

OPTICAL DISC ARCHIVE DRIVE UNIT

ODS-D280U

ODS-D280F

TECHNICAL NOTE

Recommended Configuration for Connected Computers

English

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English

This document shows the recommended configuration for a computer connected to the ODS-D280U/F Optical Disk Archive Drive Unit. In order to maximize the performance of the ODS-D280U/F and achieve normal read/write operation, check each item and review the configuration environment of the computer as necessary.

USB 3.0 and later standards have been incorporated into USB 3.2. In this document, the term “USB 3.0” refers collectively to the standards USB 3.0, USB 3.1 Gen1, and USB 3.2 5Gbps.

Please refer to the Sony Creative Software site (<http://www.sonycreativesoftware.com/>) for the latest information.

Recommended Configuration of Computers Connected to the ODS-D280U

- 1. General Precautions When Using USB 3.0**
- Observe the following precautions when using USB 3.0.
- Do not insert a USB hub/selector/switch between drive unit and computer.
(excluding USB hubs/selectors/switches designated by Sony that resolve compatibility problems)
 - Use USB cables that are supplied with the unit.
 - On computers with multiple USB ports, the transfer rate may decrease if there are many other devices connected via USB.
 - On computers with multiple USB ports, the transfer rate may vary depending on the port used.

- 2. USB Host Controllers for Connecting an ODS-D280U**
- To maximize performance when retrieving from an ODC3300R (3.3 TB write-once cartridge), the USB port of the computer connecting to the ODS-D280U should satisfy the following requirements.
- Use a USB 3.0 port (USB 2.0 is not supported).

- On computers and extension boards with multiple USB 3.0 ports, assign ODS-D280U preferentially to the fastest port.
(Mouse, keyboard, and other peripheral devices can connect to USB 2.0 ports)
- Select a latest generation host controller.

Notes

- The transfer rate of the host controller may not satisfy the ODS-D280U requirement, depending on the expansion board connected to the expansion slot.
- Compatibility problems with the ODS-D280U may occur, depending on the manufacturer and type of the host controller.
(For details, see sections 4 and 5.)

Check Procedure

Check your computer configuration using the following procedure.

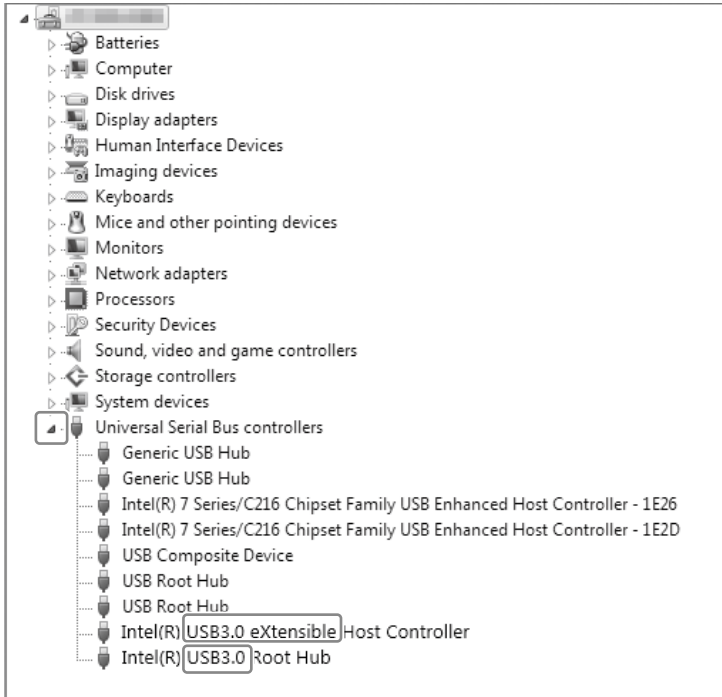
Check item	Section	Check point & solution
Check type of USB host controller of computer	3	Check for USB 3.0 host controller. →If there is no USB 3.0 host controller, use a computer with recommended chipset, or install a recommended USB 3.0 expansion board.
Check chipset of computer	4, 5	Check for recommended chipset or compatible chipset. →If chipset is deprecated, use a computer with recommended chipset, or install a recommended USB 3.0 expansion board. If chipset is compatible in an enabled C-state, enable the state required to satisfy the usage conditions.
Check USB host controller for ODS-D280U connection	6	Check that desired USB host controller is connected. →If a deprecated USB host controller is connected, switch to another port.

You can check whether the USB connection is appropriate using the system check function of the Optical Disc Archive Utility. For details, refer to the Help for the Optical Disc Archive Utility.

3. Checking the USB Host Controller Type of Computers for Use

Use the following procedure to check the USB host controller type. If there is no USB 3.0 host controller installed, use a computer with a USB 3.0 host controller installed, or install a USB 3.0 expansion board.

- Set Device Manager to display devices by type.
* Select [View]→[Devices by type].
- Expand [Universal Serial Bus controllers].
- Search for the following terms: “USB3.0” “USB3.1” “extensible” “XHCI” “xHCI”
In this example, we can see that an Intel USB 3.0 host controller is used.



4. Recommended Chipsets / Recommended USB 3.0 Expansion Boards

To use the ODS-D280U, connect a computer with the recommended chipset below or use a recommended USB 3.0 expansion board. If, after checking, the computer does not have the recommended chipset, prepare a computer with recommended chipset or add a recommended USB 3.0 expansion board. On computers with a deprecated chipset, problems such as reduced transfer speed, drive units not visible from the computer, or incomplete writing may occur.

Windows

Recommended chipset (on-board chip)

- Intel® 8 Series Chipset (H81, H87, Q85)
- Intel® Q170 Chipset
- Intel® Z270 Chipset
- Intel® H370 Chipset

Recommended model

- HP
 - EliteDesk 800 G4 SF (Q370)
 - Uninstall the “HP Sure Click” security function.
 - Spectre X360 Notebook (CFL/KBL)
 - Z4 G4 Workstation (C422)
- DELL
 - OptiPlex 7060 SFF (Q370)
 - Precision 5820 Workstation (C422)

Rec. USB 3.0 expansion board

- Sonnet Technology Allegro Pro USB 3.0 PCIe (FL1100)

Compatible chipset in enabled state (Enabled state)^{*1}

- Intel® Z170 Chipset (C1)

Deprecated chipset

- Intel® 100 Series Chipset
- Intel® Thunderbolt™ 3 Controller
- ASMedia ASM1142
- ASMedia ASM2142
- Renesas μPD720200 Series

Macintosh

Rec. USB 3.0 expansion board

- Sonnet Technology Allegro Pro USB 3.0 PCIe (FL1100)

Recommended device

- MacBook Pro (Retina, 13-inch, Early 2015)
- MacBook Pro (13-inch, 2016, Thunderbolt 3 ports × 4)^{*2}
- MacBook Pro (13-inch, 2017, Thunderbolt 3 ports × 2)^{*2}
- Mac mini Late 2018 (JHL7540/CM246)

Linux

Recommended chipset (on-board chip)

- Intel® 7 Series C210 Series Chipset
- Intel® Q170 Chipset
- Intel® H370 Chipset

Rec. USB 3.0 expansion board

- NEC μPD720200 USB3.0 Host Controller
- Renesas μPD720201 USB3.0 Host Controller
- Renesas μPD720202 USB3.0 Host Controller

*1 Usage conditions of C-state compatible chipsets

For compatible chipsets with C-states, compatibility is provided by configuring the following state.

C1	Insert commercially available USB 3.0 hub between ODS-D280U and computer. Recommended USB 3.0 hub: iBuffalo BSH4U21U3 StarTech.com ST4300MINU3W StarTech.com ST4304UA
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Note

Do not connector any other peripheral devices to the USB ports of the USB 3.0 hub.

*2 Recommended USB adapter

Apple USB-C to USB Adapter

5. Chipset Type Check Methods

(1) Searching on the website of the computer manufacturer

If you already possess a computer or are planning a computer purchase, you can check the chipset of the computer by checking items ① to ③.

- On the manufacturer’s website, access the “(Basic) Configuration” or “Specifications” of the desired model, and check the “Chassis,” “Motherboard,” and other items.
- Search the web for “pdf <PC manufacturer> <model name>” and check the specifications.
- For older models, check “Product Support” information for products by the computer manufacturer.

Examples:

The following images are reference web sites of each computer manufacturer.

Dell Precision T5610

Dell Precision T5610 Workstation Technical Specifications	
Processors	
Operating Systems	
Chipset	Intel® C602
Memory	
Graphics	

Dell Vostro 3650

Owner's Manual

Specifications

NOTE:	
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Table 14. System Information	
Chipset	Intel H110

Technical details	
Supported Operating Systems	
Operating system	
Processor	
Chipset	Intel® Q150
Processor speed	
Processor family	
Processor	
Memory	
Memory slots	
Memory, standard	
Drives	
Optical drive	

You can check the chipset of your computer using the following method.

Open Device Manager and check the devices.
Example: Windows 7

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- The screenshot shows the Windows Device Manager window. The 'System devices' category is selected and expanded. The list of devices includes:
- 3rd Gen Core processor DRAM Controller - 0154
 - ACPI Lid
 - ACPI Power Button
 - ACPI Thermal Zone
 - Composite Bus Enumerator
 - Direct memory access controller
 - High Definition Audio Controller
 - High precision event timer
 - Intel(R) 7 Series/C216 Chipset - family PCI Express Root Port 1 - 1E10
 - Intel(R) 7 Series/C216 Chipset - family PCI Express Root Port 2 - 1E12
 - Intel(R) 7 Series/C216 Chipset - family PCI Express Root Port 4 - 1E16
 - Intel(R) 7 Series/C216 Chipset - family PCI Express Root Port 7 - 1E1C
 - Intel(R) 7 Series/C216 Chipset - family SMBus Host Controller - 1E22
 - Intel(R) 82802 Firmware Hub Device
 - Intel(R) HM77 Express Chipset LPC Controller - 1E57
 - Intel(R) Management Engine Interface
- A red rectangular box highlights the 'Intel(R) 7 Series/C216 Chipset' entry, which has a yellow warning icon next to it. The other devices in the list have black icons and no warning symbols.

Check the chipset using the following command from the console.

Example:

00:1a.0 USB controller: Intel Corporation C600/X79 series chipset USB2
Enhanced Host Controller #2 (rev 05)

In this example, we can see that “Intel C600/X79” is used.
* Which is used, C600 or X79, depends on the computer.

Multiple USB host controllers may be installed, depending on the computer.

It is necessary to check which USB controller the ODS-D280U is connected with. If, after checking, the desired USB host controller is not connected, switch connection to another USB host controller (port).

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- The screenshot displays the Windows Device Manager interface. On the left, the 'System' category is expanded, showing a list of hardware components. The 'Intel(R) USB3.0 eXtensible Host Controller' is highlighted with a red rectangular box. A large black arrow points from this box down to the 'USB3.0 eXtensible Host Controller' entry in the 'Universal Serial Bus controllers' category on the right, which is also highlighted with a red rectangular box.

HPE MSA2040

<http://www.sony.net>