

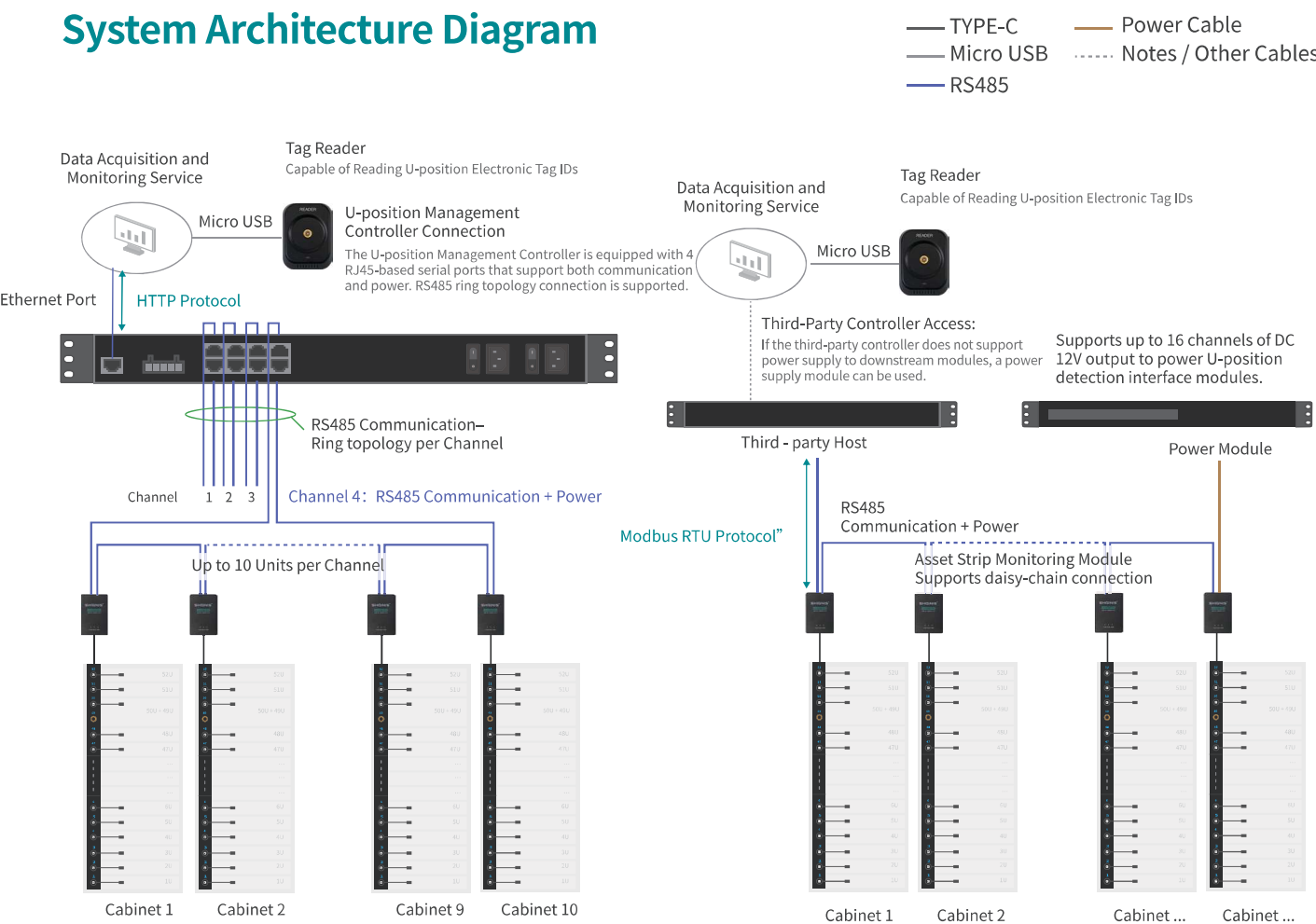
U-position Asset Management Solution

The Zenvex U-position Asset Management System consists of a management controller, asset strips, and electronic tags, enabling precise rack-level asset tracking in data centers.

It enables real-time monitoring, accurate asset identification, and full lifecycle management by integrating with the upper-level platform. This reduces manual inventory work, improves data accuracy, and helps eliminate rack space fragmentation..



System Architecture Diagram



Solution Equipment Overview

	Product	Function Overview	Function Details	Configuration Notes
U-position Management Controller	 Compact Controller	Data aggregation, management, and northbound upload	Supports asset management for up to 8 IT cabinets HTTP northbound interface Provides web-based remote configuration service DC 12V power output	Configured according to computer room requirements
	 1U Rack-Mount Controller		Supports asset management for up to 40 IT cabinets Each serial port supports loop-back connection Provides web-based remote configuration service Dual power supply supported HTTP northbound protocol interface 481*244*44.5 mm	
U-position Asset Strip	 Flexible Asset Strip	U-position electronic tag reading, real-time U-position status display, and cabinet temperature & humidity monitoring.	Optional rack units: 42U/47U/48U/52U 1U Height: 46.2×20×8 mm / 44.5×20×8 mm Optional built-in T&H sensors (top, middle, and bottom) Magnetic mounting Thickness: 8 mm	1 unit configured per cabinet
	 Rigid Asset Strip		Optional U - positions: 42U/47U/48U/52U 1U dimension: 44.5208 mm Built - in temperature and humidity sensors (including 3: upper, middle, and lower) Gold - plated communication contact process Thickness: 8 mm Magnetic Mounting	
U-position Electronic Tag	 U-position Electronic Tag	Provides asset/U-position ID, asset location identification, and asset status tracking	Gold - plated contacts With magnetic attachment Contact - type communication, less susceptible to electromagnetic interference	Configured according to computer room requirements
U-position Detection Interface Module	 U-position Detection Interface Module	Asset strip data acquisition, northbound upload, and U-position status control	Northbound protocol interface: Modbus RTU Supports daisy - chain connection of multiple modules Dual - bus loop access to upper computer Cabinet door magnetic status monitoring RJ45 interface includes communication and power supply	1 unit configured per U - position asset strip
Tag Reader	 Tag Reader	Read/write electronic tag ID	Gold - plated communication contact process Micro USB interface USB power supply	1 unit configured for the entire system
Power Supply Module	 Power Supply Module	16-channel DC 12V power output	Max supports 16 - channel DC 12V power output	Configured according to power supply requirements

System Highlights



Two Form Factors Available

Choose between an integrated flexible soft-strip design or a modular hard-strip version (assembled from 5 or 6 segments).



Contact-Based Tag Design for Reliable Communication

Unlike wireless solutions, contact-based tags eliminate signal interference. Gold-plated contact points ensure stable, oxidation-resistant communication.



Compact Size, Universal Fit

The asset strip measures just 20(W) × 8(H) mm, making it suitable for most standard server rack U-positions.



Magnetic Mounting for Easy Maintenance

All components—including asset strips and interface modules—feature magnetic installation, allowing for fast deployment and effortless maintenance.