# GAINWARD

### GAINWARD GeForce RTX 2080 SUPER **Phantom**

"Golden Sample- Goes Like Hell"

Specifications		
12nm	Boost Clock	1860 MHz
3072	Max. TGP	250W
8 GB	Memory Clock	7750 MHz
256b GDDR6	Memory Bandwidth	496 (GB/Sec)
	12nm 3072 8 GB	12nm Boost Clock 3072 Max. TGP 8 GB Memory Clock

### **Key Features**

- NVIDIA Turing Architecture, 12nm IC Process
- 16Gbps GDDR6 Memory
- 65T RTX-OPS
- Real-Time Ray Tracing
- Tensor Cores
- 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 285W



#### **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 SUPER card.



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







# **HDMI**"HDCP

#### **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

- Manual
- Power cable

#### **Minimum System Requirements**

Graphics card require:

- PCI Express-compliant motherboard with one dualwidth x16 graphics slot
- Two 8-pin PCI Express supplementary power connectors
- Minimum 650W or greater system power supply
- Microsoft® Windows® 10 64-bit (November 2018 or later), Windows ®7 64-bit, Linux 64-bit

GW GeForce RTX 2080s Phantom GLH\_bar code: 471056224-0955

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# GAINWARD PH







### 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.





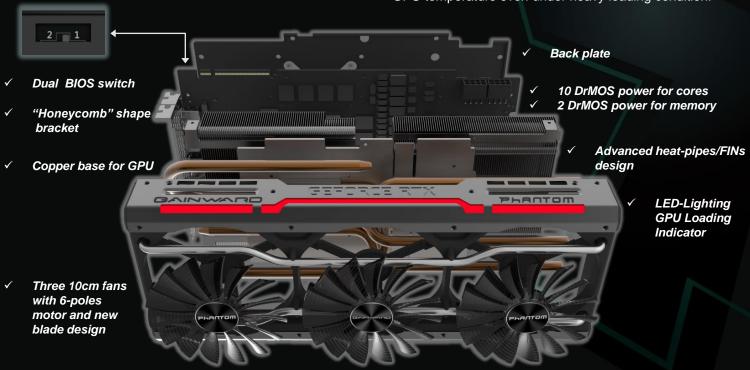


# Extreme silent acoustics in heavy loading mode

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



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

GAINWARD provides two VBIOS for GeForce RTX 2080 SUPER 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 //

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