N300 Data Sheet

Model						
Model Number			HDWG62C	HDWG62A	HDWG51J	HDWG51G
Capacity ※1			22 TB	20 TB	18 TB	16 TB
Recording Technology ※2			CMR	CMR	CMR	CMR
Parts Number			HDWG62CUZSVA	HDWG62AUZSVA	HDWG51JUZSVA	HDWG51GUZSVA
Basic Specifications						
Interface ※3			SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor			3.5-inch	3.5-inch	3.5-inch	3.5-inch
Sector Size ※4			512e	512e	512e	512e
Features						
24 x 7 Operation			yes	yes	yes	yes
Drive Bays Supported ※6			up to 8	up to 8	up to 8	up to 8
Rotational Vibration Safeguard (RVS)			yes	yes	yes	yes
Shock Sensor			yes	yes	yes	yes
Native command queuing (NCQ)			yes	yes	yes	yes
Advanced Format (AF)			yes	yes	yes	yes
RoHS compliant			yes	yes	yes	yes
Halogen Free			yes	yes	yes	yes
Performances						
Interface Speed ※3		[Gbit/s]	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5
Rotation Speed		[rpm]	7200	7200	7200	7200
Sustained data transfer rate ※3		[MB/s]	281	281	281	281
Buffer Size ※7		[MB]	512	512	512	512
Reliability						
MTTF ※8		[hours]	1 200 000	1 200 000	1 200 000	1 200 000
Unrecoverable Error Rate			1 per 10E15	1 per 10E15	1 per 10E14	1 per 10E14
Maximum rated workload ※9		[TB/year]	180	180	180	180
Load/Unload cycles		[times]	300 000	300 000	300 000	300 000
Power Requirements						
Supply Voltage ※10		[V]	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %
	※11	[V]	5 VDC +10 / -7 %	5 VDC +10 / -7 %	5 VDC +10 / -7 %	5 VDC +10 / -7 %
Power Consumption	(Spin up, +12 VDC) ※12	[A, peak]	1.49	1.49	1.44	1.44
	(Spin up, +5 VDC) ※12	[A, peak]	0.4	0.4	0.29	0.29
	(Operating) ※13	[W]	8.02	8.02	7.48	7.48
	(Idel-A) ※14	[W]	4.35	4.41	4.14	4.14
	(Standby)	[W]	0.61	0.66	0.42	0.42
Environmental						
Temperature	(Operating)	[℃] (Ambient)	-	-	-	-
	(Operating)	[℃] (Surface)	5 to 60	5 to 60	5 to 60	5 to 60
	(Non-operating) ※15, 18	[℃]	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Humidity	(Operating)	[%RH]	5 to 90	5 to 90	5 to 90	5 to 90
	(Non-operating) ※15	[%RH]	5 to 95	5 to 95	5 to 95	5 to 95
Vibration	(Operating) ※16、17	[m/s2] [G]	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)
		[m/s2] [G]	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)
		[m/s2] [G]	-	-	-	-
	(Non-operating) ※16, ※19	[m/s2] [G]	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)
Shock	(Operating) ※16	[m/s2] [G]	490 {50 G} (2 ms duration)	490 {50 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
	(Non-operating) ※10, ※11	[m/s2] [G]	1960 {200 G} (2 ms duration)	1960 {200 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)
Altitude	(Operating)	[m]	-305 to 3048	-305 to 3048	-305 to 3048	-305 to 3048
	(Non-operating) ※10	[m]	-305 to 12 192	-305 to 12 192	-305 to 12 192	-305 to 12 192
Acoustics ※20	Seek	[dB] (Typ.)	32	32	32	32
	Idle mode	[dB] (Typ.)	20	20	20	20
Physical Dimension						
Height		[mm] (Max)	26.1	26.1	26.1	26.1
Length		[mm] (Max)	147	147	147	147
Width		[mm] (Max)	101.85	101.85	101.85	101.85
Weight		[g] (Max)	720	720	720	720
Bottom holes type ※21			TYPE1	TYPE1	TYPE1	TYPE1

N300 Data Sheet

Model						
Model Number			HDWG31G	HDWG51E	HDWG21E	HDWG51C
Capacity ※1			16 TB	14 TB	14 TB	12 TB
Recording Technology ※2			CMR	CMR	CMR	CMR
Parts Number			HDWG31GUZSVA	HDWG51EUZSVA	HDWG21EUZSVA	HDWG51CUZSVA
Basic Specifications						
Interface ※3			SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor			3.5-inch	3.5-inch	3.5-inch	3.5-inch
Sector Size ※4			512e	512e	512e	512e
Features						
24 x 7 Operation			yes	yes	yes	yes
Drive Bays Supported ※6			up to 8	up to 8	up to 8	up to 8
Rotational Vibration Safeguard (RVS)			yes	yes	yes	yes
Shock Sensor			yes	yes	yes	yes
Native command queuing (NCQ)			yes	yes	yes	yes
Advanced Format (AF)			yes	yes	yes	yes
RoHS compliant			yes	yes	yes	yes
Halogen Free			yes	yes	yes	yes
Performances						
Interface Speed ※3		[Gbit/s]	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5
Rotation Speed		[rpm]	7200	7200	7200	7200
Sustained data transfer rate ※3		[MB/s]	274	281	260	281
Buffer Size ※7		[MB]	512	512	256	512
Reliability						
MTTF ※8		[hours]	1 200 000	1 200 000	1 000 000	1 200 000
Unrecoverable Error Rate			1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14
Maximum rated workload ※9		[TB/year]	180	180	180	180
Load/Unload cycles		[times]	300 000	300 000	300 000	300 000
Power Requirements						
Supply Voltage ※10		[V]	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %
	※11	[V]	5 VDC +10 / -7 %	5 VDC +10 / -7 %	5 VDC ±5 %	5 VDC +10 / -7 %
Power Consumption	(Spin up, +12 VDC) ※12	[A, peak]	1.47	1.45	1.65	1.5
	(Spin up, +5 VDC) ※12	[A, peak]	0.26	0.31	0.33	0.3
	(Operating) ※13	[W]	6.91	7.38	6.77	6.85
	(Idel-A) ※14	[W]	4.03	3.77	4.54	3.3
	(Standby)	[W]	0.44	0.41	0.62	0.41
Environmental						
Temperature	(Operating)	[℃] (Ambient)	-	-	-	-
	(Operating)	[℃] (Surface)	0 to 65	5 to 60	5 to 60	5 to 60
	(Non-operating) ※15, 18	[℃]	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Humidity	(Operating)	[%RH]	5 to 90	5 to 90	5 to 90	5 to 90
	(Non-operating) ※15	[%RH]	5 to 95	5 to 95	5 to 95	5 to 95
Vibration	(Operating) ※16、17	[m/s2] [G]	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)
		[m/s2] [G]	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)
		[m/s2] [G]	-	-	-	-
	(Non-operating) ※16, ※19	[m/s2] [G]	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)
Shock	(Operating) ※16	[m/s2] [G]	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
	(Non-operating) ※10, ※11	[m/s2] [G]	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)
Altitude	(Operating)	[m]	-305 to 3048	-305 to 3048	-305 to 3048	-305 to 3048
	(Non-operating) ※10	[m]	-305 to 12 192	-305 to 12 192	-305 to 12 192	-305 to 12 192
Acoustics ※20	Seek	[dB] (Typ.)	32	32	35	32
	Idle mode	[dB] (Typ.)	20	20	20	20
Physical Dimension						
Height		[mm] (Max)	26.1	26.1	26.1	26.1
Length		[mm] (Max)	147	147	147	147
Width		[mm] (Max)	101.85	101.85	101.85	101.85
Weight		[g] (Max)	720	705	720	690
Bottom holes type ※21			TYPE1	TYPE1	TYPE1	TYPE1

N300 Data Sheet

Model						
Model Number			HDWG21C	HDWG71A	HDWG51A	HDWG11A
Capacity ※1			12 TB	10 TB	10 TB	10 TB
Recording Technology ※2			CMR	CMR	CMR	CMR
Parts Number			HDWG21CUZSVA	HDWG71AUZSVA	HDWG51AUZSVA	HDWG11AUZSVA
Basic Specifications						
Interface ※3			SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor			3.5-inch	3.5-inch	3.5-inch	3.5-inch
Sector Size ※4			512e	512e	512e	512e
Features						
24 x 7 Operation			yes	yes	yes	yes
Drive Bays Supported ※6			up to 8	up to 8	up to 8	up to 8
Rotational Vibration Safeguard (RVS)			yes	yes	yes	yes
Shock Sensor			yes	yes	yes	yes
Native command queuing (NCQ)			yes	yes	yes	yes
Advanced Format (AF)			yes	yes	yes	yes
RoHS compliant			yes	yes	yes	yes
Halogen Free			yes	yes	yes	yes
Performances						
Interface Speed ※3		[Gbit/s]	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5
Rotation Speed		[rpm]	7200	7200	7200	7200
Sustained data transfer rate ※3		[MB/s]	253	281	281	248
Buffer Size ※7		[MB]	256	512	512	256
Reliability						
MTTF ※8		[hours]	1 000 000	1 000 000	1 200 000	1 000 000
Unrecoverable Error Rate			1 per 10E14	1 per 10E15	1 per 10E14	1 per 10E14
Maximum rated workload ※9		[TB/year]	180	180	180	180
Load/Unload cycles		[times]	300 000	600 000	300 000	300 000
Power Requirements						
Supply Voltage ※10		[V]	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %
	※11	[V]	5 VDC ±5 %	5 VDC +10 / -7 %	5 VDC +10 / -7 %	5 VDC +10 / -5 %
Power Consumption	(Spin up, +12 VDC) ※12	[A, peak]	1.62	1.43	1.5	1.44
	(Spin up, +5 VDC) ※12	[A, peak]	0.33	0.45	0.3	0.35
	(Operating) ※13	[W]	6.49	9.07	6.85	9.48
	(Idel-A) ※14	[W]	4.28	5.74	3.3	7.22
	(Standby)	[W]	0.62	0.58	0.41	0.67
Environmental						
Temperature	(Operating)	[℃] (Ambient)	-	-	-	0 to 60
	(Operating)	[℃] (Surface)	5 to 60	5 to 60	5 to 60	0 to 65
	(Non-operating) ※15, 18	[℃]	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Humidity	(Operating)	[%RH]	5 to 90	5 to 90	5 to 90	5 to 90
	(Non-operating) ※15	[%RH]	5 to 95	5 to 95	5 to 95	5 to 95
Vibration	(Operating) ※16、17	[m/s2] [G]	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)
		[m/s2] [G]	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)
		[m/s2] [G]	-	-	-	-
	(Non-operating) ※16, ※19	[m/s2] [G]	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)
Shock	(Operating) ※16	[m/s2] [G]	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
	(Non-operating) ※10, ※11	[m/s2] [G]	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)
Altitude	(Operating)	[m]	-305 to 3048	-305 to 3048	-305 to 3048	-305 to 3048
	(Non-operating) ※10	[m]	-305 to 12 192	-305 to 12 192	-305 to 12 192	-305 to 12 192
Acoustics ※20	Seek	[dB] (Typ.)	35	35	32	35
	Idle mode	[dB] (Typ.)	20	34	20	34
Physical Dimension						
Height		[mm] (Max)	26.1	26.1	26.1	26.1
Length		[mm] (Max)	147	147	147	147
Width		[mm] (Max)	101.85	101.85	101.85	101.85
Weight		[g] (Max)	720	755	690	770
Bottom holes type ※21			TYPE1	TYPE1	TYPE1	TYPE1

N300 Data Sheet

Model						
Model Number			HDWG780	HDWG480	HDWG180	HDWN180
Capacity ※1			8 TB	8 TB	8 TB	8 TB
Recording Technology ※2			CMR	CMR	CMR	CMR
Parts Number			HDWG780UZSVA	HDWG480UZSVA	HDWG180UZSVA	HDWN180UZSVA
Basic Specifications						
Interface ※3			SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor			3.5-inch	3.5-inch	3.5-inch	3.5-inch
Sector Size ※4			512e	512e	512e	512e
Features						
24 x 7 Operation			yes	yes	yes	yes
Drive Bays Supported ※6			up to 8	up to 8	up to 8	up to 8
Rotational Vibration Safeguard (RVS)			yes	yes	yes	yes
Shock Sensor			yes	yes	yes	yes
Native command queuing (NCQ)			yes	yes	yes	yes
Advanced Format (AF)			yes	yes	yes	yes
RoHS compliant			yes	yes	yes	yes
Halogen Free			yes	yes	yes	yes
Performances						
Interface Speed ※3		[Gbit/s]	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5
Rotation Speed		[rpm]	7200	7200	7200	7200
Sustained data transfer rate ※3		[MB/s]	281	260	241	241
Buffer Size ※7		[MB]	512	256	256	128
Reliability						
MTTF ※8		[hours]	1 000 000	1 000 000	1 000 000	1 000 000
Unrecoverable Error Rate			1 per 10E15	1 per 10E15	1 per 10E14	1 per 10E14
Maximum rated workload ※9		[TB/year]	180	180	180	180
Load/Unload cycles		[times]	600 000	300 000	300 000	300 000
Power Requirements						
Supply Voltage ※10		[V]	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %
	※11	[V]	5 VDC +10 / -7 %	5 VDC ±5 %	5 VDC +10 / -5 %	5 VDC +10 / -5 %
Power Consumption	(Spin up, +12 VDC) ※12	[A, peak]	1.42	1.49	1.43	1.83
	(Spin up, +5 VDC) ※12	[A, peak]	0.45	0.26	0.34	-
	(Operating) ※13	[W]	8.19	8.41	8.61	9.2
	(Idel-A) ※14	[W]	4.92	5.61	6.33	6.2
	(Standby)	[W]	0.57	0.41	0.65	1
Environmental						
Temperature	(Operating)	[℃] (Ambient)	-	-	0 to 60	0 to 60
	(Operating)	[℃] (Surface)	5 to 60	5 to 65	0 to 65	0 to 65
	(Non-operating) ※15, 18	[℃]	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Humidity	(Operating)	[%RH]	5 to 90	5 to 90	5 to 90	5 to 90
	(Non-operating) ※15	[%RH]	5 to 95	5 to 95	5 to 95	5 to 95
Vibration	(Operating) ※16、17	[m/s2] [G]	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (2 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)
		[m/s2] [G]	2.45 {0.25 G} (300 to 500 Hz)	4.90 {0.50 G} (300 to 350 Hz)	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)
		[m/s2] [G]	-	2.45 {0.25 G} (350 to 500 Hz)	-	-
	(Non-operating) ※16, ※19	[m/s2] [G]	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	49.0 {5.0 G} (5 to 500 Hz)
Shock	(Operating) ※16	[m/s2] [G]	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
	(Non-operating) ※10, ※11	[m/s2] [G]	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)
Altitude	(Operating)	[m]	-305 to 3048	-305 to 3048	-305 to 3048	-305 to 3048
	(Non-operating) ※10	[m]	-305 to 12 192	-305 to 12 192	-305 to 12 192	-305 to 12 192
Acoustics ※20	Seek	[dB] (Typ.)	35	35	35	35
	Idle mode	[dB] (Typ.)	34	31	34	33
Physical Dimension						
Height		[mm] (Max)	26.1	26.1	26.1	26.1
Length		[mm] (Max)	147	147	147	147
Width		[mm] (Max)	101.85	101.85	101.85	101.85
Weight		[g] (Max)	730	720	770	770
Bottom holes type ※21			TYPE1	TYPE2	TYPE1	TYPE1

N300 Data Sheet

Model						
Model Number			HDWG760	HDWG460	HDWG160	HDWN160
Capacity ※1			6 TB	6 TB	6 TB	6 TB
Recording Technology ※2			CMR	CMR	CMR	CMR
Parts Number			HDWG760UZSVA	HDWG460UZSVA	HDWG160UZSVA	HDWN160UZSVA
Basic Specifications						
Interface ※3			SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor			3.5-inch	3.5-inch	3.5-inch	3.5-inch
Sector Size ※4			512e	512e	512e	512e
Features						
24 x 7 Operation			yes	yes	yes	yes
Drive Bays Supported ※6			up to 8	up to 8	up to 8	up to 8
Rotational Vibration Safeguard (RVS)			yes	yes	yes	yes
Shock Sensor			yes	yes	yes	yes
Native command queuing (NCQ)			yes	yes	yes	yes
Advanced Format (AF)			yes	yes	yes	yes
RoHS compliant			yes	yes	yes	yes
Halogen Free			yes	yes	yes	yes
Performances						
Interface Speed ※3		[Gbit/s]	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5
Rotation Speed		[rpm]	7200	7200	7200	7200
Sustained data transfer rate ※3		[MB/s]	281	250	241	241
Buffer Size ※7		[MB]	512	256	256	128
Reliability						
MTTF ※8		[hours]	1 000 000	1 000 000	1 000 000	1 000 000
Unrecoverable Error Rate			1 per 10E15	1 per 10E15	1 per 10E14	1 per 10E14
Maximum rated workload ※9		[TB/year]	180	180	180	180
Load/Unload cycles		[times]	600 000	300 000	300 000	300 000
Power Requirements						
Supply Voltage ※10		[V]	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %
	※11	[V]	5 VDC +10 / -7 %	5 VDC ±5 %	5 VDC +10 / -5 %	5 VDC ±5 %
Power Consumption	(Spin up, +12 VDC) ※12	[A, peak]	1.41	1.45	1.44	1.88
	(Spin up, +5 VDC) ※12	[A, peak]	0.44	0.27	0.35	-
	(Operating) ※13	[W]	7.43	7.72	7.88	10.1
	(Idel-A) ※14	[W]	4.14	4.93	5.59	6.7
	(Standby)	[W]	0.57	0.43	0.68	1
Environmental						
Temperature	(Operating)	[℃] (Ambient)	-	-	0 to 60	0 to 60
	(Operating)	[℃] (Surface)	5 to 60	5 to 65	0 to 65	0 to 65
	(Non-operating) ※15, 18	[℃]	-40 to 70	-40 to 70	-40 to 70	-40 to 70
Humidity	(Operating)	[%RH]	5 to 90	5 to 90	5 to 90	5 to 90
	(Non-operating) ※15	[%RH]	5 to 95	5 to 95	5 to 95	5 to 95
Vibration	(Operating) ※16、17	[m/s2] [G]	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (2 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)
		[m/s2] [G]	2.45 {0.25 G} (300 to 500 Hz)	4.90 {0.50 G} (300 to 350 Hz)	2.45 {0.25 G} (300 to 500 Hz)	2.45 {0.25 G} (300 to 500 Hz)
		[m/s2] [G]	-	2.45 {0.25 G} (350 to 500 Hz)	-	-
	(Non-operating) ※16, ※19	[m/s2] [G]	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	49.0 {5.0 G} (5 to 500 Hz)
Shock	(Operating) ※16	[m/s2] [G]	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
	(Non-operating) ※10, ※11	[m/s2] [G]	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)
Altitude	(Operating)	[m]	-305 to 3048	-305 to 3048	-305 to 3048	-305 to 3048
	(Non-operating) ※10	[m]	-305 to 12 192	-305 to 12 192	-305 to 12 192	-305 to 12 192
Acoustics ※20	Seek	[dB] (Typ.)	35	35	35	35
	Idle mode	[dB] (Typ.)	34	31	34	33
Physical Dimension						
Height		[mm] (Max)	26.1	26.1	26.1	26.1
Length		[mm] (Max)	147	147	147	147
Width		[mm] (Max)	101.85	101.85	101.85	101.85
Weight		[g] (Max)	710	700	770	770
Bottom holes type ※21			TYPE1	TYPE2	TYPE1	TYPE1

N300 Data Sheet

Model					
Model Number			HDWG740	HDWG440	HDWQ140
Capacity ※1			4 TB	4 TB	4 TB
Recording Technology ※2			CMR	CMR	CMR
Parts Number			HDWG740UZSVC	HDWG440UZSVA	HDWQ140UZSVA
Basic Specifications					
Interface ※3			SATA 6.0 Gbit/s	SATA 6.0 Gbit/s	SATA 6.0 Gbit/s
Form Factor			3.5-inch	3.5-inch	3.5-inch
Sector Size ※4			512e	512n	512n
Features					
24 x 7 Operation			yes	yes	yes
Drive Bays Supported ※6			up to 8	up to 8	up to 8
Rotational Vibration Safeguard (RVS)			yes	yes	yes
Shock Sensor			yes	yes	yes
Native command queuing (NCQ)			yes	yes	yes
Advanced Format (AF)			yes	no	no
RoHS compliant			yes	yes	yes
Halogen Free			yes	yes	yes
Performances					
Interface Speed ※3		[Gbit/s]	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5	6.0 / 3.0 / 1.5
Rotation Speed		[rpm]	7200	7200	7200
Sustained data transfer rate ※3		[MB/s]	281	232	204
Buffer Size ※7		[MB]	512	256	128
Reliability					
MTTF ※8		[hours]	1 000 000	1 000 000	1 000 000
Unrecoverable Error Rate			1 per 10E15	1 per 10E15	1 per 10E14
Maximum rated workload ※9		[TB/year]	180	180	180
Load/Unload cycles		[times]	600 000	300 000	300 000
Power Requirements					
Supply Voltage ※10		[V]	12 VDC ±10 %	12 VDC ±10 %	12 VDC ±10 %
	※11	[V]	5 VDC +10 / -7 %	5 VDC ±5 %	5 VDC ±5 %
Power Consumption	(Spin up, +12 VDC) ※12	[A, peak]	1.42	1.5	1.84
	(Spin up, +5 VDC) ※12	[A, peak]	0.45	0.28	-
	(Operating) ※13	[W]	6.75	6.84	9.6
	(Idel-A) ※14	[W]	3.49	4.04	5.2
	(Standby)	[W]	0.59	0.46	1
Environmental					
Temperature	(Operating)	[℃] (Ambient)	-	-	0 to 60
	(Operating)	[℃] (Surface)	5 to 60	5 to 65	0 to 65
	(Non-operating) ※15, 18	[℃]	-40 to 70	-40 to 70	-40 to 70
Humidity	(Operating)	[%RH]	5 to 90	5 to 90	5 to 90
	(Non-operating) ※15	[%RH]	5 to 95	5 to 95	5 to 95
Vibration	(Operating) ※16、17	[m/s2] [G]	7.35 {0.75 G} (5 to 300 Hz)	7.35 {0.75 G} (2 to 300 Hz)	7.35 {0.75 G} (5 to 300 Hz)
		[m/s2] [G]	2.45 {0.25 G} (300 to 500 Hz)	4.90 {0.50 G} (300 to 350 Hz)	2.45 {0.25 G} (300 to 500 Hz)
		[m/s2] [G]	-	2.45 {0.25 G} (350 to 500 Hz)	-
	(Non-operating) ※16, ※19	[m/s2] [G]	29.4 {3.0 G} (5 to 500 Hz)	29.4 {3.0 G} (5 to 500 Hz)	49.0 {5.0 G} (5 to 500 Hz)
Shock	(Operating) ※16	[m/s2] [G]	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)	686 {70 G} (2 ms duration)
	(Non-operating) ※10, ※11	[m/s2] [G]	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)	2450 {250 G} (2 ms duration)
Altitude	(Operating)	[m]	-305 to 3048	-305 to 3048	-305 to 3048
	(Non-operating) ※10	[m]	-305 to 12 192	-305 to 12 192	-305 to 12 192
Acoustics ※20	Seek	[dB] (Typ.)	35	35	34
	Idle mode	[dB] (Typ.)	34	31	30
Physical Dimension					
Height		[mm] (Max)	26.1	26.1	26.1
Length		[mm] (Max)	147	147	147
Width		[mm] (Max)	101.85	101.85	101.85
Weight		[g] (Max)	690	693	720
Bottom holes type ※21			TYPE1	TYPE2	TYPE2

※1 One terabyte (TB) = one trillion bytes; accessible capacity will be less and actual capacity depends on the operating environment and formatting.
※2 CMR means Conventional Magnetic Recording, SMR means Shingled Magnetic Recording.
※3 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 bit/s. 1 MiB/s = 1 048 576 B/s
※4 Read–modify-write is supported.
※5 Number of surveillance cameras support capability is defined by performance simulation with High Definition cameras at 10Mbit/s rate. Actual results may vary based on various factors, including the types of cameras installed, the system's hardware and software capabilities, and the video compression technology used, as well as system variables such as resolution, frames per second, and other settings.
※6 As for "Drive Bays Supported", please contact your Solutions Provider because the compatibility with the host device will vary based on the system.
※7 1 MiB = 1 048 576 B
※8 MTTF (Mean Time to Failure) is not a guarantee or estimate of product life; it is a statistical value related to mean failure rates for a large number of products which may not accurately reflect actual operation. Actual operating life of the product may be different from the MTTF.

※9 Workload is defined as the amount of data written, read or verified by commands from host system.
※10 Input voltages are specified at the HDD connector side, during HDD ready state.
※11 Make sure the value is not less than DC -0.3V (less than -0.6V, 0.1 ms) when turning on or off the power
※12 Not including glitch less than 100 µs.
※13 Operating watt is measured using 80 % random read/write and 20 % performance idle.
※14 Idle is active idle
※15 Non-operating condition (except storage condition) assumes short term transportation.
※16 Vibration applied to the HDD is measured at near the mounting screw hole on the frame as much as possible
※17 At random seek write/read and default on retry setting with log sweep vibration
※18 The range of altitude is 3048 m or less. Up to 55 °C at 7620 m. Up to 40°C at 12 192 m.
※19 At power-off state after installation
※20 The measuring method is based on ISO 7779. Idle is active idle mode.