

# nanoCASTER®

A Tiny, Truly Mobile Hardware Based H.264 Real Time Encoder that Converts Any Camera or Other Video and Audio Source into an IP Based Live Stream and Delivers it via WiFi, Hard Wired IP, or Cellular Network Dongle to the Leading Content Delivery Networks and Video Streaming Platforms. Versions Available for SDI/HD-SDI/3G-SDI (SMPTE 259M, SMPTE 292 M, SMPTE 424M), HDMI, and Analog. nanoCASTER® Generates One HD and One SD Stream in Parallel and is Able to Record at the Same Time. Can be Operated in Real-Time via a Web-Based Remote Management Port and Comes with All Cables, Memory Stick, and Camera Mount Hardware. Almost Complete Replacement for a Satellite Truck.



## Features

- Input: Three versions available
  - Analog – Y, Y/C video
  - SDI – SDI, HD-SDI, 3G-SDI
  - HDMI
- 2 channel audio input
- Generates one HD and one SD Stream in parallel
- Analog version can create 3 different streams from original stream
- H.264 SD transport stream encoder
- Compatible with most brands of 3G and 4G dongles
- On Board Lithium battery
- Outputs IP and IP over wireless
- Ships with WiFi Dongle
- Compatible with most CDN's and Live Streaming Services (see list below)
- Tested with Wowza® and Adobe® media servers
- Live Streaming Platforms supported: UStream, Livestream, justin.tv
- Full monitoring, updates, and maintenance over web based repository service
- Includes 1 hour free telephone configuration support from DVEO

## Applications

- Video Journalists
- Sports Video Streaming
- Cultural Venues
- Web-TV and TV Production Teams
- Digital Dailies
- In place of News Gathering Backpack
- News cameras

## Overview

Portable streaming devices are now popping up from several vendors. None have the features of the nanoCASTER® family.

nanoCASTER® is a truly mobile hardware based H.264 HD camera-top live encoder in pocket size that converts any camera or video source signal into an IP based live stream and delivers it via IP, dual band WiFi, or 3G/4G networks to the leading Content Delivery Networks and/or your video platform. In many cases it can mount on the camera with the included hot shoe adapter. Through a built-in lithium battery it is capable of working stand-alone for some time. nanoCASTER® generates one HD and one SD Stream in parallel and is able to record on SD-Card in the device itself at the same time. The nanoCASTER® streamer can be operated in real-time via a web-based remote management portal, or via its on board console.

The nanoCASTER® is available in three versions – Analog, SDI/HD-SDI/ 3G-SDI, or HDMI.

The target market is broadcast journalists who wish to untether themselves from satellite trucks and wish to save lots of money via Disruptive Technology.

All nanoCASTERS® sold by DVEO include accessories, including camera mounting kit (hot shoe) and power supplies. Each system also comes with one hour of tech support.

Eval units are available with a credit card held as a deposit!

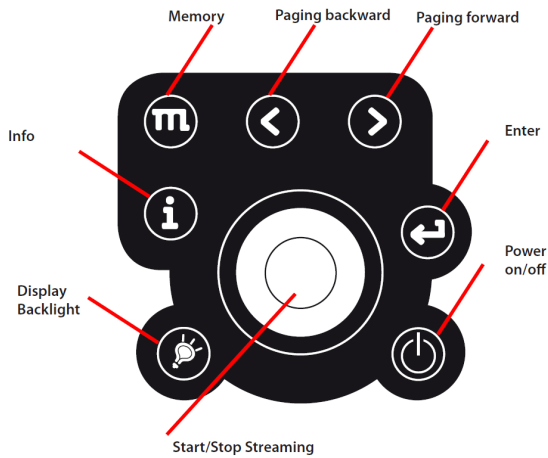
nanoCASTER®  
is manufactured by



and  
distributed by

**DVEO**  
Broadcast Division  
Computer Modules, Inc.  
11409 West Bernardo Court  
San Diego, CA 92127  
Tel: 858-613-1818  
Fax: 858-613-1815  
[www.dveo.com](http://www.dveo.com)

## Controls



## Some Receiving Devices

1. DVEO D-Streamer™ IP/SDI+HDSDI+HDMI
2. Amino 140
3. VideoWebTV STB
4. Lukas Decoder
5. DVEO T-Ramp™ IP/SDI+HDSDI+HDMI

## Cameras/Servers Tested With

1. GoPro HERO 2
2. Panasonic AG-AC130
3. DataVideo HS2000
4. Canon 5D
5. Sony PMW-EX-1
6. Sony XDCAM EX
7. ARRI EX1
8. ARRI EX1
9. More to come!

## Standards/Resolutions

Video Standards	PAL, NTSC
SDI Video Resolutions	1920x1080p 30/29.97/25 Hz 1920x1080i 60/59.94/50 Hz 1280x720p 60/59.94/50/30/29.97/25 Hz 720x576i 50Hz
HDMI Video Resolutions	1920x1080p 60/59.94/30/29.97/25/24/23.97 Hz 1920x1080i 60/59.94/50 Hz 1280x720p 60/59.94/30/29.97/25/24/23.97 Hz 720x576p 50 Hz 720x576i 50 Hz 720x480p 59.94 Hz; 720x480i 59.94 Hz 640x480p 59.94 Hz

## Ordering Information

nanoCASTER® Analog – NC/A  
 nanoCASTER® SDI – NC/SDI  
 nanoCASTER® HDMI – NC/HDMI

Accessories Included:

- Camera Mounting Kit (Hot shoe) – For SDI and HDMI models
- Power Supply Unit – Analog
- Power Supply Unit – SDI and HDMI

## Specifications

### General Specifications

	Analog	HDMI	SDI/HD-SDI/3G-SDI
SD Resolutions	X	X	X
HD Resolutions		X	X
Composite Video Input (RCA connector*)	X	X	X
S-Video Input (mini-DIN connector)	X		
HDMI Video Input		X	
SDI Video Input with embedded Audio (BNC connector)			X
Stereo Analog Audio Input (RCA connector*)	X	X	X
Rechargeable Battery Li-Ion 3.7V 2800 mAh (10,3 Wh)	X	X	X
Hardware De-Interlacer and Image Enhancer		X	X

\* via break-out cable

### Video Inputs

SDI/HD-SDI/3G-SDI	0.8 VP-P, 75 Ohm (BNC, embedded audio support) (SMPTE259M, SMPTE292M, SMPTE424M)
HDMI	Type C, HDMI specification 1.1
Composite	1 VP-P, 75 Ohm
S-Video	1 VP-P (Y), 0.3 VP-P (C – Pal), 0.286 VP-P (C – NTSC), 75 Ohm

### Audio Inputs

Stereo	unbalanced, AC coupled, Audio nominal level: -10 dBV (0,316Vrms), Maximum level: 2 VP-P, Microphone nominal level: -60 dBV (1mVrms)
SDI Embedded Audio (2 channel)	SMPTE 272M, SMPTE 299M
HDMI Embedded Audio (2 channel)	HDMI 1.1 compatible audio interface

### Encoding

Encoding	H.264 (MPEG-4 AVC Part 10; ISO/IEC 14496-10)
Supported Profiles	Baseline, Main-, High-; supported levels: 1.- 4.1.
De-Interlacing	HDMI-in + SDI-in models come with a integrated De-Interlacer and image enhancer
Encoding Bitrates	250Kb/s – 8 Mb/s, CBR, low latency enabled
Audio Encoding	MPEG-4 AAC LC (ISO/IEC 14496-3)
Supported Sample Rates	16/22.05/32/44/48 kHz (analog Audio) / 48 kHz (SDI Audio, 16 Bit Sample Rate, 16-128 kbit data rate)
Stream Output	MPEG-2 transport stream (ISO/IEC 13818-1) encapsulated in RTP (RFC 3550) including Audio (AAC) and video (H.264) or RTMP with limitations in bandwidth (appr. 2 Mbit/s)
I/O Specifications Network	10/100TX Ethernet, RJ45, half/full duplex, auto-sensing
Streaming Traffic	Unicast and Multicast traffic supported
USB	1x USB 2.0 (on board Connector), High Speed, Type A socket

### Physical & Power

Dimensions (H/W/D)	2.95 x 4.92 x 1.3 inches (75 x 125 x 33 mm)
Weight	SD Analog: 9.17 oz. (260 grams) SD/HD-SDI/3G-SDI or HDMI: 12.7 oz. (360 grams)
Power	5V DC / 2.1 A (SD Analog – Micro USB), 8-24V DC / 2A (SD/HD-SDI/3G-SDI or HDMI – Molex locking connector)
Operating Temperature:	0 to +35°C, fanless
Humidity:	Up to 90%, non-condensing
Conformities:	FCC, CE, RoHS