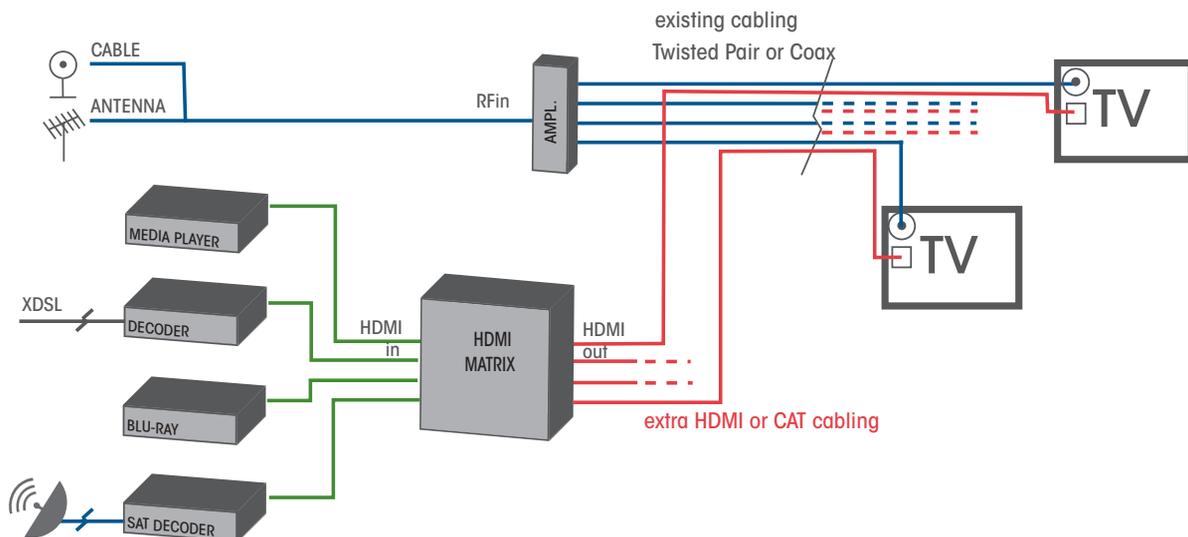


Multiroom HDMI : modulator or matrix ?

What is the essential difference between an HDMI matrix and an HDMI modulator?

An **HDMI matrix** will switch HDMI-inputs (the sources) to HDMI outputs (the TV sets).

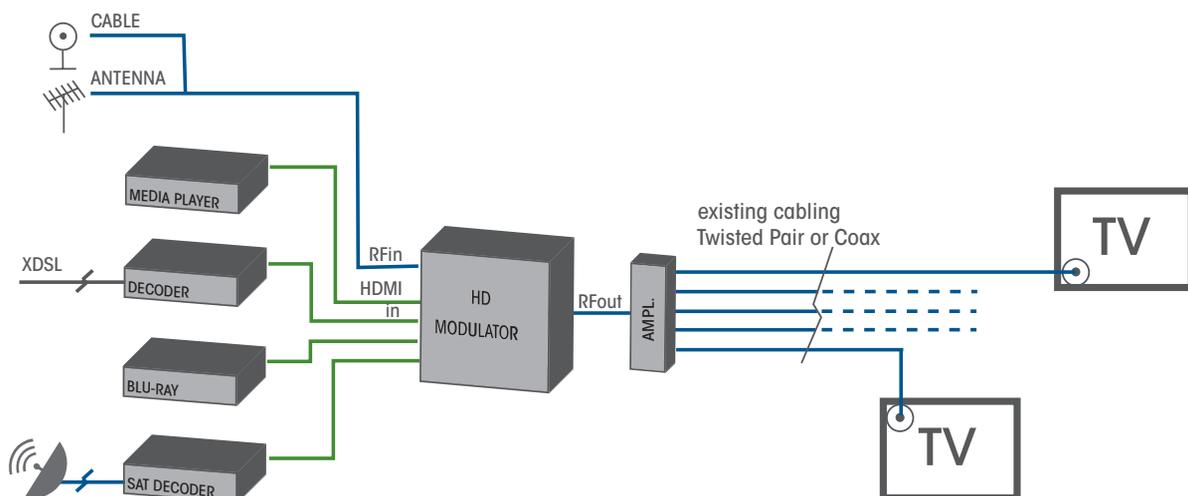
This means that these HDMI-output signals require extra cabling, suitable for the transportation of HDMI signals to the HDMI-inputs of your television sets.



An **HDMI-modulator** will transform each HDMI input signal to an RF ("antenna") signal.

This does not require dedicated cabling and can be distributed over the standard, existing television cabling in your house. You will be able to look at every HDMI-source in Full HD on every connected television set. Simply consider your HDMI-source as an additional, normal TV-channel.

AN HDMI-modulator is a robust, easy to install and to use and economic alternative to HDMI matrix switching. The cost will be cut by half and no extra special cabling is needed.



Opting for an HDMI-modulator and transformation of the HDMI input signal to RF offers you several advantages.

Number of sources and televisions that can be connected.

An HDMI-modulator and matrix both have the limitation of a fixed maximal number of HDMI-sources that can be connected.

In case of a matrix the HDMI-outputs are also limited to a fixed number. As every matrix-output has to be connected by a separate HDMI-extension/cable to the HDMI-input of your television set, the number of TV sets that can be connected will also be limited. It will be function of the chosen matrix. Adding extra television sets will require a significant extra investment, or lead as is often the case, to use an oversized matrix for your needs.

An HDMI modulator on the other hand, has only one RF-output. Every HDMI-input will be assigned to an RF channel. After the modulator you can treat your HDMI-source as an extra, ordinary TV program. It will enter your television set through the RF input, just like all the others. This means that the number of television sets you can connect with your HDMI-sources is almost unlimited.

Cabling

As has been said before, the RF output of your modulator doesn't need special cabling. The normal TV-cabling in place (coax or twisted pair) will do. No need of extra HDMI-extensions, no need of extra or special cabling.

If you can watch an ordinary TV-program, you can watch the program coming from your media player or any other HDMI-source. This easily reduces the cabling budget by half.

Operation

Using a modulator is a piece of cake. The modulator itself doesn't need control signals, the output is a continuous stream that includes all the connected sources. The only things you need to control are your HDMI-source itself and the television set.

You choose the HDMI-source you want to watch by selecting the appropriate TV channel. You can keep using the dedicated remote controls of your source and TV, or use one universal programmable remote control.

Installation and programming

As you do not need a separate HDMI link for each television when using a modulator, the physical installation will be a lot easier and cheaper. No need for extra or new cabling.

Setting up and programming the HDMI modulator is very easy.

Install the graphic user interface that comes with the modulator on your laptop, name your HDMI-sources and allocate them to a frequency channel. Basically, that's all you have to do. Your TV set will execute an automatic channel scan and your HDMI-sources will be part of the program list.

The fact that the modulator itself does not need any special commands, means that the programming of a universal remote control will be a lot easier. You are only working on 2 levels (TV and Source) instead of 3 levels when using a matrix (TV, Matrix, Source).

Should anything go wrong, it will be a lot easier to locate and fix the problem.

Connection to your TV

The modulator uses the RF-input of your television set. All HDMI-inputs on your set will be available for local use.

Budget

An HDMI modulator is a robust and economic alternative to HDMI matrix switching. The costs for equipment, installation and maintenance will be cut in half.

Picture perfect

And quality will certainly not spoil the fun: the state-of-the-art H.264 video encoder delivers a faultless sharp and vibrant Full HD 1080i or 1080p image, usually a lot better than what you get from broadcast TV providers. Even TV technical experts cannot visually distinguish the picture quality between the original HDMI and the modulated signals.

Distribution distances

Depending on the quality of cable used and the number of channels transmitted, a maximum reach between 100m and 250m is obtained without image quality loss.

Robert Laes Abitana NV
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