

# Tyrone Camarero Specifications

# Tyrone

## Camarero SDA200A2N-212

### Key Feature

- Applications - Virtualization, Software-defined Storage, AI Inference and Machine Learning, Cloud Computing, Enterprise Server
- Dual processor(s), AMD EPYC™ 9004/9005 Series Processors, Up to 320C/640T
- Supports upto Two double width/single width data Center GPUs (Thermal Limitation may apply)
- Aspeed 2600 series BMC (1920 x 1200 , 16MB Memory)
- 24 x DIMM slots, Max 9TB 6000MT/s ECC DDR5 RDIMM (AMD EPYC™ 9005 Series Processor)
- 2 x NVMe M.2, 1 x VGA, 2 x USB 3.0
- Configuration Options for up to 4 PCI-E 5.0 x16 OR 8 PCI-E 5.0 x8, 1 PCI-E 5.0 x16 for Networking
- 2U Rackmount Chassis, 12 x 3.5" or 8 x /16 x /24 x 2.5" Hot-swap bays (supports NVMe/SAS/SATA drives)
- Redundant & Hot-Swappable 80+ Titanium Power Supply (1200W / 1600W / 2000W)
- PMBus 1.2 Support for Remote Management
- SLB 9672 chipset based TPM 2.0 Module



Processor/Cache		Features	
Processor	Dual processor(s), AMD EPYC™ 9004/9005 Series Processors Note : Supports up to 400W TDP CPUs , Air Cooled CPUs with TDP over 290W only supported under specific conditions. Contact a Tyrone representative for details.	Hardware Monitoring – LED indicators for Power status, System alert, LAN activity, Drive activity, System ID, Monitoring & Management for CPU, GPU, Memory, Storage, Network and Chassis Environment for power and cooling. Actual or Impending failure alerts for critical components, Monitoring with event logs and SMART attributes, Monitoring of CPU voltages, Chipset Voltage, PSU +5V standby, +5V, +3.3V, +12V	
Core Count	Upto 320C/640T Cache Per CPU	BIOS Features - ACPI 6.4, SMBIOS 2.8/3.5, UEFI 2.8A, Plug and Play (PnP), PCI 5.0, USB 3.0, NVMe 2.0c	
System Memory		Management and Security	
Memory	Slot Count: 24 DIMM slots, Max Memory (1DPC): Up to 6TB 4800MT/s ECC DDR5 RDIMM (AMD EPYC™ 9004 Series Processor) Max Memory (1DPC): Up to 9TB 6000MT/s ECC DDR5 RDIMM (AMD EPYC™ 9005 Series Processor)	Management - Monitoring, Event Handling and Alerting, System Fault, Health Management and diagnosis with event logs repository, Telemetry Streaming, Inventory export, Remote Power Management (on/off), Protocols (Redfish API, LDAP, NTP, HTTPS, AD 1.0, SMTP, RSYSLOG, SNMP v2, v3 etc.), TLS 1.2, Updating Firmware , BIOS, Drivers using BMC WEB GUI, Additional Licenses for respective features for System Management using different interfaces such as Web/CLI/Redfish API. Optional – SIE (Sanitize Instant Erase), SED (Self-Encrypting Drive) (with supported Controllers and featured disks), Storage Management Utility featuring creation and destroying RAID Configurations for virtual disks, Tyrone ProServe suite support for centralized management	
Onboard devices		Security - Password protection, UEFI Secure (BIOS, Firmware oriented) Boot, Dual immutable SROt controls integrity across BIOS & BMC Firmware, Platform Integrity Check, Platform Firmware Resiliency (NIST SP 800-193), Server Intrusion Detection mechanism in all power states including Power OFF, System Lockdown for prevention from security breaches, USB dynamic enable/disable (optional), Secure firmware updates, Policy defined security measures, RBAC, Configuration backup and restore, Encryption protocols – DES, AES. BIOS / BMC Firmware Protection against unauthorized modification by malicious software, with BIOS authentication mechanism and integrity from infected / malicious firmware with built in recovery provisions, (NIST SP 800-147b) – Secure flash, Automatic & Secure Recovery & Anti-rollback, Tyrone Secure Platform, Access Control List with IP Access Control	
Chipset / BMC	SoC, Aspeed 2600 series BMC, 2 x USB 3.0	OS and Virtualization Compliance and Support	
Network	Flexible networking, WOL, Secure PXE Boot support, BMC LAN supports DHCP, IPV4, IPV6	Windows Server 2019, 2022 x64, RHEL 8.5, 9.0 x64, Oracle 8.5, 9.0 x64, Rocky 8.5 x64, SLES 15 x64, Ubuntu Linux 22.04	
IPMI	IPMI 2.0 iKVM, Virtual Media Redirection, IPMI over LAN, Serial over LAN, SMASH-CLP Support, Built-in HTML5 GUI, SNMP v2/v3, 1 RJ45 Dedicated BMC LAN port for Remote OOB Management LAN & WAN with SSL encryption,	Windows Hyper-V, Red Hat OpenShift Container Platform 4.13, Red Hat OpenStack Platform 17.0, VMware ESXi 7.0, 8.0, Citrix Hypervisor 8.2	
Graphics	Aspeed 2600 series BMC (1920 x 1200 , 16MB Memory, 1 x VGA Port)		
Expansion Slots			
PCI-Express	1 PCIe 5.0 x16 FHFL Dedicated Networking 1 PCIe 5.0 x16 FHFL DW or 2 PCIe 5.0 x8 FHFL 1 PCIe 5.0 x16 FHFL DW or 2 PCIe 5.0 x8 FHFL 1 PCIe 5.0 x16 FHFL DW or 2 PCIe 5.0 x8 FHFL 1 PCIe 5.0 x16 FHFL DW or 2 PCIe 5.0 x8 FHFL Supports upto 2 DW, upto 350W GPU/FPGA/NIC, Supports PCIe 2.0, 3.0, 4.0, 5.0 AOC's		
Chassis and Drive Bays			
Form Factor	2U rackmount		
Dimensions	Height 3,5" (88,9mm), Width 17,2" (437mm), Depth 31,6" (803mm).		
Power Supply	Redundant & Hot-Swappable 80+ Titanium Power Supply (1200 / 1600W / 2000W). Cables / Installation kit for GPU/FPGA/NICs provisioned optionally.		
Fans	Fans 4x 8cm heavy duty fans with optimal fan speed control (Redundant, Hot-Swappable), 2 Air Shroud(s)		
Drive bays	12 x 3.5" or 8 x /16 x /24 x 2.5" hot-swap drive bays, SAS/SATA/NVME Backplane, Default support for 8 x SATA3 drive bays and 2 x M.2 NVMe, Upto 24 x SAS3 / SATA3 / NVMe via Optional Storage Controllers, Support for Broadcom MegaRAID and Adaptec® Controllers		

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