

KIOXIA LRC20Z001TG8

KIOXIA EXCERIA NVMe SSD 1TB (LRC20Z001TG8) User Manual

Model: LRC20Z001TG8

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of your KIOXIA EXCERIA NVMe SSD 1TB. The KIOXIA EXCERIA SSD series is designed to enhance your computing experience by offering high-speed storage performance in a compact M.2 2280 form factor. This SSD utilizes BiCS FLASH 3D flash memory and the NVMe 1.3 interface for efficient data transfer.



Figure 1.1: Top view of the KIOXIA EXCERIA G2 NVMe SSD. This image displays the compact M.2 2280 form factor with the KIOXIA branding and EXCERIA G2 NVMe SSD label clearly visible on the black heat spreader.

2. WHAT'S IN THE BOX

Verify that all components are present upon opening the product packaging:

- KIOXIA EXCERIA NVMe SSD 1TB (M.2 2280)

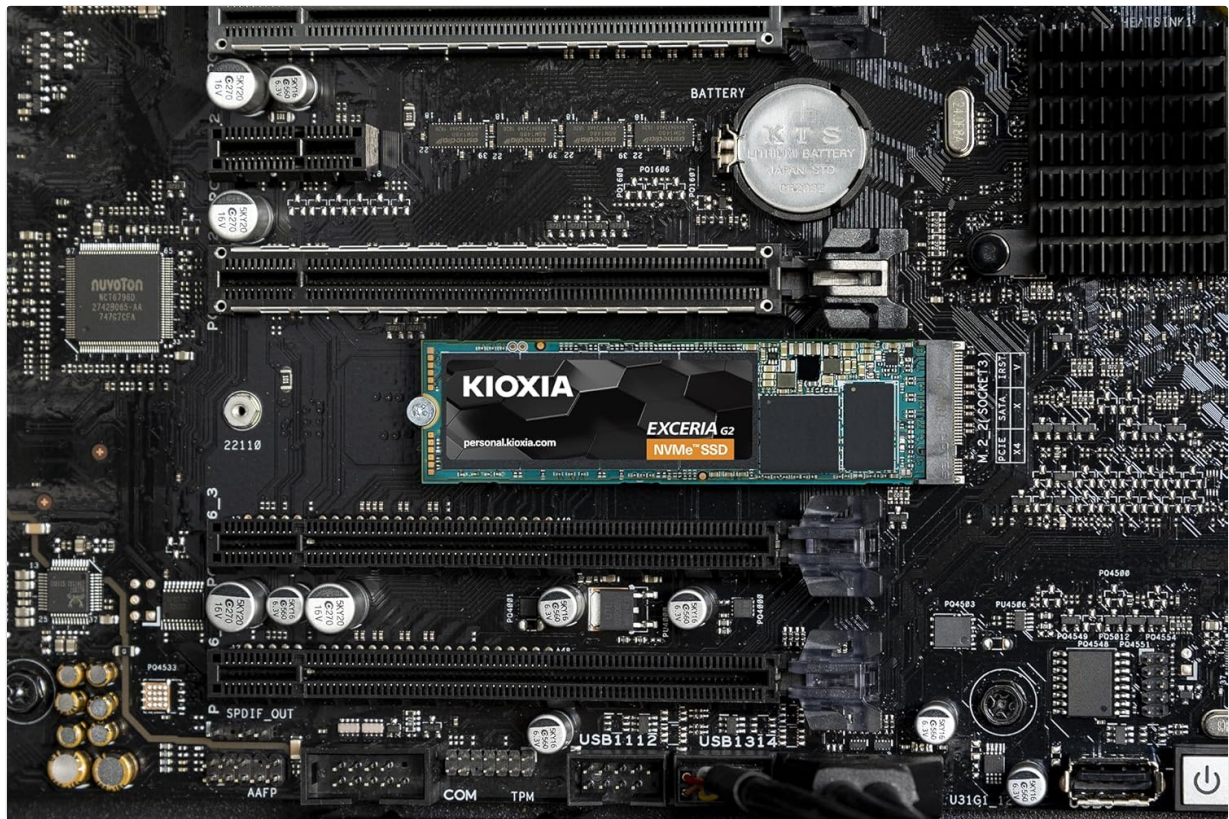


Figure 2.1: Retail packaging for the KIOXIA EXCERIA G2 NVMe SSD. The box features the KIOXIA logo, EXCERIA G2 branding, and highlights key specifications like 1TB capacity and up to 2,100 MB/s read performance.

3. SAFETY INFORMATION

Observe the following safety precautions during installation and handling:

- **Electrostatic Discharge (ESD) Protection:** Always handle the SSD by its edges. Wear an anti-static wrist strap or frequently touch a grounded metal object (e.g., your computer's unpainted metal chassis) before and during installation to discharge static electricity.
- **Power Off:** Ensure your computer system is completely powered off and unplugged from the wall outlet before installing or removing the SSD.
- **Handle with Care:** Avoid dropping the SSD or subjecting it to physical shock. Do not bend or apply excessive force to the SSD.
- **Environmental Conditions:** Store and operate the SSD within recommended temperature and humidity ranges. Avoid exposure to extreme temperatures or moisture.

4. SYSTEM REQUIREMENTS

To ensure compatibility and optimal performance, your system must meet the following requirements:

- **M.2 Slot:** An available M.2 slot on your motherboard that supports the 2280 form factor.
- **PCIe Interface:** The M.2 slot must support PCIe Gen3x4 NVMe interface. Refer to your motherboard's manual for specific M.2 slot capabilities.
- **Operating System:** Compatible with Windows, macOS, and Linux operating systems that support NVMe storage.

5. SETUP AND INSTALLATION

Follow these steps to install your KIOXIA EXCERIA NVMe SSD:

5.1 Physical Installation

1. **Prepare Your System:** Power off your computer and unplug the power cable. Open the computer case to access the motherboard.
2. **Locate M.2 Slot:** Identify an available M.2 slot on your motherboard. It is typically labeled M.2 or NVMe.
3. **Remove Standoff Screw:** If present, remove the small screw and standoff from the M.2 slot that corresponds to the 2280 length.
4. **Insert SSD:** Gently insert the KIOXIA EXCERIA NVMe SSD into the M.2 slot at a 30-degree angle. Ensure the gold contacts are fully seated.
5. **Secure SSD:** Push the SSD down until it is parallel with the motherboard. Secure it with the standoff screw you removed earlier. Do not overtighten.



Figure 5.1: The KIOXIA EXCERIA G2 NVMe SSD correctly installed in an M.2 slot on a motherboard. The SSD is secured by a small screw at the end, flush with the motherboard surface.

5.2 BIOS/UEFI Configuration

After physical installation, you may need to configure your system's BIOS/UEFI settings:

- **Access BIOS/UEFI:** Restart your computer and press the designated key (e.g., Del, F2, F10) during startup to enter the BIOS/UEFI setup.
- **Check NVMe Recognition:** Navigate to the storage or boot options. Verify that the KIOXIA EXCERIA NVMe SSD is recognized.
- **Boot Order (if applicable):** If you intend to install an operating system on the new SSD, adjust the boot order to prioritize the SSD.
- **Save and Exit:** Save your changes and exit the BIOS/UEFI.

5.3 Operating System Installation or Migration

For a new operating system installation or migration from an existing drive:

- **New Installation:** Boot from your operating system installation media (USB drive or DVD) and follow

the on-screen prompts to install the OS on the KIOXIA EXCERIA NVMe SSD.

- **Data Migration:** Use disk cloning software (often provided by motherboard manufacturers or third-party tools) to migrate your existing operating system and data to the new SSD.

5.4 Initializing and Formatting the SSD

If the SSD is not for an operating system and will be used as a secondary drive, it needs to be initialized and formatted:

1. **Open Disk Management (Windows):** Right-click the Start button and select "Disk Management."
2. **Initialize Disk:** The new SSD will appear as "Disk Unknown" or "Not Initialized." Right-click it and select "Initialize Disk." Choose GPT (GUID Partition Table) for modern systems.
3. **Create New Simple Volume:** Right-click the unallocated space on the SSD and select "New Simple Volume." Follow the wizard to assign a drive letter and format the drive (NTFS is recommended for Windows).

6. OPERATING THE SSD

Once installed and configured, the KIOXIA EXCERIA NVMe SSD operates as a high-speed storage device. No specific user interaction is required for its basic function beyond standard file management.

6.1 SSD Utility Software

KIOXIA provides an "SSD Utility" software tool. This GUI-based application helps you maintain, monitor, and tune your SSD. It can provide information on drive health, temperature, and firmware versions. Download the latest version from the official KIOXIA website.

7. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your SSD:

- **TRIM Command:** Ensure your operating system has TRIM enabled. TRIM helps the SSD manage deleted data blocks, maintaining performance over time. Modern operating systems typically enable this by default for SSDs.
- **Firmware Updates:** Periodically check the KIOXIA website for firmware updates for your SSD model. Firmware updates can improve performance, stability, and compatibility. Use the SSD Utility software for easier updates.
- **Monitor Health:** Use the KIOXIA SSD Utility or other third-party tools to monitor the SSD's health status (e.g., SMART attributes, remaining lifespan).
- **Avoid Filling to Capacity:** While SSDs perform well even when nearly full, leaving some free space (e.g., 10-15%) can help maintain optimal performance and extend lifespan.
- **Data Backup:** Regularly back up important data to another storage device. While SSDs are reliable, no storage device is immune to failure.

8. TROUBLESHOOTING

If you encounter issues with your KIOXIA EXCERIA NVMe SSD, consider the following troubleshooting steps:

8.1 SSD Not Detected

- **Check Physical Connection:** Ensure the SSD is properly seated in the M.2 slot and the securing screw is in place.
- **BIOS/UEFI Settings:** Verify that the M.2 slot is enabled in your BIOS/UEFI settings and that the SSD is recognized. Some motherboards may disable certain SATA ports when an M.2 NVMe drive is used.
- **Driver Installation:** For Windows, ensure you have the latest chipset drivers for your motherboard. While NVMe drivers are often native, updated drivers can resolve detection issues.
- **Initialize Disk:** If detected in BIOS but not in the operating system, check Disk Management (Windows) to see if it needs to be initialized and formatted.
- **Test in Another System:** If possible, test the SSD in another compatible system to rule out a motherboard issue.

8.2 Slow Performance

- **Verify NVMe Mode:** Ensure the SSD is operating in NVMe (PCIe Gen3x4) mode and not a slower SATA mode (if your M.2 slot supports both). Check your motherboard's manual and BIOS/UEFI settings.
- **TRIM Status:** Confirm that TRIM is enabled in your operating system.
- **Firmware:** Update the SSD firmware to the latest version.
- **System Resources:** Ensure your system has sufficient RAM and CPU resources, as these can impact overall storage performance.
- **Temperature:** High temperatures can cause thermal throttling. Ensure adequate airflow in your PC case.

9. SPECIFICATIONS

Feature	Specification
Brand	KIOXIA
Series	EXCERIA G2 SSD
Model Number	LRC20Z001TG8
Digital Storage Capacity	1 TB (1000 GB)
Hard Disk Interface	NVMe (PCIe Gen3x4)
Form Factor	M.2 2280
Read Speed (Max)	Up to 2100 MB/s
Flash Memory Type	BiCS FLASH 3D
Item Weight	0.24 ounces
Product Dimensions (LxWxH)	3.15 x 0.79 x 0.08 inches
Color	Black
Compatible Devices	Desktop, Notebooks (with compatible M.2 slot)

10. WARRANTY AND SUPPORT

KIOXIA products are manufactured to high standards and are backed by a limited warranty. For specific warranty terms and conditions, please refer to the warranty information included with your product or visit the official KIOXIA website.

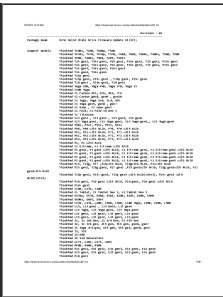
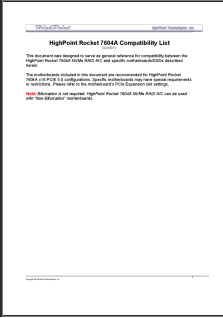
For technical support, driver downloads, firmware updates, and additional resources, please visit the official KIOXIA support website. Have your product model number (LRC20Z001TG8) and serial number ready when contacting support.

- **Official KIOXIA Website:** personal.kioxia.com

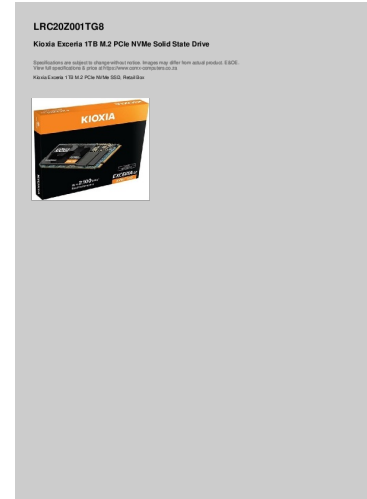
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Related Documents - LRC20Z001TG8

	KIOXIA EXCERIA PLUS G4 M.2 NVMe SSD Quick Start Guide This Quick Start Guide provides essential information for the KIOXIA EXCERIA PLUS G4 M.2 2280 NVMe SSD, including installation steps, safety precautions, disposal information, and technical support contacts. Learn how to safely install and use your high-performance SSD.
	Cactus Technologies Industrial Grade -940S Series mSATA SSD Product Manual This product manual provides comprehensive details on the Cactus Technologies Industrial Grade -940S Series mSATA SSDs, covering specifications, features, interface, electrical characteristics, ATA commands, S.M.A.R.T. attributes, ordering information, and warranty details.
	Cactus Technologies Industrial MLC -240S Series CFast Card Product Manual This product manual provides comprehensive technical details for the Cactus Technologies Industrial MLC -240S Series CFast Card, covering features, specifications, interface protocols, command sets, ordering information, and warranty.
	KIOXIA EXCERIA G2 SSD Firmware Release Notes ECFA17.3 Firmware release notes for the KIOXIA EXCERIA G2 SSD, version ECFA17.3, released on June 13, 2024. Details improvements including bug fixes and changes to the WCTEMP setting.

	Lenovo NVMe SSD Firmware Update Utility FWNVA61 - Supported Models and Installation Guide Official Lenovo ReadMe file for the FWNVA61 NVMe Solid State Drive Firmware Update Utility. Lists supported ThinkPad models, installation instructions, and release notes for firmware updates.
	HighPoint Rocket 7604A Compatibility List - Motherboards and SSDs Find compatible motherboards and NVMe SSDs for the HighPoint Rocket 7604A NVMe RAID AIC. This list details recommended PCIe slots, RAID support, and SSD specifications.

Documents - KIOXIA – LRC20Z001TG8



[\[pdf\]](#) Specifications

LRC20Z001TG8 specifications ComX Computers Kioxia Exceria 1TB M 2 PCIe NVMe Solid State Drive Specifications are subject to change without notice SSD Retail Box [www x computers co za view 300402](#)

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LRC20Z001TG8 Kioxia Exceria 1TB M.2 PCIe NVMe Solid State Drive Specifications are subject to change without notice. Images may differ from actual product. E OE. View full specifications price at <https://www.comx-computers.co.za> Kioxia Exceria 1TB M.2 PCIe NVMe SSD, Retail Box ...

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[\[pdf\]](#) Safety Datasheet

KIOXIA Exceria G2 Product Brief v2 0 tw kioxia content dam zh personal support ssd asset productbrief ||| EXCERIA G2 NVMeTM SSD Boost up your PC performance Capacity 500GB, 1TB, 2TB Max Sequential Read/Wri ... ase visit our website for information on the required OS version at personal.kioxia.com . 1TB PN: **LRC20Z001TG8** EAN: 4582563853997 2TB PN: LRC20Z002TG8 EAN: 4582563854000 China Package: 500GB PN: L...

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KIOXIA

EXCERIA G2 NVMe™ SSD

Boost up your PC performance



Capacity
250GB, 512GB, 1TB

Max Sequential Read/Write Speed*
5,000 MB/s

Max Sequential Read/Write Speed*
5,000 MB/s (Maximum Sustained IOPS)
100,000 IOPS (Random)

Features
NVMe 1.4c
PCIe Gen4 x4
MLC 3D NAND
MLC 256GB per Package
5-year warranty
SDD to SSD Migration Software

The new generation Kioxia EXCERIA G2 NVMe SSD shows top performance in the most recent speed test. Kioxia's NVMe SSDs are the world's smallest, enabling them to be used in a broad range of devices, including smartphones, tablets, PCs, and servers. The EXCERIA G2 NVMe SSD is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm. It is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm.

Performance Made Affordable

With the EXCERIA G2 NVMe SSD, you can get the performance of a premium SSD at a fraction of the cost. The EXCERIA G2 NVMe SSD is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm. It is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm.



Small and Compact for an Easy Upgrade

With just a single screw, you can upgrade your PC's storage with the EXCERIA G2 NVMe SSD. The EXCERIA G2 NVMe SSD is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm. It is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm.

NVMe™ Technology

With NVMe, you can get the performance of a premium SSD at a fraction of the cost. The EXCERIA G2 NVMe SSD is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm. It is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm.



Cutting Edge 3D Flash Memory

The EXCERIA G2 NVMe SSD is built with 3D NAND, and it's the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm. It is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm.

SSD 100% Performance Guarantee

The EXCERIA G2 NVMe SSD is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm. It is the world's smallest SSD, with a thickness of just 7mm, and a width of just 22mm.



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KIOXIA Europe GmbH October 2021		
KIOXIA Solid State Drive (SSD) Warranty List		
Product	Product Part Number	Warranty (Years)
SSD		
EXCERIA G2 NVMe 1TB	LE1C20001T68	5 Years*
EXCERIA G2 NVMe 512GB	LE1C20002T68	5 Years*
EXCERIA PRO NVMe 1TB	LE1D20001T68	5 Years*
EXCERIA PRO NVMe 512GB	LE1D20002T68	5 Years*
EXCERIA PLUS Portable SSD 500GB	LE1D50000G68	3 Years
EXCERIA PLUS Portable SSD 1TB	LE1D50001T68	3 Years
EXCERIA PLUS Portable SSD 1TB	LE1D50002T68	3 Years

(*MANUFACTURER'S WARRANTY IS EFFECTIVE UNTIL (a) WARRANTY PERIOD FROM THE DATE OF PURCHASE OR (b) MAXIMUM DATED ENDING ON (c) THE DATE THREE YEARS AFTER THE "PROMOTIONAL LIFE" START WILL BE ENDS, WHICHEVER IS SHORTER. The "Percentage life left" can be found on the "Health" page of the SSD Utility for KIOXIA products, which is available at "Personal kioxia.com/support".

<Contact Information

If you have a defective KIOXIA product and you wish to claim for warranty, please contact our customer support at:

+49 (0) 211 5882 7171

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EXCERIA G2 NVMe™ SSD KIOXIA Europe GmbH Vitesse de lecture d'écriture séquentielle max 1 2 100
700 Mo/s Vitesse aléatoire To 400 000 IOPS 360 KIOXIA Exceria Product Brief Ver11 21 EMEA

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EXCERIA G2 NVMeTM SSD Amliorez les performances de votre PC Capacit 1 To, 2 To Vitesse de lecture / ... tre site Internet personal.kioxia.com . Informations de commande Botier international : 1 To NP : **LRC20Z001TG8** EAN : 4582563853997 2 To NP : LRC20Z002TG8 EAN : 4582563854000 Botier Chine : 1 To NP...

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KIOXIA Exceria G2 Product Brief europe kioxia content dam shared personal support ssd asset
productbrief ||| ||| EXCERIA G2 NVMe™ SSD Boost up your PC performance Capacity 500GB, 1TB,
2TB Max Sequential Read/Write Speed1 2,100/1,700 MB/s Max Random Read/Write Speed2 500GB,
1TB: 400,000/400,000 IOPS 2TB: 360,000/400,000 IOPS Features BiCS FLASH™ NVMe
EXCERIA G2 NVMe™ SSD Boost up your PC performance Capacity 500GB, 1TB,
2TB Max Sequential Read/Wri ... : LRC20Z500GG8 EAN: 4582563853980 China
Package: 500GB PN: LRC20Z500GC8 EAN: 4582563854017 1TB PN:
LRC20Z001TG8 EAN: 4582563853997 1TB PN: LRC20Z001TC8 EAN:
4582563854024 2TB PN: LRC20Z002TG8 EAN: 4...

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Dysk SSD Exceria 1TB NVMe 2100/1700MB/s Indeks: 160841 Producent: KIOXIA

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[\[pdf\]](#) Warrant

KLOXIA Solid State Drive SSD Warranty List EXCERIA G2 NVMe 1TB LRC20Z001TG8 5 Years * 2TB

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EXCERIA G2 PN: **LRC20Z001TG8** EXCERIA G2 PN: LRC20Z002TG8 MG931K

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