



## High Performance Cooling Solutions

With the 90° WireView Pro GPU, Thermal Grizzly introduces another variant of the WireView Pro tool for measuring the power consumption of graphics cards. As a Pro version, the 90° WireView Pro GPU is equipped with temperature sensors and an adjustable acoustic alarm. In addition to two temperature sensors mounted on the PCB, two additional included sensors can be connected via plug to the WireView Pro. The connector detection feature, which allows the 90° WireView Pro GPU to recognize whether a 150-watt, 300-watt, 450-watt, or 600-watt power connector is used, is also part of the feature package. The 90° variant of the WireView Pro GPU functions as a 90° adapter, where the power supply cable (when the GPU is mounted horizontally) is routed downwards toward the case floor. The previous variants utilized a U-shaped adapter, where the power connector cable was routed over the GPU's backplate.

## Short Information about the 90° WireView Pro GPU

- Modified cable routing
- Power supply connector pointing downward
- OLED display
- Power consumption measurement
- Power consumption recording
- New: Temperature sensors at power connectors
- New: External temperature sensors
- New: Sensor pin detection
- New: Alarm function

## What can the OLED display show?

The OLED display of the 90° WireView Pro GPU can display:

- New: Temperature display of power connectors in degrees Celsius [°C]
- New: Temperature readings from optional external sensors in degrees Celsius [°C]
- Real-time power draw in watts [W], voltage in volts [V], and current in amperes [A]
- Minimum and maximum power consumption in watts [W]
- Average power consumption over the last 60 seconds [RAVG in W] and total energy usage [E in WH]

## What does the 90° WireView Pro GPU do?

The 90° WireView Pro GPU enables power consumption measurement via the graphics card's power connector and records the data to analyze power usage. This data can be used, for example, to calculate the electricity costs of a graphics card or to compare power consumption with other graphics cards.

By measuring power consumption, the 90° WireView Pro GPU helps determine GPU power usage over a period of time or under specific workloads. Additionally, it can detect power spikes ("peaks") that occur when running modern high-end graphics cards.

## What's new in the 90° WireView Pro GPU?

The primary change in the 90° version of the WireView Pro GPU is the cable routing of the 12VHPWR power cable from the PSU. The GPU-side connector of the 90° version is positioned above the 12VHPWR socket, where the PSU power cable is plugged in. The power input port for the 12VHPWR cable is rotated 90 degrees, so the cable is inserted from below into the 90° WireView Pro GPU, allowing for cable management directed toward the bottom of the case.

## Important Note

Depending on the graphics card used, especially in the case of the GeForce RTX 4090 and similar GPUs, up to 450 watts of power can flow through the connectors of the WireView Pro GPU. This heat can cause the PCB at the WireView Pro GPU connector to heat up to 60°C with air-cooled graphics cards, and up to 100°C with water-cooled cards without airflow. The WireView Pro GPU case should not be touched during load operation. After shutting down the system, allow the WireView Pro GPU to cool before handling.

## Technical Data

| Unit:                            | Value/Description:                                                                                                    |               |              |                      |                 |              |                |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------|--------------|----------------------|-----------------|--------------|----------------|
| Material (casing):               | Anodized aluminum                                                                                                     |               |              |                      |                 |              |                |
| Colour:                          | Black                                                                                                                 |               |              |                      |                 |              |                |
| Display type:                    | OLED                                                                                                                  |               |              |                      |                 |              |                |
| Power connector:                 | 12VHPWR (16 pins)                                                                                                     |               |              |                      |                 |              |                |
| Connector pin orientation:       | Normal ("N") / Reverse ("R")                                                                                          |               |              |                      |                 |              |                |
| Data connector:                  | 4-pin-header                                                                                                          |               |              |                      |                 |              |                |
| Sensor connectors (2x):          | 2-pin-header                                                                                                          |               |              |                      |                 |              |                |
| Typical applications:            | Power consumption measurement, power consumption recording, temperature measurement, cable management, alarm function |               |              |                      |                 |              |                |
| Name:                            | Item number:                                                                                                          | EAN Code:     | Size:        | Power input/ output: | Packaging size: | *Net weight: | *Gross weight: |
| 90° WireView Pro GPU 1x12VHPWR R | TG-WV-90-P-H1R                                                                                                        | 4260711991356 | 52x 43x 33mm | 1x12VHPWR            | 18,5x 15x 5,5cm | 38,5g        | 74g            |
| 90° WireView Pro GPU 1x12VHPWR N | TG-WV-90-P-H1N                                                                                                        | 4260711991349 | 52x 43x 33mm | 1x12VHPWR            | 18,5x 15x 5,5cm | 38,5g        | 74g            |

\*Net weight is the total weight of an article excluding the weight of packaging and accessories. The gross weight refers to the total weight of the product including accessories and packaging. Slight weight deviations are possible due to production factors.

## Comprehensive Safety Features

With two temperature sensors on the PCB—positioned at the power connectors—the 90° WireView Pro GPU can monitor connector temperatures. Since these connectors handle up to 600 watts of power, the plugs and PCB around them can become extremely hot. To prevent damage to the graphics card, the 90° WireView Pro GPU triggers an acoustic alarm if the connector temperature exceeds a user-defined threshold. Additionally, a threshold for current (amperes [A]) can be set.

The 90° WireView Pro GPU features two additional ports for external temperature sensors (10K NTC), which can be connected via cable. Two sensors with cable lengths of 5 cm and 20 cm are included. These sensors can be placed under the GPU cooler to monitor VRM (voltage regulator module) temperatures.

The 90° WireView Pro GPU is also equipped with connector type detection, recognizing whether a 150-watt, 300-watt, 450-watt, or 600-watt cable is in use. It is important to note that the 90° WireView Pro GPU measures only the power draw via the power connector, not the additional power consumption through the PCIe slot on the motherboard. The sensor pin detection function verifies if the 12VHPWR cable is properly connected and triggers an alarm sound if it is not correctly inserted during operation.

## Why use a power measurement device for the GPU?

With the 90° WireView Pro GPU, the real-time power consumption of a graphics card can be displayed, making it particularly valuable for extreme overclockers and hardware reviewers. It is also useful for testing a GPU's performance. Since no additional software is required to record power consumption, benchmark results remain unaffected.

When manually overclocking a graphics card (e.g., using MSI Afterburner, Gigabyte Aorus Engine, ASUS GPU Tweak, or EVGA Precision), the real-time power consumption can be observed directly on the OLED display of the 90° WireView Pro GPU.

In addition to real-time power monitoring, the 90° WireView Pro GPU records the measured power draw in its internal memory, allowing users to analyze power consumption over extended periods. The stored data can be reset at any time.

## Please Note

The data in this technical data sheet are based on our current knowledge and experience. Due to the large amount of possible factors, this should not be construed as to release the users from doing their own tests and screening. No legally binding assurance of specific properties or applicability for a concrete purpose should be derived from these data. Please consider contacting us for further detail. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

## Trademark Information

Thermal Grizzly is a registered trademark.

## Which WireView Pro GPU is needed?

The 90° WireView Pro GPU is available in two versions, Normal (N) and Reverse (R), for use with the 12VHPWR 16-pin power connector (4x sensor + 12x power/ground):

- If the graphics card has power connectors where the four sensor pins are positioned between the PCB and the 12 power pins, the "N" version is required (PCB - 4x sensor pin - 12x power pins).
- If the graphics card has power connectors where the 12 power pins are positioned between the PCB and the four sensor pins, the "R" version is needed (PCB - 12x power pins - 4x sensor pins).

Beim Verwenden des 12VHPWR-Adapters des Netzteils ist darauf zu achten, dass jeder der 8-Pin-PCIe-Stecker mit einem separaten 8-Pin-PCIe-Kabel an das Netzteil angeschlossen wird. Vom Benutzen eines Splitters (Y-Kabel) wird dringlichst abgeraten! Die Konfiguration des 12VHPWR Adapters entspricht der 600W Version.

## Vertical GPU Mounting

The 90° WireView Pro GPU can be used with vertically mounted graphics cards. Depending on the selected variant, the power cable from the power supply unit is routed either toward the case's mainboard tray or toward the side panel:

- If the "R" variant is required for a standard horizontal GPU installation, the power cable will be routed toward the side panel when the GPU is mounted vertically.
- If the "R" variant is required for a standard horizontal GPU installation, the power cable will be routed toward the mainboard tray when the "N" variant of the 90° WireView Pro GPU is used for vertical mounting.

The display orientation of the OLED screen on the 90° WireView Pro GPU can be adjusted via the configuration menu. Refer to the flowchart available in the download section on the product page in the Thermal Grizzly Shop.

