

IntelliFlash

Product Specifications



Tintri
Intelligent Infrastructure

Tintri IntelliFlash NVMe™-Flash Storage Systems

| Models | N5100-Series | N5200-Series | N5800-Series |
|---|---|-------------------|--------------------|
| Storage Capacity | | | |
| NVMe Flash Capacity (TB) † | 46 to 92 | 23 to 184 | 19 to 154 |
| Expansion Flash RAW Capacity (TB) † | Up to 276 | Up to 1105 | Up to 2212 |
| All-Flash Effective Capacity (TB) ‡ | Up to 1395 | Up to 5022 | Up to 9270 |
| Storage Controllers | | | |
| Dual Controller (active/active), fully redundant architecture | | | |
| Ethernet Data I/O Ports | 16x 10GbE or 8x 40GbE | | |
| Fibre Channel Data I/O Ports | 8x 8G FC or 12x 16G FC | | |
| Network Admin Ports | 2x 10GbE, 1x 1GbE (IPMI) | | |
| Physical Specifications | | | |
| Controller Form Factor | 2RU with 24 NVMe SSD slots | | |
| Physical Dimensions (HxWxD) | 3.5" x 17.2" x 24.75" (89mm x 437mm x 628mm) | | |
| Weight | 67lbs (30.4kg) (with 24 NVMe drives) | | |
| Typical Power Usage (Watt) | 800W (2730BTU/hr) | 900W (3070BTU/hr) | 1000W (3412BTU/hr) |
| Environmental Specifications | Operating temperature: 10°C to 35°C (50°F ~ 95°F) Non-operating temperature: -40°C to 70°C (-40°F to 158°F) Operating relative humidity: 8% to 90% (non-condensing) Non-operating relative humidity: 5% to 95% (non-condensing) | | |
| Software Services | | | |
| Block and File Protocols | SAN Protocols (iSCSI, Fibre Channel), NAS Protocols (NFS, SMB) | | |
| Capabilities | IntelliFlash Operating Environment: Real-time deduplication and compression, snapshots and clones, space efficient thin provisioning, synchronous replication, full featured file services, S3 Cloud Connector, Live Dataset Migration, data-at-rest and data-in-flight encryption | | |
| Management | IntelliFlash web UI, configuration wizard, Analytics for IntelliFlash, VMware plug-in for vCenter and support for vCenter Linked Mode, RBAC, SRA and VAAI NAS; Microsoft SCVMM/SMI-S, IP-KVM, SNMP, PowerShell Toolkit | | |
| Hardware Availability | Redundant storage controllers, fans, power supplies, and network ports; removable NVMe SSDs, SAS expansion | | |
| Warranty | | | |
| Basic | 24x7 support via email and phone, next business day hardware replacement for defective parts, and software updates for the first 90 days. | | |
| Optional | Standard and Premier Service. Visit tintri.com/intelliflash | | |

† Values indicated are RAW capacity. One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drives, the operating system and other factors

‡ Effective capacity assumes capacity after dual-parity, data protection, and metadata overhead, and includes the benefit of data reduction with inline deduplication and compression. Data Reduction is calculated based on 80% efficiency. This efficiency can differ based on workload and or expansion shelf configuration. Where a range is present, the values are Min - Max.

N5800 supports a max of 6x 2U, FE-400 All-Flash shelves.

N5200 supports a max of 3x 2U FE-400 All-Flash or 6x 2U FE-200 shelves.

N5100 supports a max of 3x 2U, FE-100 All-Flash shelves.

N5100, N5200, N5800 can support max 6x 3U Hybrid shelves.

Tintri IntelliFlash High-Density Flash Storage Systems

| Models | HD2040-Series | HD2080-Series | HD2160-Series |
|---|---|---------------|---------------|
| Storage Capacity | | | |
| All-Flash RAW Capacity (TB) [†] | 46 to 645 | 92 to 1290 | 184 to 2580 |
| All-Flash Effective Capacity (TB) [‡] | Up to 2511 | Up to 5022 | Up to 10044 |
| Storage Controllers | | | |
| Dual Controller (active/active), fully redundant architecture | | | |
| Ethernet Data I/O Ports | 24x 10GbE or 12x 40GbE | | |
| Fibre Channel Data I/O Ports | 12x 8G or 16x 16G FC | | |
| Network Admin Ports | 2x 1GbE, 1x 1GbE (IPMI) | | |
| Physical Specifications | | | |
| Controller Form Factor | 2RU with 24 SAS SDD slots | | |
| Physical Dimensions (HxWxD) | 3.5" x 17.2" x 25.25" (89mm x 437mm x 642mm) | | |
| Weight | 82lbs (37kg) | | |
| Typical Power Usage (Watt) | 495W (1690BTU/hr) | | |
| Environmental Specifications | Operating temperature: 10°C to 35°C (50°F to 95°F) Non-operating temperature: -40°C to 70°C (-40°F to 158°F) Operating relative humidity: 8% to 90% (non-condensing) Non-operating relative humidity: 5% to 95% (non-condensing) | | |
| Software Services | | | |
| Block and File Protocols | SAN protocols (iSCSI, Fibre Channel), NAS protocols (NFS, SMB) | | |
| Capabilities | IntelliFlash Operating Environment: Real-time deduplication and compression, snapshots and clones, space efficient thin provisioning, synchronous replication, full featured file services, S3 Cloud Connector, Live Dataset Migration, data-at-rest and data-in-flight encryption | | |
| Management | IntelliFlash web UI, configuration wizard, Analytics for IntelliFlash, VMware plug-in for vCenter and support for vCenter Linked Mode, RBAC, SRA and VAAI NAS; Microsoft SCVMM/SMI-S, IP-KVM, SNMP, PowerShell Toolkit | | |
| Hardware Availability | Redundant storage controllers, fans, power supplies, and network ports; removable SSDs, SAS expansion | | |
| Warranty | | | |
| Basic | 24x7 support via email and phone, next business day hardware replacement for defective parts and software updates for the first 90 days. | | |
| Optional | Standard and Premier Service. Visit tintri.com/intelliflash | | |

[†] Values indicated are RAW capacity. One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drives, the operating system and other factors.

[‡] Effective capacity assumes capacity after dual-parity, data protection, and metadata overhead, and includes the benefit of data reduction with inline deduplication and compression. Data Reduction is calculated based on 80% efficiency. This efficiency can differ based on workload and or expansion shelf configuration. Where a range is present, the values are Min - Max.

Max All Flash effective capacity calculated based on the following expansion units attachments: HD2160-400 + 6x FE-400, HD2080-200 + 6x FE-200, HD2040-100 + 6x FE-100.

Min All Flash RAW capacity based on half-populated controller unit.

Tintri IntelliFlash Hybrid H-Series Storage Systems

| Model | H6100 †† | H6200 |
|-------------------------------------|---|---|
| Storage Capacity | | |
| NVMe RAW Capacity (TB)† | 23 to 92 | 46 to 368 |
| HDD RAW Capacity (TB)† | 96 to 1344 | 720 to 6480 |
| Hybrid Effective Capacity (TB)‡ | 384 to 5376 | 2880 to 25920 |
| Storage Controllers | Dual Controller (active/active), fully redundant architecture | |
| Ethernet Data I/O Ports | Choice of: 16x 10GbE, 8x 25GbE or 8x 100GbE | |
| Fibre Channel Data I/O Ports | Choice of 8x 8G or 16x 16G FC | |
| Network Admin Ports | 4x 1GbE, 2x 1GbE (IPMI) | |
| Controller Form Factor | 2RU (24x NVMe SSDs) | 2RU (24x NVMe SSDs) |
| Controller Physical Dimensions | 3.45"(H) x 17.58" (W) 33.5" (D) (87.6mm (H) x 446.4mm (W) x 850mm (D)) | 3.45"(H) x 17.58" (W) 33.5" (D) (87.6mm (H) x 446.4mm (W) x 850mm (D)) |
| Weight | 105lbs (47.63kg) | 105lbs (47.63kg) |
| Typical Power Usage (Watt) | 800 W (2730 BTU/hr) | 840 W (2866 BTU/hr) |
| Environmental Specifications | Operating temperature: 10°C to 25°C (50°F to 77°F) Non-operating temperature: -40°C to 70°C (-40°F to 158°F) Operating relative humidity: 20% to 90% (non-condensing) Non-operating relative humidity: 5% to 95% (non-condensing) | |
| Expansion Shelves | | |
| Expansion Form Factor | 4RU (24x SAS HDDs) per expansion shelf | 4RU (90x SAS HDDs) per expansion shelf |
| Expansion Shelf Physical Dimensions | 7.0"(H) x 17.2" (W) 27.0" (D) (178mm (H) x 437mm (W) x 686mm (D)) | 6.9"(H) x 17.56" (W) 42.52" (D) (175.3mm (H) x 446mm (W) x 1080mm (D)) |
| Software Services | | |
| Block and File Protocols | SAN Protocols (iSCSI, Fibre Channel), NAS Protocols (NFS, SMB) | |
| Capabilities | IntelliFlash Operating Environment: Real-time deduplication and compression, snapshots and clones, space efficient thin provisioning, synchronous replication, full featured file services, S3 Cloud Connector, Live Dataset Migration, data-aH-rest and data-in-flight encryption | |
| Management | IntelliFlash web UI, configuration wizard, Analytics for IntelliFlash, VMware plug-in for vCenter and support for vCenter Linked Mode, RBAC, SRA and VAAI NAS; Microsoft SCVMM/SMI-S, IP-KVM, SNMP, PowerShell Toolkit | |
| Hardware Availability | Redundant storage controllers, fans, power supplies, and network ports; removable SSDs and HDDs, SAS expansion | |
| Warranty | | |
| Basic | 24x7 support via email and phone, next business day hardware replacement for defective parts and software updates for the first 90 days. | |
| Optional | Gold and Platinum Services. Visit Tintri.com | |

† Values indicated are RAW capacity. One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drives, the operating system and other factors

‡ Effective capacity assumes capacity after dual-parity, data protection, and metadata overhead, and includes the benefit of data reduction with inline deduplication and compression. Data Reduction is calculated based on 4:1 ratio. This efficiency can differ based on workload and or expansion shelf configuration. Where a range is present, the values are Min - Max.

†† IntelliFlash H6100 system is expected to be generally available in Q1 CY2021.

Tintri IntelliFlash H-Series Expansion Shelves

| Model | H6100 ^{†‡} | | | H6200 | | |
|--|--|--------|--------|---|---------|---------|
| | HE-96 | HE-192 | HE-336 | HE-720 | HE-1260 | HE-1620 |
| Shelf Type | 24-Bay SAS HDD Expansion | | | 90-Bay SAS HDD Expansion | | |
| Storage Capacity | | | | | | |
| Supported HDD Media Size (TB) | 4 | 8 | 14 | 8 | 14 | 18 |
| Raw Capacity (TB) [†] | 96 | 192 | 336 | 720 | 1260 | 1620 |
| Effective Capacity (TB) [‡] | 384 | 768 | 1344 | 2880 | 5040 | 6480 |
| Physical Specifications | | | | | | |
| Expansion Shelf Form Factor (EIA Rack Units) | 4RU | | | | | |
| Physical Dimensions (HxWxD) | 7.0"(H) x 17.2" (W) 27.0" (D) (178mm (H) x 437mm (W) x 686mm (D)) | | | 6.9"(H) x 17.56" (W) 42.52" (D) (175.3mm (H) x 446mm (W) x 1080mm (D)) | | |
| Weight | 60.5lbs (27.4kg) 81lbs (36.7kg) (with 24 drives) | | | 91lbs (41.0kg) 260lbs (118kg) (with 90 drives) | | |
| Environmental Specifications | Operating temperature: 10°C to 35°C (50°F to 95°F) Non-operating temperature: -40°C to 70°C (-40°F to 158°F) Operating relative humidity: 20% to 90% (non-condensing) Non-operating relative humidity: 5% to 95% (non-condensing) | | | | | |

[†]Values indicated are RAW capacity. One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drives, the operating system and other factors

[‡] Effective capacity assumes capacity after dual-parity, data protection, and metadata overhead, and includes the benefit of data reduction with inline deduplication and compression. Data Reduction is calculated based on 4:1 ratio. This efficiency can differ based on workload and or expansion shelf configuration. Where a range is present, the values are Min - Max.

^{†‡} IntelliFlash H6100 expansion shelves are expected to be generally available in Q1 CY2021.

Tintri IntelliFlash Hybrid and All-Flash T-Series Storage Systems

| Model | Hybrid Storage System | | All-Flash Storage System | |
|--|---|--|---|-------|
| | T4200 | | T4700 | T4800 |
| Storage Capacity | | | | |
| All-Flash RAW Capacity (TB) [†] | N/A | | 23 | 46 |
| All-Flash Effective Capacity (TB) [‡] | N/A | | 83 | 166 |
| Flash as % of Total Usable Capacity | 20% | | 100% | |
| Hybrid Flash RAW Capacity (TB) [†] | 5.8 to 40.4 | | N/A | |
| HDD RAW Capacity (TB) [†] | 52 to 364 | | N/A | |
| Hybrid Effective Capacity (TB) [‡] | 156 to 1387 | | N/A | |
| Storage Controllers | Dual Controller (active/active), fully redundant architecture | | | |
| Ethernet Data I/O Ports | 24x 10GbE or 12x 40GbE | | | |
| Fibre Channel Data I/O Ports | 12x 8G or 16x 16G FC | | | |
| Network Admin Ports | 2x 1GbE, 1x 1GbE (IPMI) | | | |
| Physical Specifications | | | | |
| Controller Form Factor | 3RU | | 2RU | |
| Physical Dimensions (HxWxD) | 5.25" x 17.2" x 25.25" (134mm x 437mm x 642mm) | | 3.5" x 17.2" x 25.25" (89mm x 437mm x 642mm) | |
| Weight | 105lbs (47.63kg) | | 80lbs (36.29kg) | |
| Typical Power Usage (Watt) | 441W (1505BTU/hr) | | 495W (1690BTU/hr) | |
| Environmental Specifications | Operating temperature: 10°C to 25°C (50°F to 77°F) Non-operating temperature: -40°C to 70°C (-40°F to 158°F) Operating relative humidity: 20% to 90% (non-condensing) Non-operating relative humidity: 5% to 95% (non-condensing) | | | |
| Software Services | | | | |
| Block and File Protocols | SAN Protocols (iSCSI, Fibre Channel), NAS Protocols (NFS, SMB) | | | |
| Capabilities | IntelliFlash Operating Environment: Real-time deduplication and compression, snapshots and clones, space efficient thin provisioning, synchronous replication, full featured file services, S3 Cloud Connector, Live Dataset Migration, data-at-rest and data-in-flight encryption | | | |
| Management | IntelliFlash web UI, configuration wizard, Analytics for IntelliFlash, VMware plug-in for vCenter and support for vCenter Linked Mode, RBAC, SRA and VAAI NAS; Microsoft SCVMM/SMI-S, IP-KVM, SNMP, PowerShell Toolkit | | | |
| Hardware Availability | Redundant storage controllers, fans, power supplies, and network ports; removable SSDs and HDDs, SAS expansion | | | |
| Warranty | | | | |
| Basic | 24x7 support via email and phone, next business day hardware replacement for defective parts and software updates for the first 90 days. | | | |
| Optional | Standard and Premier Service. Visit tintri.com/intelliflash | | | |

[†] Values indicated are RAW capacity. One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drives, the operating system and other factors

[‡] Effective capacity assumes capacity after dual-parity, data protection, and metadata overhead, and includes the benefit of data reduction with inline deduplication and compression. Data Reduction is calculated based on 80% efficiency. This efficiency can differ based on workload and/or expansion shelf configuration. Where a range is present, the values are Min - Max.

Tintri IntelliFlash Expansion Shelves

| Models | HE-50 | FE-25 | FE-50 | FE-100 | FE-200 | FE-400 |
|--|--|---|-------|------------|------------|------------|
| Shelf Type | Hybrid Flash | All-Flash | | | | |
| Storage Capacity | | | | | | |
| All-Flash Raw Capacity (TB) [†] | 5.6 | 23 | 46 | 46 - 92 | 92 - 184 | 184 - 368 |
| HDD Raw Capacity (TB) [†] | 52 | N/A | N/A | N/A | N/A | N/A |
| All-Flash Effective Capacity (TB) [‡] | N/A | 544 | 1090 | Up to 2180 | Up to 4360 | Up to 8718 |
| Physical Specifications | | | | | | |
| Expansion Shelf Form Factor (EIA Rack Units) | 3RU | 2RU | | | | |
| Physical Dimensions (HxWxD) | 5.25" x 17.2" x 25.25" (134mm x 437mm x 642mm) | 3.5" x 17.2" x 25.25" (89mm x 437mm x 642mm) | | | | |
| Typical Power Usage (Watt) | 196W (668BTU/hr) | 218W (744BTU/hr) | | | | |
| Weight | 105lbs (47.6kg) | 80lbs (36.3kg) (with 24 drives) | | | | |
| Environmental Specifications | Operating temperature: 10°C to 35°C (50°F to 95°F) Non-operating temperature: -40°C to 70°C (-40°F to 158°F) Operating relative humidity: 20% to 90% (non-condensing) Non-operating relative humidity: 5% to 95% (non-condensing) | | | | | |

[†]Values indicated are RAW capacity. One MB is equal to one million bytes, one GB is equal to one billion bytes and one TB equals 1,000GB (one trillion bytes) when referring to storage capacity. Accessible capacity will vary from the stated capacity due to formatting and partitioning of the hard drives, the operating system and other factors

[‡] Effective capacity assumes capacity after dual-parity, data protection, and metadata overhead, and includes the benefit of data reduction with inline deduplication and compression. Data Reduction is calculated based on 80% efficiency. This efficiency can differ based on workload and or expansion shelf configuration. Where a range is present, the values are Min - Max.

Min All Flash RAW capacity based on half-populated expansion shelf: FE-100, FE-200, FE-400.