



How to Locate the Serial Number of an NVIDIA GPU

Instructions

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On the Physical GPU

The serial number should be readable from the rear plate near the PCI bracket by inspecting the card. A bar code is also offered for machine reading. The sticker's location may vary, but it will always be printed and visible on each NVIDIA GPU, regardless of the model.

Figure 1.1 Highlighted in red is an example NVIDIA GPU serial number (S/N) label location on an H100.

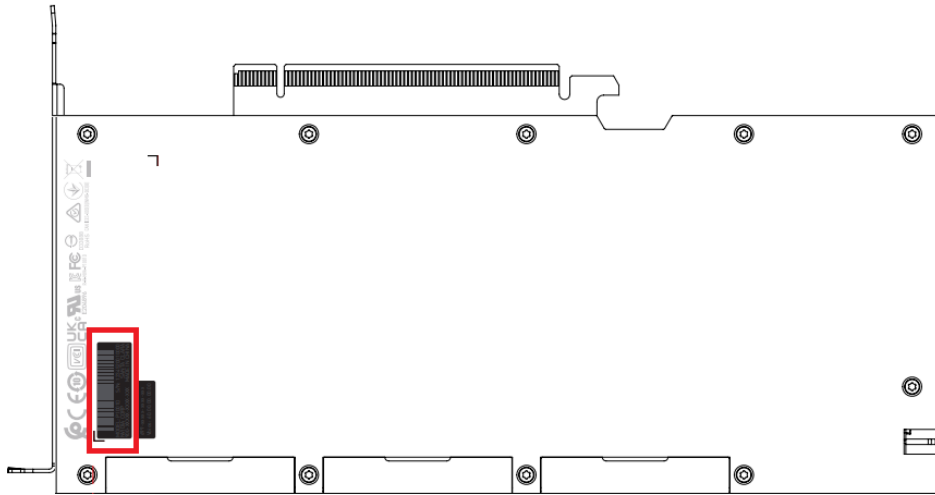


Figure 1.2 Photo of a standard NVIDIA GPU serial number label on an A100



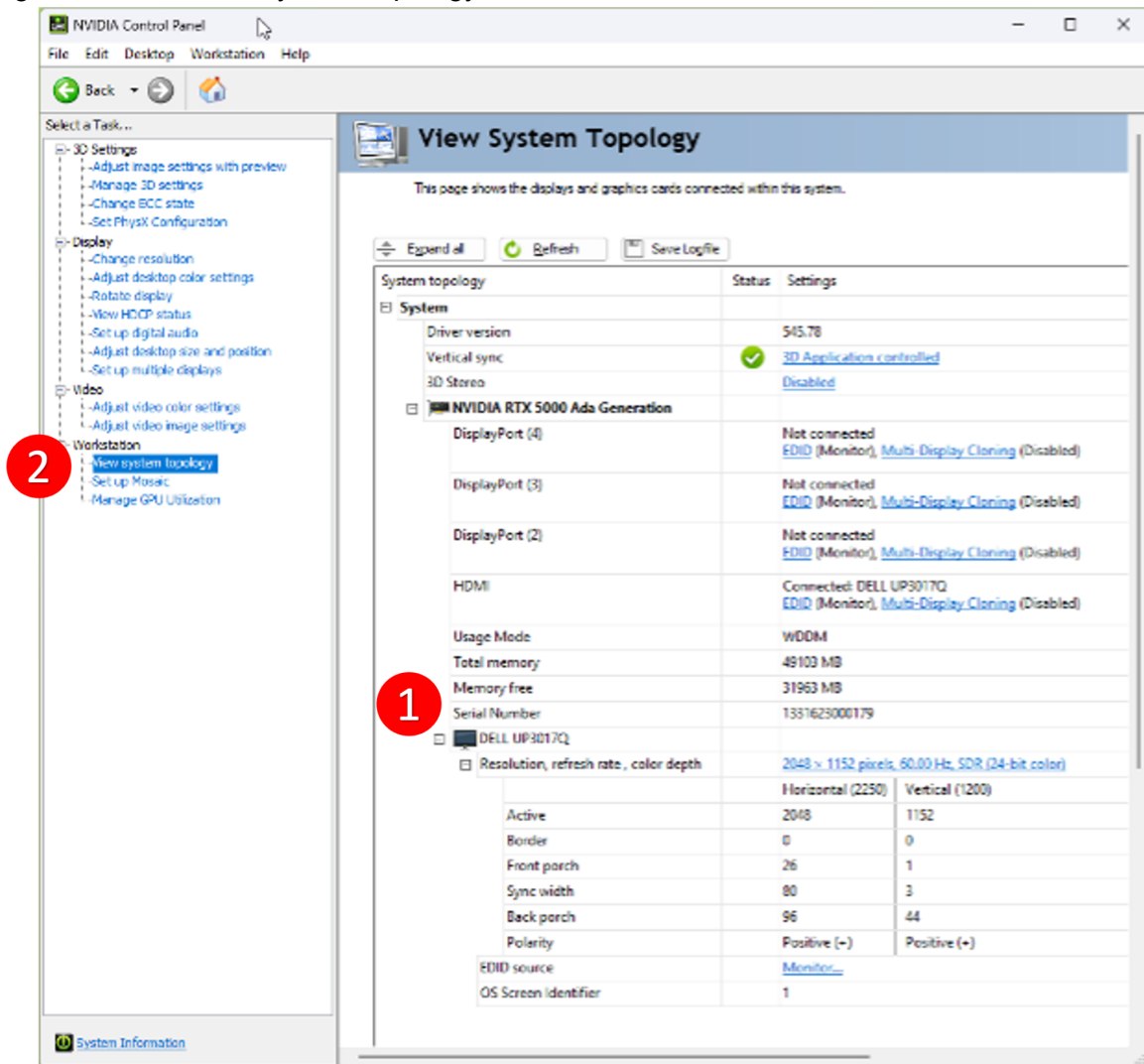
Note: This information also applies to NVIDIA A800 and H800 GPUs.



In the NVIDIA Control Panel on Windows

On systems running the Microsoft Windows 10/11 operating system, GPU serial number information is available through the NVIDIA Control Panel. The serial number(s) can be found in the View System Topology menu (see marker 1 in Figure 1.3 below), located under the Workstation task grouping (see marker 2 below). Please note that this feature requires Version R545 U1, or later, of the NVIDIA RTX Enterprise Driver.

Figure 1.3 The View System Topology menu in the NVIDIA Control Panel



On the NVIDIA System Management Interface (nvidia-smi)

When an operating system or hypervisor is present along with the NVIDIA driver, the serial number can be found on a simple nvidia-smi -a output:

```
nvidia-smi -a

=====NVSMI LOG=====

Timestamp           : Thu Aug 25 22:14:56 2022
Driver Version      : 5xx.xx
```

```
CUDA Version           : 11.x
Attached GPUs          : 1
GPU 00000000:CA:00.0
  Product Name         : NVIDIA H100 PCIe
  Product Brand        : NVIDIA
  Product Architecture : Hopper
  Display Mode         : Disabled
  Display Active       : Disabled
  Persistence Mode     : Disabled
  MIG Mode
    Current            : Disabled
    Pending            : Disabled
  Accounting Mode      : Disabled
  Accounting Mode Buffer Size : 4000
  Driver Model
    Current            : N/A
    Pending            : N/A
  Serial Number       : 0002622210000
```



Note: The output continues after the serial number.

A more granular output can be obtained using the example below, which will only list the serial number of a GPU installed:

```
nvidia-smi --format=csv,noheader --query-gpu=serial
1334520030199
```

The command above can also be used for multi-GPU setups; here's a sample output from a system with 3 NVIDIA GPUs installed:

```
nvidia-smi --format=csv,noheader --query-gpu=serial
1560220011008
1560220012233
1565019031035
```



Note: More information about NVIDIA-SMI is available at [NVIDIA System Management Interface | NVIDIA Developer](#).

On the Baseboard Management Controller (BMC)

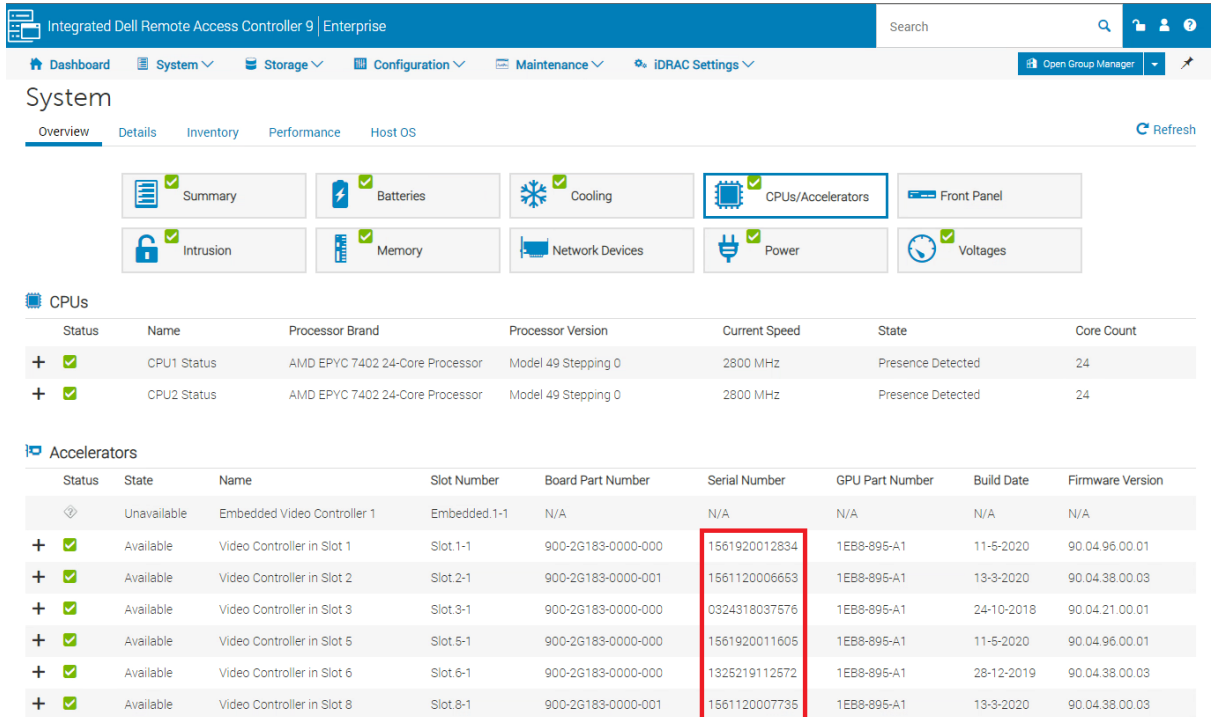
Some system integrators offer graphical or textual information about PCIe adapters, including GPUs. Note that some server models may not be equipped with a BMC, and some BMCs may not be able to list a GPU's serial number.



Note: The examples below are based on the latest firmware versions at the time of writing.

Dell iDRAC9

Log into the iDRAC web interface. From the top which bar, select “System”, then click on “CPU/Accelerators”, the serial number of the installed GPUs will be shown in the “Serial Number” column:



The screenshot shows the Dell iDRAC9 web interface. The top navigation bar includes links for Dashboard, System, Storage, Configuration, Maintenance, and iDRAC Settings. The 'System' page is active, with sub-tabs for Overview, Details, Inventory, Performance, and Host OS. The 'CPU/Accelerators' tab is selected, displaying a table of installed accelerators. The table has columns for Status, State, Name, Slot Number, Board Part Number, Serial Number, GPU Part Number, Build Date, and Firmware Version. The 'Serial Number' column contains the following values: N/A, 1561920012834, 1561120006653, 0324318037576, 1561920011605, 1325219112572, and 1561120007735. The serial numbers 1561920012834, 1561120006653, 1561920011605, 1325219112572, and 1561120007735 are highlighted in red.

Status	State	Name	Slot Number	Board Part Number	Serial Number	GPU Part Number	Build Date	Firmware Version
Unavailable	Unavailable	Embedded Video Controller 1	Embedded.1-1	N/A	N/A	N/A	N/A	N/A
+	Available	Video Controller in Slot 1	Slot.1-1	900-2G183-0000-000	1561920012834	1EB8-895-A1	11-5-2020	90.04.96.00.01
+	Available	Video Controller in Slot 2	Slot.2-1	900-2G183-0000-001	1561120006653	1EB8-895-A1	13-3-2020	90.04.38.00.03
+	Available	Video Controller in Slot 3	Slot.3-1	900-2G183-0000-000	0324318037576	1EB8-895-A1	24-10-2018	90.04.21.00.01
+	Available	Video Controller in Slot 5	Slot.5-1	900-2G183-0000-000	1561920011605	1EB8-895-A1	11-5-2020	90.04.96.00.01
+	Available	Video Controller in Slot 6	Slot.6-1	900-2G183-0000-000	1325219112572	1EB8-895-A1	28-12-2019	90.04.38.00.03
+	Available	Video Controller in Slot 8	Slot.8-1	900-2G183-0000-001	1561120007735	1EB8-895-A1	13-3-2020	90.04.38.00.03



Note: For more information, check the iDRAC user guide online at [Integrated Dell Remote Access Controller 9 User's Guide | Dell US.](#)

HPE iLO 5

Log into the iLO 5 web interface. Select “System Information” from the left menu, then “Device Inventory” from the top right menu. Scroll through the devices until reaching the NVIDIA GPU(s); the serial number will be shown on the rightmost third frame of the screen, under “Slot Details”, and “Serial Number”. Repeat the process if multiple GPUs are installed.

The screenshot displays the HPE iLO 5 web interface. On the left is a dark sidebar with the iLO 5 logo and version (2.31 Oct 13 2020), and a navigation menu with categories like Information, System Information, Firmware & OS Software, iLO Federation, Remote Console & Media, Power & Thermal, Performance, iLO Dedicated Network Port, iLO Shared Network Port, Remote Support, Administration, Security, Management, and Lifecycle Management. The 'System Information' category is selected.

The main content area is titled 'Device Inventory' and has tabs for Summary, Processors, Memory, Network, and Device Inventory (which is active). Below the tabs, there's a 'Device Inventory' section with a '< show empty slots >' link and a green 'Discovery' button. A list of devices is shown, each with details like Location, Product Name, Product Version, Firmware Version, and Status. The third device in the list is highlighted in light blue.

The right sidebar shows the 'Slot Details' for the selected NVIDIA GPU. It includes fields for Product Part Number (900-2G503-0010-000), Assembly Number (1DB5-896-A1), Serial Number (1560220012233, which is highlighted with a red box), MCTP Status (Enabled), Type (PCIExpressGen3), Bus Width (x16), Length (Long), Characteristics (Provides 3.3 volts. PCI slot supports Power Management Event signal), Bus (0xb2), Device (0x0), and Function (0x0).



Note: For more information, visit the iLO 5 user guide at [HPE iLO 5 User Guide](#).

Lenovo XCC

Log into the XCC web interface. From the side menu bar, select “Inventory”. Scroll down to the “SYS Board” section and expand the NVIDIA device(s) - the serial number of each GPU installed will be shown in the “Serial Number” field of the detailed view. If multiple GPUs are installed, repeat the process of expanding the NVIDIA device(s) until all serial numbers are obtained.

XClarity Controller ThinkSystem SR670 V2 System name: Export root 7:28 PM

Inventory

Slot	Device Name	Device Type	Card Interface	FRU Number
OnBoard	Adapter 02:00:00	GPU	OnBoard	N/A
OnBoard	Intel(R) VROC SATA Controller	RAID Controller	OnBoard	N/A
OnBoard	Onboard SSATA Controller	SATA Controller	OnBoard	N/A
1	Adapter 4B:00:00		Unknown	N/A
	Adapter 4B:00:00	Ethernet	Unknown	
	Adapter 4B:00:01	Ethernet	Unknown	
2	Adapter 98:00:00		Unknown	N/A
	Adapter 98:00:00	Ethernet	Unknown	
	Adapter 98:00:01	Ethernet	Unknown	
3	Adapter 31:00:00		Unknown	N/A
	Adapter 31:00:00	Ethernet	Unknown	
	Adapter 31:00:01	Ethernet	Unknown	
4	NVIDIA A2	GPU	PCI-E	N/A

Asset Summary

UUID	N/A	Manufacturer	NVIDIA
Serial Number	1334221040045	Model	N/A
FRU Number	N/A	Part Number	25B6-890-A1
Package	Module/Card	Max Data Width	16

PCI Summary

Bus Number	23	Device Number	0
Function Number	0	Revision ID	0x00A1
Vendor ID	0x10DE	Device ID	0x25B6
Sub Vendor ID	0x10DE	Sub Device ID	0x157E
Slot Designation	Slot 4	Support Hot Plug	No

Firmware

6	NVIDIA A2	GPU	PCI-E	N/A
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Show Part PCI

Quick Link

- CPU
- DIMM
- DISK
- PSU
- Fan
- PCI
- SYS Board**
- Others
- SYS FW

Note: For more information, visit the XCC user guide at [Lenovo Systems Management \(lenovofiles.com\)](https://lenovofiles.com).

Redfish

Using a server's Redfish interface that is compliant with NVIDIA Redfish standards published at DMTF, it's possible to obtain the serial number of the GPU(s) installed using the following:

URIs:

- /redfish/v1/Chassis/{ChassisId}/Assembly



Note: This is a relatively new BMC feature; please check with your hardware vendor to see if it is supported.

Step 1: Define Environmental settings

```
REDFISH_HOST="192.168.1.10"  
REDFISH_PORT="8000"  
REDFISH_USER='user'  
REDFISH_PASS='password'  
CHASSIS_ID="Example_Chassis"
```



Note: The Redfish host should be the BMC's IP; user credentials are only for illustration. Port 8000 is the default port. Details including Chassis ID may vary depending on your hardware vendor's Redfish implementation.

Step 2: Capture GPU Information

Using curl, we'll read a GPU's serial number by executing the following command:

```
curl -s -k -u ""$REDFISH_USER"":""$REDFISH_PASS""  
https://$REDFISH_HOST:$REDFISH_PORT/redfish/v1/chassis/$CHASSIS_ID/Assembly
```

The output will provide the serial number of each installed GPU, along with many other parameters. Please see the output examples below.

Example 1. response of HGX-Baseboard Assembly

```
{
  "@odata.type": "#Assembly.v1_3_0.Assembly",
  "@odata.id": "/redfish/v1/Chassis/Example_Chassis/Assembly",
  "Id": "Assembly",
  "Name": "Assembly data for HGX Baseboard",
  "Assemblies": [
    {
      "@odata.id": "/redfish/v1/Chassis/Example_Chassis/Assembly#/Assemblies/0",
      "MemberId": "0",
      "Name": "Board FRU Assembly",
      "Model": "P4584-A04",
      "PartNumber": "699-24584-0000-400",
      "SerialNumber": "0321719078904",
      "Vendor": "NVIDIA",
      "Version": "A02",
      "ProductionDate": "2021-04-01T00:00:00Z",
      "PhysicalContext": "GPUSubsystem",
      "Location": {
        "PartLocation": {
          "LocationType": "Embedded"
        }
      }
    }, {
      "@odata.id": "/redfish/v1/Chassis/Example_Chassis/Assembly#/Assemblies/1",
      "MemberId": "1",
      "Name": "Product FRU Assembly",
      "Model": "NVIDIA HGX A100-Next",
      "PartNumber": "935-22887-2500-000",
      "SerialNumber": "0321719078904",
      "Vendor": "NVIDIA",
      "Version": "1.0",
      "PhysicalContext": "GPUSubsystem",
      "Location": {
        "PartLocation": {
          "LocationType": "Embedded"
        }
      }
    }, {
      "@odata.id": "/redfish/v1/Chassis/Example_Chassis/Assembly#/Assemblies/2",
      "MemberId": "2",
      "Name": "Chassis FRU Assembly",
      "PartNumber": "",
      "SerialNumber": "",
      "PhysicalContext": "GPUSubsystem",
      "Location": {
        "PartLocation": {
          "LocationType": "Embedded"
        }
      }
    }
  ]
}
```

Example 2. response of GPU Assembly

```
{
  "@odata.type": "#Assembly.v1_3_0.Assembly",
  "@odata.id": "/redfish/v1/Chassis/GPU_SXM_1/Assembly",
  "Id": "Assembly",
  "Name": "Assembly data for GPU_SXM_1",
  "Assemblies": [
    {
      "@odata.id": "/redfish/v1/Chassis/GPU_SXM_1/Assembly#/Assemblies/0",
      "MemberId": "0",
      "Name": "GPU Device Assembly",
      "Model": "Generic Ampere",
      "PartNumber": "1091.891.A2",
      "SerialNumber": "0321719078904",
      "Vendor": "NVIDIA",
      "ProductionDate": "2021-04-01T00:00:00Z",
      "PhysicalContext": "GPU",
      "Location": {
        "PartLocation": {
          "LocationType": "Embedded"
        }
      }
    },
    {
      "@odata.id": "/redfish/v1/Chassis/GPU_SXM_1/Assembly#/Assemblies/1",
      "MemberId": "1",
      "Name": "GPU Board Assembly",
      "PartNumber": "900-21228-3850-100",
      "Vendor": "NVIDIA",
      "PhysicalContext": "GPU",
      "Location": {
        "PartLocation": {
          "LocationType": "Embedded"
        }
      }
    }
  ]
}
```



Note: The Chassis name in this example is GPU_SXM_1

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