



MINERVA

PCIe 4.0 SlimSAS 8i to OCulink 8i,50cm cable

Performance & Burn In Test Rev 1.0

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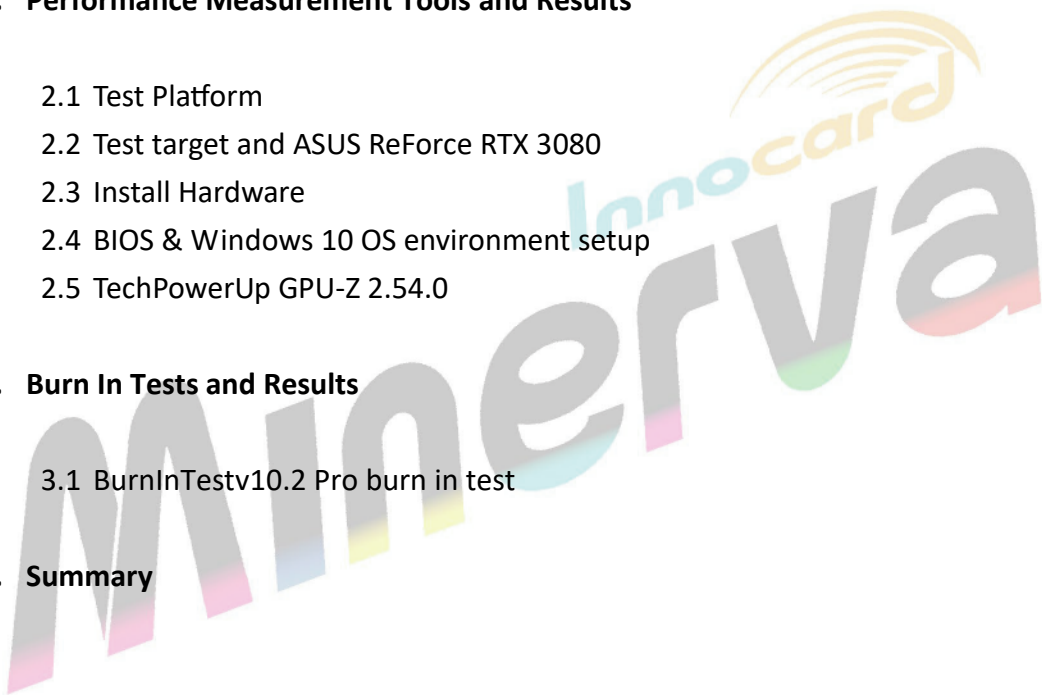
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SFF-8654 PCIe 4.0 High Speed cable

1. Overview

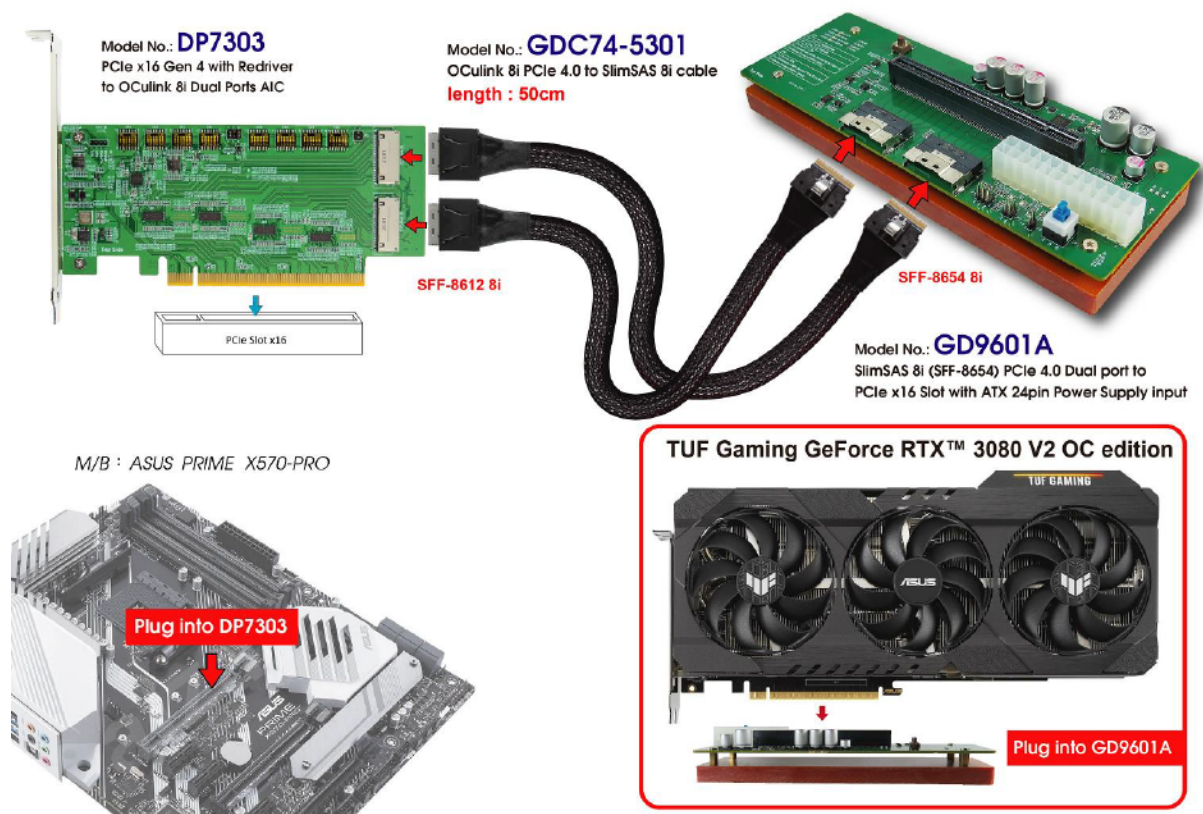
The GDC74-5301, 50cm cable supports PCIe 4.0 8 lanes link width and provides PCIe side band signals connection. The cable SI(Signal Integrity) is compliant with PCIe 4.0 Spec.

2. Tools and Results of Performance Measurement

2.1 Test Platform

M/B: ASUS **PRIME X570-PRO**
CPU: AMD **Ryzen 7, 3700X 8-Core**
Graphics: NVIDIA **GeForce RTX 3080 GPU**
Memory: Kingston **KVR26N19D8/16, DDR4-2666MHz, 32GB**(16GB DIMM*2)
ATX Power: COOLER MASTER G750M, **750W ATX**, 12V V2.2 Power Supply
Add in Card: DP7303 PCIe x16 with ReDriver to OCulink 8i(SFF-8612) AIC
Cable: GDC74-5302/PCIe 4.0 SFF-8654 8i to SFF-8612 8i, 50cm Cable
Adapter: GD9601A SlimSAS 8i(SFF-8654) dual port to PCIe 4.0 x16 Slot adapter
OS: Microsoft **Windows 10 64bit OS**

2.2 Test target: DP7303, GD9601A adapter & ASUS **TUF-RTX3080-O10G-GAMING**



SFF-8654 PCIe 4.0 High Speed cable

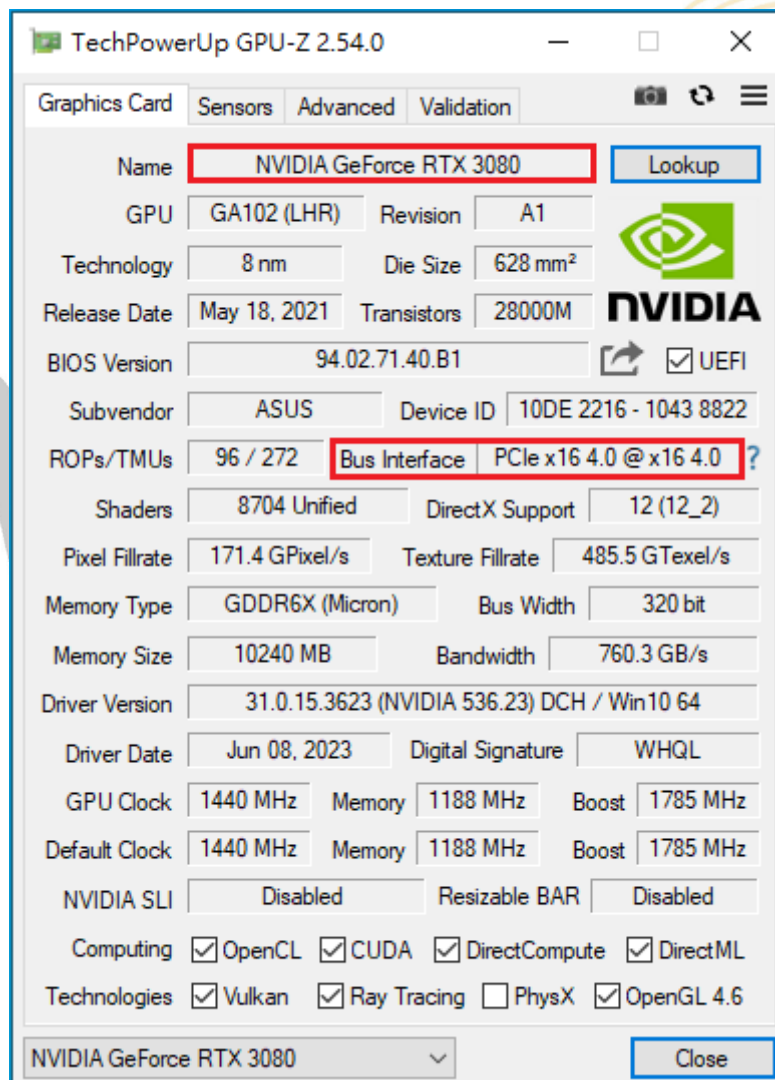
2.3 Install Hardware

First inserts the ASUS **TUF-RTX3080-O10G-GAMING** into the GD9601A PCIe X16 slot and connects the GD9601A adapter to the DP7303 AIC card (PCIe x16 Gen 4 with ReDriver to SFF-8654 8i dual port), using the **GDC74-5301, 50cm(SFF-8654 8i to SFF-8612)** Cable, and then Plugs DP7303 AIC into PCIe x16 Slot of ASUS **PRIME X570-PRO** mainboard.

2.4 BIOS & Windows 10 OS environment setup

2.4.1 Primary SATA NVMe SSD install Windows 10 OS.

2.5 **TUF-RTX3080-O10G-GAMING** Information:



The screenshot displays the TechPowerUp GPU-Z 2.54.0 application window. The 'Graphics Card' tab is active, showing detailed information for an NVIDIA GeForce RTX 3080. The 'Name' field is highlighted with a red box and contains 'NVIDIA GeForce RTX 3080'. The 'Bus Interface' field is also highlighted with a red box and contains 'PCIe x16 4.0 @ x16 4.0'. Other visible information includes: GPU GA102 (LHR), Revision A1, Technology 8 nm, Die Size 628 mm², Release Date May 18, 2021, Transistors 28000M, BIOS Version 94.02.71.40.B1, Subvendor ASUS, Device ID 10DE 2216 - 1043 8822, ROPs/TMUs 96 / 272, Shaders 8704 Unified, DirectX Support 12 (12_2), Pixel Fillrate 171.4 GPixel/s, Texture Fillrate 485.5 GTexel/s, Memory Type GDDR6X (Micron), Bus Width 320 bit, Memory Size 10240 MB, Bandwidth 760.3 GB/s, Driver Version 31.0.15.3623 (NVIDIA 536.23) DCH / Win10 64, Driver Date Jun 08, 2023, Digital Signature WHQL, GPU Clock 1440 MHz, Memory 1188 MHz, Boost 1785 MHz, Default Clock 1440 MHz, Memory 1188 MHz, Boost 1785 MHz, NVIDIA SLI Disabled, Resizable BAR Disabled, Computing technologies: OpenCL, CUDA, DirectCompute, DirectML, Vulkan, Ray Tracing, PhysX, OpenGL 4.6.

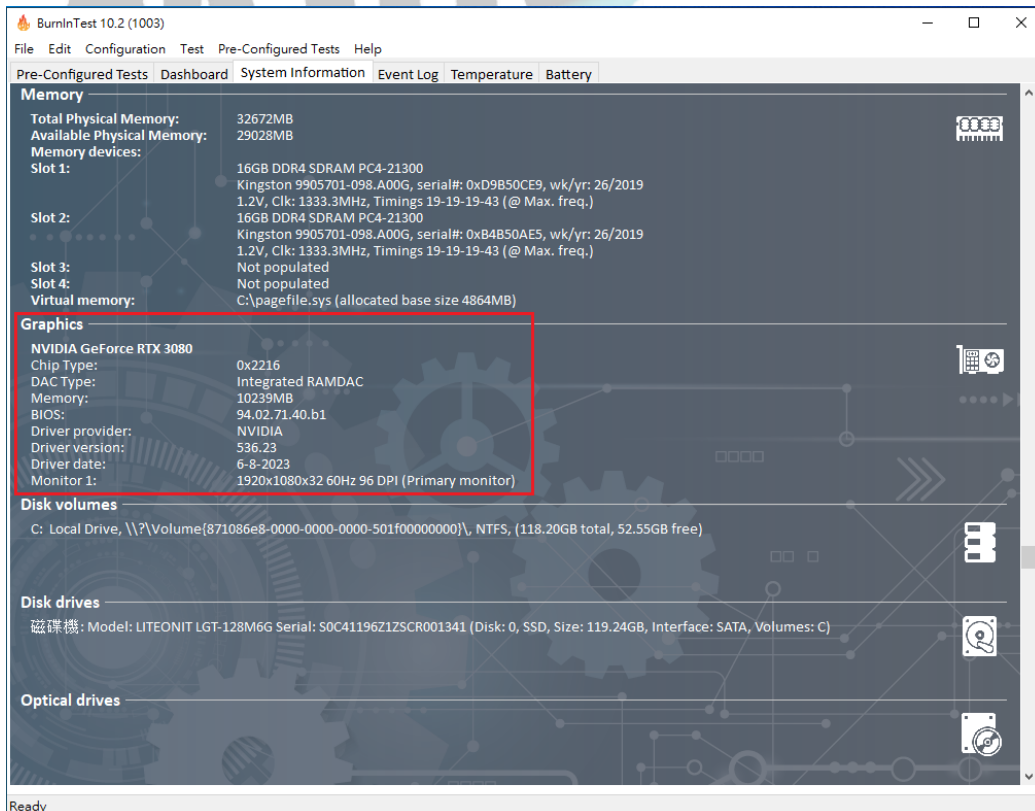
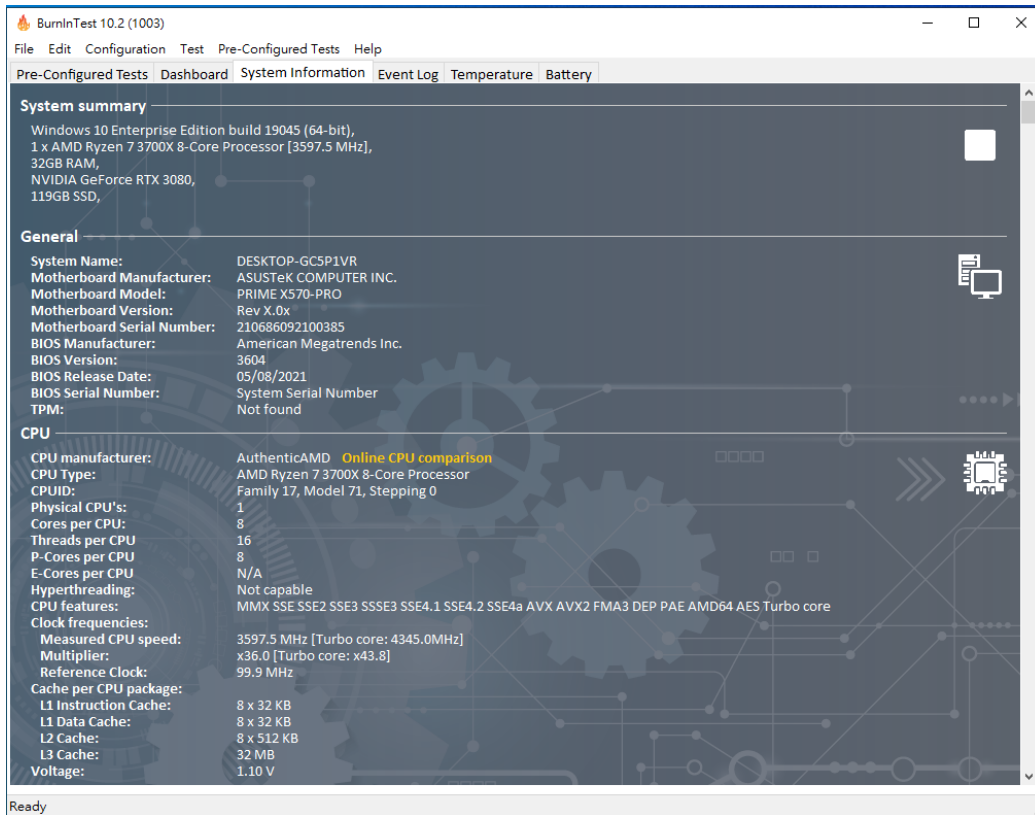
Field	Value
Name	NVIDIA GeForce RTX 3080
GPU	GA102 (LHR)
Revision	A1
Technology	8 nm
Die Size	628 mm ²
Release Date	May 18, 2021
Transistors	28000M
BIOS Version	94.02.71.40.B1
Subvendor	ASUS
Device ID	10DE 2216 - 1043 8822
ROPs/TMUs	96 / 272
Bus Interface	PCIe x16 4.0 @ x16 4.0
Shaders	8704 Unified
DirectX Support	12 (12_2)
Pixel Fillrate	171.4 GPixel/s
Texture Fillrate	485.5 GTexel/s
Memory Type	GDDR6X (Micron)
Bus Width	320 bit
Memory Size	10240 MB
Bandwidth	760.3 GB/s
Driver Version	31.0.15.3623 (NVIDIA 536.23) DCH / Win10 64
Driver Date	Jun 08, 2023
Digital Signature	WHQL
GPU Clock	1440 MHz
Memory	1188 MHz
Boost	1785 MHz
Default Clock	1440 MHz
Memory	1188 MHz
Boost	1785 MHz
NVIDIA SLI	Disabled
Resizable BAR	Disabled
Computing Technologies	<input checked="" type="checkbox"/> OpenCL <input checked="" type="checkbox"/> CUDA <input checked="" type="checkbox"/> DirectCompute <input checked="" type="checkbox"/> DirectML <input checked="" type="checkbox"/> Vulkan <input checked="" type="checkbox"/> Ray Tracing <input type="checkbox"/> PhysX <input checked="" type="checkbox"/> OpenGL 4.6

SFF-8654 PCIe 4.0 High Speed cable

3. Burn In Tests and Results

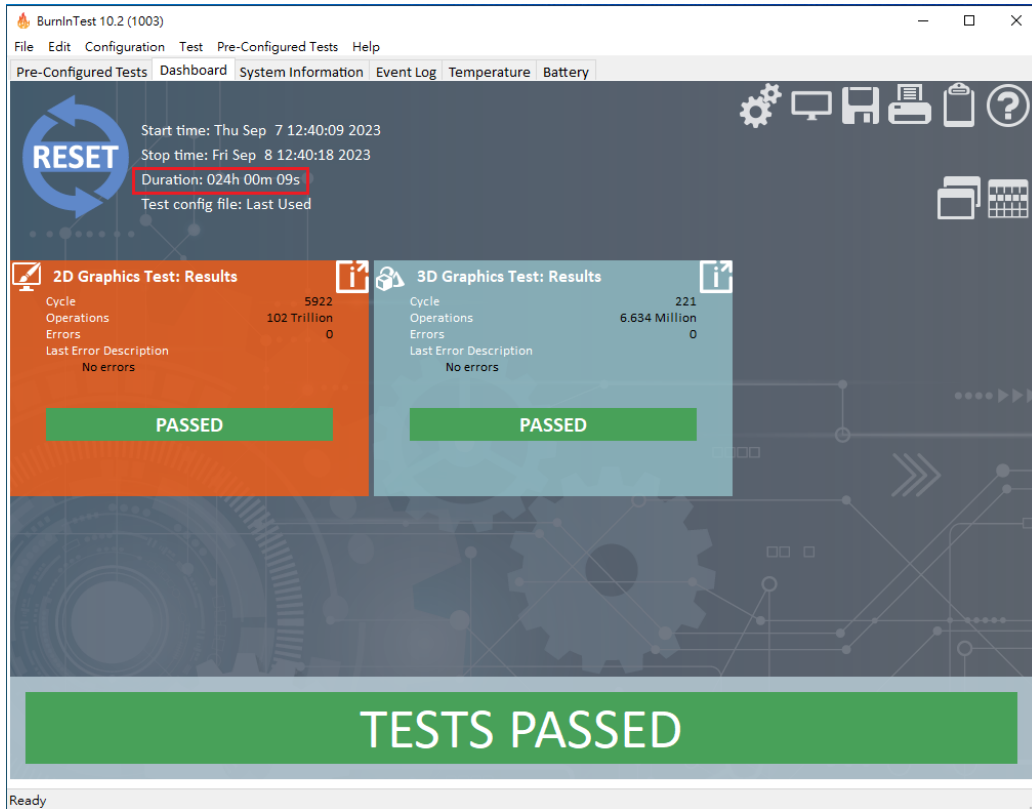
3.1 BurnInTest v10.2 Pro

3.1.1 system information as below:



SFF-8654 PCIe 4.0 High Speed cable

3.1.2 2D Graphics & 3D Graphics 24-hour Burn-in test **PASSED**



4. Summary

- 4.1 ASUS **TUF-RTX3080-O10G-GAMING** is PCIe 4.0 x16 link data width.
- 4.2 GDC74-5301, 50cm cable I/O performance is based on Graphic card.