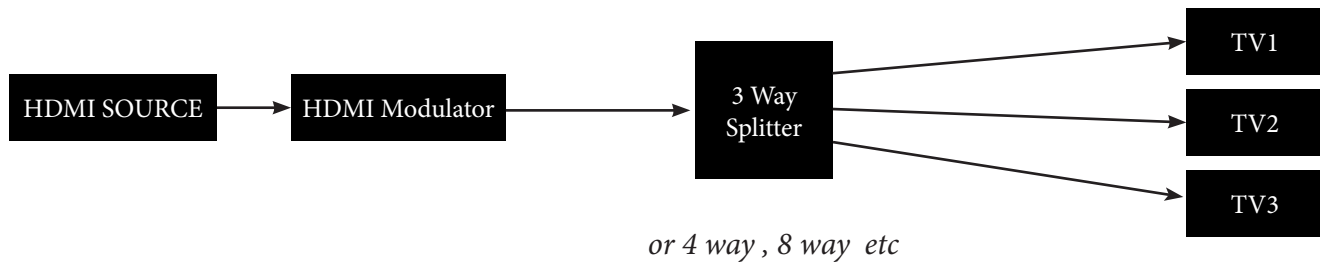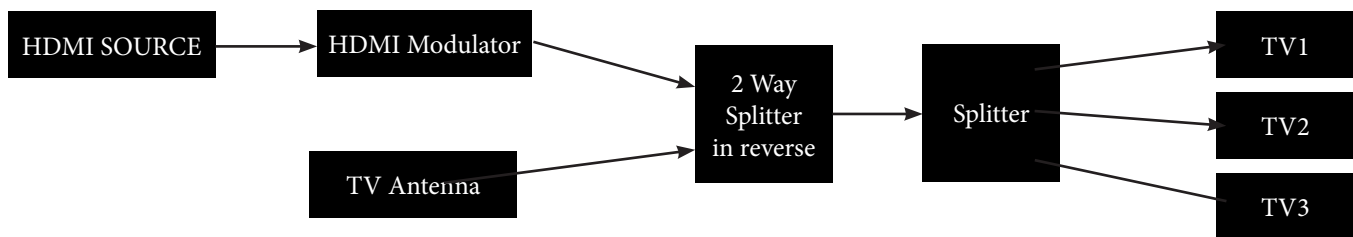# Blauhaus HD1085 Installation Information

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. Please note if you TV does not have an MPEG4 tuner, this modulator will not work. You can test if your TV is MPEG4 compatible by viewing terrestrial channel 70 or 90. If you get a black screen or a message similar to "Format Not Supported" then your TV is only MPEG2, and you will need a MPEG2 Modulator.

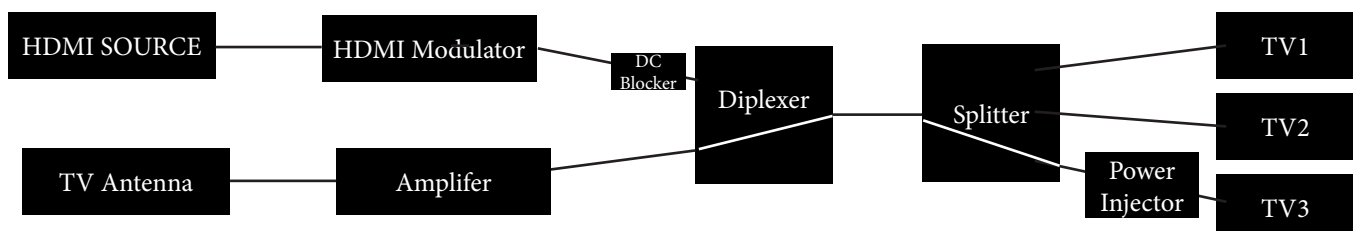The following are installation schematics for difference scenarios

1. Basic Install - no combined FTA

HDMI SOURCE → HDMI Modulator → 3 Way Splitter → TV1, TV2, TV3

or 4 way , 8 way etc

2. Combine with FTA - no FTA amplifier used. – Use a 2 way splitter in reverse to diplexe/combine the FTA and modulated signal

HDMI SOURCE → HDMI Modulator → 2 Way Splitter in reverse → Splitter → TV1, TV2, TV3

TV Antenna → 2 Way Splitter in reverse

3) Combine with FTA. FTA amplifier used. Ensure the modulated signal is combined AFTER any amplifier. The modulator outputs enough signal without needing amplification. Amplifying an already strong signal will cause distortion of the modulated and FTA signals.

HDMI SOURCE → HDMI Modulator → DC Blocker → Diplexer → Splitter → TV1, TV2

TV Antenna → Amplifer → Diplexer

Splitter → Power Injector → TV3

If using a line powered Masthead Amplifier. Ensure the power pass path (as indicated by a white 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 splitters may not pass power when used in reverse and will subsequently block the power from getting to your amplifier. We recommend the use of a reverse power pass splitter. A DC Blocker will also prevent voltage being sent to the modulator.

Blauhaus HD1085 Set Up Information

The modulator is set so in it's default configuration it will work in most installations. But there are some settings you might like to customise. These are the most common settings to change.

RF Output Channel: Default Ch36 (585.5MHz)
> If CH36 conflicts with an existing FTA channel, please change the RF channel.
> press MENU
> press DOWN (x2) until you see "3. Channel" press OK
> press LEFT (<) or RIGHT (>) to select a new channel, press OK
> for information regarding local FTA broadcasts, visit www.myswitch.digitalready.gov.au

Service Name - This is the name the channel will appear on the TV as: Default: CH-1
> press MENU, ensure the arrow is next to "1. ProgramName" press OK
> use UP or DOWN buttons to change the first letter, use RIGHT button to move to 2nd letter.
> Once finished press OK to save

LCN (Logic Channel Number) - Default 101 - This is the channel number as it appears on the TV.
> If you do change this, be aware of existing LCN's being used by FTA broadcasters. ie 2, 20, 21, 22, 23, 24 for ABC's services
> If there is a conflict, then TV will often move channels to an unused LCN such as 350.
> to change this press
> press MENU
> press DOWN button until you see "11. Lcn" press OK
> use the UP DOWN and RIGHT buttons to edit the LCN and press OK

Multiple Modulators in use.
If using more than one modulator on the same network, you will need to ensure each modulator has a unique RF Output Channel, Service Name, LCN & IDs.
Go into the menu and edit 14. NID, 15. ONID, 16. TSID, 17. SID.
As long as the number in this menu is different on the 2nd modulator (ie Modulator #1 may use 12801, ensure Modulator #2 uses 12802)

Understanding signal level.
The RF signal will leave the modulator at a certain power level. Every time it passes through a splitter or combiner, it will lose an amount of power. If you have a signal meter you can measure this signal power level.

In the default configuration, the modulator will output approximately 80dBμV. At the wallplate the power level should ideally be at 60dBμV (min 50dBμV, max 74dBμV). A 2 way splitter will lose approximate 3.5dB, 4 way 7dB and 8 way 10.5dB. The cable runs will lose approximately 1dB per 10m.

By knowing your system, you should be able to predict the losses and then set your power output accordingly. The power output of the modulator can be adjusted in the 10. RF Level menu.