

# Global Wafer Capacity 2024

Detailed chip fab analysis  
and capacity forecast  
through 2028

## Use to learn about:

- Capacity, wafer start, utilization forecasts
- IC market and capital spending trends
- Supply vs. demand projections
- Utilization rate influences on pricing
- Rankings of capacity leaders
- Capacity forecasts for DRAM, NAND, ASIC/SOC, MPU/MCU, image sensors, analog, foundry
- Regional capacity by product type, process generation, and wafer size
- Forecast for leading-edge capacity

and more

## Coverage and Methodology

Report and database covering more than **400 chip fabs**.

Categorization and analysis of wafer capacity as it existed near end of 2023 along with annual **forecasts through 2028**.

Data compiled, summarized, and extended into the future using both **bottom-up (supply-side)** and **top-down (demand-side)** research and analysis methodologies.

# Data Classifications

## Wafer Size

300mm, 200mm, ≤150mm

## Geographic Region/Country

Americas, Europe, Japan, Korea, Taiwan, China, ROW

## Product Type

Analog, NAND, DRAM, ASIC/SOC, MPU/MCU, Image Sensor, Foundry

## Process Generation

Leading edge, lagging edge, mature, large feature

## Process Type

CMOS, BiCMOS/BCD, Bipolar, III-V

# Who is Knometa Research?

Semiconductor technology and market analysis firm led by former IC Insights executive Trevor Yancey.

- **1997:** Mr. Yancey co-founded IC Insights with Bill McClean and Brian Matas.
- **2014:** Knometa established as independent contractor working for IC Insights and TechSearch International.
- **2021:** Knometa took ownership of Global Wafer Capacity, a report Mr. Yancey launched in 2007 while an executive of IC Insights.

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Capacity by Process Type

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Addendum III: Workbooks with Capacity Data for Charts


## Includes Detailed Fab Database

GLOBAL WAFER CAPACITY 2024 (SAMPLE) Includes IC fabs covered in the main report as well as some other fabs that make MEMS-based sensors and power discretes

Company	Fab Name	Open Date	Fab Size	City	State, Province, Prefecture	Country	MSI Region	Wafer Size	Process	Min Geom. (nm)	Max Geom. (nm)	3D NAND Layers	Product	Dec-2023 Installed Capacity (w/e)	Dec-2024 Installed Capacity (w/e)	Max. Design Capacity (w/e)	Comments	
Koike	Yakushi Plant (Fab. T1, Flash Ventures)	2022	1	Yakushi	Mei	Japan	Japan	300	CMOS, 3D NAND				218	3D NAND	20,000	40,000	100,000	Western Digital is a partner. Groundbreaking was in Feb-2021. The fab opened in October 2022 and full-scale production started later in the year. See press kit.
Koike	Koike Iwate OYS (Fab. K2, Flash Ventures)	2025	1	Kitakami	Iwate	Japan	Japan	300	CMOS, 3D NAND				218	3D NAND	0	0	60,000	Western Digital is a partner. Construction began in March 2022 but was delayed in 2023. Mass production will start in 2025 or possibly 2026. Subsidiary of Iwate OYS, which acquired the fab from Creeva in December 2022. Creeva gained the fab in 2007 through its acquisition of ARM Semiconductor.
LA Semiconductor		1997	1	Petaluma	Alta	United States	Americas	200	CMOS, BCD, MEMS	350	1000		Foundry for analog and mixed-signal ICs and power discretes	22,000	22,000			
Lapis Semiconductor	Miyazaki (M2)	1991	1	Miyazaki	Miyazaki	Japan	Japan	150	SOI CMOS, MEMS, SiC	350	600		SOI RF ICs, input applications, MOSFETs, SiC	60,000	60,000	60,000	Started production of SiC MOSFETs in 2021.	
Lectra Semiconductor	Miyagi (S2)	1995	1	Kuriyama	Miyagi	Japan	Japan	200	CMOS, SOI	100			SOI, RF ICs, display drivers, radar ICs, foundry	25,000	25,000	25,000		
LFoundry	LFoundry Mexico Int	1996	1	Arazcadero		Italy	Europe	200	CMOS, BiCMOS	110	150		Foundry for mixed-signal ICs	40,000	40,000	50,000	Acquired from SMC in June 2019 by Neo Semiconductor semiconductor Co. SMC had acquired fab from Micron in Mar 2013 and operated it as a 21" with Intel's govt. Originally a TI DRAM fab.	
Litellite	Litellite Boston (former OYS)	1997	1	Beverly	Massachusetts	United States	Americas	100	BCD, BiCMOS, SiC, MEMS	800			High-voltage ICs, mixed-signal ASICs, display driver ICs, sensors	10,700	10,700	10,700	Litellite acquired OYS in early 2018. Originally known as Glax, Inc.	
MACOM Technology Solutions	Former OMMC	1983	1	Limeil	Bretagne	France	Americas	100	CMOS, BiCMOS, SOI, MEMS	40	1500		MEMS, digital ICs, discrete, foundry	1,000	1,000	1,000	MACOM acquired OMMC in 2023. Partially upgraded to 100mm wafers in 2023. Formerly wafers still used formerly by STMicroelectronics.	
MACOM Technology Solutions		1985	1	Lowell	Massachusetts	United States	Americas	100	CMOS, BiCMOS, SOI, MEMS	140	1000		RF and discrete, foundry, and sensors for BiOptics devices	5,000	5,000	5,000	Mass fab was supplied from 100mm wafers in 2000. A 100mm line remains in operation and used for production of BiOptics devices.	
MACOM Technology Solutions	Research Triangle Park Fab (former Wolfpack fab)	2006	1	Durham	North Carolina	United States	Americas	100	CMOS, BiCMOS, SOI, MEMS	180			RF and discrete, foundry, and sensors for BiOptics devices	8,000	8,000	8,000	Acquired in 2012-2023 as part of Wolfpack's RF business.	
MACOM Technology Solutions	Former OMMC	2017	1	Limeil	Bretagne	France	Americas	100	CMOS, BiCMOS, SOI, MEMS	40	60		MEMS, foundry	3,000	3,000	3,000	MACOM acquired OMMC in 2023.	
Microtek International	Fab 2	1997	1	Hsinchu		Taiwan	Taiwan	200	CMOS, BCD, BiCMOS	55	180		NOR flash, ROM, foundry (BCD)	50,000	50,000	50,000		
Microtek International	Fab 5A	2002	1	Hsinchu		Taiwan	Taiwan	300	CMOS	19	36	48	NOR and NAND flash, ROM	40,000	40,000	50,000	Formerly owned by ProMOS. Acquired by Microtek in 2010.	
Microtek International	Fab 5B	2002	1	Hsinchu		Taiwan	Taiwan	300	CMOS	19	36	96	3D NAND and NOR flash	5,000	10,000	50,000	Construction started in 2021 and production at end of 2022.	

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