ANT-1773 encode 4 composite sources

Contents

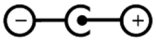
Versions tested

Device	version	comments
Neptune Guard	2.4.7	-
Neptune Player	1.6.9	
ANT-1773	2.3.8.6	Requires SD upgrade to when upgrading from 2.3.7.x or lower

Document info

Version	date	author	Comments
0.1	12-Dec-18	David M	4 CVBS setup – first draft
0.2	18-Dec-18	David M	Additional contact details
0.3	13-Jan-20	David M	Re-formatted and Added comment about tvp5158 (4ch) & tw9910 (1ch)
1.0	16-Dec-20	David M	Using SD1, Sd5 -> SD7

1. Encoder connectivity

The image shows connections on the Ant-1773 for the Video feeds, ethernet connector and power.
NOTE: the power connector is centre positive  and is in the range 4.5-16V DC.

For the Quad input cable the connections are shown in Table 1.

Table 1 : Quad connector cable colour vs channel ID

Camera Name	Cable Colour	Cable Label	Comments
CSI-2 CH-0	green	Video 1	-
CSI-2 CH-1	yellow	Video 2	-
CSI-2 CH-2	blue	Video 3	-
CSI-2 CH-3	red	Video 4	-

It is advisable to have 4 sources, ideally mainboard and 1 thru' 3 of quad input.

Figure 1 : ANT-1773 Mezzanine board side

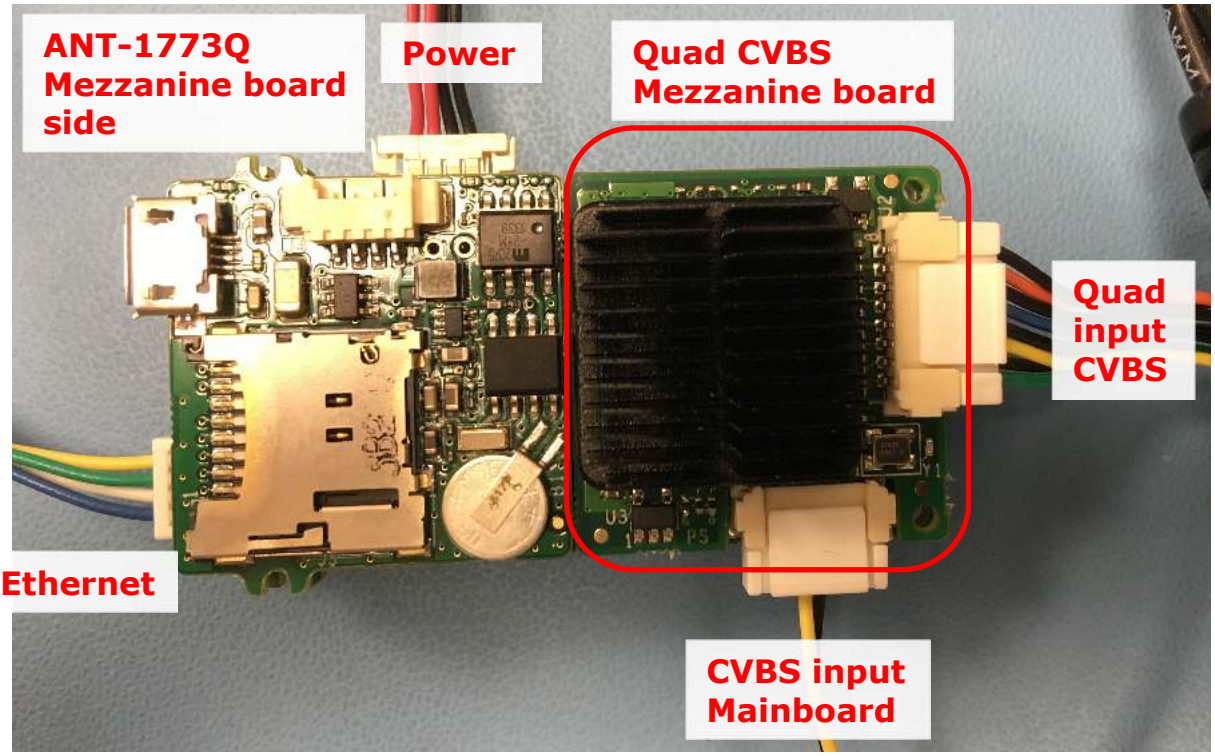
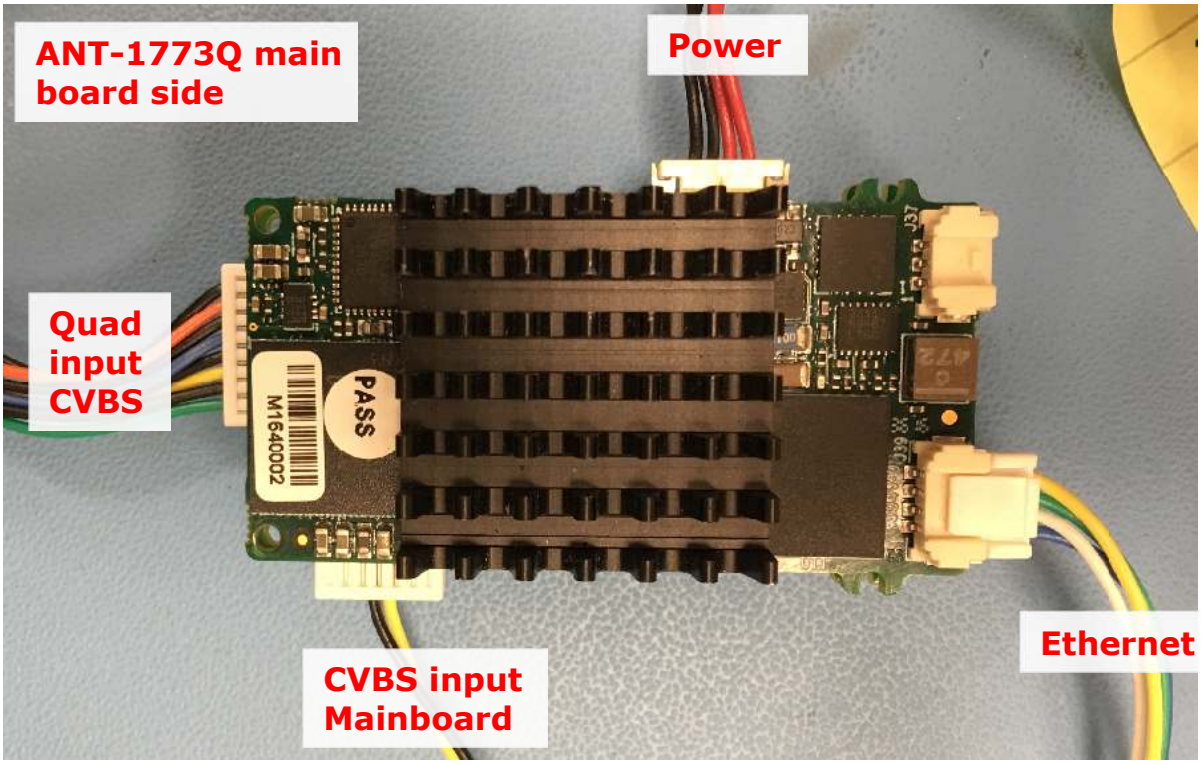


Figure 2 : ANT-1773 Main board side



The URLs to use with VLC are:

rtsp://192.168.0.30:554/mux1.sdp
rtsp://192.168.0.30:554/mux2.sdp
rtsp://192.168.0.30:554/mux3.sdp
rtsp://192.168.0.30:554/mux4.sdp

The IP address, in the above URLs, is that of the ANT-1773, so if the control address of the ANT-1773 is changed the decoder URLs will need to change.

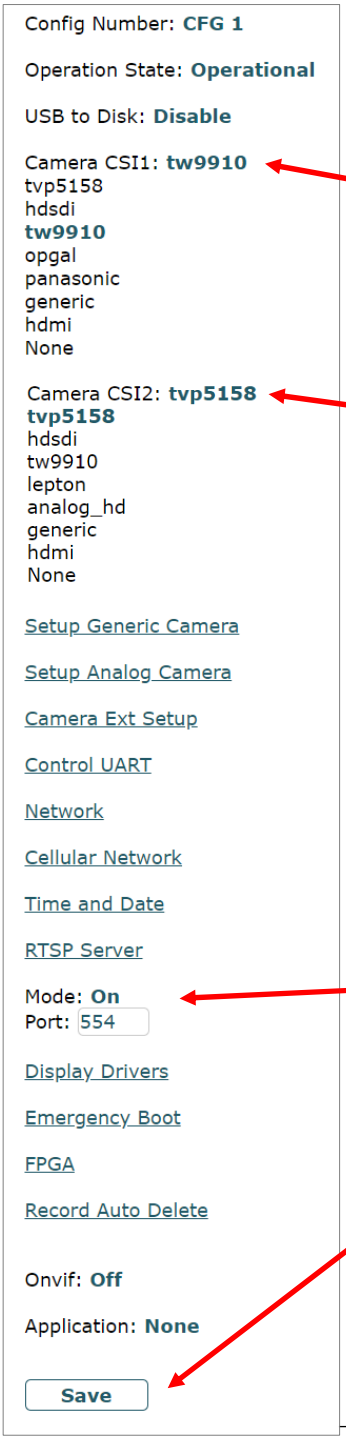
2. Encoder setup

2.1. Camera selection

Ensure suitable feed to connected to the ANT-1773

On the web GUI

Home ➔ Setting ➔ System



For CSI1 select **tw9910** from the drop-down list
(tw9910 is a single channel NTSC/PAL encoding IC)

For CSI2 select **tvp5158** from the drop-down menu
(tvp5158 is a 4-channel NTSC/PAL encoding IC)

Select "**On**" for RTSP Server. Use the default port of **554**

Save when finished

Select  and this shows the camera details,

note the Camera “Name”, with the newer 2.3.8.6 code, the name style CSI-1 CH-0 and not SD1 or HD1.

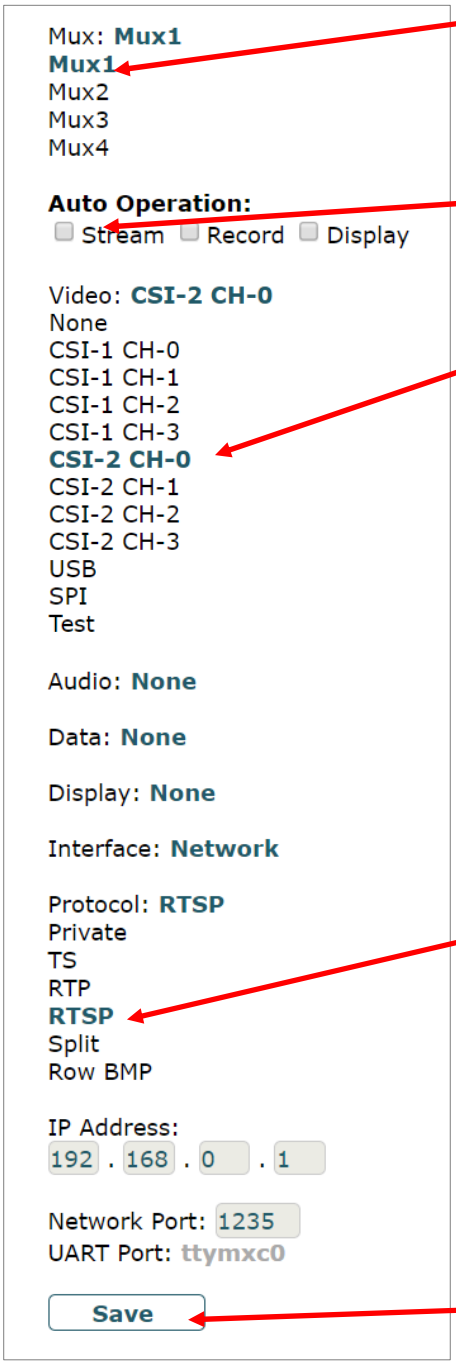
Camera

Name	Status	resolution	Interlaced	FPS
CSI-1 CH-0	Lock	PAL	Interlaced	25
CSI-2 CH-0	Lock	PAL	Interlaced	25
CSI-2 CH-1	Lock	PAL	Interlaced	25
CSI-2 CH-2	Lock	PAL	Interlaced	25

Note SD 8 / CSI CH-3 / red cable on connector is not used.

2.2. Streaming control

Home ➔ Streaming ➔ Mux 1 settings



After selecting **Mux1** you can select a **Mux2**, **Mux3** or **Mux4** to configure

Select for "auto start" of streaming at power up. Not required for RTSP mode as the viewing package will start the stream

In this example;
Source: Quad 1 **Mux1** - **CSI-2 CH-0**
Quad 2 **Mux2** - **CSI-2 CH-1**
Quad 3 **Mux3** - **CSI-2 CH-2**
Mainboard **Mux4** - **CSI-1 CH-0**

Set Transmission protocol to **RTSP**

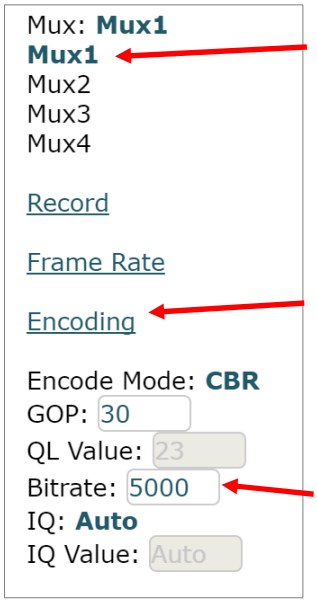
Apply changes

2.3. Optional

2.3.1. Alter bitrate of encoded video

Home ➔ Setting ➔ Mux Setup

Select the Mux required, in this example Mux1 and Mux2 are being used



From the "mux:" drop-down select the require Mux to alter parameters. In this example Mux1

Click the **Encoding** to open the additional dialogue

In the bitrate input numbers like 2000 for composite. If better quality is required higher number can be used.

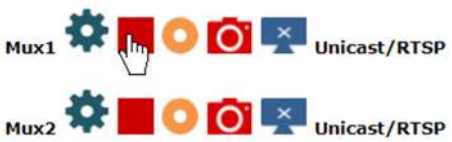
Again, click **save** when all is done.

2.3.2. Manually start streaming

Home ➔ Streaming ➔ Click the green "play" button

In the above case Mux1 will be prepared for any RTSP connection, sometimes this is required for a VLC connection

Once clicked the play button changes to the "red square" / stop button



3. Display stream

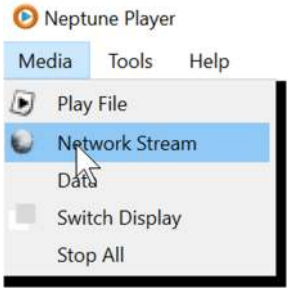
3.1. Neptune Player

Neptune Player has a very low latency viewer.

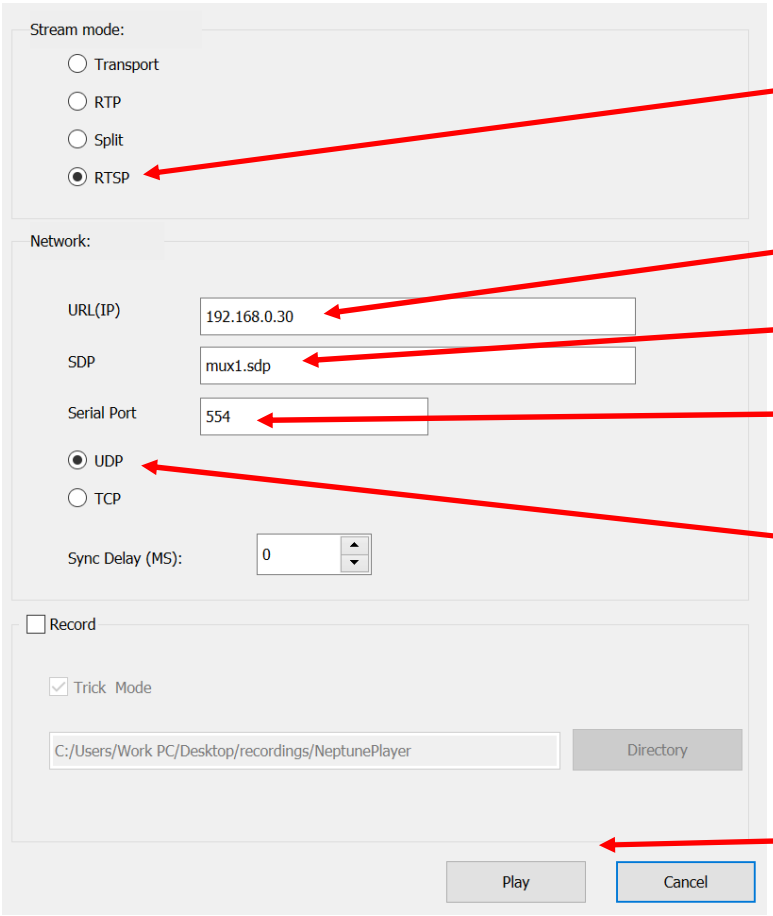
Start Neptune player, from start menu; look for "Neptune" folder -> "Neptune Player 1.6.9", or use the Desktop Icon 

Currently the lastes version is 1.6.9.

From the Neptune Player select Media -> Network Stream



From the "Network stream" window…



Select **RTSP** for Stream mode:

IP address of ANT-1773

mux1.sdp for Mux1, for Mux2 use **mux2.sdp** etc.

554 the RSTP port used Camera selection

UDP or TCP, default is UDP

Play to start

Once started Neptune player will cause the Streaming "play" button to turn from a green triangle to a red square.

3.1.1. Neptune player install and activation

Neptune Player has a very low latency. It is bundled with the "neptune_install_x.x.x-x.rar" which is available from https://antrica.com/ go to the ANT-1773 product web page -> Product Info & Downloads -> Downloads -> Software-> Neptune Guard_player, then select and download neptune_install_x.x.x-x.rar.

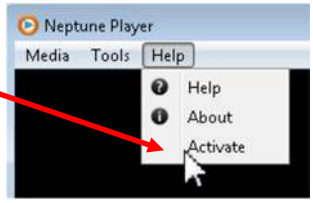
Extract and run the "neptune_install_x.x.x.exe"

Open "Neptune Player x.x.x"

Accept / "Allow access" to any Windows Firewall messages

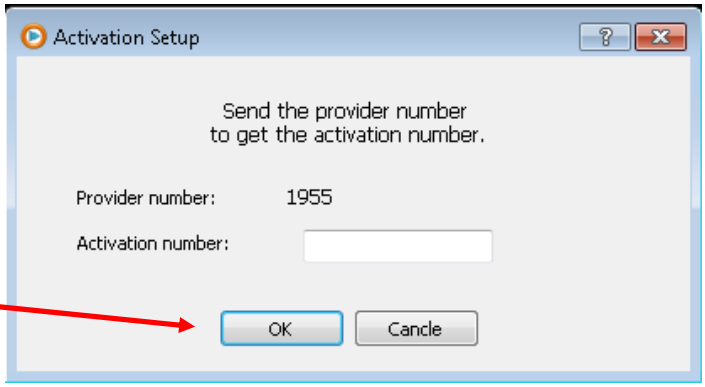
Neptune player need activating before it can used;

Neptune Player -> Help -> Activate



A new window then appears. The "Provider number" and corresponding "Activation number" will change every time the window is closed and opened.

Contact Antrica to get the "Activation number", once the 4-digit number has been typed in click OK



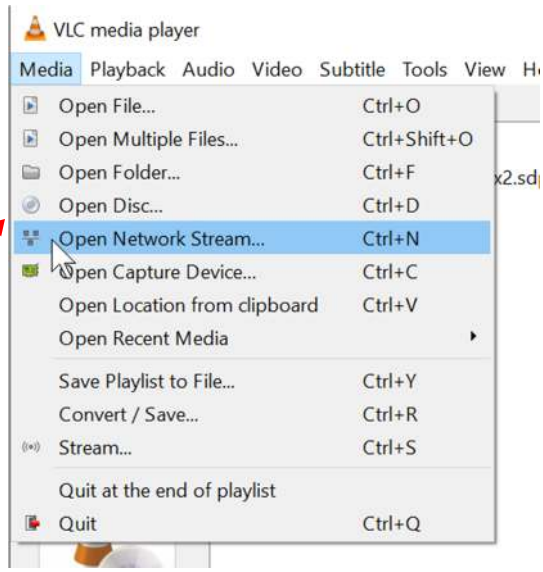
Neptune Player is now ready to use

To Contact Antrica:
Email: support@antrica.com
Telephone: +44 (0)1628 626 098 option 3 for technical support

3.2. VLC

VLC is a free and open source media player available from https://www.videolan.org/. It supports multiple Operating systems.

Once installed open VLC media player select Media -> Open Network Stream



Then put in the URL "rtsp://192.168.0.30:554/mux1.sdp" and click play

To view Mux2, in the URL line replace mux1 with mux2, the same for the mux3 & mux4