

Network-Attached Storage

FS Series							
FS6400		FS3400	FS1018	SA3600	SA Series SA3400	SA3200D (Dual Controller)	
							
Performance (MB/s) ⁽⁹⁾	Read: 7036.09 MB/s ; Write: 4665.86 MB/s ⁽⁴⁾		Read: 2350.52 MB/s ; Write: 1056.10 MB/s ⁽⁴⁾		Read: 5520.05 MB/s ; Write: 2731.02 MB/s ⁽⁴⁾		Read: 3537.00 MB/s ; Write: 1851.96 MB/s ⁽⁴⁾
CPU Frequency	2 x 8-core 2.1 turbo up to 3.0 GHz		8-core 2.1 turbo up to 2.7 GHz		12-core 2.1 turbo up to 2.7 GHz		4-core 2.4 turbo up to 2.7 GHz per controller
Hardware Encryption Engine	Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)
RAM	32 GB DDR4 ECC RDIMM - Up to 512 GB		16 GB DDR4 ECC RDIMM - Up to 128 GB		16 GB DDR4 ECC RDIMM - Up to 128 GB		8 GB DDR4 ECC UDIMM - Up to 64 GB per controller
Compatible HDD/SSD Type ⁽¹¹⁾	SAS/SATA		SAS/SATA		SAS/SATA		SAS
External Device Interface	2 x USB 3.0, 1 x Expansion port(s)		2 x USB 3.0, 1 x Expansion port(s)		2 x USB 3.0, 1 x Expansion port(s)		1 x Expansion port(s) per controller
Drive Bays ⁽¹⁾	24		24		12		12
Size (mm) (HxWxD)	88 x 482 x 724		88 x 482 x 724		88 x 482 x 724		88 x 482 x 724
LAN	2 x 10GbE, 2 x 1GbE		2 x 10GbE, 4 x 1GbE		2 x 10GbE, 4 x 1GbE		1 x 10GbE, 2 x 1GbE per controller
PCIe Slots ⁽¹²⁾	2		1		2		1 per controller
Power Consumption ⁽²⁾	Access	288.49 W	313.84 W	107.92 W	156.23 W	137.17 W	417.48 W
	HDD Hibernation	145.8 W	125.77 W	48.36 W	72.37 W	70.95 W	274.38 W
File System - Internal Drive	Btrfs, EXT4				Btrfs, EXT4		
Networking Protocols	CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)				CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)		
Volume Type	Basic, JBOD, RAID 0/1/5/6/10, Synology RAID F1				Basic, JBOD, RAID 0/1/5/6/10, Synology RAID F1		
Max. IP Camera Number ⁽³⁾	128		100		128		100
Total Frames Per Second (FPS)	3840 FPS at 720p		3000 FPS at 720p		3840 FPS at 720p		3000 FPS at 720p
Max. User Accounts	16000		16000		16000		16000
Max. Concurrent Connections (CIFS, FTP, AFP)	8000		4000		4000		1200
Max. Synology MailPlus Client Number	Up to 2200		Up to 1100		Up to 1600		n/a
Max. Synology Office Users	3400		3400		3400		2800
Warranty (Years) ⁽¹⁵⁾	5		5		5		5

Network-Attached Storage

XS(+) Series							
RS4017xs+	RS3617xs+	RS1619xs+	RS3618xs	RS3617RPxs	DS3617xs	DS3018xs	
							
Performance (MB/s) ⁽⁹⁾	Read: 6221.77 MB/s ; Write: 2668.49 MB/s ⁽⁴⁾		Read: 1523.02 MB/s ; Write: 959.47 MB/s ⁽⁴⁾		Read: 4380.55 MB/s ; Write: 2022.20 MB/s ⁽⁴⁾		Read: 2320.27 MB/s ; Write: 950.25 MB/s ⁽⁴⁾
CPU Frequency	8-core 2.1 turbo up to 2.7 GHz		4-core 2.2 turbo up to 2.7 GHz		4-core 2.4 turbo up to 2.7 GHz		2-core 2.2 turbo up to 2.6 GHz
Hardware Encryption Engine	Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)
RAM	8 GB DDR4 ECC UDIMM - Up to 64GB		8 GB DDR4 ECC UDIMM - Up to 64GB		8 GB DDR4 ECC UDIMM - Up to 64 GB		8 GB DDR4 ECC SO-DIMM - Up to 32 GB
Compatible HDD/SSD Type ⁽¹¹⁾	SATA		SATA		SATA		SATA
External Device Interface	2 x USB 3.0, 2 x Expansion port(s)		2 x USB 3.0, 1 x Expansion port(s)		2 x USB 3.0, 2 x Expansion port(s)		3 x USB 3.0, 2 x Expansion port(s)
Drive Bays ⁽¹⁾	16		12		12		6
Size (mm) (HxWxD)	132.3 x 482 x 656.5		88 x 482 x 724		88 x 482 x 724		166 x 282 x 243
LAN	2 x 10GbE, 4 x 1GbE		2 x 10GbE, 4 x 1GbE		4 x 1GbE		4 x 1GbE
PCIe Slots ⁽¹²⁾	2		2		1		1
Power Consumption ⁽²⁾	Access	136.4 W	133.9 W	68.68 W	142.76 W	116.42 W	79.44 W
	HDD Hibernation	69.2 W	69.18 W	34.78 W	55.05 W	65.49 W	56.92 W
File System - Internal Drive	Btrfs, EXT4				Btrfs, EXT4		
Networking Protocols	CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)				CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)		
Volume Type	Basic, JBOD, RAID 0/1/5/6/10, Synology RAID F1				Basic, JBOD, RAID 0/1/5/6/10, Synology RAID F1		
Max. IP Camera Number ⁽³⁾	90		90		75		75
Total Frames Per Second (FPS)	2700 FPS at 720p		2700 FPS at 720p		2250 FPS at 720p		2250 FPS at 720p
Max. User Accounts	16000		16000		16000		16000
Max. Concurrent Connections (CIFS, FTP, AFP)	2000		2000		2000		2000
Max. Synology MailPlus Client Number	Up to 1100		Up to 800		Up to 500		Up to 200
Max. Synology Office Users	2900		3000		2900		2900
Warranty (Years) ⁽¹⁵⁾	5		5		5		5

(1) Drives not included. Please visit www.synology.com for compatible drive models.

(2) The power consumption value is for reference only and will vary according to drive models and capacity.

(3) 2 free licenses for installing two IP cameras are available for Surveillance Station 6.1 and above. DVA3219 comes with 8 licenses, and NVR1218 comes with 4 licenses.

(4) The performance figures were tested with multiple 10GbE connections under Link Aggregation and Btrfs file system. DS1817 was tested with EXT4 file system.

(5) The performance figures were tested under Link Aggregation and Btrfs file system. RS217 and DS419slim were tested with EXT4 file system.

(6) Synology DS720+ supports RAID 5/6/10/Global Hot Spare only when it is connected to DX517.

(7) Synology NVR1218 supports RAID 5/6/Global Hot Spare only when it is connected to DX517.

(8) NVR1218 does not support iSCSI in networking protocols.

(9) Product data have been reviewed for accuracy on the date of its initial publication. Data and product information are subject to change without notice. For more details, please visit www.synology.com.

(10) Need to pair with a Synology NVR or Synology NAS.

(11) "Compatible HDD/SSD Type" refers to the drives that have been tested to be compatible with Synology products. This term does not indicate the maximum connection speed of each drive bay.

(12) Please visit www.synology.com for the most up-to-date information regarding lane count, slot width, and supported add-in cards.

(13) RS2818RP+, RS2418RP+, and RS2418+ come with a 4 GB DDR4 Non-ECC UDIMM and can support up to 64 GB with optional ECC UDIMMs.

(14) DS2419+, DS1819+, DS1618+, and DVA3219 come with a 4 GB DDR4 Non-ECC SO-DIMM and can support up to 32 GB with optional ECC SO-DIMMs.






(15) The warranty period starts from the purchase date as stated on your purchase receipt. Please visit <https://www.synology.com/company/legal/warranty> for more information.

(16) RS820+/RS820RP+ comes with 2 GB DDR4 Non-ECC onboard and can support up to 18 GB by adding one optional 16 GB SO-DIMM.

Network-Attached Storage

		Plus Series						
		RS2818RP+	RS2418+/RS2418RP+	RS1219+	RS820+/RS820RP+	DS2419+	DS1819+	DS1618+
Network-Attached Storage								
Performance (MB/s) ⁽⁹⁾		Read: 1733.58 MB/s ; Write: 687.41 MB/s ⁽⁴⁾	Read: 1729.72 MB/s ; Write: 682.78 MB/s ⁽⁴⁾	Read: 1317.50 MB/s ; Write: 473.24 MB/s ⁽⁴⁾	Read: 1621.25 MB/s ; Write: 599.05 MB/s ⁽⁴⁾	Read: 1716.88 MB/s ; Write: 671.50 MB/s ⁽⁴⁾	Read: 2045.20 MB/s ; Write: 656.71 MB/s ⁽⁴⁾	Read: 2037.83 MB/s ; Write: 624.25 MB/s ⁽⁴⁾
CPU Frequency		4-core 2.1 GHz	4-core 2.1 GHz	4-core 2.4 GHz	4-core 2.1 GHz	4-core 2.1 GHz	4-core 2.1 GHz	4-core 2.1 GHz
Hardware Encryption Engine		Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)	Yes (AES-NI)
RAM		4 GB DDR4 Non-ECC UDIMM - Up to 64 GB ECC ⁽¹³⁾	4 GB DDR4 Non-ECC UDIMM - Up to 64 GB ECC ⁽¹³⁾	2 GB DDR3 Non-ECC SO-DIMM - Up to 16 GB	2 GB DDR4 - Up to 18 GB ⁽¹⁶⁾	4 GB DDR4 Non-ECC SO-DIMM -Up to 32 GB ⁽¹⁴⁾	4 GB DDR4 Non-ECC SO-DIMM -Up to 32 GB ⁽¹⁴⁾	4 GB DDR4 Non-ECC SO-DIMM -Up to 32 GB ⁽¹⁴⁾
Compatible HDD/SSD Type ⁽¹¹⁾		SATA	SATA	SATA	SATA	SATA	SATA	SATA
External Device Interface		2 x USB 3.0, 1 x Expansion port(s)	2 x USB 3.0, 1 x Expansion port(s)	2 x USB 3.0, 1 x eSATA	2 x USB 3.0, 1 x eSATA	2 x USB 3.0, 1 x Expansion port	4 x USB 3.0, 2 x eSATA	3 x USB 3.0, 2 x eSATA
Drive Bays ⁽¹⁾		16	12	8	4	12	8	6
Size (mm) (HxWxD)		132.3 x 482 x 656.5	RS2418+: 88 x 482 x 696 RS2418RP+: 88 x 482 x 724	88 x 481.9 x 306.6	RS820+: 44 x 480 x 492.6 RS820RP+: 44 x 480 x 518.6	270 x 300 x 340	166 x 343 x 243	166 x 282 x 243
LAN		4 x 1GbE	4 x 1GbE	4 x 1GbE	4 x 1GbE	4 x 1GbE	4 x 1GbE	4 x 1GbE
PCIe Slots ⁽¹²⁾		1	1	1	1	1	1	1
Power Consumption ⁽²⁾	Access	138.1 W	RS2418+: 109 W RS2418RP+: 119.6 W	60.31 W	RS820+: 37.94 W RS820RP+: 38.88 W	101.6 W	66.96 W	56.86 W
	HDD Hibernation	66.7 W	RS2418+: 52.4 W RS2418RP+: 55.9 W	29.04 W	RS820+: 20.96 W RS820RP+: 22.17 W	43.96 W	29.39 W	25.76 W
File System - Internal Drive		Btrfs, EXT4			Btrfs, EXT4			
Networking Protocols		CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)			CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)			
Volume Type		Basic, JBOD, RAID 0/1/5/6/10, SHR			Basic, JBOD, RAID 0/1/5/6/10, SHR			
Max. IP Camera Number ⁽³⁾		40	40	40	40	40	40	40
Total Frames Per Second (FPS)		1200 FPS at 720p	1200 FPS at 720p	1200 FPS at 720p	1200 FPS at 720p	1200 FPS at 720p	1200 FPS at 720p	1200 FPS at 720p
Max. User Accounts		2048	2048	2048	2048	2048	2048	2048
Max. Concurrent Connections (CIFS, FTP, AFP)		1000	1000	500	500	1000	1000	1000
Max. Synology MailPlus Client Number		Up to 150	Up to 150	Up to 100	Up to 150	Up to 150	Up to 150	Up to 150
Max. Synology Office Users		1800	1800	1800	1800	1800	1800	1800
Warranty (Years) ⁽¹⁵⁾		3	3	3	3	3	3	3

Network-Attached Storage

Network-Attached Storage		Plus Series DS1019+		Plus Series DS920+		Plus Series DS720+		Plus Series DS420+		Plus Series DS220+		DS620slim		Value Series RS819	
															
Performance (MB/s) ⁽⁹⁾		Read: 226 MB/s ; Write: 225.82 MB/s ⁽⁵⁾		Read: 225.99 MB/s ; Write: 225.90 MB/s ⁽⁵⁾		Read: 225.99 MB/s ; Write: 195.42 MB/s ⁽⁵⁾		Read: 226.00 MB/s ; Write: 225.74 MB/s ⁽⁵⁾		Read: 225.98 MB/s ; Write: 192.21 MB/s ⁽⁵⁾		Read: 225.99 MB/s ; Write: 225.02 MB/s ⁽⁵⁾		Read: 225.66 MB/s ; Write: 169.27 MB/s ⁽⁵⁾	
CPU Frequency		4-core 1.5 burst up to 2.3 GHz		4-core 2.0 burst up to 2.7 GHz		4-core 2.0 burst up to 2.7 GHz		2-core 2.0 burst up to 2.9 GHz		2-core 2.0 burst up to 2.9 GHz		2-core 2.0 burst up to 2.5 GHz		4-core 1.4 GHz	
Hardware Encryption Engine		Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)		Yes (AES-NI)		Yes	
RAM		8 GB DDR3L		4 GB DDR4 - Up to 8 GB		2 GB DDR4 - Up to 6 GB		2 GB DDR4 - Up to 6 GB		2 GB DDR4 - Up to 6 GB		2 GB DDR3L - Up to 6 GB		2 GB DDR4	
Compatible HDD/SSD Type ⁽¹¹⁾		SATA, M.2 NVMe		SATA, M.2 NVMe		SATA, M.2 NVMe		SATA, M.2 NVMe		SATA		SATA		SATA	
External Device Interface		2 x USB 3.0, 1 x eSATA		2 x USB 3.0, 1 x eSATA		2 x USB 3.0, 1 x eSATA		2 x USB 3.0		2 x USB 3.0		2 x USB 3.0		2 x USB 3.0, 1 x eSATA	
Drive Bays ⁽¹⁾		5		4		2		4		2		6		4	
Size (mm) (HxWxD)		166 x 230 x 223		166 x 199 x 223		166 x 106 x 223		166 x 199 x 223		165 x 108 x 232.2		121 x 151 x 175		44 x 478 x 327.5	
LAN		2 x 1GbE		2 x 1GbE		2 x 1GbE		2 x 1GbE		2 x 1GbE		2 x 1GbE		2 x 1GbE	
PCIe Slots ⁽¹²⁾		n/a						n/a							
Power Consumption ⁽²⁾	Access	38.59 W		32.17 W		20.07 W		28.30 W		14.69 W		34.88 W		28.31 W	
	HDD Hibernation	13.32 W		9.69 W		6.19 W		8.45 W		4.41 W		7.59 W		10.1 W	
File System - Internal Drive		Btrfs, EXT4						Btrfs, EXT4							
Networking Protocols		CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)						CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)							
Volume Type		Basic, JBOD, RAID 0/1/5/6/10, SHR				Basic, JBOD, RAID 0/1/5/6/10, SHR ⁽⁴⁾		Basic, JBOD, RAID 0/1/5/6/10, SHR		Basic, JBOD, RAID 0/1, SHR		Basic, JBOD, RAID 0/1/5/6/10, SHR		Basic, JBOD, RAID 0/1/5/6/10, SHR	
Max. IP Camera Number ⁽³⁾		40		40		40		25		25		25		30	
Total Frames Per Second (FPS)		1200 FPS at 720p		1200 FPS at 720p		1200 FPS at 720p		750 FPS at 720p		750 FPS at 720p		750 FPS at 720p		900 FPS at 720p	
Max. User Accounts		2048		2048		2048		2048		2048		2048		2048	
Max. Concurrent Connections (CIFS, FTP, AFP)		2000		1000		500		500		500		500		200	
Max. Synology MailPlus Client Number		Up to 100		Up to 100		Up to 100		Up to 50		Up to 50		Up to 50		n/a	
Max. Synology Office Users		1800		450		450		450		450		400		200	
Warranty (Years) ⁽¹⁵⁾		3		3		3		3		2		2		3	

(1) Drives not included. Please visit www.synology.com for compatible drive models.

(2) The power consumption value is for reference only and will vary according to drive models and capacity.

(3) 2 free licenses for installing two IP cameras are available for Surveillance Station 6.1 and above. DVA3219 comes with 8 licenses, and NVR1218 comes with 4 licenses.

(4) The performance figures were tested with multiple 10GbE connections under Link Aggregation and Btrfs file system. DS1817 was tested with EXT4 file system.

(5) The performance figures were tested under Link Aggregation and Btrfs file system. RS217 and DS419slim were tested with EXT4 file system.

(6) Synology DS720+ supports RAID 5/6/10/Global Hot Spare only when it is connected to DX517.

(7) Synology NVR1218 supports RAID 5/6/Global Hot Spare only when it is connected to DX517.

(8) NVR1218 does not support iSCSI in networking protocols.

(9) Product data have been reviewed for accuracy on the date of its initial publication. Data and product information are subject to change without notice. For more details, please visit www.synology.com.

(10) Need to pair with a Synology NVR or Synology NAS.

(11) "Compatible HDD/SSD Type" refers to the drives that have been tested to be compatible with Synology products. This term does not indicate the maximum connection speed of each drive bay.

(12) Please visit www.synology.com for the most up-to-date information regarding lane count, slot width, and supported add-in cards.

(13) RS2818RP+, RS2418RP+, and RS2418+ come with a 4 GB DDR4 Non-ECC UDIMM and can support up to 64 GB with optional ECC UDIMMs.

(14) DS2419+, DS1819+, DS1618+, and DVA3219 come with a 4 GB DDR4 Non-ECC SO-DIMM and can support up to 32 GB with optional ECC SO-DIMMs.







(15) The warranty period starts from the purchase date as stated on your purchase receipt. Please visit <https://www.synology.com/company/legal/warranty> for more information.

(16) RS820+/RS820RP+ comes with 2 GB DDR4 Non-ECC onboard and can support up to 18 GB by adding one optional 16 GB SO-DIMM.

Network-Attached Storage

		Value Series					
		RS217	DS1817	DS418	DS218	Value Series DS218play	DS118
Network-Attached Storage							
Performance (MB/s) ⁽⁹⁾		Read: 225.30 MB/s ; Write: 172.15 MB/s ⁽⁵⁾	Read: 1695.40 MB/s ; Write: 738.82 MB/s ⁽⁴⁾	Read: 225.81 MB/s ; Write: 160.66 MB/s ⁽⁵⁾	Read: 112.94 MB/s ; Write: 112.96 MB/s	Read: 112.97 MB/s ; Write: 112.31 MB/s	Read: 112.92 MB/s ; Write: 112.88 MB/s
CPU Frequency		2-core 1.33 GHz	4-core 1.7 GHz	4-core 1.4 GHz	4-core 1.4 GHz	4-core 1.4 GHz	4-core 1.4 GHz
Hardware Encryption Engine		Yes	Yes	Yes	Yes	Yes	Yes
RAM		512 MB DDR3	4 GB DDR3L Non-ECC SO-DIMM - Up to 8 GB	2 GB DDR4	2 GB DDR4	1 GB DDR4	1 GB DDR4
Compatible HDD/SSD Type ⁽¹¹⁾		SATA	SATA	SATA	SATA	SATA	SATA
External Device Interface		2 x USB 3.0, 1 x USB 2.0, 1 x eSATA	2 x USB 3.0, 2 x eSATA	2 x USB 3.0	2 x USB 3.0, 1 x USB 2.0	2 x USB 3.0	2 x USB 3.0
Drive Bays ⁽¹⁾		2	8	4	2	2	1
Size (mm) (HxWxD)		44 x 479.4 x 295.5	157 x 340 x 233	166 x 199 x 223	165 x 108 x 233.2	165 x 100 x 225.5	166 x 71 x 224
LAN		2 x 1GbE	2 x 1GbE, 2 x 10GbE	2 x 1GbE	1 x 1GbE	1 x 1GbE	1 x 1GbE
Power Consumption ⁽²⁾	Access	21.25 W	59.1 W	26.49 W	14.99 W	16.79 W	9.40 W
	HDD Hibernation	12.9 W	26.4 W	8.78 W	5.78 W	5.16 W	4.22 W
File System - Internal Drive		EXT4		Btrfs, EXT4	Btrfs, EXT4	EXT4	
Networking Protocols		CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)			CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI, Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)		
Volume Type		Basic, JBOD, RAID 0/1, SHR	Basic, JBOD, RAID 0/1/5/6/10, SHR		Basic, JBOD, RAID 0/1, SHR		Basic
Max. IP Camera Number ⁽³⁾		16	30	30	20	15	15
Total Frames Per Second (FPS)		480 FPS at 720p	900 FPS at 720p	900 FPS at 720p	600 FPS at 720p	450 FPS at 720p	450 FPS at 720p
Max. User Accounts		2048	2048	2048	2048	2048	2048
Max. Concurrent Connections (CIFS, FTP, AFP)		200	1000	200	200	200	200
Max. Synology MailPlus Client Number		n/a			n/a		
Max. Synology Office Users		200	400	200	200	200	200
Warranty (Years) ⁽¹⁵⁾		3	3	2	2	2	2

Network-Attached Storage

		J series				J series		Network Video Recorder					
		DS420j	DS419slim	DS220j	DS120j	DVA3219		NVR1218					
Network-Attached Storage													
Performance (MB/s) ⁽⁹⁾		Read: 112.96 MB/s ; Write: 112.69 MB/s		Read: 223.49 MB/s ; Write: 94.98 MB/s ⁽⁵⁾		Read: 112.95 MB/s ; Write: 112.93 MB/s		Read: 112.69 MB/s ; Write: 106.99 MB/s		n/a			
CPU Frequency		4-core 1.4 GHz		2-core 1.33 GHz		4-core 1.4 GHz		2-core 800 MHz		4-core 2.1 GHz		2-core 1.0 GHz	
Hardware Encryption Engine		Yes		Yes		Yes		Yes		Yes (AES-NI)		n/a	
RAM		1 GB DDR4		512 MB DDR3L		512 MB DDR4		512 MB DDR3		4 GB DDR4 Non-ECC SO-DIMM -Up to 32 GB ⁽¹⁴⁾		1 GB DDR3	
Compatible HDD/SSD Type ⁽¹¹⁾		SATA		SATA		SATA		SATA		SATA		SATA	
External Device Interface		2 x USB 3.0		2 x USB 3.0		2 x USB 3.0		2 x USB 2.0		3 x USB 3.0, 2 x eSATA		1 x USB 3.0, 2 x USB 2.0, 1 x eSATA, 1 x HDMI	
Drive Bays ⁽¹⁾		4		4		2		1		4		2	
Size (mm) (HxWxD)		184 x 168 x 230		120 x 105 x 142		165 x 100 x 225.5		166 x 71 x 224		166 x 250 x 237		165 x 100 x 225.5	
LAN		1 x 1GbE		2 x 1GbE		1 x 1GbE		1 x 1GbE		4 x 1GbE		1 x 1GbE	
Power Consumption ⁽²⁾	Access	21.71 W		20.28 W		12.46 W		9.81 W		53.78 W		13.64 W	
	HDD Hibernation	7.88 W		7.27 W		5.06 W		4.68 W		34.01 W		4.32 W	
File System - Internal Drive		EXT4				EXT4		EXT4		Btrfs, EXT4		EXT4	
Networking Protocols		CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI ⁽⁸⁾ , Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)				CIFS, AFP, NFS, FTP, WebDAV, CalDAV, iSCSI ⁽⁸⁾ , Telnet, SSH, SNMP, VPN (PPTP, OpenVPN™, L2TP)							
Volume Type		Basic, JBOD, RAID 0/1/5/6/10, SHR		Basic, JBOD, RAID 0/1/5/6/10, SHR		Basic, JBOD, RAID 0/1, SHR		Basic		Basic, JBOD, RAID 0/1/5/6/10, SHR		Basic, JBOD, RAID 0/1/5/6, SHR ⁽⁷⁾	
Max. IP Camera Number ⁽³⁾		16		8		10		5		32		12	
Total Frames Per Second (FPS)		480 FPS at 720p		240 FPS at 720p		360 FPS at 720p		150 FPS at 720p		960 FPS at 720p		360 FPS at 720p	
Max. User Accounts		1024		1024		1024		512		2048		1024	
Max. Concurrent Connections (CIFS, FTP, AFP)		100		100		100		50		100		100	
Max. Synology MailPlus Client Number		n/a				n/a		n/a		150		n/a	
Max. Synology Office Users		200		100		200		n/a		100		n/a	
Warranty (Years) ⁽¹⁵⁾		2		2		2		2		3		3	

(1) Drives not included. Please visit www.synology.com for compatible drive models.

(2) The power consumption value is for reference only and will vary according to drive models and capacity.

(3) 2 free licenses for installing two IP cameras are available for Surveillance Station 6.1 and above. DVA3219 comes with 8 licenses, and NVR1218 comes with 4 licenses.

(4) The performance figures were tested with multiple 10GbE connections under Link Aggregation and Btrfs file system. DS1817 was tested with EXT4 file system.

(5) The performance figures were tested under Link Aggregation and Btrfs file system. RS217 and DS419slim were tested with EXT4 file system.

(6) Synology DS720+ supports RAID 5/6/10/Global Hot Spare only when it is connected to DX517.

(7) Synology NVR1218 supports RAID 5/6/Global Hot Spare only when it is connected to DX517.

(8) NVR1218 does not support iSCSI in networking protocols.

(9) Product data have been reviewed for accuracy on the date of its initial publication. Data and product information are subject to change without notice. For more details, please visit www.synology.com.

(10) Need to pair with a Synology NVR or Synology NAS.

(11) "Compatible HDD/SSD Type" refers to the drives that have been tested to be compatible with Synology products. This term does not indicate the maximum connection speed of each drive bay.

(12) Please visit www.synology.com for the most up-to-date information regarding lane count, slot width, and supported add-in cards.

(13) RS2818RP+, RS2418RP+, and RS2418+ come with a 4 GB DDR4 Non-ECC UDIMM and can support up to 64 GB with optional ECC UDIMMs.

(14) DS2419+, DS1819+, DS1618+, and DVA3219 come with a 4 GB DDR4 Non-ECC SO-DIMM and can support up to 32 GB with optional ECC SO-DIMMs.

(15) The warranty period starts from the purchase date as stated on your purchase receipt. Please visit <https://www.synology.com/company/legal/warranty> for more information.

(16) RS820+/RS820RP+ comes with 2 GB DDR4 Non-ECC onboard and can support up to 18 GB by adding one optional 16 GB SO-DIMM.



IP SAN

Performance (MB/s) ⁽⁹⁾		Read: 4720.07 MB/s ; Write: 2983.11 MB/s ⁽⁴⁾
Number of Controllers		2 (Active-Active)
CPU Frequency		4-core 2.4 turbo up to 2.7 GHz per controller
Hardware Encryption Engine		Yes (AES-NI)
RAM		8 GB DDR4 ECC UDIMM - Up to 64 GB per controller
Compatible HDD/SSD Type ⁽¹¹⁾		SAS
External Device Interface		1 x Expansion port(s) per controller
Drive Bays ⁽¹⁾		12
Size (mm) (HxWxD)		88 x 482 x 724
LAN		1 x 10GbE, 2 x 1GbE per controller
PCIe Slots ⁽¹²⁾		1 per controller
Power Consumption ⁽²⁾	Access	417.48 W
	HDD Hibernation	274.38 W
File System - Internal Drive		Btrfs
Networking Protocols		iSCSI, Telnet, SSH, SNMP
Volume Type		Basic, JBOD, RAID 0/1/5/6/10, Synology RAID F1
Max. User Accounts		16000
Maximum System Snapshots		4096
Virtualization		VMware vSphere® 6.5, Microsoft Hyper-V®, Citrix®, OpenStack®
Warranty (Years) ⁽¹⁵⁾		5



Expansion unit

Compatible HDD/SSD Type		SATA	SATA	SATA
Drive Bays ⁽¹⁾		4	12	5
Size (mm) (HxWxD)		44 x 480 x 325	270 x 300 x 340	157 x 248 x 233
Power onsumption ⁽²⁾	Access	23.26 W	51.23 W	29.9 W
	HDD Hibernation	6.39 W	21.71 W	2.4 W
Volume Type		RAID Management through Synology servers		
Warranty (Years)		3	5	3

(1) Drives not included. Please visit www.synology.com for compatible drive models.

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Expansion unit

Compatible HDD/SSD Type		SAS	SAS/SATA
Drive Bays ⁽¹⁾		12	24
Size (mm) (HxWxD)		88 x 482 x 724	88 x 482 x 724
Power onsumption ⁽²⁾	Access	299.79 W	201.6 W
	HDD Hibernation	n/a	117.2 W
Volume Type		RAID Management through Synology servers	
Warranty (Years)		5	5



Expansion unit

Compatible HDD/SSD Type		SAS/SATA	SATA
Drive Bays ⁽¹⁾		12	12
Size (mm) (HxWxD)		88 x 482 x 724	RX1217: 88 x 482 x 696 RX1217RP: 88 x 482 x 724
Power onsumption ⁽²⁾	Access	132.7 W	RX1217: 68.6 W RX1217RP: 71.32 W
	HDD Hibernation	89.3 W	RX1217: 27.45 W RX1217RP: 31.2 W
Volume Type		RAID Management through Synology servers	
Warranty (Years)		5	5



Synology Router

CPU Frequency		2-core 1.7 GHz	4-core 717 MHz
RAM		512 MB DDR3	256 MB DDR3
Layer 4 & 7 Traffic Control Hardware Acceleration		Yes	n/a
Wi-Fi Connectivity		IEEE 802.11a/b/g/n/ac Simultaneous dual-band AC2600 (800Mbps + 1.73Gbps) MU-MIMO Beamforming	IEEE 802.11a/b/g/n/ac Simultaneous tri-band AC2200 (400 + 867 +867Mbps) MU-MIMO Beamforming
Wi-Fi Security		WPA/WPA2-Personal/Enterprise, WPA2/WPA3-Personal, WPA3-Personal/Enterprise, OWF	
Roaming		802.11k/v/r support	
Max. Wireless Devices		100	90
Recommended Max. Number of Wi-Fi Points		1 Primary + 6 Wi-Fi points ⁽¹⁷⁾ 1 Primary + 12 Wi-Fi points ⁽¹⁸⁾	
LAN / WAN		4 x 1GbE / 1 x 1GbE (Dual WAN: 3 x 1GbE / 2 x 1GbE)	1 x 1GbE / 1 x 1GbE
External Device Interface		1 x USB 3.0, 1 x USB 2.0, 1 x SD Card	1 x USB 3.0
Size (mm) (HxWxD)		77 x 280 x 169 (without antenna)	154 x 199 x 65
Power Consumption ⁽²⁾	Access	10.80 W	12.95 W
	Idle	7.94 W	5.21 W
Warranty (Years) ⁽¹⁵⁾		2	2



PC-less surveillance

External Device Interface		2 x USB 2.0, 1 x USB 3.0	2 x USB 2.0, 1 x USB 3.0
LAN		1 x 1GbE	1 x 1GbE
Video Output		2 x HDMI	1 x HDMI, 1 x VGA
Audio Input/Output		2 x 3.5 mm Stereo Audio Jack	2 x 3.5mm Stereo Audio Jack
Supported Video Resolution		HDMI 1: 3840 x 2160, 30Hz/60 Hz; HDMI 2: 1920 x 1080, 60 Hz	1920 x 1080, 60 Hz
Max. Channel Number		96 (960 FPS at 720p)	36 (360 FPS at 720p)
Video Compression Format		MJPEG, MPEG-4, H.264, H.265	MJPEG, MPEG-4, H.264
Audio Codec		PCM, G711, G726, AMR, AAC	PCM, G711, G726, AMR, AAC, ADPCM
Size (mm) (HxWxD)		32 x 130 x 130	32 x 130 x 130
Power Consumption		7.2 W (96ch full-load)	4.76 W (36ch full-load)
Operating Temperature		-20°C to 50°C	-20°C to 50°C
Warranty (Years) ⁽¹⁵⁾		3	3

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(15) The warranty period starts from the purchase date as stated on your purchase receipt. Please visit <https://www.synology.com/company/legal/warranty> for more information.

(16) RS820+/RS820RP+ comes with 2 GB DDR4 Non-ECC onboard and can support up to 18 GB by adding one optional 16 GB SO-DIMM.

(17) In all wireless uplink connection environment.

(18) In all wired uplink connection environment.