

# Hua Hong Semiconductor Ltd

Bloomberg: 1347 HK Equity | Reuters: 1347.HK

Refer to important disclosures at the end of this report

DBS Group Research . Equity

7 Feb 2024

## HOLD

Last Traded Price (7 Feb 2024): HK\$13.86 (HSI : 16,082)  
Price Target 12-mth: HK\$17.00 (23% upside) (Prev HK\$22.00)

### Analysts

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### What's New

- 4Q23 adjusted net loss (excluding government subsidy) was US\$16m, due to prolonged weak end-market demand, in line
- Management guides for weak gross margin of 3-6% in 1Q24, due to persistent ASP pressure in consumer electronics-related products
- FY24F/25F earnings forecast cut by 55%/49% to pencil in ASP pressure on 300mm wafer, prolonged margin shrinkage
- Maintain HOLD, with lower TP of HK\$17.0 due to slower-than-expected recovery profile

### Price Relative



### Forecasts and Valuation

FY Dec (US\$m)	2023A	2024F	2025F	2026F
Turnover	2,286	2,133	2,681	3,064
EBITDA	696	528	582	663
Pre-tax Profit	174	27	61	120
Net Profit	280	119	174	206
Net Pft (Pre-Ex) (core profit)	280	119	174	206
Net Profit Gth (Pre-ex) (%)	(37.8)	(57.4)	45.7	18.3
EPS (US\$)	0.16	0.07	0.10	0.12
EPS (HK\$)	1.27	0.54	0.79	0.93
Core EPS (US\$)	0.16	0.07	0.10	0.12
Core EPS (HK\$)	1.27	0.54	0.79	0.93
EPS Gth (%)	(52.2)	(57.3)	45.1	17.8
Core EPS Gth (%)	(52.2)	(57.3)	45.1	17.8
Diluted EPS (HK\$)	1.47	0.54	0.79	0.93
DPS (HK\$)	0.00	0.00	0.00	0.00
BV Per Share (HK\$)	33.35	33.86	34.44	35.14
PE (X)	10.9	25.5	17.6	14.9
CorePE (X)	10.9	25.5	17.6	14.9
P/Cash Flow (X)	6.6	4.0	5.1	4.7
P/Free CF (X)	nm	16.6	nm	nm
EV/EBITDA (X)	1.8	2.0	2.1	2.2
Net Div Yield (%)	0.0	0.0	0.0	0.0
P/Book Value (X)	0.4	0.4	0.4	0.4
Net Debt/Equity (X)	CASH	CASH	CASH	CASH
ROAE(%)	6.0	1.9	2.7	3.1

Earnings Rev (%): (55) (49) New  
Consensus EPS (US\$) 0.16 0.20 n.a.  
Other Broker Recs: B:14 S:4 H:7

Source of all data on this page: Company, DBS Bank (Hong Kong) Limited ("DBS HK"), Thomson Reuters

## Awaiting ASP recovery

### Investment Thesis

**End-market demand and product ASP taking longer than expected to recover.** We have delayed our expectations of an earnings recovery to FY25, with FY24F earnings expected to post a 57.4% y-o-y decline, dragged by persistent weakness in consumer electronics-related products, such as MCU and power management IC. The 45% earnings rebound in FY25 stemmed from (1) an anticipated rebound in global consumer electronics demand, and (2) a ramp-up of new capacity.

### Automotive applications continue to boost mature foundry business.

Mature node applications – such as auto microcontroller units (MCUs) – continue to grow in the automotive industry. We expect automotive/industrial revenue to grow 36.6% in FY24F, supported by the strong EV penetration in China, and accompanied by an increase in revenue share – from 22.2% in FY22 to 40.0% in FY25F.

### Robust capacity expansion to support future growth.

The addition of the new 12-inch plant with a capacity of 83K wafers/month at the Wu Xi fab is expected to double the company's 12-inch capacity in 2025, a key earnings driver in the long run. We expect wafer production volume to get a boost starting late 2025, as new capacity commences in phases.

### We maintain HOLD and cut our TP to HK\$17.0 (prev. TP: HK\$22.0),

based on a lower multiple of 0.5x FY24F P/BV (vs. previous basis of 0.75x FY24 P/BV), due to a slower-than-expected recovery profile. A potential catalyst for re-rating would be the resumption of growth in the China consumer electronics end-market.

### Key Risks

Decline in demand for automotives amid a global economic downturn.

### At A Glance

Issued Capital (m shrs)	1,307
Mkt Cap (HKm/US\$m)	20,468 / 2,616
Major Shareholders (%)	
Shanghai Huahong (Group) Co., Ltd.	26.6
Shanghai Alliance Investment Ltd.	14.4
China Integrated Circuit Industry Investment Fund	13.7
Free Float (%)	45.4
3m Avg. Daily Val. (US\$m)	22.2
GICS Industry: Information Technology / Semiconductors & Semiconductor	

## Hua Hong Semiconductor Ltd

### WHAT'S NEW

#### Expect persistently weak gross margin in 1Q24; ASP taking longer to recover

##### 4Q23 results highlights

Revenue decreased 27.7% to US\$455m, mainly due to the prolonged weak end-market demand in non-smartphone consumer electronics.

Segment wise, 8-inch business revenue decreased by 36.9% y-o-y to US\$251m, while 12-inch business revenue declined by 12.0% y-o-y to US\$205m.

Gross margin contracted to 4.0% (-34.2ppt y-o-y), mainly dragged by (1) persistent ASP pressure in the consumer electronics-related segments and (2) a lower utilisation rate for newly installed capacity.

Net profit plunged 76.7% y-o-y to US\$35m. An adjusted net loss of US\$16m was recorded after excluding a government subsidy of US\$51m, in line with market expectations. EPS was US\$0.021.

Management is guiding for 1Q24 revenue to decline by 26% y-o-y, with a gross margin of 3-6%, in line with market expectations.

##### Our View

Demand for IoTs and other products remains sluggish, even though smartphone demand has started to rebound. Clients in

the industrial segment are still cautious about inventory level due to economic uncertainty. We expect end-market demand for mature node chips, and thus pricing, to take longer to recover, especially for MCU and MOSFET (Metal Oxide Semiconductor Field Effect Transistor) products.

We cut our earnings forecast by 54.7%/48.8% to US\$119m/US\$174m in FY24F/FY25F to pencil in prolonged ASP pressure on the 300mm wafer as well as prolonged margin shrinkage.

We expect earnings to resume growth of 45.7% y-o-y in FY25, after a 57.4% y-o-y decline in FY24F, stemming from (1) an anticipated rebound in global consumer electronics demand and (2) ramp-up of new capacity in early 2025.

Hua Hong is currently trading at a 0.46x FY24F P/BV. We reduce the TP to HK\$17.0 (prev. TP: HK\$22.0), based on a lower multiple of 0.5x FY24F P/BV (vs. 0.75x FY24 P/BV previously) due to a slower-than-expected recovery profile, pegged to its valuation during the industrial down cycle. We maintain HOLD on Hua Hong.

### Quarterly Income Statement (US\$m)

FY DEC	4QFY22	3QFY23	4QFY23	% chg yoy	% chg qoq
Revenue	630	569	455.4	-27.7%	-19.9%
Cost of Goods Sold	(389)	(477)	(437.1)	12.3%	-8.3%
<b>Gross Profit</b>	<b>241</b>	<b>92</b>	<b>18.2</b>	<b>-92.4%</b>	<b>-80.1%</b>
Other Oper. (Exp)/Inc	(60)	(85)	(95.1)	59.6%	11.7%
<b>Operating Profit</b>	<b>181</b>	<b>7</b>	<b>(76.8)</b>	<b>nm</b>	<b>nm</b>
Other Non Opg (Exp)/Inc	(1)	(14)	(0.5)	-29.3%	-97.9%
Associates & JV Inc	7	(1)	7.1	-2.4%	nm
Net Interest (Exp)/Inc	2	(9)	0.6	-72.2%	nm
Exceptional Gain/(Loss)	26	5	80.3	204.8%	1664.7%
<b>Pre-tax Profit</b>	<b>216</b>	<b>(13)</b>	<b>10.7</b>	<b>-95.1%</b>	<b>nm</b>
Tax	(31)	(13)	(7.2)	-76.7%	-44.5%
Minority Interest	26.6	(39.7)	(31.8)	nm	-19.9%
<b>Net Profit</b>	<b>159</b>	<b>13.9</b>	<b>35</b>	<b>-77.8%</b>	<b>154.2%</b>
Net profit bef Except.	159	14	35	-77.8%	154.2%

##### Margins (%)

Gross Margins	38.2	16.1	4.0
Opg Profit Margins	28.7	1.2	(16.9)
Net Profit Margins	25.2	2.4	7.7

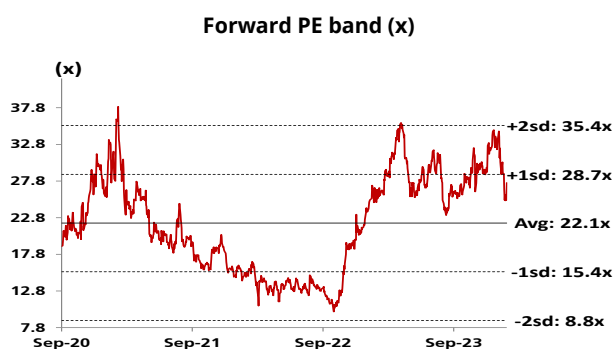
Source: Company, DBS HK

## Hua Hong Semiconductor Ltd

### Company Background

Founded in 1997 and listed in 2014, Hua Hong Semiconductor is China's second-largest foundry and the sixth-largest foundry globally. The company focuses on manufacturing semiconductors on 200mm (8-inch) wafers and had a 9% global market share in 2019. It focuses on specialty applications, boasting the largest power discrete capacity in China. The state-owned Assets Supervision and Administration Commission of the Shanghai Municipal Government is Hua Hong Semiconductor's largest shareholder, with a 27% stake.

### Historical PE and PB band



Source: Thomson Reuters, DBS HK

## Hua Hong Semiconductor Ltd

### Key Assumptions

FY Dec	2022A	2023A	2024F	2025F	2026F
Hua Hong 8" wafer Shipment ("000 wafer)	2,345.8	2,164.8	1,986.5	2,035.7	2,051.4
Gross Margin (%)	45.7	34.4	27.7	27.7	27.7
Hua Hong Wuxi shipment ("000 8" equivalent wafer)	1,742.2	1,828.9	2,132.3	2,868.3	3,408.0
Gross Margin (%)	14.9	4.4	3.8	7.0	9.7

Source: Company, DBS HK

### Segmental Breakdown (US\$ m)

FY Dec	2022A	2023A	2024F	2025F	2026F
<b>Revenues (US\$ m)</b>					
Hua Hong 8"	1,468	1,290	1,030	1,108	1,139
Hua Hong Wuxi	1,007	996	1,103	1,573	1,925
<b>Total</b>	<b>2,475</b>	<b>2,286</b>	<b>2,133</b>	<b>2,681</b>	<b>3,064</b>
<b>Gross profit (US\$ m)</b>					
Hua Hong 8"	671	444	285	329	354
Hua Hong Wuxi	173	43	42	109	186
<b>Total</b>	<b>844</b>	<b>487</b>	<b>327</b>	<b>439</b>	<b>540</b>
<b>Gross profit Margins (%)</b>					
Hua Hong 8"	45.7	34.4	27.7	29.7	31.1
Hua Hong Wuxi	17.2	4.4	3.8	7.0	9.7
<b>Total</b>	<b>34.1</b>	<b>21.3</b>	<b>15.3</b>	<b>16.4</b>	<b>17.6</b>

Source: Company, DBS HK

### Income Statement (US\$ m)

FY Dec	2022A	2023A	2024F	2025F	2026F
Revenue	2,475	2,286	2,133	2,681	3,064
Cost of Goods Sold	(1,632)	(1,799)	(1,806)	(2,242)	(2,524)
<b>Gross Profit</b>	<b>844</b>	<b>487</b>	<b>327</b>	<b>439</b>	<b>540</b>
Other Opng (Exp)/Inc	(390)	(367)	(309)	(389)	(444)
<b>Operating Profit</b>	<b>453</b>	<b>120</b>	<b>18</b>	<b>50</b>	<b>96</b>
Other Non Opg (Exp)/Inc	44	83	2	2	2
Associates & JV Inc	12	9	10	11	12
Net Interest (Exp)/Inc	(13)	(39)	(3)	(1)	11
Dividend Income	0	0	0	0	0
Exceptional Gain/(Loss)	0	0	0	0	0
<b>Pre-tax Profit</b>	<b>496</b>	<b>174</b>	<b>27</b>	<b>61</b>	<b>120</b>
Tax	(89)	(47)	(6)	(13)	(26)
Minority Interest	43	154	98	126	112
Preference Dividend	0	0	0	0	0
<b>Net Profit</b>	<b>450</b>	<b>280</b>	<b>119</b>	<b>174</b>	<b>206</b>
Net Profit before Except.	450	280	119	174	206
EBITDA	966	696	528	582	663
<b>Growth</b>					
Revenue Gth (%)	51.8	(7.7)	(6.7)	25.7	14.3
EBITDA Gth (%)	57.3	(27.9)	(24.1)	10.1	14.0
Opg Profit Gth (%)	87.4	(73.4)	(85.3)	182.7	92.1
Net Profit Gth (%)	72.1	(37.8)	(57.4)	45.7	18.3
<b>Margins &amp; Ratio</b>					
Gross Margins (%)	34.1	21.3	15.3	16.4	17.6
Opg Profit Margin (%)	18.3	5.3	0.8	1.9	3.1
Net Profit Margin (%)	18.2	12.2	5.6	6.5	6.7
ROAE (%)	15.4	6.0	1.9	2.7	3.1
ROA (%)	6.8	3.1	1.1	1.6	2.0
ROCE (%)	6.5	1.1	0.1	0.4	0.8
Div Payout Ratio (%)	0.0	0.0	0.0	0.0	0.0
Net Interest Cover (x)	33.9	3.1	7.0	46.6	NM

Source: Company, DBS HK

## Hua Hong Semiconductor Ltd

### Balance Sheet (US\$ m)

FY Dec	2022A	2023A	2024F	2025F	2026F
Net Fixed Assets	3,616	3,764	3,851	4,074	4,370
Invt in Associates & JVs	131	139	152	165	177
Other LT Assets	233	470	515	588	703
Cash & ST Invt	2,009	5,585	5,266	4,599	3,835
Inventory	578	450	420	527	603
Debtors	353	324	300	374	426
Other Current Assets	136	211	211	211	211
<b>Total Assets</b>	<b>7,055</b>	<b>10,943</b>	<b>10,715</b>	<b>10,538</b>	<b>10,324</b>
ST Debt	427	193	209	156	103
Creditors	837	678	934	1,156	1,299
Other Current Liab	119	100	46	54	69
LT Debt	1,482	1,907	1,466	1,095	724
Other LT Liabilities	56	52	48	47	46
Shareholder's Equity	3,030	6,301	6,397	6,541	6,706
Minority Interests	1,105	1,714	1,615	1,489	1,377
<b>Total Cap. &amp; Liab.</b>	<b>7,055</b>	<b>10,943</b>	<b>10,715</b>	<b>10,538</b>	<b>10,324</b>
Non-Cash Wkg. Capital	111	207	(49)	(97)	(128)
Net Cash/(Debt)	100	3,486	3,591	3,348	3,007
Debtors Turn (avg days)	43.1	54.0	53.4	45.9	47.7
Creditors Turn (avg days)	248.4	210.2	225.0	221.3	227.4
Inventory Turn (avg days)	157.2	142.6	121.4	100.3	104.7
Asset Turnover (x)	0.4	0.3	0.2	0.3	0.3
Current Ratio (x)	2.2	6.8	5.2	4.2	3.5
Quick Ratio (x)	1.7	6.1	4.7	3.6	2.9
Net Debt/Equity (X)	CASH	CASH	CASH	CASH	CASH
Net Debt/Equity ex MI (X)	CASH	CASH	CASH	CASH	CASH
Capex to Debt (%)	36.3	30.9	34.8	59.1	102.6
Z-Score (X)	NA	NA	NA	NA	NA

Source: Company, DBS HK

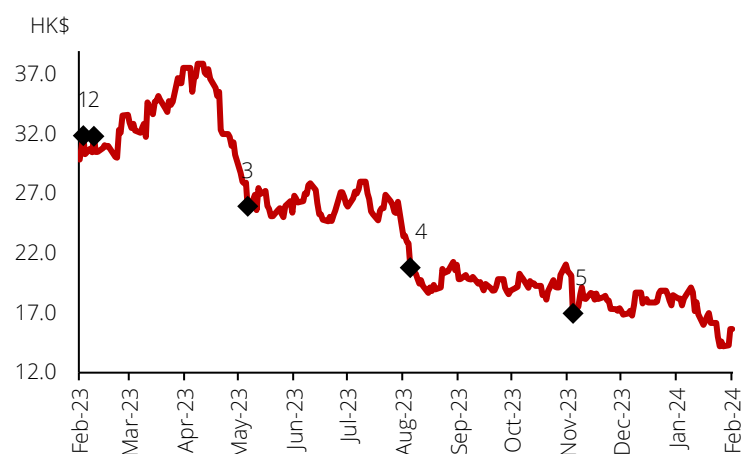
### Cash Flow Statement (US\$ m)

FY Dec	2022A	2023A	2024F	2025F	2026F
Pre-Tax Profit	496	174	27	61	120
Dep. & Amort.	457	484	499	519	553
Tax Paid	(89)	(47)	(6)	(13)	(26)
Assoc. & JV Inc/(loss)	(12)	(9)	(10)	(11)	(12)
(Pft)/ Loss on disposal of FAs	0	0	0	0	0
Chg in Wkg.Cap.	(274)	(96)	256	48	31
Other Operating CF	(21)	(40)	1	(1)	(12)
<b>Net Operating CF</b>	<b>556</b>	<b>465</b>	<b>767</b>	<b>604</b>	<b>654</b>
Capital Exp.(net)	(693)	(649)	(583)	(739)	(848)
Other Invt.(net)	79	(92)	0	0	0
Invt in Assoc. & JV	3	1	(3)	(2)	0
Div from Assoc & JV	0	0	0	0	0
Other Investing CF	52	(59)	(45)	(73)	(115)
<b>Net Investing CF</b>	<b>(558)</b>	<b>(799)</b>	<b>(632)</b>	<b>(815)</b>	<b>(963)</b>
Div Paid	0	0	0	0	0
Chg in Gross Debt	323	191	(424)	(424)	(424)
Capital Issues	5	2,935	5	5	5
Other Financing CF	74	785	(34)	(37)	(35)
<b>Net Financing CF</b>	<b>401</b>	<b>3,911</b>	<b>(454)</b>	<b>(456)</b>	<b>(455)</b>
Currency Adjustments	0	0	0	0	0
Chg in Cash	399	3,576	(319)	(667)	(764)
Opg CFPS (US\$)	0.63	0.33	0.30	0.32	0.36
Free CFPS (US\$)	(0.10)	(0.11)	0.11	(0.08)	(0.11)

Source: Company, DBS HK

**Hua Hong Semiconductor Ltd**

**Target Price & Ratings 12-mth History**



S.No.	Date	Closing Price	Target Price	Rating
1	9-Feb-23	HK\$31.90	HK\$46.30	BUY
2	15-Feb-23	HK\$30.50	HK\$53.90	BUY
3	12-May-23	HK\$27.95	HK\$53.50	BUY
4	11-Aug-23	HK\$22.85	HK\$40.00	BUY
5	10-Nov-23	HK\$20.15	HK\$22.00	HOLD

Source: DBS HK

Analyst: Jim Au

Tsz Wang Tam

## Hua Hong Semiconductor Ltd

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**STRONG BUY** (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

**BUY** (>15% total return over the next 12 months for small caps, >10% for large caps)

**HOLD** (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

**FULLY VALUED** (negative total return, i.e., > -10% over the next 12 months)

**SELL** (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

\*Share price appreciation + dividends

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Sources for all charts and tables are DBS HK unless otherwise specified.

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## Hua Hong Semiconductor Ltd

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