Optimization For Noise Problem On ED-IPC3020 & ED-HMI3020

EDA Technology Co., LTD

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Contact Us

Thank you very much for purchasing and using our products, and we will serve you wholeheartedly.

As one of the global design partners of Raspberry Pi, we are committed to providing hardware solutions for IOT, industrial control, automation, green energy and artificial intelligence based on Raspberry Pi technology platform.

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Foreword

Reader Scope

This manual is applicable to the following readers:

◆ Mechanical Engineer

◆ Electrical Engineer

◆ Software Engineer

◆ System Engineer

Related Agreement

Symbolic Convention

Symbolic	Instruction
	Prompt symbols, indicating important features or operations.
	Notice symbols, which may cause personal injury, system damage, or signal interruption/loss.
	Warning symbols, which may cause great harm to people.

Safety Instructions

◆ This product should be used in an environment that meets the requirements of design specifications, otherwise it may cause failure, and functional abnormality or component damage caused by non-compliance with relevant regulations are not within the product quality assurance scope.

◆ Our company will not bear any legal responsibility for personal safety accidents and property losses caused by illegal operation of products.

◆ Please do not modify the equipment without permission, which may cause equipment failure.

◆ When installing equipment, it is necessary to fix the equipment to prevent it from falling.

◆ If the equipment is equipped with an antenna, please keep a distance of at least 20cm from the equipment during use.

◆ Do not use liquid cleaning equipment, and keep away from liquids and flammable materials.

◆ This product is only supported for indoor use.

Content

1 Problem Description

This chapter introduces the phenomenon of noise problem and the involved product models.

- ✓ Phenomenon

- ✓ Involved Product

1.1 Phenomenon

When using the ED-IPC3020 and ED-HMI3020 series products, if the audio input, audio output and built-in speaker are used, noise problems may occur when playing audio and recording.

1.2 Involved Product

The products involved in the noise issue include ED-IPC3020, ED-HMI3020-070C and ED-HMI3020-101C.

2 Solution

For the noise problem, our company supports the optimization through online installation of Deb packages to solve this problem. And the operations for the standard Raspberry Pi OS and default operating system (provided by EDATEC) are different. The specific operation steps on the two operating systems are introduced below.

- ✓ Applying To Default Operation System

- ✓ Applying To Standard Raspberry Pi OS

2.1 Applying To Default Operation System

If the device is using the factory default operating system (provided by EDATEC), you can refer to the following steps to optimize the system to solve the noise problem.

Preparation:

◆ The device has been started normally.

◆ A functioning mouse and keyboard have been connected, and an HDMI monitor has been connected.

Steps:

1. Execute the following commands in the command pane to update the information of apt source.

```
sudo apt update
```

2. Execute the following command to install the Deb package.

```
sudo apt install ed-noises-overlays -y
```

3. Execute the following command to reboot the device, which makes the installed Deb package to take effect.

```
sudo reboot
```

2.2 Applying To Standard Raspberry Pi OS

If the device is using the standard Raspberry Pi OS, you can refer to the following steps to optimize the system to solve the noise problem.

Preparation:

◆ The device has been started normally.

◆ A functioning mouse and keyboard have been connected, and an HDMI monitor has been connected.

Steps:

1. Execute the following commands in the command pane to add the apt source.

   ```
   curl -sS https://apt.edatec.cn/pubkey.gpg | sudo apt-key add -

   echo "deb https://apt.edatec.cn/raspbian stable main" | sudo tee \
   /etc/apt/sources.list.d/edatec.list
   ```

2. Execute the following commands in the command pane to update the information of apt source.

   ```
   sudo apt update
   ```

3. Execute the following command to install the kernel package.

   ```
   sudo apt install -y ed-linux-image-6.1.58-2712

   curl -s 'https://apt.edatec.cn/downloads/202403/kernel-change.sh' | sudo bash -s \
   6.1.58-rpi7-rpi-2712
   ```

4. Execute the following command to install the Deb package.

   ```
   sudo apt install ed-noises-overlays -y
   ```

5. Execute the following command to reboot the device, which makes the installed Deb package to take effect.

   ```
   sudo reboot
   ```

Software Optimization   2-3