

ASRock A380 Challenger ITX 6GB OC

ASRock Intel Arc A380 Challenger ITX 6GB OC Graphics Card User Manual

1. INTRODUCTION

This manual provides comprehensive instructions for the installation, operation, and maintenance of your ASRock Intel Arc A380 Challenger ITX 6GB OC Graphics Card. Please read this manual thoroughly before using the product to ensure proper functionality and to prevent damage. Keep this manual for future reference.

2. SAFETY INFORMATION

Always observe the following safety precautions when handling and installing your graphics card:

- Ensure your computer system is powered off and unplugged from the wall outlet before installation.
- Discharge any static electricity from your body by touching a grounded metal object (e.g., the computer chassis) before handling components.
- Avoid touching the gold-plated connector pins on the graphics card.
- Install the graphics card in a well-ventilated area to prevent overheating.
- Do not expose the graphics card to moisture or extreme temperatures.

3. PACKAGE CONTENTS

Verify that all items are present in your product package:

- ASRock Intel Arc A380 Challenger ITX 6GB OC Graphics Card
- Quick Installation Guide

4. PRODUCT OVERVIEW

The ASRock Intel Arc A380 Challenger ITX 6GB OC Graphics Card is designed for compact systems, offering capable graphics performance in a single-slot ITX form factor. It features Intel's Arc A380 GPU with 6GB of GDDR6 memory and a 2250 MHz clock speed. Key features include a striped axial fan, 0dB silent cooling, and support for modern display technologies.



Figure 4.1: ASRock Intel Arc A380 Challenger ITX 6GB OC Graphics Card

4.1. Dimensions

This graphics card features a compact design suitable for ITX systems.

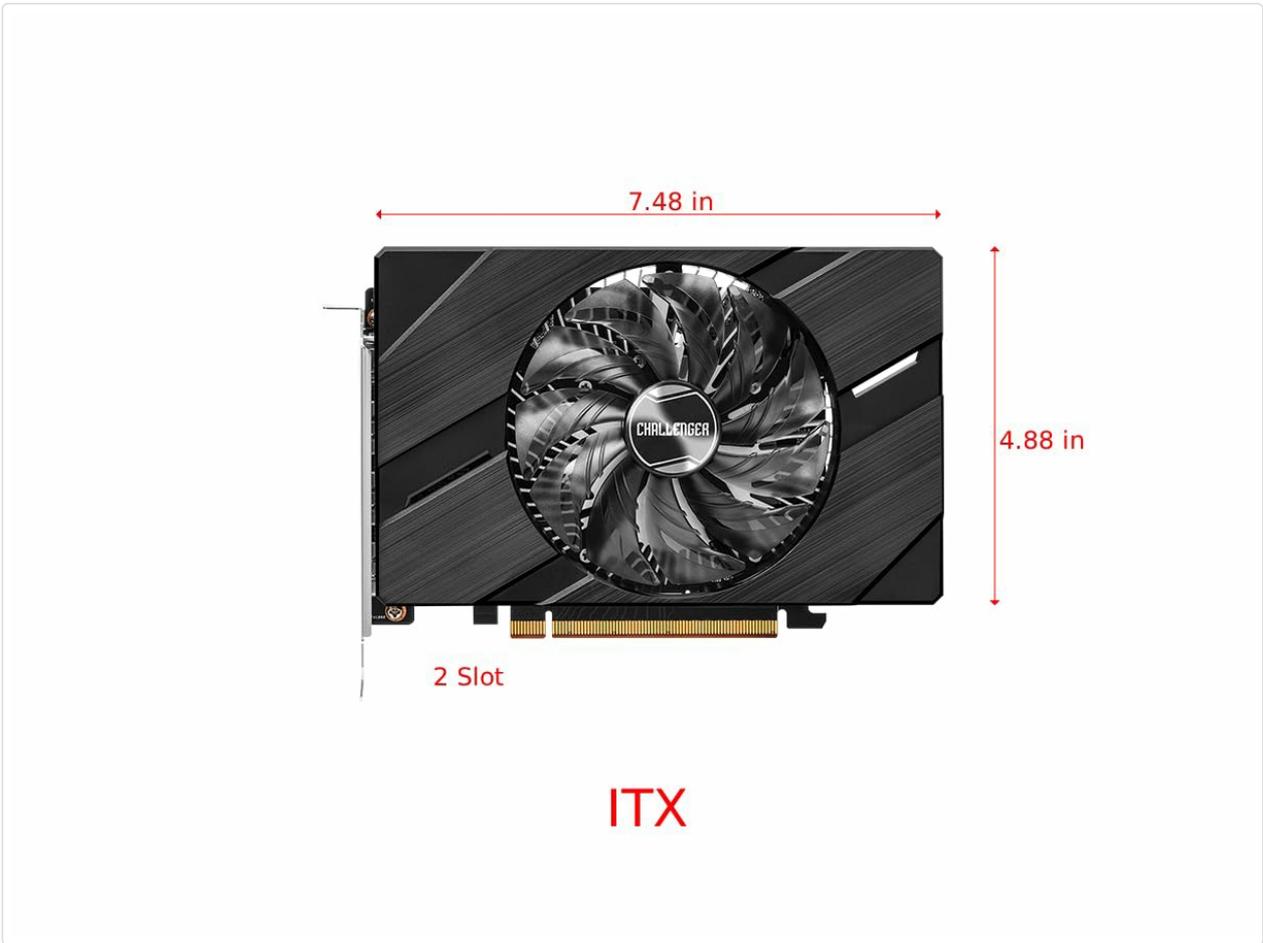


Figure 4.2: Graphics Card Dimensions (Approx. 7.48 in x 4.88 in, 2-slot)

4.2. Display Outputs

The card provides multiple display outputs for versatile connectivity.

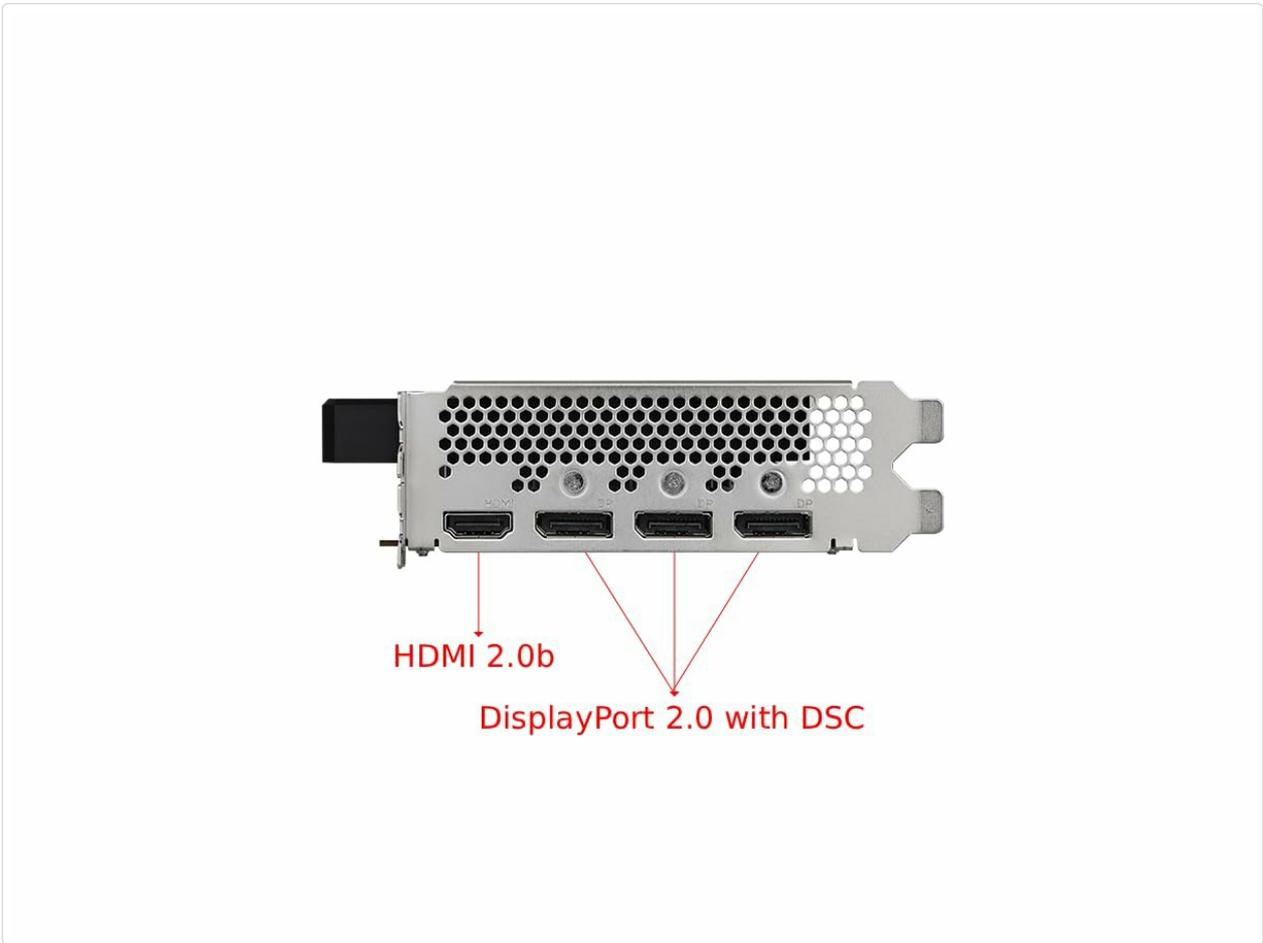


Figure 4.3: Display Outputs (1x HDMI 2.0b, 3x DisplayPort 2.0 with DSC)

4.3. Cooling System

The ASRock custom Striped Axial Fan design enhances airflow for optimal cooling. The 0dB Silent Cooling technology ensures the fans stop spinning under light workloads for quiet operation.



Figure 4.4: Striped Axial Fan for enhanced airflow



Figure 4.5: 0dB Silent Cooling: Fans stop under light workloads

4.4. Official Product Video

Your browser does not support the video tag.

Video 4.1: Overview of Intel ARC Graphics Cards by ASRock USA. This video provides a general introduction to the Intel ARC graphics card series.

5. SETUP

5.1. Physical Installation

1. **Prepare your system:** Power off your computer and unplug all cables. Open the computer case.
2. **Locate a PCIe slot:** Identify an available PCI Express 4.0 x16 slot on your motherboard.
3. **Remove slot cover:** Remove the corresponding slot cover from your computer case.
4. **Insert the graphics card:** Carefully align the graphics card with the PCIe slot and press it down firmly until it is securely seated. Ensure the retention clip on the PCIe slot locks into place.
5. **Secure the card:** Fasten the graphics card to the computer case with a screw.
6. **Connect power:** Connect the single 8-pin PCIe power connector from your power supply to the graphics card. Ensure your power supply meets the recommended 500W minimum.
7. **Close case:** Close your computer case and reconnect all cables.

5.2. Driver Installation

After physical installation, you must install the latest drivers for your graphics card:

1. Power on your computer.
2. Visit the official ASRock website or Intel's support website.
3. Navigate to the support section and locate the drivers for the Intel Arc A380 series.
4. Download the latest graphics drivers for your operating system.
5. Run the installer and follow the on-screen instructions. A system restart may be required.

6. OPERATING

Once drivers are installed, your ASRock Intel Arc A380 Challenger ITX graphics card is ready for use. Connect your display(s) to the available DisplayPort 2.0 or HDMI 2.0b ports. You can configure display settings, resolution, and refresh rates through your operating system's display settings or the Intel Arc Control software.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your graphics card:

- **Dust Removal:** Periodically clean dust from the fan and heatsink using compressed air. Ensure the system is powered off and unplugged before cleaning.
- **Driver Updates:** Keep your graphics drivers updated to the latest version. New drivers often include performance improvements, bug fixes, and compatibility enhancements.
- **Temperature Monitoring:** Use monitoring software to keep an eye on the GPU temperature, especially during heavy workloads. While the 0dB cooling feature is efficient, ensuring good case airflow is crucial.

8. TROUBLESHOOTING

If you encounter issues with your graphics card, consider the following troubleshooting steps:

- **No Display Output:**

- Ensure the graphics card is fully seated in the PCIe slot.
- Verify that the 8-pin power connector is securely attached.
- Check that your monitor cable is correctly connected to the graphics card and the monitor.
- Try a different display output port or cable.

- **Driver Issues/Instability:**

- Perform a clean installation of the latest graphics drivers. Uninstall previous drivers completely before installing new ones.
- Ensure your motherboard BIOS/UEFI is updated to the latest version, as this can improve compatibility.
- Verify that Resizable BAR (ReBAR) is enabled in your system's BIOS/UEFI for optimal performance with Intel Arc GPUs.

- **Overheating:**

- Ensure adequate airflow within your computer case.
- Clean any dust buildup from the graphics card's fan and heatsink.
- Check that the fan is spinning correctly under load.

9. SPECIFICATIONS

Feature	Specification
Graphics Coprocessor	Intel Arc A380
Video Memory	6 GB GDDR6
Memory Speed	15.5 Gbps
Engine Clock	2250 MHz
Max Screen Resolution	7680x4320 Pixels (8K)
Video Output Interface	3x DisplayPort 2.0, 1x HDMI 2.0b
Item Model Number	90-GA3KZZ-00UANF
Item Weight	1.32 pounds
Product Dimensions	1.1 x 9.7 x 0.04 inches
Recommended PSU	500W

10. WARRANTY AND SUPPORT

ASRock provides a manufacturer's warranty for this product. Please refer to the warranty card included in your package or visit the official ASRock website for detailed warranty terms and conditions. For technical support, driver downloads, and FAQs, please visit the ASRock support page at www.asrock.com/support.asp.

Optional protection plans are available for purchase, offering extended coverage beyond the standard manufacturer's warranty. These plans typically cover 3-year or 4-year durations, or monthly subscription options.

