

Semiconductor WEEK:

September 23, 2022

An overview of results and conclusions from recent reports at TechInsights

Chip Market Research Services

Caution is on the rise

- Order activity for semiconductor equipment continued to cool off slipping, to 80 degrees
- Worldwide Chip Making Equipment Markets

Semiconductor Analytics

Last Week in the Semiconductor Market:

Semiconductor sales bottomed last week, hovering below 2021 levels. The IC weather cooled 2°F in Chilly conditions. Zooming in on the forecast this week, 13-wk growth MAs have been divergent with memory expected to pull semiconductor sales down in 4Q22. TechInsights forecasts semiconductor sales will reach \$637B in 2022, with Y/Y growth of 8% that slides to -2% in 2023.

TechInsights' IC Supply/Demand metrics stayed weak last week. DRAM, More Moore Foundry, More than Moore Foundry, and OSAT are all in Glut conditions. NAND and IDM are at Saturated levels. Analog and Power is Balanced while Auto ICs remain in a Shortage.

Decline in Electronics' Retail Price Trend is bottoming.

Critical Subsystems

Quartz Components Summary Data: Quartz component revenues on track to reach \$1.4B in 2022

Chip History Center

People: Ken Schroeder, then President & CEO of KLA-Tencor, discusses the history of process control and the role K-T played in improving wafer fab yields for semiconductor companies in this 2005 video.

Exhibits: The Koreans are Coming.

The Chip Insider

Strategy and Tactics: Government Tech Controls. Chip Slowdown.

Semiconductor Stocks

- *TechInsights' Semiconductor Stock Indices sunk further this week*
- *Semiconductor Stock Index plummeted*
- *Semiconductor Equipment Stock Index plummeted*
- *EDA Stock Index sunk*
- *Electronics Materials Stock Index sunk*
- *Hottest Stocks: Tokyo Ohka, SMIC, Nikon, Advantest, DNP, and TEL*

TechInsights

The Chip Insider®'s Graphics File



September 2022

Caution is on the rise

- Order activity for semiconductor equipment continued to cool off slipping, to 80 degrees
- The decline in the overall activity has moderated in the last few weeks, but it remains bifurcated
- TechInsights' Chip Price Performance Index continued to lose ground

Forecast as of September 2022:	2022	2023
Semi Equipment (\$B):	\$ 139.4	\$ 132.3
Sequential Change	9.9%	-5.1%
Capacity Utilization:	96.2%	90.9%
ICs (\$B):	\$ 529.1	\$ 507.7
Sequential Change	7.5%	-4.0%
IC Units (BU):	419.3	415.9
Sequential Change	6.4%	-0.8%
Electronics (\$B) :	\$ 2,534	\$ 2,430
Sequential Change	-1.6%	-4.1%

This issue contains the latest forecast.

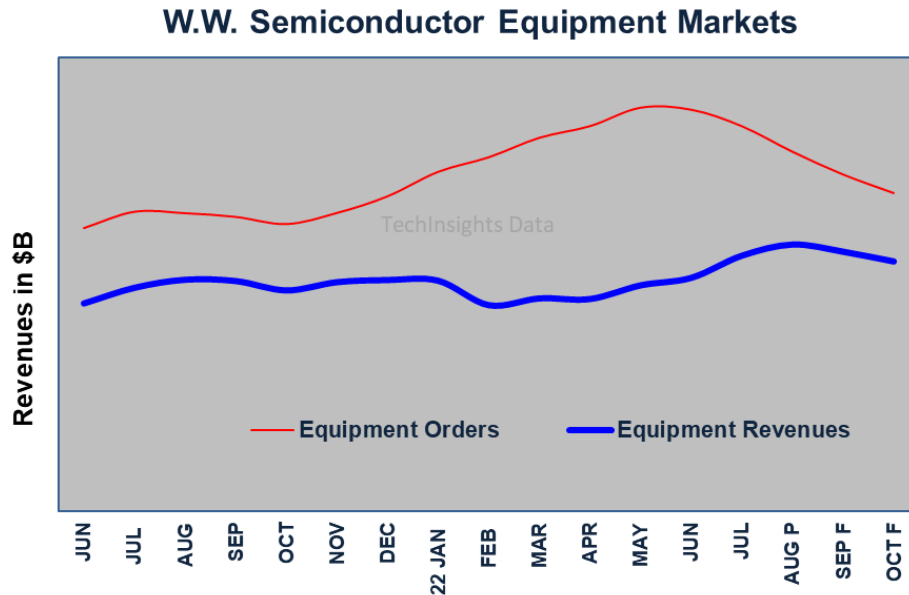
[Contact us to access more details](#)

TechInsights

The Chip Insider® Graphics

Worldwide Chip Making Equipment Markets

- Equipment Orders are rolling over



Worldwide Chip Making Equipment Markets: Chart shows rolling averages in \$B for semiconductor equipment orders and revenues, contrasted against a 36-month rolling average of revenues

Approved for public release with attribution.
Copyright © TechInsights Inc. All rights reserved

2022 SIA AWARDS DINNER THURSDAY, NOVEMBER 17, 2022

SAN JOSE MARRIOTT
301 S MARKET ST, SAN JOSE, CA 95113
SIA Reception: 5-6:30 p.m.
Dinner, Awards, Keynote: 6:30-8:30 p.m.
After-Dinner Reception: 8:30-10 p.m.

NOYCE AWARD RECIPIENT

LIP-BU TAN

Executive Chairman and Former CEO
Cadence Design Systems,
Inc. Founder and Chairman
Walden International
Founding Managing Partner
Walden Catalyst Ventures



KEYNOTE SPEAKER

JIM FARLEY

President and CEO
of Ford Motor
Company



For more information about tickets and
sponsorship opportunities please contact
Sarah Ravi at sravi@semiconductors.org

Semiconductor Analytics

Last Week in the Semiconductor Market:

Semiconductor sales bottomed last week, hovering below 2021 levels. The IC weather cooled 2°F in Chilly conditions. Zooming in on the forecast this week, 13-wk growth MAs have been divergent with memory expected to pull semiconductor sales down in 4Q22. TechInsights forecasts semiconductor sales will reach \$637B in 2022, with Y/Y growth of 8% that slides to -2% in 2023.

TechInsights' IC Supply/Demand metrics stayed weak last week. DRAM, More Moore Foundry, More than Moore Foundry, and OSAT are all in Glut conditions. NAND and IDM are at Saturated levels. Analog and Power is Balanced while Auto ICs remain in a Shortage. Decline in Electronics' Retail Price Trend is bottoming.

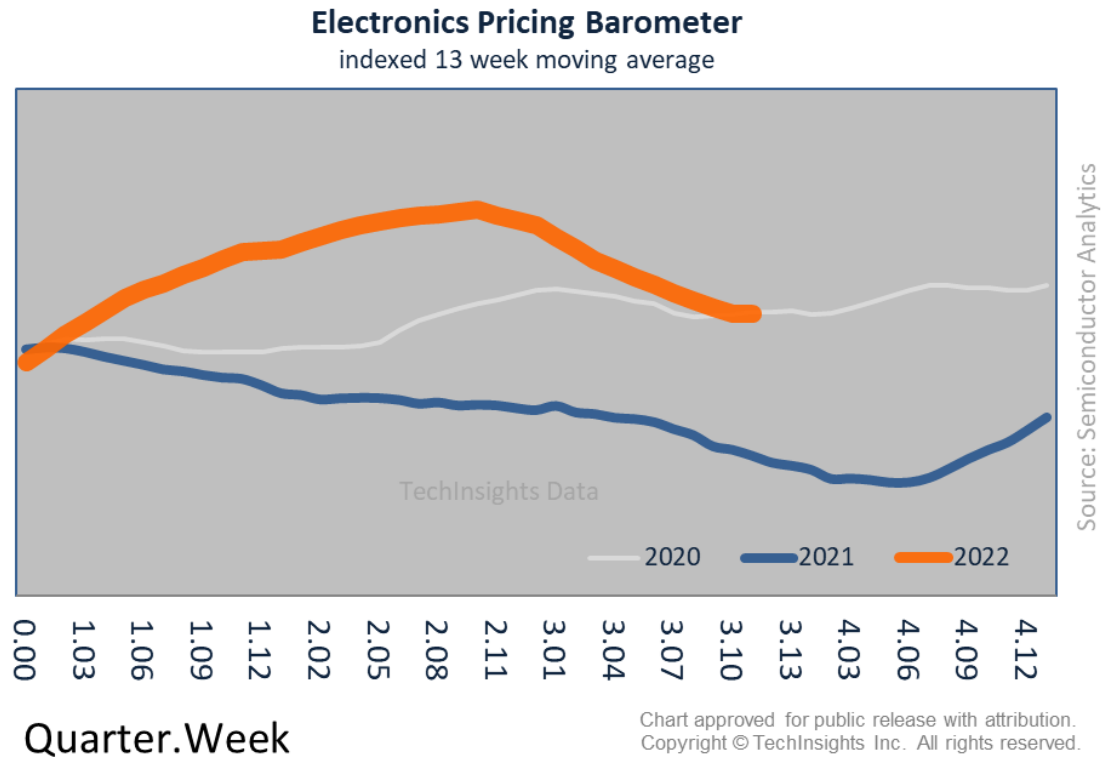


IC Weather Measures Order Activity S/D Measures Pricing Power

Electronics Retail Pricing Trends:

for PC notebooks Tablets Smartphones Cell phones Digital Cameras Appliances TVs

Decline in Electronics' Retail Price Trend is bottoming.



Critical Subsystems

Quartz Components Summary Data (Located in Driving Forces under Misc. Reports)



Quartz component revenues on track to reach \$1.4B in 2022 and surpass \$1.7B in 2026

Largest fabricators:

- *Wonik QnC
- *Tosoh Quartz
- *Heraeus Shin-Etsu Quartz
- *FerroTec

Quartz Components for Semi Eqpt

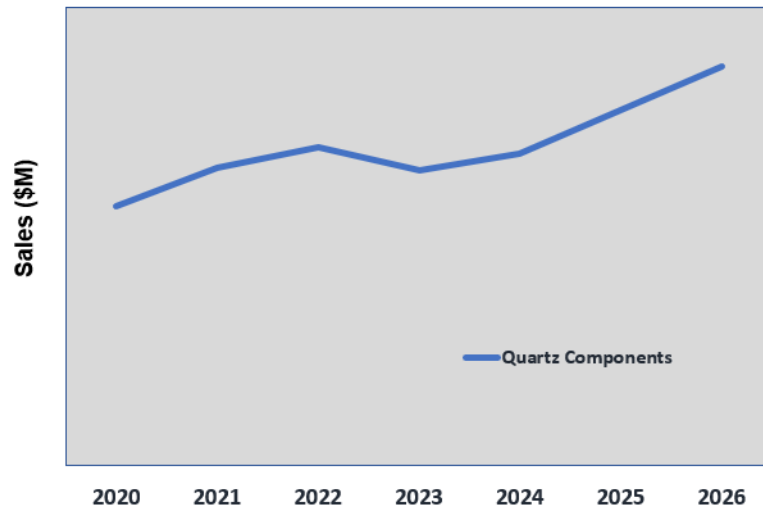


Chart approved for public release with attribution.
Copyright © TechInsights Inc. All rights reserved.

[Contact us to get the full report and more](#)

Workforce Development Solutions...

with Ajit Manocha of SEMI



What the conversation is about:

- Labor shortages have become the echo pandemic from the ravages COVID has had on the economy.
- This is no truer than in the semiconductor industry, where Workforce Development has long been on the To-Do lists of many.
- Most industry efforts appear to be more about lobbying others to do something about workforce development.
- It's really hard to do something substantive about it but SEMI is.

[Click here to watch online](#)

The Chip Insider®

Strategy & Tactics



Strategy and Tactics: Government Tech Controls. Chip Slowdown.

Summaries:

The Greater Geopolitical Messaging of U.S Government

Technology Controls: A few weeks ago the U.S. Government put Export Controls on EDA and Wide Bandgap Substrates. Then they blocked Nvidia & AMD from selling advanced AI chips in China. It would be easy to see these as isolated events, but I do not believe they are. Here's why it's ... As an industry, we need to develop a common global position where companies agree to support each other. I can't speak for the industry or the companies. But I do believe we will be stronger as a group.

General recognition of the Chip Industry Slowing: It started ... said the industry was entering a "down cycle." Currently, we're more than two-thirds of the way through the third quarter and many are commenting on how sharp the turn came... Early warning signs are typically dismissed as anomalies, as confirmation and desirability bias get the best of us. This cycle has been particularly troublesome because of the extreme shortages of 2021. So, early weak sales growth was often more due to lack of components than lack of demand. This was particularly true in the first half of the year. During

this time, Occam's Razor failed us... As usual, DRAMs were the canary in the downturn coal mine. They stopped singing as early as ... Over this time, More Moore Foundry went from Tight to Glut over the course of five weeks. More than Moore Foundry and OSAT went from Tight to Saturated over the course of three weeks ... This was the sharpest turn we had ever seen. It set a very dark trend for going into the third quarter... So, we're in this unusual situation of supply chain disruption and weak demand – two conditions that are normally mutually exclusive.

*"When everything seems to be going against you ...
remember that the airplane takes off against the wind"
— Henry Ford*

[Contact us to get the full report and more](#)

TechInsights



People: Ken Schroeder, then President & CEO of KLA-Tencor, discusses the history of process control and the role K-T played in improving wafer fab yields for semiconductor companies in this 2005 video. He describes the new wafer inspection tools they introduced that

year: The Puma dark-field tool and the 2800 bright-field system. Other topics include How IC makers save money using process control. Focus is on ramping 65nm and bringing 45nm to production.



Exhibits: The Koreans are Coming

This landmark article from 1979 hails Korea's entry into the Semiconductor industry. It's truly amazing how little the Korean government actually allotted to get their country into the chip making game and how much they got out of it. Today's memory giants have their roots in this investment.



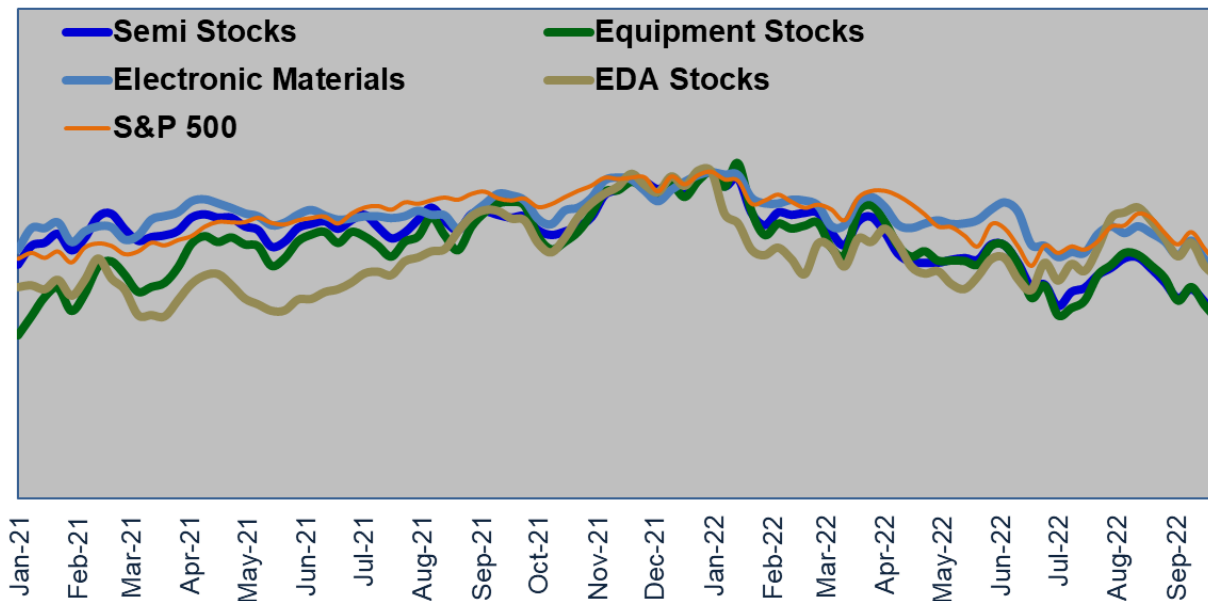
semiStockWEEK:

TechInsights' Semiconductor Stock Indices and the S&P 500
sunk further this week.



Semiconductor Industry Stock Performance Indices

(Stock Prices Indexed to 100 in last week of 2021)



Approved for public release with attribution.
Copyright © TechInsights Inc. All rights reserved.

TechInsights' Stock Indices:

Semiconductors -5.5%
Equipment -5.5%
Electronic Materials -3.5%
EDA -3.4%

Semiconductor Stocks:

Weekly Growth and Forward P/E Ratios by Company

Weekly Gains			9/23/2022		
Semiconductor Stocks	Price Change	Forward P/E	Semiconductor Stocks	Price Change	Forward P/E
IDM			Fab-lite to Fabless		
Intel	-5.9%	11	AMD	-11.2%	16
Micron	-5.2%	14	Analog Devices	-4.9%	16
ON Semiconductor	-8.2%	14	Broadcom	-6.7%	12
Samsung Electronics	-3.0%	–	IBM	-3.6%	13
SK hynix	-8.4%		Infineon	-7.5%	12
STMicroelectronics	-7.1%	9	MagnaChip Semiconductor	-8.3%	15
Western Digital	-9.1%	7	MaxLinear	-4.6%	8
Foundry & OSAT			MediaTek	-3.3%	–
Amkor	-5.7%	6	NVIDIA	-5.2%	29
ASE	-5.2%	6	Panasonic	-4.7%	11
GLOBALFOUNDRIES	-7.6%	24	Qualcomm	-3.0%	10
JCET	-5.3%	13	Silicon Laboratories	-5.0%	27
SkyWater Technology	-15.8%	–	Skyworks	-5.5%	9
SMIC	1.0%	10	Texas Instruments	-1.7%	18
TSMC	-5.2%	12			
UMC	-7.3%	7			

Above Avg

Top 4-6

Top 1-3

TechInsights' Semiconductor Stock Index plummeted to a new yearly low, SMIC was the only bright spot this week and was one of this week's top performers.

IDM -6.7%
Foundry & OSAT -6.4%
Fabless & Fablite -5.4%

AMD ^{AMD} Analog Devices ^{ADI} Amkor ^{AMKR} ASE ^{ASE}
ASX ^{ASX} Broadcom ^{AVGO} GLOBALFOUNDRIES ^{GFS}
IBM ^{IBM} Infineon ^{IFNNY.PK} Intel ^{INTC}
JCET ^{T600584.SS} Micron Technology ^{MU} On Semiconductor ^{ON} Panasonic ^{PC} MagnaChip Semiconductor ^{MX} MaxLinear ^{MXL}
MediaTek ^{2454.TW} NVIDIA ^{NVDA} Qualcomm ^{QCOM}
Samsung Electronics ^{005930.KS} Silicon Laboratories ^{SLAB} SkyWater Technology ^{SKYT}
Skyworks ^{SWKS} SMIC ^{SMI} STMicroelectronics ^{STM}
Texas Instruments ^{TXN} TSMC ^{TSM} UMC ^{UMC}
Western Digital ^{WDC}

Chip Equipment & Related Stocks:

Weekly Growth and Forward P/E Ratios by Company

Weekly Gains			9/23/2022		
Equipment Stocks	Price Change	Forward P/E	Equipment Stocks	Price Change	Forward P/E
Wafer Fab:			Test:		
Applied Materials	-5.2%	11	Advantest	-0.1%	–
ASM International	-9.0%	20	Teradyne	-3.5%	16
ASML	-6.7%	23	FormFactor	-2.9%	15
KLA	-8.3%	14			
Lam Research	-6.5%	11	Assembly:		
Onto Innovation	-3.2%	–	BESI	-11.8%	–
Nikon	0.3%	–	Kulicke & Soffa	-2.5%	10
TEL	-1.2%	–	ASM Pacific Technology	-13.6%	
Veeco Instruments	-5.3%	12			

Above Avg

Top 4-6

Top 1-3

TechInsights' Semiconductor Equipment Stock Index plummeted again this week to a new yearly low. The companies that fared the best this week were Nikon, Advantest, and TEL. Nikon was the only company to finish in positive territory.

WFE -5.0%

Test -2.2%

Assembly -9.3%

Applied Materials ^{AMAT} Advantest ^{ATEYY}
 ASM International ^{ASMIY}
 ASM Lithography ^{ASML} ASM Pacific ^{0522.HK}
 BE Semiconductor ^{BESIIY.PK}
 FormFactor ^{FORM} KLA ^{KLAC}
 Kulicke & Soffa ^{KLIC} Lam Research ^{LRCX}
 Onto Innovation ^{ONTO} Nikon ⁷⁷³¹ Teradyne
 TER Tokyo Electron Limited ⁸⁰³⁵ Veeco
 VECO

Electronic Materials Stocks:

Weekly Growth and Forward P/E Ratios by Company

Weekly Gains			9/23/2022		
EDA & Electronic Materials Stocks	Price Change	Forward P/E	EDA & Electronic Materials Stocks	Price Change	Forward P/E
EDA			DNP	-0.2%	—
Cadence	-2.0%	36	DuPont de Nemours	-5.9%	5
Synopsys	-3.5%	31	JSR	-1.6%	—
Ansys	-4.7%	28	Shin-Etsu	-2.0%	—
Electronic Materials			SOITEC	-6.9%	—
BASF	-6.7%	2	Tokyo Ohka	1.6%	—
Entegris	-6.0%	19			
			Above Avg	Top 4-6	Top 1-3

TechInsights' EDA Stock Index sunk.

TechInsights' Electronic Materials Stock Index sunk to a new yearly low. Tokyo Ohka was this week's top performer, followed by DNP.

Ansys, Inc. ^{ANSS} BASF ^{BASFY}
 Entegris ^{ENTG} Cadence ^{CDNS} DNP ⁷⁹¹²
 DuPont ^{DD} JSR ⁴¹⁸⁵ Shin-Etsu ⁴⁰⁶³
 SOITEC ^{SOI.PA} Synopsys ^{SNPS} Tokyo Ohka ⁴¹⁸⁶

The Prior Week's Close	TechInsights' Indices of Chip Industry Stocks				Weekly Growth				Companies Up	Max Growth	Companies Down	Min Growth	Range of Growth	S&P 500	S&P 500 Growth
	Semi Stocks	Equipment Stocks	Materials Stocks	EDA Stocks	Semi Stocks	Equipment Stocks	Materials Stocks	EDA Stocks							
18-Feb-22	90.1	86.8	93.0	75.0	0.6%	0.8%	-0.2%	-4.7%	28	12.2%	-26	-7.0%	19.2%	91.2	-1.6%
25-Feb-22	90.1	87.5	91.9	82.5	0.0%	0.8%	-1.3%	9.9%	30	14.7%	-25	-9.5%	24.2%	92.0	0.8%
04-Mar-22	85.3	81.4	86.8	81.5	-5.3%	-6.9%	-5.5%	-1.2%	7	6.4%	-48	-18.6%	25.0%	90.8	-1.3%
11-Mar-22	82.1	79.7	87.1	76.9	-3.7%	-2.2%	0.3%	-5.7%	9	9.7%	-45	-11.1%	20.8%	88.2	-2.9%
18-Mar-22	87.9	90.3	92.7	83.7	7.1%	13.3%	6.5%	8.8%	53	31.3%	-2	-5.9%	37.2%	93.6	6.2%
25-Mar-22	89.1	91.8	94.0	82.9	1.3%	1.7%	1.3%	-0.9%	36	9.2%	-16	-5.5%	14.7%	95.3	1.8%
01-Apr-22	85.4	87.8	91.5	86.1	-4.2%	-4.3%	-2.6%	3.9%	5	5.0%	-50	-23.1%	28.1%	95.4	0.1%
08-Apr-22	80.1	81.9	87.1	82.3	-6.2%	-6.8%	-4.8%	-4.4%	2	5.5%	-53	-17.6%	23.1%	94.2	-1.3%
15-Apr-22	78.1	79.2	86.4	76.9	-2.5%	-3.3%	-0.9%	-6.6%	6	4.2%	-49	-10.9%	15.1%	92.2	-2.1%
22-Apr-22	77.8	80.5	87.4	75.2	-0.3%	1.6%	1.3%	-2.2%	30	9.3%	-25	-18.8%	28.1%	89.6	-2.8%
29-Apr-22	77.8	78.2	88.2	75.7	0.0%	-2.9%	0.9%	0.7%	22	21.1%	-32	-14.9%	36.0%	86.7	-3.3%
06-May-22	78.6	78.3	87.3	72.6	0.9%	0.1%	-1.0%	-4.1%	30	12.0%	-25	-11.7%	23.7%	86.5	-0.2%
13-May-22	79.0	78.1	87.5	71.4	0.5%	-0.1%	0.2%	-1.6%	28	8.2%	-25	-10.0%	18.2%	84.4	-2.4%
20-May-22	78.6	77.3	88.3	74.5	-0.5%	-1.1%	1.0%	4.3%	22	17.9%	-30	-7.7%	25.6%	81.9	-3.0%
27-May-22	82.3	81.9	90.9	78.7	4.8%	6.0%	2.9%	5.6%	48	30.3%	-7	-7.8%	38.1%	87.2	6.6%
03-Jun-22	82.1	82.0	92.6	78.9	-0.3%	0.1%	1.9%	0.3%	29	7.7%	-26	-4.6%	12.3%	86.2	-1.2%
10-Jun-22	77.8	77.3	90.3	73.8	-5.2%	-5.7%	-2.5%	-6.5%	6	9.7%	-49	-11.9%	21.6%	81.8	-5.1%
17-Jun-22	72.0	69.1	82.3	71.2	-7.5%	-10.6%	-8.9%	-3.6%	2	4.0%	-53	-17.3%	21.3%	77.1	-5.8%
24-Jun-22	72.5	72.1	82.0	77.8	0.8%	4.3%	-0.3%	9.3%	41	12.8%	-14	-19.4%	32.2%	82.1	6.4%
01-Jul-22	67.2	64.9	79.3	73.5	-7.3%	-10.1%	-3.3%	-5.6%	3	6.1%	-52	-20.1%	26.2%	80.3	-2.2%
08-Jul-22	70.7	66.6	80.5	77.5	5.2%	2.7%	1.5%	5.5%	47	20.5%	-7	-4.8%	25.3%	81.8	1.9%
15-Jul-22	71.7	68.5	80.3	75.8	1.4%	2.8%	-0.2%	-2.2%	32	10.1%	-21	-9.1%	19.2%	81.1	-0.9%
22-Jul-22	74.9	74.7	84.9	81.5	4.4%	9.1%	5.7%	7.5%	52	66.7%	-3	-8.3%	75.0%	83.1	2.5%
29-Jul-22	76.6	77.2	86.7	88.8	2.4%	3.3%	2.2%	9.0%	39	12.4%	-16	-9.9%	22.3%	86.7	4.3%
05-Aug-22	79.0	80.1	85.1	90.1	3.1%	3.8%	-1.9%	1.5%	47	33.8%	-8	-17.1%	50.9%	87.0	0.4%
12-Aug-22	79.2	79.6	86.8	91.2	0.3%	-0.6%	1.9%	1.3%	33	22.3%	-22	-17.4%	39.7%	89.8	3.3%
19-Aug-22	76.4	77.0	85.1	88.0	-3.6%	-3.3%	-1.9%	-3.6%	9	17.4%	-46	-8.1%	25.5%	88.7	-1.2%
26-Aug-22	73.1	74.0	83.1	83.9	-4.3%	-3.9%	-2.3%	-4.7%	2	1.1%	-53	-17.8%	18.9%	85.1	-4.0%
02-Sep-22	69.2	68.4	79.6	79.4	-5.4%	-7.5%	-4.1%	-5.4%	1	2.1%	-54	-16.1%	18.2%	82.3	-3.3%
09-Sep-22	71.4	71.8	83.3	82.7	3.2%	4.9%	4.6%	4.2%	50	13.1%	-5	-9.5%	22.6%	85.3	3.6%
16-Sep-22	68.3	67.3	78.8	77.0	-4.3%	-6.2%	-5.4%	-6.9%	4	2.3%	-50	-24.2%	26.5%	81.3	-4.8%
23-Sep-22	64.5	63.7	76.0	74.4	-5.5%	-5.5%	-3.5%	-3.4%	3	1.6%	-52	-15.8%	17.4%	77.5	-4.6%

Links to Conference Call Transcripts

September 23rd

[Analog Devices Inc. \(ADI\) 13th Annual U.S. All Stars Conference \(Transcript\)](#)

September 16th and before

[Advanced Micro Devices, Inc. \(AMD\) Goldman Sachs Communacopia + Technology Conference \(Transcript\)](#)

[QUALCOMM Incorporated \(QCOM\) Goldman Sachs 2022 Communacopia + Technology Conference \(Transcript\)](#)

[NVIDIA Corporation \(NVDA\) Presents at Goldman Sachs 2022 Communacopia + Technology Conference \(Transcript\)](#)

[NXP Semiconductors N.V. \(NXPI\) Goldman Sachs 2022 Communacopia + Technology Conference \(Transcript\)](#)

[Western Digital Corporation \(WDC\) Goldman Sachs Communacopia + Technology Conference Transcript](#)

[Applied Materials, Inc. \(AMAT\) Presents at Goldman Sachs Communacopia + Technology Conference \(Transcript\)](#)

[Western Digital Corporation \(WDC\) Presents at Evercore ISI 2nd Annual TMT Conference \(Transcript\)](#)

[ON Semiconductor Corporation \(ON\) Presents at Citi 2022 Global Technology Conference \(Transcript\)](#)

[ASML Holding NV \(ASML\) Citi 2022 Global Technology Conference \(Transcript\)](#)

[International Business Machines Corporation \(IBM\) Evercore ISI 2nd Annual Technology, Media & Telcom Conference 2022 Call Transcript](#)

[Analog Devices Inc. \(ADI\) 2022 Evercore ISI 2nd Annual Technology, Media & Telcom Conference \(Transcript\)](#)

[Applied Materials, Inc. \(AMAT\) Presents at Citi 2022 Global Technology Conference \(Transcript\)](#)

Links to Conference Call Transcripts

[Western Digital Corporation \(WDC\) Citi 2022 Global Technology Conference](#)

[NXP Semiconductors N.V. \(NXPI\) Presents at 2022 Citi's 2022 Global Technology Conference \(Transcript\)](#)

[Lam Research Corporation \(LRCX\) Management Presents at Evercore ISI 2nd Annual Technology, Media & Telecom Conference 2022 \(Transcript\)](#)

[Texas Instruments \(TXN\) Presents at Citigroup 2022 Global Technology Conference - Conference Call Transcript](#)

[Broadcom Inc. \(AVGO\) Q3 2022 Earnings Call Transcript](#)

[Micron Technology, Inc. \(MU\) Presents at Deutsche Bank 2022 Technology Conference \(Transcript\)](#)

[ON Semiconductor Corporation \(ON\) Deutsche Bank 2022 Technology Conference \(Transcript\)](#)

[Intel Corp \(INTC\) Deutsche Bank Technology Conference Transcript](#)

[Western Digital Corporation \(WDC\) Deutsche Bank 2022 Technology Conference \(Transcript\)](#)

[NVIDIA Corporation \(NVDA\) CEO Jensen Huang on Q2 2023 Results - Earnings Call Transcript](#)

[Applied Materials, Inc.'s \(AMAT\) CEO Gary Dickerson on Q3 2022 Results - Earnings Call Transcript](#)

[Synopsys, Inc. \(SNPS\) CEO Aart de Geus on Q3 2022 Results - Earnings Call Transcript](#)

[Analog Devices Inc. \(ADI\) CEO Vincent Roche on Q3 2022 Results - Earnings Call Transcript](#)

[Agilent Technologies, Inc. \(A\) CEO Mike McMullen on Q3 2022 Results - Earnings Call Transcript](#)

[SkyWater Technology, Inc. \(SKYT\) CEO Thomas Sonderman on Q2 2022 Results - Earnings Call Transcript](#)

[Magnachip Semiconductor Corporation \(MX\) CEO YJ Kim on Q2 2022 Results - Earnings Call Transcript](#)

Links to Conference Call Transcripts

[ACM Research, Inc. \(ACMR\) CEO David Wang on Q2 2022 Results - Earnings Call Transcript](#)

[Western Digital Corporation \(WDC\) CEO David Goeckeler on Q4 2022 Results - Earnings Call Transcript](#)

[Skyworks Solutions, Inc.'s \(SWKS\) CEO Liam Griffin on Q3 2022 Results - Earnings Call Transcript](#)

[Kulicke and Soffa Industries, Inc. \(KLIC\) CEO Fusen Chen on Q3 2022 Results - Earnings Call Transcript](#)

[Infineon Technologies AG \(IFNNY\) CEO Jochen Hanebeck on Q3 2022 Results - Earnings Call Transcript](#)

[Advanced Energy Industries, Inc. \(AEIS\) CEO Stephen Kelley on Q2 2022 Results - Earnings Call Transcript](#)

[Qorvo, Inc.'s \(QRVO\) CEO Bob Bruggeworth on Q1 2023 Results - Earnings Call Transcript](#)

[Microchip Technology Incorporated's \(MCHP\) CEO Ganesh Moorthy on Q1 2023 Results - Earnings Call Transcript](#)

[Advanced Micro Devices, Inc.'s \(AMD\) CEO Lisa Su on Q2 2022 Results - Earnings Call Transcript](#)

[Cirrus Logic, Inc.'s \(CRUS\) CEO John Forsyth on Q1 2023 Results - Earnings Call Transcript](#)

[Amkor Technology, Inc. \(AMKR\) CEO Giel Rutten on Q2 2022 Results - Earnings Call Transcript](#)

[ON Semiconductor Corporation's \(ON\) CEO Hassane El-Khoury on Q2 2022 Results - Earnings Call Transcript](#)

[SK Hynix, Inc.'s \(HXSCF\) Q2 2022 Results - Earnings Call Transcript](#)

[LG Electronics Inc.'s \(LGEAF\) Q2 2022 Results - Earnings Call Transcript](#)

[STMicroelectronics N.V. \(STM\) CEO Jean-Marc Chery on Q2 2022 Results - Earnings Call Transcript](#)

[ASE Technology Holding Co., Ltd. \(ASX\) Q2 2022 Results - Earnings Call Transcript](#)

[Cohu, Inc. \(COHU\) CEO Luis Müller on Q2 2022 Results - Earnings Call Transcript](#)

TechInsights recent uploads

Chip Market Research Services Uploads:

ForecastPro Module:

- Long-Term Semi and Eqpt Forecast – V22.09
- Silicon Demand – V22.09
- CapEx Distribution – V22.09
- Semiconductor Forecast – V22.09
- TCI Graphics – V22.08
- Advanced Packaging – V22.07
- Electronics & Macroeconomy – V22.07
- Diffusion Rates and Utilization – V22.07
- Packaging Demand – V22.06

Equipment Database Module:

- IC Equipment Forecast:
 - Yearly – V22.08
- WFE Equipment Market Shares:
 - Yearly – V22.05
 - Quarterly – V22.08
- Scanner & Stepper Shipments – V22.06
- WFE by Applications – V22.05

Customer Satisfaction Survey Uploads:

- [2022 CSS Databases](#)
- 2022 Survey Documents

Critical Subsystems Uploads:

- Critical Subsystems Forecasts – V22.05
- Device Forecast Summary – V22.05
- Manufacturing Equipment Forecasts – V22.05
- Substrate Processing Equipment Shipments – V22.05
- Substrate Processing Equipment Installed Base – V22.05
- Chamber Shipments – V22.05
- Supplier Shares – V22.03

Test Connectivity Reports:

- Test and Burn-In Socket Report : V21.04
- Probe Card Report: V21.04
- Device Interface Board Report: V20.05

Terms and Conditions, Notices, and Disclaimers, etc.

By accepting this report, opening it, or using it you are agreeing to these terms. This report contains valuable data, intellectual property, and trade secrets developed or acquired by TechInsights. You have a limited license to hold these materials but do not become the owner of any material. The materials provided are protected by copyright, trade secret, and trademark law. This presentation has been approved by TechInsights for public release with attribution. The information in the materials may be used by you on a limited basis in your own documents provided that those documents are not-for-sale; TechInsights' name, brand, or trademarks are not used to endorse a product or company for sales purposes; TechInsights is clearly referred to as the source of such information; and you obtain written approval prior to use.

This report is provided on an "AS IS," "WHERE IS," "WHERE AVAILABLE", "WITH ALL FAULTS" basis. TechInsights does not warrant these materials or the information provided therein, either expressly or impliedly, for any particular purpose and TechInsights specifically disclaims any express or implied warranties, including but not limited to, any express or implied warranties of TITLE, ACCURACY, NON-INFRINGEMENT, MERCHANTABILITY or FITNESS FOR ANY PARTICULAR PURPOSE OR USE.

The sources of the information in this report include numerous individual reports, memos and bulletins from various segments of the industry, annual reports, financial reports, interviews, questionnaires, surveys, technical symposia, trade journals, technical journals and individual assessments by knowledgeable company or industry representatives as well as our own analysis and judgment. Some companies are more cooperative about providing information than others and some companies decline to provide or validate the accuracy of any information. Although the information provided is obtained or compiled from sources TechInsights believes to be reliable given the oftentimes difficult circumstances under which it is collected, TechInsights cannot and does not warrant or guarantee the accuracy, validity, truthfulness, timeliness, or completeness of any information or data made available to you for any particular purpose. In no event will TechInsights be liable to you or any third party, whether in contract, tort or under any other legal theory, for any direct, indirect, special, consequential or incidental damages, or any other damages of any kind even if TechInsights has been advised of the possibility thereof.

We receive letters and e-mails on current topics covered in our services and/or reports that are of interest to our subscribers, as well as comments on our reports. We value that subscriber input and like to use it. By submitting such material to us, unless you tell us specifically not to publish it, or except to the extent that you give us an embargo date before which you instruct us not to publish it, you authorize us to publish and republish it in any form or medium, to edit it for style and length, and to comment upon or criticize it and to publish others' comments or criticisms concerning it, as the case may be.

This report may contain information concerning stocks that is obtained from the opinions of industry analysts. Quoted past results are not necessarily indicative of future performance. None of the information should be seen as a recommendation to buy or sell any securities. We are not stock analysts or investment advisors. You should contact a registered investment advisor as to the nature, potential, value or suitability of any particular investment action. No information provided is investment advice and any such information is just an opinion and is not tailored to the investment needs of any specific person. Certain statements in this report, other than statements of historical fact, and other written or oral statements made by TechInsights may be forward-looking. In some cases, you can identify forward-looking statements by terminology such as "may", "will", "should", "expects", "intends", "plans", "anticipates", "believes", "thinks", "estimates", "seeks", "predicts", "potential", and similar expressions. Although TechInsights believes that these statements are based on reasonable assumptions, they are subject to numerous factors, risks and uncertainties that could cause actual results and outcomes to be materially different from those stated or projected. Those factors, among others, could cause actual results and outcomes to differ materially from the results and outcomes stated or projected in, or implied by, the forward-looking statements. You should understand that forward-looking statements are not guarantees of results or outcomes. New risks and uncertainties arise from time to time, and TechInsights can not predict those events or how they may affect you, the reader. TechInsights Inc does not have any intention or obligation to update forward-looking statements after the date of this report.

No part of this report may be used in any legal proceedings nor may any of these materials or the information contained therein be disclosed to any third party, including investors or affiliated firms belonging to investors, outside directors or to your affiliated companies, or reproduced or transmitted to any third party, in any form or by any means – mechanical, electronic, photocopying, duplication, microfilming, videotape, verbally or otherwise – without the prior written permission of TechInsights.

The Chip Insider® and the CSS 10 BEST logo are registered trademarks of TechInsights Inc. All other trademarks, service marks, and logos are the property of their respective owners.