



Data Sheet

TrueNAS Appliances


Mini Series
Home & Edge

R-Series
Versatile Value

R60
AI & HPC Optimized

H-Series
Compact & Robust

M-Series
Capacity & Scale

F-Series
Performance & Speed

V-Series
Versatility & Performance

| | Mini Series Home & Edge | R-Series Versatile Value | R60 AI & HPC Optimized | H-Series Compact & Robust | M-Series Capacity & Scale | F-Series Performance & Speed | V-Series Versatility & Performance |
|-------------------------|-------------------------------|-------------------------------|--------------------------------|------------------------------------|-------------------------------|---|--|
| High Availability | No | No | No | Optional | Optional | Optional | Optional |
| Target Use Case | Small Business, Edge, Home | Multi Purpose | Business Analytics, AI/ML, HPC | Edge, Small and Medium Enterprise | Mission Critical Enterprise | Media Production, Analytics, Virtualization | Media Production, AI/ML, Virtualization |
| Form Factor | Mini Tower or 2U Rackmount | 2U - 12U Rackmount | 1U - 9U Rackmount | 2U - 6U Rackmount | 4U - 52U Rackmount | 2U - 14U Rackmount | 4U - 60U |
| Chassis Depth | Mini R: 21", 531 mm | 26-39", 660-990 mm | 27", 710mm | 27", 686 mm | 27", 686 mm | 27", 686 mm | 32", 483 mm |
| Storage Architecture | Hybrid HDD / SSD or All-Flash | Hybrid HDD / SSD or All-Flash | All-NVMe Flash | Hybrid HDD / SSD or All-NVMe Flash | Hybrid HDD / SSD or All-Flash | All-NVMe Flash | Hybrid HDD/SSD or All-Flash NVMe |
| Storage | SATA | SATA / SAS | NVMe, Optional SAS | SAS, NVMe | SAS | NVMe, Optional SAS | SAS, NVMe |
| Write Cache | SATA SSD | SATA SSD, NVMe Option | Distributed Write Log | NVMe | SAS, NVMe, NVDIMM | Distributed Write Log | NVMe |
| Read Cache Size | 480 GB | 12.8 TB NVMe | 192 - 384 GB DDR5 | Up to 12.8 TB NVMe | Up to 12.8 TB NVMe | 512 GB DRAM | Up to 768 GB DRAM Up to 24 TB NVMe |
| Cores per Controller | 4 - 8 | 6 - 16 | 16 - 32 | 4 - 20 | 8 - 32 | 32 - 48 | 32 |
| vCPU per Controller | 4 - 8 | 12 - 32 | 32 - 64 | 8 - 40 | 8 - 64 | 64 - 96 | 64 |
| RAM per Controller | 16 - 64 GB | 32 - 192 GB | 192 - 384 GB | 64 - 256 GB | 96 GB - 768 GB | 512 GB | 384 - 768 GB |
| Expansion Shelves | 0 | 2 | Up to 4 | 1 | Up to 12 | Up to 6 | Up to 14 SAS/ Up to 6 NVMe |
| Max Capacity | 264 TB | Up to 5 PB | Up to 7 PB | Up to 3 PB | Up to 30 PB | Up to 20 PB | Up to 35 PB (Hybrid) Up to 20 PB (NVMe) |
| Max Effective Capacity* | 528 TB | Up to 10 PB | Up to 14 PB | Up to 6 PB | Up to 50 PB | Up to 40 PB | Up to 70 PB (Hybrid) Up to 40 PB (NVMe) |
| Bandwidth | 1 to 20 Gbit/s | 1 to 200 Gbit/s | 100 - 800 Gbit/s | 1 to 200 Gbit/s | 1 to 200 Gbit/s | 200 - 400 Gbit/s | 15 - 60 GB/s |
| Fibre Channel (option) | Not Available | 4× 16 Gbps | Not Available | 2 × 32 Gbps | Up to 4× 32 Gbps | Up to 4 × 32 Gbps | 4 × 16 Gb or 2 × 32 Gb |

File System

OpenZFS - File, Block, and Object Services - Open Source

Data Management

Unlimited Snapshots, Pool checkpoints, Space-efficient Clones, Replication: Remote, Local, Auto-Resume to Linux ZFS

Data Reduction

Thin/Thick Provisioning, In-line Adaptive Compression, Clones, Deduplication**, Trim

Access Protocols

SMB 2/3, NFSv3/v4, rsync, SMB Multi-channel, NFSv4, iSCSI, Fibre Channel, VAAI, S3, Distributed Minio, Cloud Sync, HTTP / WebDAV, FTP

Administration

IPMI, WebUI, REST API, SSH, SNMP, Syslog, LDAP, Kerberos, Active Directory, WebSockets API

*Maximum effective capacity assumes typical data reduction through compression and deduplication.

**Deduplication available on select hardware configurations.

