

Semiconductor Solutions Brochure



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Customized Infrastructure Solutions for Sub-Fab, CUBs, Cleanrooms, and Data Centers

In today's rapidly evolving semiconductor industry, maintaining operational efficiency, cleanliness, and reliability across all areas—from sub-fab operations to data centers and cleanrooms—is critical to staying ahead of the competition. That's why Chatsworth Products (CPI) partners with semiconductor manufacturers to deliver customized ICT infrastructure solutions that address the unique demands of each operational environment.

Customized Solutions for Every Environment

CPI provides a comprehensive suite of solutions designed to meet the distinct needs of its sub-fab, CUB, cleanroom, and data center environments.

SEMICONDUCTOR MANUFACTURING ENVIRONMENTS

SUB-FAB

The area below the cleanroom, where the mechanical and electrical systems that support the cleanroom are located.

CUB

Central Utility Building, which is a facility that houses essential utility services such as heating, cooling, and power systems for a specific campus or complex.

CLEANROOM

Enclosed environments located within semiconductor foundries or fabs, that have tight control over the following: Temperature, Humidity, Airflow, and Temperature change over time

DATA CENTER/ EDGE COMPUTING

Moves computer storage and processing to the edge of the network. This is where it is closest to users and devices and most critically, as close as possible to data sources.



CUB Solutions: Ensuring Clean, Efficient Utility Management

CPI's solutions for Central Utility Buildings (CUBs) focus on optimizing utility performance and minimizing disruptions.

Key Benefits:

- Customized Racks and Cable Management: CPI offers fully customizable two-post and four-post rack solutions designed to support the utility and process control needs in the sub-fab areas. These racks efficiently organize power and data cables, reducing clutter and simplifying maintenance. CPI's Evolution® Cable Manager features a tool-less design aimed at reducing complexity, shortens the installation process, and promotes a smooth workflow.
- Seamless Power Distribution: CPI's eConnect[®] PDUs deliver intelligent power management, environmental monitoring, and access control at the cabinet level.

Data Center Optimization:

Edge Computing and Real-Time Processing

As data centers and edge computing become essential to the semiconductor industry, CPI provides advanced solutions to handle the growing demand for real-time data processing.

Key Benefits:

• Edge Computing Infrastructure:

CPI's custom enclosures were strategically deployed near production lines to process data faster, improving decision-making and reducing latency. RMR® freestanding, fixed wall-mount, and modular enclosures are NEMA rated and designed to withstand the challenges of indoor and outdoor environments. They protect equipment with cutting-edge sealing technology that protects against dirt and liquid entry and has auxiliary cooling or heating to match equipment requirements. For wireless access points and small cell sites, Oberon® and CUBE-IT® enclosures and mounting solutions secure wireless equipment everywhere connectivity is required while also enhancing aesthetics.

• Scalable Data Center Solutions:

CPI optimized the manufacturer's data center operations with high-density racks and cooling solutions that scale as the company grows. The ZetaFrame® Cabinet System is an integrated, all-in-one solution designed to support high power densities and ensure scalability.



Sub-Fab Solutions: Powering Critical Operations with Efficiency

The sub-fab is one of the most demanding environments in a semiconductor manufacturing facility. CPI can meet the challenge with its customizable ZetaFrame® Cabinet System that ensures

Key Benefits:

• High-Density Cable Management:

robust power and cable management.

CPI's customized cable management systems, accommodate the large number of cables required in the sub-fab, preventing tangling and optimizing airflow. The Evolution® Cable Manager is a dependable solution for managing high-density copper cabling on open CPI Rack Systems, delivering increased performance to match the demands of today's data center applications.

• Advanced Power Distribution Framework: CPI's eConnect[®] PDUs are comprehensive power solutions designed to handle whigh loads efficiently, ensuring critical processes continue uninterrupted.

Cleanroom Specification and Thermal Management:

Protecting Sensitive Environments

CPI's infrastructure solutions for cleanrooms combine cleanliness with precision thermal management, protecting sensitive equipment from contamination and overheating.

Key Benefits:

- Cleanroom-Compatible Racks: CPI's clear aluminum grain finish racks and enclosures minimize outgassing risks, ensuring that air quality standards are met and contamination is reduced.
- Advanced Thermal Management: With both passive and active cooling solutions, CPI ensures optimal temperature control, preventing overheating in high-density equipment environments.







Why Choose CPI?

Chatsworth Products is a trusted partner to the semiconductor industry, offering:

- Customized, scalable solutions for the unique needs of CUBs, sub-fab areas, cleanrooms, and data centers.
- Unmatched expertise in power distribution, cable management, and thermal control.
- Cleanroom-compliant designs to meet industry standards for cleanliness and air quality.

Whether you are looking to improve the performance of your utilities, enhance data processing, or protect your cleanroom environments, CPI delivers solutions that address the specific challenges of your operations and help drive success across your entire infrastructure.





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Standard products are readily available through a global network of industry-leading distributors. With stock availability, and CPI's consistently short factory lead times, you can be assured that CPI solutions will be accessible to meet your project scheduling needs.

How to Buy

CPI sales are conducted in partnership with a global network of distributors, contractors and resellers to ensure a high level of stock availability. Use CPI's Online Catalog to place an order with a distributor near you. Go to chatsworth.com to learn more.

About CPI

CPI, a 100% employee-owned company, was founded in June 1991, when 90 workers joined together and purchased the Dracon Division of Harris Corporation using an Employee Stock Ownership Plan (ESOP). Employee ownership is central to the success of CPI. Employee owners are committed to a philosophy of quality through teamwork, caring and commitment, which are extended to customers through our solutions and services.



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