

# SC-HD-ENC & SC-HD-DEC

StreamCasterHD Encoder and Decoder



## General Description

The StreamCasterHD encoder module is designed to be attached to a StreamCaster SC3822 2x2 MN-MIMO radio. When used in combination with other StreamCaster MN-MIMO radios and the StreamCasterHD decoder unit, it provides a next-generation wireless camera solution

Combining ultra low latency HD H.264 encoding with Silvus' revolutionary MN-MIMO mesh transmission technology, the StreamCasterHD supports the transmission of HD-SDI with embedded audio direct from the camera, while simultaneously supporting bi-directional IP and serial data connectivity for applications such as reverse camera control, IFB / Intercom, file transfer and remote control and monitoring.

When mated together, the StreamCasterHD encoder module and SC3822 maintain IP67 ruggedness.

## Features

- Broadcast Quality, Highly Efficient H.264 Encoding and Decoding
- Ultra Low Latency: < 60ms Glass-to-Glass
- HD-SDI Video Input with Embedded Audio Support
- Full SD/HD Encoding and Decoding
- Up to 20Mbps Data Rate
- Progressive Refresh Implementation



**SC-HD Mounted to SC3822**

## Applications

The StreamCasterHD and StreamCaster MN-MIMO range of radios are suitable for a wide range of applications for which low latency video transmission as well as wideband duplex data connectivity are desirable.

Until now, these applications have required the use of multiple wireless systems for video, duplex audio and duplex data. Now, a single RF solution can provide all the connectivity that is required.

### **Application examples include:**

- Wireless camera for newsgathering, sports coverage and production / event coverage
- In-car / on-board camera for race coverage
- Film / video assist
- UAV and UGV operations

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Technical Specifications



## Video

- **Video I/O** BNC HD/SD-SDI
- **Video Encoding** SD or HD H.264 Main Profile Level 4.0 / 4:2:0
- **Video Resolutions** 480i, 576i, 720p50, 720p59, 720p60, 1080i50, 1080i59, 1080i60, 1080PsF23, 1080PsF24
- **Bit Rate** Up to 20Mbps
- **Encode/Decode Latency (Glass to Glass)** < 60 milliseconds

## Audio

- **Audio I/O** One Stereo Pair, Embedded in SDI
- **Audio Encoding Profile** MPEG2 Layer II
- **Audio Data Rate** 128 kbps



## IP Streaming

- **Protocols** UDP, RTP
- **Routing** Unicast  
Multicast

## Mechanical , Power & Environmental (Encoder)

- **Chassis Dimensions (When Mated with SC3822)** 2.0" x 3.44" x 4.4" (50.8mm x 87.4mm x 112mm)
- **Weight (When Mated with SC3822)** 1 lb. 7.4 oz. (0.66 kg)
- **OEM Weight** 2.1 oz (0.059 kg)
- **DC Voltage** 12-16.5 VDC (Powered from SC3822 via Internal Connection)
- **Ambient Temperature** -40°C to 55°C (-40°F to 131°F)
- **Weather Rating** IP67 (When Mated with SC3822)

## Mechanical , Power & Environmental (Decoder)

- **Chassis Dimensions** 1.75" x 7.13" x 8.06" (44.5mm x 181.1mm x 204.7mm)
- **Weight** 3 lbs. 2 oz. (1.12 kg)
- **OEM Weight** 1 lbs. 2.8 oz. (0.53 kg)
- **DC Voltage** 12-19 VDC
- **Ambient Temperature** 0°C to 50°C (32°F to 122°F)



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