

Ultra ATA/66 Interface

Frequently Asked Questions

Q1. What is Ultra ATA/66?

Ultra ATA/66 is the next generation ATA/IDE hard drive interface. This high-speed interface allows host computers to send and retrieve data faster removing bottlenecks associated with system performance.

Ultra ATA/66 uses the Cyclical Redundancy Check (CRC) data protection scheme to help ensure the integrity of transferred data. And the robustness of the interface to the hard drive is increased with the use of the 40-pin, 80-conductor cable.

Q2. What's the difference between Ultra ATA/66 and Ultra ATA/33?

Ultra ATA/66 leverages technology from Ultra ATA/33 to double the current burst data transfer rate to 66.6 MB/s.

Q3. What are the system requirements for Ultra ATA/66?

1. The host system must support Ultra ATA/66 (system motherboard, BIOS, chipset, or controller card).
2. The hard drive must support and be enabled for Ultra ATA/66.
3. A 40-pin, 80-conductor IDE cable must be attached to the host system and the hard drive.
4. The operating system must be enabled for DMA transfers.

Q4. Is the Ultra ATA/66 interface backward compatible?

Ultra ATA/66 hard drives are 100 percent backward compatible with both Ultra ATA/33 and DMA, and with existing EIDE/IDE hard drive interfaces.

The Ultra ATA/66 hard drive can be used in an installed PC without Ultra ATA/66 capability. The hard drive will run in the fastest mode supported by the system.

Q5. Which Western Digital hard drives support Ultra ATA/66?

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|----------------------|----------------------|
| 4.3 GB - WDAC14300 | 13.0 GB - WDAC313000 |
| *6.4 GB - WDAC26400 | 15.3 GB - WDAC315300 |
| 8.4 GB - WDAC28400 | 18.0 GB - WDAC418000 |
| 9.1 GB - WDAC29100 | 20.4 GB - WDAC420400 |
| 10.2 GB - WDAC310200 | |

* All of the hard drives listed above currently ship with Ultra ATA/66 enabled. Earlier versions of the 6.4 GB shipped with Ultra ATA/66 disabled.

Q6. Why do I need a 40-pin, 80-conductor cable?

The 40-pin, 80-conductor cable permits higher data transmission rates, reduces crosstalk, and improves signal integrity by providing 40 additional ground lines between the 40-pin IDE signal and the ground lines. The result is improved data integrity.

Q7. Can I use the 40-pin, 80-conductor cable with any IDE hard drive or older PC?

Yes, the 40-pin, 80-conductor cable is backward compatible with existing ATA 40-pin connectors. Hard drives and/or installed PCs that do not have Ultra ATA/66 capability will operate at transfer speeds up to 33.3 MB/s.

Q8. How do I connect the 40-pin, 80-conductor cable?

The 40-pin, 80-conductor cable has three connectors:

- One blue connector: attach this to your system motherboard or controller card.

- One gray and one black connector: attach these to your hard drive(s).

Q9. What might happen if I enable Ultra ATA/66 on my hard drive and my system doesn't meet the Ultra ATA/66 requirements?

In most cases nothing will happen. Your hard drive will continue to perform at the maximum speed supported by your system. There are compatibility issues with some older system BIOSs that in rare cases could cause performance degradation, CRC errors, or possible data corruption.

For more information on Ultra ATA/66, visit our website at www.westerndigital.com

Q10. What performance increase will I be able to notice?

The performance increase will vary depending upon the number and type of applications you have running on your system. However, because of the improved throughput provided by Ultra ATA/66 it should take less time to boot your system and open applications.

Q11. How do I enable or disable Ultra ATA/66 on my Western Digital hard drive?

Western Digital designed a hard drive utility (WDATA66) to enable or disable Ultra ATA/66 on Western Digital hard drives that support Ultra ATA/66. This utility can be used to avert BIOS compatibility issues by disabling Ultra ATA/66 until system requirements have been met. WDATA66 is provided on the EZ-Drive 9.10W installation software diskette that ships with every Western Digital hard drive.

We recommend that you do not enable Ultra ATA/66 on your hard drive until you have verified that your system is Ultra ATA/66 compatible.

To download and obtain more information about WDATA66, visit our website at www.westerndigital.com and select *Ultra ATA/66* and then *WDATA66 Utility*.

Q12. How do I know if my system BIOS does not support Ultra ATA/66?

If you are unsure about your system's capabilities, contact your system BIOS and motherboard manufacturer. Some common system BIOS manufacturers in the US:

| BIOS Source | USA Phone Number | Internet Address |
|------------------------------------|------------------|--|
| Micro Firmware (Phoenix BIOS only) | 405-321-8333 | www.firmware.com |
| Phoenix | 781-551-4000 | www.phoenix.com |
| Unicore (Award and AMI BIOS) | 978-686-6468 | www.unicore.com |

To avoid potential system BIOS issues, the best long-term solution is to upgrade your system BIOS. If the system BIOS correctly detects and configures Ultra ATA/66 support, then no issues will be encountered. If a BIOS upgrade is not available, an add-in controller card may provide the correct chipset/BIOS support.

Other Related Documents

These documents can be found on the Western Digital website or obtained from the literature department at Western Digital.

| Document Name | Literature Order No. |
|--|----------------------|
| Ultra ATA/66 Extends Existing Technology (While Increasing Performance and Data Integrity) | S0120 |
| Ultra ATA/66 Interface (Potential BIOS/Operating System Issues) | S0136 |
| WDATA66 Hard Drive Utility (Enabling Ultra ATA/66 on Your WD Hard Drive) | S0827 |

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