Thank you for purchasing the Blauhaus HD1090 HDMI Digital Modulator.
This modulator can take up to a 1080P HDMI signal, and convert it to a 1080P DVB-T MPEG4 RF Signal.
This signal can then be combined with your free to air (FTA) antenna signal and distributed to multiple TVs.

Installation Information

20dB Attenuator

If your installation has a small number of TVs (<12), you may need to use the 20dB Attenuator supplied.
The average TV digital tuner has a maximum signal input level of 70-80dBμV. The RF output level on the
modulator is high (93dBμV) and in a small installation, the signal level at the TV point may exceed the
maximum and end up with pixelation or no picture at all. We advise to screw the 20dB attenuator inline on
the RF OUT connector on the modualtor. This will give you a more managable signal level.

The following are installation schematics for difference scenarios

1. Basic Install - no combined FTA - *If going to a large number of TVs, remove 20dB attenuator*

Use RF OUT from Modulator

HDMI SOURCE	HDMI Modulator	20dB Atten	3 Way Splitter	TV1
				TV2
				TV3

use any no. of splitters
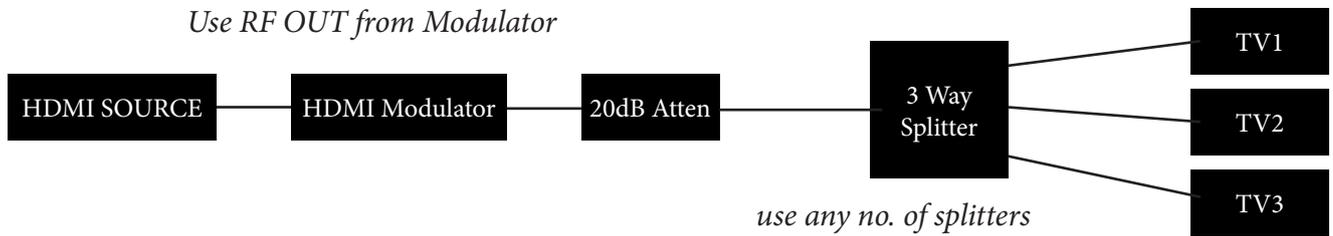
2. Combine with FTA - no FTA amplifier used. - *Do not combine using RF IN as it will result in unbalanced signal levels. Use a 2 way splitter in reverse to diplexe/combine the FTA and modulated signal*

HDMI SOURCE	HDMI Modulator	20dB Atten	2 Way Splitter in reverse	Splitter	TV1
					TV2
TV Antenna					TV3
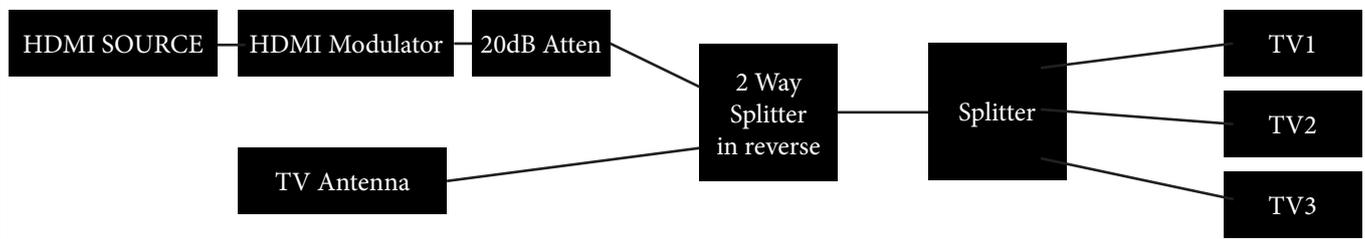
3) Combine with FTA. FTA amplifier used. *Ensure the modulated signal is combined AFTER any amplifier. Amplifying an already strong signal will cause distortion.*

HDMI SOURCE	HDMI Modulator	20dB Atten	Diplexer	Splitter	TV1
					TV2
TV Antenna	Amplifer			Power Injector	TV3
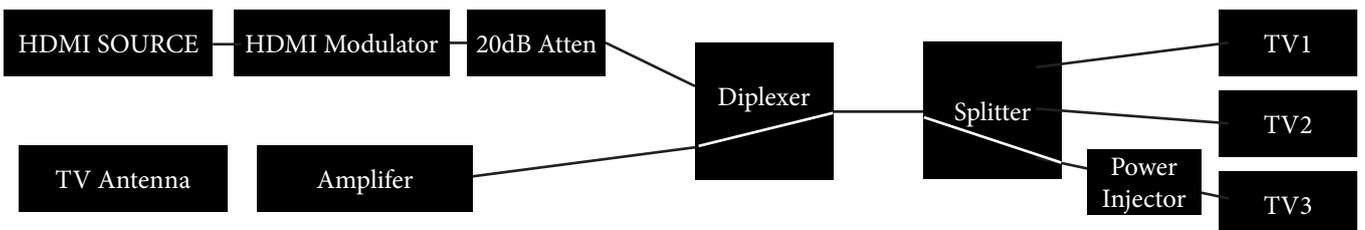
If using a line powered Masthead Amplifier. Ensure the power pass (as indicated by a while line on this diagram - usually marked with a red line on the actual splitter) sends voltage to the amplifier through both splitters correctly. Please be aware some satellite splitters (rated to 2000MHz) may not pass power when used in reverse.

Set up Information

We have set the modulator so it's default configuration will work in most installations
The following settings are ones you are might need to change.

RF Output Channel: Default Ch36 (585.5MHz)
> If CH36 conflicts with a existing FTA channel, please change this to a different RF channel.
> to change this setting press
> LOCK, DOWN (x3) until you see "*Modulator*" then ENTER
> DOWN until you see "*Channel*" press ENTER
> You will see "*Channel *585.5 CH36*"
> Press ENTER then use UP or DOWN to select new channel then press ENTER
> Screen will say "*Updating config Please wait...*" then show new channel settings
> Press Lock Button to return home.

Service Name - This is the name the channel will appear on the TV as: Default: TV-1
> to change to to say CCTV or PAYTV, press
> LOCK, DOWN (x2) until you see "*Stream*" then ENTER
> DOWN (x8) until you see " *Service Name*" then ENTER
> You will see "*Service Name TV-1*" press ENTER until the "T" starts flashing
> You can then use the UP or DOWN buttons to select the correct character
> Press the RIGHT button to moved to the 2nd character
> When finished, press the ENTER button to save the service name then LOCK to return.

LCN (Logic Channel Number) - Default 101 - This is the channel number as it appears on the TV.
> If you do change this, just be aware of exisiting LCN's being used by FTA broadcasters.
> If there is a conflict, then TV will often move channels to an unused LCN such as 350.
> to change this press
> LOCK, DOWN (x2) until you see "*Stream*" then ENTER
> DOWN (x12) until you see "*LCN*" then ENTER
> Press ENTER again and the first number will flash. Use UP or DOWN to select a new channel
> Use the RIGHT arrow to next digit
> Press ENTER to save.

If using more than one modulator on the network, You will need to change the TSID & Network ID from 1 to 2 on the second modulator. This can be found in the STREAM subsection of the menu.