

Twin Dragon

Two independent servers in a 1U platform



The ITOX Twin Dragon 1U rackmount platform contains two advanced motherboards, each with its own 3.5" drive bay and Ethernet LAN controller. Two Twin Dragons can fit back-to-back—enabling 4 servers to fit in a single 1U space and 168 servers in a 42U rack. The Twin Dragon is available as a barebones platform (case, power supply, and motherboards) or a full system including your choice of CPU, memory, hard drive and operating system.

FEATURES

- **Innovative case.** The Twin Dragon case design allows two motherboards in a case. Two cases can be mounted back to back for a total of 4 servers in 1U of rack space. To make this possible the motherboard uses the compact EBX size, the same length and width as a 5.25" drive.
- **Powerful motherboard.** The CS15 motherboard supports front side bus speeds to 133 MHz, memory to 512 MB, an Ethernet controller, on-board video, and Intel Pentium III and Celeron motherboards.
- **Advanced system cooling.** Two 75mm blowers produce more than 26 CFM airflow. This highly effective cooling permits operation at ambient temperatures of 45 degrees Celsius. The CS15 motherboard monitors processor temperature and fan operation and triggers alarms if operational limits are exceeded.
- **Two 3.5 inch drive bays.** Each motherboard may operate as an independent system with its own dedicated hard drive.
- **250 watt power supply.** The Twin Dragon's ample 250 watt power supply is auto-switching for 115 and 230 VAC. The power supply includes Power Factor Correction, a requirement of European community regulatory agencies. This assures that ITOX OEM customers will be able to export their products worldwide.
- **Watchdog timer.** The CS15's configurable watchdog timer resets the system and restarts software in case noise spikes or other events cause runaway software to hang the system. This is a valuable tool which maintains control when continuing and dependable operation is critical.

BENEFITS

- **Feature-rich.** In addition to the system capabilities listed above, each Twin Dragon includes keyboard/video/mouse (KVM) ports, two USB ports, and one DB-9 serial port. A COM2 header is available internally on the motherboard.
- **Reliability.** The system offers excellent MTBF ratings and FCC/UL/CE environmental and regulatory certifications. The complete Twin Dragon system is backed by ITOX's 2-Year Limited Product Warranty.
- **Compatibility.** The CS15 motherboard runs Microsoft, Linux, and all standard x86 operating systems.
- **Flexibility.** The CS15 may be controlled in several ways including via keyboard, mouse, video, LAN, and console redirection.
- **Extended life cycle.** The CS15's long-term availability is prolonged because ITOX has defined this motherboard as one of its revision controlled products. Users benefit by avoiding costly computer design changes and system re-certifications.

APPLICATIONS

- **Web servers.** The Twin Dragon is cost-effective in data centers because it permits either two or four servers in a 1U space—up to 168 servers in a 42U rack. On-board Ethernet, rackmount form-factor, and low cost of ownership make the Twin Dragon an attractive solution for many ISPs and ASPs.
- **Clustered computing.** Fit up to 168 servers in a 42U electronics rack for multiple computer applications to reduce overall system.
- **eCommerce.** The high-performance Twin Dragon supports high-traffic and high load applications.

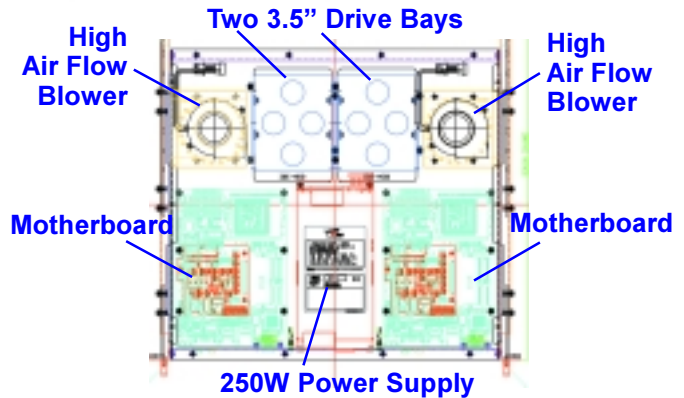
Twin Dragon

Two high-feature servers in a 1U platform



MODELS AND ACCESSORIES

- RG1U2CS15-BL. Twin Dragon barebones. DC1400-TD case, PS-P1G-6250T 250 watt power supply, two CS15 motherboards, chassis slides. Also available as a full system with CPU, memory, drives, and operating system.
- Accessories (contact your ITOX representative for availability): Double length chassis slides used to mount two Twin Dragons back-to-back in a single 1U space. LCD Display with keypad to enter input directly.



DIMENSIONS

- 1.73" High (44 mm) x 16.79" Wide (427 mm) x 15.75" Deep (400 mm)
- Weight: 11.5 lbs; with packaging, 18 lbs

CONSTRUCTION / FINISH

- Type of metal: Precoated Phosphate 1mm steel
- Finish: Textured paint, black

DRIVE BAYS

- Two 3.5" drive bays (internal)

EXPANSION SLOTS

- None

CONTROLS / INDICATORS

- Power supply on/off switch

For each motherboard:

- Power and Reset switches
- Power and hard drive activity LED lamps.
- LAN power and activity lamps

POWER SUPPLY

- 250 watt
- Output (Two ATX format connectors)
 - +5V 25A (max) -5V 0.5A (max)
 - +12V 4.5A (max) -12V 1.0A (max)
 - +3.3V 10A (max) +5VSB 1.5A (max)
- 138W total (max) for +5V and +3.3V
- 228W total (max) for +12V, +5V, and +3.3V
- Input: 100/240v VAC, auto selectable, 50 to 60 Hz
- Fuse: 6.3A / 250V
- Power Factor Correction

THERMAL MANAGEMENT

- Two blowers (75 mm, 4200 rpm, 13.1 CFM @ 20.8 mm Aq)
- Power supply exhaust fan
- CPU heatsink and fan
- Monitor and alarm for CPU temperature and fan operation

REGULATORY

- Safety: UL, CE 98 (pending)
- Emissions Control: FCC Class B (pending)

ENVIRONMENTAL

- Operating Temperature: 0°C - 45°C ambient
- Humidity: 20%-80% non-condensing

WARRANTY

- Two year parts and labor limited warranty

MOTHERBOARD

For each motherboard:

- Socket 370 for Celeron and Pentium III processors
- EBX ATX form factor (same width and depth as a 5.25" drive)
- Intel 815E chipset
- 10/100 Ethernet LAN
- Video controller on-board
- Keyboard, mouse, and video ports
- Two 168-pin SoDIMM sockets for 512 MB RAM
- 66/100/133 MHz front side bus
- Watchdog Timer
- Monitor and alarm for processor temperature and fans
- Revision control with extended availability

See CS15 motherboard data sheet for additional specifications. A 3-LAN version of the CS15 motherboard is available in OEM quantities, but is not currently stocked for individual orders.

CONNECTORS

- 2 USB ports
- 1 RJ45 10/100MHz Ethernet port
- 1 mini-DIN-6 P/S2 mouse port
- 1 mini-DIN-6 PS/2 keyboard port
- 1 DB-15 video port



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