

環宇  
芯系天下

**Q4 2024  
Quarterly  
Online Investor  
Conference**  
(線上法說會)

**February 20, 2025**



環宇通訊半導體  
Global Communication Semiconductors, LLC



"Enabling Today's Global  
Communications  
and Beyond"

# Disclaimer Statement



This presentation includes forward-looking statements. All statements, other than statements of historical facts, that address activities, events or developments that GCS Holdings, Inc. expects or anticipates will or may occur in the future (including but not limited to projections, targets, estimates and business plans) are forward-looking statements.

GCS's actual results or developments may differ materially from those indicated by these forward-looking statements as a result of various factors and uncertainties, including but not limited to price fluctuations, actual demand, exchange rate fluctuations, market share, competition, environmental risks, change in legal, financial and regulatory frameworks, government policies, international economic and financial market conditions, political risks, cost estimates and other risks and factors beyond our control.

GCS does not undertake any obligation to publicly update any forward-looking statement to reflect events or circumstances after the date on which any such statement is made or to reflect the occurrence of unanticipated events.

# Agenda



Opening:

Brian Ann, CEO & President

Financial Section:

Kelly Lin, Special Assistant to CEO

Market Section :

Simon Yu, Senior VP and Spokesperson

Q&A: All



# FINANCIAL SECTION

# Statements of Comprehensive Income - QoQ



(in NT\$ thousands except EPS)

	4Q24	3Q24	4Q23	4Q24 Over 3Q24	4Q24 Over 4Q23
Net Operating Revenue	476,322	458,496	400,014	3.9%	19.1%
Gross Profit	206,740	169,819	98,590	21.7%	109.7%
Gross Margin	43.4%	37.0%	24.6%		
Operating Expenses	(117,217)	(115,474)	(83,872)	1.5%	39.8%
Operating Expenses to Revenue %	24.6%	25.2%	21.0%		
Operating Income	89,523	54,345	14,718	64.7%	508.3%
Operating Margin	18.8%	11.9%	3.7%		
Non-operating Items	(136,935)	99,142	(32,331)	-238.1%	323.5%
Income (Loss) before Income Tax	(47,412)	153,487	(17,613)	-130.9%	169.2%
Income Tax (Expense) Benefit	(1,414)	(9)	14,089	15611.1%	-110.0%
Net Income (Loss)	(48,826)	153,478	(3,524)	-131.8%	1285.5%
Net Income (Loss) Attributable to owners of the Parent	(48,826)	153,478	(3,524)	-131.8%	1285.5%
Net Income (Loss) %	-10.3%	33.5%	-0.9%		
Basic EPS (NTD)	(0.44)	1.38	(0.03)		
Diluted EPS (NTD)	(0.44)	1.37	(0.03)		
R&D Expense % to Revenue	11.8%	12.0%	13.4%		

Note 1: 111,262 thousand shares were used for Y2024Q4 basic EPS calculation.

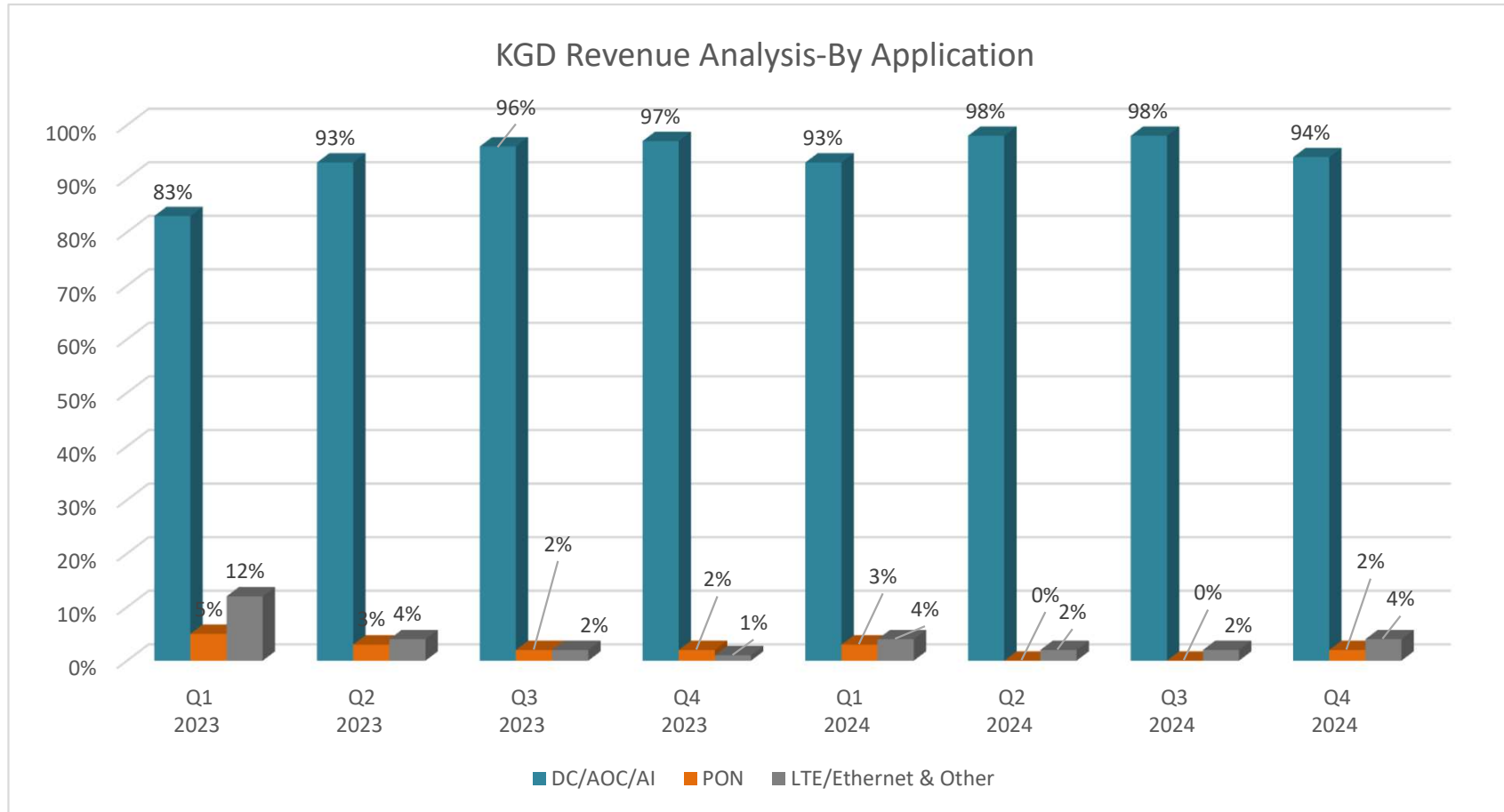
Note 3. Revenue supplemental information

	4Q24	3Q24	4Q23	4Q24 Over 3Q24	4Q24 Over 4Q23
Revenue in US\$ thousand	14,735	14,210	12,624	3.69%	16.7%
Exchange Rate	32.11	32.03	31.15		

# Revenue Mix % vs Gross Margin - QoQ



# KGD Revenue Mix - QoQ



# Non-operating Income and Expenses- QoQ



	4Q24	3Q24	4Q23	4Q24 Over 3Q24	4Q24 Over 4Q23
Other Income - other	9,342	1,959	861	376.9%	985.0%
Other Gains and Losses					
Net currency exchange gain (loss)	(914)	886	(2,023)	-203.2%	-54.8%
Gain (loss) on disposal of property, plant and equipment	(30)	189	-	-115.9%	-
Gain (Loss) on disposal of investments	(1,384)	219,607	254,480	-100.6%	-100.5%
Impairment loss on intangible assets	-	-	(48,218)	-	-100.0%
Others	-	(1,889)	(2,478)	-100.0%	-100.0%
Finance Cost					
Interest expense	(2,944)	(2,709)	(4,429)	8.7%	-33.5%
Share of loss of equity-accounted investees	(141,005)	(118,901)	(230,524)	18.6%	-38.8%
Total Non-operating Income and Expenses	(136,935)	99,142	(32,331)	-238.1%	323.5%



# Statements of Comprehensive Income - YoY



(in NT\$ thousands except EPS)

	2024	%	2023	%	Change (%)
Net Operating Revenue	1,750,044	100.0%	1,350,604	100.0%	29.6%
Operating Cost	(1,087,036)	-62.1%	(1,113,345)	-82.4%	-2.4%
Gross Profit	663,008	37.9%	237,259	17.6%	179.4%
Operating Expenses	(470,234)	-26.9%	(464,286)	-34.4%	1.3%
Operating Income (Loss)	192,774	11.0%	(227,027)	-16.8%	-184.9%
Non-operating items	(428,121)	-24.5%	(579,298)	-42.9%	-26.1%
Loss before Income Tax	(235,347)	-13.4%	(806,325)	-59.7%	-70.8%
Income Tax (Expense) Benefit	(1,639)	-0.1%	14,089	1.0%	-111.6%
Net Loss	(236,986)	-13.5%	(792,236)	-58.7%	-70.1%
Net Loss Attributable to Owners of the Parent	(236,986)	-13.5%	(792,236)	-58.7%	-70.1%
Basic EPS (NTD)	(2.13)		(7.18)		
Average Exchange Rate-USD/NTD	32.11		31.15		
R&D expense % to Revenue	13.2%		18.2%		
ROA (%)	-6.36%		-19.11%		
ROE (%)	-7.89%		-23.70%		

Note 1: 111,041 thousand shares were used for Y2024 basic EPS calculation.

Note 2. Revenue supplemental information

	2024	2023	Change (%)
Revenue in US\$ thousand	54,502	43,358	25.7%
Exchange Rate	32.11	31.15	

# Non-operating Income and Expenses- YoY

(in NT\$ thousands)

	2024	2023	Change (%)
Other Income	13,609	3,202	325.0%
Other Income - Income from Employee retention tax credit (ERTC)	124,341	-	-
Other Gains and Losses			
Net currency exchange loss	(3,599)	(3,483)	3.3%
Gain on disposal of property, plant and equipment	35	-	-
Liquidation losses on disposal of a subsidiary	-	(105)	-100.0%
Gain on disposal of investments	218,223	256,893	-15.1%
Impairment loss on intangible assets	-	(48,218)	-100.0%
Other loss	(1,889)	(12,663)	-85.1%
Finance Cost			
Interest expense	(11,405)	(17,568)	-35.1%
Share of loss of equity-accounted investees	(767,436)	(757,356)	1.3%
<b>Total Non-operating Income and Expenses</b>	<b>(428,121)</b>	<b>(579,298)</b>	<b>-26.1%</b>

# Balance Sheet Highlight & Key Indices



## *Selected Items from Balance Sheet*

(in NT\$ thousands)

	4Q24		3Q24		4Q23	
	Amount	%	Amount	%	Amount	%
Cash and Cash Equivalent	576,516	16%	328,603	10%	345,234	10%
Accounts Receivable	300,657	9%	291,858	9%	237,456	7%
Accounts Receivable - Related Party	35,098	1%	11,964	-	4,830	-
Inventory	307,165	9%	280,283	8%	257,709	7%
Current income tax assets	140	-	56,273	2%	54,718	1%
Other current assets	171,325	5%	197,281	6%	102,039	3%
Investments accounted for under the Equity Method	755,769	22%	862,843	26%	1,625,600	45%
Net Property, Plant and Equipment	1,099,453	31%	1,093,390	33%	730,219	20%
Deferred Tax Assets	193,209	6%	164,557	5%	159,670	5%
<b>Total Assets</b>	<b>3,505,725</b>	<b>100%</b>	<b>3,363,716</b>	<b>100%</b>	<b>3,590,338</b>	<b>100%</b>
Short Term Loan	20,000	1%	20,000	1%	20,000	1%
Accounts Payable and Other Payables	149,583	4%	135,709	4%	137,407	4%
Long Term Bank Borrowings - Current Portion	6,511	-	6,210	-	329,374	9%
Long Term Bank Loans	163,780	5%	159,694	5%	-	-
Deferred Tax Liabilities	117,797	3%	86,018	2%	83,464	3%
<b>Total Liabilities</b>	<b>484,329</b>	<b>14%</b>	<b>434,542</b>	<b>13%</b>	<b>605,728</b>	<b>17%</b>
<b>Total Stockholders' Equity</b>	<b>3,021,396</b>	<b>86%</b>	<b>2,929,174</b>	<b>87%</b>	<b>2,984,610</b>	<b>83%</b>

## *Key Indices*

Current Ratio	709%	647%	201%
Debt Ratio	14%	13%	17%
AR Turnover Days	64	63	67
Inventory Turnover Days	148	144	140

# Cash Flows



(in NT\$ thousands)

	4Q24	3Q24	4Q23
<b>Beginning Balance</b>	328,603	236,813	231,216
Cash from Operating Activities	186,742	70,814	29,799
Acquisition of investments accounted for under the equity method	-	-	(191,137)
Acquisition of property, plant and equipment	(4,295)	(439,099)	(46,014)
Decrease (Increase) in other current assets	32,144	30,601	(33,991)
Acquisition of intangible assets	(216)	(5,205)	-
Proceeds from the sale of PP&E	35	1,431	-
Proceeds from the sale of investments accounted for using equity method	-	448,650	376,378
Proceeds from short-term loan	20,000	20,000	20,000
Repayments of short-term loans	(20,000)	(20,000)	(20,000)
Repayments of long-term loans	(1,993)	(2,508)	(11,293)
Repayments of lease liabilities	(2,633)	(2,578)	(2,397)
Employee Option Exercise	24,890	4,339	-
The effect of exchange rate changes	13,239	(14,655)	(7,127)
Others	-	-	(200)
<b>Ending Balance</b>	576,516	328,603	345,234
<b>Increase (Decrease) in Cash</b>	247,913	91,790	114,018
<b>Free Cash Flow (Note)</b>	182,447	(368,285)	(16,215)



# **Market Update**

**Feb 20, 2025**

**Simon Yu**

# CSP – Capital Expenditures - 1



- Industry sources cited by [Commercial Times](#) estimate that capital expenditures by CSPs will surpass USD 240 billion by 2025, reflecting an annual increase of over 10%.
- The report indicated that the increase in capital expenditures by CSPs is expected to boost demand for Taiwanese in the supply chain during the fourth quarter 2024 and into 2025.
- Microsoft – estimated \$80b (FY2025) (\$50b FY2024) \$20b (3Q CY2024<1Q FY2025), 78% YoY), \$19b (2Q 2-24) CY2025 – USD 80b
- Google Q32024 %13.1 billion (62% YoY), CY2024 \$51.4 Billion (59%, YoY), 2025 – USD 70b

# CSP – Capital Expenditures - 2

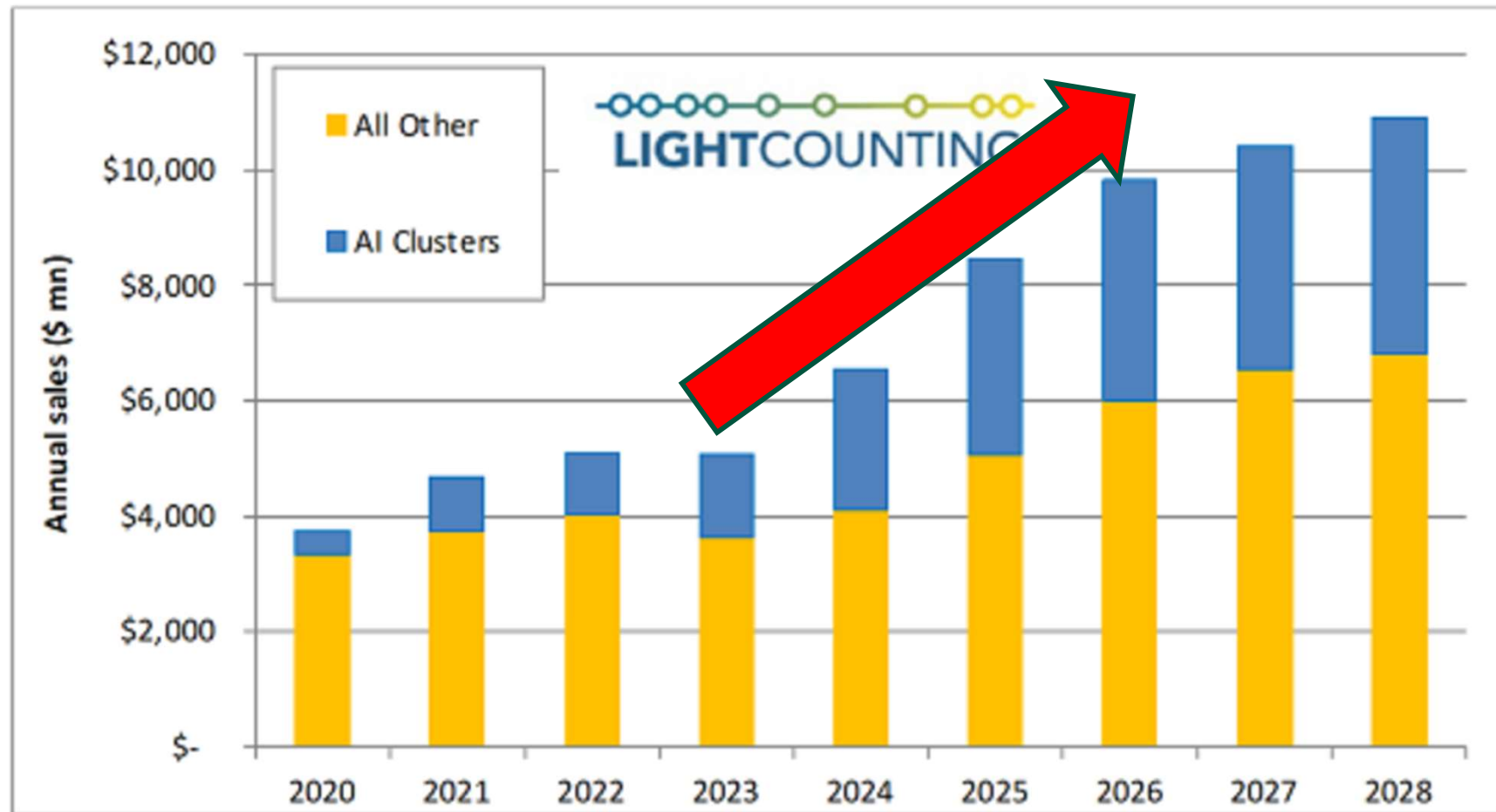


- Meta  
3Q2024 \$9.2b (36% YoY), total FY2024 \$40+b  
2025 – USD 60-65b
- Amazon  
3Q2024 \$22.62b (81% YoY), CY2024 \$51b

# AI Clusters



Figure: Sales of Ethernet Optical Transceivers by Application



**DeepSeek – make AI model more efficient and affordable!**  
**Drive more AI usage → more Optical Modules**

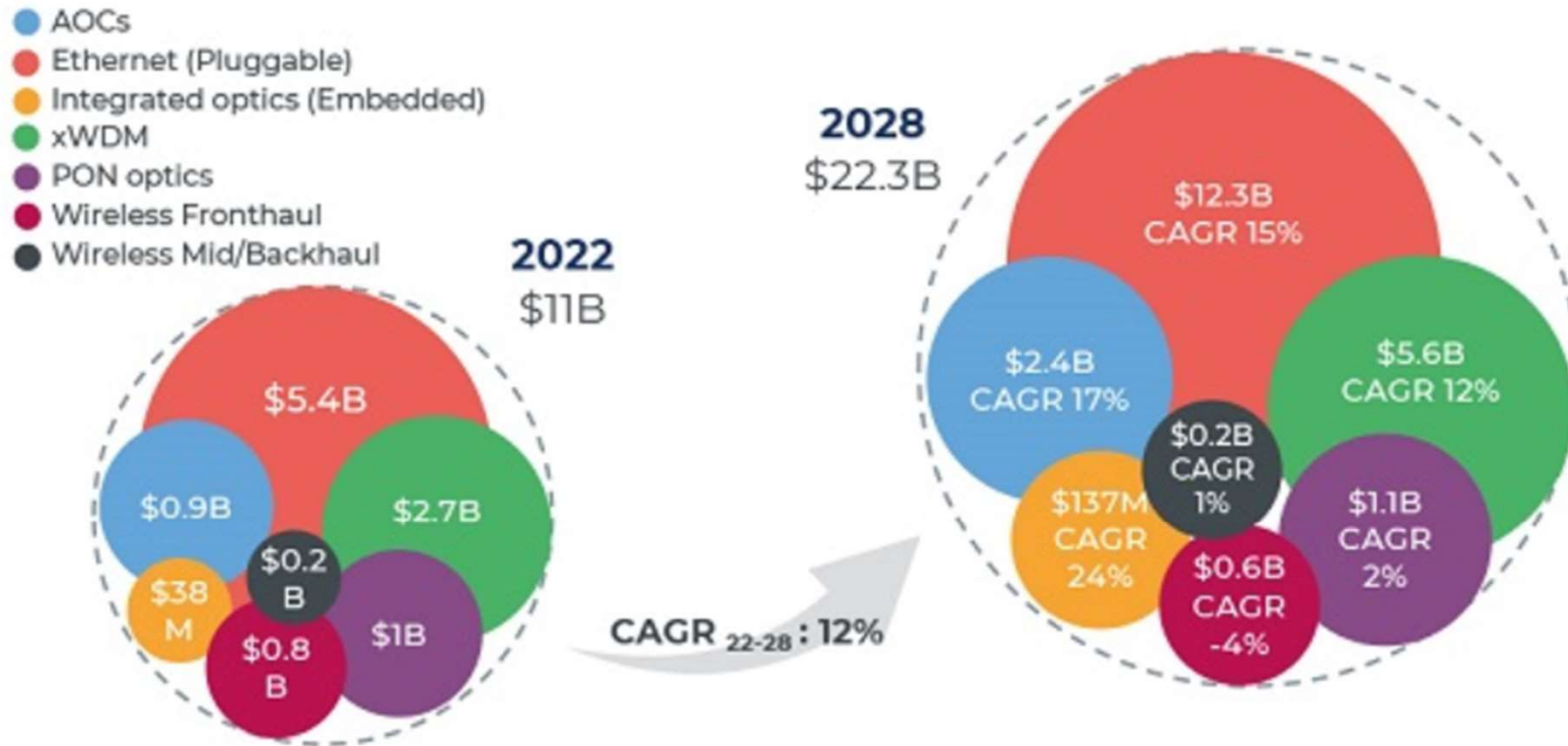


# Optical Transceiver Market



## 2022-2028 optical transceiver revenue growth forecast by segment

(Source: Optical Transceivers for Datacom and Telecom 2023, Yole Intelligence, August, 2023)



**800G modules – 20m 2025**

**1.6T modules – 5m 2025**

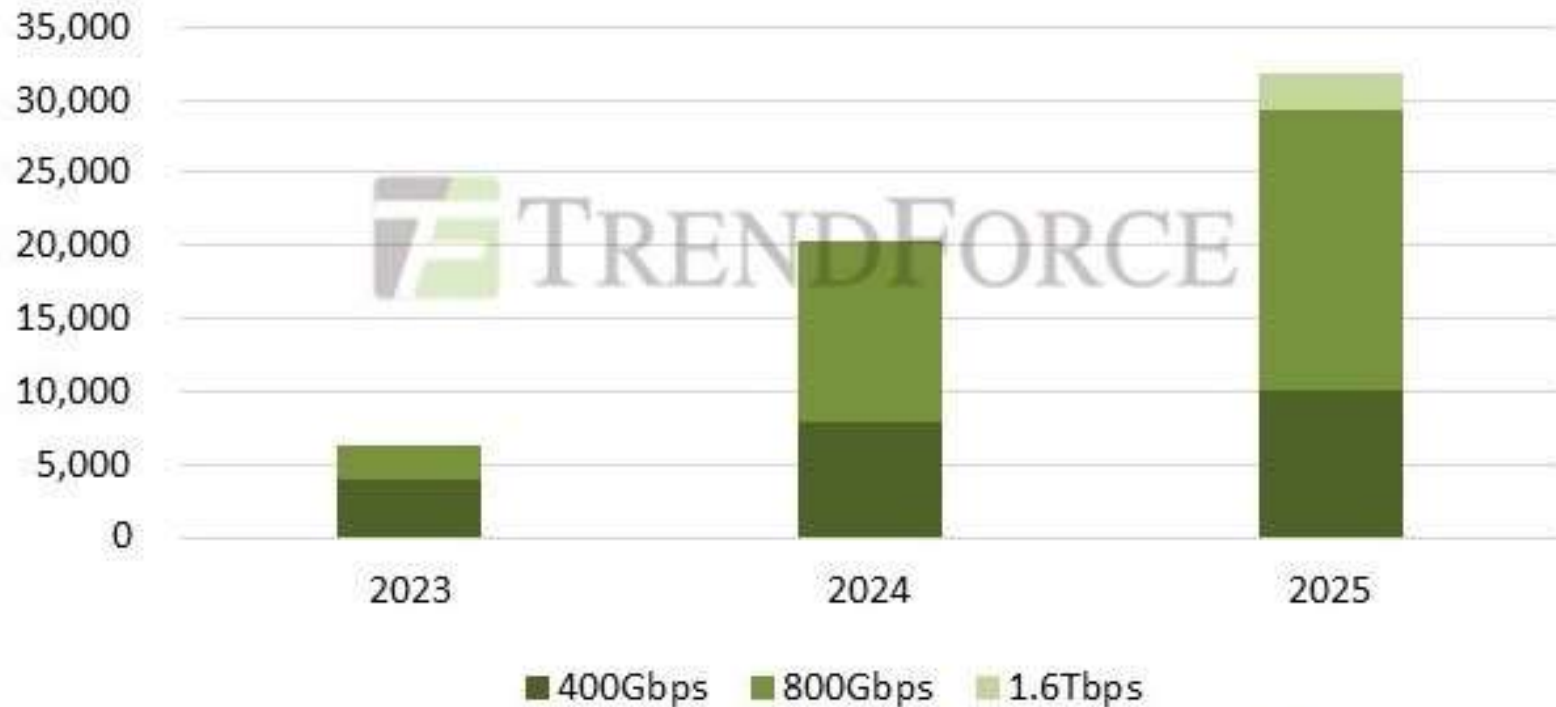
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# Worldwide Optical Modules



## 全球光收發模組出貨量預估

(Unit: Thousand pieces)



Source : TrendForce, Feb., 2025

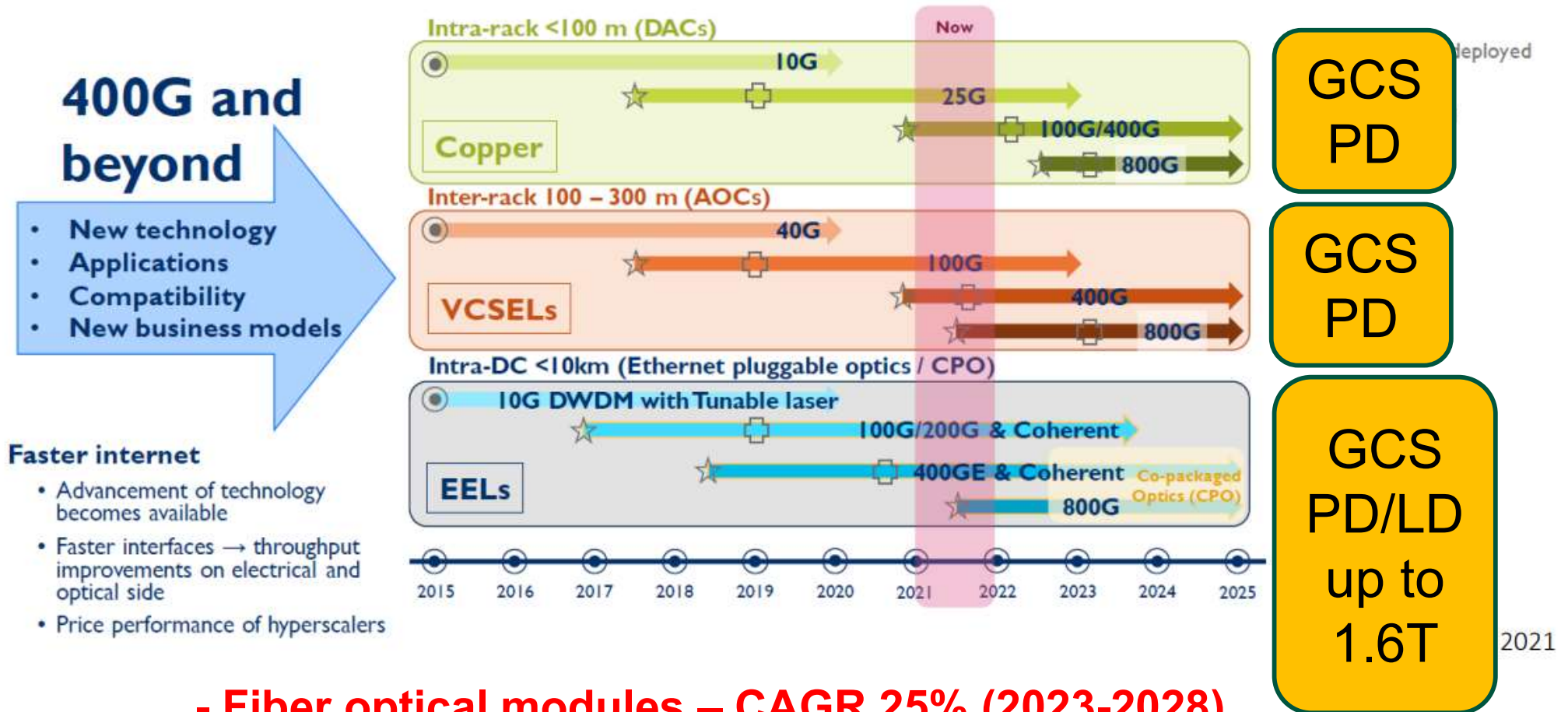


**400G and above modules:  
2023 – 6.4m, 2024 – 20.4m, 2025 – 31.9m**

# Datacom/Telecom Market



- **GCS enables 400/800G/1.6T optical modules for AI/DC**
- **GCS shipped >100 millions PD for 400G/800G applications in 2024**
- **200G/lane PD ready for production**



- **Fiber optical modules – CAGR 25% (2023-2028)**
- **800G and beyond – CAGR 70+% (2023-2028)**

# PD for Silicon Photonics PICs

- **Today - External PDs are majorly used together with Silicon Photonics PIC**
- **Silicon photonics is not able to integrate backside-lens-based 200G/lane PDs into PIC**
- **III-V PDs, have a direct bandgap, which allows them to emit photons quickly, and can cover wider wavelength**
- **Major issues in integration PD into PIC**
  - **Yield loss due to integration of multi-components**
  - **Increase of testing cost**
  - **Polarization dependent loss (due to polarization state)**
  - **Performance is worse than III-V PDs**
    - **Higher dark current**
    - **Shorter wavelength range**
    - **Limited light absorptions**

# Thanks to JS Huang & DeepSeek



# Q & A



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**For further inquiry  
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