

OnRamp S-S2/ASI™

Professional Multichannel Linux® Based DVB-S-S2 to ASI Gateway that Integrates Our Professional Satellite QPSK (DVB-S/DVB-S2) Based RF Receivers and Demodulates and Routes any or All Selected Transport Streams via ASI Output Port. Can Work as a Low Cost “Catcher” in Small VOD Implementations.



Overview

The OnRamp S-S2/ASI™ is a professional DVB-S or S2 to ASI Gateway that inputs a mixture of several satellite channels and outputs them to an IP network. Resulting streams can be viewed with standard IP capable set-top boxes or streaming video software clients such as VLC or MPlayer. OnRamp S-S2/ASI receives DVB compliant streams, demultiplexes the requested channels and streams these channels using UDP, RTP or HTTP via IP networks as either IP multicast or IP unicast streams.

OnRamp S-S2/ASI can receive transport streams from one or more satellite transponders, different satellites, simultaneously. The system supports MPEG-2 or H.264 input and output. Forwarding of PIDs via IP is transparent and does not depend on the content of each individual elementary stream.

Depending on the configuration, it forwards selected programs via IP datacasting; PAT, PMT, video PID, audio PID(s) and PCR information are transmitted. The OnRamp S-S2/ASI/Sat selects all required PIDs and multiplexes the demultiplexed transport stream packets into IP packets.

The unit provides PID filtering of all unwanted traffic, increasing system performance and the number of channels, which can be transmitted per unit.

Programs can be forwarded (pushed) as transport stream packets via UDP or as RTP (real time protocol) payload (RFC 2250). Pushing can be either unicast or multicast. In addition to push, programs can be forwarded on request (pulled) using HTTP streaming. Each individual converted program channel consists of all necessary elementary streams and clocking information to present a synchronized A/V signal.

We also offer a similar system with the capability of transcoding the streams into H.264 format – see our MPEG Gearbox™.

Features

- Simultaneously receives transport streams from up to four satellite receivers and converts the output to ASI
- Supports MPEG-2 and H.264 input and output, in SD and HD format
- PID filtering
- DVB-S or S2 inputs
- Separate (up to 3) DVB ASI outputs for each stream
- Supports DISEqC
- Transmits PAT, PMT, and PCR information
- Can forward a complete transponder on each channel
- Remote configuration management via Web Browser and Secure Shell (SSH)
- De-encapsulates data streams
- Option for store and forward
- Optional support for encrypted streams (CAM modules)
- Supports NTSC or PAL
- Based on embedded Linux®
- For system with transcoded H.264 output capability, see MPEG Gearbox™

Applications

- Cable TV
- Telco TV
- Hotels, Ships, Universities, Resorts



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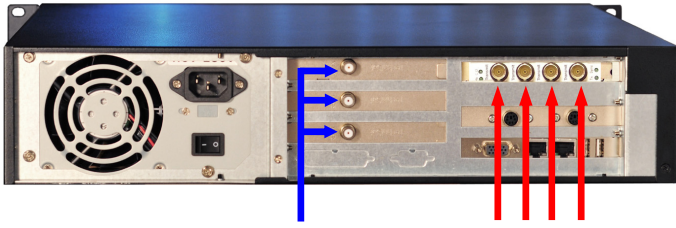
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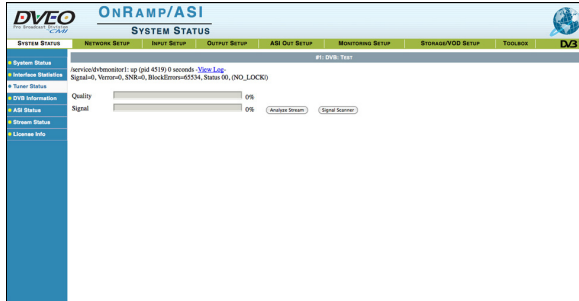
Input/Outputs



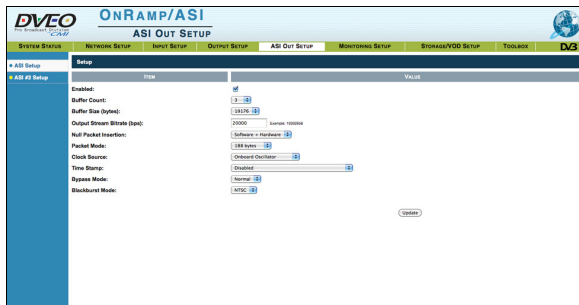
RF Inputs

ASI Outputs

Sample GUI's

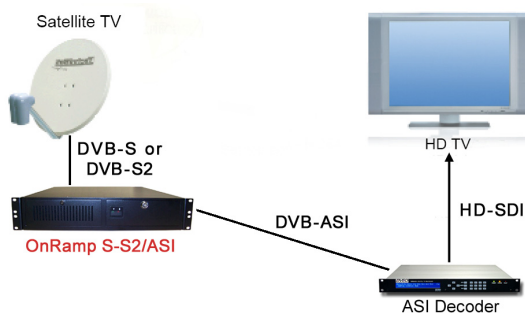


Status Screen



ASI Output Setup

Block Diagram



Ordering Information

- OnRamp S-S2/ASI – 2 RU, 1, 2, 3, or 4 S2 Receivers
- OnRamp S-S2/ASI/S+F – 2 RU with store and forward option
- OnRamp S-S2/ASI/ES – 2 RU with encrypted streams option
- TC Option – Transcoding from MPEG-2 to H.264 – see MPEG Gearbox

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Specifications

Supported Resolutions – Input and Output

1920 x 1080	720 x 480	480 x 480
1280 x 720	704 x 480	480 x 320
720 x 576	640 x 480	320 x 240

Note: With transcoding option (MPEG Gearbox), lower resolution results in higher transcodes.

DVB-S/S2

Modulation:	DVB-S, DVB-S2
Inputs:	L-Band, K-Band, Ku Band, etc.
Symbol rate:	1 to 45 MS/s
Frequency range:	950 to 2150 MHz, 70 to 1002 MHz
LNB control:	22 KHz, power H/V
Spectral inversion:	ON/OFF

DVB-ASI Output

Output:	DVB-ASI, 200 Mbps per port
H.264 bit rates:	64 Kbps to 12 Mbps

Administration

Access:	Web interface, ssh interface
SNMP:	Monitoring and alerts

Physical & Power

Size:	19" rack mounted, 2 RU high
Voltage:	85-265 VAC/50-60Hz, 50 watts
Temperature:	0°C to 50°C
Humidity:	5% to 95% non-condensing
Conformities:	UL, CSA, CE, RoHs

Store and Forward Option

500 Gig Drive:	Will store hundreds of incoming streams by any amount of time
Maximum Aggregate:	1,000 hours

Transcode Option – MPEG Gearbox

By utilizing an Intel Core i7 6 Core processor we can transcode up to:	15 SD Streams 4 to 6 720p HD streams 3 1080i HD streams 30 ½ D1 streams
H.264 throughput:	Up to 60 Mbps via Intel Core i7 6 Core



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