

Semiconductors

Semi Week in Review

Summary

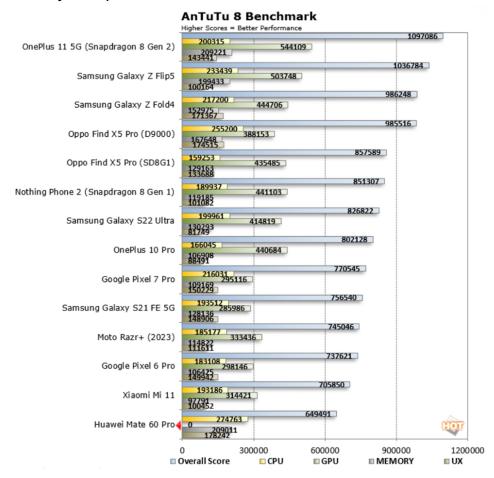
In this week's Semi Week in Review, we highlight Huawei's Mate 60 Pro benchmarks showing performance lagging current smartphones by 3 years, and our skepticism about Huawei's ability to ship 60-70 million units with outdated technology. We also look ahead to the upcoming Qualcomm Snapdragon Summit and expectations for new Snapdragon 8 Gen 3 announcements and performance improvements.

Huawei Mate 60 Specs; Ouster Lawsuit

Last week, performance benchmarks were published for the Huawei Mate 60 Pro 5G smartphone. The conclusion is that the Mate 60 Pro's performance is roughly 3 years behind smartphones currently on the market.

There are separate benchmarks to compare CPU, GPU and NPU performance. We tend to first look at a generalized benchmark, AnTuTu 8, that tests all parts of the SoC.

Figure 1 - List of smartphones using Qualcomm, MediaTek and even Google's internally developed Tensor



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Related Companies: INTC.O

Share Price: \$35.97 **Our Take.** There has been much hand wringing and pearl-clutching over Huawei entering the 5G smartphone market despite the US sanctions against Huawei using leading edge technology. We see these benchmarks as evidence that the Mate 60 Pro is not a 5G performance contender. Reports have Huawei forecasting shipping 60-70mn smartphones in 2024. We remain skeptical that there are this many consumers willing to pay \$1,000+ for a phone with 3-year-old technology. Also, we are not convinced that SMIC's N7 process yields can support 60-70mn units.

Meanwhile, we expect that Qualcomm will announce its Snapdragon 8 Gen 3 SoC during its annual Snapdragon Summit on October 24th – 26th. Specification leaks are pointing to 30%-50% performance increases over Snapdragon 8 Gen 2. We expect all leading Android players will announce new flagship smartphone based on Gen 3 shortly after the Snapdragon Summit.

Semiconductor Industry Comp Sheet

Months and a second sec																			
			10/15/2023	Duise	Harida/	Barrier Britannis		EV/Sales				P/E	Valuation EV/FCF				EV/EBITDA		
Common Name	Ticker	Detino		Price	Upside/	Market	Enterprise Value (\$M)	CY22E	CY23E	CY24E	CY22E	CY23E	CY24E	CY22E	CY23E	CY24E	CY22E	CY23E	CY24E
Company Name Analog/MCUs	ricker	Rating	Price	Target	Downside	Cap (\$M)	value (Şivi)	CYZZE	CYZSE	CY24E	CYZZE	CYZSE	CY24E	CYZZE	CYZSE	CY24E	CYZZE	CYZSE	CY24E
Microchip Technology Incorporated	MCHP-US	Buy	\$77.46	\$110.00	42%	42,164	48,503	5.6x	5.5x	5.3x	12.7x	12.6x	11.9x	14.3x	15.1x	14.3x	11.6x	11.6x	10.8x
Monolithic Power Systems, Inc.	MPWR-US	Buy	\$475.75	\$580.00	22%	22,730	22,262	12.2x	10.7x	9.2x	40.6x	36.1x	29.6x	38.3x	35.4x	29.0x	33.1x	28.4x	23.4x
ON Semiconductor Corporation	ON-US	Neutral	\$89.14	\$100.00	12%	38,466	41,129	4.9x	4.6x	4.2x	17.1x	15.7x	13.6x	47.3x	23.4x	18.5x	12.4x	11.4x	10.3x
Texas Instruments Incorporated	TXN-US	Buy	\$152.75	\$230.00	51%	138,692	141,586	7.9x	7.3x	6.7x	20.9x	20.0x	18.2x	61.1x	29.9x	24.8x	15.7x	14.2x	12.4x
SiTime Corporation	SITM-US	NR	\$113.05	NR	NR	2,511	1,930	13.2x	9.6x	7.7x	706.6x	89.7x	55.6x	NM	NM	NM	-136.4x	112.2x	44.8x
Infineon Technologies AG Sponsored ADF		NR	\$33.73	NR	NR	44,044	47,666	3.1x	2.7x	2.5x	15.2x	12.2x	12.0x	29.8x	34.0x	26.0x	9.0x	7.5x	7.1x
STMicroelectronics NV ADR RegS	STM-US	NR	\$42.89	NR	NR	39,366	39,200	2.3x	2.2x	2.0x	9.9x	10.0x	9.0x	31.8x	19.4x	15.4x	6.2x	6.2x	5.7x
Communications/DC	31111 03		Ş42.03	1410	1410	33,300	33,200	2.5%	2.2	2.01	J.J.K	10.0%	3.0X	31.0X	13.4%	15.47	0.2x	0.27	J.7 K
Broadcom Inc.	AVGO-US	Buy	\$883.18	\$1,000.00	13%	364,520	404,404	12.0x	11.1x	10.2x	23.0x	20.6x	18.7x	24.5x	22.4x	19.9x	19.0x	17.4x	16.0x
Lattice Semiconductor Corporation	LSCC-US	Buy	\$75.08	\$110.00	47%	10,349	10,451	13.7x	12.1x	14.5x	36.0x	30.6x	NM	38.9x	31.6x	40.0x	36.5x	28.3x	43.2x
Navitas Semiconductor Corporation	NVTS-US	Buy	\$5.89	\$12.00	104%	1,023	869	18.4x	7.0x	4.1x	NM	NM	48.5x	-14.1x	-24.1x	-26.8x	-24.0x	-52.0x	28.0x
Vicor Corporation	VICR-US	NR	\$53.44	NR	NR	1,738	2,205	5.3x	4.5x	3.7x	40.6x	30.0x	19.4x	37.1x	46.1x	26.4x	26.5x	19.3x	12.1x
QuickLogic Corporation	QUIK-US	NR	\$9.10	NR	NR	126	121	5.7x	4.2x	NM	113.8x	25.6x	NM	-26.2x	23.6x	NM	70.9x	21.9x	NM
Power Integrations, Inc.	POWI-US	NR	\$75.52	NR	NR	4,334	4,009	8.0x	6.7x	5.8x	46.1x	30.5x	26.0x	42.3x	26.1x	21.9x	35.0x	23.3x	22.5x
Wolfspeed Inc	WOLF-US	NR	\$32.53	NR	NR	4,075	5,401	5.8x	4.5x	3.2x	NM	NM	NM	-3.3x	-3.2x	-6.9x	-74.5x	693.7x	13.9x
Computing						,													
Advanced Micro Devices, Inc.	AMD-US	Buy	\$105.09	\$200.00	90%	169,791	167,556	7.3x	6.1x	5.3x	38.2x	25.5x	19.9x	44.2x	32.0x	25.5x	24.5x	21.8x	16.9x
Ambarella, Inc.	AMBA-US	Buy	\$52.85	\$85.00	61%	2,108	1,890	8.1x	7.3x	5.4x	NM	NM	384.6x	918.9x		-7775.1x	-95.8x	-133.7x	47.2x
Intel Corporation	INTC-US	Sell	\$35.97	\$17.00	-53%	150,642	179,173	3.4x	3.0x	2.8x	56.8x	20.5x	14.2x	-13.0x	-70.3x	123.8x	16.3x	11.1x	8.7x
NVIDIA Corporation	NVDA-US	Buy	\$454.61	\$1,100.00	142%	1,122,887	1,131,001	21.6x	14.3x	11.8x	45.2x	27.6x	22.7x	52.0x	29.9x	23.7x	39.9x	24.9x	20.4x
Super Micro Computer, Inc.	SMCI-US	Buy	\$285.20	\$375.00	31%	15,089	15,813	1.8x	1.3x	NM	19.9x	14.9x	NM	44.6x	47.7x	NM	15.9x	12.5x	NM
IoT																			
Synaptics Incorporated	SYNA-US	Buy	\$94.92	\$100.00	5%	3,705	3,911	3.3x	3.2x	NM	17.0x	18.3x	NM	18.4x	25.9x	NM	14.1x	15.0x	NM
IP																			
Arteris, Inc.	AIP-US	Buy	\$5.96	\$21.00	252%	215	160	2.9x	2.3x	1.7x	NM	NM	27.1x	-17.8x	-106.6x	NM	-5.3x	-6.3x	NM
ARM Holdings PLC ADR	ARM-US	Buy	\$50.78	\$85.00	67%	52,061	50,277	17.4x	14.4x	12.1x	NM	40.5x	32.5x	79.7x	49.1x	32.2x	NM	33.4x	27.2x
CEVA, Inc.	CEVA-US	Buy	\$18.80	\$35.00	86%	444	315	2.8x	2.4x	2.0x	164.0x	37.0x	22.3x	30.3x	85.1x	20.2x	NM	NM	NM
Rambus Inc.	RMBS-US	Buy	\$57.23	\$73.00	28%	6,246	6,086	10.8x	9.1x	7.6x	33.0x	26.5x	21.2x	30.8x	30.8x	26.6x	21.2x	17.0x	13.4x
Adeia Inc.	ADEA-US	NR	\$8.45	NR	NR	902	1,502	3.8x	3.6x	NM	6.5x	5.9x	NM	NM	NM	NM	5.9x	5.6x	NM
Movella Holdings Inc.	MVLA-US	NR	\$0.53	NR	NR	27	31	0.9x	0.7x	NM	NM	NM	NM	NM	NM	NM	-1.9x	-172.2x	NM
Memory/Storage																			
Marvell Technology, Inc.	MRVL-US	Buy	\$52.62	\$100.00	90%	45,401	49,565	8.9x	7.7x	6.7x	33.2x	23.3x	18.3x	50.6x	31.0x	22.8x	29.3x	21.5x	17.1x
Micron Technology, Inc.	MU-US	Buy	\$69.21	\$100.00	44%	75,995	80,052	4.6x	3.3x	2.6x	NM	108.8x	11.0x	-19.4x	122.4x	21.3x	20.6x	9.0x	5.3x
Seagate Technology Holdings PLC	STX-US	Buy	\$68.43	\$68.00	-1%	14,223	19,212	2.7x	2.5x	2.2x	167.1x	27.3x	13.9x	35.8x	28.3x	18.9x	21.6x	14.4x	10.7x
SMART Global Holdings, Inc.	SGH-US	Buy	\$13.10	\$35.00	167%	656	1,122	0.8x	0.9x	NM	6.6x	9.6x	NM	NM	NM	NM	5.9x	6.8x	NM
Western Digital Corporation	WDC-US	Neutral	\$45.70	\$38.00	-17%	14,813	20,740	1.7x	1.5x	1.2x	NM	NM	9.4x	-22.1x	211.0x	16.7x	-72.5x	14.7x	6.3x
Mobile				4															
Qorvo, Inc.	QRVO-US	Neutral	\$90.92	\$95.00	4%	8,902	10,260	2.9x	2.6x	2.3x	17.2x	13.2x	9.8x	17.3x	12.8x	10.2x	12.3x	10.6x	8.7x
QUALCOMM Incorporated	QCOM-US	Buy	\$108.66	\$145.00	33%	121,265	128,947	3.1x	3.6x	3.4x	9.5x	12.8x	11.5x	16.6x	14.3x	12.1x	7.3x	9.8x	9.6x
Skyworks Solutions, Inc.	SWKS-US	Buy	\$94.60	\$150.00	59%	15,079	16,112	3.0x	3.3x	3.2x	9.0x	11.0x	10.1x	12.1x	8.8x	8.9x	6.6x	7.8x	7.7x
	1.47D 110	Name	64.43	¢c.00	460/	4 200	4.0	24.6	7.0	2.2	NIP :	NIP 1	N.D		42.6	72.6	7.4	40.0	24.0
Luminar Technologies, Inc. Class A	LAZR-US	Neutral	\$4.12	\$6.00	46%	1,208	1,844	21.9x	7.6x	3.2x	NM	NM	NM	-7.7x	-13.6x	-73.6x	-7.1x	-10.8x	-34.0x
Ouster, Inc. Innoviz Technologies Ltd.	OUST-US	Buy Neutral	\$4.23	\$17.50	314%	167 256	127	0.1x	0.1x	0.0x	NM NM	NM NM	NM	NM 1.4v	NM 1 Ev	NM	-0.1x	-0.1x	-0.1x
Sources: Rosenblatt Estimates FactSet	INVZ-US	Neutral	\$1.57	\$5.00	218%	256	127	7.6x	1.6x	0.4x	IVIVI	IVIVI	NM	-1.4x	-1.5x	-2.8x	-1.1x	-1.1x	-3.0x

Sources: Rosenblatt Estimates, FactSet

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Distribution of Ratings/IB Services									
			IB S	Serv./Past 12 Mos.					
Rating	Count	Percent	Count	Percent					
BUY	84	74.34	4	4.76					
NEUTRAL	24	21.24	1	4.17					
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