

## HDMI 2.1 cable recommendations

With the latest TVs coming to the market we are extremely happy to be at the forefront introducing HDMI 2.1 certified processors and our customers. This latest HDMI generation also brings new requirements for installations handling 8K video over HDMI.

Please read and follow these suggestions, in order to get the most reliable performance from our Lyngdorf Audio and Steinway & Sons processors.

### 1 Certified HDMI Cables

Due to a new transmission system for HDMI 2.1, cables must feature the new HDMI ULTRA HIGH SPEED certification – confirmed by this label:



In order to guarantee the functionality, you can perform a quality control via the label - <https://www.hdmi.org/spec21Sub/UltraHighSpeedCable>

### 2 Optical HDMI Cables

The advice on HDMI ULTRA HIGH SPEED certification is on top of our general warning for HDMI cables utilizing optical cables to transmit the HDMI signal over longer distances. The converters in each end of such cables requires more power than available through the HDMI specifications. If you need to use such optical HDMI cables, make sure that the cable features a separate USB power supply – which you can connect to the USB ports of the processor.

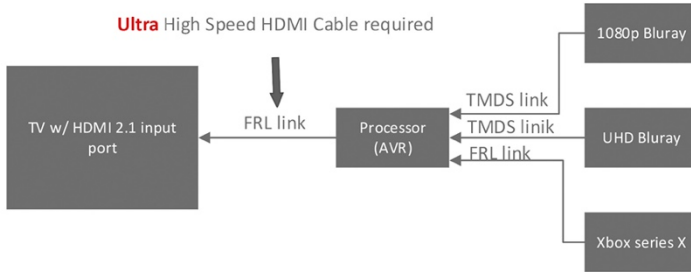
### 3 Interaction of HDMI devices

When AV devices are connected by HDMI it is actually not a directional stream of audio and video signals, but a network where all devices interact with each other, determining that every device and cable in the chain is authorized to transport the high bandwidth HDMI signal. This process is continuously repeated while the signal passes through the HDMI pathway.

Therefore it is required to have an HDMI 2.1 cable between the processor and TV even if you don't have an HDMI 2.1 source.

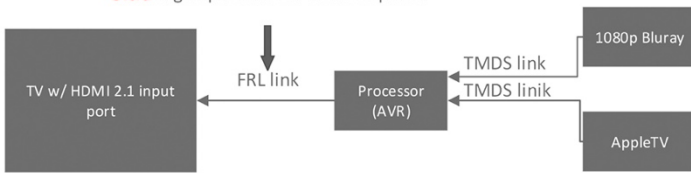
HDMI cables:  
**Ultra** High Speed HDMI Cable = HDMI 2.1 bandwidth (FRL link)  
 Premium High Speed HDMI Cable = HDMI 2.0 bandwidth (TMDS link)

**Ultra** High Speed HDMI Cable required



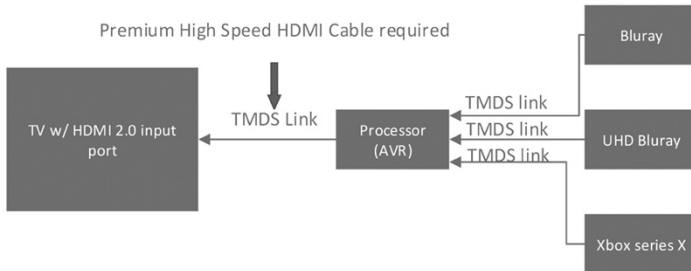
When the processor sees a HDMI 2.1 TV, it will connect to the TV with the highest possible link. That means often 40Gbps. That requires Ultra High Speed HDMI Cables. In this setup the link is always FRL (40Gbps) even when watching 1080p content from an old Blu-ray.

**Ultra** High Speed HDMI Cable required



HDMI 2.1 approved cables are required between TV and AVR - even if the sources are not HDMI 2.1 sources and requiring this bandwidth.

Premium High Speed HDMI Cable required



Only if the TV does not have HDMI 2.1 inputs, can HDMI 2.0 cables be used.