Asia Semiconductor Insight

SemiPulse: MediaTek catalysts, Aug sales, TSMC & ASML collaboration, UMC silicon photonics

Equities

Asia

Semiconductors

Sunny Lin
Analyst
sunny.lin@ubs.com
+886-2-8722 7346

Randy Abrams
Analyst
randy.abrams@ubs.com
+886-2-8722 7338

Nicolas Gaudois
Analyst
nicolas.gaudois@ubs.com
+65-6495 5148

Francois-Xavier Bouvignies
Analyst
francois.bouvignies@ubs.com
+44-20-7568 7105

Jerry Su
Analyst
jerry.su@ubs.com
+886-28-722 7306

Christine Chen, CFA
Associate Analyst
christine.chen@ubs.com
+886-2-8722 7352

Ryan Sun
Analyst
ryan-za.sun@ubs.com
+886-2-8722 7267

MediaTek: 4 key catalysts for further re-rating over the next 6-9 months

Investor sentiment toward MediaTek has improved following its expanded partnership with Nvidia. However, we believe the market still underestimates its potential as a structural beneficiary of Google's TPU, leaving substantial room for the stock to further re-rate. We see 4 major catalysts over the next 6-9 months: **(1)** TPUv9 "Humufish" tape-out by **Nov 2026**, a critical development milestone remaining on track; **(2)** Google's system-level validation in **H127**, providing greater visibility into v9 performance and 2028 deployment volumes in Q1-Q227; **(3)** continued Intel EMIB execution and substrate yield improvements, including progress at Ibiden and growing engagement from Unimicron and Shinko; and **(4)** potential upward revisions to Google TPU-related guidance during the upcoming **Oct 26 and Jan/Feb27** earnings calls. Regarding AMD's engagement with Google, our view is it should be related to a custom CPU project and not directly related to the TPU v10 project MediaTek has been engaged with, likely similar to AMD's Turin CPUs within OpenAI's Jalapeño racks.

Aug sales: TSMC, MediaTek, ASE, and Aspeed tracking ahead of Consensus

August sales across our 15 Taiwan coverage are broadly tracking ahead of expectations. Versus Consensus, 9 of our companies are tracking ahead, 3 in line, and 3 behind. Among our key coverage, TSMC, MediaTek, ASE, and Aspeed are tracking ahead of Cons, UMC in line, while GlobalWafers trails at 59% of Con. Q3 sales due to a fire incident at its Italy 8" fab but we expect Sept sales to pick up MoM.

TSMC and ASML to target high NA mass production in 2030

TSMC and ASML are spearheading an industry transition to 12" from 6" for High NA EUV lithography photomasks (here), a key step to boost throughput, lower production costs, and overcome stitching constraints in leading-edge nodes. With a pilot line targeted for 2031 and full-scale production capability anticipated by 2033, the industry is laying the groundwork for future High NA platforms. Meanwhile, TSMC officially confirmed High NA adoption in mass production from 2030, and we expect initial adoption from an insertion to A14 process and to more layer adoption at A10 by 2031. We view this as a critical enabler of scaling beyond 2030, reinforcing TSMC's leadership position. See our Europe insights for ASML.

More constructive on UMC's SiPh opportunity post SEMICON

At SEMICON, UMC showcased its differentiated silicon photonics roadmap. Relative to incumbent 8" PIC solutions, UMC's 12" process is positioned to deliver superior optical interconnect performance while offering meaningful advantages in cost efficiency and manufacturing scale. As bandwidth requirements continue to rise, advanced packaging is becoming an increasingly critical enabler for next-gen SiPh interconnects, an area where UMC possesses significantly deeper expertise than most industry peers. We are optimistic about UMC's opportunity given the quickly expanding TAM, and the tight industry supply. See Figure 3for UMC's latest SiPh commentary.

Figure 1: Key coverage August sales

Sector	Company	Actual vs. Cons.	Monthly sales (NT$mn)			Comparison		UBSe - QoQ change		
			August	MoM (%)	YoY (%)	% of UBSe	% of Cons.	Q226	Q326	Q426
Foundry	TSMC	Ahead	514,805	10.1%	53.3%	67.4%	67.7%	12.0%	14.8%	10.0%
	UMC	In-line	25,045	5.0%	30.7%	63.1%	66.0%	12.6%	12.8%	3.2%
OSAT	ASE	Ahead	82,247	11.5%	45.7%	66.5%	68.1%	10.0%	22.7%	1.0%
Fabless	MediaTek	Ahead	64,183	32.4%	44.1%	71.5%	71.8%	2.0%	3.5%	36.6%
	Realtek	In-line	12,459	-3.4%	28.1%	61.9%	66.9%	3.1%	9.0%	-7.4%
	ASPEED	Ahead	1,626	6.7%	118.4%	70.2%	68.2%	23.0%	15.9%	16.4%
Wafer	GlobalWafers	Behind	4,764	-4.3%	7.6%	61.5%	59.4%	8.8%	4.2%	7.2%

Source: Company data, LSEG, UBS estimates

This report has been prepared by UBS Securities Pte. Ltd., Taipei Branch. **ANALYST CERTIFICATION AND REQUIRED DISCLOSURES, INCLUDING INFORMATION ON THE QUANTITATIVE RESEARCH REVIEW PUBLISHED BY UBS, BEGIN ON PAGE 6.**

Key research reports

- **TSMC Fast Take:**
  "August 2026 sales growth is on track with UBSe of +13% QoQ (in US$)"
- **MediaTek Fast Take:**
  "August 2026 sales of NT$64.2bn tracking 71.5% of UBSe in Q3"
- **SEMICON Taiwan 2026:**
  "5 key takeaways for advanced packaging, advanced logic, CPO & test"
- **MediaTek:**
  "Expanding partnership with Nvidia and Google for AI computing platforms"
- **CoPoS vs. EMIB:**
  "Can Intel challenge TSMC's advanced packaging leadership?"
- **All Ring Initiation:**
  "Share gainer in expanding advanced packaging TAM"

Figure 2: TW Semis August sales

Sector	Company	Actual vs. Cons.	Analyst	Monthly sales (NT$mn)			Comparison		UBSe - QoQ change		
				August	*MoM (%)*	*YoY (%)*	*% of UBSe*	*% of Cons.*	Q226	Q326	Q426
Foundry	TSMC	Ahead	Sunny Lin	514,805	*10.1%*	*53.3%*	*67.4%*	*67.7%*	12.0%	14.8%	10.0%
	UMC	In-line	Sunny Lin	25,045	*5.0%*	*30.7%*	*63.1%*	*66.0%*	12.6%	12.8%	3.2%
	PSMC	Ahead	Sunny Lin	7,009	*5.1%*	*76.2%*	*61.8%*	*69.5%*	27.4%	28.1%	15.0%
	Vanguard	Behind	Sunny Lin	5,093	*8.2%*	*40.5%*	*63.4%*	*63.5%*	13.7%	8.5%	2.8%
	WIN Semi	In-line	Jerry Su	1,937	*2.4%*	*30.6%*	*65.0%*	*65.9%*	14.5%	12.1%	-0.9%
OSAT	ASE	Ahead	Sunny Lin	82,247	*11.5%*	*45.7%*	*66.5%*	*68.1%*	10.0%	22.7%	1.0%
	KYEC	In-line	Sunny Lin	4,080	*2.2%*	*31.6%*	*66.8%*	*65.9%*	9.3%	8.4%	17.9%
	Chipbond	Ahead	Jerry Su	2,620	*3.8%*	*43.6%*	*72.3%*	*77.4%*	15.2%	7.2%	-5.4%
	ChipMOS	Ahead	Jerry Su	2,786	*-1.3%*	*33.3%*	*69.1%*	*69.1%*	6.5%	9.9%	-1.3%
	Powertech	Ahead	Sunny Lin	8,558	*3.5%*	*24.5%*	*69.5%*	*68.2%*	8.5%	4.8%	1.6%
Fabless	Global Unichip	Ahead	Jerry Su	5,840	*1.2%*	*111.0%*	*72.8%*	*74.6%*	21.4%	14.7%	48.6%
	Faraday	Ahead	Jerry Su	1,184	*11.5%*	*29.9%*	*72.9%*	*71.0%*	28.0%	-7.0%	11.7%
	Alchip	Behind	Jerry Su	8,776	*18.1%*	*273.6%*	*52.5%*	*62.8%*	82.5%	304.0%	23.4%
	MediaTek	Ahead	Sunny Lin	64,183	*32.4%*	*44.1%*	*71.5%*	*71.8%*	2.0%	3.5%	36.6%
	Silergy	Ahead	Sunny Lin	2,417	*2.5%*	*52.5%*	*72.4%*	*73.0%*	23.5%	9.9%	1.6%
	Realtek	In-line	Sunny Lin	12,459	*-3.4%*	*28.1%*	*61.9%*	*66.9%*	3.1%	9.0%	-7.4%
	Novatek	Ahead	Jerry Su	10,327	*0.3%*	*26.3%*	*66.6%*	*67.1%*	23.8%	8.0%	-5.8%
	ASPEED	Ahead	Sunny Lin	1,626	*6.7%*	*118.4%*	*70.2%*	*68.2%*	23.0%	15.9%	16.4%
	Parade	Behind	Jerry Su	1,327	*-2.0%*	*0.2%*	*56.7%*	*57.6%*	6.5%	11.2%	0.7%
	Elan	Behind	Jerry Su	741	*-15.7%*	*-36.7%*	*62.1%*	*50.4%*	-0.6%	-18.6%	1.3%
	ASMedia	Behind	Jerry Su	882	*12.7%*	*-32.5%*	*69.8%*	*59.7%*	-22.2%	-12.4%	7.8%
Wafer	GlobalWafers	Behind	Sunny Lin	4,764	*-4.3%*	*7.6%*	*61.5%*	*59.4%*	8.8%	4.2%	7.2%
Equipment	GPTC	In-line	Sunny Lin	681	*-14.1%*	*43.3%*	*50.7%*	*64.0%*	61.8%	12.5%	12.8%
	Chroma	Ahead	Jerry Su	5,632	*3.6%*	*156.3%*	*77.3%*	*78.2%*	14.1%	5.8%	1.3%
	Gudeng	In-line	Sunny Lin	840	*-3.6%*	*49.9%*	*68.0%*	*66.2%*	24.1%	8.7%	11.0%
	Hon Precision	Ahead	Sunny Lin	5,219	*-0.5%*	*91.6%*	*67.6%*	*70.9%*	28.6%	12.2%	18.5%
	All Ring	Ahead	Sunny Lin	1,109	*5.1%*	*103.1%*	*71.2%*	*72.1%*	66.8%	29.1%	-15.1%

Source: Company data, LSEG, UBS estimates

Figure 3: UMC's latest silicon photonics commentary

Date	Key Points	Commentary
Sep 2026 - UMC CPO SEMICON	Leader in TFLN Thin-Film Lithium Niobate	TFLN is emerging as the leading modulator candidate for 400G/lane and beyond, as conventional Si modulators face bandwidth and thermal limitations. UMC is an early TFLN foundry leader, started in 2021, with 6" already in production and 8" sampling underway. **UMC's differentiation is TFLN-PIC integration, combining its SiPh, TFLN, and advanced packaging capabilities.** As optical interconnects move beyond 400G, industry bottlenecks increasingly shift toward modulators and integration, areas where UMC is actively investing.
July 2026 - Q2 earnings call	Mass production of 12" photonics IC	"Earlier this month, we announced the company's **first mass production delivery of a 12-inch Photonics IC** to a customer, a major milestone for UMC that demonstrates the company's high volume silicon photonics manufacturing capability of 12-inch wafers as we prepare to launch our silicon photonics platform **available for general customer use in 2027**."
July 2026 - Q2 earnings call	Capacity commitment and expansion in SiPh	**"For Singapore, we will invest in the cleanroom for our P4 facility and the tool purchased to extend our silicon photonic capacity."**
July 2026 - UMC press release	Silith and UMC collaboration	UMC **delivers first mass-produced silicon photonics wafers from UMC's Singapore 12-inch fab,** marking a step change from development to high-volume manufacturing. The collaboration combines SILITH's silicon photonics innovation with UMC's high-volume 12-inch manufacturing platform. UMC's silicon photonics process integration is a scalable, foundry-ready manufacturing platform—aimed at delivering predictable cost, yield, and ramp timelines for customers building next-generation AI data center optical interconnects.
Jan 2026 - Q425 earnings call	Collaboration with IMEC; ahead of peers for 12 inch	"For the silicon photonics, our strategy is simple. Our **collaboration with IMEC allows us to deliver this industry standard PDK to our customer in 2027, particularly in 12 inch**. So, many of our competitors are, as of today, at 8 inch. And **we are focused on the 12 inch. And as we believe, the 12 inch will have that advantage**."
Jan 2026 - Q425 earnings call	Combining Advanced packaging know-how with SiPh	"Meanwhile, we're also combining with the silicon photonics with our advanced packaging knowhow, so for many different types of applications that we can integrate that. By doing that, **we think we will be providing even more value from advanced packaging combining with silicon photonics at 12 inch. I think that's where we believe we are competitive."**

Source: Company data, UBS

Figure 4: APAC Semiconductors Valuation: Foundry & Fabless

Company name	Ticker	Rating	Analyst	Market cap (US$m)	Price target (LC)	Share price (LC)	EPS growth (%)		P/E (x)		P/BV (x)		ROE (%)		Dividend yield (%)	
							2026E	2027E	2026E	2027E	2026E	2027E	2026E	2027E	2026E	2027E
Foundry																
Hua Hong	1347.HK	Neutral	Jimmy Yu	25,043	148	113	218.2	44.0	144	100	3.2	3.1	2.4	3.2	0.0	0.1
PSMC	6770.TW	Buy	Sunny Lin	9,812	100.0	74	n.a.	33.6	10	8	2.9	2.3	32.6	33.7	0.0	3.5
SMIC	0981.HK	Buy	Jimmy Yu	64,848	102	63	81.7	49.5	52	35	2.4	2.3	5.2	6.7	0.0	0.0
TSMC	2330.TW	Buy	Sunny Lin	2,007,923	3,650	2,450	64.5	36.9	22	16	8.4	6.1	43.4	42.7	0.9	1.2
UMC	2303.TW	Buy	Sunny Lin	56,691	230	143	130.7	2.8	18	18	3.7	3.5	22.3	19.9	1.6	3.8
Vanguard	5347.TWO	Neutral	Sunny Lin	9,530	168	162	47.8	32.4	25	19	3.3	3.0	13.4	16.3	2.8	2.8
WIN Semi	3105.TWO	Buy	Jerry Su	6,183	500	462	95.1	44.6	59	41	4.6	4.3	7.8	10.8	0.4	0.8
Average									**47.3**	**33.8**	**4.1**	**3.5**				
Fabless																
Alchip	3661.TW	Buy	Jerry Su	10,423	6,600	4,055	130.9	38.3	25	18	5.1	4.3	24.4	25.3	0.9	0.8
ASMedia	5269.TW	Buy	Jerry Su	3,214	1,700	1,360	42.7	10.0	13	12	2.4	2.1	19.5	18.8	3.3	4.2
Aspeed	5274.TWO	Buy	Sunny Lin	22,341	22,000	18,700	81.8	73.9	99	57	63.5	38.6	77.5	84.3	0.4	0.8
Faraday	3035.TW	Neutral	Jerry Su	1,474	190	179	23.0	151.9	52	21	3.3	3.0	6.7	15.2	1.7	1.0
GUC	3443.TW	Buy	Jerry Su	26,352	6,700	6,225	106.2	86.3	107	58	46.2	28.6	50.2	61.4	0.3	0.3
MediaTek	2454.TW	Buy	Sunny Lin	239,254	6,500	4,720	2.2	168.4	70	26	16.9	13.0	25.5	56.5	1.1	1.1
Novatek	3034.TW	Neutral	Jerry Su	10,481	540	545	30.6	(1.9)	16	16	5.0	4.8	31.8	30.9	5.1	4.2
Parade	4966.TWO	Neutral	Jerry Su	1,347	610	540	(0.5)	35.8	16	11	1.8	1.7	11.9	15.0	3.3	3.2
Realtek	2379.TW	Neutral	Sunny Lin	11,281	690	696	17.3	19.6	21	17	7.8	6.8	35.2	42.0	3.4	4.0
Silergy	6415.TW	Buy	Sunny Lin	4,975	700	405	84.4	64.7	34	21	3.8	3.4	11.7	17.2	0.6	1.2
Average									**45.2**	**25.7**	**15.6**	**10.6**				

Source: TEJ, UBS estimates. Note: Priced as of 10 Sep 2026; DPS paid in 2026/2027 based on 2025/2026 earnings, respectively.

Figure 5: APAC Semiconductors Valuation: Semi-backend & Silicon wafer

Company name	Ticker	Rating	Analyst	Market cap (US$m)	Price target (LC)	Share price (LC)	EPS growth (%)		P/E (x)		P/BV (x)		ROE (%)		Dividend yield (%)	
							2026E	2027E	2026E	2027E	2026E	2027E	2026E	2027E	2026E	2027E
Semi-backend																
All Ring	6187.TWO	Buy	Sunny Lin	3,945	1,700	1,280	98.6	57.4	42	27	13.4	10.5	35.6	43.9	0.8	1.7
Amkor	AMKR.O	Buy	Randy Abrams	12,166	80	50	72.5	7.9	19	18	2.5	2.2	13.6	13.1	0.7	0.7
ASE	3711.TW	Buy	Sunny Lin	91,372	835	650	102.4	63.8	34	21	6.5	5.5	21.2	28.5	0.9	1.9
ASMPT	0522.HK	Buy	Sunny Lin	8,723	200	165	97.3	47.7	33	22	3.7	3.4	11.8	16.0	0.8	1.6
Chipbond	6147.TWO	Buy	Jerry Su	4,483	290	191	50.1	45.9	34	23	2.9	2.7	8.7	12.1	2.0	1.5
ChipMOS	8150.TW	Buy	Jerry Su	2,024	166	91	548.1	44.6	20	14	2.4	2.2	12.5	16.3	1.4	1.4
Chroma ATE	2360.TW	Buy	Jerry Su	29,312	2,960	2,180	63.6	37.5	48	35	26.5	19.3	57.6	64.0	0.4	0.9
Gudeng	3680.TWO	Buy	Sunny Lin	1,624	710	535	57.6	34.5	36	27	3.9	3.7	12.5	14.2	1.3	2.0
GPTC	3131.TWO	Buy	Sunny Lin	2,271	5,000	2,460	72.6	57.5	31	20	11.6	8.8	41.7	50.3	1.3	2.2
Hon Precision	7769.TW	Buy	Sunny Lin	36,820	10,000	6,475	71.1	85.5	50	27	15.9	11.6	35.8	50.1	0.8	1.4
KYEC	2449.TW	Buy	Sunny Lin	10,492	325	272	40.5	61.9	30	18	5.4	4.6	19.9	26.9	2.2	2.2
Powertech	6239.TW	Neutral	Jerry Su	6,802	260	284	68.5	21.1	23	19	3.4	3.0	15.7	17.1	3.0	1.6
Average									**33.3**	**22.5**	**8.2**	**6.5**				
Silicon wafer																
GlobalWafers	6488.TWO	Buy	Sunny Lin	13,856	2,000	917	18.6	132.7	47.2	20.3	4.7	4.0	4.2	21.3	0.6	0.8

Source: TEJ, UBS estimates. Note: Priced as of 10 Sep 2026; DPS paid in 2026/2027 based on 2025/2026 earnings, respectively.

Valuation Method and Risk Statement

Tech investing involves risk. It is difficult for the investment community, UBS included, to project the financial results of tech companies, as their operating models are highly volatile and unpredictable, and they compete in a highly dynamic marketplace. In addition to their low predictability, valuing tech stocks can be challenging because neither traditional nor non-traditional valuation measures have provided much insight into how tech stocks trade.

