



ROG STRIX ARION S500

BLAZING SPEEDS, EXCEPTIONAL COOLING



OVERVIEW

ROG STRIX ARION S500

USB 3.2 GEN 2 TYPE-C PORTABLE SSD

500 GB

Up to 1050 Mbps*

The ROG Strix Arion S500 is a portable NVMe® SSD with USB-C® 3.2 Gen 2 connectivity with DRAM SLC buffer for blisteringly-fast 1050 MB/s file transfers. Made out of aluminum alloy, this sleek portable drive includes thermal pads for effective heat dissipation, 256-bit AES disk and data encryption, ROG SSD Dashboard for easy drive management, and exclusive ASUS Aura Sync lighting to give any gaming setup a unified look. The inclusion of NTI Backup Now EZ software makes ROG Strix Arion S500 the ideal high-performance, mobile storage solution.



FOR THOSE

THE BEST OF THE BEST

500 GB

Up to **1050** Mbps*



LARGE SLC &
DRAM CACHING



Transfer 100GB
FILE IN 2 MINS



256-bit AES
Encryption



FULL BACKUP
SOLUTION



GAME CONSOLE
SUPPORT



FULL ACCESS WITH
SSD DASHBOARD

Aura Sync lighting

**Outstanding
heat dissipation**

FOR THOSE
WHO DARE



UNRIVALED TRANSFER SPEEDS

Reaching industrial benchmark limits

CrystalDiskMark 8.0.1 x64				
ALL	5	1GiB	D: 0% (0/466GiB)	MB/s
	Read(MB/s)		Write(MB/s)	
SEQ1M Q8T1	1024.04		946.57	
SEQ1M Q1T1	820.35		867.98	
RND4K Q32T1	280.38		265.48	
RND4K Q1T1	35.49		54.43	

ROG Strix Arion S500 500GB

CrystalDiskMark 8.0.1 x64				
ALL	5	1GiB	D: 0% (0/466GiB)	MB/s
	Read(MB/s)		Write(MB/s)	
SEQ1M Q8T1	1023.44		920.65	
SEQ1M Q1T1	740.55		843.59	
RND4K Q32T1	291.91		269.52	
RND4K Q1T1	37.54		54.64	

Brand B

CrystalDiskMark 8.0.1 x64				
ALL	5	1GiB	D: 0% (0/466GiB)	MB/s
	Read(MB/s)		Write(MB/s)	
SEQ1M Q8T1	1023.20		896.65	
SEQ1M Q1T1	900.62		820.79	
RND4K Q32T1	283.06		267.79	
RND4K Q1T1	41.21		53.00	

Brand A

CrystalDiskMark 8.0.1 x64				
ALL	5	1GiB	D: 0% (0/466GiB)	MB/s
	Read(MB/s)		Write(MB/s)	
SEQ1M Q8T1	1006.31		896.11	
SEQ1M Q1T1	759.91		792.94	
RND4K Q32T1	274.87		261.48	
RND4K Q1T1	24.03		40.11	

Brand C

* Industrial benchmark is generally 1050MB/s

Test Platform

MB	ASUS TUF X570-PLUS	Memory	ZADAK DDR4-3000 8G*2	CPU	AMD Ryzen 9 5950X@	CPU Cooler	SCSK-2000 Shuriken2
GPU	ROG STRIX RX5700XT	PSU	CORSAIR CX750M	O.S.HDD	intel 760P 256G m.2 SSD	External SSD	Arion S 500

FLASH DATA TRANSFERRING

Transfer 100 GB file the fastest among all portable SSDs

Data transfer test :93GiB(100GB)		
Brand	Time	Sec
ROG Arion S500 500GB	0:01:42	102
Brand A	0:01:51	111
Brand B	0:03:36	216
Brand C	0:03:56	236

* Time – Lower is Better

Test Platform							
MB	ASUS TUF X570-PLUS	Memory	ZADAK DDR4-3000 8G*2	CPU	AMD Ryzen 9 5950X@	CPU Cooler	SCSK-2000 Shuriken2
GPU	ROG STRIX RX5700XT	PSU	CORSAIR CX750M	O.S.HDD	intel 760P 256G m.2 SSD	External SSD	Arion S 500

AVERAGE SPEED IS THE KEY

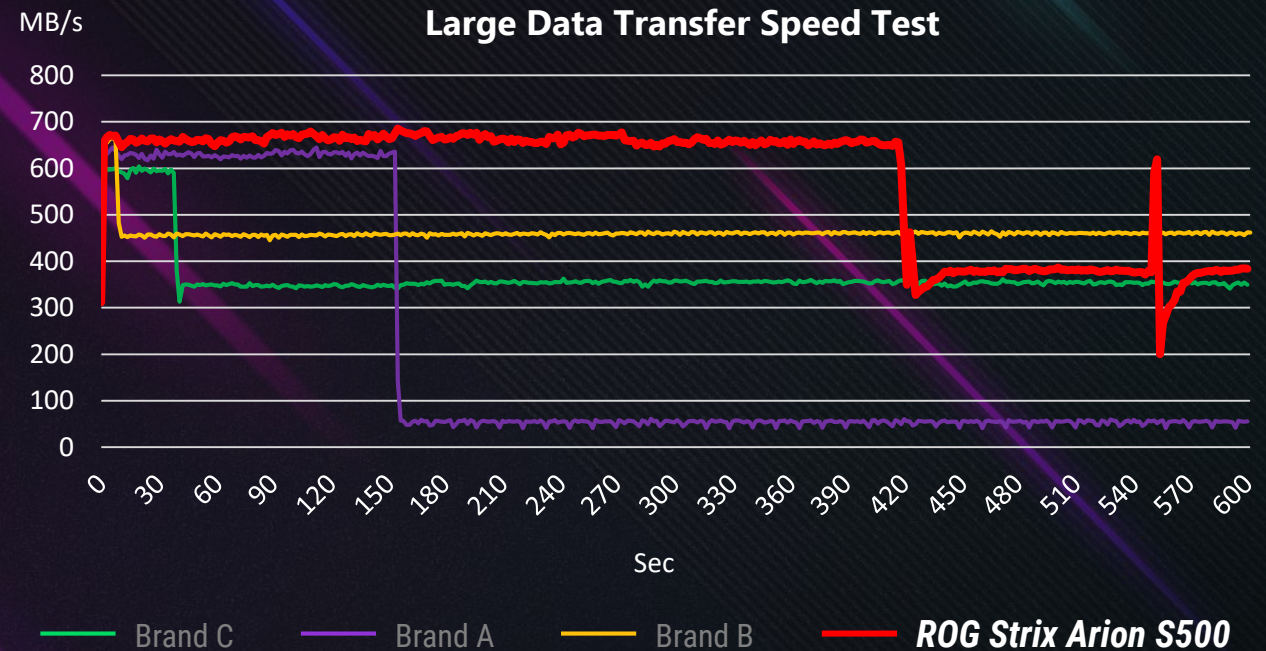
SLC always performs the data writing at faster speeds, consumes less power and has higher endurance. To optimize the best users data transferring experience, we enlarge the SLC cache to 125GB and make your daily usage as fast as possible.

10 minutes continuous heavy data transmission

Brand	Total Data Written	Average Written Speed
ROG Arion S500	345.9GB	574.8 MB/s
Brand B	276.1GB	461.6 MB/s
Brand C	220.8GB	368.4 MB/s
Brand A	122.0GB	202.6 MB/s

* Larger is Better

* MB/s – Higher is Better



Test Platform

MB	ASUS TUF X570-PLUS	Memory	ZADAK DDR4-3000 8G*2	CPU	AMD Ryzen 9 5950X@	CPU Cooler	SCSK-2000 Shuriken2
GPU	ROG STRIX RX5700XT	PSU	CORSAIR CX750M	O.S.HDD	intel 760P 256G m.2 SSD	External SSD	Arion S 500

WHO DARE

HIGH-END PHISON SOLUTION WITH DRAM

ROG Strix Arion S500 features DRAM memory cache designed to maximize transferring performance and extend SSD's life span.



EXCELLENT CONTROLLER BENCHMARK

ASMedia 2362 is an ASMedia first generation PCI Express (downstream port) to USB3.1(UFP) bridge chip which features interface of PCI Express Gen3 x2 and one USB3.1 Gen2 device port, providing high bandwidth up to 10Gbps.

It overwhelms other bridge chip on fast read speed with more stable performance and lower temperature.

UASP + **TRIM** + **S.M.A.R.T**

FOR THOSE
WHO DARE





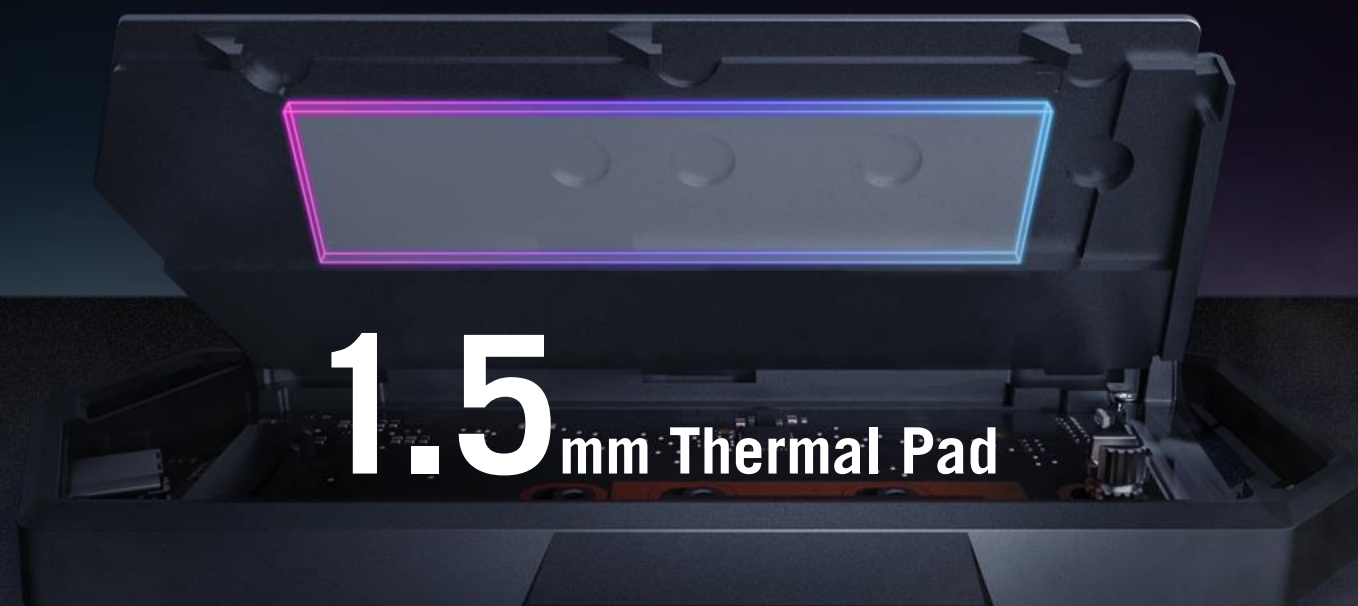
MORE CONNECTIVITY YOU CAN GET

S500 uses a USB-C 3.2 Gen 2 connection to offer superfast performance and wide-ranging support for mobile devices, laptops, PCs, Macs, Chromebooks, XBOX X/S, PS4 and PS5.**

** Game console support may vary according to device firmware

FOR THOSE
WHO DARE

FOR
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EXCEPTIONAL COOLING

The aluminum alloy chassis houses thermal pads to keep operating temperatures at an optimum level. Extra thick thermal pad to maintain high transfer speed and extend S500's lifespan.

Dissipates up to 10% of heat compared to ROG Strix Arion.

Test Platform

MB	ASUS TUF X570-PLUS	Memory	ZADAK DDR4-3000 8G*2	CPU	AMD Ryzen 9 5950X@	CPU Cooler	SCSK-2000 Shuriken2
GPU	ROG STRIX RX5700XT	PSU	CORSAIR CX750M	O.S.HDD	intel 760P 256G m.2 SSD	External SSD	Arion S 500

Testing time: 30min	ROG Strix Arion S500	ROG Strix Arion
Thermal Pad Thickness	1.5mm	1.25mm
Controller	59.3	59.6
DRAM	58.4	65
Power Controller	58.9	58.9
NAND Flash	56.4	59.4
ESD Front Cover	47.3	48.3
ESD Back Cover	54.6	52.2
Ambient Temperature	27.8	24.7

Decrease Heat **10%**
Better

COMPLETE DISK AND DATA ENCRYPTION

FOR
WHO



256-bit Disk and Data Encryption

256-bit AES disk and data encryption ensures utmost performance and data security without occupying CPU loading for better system performance.

FOR T

COMPLETE DISK PROTECTION

FOR
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NTI Backup Now EZ

Bundled with NTI Backup Now EZ software, Strix Arion S500 protects all your digital assets from malicious virus attacks and hardware failures. The data recovery feature also helps you in instances where you accidentally delete an important file.

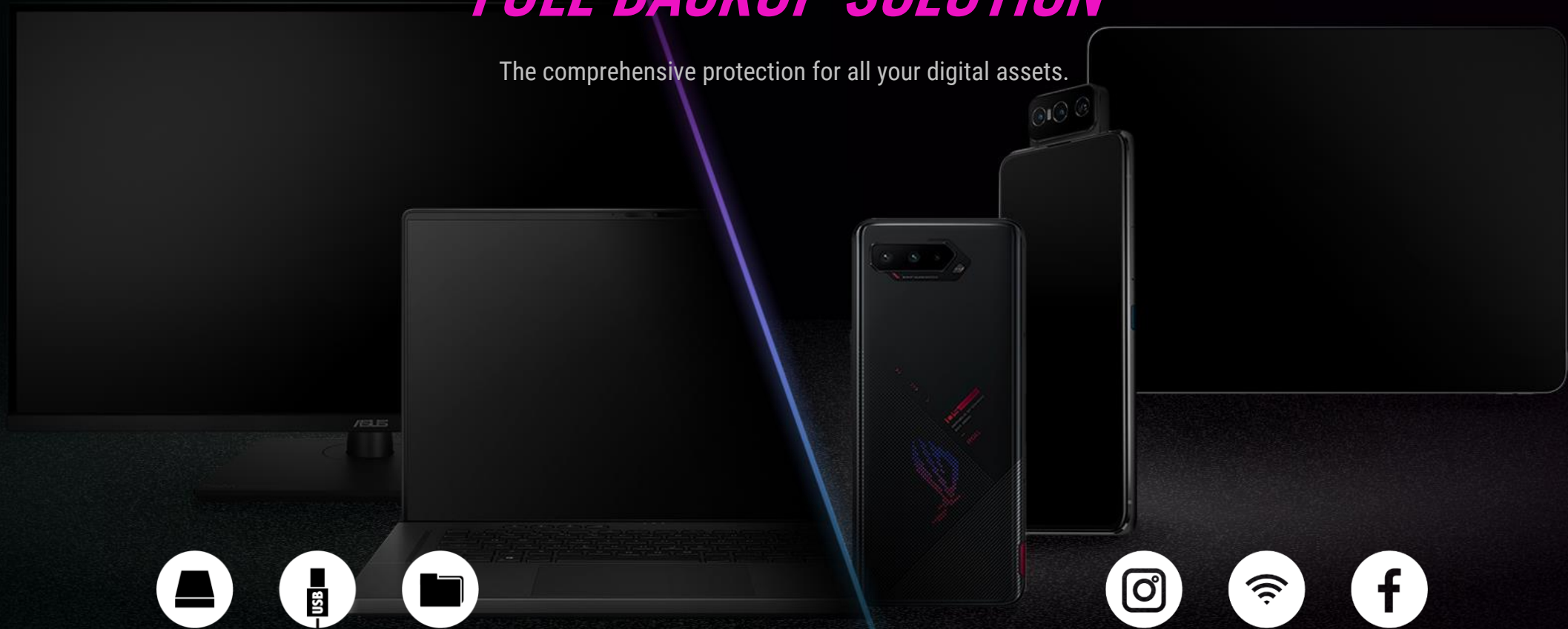


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FULL BACKUP SOLUTION

The comprehensive protection for all your digital assets.



Intuit the traditional wire way

Files backup | System backup |
Scheduling setting | 256-bit data encryption

Transform the modern wireless way

Cloud backup | Social media multimedia backup |
Smartphone wireless backup

Note: NTI backup software is preloaded in S500 and the serial number is inside user manual

HOW

WHO DARE

YOUR SSD INFORMATION CENTER

Get everything about ROG Strix Arion S500 by ROG SSD Dashboard including temperature, disk volume, health status, S.M.A.R.T. and etc.



FUR WHO!

ASUS AURA SYNC LIGHTING EFFECTS



With exclusive ASUS Aura Sync lighting technology, the ROG Strix Arion S500 provides ambient lighting that perfectly complements your gaming rig for a unique look.



SPECIFICATION

Dimension	124.57mm(L)x47.76mm(W)x10.85mm(H)
Weight	107g
OS Compatibility	Windows 7/ 8.1/ 10, Mac OS Catalina or later, Chrome OS and Android 8 or later
SSD Dashboard Compatibility	Windows 10
NTI Backup Compatibility	Windows 7/ 8.1/ 10
Aura System requirement	Windows 10 RS3 or above
Interface	USB 3.2 GEN 2 Type C (Compatible with USB 3.2 GEN 1/ USB 2.0)
Speed	10 Gbps
Capacity	500GB
Voltage	5V  1.6A
Temperature	0°C(32°F) ~40°C(104°F)

FUR! WHO!

FOR THOSE WHO DARE



***CONSOLE
GAMERS***



***PC
GAMERS***



***CONTENT
CREATORS***

Exceptional speed that runs faster than industrial benchmark

Transfer 100GB faster than 2 minutes

Large SLC NAND with 32GB cache

Full Encryption
ROG STRIX ARION S500

256-bit AES Encryption
BOOST YOUR OUTPUT!

Latest Gaming Console
Exceptional Performance

ASUS Aura Sync Lighting Effects

APPENDIX



APPENDIX

Competitor Comparison

Product Photo					
		ROG Strix Arion S500	Samsung T7 Touch	SanDisk Extreme Pro	Crucial X8
Speed Performance	DRAM	Yes	No	Yes	Yes
	Peak Read Speed	1024 MB/s	1006 MB/s	1023 MB/s	1023 MB/s
	Peak Write Speed	946 MB/s	896 MB/s	920 MB/s	896 MB/s
	SLC Cache	100 GB	25 GB	10 GB	70 GB
	Average Transfer Speed (500GB test)	574.8 MB/s	368.4 MB/s	461.6 MB/s	202.6 MB/s
Toolbox	Toolbox bundled	Yes	Yes	Yes	N/A
	Temperature	Yes	Yes	Yes	N/A
	SMART info	Yes	N/A	N/A	N/A
	Data Erase	Yes	N/A	N/A	N/A
Security	Disk Encryption	AES 256-bit	AES 256-bit	AES 256-bit	N/A
	Software Encryption	Yes	N/A	N/A	N/A
KSP	Data Backup	Yes	N/A	N/A	N/A
KSP	XBOX / Play Station Support	Yes	N/A	N/A	Yes
USP	RGB Lighting Sync	Yes	No	No	No

APPENDIX

Speed Test by Crystal Disk Mark

CrystalDiskMark 8.0.1 x64			
ALL	5 ▾	1GiB ▾	D: 0% (0/466GiB) ▾ MB/s ▾
	Read (MB/s)		Write (MB/s)
SEQ1M Q8T1	1024.04	946.57	
SEQ1M Q1T1	820.35	867.98	
RND4K Q32T1	280.38	265.48	
RND4K Q1T1	35.49	54.43	
ROG Strix Arion S500 500GB			

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Micron Crucial X8 500G				

CrystalDiskMark 8.0.1 x64			
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RND4K Q1T1	37.54	54.64	
Sandisk E61 500GB			

CrystalDiskMark 8.0.1 x64			
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	Read (MB/s)		Write (MB/s)
SEQ1M Q8T1	1006.31	896.11	
RND4K Q32T16	759.91	792.94	
RND4K (IOPS)	274.87	261.48	
RND4K (μs)	24.03	40.11	
Samsung T7 500GB			

APPENDIX

100GB Data Transfer Time

100GB Data Transfer Comparison

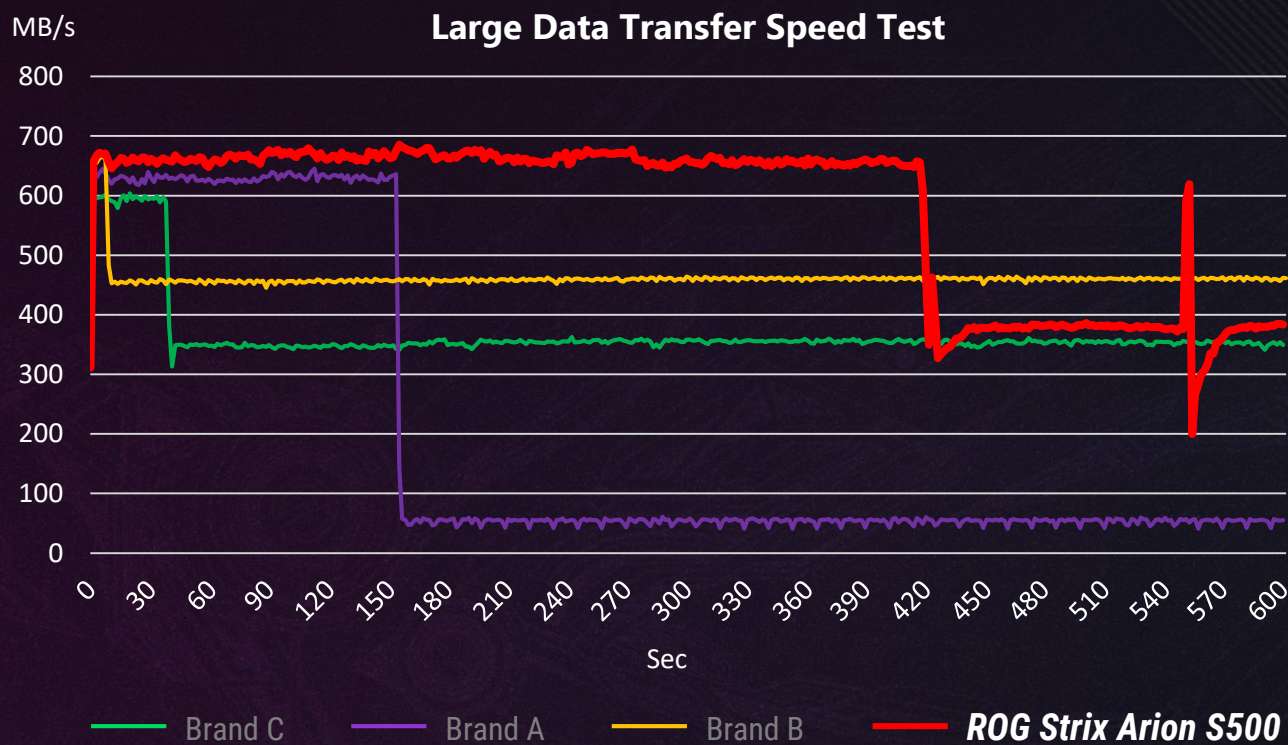
EHD vs ESD S500 100GB Data Transfer time		
Model	Time	Sec
S500	0:02:29	149
ASUS FX 2 TB	0:32:49	1969

Data transfer test :93GiB(100GB)				
Mode	Default mode		Performance mode	
Brand	Time	Sec	Time	Sec
ROG Arion S500 500GB	0:02:29	149	0:01:42	102
Micron Crucial X8 500GB	0:02:36	156	0:01:51	111
SanDisk E61 500GB	0:03:33	213	0:03:36	216
Samsung T7 500GB	0:04:11	251	0:03:56	236

* Time – Lower is Better

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Large Data Transfer Speed Test



10 minutes continuous heavy data transmission

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Test Platform & Criteria

Test Platform	
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<i>GPU</i>	ROG STRIX RX5700XT
<i>Memory</i>	ZADAK DDR4-3000 8G*2
<i>PSU</i>	CORSAIR CX750M
<i>CPU</i>	AMD Ryzen 9 5950X@
<i>O.S.HDD</i>	intel 760P 256G m.2 SSD
<i>CPU Cooler</i>	SCSK-2000 Shuriken2 (12"*2 1600rpm ±
<i>External SSD</i>	10%) Arion S 500

Thermal solution comparison

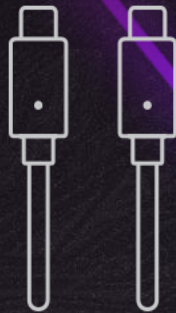
Time: 30min	1.5mm Pad	1.25mm Pad
<i>Controller</i>	59.3	59.6
<i>DRAM</i>	58.4	65
<i>Power Controller</i>	58.9	58.9
<i>NAND Flash</i>	56.4	59.4
<i>ESD upper cover</i>	47.3	48.3
<i>ESD back cover</i>	54.6	52.2
<i>Ambient Temperature</i>	27.8	24.7

GIFT BOX DESIGN

PACKAGE CONTENTS

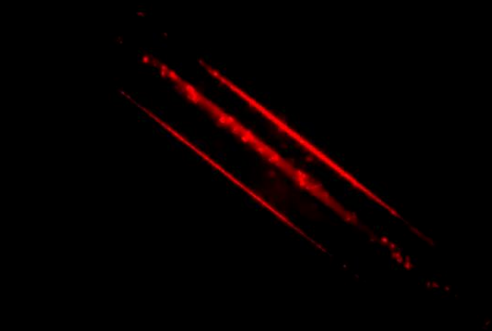


ROG Strix Arion S500



USB-C to USB-C
Cable





**THANK
YOU!**