

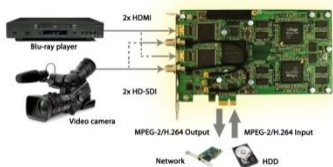
# Products: nabiTV™ Bcaster (SDIx2)

“2 Channels HDMI/ SDI or MPEG-2 entered, H.264/AAC Encoding them to RTSP over RTP-E.S with broadcasting on the IP”



## Functions

- A/V Input : x2 HD or x4 SD channels Capture & IP input
- A/V Encoding : x2 HD or x4 SD channels multibit rate encoding
- A/V Output: x2 HD or x4 SD channels multibit rate Packets or File
  - . H.264 TS IP Unicasting and Multicasting
  - . RTSP over RTP-ES Announced unicasting
  - . .mp4 file format on the Storage.



encoding board

## Features

- A/V Input : x2 HDMI, x2 SDI, x4 RCA & RF, x2 or x4 MPEG-2 TS
- CODEC : H.264 and AAC(LC-AAC, HE-AAC), AC3
- Output to Packetized & File format :
  - . ISMA profile 0, 1, 2, 3, 4 & Closed caption v1, 2, Encryption v1, 2
  - . H.264 TS, RTSP, RTP-ES, SDP, RTCP
  - . Standard .mp4, ISMA .mp4, Instant-on .mp4
- Patent: **SIMD Acceleration/Instant-on/Skip-protection/RTP-redirection**



## Design

- Middle tower Type
- GUI configuration
- 2 Gigabit Ethernet ports



## Products: nabiTV™ Bcaster (SDIx8)

“SDI & HDMI with IP entered to H.264/AAC encoding them to RTSP over RTP-E.S with broadcasting on the IP”



### Functions

- A/V Input : x4 or x8 HD channels Capture & IP input
- A/V Encoding : x4 or x8 HD channels multibit rate encoding
- A/V Output: x4 or x8 HD channels multibit rate Packets or File
  - . H.264 TS IP Unicasting and Multicasting
  - . RTSP over RTP-ES Announced unicasting
  - . .mp4 file format on the Storage.
  - . x4 or x8 HD MPTS or SPTS on x2 ASI (Optional)
  - . X4 or x8 HD MPTS or SPTS on x1 IP UDP (Optional)

### Features

- A/V Input : x4 or x8 HDMI, x1 ASI, x4 or x8 MPEG-2 TS
- CODEC : H.264 and AAC(LC-AAC, HE-AAC), AC3
- Out put to Packetized & File format :
  - . ISMA profile 0, 1, 2, 3, 4 & Closed caption v1, 2, Encryption v1, 2
  - . H.264 TS, RTSP, RTP-ES, SDP, RTCP
  - . Standard .mp4, ISMA .mp4, Instant-on .mp4
  - . PSI/SI editing and inserting, IP null packet filter, PID filter & transparent transport(Optional)
- Patent: SIMD Acceleration/Instant-on/Skip-protection/RTP-redirection

### Design

- 2U rack-mount device for 19” telecoms rack
- Streaming as multicast(UDP) and unicast(HTTP)
- 4 + 2 Gigabit Ethernet ports & 1 RJ45 type console port
- Front panel LCD & Button for configuration with system information
- Remote administration Web & Java interfaces
- BISS support, ssh console, Linux 2.6.x OS

# Products: nabiTV™ Bcaster (SDIx2, SDIx8)

## ► Specification

### Inputs

Video -HD x2, x4, x8 HDMI,  
-HD x8 SDI 75 Ohms BNC(Only SDIx8 model)  
. SMPTE 259M(SD-SDI)  
. SMPTE 292M(HD-SDI)

Audio -HD x2, x4, x8 HDMI  
-HD x8 SDI 75 Ohms BNC(Only SDIx8 model)  
. SMPTE 259M(SD-SDI)  
. SMPTE 292M(HD-SDI)

Media -HD x2, x4, x8, SD x4 ~ x16 channels MPEG-2  
-HD x2, x4, x8, SD x4 ~ x16 channels H.264

CODEC -MPEG-2 up to 1920x1080@60i  
(Video) -H.264 up to 1920x1080@60i

CODEC -MPEG-1 Layer I, II, MP3  
(Audio) -Dolby Digital AC3 5.1  
-Dolby Digital Stereo  
-DTS HD multi-channel  
-HE-AAC, LC-AAC

Format -MPEG-2 TS  
-H.264 TS

### Subtitles, Tag, Filters

Subtitle -Closed captions(SMPTE-334M)  
-Vobsub, Kate, Text files,  
-Universal Subtitle Format(USF)  
-VCD/SVCD/DVD, OGM, CMMML

Tag -ID3 tag, APEv2, Vorbis comment

Filter -De-interlacing  
(Video) -Cropping  
-Noise reduction  
-Sharpening

Filter -Update devices through NMS port  
(Audio) -LCD panel keyboard operating  
-Network management(SNMP)  
-IPv6  
-CPU acceleration  
-SIMD acceleration  
-ISMA profile 0,1,2,3,4  
-Instant-on .mp4  
-Skip-protection  
-RTP-redirectation

### Hardware

Host Embedded system

Capture Embedded system

### Outputs

CODEC -MPEG-4 Part10/H.264/AVC  
-MPEG-2  
-MPEG-4 Part3/AAC, LC-AAC, HE-AAC  
-MPEG- Layer II/III, AC3

Multiplexing -MPEG-2 or H.264 TS UDP or HTTP  
-ISMA/Instant-on/Skip-protection/  
RTP-redirectation RTSP over RTP-E.S

Level 3.0, 3.1, 3.2, 4.0, 4.1, 4.2, 5.0, 5.1

Resolution 320x240, 352x240, 720x480, 720x576,  
1280x720, 1440x1080, 1920x1080

Frame rate 15P, 25P, 30P 50P, 60P  
50i, 60i

Bit rate -Video : 128Kbps ~ 19Mbps  
-Audio : 16Kbps ~ 384Kbps

Sampling rate 32KHz, 44.1KHz, 48KHz

Entropy coding -Main/High profile : CABAC  
-Base line profile : CAVLC

Encoding Method -Announced unicasting  
-Unicasting, Multicasting  
-CBR/VBR 1 pass Encoding

ETC., -Key frame insertion  
-Auto scene change detection  
-Resize function

### Storage

HDD -NONE