

## Apevia ATX-PM850W PCIE5

# Apevia ATX-PM850W Premier 850W 80+ Gold Semi-Modular Power Supply User Manual

Model: ATX-PM850W PCIE5

## 1. INTRODUCTION

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This manual provides essential information for the installation, operation, and maintenance of your Apevia ATX-PM850W Premier 850W 80+ Gold Certified Semi-Modular Power Supply. This power supply is designed for personal computers, offering 850 watts of stable power with 80 PLUS Gold efficiency. It features ATX 3.0 and PCIe 5.0 readiness, including a 12VHPWR 12+4 (16-pin) GPU connector, and an auto-thermally controlled 135mm RGB fan with 366 lighting modes.

## 2. SAFETY INFORMATION

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- **High Voltage:** The power supply contains high voltage components. Do not open the power supply casing. Refer all servicing to qualified personnel.
- **Power Disconnection:** Always disconnect the power cord from the wall outlet before installing, removing, or cleaning the power supply.
- **Proper Grounding:** Ensure your computer system is properly grounded to prevent electrical shock.
- **Ventilation:** Do not block the ventilation openings of the power supply. Ensure adequate airflow to prevent overheating.
- **Moisture:** Keep the power supply away from water, humidity, and other liquids.
- **Operating Environment:** Operate the power supply in a stable environment, away from extreme temperatures and direct sunlight.

## 3. PACKAGE CONTENTS

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Verify that all components are present in your package:

- Apevia ATX-PM850W Premier 850W Power Supply Unit
- Modular Cables (as listed below)

- AC Power Cord
- Mounting Screws

**Included Modular Cables:**

- 1 x 20/24-pin Main Power Connector
- 2 x P8 (4+4P) EPS 12V Connectors
- 1 x PCIe 5.0 / Gen 5 12VHPWR 12+4 (16-pin) GPU Connector
- 4 x SATA Power Connectors
- 4 x 8 (6+2)-pin PCI-E Connectors
- 4 x Peripheral (Molex) Connectors
- 1 x Floppy Connector

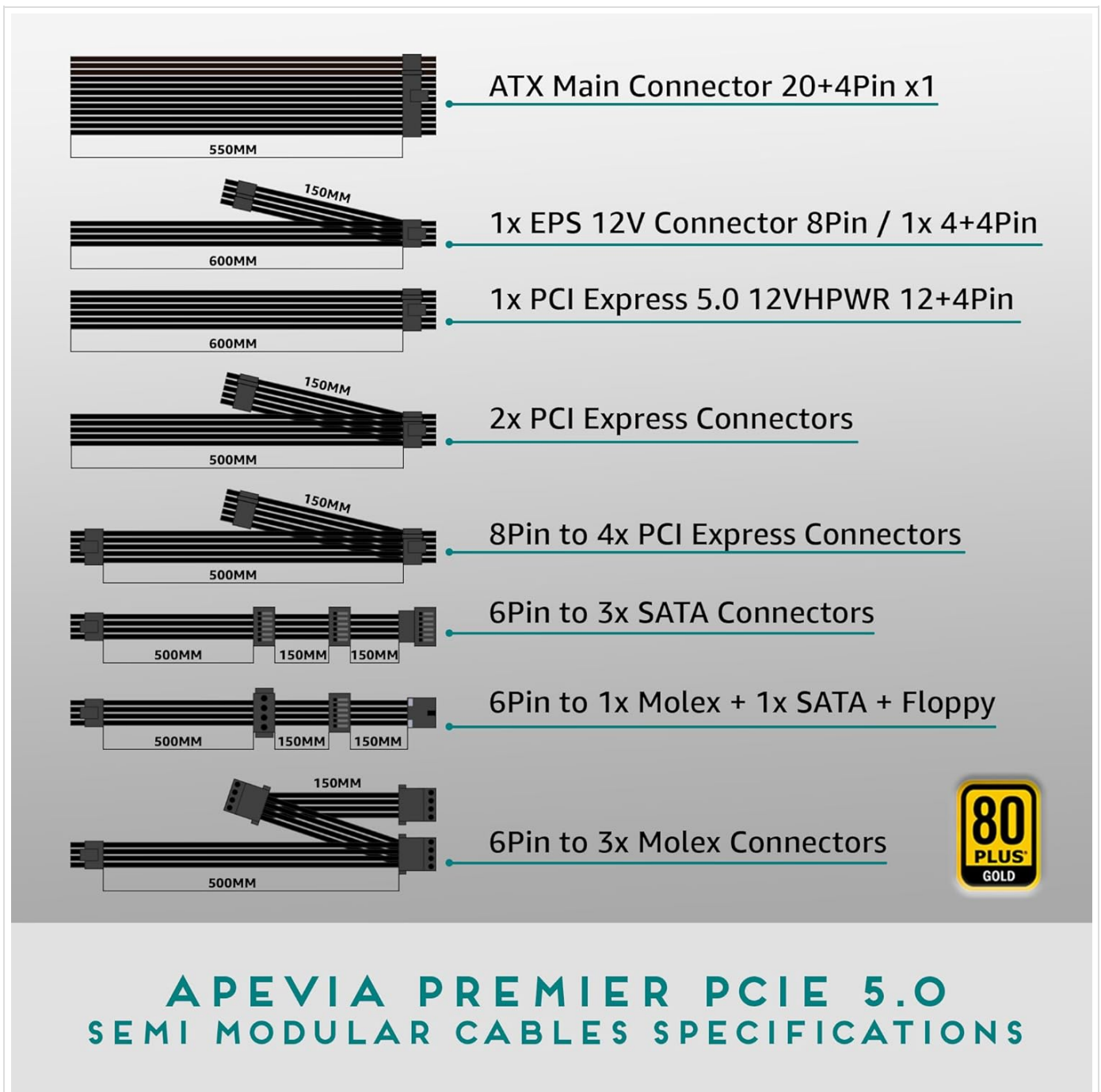


Figure 3.1: Modular Cable Specifications

This image displays the various modular cables provided with the power supply, including the ATX Main, EPS 12V, PCIe

5.0 12VHPWR, standard PCIe, SATA, Peripheral, and Floppy connectors, along with their approximate lengths.

## 4. SETUP AND INSTALLATION

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Follow these steps to install your power supply:

1. **Prepare Your System:** Ensure your computer is completely powered off and unplugged from the wall outlet. Open your computer case.
2. **Remove Old PSU (if applicable):** Disconnect all cables from your old power supply and remove it from the case.
3. **Install New PSU:** Carefully place the Apevia ATX-PM850W power supply into the designated PSU bay in your computer case. Secure it with the provided mounting screws.
4. **Connect Essential Cables:** Connect the 20/24-pin Main Power cable to your motherboard. Connect the 4+4-pin EPS 12V cable(s) to your motherboard's CPU power connector(s).
5. **Connect Component Cables:** Based on your system's components (graphics card, SSDs, HDDs, etc.), select the necessary modular cables (PCIe, SATA, Peripheral) and plug them into the corresponding ports on the power supply and your components. For PCIe 5.0 graphics cards, use the dedicated 12VHPWR connector.
6. **Cable Management:** Utilize the semi-modular design to connect only the cables you need, improving airflow and aesthetics within your case. Route cables neatly to avoid interference with other components or fans.
7. **Close Case and Power On:** Once all connections are secure, close your computer case, plug in the AC power cord, and power on your system.



Figure 4.1: Power Supply with Modular Cables

This image illustrates the Apevia ATX-PM850W power supply unit along with its semi-modular cables, including the crucial 12VHPWR cable for modern graphics cards, ready for installation.

## 5. OPERATING INSTRUCTIONS

The Apevia ATX-PM850W power supply operates automatically once installed and connected. It features an auto-thermally controlled 135mm RGB fan that adjusts its speed based on the power supply's temperature, ensuring optimal cooling and quiet operation.

### RGB Lighting Control:

The power supply includes a button on the back panel to cycle through 366 different RGB lighting modes. Press this button to change the lighting effect or turn the RGB lighting off. Available modes include RGB Cycle, Breathe Cycle, Breathe Mode, RGB Mode, and various solid colors such as Red, Blue, Green, Pink, Orange, and White.



**12X VIBRANT LED LIGHTS**

**80 PLUS GOLD**

**3 YEARS WARRANTY**

**INCLUDES A 135MM SILENT, AUTOMATICALLY THERMAL FAN SPEED-CONTROLLED RGB FAN WITH 366 RGB LIGHTING MODES.**

Figure 5.1: RGB Fan Lighting

This image provides a detailed view of the power supply's 135mm RGB fan, highlighting the twelve vibrant LED lights that produce the various lighting effects.

## 6. MAINTENANCE

To ensure the longevity and optimal performance of your power supply, consider the following maintenance tips:

- **Dust Removal:** Periodically clean the power supply's fan and ventilation grilles to prevent dust buildup, which can impede airflow and lead to overheating. Use compressed air for best results. Ensure the power supply is unplugged before cleaning.
- **Cable Inspection:** Occasionally check all connected cables to ensure they are securely seated and free from damage.
- **Environment:** Maintain a clean and well-ventilated environment for your computer system.

## 7. TROUBLESHOOTING

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If you encounter issues with your power supply, refer to the following common troubleshooting steps:

- **No Power:**

- Ensure the AC power cord is securely plugged into both the power supply and a working wall outlet.
- Check that the power switch on the back of the PSU is in the 'ON' position.
- Verify all internal power cables (20/24-pin, EPS 12V, PCIe) are correctly connected to the motherboard and components.
- Test the wall outlet with another device to confirm it has power.

- **System Instability/Random Shutdowns:**

- This power supply includes heavy-duty protections (Short-Circuit, Over-Voltage, Over-Power, Under-Voltage). If these protections are triggered, the PSU may shut down to prevent damage.
- Ensure your system's power requirements do not exceed the 850W capacity of the PSU.
- Check for proper ventilation within your PC case to prevent overheating of components, which can lead to instability.
- If issues persist, consult a qualified technician.

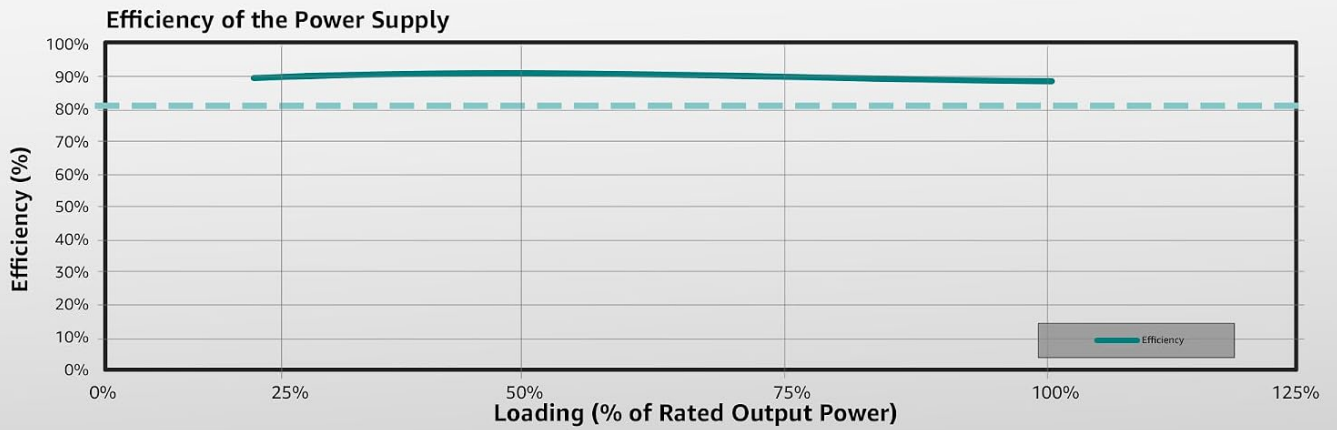
- **RGB Fan Not Lighting Up:**

- Press the RGB control button on the back of the PSU to cycle through modes and ensure it's not in 'Off Mode'.
- Ensure the PSU is receiving power.

## 8. SPECIFICATIONS

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Feature	Specification
Model Name	ATX-PM850W PCIE5
Brand	Apevia
Output Wattage	850 Watts
Efficiency Certification	80 PLUS Gold
Form Factor	ATX
PFC Type	Active PFC
Cooling Method	Air (135mm RGB Fan)
Power Supply Design	Semi-Modular
Input Voltage	110-230 Volts (Auto-sensing)
Dimensions (L x W x H)	6.2 x 5.9 x 3.4 inches
Protections	Short-Circuit (SCP), Over-Voltage (OVP), Over-Power (OPP), Under-Voltage (UVP)
GPU Connector	PCIe 5.0 / Gen 5 12VHPWR 12+4 (16-pin)
Capacitor Type	Large Japanese Capacitor



#### 80 PLUS Verification and Testing Report

<b>TYPICAL EFFICIENCY (50% Load):</b>	<b>90.94%</b>
<b>AVERAGE EFFICIENCY:</b>	<b>89.66%</b>
<b>80 PLUS COMPLIANT:</b>	<b>YES</b>



# APEVIA PREMIER PCIe 5.0 80+ GOLD CERTIFIED RESULTS

Figure 8.1: 80 PLUS Gold Efficiency Verification

This graph illustrates the power supply's efficiency performance across different load percentages, demonstrating its compliance with 80 PLUS Gold standards, with typical efficiency at 50% load being 90.94% and average efficiency at 89.66%.

**APEVIA 850W PREMIER RGB POWER**

AC Input	100-240VAC, 10A / 5A, 50-60Hz				
DC Output Voltage	+3.3V	+5V	+12V	-12V	+5Vsb
Max Output Current	20A	20A	70.8A	0.3A	3A
Combined Power	100W		850W	3.6W	15W
Total Power	850W				

ATX-PM850W ATX3.0 / PCIe5.0 PREMIER850W

**80 PLUS GOLD**

**80 PLUS GOLD**

**FULL MODULAR Design**

**12VHPWR connector**

**100% JAPANESE CAPACITORS**

**366 MODES RGB LIGHTING**

**ATX 3.0 READY**

**PCI-e 5.0 READY**

**STABLE & RELIABLE POWER SUPPLY**  
 INCLUDES HEAVY DUTY PROTECTIONS SUCH AS OVP (OVER VOLTAGE PROTECTION), OPP (OVER POWER PROTECTION), SCP (SHORT CIRCUIT PROTECTION)

Figure 8.2: DC Output Table

This image presents a table outlining the DC output specifications, including voltage, maximum current, and combined power for each rail (+3.3V, +5V, +12V, -12V, +5Vsb), confirming the total power output of 850W.

## 9. WARRANTY INFORMATION

The Apevia ATX-PM850W Premier Power Supply comes with a **1-year limited warranty** from the date of purchase. This warranty covers defects in materials and workmanship under normal use. It does not cover damage caused by improper installation, accidents, abuse, misuse, natural disasters, or unauthorized modifications. Please retain your proof of purchase for warranty claims.

## 10. SUPPORT

For technical support, troubleshooting assistance, or warranty inquiries, please visit the official Apevia website or contact their customer service department. Refer to the product packaging or the Apevia website for the most current contact

information.

**Apevia Official Website:** [Visit the Apevia Store on Amazon](#)