

Apple supply chain

Launches of iPhone 16, AirPods 4, & Apple Watch 10 took place as expected

Key message

1. Most of the hardware spec upgrades and price recommendations for the iPhone 16 series are in line with expectations, and we believe the strategy of keeping prices unchanged from the iPhone 15 series, despite spec upgrades, will bode well for the sell-through of the iPhone 16 series.
2. Apple Intelligence will be offered to users of the iPhone 16 series and iPhone 15 high-end models via a free software upgrade in October.
3. We estimate component shipments for the iPhone 16 series will rise slightly YoY to 85-90mn units in 2H24, and full-year shipments of iPhones will likely fall 2% YoY to 225mn units in 2024F, before rebounding 7% YoY to 240mn units in 2025F.

Event

Apple (US) held a product launch event called “It’s Glowtime” on September 10 to showcase the latest iPhone 16 series, AirPods 4, and Apple Watch 10. Most of the hardware spec upgrades and retail prices are in line with consensus and our expectations, except the display sizes of the iPhone 16 Pro and Pro Max models, which are larger than expected at 6.3” and 6.9”, respectively. Apple shares were muted during after-hours trading, which we attribute to potential deferral of replacement demand as Apple Intelligence will only initially support American English. That said, as component spec upgrades and AI features come without a markup to retail prices, we stand by our view that total iPhone shipments will grow in 2025-26F.

Impact

New iPhone specs & retail prices in line. Apple rolled out four iPhone models at the product launch event, including the iPhone 16 (6.1”), 16 Plus (6.7”), 16 Pro (6.3”), and 16 Pro Max (6.9”). The hardware spec upgrades are largely in line with our expectations, including: (1) the 16 and 16 Plus models will adopt the A18, while the 16 Pro and 16 Pro Max models will adopt the A18 Pro. Both APs are manufactured by TSMC (2330 TT, NT\$904, OP) using N3 process, and boast better performance while power consumption is 30% lower than that of A16; (2) the periscope lens, which provides superior optical zoom, is now also available in the 16 Pro model; (3) the ultra-wide angle lens of the Pro and Pro Max models has been upgraded to 48M pixel from 12M; (4) larger battery capacity; (5) Wi-Fi 7 for all models; (6) memory bandwidth is 17-20% larger than that of the iPhone 15 series; (7) camera lenses are placed in a vertical line to save space, and a capacitive “camera control” button has been added for users to take pictures with just one click. The casings of the 16 and 16 Plus models will come with three new color options, including pink, ultramarine, and teal, while the Pro and Pro Max models also offer natural and desert titanium options. Prices are in line, with the iPhone 16, 16 Plus, 16 Pro, and 16 Pro Max models starting at US\$799, US\$899, US\$999, and US\$1,199, respectively, which are unchanged from the iPhone 15 series, despite the aforementioned spec upgrades. We believe this marketing strategy bodes well for sell-through.

Apple Intelligence Beta to be released next month. Apple emphasized again that privacy of Apple Intelligence users is of paramount importance to the company. Users’ requests are processed by Apple’s Private Cloud Compute, which doesn’t require any sort of access to users’ information. The beta version of Apple Intelligence will include functions like Writing Tools, New Siri, email summarize, and intelligent photo search. It will only support English initially, and other languages will be rolled out at end-2024F and in 2025F. Apple Intelligence will be offered to users of the iPhone 16 series and iPhone 15 high-end models via a free software upgrade in October. Notably, as some of the functions are still undergoing testing, such as Siri with ChatGPT 4o, the AI feature won’t be available when the iPhone 16 series is officially launched on September 20.

Stocks for Action

We believe the iPhone supply chain will benefit from spec upgrades and shipment growth in 2025-26. Our top picks are TSMC, Hon Hai, Largan, Compeq, and Zhen Ding. Pre-orders for the iPhone 16 series will start on September 13, before sales begin on September 20. We believe investors will pay close attention to pre-orders in the first week.

Risks

Product demand falls; China policies impact local demand.

New AirPods & Apple Watch models are largely hardware spec upgrades. AirPods 4 will come in two models, with one priced at US\$129, and the other, which provides active noise cancellation (ANC), at US\$179. The retail price of the basic model is lower than the price of US\$179 for AirPods 3, and we believe it will be an affordable option for replacing AirPods 2 and 3. This pricing strategy is meant to better differentiate consumers with those of the Pro models, and we think an increase in sales volume will benefit component suppliers like SZS (3376 TT, NT\$195, Restricted) and Speedtech (5457 TT, NT\$46.35, NR). Apple also introduced a new version of AirPods Max 2, which still carries the H1 chip and is priced at US\$549, the same as the previous version. The newly launched Apple Watch 10 and Apple Watch Ultra 2 will come with the S10 processor and S9 processor, respectively, with new features like sleep apnea detection, which is in line with market expectation, and a water temperature sensor in a bid to provide a better user experience underwater. The Apple Watch 10 display has been expanded to 42/46mm. Overall, spec upgrades represent the primary selling points for the new AirPods and Apple Watch models, and the market expects sales of AirPods and Apple Watch to be flattish in 2024-25F. Luxshare (CN) is the primary assembler of AirPods, while Hon Hai and Compal (2324 TT, NT\$32.65, NR) are the main assemblers of the Apple Watch.

New product launches favorable to iPhone supply chain. We estimate shipments of components for the iPhone 16 series will rise slightly YoY to 85-90mn units in 2H24, and full-year shipments of iPhones will likely fall 2% YoY to 225mn units in 2024F. Despite the fact that Apple Intelligence isn't launched simultaneously with the iPhone 16 series, we believe the generative AI feature will still stimulate demand, consequently shorten the replacement cycle from the current average of 40-41 months. We estimate total iPhone shipments will grow 7% YoY to 240mn units in 2025, with a higher penetration rate of periscope lens and a pixel upgrade for the ultra-wide angle lens will benefit lens makers like Largan, which has around 80% market share, and Genius. Compeq is set to gain market share in the iPhone 16 series with its RFPCB, while Zhen Ding's PCB order allocation for the new models could also grow 5-10%. Rising consumer demand, upgrade to Wi-Fi 7, and a higher sales weighting of high-end models are also growth drivers for TSMC, Hon Hai, and Win Semi in 2025, as sales contribution from iPhones keeps rising.

Figure 1: Beneficiaries of spec upgrades for new products, as well as shipment forecasts

Products	Spec upgrades	Key beneficiary	2024F whole series shipment (mn units)
iPhone 16 series	Processor upgrades to the A18/ A18 Pro	TSMC 、 Hon Hai 、 Luxshare	225
	The ultra-wide-angle lens for the Pro-series were upgraded to 48MP	Largan 、 Genius	
	Adoption of periscope lenses in the Pro-series models	Largan 、 Genius 、 Compeq (RFPCB)	
	Upgrades to Wi-Fi 7	Win Semi	
Airpods 4	Processor upgrades to the H2	Luxshare	89.9*
Apple Watch Series 10	Processor upgrades to the S10	Hon Hai 、 Compal	42.9*

Note: * indicates Bloomberg consensus
 Source: Bloomberg; KGI Research estimates

Figure 2: The iPhone 16 models include upgrades to optical lenses, processors, memory, battery density, & Wi-Fi 7

	iPhone 16	iPhone 16 Plus	iPhone 16 Pro	iPhone 16 Pro Max	iPhone 15	iPhone 15 Plus	iPhone 15 Pro	iPhone 15 Pro Max
Processor	A18 Bionic (3nm)	A18 Bionic (3nm)	A18 Pro Bionic (3nm)	A18 Pro Bionic (3nm)	A16 Bionic (4nm)	A16 Bionic (4nm)	A17 Bionic (3nm)	A17 Bionic (3nm)
Display	6.1" OLED (Super Retina XDR) narrow borders Dynamic island 60Hz refresh rate	6.7" OLED (Super Retina XDR) narrow borders Dynamic island 60Hz refresh rate	6.3" OLED (Super Retina XDR) narrow borders Always-On display Dynamic island 120Hz refresh rate	6.9" OLED (Super Retina XDR) narrow borders Always-On display Dynamic island 120Hz refresh rate	6.1" OLED (Super Retina XDR) Dynamic island 60Hz refresh rate	6.7" OLED (Super Retina XDR) Dynamic island 60Hz refresh rate	6.1" OLED (Super Retina XDR) narrow borders Always-On display Dynamic island 120Hz refresh rate	6.7" OLED (Super Retina XDR) narrow borders Always-On display Dynamic island 120Hz refresh rate
Display pixels	2556 x 1179 pixels	2796 x 1290 pixels	2622 x 1206 pixels	2868 x 1320 pixels	2532 x 1170 pixels	2778 x 1284 pixels	2556 x 1179 pixels	2796 x 1290 pixels
ppi	460ppi	460ppi	460ppi	460ppi	460ppi	458ppi	460ppi	460ppi
Camera	48MP Wide (7P) 12MP Ultra Wide (5P)	48MP Wide (7P) 12MP Ultra Wide (5P)	48MP Wide (7P) 48MP Ultra Wide (6P) 12MP Telephoto (6P) upgrades to periscope lens ToF	48MP Wide (7P) 48MP Ultra Wide (6P) 12MP Telephoto (1G3P) ToF	48MP Wide (7P) 12MP Ultra Wide (5P)	48MP Wide (7P) 12MP Ultra Wide (5P)	48MP Wide (7P) 12MP Ultra Wide (6P) 12MP Telephoto (6P) ToF	48MP Wide (7P) 12MP Ultra Wide (6P) 12MP Telephoto (1G3P) upgrades to periscope lens ToF
Front camera	12MP (6P) (auto focus)	12MP (6P) (auto focus)	12MP (6P) (auto focus)	12MP (6P) (auto focus)	12MP (6P) (auto focus)	12MP (6P) (auto focus)	12MP (6P) (auto focus)	12MP (6P) (auto focus)
LIDAR	V	V	V	V	X	X	V	V
Emergency SOS via satellite	V	V	V	V	V	V	V	V
Connectivity	5G Wi-Fi 7	5G Wi-Fi 7	5G Wi-Fi 7	5G Wi-Fi 7	5G Wi-Fi 6	5G Wi-Fi 6	5G Wi-Fi 6E	5G Wi-Fi 6E
Storage	128/256/512GB	128/256/512GB	128/256/512GB/1TB	256/512GB/1TB	128/256/512GB	128/256/512GB	128/256/512GB/1TB	256/512GB/1TB
Memory (RAM)	8GB LPDDR5	8GB LPDDR5	8GB LPDDR5X	8GB LPDDR5X	6GB LPDDR5	6GB LPDDR5	8GB LPDDR5	8GB LPDDR5
Color	Black, Pink, Blue, Green, White, Blue	Black, White, Green, Pink, Blue	Black, White, Natural, Desert	Black, White, Natural, Desert	Midnight (black), Starlight (white), Blue, Red	Midnight (black), Starlight (white), Blue, Red	Space black, Silver, Gold, Deep red	Space black, Silver, Gold, Deep red
Connector	USB-C	USB-C	USB-C	USB-C	USB-C	USB-C	USB-C	USB-C
Wireless charging	V	V	V	V	V	V	V	V
Mechanical parts	Aluminum Frame Ceramic shield	Aluminum Frame Ceramic shield	Titanium alloy frame Ceramic shield	Titanium alloy frame Ceramic shield	Aluminum Frame Ceramic shield	Aluminum Frame Ceramic shield	Titanium alloy frame Ceramic shield	Titanium alloy frame Ceramic shield
Starting price	US\$799/\$899/\$1,099 (128/256/512 GB)	US\$899/\$999/\$1,199 (128/256/512 GB)	US\$999/\$1,099/\$1,299/\$1,499 (128/256/512 GB /1TB)	US\$1,199/\$1,399/\$1,599 (256/512 GB/1TB)	US\$799/\$899/\$1,099 (128/256/512 GB)	US\$899/\$999/\$1,199 (128/256/512 GB)	US\$999/\$1,099/\$1,299/\$1,499 (128/256/512 GB /1TB)	US\$1,199/\$1,399/\$1,599 (256/512 GB/1TB)
Available date	3Q24	3Q24	3Q24	3Q24	3Q23	3Q23	3Q23	3Q23
Dimension	147.6x71.6x7.8mm	160.9x77.8x7.8mm	149.6x71.5x8.25mm	163x77.6x8.25	147.6x71.6x7.8mm	160.9x77.8x7.8mm	146.6x70.6x8.25mm	159.9x76.7x8.25mm
Weight	170g	199g	199g	227g	171g	201g	187g	221g

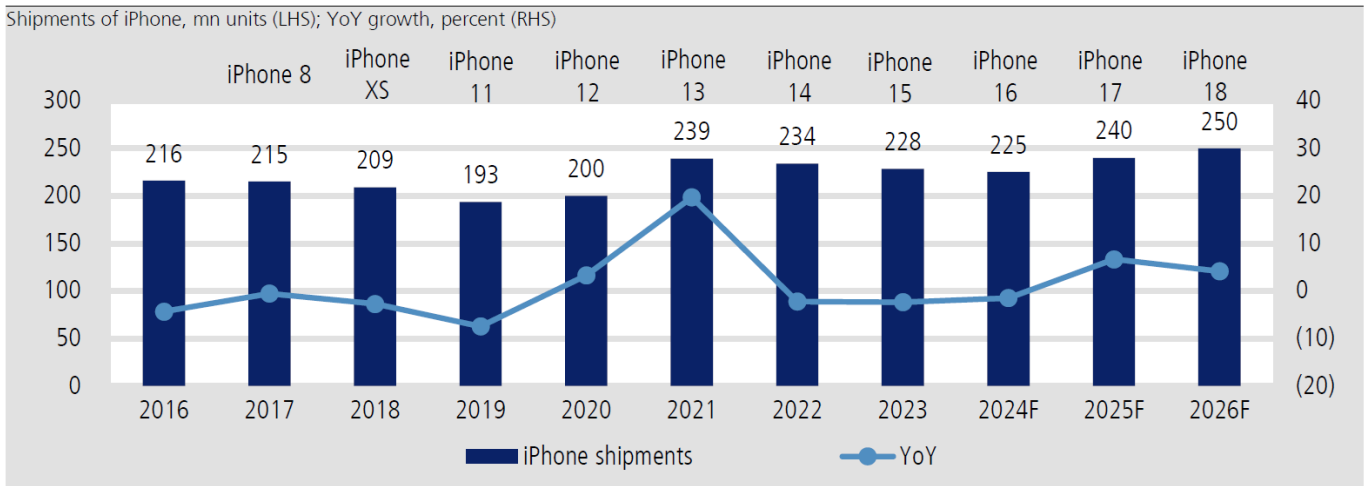
Source: Apple; KGI Research estimates

Figure 3: Apple's iPhone shipments to fall YoY in 2024F & then rebound in 2025F

Product	Year	Shipments (mn units)					YoY (%)				
		1Q	2Q	3Q	4Q	Total	1Q	2Q	3Q	4Q	Total
iPhone	2022	61.0	48.9	50.9	73.0	233.9	4.3	(0.7)	5.1	(12.0)	(2.2)
	2023	58.7	45.6	49.9	76.3	230.5	(3.8)	(6.8)	(2.0)	4.5	(1.4)
	2024F	50.1	43.5	50.0	81.4	225.0	(14.7)	(4.6)	0.2	6.7	(2.4)
	2025F	53.0	48.0	54.0	85.0	240.0	5.8	10.3	8.0	4.4	6.7

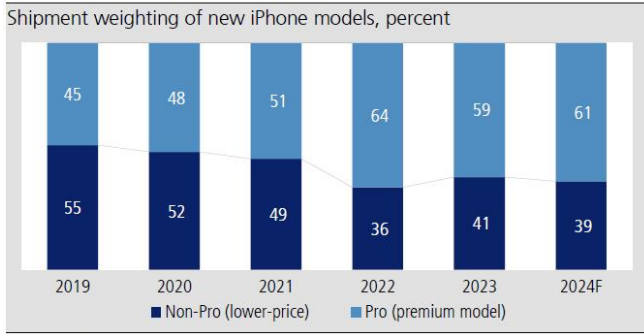
Source: Gartner; KGI Research estimates

Figure 4: Shipments of iPhones declined in 2023-24F, but will recover in 2025-26F on an accelerated replacement cycle



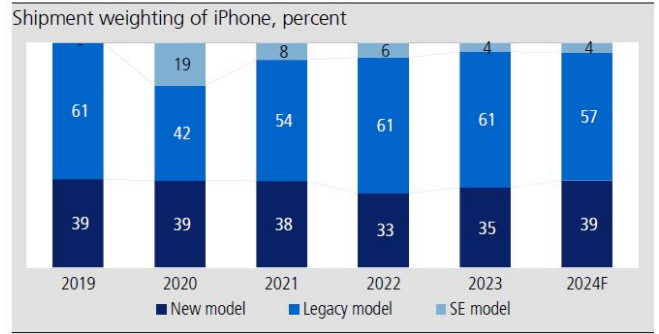
Source: Gartner; KGI Research estimates

Figure 5: Shipments of premium iPhone models to rise in 2023-24F



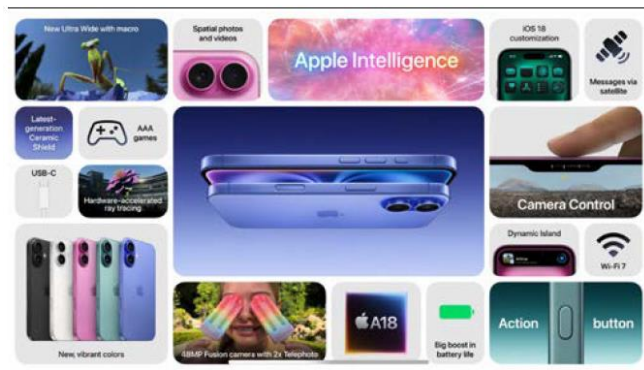
Source: KGI Research estimates

Figure 6: The iPhone 16 models will account for a large share of 2H24F shipments



Source: KGI Research estimates

Figure 7: Overview of hardware spec of iPhone 16 & 16 Plus



Source: Company data; KGI Research

Figure 8: Overview of hardware spec of iPhone 16 Pro & 16 Pro Max



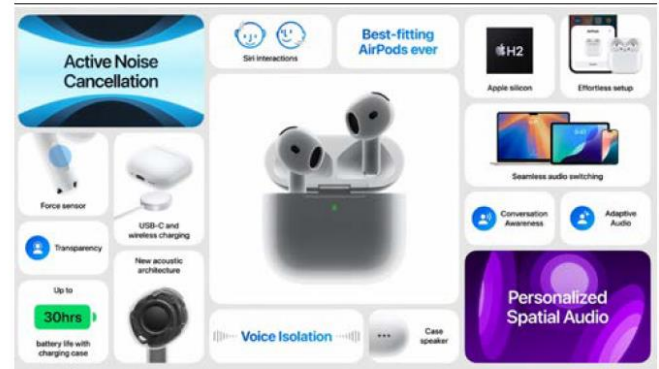
Source: Company data; KGI Research

Figure 9: Overview of hardware spec of Apple Watch 10



Source: Company data; KGI Research

Figure 10: Overview of hardware spec of AirPods 4



Source: Company data; KGI Research

Figure 11: Major upgrades to AirPods, including processor, Bluetooth, & USB-C

	AirPods 4	AirPods Max 2	AirPods 3	AirPods Max
Chip	H2	H1	H1	H1
Connections	AirPods: Bluetooth 5.3 Wireless Charging Case: Charges via wireless (Qi-certified) charging mat or USB-C	Bluetooth 5.3 Charges via USB-C	AirPods: Bluetooth 5.0 Wireless Charging Case: Charges via wireless (Qi-certified) charging mat or Lightning connector	Bluetooth 5.0 Charges via Lightning connector
Sensors	Dual beamforming microphones Inward-facing microphone Optical in-ear sensor Motion-detecting accelerometer Speech-detecting accelerometer Force sensor	Optical sensor (each ear cup) Position sensor (each ear cup) Case-detect sensor (each ear cup) Accelerometer (each ear cup) Gyroscope (left ear cup)	Dual beamforming microphones Inward-facing microphone Skin detection sensor Motion-detecting accelerometer Speech-detecting accelerometer Force sensor	Optical sensor (each ear cup) Position sensor (each ear cup) Case-detect sensor (each ear cup) Accelerometer (each ear cup) Gyroscope (left ear cup)
Wireless charging	W	X	W	X
Functions	ANC (Active Noise Cancellation), Hey Siri, water and sweat resistant	ANC (Active Noise Cancellation), TM (Transparency mode), Hey Siri	ANC (Active Noise Cancellation), Hey Siri, water and sweat resistant	ANC (Active Noise Cancellation), TM (Transparency mode), Hey Siri
Color	White	White, Gray, Blue, Pink, Green, Purple, Orange, Starlight	White	White, Gray, Blue, Pink, Green
Battery	AirPods 4: Single charge: up to 5 hours With charging case: up to 30 hours Earphone battery capacity: TBC AirPods 4 with ANC: Single charge: up to 4 hours With charging case: up to 20 hours Earphone battery capacity: TBC	Single charge: up to 20 hours	Single charge: 6 hours With charging case: up to 30 hours Earphone battery capacity: 133mWh	Single charge: 20 hours
Price	US\$129/ US\$179 with ANC	US\$549	US\$179	US\$549
Launch time	Sep-2024	Sep-2024	Oct-21	Dec-20

Source: Company data; KGI Research

Figure 12: Upgrades to Apple Watch 10, including processor, battery, and sleep apnea detection & water temperature sensor

	Apple Watch Series 10	Apple Watch Ultra 2	Apple Watch Series 9	Apple Watch Ultra
Chip	S10 SiP with 64-bit dual-core processor	S9 SiP with 64-bit dual-core processor	S9 with 64-bit dual-core processor	S9 SiP with 64-bit dual-core processor
Display	Always-on retina LTPO OLED display	Always-on retina LTPO OLED display	Always-on retina LTPO OLED display	Always-on retina LTPO OLED display
Display pixels	416x496 pixels (46mm) 374x446 pixels (42mm)	410x502 pixels (49mm)	484x396 pixels (45mm) 430x352 pixels (41mm)	410x502 pixels (49mm)
ppi	TBC	338	326 (45mm) 329 (41mm)	338
Connectivity	LTE and UMTS11 WiFi 802.11b/g/n 2.4GHz and 5GHz Bluetooth 5.3	LTE and UMTS13 WiFi 802.11b/g/n 2.4GHz and 5GHz Bluetooth 5.3	LTE and UMTS11 WiFi 802.11b/g/n 2.4GHz and 5GHz Bluetooth 5.3	LTE and UMTS12 WiFi 802.11b/g/n 2.4GHz and 5GHz Bluetooth 5.3
Features	Sleep apnea detection Water temperature sensor Depth gauge 3rd-gen optical heart sensor Electrical heart sensor Temperature sensor Compass Always-on altimeter High-g accelerometer High dynamic range gyroscope Ambient light sensor Crash detection	Sleep apnea detection Water temperature sensor 3rd-gen optical heart sensor Electrical heart sensor Temperature sensor Depth gauge ±1m accuracy Water temperature sensor Compass Always-on altimeter High-g accelerometer High dynamic range gyroscope Ambient light sensor Crash detection	3rd-gen optical heart sensor Electrical heart sensor Temperature sensor Compass Always-on altimeter High-g accelerometer High dynamic range gyroscope Ambient light sensor Crash detection	3rd-gen optical heart sensor Electrical heart sensor Temperature sensor Depth gauge ±1m accuracy Water temperature sensor Compass Always-on altimeter High-g accelerometer High dynamic range gyroscope Ambient light sensor Crash detection
Water resistant	50m	100m	50m	100m
Battery	Up to 18hr	Up to 36hr	Up to 18hr	Up to 36hr
Storage	64GB	64GB	64GB	64GB
Case	Titanium, Aluminum	Black titanium	Aluminum, stainless steel	Titanium
Available date	Sep-24	Sep-24	Sep-22	Sep-22
Dimension	42/46mm	49mm	41/45mm	49mm
Price	(Aluminum, 41mm) GPS US\$399, GPS+Cellular US\$499 (Aluminum, 45mm) GPS US\$429, GPS+Cellular US\$529 (Titanium, 41mm) GPS US\$699, GPS+Cellular US\$799 (Titanium, 45mm) GPS US\$749, GPS+Cellular US\$849	US\$799	(Aluminum, 41mm) GPS US\$399, GPS+Cellular US\$499 (Aluminum, 45mm) GPS US\$429, GPS+Cellular US\$529 (Stainless steel, 41mm) GPS US\$699, GPS+Cellular US\$799 (Stainless steel, 45mm) GPS US\$749, GPS+Cellular US\$849	US\$799
Weight	Aluminum (GPS) : 30g/36.4g (42/46mm) Aluminum (GPS+Cellular) : 29.3g/35.3g (42/46mm) Titanium: 34.4/41.7g	Natural : 61.4g Black : 61.8g	Aluminum (GPS) : 31.9g/38.7g (41/45mm) Aluminum (GPS+Cellular) : 32.1g/39g (41/45mm) Stainless steel: 42.3/51.5g	61.4g

Source: Company data; KGI Research

Figure 13: Sales weighting – Apple supply chain

Product	Company	Ticker	Apple					Sales weighting	
			iPhone	iPad	Macbook	Apple Watch	Airpods	2023	2024F
EMS/ODM	Hon Hai	2317 TT	V	V	V	V	V	50-60	50-60
	Pegatron	4938 TT	V					50-60	50-60
	Compal*	2324 TT		V		V		40	40
	Wistron	3231 TT						10-20	
	Quanta	2382 TT			V			30-40	30-40
	Inventec	2356 TT					V	<5	<5
Foundry	TSMC	2330 TT	V	V	V	V	V	20-25	20-25
Packaging	ASEH	3711 TT	V	V		V	V	~20	~20
	USI*	601231 CH	V			V	V	~50	~50
Display (OLED/LCD)	JDI*	6740 JP	V					50	50
	Samsung*	005930 KS	V					10	10
	LGD*	034220 KS	V	V	V	V		20-25	20-25
Display (mini LED)	Fittech*	6706 TT		V	V			30	30
	TSMT*	6278 TT	V	V	V			35	35
	Ennostar*	3714 TT		V	V	V		20-25	20-25
Touch panel	TPK*	3673 TT	V	V				40-45	40-45
	GIS*	6456 TT		V	V			80+	80+
Backlight module	Radiant*	6176 TT	V	V	V			70-80	70-80
	Minebea*	6479 JP	V					20+	20+
PCB/FPCB/Substrate/CCL	Zhen Ding	4958 TT	V	V	V	V	V	70-75	70-75
	Flexium	6269 TT	V	V	V	V	V	80-90	80-90
	Career*	6153 TT	V	V				50-60	50-60
	Compeq	2313 TT	V	V	V		V	65-70	65-70
	Nanya PCB	8046 TT	V		V	V	V	15-20	15-20
	Unitech	2367 TT		V	V	V	V	35-40	35-40
	Unimicron	3037 TT	V	V	V	V	V	20-30	15-20
	Kinsus	3189 TT	V			V	V	20-25	10-15
EMC	2383 TT	V	V	V	V	V	10-15	10-15	
3D sensing VCSEL	Win Semi	3105 TT	V					10-15	5-10
Metal frame / casing	Foxconn	2354 TT	V	V	V			N.A.	N.A.
	Jabil*	JBL US	V					25-30	25-30
	Lens Tech*	300433 CH	V					50-60	50-60
Camera lens	Largan	3008 TT	V					60-70	60-70
	Genius*	3406 TT	V	V				70-80	70-80
	Sunny Optical*	2382 HK	V					N.A.	N.A.
Hinge	SZS	3376 TT			V		V	30-40	30
	Jarflytec*	3548 TT			V			10-15	10-15
Thermal	AVC	3017 TT	V					10-20	10-20
	Auras	3324 TT			V			10	10
	Sunonwealth	2421 TT			V			<3	<3
Acoustics	Mery*	2439 TT	V	V		V	V	40-45	35-40
	AAC*	2018 HK	V	V	V			35-40	35-40
	Goertek*	002241 CH	V	V	V	V	V	35-40	35-40
Battery pack	Simple	6121 TT	V	V	V			30-40	30-40
	Dynapack*	3211 TT		V	V			N.A.	N.A.
	Desay*	000049 CH	V	V	V	V	V	40-50	40-50
	Sunwoda Electronics*	300207 CH	V	V	V	V	V	20-25	20-25
Connector	Cheng Uei*	2392 TT	V		V		V	N.A.	N.A.
	Lotes	3533 TT			V			10-12	10-12
	Speedtech*	5347 TT	V	V	V	V	V	50-60	50-60
	Luxshare*	002475 CH	V	V	V	V	V	70-80	70-80
Cover glass	Lens Tech*	300433 CH	V					50-60	50-60
Haptics	AAC*	2018 HK	V	V		V	V	40-45	40-45
	NIDEC*	6594 JP	V					5	5
	Alps*	6770 JP	V					10	10
	Luxshare*	002475 CH	V			V	V	55-60	55-60
VCM/OIS	Alps Alpine*	6770 JP	V					10-15	10-15
	MinebeaMitsumi*	6479 JP	V					3-5	3-5
Crystal	TXC*	3042 TT	V	V	V	V	V	20	20
Camera module / touchpad	Primax	4915 TT			V			10-20	10-20
Power, cooling fan passive component	Delta	2308 TT	V	V	V			5-10	5-10
Emdeded display port	Parade	4966 TT		V	V			25-30	25-30
USB control IC	Genesys	6104 TT			V			<15	<15
	ASMedia	5269 TT			V			<5	<5
Connector	CCP*	6217 TT			V			<10	<10
DDIC	Novatek	3034 TT	V					0	5-10
PA	Win Semi	3105 TT	V					20-30	20-30
	Vpec	2455 TT	V					N.A.	20-30

Note: * EPS forecast is based on Bloomberg consensus

Source: Bloomberg; KGI Research estimates

Figure 14: Valuations – Apple supply chain

Sector	Company	Ticker	Market cap. (US\$m)	Share price (LCY)	Rating	Target Price (LCY)	EPS (LCY)		EPS YoY (%)		PE (x)		PB (x)		ROE (%)		Cash yield (%)	
							2024F	2025F	2024F	2025F	2024F	2025F	2024F	2025F	2024F	2025F	2023	2024F
EMS/ODM	Hon Hai	2317 TT	72,786	169.00	Outperform	265.0	11.25	15.26	9.7	35.7	15.0	11.1	1.5	1.4	10.2	13.1	3.1	3.2
	Pegatron	4938 TT	8,177	98.80	Neutral	114.0	7.95	7.30	34.8	(8.2)	12.4	13.5	1.3	1.3	11.0	9.7	4.0	4.0
	Quanta Computer	2382 TT	28,741	239.50	Outperform	390.0	15.11	18.79	46.9	24.4	15.8	12.7	4.7	4.4	30.3	35.3	2.5	3.8
	Wistron Corp	3231 TT	8,488	94.30	Outperform	150.0	6.20	8.85	51.9	42.7	15.2	10.7	2.3	2.0	15.9	20.0	2.8	2.8
	Luxshare*	002475 CH	36,936	36.51	Not rated	N.A.	1.92	2.40	24.7	25.1	19.0	15.2	3.7	3.0	19.9	20.6	0.4	0.8
Foundry	TSMC	2330 TT	728,346	904.00	Outperform	1290.0	41.67	51.73	28.9	24.1	21.7	17.5	5.5	4.5	28.1	28.6	1.2	1.4
Packaging	ASE	3711 TT	19,709	144.50	Neutral	130.0	9.74	13.38	31.9	37.4	14.8	10.8	2.0	1.8	13.7	17.3	6.1	3.0
	USI*	601231 CH	4,364	14.05	Not rated	N.A.	0.99	1.24	10.8	25.4	14.2	11.4	1.7	1.5	12.1	13.7	1.9	1.9
Display (OLED/LCD)	JDI*	6740 JP	595	22.00	Not rated	N.A.	N.M.	N.M.	N.M.	N.A.	N.A.	N.A.	N.A.	N.A.	N.M.	N.M.	0.0	0.0
	Samsung Electron* LG Display*	005930 CH 034220 CH	293,883 3,856	66,200 10,370	Not rated Not rated	N.A. N.A.	5,845.5 (2,231.5)	8,206.6 208.2	174.3 N.A.	40.4 N.A.	11.3 N.A.	8.1 49.8	1.2 0.6	1.0 0.6	10.3 (14.2)	12.9 1.1	2.2 0.0	2.2 0.0
Display (mini LED)	Ennostar Inc*	3714 TT	947	40.50	Not rated	N.A.	(1.3)	0.0	N.A.	N.A.	N.A.	N.A.	0.6	0.6	(1.5)	1.0	0.0	0.0
	Fittech TSMT*	6706 TT 6278 TT	313 1,008	137.00 111.00	Not rated Not rated	N.A. N.A.	N.A. 9.1	N.A. 9.3	N.A. 5.6	N.A. 2.9	N.A. 12.3	N.A. 11.9	N.A. 1.6	N.A. 1.5	N.A. 12.7	N.A. 12.3	7.3 6.3	3.6 4.5
PCB/FPCB/ Substrate	Zhen Ding Tech	4958 TT	3,462	116.50	Neutral	146.0	8.52	10.45	30.0	22.7	13.7	11.1	1.1	1.1	8.3	9.7	5.2	2.9
	Flexium Intercon	6269 TT	792	79.00	Neutral	82.0	8.23	N.A.	18.5	N.A.	9.6	N.A.	0.9	N.A.	9.6	N.A.	6.3	4.4
	Elite Material	2383 TT	4,903	458.00	Outperform	610.0	28.22	32.78	72.6	16.2	16.2	14.0	5.2	4.5	33.9	34.7	1.9	2.2
	Compeq Mfg	2313 TT	2,592	70.00	Outperform	97.0	5.47	6.98	56.3	27.7	12.8	10.0	1.9	1.7	15.8	18.3	3.9	2.1
	Kinsus	3189 TT	1,389	98.40	Neutral	102.0	1.98	7.27	1779.9	267.8	49.8	13.5	1.9	(10.5)	3.2	33.4	6.6	1.0
PA	Unimicron Tech	3037 TT	6,610	139.50	Outperform	220.0	5.87	13.72	(25.5)	133.6	23.7	10.2	2.2	1.9	9.6	20.4	5.7	2.2
	Win Semi Visual Photonics	3105 TT 2455 TT	1,633 770	124.00 134.00	Outperform Outperform	185.0 220.0	4.18 4.15	6.01 5.80	N.M. 70.3	43.8 40.0	29.6 32.3	20.6 23.1	1.5 7.2	1.4 6.4	5.2 23.6	7.2 29.5	2.0 1.7	0.0 1.6
Metal frame / casing	Foxconn Tech*	2354 TT	2,707	61.60	Not rated	N.A.	2.98	2.96	(1.0)	(0.7)	20.7	20.8	0.6	0.5	4.0	3.9	2.6	2.4
	Catcher Tech	2474 TT	5,010	237.00	Neutral	255.0	20.22	13.77	51.7	(31.9)	11.7	17.2	1.1	1.1	8.9	6.3	4.2	4.2
	Lens Tech* Jabil Inc*	300433 CH JBL US	11,057 11,649	15.80 102.68	Not rated Not rated	N.A. N.A.	0.77 8.42	1.00 8.99	25.9 36.9	30.1 6.8	20.6 12.2	15.8 11.4	1.6 6.7	1.5 6.1	8.0 44.7	9.7 52.3	1.3 0.1	1.9 0.3
Camera lens	Largan Precision	3008 TT	10,864	2,620	Outperform	3,880	185.77	194.02	38.5	4.4	14.1	13.5	1.9	1.7	14.2	13.5	2.7	2.6
	Genius Elec*	3406 TT	1,671	477.00	Not rated	N.A.	38.94	40.12	42.9	3.0	12.3	11.9	2.2	2.0	19.0	17.6	2.5	2.5
Hinge	Shin Zu Shing	3376 TT	1,142	195.00	Neutral	190.0	6.71	8.25	55.9	23.0	29.1	23.6	2.2	2.2	7.8	9.3	3.1	1.7
Thermal	Auras	3324 TT	1,579	559.00	Outperform	920	22.68	34.19	58.8	50.7	24.6	16.4	6.4	5.2	28.4	36.2	1.2	1.2
	Sunonwealth	2421 TT	736	86.60	Outperform	130.0	6.11	7.21	18.4	18.0	14.2	12.0	3.1	2.9	22.4	24.7	3.0	4.0
Acoustics	Merry*	2439 TT	936	126.00	Not rated	N.A.	8.55	9.21	39.3	7.7	14.7	13.7	2.1	2.2	13.8	15.0	3.6	3.7
	AAC*	2018 HK	4,519	29.40	Not rated	N.A.	1.33	1.74	111.0	31.2	22.1	16.9	1.5	1.4	7.0	8.4	0.4	0.3
	Goertek*	002241 CH	9,238	19.25	Not rated	N.A.	0.77	1.02	141.6	31.8	24.9	18.9	2.0	1.8	8.1	9.8	0.5	0.5
	Simplo Tech	6121 TT	1,994	347.00	Outperform	460.0	28.77	32.61	(6.2)	13.4	12.1	10.6	1.8	1.7	15.2	16.5	8.0	6.3
	LG Chemical* Samsung SDI* Desay* Sunwonda*	051910 CH 006400 CH 000049 CH 300207 CH	16,090 17,028 1,145 4,169	306,500 333,000 21.20 15.94	Not rated Not rated Not rated Not rated	N.A. N.A. N.A. N.A.	11,324 19,013 1.51 0.87	30,900 26,914 1.83 1.11	(33.7) (36.7) (11.7) 50.2	172.9 41.6 21.0 27.8	27.1 17.5 14.0 18.3	9.9 12.4 11.6 14.3	0.7 1.1 1.2 1.2	0.6 1.0 1.1 1.1	2.8 6.6 6.6 6.5	7.0 8.9 7.5 7.8	3.3 3.3 2.8 2.8	1.1 0.3 2.1 0.8
Connector	Cheng Uei*	2392 TT	982	61.70	Not rated	N.A.	N.M.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.M.	N.A.	3.6	3.2
	Speed Tech*	5457 TT	249	46.35	Not rated	N.A.	2.27	3.99	118.3	75.8	20.4	11.6	2.1	1.9	9.8	17.0	3.9	0.8
	Luxshare*	002475 CH	36,936	36.51	Not rated	N.A.	1.92	2.40	24.7	25.1	19.0	15.2	3.7	3.0	19.9	20.6	0.4	0.8
Glass back cover	Lens Tech*	300433 CH	11,057	15.80	Not rated	N.A.	0.77	1.00	25.9	30.1	20.6	15.8	1.6	1.5	8.0	9.7	1.3	1.9

Note: * EPS forecast is based on Bloomberg consensus

Source: Bloomberg; KGI Research estimates

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