

MG10-D SERIES

ENTERPRISE CAPACITY HDD

Harness the raw power of our cutting-edge MG10-D Series hard drive, delivering increased performance and power efficiency than prior models.

The 7200 rpm 3.5-inch^[1] HDD delivers up to 10 TB^[2] of storage capacity and a choice of interface (SATA and SAS) with 512n and 512e sector options available.

Crafted with precision engineering and years of Toshiba experience MG10-D Series delivers unrivaled quality and reliability. With SIE and SED options, valuable data is safeguarded by a storage solution known for its robust performance and unwavering dependability.



Product image may represent a design model.

KEY FEATURES

- Extensive Lineup.
- Conventional Magnetic Recording (CMR) for broad compatibility
- Industry Standard 3.5-inch 26.1 mm height Form Factor
- 7200 rpm Performance
- Lower operational power profile, providing excellent power efficiency (W/TB) for better TCO
- 550 Total TB Transferred per Year Workload Rating ^[4]
- Toshiba Persistent Write Cache Technology for Data-Loss Protection in Sudden Power-Loss Events
- Sanitize Instant Erase (SIE) and Self-Encrypting Drive (SED) Option Models ^[5] available

APPLICATIONS

- Business-Critical Enterprise Servers and Storage Systems
- Enterprise storage arrays (RAID, Software defined)
- Distributed file systems, big data
- Enterprise and cloud archive, data recovery systems
- Applications and hypervisors that require legacy 512 Native Sector Technology

SPECIFICATION

SATA

Item			MG10ADA10T MG10ADP10T	MG10ADA800 MG10ADP800	MG10ADA600 MG10ADP600	MG10ADA400 MG10ADP400	MG10ADA200 MG10ADP200	MG10ADA100 MG10ADP100
Interface			SATA-3.3					
Formatted Capacity			10 TB	8 TB	6 TB	4 TB	2 TB	1 TB
Performance	Interface Speed ^[3]		6.0 Gbit/s, 3.0 Gbit/s, 1.5 Gbit/s					
	Rotation Speed		7200 rpm					
	Buffer Size ^[6]		512 MiB					
	Maximum Sustained Data Transfer Speed ^[7] (Typ.)	MG10ADxxx xE/EY	268 MiB/s					—
		MG10ADxxx xN/NY	—			227.8 MiB/s	211 MiB/s	
Logical Data Block Length	MG10ADxxxxxE/EY ^[8]		HOST 512 B, DISK 4096 B					—
	MG10ADxxxxN/NY		—			HOST 512 B, DISK 512 B		
Supply Voltage	Allowable Voltage		12 V ^[9] +/-10 %, 5 V ^[9] +10/-7 % ^[10]					
Power Consumption	Write / Read (4KB Q1) (Typ.)	MG10ADxxx xE/EY	9.63 W	8.74 W	7.97 W	7.29 W	6.57 W	—
		MG10ADxxx xN/NY	—			7.96 W	7.17 W	6.26 W
	Active Idle (Typ.)	MG10ADxxx xE/EY	5.74 W	4.92 W	4.14 W	3.49 W	2.88 W	—
		MG10ADxxx xN/NY	—			4.21 W	3.47 W	2.93 W
Acoustics (Sound Power) ^[11] (Typ.)			Idle: 34 dB					

SAS

Item			MG10SDA10T MG10SDP10T	MG10SDA800 MG10SDP800	MG10SDA600 MG10SDP600	MG10SDA400 MG10SDP400	MG10SDA200 MG10SDP200
Interface			SAS-3.0				
Formatted Capacity			10 TB	8 TB	6 TB	4 TB	2 TB
Performance	Interface Speed ^[3]		12.0 Gbit/s, 6.0 Gbit/s, 3.0 Gbit/s, 1.5 Gbit/s				
	Rotation Speed		7200 rpm				
	Buffer Size ^[6]		512 MiB				
	Maximum Sustained Data Transfer Speed ^[7] (Typ.)	MG10SDxxxxE/EY	268 MiB/s				
		MG10SDxxxxN/NY	—			227.8 MiB/s	211 MiB/s
Logical Data Block Length	MG10SDxxxxE/EY ^[8]		HOST 512 B, DISK 4096 B HOST 520 B, DISK 4160 B HOST 528 B, DISK 4224 B				
	MG10SDxxxxN/NY		—			HOST 512 B, DISK 512 B	
Supply Voltage	Allowable Voltage		12 V ^[9] +/-10 %, 5 V ^[9] +10/-7 % ^[10]				
Power Consumption	Write / Read (4KB Q1) (Typ.)	MG10SDxxxxE/EY	9.91 W	9.16 W	8.33 W	7.67 W	6.93 W
		MG10SDxxxxN/NY	—			8.29 W	7.51 W
	Active Idle (Typ.)	MG10SDxxxxE/EY	6.15 W	5.41 W	4.55 W	3.87 W	3.26 W
		MG10SDxxxxN/NY	—			4.53 W	3.85 W
Acoustics (Sound Power) ^[11] (Typ.)			Idle:34 dB				

ENVIRONMENTAL LIMITS

Item		Specification
Ambient Temperature	Operating	5 °C to 55 °C (No condensation)
	Non-Operating ^[12]	-40 °C to 70 °C (No condensation)
Enclosure surface temperature	Operating	5 °C to 60 °C (No condensation)
Relative Humidity	Operating	5 % to 90 % R.H. (No condensation)
	Non-Operating ^[12]	5 % to 95 % R.H. (No condensation)
Altitude	Operating	-305 m to +3048 m
	Non-Operating ^{[12][13]}	-305 m to +12 192 m
Shock ^[14]	Operating	686 m/s ² {70 G} (2 ms duration)
	Non-Operating ^[12]	2450 m/s ² {250 G} (2 ms duration)
Vibration ^[14]	Operating ^[15]	7.35 m/s ² {0.75 G} (5 to 300 Hz) 2.45 m/s ² {0.25 G} (300 to 500 Hz)
	Non-Operating ^{[12] [16]}	29.4 m/s ² {3.0 G} (5 to 500 Hz)

RELIABILITY

Item	Specification
MTTF / MTBF (AFR) ^[17]	2 000 000 hours (0.44 %)
Non-recoverable Error Rate	10 per 10 ¹⁶ bits read
Load / Unload	600 000 times
Availability	24 hours/day, 7 days/week
Rated Annual Workload	550 TB per year

[1] "3.5-inch" mean the form factor of HDDs. They do not indicate drive's physical size.

[2] Definition of capacity: One terabyte (TB) = one trillion bytes, but storage capacity actually available may vary depending on operating environment and formatting. Available storage capacity (including examples of various media files) will vary based on file size, formatting, settings, software, and operating system and/or pre-installed software applications, or media content. Actual formatted capacity may vary.

[3] Read and write speed may vary depending on the host device, read and write conditions, and file size.

[4] Workload is defined as the amount of data written, read or verified by commands from host system.

[5] SED supports TCG Enterprise SSCs. And the HDDs which have any security function may not be available in the countries where the use of such HDDs is prohibited or limited due to export control and local regulations.

[6] A mebibyte (MiB) means 2²⁰, or 1 048 576 bytes.

[7] The maximum sustained data rate and interface speed may be restricted to the response speed of host system and by transmission characteristics. 1 Gbit/s = 1 000 000 000 bits/s. 1 MiB/s = 1 048 576 bytes/s

[8] Read-modify-write is supported.

[9] Input voltages are specified at the HDD connector side, during HDD ready state.

[10] Make sure the value is not less than -0.3 V DC (less than -0.6 V, 0.1 ms) when turning on or off the power.

[11] The measuring method is based on ISO 7779.

[12] Non-operating condition (except storage condition) assumes short term transportation.

[13] The range of altitude is 3048 m or less. Up to 55 °C at 7620 m. Up to 40 °C at 12 192 m.

[14] Vibration applied to the HDD is measured at near the mounting screw hole on the frame as much as possible.

[15] At random seek write/read and default on retry setting with log sweep vibration.

[16] At power-off state after installation

[17] MTTF / MTBF (Mean Time to Failure / Mean Time Between Failure) of the HDDs during its life time is 2 000 000 hours and AFR (Annualized Failure Rate) is 0.44 %. (POH: 8760 hours per one year (24 hours per one day, 7 days per one week). Average HDA surface temperature: 40 °C or less, workloads: 550 TB per one year, which is defined as the amount of data written, read or verified by commands from host system). Continual or sustained operation at case HDA surface temperature above 40 °C may degrade product reliability.

MODEL NUMBER

SATA

Capacity	Interface	Sector Format	Optional Security	Model number
10 TB	SATA-3.3	512e / 4Kn *	-	MG10ADA10TE
8 TB	SATA-3.3	512e / 4Kn *	-	MG10ADA800E
6 TB	SATA-3.3	512e / 4Kn *	-	MG10ADA600E
4 TB	SATA-3.3	512e / 4Kn *	-	MG10ADA400E
2 TB	SATA-3.3	512e / 4Kn *	-	MG10ADA200E
4 TB	SATA-3.3	512n	-	MG10ADA400N
2 TB	SATA-3.3	512n	-	MG10ADA200N
1 TB	SATA-3.3	512n	-	MG10ADA100N
10 TB	SATA-3.3	512e / 4Kn *	SIE	MG10ADA10TEY
8 TB	SATA-3.3	512e / 4Kn *	SIE	MG10ADA800EY
6 TB	SATA-3.3	512e / 4Kn *	SIE	MG10ADA600EY
4 TB	SATA-3.3	512e / 4Kn *	SIE	MG10ADA400EY
2 TB	SATA-3.3	512e / 4Kn *	SIE	MG10ADA200EY
4 TB	SATA-3.3	512n	SIE	MG10ADA400NY
2 TB	SATA-3.3	512n	SIE	MG10ADA200NY
1 TB	SATA-3.3	512n	SIE	MG10ADA100NY
10 TB	SATA-3.3	512e / 4Kn *	SED	MG10ADP10TE
8 TB	SATA-3.3	512e / 4Kn *	SED	MG10ADP800E
6 TB	SATA-3.3	512e / 4Kn *	SED	MG10ADP600E
4 TB	SATA-3.3	512e / 4Kn *	SED	MG10ADP400E
2 TB	SATA-3.3	512e / 4Kn *	SED	MG10ADP200E
4 TB	SATA-3.3	512n	SED	MG10ADP400N
2 TB	SATA-3.3	512n	SED	MG10ADP200N
1 TB	SATA-3.3	512n	SED	MG10ADP100N

* Default configuration is 512e. 512e models can be converted to 4Kn format.

SAS

Capacity	Interface	Sector Format	Optional Security	Model number
10 TB	SAS-3.0	512e / 4Kn *	-	MG10SDA10TE
8 TB	SAS-3.0	512e / 4Kn *	-	MG10SDA800E
6 TB	SAS-3.0	512e / 4Kn *	-	MG10SDA600E
4 TB	SAS-3.0	512e / 4Kn *	-	MG10SDA400E
2 TB	SAS-3.0	512e / 4Kn *	-	MG10SDA200E
4 TB	SAS-3.0	512n	-	MG10SDA400N
2 TB	SAS-3.0	512n	-	MG10SDA200N
10 TB	SAS-3.0	512e / 4Kn *	SIE	MG10SDA10TEY
8 TB	SAS-3.0	512e / 4Kn *	SIE	MG10SDA800EY
6 TB	SAS-3.0	512e / 4Kn *	SIE	MG10SDA600EY
4 TB	SAS-3.0	512e / 4Kn *	SIE	MG10SDA400EY
2 TB	SAS-3.0	512e / 4Kn *	SIE	MG10SDA200EY
4 TB	SAS-3.0	512n	SIE	MG10SDA400NY
2 TB	SAS-3.0	512n	SIE	MG10SDA200NY
10 TB	SAS-3.0	512e / 4Kn *	SED	MG10SDP10TE
8 TB	SAS-3.0	512e / 4Kn *	SED	MG10SDP800E
6 TB	SAS-3.0	512e / 4Kn *	SED	MG10SDP600E
4 TB	SAS-3.0	512e / 4Kn *	SED	MG10SDP400E
2 TB	SAS-3.0	512e / 4Kn *	SED	MG10SDP200E
4 TB	SAS-3.0	512n	SED	MG10SDP400N
2 TB	SAS-3.0	512n	SED	MG10SDP200N

* Default configuration is 512e. 512e models can be converted to 4Kn format.

MARKING

1) WEEE

Following information is only for EU-member states:

The use of the symbol indicates that this product may not be treated as household waste. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.



2) Names and Contents of Hazardous Substances or Elements in Products

产品中有害物质的名称及含量

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr (VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
HDD(硬盘驱动器)	×	○	○	○	○	○

本表格依据 SJ/T 11364 的规定编制。
 ○：表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。
 ×：表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。



中华人民共和国环保使用期限

SAFETY / EMI STANDARDS

SATA

Item
UL (Underwriters Laboratories)
CSA (Canadian Standard Association)
TÜV (Technischer Überwachungs Verein)
BSMI (Bureau of Standards, Metrology and Inspection)
KC (Korea Certification) (Note)
RCM (Regulatory Compliance Mark)
EurAsian Conformity (EAC)
Morocco Mark

SAS

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(Note) Marks of KC

Made in Japan		1. 기기의 명칭(모델명): MG10ADA10T/800/600/400/200E-MG10ADA400/200/100N 2. 인증번호: MG10ADA10T/800/600/400/200AY-MG10ADP10T/800/600/400/200A 3. 인증받은 자의 상호: R-R-T48-MG10ADA10TE 4. 제조년월일 : TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION 5. 제조자 / 제조국가: 2023-03 TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION / 일본
		1. 기기의 명칭(모델명): MG10SDA10T/800/600/400/200E-MG10SDA400/200N 2. 인증번호: MG10SDA10T/800/600/400/200Ey-MG10SDA400/200Ny-MG10SDP10T/800/600/400/200E-MG10SDP400/200N 3. 인증받은 자의 상호: R-R-T48-MG10SDA10TE 4. 제조년월일 : TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION 5. 제조자 / 제조국가: 2023-03 TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION / 일본
Made in Philippines		1. 기기의 명칭(모델명): MG10ADA10T/800/600/400/200E-MG10ADA400/200/100N 2. 인증번호: MG10ADA10T/800/600/400/200AY-MG10ADP10T/800/600/400/200A 3. 인증받은 자의 상호: R-R-T48-MG10ADA10TE 4. 제조년월일 : TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION 5. 제조자 / 제조국가: 2023-03 TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION / 필리핀
		1. 기기의 명칭(모델명): MG10SDA10T/800/600/400/200E-MG10SDA400/200N 2. 인증번호: MG10SDA10T/800/600/400/200Ey-MG10SDA400/200Ny-MG10SDP10T/800/600/400/200E-MG10SDP400/200N 3. 인증받은 자의 상호: R-R-T48-MG10SDA10TE 4. 제조년월일 : TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION 5. 제조자 / 제조국가: 2023-03 TOSHIBA ELECTRONIC DEVICES & STORAGE CORPORATION / 필리핀

B 급 기기
(가정용 방송통신기자재)

이 기기는 가정용 (B 급) 전자파 적합 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.

CE Marking

Category	Applied standard	Issued year	Comment
EMC 2014/30/EU	Emission: EN55032	2015 +A11:2020	Class B (including domestic environment)
	Immunity: EN55035	2017 +A11:2020	Product immunity standard for IT-equipment
RoHS 2011/65/EU	EN IEC63000	2018	Category 3

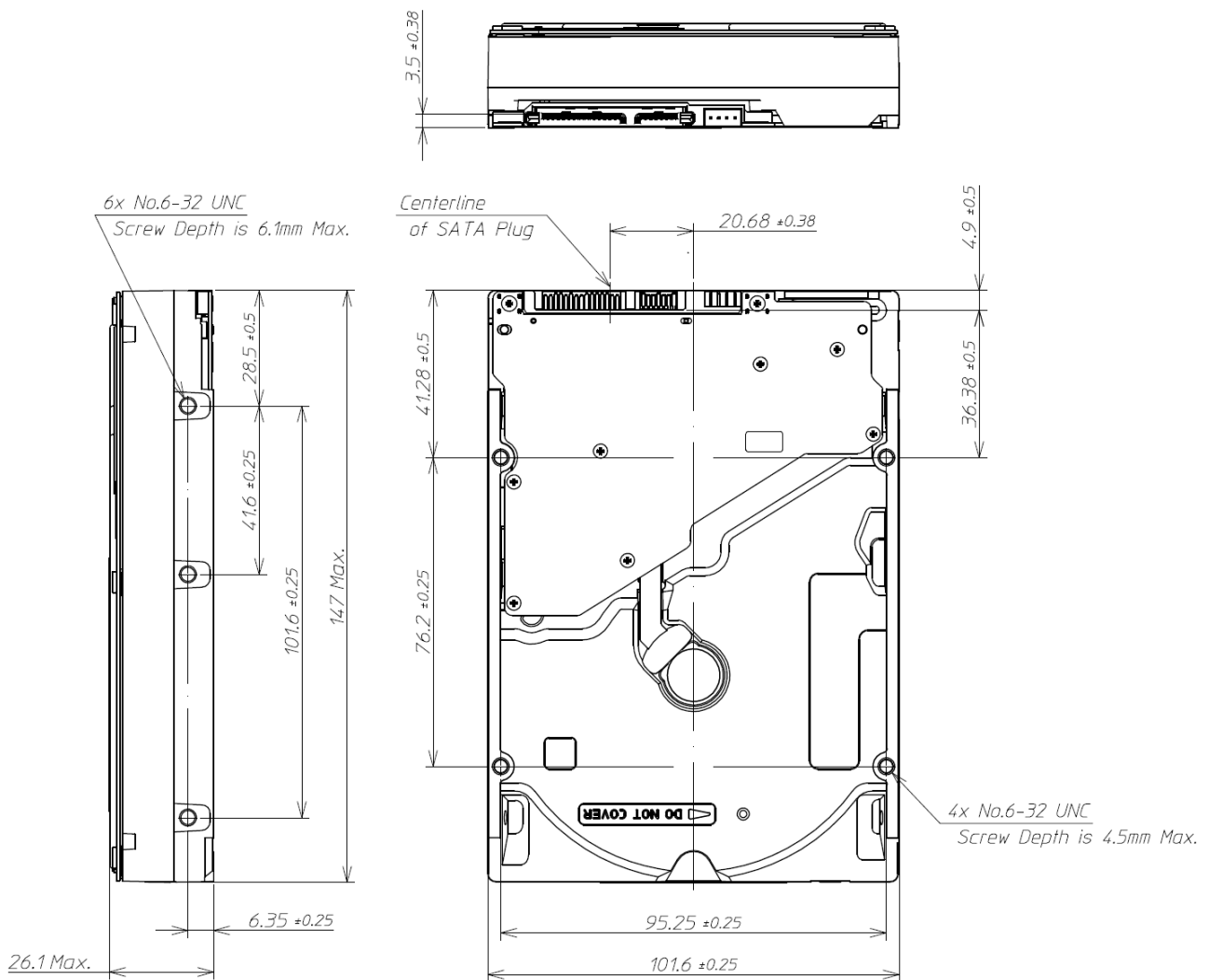
UKCA Marking

Category	Applied standard	Issued year	Comment
EMC	Emission: BS EN55032	2015 +A11:2020	Class B (including domestic environment)
	Immunity: BS EN55035	2017 +A11:2020	Product immunity standard for IT-equipment
RoHS	BS EN IEC63000	2018	Category 3

SATA MECHANICAL SPECIFICATIONS

Item	Specification				
Capacity	10 TB	8 TB	6 TB	4 TB	2 / 1 TB
Width (Max)	101.85 mm				
Height (Max)	26.1 mm				
Length (Max)	147.0 mm				
Weight (Max.)	755 g	730 g	710 g	690 g	670 g

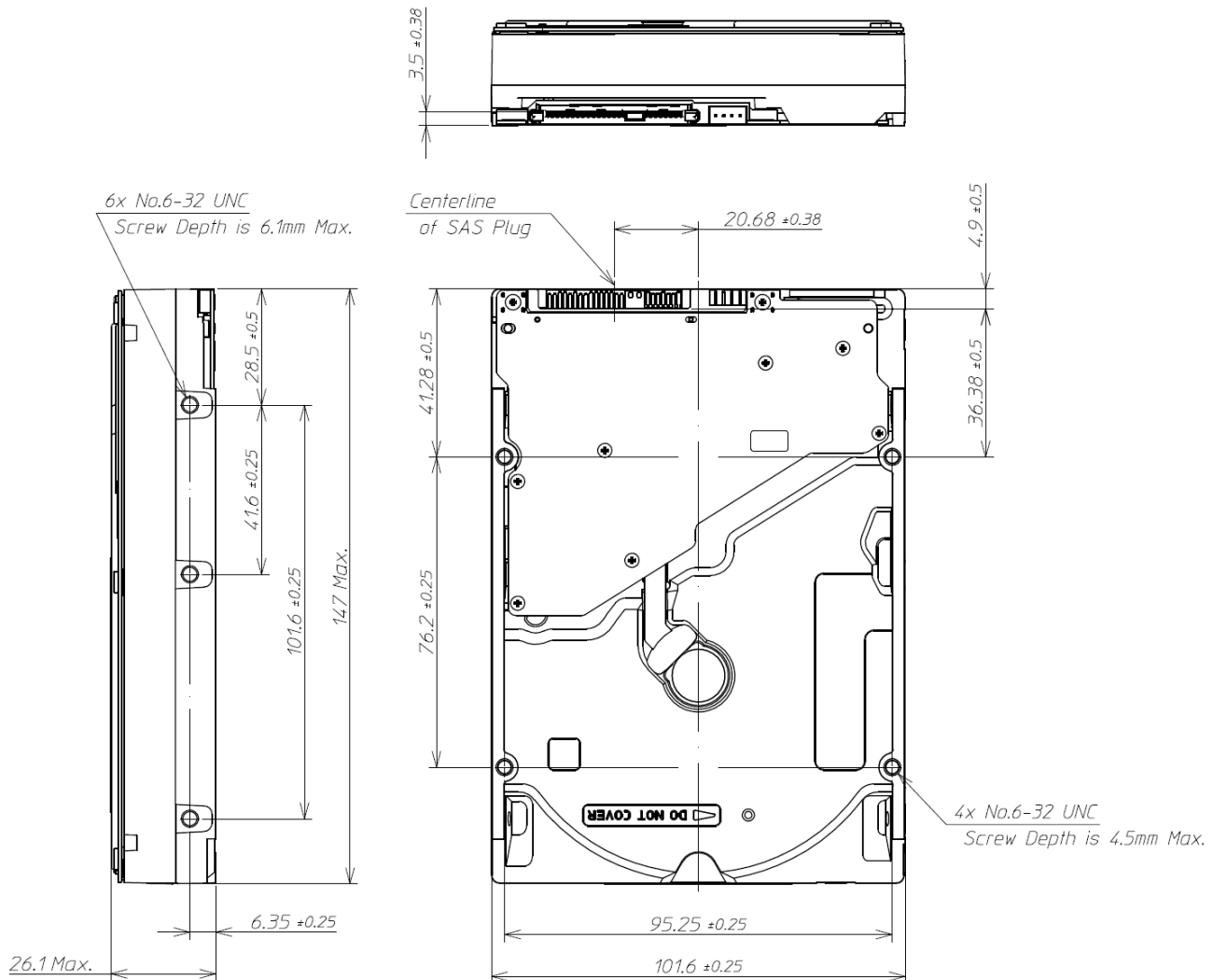
[Unit: mm]



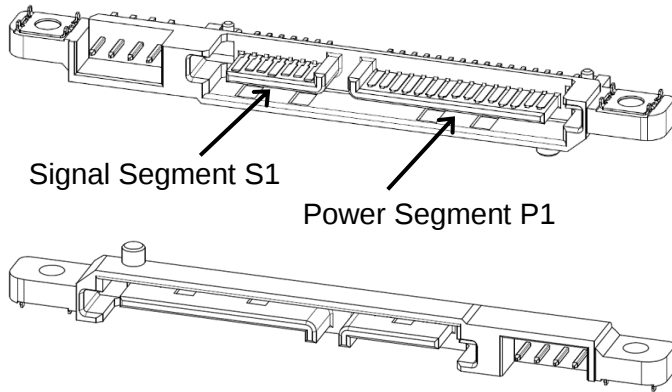
SAS MECHANICAL SPECIFICATIONS

Item	Specification				
Capacity	10 TB	8 TB	6 TB	4 TB	2 TB
Width (Max)	101.85 mm				
Height (Max)	26.1 mm				
Length (Max)	147.0 mm				
Weight (Max.)	755 g	730 g	710 g	690 g	670 g

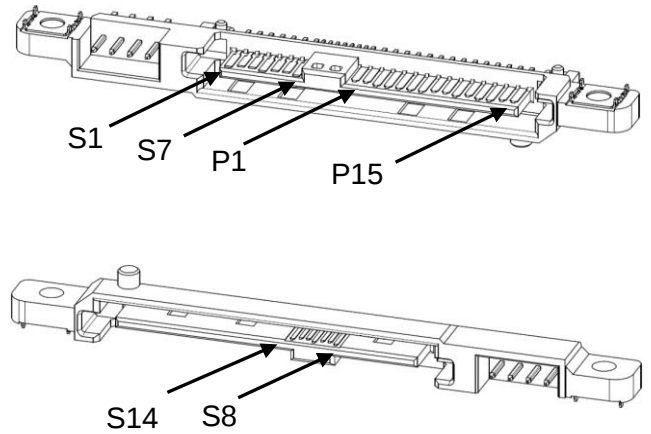
[Unit: mm]



INTERFACE CONNECTOR



SATA plug connector overview



SAS plug connector overview

SATA INTERFACE CONNECTOR SIGNAL ALLOCATION

Segment	Pin No.	Pin Definition	
Signal Segment	S1	GND	2 nd Mate
	S2	A+	Differential Pair A from PHY (Device Rx+)
	S3	A-	Differential Pair A from PHY (Device Rx-)
	S4	GND	2 nd Mate
	S5	B-	Differential Pair B from PHY (Device Tx-)
	S6	B+	Differential Pair B from PHY (Device Tx+)
	S7	GND	2 nd Mate
Power Segment	P1	-	(Unused)
	P2	-	(Unused)
	P3	PWDIS	Enter/Exit Power Disable (Option)
	P4	GND	1 st Mate
	P5	GND	2 nd Mate
	P6	GND	2 nd Mate
	P7	V5	5 V Power Pre-Charge 2 nd Mate
	P8	V5	5 V Power
	P9	V5	5 V Power
	P10	GND	2 nd Mate
	P11	Spin	Staggered Spin-up Mode Detect (Input)
		ACT	Activity LED Drive (Output)
	P12	GND	1 st Mate
	P13	V12	12 V Power Pre-Charge 2 nd Mate
	P14	V12	12 V Power
	P15	V12	12 V Power

Notice: This drive uses 5 V and 12 V power. 3.3 V power is not used.
HDA (Head Disk Assembly) and DC ground (ground pins on interface) are connected electrically each other.

SAS INTERFACE CONNECTOR SIGNAL ALLOCATION

Segment	Pin No.	Pin Definition	
Signal Segment	S1	GND	GND for SAS Primary Port
	S2	RP+	SAS Primary Port Receive (positive) signal
	S3	RP-	SAS Primary Port Receive (negative) signal
	S4	GND	GND for SAS Primary Port
	S5	TP-	SAS Primary Port Transmit (negative) signal
	S6	TP+	SAS Primary Port Transmit (positive) signal
	S7	GND	GND for SAS Primary Port
	S8	GND	GND for SAS Secondary Port
	S9	RS+	SAS Secondary Port Receive (positive) signal
	S10	RS-	SAS Secondary Port Receive (negative) signal
	S11	GND	GND for SAS Secondary Port
	S12	TS-	SAS Secondary Port Transmit (negative) signal
	S13	TS+	SAS Secondary Port Transmit (positive) signal
	S14	GND	GND for SAS Secondary Port
Power Segment	P1(*1)	Reserved	Do not supply 3.3 V power if POWER DISABLE Function is used.
	P2(*1)	Reserved	
	P3(*2)	POWER DISABLE	Power Disable Control input signal
	P4	GND	GROUND
	P5	GND	GROUND
	P6	GND	GROUND
	P7	+ 5 V-Charge	Pre-charge pin for + 5 V
	P8	+ 5 V	+ 5 V power supply input
	P9	+ 5 V	+ 5 V power supply input
	P10	GND	GROUND
	P11	READY LED	READY LED output
	P12	GND	GROUND
	P13	+ 12 V-Charge	Pre-charge pin for + 12 V
	P14	+ 12 V	+ 12 V power supply input
	P15	+ 12 V	+ 12 V power supply input

(* 1) Do not supply 3.3 V power if POWER DISABLE feature is used.

(* 2) The terminal P3 is used as POWER DISABLE control signal in SAS-3. This terminal connects with the GROUND or is an OPENED thing on the host side when the POWER DISABLE function is not used.

SATA COMMAND TABLE (Part 1)

Op-Code	Command Name
78h	ACCESSIBLE MAX ADDRESS CONFIGURATION
E5h / 98h	CHECK POWER MODE
92h / 93h	DOWNLOAD MICROCODE (DMA)
90h	EXECUTE DIAGNOSTICS
E7h	FLUSH CACHE
EAh	FLUSH CACHE EXT
12h	GET PHYSICAL ELEMENT STATUS
ECh	IDENTIFY DEVICE
E3h / 97h	IDLE
E1h / 95h	IDLE IMMEDIATE
91h	INITIALIZE DEVICE PARAMETERS
00h	NOP
E4h	READ BUFFER
C8h	READ DMA
25h	READ DMA EXT
60h	READ FPDMA QUEUED
2Fh	READ LOG EXT
47h	READ LOG DMA EXT
C4h	READ MULTIPLE
29h	READ MULTIPLE EXT
20h	READ SECTOR(s)
24h	READ SECTOR(s) EXT
40h	READ VERIFY SECTOR(s)
42h	READ VERIFY SECTOR(s) EXT

SATA COMMAND TABLE (Part 2)

Op-Code	Command Name
10h	RECALIBRATE
7Ch	REMOVE ELEMENT AND TRUNCATE
0Bh	REQUEST SENSE DATA EXT
B4h	SANITIZE DEVICE
F6h	SECURITY DISABLE PASSWORD
F3h	SECURITY ERASE PREPARE
F4h	SECURITY ERASE UNIT
F5h	SECURITY FREEZE LOCK
F1h	SECURITY SET PASSWORD
F2h	SECURITY UNLOCK
70h	SEEK
77h	SET DATE & TIME EXT
EFh	SET FEATURES
C6h	SET MULTIPLE MODE
B2h	SET SECTOR CONFIGURATION EXT
E6h / 99h	SLEEP
B0h	SMART Function Set
E2h / 96h	STANDBY
E0h / 94h	STANDBY IMMEDIATE
E8h	WRITE BUFFER
CAh	WRITE DMA
35h	WRITE DMA EXT
3Dh	WRITE DMA FUA EXT
61h	WRITE FPDMA QUEUED
57h	WRITE LOG DMA EXT
3Fh	WRITE LOG EXT
C5h	WRITE MULTIPLE
39h	WRITE MULTIPLE EXT
CEh	WRITE MULTIPLE FUA EXT
30h	WRITE SECTOR(s)
34h	WRITE SECTOR(s) EXT
45h	WRITE UNCORRECTABLE EXT
3Ch	WRITE VERIFY

SAS COMMAND TABLE (Part 1)

Op-Code	Command Name
00h	TEST UNIT READY
12h	INQUIRY
25h	READ CAPACITY (10)
9Eh / 10h	READ CAPACITY (16)
15h	MODE SELECT (6)
55h	MODE SELECT (10)
1Ah	MODE SENSE (6)
5Ah	MODE SENSE (10)
01h	REZERO UNIT
1Bh	START/STOP UNIT
16h	RESERVE (6)
56h	RESERVE (10)
17h	RELEASE (6)
57h	RELEASE (10)
03h	REQUEST SENSE
4Ch	LOG SELECT
4Dh	LOG SENSE
5Eh	PERSISTENT RESERVE IN
5Fh	PERSISTENT RESERVE OUT
A0h	REPORT LUNS
A3h / 05h	REPORT IDENTIFYING INFORMATION
A3h / 0Ch	REPORT SUPPORTED OPERATION CODES
A3h / 0Dh	REPORT SUPPORTED TASK MANAGEMENT FUNCTIONS
A4h / 06h	SET IDENTIFYING INFORMATION
A3h / 0Fh	REPORT TIMESTAMP
A4h / 0Fh	SET TIMESTAMP

SAS COMMAND TABLE (Part 2)

Op-Code	Command Name
08h	READ (6)
28h	READ (10)
A8h	READ (12)
88h	READ (16)
0Ah	WRITE (6)
2Ah	WRITE (10)
AAh	WRITE (12)
8Ah	WRITE (16)
2Eh	WRITE AND VERIFY (10)
AEh	WRITE AND VERIFY (12)
8Eh	WRITE AND VERIFY (16)
2Fh	VERIFY (10)
AFh	VERIFY (12)
8Fh	VERIFY (16)
0Bh	SEEK (6)
2Bh	SEEK (10)
35h	SYNCHRONIZE CACHE (10)
91h	SYNCHRONIZE CACHE (16)
04h	FORMAT UNIT
07h	REASSIGN BLOCKS
37h	READ DEFECT DATA (10)
B7h	READ DEFECT DATA (12)
1Dh	SEND DIAGNOSTIC
1Ch	RECEIVE DIAGNOSTIC RESULTS
3Bh	WRITE BUFFER
3Ch	READ BUFFER (10)
9Bh	READ BUFFER (16)
3Eh	READ LONG (10)
9Eh / 11h	READ LONG (16)
3Fh	WRITE LONG (10)
9Fh / 11h	WRITE LONG (16)
41h	WRITE SAME (10)
93h	WRITE SAME (16)
48h	SANITIZE (10)
9Eh / 18h	REMOVE ELEMENT AND TRUNCATE (16)
9Eh / 17h	GET PHYSICAL ELEMENT STATUS

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