

# ELECTRONIC MANUFACTURING SERVICES INDUSTRY

Trends Impacting Commercial Real Estate

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The Electronic Manufacturing Services (EMS) Industry Needs to Remain Nimble Due to Market Volatility and Shifting Trade Policies

The Electronic Manufacturing Services (EMS) industry has been going through major shifts since 2020, driven by global supply chain disruptions, reshoring efforts, rising demand for electronics, and tech innovation.

### **KEY TRENDS**

The Covid pandemic hit the EMS sector hard, with factory shutdowns, labor shortages, and component scarcities (particularly semiconductors). However, in 2021 – 2022 there was a strong rebound, fueled by consumer demand in automotives (EVs), medical devices, and consumer electronics. In response, many OEMs (original equipment manufacturers) outsource more to EMS providers due to supply chain complexities.

Both OEM and EMS firms began reshoring and nearshoring operations to reduce dependencies on Asia-Pacific countries. As a result, there was growth in EMS activity in Mexico, Eastern Europe, and the U.S. Investment increased in supply chain visibility tools and multi-sourcing strategies. Additional investment has ben made in advanced manufacturing technologies to improve efficiency, reduce downtime, and make operations more agile.

As product lifecycles shrink, EMS providers are taking on more complex, low-volume, customized production, especially in medical, aerospace, defense, and industrial sectors.



Projected Growth (2024 – 2031)

6.2% compounded annual growth rate

Global EMS Market Value (2023)

\$476.9B

Manufacturers Considering Reshoring

Source: Yahoo Finance; Manufacturing Today; PRNewswire







### A FOCUS ON POWER REQUIREMENTS FOR EMS COMPANIES

The connection between power needs and commercial real estate in the Electronic Manufacturing Services (EMS) industry is a significant factor when selecting or designing facilities. EMS operations depend heavily on reliable, high-capacity, and clean power for everything from basic assembly to high-tech processes like SMT (Surface Mount Technology), cleanroom operations, and testing.

#### Power Needs in EMS

#### High Electrical Load Requirements

EMS facilities typically require significantly more power than traditional industrial warehouse/distribution buildings.

#### Climate Control, Cleanrooms, And EDS (Electrostatic Discharge) Compliance

Cleanrooms, HEPA filters, temperature/humidity-controlled environments require strong HVAC systems. ESD protection systems often require constant monitoring and grounding infrastructure tied to facility power.

#### Testing And Lab Equipment

EMS facilities often include in-house labs that can require dedicated circuits, redundant power systems, and back generators or UPS (Uninterruptable Power Systems).

Manufacturing Type	Power Requirement Range (MW)	Comments
Light Manufacturing	0.5 – 5.0 MW	Electronics, small parts
Medium Manufacturing	5 – 20 MW	Automotive, general, etc.
Heavy Manufacturing	10 – 50+ MW	Aircraft assembly, etc.
Advanced/ Hi-Tech	20 – 100+ MW	Semiconductor fabs, etc.

Source: Center for Strategic & International Studies: Energy Considerations at the Dawn of Strategic Manufacturing

## POWER IMPACT ON REAL ESTATE NEEDS

### SITE SELECTION

Properties must support sufficient power supply from the utility – ideally with expandable service capacity.

#### **INFRASTRUCTURE UPGRADES**

Many older industrial buildings do not meet modern EMS power needs and require retrofitting, adding to initial costs and/or importance of negotiations when signing leases.

#### IMPACT ON LOCATION DECISIONS

EMS firms choose sites based on utility capabilities, not just rent or logistics. Regions with stable grids and more affordable electricity are increasingly attracting, while regions with high utility rates and permitting delays are a concern.



### TARIFFS Uncertainty Clouds Decision-Making

Recent tariff announcements—particularly continued Section 301 tariffs on Chinese imports—are placing cost pressure on the U.S. EMS industry by raising prices on essential components like printed circuit boards (PCBs), semiconductors, and connectors. While some tariff exclusions have been temporarily reinstated, uncertainty around longterm trade policy is leading many EMS companies to diversify sourcing, increase nearshoring, and invest in domestic supply chains. The result is a shift toward U.S.-based production for high-value or sensitive electronics, but also higher operating costs and supply chain restructuring challenges in the short term.

### Tariff Highlights

The new presidential administration has imposed sweeping tariffs on U.S. trading partners and there are indications that more will be implemented. The parameters and deadlines of many of the tariffs have been consistently shifting. The uncertainty of the tariff policies have weighed on investor and consumer sentiment. While the broader economic implications are unknown, companies are looking to mitigate risk.



### WHAT IS SECTION 301?

Section 301 tariffs are import duties imposed by the United States on goods from countries, primarily China, deemed to be engaging in unfair trade practices.

Source: Investopedia Tariff Tracker; Office of the United States Trade Representative



#### BY COUNTRY

Country	Date Enacted	Rate	Latest News	Documentation
Mexico	Enacted March 4	25%	México tariffs delayed	Executive Order
Canada	Enacted March 4	25%	Canada tariffs delayed	Executive Order
China	Enacted February 4, increased since	104%	China Imposes 84% Retaliatory Tariff on US Goods	Executive Order
Venezuela	Unclear	25%		Executive Order

#### BY ITEM

Item	Date Enacted	Rate	Documentation
Steel	Enacted March 12	25%	Proclamation
Reciprocal	Enacted April 9	Various	Fact Sheet
Automobiles & parts	Enacted April 3	25%	Proclamation
Pharmaceuticals	Unclear	25%+	C-SPAN
Aluminum	Enacted March 12	25%	Proclamation
Copper	Unclear	25%	Executive Order
Lumber	Unclear	25%	Executive Order



## LABOR Follow The Talent

The EMS industry relies on a diversely-skilled labor force that includes skilled production workers, engineers, technicians, and supply chain roles. Demand is driven by high-mix, low-tomid volume manufacturing (medical and aerospace sectors) and high-volume manufacturing (consumer electronics). As automation increases, the focus is shifting toward skilled technical talent and engineering, particularly in regions where reshoring or nearshoring is expanding. There is a labor shortage in the EMS industry which is impacting the ability to scale and support reshoring efforts.

#### Location Quotient

Location quotients (LQ) are ratios that allow an area's distribution of employment by industry to be compared to a reference area's distribution. An LQ of 1.5 means the metro has a concentration of workers in the industry that is 50 percent greater than the national average. The map below shows metros with location quotients that ranked higher in employment that correlates with the EMS industry.

#### TOP 25 METROS



Source Bureau of Labor Statistics; NAICS codes: 334418, 334419, 334417, 334111, 334310, 334220, 334510, 336414, 333999, 541330

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### TOP 25 METROS WITH HIGH LOCATION QUOTIENT FOR THE EMS INDUSTRY

San Diego, CA Melbourne, FL Los Angeles, CA San Jose, CA Tampa, FL Manchester, NH Boulder, CO Oxnard, CA Chicago, IL-IN San Francisco, CA Dallas-Fort Worth, TX Boston, MA-NH Rochester, NY Minneapolis, MN-WI York-Hanover, PA Austin, TX Portland, OR-WA Seattle, WA Milwaukee, WI Phoenix, AZ Atlanta, GA Huntsville, AL Pittsburgh, PA Houston, TX Colorado Springs, CO

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### REAL ESTATE TRENDS Electronic Manufacturing Sector

Real estate strategies for companies within the EMS sector are highly dependent on the company size, specialization, and market dynamics. Many large or highly specialized companies are increasingly opting for build-to-suit (BTS) due to the complexities of finding buildings that meet their need for automation integration, secured facilities, cleanrooms, power needs and other customizations. Smaller and mid-sized EMS providers often rely on leasing due to flexibility and cost effectiveness. Other EMS firms are taking a hybrid approach – initially leasing with options to expand or buy.



### ADAPTING TO CHANGING LANDSCAPE IN THE EMS INDUSTRY

### TRENDS

Reshoring & Nearshoring Moving production closer to customers (U.S., Mexico, Europe)

Demand for Class A Industrial Space Preference for modern, tech-ready manufacturing facilities

Smaller, Flexible Footprints Growth of micro-factories & modular production spaces to respond to short product cycles

Integrated Manufacturing & Warehousing Hybrid spaces combining production, assembly & distribution

Expansion into Secondary Markets Seeking affordable locations outside primary industrial hubs

Long-Term Leases & Build-to-Suit Facilities Securing stable, customized space to support complex operations

Advanced Manufacturing Infrastructure Needs Facilities must support automation, IoT & Industry 4.0 technology

#### Adequate Parking

Industrial/flex facilities require strong parking ratios to meet worker demand, particularly if there are multiple shifts

Source: McKinsey & Company; Cresa



## REAL ESTATE ASSET TYPES

### Electronic Manufacturing Services Industry

The EMS industry relies on several specific commercial and industrial property types, depending on the stage of manufacturing, scale, and specialization of the facility.

Here's a breakdown of the main property types EMS companies typically use:

#### Manufacturing Buildings

- Designed for assembly, testing, and light fabrication \rather than heavy industrial processes.
- Includes clean rooms, ESD-safe zones, and controlled environments for sensitive electronics.
- Usually single-story, high-ceiling spaces with clear heights of 18–24 ft or more.

#### Flex/R&D Buildings

- Flexible buildings that combine office, lab, and light manufacturing areas.
- Often located near engineering talent or universities.
- Ideal for prototyping, DfX (design for manufacturing), and NPI (new product introduction).

### Warehouse/Distribution Buildings

- EMS companies that handle direct-to-customer fulfillment, reverse logistics, or spare parts distribution often lease or own warehouse space.
- Larger EMS firms may co-locate final assembly and shipping operations here.

#### Other Important Build-Out/Design Features

Cleanroom Facilities/Controlled Environments

· Specialized spaces with ISO-classified cleanrooms

#### Secured Facilities (Aerospace/Defense EMS)

- EMS companies working on ITAR-compliant (International Traffic in Arms Regulations) or classified defense projects.
- · Require secure access, surveillance, and physical controls

## HOT MARKETS FOR THE EMS INDUSTRY

#### Manufacturing Buildings

Inland Empire, Austin, Phoenix, Raleigh-Durham, Minneapolis

Flex Space/R&D Silicon Valley, Boston, San Diego, Boulder

Warehouse/Distribution Inland Empire, Dallas-Fort Worth, Atlanta, Chicago

Cleanroom Facilities/ Controlled Environments Southern California, Utah, Arizona, Massachusetts

Secured Facilities (Aerospace/Defense EMS) Near military bases, such as: Huntsville, Colorado Springs, San Diego





## MANUFACTURING Electronic Manufacturing Sector

Tenant Leverage	Tenant			Landlord
	Q1 2025	Q1 2024	12-Month Change	Trend
Market Rent	\$9.30	\$9.08	\$0.28	Increased
Direct Vacancy %	5.20%	4.60%	+0.60 bps	Stable
Availability %	6.80%	5.60%	+1.20 bps	Increased
Net Absorption SF (TTM)	41.2 M	25.9 M	+15.3 M	Increased
Net Deliveries SF (TTM)	48.0 M	35.1 M	+13.0 M	Increased
Under Construction SF	70.8 M	93.7 M	(22.9 M)	Decreased

### Manufacturing Market Overview

Vacancy rates for the manufacturing sector are ticking higher but are still tight by historic standards. Lease rates are moderately increasing as net absorption remains positive but is slowing. New construction – while decelerating – is still robust with much of the new manufacturing development build-to-suit or pre-leased. Demand drivers include high-spec facilities supporting advanced manufacturing. The outlook for the manufacturing sector is strong as incentive programs (CHIPs and IRA) are still available, and interest rates are expected to stabilize in the later half of the year.

#### CONSTRUCTION PIPELINE



Source CoStar Cresa. For the purposes of this analysis, the buildings selected included the following criteria: Property Type: Manufacturing; Property Class: A; Property Size: Over 20,000 SF

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## FLEX/R&D Electronic Manufacturing Sector

Tenant Leverage	Tenant			Landlord
	Q1 2025	Q1 2024	12-Month Change	Trend
Market Rent	\$23.74	\$23.39	\$0.39	Stable
Direct Vacancy %	13.10%	10.80%	+2.30 bps	Increased
Availability %	17.60%	16.30%	+1.30 bps	Increased
Net Absorption SF (TTM)	4.1 M	2.8 M	+1.3 M	Increased
Net Deliveries SF (TTM)	8.2 M	6.9 M	+1.3 M	Increased
Under Construction SF	9.8 M	15.1 M	(5.4 M)	Decreased

### Flex and R&D Market Overview

The overall flex and R&D market is cooling after historic highs in the broader industrial market. Lease rates are moderately increasing as vacancy rates drift higher due to weakened demand, particularly in tech-heavy markets. The construction pipeline is also slowing as developers/ investors wait to see the impacts of elevated construction costs, higher interest rates, and weak consumer sentiment. Still, demand for life sciences, semiconductors, advanced electronics, and autonomous technology is steady. However, much of this demand is build-to-suit.

#### CONSTRUCTION PIPELINE



Source CoStar Cresa. For the purposes of this analysis, the buildings selected included the following criteria: Property Type: Flex, Light Manufacturing; Property Class: A; Property Size: Over 20,000 SF

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### WAREHOUSE/DISTRIBUTION Electronic Manufacturing Sector

Tenant Leverage	Tenant			Landlord
	Q1 2025	Q1 2024	12-Month Change	Trend
Market Rent	\$9.30	\$9.08	\$0.28	Increased
Direct Vacancy %	11.30%	9.40%	+1.90 bps	Increased
Availability %	16.70%	17.50%	(0.80) bps	Decreased
Net Absorption SF (TTM)	226.0 M	304.5 M	(78.6 M)	Decreased
Net Deliveries SF (TTM)	395.7 M	606.1 M	(210.3 M)	Decreased
Under Construction SF	248.7 M	432.1 M	(183.4 M)	Decreased

### Warehouse/Distribution Market Overview

The warehouse/distribution sector remains a driver for growth but has leveled off from pandemic peaks. With the tail end of a historic development run, availabilities have increased resulting in a window of opportunity for tenants to negotiate lease terms and TI packages. Lease rate growth has stalled or returned to pre-covid moderate increases, depending on the market. Demand remains strong for modern, highly amenitized spaces, but many occupiers are right-sizing their spaces and thinking more strategically about supply chain resiliency.

#### CONSTRUCTION PIPELINE



Source CoStar Cresa. For the purposes of this analysis, the buildings selected included the following criteria: Property Type: Manufacturing; Property Class: A; Property Size: Over 20,000 SF

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# WHAT'S NEXT?

## Conclusions

The EMS industry is growing and evolving as more emphasis is being placed on reshoring and nearshoring manufacturing. With increased advanced manufacturing techniques, companies are faced with making decisions on finding flexible, adequately powered spaces in locations containing skilled workers. Other issues like securing supply chains, navigating incentive packages and volatile tariff policies increase the difficulty of making decisions. Making informed, strategic choices will help companies mitigate risk during a time of economic complexity. Many large or highly specialized companies are increasingly opting for build-to-suit (BTS) due to the complexities of finding

buildings that meet their need for automation integration, secured facilities, and other customizations. Smaller and mid-sized EMS providers often rely on leasing due to flexibility and cost effectiveness. A hybrid approach with leasing options to easily grow and/or options to purchase the property are becoming more common. Staying ahead of these real estate decisions will free up companies' time to innovate and remain competitive.

## HELPFUL LINKS

CHIPS Act of 2022 - Public Law No: 117-167 (08/09/2022)

Inflation Reduction Act of 2022

U.S International Trade Commission (USITC)

U.S. Customs & Border Protection (CBP)

Office of the United States Trade Representative (USTR)

World Trade Organization Tariff Tracker

