Universal Storage Module

Marketing Bulletin

Frequently Asked Questions

USM Specifications

What is the USM specification?

The SATA Universal Storage Module (USM) specification allows developers to incorporate slots into televisions, game consoles, set-top boxes, computers, docking stations and other computer electronics applications that will accept powered, cable-free storage modules with integrated SATA interfaces for expanded external storage capacity. Devices based on the specification are particularly well suited for audio/video streaming and other consumer electronics (CE) applications. USM applies to 14.5mm enclosure sizes with the appropriate XYZ specs; USM Slim applies to 9mm enclosure sizes with the appropriate XYZ dimensions.

How do devices based on the USM specification work?

Modules based on the USM specification build a standard SATA interface into a robust data module that can be plugged in to devices like TVs, game consoles, set-top boxes, desktop and notebook computers, and other CE applications to provide additional storage. CE devices based on the USM specification have slots that accept USM modules, and data transfers over the SATA interface.

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A USM-enabled gaming PC from ASUS, with removable Seagate storage.

What does the USM specification define?

The USM specification defines how the SATA interface is integrated into a module form factor and how power is provided to the interface. A complementary specification in the Small Form Factor Committee (SFF) defines the form factor and size requirements for USM products. The drive inside the disk enclosure can be any vendor and configuration type, such as SATA II, SATA III, hybrid or solid state drive.

What benefits do devices based on the USM specification provide?

Devices based on the USM specification extend the speed and reliability of SATA technology from the PC storage space to a variety of CE applications like televisions, game consoles and set-top boxes, as well as desktop and notebook computers. Additionally, USM devices are the first products to provide a portable, 3Gb/s and 6Gb/s powered SATA solution for consumer applications, enabling consumers to instantly access movies, music and other content, and to transfer content between devices without having to carry a cable, connector or power supply.

What transfer rates does the USM specification support?

The USM specification supports the current SATA data rate of 6Gb/s. Devices based on the specification will also be able to degrade their speed for compatibility with products designed to previous-generation SATA specifications.

Do devices based on the USM specification require any additional cables or equipment?

No. Because the USM specification integrates the SATA interface into a module form factor, USM modules can simply be plugged in to host devices in order to deliver additional storage capacity.

What is the SATA-IO committee?

The Serial ATA International Organization (SATA-IO) is a consortium of over 200 members from various technology companies, including Seagate, WD, SanDisk, Toshiba, Intel, Microsoft and others (www.sata-io.org/membership/member_listings.asp).

When can we expect the USM specification to be available?

SATA-IO made the first announcement about USM becoming a standard on Jan 4, 2011, and released the SATA 3.1 specification on July 18, 2011, which includes the design requirements for USM (www.sata-io.org/documents/SATA-IORevision31_PRfinal.pdf). The USM Slim standard was announced on June 6, 2012, and will be added to the SATA 3.2 specification available in the third quarter of 2012 (available now to members for download as file "TP_041_SATA_TechProp_113v0_9mmUSM").

Does the USM specification address content protection?

No. The USM specification defines how the SATA interface is integrated into a module form factor. Implementation of content protection technologies will be addressed by individual device manufacturers whose products support the standard (important for STB/DVR manufacturers).

Seagate® USM Partner Program

What is the Seagate USM partner program?

This program allows third-party companies to incorporate slots on their products to support USM external hard drives. This initiative is a certification process whereby Seagate will qualify products from participating companies to incorporate slots that meet the specifications of accepting portable 2.5-inch drives that meet the USM or USM Slim standard. The program will establish placement of both slot-based CE devices as well as certification of third-party external storage modules. Since the Seagate ultra-portable drives are also standardized on the new SATA USM specification, third-party manufacturers can build USM certified products to accept a 2.5-inch ultra-portable external hard drive.

How can a company sign up to work with Seagate?

If you are interested in becoming a Seagate USM partner, sign up at www.seagate.com/solutions/usm.

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USM Ecosystem Partners

Who are the current USM ecosystem partners and what do they make?

- Antec (multiple desktop PCs with USM slot and an aftermarket kit for desktop PCs)
- Thermaltake (multiple desktop PCs and an aftermarket kit for desktop PCs)
- Ionics (media player)
- GIEC (media player)
- Mele (media player, STB)
- Hisense (media player)
- Pogoplug (MediaShare NAS)
- Lenovo (K4 Series desktop gaming PC)
- Verbatim (Verbatim-branded USM drive)
- Lenuss (STB, media player, Lenuss-branded USM drive)
- Leader (desktop PC)
- Palconn (OEM-branded USM drive enclosures, cables, readers and slots for OEMs)
- Heran (plasma TV with USM slot)
- ASUS (CG8580 desktop gaming PC)
- Dell (Dell-branded USM drive)
- A-Tec (RAID NAS with USM slot)
- Entone (OEM STB/DVR with USM slot)
- I-O DATA (USM module and media player; STB available CY12Q3)
- Samsung (USM module; available CY12Q2 in Korea)
- Calcomp (USM module, USM slot)
- Quanta Storage (QSI) (USM module, USM slot)

Seagate USM Products

Which Seagate external products meet the USM standard?

The Seagate Backup Plus Portable Drive and the Seagate GoFlex® Ultra-portable and Ultra-portable Pro 2.5-inch (14.5mm) hard drive family in 320GB, 500GB, 750GB and 1TB meet the USM specification. The Seagate Slim Portable Drive (320GB/500GB) meets the USM Slim specification.

Will the 1.5TB (22mm) drive become part of the USM standard?

There are no plans at the present time to take the 22mm drive to the committee.

Is Seagate GoFlex Satellite™ mobile wireless storage a USM device?

No. The GoFlex Satellite device is 22mm tall and therefore it is not USM-compatible. However, the GoFlex USB 3.0 cable that ships with it is a USM cable.

Which Seagate GoFlex and Seagate Backup Plus interface cables meet the USM standard?

All Seagate GoFlex, Backup Plus and Thunderbolt adapter cables meet the USM standard regardless of device they ship with.

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