

# IntelliFlash

## Product Matrix



**Tintri**  
*Intelligent Infrastructure*

# Tintri IntelliFlash NVMe™-Flash Storage Systems

Models	N5100-Series	N5200-Series	N5800-Series
<b>Storage Capacity</b>			
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
<b>Storage Controllers</b>			
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)		
<b>Physical Specifications</b>			
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)		
<b>Software Services</b>			
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		
<b>Hardware Availability</b>	Redundant storage controllers, fans, power supplies, and network ports; removable NVMe SSDs, SAS expansion		
<b>Warranty</b>			
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 <a href="http://tintri.com/intelliflash">tintri.com/intelliflash</a>		

† 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
<b>Storage Capacity</b>			
All-Flash RAW Capacity (TB) <sup>†</sup>	46 to 645	92 to 1290	184 to 2580
All-Flash Effective Capacity (TB) <sup>‡</sup>	Up to 2511	Up to 5022	Up to 10044
<b>Storage Controllers</b>			
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)		
<b>Physical Specifications</b>			
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)		
<b>Software Services</b>			
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		
<b>Hardware Availability</b>	Redundant storage controllers, fans, power supplies, and network ports; removable SSDs, SAS expansion		
<b>Warranty</b>			
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 <a href="http://tintri.com/intelliflash">tintri.com/intelliflash</a>		

<sup>†</sup> 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.

<sup>‡</sup> 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 and All-Flash T-Series Storage Systems

Model	Hybrid Storage System		All-Flash Storage System	
	T4200		T4700	T4800
<b>Storage Capacity</b>				
All-Flash RAW Capacity (TB) <sup>†</sup>	N/A		23	46
All-Flash Effective Capacity (TB) <sup>‡</sup>	N/A		83	166
Flash as % of Total Usable Capacity	20%		100%	
Hybrid Flash RAW Capacity (TB) <sup>†</sup>	5.8 to 40.4		N/A	
HDD RAW Capacity (TB) <sup>†</sup>	52 to 364		N/A	
Hybrid Effective Capacity (TB) <sup>‡</sup>	156 to 1387		N/A	
<b>Storage Controllers</b>	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)			
<b>Physical Specifications</b>				
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)			
<b>Software Services</b>				
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			
<b>Warranty</b>				
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 <a href="http://tintri.com/intelliflash">tintri.com/intelliflash</a>			

<sup>†</sup> 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

<sup>‡</sup> 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
<b>Shelf Type</b>	Hybrid Flash	All-Flash				
<b>Storage Capacity</b>						
All-Flash Raw Capacity (TB) <sup>†</sup>	5.6	23	46	46 - 92	92 - 184	184 - 368
HDD Raw Capacity (TB) <sup>†</sup>	52	N/A	N/A	N/A	N/A	N/A
All-Flash Effective Capacity (TB) <sup>‡</sup>	N/A	544	1090	Up to 2180	Up to 4360	Up to 8718
<b>Physical Specifications</b>						
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)					

<sup>†</sup>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

<sup>‡</sup> 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.