	37.4	32.3
Days inventory	85.5	61.8	64.2	44.1	38.2
Days payable	49.2	37.7	30.6	21.0	18.2
Cash cycle	92.1	74.4	88.8	60.4	52.3

Source: Company data, KGI Research estimates

Profit & loss

NTSmn	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Revenue	10,196	10,303	8,423	12,476	14,388
Cost of goods sold	(7,103)	(6,845)	(5,500)	(8,033)	(9,241)
Gross profit	3,092	3,459	2,922	4,443	5,148
Operating expenses	(1,143)	(1,419)	(1,510)	(1,775)	(1,975)
Operating profit	1,949	2,039	1,412	2,668	3,173
Non-operating income	58	31	135	(20)	30
Interest income	6	14	30	15	15
Investment income	-	-	(5)	(5)	(5)
Other non-op income	52	17	110	(30)	20
Non-operating expenses	(35)	196	(5)	(5)	(5)
Interest expense	(3)	(7)	(5)	(5)	(5)
Investment loss	(8)	(6)	-	-	-
Other non-op expenses	(24)	209	-	-	-
Pre-tax profit	1,972	2,266	1,542	2,643	3,198
Current taxation	(390)	(385)	(339)	(529)	(640)
Minorities	(21)	(31)	-	(30)	(30)
Extraordinary items	-	0	-	-	-
Net profit	1,561	1,850	1,203	2,085	2,528
EBITDA	2,071	2,194	1,567	2,823	3,327
EPS (NT\$)	18.94	21.46	13.61	23.59	28.60

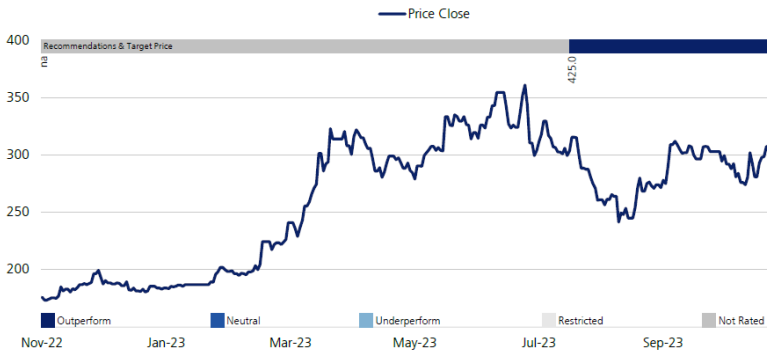
Cash flow

NTSmn	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
Operations cash flow	827	2,515	1,456	2,274	2,718
Net profit	1,561	1,850	1,203	2,085	2,528
Depreciation & amortisation	122	155	155	155	155
Other operating cash flow	434	210	(388)	521	274
Investing cash flow	(615)	38	(500)	(500)	(500)
Sale of ST investment	(203)	570	-	-	-
New investments	-	4	2	3	3
Capital expenditure	(361)	(480)	(500)	(500)	(500)
Others investing cashflow	(51)	(56)	(2)	(3)	(3)
Free cash flow	9	1,642	1,216	1,277	1,928
Financing cash flow	(335)	(701)	(990)	(463)	(949)
Increase in short term debt	-	-	-	-	-
Increase in long term loans	124	178	182	200	200
New ordinary shares issued	-	-	-	-	-
Ordinary dividends paid	(553)	(967)	(1,194)	(663)	(1,149)
Other financing cashflow	94	88	22	-	-
Forex effects	1	10	-	-	-
Total cash generated	(122)	1,862	(34)	1,312	1,269

ROIC

	Dec-21A	Dec-22A	Dec-23F	Dec-24F	Dec-25F
1 - COGS/revenue					
- Operating exp./revenue	11.2%	13.8%	17.9%	14.2%	13.7%
= Operating margin	19.1%	19.8%	16.8%	21.4%	22.1%
1 / (Working capital/revenue	0.1	0.1	0.1	0.1	0.1
+ Net PPE/revenue	0.2	0.2	0.3	0.2	0.2
+ Other assets/revenue)	0.0	0.0	0.0	0.0	0.0
= Capital turnover	3.2	3.3	2.2	3.0	3.2
Operating margin	19.1%	19.8%	16.8%	21.4%	22.1%
x Capital turnover	3.2	3.3	2.2	3.0	3.2
x (1 - tax rate)	80.2%	83.0%	78.0%	80.0%	80.0%
= After-tax ROIC	49.2%	54.4%	29.2%	51.8%	56.8%

Source: Company data, KGI Research estimates

InnoDisk – Recommendation & target price history


Date	Rating	Target	Price
2023-10-27	Outperform	425.0	281.0
2023-08-07	Outperform	425.0	280.5
2023-07-28	Outperform	425.0	315.5

Source: TEJ, KGI Research

All the above named KGI analyst(s) is SFC licensed person accredited to KGI Asia Ltd to carry on the relevant regulated activities. Each of them and/or his/her associate(s) does not have any financial interest in the respectively covered stock, issuer and/or new listing applicant.

Disclaimer

All the information contained in this report is not intended for use by persons or entities located in or residing in jurisdictions which restrict the distribution of this information by KGI Asia Limited ("KGI") or an affiliate of KGI. Such information shall not constitute investment advice, or an offer to sell, or an invitation, solicitation or recommendation to subscribe for or invest in any securities or investment products or services nor a distribution of information for any such purpose in any jurisdiction. In particular, the information herein is not for distribution and does not constitute an offer to sell or the solicitation of any offer to buy any securities in the United States of America, or to or for the benefit of United States persons (being residents of the United States of America or partnerships or corporations organised under the laws of the United States of America or any state, territory or possession thereof). All the information contained in this report is for general information and reference purpose only without taking into account of any particular investor's objectives, financial situation or needs. Such information is not intended to provide professional advice and should not be relied upon in that regard.

Some of KGI equity research and earnings estimates are available electronically on www.kgi.com.hk. Please contact your KGI representative for information. The information and opinions in this report are those of KGI internal research activity. KGI does not make any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information and opinions contained in this report. The information and opinions contained in this report are subject to change without any notice. No person accepts any liability whatsoever for any loss however arising from any use of this report or its contents. This report is not to be construed as an invitation or offer to buy or sell securities and/or to participate in any investment activity. This report is being supplied solely for informational purposes and may not be redistributed, reproduced or published (in whole or in part) by any means for any purpose without the prior written consent of KGI. Members of the KGI group and their affiliates may provide services to any companies and affiliates of such companies mentioned herein. Members of the KGI group, their affiliates and their directors, officers and employees may from time to time have a position in any securities mentioned herein.