GAINWARD

GAINWARD GeForce RTX 2070 Phantom

Specifications			
Process Technology	12nm	Boost Clock	1620 MHz
CUDA Cores	2304	Max. TGP	175W
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
- 42T 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 210W



Output Support



Dimension

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

Accessory

HDMI : (max. resolution) 4096x2160@60Hz

DP *3 : (max. resolution)

7680x4320@60Hz

USB-C (VirtualLink)

- 2. Manual
- GW GeForce RTX 2070 Phantom_bar code: 426018336-4238

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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.



 GAINWARD superior hardware design provides massive capability for over-clocking and stable operating environment under all kinds of gaming application.



Minimum System Requirements

Graphics card require:

- PCI Express-compliant motherboard with one dualwidth 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

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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.

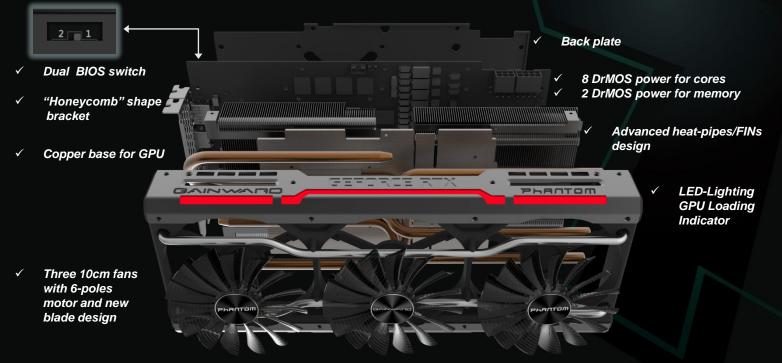


Extreme silent acoustics in heavy loading mode

GAINWARD GeForce RTX 2070 Phantom 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 performs extremely low GPU temperature even under heavy loading condition.



Dual BIOS (1: Normal, 2: Zero RPM)

GAINWARD provides two VBIOS for GeForce RTX 2070 Phantom board.

Standard 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 //

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, headmounted 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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