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Investor Presentation | Asia Pacific

Greater China Technology Hardware: Building Blocks of Compute: Servers, AI Infrastructure, and Electronic Components

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GREATER CHINA TECHNOLOGY HARDWARE
Asia Pacific
Industry View **In-Line**

investors should be aware that the firm may have a conflict of

Research as only a single factor in making their investment decision.

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Investment Summary

- **Opportunities in AI GPU and ASIC server/rack design upgrades**
  - Major design upgrades for upcoming Vera Rubin platform, Kyber architecture and LPX/Vera CPU rack.
  - AI ASIC server upgrade and volume expansion magnitude – mainly TPU and Trainium platform
- **Where we see room for share price upside, near term**
  - AI server power solution (800 VDC), PCB/ABF substrate supply tightness, data network/interconnect/CPO upgrade
  - Smooth GB300 server rack delivery plus attractive risk-reward for AI server ODMs
  - Capacity expansion wave across the tech hardware supply chain
- **What are the potential risks that we observe**
  - Consumer electronics (smartphones/PC) demand and margin impact in 2H impacted by memory inflation
  - Raw material price hike (copper, nickel) and supply tightness a margin headwind
  - Supply shortage impact could potentially delay the shipment pace
  - Geopolitical tension that impacts AI data center infrastructure spending
- **Key stock ideas**
  - AI server hardware – Wistron, FII/Hon Hai, Wiwynn, Quanta, Delta Electronics, AVC, BizLink, King Slide, Accton, Chenbro, Gold Circuit, Unimicron, NYPCB, Zhen Ding, Yageo, FIT, and Fositek
  - Edge AI – Xiaomi, Luxshare, Lenovo

Hardware Technology Valuation Comparison

Ticker	Company	Closing Price 6/12/2026	Rating	Price Target (LC)	Market Cap (US$mn)	EPS (Local Dollar) 26E	EPS (Local Dollar) 27E	P/E (X) 26E	P/E (X) 27E	P/B (X) 26E	P/B (X) 27E	P/S (X) 26E	P/S (X) 27E	EV/EBITDA 26E	EV/EBITDA 27E	ROE (%) 26E	ROE (%) 27E	ROA (%) 26E	ROA (%) 27E	Trading Volume (US$ mn)	26E
Tech conglomerate & Enablers																					
Taiwan																					
2301.TW	Lite-On Tech	217.00	E	176.00	15,250	8.72 e	11.19 e	24.9	19.4	5.2 e	5.0 e	2.4	1.9	16.06	12.33	21.56	26.28	8.99	10.08	137.07	3%
2308.TW	Delta	2,215.00	O	2700.0	177,184	41.52 e	65.05 e	53.4	34.0	13.1 e	10.2 e	7.2	5.1	30.23	20.27	29.61	36.69	14.84	18.14	472.10	1%
2317.TW	Hon Hai	260.50	O	310.0	114,314	16.38 e	19.90 e	15.9	13.1	1.7 e	1.6 e	0.4	0.3	7.02	5.93	11.30	12.87	4.32	4.83	472.88	4%
2354.TW	Foxconn Tech	57.00	U	54.00	2,510	3.47 e	3.81 e	16.4	15.0	0.5 e	0.5 e	0.5	0.6	(1.13)	(0.61)	4.32	4.62	2.34	2.58	24.14	2%
2421.TW	Sunon	144.00	E	165.0	1,287	10.18 e	11.65 e	14.1	12.4	3.9 e	3.5 e	1.6	1.5	7.69	6.61	29.21	29.51	14.94	15.27	25.60	4%
2455.TW	VPEC	352.00	E	290.00	1,869	4.88 e	7.60 e	72.1	46.3	17.6 e	14.8 e	15.6	12.3	48.99	33.02	25.73	34.64	18.26	25.06	60.26	1%
2474.TW	Catcher	205.50	U	160.0	3,643	12.03 e	12.52 e	17.1	16.4	0.8 e	0.8 e	6.5	6.0	29.10	28.18	4.65	4.81	3.23	3.32	27.54	5%
3017.TW	AVC	2,405.00	O	3333.00	28,945	96.50 e	145.03 e	24.9	16.6	11.9 e	7.8 e	4.2	3.2	14.36	9.51	57.33	55.61	19.71	22.07	322.89	1%
3081.TWO	LandMark	2,165.00	E	2850.0	6,325	17.62 e	28.78 e	122.9	75.2	32.9 e	19.8 e	42.7	26.6	87.63	55.38	31.52	32.71	26.72	28.67	102.60	0%
3324.TWO	Auras	998.00	E	1025.00	2,933	58.09 e	66.06 e	17.2	15.1	5.9 e	4.7 e	2.2	1.9	11.61	10.05	39.64	34.72	17.35	15.65	125.08	1%
6271.TW	Tong Hsing	238.50	E	116.0	1,433	8.16 e	9.47 e	29.2	25.2	1.8 e	1.7 e	4.1	3.8	23.43	20.13	6.25	6.94	4.72	5.27	19.32	1%
6805.TW	Fositek	1,825.00	O	2426.00	3,789	67.54 e	92.07 e	27.0	19.8	11.3 e	7.9 e	6.5	5.1	19.96	14.19	50.61	46.84	25.85	25.70	112.08	1%
HK/ China																					
002230.SZ	iFlytek	40.79	E	44.80	13,175	0.58 e	0.67 e	70.8	60.5	4.7 e	4.4 e	3.0	2.7	45.03	41.24	6.86	7.49	3.08	3.36	396.68	0%
002241.SZ	GoerTek	22.72	U	20.50	11,902	1.29 e	1.38 e	17.7	16.5	2.1 e	1.9 e	0.7	0.7	9.67	8.15	12.04	12.13	4.92	4.76	447.01	3%
002475.SZ	Luxshare	64.58	O	77.00	69,265	2.85 e	4.05 e	22.7	15.9	3.8 e	3.1 e	1.1	0.9	12.86	9.96	18.48	21.51	7.72	9.53	1,223.18	0%
002600.SZ	Lingyi	13.63	U	12.20	14,697	0.51 e	0.67 e	27.0	20.3	0.9 e	0.8 e	1.5	1.2	12.73	10.58	13.35	15.34	5.94	7.29	439.77	0%
601138.SS	FII	69.52	O	82.8	203,549	3.08 e	4.04 e	22.6	17.2	8.0 e	7.8 e	1.0	0.8	15.61	12.39	36.07	45.92	11.11	11.57	1,552.36	4%
Display & Industrial Automation																					
Taiwan																					
1590.TW	Airtac	1,290.00	O	2000.0	7,990	56.77 e	65.77 e	22.7	19.6	4.4 e	3.9 e	6.0	5.3	15.34	13.19	20.53	21.28	18.56	19.04	29.32	2%
2049.TW	Hiwin	323.50	O	400.0	3,279	8.77 e	10.77 e	36.9	30.0	2.1 e	2.0 e	3.8	3.3	18.79	15.97	8.02	9.22	5.36	5.88	37.60	1%
2360.TW	Chroma	2,295.00	O	2800.0	29,410	39.87 e	55.57 e	57.6	41.3	23.3 e	17.9 e	19.4	14.6	45.77	33.12	45.59	49.12	30.31	32.01	128.21	1%
2395.TW	Advantech	473.00	O	400.0	12,722	14.77 e	16.97 e	32.0	27.9	6.9 e	6.4 e	5.1	4.5	25.95	22.28	22.18	23.85	15.32	16.27	29.52	2%
2409.TW	AUO	23.50	E	14.0	5,517	0.25 e	0.51 e	93.5	46.0	1.2 e	1.1 e	0.6	0.6	4.54	3.12	1.24	2.56	0.42	0.88	78.44	1%
3481.TW	Innolux	48.55	E	19.5	11,845	0.36 e	0.56 e	133.6	86.0	1.7 e	1.7 e	1.6	1.5	11.59	10.50	1.37	2.13	0.88	1.35	174.47	0%
3665.TW	Bizlink	2,310.00	O	3665.0	13,307	63.77 e	120.77 e	36.2	19.1	8.0 e	6.0 e	4.6	3.0	22.45	12.56	24.01	35.51	13.85	21.31	181.15	1%
3714.TW	Ennostar	64.40	U	29.0	1,480	(0.08) e	0.01 e	NM	7,194.7	0.9 e	0.9 e	1.9	1.8	7.99	9.94	(0.11)	0.01	(0.09)	0.01	14.59	0%
6176.TW	Radiant	91.30	E	170.0	1,347	11.47 e	11.27 e	8.0	8.1	1.1 e	1.1 e	0.9	0.9	0.35	0.14	13.99	13.23	7.40	7.20	15.16	9%
8069.TWO	E Ink	190.50	O	250.0	6,933	11.37 e	13.07 e	16.8	14.6	2.9 e	2.7 e	5.1	4.4	13.09	11.02	17.91	18.95	11.82	12.80	42.01	4%
2059.TW	King Slide	6,910.00	O	6650.0	19,260	167.77 e	193.77 e	41.2	35.7	17.1 e	12.8 e	24.3	20.6	32.55	26.77	48.03	41.12	38.12	32.93	90.37	1%
2345.TW	Accton	2,335.00	O	3350.0	40,313	75.77 e	100.77 e	30.8	23.2	14.5 e	9.8 e	3.7	2.9	21.71	15.88	57.33	50.43	24.83	24.41	217.23	1%
8210.TW	Chenbro	1,475.00	O	1780.0	5,699	47.77 e	58.77 e	30.9	25.1	12.2 e	9.4 e	5.4	4.4	21.11	16.99	44.50	41.35	21.17	20.25	76.80	1%
HK/ China																					
000050.SZ	Tianma	7.66	U	6.3	2,685	0.21 e	0.25 e	35.7	30.5	0.6 e	0.6 e	0.5	0.4	5.18	4.51	1.77	2.04	0.66	0.74	40.44	0%
000100.SZ	TCL Corp.	4.51	E	4.7	13,842	0.32 e	0.37 e	14.3	12.1	1.6 e	1.6 e	0.4	0.4	4.79	4.47	11.45	13.54	1.48	1.70	302.96	4%
000725.SZ	BOE Tech	5.83	O	5.2	31,670	0.22 e	0.29 e	26.2	20.2	1.5 e	1.5 e	1.0	1.0	5.25	5.01	5.99	7.38	1.76	2.10	499.47	1%
300433.SZ	Lens Tech	42.68	E	31.0	32,278	0.82 e	1.39 e	51.8	30.7	4.0 e	3.6 e	2.8	2.2	18.05	13.80	7.47	11.75	4.85	7.47	447.68	1%
300567.SZ	Jingce	192.90	E	70.0	7,962	0.87 e	1.47 e	222.6	131.5	12.4 e	11.6 e	16.3	14.3	178.12	104.77	5.73	9.12	2.45	3.85	144.78	0%
600703.SS	Sanan Opto	15.26	U	9.0	11,233	0.27 e	0.37 e	56.9	41.2	1.9 e	1.8 e	3.3	2.8	16.43	14.11	3.32	4.43	1.84	2.31	310.39	0%

Hardware Technology Valuation Comparison

Ticker	Company	Closing Price 6/12/2026	Rating	Price Target (LC)	Market Cap (US$mn)	EPS (Local Dollar) 26E	EPS (Local Dollar) 27E	P/E (X) 26E	P/E (X) 27E	P/B (X) 26E	P/B (X) 27E	P/S (X) 26E	P/S (X) 27E	EV/EBITDA 26E	EV/EBITDA 27E	ROE (%) 26E	ROE (%) 27E	ROA (%) 26E	ROA (%) 27E	Trading Volume (US$ mn)	26E
PC / Data Center / Cyclical Components																					
Taiwan																					
2324.TW	Compal	36.35	U	23.00	5,031	1.98 e	2.23 e	18.4	16.3	1.1 e	1.0 e	0.2	0.2	8.0	7.6	5.7	6.2	1.9	2.0	49.0	2%
2327.TW	Yageo	855.00	O	1010.0	55,080	17.88 e	23.59 e	47.8	36.2	8.2 e	7.4 e	10.3	8.7	31.7	24.7	19.0	21.4	8.8	10.5	367.3	1%
2353.TW	Acer	36.70	U	21.00	3,552	1.54 e	1.61 e	23.9	22.8	1.4 e	1.3 e	0.4	0.4	10.3	9.5	5.3	6.0	1.9	2.0	27.2	4%
2357.TW	Asustek	785.00	U	570.0	18,390	59.22 e	57.19 e	13.3	13.7	1.9 e	1.9 e	0.6	0.6	10.0	10.7	14.9	13.8	7.0	6.1	90.5	5%
2368.TW	GCE	1,320.00	O	1660.00	21,961	47.19 e	82.32 e	28.0	16.0	12.6 e	8.1 e	6.3	4.2	18.9	10.6	54.7	61.5	24.2	28.4	217.0	1%
2376.TW	Gigabyte	342.00	E	375.0	7,193	32.40 e	29.75 e	10.6	11.5	3.2 e	3.1 e	0.5	0.4	7.4	8.4	32.4	27.1	12.3	9.7	60.5	4%
2382.TW	Quanta	372.00	O	385.00	45,133	24.66 e	28.80 e	15.1	12.9	4.6 e	3.8 e	0.4	0.4	12.2	10.2	33.6	32.3	5.6	5.1	212.5	3%
3231.TW	Wistron	156.00	O	210.0	15,317	13.95 e	18.11 e	11.2	8.6	1.7 e	1.5 e	0.1	0.1	3.4	2.7	15.8	18.2	3.5	3.7	201.6	2%
3533.TW	Lotes	2,240.00	E	2350.00	7,623	94.03 e	116.81 e	23.8	19.2	5.4 e	4.6 e	5.7	4.8	13.9	11.2	24.1	25.7	19.2	20.3	67.6	2%
4938.TW	Pegatron	93.10	E	85.0	8,080	5.39 e	7.61 e	17.3	12.2	0.9 e	0.9 e	0.2	0.1	4.9	3.8	5.6	7.5	2.2	2.6	26.4	0%
4958.TW	Zhen Ding	552.00	O	666.00	18,032	14.46 e	24.21 e	38.2	22.8	3.2 e	2.9 e	2.6	2.0	16.5	10.9	8.8	13.5	5.3	8.1	155.4	1%
8046.TW	Nan Ya PCB	819.00	O	1275.0	16,467	11.52 e	23.78 e	71.1	34.4	10.2 e	8.5 e	9.6	7.1	36.3	21.7	15.1	26.8	11.2	19.2	225.6	0%
3037.TW	Unimicron	902.00	O	1285.00	42,850	11.84 e	25.26 e	76.2	35.7	11.4 e	9.1 e	7.3	5.2	33.6	18.3	15.9	28.4	6.5	11.3	371.6	0%
6669.TW	Wiwynn	4,850.00	O	7500.0	28,757	357.51 e	466.82 e	13.6	10.4	5.5 e	4.2 e	0.6	0.4	9.2	7.3	46.0	45.6	17.3	16.4	238.1	3%
HK/ China																					
000977.SZ	Inspur	57.84	E	75.00	12,518	2.26 e	3.03 e	25.5	19.1	3.3 e	2.9 e	0.4	0.3	27.1	21.1	13.9	16.3	3.7	3.7	592.9	0%
600183.SS	Shengyi	149.73	E	74.0	53,664	2.06 e	2.84 e	72.6	52.7	16.6 e	14.2 e	9.3	7.3	52.3	38.8	24.6	29.1	15.7	18.3	445.9	1%
002916.SZ	Shennan Circuit	376.16	E	400.00	37,805	7.18 e	11.24 e	52.4	33.5	8.9 e	6.9 e	7.4	5.7	41.1	27.3	25.2	31.6	14.9	19.5	377.2	0%
0992.HK	Lenovo	22.88 HKD	E	14.2	36,215	1.42 e	1.43 e	16.2	16.0	3.6 e	3.2 e	0.4	0.4	6.3	6.0	26.1	22.7	5.0	4.8	145.0	3%
6088.HK	FIT Hong Teng	7.30 HKD	O	12.00	6,803	0.32 e	0.53 e	23.0	13.7	2.2 e	1.9 e	1.2	1.0	11.0	6.9	10.2	15.1	4.7	7.3	59.9	0%
Smartphone & Wireless Equipment																					
Taiwan																					
3008.TW	Largan	4,020.00	E	2450.00	17,204	153.49 e	165.87 e	26.2	24.2	2.5 e	2.3 e	9.0	8.4	13.5	12.3	10.2	10.0	9.0	9.2	75.8	2%
3406.TW	Genius	662.00	E	425.00	2,467	31.74 e	39.14 e	20.9	16.9	2.5 e	2.2 e	3.0	2.7	7.3	6.2	12.7	13.7	8.1	9.4	20.3	11%
HK/ China																					
000063.SZ	ZTE (A Shr)	37.81	E	34.30	24,997	0.83 e	1.16 e	45.6	32.7	2.3 e	2.2 e	1.1	1.0	22.5	20.5	5.2	6.9	1.8	2.3	823.2	2%
002036.SZ	LCE	7.96	U	8.50	1,242	0.20 e	0.24 e	39.9	32.6	2.9 e	2.7 e	0.9	0.8	9.7	8.6	7.5	8.5	1.3	1.6	75.9	0%
002236.SZ	Dahua	15.84	E	20.80	7,641	1.35 e	1.50 e	11.8	10.6	1.3 e	1.2 e	1.4	1.3	8.8	7.6	11.1	11.6	8.0	8.1	136.6	4%
002273.SZ	Crystal	33.18	O	30.00	6,808	1.08 e	1.25 e	30.7	26.4	4.5 e	4.3 e	5.7	4.9	20.1	17.2	15.0	16.7	11.9	13.0	212.2	2%
002373.SZ	TransInfo	7.22	E	9.70	1,468	0.44 e	0.50 e	16.5	14.4	0.9 e	0.8 e	1.4	1.2	6.8	5.5	5.6	6.0	3.9	4.2	58.0	0%
002415.SZ	Hikvision	29.98	E	35.80	40,540	1.75 e	1.87 e	17.1	16.0	2.8 e	2.6 e	2.8	2.5	11.7	10.3	16.9	16.7	11.2	11.2	261.7	4%
002456.SZ	SZ O-Film	8.67	U	8.00	4,296	0.06 e	0.11 e	157.5	75.8	5.5 e	5.0 e	1.4	1.2	27.1	22.0	3.6	6.9	0.8	1.6	179.6	1%
300098.SZ	Gosuncn	4.90	U	4.80	1,115	0.08 e	0.10 e	65.3	48.6	2.9 e	2.8 e	3.5	3.0	37.4	27.2	4.6	5.9	2.5	3.0	55.4	0%
002281.SZ	Accelink	205.40	U	166.00	24,447	2.30 e	3.38 e	89.3	60.8	14.3 e	12.1 e	10.5	7.8	57.6	41.2	17.1	21.6	10.6	13.1	608.9	0%
600745.SS	Wingtech	17.94	U	15.00	3,295	(0.26) e	(0.17) e	NM	NM	0.9 e	0.9 e	6.4	6.0	(449.9)	316.7	(1.3)	(0.8)	(0.8)	(0.5)	227.1	0%
603297.SS	Yongxin	117.96	E	120.00	1,931	2.81 e	3.37 e	42.0	35.0	5.9 e	5.4 e	11.2	9.2	41.2	30.7	14.5	16.0	12.3	13.6	31.3	1%
688036.SS	Transsion	53.17	E	60.00	9,031	0.54 e	2.14 e	97.9	24.8	3.0 e	2.7 e	0.9	0.8	122.4	16.7	3.0	11.5	1.4	5.1	128.4	0%
601869.SS	YOFC-A	442.51	U	202.25	38,935	9.07 e	15.38 e	48.8	28.8	14.6 e	10.3 e	9.1	7.2	24.8	16.0	35.1	42.1	18.0	23.8	393.8	0%
603236.SS	Quectel	56.15	E	95.00	3,338	4.25 e	4.92 e	13.2	11.4	2.4 e	2.0 e	0.5	0.5	8.8	7.6	19.9	18.9	6.3	6.3	114.1	0%
0285.HK	BYDE	24.50 HKD	O	39.00	7,044	2.00 e	2.63 e	12.2	9.3	1.2 e	1.1 e	0.2	0.2	4.4	3.4	12.2	14.5	4.7	5.7	73.9	3%
0763.HK	ZTE (H Shr)	26.20 HKD	O	39.00	24,997	0.83 e	1.16 e	31.6	22.7	1.4 e	1.3 e	1.1	1.0	22.5	20.5	5.2	6.9	1.8	2.3	91.9	3%
1478.HK	Q-Tech	7.98 HKD	U	7.20	1,220	0.72 e	0.91 e	11.0	8.7	1.2 e	1.1 e	0.3	0.3	6.4	4.6	12.8	14.7	4.2	4.8	10.1	3%
1810.HK	Xiaomi	25.84 HKD	O	45.00	70,518	1.03 e	1.34 e	25.2	19.2	2.1 e	1.9 e	1.3	1.0	22.6	15.5	7.1	8.9	3.7	4.7	886.3	0%
2018.HK	AAC	42.60 HKD	O	42.00	6,515	2.06 e	2.55 e	20.7	16.7	1.6 e	1.5 e	1.3	1.1	6.5	4.6	9.4	10.6	4.8	5.4	31.6	1%
2382.HK	Sunny Optical	70.95 HKD	E	62.00	9,912	2.85 e	3.46 e	24.9	20.5	2.0 e	1.8 e	1.6	1.3	7.9	5.9	9.9	10.7	5.0	5.4	109.1	2%
6869.HK	YOFC-H	230.60 HKD	E	230.00	38,935	9.07 e	15.38 e	25.4	15.0	6.6 e	4.7 e	9.1	7.2	24.8	16.0	35.1	42.1	18.0	23.8	310.5	0%

Demand Forecasts – Potential Downside from Memory Cost Hike

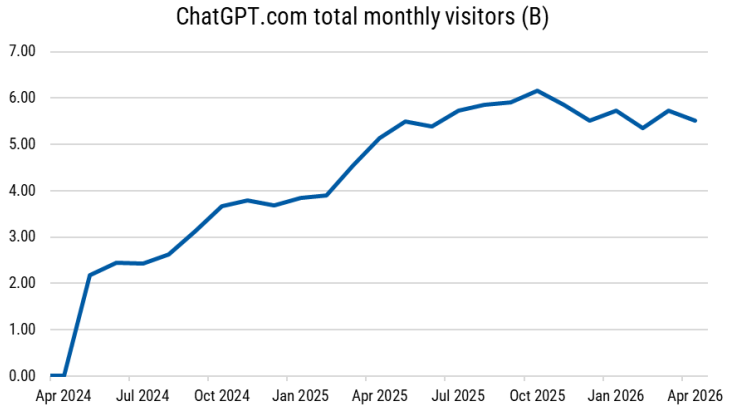
(mn units)	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026e	2027e
Server	**8.4**	**7.1**	**8.3**	**8.6**	**8.7**	**9.0**	**9.2**	**9.7**	**9.6**	**10.2**	**11.8**	**11.8**	**12.7**	**13.5**	**14.9**	**12.4**	**14.5**	**14.5**	**14.8**	**15.5**
YoY % Change		-16%	17%	4%	0%	3%	3%	5%	-2%	7%	16%	0%	7%	7%	10%	-17%	17%	0%	2%	5%
PC	**296.6**	**312.5**	**354.9**	**360.4**	**346.1**	**311.8**	**304.7**	**272.1**	**256.2**	**261.3**	**260.2**	**267.5**	**306.6**	**353.6**	**293.8**	**253.2**	**255.9**	**277.1**	**232.3**	**224.8**
YoY % Change	11%	5%	14%	2%	-4%	-10%	-2%	-11%	-6%	2%	0%	3%	15%	15%	-17%	-14%	1%	8%	-16%	-3%
PC (inc. Tablet)	**296.6**	**312.5**	**374.2**	**436.6**	**490.3**	**531.6**	**534.8**	**479.3**	**431.1**	**425.1**	**406.4**	**412.0**	**470.1**	**521.8**	**455.4**	**381.8**	**400.4**	**424.7**	**383.0**	**378.5**
YoY % Change	11%	5%	20%	17%	12%	8%	1%	-10%	-10%	-1%	-4%	1%	14%	11%	-13%	-16%	5%	6%	-10%	-1%
Desktop	**155.1**	**144.3**	**154.8**	**152.3**	**146.0**	**134.2**	**131.3**	**110.7**	**100.8**	**100.8**	**96.0**	**95.9**	**85.8**	**95.8**	**85.7**	**72.2**	**69.7**	**77.2**	**66.3**	**64.9**
YoY % Change	-4%	-7%	7%	-2%	-4%	-8%	-2%	-16%	-9%	0%	-5%	0%	-11%	12%	-11%	-16%	-3%	11%	-14%	-2%
Notebook	**141.5**	**168.2**	**200.1**	**208.0**	**200.1**	**177.5**	**173.4**	**161.4**	**155.4**	**160.5**	**164.1**	**171.6**	**220.8**	**257.7**	**208.1**	**180.9**	**186.1**	**199.9**	**166.0**	**159.9**
YoY % Change	33%	19%	19%	4%	-4%	-11%	-2%	-7%	-4%	3%	2%	5%	29%	17%	-19%	-13%	3%	7%	-17%	-4%
Tablet			**19.4**	**76.2**	**144.2**	**219.9**	**230.1**	**207.2**	**174.9**	**163.8**	**146.2**	**144.5**	**163.5**	**168.3**	**161.6**	**128.6**	**144.6**	**147.6**	**150.6**	**153.7**
YoY % Change				294%	89%	52%	5%	-10%	-16%	-6%	-11%	-1%	13%	3%	-4%	-20%	12%	2%	2%	2%
Smartphone	**150.8**	**173.4**	**304.7**	**494.4**	**726.7**	**1,018.7**	**1,301.5**	**1,437.6**	**1,469.5**	**1,465.3**	**1,402.5**	**1,372.6**	**1,281.2**	**1,359.8**	**1,206.2**	**1,165.5**	**1,237.5**	**1,261.7**	**1,099.8**	**1,137.0**
YoY % Change	22%	15%	76%	62%	47%	40%	28%	10%	2%	0%	-4%	-2%	-7%	6%	-11%	-3%	6%	2%	-13%	3%
iPhone	**13.7**	**25.1**	**47.5**	**93.1**	**135.8**	**153.5**	**192.7**	**231.5**	**215.4**	**215.8**	**204.9**	**199.3**	**203.4**	**235.8**	**226.3**	**234.3**	**232.5**	**252.0**	**246.0**	
YoY % Change	269%	84%	89%	96%	46%	13%	26%	20%	-7%	0%	-5%	-3%	2%	16%	-4%	4%	-1%	8%	-2%	
iPad			**14.8**	**40.5**	**65.7**	**74.2**	**63.4**	**49.6**	**42.5**	**43.8**	**43.3**	**49.9**	**53.3**	**57.8**	**60.5**	**48.53**	**50.63**	**53.33**	**51.90**	
YoY % Change				174%	62%	13%	-15%	-22%	-14%	3%	-1%	15%	7%	8%	5%	-20%	4%	5%	-3%	

Valuation Premium Justified for the AI Hardware Supply Chain

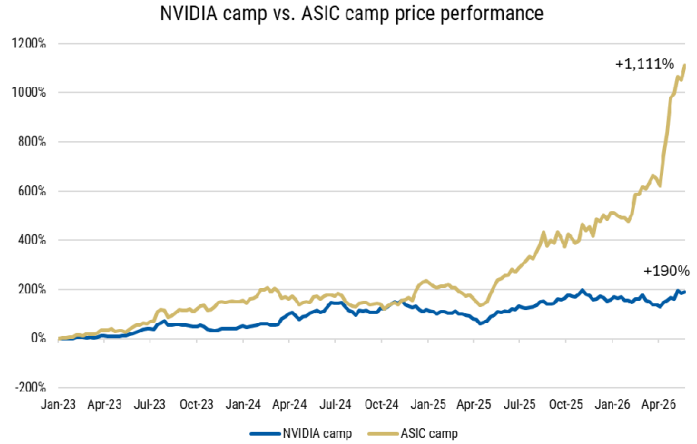
Company	Ticker	AI revenue mix		AI profit mix		P/E		PEG	
		2025e	2026e	2025e	2026e	2026e	2027e	2026e	2027e
Wistron	3231.TW	27%	35%	6%	26%	10.4x	8.0x	0.19x	0.27x
Bizlink	3665.TW	15-20%	20-25%	20-25%	25-30%	33.2x	17.5x	0.90x	0.20x
FII	601138.SS	52%	56%	32%	35%	22.8x	17.3x	0.31x	0.55x
Lite-on Tech	2301.TW	12%	11%	14%	13%	28.2x	22.0x	0.90x	0.78x
Delta	2308.TW	15%	20%	16%	22%	60.7x	38.7x	0.76x	0.68x
AVC	3017.TW	15%	17%	15%	17%	28.0x	18.6x	0.29x	0.37x
Accton	2345.TW	70-75%	75-80%	70-75%	75-80%	34.6x	26.0x	0.57x	0.79x
TFC Optical	300394.SZ	55%	60%	35%	50%	96.8x	69.6x	1.37x	1.79x
Auras	3324.TWO	38%	47%	50%	62%	17.8x	15.7x	0.17x	1.14x
King Slide	2059.TW	55%	55-60%	60%	60-65%	29.3x	25.4x	0.47x	1.64x
Accelink	002281.SZ	0-5%	20%	0-5%	30%	88.1x	60.0x	0.92x	1.28x
Quanta	2382.TW	50%	68%	35%	56%	12.7x	10.8x	0.47x	0.65x
Eoptolink	300502.SZ	40%	50%	45%	60%	37.2x	20.6x	0.39x	0.26x
Giga-Byte	2376.TW	54%	61%	26%	30%	10.3x	11.2x	0.13x	-1.37x

AI Server Momentum Continues To Be Strong

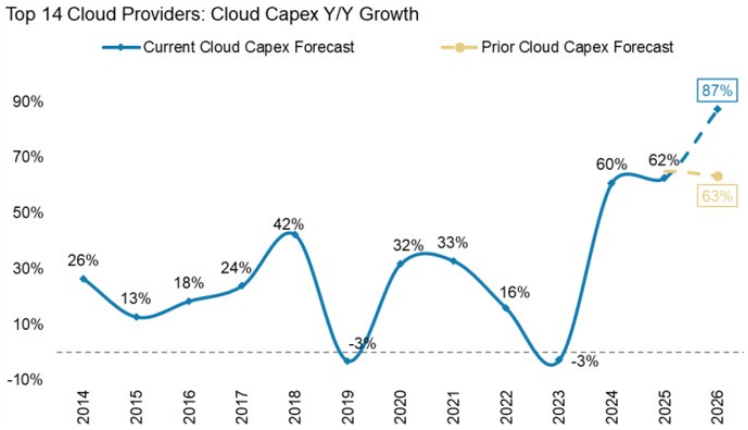
ChatGPT Monthly Visitors (B)



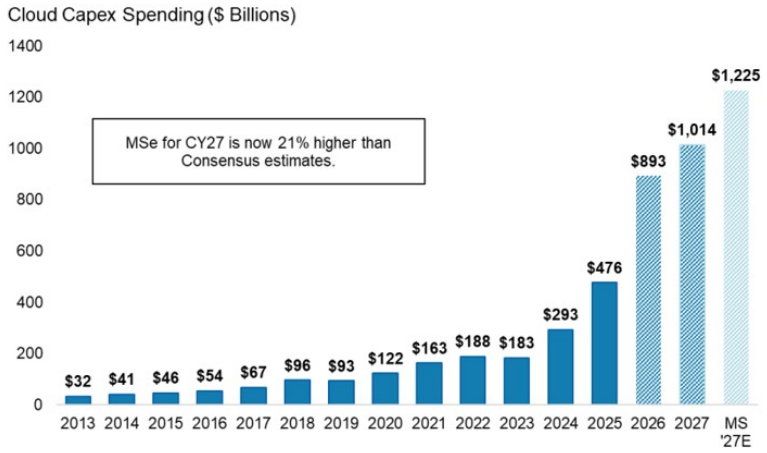
GPU vs. ASIC Share Price Movement



Total Cloud Capex Up Y/Y in CY25-26



Cloud Capex Could See Upside for CY26



Agentic AI – Hardware Beneficiaries (ABF Substrates, CPU Sockets, MLCCs)

Every 1M Units of total CPU upside	
Server CPU ABF Substrate ASP (US$)	77.8
Revenue upside to Unimicron per 1M CPUs (US$ M)	12.6
Revenue upside to Unimicron per 1M CPUs (NT$ M)	397
Unimicron 2026 total revenue estimate (NT$ M)	169,246
Unimicron ABF revenue upside per 1M CPUs	**0.2%**

If CPU TAM grows 10-15M units…	
Server CPU ABF Substrate ASP (US$)	77.8
Revenue upside to Unimicron if CPU TAM grows 10-15M units (US$ M)	157.6
Revenue upside to Unimicron if CPU TAM grows 10-15M units (NT$ M)	4,964
Unimicron 2026 ABF revenue estimate (NT$ M)	169,246
Unimicron ABF revenue upside if CPU TAM grows 10-15M units	**2.9%**

Every 1M Units of total CPU upside	
Server CPU Socket ASP (US$)	21.9
Revenue upside to Lotes per 1M CPUs (US$ M)	7.7
Revenue upside to Lotes per 1M CPUs (NT$ M)	241
Lotes 2026 total revenue estimate (NT$ M)	41,065
Lotes CPU Socket upside per 1M CPUs	**0.6%**

If CPU TAM grows 10-15M units…	
Server CPU Socket ASP (US$)	21.9
Revenue upside to Lotes if CPU TAM grows 10-15M units (US$ M)	95.7
Revenue upside to Lotes if CPU TAM grows 10-15M units (NT$ M)	3,015
Lotes 2026 total revenue estimate (NT$ M)	41,065
Lotes CPU Socket upside if CPU TAM grows 10-15M units	**7.3%**

Every 1M Units of total CPU upside	
Server CPU Socket ASP (US$)	21.9
Revenue upside to FIT per 1M CPUs (US$ M)	8.8
FIT 2026 total revenue estimate (US$ M)	5,483
FIT CPU Socket upside per 1M CPUs	**0.2%**

If CPU TAM grows 10-15M units…	
Server CPU Socket ASP (US$)	21.9
Revenue upside to FIT if CPU TAM grows 10-15M units (US$ M)	109.4
FIT 2026 ABF revenue estimate (NT$ M)	5,483
FIT CPU Socket upside if CPU TAM grows 10-15M units	**2.0%**

Every 1M Units of total CPU upside	
Server MLCC Content (US$)	30.0
Revenue upside to Yageo per 1M CPUs (US$ M)	4.5
Revenue upside to Yageo per 1M CPUs (NT$ M)	142
Yageo 2026 total revenue estimate (NT$ M)	158,893
Yageo MLCC revenue upside per 1M CPUs	**0.1%**

If CPU TAM grows 10-15M units…	
Server MLCC Content (US$)	30.0
Revenue upside to Yageo if CPU TAM grows 10-15M units (US$ M)	56.3
Revenue upside to Yageo if CPU TAM grows 10-15M units (NT$ M)	1,772
Yageo 2026 total revenue estimate (NT$ M)	158,893
Yageo MLCC revenue upside if CPU TAM grows 10-15M units	**1.1%**

NVIDIA GPU Roadmap

Recent updates

- 2025 came in at ~29K racks, and we forecast 70-80K racks for 2026.
- VR200 rack production is delayed by 1-2 months vs original schedule due to component issues (i.e., Midplane PCB), so rack ramp will start in 4Q26.
- Quanta should be a share gainer for GB racks in CY26.

NVIDIA	H100	H200	B200	GB200 NVL72	GB300 NVL72 (RENAMED FROM GB200 Ultra)	VR200 NVL144	VR200 NVL144 CPX	VR300
Launch timing	4Q22	2Q24	1Q25	4Q24	3Q25	2H26	End of 2026	2H27
CPU	x86	x86	x86	Grace	Grace	Vera	Vera	Vera
Back-end	CoWoS-S	CoWoS-S	CoWoS-L	CoWoS-L	CoWoS-L	CoWoS-L	CoWoS-L	CoWoS-L
GPU Cooling	Air	Air & Liquid	Air & Liquid	Liquid	Liquid	Liquid	Liquid	Liquid
GPU Max TDP	700W	700W	1,000W	1,200W	1,400W	2,300W	800W	3,600W
Product Form Factor	DGX/HGX 8x GPU PCIe	DGX/HGX 8x GPU PCIe	DGX/HGX 8x GPU PCIe	Oberon GB 2:4 board NVSwitch tray NVL backplane	Oberon GB 2:4 board NVSwitch tray NVL backplane	Oberon VR 2:4 board NVSwitch tray NVL backplane	Oberon VR 2:4 board NVSwitch tray NVL backplane	Kyber
GPU Memory	80/96GB | HBM2e/3 | 8H	141GB | HBM3e | 8H	192GB | HBM3e | 8H	192GB | HBM3e | 8H	288GB | HBM3e | 8H	288GB | HBM4 | 8H	128GB GDDR7	1TB | HBM4e | 16H
HBM Vendor	Hynix	Hynix/Micron	Hynix/Micron/Samsung	Hynix/Micron/Samsung	Hynix/Micron/Samsung	Hynix/Micron/Samsung	Hynix/Micron/Samsung	Hynix/Micron/Samsung
NVLink B/W per GPU	900GB/s	900GB/s	1,800 GB/s	1,800 GB/s	1,800 GB/s	3,600 GB/s	3,600 GB/s	3,600 GB/s
CPU-GPU Interface	128 GB/s PCIe5	128 GB/s PCIe5	128 GB/s PCIe5	450 GB/s C2C	450 GB/s C2C	1.8TB/s C2C	1.8TB/s C2C	1.8TB/s C2C
Network Adapter	400G CX7 | BF3	400G CX7 | BF3	400G CX7 | BF3	400G CX7 | BF3	800G CX8	1,600G CX9	1,600G CX9	1,600G CX9

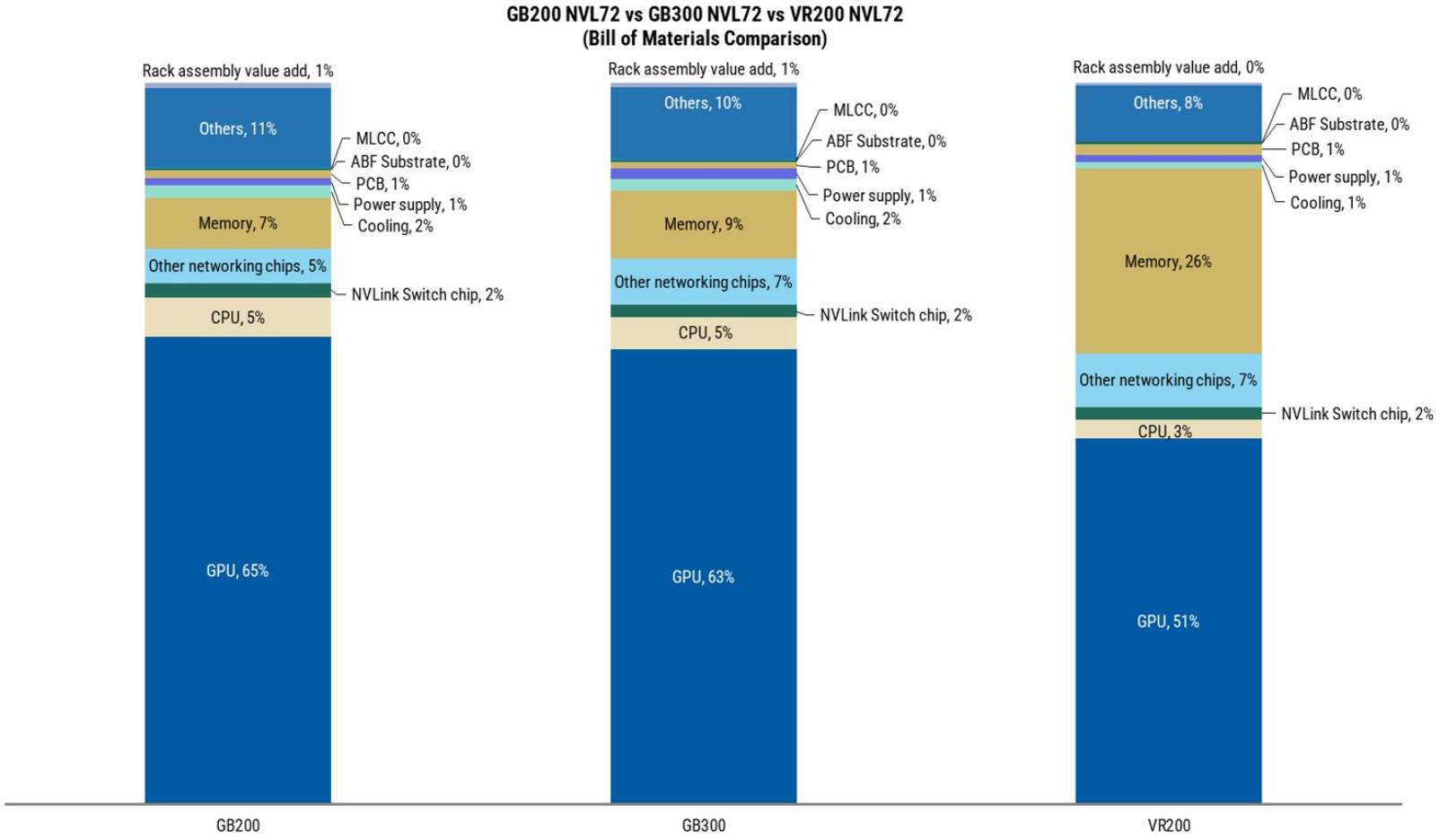
AMD GPU Roadmap

Recent updates

- MI400-series Helios rack OAM/UBB are produced by Wistron
- Wiwynn will be the main ODM partner for Meta for MI400-series Helios rack, and should be main beneficiary from Meta/AMD's multi-year, multi-generation partnership to deploy up to 6 gigawatts of AMD Instinct GPUs

AMD	MI250X	MI300A	MI300X	MI325X	MI350X
Launch timing	4Q21	4Q23	4Q23	4Q24	3Q25
CPU	x86	x86	x86	x86	x86
Back-end	SoIC + CoWoS-S	SoIC + CoWoS-S	SoIC + CoWoS-S	SoIC + CoWoS-S	SoIC + CoWoS-S
GPU Cooling	Air	Air	Air	Air	Air
GPU Max TDP	560W	760W	750W	750W	750W
Product Form Factor	4x GPU	4x APU	8x GPU	8x GPU	N/A
GPU Memory	128GB | HBM2e	128GB | HBM3	192GB | HBM3	288GB | HBM3e	288GB | HBM3e
HBM Vendor	Samsung	Samsung	Samsung	N/A	N/A
B/W per GPU	200GB/s	384GB/s	896GB/s	N/A	N/A
CPU-GPU Interface	64 GB/s PCIe4	N/A	128 GB/s PCIe5	128 GB/s PCIe5	128 GB/s PCIe5

Owing to recent increase in memory prices, memory will become 25%+ of Rubin BOM



We estimate that a single VR200 NVL72 rack will cost ~US$7.8M for hyperscalers

Nvidia NVL72 Bill of Materials	GB300	VR200	*Diff.*
GPU	$2,520,000	$3,960,000	*57%*
CPU	$180,000	$180,000	*0%*
NVLink Switch chip	$64,800	$144,000	*122%*
Other networking chips	$261,000	$576,000	*121%*
Memory	$373,939	$2,001,600	*435%*
Cooling	$64,610	$72,080	*12%*
Power supply	$57,600	$76,000	*32%*
PCB	$35,100	$116,730	*233%*
ABF Substrate	$11,160	$20,340	*82%*
MLCC	$1,530	$4,320	*182%*
Others	$402,412	$623,278	*55%*
Rack assembly value add	$22,400	$28,800	*29%*
Total	**$3,994,551**	**$7,803,148**	***95%***

Our bottom-up analysis shows ODM value-added per rack to increase ~38% for VR200

ODM Value-Add per rack	GB300	VR200
Compute Board Assembly/Test	$12,096	$16,200
Compute Tray Assembly/Test	$28,800	$32,400
Switch Board Assembly/Test	$2,475	$3,150
Switch Tray Assembly/Test	$2,700	$3,150
Rack Assembly/Test	$22,400	$28,800
BF DPU Assembly/Test	$1,170	$1,170
CX/Orchid Module Assembly/Test	$0	$3,600
Other peripheral boards	$3,150	$1,260
Cooling components	$12,922	$14,416
Others	$22,500	$45,500
Total ODM Value-Add	**$108,213**	**$149,646**

Our bottom-up analysis shows PCB content increasing ~233% for VR200

PCB ASP per board (US$)	GB300	VR200
Compute PCB	$650	$1,400
Switch PCB	$800	$1,450
Midplane PCB	$0	$1,500
BlueField PCB	$0	$255
ConnectX PCB	$0	$270
Other peripheral PCB	$50	$50
PCB Units per rack	**GB300**	**VR200**
Compute PCB	36x	36x
Switch PCB	9x	9x
Midplane PCB	0x	18x
BlueField PCB	18x	18x
ConnectX PCB	0x	72x
Other peripheral PCB	90x	45x
Total PCB Content per rack	**GB300**	**VR200**
Compute PCB	$23,400	$50,400
Switch PCB	$7,200	$13,050
Midplane PCB	$0	$27,000
BlueField PCB	$0	$4,590
ConnectX PCB	$0	$19,440
Other peripheral PCB	$4,500	$2,250
Total PCB Content per rack	**$35,100**	**$116,730**

Our bottom-up analysis shows MLCC content increasing ~182% for VR200

MLCC content per board (US$)	GB300	VR200
Compute PCB	$25	$90
Switch PCB	$20	$45
BlueField DPU Module	$5	$5
ConnectX Orchid Module	$5	$5
Other peripheral PCB	$5	$5
Units per rack	**GB300**	**VR200**
Compute PCB	36x	36x
Switch PCB	9x	9x
BlueField DPU Module	0x	18x
ConnectX Orchid Module	0x	72x
Other peripheral PCB	90x	45x
Total MLCC Content per rack	**GB300**	**VR200**
Compute PCB	$900	$3,240
Switch PCB	$180	$405
BlueField DPU Module	$0	$90
ConnectX Orchid Module	$0	$360
Other peripheral PCB	$450	$225
Total MLCC Content per rack	**$1,530**	**$4,320**

Our bottom-up analysis shows ABF substrate content increasing ~82% for VR200

ABF Substrate ASP per chip (US$)	GB300	VR200
GPU	$100	$200
CPU	$50	$60
NVSwitch ASIC	$30	$30
BlueField DPU	$30	$30
ConnectX chip	$30	$30
ABF Units per rack	**GB300**	**VR200**
GPU	72x	72x
CPU	36x	36x
NVSwitch ASIC	18x	36x
BlueField DPU	18x	18x
ConnectX chip	36x	72x
Total ABF Content per rack	**GB300**	**VR200**
GPU	$7,200	$14,400
CPU	$1,800	$2,160
NVSwitch ASIC	$540	$1,080
BlueField DPU	$540	$540
ConnectX chip	$1,080	$2,160
Total ABF Content per rack	**$11,160**	**$20,340**

Our bottom-up analysis shows cooling component content increasing ~12% for VR200

Thermal value per Vera Rubin NVL 144 rack			
Compute tray (Bianca)	unit		BoM (US$)
Cold plate module - Compute Board		$	400
- # per compute tray	2	$	800
NVQD		$	20
- # per compute tray	4	$	80
Tray manifold		$	1,000
Cold plate module - Bottom Half		$	150
- # per compute tray	3	$	450
NVQD		$	20
- # per compute tray	16	$	320
Floating mount			50
- # per compute tray	2	$	100
Thermal value per compute tray		$	2,750
- # of compute tray per rack	18		
Thermal value for compute tray per rack		$	49,500
Switch tray	unit		BoM (US$)
Cold plate module		$	200
- # per switch tray	2	$	400
NVQD		$	20
- # per compute tray	18	$	360
Floating mount			50
- # per compute tray	2	$	100
Others		$	60
Thermal value per compute tray		$	920
- # of switch tray per rack	9		
Thermal value for switch tray per rack		$	8,280
total thermal content value per rack		**$**	**57,780**

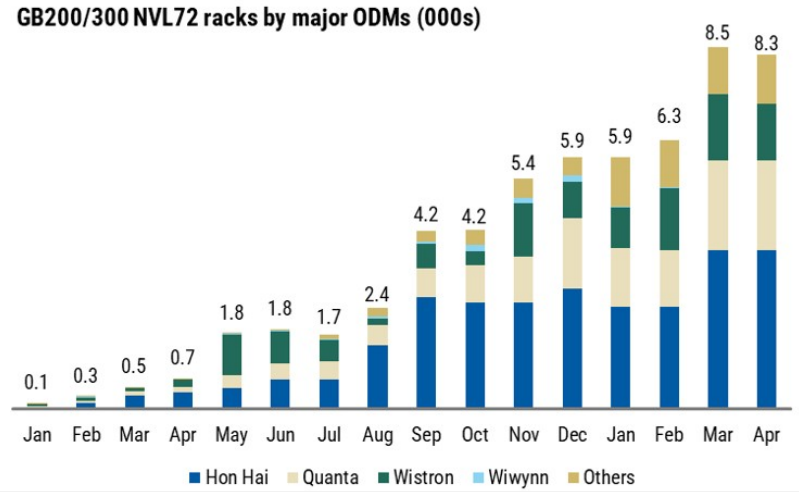
Cooling content (US$)	GB300	VR200
Cooling (In-tray only)	$50,310	$57,780
Rack Manifold	$13,500	$13,500
Rack-level other cooling	$800	$800
Total cooling (ex-Side-car CDU)	**$64,610**	**$72,080**
Side-car CDU	$50,000	$50,000
Total cooling	**$114,610**	**$122,080**

Our bottom-up analysis shows power supply content increasing ~32% for VR200

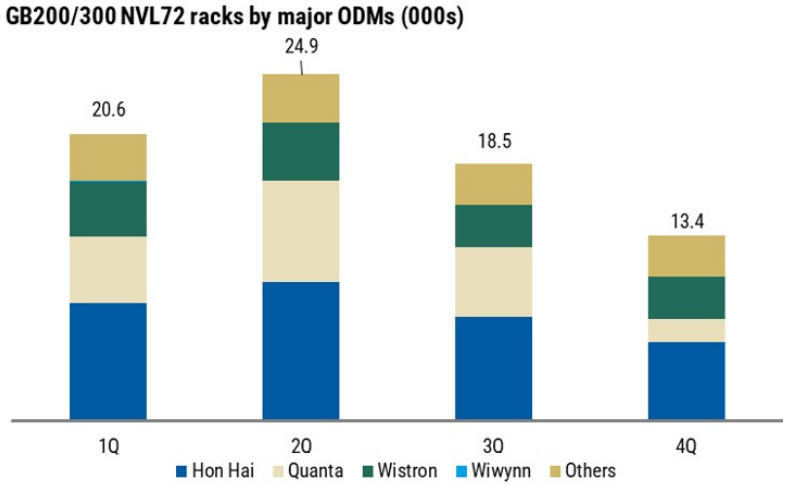
Server power supply design	Power shelf				HVDC Standalone power rack	
AC-DC conversion	400V AC >> 50V DC	400V AC >> 50V DC	400V AC >> 50V DC	400V AC >> 50V DC	400V AC >> 800V DC	400V AC >> 800V DC
Nvidia AI GPU generation	GB200	GB300	GB300	Vera Rubin	Vera Rubin CPX version	Vera Rubin Ultra
Nvidia AI server rack architecture	Oberon	Oberon	Oberon	Oberon	Oberon	Kyber
Power wattage per server rack	120kW	140kW	140kW	200kW+	380kW+	600kW
Power wattage per PSU	5.5kW	8kW	12kW	18.3kW	18.3kW	30kW
Power value per AI server rack	US$36,000 (x)	US$57,600	US$69,120	US$76,000	US$398,160	>10x
Power value per watt	US$0.3	US$0.41	US$0.49	US$0.38	US$1.05	...

We Forecast 2026e GB200/300 Racks To Be 70-80K

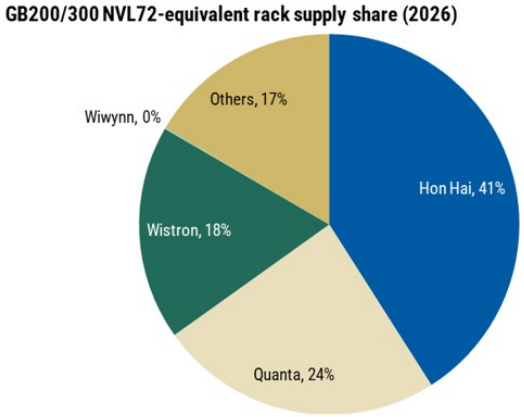
GB200/300 NVL72-equivalent monthly rack output



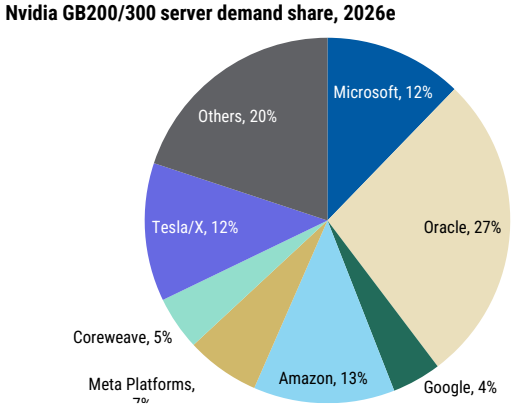
GB200/300 NVL72-equivalent quarterly rack output (2026e)



GB200/300 rack supply share by major ODMs (2026e)

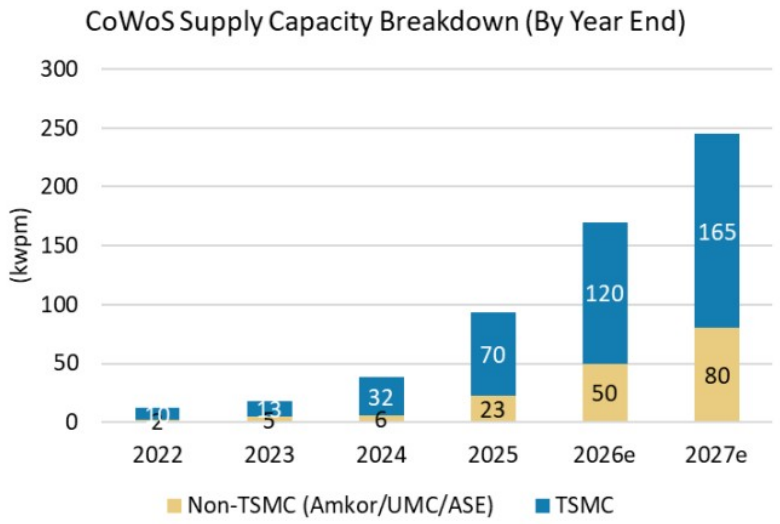


GB200/300 rack demand share (2026e)

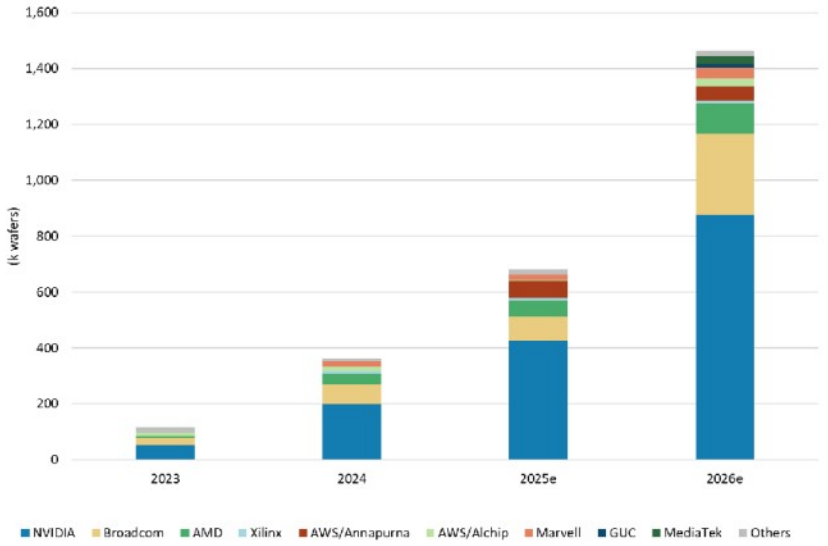


TSMC May Expand CoWoS Capacity to 165Kwpm by 2027 Given Strong AI Demand

CoWoS Supply Capacity Breakdown (By Year End)

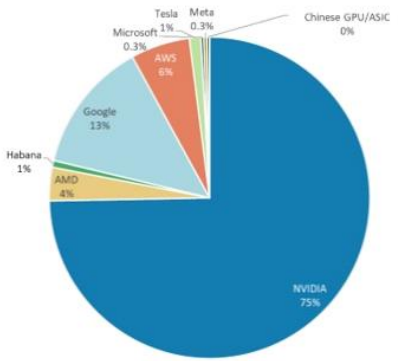


Global CoWoS Capacity Demand by Key Customer

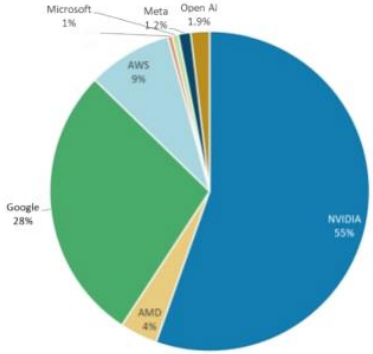


AI Computing Wafer Consumption Could Rise to US$26B in CY26

AI semi wafer consumption, by customer, 2025e



AI semi wafer consumption, by customer, 2026e



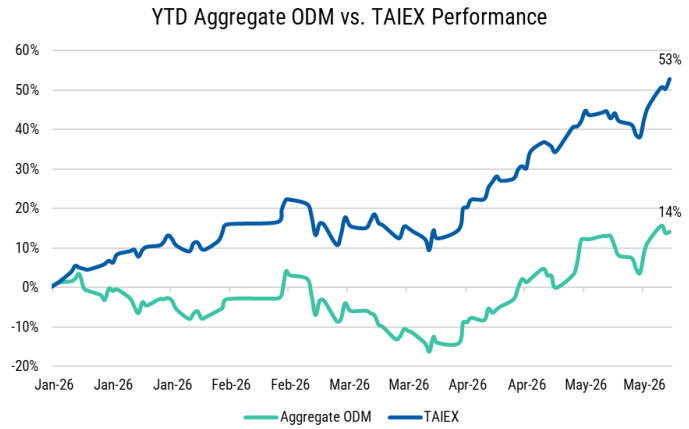
AI chip vendor	Product name	CoWoS capacity allocation (k wafers)	Chips per CoWoS wafer	Implied shipments (k)	Compute die size	Geometry	Compute die units	Wafer consumption (k wafers)	Wafer price (US$)	Wafer revenue TAM (US$ mn)	Backend revenue (US$ mn)
AI GPU (2026e)											
NVIDIA	B300	390	14	5,460	850	4nm	2	433	21,945	9,510	8,241
	Rubin R200	260	8	2,080	850	3nm	2	165	26,000	4,292	5,494
	H200	75	27	2,025	814	4nm	1	57	21,945	1,243	1,275
AMD	MI300	3	12	36	110	5nm	8	1	18,000	19	79
	MI350/375	7	12	84	110	3nm	8	2	26,000	64	194
	MI400	65	10	650	110	2nm	8	32	28,125	886	1,805
AI ASIC (2026e)											
Google	TPU v7p (Ironwood)	145	16	2,320	700	3nm	2	152	26,000	3,942	3,327
	TPU v7e (Sunfish; AVGO)	80	12	960	800	3nm	2	72	26,000	1,864	1,835
	TPU v8 (Zebrafish;MediaTek)	30	20	600	800	3nm	2	45	26,000	1,165	688
AWS	Trainium 2.5	20	16	320	600	5nm	2	12	20,000	237	411
	Trainium 3	80	17	1,360	700	3nm	2	73	26,000	1,886	1,642
Microsoft	Maia 200	4	29	116	700	3nm	1	3.0	26,000	79	87
	Maia 300	5	11	55	850	2nm	1	2.9	28,125	82	109
Meta	MTIA 3 (Iris)	15	10	150	850	3nm	2	11.9	26,000	310	1
Total		**1,434**						**1,084**		**26,159**	**25,219**

More ASIC Projects Are Coming, According to Each CSP Plan

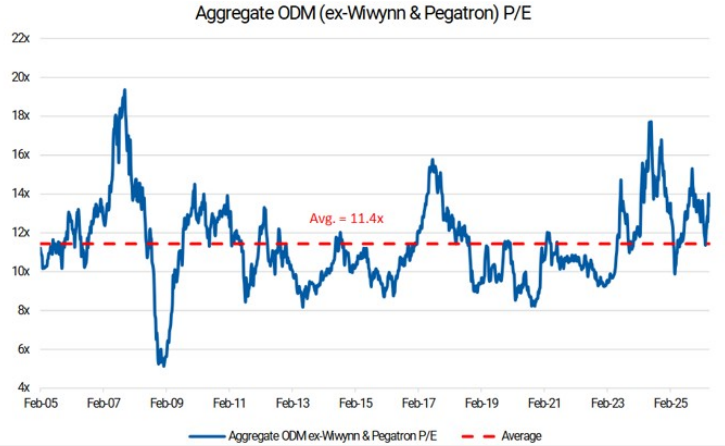
k Units	2023	2024	2025e	2026e	2027e	2028e
v5	500	2,400	250			
v6 (Trillium)			1,000			
v7 (Ironwood, by Broadcom)			500	2,300	500	
v8i (Sunfish; 3nm, by Broadcom)				900	3,000	2,500
v8t (Zebrafish; 3nm, by MediaTek)				500	2,500	1,000
v9 (Humufish; 2nm, by MediaTek)					150	2,500
v9a (Merope; 2nm, by US design service)						unknown
v10 (Icefish; 1.4nm, by MediaTek)						unknown
Total	**500**	**2,400**	**1,750**	**3,700**	**6,150**	**>6000**

ODMs Have Underperformed YTD

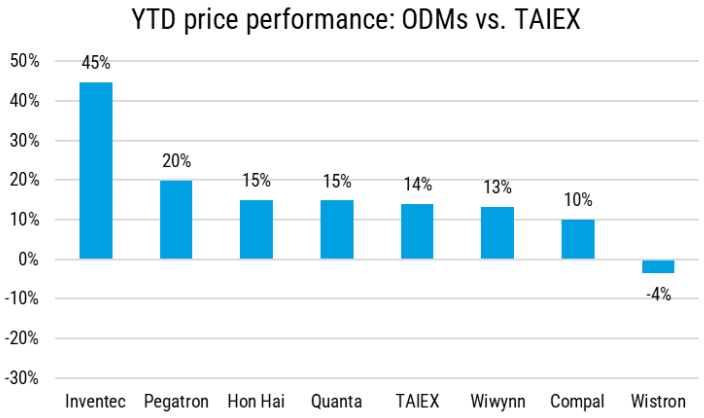
ODM Cohort Has Underperformed TAIEX by 30ppts YTD



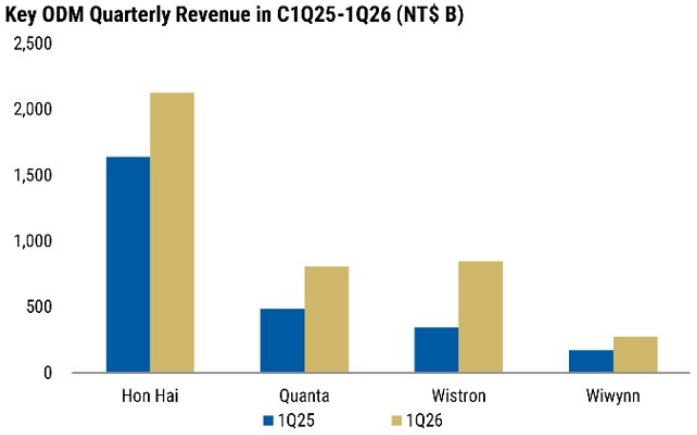
ODM Cohort Is Trading At Avg Historical P/E



YTD Price Performance – Individual ODMs vs TAIEX



…While Revenue Continues to Grow y/y

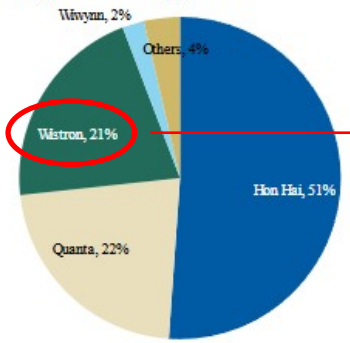


Wistron Is a Share Winner from VR200 Onward as Well as MI400-series

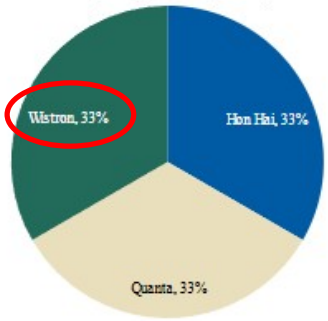
GB200/300	Foundry/CoWoS	L6 Board Assembly	Nvidia	L7 - 10 Server Assembly	L11 Server Rack	Transport/Install
	TSMC	Foxconn Wistron		Foxconn Wistron Quanta Wiwynn Giga-Byte Pegatron Asustek ...	Foxconn Wistron Quanta Wiwynn Giga-Byte Pegatron Asustek ...	

VR200	Foundry/CoWoS	L6 Board Assembly	L7 - 10 Server Assembly	L11 Server Rack	Transport/Install
	TSMC	Foxconn Wistron	Foxconn Wistron Quanta	Foxconn Wistron Quanta Wiwynn Giga-Byte Pegatron Asustek ...	

GB200/300 NVL72-equivalent rack supply share



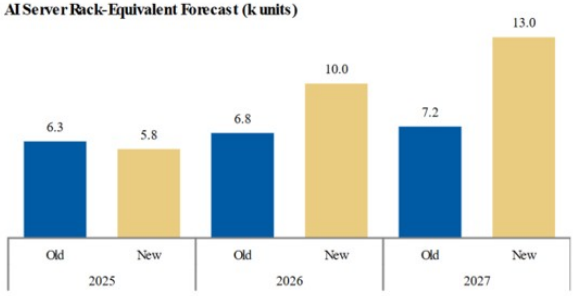
Morgan Stanley Estimate of Compute Tray Share (VR200)



Wistron Sensitivity Analysis for GB300

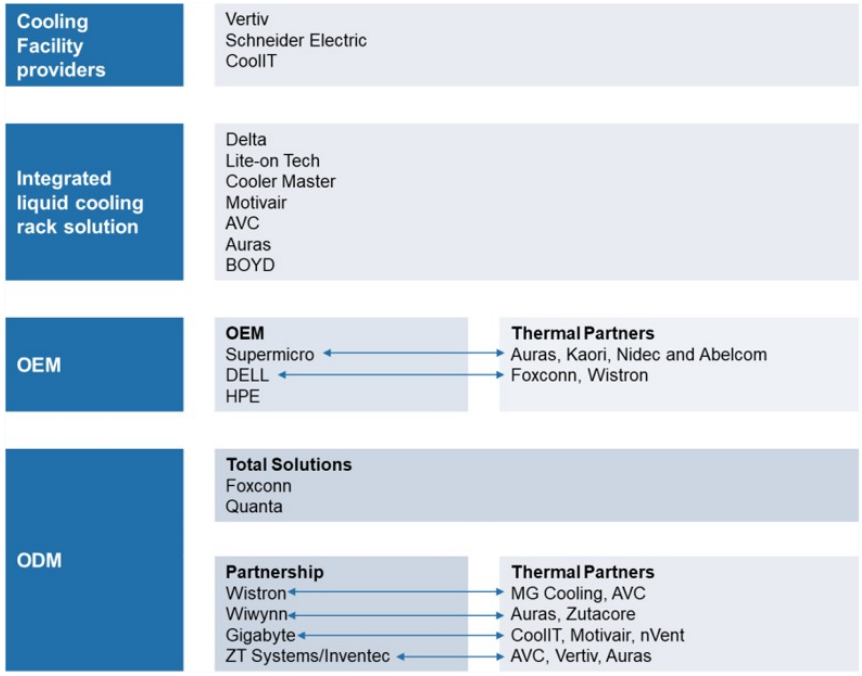
EPS contribution	Rack shipment (000s)						
Rack ASP (US$ M)		1	2	3	4	5	6
	2.6	0.36	0.73	1.09	1.46	1.82	2.18
	2.8	0.39	0.78	1.18	1.57	1.96	2.35
	3.0	0.42	0.84	1.26	1.68	2.10	2.52
	3.2	0.45	0.90	1.34	1.79	2.24	2.69
	3.4	0.48	0.95	1.43	1.90	2.38	2.85
	3.6	0.50	1.01	1.51	2.01	2.52	3.02

AI Server Rack-Equivalent Forecast (k units)



Suppliers with Integration Capability and Proven Shipment Record Stand Out

Liquid cooling solution supply dynamics for GB200 server rack system

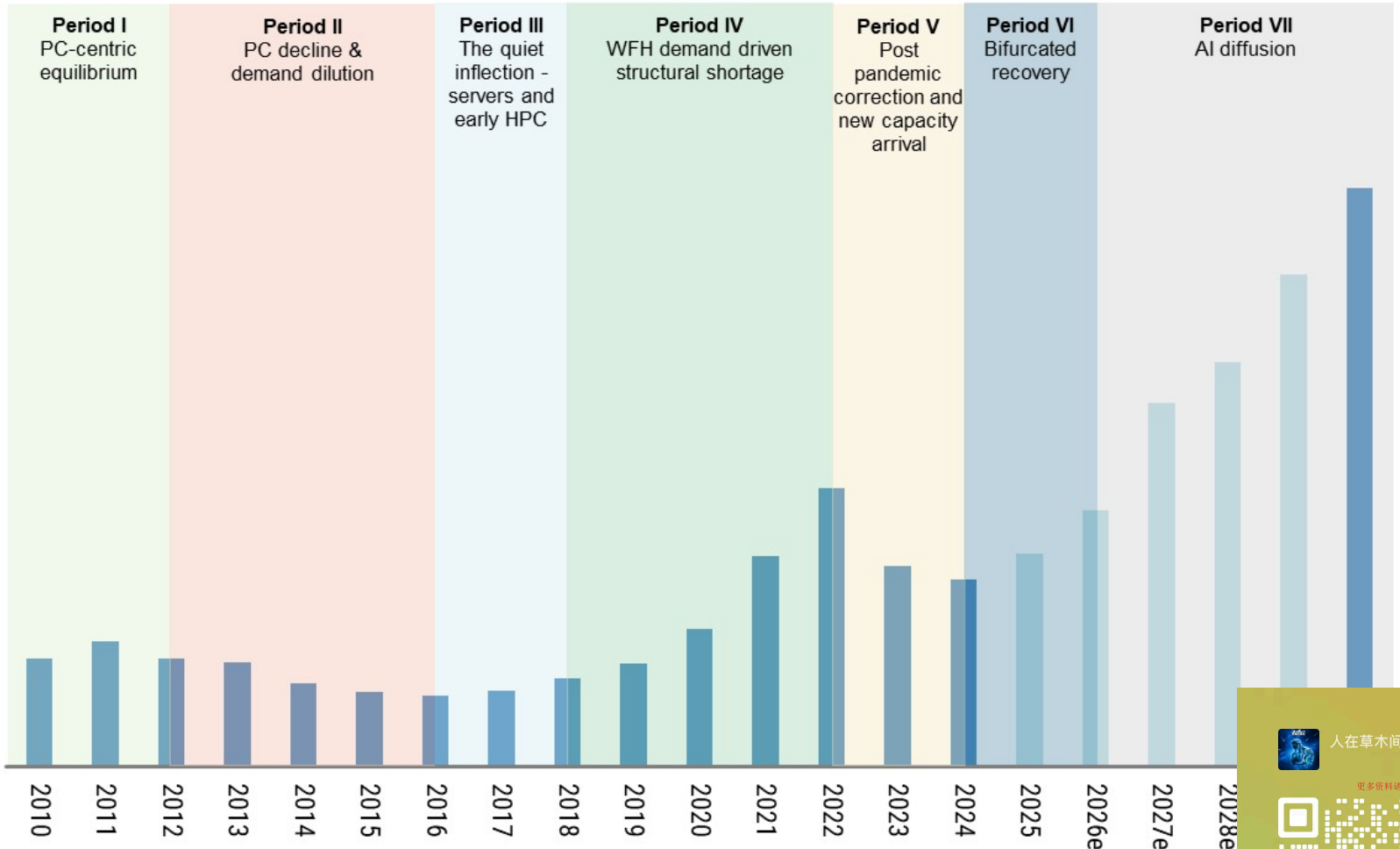


GB200 / ASIC server rack ODM partners

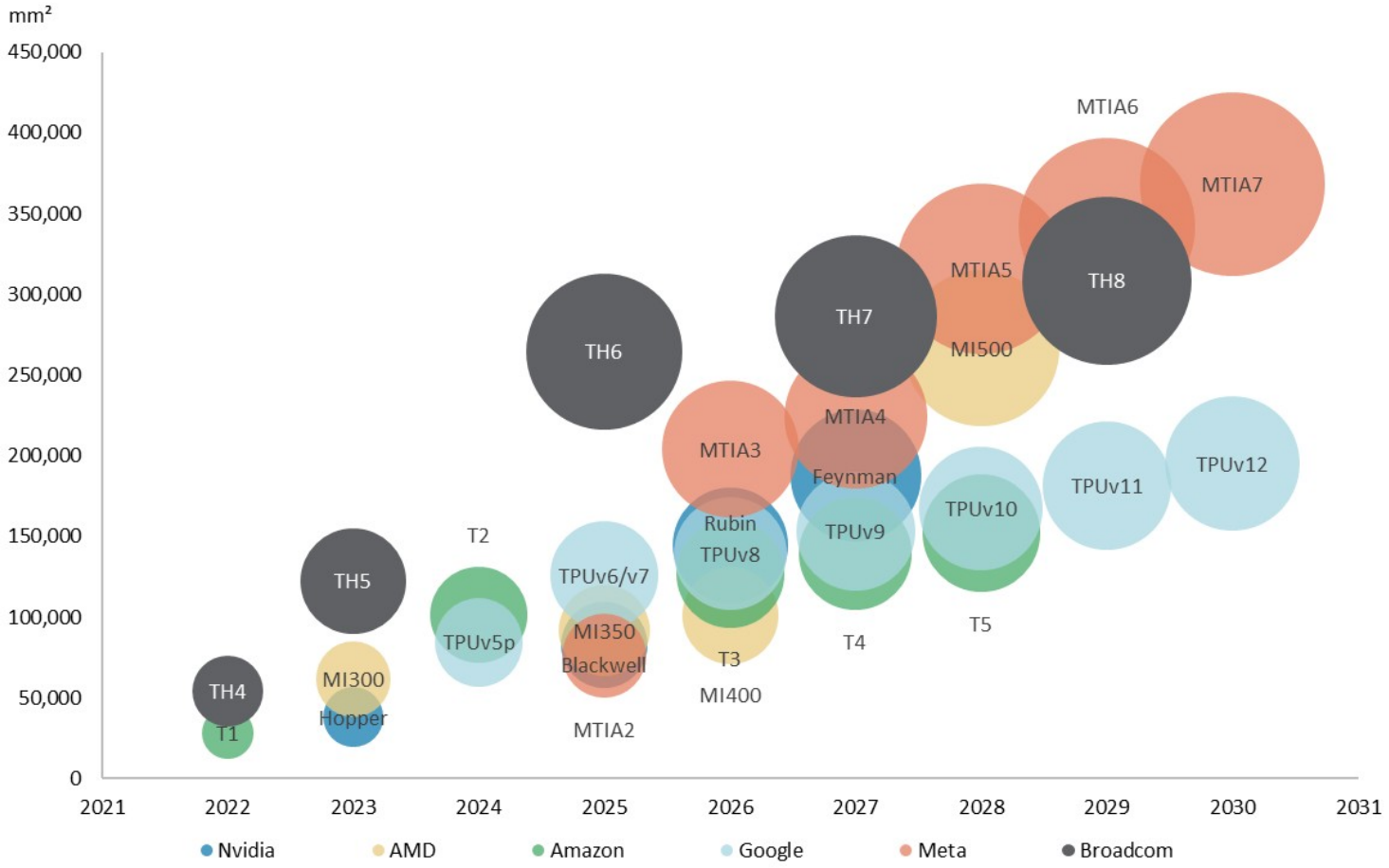
GB200/300	ODM Partner(s)
Microsoft	Foxconn/Quanta
Oracle	Foxconn/Wistron/Wiwynn/Quanta
Google	Quanta/Foxconn/Inventec
Amazon	Quanta/Foxconn
Meta Platforms	Quanta/Foxconn
Dell	Wistron
HPE	Foxconn/Wistron
Others	SMCI / etc

ASIC	ODM Partner(s)
Amazon	Wiwynn/Jabil
Google	Celestica/Foxconn/Inventec
Meta Platforms	Quanta/Celestica/Wiwynn

ABF Substrate: We Are Entering the AI Diffusion Era

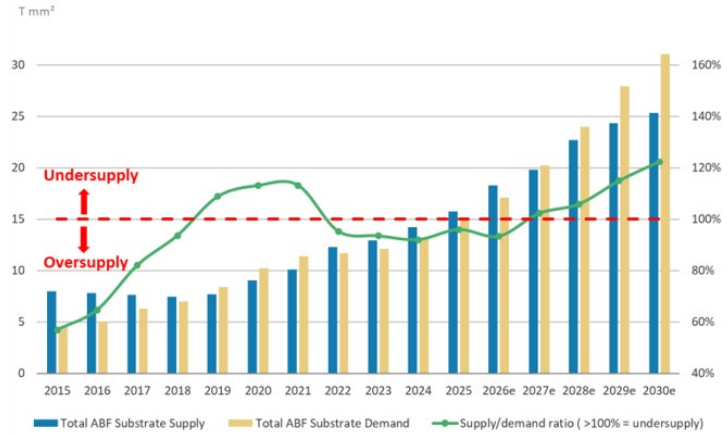


ABF Substrate Body Size and Layer Count Continues to Increase

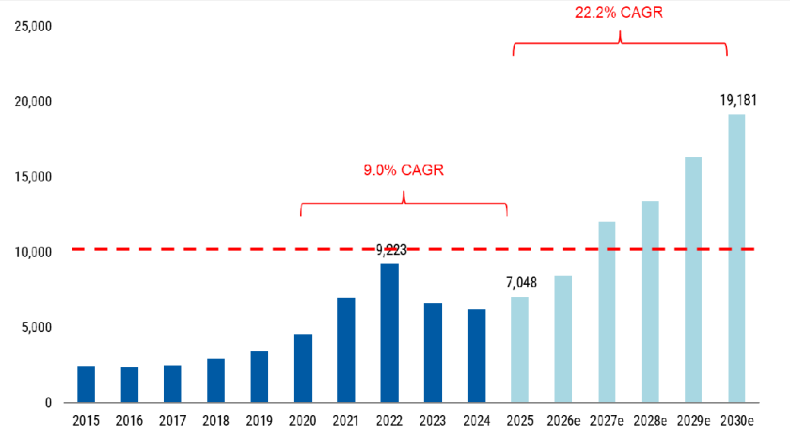


ABF Substrates: Undersupply from 2027 Onward

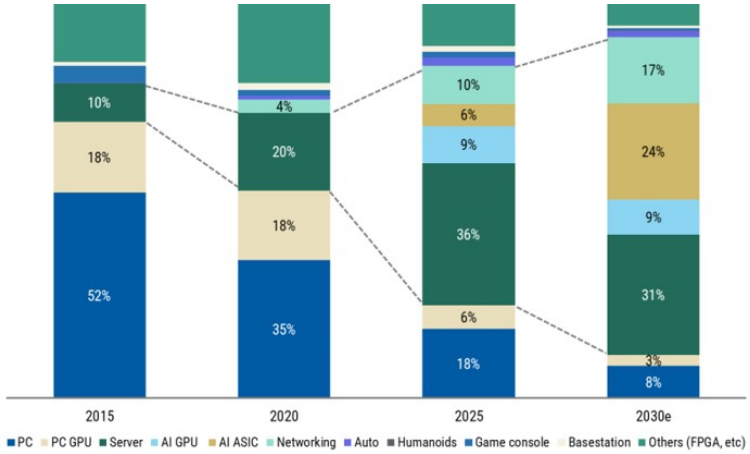
Expect ABF substrate undersupply from 2027 onwards



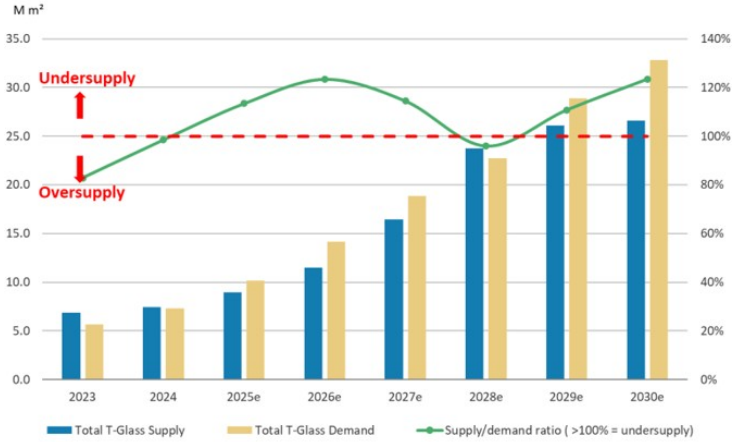
We are in early innings of an AI-driven upcycle



AI-related applicated expected to rise to 75%+ by 2030

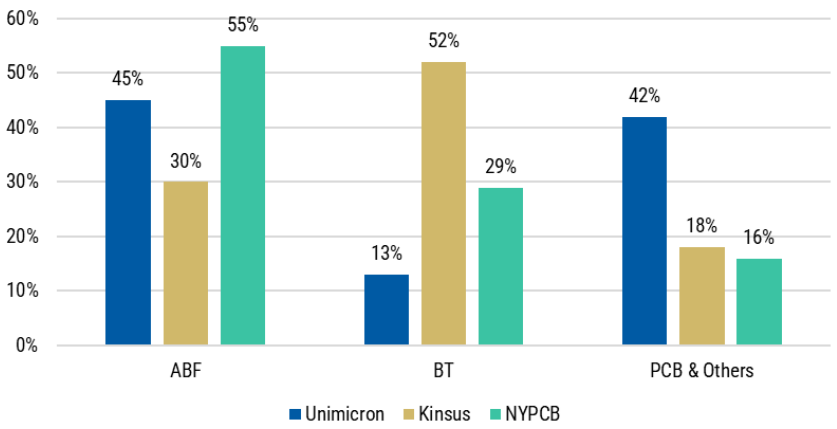


Expect T glass to remain undersupplied until 2028

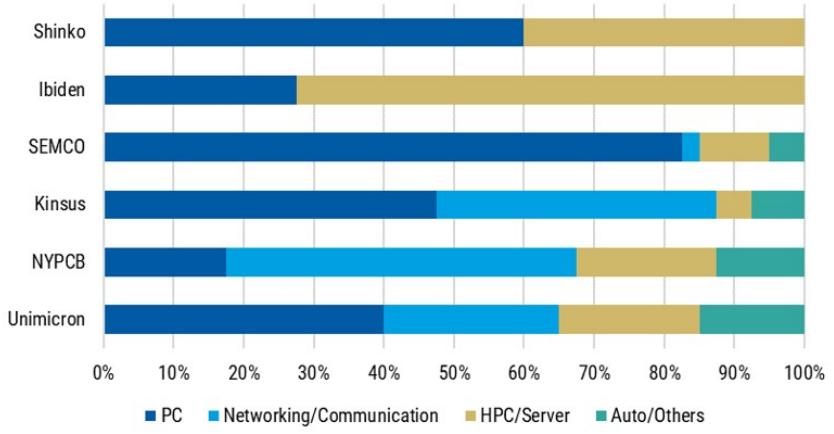


ABF Substrates: Sales Mix by Product and End Segment

Unimicron, NYPCB, Kinsus sales mix (2025)



ABF names end segment exposure (2025)



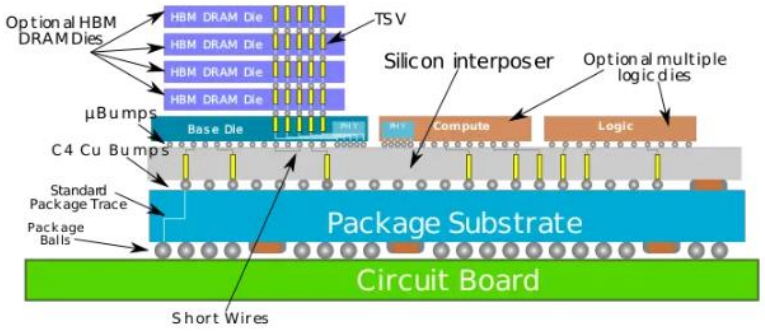
NVIDIA GPU ABF/CCL/PCB Roadmap

NVIDIA	A100	H100	B200
ABF Substrate			
Substrate size	55mm x 55mm	55mm x 58mm	73mm x 81mm
Layer count	12L	12L	14L
Supplier	Ibiden	Ibiden	Ibiden/Unimicron
OCP Accelerator Module (OAM)			
CCL Spec.	0	Very low-loss (M6), Ultra low-loss (M7)	Extreme low-loss (M8) + Low-loss (M4)
CCL supplier	0	EMC	Doosan
PCB Size	140mm x 78mm	152mm x 80.5mm	170mm x 86.5mm
PCB Spec.	12L	18L HDI	20L HDI
PCB Supplier	0	UMTC, ISU, TTM, WUS	UMTC, VGT, ISU, TTM
Universal Baseboard (UBB)			
CCL Spec.	0	Ultra low-loss (M7)	Extreme low-loss (M8) + Low-loss (M4)
CCL supplier	EMC	EMC, TUC	Doosan, TUC
PCB Spec.	0	24L PTH	18L PTH
PCB Supplier	0	WUS, TTM, ISU	WUS, TTM, ISU, UMTC
Switch board			
CCL Spec.	Ultra low-loss (M7)	Very low-loss (M6), Ultra low-loss (M7)	Ultra low-loss (M7), Extreme low-loss (M8)
CCL supplier	0	EMC, TUC	EMC, TUC, Doosan
PCB Spec.	0	26-28L	28-30L
PCB Supplier	0	WUS, TTM, GCE, ISU	WUS, TTM, GCE, ISU
Motherboard			
CCL Spec.	Very low-loss (M6)	Very low-loss (M6)	Very low-loss (M6)
CCL supplier	EMC, TUC, ITEQ, Panasonic	EMC, TUC, ITEQ, Panasonic	EMC, TUC, ITEQ, Panasonic
PCB Spec.	16-18L	16-18L	16-20L
PCB Supplier	GCE, WUS, TTM, ISU, Tripod	GCE, WUS, TTM, ISU, Tripod	GCE, WUS, TTM, ISU, Tripod

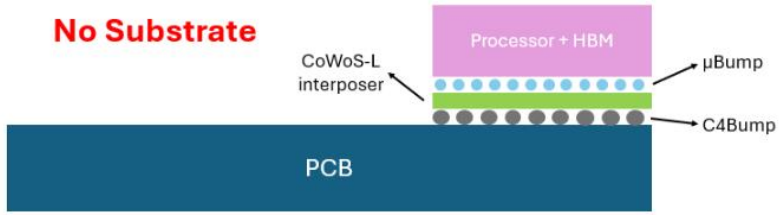
NVIDIA	GB200 NVL72	GB300 NVL72	VR200
ABF Substrate			
Substrate size	73mm x 81mm	73mm x 81mm	83mm x 97mm
Layer count	14L	14L	18L
Supplier	Ibiden/Unimicron	Ibiden/Unimicron	Ibiden/Unimicron
OCP Accelerator Module (OAM)			
CCL Spec.	Extreme low-loss (M8) + Low-loss (M4)	Extreme low-loss (M8) + Low-loss (M4)	Extreme low-loss (M8) + Low-loss (M4)
CCL supplier	Doosan	Doosan	Doosan
PCB Size	305.5mm x 222mm	305.5mm x 222mm	305.5mm x 222mm
PCB Spec.	22L HDI	22L HDI	26L HDI
PCB Supplier	VGT, UMTC	VGT, UMTC	VGT, UMTC, ZDT, Dynamic
Switch board			
CCL Spec.	Extreme low-loss (M8)	Extreme low-loss (M8)	Extreme low-loss (M8)
CCL supplier	EMC	EMC, Shengyi	EMC, Shengyi
PCB Spec.	24L PTH	24L PTH	32L PTH
PCB Supplier	WUS, TTM, VGT	VGT, TTM, Kinwon	VGT, WUS, TTM
Midplane PCB			
CCL Spec.	NA	NA	Beyond extreme low-loss (M9)
CCL supplier	NA	NA	EMC
PCB Spec.	NA	NA	44L PTH
PCB Supplier	NA	NA	VGT, WUS
Orchid Module / BlueField Module			
CCL Spec.	NA	NA	Extreme low-loss (M8)
CCL supplier	NA	NA	EMC
PCB Spec.	NA	NA	20L PTH
PCB Supplier	NA	NA	WUS, VGT, TTM, UMTC

AI GPUs to adopt CoWoP instead of CoWoS, reducing reliance on ABF substrates?

TSMC CoWoS Package



A CoWoP Package



What is CoWoP? CoWoP stands for Chip on Wafer on PCB, in which a PCB (printed circuit board) replaces the ABF substrate in a CoWoS (Chip on Wafer on Substrate) IC package. Currently, all Nvidia's data center GPUs adopt TSMC's CoWoS technology, and TSMC's CoWoS yield rate is close to 100%.

Why use CoWoP if CoWoS yield rate is so high? By adopting CoWoP, the aim is to resolve substrate warpage, increase NVLink reach on the PCB without substrate in between chip and PCB, achieve greater cooling efficiency without a package lid, and remove capacity bottleneck in certain package materials.

We don't think Rubin Ultra will use CoWoP: In order to adopt CoWoP, the L/S (line/space) of the PCB needs to shrink to <10/10µm, because that is where L/S for ABF substrates currently is. Average high-density interconnect (HDI) PCB is 40/50µm today. SLP (substrate-like PCB), which is used in iPhone mainboards today, is 20/35µm – hence the name SLP, because its L/S is closer to that of substrates. However, to get the PCB L/S from 20/35µm to below 10/10µm would be difficult, which is one reason for why we don't think it will happen for Rubin Ultra. This is in line with Shoji Sato's checks as well, with Ibiden saying that Rubin Ultra's ABF substrate is much larger than Rubin's, with more layers. We believe shifting to CoWoP from CoWoS would entail significant yield risks and reshuffling of the related supply chain, which does not look rational to us for products targeted to enter mass production in one year's time.

Optical transceiver – PCB beneficiaries of AI interconnect build-out

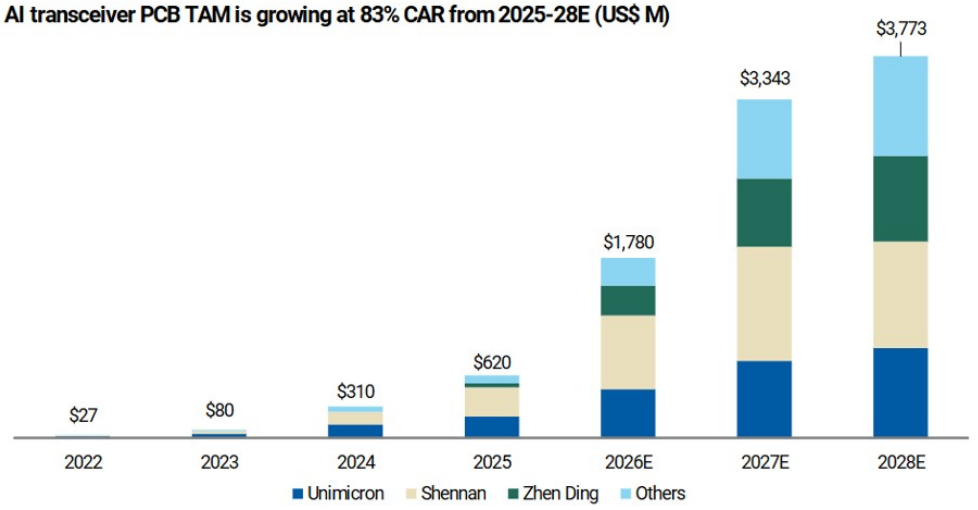
(mn units)			
New Estimates	**2026E**	**2027E**	**2028E**
800G	44	63	64
1.6T	29	79	87
3.2T	0	0	8
Total	**73**	**141**	**158**

Previous Estimates	**2026E**	**2027E**	**2028E**
800G	34	48	54
1.6T	19	24	27
3.2T	0	0	5
Total	**53**	**71**	**85**

Pct. of change	**2026E**	**2027E**	**2028E**
800G	29%	31%	19%
1.6T	52%	233%	226%
3.2T	--	--	60%
Total	38%	98%	86%

	400G	800G	1.6T
Layers	10-12L 2-3 press HDI	12-14L, 4-8L mSAP or HDI	14-16L 6-10L mSAP
Process	HDI	HDI or mSAP	mSAP
CCL Spec	M6	M7(LDK1) / M7+ (LDK2)	M7+ / M8 (LDK2)
ASP (US$)	$5-15	$15-25	$20-30
GM Est.	20-30%	30-40%	40-50%+
Suppliers	Unmicron, Shennan, WUS, other smaller suppliers.	Unimicron, Shennan, Zhen Ding, WUS, Compeq, etc.	Unimicron, Shennan, Zhen Ding, Compeq, WUS, etc.

AI transceiver PCB TAM is growing at 83% CAR from 2025-28E (US$ M)



ABF Substrates: M-series Chips

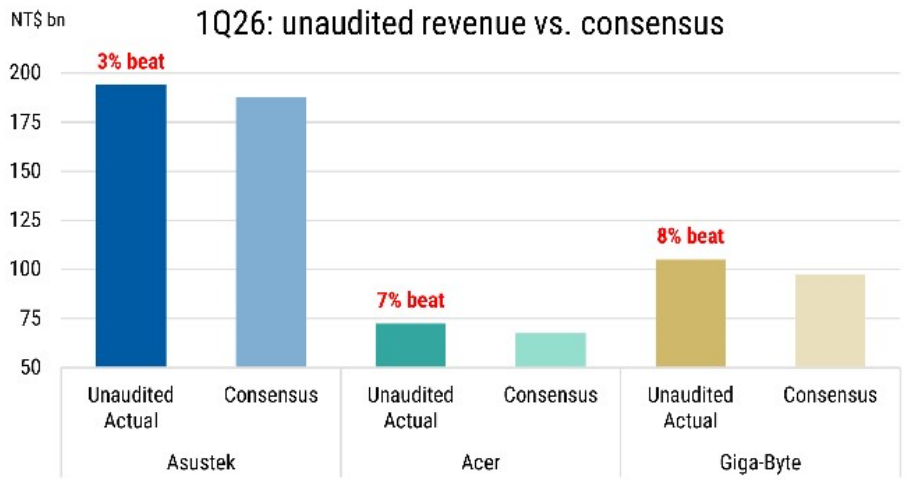
Chip	M1	M1 Pro	M1 Max	M1 Ultra	M2	M2 Ultra	M4
Dimensions	24 x 27mm	57 x 25mm	57 x 36mm	65 x 72mm	24 x 27mm	70.6 x 70mm	24 x 27.7mm
Size	648mm²	1,425mm²	2,052mm²	4,680mm²	648mm²	4,942mm²	665mm²
Layer count	8L	10L	10L	18L	8L	18L	8L

What's the Latest on PCs?

Recent updates

- "Demand is outstripping supply" in the first half of the year.
- PC prices are increasing, and they are increasing faster than costs are rising. OEMs are optimizing their product portfolios to sell less low-end PCs and more high-end PCs due to component constraints.
- We believe this is going to drive the OEMs to see stronger profits and margins in the near term.
- However, we maintain our cautious view and think the margin and demand impact will start to emerge in 2H26.

All Taiwan OEMs' Revenue Came In Better-than-Expected in 1Q



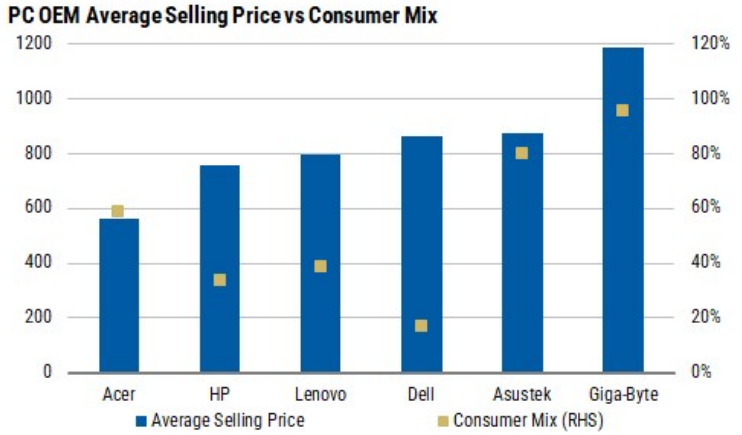
We estimate 2Q26 NB shipments to be 30.3M units (+4% q/q, -8% y/y)

Shipment (unit: k)	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25E	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26E
Quanta	2,800	3,100	4,900	3,300	3,800	5,000	4,000	4,100	4,600	3,500	3,500	3,900	2,700	2,000	5,300	3,500	3,500
Wistron	1,500	1,500	1,900	1,700	1,800	2,400	2,000	2,200	2,200	2,100	2,200	2,600	1,700	1,600	2,800	1,800	2,000
Others	1,500	1,600	1,900	1,700	1,800	2,100	1,700	1,800	1,900	1,600	1,700	2,000	1,700	1,500	2,200	1,500	1,800
Compal	2,000	2,100	2,900	2,200	2,400	2,500	2,300	2,300	2,500	2,100	2,300	2,400	1,600	1,500	2,800	1,800	2,100
Pegatron	610	575	700	610	775	990	750	825	825	775	710	925	700	425	675	525	625
Total	8,410	8,875	12,300	9,510	10,575	12,990	10,750	11,225	12,025	10,075	10,410	11,825	8,400	7,025	13,775	9,125	10,025
MoM %																	
Quanta	-35%	11%	58%	-33%	15%	32%	-20%	2%	12%	-24%	0%	11%	-31%	-26%	165%	-34%	0%
Wistron	-17%	0%	27%	-11%	6%	33%	-17%	10%	0%	-5%	5%	18%	-35%	-6%	75%	-36%	11%
Others	-25%	7%	19%	-11%	6%	17%	-19%	6%	6%	-16%	6%	18%	-15%	-12%	47%	-32%	20%
Compal	-13%	5%	38%	-24%	9%	4%	-8%	0%	9%	-16%	10%	4%	-33%	-6%	87%	-36%	17%
Pegatron	-19%	-6%	22%	-13%	27%	28%	-24%	10%	0%	-6%	-8%	30%	-24%	-39%	59%	-22%	19%
Total	-25%	6%	39%	-23%	11%	23%	-17%	4%	7%	-16%	3%	14%	-29%	-16%	96%	-34%	10%
YoY%																	
Quanta	-3%	7%	4%	3%	-5%	11%	18%	-5%	-6%	9%	-3%	-9%	-4%	-35%	8%	6%	-8%
Wistron	15%	7%	0%	6%	6%	33%	25%	29%	16%	17%	29%	44%	13%	7%	47%	6%	11%
Others	0%	23%	12%	13%	6%	24%	0%	6%	6%	-6%	0%	0%	13%	-6%	16%	-12%	0%
Compal	-9%	-9%	-3%	-21%	-17%	-17%	-8%	-21%	-14%	-25%	-15%	4%	-20%	-29%	-3%	-18%	-13%
Pegatron	16%	53%	8%	16%	6%	28%	-3%	-6%	0%	35%	14%	23%	15%	-26%	-4%	-14%	-19%
Total	0%	7%	3%	-1%	-4%	10%	8%	-2%	-2%	0%	1%	6%	0%	-21%	12%	-4%	-5%

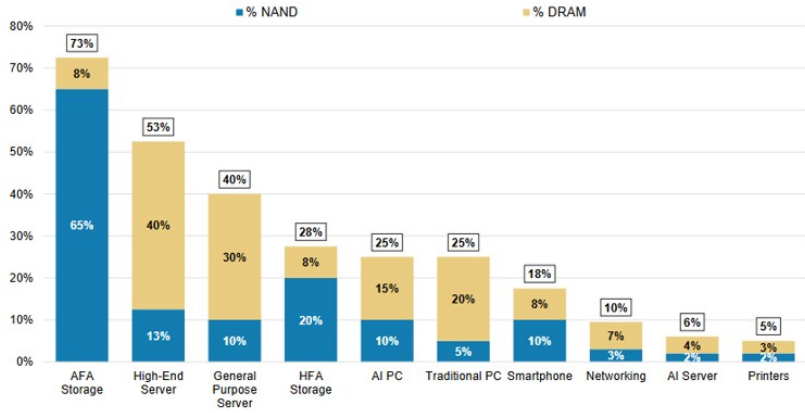
Shipment (unit: k)	1Q24	2Q24	3Q24	4Q24	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26E
Quanta	10,500	11,700	12,600	11,100	10,800	12,100	12,700	10,900	10,000	10,500
Wistron	4,600	5,100	5,200	5,300	4,900	5,900	6,400	6,900	6,100	5,800
Others	4,500	4,900	5,200	5,400	5,000	5,600	5,400	5,300	5,400	5,500
Compal	7,500	8,700	8,300	7,800	7,000	7,100	7,100	6,800	5,900	6,500
Pegatron	1,550	2,030	2,475	1,950	1,885	2,375	2,400	2,410	1,800	2,000
Total	28,650	32,430	33,775	31,550	29,585	33,075	34,000	32,310	29,200	30,300
QoQ %										
Quanta	1%	11%	8%	-12%	-3%	12%	5%	-14%	-8%	5%
Wistron	-13%	11%	2%	2%	-8%	20%	8%	8%	-12%	-5%
Others	0%	9%	6%	4%	-7%	12%	-4%	-2%	2%	2%
Compal	-10%	16%	-5%	-6%	-10%	1%	0%	-4%	-13%	10%
Pegatron	-6%	31%	22%	-21%	-3%	26%	1%	0%	-25%	11%
Total	-5%	13%	4%	-7%	-6%	12%	3%	-5%	-10%	4%
YoY%										
Quanta	-3%	-7%	-4%	7%	3%	3%	1%	-2%	-7%	-13%
Wistron	18%	11%	0%	0%	7%	16%	23%	30%	24%	-2%
Others	2%	0%	6%	20%	11%	14%	4%	-2%	8%	-2%
Compal	-1%	0%	-11%	-6%	-7%	-18%	-14%	-13%	-16%	-8%
Pegatron	-9%	-2%	-1%	18%	22%	17%	-3%	24%	-5%	-16%
Total	1%	-1%	-4%	5%	3%	2%	1%	2%	-1%	-8%

Memory Takes A Bite Out of Hardware Margins

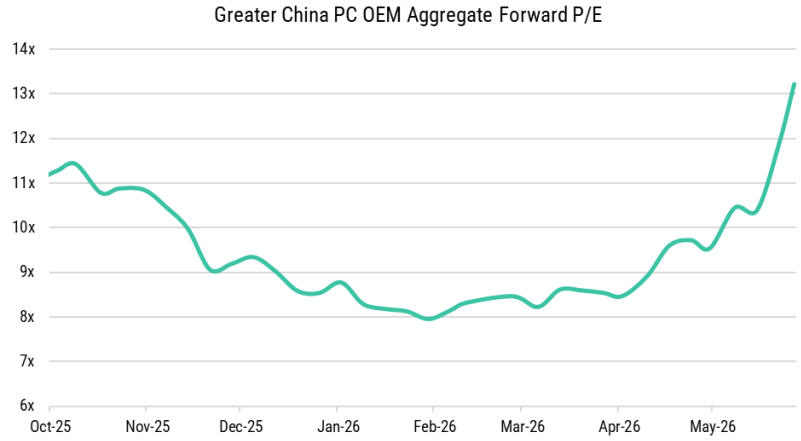
OEM Average Selling Price vs. Consumer Mix



Memory as a % of BOM



Greater China PC OEM Aggregate Forward P/E

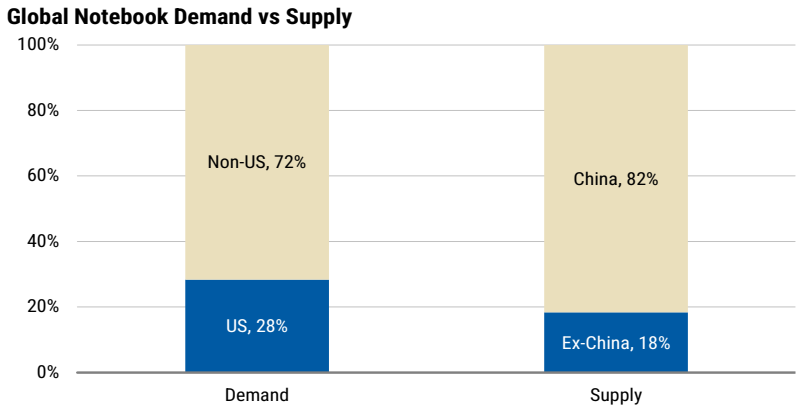


Asia IT Hardware OEM/ODM Scorecard

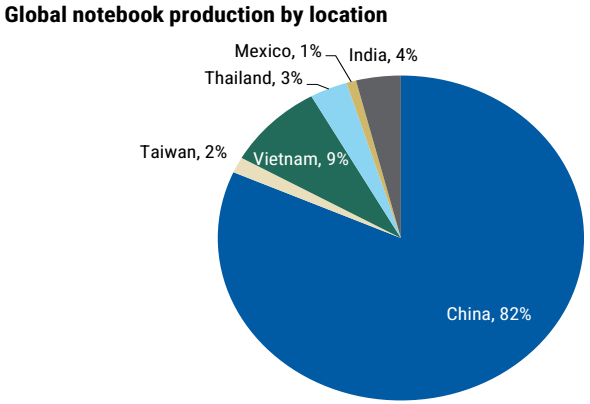
Asia IT Hardware OEM/ODM Scorecard	AI Beneficiary	Margins	Supply Chain Leverage	End-Market Demand	Special Situations	Memory Exposure	Ranking
wiwynn	4	4	4	4	1	4	3.5
wistron	4	3	4	3	1	4	3.2
Quanta Computer	4	3	4	3	1	4	3.2
Lenovo	2	2	4	2	4	1	2.5
GIGABYTE	3	3	3	2	1	2.5	2.4
ASUS	2	3	2	2	1	2.5	2.1
PEGATRON	2	1	2	2	1	4	2.0
COMPAL	2	2	1	2	1	4	2.0
acer	1	2	1	1	1	2.5	1.4

PC Market Overview

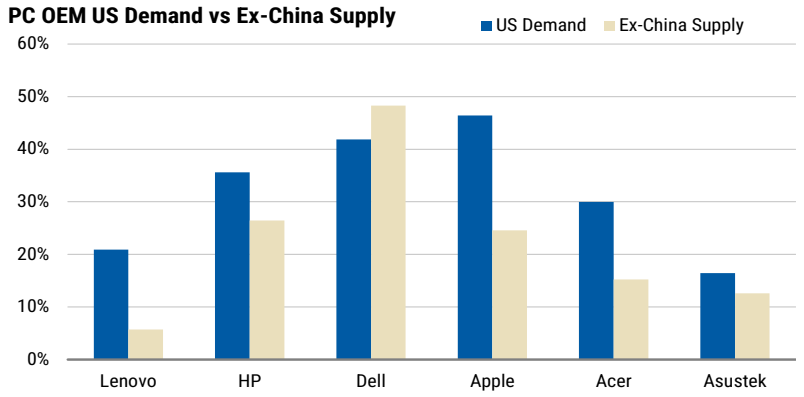
Global notebook demand vs. supply



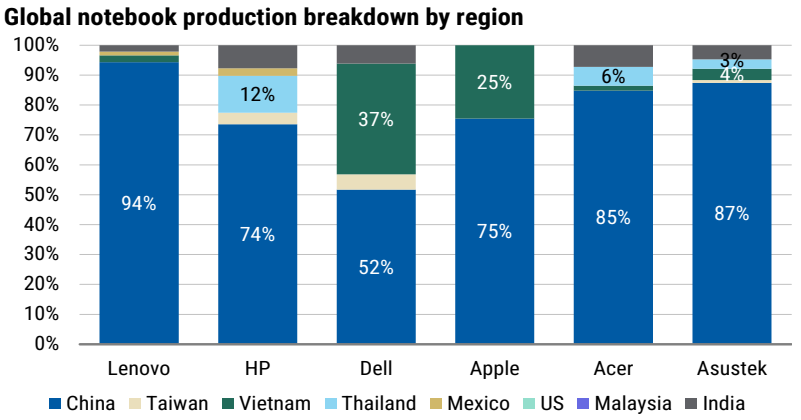
Global notebook production by location



Global PC OEM US demand vs. ex-China supply

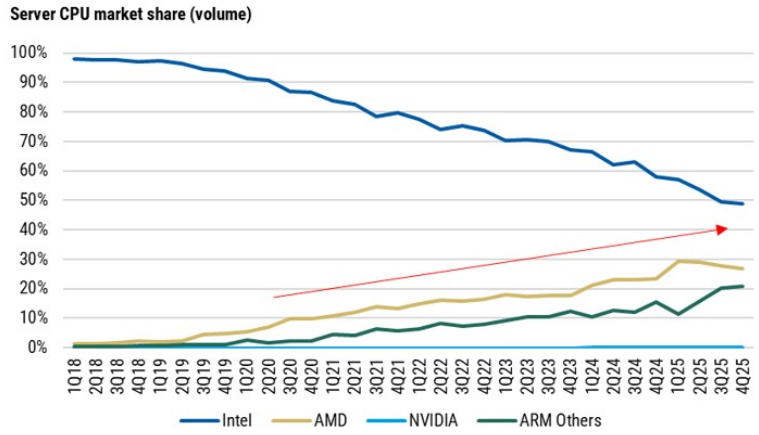


Global PC OEM production by location

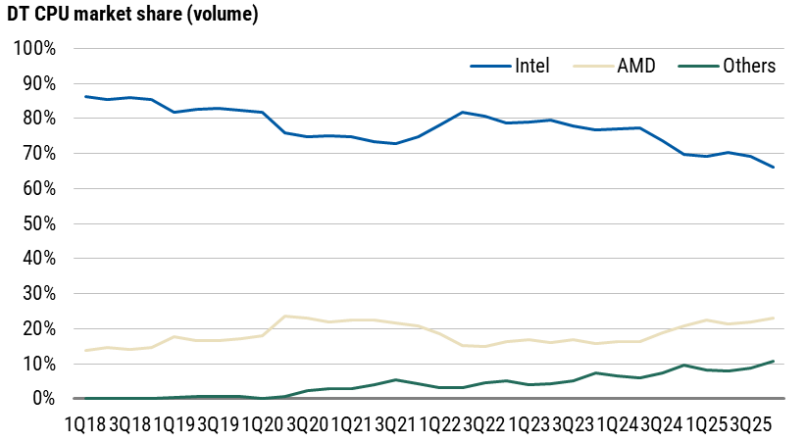


CPU Market Share Trend

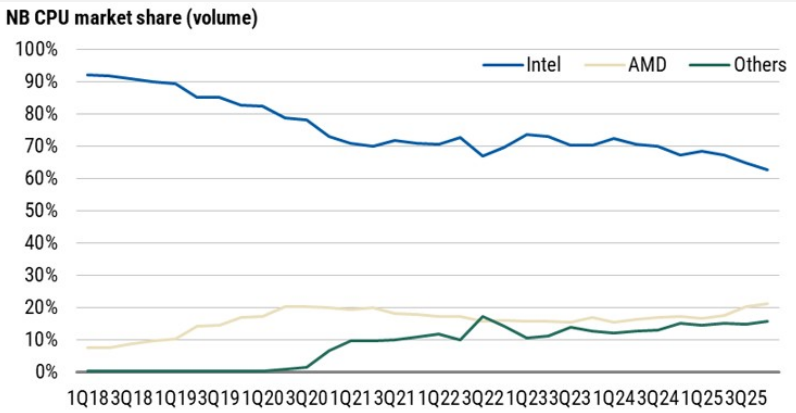
Server CPU market share



DT CPU market share

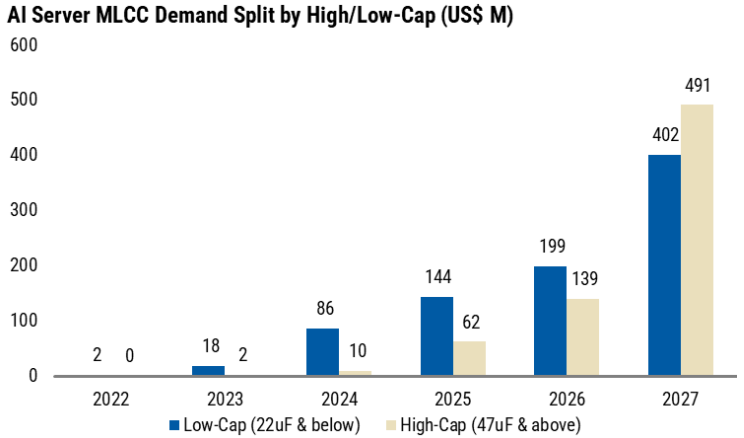


NB CPU market share

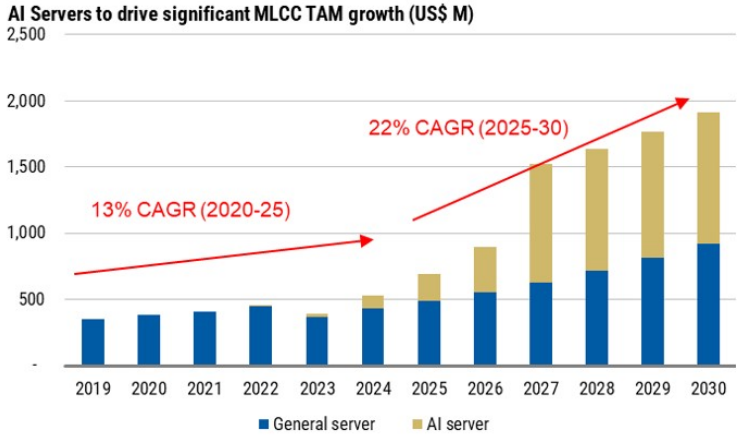


Cloud and Edge AI Will Add ~US$1B TAM to the Overall MLCC Market by 2027

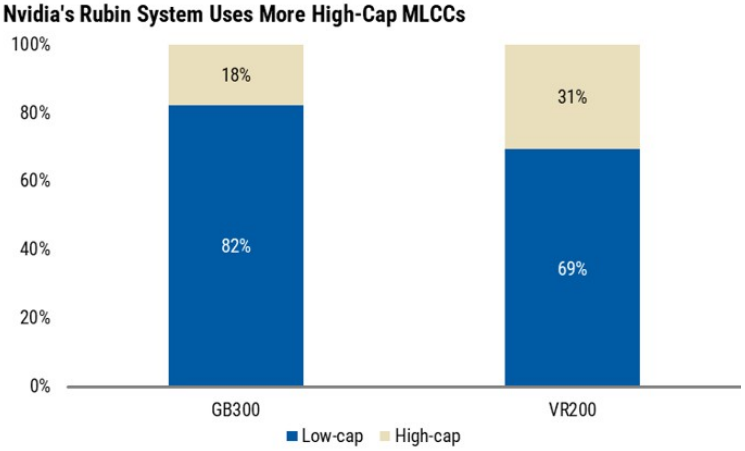
Cloud AI to drive ~US$1B TAM by 2026 (US$ bn)



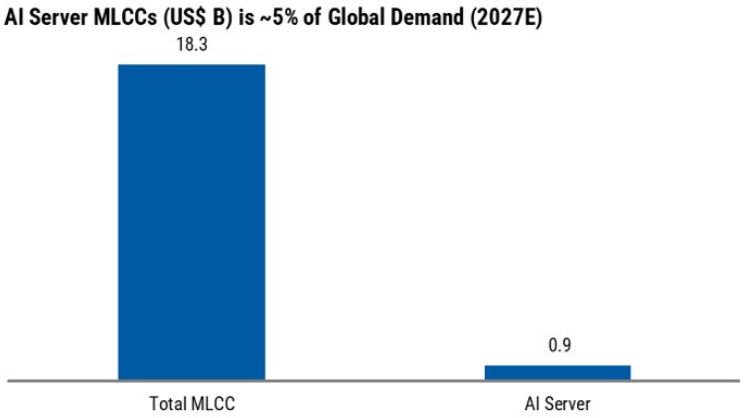
AI Servers to drive significant MLCC TAM growth (US$ M)



AI Server will use significantly more high-cap (47uF+) MLCCs



AI Server MLCC is ~3% of Global Units but ~5% of Global Values

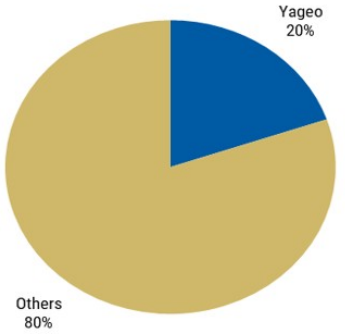


AI Servers to See the Largest MLCC Content Growth

Server Assumptions		# of MLCCs		US$	
General server			**2,000**		**30**
HGX Hopper AI server (8x GPU)			**22,000**		**190**
GPU module (OAM)	8x	1,300	10,400	10	80
GPU baseboard (UBB)	1x	4,900	4,900	45	45
CPU motherboard	1x	1,500	1,500	25	25
Peripheral boards	8x	650	5,200	5	40
HGX B200 AI server (8x GPU)			**36,000**		**317**
GPU module (OAM)	8x	3,000	24,000	24	192
GPU baseboard (UBB)	1x	5,300	5,300	60	60
CPU motherboard	1x	1,500	1,500	25	25
Peripheral boards	8x	650	5,200	5	40
HGX B300 AI server (8x GPU)			**48,000**		**435**
GPU module (OAM)	8x	4,400	35,200	40	320
GPU baseboard (UBB)	1x	6,100	6,100	50	50
CPU motherboard	1x	1,500	1,500	25	25
Peripheral boards	8x	650	5,200	5	40
GB200 (NVL72)			**337,500**		**1,710**
Bianca	36x	6,800	244,800	30	1,080
Switch board	9x	3,800	34,200	20	180
Peripheral boards	90x	650	58,500	5	450
GB300 (NVL72)			**319,500**		**1,530**
Bianca	36x	6,300	226,800	25	900
Switch board	9x	3,800	34,200	20	180
Peripheral boards	90x	650	58,500	5	450
VR200 (NVL72)			**571,050**		**4,320**
Strata	36x	11,000	396,000	90	3,240
Switch board	9x	7,000	63,000	45	405
BlueField Module	18x	2,000	36,000	5	90
CX9 Orchid Module	72x	650	46,800	5	360
Peripheral boards	45x	650	29,250	5	225
Vera Rack			**494,048**		**3,060**
Vera MGX	128x	3,316	424,448	20	2,560
Switch board	4x	7,000	28,000	45	180
Peripheral boards	64x	650	41,600	5	320
STX Rack			**326,256**		**2,415**
Mainboard	16x	4,791	76,656	31	495
Peripheral boards	384x	650	249,600	5	1,920
LPX Rack			**581,024**		**4,326**
LPX UBB	16x	5,374	85,984	35	559
LPX Module	256x	1,705	436,480	14	3,527
BF4	16x	2,000	32,000	5	80
x86 CPU Module	16x	1,660	26,560	10	160

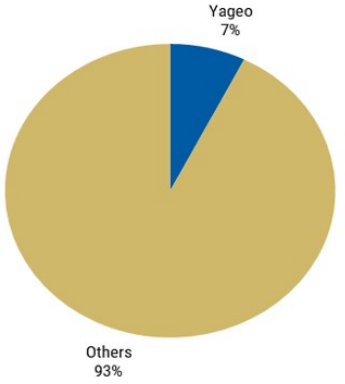
General server MLCC supplier share (value)

Yageo general server MLCC supplier share (value)



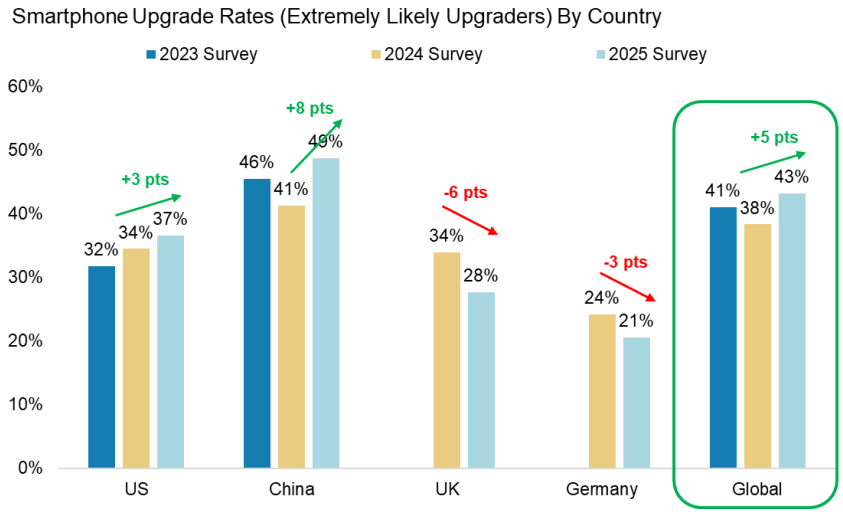
General PC MLCC supplier share (value)

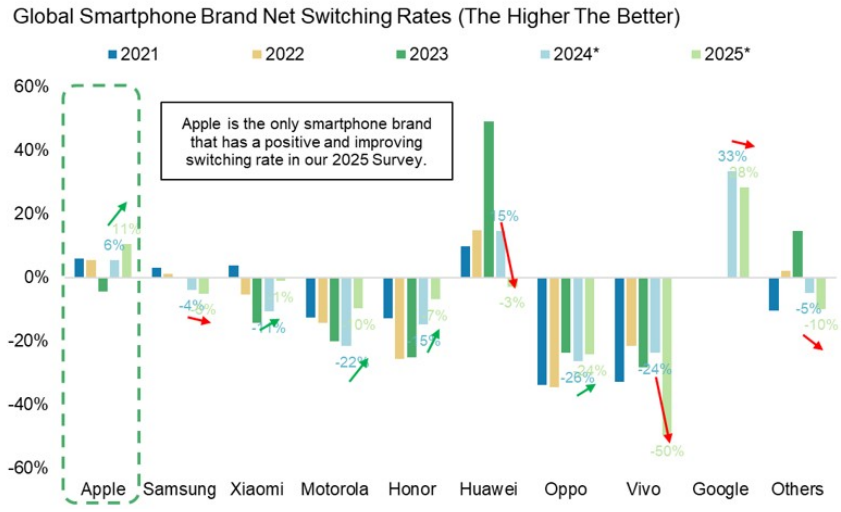
Yageo general PC MLCC supplier share (value)



All-time Survey-High Smartphone Upgrade Rates, Led Primarily By iPhone

- Based on our 2025 AlphaWise Smartphone Survey, next 12-month China and US smartphone upgrade rates are expected to expand 8 points and 3 points Y/Y, reaching an all-time survey (10+ years) high, while the same metrics are expected to decline 3-6 points Y/Y for EMEA (the UK and Germany).
- On a global blended basis, smartphone upgrade rates are expected to improve 5ppt Y/Y to 43%, an all-time survey high.
- However, Apple is the only smartphone OEM with positive and improving net switching rates in our 2025 AlphaWise Smartphone Survey, suggesting the upgrade rate momentum is primarily driven by iPhone strength.

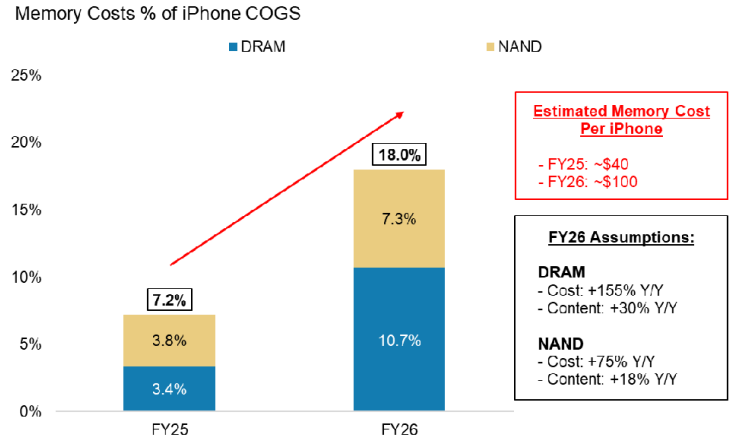


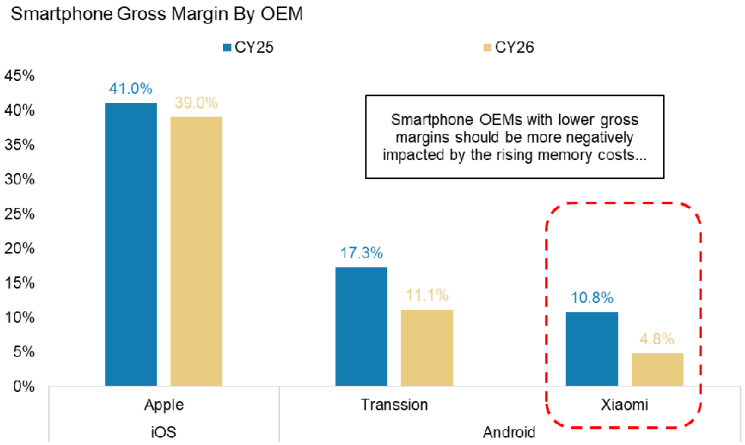


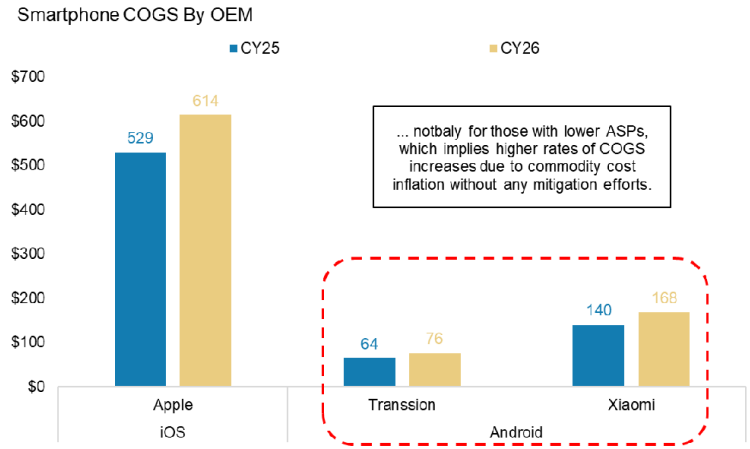
results in a certain year have implications to the estimates for the following year.

The Reality Is – Smartphone OEMs Need To Pay for Higher Memory Prices

- Combining our checks and the Survey results on iPhone storage mix, we estimate average memory cost per iPhone will rise 150%+ Y/Y in 2026.
- This means that even for Apple, smartphone OEMs would need to pay significantly higher memory prices and raise prices to partially mitigate the cost impact.
- We believe this is particularly negative to Android players – smartphone gross margins are lower, the mix of memory cost within COGS is higher, and the customer base is more elastic (i.e., more sensitive to price increases).

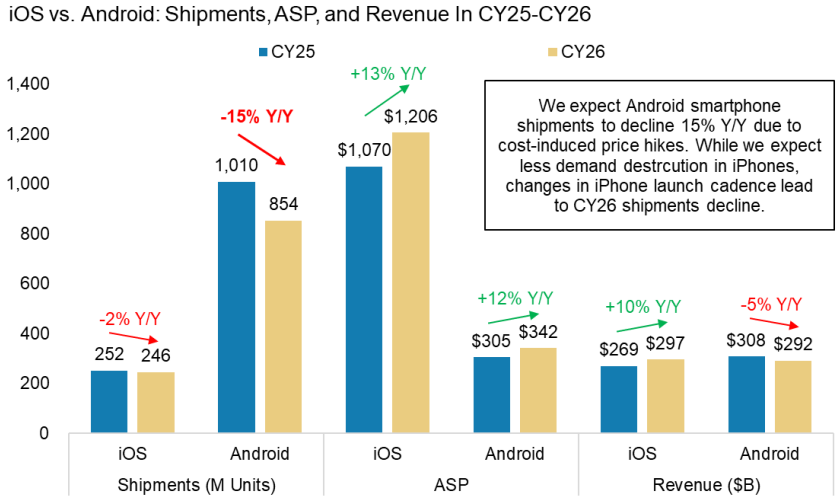






Combined, Global Smartphone Units Are Expected to Decline 11% Y/Y, Driven By Android

- We believe price hikes by smartphone brands are inevitable. This will lead to demand destruction, notably in the mid-range Android smartphone market, which faces a more demand elastic customer base. We forecast Android smartphone shipments to decline 15% Y/Y in 2026.
- While the iPhone customer base is much less elastic than that of Android, we still expect shipments to decline in 2026, due primarily to changes in iPhone launch cadence.
- **Taken together, we expect global smartphone shipments to decline 13% Y/Y in 2026.**



SMARTPHONE MODEL	CY26 Est.			CY27 Est.		
Units (M)	*New*	*Old*	*Diff.*	*New*	*Old*	*Diff.*
Rest of Asia/Pacific	157	181	*-13%*	162	183	*-12%*
PRC	246	284	*-14%*	252	287	*-12%*
EMEA	311	363	*-14%*	316	363	*-13%*
North America	135	149	*-9%*	142	149	*-5%*
Latin America	115	139	*-18%*	118	141	*-16%*
India	136	182	*-25%*	147	189	*-22%*
Global Total	**1,100**	**1,299**	***-15%***	**1,137**	**1,312**	***-13%***

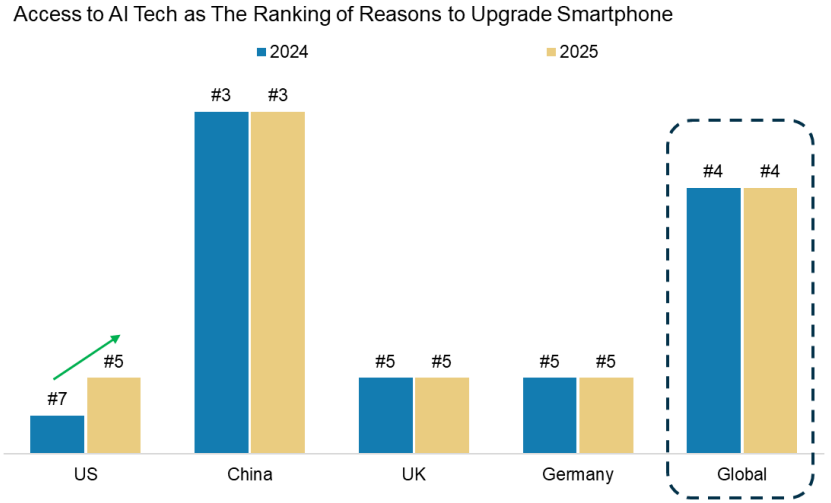
SMARTPHONE MODEL	CY26 Est.			CY27 Est.		
Y/Y Unit Growth	*New*	*Old*	*Diff.*	*New*	*Old*	*Diff.*
Rest of Asia/Pacific	-14%	0%	*-14.2pts*	3%	1%	*1.9pts*
PRC	-14%	1%	*-14.2pts*	3%	1%	*1.6pts*
EMEA	-15%	0%	*-15.1pts*	2%	0%	*1.8pts*
North America	-6%	5%	*-10.9pts*	5%	0%	*4.7pts*
Latin America	-13%	6%	*-19.5pts*	3%	1%	*2.2pts*
India	-10%	14%	*-24.7pts*	8%	4%	*3.8pts*
Global Total	**-12.8%**	**3.1%**	*-16.0pts*	**3.4%**	**1.0%**	*2.4pts*

SMARTPHONE MODEL	CY26 Est.			CY27 Est.		
	New	*Old*	*Diff.*	*New*	*Old*	*Diff.*
	$535	**$482**	*11%*	**$573**	**$501**	*14%*
Y/Y ASP Growth	17%	6%	*11.0pts*	7%	4%	*3.3pts*
Revenue (M)	**$ 588,225**	**$ 626,102**	*-6%*	**$ 651,991**	**$ 657,405**	*-1%*
Y/Y Revenue Growth	2%	10%	*-8.0pts*	11%	5%	*5.8pts*

estimates in CY25 along with our iPhone ASP growth forecasts in CY26.

Alongside Battery Life & Camera, Software Is Becoming a More Important Upgrade Factor

- Similar to last year, we continue to see a focus on new models, advanced features, and access to Gen AI technologies. What is slightly different is increasing interest in better cameras, alongside deteriorating interest in battery life and storage.
- AI remains a Top 5 reason for upgrading a smartphone, but without major advances in Edge AI or truly personalized digital assistants, we are not seeing much change in interest outside of China.



Given rising memory costs, we would also expect smartphone OEMs to reduce BOM – based on our Survey results, battery and storage could be areas that are at risk of de-specing.

smartphone compatible with eSIM" was only asked in China.

We Favor Apple Supply Chain Over Android in 2026

- We expect the Android smartphone supply chain to be negatively affected by more meaningful volume declines, de-specing, and margin pressures, as OEMs attempt to save costs while raising prices.
- While we don't expect to see iPhone de-specing, we do expect Apple to share increasing costs with non-memory suppliers while keeping prices unchanged for the iPhone 17 family. With robust shipments and a favorable model mix, Apple and its suppliers are in a better position (vs. Android counterparts) within the smartphone universe.
- Consistent with our 2024 AlphaWise Survey takeaways, we maintain a relative preference for Apple/Apple supply chain over Android OEMs/supply chain.

Most Favored				Least Favored			
Ticker	Company	MS Rating	% to MS PT	Ticker	Company	MS Rating	% to MS PT
005930.KS	Samsung	OW	68%	3105.TW	WIN Semi	UW	-76%
2317.TW	Hon Hai	OW	41%	300782.SZ	Maxscend	UW	-55%
0285.HK	BYDE	OW	38%	8086.TWO	AWSC	UW	-43%
601138.SS	FII	OW	36%	3034.TW	Novatek	UW	-22%
002475.SZ	Luxshare	OW	29%	603160.SS	Goodix	UW	-16%
6770.T	Alps Alpine	OW	28%	2382.HK	Sunny Optical	EW	-3%
6762.T	TDK	OW	22%	QCOM	Qualcomm	UW	-3%
6088.HK	FIT Hon Teng	OW	21%	QRVO	Qorvo	EW	3%
SWKS	Skyworks	EW	17%	688036.SS	Transsion	EW	14%
AAPL	Apple	OW	17%	603501.SS	OmniVision	EW	19%
3017.TW	AVC	OW	15%				
6981.T	Murata	OW	11%				
2018.HK	AAC	OW	10%				
2454.TW	MediaTek	OW	3%				
601231.SS	USI	OW	0%				
STMPA.PA	STMicro	OW	-3%				

2Q26 iPhone Build Estimates of 52mn Units (-7% QoQ, +12% YoY)

mn units	1Q23	2Q23	3Q23	4Q23	2023	1Q24	2Q24	3Q24	4Q24	2024	1Q25	2Q25	3Q25	4Q25	2025	1Q26e	2Q26e
iPhone Sell-in																	
iPhone SE3 / SE 5G / 16e / 17e	1.0	2.5	5.0	3.0	11.5	1.0	2.0	5.0	3.0	11.0	4.0	9.0	4.0	1.0	18.0	2.0	10.0
iPhone XR	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 12 mini (5.4")	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 12 (6.1")	0.5	0.5	-	-	1.0	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 12 Pro (6.1")	0.5	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 12 Pro Max (6.7")	0.5	-	-	-	0.5	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 13 mini (5.4")	1.0	0.5	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 13 (6.1")	1.0	0.5	-	-	1.5	-	-	-	-	-	-	-	-	-	-	-	-
iPhone 13 Pro (6.1")	1.0	2.0	1.0	-	4.0	0.5	0.5	-	-	1.0	-	-	-	-	-	-	-
iPhone 13 Pro Max (6.7")	2.0	2.0	1.0	-	5.0	0.5	0.5	-	-	1.0	-	-	-	-	-	-	-
iPhone 14 (6.1")	7.0	4.0	5.0	2.0	18.0	1.0	0.5	-	-	1.5	-	-	-	-	-	-	-
iPhone 14 Plus (6.7")	5.0	3.0	1.0	1.0	10.0	1.0	0.5	-	-	1.5	-	-	-	-	-	-	-
iPhone 14 Pro (6.1")	15.0	12.0	7.0	3.0	37.0	2.0	2.0	1.0	1.0	6.0	1.0	1.0	1.0	-	3.0	-	-
iPhone 14 Pro Max (6.7")	19.5	14.0	9.0	4.0	46.5	2.0	2.0	1.0	1.0	6.0	1.0	1.0	1.0	-	3.0	-	-
iPhone 15 (6.1")			6.0	12.0	18.0	6.0	5.0	4.0	1.0	16.0	1.0	0.5	0.5	0.5	2.5	-	-
iPhone 15 Plus (6.7")			5.0	10.0	15.0	4.0	3.0	1.0	1.0	9.0	1.0	0.5	0.5	0.5	2.5	-	-
iPhone 15 Pro (6.1")			8.0	16.0	24.0	12.0	10.0	8.5	2.0	32.5	2.0	2.0	2.0	1.0	7.0	1.0	1.0
iPhone 15 Pro Max (6.7")			2.0	24.0	26.0	18.0	13.0	10.5	3.0	44.5	3.0	3.0	2.0	1.0	9.0	1.0	1.0
iPhone 16 (6.1")						-	-	6.0	12.0	18.0	5.0	4.0	4.0	1.0	14.0	2.0	2.0
iPhone 16 Plus (6.7")						-	-	5.0	6.0	11.0	4.0	3.0	1.0	-	8.0	-	-
iPhone 16 Pro (6.3")						-	-	8.0	17.0	25.0	11.5	9.5	4.0	2.0	27.0	2.0	2.0
iPhone 16 Pro Max (6.9")						-	-	4.0	26.0	30.0	16.5	13.0	10.0	4.0	43.5	5.0	3.0
iPhone 17 (6.1")						-	-	-	-	-	-	-	6.0	16.0	22.0	10.0	8.0
iPhone Air (6.7")						-	-	-	-	-	-	-	4.0	4.0	8.0	-	-
iPhone 17 Pro (6.3")						-	-	-	-	-	-	-	8.0	22.0	30.0	18.0	13.0
iPhone 17 Pro Max (6.9")						-	-	-	-	-	-	-	7.0	23.0	30.0	15.0	12.0
Total	**54.0**	**41.0**	**50.0**	**75.0**	**220.0**	**48.0**	**39.0**	**54.0**	**73.0**	**214.0**	**50.0**	**46.5**	**55.0**	**76.0**	**227.5**	**56.0**	**52.0**
YoY	*0%*	*-9%*	*0%*	*-3%*	*-3%*	*-11%*	*-5%*	*8%*	*-3%*	*-3%*	*4%*	*19%*	*2%*	*4%*	*6%*	*12%*	*12%*
QoQ	*-30%*	*-24%*	*22%*	*50%*		*-36%*	*-19%*	*38%*	*35%*		*-32%*	*-7%*	*18%*	*38%*		*-26%*	*-7%*

- For full-year 2026, our supply-chain checks suggest total iPhone build volume could be up in the high single digits YoY.
- For foldable iPhone model in 2H26, our checks suggest sampling production of mechanical components already kicked off in March and still target launch in September.

Supply Chain Reorientation

2019-2022

Phase 1

China + 1 (Assembly)

2022-2025

Phase 2

Regional Production Set-up (including components)

2025 & Beyond

Phase 3

Onshoring production in the US

2018

88%

US Imports from China

2024

74%

More Reorientation Required

iphone

Only 12% of US iPhone demand is made outside of China as of YE24

Notebooks

Only 35% of US NB demand is made outside of China as of YE24

Onshoring production into the US

US labor cost is 5.5x of China's

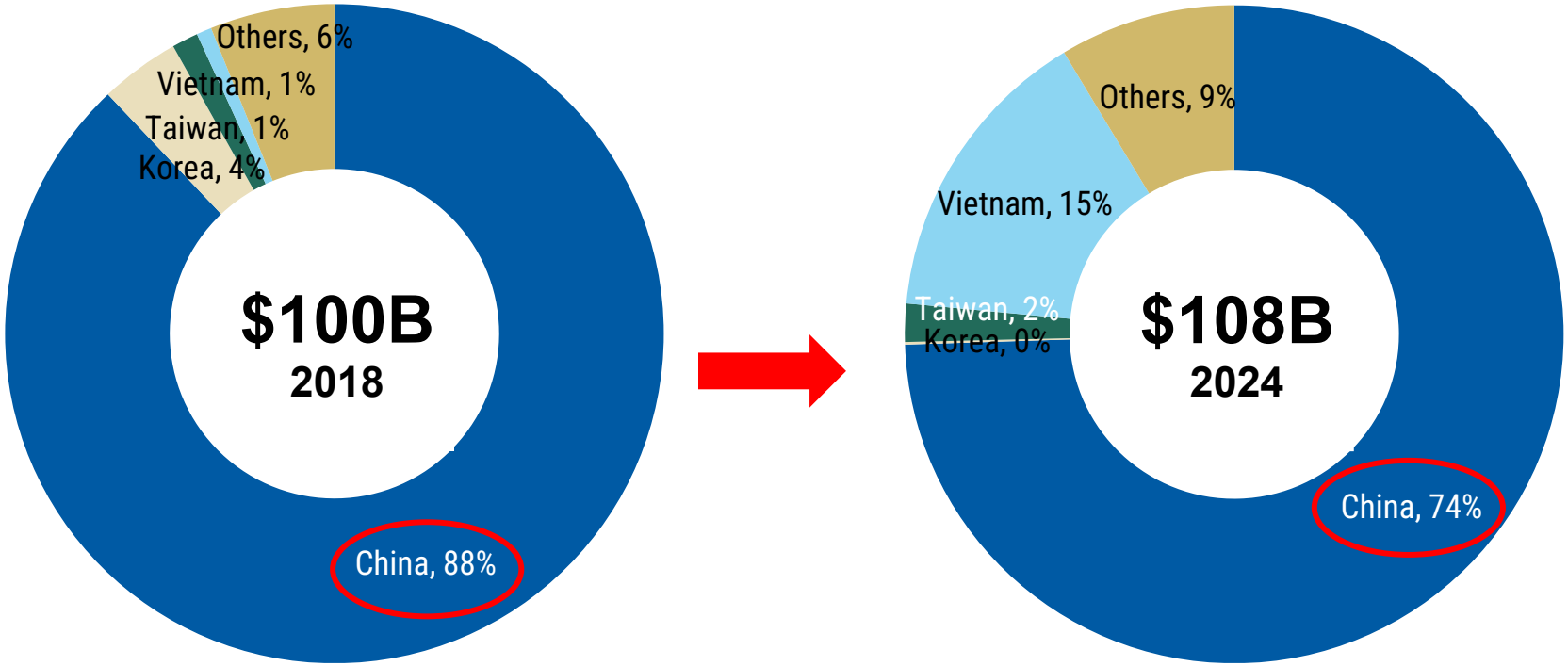
With component tariff, iPhone would be 1.41x more expensive and notebook would be 1.38x more expensive

Without full supply chain ecosystem support, the only viable products to onshore would be low volume, high value-add servers and AI servers

USMCA

Servers and switches produced in Mexico are considered **USMCA**-compliant goods and therefore exempt from tariffs. The current USMCA expires in July 2036.

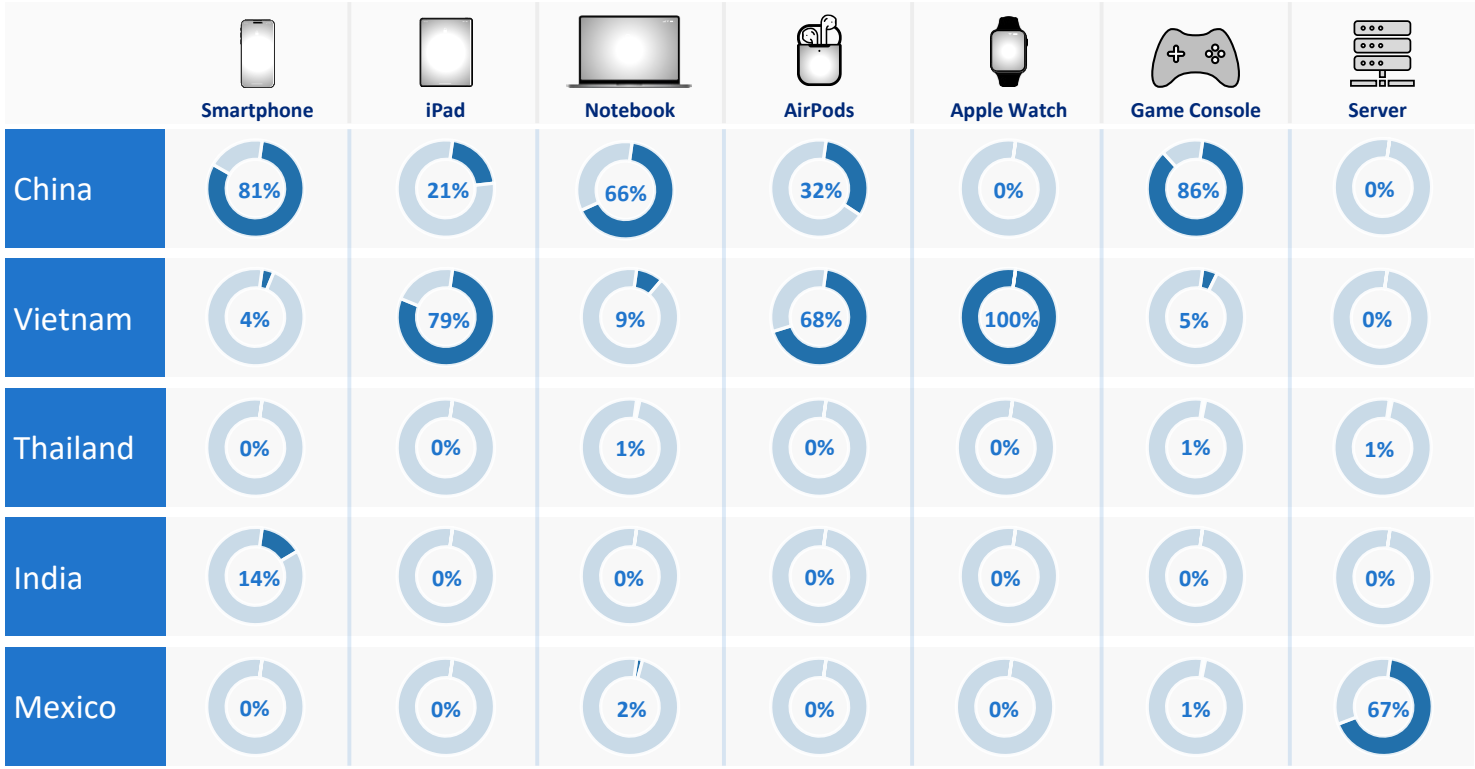
US Imports Data Shows Supply Chain Reorientation Is Happening



Supply chain reorientation is happening: In 2018, China accounted for 88% of US tech imports (notebooks, smartphones and game consoles) or ~US$88bn, but by 2024, China dropped to 74%, or ~US$80bn.

Note: Import data includes notebook, smartphones, and game consoles.

How Much USA Imports from Different Countries by Major Tech Products



US still imports the majority of smartphones, notebooks, and game consoles from China, but Vietnam has become the main exporter of iPads, AirPods, and Apple Watches to the US. We are seeing more notebook production ramping up in Vietnam and Thailand, so these two countries will become more important for the US in the coming years. And for smartphones, we expect India to become a bigger contributor in the coming years as well. And for servers, we think Mexico will continue to be important as servers imported from Mexico into the US is USMCA-eligible for 0% tariff.