

SPARKLE Intel Arc B580 GUARDIAN(SB580G-12G)

SPARKLE Intel Arc B580 GUARDIAN - Graphics card - Arc B580 - 12 GB GDDR6 - PCIe 4.0 x8 - 3 x DisplayPort, HDMI



The SPARKLE Intel Arc B580 GUARDIAN graphics card brings a powerful gaming experience with performance features. Equipped with 12 GB of GDDR6 SDRAM and a 192-bit bus width, this card delivers memory bandwidth of 456 GBps, ensuring smooth gameplay and efficient multitasking. With a NPU performance of up to 233 TOPS and a boost clock speed of 2670 MHz, it is engineered for computational tasks and high-resolution gaming. The card supports a maximum external resolution of 7680 x 4320, allowing for stunning visual clarity and enhanced gaming immersion across multiple monitors, with support for up to 4 displays simultaneously. The SPARKLE B580 GUARDIAN is compatible with various APIs including DirectX 12 and Vulkan 1.3, making it versatile for a range of applications.

Key Selling Points

- NPU performance of 233 TOPS
- Supports maximum resolution of 7680 x 4320
- Equipped with 12 GB GDDR6 VRAM for demanding applications
- Multi-monitor support for expanded workspace and gaming experiences
- Ray tracing capabilities for realistic graphics

Product Features

- Memory performance**
This graphics card utilizes GDDR6 SDRAM technology with a total installed size of 12 GB, paired with a 192-bit bus width for high-speed data processing.
- Connectivity options**
Equipped with three DisplayPort and one HDMI output, the card provides connectivity options supporting various display setups.
- Thermal management**
Featuring a 2.2-slot Fan Cooler and a dual AXL fan design, the SPARKLE B580 GUARDIAN ensures cooling performance during intense usage.
- Graphics capabilities**
The presence of 20 Xe Cores and 20 Ray Tracing Units enables lifelike visuals and dynamic rendering techniques, enhancing the visual quality of games and applications.
- API support**
Compatible with OpenGL 4.6, DirectX 12, and Vulkan 1.3, this graphics card allows users to engage with a broad array of software and gaming options.

Main Specifications

Product Description	SPARKLE Intel Arc B580 GUARDIAN - graphics card - Arc B580 - 12 GB
Device Type	Graphics card
Bus Type	PCI Express 4.0 x8
Graphics Engine	Intel Arc B580 - up to 233 TOPS
Memory	12 GB GDDR6
Boost Clock	2670 MHz
Memory Interface	192-bit
Max Resolution	7680 x 4320
Max Resolution Details	DisplayPort: 7680 x 4320 at 60 Hz/ HDMI: 7680 x 4320 at 120 Hz
Max Monitors Supported	4
Interfaces Details	HDMI 3 x DisplayPort
API Supported	DirectX 12 Ultimate, Vulkan 1.3, OpenGL 4.6, OpenCL 3.0

Dimensions (WxDxH)	4.4 cm x 24.2 cm x 10.5 cm
--------------------	----------------------------

Extended Specification

General

Device Type	Graphics card
Bus Type	PCI Express 4.0 x8
Graphics Engine	Intel Arc B580
Boost Clock	2670 MHz
Max Resolution	7680 x 4320 at 120 Hz
Max Resolution Details	DisplayPort: 7680 x 4320 at 60 Hz/ HDMI: 7680 x 4320 at 120 Hz
Max Monitors Supported	4
Interfaces Details	HDMI 3 x DisplayPort
API Supported	DirectX 12 Ultimate, Vulkan 1.3, OpenGL 4.6, OpenCL 3.0
Features	Blue breathing light, 20 Xe Cores, 20 Ray Tracing Units, 160 Intel XMX Engines, TORN cooling 2.0, metal backplate, Ray Tracing, variable rate shading (VRS), Adaptive-Sync, AV1 encode support, AV1 decode support, VP9 support, Intel Deep Link Hyper Compute, Intel Deep Link Hyper Encode, Intel Deep Link Stream Assist, 2 x AXL fans, 2.2-slot Fan Cooler

Memory

Size	12 GB
Technology	GDDR6 SDRAM
Bus Width	192-bit
Bandwidth	456 GBps

Miscellaneous

Power Consumption Operational	190 Watt
Width	4.4 cm
Depth	24.2 cm
Height	10.5 cm
Weight	796 g

System Requirements

OS Required	Windows 11, Windows 10
Required Power Supply	600 W
Additional Requirements	8 pin PCI Express power connector

Performance

NPU Performance Up To (TOPS)	233 TOPS
------------------------------	----------

Product data is provided by CNET, we do not warrant the accuracy and completeness of the material contained in this data sheet