

# Electronic Product List



**MAKE IN INDIA**

# 1 Servers

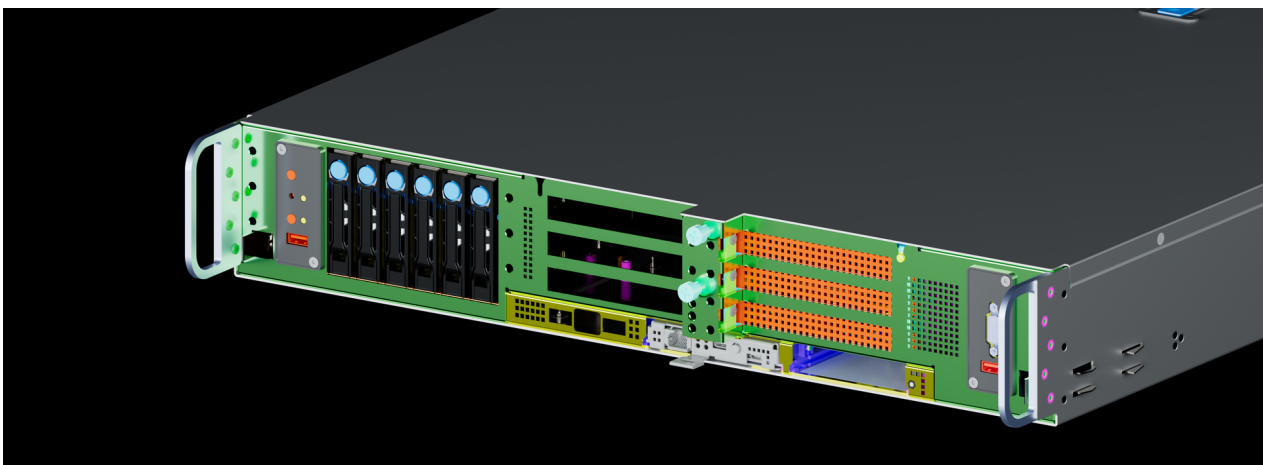
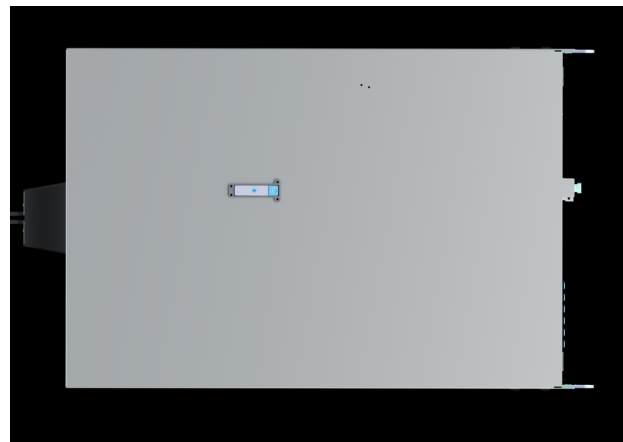
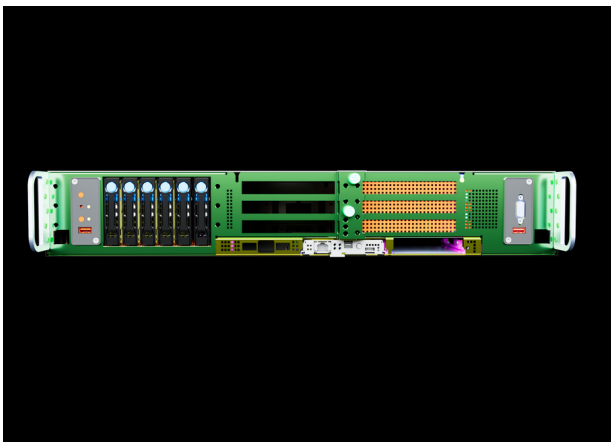
## PRYSM 2U RACKMOUNT SERVERS

R-2U-V01 | R-2U-T01 | R-2U-Z02

The **PRYSM 2U Rackmount Server family** is a portfolio of powerful, modular, and enterprise-grade systems designed to meet the evolving needs of **small, mid-sized, and large enterprises**.

Built for **AI workloads, cloud infrastructure, data analytics, business intelligence, storage, and compute-intensive environments**, these servers combine next-generation AMD EPYC processing, high-density storage, advanced PCIe architectures, and robust thermal and power management.

Whether your priority is **maximum compute density, next-gen PCIe scalability, or cost-optimized enterprise performance**, the PRYSM 2U range delivers performance with flexibility.



# Servers

## KEY HIGHLIGHTS

### Scalable Memory Architecture

- R-2U-V01: Up to 24 DDR5 DIMMs, expandable to 12TB
- R-2U-T01: Up to 24 DDR5 DIMMs, expandable to 6TB
- R-2U-Z02: Up to 32 DDR4 DIMMs, expandable to 4TB

### Advanced AMD EPYC Processing

- R-2U-V01: Dual AMD EPYC 9XX5 Series (Gen 5) – up to 192 cores per CPU, 500W TDP
- R-2U-T01: Dual AMD EPYC 9004 Series (Gen 4) – up to 128 cores per CPU, 400W TDP
- R-2U-Z02: Dual AMD EPYC 7003/7002 Series (Gen 3) – up to 64 cores per CPU, 280W TDP

### Next-Generation Connectivity

- R-2U-V01 & R-2U-T01: PCIe Gen 5
- R-2U-Z02: PCIe Gen 4
- Enables ultra-fast GPU, networking, and storage performance.

### Optimized for Enterprise Workloads

Designed for AI, cloud platforms, analytics engines, virtualized environments, and data-heavy enterprise applications.

### User-Centric PRYSM Architecture

Built on PRYSM's Behavioral Specification ensuring consistent layout, intuitive serviceability, and uniform hardware experience across generations.

### Future-Ready & Cost-Optimized

Modular, scalable, and engineered to grow alongside evolving compute and storage demands

# Comparison Chart

Feature	R-2U-V01	R-2U-T01	R-2U-Z02
CPU Support	AMD EPYC 9XX5 (Gen 5)	AMD EPYC 9004 (Gen 4)	AMD EPYC 7003/7002 (Gen 3)
Core Range	8 – 192	16 – 128	8 – 64
TDP & Cache	Up to 500W, L3 512MB	Up to 400W, L3 1152MB	Up to 280W, L3 768MB
Chipset	TURIN	GENOA / BERGAMO	MILAN / ROME
Max SSD Bays (2.5" SATA & PCIe)	Up to 24	Up to 24	Up to 24
NVMe Support	Up to 24 NVMe	Up to 16 NVMe	Hybrid NVMe + SATA
M.2 Boot Drive	NVMe	NVMe	SATA
Drive Config Options	16NVMe+8SATA / 24NVMe	16NVMe+8SATA / 24SATA	18SATA+6NVMe / 24SATA
M.2 PCIe Slots	Gen3 x1 & x4	Gen3 x1 & x4	Gen3 x1 & x4
Chassis Dimensions	450x88x780 mm / 35kg	450x88x780 mm / 35kg	450x88x780 mm / 35kg
BMC Chip	AST2600	AST2600	AST2500
Max DIMM Slots	24	24	32
DIMM Type	DDR5 RDIMM/LRDIMM	DDR5 RDIMM/LRDIMM	DDR4 RDIMM/LRDIMM
Max Memory	Up to 12TB	Up to 6TB	Up to 4TB
Memory Speed	Up to 6400 MHz	Up to 4800 MHz	Up to 3200 MHz
Memory Voltage	1.1V	1.1V	1.2V
Front I/O	USB 3.2	VGA + USB 3.2	VGA + USB 2.0
Rear I/O	USB 3.2, Serial, RJ45 Mgmt	MiniDP, COM, USB 3.2	VGA, COM, USB 3.1
PCIe Expansion	PCIe Gen5 + Gen3	PCIe Gen5 + Gen3	PCIe Gen4 + Gen3
Onboard Mgmt Port	✓	✓	✓
OCP Support	OCP 3.0	OCP 3.0	OCP 2.0

# Comparison Chart

Feature	R-2U-V01	R-2U-T01	R-2U-Z02
Rear RJ45 & USB-C	✓		✓
ROT Module Support	✓	✓	
Micro-SD for BMC/CMC	✓	✓	✓
LCD Debug Display	✓	✓	
RAID & GPU Support	✓	✓	✓
NIC Support (FHHL, HHHL)	✓	✓	✓
RJ45 & QSFP56 Ports	✓	✓	✓
Drive Connector Compatibility	✓	✓	✓
Hot Swappable Drives	✓	✓	✓
UBM LED Management	✓	✓	✓
Redundant Power (1+1)	✓	✓	✓
Power Input Range	100–240 VAC	100–240 VAC	100–240 VAC
Output Power Options	2700W / 3200W	1600W / 2200W / 2700W	1200W / 1600W
Efficiency Rating	Titanium / Platinum	Titanium / Platinum	Titanium
Chassis Form Factor	1U / 2U Rack	1U / 2U Rack	1U / 2U Rack
BIOS / BMC Brand	AMI / AMI	AMI / OpenBMC	AMI / Insyde
OS Compatibility	All Major OS	All Major OS	All Major OS
TPM 2.0 Support	Optional	Optional	Backward Compatible
Firmware Resilience (PFR)	NIST 800-193	NIST 800-193	NIST 800-193
Temp Control	PWM Fan Control	CPLD PWM	BMC PWM
Cooling Fans	6 × 60×60mm	6 × 60×60mm	6 × 60×60mm
Operating Temp	5°C – 35°C	5°C – 35°C	5°C – 35°C
Non-Operating Temp	-40°C – 70°C	-40°C – 70°C	-40°C – 70°C
Humidity Range	20–80% / 10–95%	20–80% / 10–95%	20–80% / 10–95%
BIS Model	PRYSM-AR22M1	PRYSM-AR22M1	R-62004545

## 2 Power Supply

The PRYSM Switching Power Supply range offers robust, reliable, and high-efficiency power solutions engineered for mission-critical enterprise and data center applications.



- **Wide Range of Power Options:** Available in 800W to 2600W variants, all CRPS compliant with N+N redundancy and hot-plug support for uninterrupted uptime.
- **Flexible Input Compatibility:** Supports wide AC (90–265V) and DC (180–310V) input ranges, delivering stable 12V output with current sharing and self-cooling features.
- **Intelligent Monitoring:** PMBus 1.2 compliance enables advanced system monitoring and control.
- **Robust Protection Features:** Built-in safeguards include OCP, OVP, UVP, OTP, and brownout protection to ensure system stability.
- **High Efficiency:** Achieves up to 96% peak efficiency, certified with 80 Plus Titanium for energy-conscious deployments.
- **Compact and Scalable:** Small 73.5mm x 40mm x 185mm footprint supports capacitive loads from 2,200 $\mu$ F to 22,000 $\mu$ F—ideal for enterprise compute, storage, and AI workloads.

### 3 Set Top Box

The PRYSM-HD STB is a powerful, cost-effective set-top box designed for high-quality DVB-C broadcasting. Equipped with a MIPS 74K processor delivering 1200 DMIPS, a dedicated security processor, 1Gbit DDR3 RAM, and 64Mbit SPI NOR/NAND support, it ensures fast, reliable performance with less than 1W standby consumption.



- **Robust Protection Features:** Equipped with over-voltage, surge, ESD ( $\pm 8\text{kV}$  contact,  $\pm 15\text{kV}$  air), audio-video surge, and USB TVS protection, compliant with IEC standards for long-term reliability.
- **Enhanced Signal Performance:** Onboard tuner with improved signal strength and a DVB-C RF tuner (F-type) for stable cable connectivity.
- **Versatile Connectivity:** Includes USB 2.0, RCA/CVBS, and HDMI 1.4b ports to support a range of AV setups.
- **Rich Software Features:** Built on an RTOS platform with iCAS™ integration, supports DVB-C standards, multiple QAM formats, channel categorization, teletext, subtitles, and Video on Demand.
- **Compact & Functional Design:** Measures just 132mm x 95mm x 24mm with front panel buttons and LED indicators for easy status monitoring.
- **Upgradable & User-Friendly:** Supports OTA firmware upgrades and USB/serial boot downloads, offering energy-efficient operation for modern cable services.



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