

China Technology

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Takeaways of Meta Connect 2023: Quest 3, Ray-Ban smart glasses and Meta AI Chatbot

Meta officially unveiled the Quest 3, Ray-Ban smart glasses and AI Chatbot during Meta Connect event. The new Quest 3 marks a pivot from VR to MR for Meta, ahead of Apple's Vision Pro pushing into market in 2024. Quest 3 features major upgrades in display and optics (Mini-LED, pancake), a faster Qualcomm XR2 Gen 2 chips, improved resolution and interactive sensors enabling mixed reality pass-through, which is in-line with preview earlier this year. Starting price was raised by US\$200 to US\$ 499 (vs. US\$ 299 for Quest 2), which may be negative to initial sales volume but positive to component profitability in our view. For stocks, we believe AR/VR supply chain with major upgrades in display, optics and sensors will benefit, such as **Sunny Optical** for pancake lenses, **Goertek** for OEM/acoustics, and **TK Group** for structural plastic components.

- Quest 3 spec mostly in-line with expectations; Starting price hike of US\$200 may drag initial sales.** Meta launched a new gen of Quest VR product line with spec upgrades mostly in-line with its earlier preview. Major upgrades in faster chips, Mini-LED display, pancake lenses and dual-colour pass-through cameras enable better user experience and switch between VR/MR modes. We believe US\$ 200 price hike for Quest 3 may drag initial sales volume, given macro headwinds and weak consumer sentiment. Meta also announced corporation with Microsoft to support Xbox Cloud Gaming content, and it will release 100+ new games designed for Quest 3's MR function. Meta expected Meta Quest for Business to be able to work with Microsoft 365 and other productivity applications by the end of the year.
- Latest version of Ray-Ban Meta smart glasses and Meta AI Chatbot bring more innovations.** The Ray-Ban meta smart glasses feature 12MP camera, 5 microphones and 32GB memory, and the price starts at US\$ 299. The meta smart glasses will mainly be used in photo taking, video recording, searching, social media communication and music entertainment. Meta also introduced Meta AI, a new AI Chatbot across WhatsApp, Messenger and Instagram to enable live searching and image generating functions.
- Supply chain set to benefit with Quest 3/Vision Pro coming to market in 2024; Positive to Goertek, Sunny Optical and TK Group.** Despite recent macro headwinds and higher price tag, we believe new product launches from Meta/Apple will boost AR/VR shipment recovery in the next few quarters, benefiting Sunny Optical for improved pancake lenses, Goertek for OEM assembly/acoustics upgrades, and TK Group for structural plastic components.

Valuation Table

Name	Ticker	Rating	Mkt Cap (US\$ mn)	Price (LC)	TP (LC)	Up/Down -side	P/E (x)		P/B (x)	
							FY23E	FY24E	FY23E	FY24E
Luxshare	002475 CH	BUY	29,112	29.82	44.9	51%	18.6	14.8	2.1	1.9
Goertek	002241 CH	BUY	7,388	15.78	17.6	12%	35.9	17.4	1.7	1.6
Sunny Optical	2382 HK	HOLD	7,518	53.65	78.3	46%	29.0	18.8	2.3	2.1
TK Group	2283 HK	BUY	146	1.37	3.1	126%	4.9	3.6	0.6	0.6
Cowell	1415 HK	NR	1,669	15.38	NA	NA	24.9	14.6	3.9	3.1
Everwin	300115 CH	NR	1,703	10.34	NA	NA	28.5	13.8	2.0	1.8

Source: Company data, CMBIGM estimates.

China Technology Sector

Alex NG
 (852) 3900 0881
 alexng@cmbi.com.hk

Claudia LIU
 claudialiu@cmbi.com.hk

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- Apple MR: Long-awaited next "iPhone moment"- 5th Jun 2023 ([link](#)).

Figure 1: Meta Quest 3 vs. Apple Vision Pro vs. Meta Quest Pro vs. Meta Quest 2

	Meta Quest 3	Apple Vision Pro	Meta Quest Pro	Meta Quest 2	Pico Neo 4/4 Pro	Sony PSVR2	HTC Vive XR Elite	DPVR E4
Type	Standalone	Standalone	Standalone	Standalone	Standalone	Tethered	Standalone	PC-Power
Release Date	Sep-23	Jun-23	Oct-22	Oct-20	Sep-22	Feb-22	Mar-23	Feb-23
Processor	Qualcomm XR2 Gen 2	Apple M2	Qualcomm XR2+	Qualcomm XR2	Qualcomm XR2	MediaTek	Qualcomm XR2	-
Storage	128 GB/512GB	-	256GB	128/256GB	128/256GB/512GB	-	128GB	-
Display	Mini-LED	Micro OLED	Mini-LED	Fast-LCD	Fast-LCD	OLED	Fast-LCD	Fast-LCD
Resolution per eye	2064*2208	4K	1800*1920	1832*1920	2160*2160	2000*2040	1920*1920	1832*1920
Refresh Rate (Hz)	90, 120	120	72, 90	60, 72, 90	72, 90	90, 120	90	72, 90, 120
Optical	Pancake	Pancake	Pancake	Fresnel	Pancake	Fresnel	Pancake	Fresnel
FOV (Deg)	110	120	120	100	105	110	110	116
Tracking	6DoF	6DoF	6DoF	6DoF	6DoF	6DoF	6DoF	6DoF
Weight	515g	400g	722g	503g	586g	560g	625g	280g
Price	\$499	\$3,499	\$1,499	\$299, \$399	RMB 2499	\$399	\$1,099	\$549

Source: Meta, Apple, CMBIGM.

Figure 2: Meta Quest 3



Source: Meta, CMBIGM.

Figure 3: Ray-Ban Meta glasses



Source: Meta, CMBIGM.

Figure 4: Overview of VR/AR headset supply chain



Source: CMBIGM

Figure 5: Peers Comparison

Company	Ticker	Rating	Mkt Cap (US\$ mn)	Price (LC)	TP (LC)	Up/Down -side	P/E (x)		P/B (x)		ROE (%)	
							FY23E	FY24E	FY23E	FY24E	FY23E	FY24E
Optics												
Sunny Optical	2382 HK	HOLD	7,518	53.65	78.3	46%	29.0	18.8	2.3	2.1	7.8	11.2
Q Tech	1478 HK	BUY	460	3.04	3.6	18%	10.9	5.7	0.6	0.6	5.9	10.3
Cowell	1415 HK	NR	1,669	15.38	NA	NA	24.9	14.6	3.9	3.1	15.2	22.9
Largan	3008 TT	NR	8,838	2135	NA	NA	16.3	14.8	1.8	1.7	11.1	11.4
Genius	3406 TT	NR	1,287	368	NA	NA	15.2	13.4	2.0	1.8	13.3	14.6
Primax	4915 TT	NR	994	69.20	NA	NA	11.6	10.5	1.8	1.6	15.5	16.0
Lite-On	2301 TT	NR	8,925	121.50	NA	NA	18.4	15.2	3.3	3.3	18.5	21.6
O-Film	002456 CH	NR	2,854	6.40	NA	NA	-	-	7.8	8.1	(36.9)	(24.0)
Samsung Elec	009150 KS	NR	7,581	137400	NA	NA	16.9	11.4	1.3	1.2	7.9	10.9
LG Innotek	011070 KS	NR	4,275	244500	NA	NA	8.5	6.3	1.2	1.0	14.9	17.6
Partron	091700 KS	NR	343	7880	NA	NA	10.5	9.3	0.9	0.9	8.9	9.4
Average							16.2	12.0	2.4	2.3	7.5	11.1
Acoustics/Haptics												
AAC Tech	2018 HK	HOLD	2,027	13.24	14.0	6%	23.3	13.3	0.6	0.6	2.7	4.6
Goertek	002241 CH	BUY	7,388	15.78	17.6	12%	35.9	17.4	1.7	1.6	4.7	9.2
Luxshare	002475 CH	BUY	29,112	29.82	44.9	51%	18.6	14.8	2.1	1.9	11.2	12.5
Sunway	300136 CH	NR	2,617	19.76	NA	NA	23.4	18.2	2.6	2.3	11.4	13.3
Merry	2439 TT	NR	574	84	NA	NA	15.9	14.6	1.4	1.4	9.4	10.1
Nidec	6594 JP	NR	27,274	6829	NA	NA	49.1	22.0	3.0	2.6	7.0	12.7
Alps Alpine	6770 JP	NR	1,918	1306	NA	NA	11.0	13.7	0.7	0.7	6.2	5.1
Average							24.2	15.8	1.7	1.6	7.5	9.6
Connector												
FIT Hon Teng	6088 HK	BUY	931	1.00	2.1	106%	6.7	5.4	0.3	0.3	5.2	6.3
Luxshare	002475 CH	BUY	29,112	29.82	44.9	51%	18.6	14.8	2.1	1.9	11.2	12.5
TE	TEL US	NR	37,811	120.44	NA	NA	18.0	16.0	3.3	3.0	19.1	19.9
Amphenol	APH US	NR	49,124	82.36	NA	NA	28.2	25.7	6.1	5.6	24.5	24.4
Average							17.9	15.5	3.0	2.7	15.0	15.8
EMS/OEM												
BYDE	285 HK	BUY	10,176	35.35	42.0	19%	20.6	16.7	2.5	2.2	11.9	13.0
Luxshare	002475 CH	BUY	29,112	29.82	44.9	51%	18.6	14.8	2.1	1.9	11.2	12.5
Hon Hai Precision	2317 TT	NR	44,715	104.00	NA	NA	11.8	9.7	0.9	0.9	8.2	9.6
Pegatron	4938 TT	NR	6,330	76.60	NA	NA	13.7	11.6	1.1	1.1	8.6	11.0
Wistron	3231 TT	NR	9,129	101.50	NA	NA	28.5	15.7	2.8	2.4	9.7	16.1
Average							29.0	20.9	6.6	5.0	13.6	19.9
Casing												
BYDE	285 HK	BUY	10,176	35.35	42.0	19%	20.6	16.7	2.5	2.2	11.9	13.0
Tongda	698 HK	BUY	96	0.08	0.2	121%	4.3	2.7	0.1	0.1	2.3	3.5
TK Group	2283 HK	BUY	146	1.37	3.1	126%	4.9	3.6	0.6	0.6	13.3	17.0
Everwin	300115 CH	NR	1,703	10.34	NA	NA	28.5	13.8	2.0	1.8	7.1	13.2
Lens Tech	300433 CH	NR	8,360	12.28	NA	NA	19.8	14.9	1.3	1.2	6.7	8.5
Chaozhou Three	300408 CH	NR	8,132	31.00	NA	NA	33.3	25.0	3.2	2.9	9.7	11.9
Catcher	2474 TT	NR	3,851	182.5	NA	NA	12.3	16.1	0.8	0.8	6.1	4.4
Jabil	JBL US	NR	13,766	105.18	NA	NA	12.4	11.4	4.9	4.1	43.5	38.4
Average							17.0	14.4	1.9	1.9	12.6	13.7

Source: Bloomberg, CMBIGM estimates.

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CMB International Global Markets Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

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