

Video Formats

- (UltraHD) 3840x2160p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
 - (2K) 2048x1080p 23.98, 24, 25, 29.97, 30, 47.95, 48, 50, 59.94, 60
 - (HD) 1080i 50, 59.94, 60
 - (HD) 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94, 60
 - (HD) 720p 50, 59.94, 60
 - (SD) 625i 50
 - (SD) 525i 59.94
 - YCbCr, 4:2:2, 10-bit
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Video Codec Color Component Sampling

- 4:2:2, 10-bit/8-bit
 - 4:2:0, 10-bit/8-bit
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Video Codecs

- H.264 (AVC, MPEG-4)
 - H.265 (HEVC)
 - JPEG 2000 (VSF TR 01)
 - MPEG-2
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Audio Streams/Codecs

- AAC
 - AC3
 - MPEG-2 Audio
 - Uncompressed PCM (multichannel), SMPTE 302M-2007
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Metadata

- Closed Captioning (EIA-608/708)
- Line 21 Captions
- Metadata pass-through
- MPEG-2 ancillary packet support, SMPTE 2038
- SCTE-35, SCTE-104 (pass-through)
- Subtitles embedded within H.264 SEI messages
- Electronic program guide (EPG) on input

Containers and Protocols

- MPEG-TS
 - MPTS (input only)
 - RTMP/RTMPS
 - RTP, UDP
 - SRT (including encryption)
 - VSF-TR01
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Video Processing

- Auto Color Component Sampling based on I/O settings
 - Cropping / Padding
 - Color adjustments
 - Deinterlacing
 - Frame rate 50% down-conversion (60p->30p, 59.94->29.97, 50p->25p)
 - Frame rate up-conversion (50i->50p)
 - Logo insertion
 - Resizing
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Audio Processing

- Channel Remapping
 - Gain
 - Sample Rate conversion
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Synchronization

- Input PCR
 - Global configuration (in separate transport stream)
 - Local configuration (in each transport stream)
 - Output PTS
 - Pass-through
 - Add offset to input PTS
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Performance

- Stream startup time maximum 5 seconds after configuration applied
- Latency 200-700ms input to output (based on codec and other parameters)

- Up to 4 simultaneous primary HD streams, plus additional output variations per stream*
- Up to 1 primary UHD stream, plus additional output variations of that stream*

*Final additional stream count per output is dependent on configuration

Video Input Digital

- 12G-SDI, SMPTE-2082, 10-bit
- 6G-SDI*, SMPTE-2081, 10-bit
- 3G-SDI, SMPTE-424, 10-bit
- 1.5G-SDI, SMPTE 292M, 10-bit
- 270 Mbit/s SDI, SMPTE 259M-C, 10-bit

*UltraHD 30p supported, no other SMPTE-2081 support at this time

Video Output Digital

- 12G-SDI, SMPTE-2082, 10-bit
- 6G-SDI*, SMPTE-2081, 10-bit
- 3G-SDI, SMPTE-424, 10-bit
- 1.5G-SDI, SMPTE 292M, 10-bit
- 270 Mbit/s SDI, SMPTE 259M-C, 10-bit

*UltraHD 30p supported, no other SMPTE-2081 support at this time

Audio Input Digital

- 16-channel, 16 and 24-bit SDI embedded audio, 48 kHz sample rate, synchronous per SDI connection
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Audio Output Digital

- 16-channel, 16 and 24-bit SDI embedded audio, 48 kHz sample rate, synchronous per SDI connection
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Configuration and Monitoring

- Local “Kiosk” interface (keyboard, mouse and monitor)
- Remote access via Browser

- REST API
 - SNMP
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Form Factor

- 1RU turnkey system
 - 4x full size BNC (12G/6G/3G/1.5G-SDI compatible)
 - 2x 10GigE
 - Local interface via Display Port and USB
 - OS custom image
 - Updates and licenses via download
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Size (w x d x h)

- 17.2" x 16.9" x 1.7" (436.88 x 429.26 x 43.18 mm)
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Weight

- 28 lb. (12.7kg) in box
 - 18 lb. (8.2kg) server only
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Power

- 100-240 VAC 50/60 Hz (Dual, redundant power supplies)
 - 190W typical, 245W Maximum
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Environment

- Safe Operating Temperature: 5 to 35 C (41 to 95 F)
- Safe Storage Temperature (Power OFF): -40 to 60 C (-40 to 140 F)
- Operating Relative Humidity: 8-90% noncondensing
- Nonoperating Relative Humidity: 5-95% noncondensing