GAINWARD PHANTOM

GAINWARD GeForce RTX 2080 Phantom
"Golden Sample- Goes Like Hell"

Specifications

Process Technology	12nm	Boost Clock	1875 MHz
CUDA Cores	2944	Max. TGP	245W
Memory Amount	8 GB	Memory Clock	7000 MHz
Memory Type	256b GDDR6	Memory Bandwidth	448 (GB/Sec)

Key Features

- NVIDIA Turing Architecture, 12nm IC Process
- 14Gbps GDDR6 Memory
- 63T RTX-OPS
- Real-Time Ray Tracing
- NVIDIA® GeForce Experience™
- NVIDIA Ansel
- NVIDIA Highlights
- NVIDIA G-SYNC®-Compatible
- Game Ready Drivers
- Microsoft® DirectX® 12 API, Vulkan API, OpenGL 4/5
- NVIDIA GPU Boost™
- NVIDIA NVLink™ (NVIDIA SLI®)
- VR Ready
- 3* DisplayPort 1.4, HDMI 2.0b and USB Type-C
- HDCP 2.2
- Maximum Total Board Power Include USB-C – 280W

GAINWARD Unique Features

Expertool II

- ✓ GAINWARD's Expertool *II* – the brand-new utility adds flexible fan curve control and BIOS saving feature for powerful
- ✓ GeForce RTX 2080 card.

- ✓ **Golden Sample™ – Goes Like Hell** Powered by GAINWARD's unique technology for over-clocking can provide stable operating under all kinds of gaming application.

Output Support

HDMI : (max. resolution)
4096x2160@60Hz
DP *3 : (max. resolution)
7680x4320@60Hz
USB-C (VirtualLink)

Dimension

Board: 292mm(L)x130mm(W)
Cooler : 2.7 slot
Bracket: 2 slot

Accessory

1. Driver Disc
2. Manual
3. Power cable

Minimum System Requirements

Graphics card require:
- PCI Express-compliant motherboard with one dual-width x16 graphics slot
- Two 8-pin PCI Express supplementary power connectors
- Minimum 650W or greater system power supply
- Microsoft® Windows® 10 64-bit (April 2018 Update or later), Windows ®7 64-bit, Linux 64-bit

GW GeForce RTX 2080 Phantom GLH_bar code: 426018336-4177

www.gainward.com

*Subject to change without notice.

GAINWARD PHANTOM

GAINWARD superior hardware design

GAINWARD re-designs the entire hardware, that brings higher stability under high current operation (heavy loading operation).
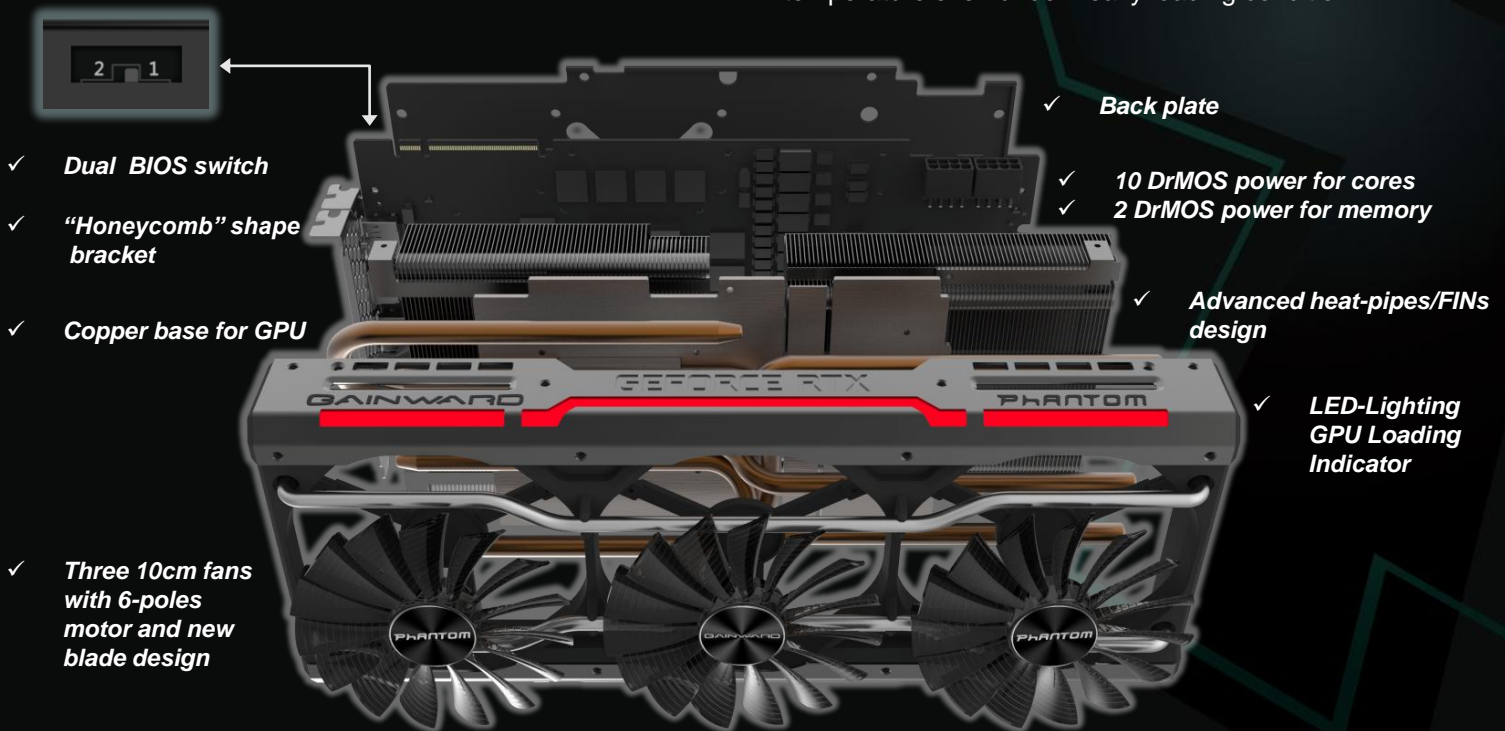
DrMOS

DrMOS is designed to handle high current with low noise operation and less heat generating.

Extreme silent acoustics in heavy loading mode

GAINWARD GeForce RTX 2080 Phantom "GLH" with factory over-clocked runs very quiet under full load operation thanks to the new Phantom fan design.

Extreme cool temperature in heavy loading mode

GAINWARD GeForce RTX 2080 Phantom "GLH" with factory over-clocked speed performs extremely low GPU temperature even under heavy loading condition.

- ✓ Dual BIOS switch
- ✓ "Honeycomb" shape bracket
- ✓ Copper base for GPU
- ✓ Three 10cm fans with 6-poles motor and new blade design

- ✓ Back plate
- ✓ 10 DrMOS power for cores
- ✓ 2 DrMOS power for memory
- ✓ Advanced heat-pipes/FINs design
- ✓ LED-Lighting GPU Loading Indicator

Dual BIOS *(1: OC, 2: Standard/Zero RPM)*

GAINWARD provides two VBIOS for GeForce RTX 2080 Phantom "GLH" board.
Factory over-clocking VBIOS is set on position #1 of the "dual BIOS switch".
Users can switch to second VBIOS on position #2, standard-clock setting" with "Zero RPM" fan control to enjoy the quietest gaming experience as well as low GPU temperature.

Expertool *II*

GAINWARD's Expertool *II* – the brand-new utility adds flexible and individual fan curve control and VBIOS saving feature for powerful GeForce RTX 2080 card.

USB Type C connectivity

On board USB-C port (VirtualLink connector)
- Provide connecting to new VR device (HMD, head-mounted display)
- USB host mode support
- Supply up to 35W power
- Connect to display device (monitor with DP/USB-C port)

6-Poles Fan Motor

6-poles fan motor vs 4-poles motor (normal fan)
- Smaller hub size that increases 10% efficiency area of the fan
- Lower power consumption - up to 30% current reduce
- Smoother spinning – lower electric noise, lower vibration (longer lifespan)

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