Video Encoders for IP streaming

NAVnet

TZ touch 2   TZ touch 3

Camera

TZT19F

PTZ Control

VIDEO STREAMING

Nickname

URL

Use as Sonar Video Input

AXIS QUAD SERVER

Server

IP Server

CSH8L

OFF

172

CREATE PAGE

DEPTH

WATER CURRENT TO

C1

C2

C3

WATER TEMP

kn

kn

kn

FURUNO

1. Video Encoder for IP Streaming

TZtouch2 v8.01 and TZtouch3 v2.01, video images can be networked via off-the-shelf video encoders. This enables video input of commercial Fish Finders, Sonars, as well as generic cameras to be utilized. However, you may only have one video encoder, either one HDMI or one VGA, on the network. This document describes operation scenes and setup procedure of Iseevy video encoders.

1.1. Tested Video Encoder

The following encoders have been tested at Furuno USA.

Manufacture Model	Video Input	URL
Iseevy: H.264 VGA Encoder	1×VGA	https://www.iseevy.com/products/h-264-vga-encoder/
Iseevy H.264 HDMI Encoder	1×HDMI	https://www.iseevy.com/product/h-264-hdmi-encoder/

1.2. Utilizing Video Input via Encoder

Sonar images from a CSH-8L MARK-2, CH250/300, or CH500/600 can be streamed to all networked TZtouch2/3 MFDs When inputting Sonar images to the MFD network, the dedicated Sonar page Icon can be created.

E.g. of Sonar icons on the Home page – Full Screen (Left) and Quarter Screen (Right)

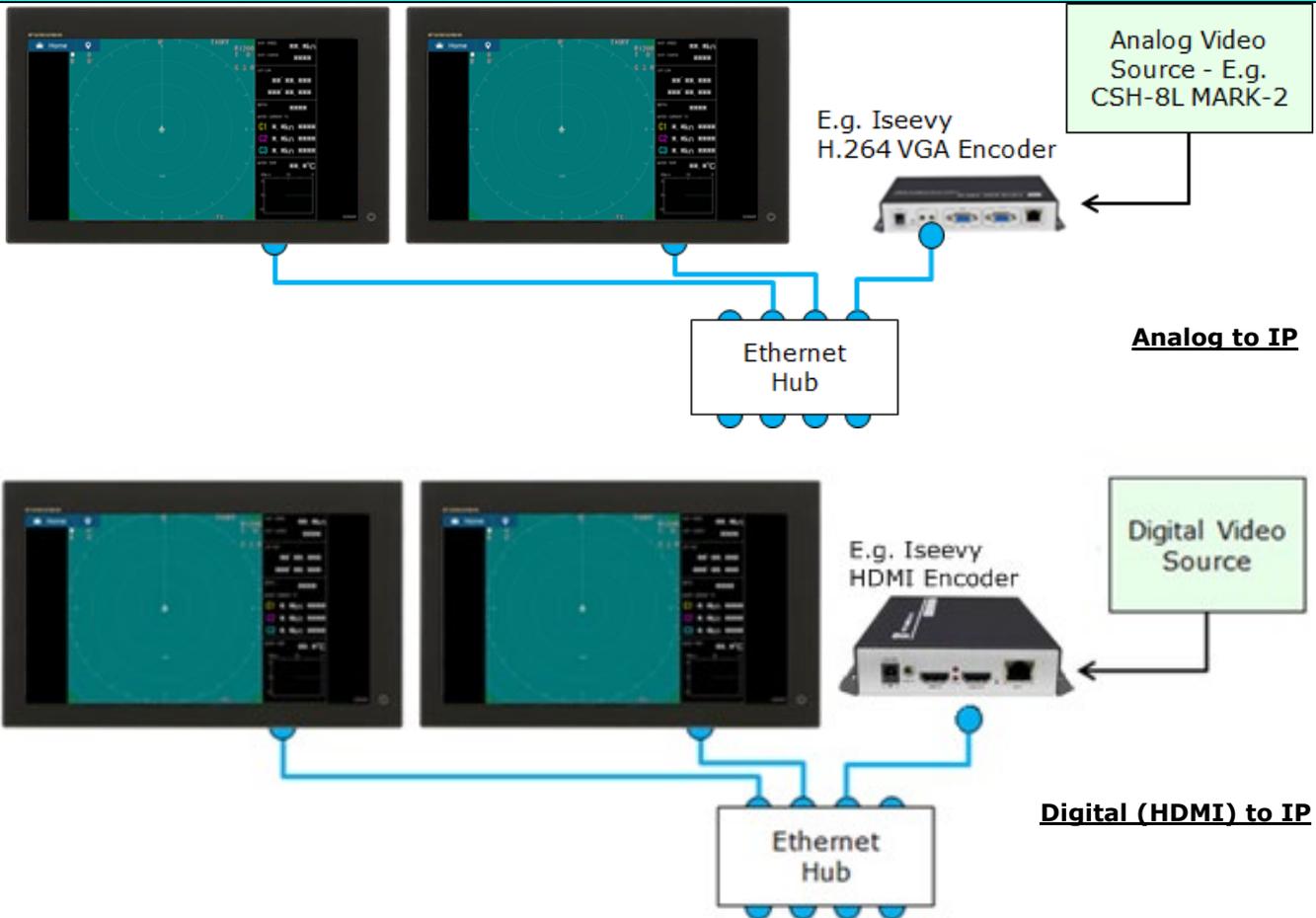| Full Screen	Full Screen with Data Box	Quarter Screen

Furuno USA sells both a VGA and HDMI video encoder kits. These kits have preconfigured encoders, along with cables, and detailed TZT2/3 setup instructions. We **highly recommend** using one of these preconfigured and tested kits.

VGA kit part # VI-CSH8L, https://www.furunousa.com/en/products/vi-csh8l

HDMI kit part # VI-HDMI, https://www.furunousa.com/en/products/vi-hdmi

2. Setting Up Encoder

2.1. Interconnection – Examples

E.g. Iseevy
H.264 VGA Encoder

Analog Video
Source - E.g.
CSH-8L MARK-2

Ethernet
Hub

Analog to IP

E.g. Iseevy
HDMI Encoder

Digital Video
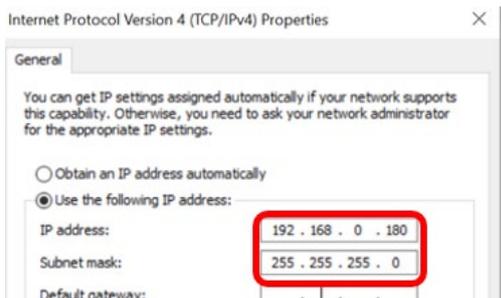Source

Ethernet
Hub

Digital (HDMI) to IP

2.2. Setting Up Video Encoder

The Iseevy VGA encoder **must** be assigned with an IP address of 172.31.200.22 (subnet of 255.255.0.0) and the Iseevy HDMI encoder **must** be assigned an IP address of 172.31.200.24 (subnet of 255.255.0.0).

(1) Check the default IP address of the video encoder to be used. This can be found in user booklet included with the video encoders. Iseevy VGA and HDMI encoders we have tested have a default IP address of 192.168.0.31 (subnet of 255.255.255.0).

(2) Connect the video encoder to a PC. Make sure that the IP address of the PC is in the same domain as the default IP address of the video encoder.

Use 192.168.0.XXX (XXX=any three digits from 1 to 254, except 31).

E.g. 192.168.0.180 / 255.255.255.0

(3) Open a web browser on the PC and enter the IP address of video encoder.

The setting page of the networked video encoder will open.

(4) Set each item in the encoder.

The content of setting category is different between manufactures and models. The following example is from the Iseevy encoders.

IP Address	**172.31.200.22** (VGA) or **172.31.200.24** HDMI
Subnet Mask	255.255.0.0
Enc Type	H.264
FPS	30
GOP	30
Bit Rate	1200
H.264	Main Profile
Bit Rate Control	Cbr
RTSP:	**/HDMI** (HDMI Encoder) or **/SONAR** (VGA encoder)
HTTP: Format: /main (begin with "/")	Disable
RSTP Format	ES
Output Size	1280x720 (HDMI Encoder) or Auto (VGA Encoder)

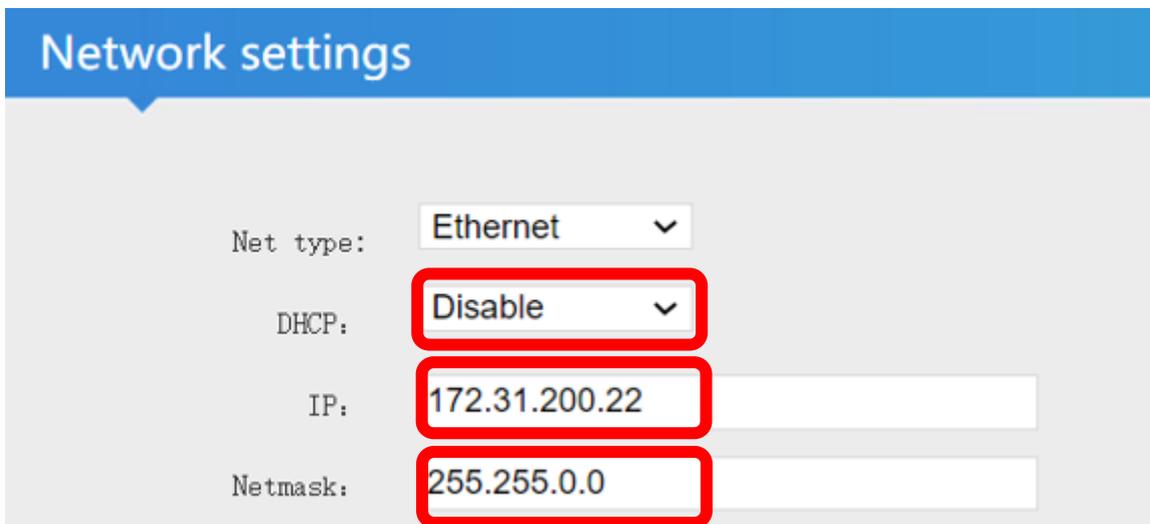(5) Connect the video encoder to the NavNet TZtouch3 network via Ethernet.

(6) On the TZT9F/12F/16F/19F, access [Home] – [Settings] – [Camera] – [**VIDEO STREAMING**] and enter the URL as shown below. set [Use as Sonar Video Input] to [ON].

(7) The Sonar icon will be available on the Home page to show it in full and quarter screen modes.

The following is example is from Iseevy encoder VGA encoder:

Main stream settings

Enc type:	H.264
Profile:	main profile
Frame rate:	30
Bitrate mode:	cbr
Group of picture:	30
Output size:	Auto
Bitrate:	1200
Fluctuate:	Auto

Mainstream protocol settings

HTTP:	/main	Disable
HTTP port:	8000	[1-65535]
HLS:	/main.m3u8	Disable
HLS port:	8100	[1-65535]
RTSP:	/SONAR	Enable
RTSP port:	554	[1-65535]
RTSP format:	ES	

--- END ---

- All brand and product names are registered trademarks, trademarks, or service marks of their respective holders.