Computer Configuration Specifications

Main System and Backup Configuration

Executive Summary

This document details the technical specifications of two computer configurations: the main configuration for daily use and a backup configuration for contingency. Both configurations include power backup through a UPS (*Uninterruptible Power Supply*) system.

Main Configuration:

- Processor: AMD Ryzen 5 5600X
- Graphics Card: AMD Radeon RX 5600
- RAM Memory: 32 GB

Backup Configuration:

- Processor: AMD Ryzen 7 7700X
- Graphics Card: NVIDIA GeForce RTX 4070
- RAM Memory: 32 GB

1 Main Configuration

1.1 Technical Specifications

Component	Specifications
Processor (CPU)	AMD Ryzen 5 5600X • **Cores/Threads:** 6 cores / 12 threads • **Base Frequency:** 3.7 GHz • **Max Boost Frequency:** 4.6 GHz • **L3 Cache:** 32 MB • **Architecture:** Zen 3 (7nm) • **TDP:** 65W
Graphics Card (GPU)	AMD Radeon RX 5600 • **Architecture:** RDNA (Navi 10) • **Memory:** 6 GB GDDR6 • **Memory Speed:** 12 Gbps • **Memory Bandwidth:** 288 GB/s • **Stream Processors:** 2304 • **Game Frequency:** Up to 1560 MHz
RAM Memory	32 GB DDR4 • **Capacity:** 32 GB (2x16 GB or 4x8 GB) • **Speed:** Recommended 3200-3600 MHz • **Type:** DDR4 • **Latency:** CL16 or better
Recommended Use	• Gaming at 1080p/1440p • Streaming and multimedia content • Office work and multitasking • Basic photo/video editing

2 Backup Configuration

2.1 Technical Specifications

Component	Specifications
Processor (CPU)	AMD Ryzen 7 7700X • **Cores/Threads:** 8 cores / 16 threads • **Base Frequency:** 4.5 GHz • **Max Boost Frequency:** 5.4 GHz • **L3 Cache:** 32 MB • **Architecture:** Zen 4 (5nm) • **TDP:** 105W • **Socket:** AM5
Graphics Card (GPU)	NVIDIA GeForce RTX 4070 • **Architecture:** Ada Lovelace • **Memory:** 12 GB GDDR6X • **Memory Speed:** 21 Gbps • **Memory Bandwidth:** 504 GB/s • **CUDA Cores:** 5888 • **Boost Frequency:** Up to 2475 MHz • **DLSS:** Yes (DLSS 3) • **Ray Tracing:** 3rd Generation
RAM Memory	32 GB DDR5 • **Capacity:** 32 GB (2x16 GB) • **Speed:** 5200-6000 MHz recommended • **Type:** DDR5 • **Latency:** CL30-CL36
Recommended Use	• 4K gaming and high refresh rate 1440p • Professional content creation • Video editing and 3D rendering • Streaming at highest quality • AI and machine learning tasks

3 Power Backup System

3.1 Uninterruptible Power Supply (UPS)

Component	Specifications
Device Type	Line-Interactive UPS • **Correct Name:** Uninterruptible Power Supply (UPS) • **Common Brands:** APC, CyberPower, Eaton, Tripp Lite • **Also known as:** Power Backup, Battery Backup, Power Braker (informal term)
Key Specifications	• **Backup Time:** 8 hours at half load • **Capacity:** 1500VA / 900W minimum (recommended) • **Battery Type:** Sealed lead-acid (SLA) or Lithium-ion • **Output:** Pure sine wave (recommended for sensitive electronics) • **Connections:** 6-10 outlets with surge protection • **Management:** USB/Network connectivity for monitoring
Estimated Runtime	• **Main Configuration (5600X + RX 5600):** – Idle/Office use: 8+ hours – Gaming load: 2-3 hours – Peak load: 1-2 hours • **Backup Configuration (7700X + RTX 4070):** – Idle/Office use: 6-7 hours – Gaming load: 1.5-2.5 hours – Peak load: 1-1.5 hours
Features Required	• Automatic Voltage Regulation (AVR) • Cold-start capability • Replaceable batteries • Audible alarms and status indicators • Software for safe shutdown • Data line protection (Ethernet, Coaxial)