

USB Portable SSD (Explorer)

20Gbps

Specifications

Capacity

- 1TB/2TB/4TB/8TB

Interface

- 20Gb Type-C

Speed Mode

- 20Gbps
- 10Gbps
- 5Gbps

Performance (up to)¹

- Burst read: 2,000 MB/s
- Burst write: 2,000 MB/s
- Sequential read: 2,000 MB/s
- Sequential write: 2,000 MB/s

Endurance²

- TBW:
 - 1TB: 1,500 TB
 - 2TB: 3,000 TB
 - 4TB: 6,000 TB
 - 8TB: 12,000 TB

Compatibility

- Mac OS
- Windows 11/10
- Windows Server 2016/2012 R2/2012
- CentOS, Fedora, FreeBSD, openSUSE, Red Hat, Ubuntu, VMware ESXi, Citrix, KVM

Mechanical form factor

- 115 mm x 57 mm x 18 mm
- Weight: 200g (rubber case included)

Accessories

- 20 Gbps USB-C to USB-C & USB-A hybrid cable

Power consumption

- Active: <8.0 W
- Idle: <1.0 W

Environment

- Operating temperature: 0–70 °C
- Storage temperature: -40–85 °C

Shock & vibration

- Operating: 50 G
(11 ms duration, half sine wave)
- Non-operating: 1500 G
(0.5 ms duration, half sine wave)
- Vibration: 10 G
(peak, 10–2000 Hz)

RoHS compliant

IP68 Water and Dust Protection Certified

Warranty

- 5-year limited warranty³
- Factory Data Recovery Service

Specification notes:

1. Performance claims
 - a. Actual performance may vary based on the hardware, software, and overall system configuration.
 - b. Sequential performance is measured with 128 KB transfer size, QD 32 and 4 KB alignment with Iometer.
 - c. Random performance is sustained performance measured with 4K/8K transfer size, QD 32 and 4 KB alignment with Iometer.
 - d. Performance test platform: CPU: Intel Core i7 4770K; motherboard: ASUS Z87-DELUXE; chipset: Intel Z87 Express; OS: Windows 8.1 Pro x64.
2. Endurance claims
 - a. DWPD stands for Drive Writes Per Day. $TBW = DWPD \times \text{capacity} \times \text{warranty} \times 365 / 1000$.
 - b. Access patterns used for random workload during endurance testing is compliant with the JESD219 standard.
3. Limited warranty details: please refer to limited warranty policy and warranty terms.

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Product Datasheet

1. Order Information

The following table lists the standard part numbers for Exascend Explorer portable SSD series. For customization and design service inquiries, including – but not limited to – custom operating temperature, capacity, over-provisioning, endurance, performance, and power, please contact your Exascend account manager or send us an email at sales@exascend.us.

Table 1: USB 20Gbps Explorer portable SSD product list

PART NUMBER	CAPACITY	FLASH TYPE	Dimension
EXU2M6E01TP0C	1024 GB	3D TLC	115mm(L)x57mm(W)x18mm(H)
EXU2M6E02TP0C	2048 GB	3D TLC	115mm(L)x57mm(W)x18mm(H)
EXU2M6E04TP0C	4096 GB	3D TLC	115mm(L)x57mm(W)x18mm(H)
EXU2M6E08TP0C	8192 GB	3D TLC	115mm(L)x57mm(W)x18mm(H)

2. Part Number Decoder

EX	U2	M6	E	01T	P0	C
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1. EX= Exascend
2. Drive Interface (U2 = USB 20Gbps)
3. SSD Controller (M6 = Marvell 88SS1321)
4. Series Type (E = Explorer)
5. Drive Capacity (01T = 1024GB ; 02T = 2048GB ; 04T =4096B ; 08T =8192GB)
6. Form Factor (P0 = Portable SSD)
7. Temperature (C= commercial temperature)

3. Performance Information

Table 2: USB 20Gbps Explorer portable SSD performance

PART NUMBER	Flash	Capacity	Burst Read (MB/s)	Burst Write (MB/s)	Sustained Read (MB/s)	Sustained Write (MB/s)
EXU2M6E01TP0C	TLC	1024 GB	1,700	1,600	1,700	1,600
EXU2M6E02TP0C		2048 GB	1,700	1,600	1,700	1,600
EXU2M6E04TP0C		4096 GB	2,000	2,000	2,000	2,000
EXU2M6E08TP0C		8192 GB	2,000	2,000	2,000	2,000

4. Detailed Specifications

4.1 Environment Specification

Table 3: Environmental specification table

PARAMETER	VALUE
Operating temperature	0–70 °C
Storage temperature	-40–85 °C
Power supply voltage range	USB: 5V ± 5%
Humidity (non-condensing)	5–95% (Operating)
Vibration	10 G (peak, 10–2000 Hz)
Shock (operating)	50 G, (11 ms duration, half sine wave)
Shock (non-operating)	1500 G, (0.5 ms duration, half sine wave)

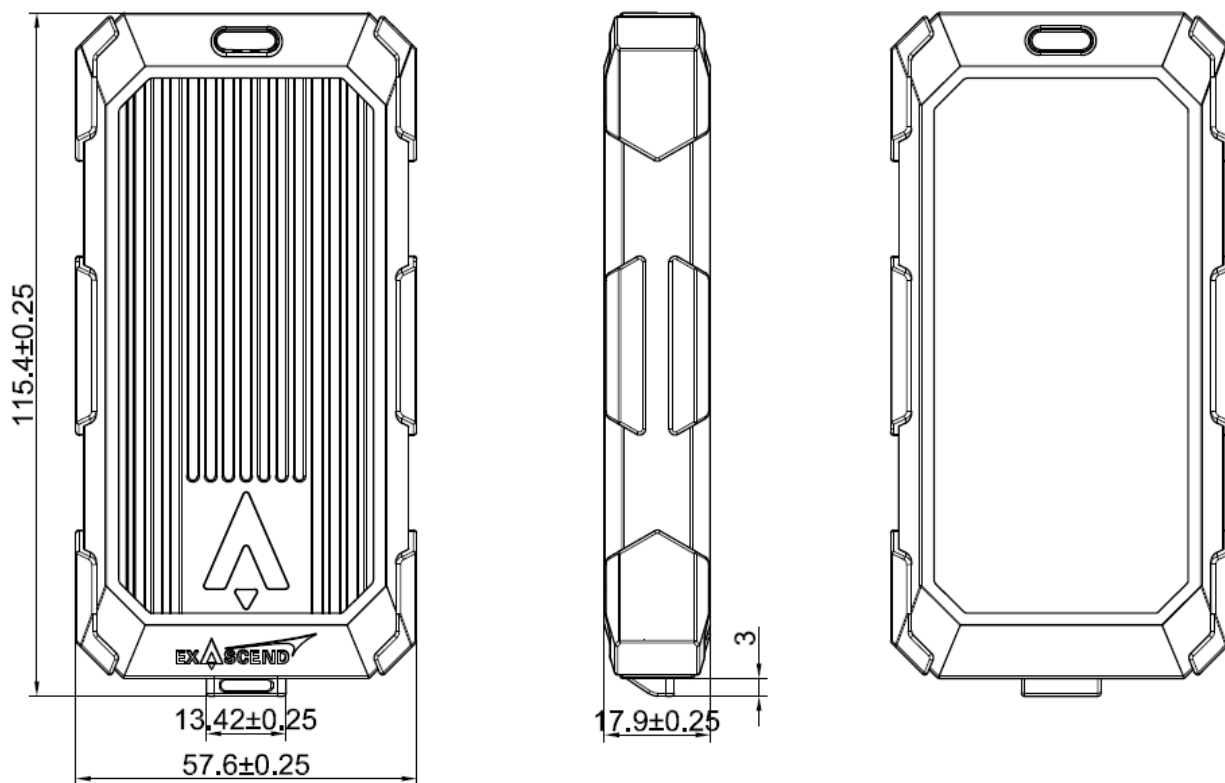
4.2 Power Consumption

Table 4: power consumption table

PARAMETER	VALUE	UNIT
Active power (Avg.)	<8.0	W
Idle mode power (average)	<1.0	W

5. Physical Dimension Diagram

Figure 1: physical dimension diagram



GENERAL TOLERANCE IS $\pm 0.25\text{mm}$
DIMENSION UNIT: mm

Table 5: Physical dimensions

PHYSICAL DIMENSIONS	VALUE	UNIT
Length	115	mm
Width	57	mm
Thickness	18	mm

6. Compliance

Exascend portable SSD complies with the following specifications:

- FCC
- CE
- RoHS
- IP68

Legal Information

Limited Warranty Policy

Exascend, Inc. ("Exascend") warrants that Exascend's product, in its original sealed packaging, will be free from defects in materials and workmanship. Subject to the conditions and limitations set forth below, Exascend will either repair or replace any part of its products that prove defective by reason of improper workmanship or materials. This warranty is non-transferable and valid only for the original purchaser of the Exascend products, except where prohibited by law. The original sales receipt or invoice, or a copy thereof, is required to establish the purchase date and original purchaser.

1. This warranty supersedes all other warranties and representations, whether oral or written, between you and Exascend. Exascend makes no other warranties, including any warranty of merchantability or fitness for a particular purpose, whether expressly or implied.
2. All warranties, whether express or implied, are limited to the periods of time set forth below. Some states and jurisdictions do not allow such exclusion of implied warranties, limitations or warranty period, so above restrictions may not apply to you.
3. Exascend may acknowledge or read and save the data and information (collectively, "Information") stored in the product during after-services. Exascend hereby agrees that Exascend will not disclose any Information to any third parties, except Exascend's employees, who may need to access the Information, with or without your prior written consent.

Warranty Terms

Exascend offers five (5) years limited warranty for external portable SSD.

The warranty period is the SHORTER OF:

- a period of five (5) years beginning from the date of purchase; or
- the period ending when the drive reached advertised DWPD or TBW rating; or
- the period ending when the device's Lifespan indicator has reached 0% or below.

This Limited Warranty will not apply to, and Exascend will have no liability or obligation with respect to, problems or damage resulting from any of the following: (i) accident, modification, neglect, abuse, careless or incorrect handling, misuse or improper operation, disassembly, misapplication or use in unusual physical environments or under operating conditions not approved by Exascend (including, but not limited to, use of the Product with an improper voltage supply); (ii) normal wear and tear; (iii) removal of label(s) or sticker(s) provided on or with the Product (including all warranty or quality-control stickers, product serial or electronic numbers); (iv) problems relating to or residing in non-Exascend hardware, software or other items with which the Product is used; (v) use in an environment, in a manner or for a purpose for which the Product was not designed or not in accordance with Exascend's published documentation; (vi) installation, modification, alteration or repair by anyone other than Exascend or its authorized representatives; (vii) problems that do not relate to materials or workmanship or that have an insignificant impairment on the use or operation of the Product; or (viii) problems related to consumables; (ix) Product purchased "AS-IS" or "with known faults, defects or problems." Additionally, Exascend will have no liability or obligation to recover any data in the Product.

Factory Data Recover Service

Exascend Explorer portable SSD come with a generous five-year warranty offering free replacements and repairs. Leveraging our advanced engineering, in the event of data disaster, Exascend provides exclusive factory data recovery service, including hardware repair and data rescue.

Disclaimer of Liability

Exascend, Inc. reserves the right to make changes to specifications and product descriptions such as but not limited to numbers, parameters and other technical information contained herein without notice. Please contact Exascend, Inc. to obtain the latest specifications. Exascend, Inc. grants no warranty with respect to this datasheet, explicit or implied, and is not liable for direct or indirect damages. Some states do not grant the exclusion of incidental damages and as such this statement may not be valid in such states. The provisions of the datasheet do not convey to the purchaser of the device any license under any patent right or other intellectual property right of Exascend, Inc.

Customers must not use Exascend products in applications where a device failure or malfunction may cause personal injury or death, e.g., in life support systems or devices.

Exascend shall not be liable for any loss, injury or damage caused by use of the products in any of the following applications:

- Medical-related devices, life support, medical measurement devices, etc.
- Control devices for trains, ships, mass transportation systems or automotive vehicles, etc.
- Specific applications including military/defense-related equipment, aerospace, nuclear facility control systems, etc.
- Safety systems for disaster prevention/crime prevention, etc.

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Revision History

REVISION	DESCRIPTION	DATE
001	First released	Nov., 2022
002	Update parameter	Oct., 2023
003	Update IP67 to IP68	May, 2024
004	Update data recovery description & contact info	Aug., 2024
005	Update cable description	Aug., 2024
006	Update Operating temperature	Nov., 2024