

Synology®



THE COMPREHENSIVE STORAGE SOLUTION

2013 Product Guide

use-IP

www.use-ip.co.uk
01304 827609

www.synology.com

Synology®

Synology is the leading NAS vendor in the global market. As a dedicated NAS server provider, we aim to leverage the latest technologies to deliver innovative products that make a difference to individuals and businesses. Between individual activities and technology, Synology bridges the gap and offers a human-centric approach to storing the data of tomorrow.

XS+ / XS

SERIES

Large Scale Business

Synology's XS+ and XS storage solutions give enterprises an unparalleled combination of uncompromising performance, intelligent management, system reliability, and affordable scalability to address complex business challenges.

Being reliable and secure is
always the key to business longevity



RS10613xs+

- Quad Core 3.3GHz CPU
- 2294.17 reading & 1892.16 writing (MB/s) with Link Aggregation
- 424TB maximum capacity with expansion unit RX1213sas; support SAS, SATA, SSD hard drives

DS3612xs

- Dual Core 3.1GHz CPU
- 1958.76 reading & 1086.37 writing (MB/s) with Link Aggregation
- 144TB maximum capacity with DX1211 using 12Gb/s SATA cable



RS3413xs+

- Quad Core 3.3GHz CPU
- 2165.30 reading & 1490.08 writing (MB/s) with Link Aggregation
- 136TB maximum capacity with expansion unit RX1211



RS3412xs / RS3412RPxs

- Dual Core 3.1GHz CPU
- 1676.70 reading & 1077.46 writing (MB/s) with Link Aggregation
- 136TB maximum capacity with expansion unit RX1211

High Availability

Synology High Availability Manager (SHAM) harness dual storage servers into high-availability cluster. In the event of physical server malfunction, the other working server will take over to minimize downtime and enhance overall protection.

SSD Cache

Using SSD as additional cache not only increases cache capacity, the design also leverages SSD performance to boost the system's read performance.

SRS

Businesses that adopt XS+ and XS series are entitled to receive Synology Replacement Service within the next business day after application.

Virtualization

Synology has extensive support for virtualization solutions. In addition to Citrix®, Synology NAS servers are now also ready for VMware vSphere® 5 and VAAI, as well as Windows Server® 2012.

RAID Group

RAID group merges multiple RAID arrays to allow large volumes created on top. The design strengthens system fault-tolerance level while keeping storage utilization efficient for enterprise.

Global Hot Spare

Proactive global hot sparing combining with hot-swappable drives ensure continual service uptime during drives replacement.

PLUS SERIES

Small and Medium Business

Synology's small and medium business storage solutions provide the foundation you need to increase performance, lower costs, simplify storage management and reach the ultimate goal of staying competitive in the long term.

Fits in perfectly today and grows with you tomorrow



DS2413+ Unparalleled Reliability & Scalability

- Dual Core 2.13GHz CPU
- 201.03 reading & 196.87 writing (MB/s) with Link Aggregation
- 96TB maximum capacity with expansion unit DX1211



DS1513+ Versatile & Reliable Task Achiever

- Dual Core 2.13GHz CPU
- 350.94 reading & 202.34 writing (MB/s) with Link Aggregation
- 60TB maximum capacity with expansion unit DX513

DS1813+ Balanced Capability & Storage Density

- Dual Core 2.13GHz CPU
- 352.39 reading & 211.88 writing (MB/s) with Link Aggregation
- 72TB maximum capacity with DX513

RS2212+/RS2212RP+ Pushing IT Agility & Performance to the Top

- Dual Core 2.13GHz CPU
- 200.73 reading & 194.32 writing (MB/s) with Link Aggregation
- 88TB maximum capacity with expansion unit RX1211



RS812+/RS812RP+ Smart Data Center Starts Here

- Dual Core 2.13GHz CPU
- 202.31 reading & 175.11 writing (MB/s) with Link Aggregation
- 72TB maximum capacity with expansion unit RX410



DS412+ Geared for Virtual Environment

- Dual Core 2.13GHz CPU
- 205.68 reading & 182.66 writing (MB/s) with Link Aggregation
- 16TB maximum capacity



DS112+ The SMB-essential Power House

- 2.0GHz CPU
- 107.92 reading & 76.66 writing (MB/s)
- 4TB maximum capacity



DS213+ Driving Performance & Energy Efficiency

- Dual Core 1.067GHz CPU
- 110.36 reading & 84.31 writing (MB/s)
- 8TB maximum capacity



DS713+ Virtualization-ready With Optimal Footprint

- Dual Core 2.13GHz CPU
- 202.3 reading & 135.84 writing (MB/s) with Link Aggregation
- 28TB maximum capacity with expansion unit DX513

VALUE

SERIES

Office Workgroup

SOHO workgroups can take advantage of Synology's versatile range of features and find a balance between demands of performance, storage space, energy efficiency and price.



DS413
Power Storage with Energy Efficiency

- Performance (Read/Write): 111.12 / 80.86 (MB/s)
- CPU Frequency: Dual Core 1.067GHz
- Max. Storage Capacity: 16TB



DS213
Outstanding Performance and Value

- Performance (Read/Write): 108.41 / 65.36 (MB/s)
- CPU Frequency: 2.0 GHz
- Max. Storage Capacity: 8TB



DS213air
Compelling Value for Work and Play

- Performance (Read/Write): 108.97 / 59.49 (MB/s)
- CPU Frequency: 1.6 GHz
- Max. Storage Capacity: 8TB

The personal cloud is right in your home

Home and Personal

SERIES

Synology's entry-level NAS server is perfect for anyone who is looking to create an environment to store and share videos, music, documents and files that matter the most.



RS212
Tailored for Industrial Use

- Performance (Read/Write): 108.07 / 61.05 (MB/s)
- CPU Frequency: 1.6 GHz
- Max. Storage Capacity: 8TB
- Withstands operating temperature up to 45°C



RS812
Scale Up the Productivity

- Performance (Read/Write): 107.74 / 54.27 (MB/s)
- CPU Frequency: 1.6 GHz
- Max. Storage Capacity: 32TB (with expansion unit RX410)



DS112
Sleek Look, Superb Value

- Performance (Read/Write): 110.19 / 71.84 (MB/s)
- CPU Frequency: 1.6 GHz
- Max. Storage Capacity: 4TB



DS411slim
Compact Design and Capable Strengths

- Performance (Read/Write): 103.39 / 53.99 (MB/s)
- CPU Frequency: 1.6 GHz
- Max. Storage Capacity: 4TB



DS213j
Experience a Powerful Multimedia Hub

- Performance (Read/Write): 109.82 / 70.15 (MB/s)
- CPU Frequency: 1.2 GHz
- Max. Storage Capacity: 8TB



DS413j
Greater Space, Better Utilization

- Performance (Read/Write): 108.19 / 53.29 (MB/s)
- CPU Frequency: 1.6 GHz
- Max. Storage Capacity: 16TB



DS112j
Keep it Light on Budget and Power

- Performance (Read/Write): 80.9 / 50.74 (MB/s)
- CPU Frequency: 1.0 GHz
- Max. Storage Capacity: 4TB

Synology Storage Expansion Solution

Managing the ever-increasing amount of data shouldn't take your time away from running your business. Synology makes upgrading storage capacity simple and easy to help you reduce IT complexity and reserve valuable resources.



RX1213sas



RX1211/RX1211RP

NAS Server	RS10613xs+	RS3413xs+	RS3412xs/RS3412RPxs	RS2212+/RS2212RP+
No. of Applicable Expansion Unit(s)	8	2	2	1
Max. No. of HDDs	106 pcs	34 pcs	34 pcs	22 pcs



DX1211



DX513

NAS Server	DS3612xs	DS2413+	DS1813+	DS1513+	DS713+
No. of Applicable Expansion Unit(s)	2	1	2	2	1
Max. No. of HDDs	36 pcs	24 pcs	18 pcs	15 pcs	7 pcs



RX410



DX213

NAS Server	RS812+/RS812RP+	RS812	DS1813+	DS1513+	DS713+
No. of Applicable Expansion Unit(s)	1	1	2	2	1
Max. No. of HDDs	8 pcs	8 pcs	12 pcs	9 pcs	4 pcs

2013
PRODUCT
SPECS



DiskStation/ RackStation

	RS10613xs+	RS3413xs+	RS3412xs/RS3412RPxs	DS3612xs	RS2212+/RS2212RP+	RS812+/RS812RP+	DS2413+	DS1813+	DS1513+	DS713+	DS412+
Performance(MB/sec)	Read : 2294.17 MB/sec ⁽⁴⁾ Write : 1892.16 MB/sec	Read : 2165.30 MB/sec ⁽⁴⁾ Write : 1490.08 MB/sec	Read : 1676.7 MB/sec ⁽⁴⁾ Write : 1077.46 MB/sec	Read : 1958.76 MB/sec ⁽⁴⁾ Write : 1086.37 MB/sec	Read : 200.73 MB/sec ⁽³⁾ Write : 194.32 MB/sec	Read : 202.31 MB/sec ⁽³⁾ Write : 175.11 MB/sec	Read : 201.03 MB/sec ⁽³⁾ Write : 196.87 MB/sec	Read : 352.39 MB/sec ⁽³⁾ Write : 211.88 MB/sec	Read : 350.94 MB/sec ⁽³⁾ Write : 202.34 MB/sec	Read : 202.3 MB/sec ⁽³⁾ Write : 135.84 MB/sec	Read : 205.68 MB/sec ⁽³⁾ Write : 182.66 MB/sec
CPU Frequency	Quad Core 3.3 GHz	Quad Core 3.3 GHz	Dual Core 3.1 GHz	Dual Core 3.1 GHz	Dual Core 2.13 GHz	Dual Core 2.13 GHz	Dual Core 2.13GHz	Dual Core 2.13 GHz	Dual Core 2.13 GHz	Dual Core 2.13 GHz	Dual Core 2.13 GHz
Floating Point	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hardware Encryption Engine	Yes (AES-NI)	Yes (AES-NI)	No	No	No	No	No	No	No	No	No
RAM	DDR3 8GB ECC (Up to 32GB)	DDR3 8GB ECC (Up to 32GB)	DDR3 2GB ECC (Up to 6GB)	DDR3 2GB ECC (Up to 6GB)	1GB DDR3 (Up to 3GB)	1GB DDR3 (Up to 3GB)	2GB DDR3 (Up to 4GB)	2GB DDR3 (Up to 4GB)	2GB DDR3 (Up to 4GB)	1GB DDR3	1GB DDR3
Internal HDD Interface	10X SATA/SAS (6Gb/s)	10X SATA(II)	10X SATA(II)	12X SATA(II)	10X SATA(II)	4X SATA(II)	12X SATA(II)	8X SATA(II)	5X SATA(II)	2X SATA(II)	4X SATA(II)
External Device Interface	4X USB 2.0, 2X SAS Expansion port	4X USB 2.0, 2X Expansion port ⁽⁷⁾	4X USB 2.0, 2X Expansion port ⁽⁷⁾	4X USB 2.0, 2X Expansion port ⁽⁷⁾	4X USB 2.0, 1X Expansion port ⁽⁷⁾	2X USB 2.0, 1X eSATA	2X USB 3.0, 4X USB 2.0, 1X Expansion port ⁽⁷⁾	2X USB 3.0, 4X USB 2.0, 2X eSATA	2X USB 3.0, 4X USB 2.0, 2X eSATA	2X USB 3.0, 1X USB 2.0, 1X eSATA	2X USB 3.0, 1X USB 2.0, 1X eSATA
MAX HDD Support ⁽¹⁾	10X 4TB	10X 4TB	10X 4TB	12X 4TB	10X 4TB	4X 4TB	12X 4TB	8X 4TB	5X 4TB	2X 4TB	4 X 4TB
Size (mm) (HxWxD)	88 X 445 X 570	88 X 445 X 570	88 X 445 X 570	310 X 300 X 340	88 X 445 X 570	44 X 430.5 X 457.5/570.5	270 X 300 X 340	157 x 340 x 233	157x 248 x 233	157 X 103.5 X 232	165 X 203 X 233.2
Gigabit LAN	4 (additional 2X 10GbE)	4 (additional 2X 10GbE)	4 (additional 2X 10GbE)	4 (additional 2X 10GbE)	2	2	2	4	4	2	2
Power Consumption ⁽²⁾	Access : 142W HDD Hibernation : 110W	Access : 144W HDD Hibernation : 96W	Access : 115.5W HDD Hibernation : 57.2W	Access : 132W HDD Hibernation : 57.2W	Access : 88W HDD Hibernation : 36W	Access : 46.2W HDD Hibernation : 25.3W	Access : 111.1W HDD Hibernation : 41.8W	Access : 75.19W HDD Hibernation : 34.12W	Access : 51W HDD Hibernation : 25.75W	Access : 30.72W HDD Hibernation : 17.88W	Access : 44W HDD Hibernation : 15W
Scheduled Power On/Off	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hot Swappable HDD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
File System	EXT4, EXT3(External Disk Only), FAT(External Disk Only), NTFS(External Disk Only)						EXT4, EXT3(External Disk Only), FAT(External Disk Only), NTFS(External Disk Only)				
Networking Protocols	CIFS, AFP, FTP, Telnet, SSH, NFS, iSCSI, WebDAV						CIFS, AFP, FTP, Telnet, SSH, NFS, iSCSI, WebDAV				
Volume Type	Basic, JBOD, RAID 0/1/5/6/10, RAID 5+Spare		Basic, JBOD, RAID 0/1/5/6/10, RAID 5+Spare, SHR ⁽⁶⁾			Basic, JBOD, RAID 0/1/5/6/10, RAID 5+Spare, SHR ⁽⁶⁾					
Windows AD Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MAX IP Camera # ⁽³⁾	70	70	50	50	20	20	20	20	20	20	20
MAX User Accounts	4,096	4,096	4,096	4,096	2,048	2,048	2,048	2,048	2,048	2,048	2,048
MAX Groups	512	512	512	512	256	256	256	256	256	256	256
MAX Concurrent Connections (Samba, FTP, AFP)	1,024	1,024	1,024	1,024	512	512	512	512	512	512	512
Warranty (years)	3			2			3			2	

	DS213+	DS112+	RS812	DS413	RS212	DS213	DS112	DS411slim	DS413j	DS213air	DS213j	DS112j
Performance(MB/sec)	Read : 110.36 MB/sec Write : 84.31 MB/sec	Read : 107.92 MB/sec Write : 76.66 MB/sec	Read : 107.74 MB/sec Write : 54.27 MB/sec	Read : 111.12 MB/sec Write : 80.86 MB/sec	Read : 108.07 MB/sec Write : 61.05 MB/sec	Read : 108.41 MB/sec Write : 65.36 MB/sec	Read : 110.19 MB/sec Write : 71.84 MB/sec	Read : 103.39 MB/sec Write : 53.99 MB/sec	Read : 108.19 MB/sec Write : 53.29 MB/sec	Read : 108.07 MB/sec Write : 58.66 MB/sec	Read : 109.82 MB/sec Write : 70.15 MB/sec	Read : 80.90 MB/sec Write : 50.74 MB/sec
CPU Frequency	Dual Core 1.067GHz	2.0 GHz	1.6 GHz	Dual Core 1.067GHz	1.6 GHz	2.0 GHz	1.6 GHz	1.6 GHz	1.6GHz	1.6 GHz	1.2 GHz	1.0 GHz
Floating Point	Yes	No	No	Yes	No	No	No	No	No	No	Yes	No
Hardware Encryption Engine	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
RAM	512MB DDR3	512MB DDR3	512MB DDR3	1GB DDR3	256MB DDR3	512MB DDR3	256MB DDR3	256MB DDR3	512MB DDR3	256MB DDR3	512MB DDR3	128MB DDR2
Internal HDD Interface	2X SATA(II)	1X SATA(II)	4X SATA(II)	4X SATA(II)	2X SATA(II)	2X SATA(II)	1X SATA(II)	4X 2.5" SATA(II)	4X SATA(II)	2X SATA(II)	2X SATA(II)	1X SATA(II)
External Device Interface	2X USB 3.0, 1X USB 2.0, 1X eSATA, 1X SD card	2X USB 3.0, 1X eSATA	2X USB 2.0, 1X eSATA	2X USB 3.0, 1X USB 2.0, 1X eSATA	2X USB 2.0, 1X eSATA	2X USB 3.0, 1X USB 2.0, 1X SD card	2X USB 3.0, 1X eSATA	2X USB 2.0, 1X eSATA	2X USB 2.0	2X USB 3.0	2X USB 2.0	2X USB 2.0
MAX HDD Support ⁽¹⁾	2X 4TB	1X 4TB	4X 4TB	4X 4TB	2X 4TB	2X 4TB	1X 4TB	4X 1TB	4X 4TB	2X 4TB	2X 4TB	1X 4TB
Size (mm) (HxWxD)	165 X 108 X 233.2	166 X 71 X 224	44 X 430.5 X 457.5	165 X 203 X 233.2	44 X 430.5 X 287.5	165 X 108 X 233.2	166 x 71 x 224	120 X 105 X 142	184 X 168 X 230	165 x 100 x 225.5	165 X 100 X 225.5	166 X 71 X 224
Gigabit LAN	1	1	2	1	2	1	1	1	1	1	1	1
Power Consumption ⁽²⁾	Access : 22.2W System Hibernation : 2.64W	Access : 14.6W HDD Hibernation : 6.34W	Access : 37W HDD Hibernation : 14.3W	Access : 35.62W System Hibernation : 3.37W	Access : 25.3W HDD Hibernation : 16.5W	Access : 18.48W HDD Hibernation : 8.28W	Access : 13.2W HDD Hibernation : 5.04W	Access : 16.8W HDD Hibernation : 9.6W	Access : 31.56W HDD Hibernation : 7.68W	Access : 22.44W HDD Hibernation : 5.76W	Access : 19.82W HDD Hibernation : 3.65W	Access : 12.1W HDD Hibernation : 4.4W
Scheduled Power On/Off	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hot Swappable HDD	Yes	Yes	Yes	Yes	Yes	Yes	No	No, Easy-Replacement	Yes	No	No	No
File System	EXT4, EXT3(External Disk Only), FAT(External Disk Only), NTFS(External Disk Only)						EXT4, EXT3(External Disk Only), FAT(External Disk Only), NTFS(External Disk Only)					
Networking Protocols	CIFS, AFP, FTP, Telnet, SSH, NFS, iSCSI, WebDAV						CIFS, AFP, FTP, Telnet, SSH, NFS, iSCSI, WebDAV					
Volume Type	Basic, JBOD, RAID 0/1, SHR		Basic, JBOD, RAID 0/1/5/6/10, RAID 5+Spare, SHR			Basic, JBOD, RAID 0/1, SHR		Basic, JBOD, RAID 0/1/5/6/10, RAID 5+Spare, SHR			Basic, JBOD, RAID 0/1, SHR	
Windows AD Support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MAX IP Camera # ⁽³⁾	12	12	12	12	8	8	8	8	5	8	5	5
MAX User Accounts	2,048	2,048	2,048	2,048	2,048	2,048	2,048	2,048	1,024	2,048	512	512
MAX Groups	256	256	256	256	256	256	256	256	256	256	128	128
MAX Concurrent Connections (Samba, FTP, AFP)	256	1,024	256	256	128	128	128	128	128	128	64	64
Warranty (years)	2		3			2		2			2	

Expansion unit

	RX1213sas	RX1211/RX1211RP	DX1211	DX513	RX410	DX213
Internal HDD	12X SATA(II)	12X SATA(II)	12X SATA(II)	5X SATA(II)	4X SATA(II)	2X SATA(II)
MAX HDD Support ⁽¹⁾	4TB	4TB	4TB	4TB	4TB	4TB
Size (mm) (HxWxD)	88X 445 X 570	88X 445 X 570	270 X 300 X 340	157 X 248 X 233	44 X 430.5 X 457.5	165 X 100 X 225.5
Volume Type	Basic, JBOD, RAID 0, RAID1, RAID 5, RAID 5+Spare, RAID 6, RAID 10, SHR					Basic, JBOD, RAID 0/1, SHR

USB Station 2

	USB Station 2
External HDD Interface	2X USB 2.0
Max Capacity (External HDD)	3TB X2
LAN	Gigabit X1
File System	EXT4/EXT3/FAT32/ NTFS
Printing Protocol Support	LPR / CIFS / Apple Talk
Max Printer Support	2
Size (mm) (HxWxD)	46 X 122 X 111

(1) HDD not included. Check www.synology.com for compatible HDD models.
 (2) The power consumption value is for reference only and will vary with hard drive models and capacity.
 (3) 1 free license to install 1 IP camera. Additional licenses can be purchased to expand the license quota.
 (4) The performance figures were tested with two 10GbE connections under Link Aggregation. For more detailed testing numbers please visit www.synology.com
 (5) The performance figures were tested under Link Aggregation.
 (6) Synology DiskStation DS713+ supports RAID 5/6/10/5+Spare only with Synology DX513 or DX213.
 (7) Expansion port carries 12Gb/s SATA signal.



System Requirements

To learn more about system requirements and limitation for each feature, please visit www.synology.com

For More Information

To learn more about Synology DiskStation & RackStation and how it can help support your data storage efforts, please visit www.synology.com

The customer is responsible for ensuring compliance with legal requirements. It is the customer's sole responsibility to obtain advice of competent legal counsel as to the identification and interpretation of any relevant laws and regulatory requirements that may affect the customer's business and any actions the customer may need to take to comply with such laws. Synology does not provide legal advice or represent or warrant that its services and products will ensure that the customer is in compliance with any law or regulation.

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Synology Incorporated
3F-3, No.106, Chang An W. Rd.,
Taipei 10351,
Taiwan

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Synology®



Synology Inc.
3F-3, No. 106,
Chang An W. Rd., Taipei,
Taiwan
Tel: +886 2 2552 1814

Synology America Corp.
13343 NE Bel-Red Road,
Bellevue, WA 98005,
USA
Tel: +1 425 818 1587

Synology France
39 rue Louis Blanc
92400 Courbevoie
France
Tel: +33(0) 1 47 17 62

Synology GmbH
Grafenberger Allee 125
40237 Düsseldorf
Deutschland
Tel: +49 0211 9666 9666

Synology UK Ltd.
Etheridge Avenue,
Brinklow, Milton Keynes,
MK10 0BP, UK
Tel: +44 1908 587422