



HG Semiconductor Limited
宏光半導體有限公司

(incorporated in the Cayman Islands with limited liability)
Stock Code: 6908

**INTERIM
REPORT
2023**

CONTENTS

- 2** Corporate Information
- 5** Condensed Consolidated Statement of Profit or Loss and Other Comprehensive Income
- 6** Condensed Consolidated Statement of Financial Position
- 7** Condensed Consolidated Statement of Changes in Equity
- 8** Condensed Consolidated Statement of Cash Flows
- 10** Notes to the Condensed Consolidated Financial Statements
- 27** Management Discussion and Analysis

CORPORATE INFORMATION

DIRECTORS

Executive Directors

Dr. XU Zhihong (徐志宏) (*Chairman*)
(Appointed on 6 February 2023 as Executive Director and Vice Chairman)

(Appointed on 5 June 2023 as Chairman)

Dr. CAO Yu (曹雨) (*Chief Executive Officer*)

(Appointed on 6 February 2023 and resigned on 21 August 2023)

Mr. ZHAO Yi Wen (趙奕文)

Mr. LU Kailin (呂鎧麟)

(*Deputy Chief Executive Officer*)

(Appointed as a Deputy Chief Executive Officer on 1 August 2023)

Mr. LEUNG Kin Pang (梁健鵬)

Dr. CHEN Zhen (陳振)

(Appointed on 6 February 2023)

Ms. LIU Yang (劉洋)

(Resigned on 6 February 2023)

Non-executive Director

Dr. WANG David Nin-kou (王寧國)

Mr. WANG Jie Chuan (王潔川)

(Resigned on 6 February 2023)

Independent Non-executive Directors

Professor CHOW Wai Shing, Tommy (周偉誠)

Mr. WU Wing Kuen, B.B.S. (胡永權)

(Resigned on 5 June 2023)

Mr. CHAN Chung Kik, Lewis (陳仲戟)

(Resigned on 5 June 2023)

Mr. LI Yang (李陽)

Mr. ZOU Haiyan (鄒海燕)

(Appointed on 5 June 2023)

Mr. SIU Miu Man, Simon, MH (蕭妙文)

(Appointed on 5 June 2023)

AUDIT COMMITTEE

Mr. ZOU Haiyan (鄒海燕) (*Chairman*)

(Appointed as Chairman on 5 June 2023)

Mr. CHAN Chung Kik, Lewis (陳仲戟)

(Resigned on 5 June 2023)

Mr. WU Wing Kuen, B.B.S. (胡永權)

(Resigned on 5 June 2023)

Professor CHOW Wai Shing, Tommy (周偉誠)

Mr. LI Yang (李陽)

Mr. SIU Miu Man, Simon, MH (蕭妙文)

(Appointed as member on 5 June 2023)

NOMINATION COMMITTEE

Mr. ZOU Haiyan (鄒海燕) (*Chairman*)

(Appointed as Chairman on 5 June 2023)

Dr. XU Zhihong (徐志宏)

(Appointed as member on 5 June 2023)

Mr. CHAN Chung Kik, Lewis (陳仲戟)

(Resigned on 5 June 2023)

Mr. WU Wing Kuen, B.B.S. (胡永權)

(Resigned on 5 June 2023)

Professor CHOW Wai Shing, Tommy (周偉誠)

Mr. LI Yang (李陽)

Mr. SIU Miu Man, Simon, MH (蕭妙文)

(Appointed as member on 5 June 2023)

REMUNERATION COMMITTEE

Dr. XU Zhihong (徐志宏) (*Chairman*)

(Appointed as Chairman on 5 June 2023)

Mr. ZOU Haiyan (鄒海燕)

(Appointed as member on 5 June 2023)

Mr. CHAN Chung Kik, Lewis (陳仲戟)

(Resigned on 5 June 2023)

Mr. WU Wing Kuen, B.B.S. (胡永權)

(Resigned on 5 June 2023)

Professor CHOW Wai Shing, Tommy (周偉誠)

Mr. LI Yang (李陽)

Mr. SIU Miu Man, Simon, MH (蕭妙文)

(Appointed as member on 5 June 2023)

CORPORATE INFORMATION (CONTINUED)

COMPANY SECRETARY

Mr. CHAN Wing Kin (陳永健)
(Resigned on 1 May 2023)
Mr. CHAN Tsang Mo (陳增武)
(Appointed 1 May 2023 and resigned
on 1 July 2023)
Ms. TSANG Ngo Yin (曾傲嫻)
(Appointed on 2 June 2023)

AUTHORISED REPRESENTATIVES

Mr. CHAN Wing Kin (陳永健)
(Resigned on 1 May 2023)
Mr. CHAN Tsang Mo (陳增武)
(Appointed 1 May 2023 and resigned
on 2 June 2023)
Ms. TSANG Ngo Yin (曾傲嫻)
(Appointed on 2 June 2023)
Mr. ZHAO Yi Wen (趙奕文)

REGISTERED OFFICE

Windward 3
Regatta Office Park
P.O. Box 1350
Grand Cayman
KY1-1108
Cayman Islands

HEAD OFFICE AND PRINCIPAL PLACE OF BUSINESS IN THE PEOPLE'S REPUBLIC OF CHINA (THE "PRC")

The North Side
2nd Floor
No. 8 Pinggong Er Road
Nanping Technology Industrial Park
Zhuhai
PRC

PLACE OF BUSINESS IN HONG KONG

Unit B, 26/F, One Island South,
2 Heung Yip Road, Wong Chuk Hang,
Hong Kong

CAYMAN ISLANDS PRINCIPAL SHARE REGISTRAR AND TRANSFER OFFICE

Ocorian Trust (Cayman) Limited
Windward 3
Regatta Office Park
P.O. Box 1350
Grand Cayman
KY1-1108
Cayman Islands

HONG KONG BRANCH SHARE REGISTRAR AND TRANSFER OFFICE

Boardroom Share Registrars (HK) Limited
Room 2103B, 21/F, 148 Electric Road
North Point
Hong Kong

CORPORATE INFORMATION (CONTINUED)

PRINCIPAL BANKERS

Bank of China
Zhuhai Xiangzhou Sub-branch
1st Floor
Anping Building
274 Cuixiang Road
Xiangzhou, Zhuhai
PRC

Industrial and Commercial Bank of China
Zhuhai Gongbei Sub-branch
ICBC Tower
36 Guihuanan Road
Gongbei, Zhuhai
PRC

LEGAL ADVISER

Lau, Horton & Wise LLP
8th Floor, Nexxus Building,
41 Connaught Road Central,
Hong Kong

AUDITOR

BDO Limited
Certified Public Accountants
25th Floor
Wing On Centre
111 Connaught Road Central
Hong Kong

STOCK CODE

6908

COMPANY'S WEBSITE

www.hg-semiconductor.com

UNAUDITED CONDENSED CONSOLIDATED INTERIM RESULTS

For the six months ended 30 June 2023

The board (the “**Board**”) of the directors (the “**Directors**”) of the Company announces the unaudited condensed consolidated interim results of the Group for the six months ended 30 June 2023 (the “**Period**”), together with the comparative unaudited figures for the corresponding period in 2022 (the “**Previous Period**”), as follows:

CONDENSED CONSOLIDATED STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME

For the six months ended 30 June 2023

		Six months ended 30 June	
	Notes	2023 RMB'000 (unaudited)	2022 RMB'000 (unaudited)
Revenue	4	45,905	43,437
Cost of sales		(42,866)	(35,356)
Gross profit		3,039	8,081
Other income and gains	4	1,036	791
Selling and distribution expenses		(2,302)	(1,644)
Administrative and other expenses		(46,994)	(56,120)
Provision on expected credit losses on trade and bills receivables		(583)	(2,660)
Finance costs	5	(6,273)	(997)
Loss before income tax credit		(52,077)	(52,549)
Income tax credit	6	138	1,034
Loss for the period		(51,939)	(51,515)
Other comprehensive income			
Item that will not be reclassified to profit or loss:			
Exchange difference on translation to presentation currency		2,784	10,390
Item that may be reclassified to profit or loss:			
Change in fair value of financial assets at fair value through other comprehensive income		(4,675)	—
Total comprehensive income for the period		(53,830)	(41,125)
Loss for the period attributable to:			
Owners of the Company		(49,114)	(51,515)
Non-controlling interests		(2,825)	—
		(51,939)	(51,515)
Total comprehensive income attributable to:			
Owners of the Company		(51,005)	(41,125)
Non-controlling interests		(2,825)	—
		(53,830)	(41,125)
Loss per share attributable to owners of the Company			
— Basic and diluted (RMB cents)	8	(8.39)	(9.14)

CONDENSED CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 30 June 2023

	Notes	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
ASSETS AND LIABILITIES			
Non-current assets			
Property, plant and equipment	9	181,598	108,897
Intangible assets	10	68,652	71,169
Financial assets at fair value through OCI	14	201,370	198,865
Prepayments and deposits	12	16,729	50,946
Deferred tax assets		2,190	2,047
		470,539	431,924
Current assets			
Inventories		48,751	58,949
Trade and bills receivables	11	91,669	77,265
Prepayments, deposits and other receivables	12	85,867	72,476
Financial assets at fair value through profit or loss	13	35,624	33,900
Cash and cash equivalents	15	52,005	43,794
		313,916	286,384
Current liabilities			
Trade payables	16	23,933	23,262
Other payables and accruals		117,595	25,247
Bank and other borrowings	17	10,000	41,139
Lease liabilities		8,249	7,520
		159,777	97,168
Net current assets		154,139	189,216
Non-current liabilities			
Lease liabilities		7,701	11,195
		7,701	11,195
Net assets		616,977	609,945
EQUITY			
Equity attributable to owners of the Company			
Share capital		5,465	5,098
Reserves		578,272	588,656
		583,737	593,754
Non-controlling interests		33,240	16,191
Total equity		616,977	609,945

CONDENSED CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the six months ended 30 June 2023

	Share capital		Share option			Investment				Non-controlling		Total
	capital	premium	reserve	Statutory reserve	Other reserve	Capital reserve	revaluation reserve	Exchange reserve	Retained earnings	Subtotal	interests	
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2023 (audited)	5,098	927,821	64,953	15,498	580	35,972	13,841	(5,572)	(464,437)	593,754	16,191	609,945
Loss for the period	-	-	-	-	-	-	-	-	(49,114)	(49,114)	(2,825)	(51,939)
Exchange differences on translating foreign operations	-	-	-	-	-	-	-	2,784	-	2,784	-	2,784
Change in fair value of financial assets at fair value through other comprehensive income	-	-	-	-	-	-	(4,675)	-	-	(4,675)	-	(4,675)
Total comprehensive income for the period	-	-	-	-	-	-	(4,675)	2,784	(49,114)	(51,005)	(2,825)	(53,830)
Placing of new shares (Note a)	367	32,634	-	-	-	-	-	-	-	33,001	-	33,001
Disposal of equity interests to non-controlling interests (Note b)	-	-	-	-	-	-	-	-	4,319	4,319	19,874	24,193
Forfeit of share options	-	-	(7,158)	-	-	-	-	-	7,158	-	-	-
Recognition of equity-settled share-based payment expenses	-	-	3,668	-	-	-	-	-	-	3,668	-	3,668
At 30 June 2023 (unaudited)	5,465	960,455	61,463	15,498	580	35,972	9,166	(2,788)	(502,074)	583,737	33,240	616,977
At 1 January 2022 (audited)	4,937	877,632	53,999	15,498	580	35,972	1,309	(8,837)	(371,749)	609,341	-	609,341
Loss for the period	-	-	-	-	-	-	-	-	(51,515)	(51,515)	-	(51,515)
Exchange differences on translating foreign operations	-	-	-	-	-	-	-	10,390	-	10,390	-	10,390
Total comprehensive income for the period	-	-	-	-	-	-	-	10,390	(51,515)	(41,125)	-	(41,125)
Recognition of equity-settled share-based payment expenses	-	-	8,083	-	-	-	-	-	-	8,083	-	8,083
At 30 June 2022 (unaudited)	4,937	877,632	62,082	15,498	580	35,972	1,309	1,553	(423,264)	576,299	-	576,299

Notes:

- (a) An aggregate of 40,000,000 shares have been successfully placed on 13 June 2023 to not less than six places at the share price of HK\$0.90.
- (b) The Company's indirect interest in Jiangsu Jiahong Semiconductor Co., Ltd* 江蘇錄宏半導體有限公司 (formerly known as Xuzhou GSR Semiconductor Co., Ltd.* 徐州金沙江半導體有限公司), has decreased from 86.01% to 65%, while the Company's control over Jiangsu Jiahong Semiconductor Co., Ltd remains unchanged, upon completion of the equity transfer on 28 April 2023.

* For identification purpose only

CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

For the six months ended 30 June 2023

	Six months ended 30 June	
	2023 RMB'000 (unaudited)	2022 RMB'000 (unaudited)
Cash flows from operating activities		
Loss before income tax	(52,077)	(52,549)
Adjustments for:		
Depreciation of property, plant and equipment	9,483	6,342
Amortisation of intangible assets	2,517	23
Interest income	(39)	(70)
Finance costs	6,273	997
Share-based payment	3,668	8,083
Provision of expected credit losses on trade and bills receivables	583	2,660
Change in fair value of financial assets at fair value through profit or loss	87	221
Written off of property, plant and equipment	1,248	—
Operating loss before working capital changes	(28,257)	(34,293)
Decrease/(increase) in inventories	10,199	(18,217)
Increase in trade and bills receivables	(14,987)	(1,345)
Decrease in prepayments, deposits and other receivables	10,802	15,728
(Decrease)/increase in trade and other payables	(2,176)	3,465
Cash used in operations	(24,419)	(34,662)
Income tax (paid)/recovered	(6)	307
Net cash flows used in operating activities	(24,425)	(34,355)

CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS (CONTINUED)

For the six months ended 30 June 2023

	Six months ended 30 June	
	2023 RMB'000 (unaudited)	2022 RMB'000 (unaudited)
Cash flows from investing activities		
Purchases of property, plant and equipment	(32,704)	(36,610)
Deposit paid for property, plant and equipment	(16,220)	—
Purchase of financial assets at fair value through profit or loss, net	—	(6,696)
Interest received	39	70
Net cash flows used in investing activities	(48,885)	(43,236)
Cash flows from financing activities		
Interest paid	(5,596)	(855)
Repayment of interest portion of the lease liabilities	(677)	(142)
Proceeds from placing of new shares	33,001	—
Repayments of principal portion of the lease liabilities	(2,765)	(3,409)
Proceeds from bank borrowings	10,000	10,000
Repayments of bank borrowings	(10,000)	(7,000)
Proceeds from other borrowings	56,097	—
Net cash flows generated from/(used in) financing activities	80,060	(1,406)
Net increase/(decrease) in cash and cash equivalents	6,750	(78,997)
Effect of exchange rate changes on cash and cash equivalents	1,461	1,079
Cash and cash equivalents at the beginning of period	43,794	113,640
Cash and cash equivalents at the end of period	52,005	35,722

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

For the six months ended 30 June 2023

1. GENERAL INFORMATION, BASIS OF PREPARATION AND ACCOUNTING POLICIES

HG Semiconductor Limited (the “**Company**”) was incorporated with limited liability in the Cayman Islands on 27 May 2015 and its shares have been listed on the Main Board of The Stock Exchange of Hong Kong Limited (the “**Stock Exchange**”) with stock code “6908”.

The address of the Company’s registered office is Windward 3, Regatta Office Park, PO Box 1350, Grand Cayman KY1-1108, Cayman Islands. The principal place of business of the Company and its subsidiaries (collectively referred to as the “**Group**”) is located in the People’s Republic of China (the “**PRC**”) at the North Side, 2nd Floor, No. 8 Pinggong Er Road, Nanping Technology Industrial Park, Zhuhai, the PRC.

The Company’s principal activity is investment holding. The Group is principally engaged in the design, development, manufacturing, subcontracting service and sales of semiconductor products, including light-emitting diode (“**LED**”) beads, gallium nitride (“**GaN**”) chips, GaN components and related application products, and fast charging products in the PRC.

The unaudited consolidated interim financial statements of the Group have been prepared in accordance with Hong Kong Accounting Standard (“**HKAS**”) 34, Interim Financial Reporting issued by the Hong Kong Institute of Certified Public Accountants (“**HKICPA**”) and comply with the applicable disclosure provisions of the Listing Rules.

The accounting policies and methods of computation used in the preparation of the unaudited condensed consolidated financial statements for the six months ended 30 June 2023 are consistent with those adopted by the Group in its audited consolidated financial statements for the year ended 31 December 2022 except for the adoption of the new and revised Hong Kong Financial Reporting Standards (the “**New and Revised HKFRSs**”) (which include all HKFRSs, Hong Kong Accounting Standards (“**HKASs**”) and Interpretations) issued by the HKICPA which are effective to the Group for accounting periods beginning on or after 1 January 2023. The adoption of the new and revised HKFRSs has no material impact on the Group’s results and financial position for the current or prior periods.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

1. GENERAL INFORMATION, BASIS OF PREPARATION AND ACCOUNTING POLICIES (Continued)

The Group has not applied any new and revised standards, amendments or interpretations that have been issued but are not yet effective. The Group is currently assessing the impact of the adoption of such new and revised standards, amendments or interpretations to the Group but is yet to be in a position to state whether they would have any material financial impact on the Group's results of operations and financial position.

The unaudited condensed consolidated financial statements for the six months ended 30 June 2023 have been prepared on the historical cost basis, except for the financial assets at fair value through other comprehensive income and financial assets at fair value through profit or loss which have been measured at fair value. The unaudited condensed consolidated financial statements for the six months ended 30 June 2023 are presented in Renminbi ("RMB"), which is also the functional currency of the Company.

The condensed consolidated financial statements have not been audited by the Company's auditors, but have been reviewed by the Audit Committee of the Company.

2. CHANGES IN HKFRSs

The Group has applied the same accounting policies in these interim condensed consolidated financial statements as in its 2022 annual consolidated financial statements, except that it has adopted the following amendments to HKFRSs:

HKFRS 17	Insurance Contracts
Amendments to HKFRS 17	Insurance Contracts
Amendment to HKFRS 17	Initial Application of HKFRS 17 and HKFRS 9 — Comparative Information
Amendments to HKAS 1 and HKFRS Practice Statement 2	Disclosure of Accounting Policies
Amendments to HKAS 8	Definition of Accounting Estimates
Amendments to HKAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction
Amendments to HKAS 12	International Tax Reform — Pillar Two Model Rules

The new and revised standards did not have material impact on the Group's interim condensed consolidated financial information.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

3. SEGMENT INFORMATION

The chief operating decision makers are identified as Executive Directors of the Company. The Group has identified its operating segment based on the regular internal financial information reported to the Company's Executive Directors for their decisions about resources allocation and review of performance. The Group's operating segment is design, development, manufacturing, and sales of semiconductor products, including LED beads, GaN chips, GaN components and related application products, and fast charging products in the PRC. The Executive Directors determined there were two reportable and operating segments which are (i) LED products and (ii) GaN and other semiconductor products.

Segment revenue and results

The following is an analysis of the Group's revenue and results by reportable and operating segments:

	Six months ended 30 June 2023			Six months ended 30 June 2022		
	LED products RMB'000 (unaudited)	GaN and other semiconductor products RMB'000 (unaudited)	Total RMB'000 (unaudited)	LED products RMB'000 (unaudited)	GaN and other semiconductor products RMB'000 (unaudited)	Total RMB'000 (unaudited)
Segment revenue	44,310	1,595	45,905	43,437	—	43,437
Segment result	(6,043)	(23,473)	(29,516)	(5,623)	(32,789)	(38,412)
Other unallocated						
Other income and gains			1,036			791
Other administrative expenses			(17,324)			(13,931)
Finance costs			(6,273)			(997)
Loss before income tax			(52,077)			(52,549)

No geographical information is presented as most of the Group's operations are located in the PRC.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

4. REVENUE, OTHER INCOME AND GAINS

Revenue, which is also the Group's turnover, represents the net invoiced value of goods sold, less value added tax and other applicable local taxes during the reporting period. The Group is principally engaged in the design, development, manufacturing, and sales of semiconductor products, including LED beads, GaN chips, GaN components and related application products, and fast charging products in the PRC.

The sales contract terms do not allow rebate, discount, warranties and return on revenue. During the six months ended 30 June 2023 and 2022, there were no rebate, discount, warranties and return on revenue.

An analysis of the Group's revenue, other income and gains are as follows:

	Six months ended 30 June	
	2023 RMB'000 (unaudited)	2022 RMB'000 (unaudited)
LED products		
Revenue recognised at a particular point in time		
Sales of LED beads	44,310	43,437
Sales of GaN and other semiconductor products	1,595	—
	45,905	43,437
Other income and gains		
Bank interest income	39	70
Government grants (Note)	966	710
Other income	31	11
	1,036	791

Note: Government grants include various subsidies received by the Group from relevant government bodies in connection with certain subsidies to support the Group's businesses. There are no unfulfilled conditions or contingencies relating to these grants.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

5. FINANCE COSTS

	Six months ended 30 June	
	2023 RMB'000 (unaudited)	2022 RMB'000 (unaudited)
Interest on bank and other borrowings	5,596	142
Interest on lease liabilities	677	855
	6,273	997

6. INCOME TAX CREDIT

The Group is subject to income tax on an entity basis on profit arising in or derived from the jurisdictions in which members of the Group are domiciled and operated.

Pursuant to the rules and regulations of the Cayman Islands and the British Virgin Islands (the "BVI"), the Group is not subject to any income tax in the Cayman Islands and the BVI.

The subsidiaries incorporated in Hong Kong is subject to income tax at the rate of 16.5% on the estimated assessable profits arising in Hong Kong for the six months ended 30 June 2023 and 2022. For the six months ended 30 June 2023, the first HK\$2,000,000 of profits earned by one of the group companies will be taxed at a rate of 8.25% whilst the remaining profits will continue to be taxed at 16.5%. No provision for Hong Kong profits tax has been made as the Group's Hong Kong subsidiaries had no estimated assessable profits for the reporting period (2022: Nil).

In 2022, the Group's wholly-owned subsidiary, Zhuhai HongGuang Semiconductor Company Limited ("Zhuhai HongGuang") has successfully renewed the "New and High Technology Enterprise Certificate" (高新技術企業證書) for three years commencing from 1 January 2022. Pursuant to the relevant PRC enterprise income tax law, regulations and implementation guidance notes, Zhuhai HongGuang is entitled to a tax preference with a reduction of the enterprise income tax ("EIT") rate from 25% to 15%. The expiry date of Zhuhai HongGuang's New and High Technology Enterprise Certificate is 31 December 2024.

Therefore, provision for the EIT in the PRC for Zhuhai HongGuang is calculated based on the tax rate of 15% on Zhuhai HongGuang's estimated assessable profits for the six months ended 30 June 2023 and 2022.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

7. DIVIDEND

No dividend has been paid or declared by the Company for the six months ended 30 June 2023 (2022: Nil), or by any of the companies now comprising the Group during the reporting period.

8. LOSS PER SHARE

The calculation of basic and diluted loss per share attributable to the ordinary equity holders of the Company is based on the following data:

	Six months ended 30 June	
	2023 RMB'000 (unaudited)	2022 RMB'000 (unaudited)
Loss		
Loss for the period attributable to owners of the Company	(49,114)	(51,515)
Number of shares		
Weighted average number of ordinary shares for the purpose of basic loss per share	585,578,901	563,591,000
Effect of dilutive potential ordinary shares in respect of the Company's share option schemes (notes (ii))	—	—
Weighted average number of ordinary shares for the purpose of diluted loss per share	585,578,901	563,591,000

Notes:

- (i) Basic loss per share is calculated by dividing loss for the period attributable to owners of the Company by the weighted average number of ordinary shares in issue of the Company during the period.
- (ii) For the six months ended 30 June 2023 and 2022, the potential ordinary shares from share options were not included in the calculation of loss per share as their inclusion would be anti-dilutive.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

9. PROPERTY, PLANT AND EQUIPMENT

(a) Right-of-use assets

As at 30 June 2023, the right-of-use assets of the Group were mainly representing the property leases of Hong Kong office, Xuzhou plant and Zhuhai plant.

The property leases includes an amount of approximately RMB0.6 million (31 December 2022: approximately RMB0.8 million) leased from 珠海經濟特區利佳電子發展有限公司, a related party of the Group which is beneficially owned by the shareholder of the Company, Mr. Zhao Yi Wen, who is also Director of the Company, with lease term of 10 years from 1 April 2015 to 31 March 2025.

(b) Acquisitions and disposals of owned assets

During the six months ended 30 June 2023, the Group acquired items of property, plant and equipment with a cost of approximately RMB83.1 million (six months ended 30 June 2022: approximately RMB36.6 million). There was written off of property, plant and equipment with a net book value of approximately 1.2 million during the six months ended 30 June 2023 (six months ended 30 June 2022: nil).

10. INTANGIBLE ASSETS

As at 30 June 2023 and 31 December 2022, the Group's other intangible assets consist of technology know-how. During the six months ended 30 June 2023, the Group did not acquire or dispose any other intangible assets (six months ended 30 June 2022: Nil). Amortisation charged for the six months ended 30 June 2023 amounted to approximately RMB2.5 million (six months ended 30 June 2022: approximately RMB0.02 million).

As at 30 June 2023, the carrying amount of the Group's intangible assets includes an amount of approximately RMB59.4 million of technology know-how (31 December 2022: approximately RMB63.7 million).

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

11. TRADE AND BILLS RECEIVABLES

	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
Trade receivables	84,229	68,327
Bills receivables	7,440	8,938
	91,669	77,265

The aging analysis of the trade and bills receivables, based on the invoice date, is as follows:

	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
0 to 30 days	30,320	32,681
31 to 60 days	24,878	8,503
61 to 90 days	9,297	8,504
91 to 120 days	6,456	6,815
121 to 365 days	5,651	5,243
Over 1 year	20,794	20,663
	97,396	82,409
Less: Impairment of trade and bills receivables	(5,727)	(5,144)
	91,669	77,265

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

12. PREPAYMENTS, DEPOSITS AND OTHER RECEIVABLES

	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
Other receivables	52,696	33,244
Prepayments and deposits (note)	49,900	90,178
	102,596	123,422
Less: non-current portion Prepayments and deposits for acquisition of property, plant and equipment	(16,729)	(50,946)
Current portion	85,867	72,476

Prepayments, deposits and other receivables do not contain impaired assets.

Note: The amounts includes the prepayment to the independent third parties suppliers amounted to approximately RMB30,897,000 (31 December 2022: approximately RMB37,034,000) for purchase of raw material.

13. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

The financial assets at fair value through profit or loss represent the investment in an unlisted fund. Fair value loss of approximately RMB87,000 was recognised in profit or loss during the period ended 30 June 2023.

As at 30 June 2023, the fair value of financial assets at fair value through profit or loss was approximately RMB35.6 million (31 December 2022: approximately RMB33.9 million).

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

14. FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME (“FVTOCI”)

	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
Financial asset at fair value through other comprehensive income		
Unlisted equity securities, at fair value	201,370	198,865

The unlisted equity securities were irrevocably designated at FVTOCI as the Group considers these investments to be strategic in nature, which includes:

- a. In 2021, the Group invested 10% of the ordinary shares of a company in the PRC at the consideration of RMB15 million for investment purpose. The number of shares acquired represented approximately 7.7% of the total issued ordinary shares of this PRC company as at 30 June 2023. The fair value as at 30 June 2023 is HK\$12,600,000, equivalents to approximately RMB11,664,000 (31 December 2022: HK\$18,000,000, equivalents to approximately RMB16,338,000).
- b. In 2021, the Group acquired 206,367 non-redeemable preference shares, which represented 0.37% of total equity share in a Canadian company at the consideration of approximately US\$1.75 million. The fair value as at 30 June 2023 is US\$1.5 million, equivalents to approximately RMB12.6 million (31 December 2022: US\$1.5 million, equivalents to approximately RMB10.3 million).
- c. In 2021, the Group acquired 1,749,961 non-redeemable series E preferred shares of an unlisted company in Israel principally engaged in developing GaN related products including high-power transistors and modules at the consideration of approximately US\$25.0 million. The total number of shares acquired represented approximately 18.7% of the total equity shares of this Israeli company as at 30 June 2023. The fair value as at 30 June 2023 is US\$25.0 million, equivalents to approximately RMB178.7 million (31 December 2022: US\$25.0 million, equivalents to approximately RMB172.2 million).

During the six months ended 30 June 2023, there was no acquisition of and disposal on the FVTOCI.

The Company engaged an independent professional valuer to measure the fair value of the unlisted equity securities as at 30 June 2023. Fair value loss of approximately RMB4.7 million (31 December 2022: gain of RMB12.5 million) was recognised in other comprehensive income during the period ended 30 June 2023.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

15. CASH AND CASH EQUIVALENTS

	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
Bank balances and cash	52,005	43,794
Denominated in RMB	19,971	40,509
Denominated in HK\$	31,513	2,813
Denominated in US\$	521	472

The bank balances are deposited with creditworthy banks with no history of default. The carrying amounts of the bank balances and cash approximated their fair values at the end of the reporting period. Bank balances and cash denominated in RMB are not freely convertible and the remittance of such funds out of the PRC is subject to exchange restrictions imposed by the PRC Government.

16. TRADE PAYABLES

	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
Trade payables	23,933	23,262

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

16. TRADE PAYABLES (Continued)

The aging analysis of the trade payables, based on the invoice date, is as follows:

	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
0 to 30 days	5,149	5,197
31 to 60 days	6,289	5,000
61 to 90 days	1,946	4,174
91 to 120 days	343	2,642
121 to 365 days	4,303	5,533
Over 1 year	5,903	716
	23,933	23,262

17. BANK AND OTHER BORROWINGS

	As at 30 June 2023 RMB'000 (unaudited)	As at 31 December 2022 RMB'000 (audited)
Bank loans — unsecured (Note i)	10,000	10,000
Other loans — secured (Note ii)	—	31,139
	10,000	41,139

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

17. BANK AND OTHER BORROWINGS (Continued)

Notes:

- (i) As at 30 June 2023, the effective interest rates of the unsecured interest-bearing bank borrowings was 3.75% (31 December 2022: 3.75%) per annum.

All of the banking facilities are subject to the fulfillment of covenants commonly found in lending arrangements with financial institutions. If the Group was to breach the covenants, the borrowings would become repayable on demand. The Group regularly monitors its compliance with these covenants. At the end of each of reporting period, none of the covenants related to drawn down facilities had been breached.

- (ii) As at 31 December 2022, the other loan was secured by the share capital of certain subsidiaries of the Group with the effective interest rates of 12% per annum.

The other loan balance of approximately HK\$103,563,000 (equivalent to RMB94,508,000) have been due on 30 April 2023. On 31 May 2023, the Group and Jovial Star International Limited (the “**Creditor**”), an independent third party, entered into the debt settlement agreement pursuant to which the Group has conditionally agreed to allot and issue a total of 129,453,785 shares of the Company at the price of HK\$0.80 per share to the Creditor in settlement of other loan with the Creditor in full. As at 30 June 2023, the conditions precedent of the debt settlement agreement have not been fulfilled and the total other loan balance have been transferred to other payables.

On 23 August 2023, all the conditions precedent set out in the debt settlement agreement have been fulfilled and the debt settlement agreement have been completed.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

18. RELATED PARTY TRANSACTIONS

During the six months ended 30 June 2023, the Group entered into certain transactions with “related parties” as defined under the applicable accounting standards and the details of the material related party transactions (the “**Transactions**”) are disclosed as follows:

Name of related party	Nature of transactions	Six months ended 30 June	
		2023 RMB'000 (unaudited)	2022 RMB'000 (unaudited)
珠海經濟特區利佳電子發展有限公司	Utility expense	982	895
珠海經濟特區利佳電子發展有限公司	Rental expense	186	186
		1,168	1,081

Note: The related party is beneficially owned by the shareholder of the Company, Mr. Zhao Yi Wen, who is also Director of the Company.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

19. SHARE-BASED PAYMENT TRANSACTIONS

The Company's share option scheme was conditionally approved by the Company pursuant to the written resolutions of the then all shareholders of the Company dated 2 December 2016 (the "**Share Option Scheme**"). The Share Option Scheme remains valid and effective following the transfer of listing of the Company's shares from the GEM to the Main Board on 13 November 2019 and is implemented in full compliance with the requirements under Chapter 17 of the Listing Rules.

The Company operates the Share Option Scheme for the purpose of providing incentives and/or rewards to eligible participants (including the Company's directors and other employees of the Group) who render services and/or contribute to the success of the Group's operations. Eligible participants receive remuneration in the form of share-based payments, whereby eligible participants render services as consideration for share options.

The fair value of options granted is recognised as an employee benefits expense with a corresponding increase in equity. The total amount to be expensed is determined by reference to the fair value of the options granted on grant date. The total expense is recognised over the vesting period, which is the period over which all of the specified vesting conditions are to be satisfied. At the end of each period, the entity revises its estimates of the number of options that are expected to vest based on the non-market vesting and service conditions. It recognises the impact of the revision to original estimates, if any, in profit or loss, with a corresponding adjustment to equity.

On 17 June 2021, the Company conditionally granted 34,510,000 options to 26 grantees to subscribe for an aggregate of 34,510,000 shares under the Share Option Scheme for a consideration of HK\$1 per grant.

On 28 July 2023, the Company conditionally granted 7,890,000 options to 48 grantees to subscribe for an aggregate of 7,890,000 shares under the Share Option Scheme for a consideration of HK\$1 per grant.

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

19. SHARE-BASED PAYMENT TRANSACTIONS (Continued)

The following tables disclose details of movements of the Company's share options held by directors and employees during the Period:

Date of grant	Vesting period	Exercisable period	Subscription price per Share (HK\$)	Number of share options						Outstanding at 30 June 2023	Vested and exercisable at 30 June 2023
				Outstanding at 1 January 2023	Granted during the Period	Exercised during the Period	Cancelled during the Period	Lapsed or forfeited during the Period	Transfer between category during the Period		
Directors of the Company											
17/6/2021	Nil (Note 5)	17/6/2021-16/6/2024	7.50	840,000	-	-	-	-	-	840,000	840,000
	Nil (Note 5 & 8)	17/6/2021-16/6/2029	7.50	2,400,000	-	-	-	(2,400,000)	-	-	-
	17/6/2021-16/6/2022 (Note 6)	17/6/2022-16/6/2026	7.50	1,200,000	-	-	-	-	-	1,200,000	1,200,000
	17/6/2021-16/6/2023 (Note 6)	17/6/2023-16/6/2027	7.50	1,200,000	-	-	-	-	-	1,200,000	1,200,000
	17/6/2021-16/6/2024 (Note 6)	17/6/2024-16/6/2028	7.50	1,200,000	-	-	-	-	-	1,200,000	-
	17/6/2021-16/6/2025 (Note 6)	17/6/2025-16/6/2029	7.50	1,200,000	-	-	-	-	-	1,200,000	-
				8,040,000	-	-	-	(2,400,000)	-	5,640,000	3,240,000
Senior management and other employees											
17/6/2021	Nil (Note 5)	17/6/2021-16/6/2024	7.50	11,520,000	-	-	-	-	-	11,520,000	11,520,000
	Nil (Note 5 & 8)	17/6/2021-16/6/2029	7.50	1,650,000	-	-	-	-	-	1,650,000	1,650,000
	17/6/2021-16/6/2022 (Note 6)	17/6/2022-16/6/2026	7.50	1,637,500	-	-	-	-	-	1,637,500	1,637,500
	17/6/2021-16/6/2023 (Note 6)	17/6/2023-16/6/2027	7.50	250,000	-	-	-	-	-	250,000	250,000
	17/6/2021-16/6/2024 (Note 6)	17/6/2024-16/6/2028	7.50	250,000	-	-	-	-	-	250,000	-
	17/6/2021-16/6/2025 (Note 6)	17/6/2025-16/6/2029	7.50	250,000	-	-	-	-	-	250,000	-
	17/6/2021-16/6/2022 (Note 6 & 7)	17/6/2022-16/6/2026	7.50	62,500	-	-	-	-	-	62,500	62,500
	17/6/2021-16/6/2023 (Note 6 & 7)	17/6/2023-16/6/2027	7.50	62,500	-	-	-	-	-	62,500	62,500
	17/6/2021-16/6/2024 (Note 6 & 7)	17/6/2024-16/6/2028	7.50	62,500	-	-	-	-	-	62,500	-
	17/6/2021-16/6/2025 (Note 6 & 7)	17/6/2025-16/6/2029	7.50	62,500	-	-	-	-	-	62,500	-
	17/6/2021-16/6/2023 (Note 1 & 6)	17/6/2023-16/6/2027	7.50	1,387,500	-	-	-	-	-	1,387,500	1,387,000
	17/6/2021-16/6/2024 (Note 1 & 6)	17/6/2024-16/6/2028	7.50	1,387,500	-	-	-	-	-	1,387,500	-
	17/6/2021-16/6/2025 (Note 1 & 6)	17/6/2025-16/6/2029	7.50	1,387,500	-	-	-	-	-	1,387,500	-
	17/6/2021-16/6/2029 (Note 2)	From vesting date - 16/6/2029	7.50	500,000	-	-	-	-	-	500,000	-
	17/6/2021-16/6/2029 (Note 3)	From vesting date - 16/6/2029	7.50	2,500,000	-	-	-	-	-	2,500,000	-
	17/6/2021-16/6/2029 (Note 4)	From vesting date - 16/6/2029	7.50	3,500,000	-	-	-	-	-	3,500,000	-
				26,470,000	-	-	-	-	-	26,470,000	16,569,500
				34,510,000	-	-	-	(2,400,000)	-	32,110,000	19,909,500

NOTES TO THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

For the six months ended 30 June 2023

19. SHARE-BASED PAYMENT TRANSACTIONS (Continued)

Notes:

1. Vesting of the Share Options is conditional upon achievement of certain sales targets of the Group by the grantees within the vesting period.
2. Vesting of the Share Options is conditional upon successfully develops a new technology and product that appreciated by the board by the grantee within the vesting period of the Group.
3. Vesting of the Share Options is conditional upon successfully procures financing for the Group in the amount and from financial institutions of the satisfaction of the Group by the grantees within the vesting period.
4. Vesting of the Share Options is conditional upon successfully procures certain target company to become a customer of the Group by the grantees within the vesting period.
5. Vesting of the Share Options immediately at grant date.
6. Share Options are exercisable when the grantees retain employment in the Group until the end of the vesting period.
7. Vesting of the Share Options is conditional upon achievement of satisfaction on relationship between the PRC local government authorities and the Group by the grantee within the vesting period.
8. Forfeit of Share Options due to Ms. Liu Yang resigned as Executive Director on 6 February 2023.

The estimated fair value of the options granted on the grant date is approximately HK\$122,873,000. On the date of grant, the closing price was HK\$7.5 per Share.

During the period ended 30 June 2023, the Company recognised expense for services rendered during the vesting period under the share options scheme of approximately RMB3,668,000. (Six month period ended 30 June 2022: expenses of approximately RMB8,083,000)

MANAGEMENT DISCUSSION AND ANALYSIS

INTRODUCTION

HG Semiconductor Limited (the “**Company**”, together with its subsidiaries, the “**Group**”) is principally engaged in the design, development, manufacturing, subcontracting and sales of semiconductor products, including light-emitting diode (“**LED**”) lights, new generation of semiconductor gallium nitride (“**GaN**”) chips, and GaN device related application products in the PRC. Leveraging on its expertise in research and development and manufacturing, reliable team and research and development (“**R&D**”) capabilities, the Group has promptly promoted the business development of the third-generation semiconductor GaN in recent years and expanded the R&D, design, manufacturing and sales of related products, so as to gradually achieve strategic transformation.

Taking semiconductor design and manufacturing as the first priority, the Group has been moving towards the goal of becoming an integrated device manufacturer (“**IDM**”) enterprise integrating R&D, manufacturing, packaging, packaging testing and sales in the whole semiconductor industry chain. In the first half of 2023, while promoting the third-generation semiconductor GaN business at full speed, HG Semiconductor also reconstructed its business structure: the GaN IDM business headquarter was established in Shenzhen (the “**GaN IDM Business Headquarter**”), to fully utilize the great convenience and advantages of Shenzhen in terms of management, talents and market. Meanwhile, the semiconductor factory located in Xuzhou Economic and Technological Development Zone(徐州經濟技術開發區), Jiangsu Province, the PRC (the “**Xuzhou Plant**”) mainly serves as the pilot plant and production base, while Shenzhen Qianyan Technology Research and Development Co., Ltd.* (深圳前沿科技研發有限公司) (“**Shenzhen Qianyan**”), a wholly-owned subsidiary of HG Semiconductor, is mainly responsible for sales and application. At present, the Group is preparing to set up a R&D centre at the GaN IDM Business Headquarter, and the Xuzhou plant will also be adjusted to be managed under the GaN IDM Business Headquarter. The GaN IDM Business Headquarter will focus on R&D and collaborate with the research and development team of the Xuzhou Plant and the application department of Shenzhen Qianyan to create synergies, with an aim to provide more efficient and competitive integrated solutions. The Group will continue to accelerate the pace of R&D and manufacturing of GaN technology related products, and continue to promote its existing business strategies to seize market opportunities, striving to become a leading third-generation semiconductor IDM company in Greater China.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

INDUSTRY REVIEW

According to the Spring 2023 Semiconductor Market Forecast released by the World Semiconductor Trade Statistics (WSTS), the global semiconductor market size is expected to reach US\$515.0 billion in 2023, representing a decrease of 10.3%. However, looking forward to 2024, the global semiconductor market is expected to experience a strong recovery with a projected growth rate of 11.8%, reaching a market size of US\$576.0 billion.

In the first half of 2023, the chip war between China and the United States continued to heat up. The United States successively imposed export control sanctions on Chinese enterprises involved in manufacturing chips and related technologies, and restricted the sales of high-end chips by United States enterprises to China, so as to curb the development of China's semiconductor industry. Subsequently, the Netherlands and Japan also reached agreements with the United States to implement export control measures on semiconductor manufacturing equipment such as extreme ultraviolet (EUV) lithography, deep ultraviolet (DUV) lithography, and chemical materials, etc., to restrict the export of such equipment to China, jointly curbing the development of China's chip manufacturing industry. Nevertheless, the various restrictions imposed by various countries on China's semiconductor industry have transformed into China's driving force. As the world's largest importer of semiconductor chips as well as an important chip consumption market, to overcome the restrictions imposed by various countries, China has invested more resources and funds in scientific research, causing the semiconductor industry to undergo rapid development. In addition to the accelerated domestic manufacturing of semiconductor materials, downstream wafer fabs have also expanded their productivity rapidly, the number of China's integrated circuit enterprises also continued to grow. In addition, according to the annual report of China Semiconductor Industry Association (CSIA), the number of domestic chip design manufacturers has increased from 1,362 in 2016 to 3,243 in 2022, representing a compound annual growth rate of 22.4% from 2016 to 2022, indicating China's remarkable results in promoting self-development of the semiconductor industry.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

As a key member of the third-generation of semiconductors, GaN can operate at high frequencies and maintain high performance and efficiency with lower loss than previously used silicon transistors. As the issue of carbon emissions is becoming more concerned in the world, the third-generation semiconductor with high energy efficiency and low energy consumption has become a new star under the trend. The application market for GaN related products is large and diversified, including new energy vehicles, wireless fast charging and data centres, etc. In China, the new energy vehicle market is one of the core application markets for the third-generation semiconductor materials, with sales volume of over 10.5 million units in China in 2022. According to the data from the Traffic Management Bureau of the Ministry of Public Security of the People's Republic of China, the national car parc of new energy vehicle reached 16.2 million units in the first half of 2023, accounting for 4.9% of the total number of vehicles, and the newly registered new energy vehicles reached 3.128 million units, representing a year-on-year increase of 41.6%, hitting a record high. The continuous increase in the penetration rate of new energy vehicles also drives the demand for charging infrastructure and related supporting facilities such as charging piles. Driven by the "14th Five-Year" policy, the development of the charging pile industry has accelerated. Domestic charging piles have been included in the new infrastructure, with relevant number increased steadily. It is expected that the number of domestic charging piles will increase by more than 80% year-on-year in 2023, and the compound annual growth rate of the increase of charging piles will be 60.7% from 2021 to 2025. GaN has a wide range of applications. With the continuous progress of new infrastructure, new energy, data centre and other fields, GaN devices are expecting the opportunity of "increasing quantity and increasing price (放量提價)" in the next three to five years.

The Ministry of Science and Technology of the People's Republic of China attaches great importance to the technological innovation and industrial development of the third-generation semiconductors, and has provided long-term and continuous support since the "10th Five-Year" period to establish the innovation capability for the entire industry chain of the third-generation semiconductor covering from materials, devices to applications. Driven by the demand for new energy vehicles and energy storage, the growth of the third-generation semiconductor industry has exceeded expectations. As the entire industry has entered into a period of rapid growth, new energy vehicles are expected to open up the second growth curve for GaN power devices.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Driven by favourable national policies, extensive downstream application markets and domestic alternatives, HG Semiconductor will continue to operate the third-generation semiconductor GaN business and the applications of related products, and promote full-speed development of all business segments, with a view to achieve breakthrough in domestic alternative technology in the future.

BUSINESS REVIEW

In the first half of 2023, with its extensive experience, HG Semiconductor implemented effective strategies. In addition to the stable operation of the existing LED bead business, HG Semiconductor continued to deepen the layout of the third-generation semiconductor industry chain and promote the implementation of GaN productivity in various aspects.

During the period under review, China's economic recovery was slow due to the sharp tightening of monetary policies in the European and American countries, the continuous downturn of the real estate market sentiment and the lack of market confidence, which indirectly affected the Group's performance. The Group's revenue for the Period was approximately RMB45.9 million, representing an increase of approximately RMB2.5 million from approximately RMB43.4 million for the Previous Period. It is worth noting that epitaxial wafers and fast charging products under the Group's third-generation semiconductor GaN business recorded a revenue of approximately RMB1.6 million for the Period, representing a significant increase as compared to the same period last year. Meanwhile, the Group's third-generation semiconductor business started to generate contribution during the Period, thus the loss for the period attributable to owners of the Company narrowed to approximately RMB49.1 million.

Comprehensive upgrade of operation management structure leading the Group to a new phase of rapid development

In order to achieve the ultimate goal of becoming an IDM enterprise, the Group restructured and optimised the operation and management structure during the Period. The Group established the GaN IDM Business Headquarter in Shenzhen, while the Xuzhou Plant mainly serves as a pilot plant and manufacturing base, and Shenzhen Qianyan is mainly responsible for sales and application. The three parties will complement each other to create synergies.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

In view of the important role of the third-generation semiconductors in cutting-edge fields such as new energy and electronic information industries, the Shenzhen Municipal Government has successively introduced a series of supporting policies in recent years, such as the Opinions on the Development and Expansion of Strategic Emerging Industries Cluster and the Cultivation and Development of Future Industries (《關於發展壯大戰略性新興產業集群和培育發展未來產業的意見》), focusing on the development of 20 strategic emerging industries including semiconductors and integrated circuits and new energy. In addition, Shenzhen is adjacent to Hong Kong and Macau and close to major capital markets, enabling it to effectively contribute to the innovative development of China's third-generation semiconductor industry in terms of infrastructure, policy support and talents. Therefore, the Group's GaN IDM Business Headquarter in Shenzhen focuses on R&D and cooperates with Xuzhou Plant and Shenzhen Qianyan to develop a series of GaN related application products, including but not limited to photovoltaic inverters, IDC power management modules and new energy vehicle on-board chargers ("OBC"), where Shenzhen Qianyan is responsible for the sales of related products; the Xuzhou Plant mainly serves as a pilot plant and manufacturing base, while the Shenzhen GaN IDM Business Headquarter will subsequently set up production lines in other cities in the China.

The above strategic optimisation of the organisational structure enables complement of the Group's Shenzhen GaN IDM Business Headquarter, Shenzhen Qianyan and Xuzhou Plant to jointly promote the development of upstream and downstream industries, so as to precisely plotting out plans in the fields of third-generation semiconductors and their related application products, ultimately effectively enhancing the business efficiency and competitiveness of HG Semiconductor.

Orderly development of GaN epitaxial wafer production and chip research and development to improve the layout of the third-generation semiconductor industry chain

During the Period, through persistent strategies, the Group continued to upgrade the core equipment of the Xuzhou Plant and promoted the development of the third-generation semiconductor GaN business at full speed. Following the nine utility model and appearance patents obtained last year, including GaN-based inverters and power supply modules, the Group also obtained seven utility model and appearance patents during the Period.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

With the unremitting efforts of the team of scientists, strong in-house research and development capabilities, and product development experience of over decades, the Group has successfully installed production lines for the production of GaN related products. At present, the Group is actively exploring sales with customers, expanding sales channels through the sales team, striving to form a new layout of development of the entire industry chain. In addition, HG Semiconductor has completed the testing of production equipment and technology in just three months and successfully produced epitaxial wafers complying with the high-yield standard of international large-scale manufacturers, demonstrating its scientific research capability and laying a solid foundation for its research and development of chips. With its determination to cultivate the GaN chip field, the Group plans to complete the positive process of power chip in the first quarter of 2024 and commence mass production during the year. The Group believes that by continuously improving and optimising its management model, it will gradually move towards the harvest period in the future.

Actively seizing the development opportunities of the new energy market to accelerate application

In recent years, China has strongly supported the development plan of new energy vehicle business. In June 2023, the Ministry of Commerce issued the Notice on Organising and Conducting Automobile Consumption Promotion Activities (《關於組織開展汽車促消費活動的通知》). At the same time, in June 2023, the Ministry of Finance, the State Taxation Administration and the Ministry of Industry and Information Technology jointly issued the Announcement on the Renewal and Optimisation of the Purchase Tax Reduction and Exemption Policy for New Energy Vehicles (《關於延續和優化新能源汽車車輛購置稅減免政策的公告》), setting out relevant policies to provide reliable support for the development of new energy vehicle industry.

In view of the huge development potential of the downstream market of GaN, the Group has strategically invested in VisiC Technologies Limited (“**VisiC**”), a leading company in the third-generation semiconductor GaN design, and GaN Systems Inc. (“**GaN Systems**”), a leading company in GaN technology, early in August and November 2021, respectively. The former focuses on high-voltage new energy vehicles, with excellent design capabilities and is engaged in the development of GaN-related products including high-power transistors and modules, and the GaN power transistor technology is the cornerstone for significantly improving the overall power efficiency of electric vehicles. GaN Systems focuses on the field of civil products with high current GaN power semiconductor technology, with enterprises around the world relying on its transistors to reduce carbon dioxide emissions and improve the effectiveness and energy efficiency of power systems. Leveraging on the advanced technologies of GaN from its strategic partners, the Group effectively promoted the development of GaN related application products and expanded sales and downstream markets by combining the experience of HG Semiconductor and the strong capabilities of its partners, so as to seize the unlimited growth opportunities in the new energy market and create a mutual win situation.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Continuing to introduce strategic investors to mutually expand GaN business

In the new era of extensive digitalization, intelligence and green applications, the global demand for chips remains high. GaN is becoming increasingly important in the development of the third-generation semiconductor industry, and its robust development prospects keeps attracting investors. Taking advantage of this trend, the Group continued to inject momentum into the Group's business development through introducing strategic investors.

Benefiting from the abundant resources and extensive investment experience of strategic investors, the shareholder base of HG Semiconductor can be further expanded and its financial position can be strengthened. The joining of strategic investors will help the Group consolidate its capital base, promote business growth and deepen its strategic layout in the third-generation semiconductor industry, thereby achieving productivity expansion and comprehensively enhancing its core competitiveness.

Building a world-class scientific research team with scientific research and innovation as the core value of the Company

The rapid growth in the number of third-generation semiconductor enterprises has led to increasingly fierce competition for outstanding technical talents in the industry. In view of this, HG Semiconductor has always adhered to the people-oriented principle and firmly believes that excellent scientific research leaders are necessary to secure innovation and technological progress. We are committed to the construction of scientific research teams and strive to build a world-class scientific research team.

During the period, with an open and innovative attitude, the Group continued to attract professionals from various industries to join the Group. The Group has successively appointed a number of management personnel and scientific research experts with extensive experience in the financial and investment markets to serve as the management of the Group, with a view to establish a more efficient business, operation and management system. The members of the Board comprise talents from different fields. They have extensive experience in corporate financial planning, financial market, asset management and investment banking. The Group believes that their extensive and valuable experience accumulated through years of practice will definitely bring new perspectives to HG Semiconductor's strategic layouts.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

In terms of scientific research and innovation, the Group has recruited a number of scientists with cutting-edge technologies in the industry, who have more than decades of mature experience in semiconductor research, development and production. The Group believes that their joining will greatly enhance the scientific research capabilities of HG Semiconductor, fortifying its technologies capabilities and effectively empower the Group to enhance its own competitive advantages and industrial adaptability, thereby improving and consolidating its position in the industry. In order to maintain its leading position, HG Semiconductor will spare no effort to continue to identify top experts in the industry in the future and strive to expand its semiconductor research and technology team to further improve the third-generation semiconductor GaN industry chain.

OUTLOOK

Affected by the continuous tightening of monetary policies and substantial interest rate hike by central banks of various countries, the pace of global economic recovery has shown a slowing trend. In the World Economic Outlook report published by the International Monetary Fund in July 2023, it is expected that the global economic growth rate will slow down from 3.5% in 2022 to 3.0% in 2023 and 2024. China's economy may be affected by the weak performance of the real estate industry and will maintain a moderate recovery in the second half of 2023.

Due to the increasingly fierce competition between China and the United States in the high-tech sector, the United States and major chip manufacturing countries such as the Netherlands and Japan have further sanctioned China, resulting in severe pressure on the domestic semiconductor industry. Fortunately, benefiting from the accelerated development of domestic core technologies and the relevant policy support for self-development of technology, the development of the industry remained resilient. According to the latest forecast of Semiconductor Industry Association, global semiconductor sales are expected to grow to US\$576 billion in 2024, the highest total sales of the industry in history. The growing demand for high frequency in the semiconductor market and the emergence of sectors such as new energy vehicles, fast charging and photovoltaic inverters have promoted the vigorous development of GaN semiconductor market. According to Mordor Intelligence, a market consulting company, the market value of GaN semiconductor devices will reach US\$253 million in 2025. The strong market demand has laid a solid foundation for the Group's third-generation semiconductor GaN industry chain business.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

In addition, as carbon reduction becomes an important global trend, governments of various countries are actively promoting the development of new energy vehicles. Among them, the Council of the European Union has passed regulations to restrict sales of new fuel vehicles with non-zero carbon emissions within the European Union from 2035, and to provide that the carbon emissions of new fuel vehicles shall reduce their carbon emission by 55% in 2030 as compared to 2021. In Hong Kong, the government is vigorously promoting the popularisation of electric vehicles and has set a target to stop the new registration of fuel-propelled private cars by 2035. In Mainland China, the country will vigorously develop new energy industry, providing vast development potentials for China's new energy vehicles. Sigmaintell, a research and consulting company, predicted that the sales of new energy vehicles in Mainland China will reach 8.5 million units in 2023, representing a year-on-year increase of 23%. The fast-growing trend will bring tremendous business opportunities for the development of the entire supply chain and further consolidate the application of the third-generation semiconductors in new energy vehicles. In order to actively respond to the national call for "Carbon Peak and Carbon Neutrality" and seize the opportunities for the development of the new energy vehicle industry, the Group will leverage on VisIC's design experience in high-voltage GaN and the advanced technology of EV inverter as well as GaN Systems's high current GaN power semiconductor technology, and combine the excellent research and development capabilities of HG Semiconductor to accelerate the layout in the field of new energy vehicles and facilitate the implementation of the Group's long-term strategic planning.

During the Period, the Group was determined to restructure its business structure and make strategic deployment. In addition to the establishment of the GaN IDM Business Headquarter in Shenzhen, the Xuzhou Plant mainly serves as a pilot plant and production base, while Shenzhen Qianyan plays a major role in sales and application. In the future, the GaN IDM Business Headquarter will set up a R&D centre and the Xuzhou Plant will also be adjusted and managed under the GaN IDM Business Headquarter, both of which will collaborate with the application department of Shenzhen Qianyan to create synergies. This strategic move will clarify HG Semiconductor's future development blueprint. As for product development, it is expected that the positive process of power chips will be completed in the first quarter of 2024 and mass production will also be carried out during the year. In the future, the Group will continue to focus on the strategic layout of GaN-related product applications while developing the epitaxial wafers and chips business with market competitiveness, actively conduct research and timely monitor the latest development of the market, with a view to further release the development potential of its business.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Looking forward, the Group will continue to actively introduce strategic investors, and at the same time, plot its layout in core areas of the industry chain through continuous strategic investment and other means, striving to accelerate the pace of industry chain upgrade, so as to achieve the ultimate goal of becoming an IDM enterprise integrating R&D, manufacturing, packaging and package testing, and sales in the whole GaN industry chain.

Excellent research and development and technical talents are important foundation for the sustainable development of the third-generation semiconductor enterprises. Adhering to the people-oriented corporate core values, the Group will continue to identify outstanding industry experts around the world and strive to build a scientific and technological team with excellent research and development capabilities to support the robust development of HG Semiconductor in the third-generation semiconductor market and help fully release its competitiveness. At the same time, the Group will also steadily develop its initial LED bead business and expand its product portfolio to consolidate and increase market penetration.

Benefiting from the national policy of vigorously developing the third-generation semiconductors, HG Semiconductor will seize this development opportunity. By combining the Group's well-established management structure, visionary development strategy and high emphasis on research and development, the Group is confident in the long-term growth path and profitability of our business, expecting to create long-term and stable returns for the shareholders of the Company.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

FINANCIAL REVIEW

Revenue

For the Period, total revenue was approximately RMB45.9 million, representing an increase of approximately 5.8% as compared with that for the Previous Period (Previous Period: approximately RMB43.4 million). The increase was attributable to the increase in revenue from the sales of (i) LED products and (ii) GaN and other semiconductor products.

The following table sets forth the breakdown of the Group's revenue by segment:

	Six months ended 30 June			
	2023		2022	
	RMB'000 (unaudited)	%	RMB'000 (unaudited)	%
LED products	44,310	96.5	43,437	100.0
GaN and other semiconductor products	1,595	3.5	—	—
Total	45,905	100.0	43,437	100.0

For the Period, revenue from LED beads amounted to approximately RMB44.3 million (Previous Period: approximately RMB43.4 million), accounting for 96.5% of the total revenue (Previous Period: 100%). Despite consumer confidence has continued to fall short of pre-pandemic level during the Period, the increase in revenue from LED beads was mainly due to the implementation of price reduction strategy which helped to secure sales from this product segment.

Revenue from GaN and other semiconductor products during the Period was approximately RMB1.6 million (Previous Period: nil), accounting for approximately 3.5% of the total revenue (Previous Period: nil).

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Cost of Sales

Cost of sales of the Group primarily consisted of cost of material used, direct labour and production overheads. It increased by approximately 21.2% from approximately RMB35.4 million for the Previous Period to approximately RMB42.9 million for the Period, mainly due to an increase in the application of higher-end raw materials and therefore an increase in the cost of material used.

Gross Profit and Gross Profit Margin

The gross profit decreased from approximately RMB8.1 million for the Previous Period to approximately RMB3.0 million for the Period. The gross profit margin decreased from approximately 18.6% for the Previous Period to approximately 6.6% for the Period. The following table sets forth a breakdown of the gross profit and gross profit margin by segment for the periods indicated:

	Six months ended 30 June 2023		Six months ended 30 June 2022	
	Gross profit RMB'000 (unaudited)	Gross profit margin %	Gross profit RMB'000 (unaudited)	Gross profit margin %
LED products	5,873	13.3	8,081	18.6
GaN and other semiconductor products	(2,834)	-177.7	—	—
Total gross profit/gross profit margin	3,039	6.6	8,081	18.6

The gross profit margin of LED beads decreased from approximately 18.6% for the Previous Period to approximately 13.3% for the Period. Such decrease was mainly attributable to the increase in the cost of material used.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Other Income and Gains

Other income and gains of the Group increased by approximately 25.0% from approximately RMB0.8 million for the Previous Period to approximately RMB1.0 million for the Period, which was mainly due to the increase in Government grants from the PRC Government during the Period.

Selling and Distribution Expenses

The selling and distribution expenses increased by approximately 43.8% from approximately RMB1.6 million for the Previous Period to approximately RMB2.3 million for the Period. The increase in selling and distribution expenses was mainly attributable to the increase in sales and marketing staff costs.

Administrative and Other Expenses

The Group's administrative and other expenses decreased by approximately 16.2% from approximately RMB56.1 million for the Previous Period to approximately RMB47.0 million for the Period. The administrative and other expenses mainly included administrative staff costs, research and development costs, professional services expenses and equity-settled share-based payment expenses. The decrease in administrative and other expenses was mainly due to (i) decrease of equity-settled share-based payment expenses and (ii) decrease of research and development costs.

The equity-settled share-based payment expenses was approximately RMB3.7 million for the Period (Previous Period: equity-settled share-based payment expenses of approximately RMB8.1 million).

The research and development costs were approximately RMB12.1 million for the Period (Previous Period: approximately RMB16.9 million).

Finance Costs

The Group's finance costs was approximately RMB6.3 million for the Period (Previous Period: approximately RMB1.0 million). The increase in finance costs was mainly attributable to the interest pursuant to a loan agreement entered by the Company on 26 December 2022. The interest accrued in relation to this loan agreement was approximately RMB5.3 million during the Period (Previous Period: nil).

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Income Tax Credit

Income tax credit of the Group for the Period was approximately RMB0.1 million (Previous Period: approximately RMB1.0 million).

Loss for the Period

The loss for the Period was approximately RMB51.9 million, as compared to a loss of approximately RMB51.5 million for the Previous Period. The increase in loss for the Period was mainly attributable to the decrease in gross profit and the increase in finance costs during the Period.

Net Margin

The Group recorded a net margin of approximately -113.1% for the Period, compared to that of a net margin of approximately -118.6% for the Previous Period. The increase in net margin for the Period was mainly attributable to the decrease in administrative and other expenses during the Period.

DIVIDEND

The Directors do not recommend the payment of an interim dividend for the Period (Previous Period: nil), in order to cope with the future business development of the Group.

LIQUIDITY, FINANCIAL RESOURCES AND CAPITAL STRUCTURE

For the Period, the Group recorded net cash flows used in operating activities of approximately RMB24.4 million as compared to the net cash flows used in operating activities of approximately RMB34.3 million for the Previous Period, primarily due to (i) a reduction of operating loss before working capital changes; (ii) a decrease in inventories; and (iii) an increase in trade and bills receivables.

As at 30 June 2023, the Group had net current assets of approximately RMB154.1 million (31 December 2022: approximately RMB189.2 million). The Group's current ratio (i.e. total current assets at the end of the period divided by total current liabilities at the end of the period) as at 30 June 2023 was approximately 2.0 (31 December 2022: approximately 2.9). The decrease was primarily due to the increase in borrowings during the Period.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

As at 30 June 2023, the Group had total cash and bank balances of approximately RMB52.0 million (31 December 2022: approximately RMB43.8 million). The increase in total cash and bank balances was mainly due to the net cash flows generated from financing activities of approximately RMB80.1 for the Period, which mainly consisted of the proceeds from (i) the placing of new shares and (ii) the other borrowings.

As at 30 June 2023, the total available banking facilities of the Group were RMB10.0 million (31 December 2022: RMB10.0 million). The total drawn down from the banking facilities as at 30 June 2023 was RMB10.0 million (31 December 2022: RMB10.0 million).

The shares of the Company were successfully listed on the GEM of the Stock Exchange on 30 December 2016 and the listing of the Company's shares has been transferred from the GEM to the Main Board of the Stock Exchange since 13 November 2019. The share capital of the Company comprises only ordinary shares. As at 30 June 2023, the equity attributable to owners of the Company amounted to approximately RMB617.0 million (31 December 2022: approximately RMB609.9 million).

GEARING RATIO

The Group's gearing ratio (i.e. total bank and other borrowings at the end of the period divided by total equity at the end of the period) as at 30 June 2023 was approximately 1.6% (31 December 2022: approximately 6.7%).

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

DISCLOSURE OF INTERESTS

Interests and short positions of Directors and chief executive in the shares, underlying shares and debentures of the group and its associated corporations

As at 30 June 2023, the interests and short positions of the Directors and chief executive of the Company in the shares (the **"Share(s)"**), underlying Shares and debentures of the Company or any of its associated corporations (as defined in Part XV of the Securities and Futures Ordinance (the **"SFO"**)) which were required to be notified to the Company and the Stock Exchange under Divisions 7 and 8 of Part XV of the SFO (including any interests or short positions which they are taken or deemed to have under such provisions of the SFO) or required to be entered in the register of the Company pursuant to section 352 of the SFO, or required to be notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers (the **"Model Code"**) as set out in Appendix 10 of the Listing Rules were as follows:

Long positions in the ordinary shares and underlying Shares

Name	Capacity/Nature of interest	Number of Shares held/ interested (Note 1)	Approximate percentage of shareholding (Note 2)
Dr. Cao Yu	Beneficial owner	50,000 (L)	0.01%
Mr. Zhao Yi Wen	Interest in a controlled corporation (Note 3)	56,500,000 (L)	9.09%
	Beneficial owner (Note 4)	480,000 (L)	0.08%
Mr. Lyu Xiangrong	Beneficial owner	834,000 (L)	0.13%
Dr. Wang David Nin-kou	Beneficial owner (Note 5)	4,800,000 (L)	0.77%
Professor Chow Wai Shing, Tommy	Beneficial owner (Note 6)	120,000 (L)	0.02%

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Notes:

1. The letter "L" denotes a long position.
2. There were 621,601,000 Shares in issue as at 30 June 2023.
3. The 56,500,000 Shares in which Mr. Zhao Yi Wen is interested consist of 56,500,000 Shares held by First Global Limited, a company wholly owned by Mr. Zhao Yi Wen, in which Mr. Zhao Yi Wen is deemed to be interested under the SFO.
4. Mr. Zhao Yi Wen is interested in the 480,000 underlying Shares which may be allotted and issued to him upon full exercise of all the options granted to him under the Share Option Scheme.
5. Dr. Wang David Nin-kou is interested in the 4,800,000 underlying Shares which may be allotted and issued to him upon full exercise of all the options granted to him under the Share Option Scheme.
6. Professor Chow Wai Shing, Tommy is interested in the 120,000 underlying Shares which may be allotted and issued to him upon full exercise of all the options granted to him under the Share Option Scheme.

Save as disclosed above, as at 30 June 2023, none of the Directors and chief executive of the Company had any interest or short position in the Shares, underlying Shares and debentures of the Company or any of its associated corporations (as defined in Part XV of the SFO) which were required to be (i) notified to the Company and the Stock Exchange under Divisions 7 and 8 of Part XV of the SFO (including any interests or short positions which they are taken or deemed to have under such provisions of the SFO); (ii) entered in the register of the Company pursuant to section 352 of the SFO; or (iii) notified to the Company and the Stock Exchange pursuant to the Model Code.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

The interests of substantial shareholders and the interests and short position of other persons in the shares and underlying Shares

As at 30 June 2023, so far as the Directors are aware, the interests or short positions owned by the following persons (other than the Directors or chief executive of the Company) in the Shares or underlying Shares which are required to be notified to the Company under Divisions 2 and 3 of Part XV of the SFO, or which are required to be recorded in the register of the Company required to be kept under section 336 of the SFO are as follows:

Name	Capacity/Nature of interest	Number of Shares held/ interested (Note 1)	Approximate percentage of shareholding (Note 2)
Jovial Star International Limited	Beneficial owner (Note 3)	129,453,785 (L)	20.83%
Zhan Haisu	Interest in a controlled corporation (Note 4)	129,453,785 (L)	20.83%
Wide Yield Investment Holding Limited	Beneficial owner (Note 5)	100,500,000 (L)	16.17%
Ms. Qin Anqi	Interest in a controlled corporation (Note 5)	100,500,000 (L)	16.17%
First Global Limited	Beneficial owner (Note 6)	56,500,000 (L)	9.09%
Ms. Zhuang Chan Ling	Interest of spouse (Note 7)	56,980,000 (L)	9.17%
GSR Capital Special Opportunity Fund L.P. ("GSR")	Beneficial owner (Note 8)	56,000,000 (L)	9.01%
GoldenSand Capital Ltd ("GoldenSand")	Interest in a controlled corporation (Note 8)	56,000,000 (L)	9.01%
Wu Sonny	Interest in a controlled corporation (Note 8)	56,000,000 (L)	9.01%
Ms. Qin Xiaolu	Beneficial owner	39,085,000 (L)	6.29%

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

Notes:

1. The letter "L" denotes a long position.
2. There were 621,601,000 Shares in issue as at 30 June 2023.
3. On 31 May 2023, the Company and its two wholly-owned subsidiaries, namely FastPower Holding Limited and Swift Power Limited (the "**Borrowers**") and Jovial Star International Limited (the "**Creditor**") entered into the Debt Settlement Agreement, pursuant to which the Company has conditionally agreed to allot and issue, and the Creditor has conditionally agreed to subscribe for, a total of 129,453,785 Capitalization Shares at a price of HK\$0.80 per Share in settlement of the Indebted Sum in full. For details, please refer to the announcements of the Company dated 23 May 2023, 31 May 2023, 12 July 2023 and 23 August 2023 and circular dated 27 June 2023.
4. The 129,453,785 Shares in which Mr. Zhan Haisu is interested consist of 129,453,785 Shares in which Jovial Star International Limited is interested in. Jovial Star International Limited is a company wholly owned by Mr. Zhan Haisu, in which Mr. Zhan Haisu is deemed to be interested under the SFO.
5. 100,500,000 Shares held by Wide Yield Investment Holding Limited, a company wholly owned by Ms. Qin Anqi, in which Ms. Qin Anqi is deemed to be interested under the SFO.
6. 56,500,000 Shares held by First Global Limited, a company wholly owned by Mr. Zhao Yi Wen, in which Mr. Zhao Yi Wen is deemed to be interested under the SFO.
7. Ms. Zhuang Chan Ling is the spouse of Mr. Zhao Yi Wen and is deemed, or taken to be, interested in the Shares in which Mr. Zhao Yi Wen has interest under the SFO.
8. GSR is an exempted limited partnership with GoldenSand (a company which is wholly owned by Sonny Wu and being the general partner of GSR) and Sonny Wu (being the limited partner of GSR) holding 50% and 50% of the total capital contribution to GSR respectively, and therefore GoldenSand and Sonny Wu are deemed to be interested in the 56,000,000 Shares held by GSR under SFO.

Save as disclosed above, as at 30 June 2023, the Directors are not aware of any interests or short positions owned by any persons (other than the Directors or Chief Executive of the Company) in the shares or underlying shares of the Company which were required to be disclosed under Divisions 2 and 3 of Part XV of the SFO or which were required to be recorded in the register of the Company required to be kept under section 336 of the SFO.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

SHARE OPTION SCHEME

The Company's share option scheme (the "**Share Option Scheme**") was conditionally approved and adopted by the Company pursuant to the written resolutions of the then all shareholders of the Company dated 2 December 2016. Unless otherwise cancelled or amended, the Share Option Scheme will remain in force for a period of 10 years from the date of its adoption.

On 17 June 2021, the Company granted a total of 34,510,000 options, with exercise price of HK\$7.5 per share of the Company (the "**Share**"), to the Directors and certain eligible employees of the Group. On the date immediately before the options were granted, the closing price was HK\$7.35 per Share.

On 28 July 2023, the Company granted a total of 7,890,000 options, with exercise price of HK\$1.4 per Share, to certain eligible employees of the Group. On the date immediately before the options were granted, the closing price was HK\$1.27 per Share.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

As at 30 June 2023, details of the interests of the Directors, chief executive, senior management and other employees of the Group in the Share Option Scheme are set out below:

Grantee	Date of grant	Vesting period	Exercisable period	Subscription price per Share (\$K)	Number of Shares in relation to outstanding options as at 1 January 2023	Granted during the Period	Exercised during the Period	Cancelled during the Period	Lapsed or forfeited during the Period	Transfer between category during the Period	Number of Shares in relation to outstanding options
											as at 30 June 2023
<i>Executive Directors:</i>											
Mr. Zhao Yi Wen	17/6/2021	Nil	17/6/2021–16/6/2024	7.5	480,000	–	–	–	–	–	480,000
Ms. Liu Yang (resigned as Executive Director on 6 February 2023)	17/6/2021	Nil (Note 2)	17/6/2021–16/6/2023	7.5	2,400,000	–	–	–	(2,400,000)	–	–
<i>Non-executive Director:</i>											
Dr. Wang David Nin-kou	17/6/2021	17/6/2021–16/6/2022	17/6/2022–16/6/2026	7.5	1,200,000	–	–	–	–	–	1,200,000
		17/6/2021–16/6/2023	17/6/2023–16/6/2027	7.5	1,200,000	–	–	–	–	–	1,200,000
		17/6/2021–16/6/2024	17/6/2024–16/6/2028	7.5	1,200,000	–	–	–	–	–	1,200,000
		17/6/2021–16/6/2025	17/6/2025–16/6/2029	7.5	1,200,000	–	–	–	–	–	1,200,000
<i>Independent Non-executive Directors:</i>											
Professor Chow Wai Shing, Tommy	17/6/2021	Nil	17/6/2021–16/6/2024	7.5	120,000	–	–	–	–	–	120,000
Mr. Wu Wing Kuen, B.B.S.	17/6/2021	Nil	17/6/2021–16/6/2024	7.5	120,000	–	–	–	–	–	120,000
Mr. Chan Chung Kik, Lewis	17/6/2021	Nil	17/6/2021–16/6/2024	7.5	120,000	–	–	–	–	–	120,000
Subtotal					8,040,000	–	–	–	(2,400,000)	–	5,640,000
<i>Senior management and other employees in aggregate</i>											
	17/6/2021	Nil	17/6/2021–16/6/2024	7.5	11,520,000	–	–	–	–	–	11,520,000
			17/6/2021–16/6/2023	7.5	1,650,000	–	–	–	–	–	1,650,000
			17/6/2021–16/6/2022	7.5	250,000	–	–	–	–	–	250,000
			17/6/2021–16/6/2023	7.5	250,000	–	–	–	–	–	250,000
			17/6/2021–16/6/2024	7.5	250,000	–	–	–	–	–	250,000
			17/6/2021–16/6/2025	7.5	250,000	–	–	–	–	–	250,000
			17/6/2021–16/6/2022 (Note 1)	7.5	1,450,000	–	–	–	–	–	1,450,000
			17/6/2021–16/6/2023 (Note 1)	7.5	1,450,000	–	–	–	–	–	1,450,000
			17/6/2021–16/6/2024 (Note 1)	7.5	1,450,000	–	–	–	–	–	1,450,000
			17/6/2021–16/6/2025 (Note 1)	7.5	1,450,000	–	–	–	–	–	1,450,000
17/6/2021–16/6/2029 (Note 1)	7.5	6,500,000	From vesting date–16/6/2029	7.5	6,500,000	–	–	–	–	6,500,000	
Subtotal					26,470,000	–	–	–	–	–	26,470,000
Total					34,510,000	–	–	–	(2,400,000)	–	32,110,000

Notes:

- Vesting of the Share Options is conditional upon achievement of certain performance targets by the Grantees.
- Forfeit of share options due to Ms. Liu Yang resigned as Executive Director on 6 February 2023.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

EXEMPTED CONTINUING CONNECTED TRANSACTION

During the Period, the Group entered into certain transactions with “related parties” as defined under the applicable accounting standards and the details of the material related party transactions (the “**Transactions**”) are disclosed in note 18 to the condensed consolidated financial statements of this report.

The Transactions falls under the definition of “connected transactions” or “continuing connected transactions” under Chapter 14A of the Listing Rules, but are fully exempted from shareholders’ approval, annual review and all disclosure requirements under Chapter 14A of the Listing Rules.

SIGNIFICANT INVESTMENTS

VisIC Technologies Limited (“VisIC”)

On 24 June 2021, the Company’s wholly-owned subsidiary, FastSemi Holding Limited (“**FastSemi**”), acquired 349,992 series E preferred shares of VisIC, an unlisted company in Israel principally engaged in the development of GaN-related products, which include high-power transistors and modules, at the consideration of approximately USD5 million. On 23 August 2021, FastSemi further acquired 1,399,969 series E preferred shares of VisIC, at the consideration of approximately USD20 million. In 2021, the total number of shares acquired was 1,749,961 with an investment cost of approximately USD25 million. The total number of shares acquired represented approximately 18.7% of the enlarged issued share capital of VisIC as at 30 June 2023. Such investment was classified as an equity instrument at fair value through other comprehensive income amounting to approximately RMB178.7 million as at 30 June 2023, representing approximately 22.8% of the Group’s consolidated total assets as at 30 June 2023. No Fair value gain or loss was recognised through other comprehensive income during the Period. There was no dividends received from this investment for the Period. As VisIC is one of the largest players in the third-generation field of GaN devices, the Group plans to hold VisIC as a long-term investment.

Beijing Hongzhi Electric Technology Co., Ltd.* (“Beijing Hongzhi”)

On 6 August 2021, the then Company’s wholly-owned subsidiary, Xuzhou GSR Semiconductor Co., Ltd.* (“**Xuzhou GSR**”), invested 10% of the ordinary shares of Beijing Hongzhi with a consideration of RMB15 million. Such investment was classified as an equity instrument at fair value through other comprehensive income amounting to approximately RMB11.7 million as at 30 June 2023. Fair value loss of approximately RMB4.7 million was recognised through other comprehensive income during the Period. There was no dividends received from this investment for the Period. Beijing Hongzhi has more than 20 years of experience in chip design and technology, and holds numerous registered patents and technology-related intellectual property rights which helps the company to maintain high potential for future growth.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

GaN Systems Inc. (“GaN Systems”)

On 30 November 2021, FastSemi acquired 206,367 series F-2 preferred shares of GaN Systems, a Canadian company principally engaged in the development of a broad range of GaN-related products, which include high current GaN power semiconductors, at a consideration of approximately USD1.75 million, representing approximately 0.37% of the total issued share capital of GaN Systems as at 30 June 2023. Such investment was classified as an equity instrument at fair value through other comprehensive income amounting to approximately RMB12.6 million as at 30 June 2023. No fair value gain or loss was recognised through other comprehensive income during the Period. There was no dividends received from this investment for the Period. GaN Systems has in-depth knowledge of GaN technology and a management team with decades of GaN product experience. GaN System is also a GaN power transistor company currently shipping to automotive, consumer, industrial, and data centre customers globally.

HighTec SP2 Fund (the “Fund”)

In December 2021, FastSemi subscribed 4,000 shares of the Fund at a consideration of USD4 million. The Fund’s investment strategies are principally to invest directly or through other investment vehicles in the equity securities of the world’s leading semiconductor design and production companies, which include technology companies focusing on providing fast-charging solutions, R&D companies with technical knowledge and product experience, R&D companies focusing on power devices in electric vehicle applications, and technology companies focusing on high-power automotive solutions.

In January 2022, FastSemi further subscribed for 1,002,466 shares of the Fund at a consideration of approximately USD1 million.

Such investment was classified as an equity instrument at fair value through profit or loss amounting to approximately RMB35.6 million as at 30 June 2023, representing approximately 4.5% of the Group’s consolidated total assets as at 30 June 2023. Fair value loss of approximately RMB87,000 was recognised through profit or loss during the Period. As the Fund’s main focus is on investing in the semiconductor industry and semiconductors have a wide range of applications in a huge and growing market, the outlook for the Fund remains positive.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

MATERIAL ACQUISITIONS AND DISPOSALS

On 28 April 2023, Swift Power Limited (“**Swift Power**”), an indirect wholly-owned subsidiary of the Company, entered into an equity transfer agreement (the “**Equity Transfer Agreement**”) with Xuzhou Diheng Semiconductor Technology Partnership* (徐州地恆半導體科技合夥企業(有限合夥)), a proposed employee shareholding platform (the “**Employee Shareholding Platform**”), pursuant to which Swift Power transferred approximately 21.01% equity interests (the “**Equity Transfer**”) in Jiangsu Jiahong Semiconductor Co., Ltd* 江蘇稼宏半導體有限公司 (formerly known as Xuzhou GSR Semiconductor Co., Ltd.* 徐州金沙江半導體有限公司) (“**Xuzhou Semiconductor**”), an indirect non wholly-owned subsidiary of the Company, to the Employee Shareholding Platform at a consideration of USD3.5142 million (equivalent to approximately RMB24.2 million) payable in cash by 16 April 2026, for the purpose of implementing a proposed employee share incentive scheme of Xuzhou Semiconductor.

The Equity Transfer was accounted for as an equity transaction and it did not result in the recognition of any gain or loss in the Company’s consolidated statement of profit or loss and other comprehensive income for the six months ended 30 June 2023. Upon completion of the Equity Transfer on 28 April 2023, Swift Power’s ownership in Xuzhou Semiconductor has decreased from 86.01% to 65%. Please refer to the announcement of the Company dated 20 September 2023 for details of the Equity Transfer.

Save as above, the Group did not have any material acquisitions or disposals of subsidiaries and associated companies during the Reporting Period.

For illustration purpose, above amounts in USD have been translated into RMB at the rate of USD1 = RMB6.884

** For identification purpose only*

CAPITAL COMMITMENTS

As at 30 June 2023, the Group has capital commitments for the acquisition of property, plant and equipment, the amount contracted for amounted to RMB24.0 million (31 December 2022: approximately RMB64.5 million).

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

CHARGE ON THE GROUP'S ASSETS

As at 30 June 2023 and 31 December 2022, the Group has the following share charges subject to the loan agreement entered by the Company on 26 December 2022:

- (i) the entire portfolio of issued shares in FastPower Holding Limited, a wholly-owned subsidiary of the Company;
- (ii) the entire portfolio of issued shares in FastSemi Holding Limited, a wholly-owned subsidiary of the Company; and
- (iii) the entire portfolio of issued shares in Swift Power Limited, an indirect wholly-owned subsidiary of the Company.

CONTINGENT LIABILITIES

As at 30 June 2023, the Group did not have any significant contingent liabilities.

FOREIGN EXCHANGE EXPOSURE

The Group's main operations are in the PRC with most of its transactions settled in RMB. The Directors are of the opinion that the Group's exposure to foreign exchange risk is insignificant. During the Period, the Group did not hedge any exposure to foreign exchange risk.

EMPLOYEES AND REMUNERATION POLICIES

As at 30 June 2023, the Group employed 171 employees (31 December 2022: 237 employees). Employee costs (including Directors' remuneration, wages, salaries, performance related bonuses, other benefits and contribution to defined contribution pension plans) amounted to approximately RMB22.9 million for the Period (Previous Period: approximately RMB25.6 million). Apart from basic remuneration, share options may be granted under the share option scheme of the Company to eligible employees by reference to the Group's performance as well as the individual's contribution. The employee costs for the Period have included the share-based payment expenses of approximately RMB3.7 million (Previous Period: approximately RMB8.1 million), in relation to the share options granted by the Company on 17 June 2021. The Group will endeavor to ensure that the employees' salary levels are in line with industry practice and prevailing market conditions and that employees' overall remuneration is determined based on the performance of the Company and the employees.

PURCHASE, SALE OR REDEMPTION OF THE COMPANY'S LISTED SECURITIES

During the Period, neither the Company nor any of its subsidiaries had purchased, sold or redeemed any of the Company's listed securities.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

USE OF PROCEEDS

Placing of New Shares under General Mandate

(1) **Placing on 13 June 2023**

In order to strengthen the Group's research and development capabilities, and provide general working capital to meet the needs of its business development plan, on 23 May 2023, the Company entered into a placing agreement with VC Brokerage Limited in relation to the placing of a maximum of 40,000,000 new ordinary shares of HK\$0.01 each in the share capital of the Company at a price of HK\$0.9 per share (the "**June 2023 Placing**"). The closing price for the Company's shares on 22 May 2023 (being the last trading day prior to the date of signing the placing agreement) was HK\$1.06 per share. On 13 June 2023, the June 2023 Placing was completed and the Company issued and allotted an aggregate of 40,000,000 new ordinary shares to not less than six independent third parties. The net price for such shares was approximately HK\$0.88 per share and the aggregate nominal value of such shares was HK\$400,000. The June 2023 Placing generated net proceeds of approximately HK\$35.1 million (the "**June 2023 Placing Proceeds**"). Details of the June 2023 Placing were set out in the Company's announcements dated 23 May 2023 and 13 June 2023.

As at 30 June 2023, the Group's planned application and the actual utilisation of the June 2023 Placing Proceeds are set out below:

	Net proceeds HK\$ million	Utilised HK\$ million	Unutilised HK\$ million	Expected timeline for utilising the unutilized proceeds ^(Note)
Strengthening research and development capabilities	17.55	—	17.55	On or before 31 December 2023
Provision of general working capital	17.55	1.47	16.08	On or before 31 December 2023
	35.1	1.47	33.63	

Note: The expected timeline for utilizing the unutilized proceeds is based on the best estimation of the future market conditions made by the Group. It was subject to change based on the current and future development of market conditions.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

DIRECTORS' SECURITIES TRANSACTIONS

The Company has adopted the Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 of the Listing Rules as the code of conduct for dealing in securities of the Company by the Directors (the “**Required Standard of Dealings**”). The Company had also made specific enquiry of all the Directors and the Company is not aware of any non-compliance with the Required Standard of Dealings regarding securities transactions by the Directors during the Period.

CHANGE IN DIRECTOR'S INFORMATION

The English name and Chinese name of executive Director and deputy chief executive officer of the Company have been changed from Lyu Xiangrong (呂向榮) to Mr. Lu Kailin (呂鎧麟) (“**Mr. Lu**”) on 23 August 2023.

CORPORATE GOVERNANCE AND COMPLIANCE WITH THE CORPORATE GOVERNANCE CODE

The Company adopted the Corporate Governance Code (the “**CG Code**”) contained in Appendix 14 to the Listing Rules as its own code of corporate governance. Save for the Code Provision C.2.1 of the CG Code, the Board is satisfied that the Company had complied with the CG Code during the Period.

Code Provision C.2.1 of the CG Code stipulates that the roles of chairman and chief executive should be separate and should not be performed by the same individual. During the Period, Mr. Zhao Yi Wen (“**Mr. Zhao**”) was both the chairman of the Board and the Chief Executive Officer of the Company, between 1 January 2023 to 5 February 2023. In view of Mr. Zhao being one of the founders of the Group and having been operating and managing Zhuhai HongGuang Semiconductor Company Limited, a operating subsidiary of the Company, since 2010, the Board believes that it was in the best interest of the Group to have Mr. Zhao taking up both roles for effective management and business development during the abovementioned period.

Mr. Zhao resigned as Chief Executive Officer of the Company on 6 February 2023 and subsequently as Chairman of the Company on 5 June 2023, but remained as an Executive Director of the Company.

MANAGEMENT DISCUSSION AND ANALYSIS (CONTINUED)

AUDIT COMMITTEE AND REVIEW OF ACCOUNTS

The audit committee of the Company (the “**Audit Committee**”) has discussed and reviewed with management, the unaudited condensed consolidated financial statements of the Group for the Period, which was of the opinion that such statements complied with the applicable accounting standards and requirements, and that adequate disclosures have been made. The Audit Committee comprises four Independent Non-executive Directors, namely Mr. Zou Haiyan, Mr. Siu Miu Man, Simon, MH, Professor Chow Wai Shing, Tommy and Mr. Li Yang. Mr. Zou Haiyan is the chairman of the Audit Committee who has appropriate professional qualifications and experience as required by the Listing Rules.

By order of the Board

HG Semiconductor Limited

Dr. Xu Zhihong

Chairman and Executive Director

Hong Kong, 31 August 2023

As at the date of this report, the executive Directors are Dr. Xu Zhihong, Mr. Zhao Yi Wen, Mr. Lu Kailin, Mr. Leung Kin Pang and Dr. Chen Zhen; the non-executive Director is Dr. Wang David Nin-kou; and the independent non-executive Directors are Professor Chow Wai Shing, Tommy, Mr. Li Yang, Mr. Zou Haiyan and Mr. Siu Miu Man, Simon, MH.

* *For identification purpose only*