Overview

The OnRamp DVB-S-S2 8 Tuners/IP™ is a professional DVB-S or DVB-S2 to IP Gateway that inputs a mixture of several satellite transponders 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 JW Player. It receives DVB compliant streams, demodulates the requested channels, and forwards these channels using UDP or RTP via IP networks as either IP multicast or IP unicast streams.

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 DVB-S-S2 8 Tuners/IP selects all required PIDs and multiplexes the demultiplexed transport stream packets into IP packets.

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. Each individual converted program channel consists of all necessary elementary streams and clocking information to present a synchronized A/V signal.

The unit can perform PID filtering of all unwanted traffic, increasing system performance and the number of channels, which can be transmitted per unit. Often however, users just prefer to forward the incoming streams unaltered.

We also offer a similar system with the capability of transcoding the streams into H.264 format – see our Gearbox DVB-S-S2 8 Tuners/IP.
Inputs/Outputs – Standard

DVB-S/S2 inputs

IP Outputs  DVB-S/S2 inputs  AC Power

Inputs/Outputs – Optional

DVB-S/S2 inputs  SPF Tx/Rx

IP Outputs  DVB-S/S2 inputs  DC Power

Specifications

Supported Resolutions – Input and Output

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920 x 1080</td>
<td>720 x 480</td>
<td>480 x 480</td>
</tr>
<tr>
<td>1280 x 720</td>
<td>704 x 480</td>
<td>480 x 320</td>
</tr>
<tr>
<td>720 x 576</td>
<td>640 x 480</td>
<td>320 x 240</td>
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Note: With transcoding option (Gearbox), lower resolution results in higher transcodes.
Note: Supports closed captions.

DVB-S/S2 Input

- Modulation: QPSK (DVB-S), 8PSK (DVB-S2), 16APSK (DVB-S2)
- Inputs: 8 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
- Maximum raw throughput: 400 mbps

IP Output

- Output protocols: UDP, RTP, HTTP
- Bit Rates: .1 to 15 mbps per individual channel
- Ethernet: Up to 2 x 1Gb
- Type: IP-multicast, IP-unicast
- IP Modes: Parsed or unparsed streams

Administration

- Access: Web interface, SSH (Secure command line interface)
- SNMP: Monitoring and alerts

Physical & Power

- Size: 19” rack mounted, 2 RU high
- Voltage: 85-265 VAC/50-60Hz, 50 watts – Optional DC in
- Temperature: 0°C to 50°C
- Humidity: 5% to 95% non-condensing
- Conformities: UL, CSA, CE, RoHS
- Weight: 25.6 lbs. (11.6 kg)

Security

- Ports security scanned to MIL requirements prior to shipment

Transcode Option – Gearbox™ DVB-S/S2 8 Tuners/IP

By utilizing an Intel® Xeon® 16 Core processor we can transcode up to: 52 SD Streams, or 20 720p60 HD streams, or 13 1080i/p HD streams

Bit Rates:

- Multiple H.264 video streams at different bit rates (.1 to 15 mbps), resolutions, and protocols, wrappers, and containers
- Optional H.265: H.265 average bit rate supported. No constant or variable.

Ordering Information

OnRamp DVB-S/S2 8 Tuners/IP – 2 RU, 4 or 8 DVB-S/S2 Receivers
OnRamp DVB-S/S2 6 Tuners/IP/DC – 2 RU, 4 or 6 DVB-S/S2
OnRamp DVB-S/S2 8 Tuners/IP/ES – 2 RU with encrypted streams option
TC Option – Transcoding from MPEG-2 to H.264 – see Gearbox

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