

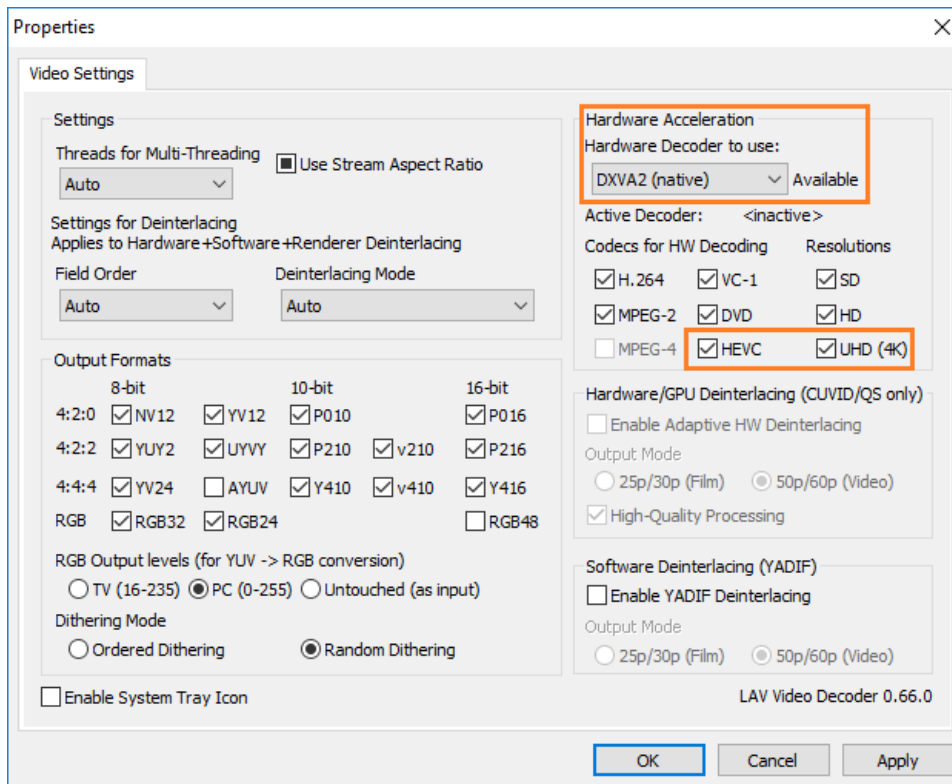
Surround Sound Setup Guide for NUC

This guide will show the recommend method to setup surround sound through bitstreaming. Bitstreaming is the process whereby the NUC sends an un-encoded digital signal to an A/V receiver, to which the receiver will decode the signal, not the NUC, and often produces better quality sound, depending on the receiver.

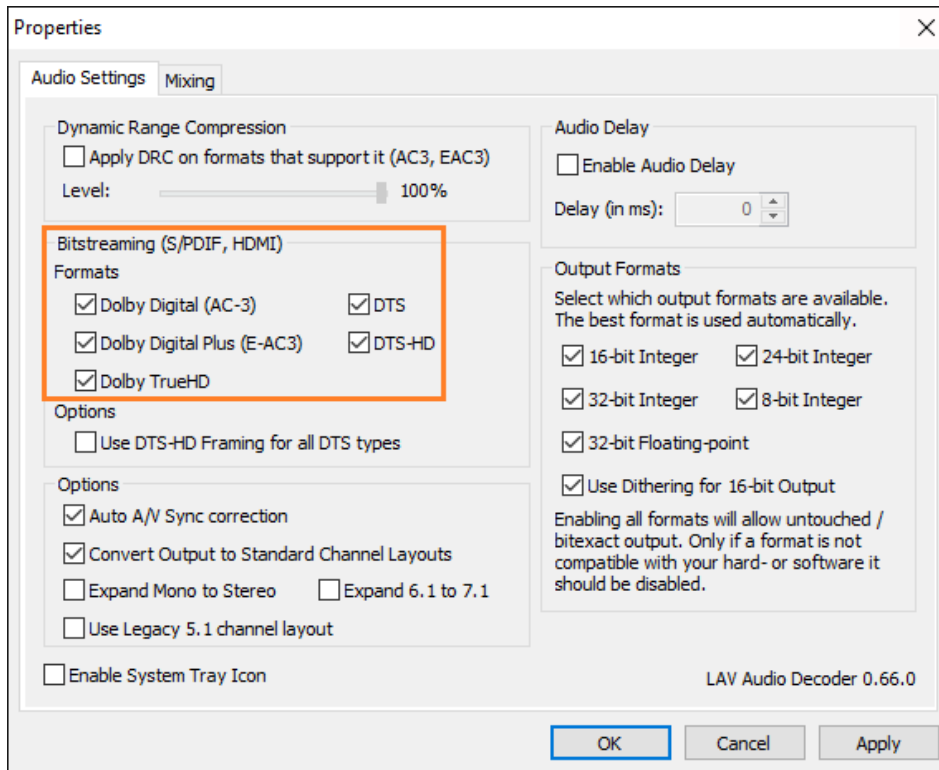
What is Needed:

- AV Receiver with HDMI or TOSLINK (SPDIF), if using optical audio
 - Surround speakers (5.1 or 7.1)
 - 2 HDMI cables or a TOSLINK cable (a mini DisplayPort to HDMI cable can also be used from the NUC to the Receiver)
 - HDMI display, keyboard, mouse
 - NUC running Windows*
 - Media Player Classic* (<https://mpc-hc.org/>)
1. Download and install the latest Intel® graphics drivers (<https://downloadcenter.intel.com/>)
 2. Connect the HDMI or mini DisplayPort cable from the NUC to an HDMI input of the AV receiver. If using TOSLINK on the NUC, connect the NUC's TOSLINK output to a TOSLINK input on the receiver.
 3. Start Windows* and download and install Media Player Classic* (MPC-HC) (<http://mpc-hc.org/downloads/>)
 4. Open MPC-HC. On the Menu bar, click **View**, then **Options**.
 5. On the left side menu tree, click on **Internal Filters**, then click on **Video Decoder** (on the bottom of the screen).
 6. It's suggested that Hardware Acceleration be used, especially if 4K content is played, choose a **Hardware Acceleration** option, then click OK.

7. If 4K or HEVC (h.265) content is going to be played, also select, **HEVC**, and **UHD (4K)**.

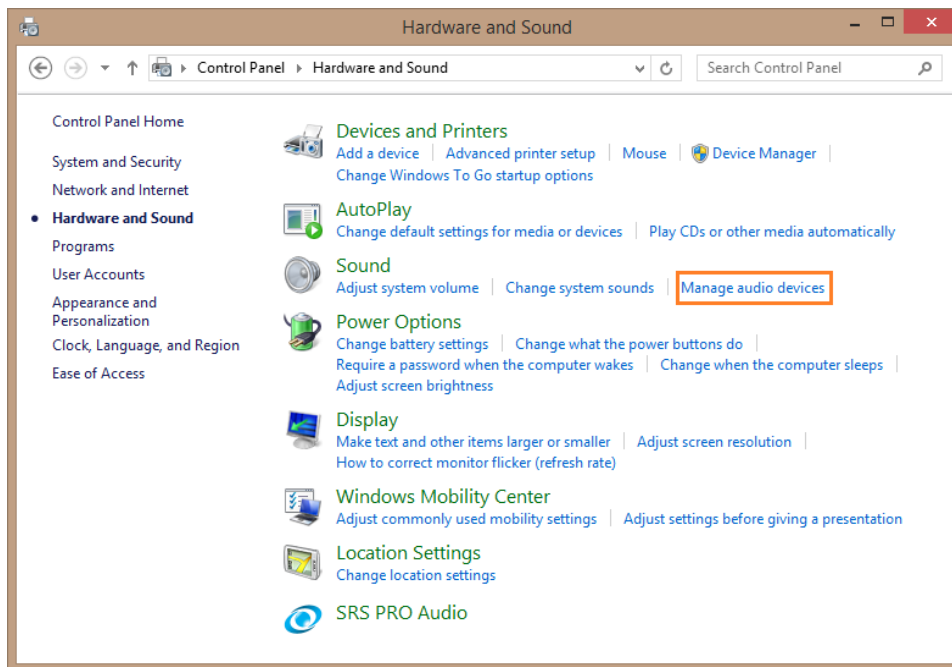


8. Click Audio Decoder and select the formats that the receiver supports. For the high quality uncompressed formats to work (if the receiver supports them) Dolby **TrueHD** and **DTS-HD** need to be selected. Click OK, and then OK again to leave the settings.

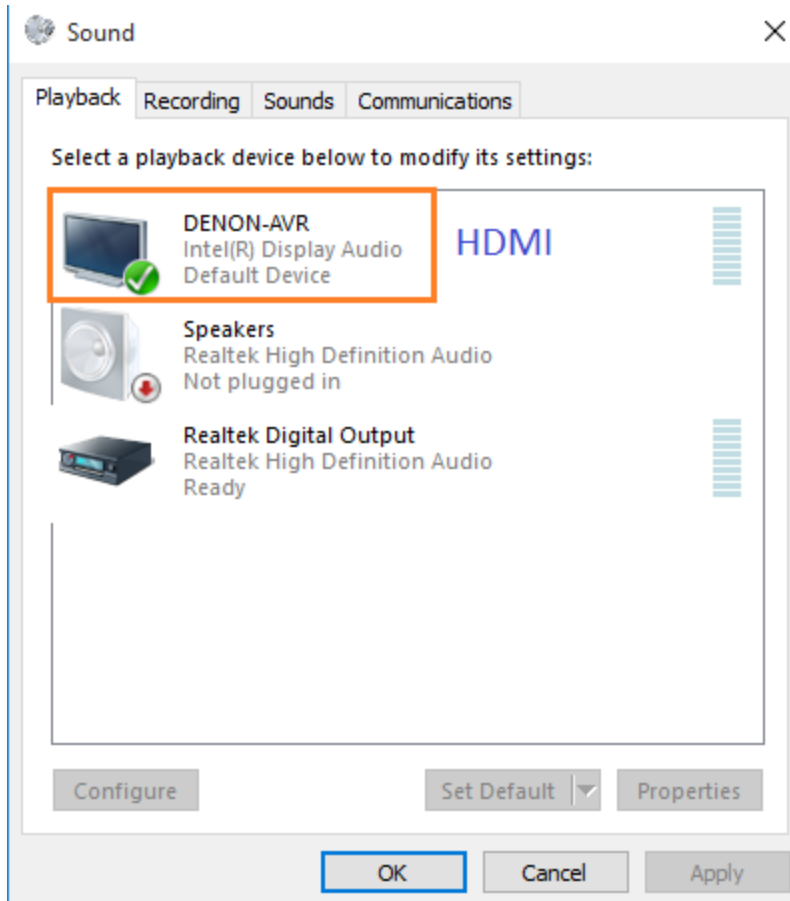


NOTE: Skip to step 17 if using Toslink.w

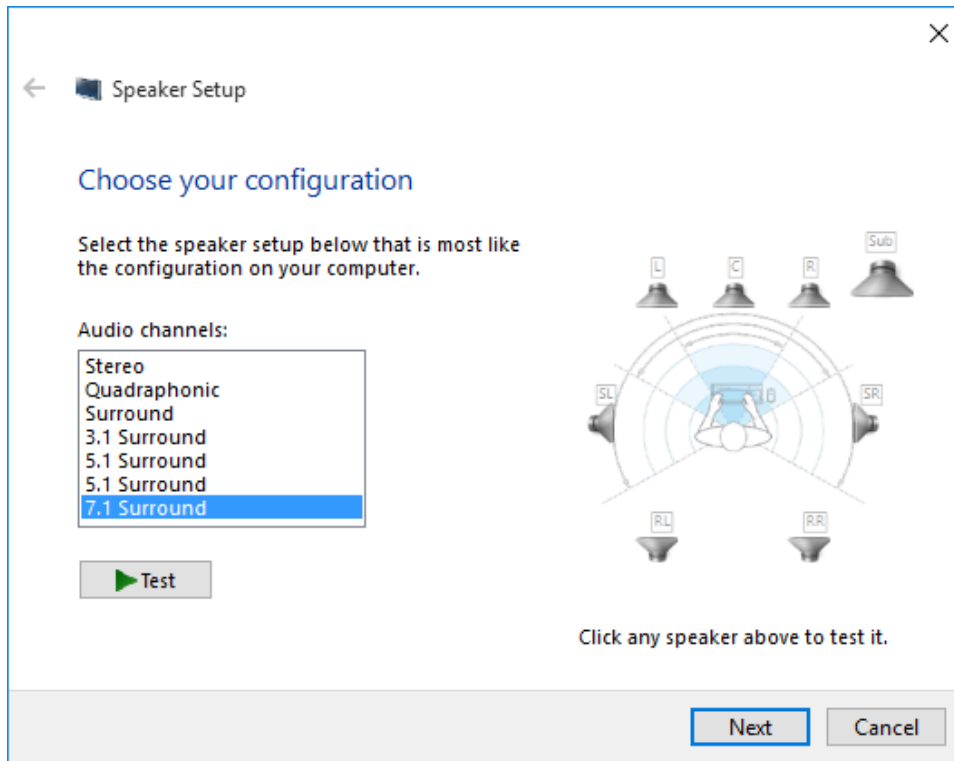
- Open Control Panel, click on **Hardware and Sound**, then click **Manage Audio Devices**:



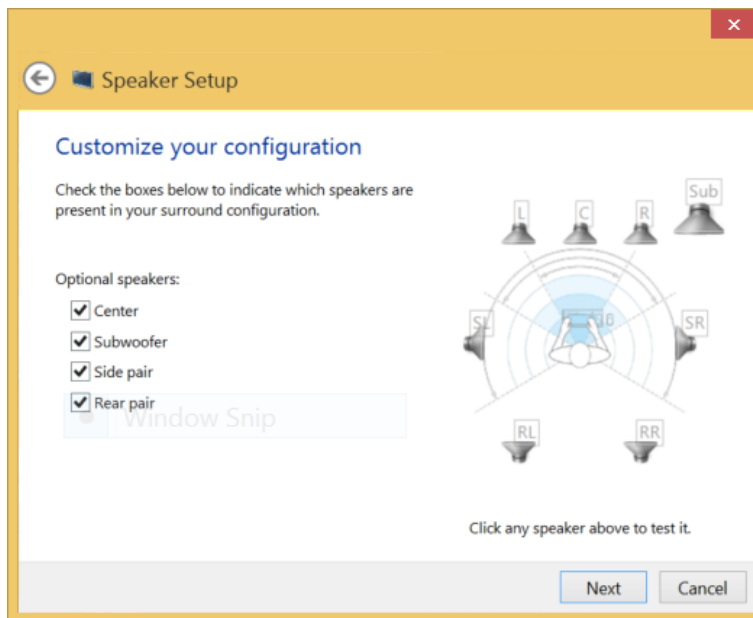
- To setup HDMI, click once on the applicable audio device then click on the **Configure** button.



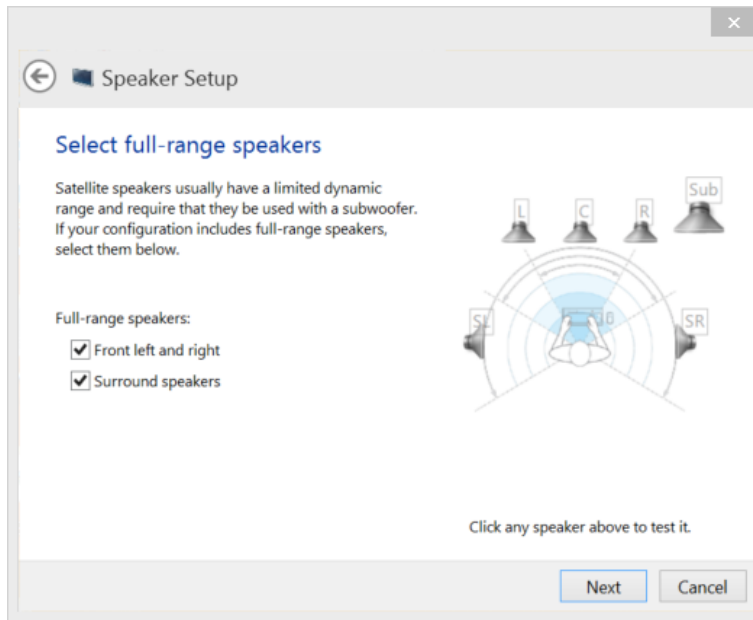
11. On the Speaker Setup window, click on the applicable version of surround (5.1 or 7.1), click Next.



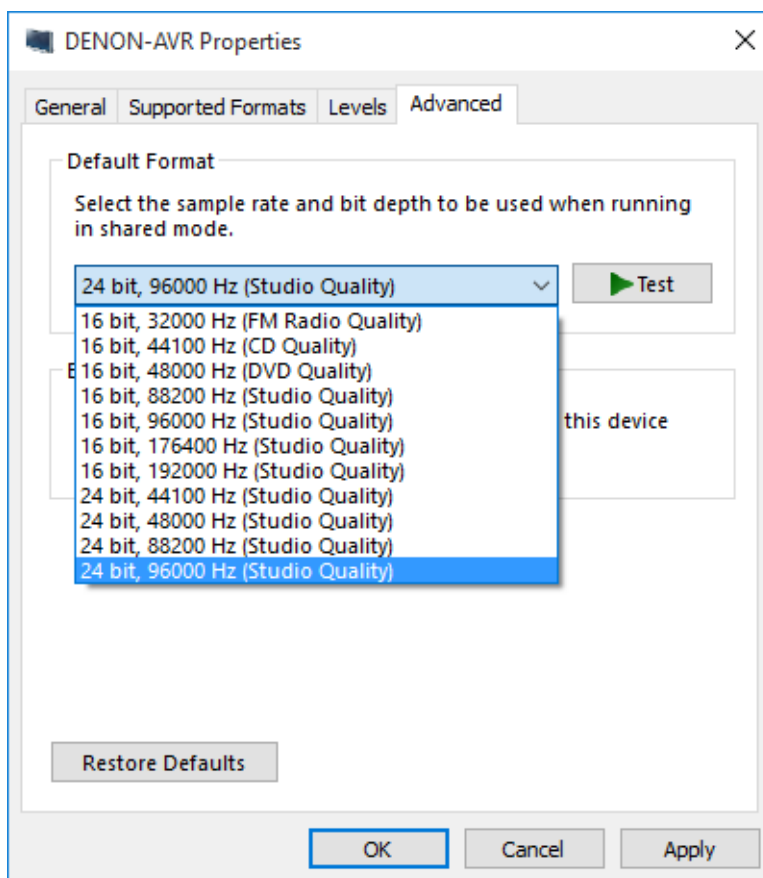
12. Select the appropriate speakers, click Next



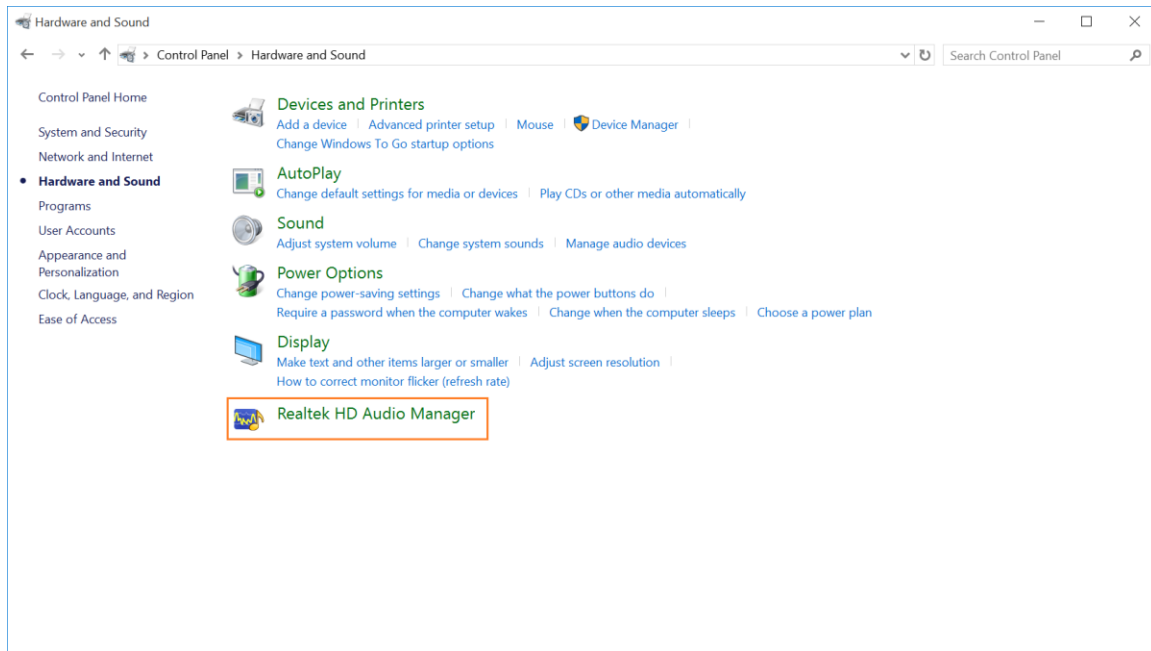
13. Select whether the speakers are Full Range, click Next, and then click Finish.



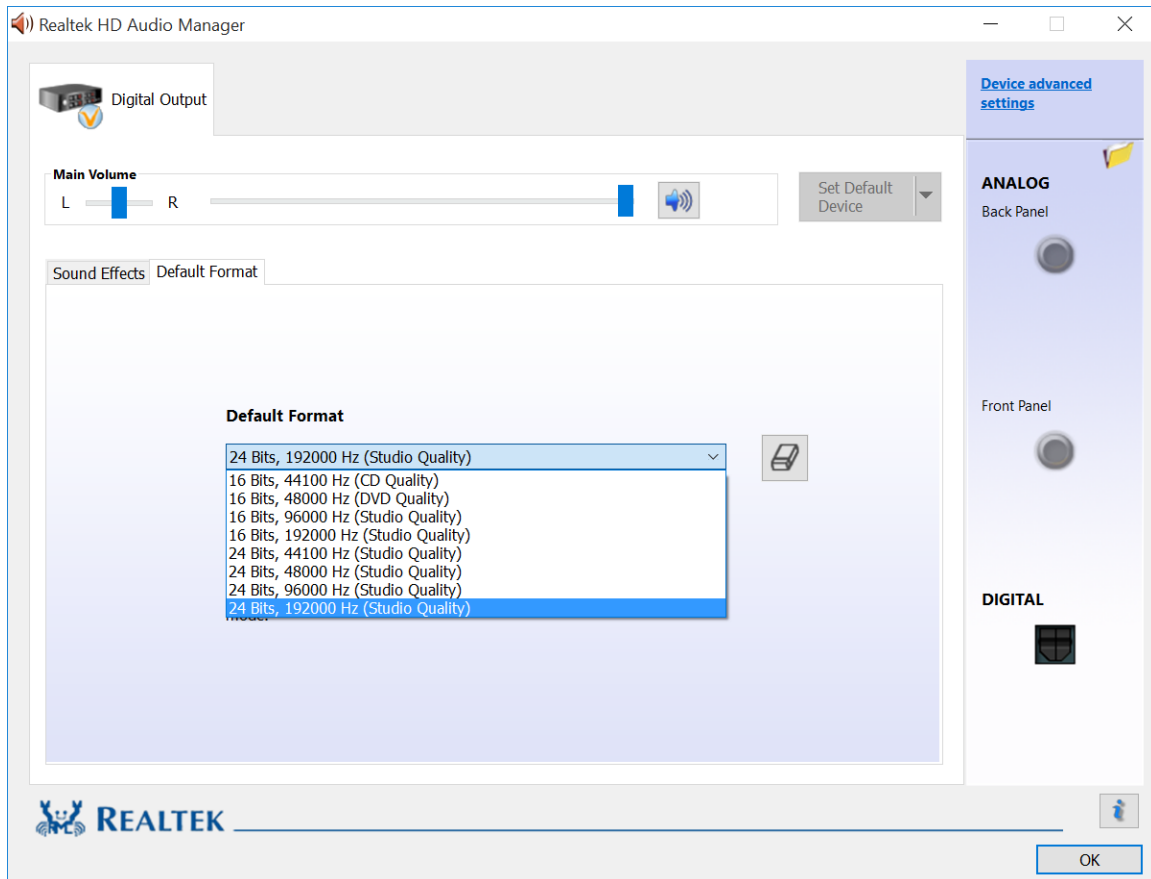
- For HDMI: To get the best quality audio output, double-click the device and click on the Advanced tab. Check that the **Default Format** is set to the highest bit rate and frequency supported.



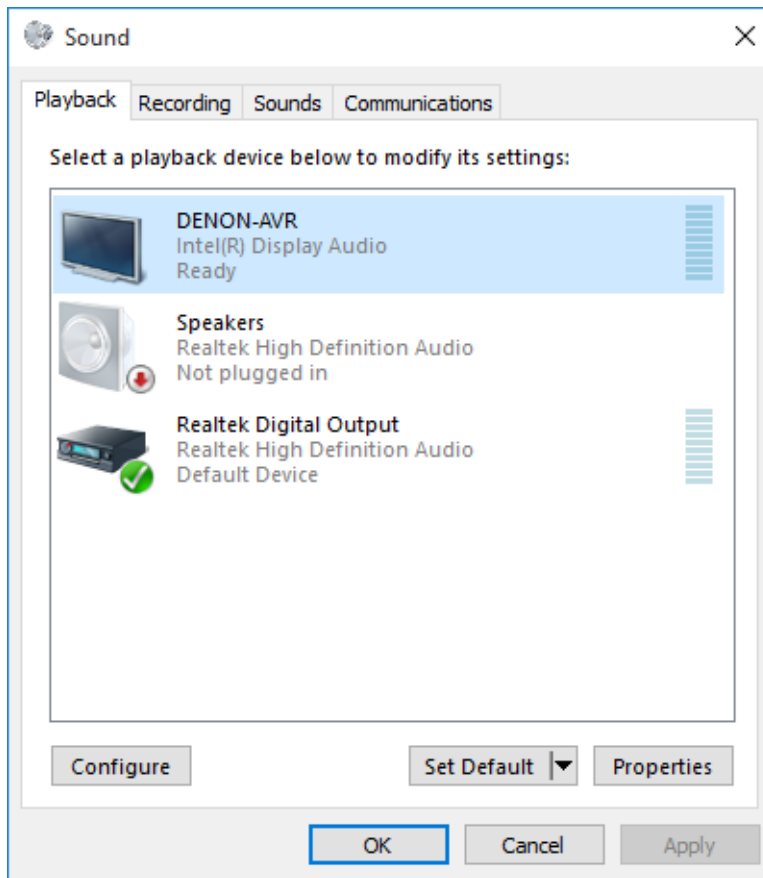
- For Toslink: Open the Control Panel, click on **Hardware and Sound**, and then click **Realtek HD Audio Manager**.



16. Select **Default Format**, and check that the **Default Format** is set to the highest bit rate and frequency supported.



17. Lastly, select the appropriate device and set it as the **Default Device**.



18. Change the AV Receiver's input to HDMI or TOSLINK (SPDIF), and play a surround sound file in Media Player Classic.

*Denotes Third party software.