Stingray
FURNACE SET TOP BOX

Controlled HD Video Delivery
Performance STB Solution for Furnace Systems

The **Stingray™ Set Top Box** (STB) is a compact InStream™ enabled IP video appliance delivering high definition content to flat panel displays for Furnace IP video systems. The Stingray is ideal for both user and administrator controlled environments, securely delivering up to 1080p high definition. Benefiting from the client-server design of InStream, all Stingrays can be centrally managed, are extremely easy to provision, and never require manual updating.

Easy Installation, No Updating. The Stingray is a dedicated hardware platform that supports the same InStream "zero footprint" player that is available to desktops on all Furnace systems. Upon power up, the Stingray communicates directly with the Furnace Portal Manager server to obtain the latest available InStream client. During operation, the Stingray maintains constant communication with the Portal Manager assuring that 1) the video available is in line with any conditional access rights assigned, 2) the guide data is updated regularly, 3) any video access is logged into the extensive VF Reports system, and 4) the administrator can have 100% control over the Stingray at any time or against any schedule from Furnace's powerful VF Command and Control module.

Harmonized with InStream. The InStream client for the Stingray is almost identical in look and feel to those available on desktop systems, and extended control is available by using the infrared remote control provided. Channel guides, electronic programming guides, and VoD content is updated constantly. The video on demand experience is also identical to that available on the desktop, with full fast forward and rewind available at any speed. Video HotMarks™ for chosen video on demand assets are also available and searchable so users can access the most appropriate content directly without visual searches.

Central Control. VF Command and Control allows administrators to dictate the behavior of individual, groups, or all Stingray STBs on the Furnace network on an ad-hoc or scheduled basis. Some typical use cases of this feature include: turning a group of Stingrays to a particular channel for controlled HD signage, allowing users in a common area to have channel control to the display but returning the Stingray to a pre-established channel on a schedule (perhaps every half hour), to turn off the output of all Stingrays after hours so the connected displays go into low power standby mode, to message (perhaps with scrolling text overlays) to Stingrays in a certain area that an event is pending. The Furnace can even be integrated with an emergency messaging system.

Content Protection. The Stingray fully benefits from the end-to-end security framework of the Furnace IP video system and supports AES decryption of multicast or unicast signals. This is especially important for deployments where live video is transmitted and the content needs guaranteed protection against recording. Such is the case with live professional sports where content is very valuable to the owners or within medical where patient confidentiality is paramount.

Flexible Decoding and I/O. The Stingray supports most MPEG standards, including SD and HD H.264. The Stingray can also support specific computer resolutions, useful when a live computer source (perhaps a signage system player centrally located) is connected to a Makito encoder. The new Stingray (VF-STING) now comes standard with HDMI, component, and composite outputs. Finally, for supporting additional IP devices or providing IP access local to Stingray, it comes standard with a second Ethernet LAN port.

Feature Details

- SD/HD Set Top Box
- InStream™ viewer compatible
- VF Now video-on-demand support
- VF Command and Control compatible
- VF Conditional Access compatible
- SlideCaster compatible
- Closed caption support
- AES Decryption
- 32-bit color graphics with alpha-blending
- IR Remote Control standard
- Automatic provisioning and upgrades

(rear view)

Specifications

VIDEO DECODING

Compression Standards:
- MPEG-1
- MPEG-2
- MPEG-4 Part 2
- MPEG-4 Part 10 (H.264)

Video Resolutions:
- 1920x1080p 30/29.97/25 Hz
- 1920x1080i 60/59.94/50 Hz
- 1280x720p 60/59.94/50 Hz
- 720x480/576i 60/59.94/50 Hz
- 720x480/576p 60/59.94/50 Hz
- (interlaced shown in fields per second)

Computer Resolutions:
- 1280x1024 60 Hz
- 1280x768 85/75/60 Hz
- 1024x768 85/75/60 Hz

Video Bit Rates (bps):
- SD video 450k to 15M
- HD video 1.5M to 15M
- Computer 800k to 9M
- CIF 150k to 15M

AUDIO DECODING

Compression Standards:
- MPEG 1 Layer II ISO/IEC 11172-3
- MPEG-2 AAC-LC ISO/IEC 13818-7
- MPEG-4 AAC-LC ISO/IEC 14496-3

Audio Channels:
- 2 per video channel

Bit Rates:
- From 32 to 448 kbps per audio pair

Frequency Response:
- From 20 Hz to 22 kHz

IP NETWORKING

Networking Protocols:
- Unicast Streaming (TCP VF Now for VOD)
- Multicast Streaming
- MPEG Transport Stream over UDP
- VFTP

MANAGEMENT INTERFACES

Management via IP using Furnace Portal Manager (VF Command&Control)
Configuration via IP using Furnace Portal Manager (VF STB Imager)
Local control via Infrared Remote Control

Stingray (VF-STB)

Video (Output):
- S-Video NTSC/PAL
- Composite NTSC/PAL
- Y, Pb, Pr Component Analog
- (separate component cable required)

Audio (Output):
- Unbalanced Stereo Analog Audio

Network:
- RJ45
- Ethernet 10/100/1000 Base-T, auto-detect, Half/Full-duplex
- Static IP/DHCP

Remote Control:
- Infrared Remote Included

Dimensions:
- 60mm H x 260mm W x 245 mm D
- (2.36"H x 10.24"W x 9.64" D)

Weight:
- 3.5 lbs.

Power:
- External power supply
- 100/240V 1.4A 60/50Hz input
- 12V 4.16A max.output

Stingray2 (VF-STING)

Video (Output) :
- Composite NTSC/PAL
- Y, Pb, Pr Component Analog
- HDMI

Audio (Output):
- Unbalanced Stereo Analog Audio
- HDMI Embedded Digital Stereo Audio

Network:
- RJ45
- Ethernet 10/100/1000 Base-T, auto-detect, Half/Full-duplex
- Static IP/DHCP
- 2nd Ethernet Port (RJ45) for LAN Pass Thru

Remote Control:
- Infrared Remote Included

Dimensions:
- 44mm H x 205mm W x 200 mm D
- (1.7"H x 8.07"W x 7.87" D)

Weight:
- 3 lbs.

Power:
- External power supply
- 100/240V 1.4A 60/50Hz input
- 12V 4.16A max.output

Ordering Information (please obtain complete system quotations from Haivision or an authorized Haivision integration partner)

VF-STB — **Furnace Stingray Set Top Box –** MPEG 1/2/4 & H.264 SD, HD, & WXGA. Ethernet, InStream Viewer and Program Guide Support. Composite, S-Video, and Component (*optional cable required) Outputs

VF-STING — **Furnace Stingray2 Set Top Box –** MPEG 1/2/4 & H.264 SD, HD, & WXGA. Dual Ethernet, InStream Viewer and Program Guide Support. Composite, S-Video, Component, and HDMI Outputs