

FastCluster 308S

The *FastCluster 308S 8-Slot SprayCool® Chassis* is a compact system ideal for deployment in harsh environments. Housed in an enclosure with SprayCool technology, CSPI's high performance VXS payloads and switches can safely operate at extended ambient temperatures while exposed to extreme environmental conditions.

The *FastCluster 308S* offers a turn-key solution coupling advanced packaging with the *Open Architecture* processing technology of the 3000 SERIES, a high speed clustering interconnect, and the choice of Linux or VxWorks operating systems enabling high performance digital signal processing (DSP), SIGINT, radar and sonar applications in airborne, shipboard and UAV platforms where space and power are at a premium.

Benefits:

Deploy CSPI's FastCluster 3000 SERIES payloads in harsh environments without sacrificing high performance I/O and computational density

Delivering up to 300 GFlops when configured with seven StarGate Payloads

Scalable I/O starting at 5 GBytes/sec Bandwidth per payload

Ethernet High Speed Interconnect and 10-Gigabit Interconnect using Myri-10G

Light weight chassis solution for SIGINT and radar processing applications

Small, compact system for manned and unmanned vehicles (fixed wing, ground, and helicopter)

Thermal headroom allows for system growth - increase processing capabilities without worrying about cooling and power

Additional Information:

www.cspi.com/multicomputer/

www.spraycool.com

www.myri.com

Ideal for Deployment
in Unpressurized
Environments

Reduced System SWaP

Enabled by Advanced
Cooling Technology
(SprayCool®)

8 slots for hosting
6U x 160mm
VME, VXS, or VPX
Payloads & Switches

3000 SERIES



Systems & Integration Solutions

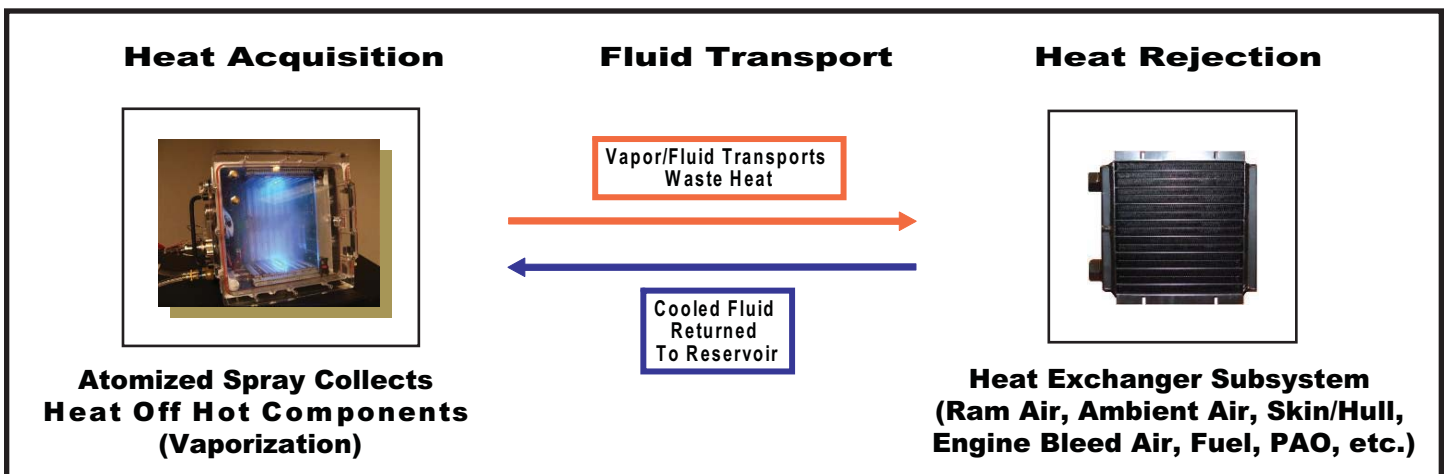


SprayCool® Technology Overview

SprayCool Enabled Enclosure

SprayCool's patented 2-phase "direct spray" liquid cooling technology deploys a fine mist of non-corrosive, non-conductive liquid, sprayed in a thin layer, which evaporates and cools electronics. The process continuously cycles within a sealed, closed loop system. In doing so, SprayCool products isolate the electronics from dirty, corrosive environments found in military and industrial applications resulting in temperature optimized, higher performance, and more durable electronic devices, often without the need of dedicated environmental control systems. SprayCool technology enables customers to deploy both commercial grade and custom electronics in harsh environments more quickly, and at significantly lower costs.

<i>FastCluster 308S SprayCool Chassis Hardware Specifications</i>	
Backplane	3000 SERIES VXS (VITA 41.x) P0/J0: 7 row RT2 (Multi-Gig connector) J1 & J2: 5 row DIN Switch Slots: RT1 & RT2 data connectors
Slots	8 Slots for configuring FastCluster 3000 SERIES StarGate (Multicore) Payloads; I/O-Gate (Data Streaming) Payloads; XL-Gate (FPGA) Payloads; and VXS Switch Modules
ENVIRONMENTAL	
Operating Temperature	-65°C to 71°C
Storage Temperature	-65°C to 85°C
Altitude	up to 75,000 feet
General Environmental	Exceeds humidity, salt fog, fungus, thermal shock, sand and dust requirements of VITA 47
ELECTRICAL / MECHANICAL	
Input Power Requirements	MIL-STD 704 and 1275B
Power Consumption	80 Watt Maximum for cooling system Note: Power consumption of payloads and switches will depend on specific configuration
PHYSICAL DIMENSIONS	
Height	12 inches
Depth	12.45 inches
Width	12 inches
Weight	~40 lbs. (configured with 7 Payloads & 1 Switch)



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Cover photos: Helicopter, U.S. Air Force photo/Senior Airman Emily Moore; EFV courtesy of SprayCool/US Navy photo; HMMWV photo by army.mil; Predator is an Air Force Link Courtesy Photo.

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