

source Image

<https://joshua-riek.github.io/ubuntu-rockchip-download/boards/orangepi-5-plus.html>

✅ STEP 1: Make sure MPP is installed and /dev/mpp\* exists  
Run this to see if MPP is active:

```
lsmod | grep mpp
```

If nothing is returned, then load the modules manually:

```
sudo modprobe mpp_rkvdec
```

```
sudo modprobe mpp_rkvenc
```

```
sudo modprobe mpp_vepu
```

Then check for:

```
ls /dev/mpp*
```

If /dev/mpp\_service or /dev/mpp\* appears, you're good.

If not:

You may need to recompile or install the kernel drivers or ensure that rockchip-mpp is installed correctly and matched to your kernel.

✅ STEP 2: Compile FFmpeg with Rockchip MPP

Ubuntu packages do not include rkmp support by default. You'll need to compile FFmpeg manually with Rockchip MPP support.

Example FFmpeg build (with rkmp):

```
sudo apt install -y \  
  build-essential yasm cmake git libssl-dev \  
  libdrm-dev libv4l-dev libx264-dev pkg-config libva-dev
```

```
# Clone FFmpeg
```

```
git clone https://git.ffmpeg.org/ffmpeg.git ffmpeg  
cd ffmpeg
```

```
# Configure with MPP
```

```
./configure \  
--prefix=/usr/local \  
--enable-gpl \  
--enable-version3 \  
--enable-nonfree \  
--enable-libdrm \  
--enable-libx264 \  
--enable-rkmpp \  
--enable-libv4l2 \  
--disable-debug
```

```
make -j$(nproc)
```

```
sudo make install
```

Ensure that librockchip-mpp-dev and the MPP user-space libraries are installed (you may need to build mpp and rkmpp-ffmpeg from source for full support).

### ✓ STEP 3: Verify rkmpp availability

After installing:

```
ffmpeg -encoders | grep rkmpp
```

# Should show: h264\_rkmpp, hevc\_rkmpp, etc.

```
ffmpeg -decoders | grep rkmpp
```

And /dev/mpp\_service or similar must be present and accessible.

### ✓ Optional: Test encoding

Example test command:

```
ffmpeg -i input.mp4 -c:v h264_rkmpp -b:v 2M -y output.mp4
```