ANT-1776 as a decoder, including overview of ANT-1776 as the encoder

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ANT-1776 decoder has no indication that is receiving a valid IP video stream. Only by viewing the HDMI monitor will the decoded video be seen.

In this example the:
ANT-1776 as the encoder is on IP address 192.168.0.32
ANT-1776 as the decoder is on IP address 192.168.0.31
And the MPEG-TS stream is unicast

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Document info

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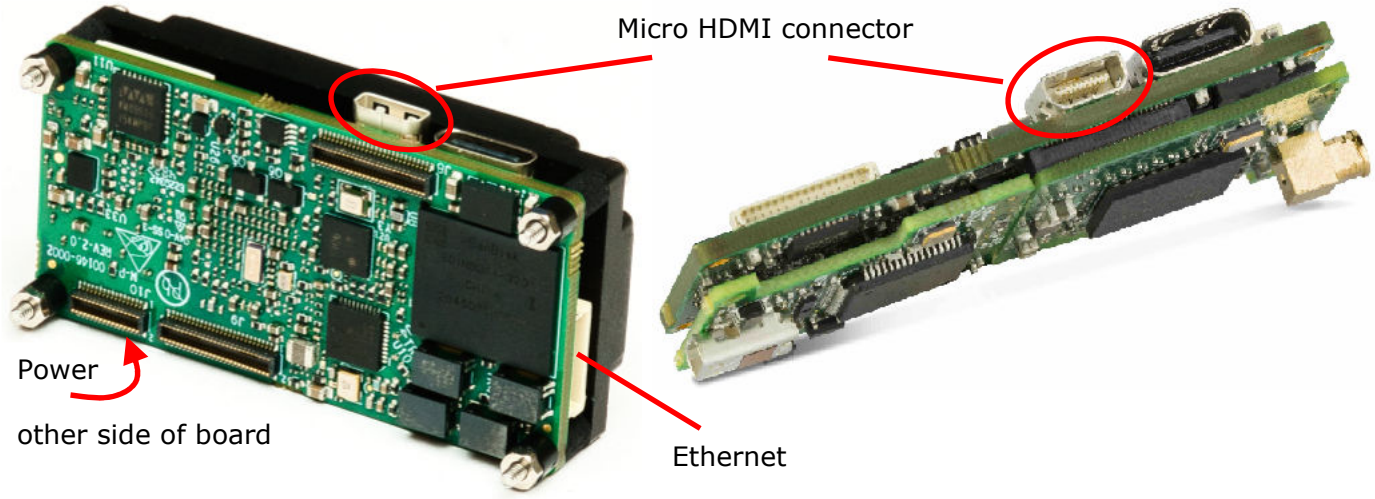
1. ANT-1776 Connectors

The power (12V DC), Ethernet and HDMI connectors are need to be used, see location detail in images shown in Figure 1. One of the images show the input mezzanine boards, these are NOT required for decoder operation.

Figure 1 : ANT-1776 connector locations



2. Setup

2.1. Encoder

The encoder has to be setup to use MPEG-TS protocol to send the IP video data to the decoder.

The basic setup of the ANT-1776 as an encoder are shown in the YouTube® videos

https://www.youtube.com/watch?v=0e4ZLtavjBs
titled "ANT-1776 UAV 1080P60 Multi Channel Encoder: Quickstart Guide"

https://www.youtube.com/watch?v=0Ev-78coQzY
titled "ANT-1776 H265 H264 Miniature Multi channel video Encoder Decoder : QuickStart Guide"

2.1.1. Streaming protocol setup

Once the input source has been assigned the MPEG-TS protocol for a Mux needs to be setup.

In this example Mux4 will be used. To Access the Output streaming, on the webpage click "HOME", then "Output Streaming" and a page similar to that shown in Figure 2 will be seen.

As can be seen, the IP address of the ANT-1776, which wil be the encoder, is 192.168.0.32.

Mux4 is already configured as a MPEG-TS with the destination IP address of 192.168.0.31 using the port 1238.

When the "gear" symbol is clicked the stream options can be seen as shown in Figure 3

Figure 2 : Output Streaming

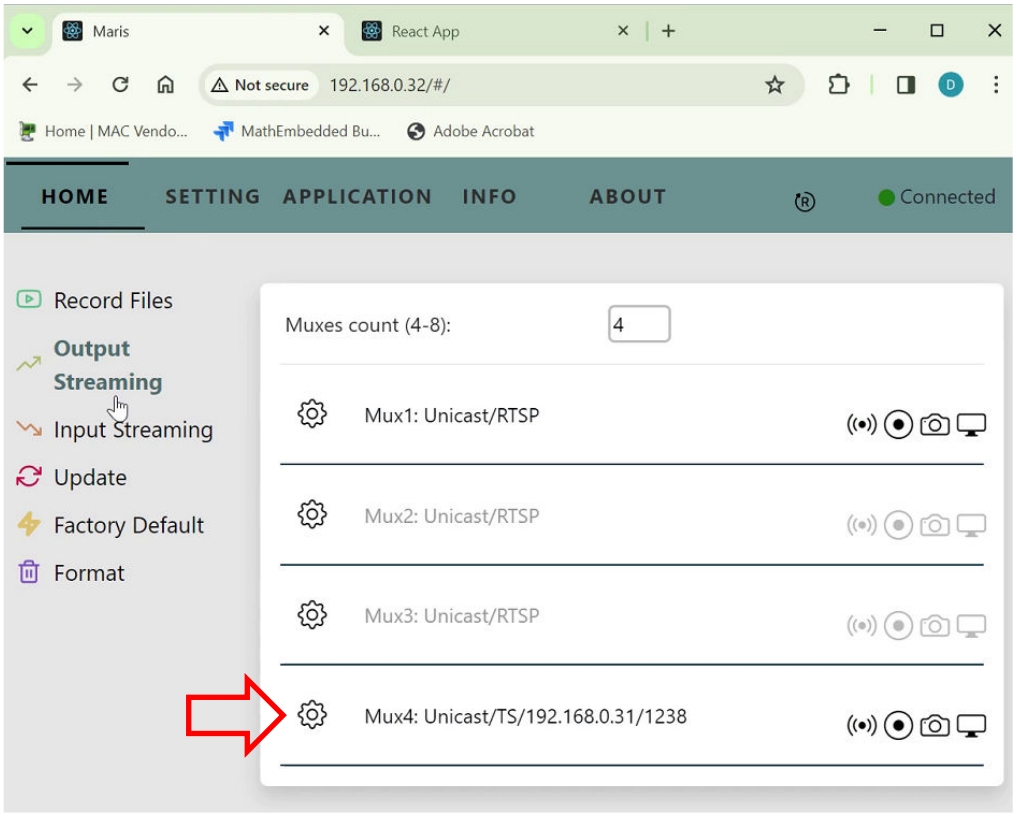
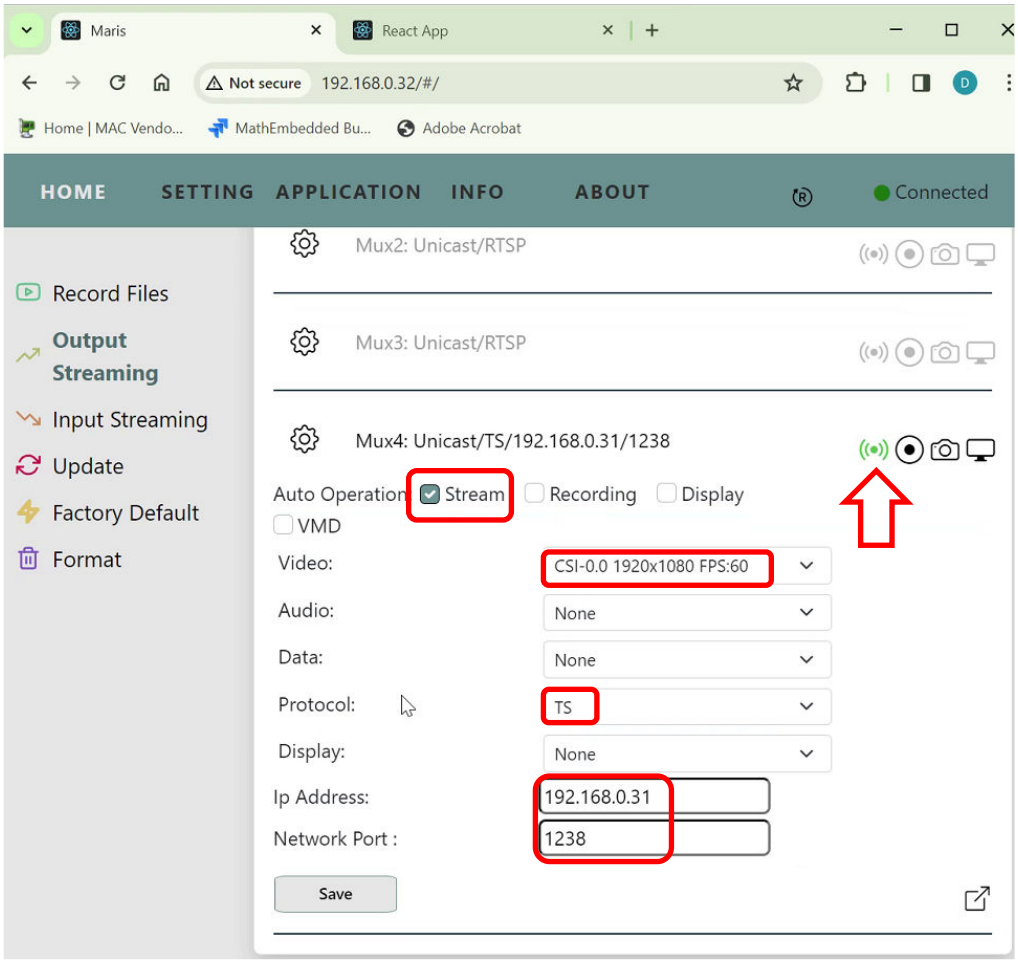


Figure 3 : Mux4 settings



The required settings are shown in Table 1.

Table 1 : ANT-1776 encoder MPEG-TS setting

Parameter	Setting	Comments
Auto Operation	Stream	In MPEG-TS mode the receiver / decoder does not request / start the stream as it does with RTSP, so this setting will cause the stream to start at power on.
Video	Determined by available inputs	A source is required
Protocol	TS	This is MPEG-TS
IP Address	The destination devices IP address	In this example 192.168.0.31
Network Port	A value between 1024 to 65535	In this example 1238

NOTE

If the IP address is in the range 224.0.0.0 to 239.255.255.255 then the ANT-1776 will automatically make this a Multicast stream.

The symbol  , as indicated in Figure 3, shows the streaming is active. If the symbol is grey then the streaming is off. The symbol can be clicked to manually stop or start the stream, and when the "Auto Operation" is set to "Stream", then it will always appear green as long as there is a valid source.

2.2. Decoder

The ANT-1776 only the power, Ethernet and HDMI connections are required when the ANT-1776 is used as a decoder.

2.2.1. Decoder setup

In this example Demux1 will be used. To access the "decoder" settings, on the webpage click "HOME", then "Input Streaming" and a page similar to that shown in Figure 4 will be seen.

As can be seen the IP address of the ANT-1776, which will be the decoder, is 192.168.0.31.

Demux1 is already configured to receive MPEG-TS with the source as 192.168.0.32.

When the "gear" symbol is clicked the Demux options can be seen, as shown in Figure 5

Figure 4 : Input Streaming

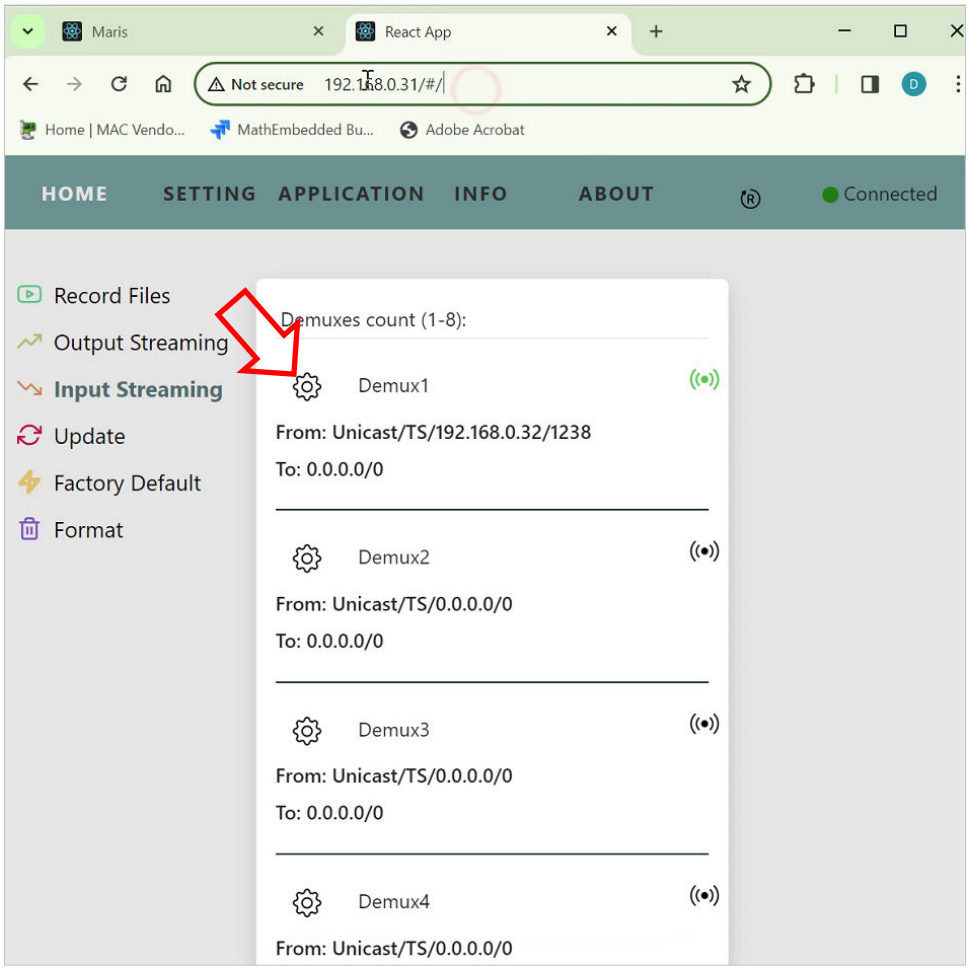
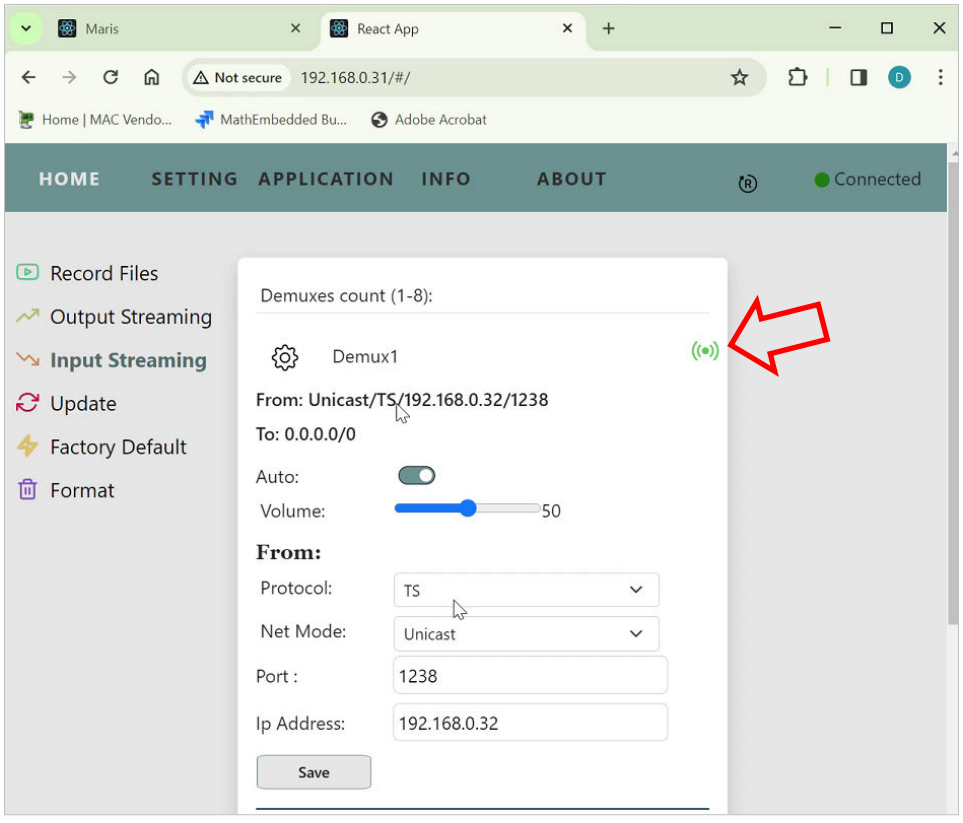


Figure 5 : Demux1 settings



The required settings are shown in Table 2Table 1.

Table 2 : ANT-1776 decoder MPEG-TS setting

Parameter	Setting	Comments
Auto Operation	"on"	In MPEG-TS mode the receiver / decoder does not request / start the stream as it does with RTSP, so this setting will cause the stream to be received at power on.
Protocol	TS	This is MPEG-TS
Net Mode	Unicast	Unicast or multicast is selected dependant whether the stream being received is unicast or multicast
IP Address	The source devices IP address	In this unicast example the source is 192.168.0.32
Network Port	A value between 1024 to 65535	In this example 1238

NOTE

If the IP address is in the range 224.0.0.0 to 239.255.255.255 then the ANT-1776 will need to be set to "Net Mode" Multicast .

The symbol  , as indicated inFigure 5, shows the streaming is active. If the symbol is grey then the streaming is off. The symbol can be clicked to manually stop or start the stream, and when the "Auto Operation" is "on", then it will always appear green.

There is no indication that the decoder is receiving an stream. This is can only be confirm by viewing the video from the HDMI out.

2.2.2. HDMI Display out settings

To access the "HDMI out" settings, on the webpage click "SETTING", an image similar to Figure 6 will be seen.

Then click the + symbol next to "DISPLAY DRIVERS", and the "DISPLAY DRIVERS "setting will open and show an image similar to that shown in Figure 7. In this example the output is already set to 1920x1080p60

As the monitor is already connected, the image shown in Figure 8 shows the available resolution and frame rate of the HDMI monitor.

Figure 6 : Setting

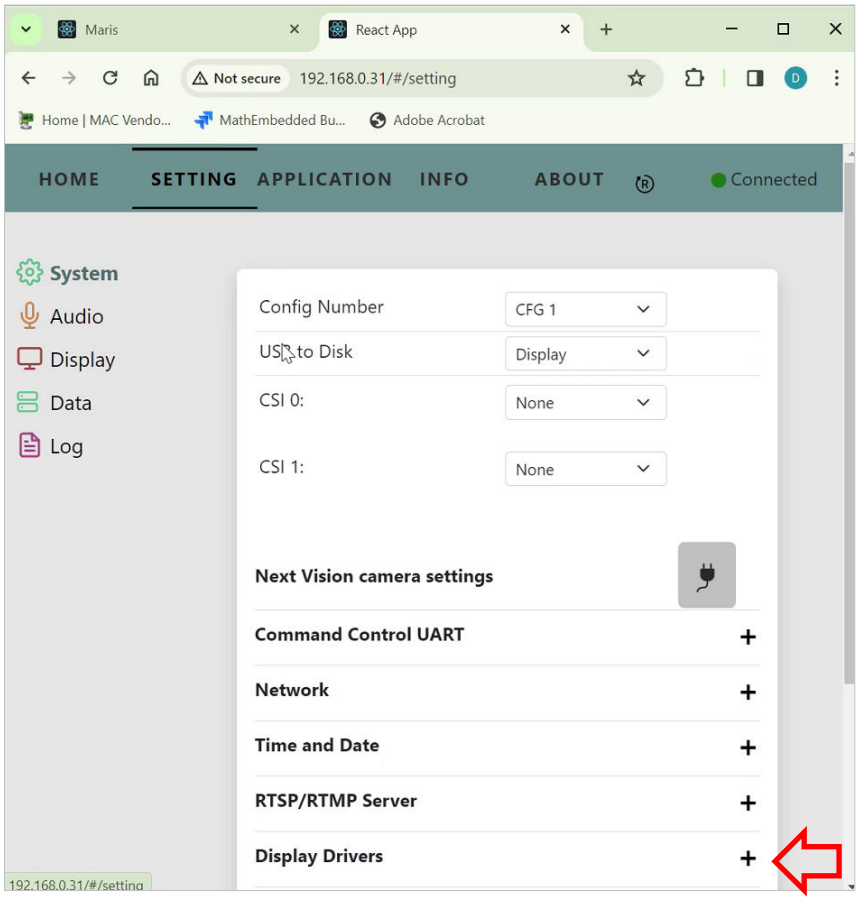


Figure 7 : Display Driver

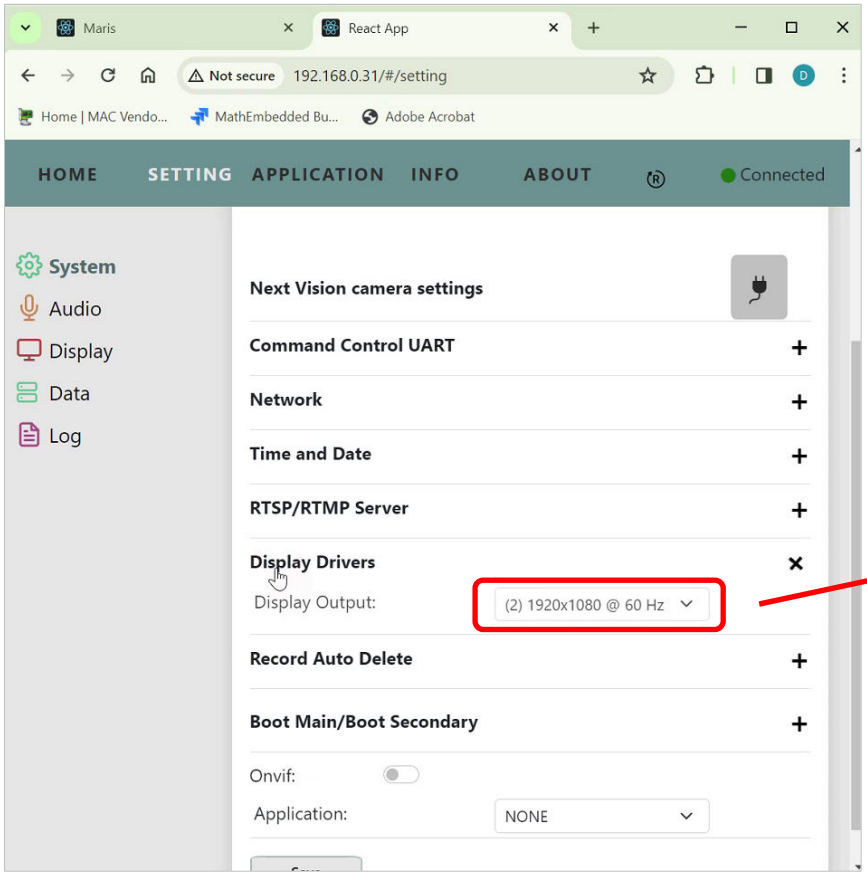


Figure 8 : Resolution options