

GAINWARD GeForce RTX 2070 Phantom "Golden Sample"

Specifications

Process Technology	12nm	Boost Clock	1725 MHz
CUDA Cores	2304	Max. TGP	185W
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
- 45T 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™
- VR Ready
- 3* DisplayPort 1.4, HDMI 2.0b and USB Type-C
- HDCP 2.2
- Maximum Total Board Power Include USB-C – 220W



GAINWARD Unique Features

Expertool //



- ✓ GAINWARD's Expertool II – the brand-new utility adds flexible fan curve control and BIOS saving feature for powerful
- ✓ GeForce RTX 2070 card.



- ✓ **Golden Sample™**
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

Minimum System Requirements

Graphics card require:

- PCI Express-compliant motherboard with one dual-width x16 graphics slot
- 8-pin + 6-pin PCI Express supplementary power connectors
- Minimum 550W 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 2070 Phantom GS_bar code: 426018336-4221

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PHANTOM



GAINWARD superior hardware design

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

DrMOS

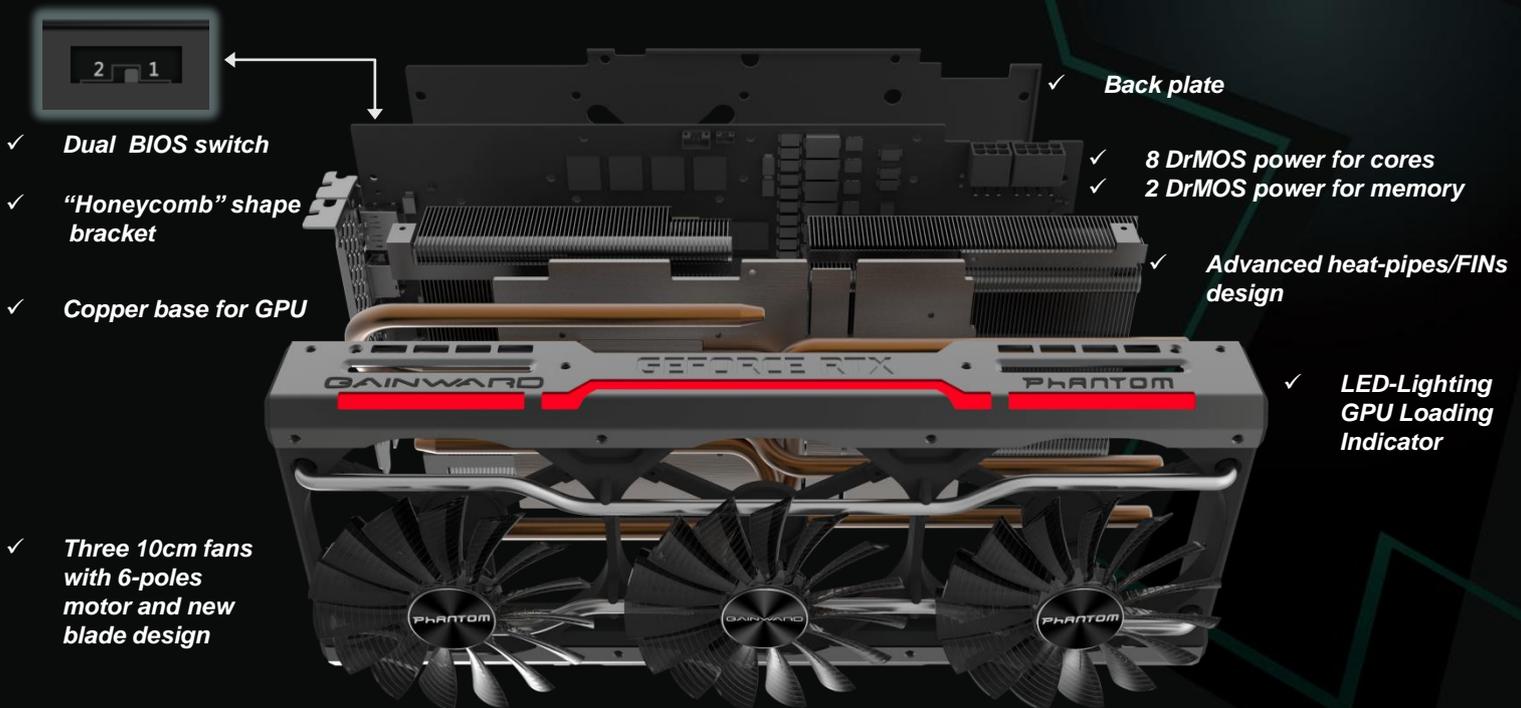
DrMOS is designed to handle high current with low noise operation and less heat generating.

Extreme silent acoustics in heavy loading mode

GAINWARD GeForce RTX 2070 Phantom "GS" 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 2070 Phantom "GS" with factory over-clocked speed performs extremely low GPU temperature even under heavy loading condition.



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

GAINWARD provides two VBIOS for GeForce RTX 2070 Phantom "GS" board.

Factory over-clocking VBIOS is set on position #1 of the "dual BIOS switch".

Users can switch to second VBIOS on position #2, adding "Zero RPM" fan control feature to enjoy the quietest 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 2070 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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