

# **Semiconductors**

ABC News: Al, Bandwidth and Compute in the Last Week

#### **Summary**

We share salient articles in the last week specific to AI, Bandwidth, and Compute that are important and/or merely interesting as it relates to key secular themes.

## High Performance Compute/Deep Learning/Al

NVIDIA, Intel and Google Alums Launch Lemurian Labs and Secure \$9M in Funding to Solve Al's Compute Capacity Limitations

#### **Graphics/AR/VR/Consumer CPUs**

AMD Adds System Lag Monitoring For Games That Support Anti-Lag+, Useful To Evaluate PC Latency

AMD Phoenix Desktop APUs For AM5 Might Utilize Phoenix 2 Dies With Zen 4 & Zen 4C Cores

AMD's Best Gaming CPU, The Ryzen 7 7800X3D, Is Now Available For \$100 US Less at \$349

AMD Drivers Expand Fluid Motion Frames Support To RDNA 2 "Radeon RX 6000" GPUs

AMD Might Launch Radeon RX 7600 XT Graphics Card With Massive 16 GB Memory

Samsung Said To Retain Its GPU Partnership With AMD, Custom Solution Will Be A Slightly Modified Version Of Previous Iterations

ASUS Rolls Out AMD AGESA 1.0.8.0 BIOS For AM5 Motherboards: Supports Upcoming Ryzen 7000 Phoenix APUs

AMD Radeon RX 7900M "RDNA 3" Enthusiast Mobility GPU Specs Leak: Navi 31 With 72 Compute Units, 16 GB VRAM

Windows 11 Update Causing Problems With AMD Adrenalin Control Panel, Resets Settings To Default

Samsung May Terminate Its Partnership With AMD As It Pushes Development Of Its Own Custom Smartphone GPU

Intel Arc A580 GPU Up To 6% Faster Than AMD RX 7600 In OpenCL Benchmark Leak, Much Lower Priced Too

Intel 14th Gen Raptor Lake Refresh CPUs Listed By UK Retailer: 5% Expensive Than 13th Gen Chips On Average

Intel 14th Gen Raptor Lake Refresh CPUs See Retail Listings in Europe & Asia Ahead Of Launch

Initial Intel Meteor Lake Laptops To Feature Core Ultra 7 & 5 SKUs, High-End Core Ultra 9 Chips Reportedly Launching in 2024

Alleged Intel Arrow Lake-S CPU Power Limits Revealed: 125W PL1, 177W PL2, 333W PL4 For 8+16 Core Unlocked SKU

Intel Demos Meteor Lake iGPU 8K60 & SOC Tile E-Core Only 1080P Video Playback Capabilities

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Related Companies:	Share Price:
AIP	\$6.09
AMD	\$109.01
AVGO	\$858.41
INTC	\$36.43
LSCC	\$82.09
MCHP	\$80.78
MPWR	\$490.00
MRVL	\$55.05
MU	\$69.07
NVDA	\$457.98
TXN	\$157.66

Intel's Next-Gen Lunar Lake CPU Spotted: Early Sample With 8 Cores, 3.9 GHz Boost Clocks, 16 MB L3 Cache
Intel Arc A580 Graphics Cards Are Finally Coming To DIY, Arc A310 Also Listed Online
EU Unveils Its First ExaFlop Supercomputer, Featuring The Power Of ARM & NVIDIA

NVIDIA To Launch More Powerful GeForce RTX 4080 Ti GPU In Early 2024 At Same Price As RTX 4080

TSMC Forms A Team of 200 R&D Specialists For Silicon Photonics, Partners Include NVIDIA & Broadcom

NVIDIA To Introduce New GeForce RTX 3050 6 GB GPUs In 2024: 70W TGP With Cut-Down Specs & Lower Prices

NVIDIA Hybrid Ray Tracing Translucency Added in Deliver Us Mars; The Lamplighters League Supports DLSS 2

AMD APUs are set to make their AM5 debut after support was added to AMD's latest BIOS microcode

### **Autonomous Driving/Al**

Shipping giant Maersk bets on driverless trucks to improve deliveries

Tata Elxsi to develop automotive cyber security solution with IISc



### **Semiconductor Industry Comp Sheet**

	15.7x 14.8: 36.5x 29.9: 30.5x 25.5: 19.3x 17.9: 34.6x 43.8:	.8x 12.0x .9x 34.2x .5x 16.1x .9x 16.9x	YEBITDA CY24E CY25E 12.0x 11.2x 29.3x 24.2x 14.6x 12.8x 15.6x NM 30.9x 47.2x
Company Name         Ticker         Rating         Price         Target         Downside         Cap (\$M)         Value (\$M)         CY23E         CY24E         CY25E         CY24E         CY25E         CY23E         CY24E         CY25E         CY24E         CY25E         CY24E         CY25E         CY25E         CY25E         CY25E         CY23E         CY25E         CY26E         C	15.7x 14.8: 36.5x 29.9: 30.5x 25.5: 19.3x 17.9:	.8x 12.0x .9x 34.2x .5x 16.1x .9x 16.9x	12.0x 11.2x 29.3x 24.2x 14.6x 12.8x 15.6x NM
Analog/MCUs  Microchip Technology Incorporated MCHP-US Buy \$80.78 \$110.00 36% 43,971 50,333 5.8x 5.7x 5.5x 13.3x 13.1x 12.5x 14.9x Monolithic Power Systems, Inc. MPWR-US Buy \$490.00 \$580.00 18% 23,411 22,957 12.6x 11.0x 9.4x 41.8x 37.2x 30.5x 39.5x Texas Instruments Incorporated TXN-US Buy \$157.66 \$230.00 46% 143,150 146,084 8.1x 7.6x 6.9x 21.6x 20.6x 18.9x 63.6x Communications/DC  Broadcom Inc. AVGO-US Buy \$858.41 \$1,000.00 16% 354,296 393,827 10.8x 9.9x 9.2x 20.1x 18.2x 16.3x 21.8x Lattice Semiconductor Corporation LSCC-US Buy \$82.09 \$110.00 34% 11,315 11,430 15.0x 13.3x 15.9x 39.4x 33.4x NM 42.5x Computing  Advanced Micro Devices, Inc. AMD-US Buy \$109.01 \$200.00 83% 176,124 173,934 7.6x 6.3x 5.5x 39.6x 26.4x 20.7x 45.8x Intel Corporation INTC-US Sell \$36.43 \$17.00 -53% 152,569 181,103 3.4x 3.1x 2.8x 57.4x 20.7x 14.4x -13.2x NVIDIA Corporation NVDA-US Buy \$457.98 \$1,100.00 140% 1,131,211 1,139,423 21.7x 14.4x 11.9x 45.5x 27.8x 22.8x 52.4x	15.7x 14.8 36.5x 29.9 30.5x 25.5 19.3x 17.9	.8x 12.0x .9x 34.2x .5x 16.1x	12.0x 11.2x 29.3x 24.2x 14.6x 12.8x 15.6x NM
Microchip Technology Incorporated         MCHP-US         Buy         \$80.78         \$110.00         36%         43,971         50,333         5.8x         5.7x         5.5x         13.3x         13.1x         12.5x         14.9x           Monolithic Power Systems, Inc.         MPWR-US         Buy         \$490.00         \$580.00         18%         23,411         22,957         12.6x         11.0x         9.4x         41.8x         37.2x         30.5x         39.5x           Texas Instruments Incorporated         TXN-US         Buy         \$157.66         \$230.00         46%         143,150         146,084         8.1x         7.6x         6.9x         21.6x         20.6x         18.9x         63.6x           Communications/DC           Broadcom Inc.         AVGO-US         Buy         \$858.41         \$1,000.00         16%         354,296         393,827         10.8x         9.9x         9.2x         20.1x         18.2x         16.3x         21.8x           Lattice Semiconductor Corporation         LSCC-US         Buy         \$82.09         \$110.00         34%         11,315         11,430         15.0x         13.3x         15.9x         39.4x         33.4x         NM         42.5x	36.5x 29.93 30.5x 25.53 19.3x 17.93	.9x 34.2x .5x 16.1x .9x 16.9x	29.3x 24.2x 14.6x 12.8x 15.6x NM
Monolithic Power Systems, Inc.         MPWR-US         Buy         \$490.00         \$580.00         18%         23,411         22,957         12.6x         11.0x         9.4x         41.8x         37.2x         30.5x         39.5x           Texas Instruments Incorporated         TXN-US         Buy         \$157.66         \$230.00         46%         143,150         146,084         8.1x         7.6x         6.9x         21.6x         20.6x         18.9x         63.6x           Communications/DC           Broadcom Inc.         AVGO-US         Buy         \$858.41         \$1,000.00         16%         354,296         393,827         10.8x         9.9x         9.2x         20.1x         18.2x         16.3x         21.8x           Lattice Semiconductor Corporation         LSCC-US         Buy         \$82.09         \$110.00         34%         11,315         11,430         15.0x         13.3x         15.9x         39.4x         33.4x         NM         42.5x           Computing           Advanced Micro Devices, Inc.         AMD-US         Buy         \$109.01         \$200.00         83%         176,124         173,934         7.6x         6.3x         5.5x         39.6x         26.4x <td>36.5x 29.93 30.5x 25.53 19.3x 17.93</td> <td>.9x 34.2x .5x 16.1x .9x 16.9x</td> <td>29.3x 24.2x 14.6x 12.8x 15.6x NM</td>	36.5x 29.93 30.5x 25.53 19.3x 17.93	.9x 34.2x .5x 16.1x .9x 16.9x	29.3x 24.2x 14.6x 12.8x 15.6x NM
Texas Instruments Incorporated TXN-US Buy \$157.66 \$230.00 46% 143,150 146,084 8.1x 7.6x 6.9x 21.6x 20.6x 18.9x 63.6x Communications/DC  Broadcom Inc. AVGO-US Buy \$858.41 \$1,000.00 16% 354,296 393,827 10.8x 9.9x 9.2x 20.1x 18.2x 16.3x 21.8x Lattice Semiconductor Corporation LSCC-US Buy \$82.09 \$110.00 34% 11,315 11,430 15.0x 13.3x 15.9x 39.4x 33.4x NM 42.5x Computing  Advanced Micro Devices, Inc. AMD-US Buy \$109.01 \$200.00 83% 176,124 173,934 7.6x 6.3x 5.5x 39.6x 26.4x 20.7x 45.8x Intel Corporation INTC-US Sell \$36.43 \$17.00 -53% 152,569 181,103 3.4x 3.1x 2.8x 57.4x 20.7x 14.4x -13.2x NVIDIA Corporation NVDA-US Buy \$457.98 \$1,100.00 140% 1,131,211 1,139,423 21.7x 14.4x 11.9x 45.5x 27.8x 22.8x 52.4x	30.5x 25.53 19.3x 17.93	.5x 16.1x .9x 16.9x	14.6x 12.8x 15.6x NM
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Lattice Semiconductor Corporation LSCC-US Buy \$82.09 \$110.00 34% 11,315 11,430 15.0x 13.3x 15.9x 39.4x 33.4x NM 42.5x Computing  Advanced Micro Devices, Inc. AMD-US Buy \$109.01 \$200.00 83% 176,124 173,934 7.6x 6.3x 5.5x 39.6x 26.4x 20.7x 45.8x Intel Corporation INTC-US Sell \$36.43 \$17.00 -53% 152,569 181,103 3.4x 3.1x 2.8x 57.4x 20.7x 14.4x -13.2x NVIDIA Corporation NVDA-US Buy \$457.98 \$1,100.00 140% 1,131,211 1,139,423 21.7x 14.4x 11.9x 45.5x 27.8x 22.8x 52.4x			
Computing         Advanced Micro Devices, Inc.         AMD-US         Buy         \$109.01         \$200.00         83%         176,124         173,934         7.6x         6.3x         5.5x         39.6x         26.4x         20.7x         45.8x           Intel Corporation         INTC-US         Sell         \$36.43         \$17.00         -53%         152,569         181,103         3.4x         3.1x         2.8x         57.4x         20.7x         14.4x         -13.2x           NVIDIA Corporation         NVDA-US         Buy         \$457.98         \$1,100.00         140%         1,131,211         1,139,423         21.7x         14.4x         11.9x         45.5x         27.8x         22.8x         52.4x	34.6x 43.8	.8x 39.9x	30.9x 47.2x
Advanced Micro Devices, Inc.         AMD-US         Buy         \$109.01         \$200.00         83%         176,124         173,934         7.6x         6.3x         5.5x         39.6x         26.4x         20.7x         45.8x           Intel Corporation         INTC-US         Sell         \$36.43         \$17.00         -53%         152,569         181,103         3.4x         3.1x         2.8x         57.4x         20.7x         14.4x         -13.2x           NVIDIA Corporation         NVDA-US         Buy         \$457.98         \$1,100.00         140%         1,131,211         1,139,423         21.7x         14.4x         11.9x         45.5x         27.8x         22.8x         52.4x			
Intel Corporation         INTC-US         Sell         \$36.43         \$17.00         -53%         152,569         181,103         3.4x         3.1x         2.8x         57.4x         20.7x         14.4x         -13.2x           NVIDIA Corporation         NVDA-US         Buy         \$457.98         \$1,100.00         140%         1,131,211         1,139,423         21.7x         14.4x         11.9x         45.5x         27.8x         22.8x         52.4x			
NVIDIA Corporation NVDA-US Buy \$457.98 \$1,100.00 140% 1,131,211 1,139,423 21.7x 14.4x 11.9x 45.5x 27.8x 22.8x 52.4x	33.2x 26.5	.5x 25.4x	22.6x 17.5x
	-71.1x 125.1	.1x 16.4x	11.2x 8.8x
Super Micro Computer, Inc. SMCI-US Buy \$310.31 \$375.00 21% 16,417 17,218 1.5x NM NM 16.2x NM NM 51.9x	30.1x 23.9	.9x 40.2x	25.1x 20.6x
ID 3	NM NN	13.6x	NM NM
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Arteris, Inc. AIP-US Buy \$6.09 \$21.00 245% 220 165 3.0x 2.4x 1.7x NM NM 27.7x -18.3x -	-109.7x NM	-5.4x	-6.5x NM
ARM Holdings PLC ADR ARM-US Buy \$55.71 \$85.00 53% 57,116 55,336 19.2x 15.8x 13.3x NM 44.4x 35.7x 94.4x	54.7x 34.5	.5x NM	36.8x 29.9x
Memory/Storage			
Marvell Technology, Inc. MRVL-US Buy \$55.05 \$100.00 82% 47,497 51,657 9.3x 8.1x 7.0x 34.8x 24.4x 19.1x 52.8x	32.3x 23.8	.8x 30.5x	22.4x 17.8x
Micron Technology, Inc. MU-US Buy \$69.07 \$100.00 45% 75,841 79,899 3.3x 2.6x NM 108.6x 11.0x NM 122.2x	02.0% E0.0	M 9.0x	5.3x NM

Source: Rosenblatt estimates, FactSet

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			IB Serv./Past 12 Mos.		
Rating	Count	Percent	Count	Percent	
BUY	84	74.34	4	4.76	
NEUTRAL	24	21.24	1	4.17	
SELL	5	4.42	0	0	

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