Streaming and Recording Appliance – Technical Specifications

(Pearl-2 with 4K upgrade)

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| Video and Audio Input Specifications | |
| HDMI ports | 4 (min), including 2 UHD |
| SDI ports | 2 (min) (must support 12G SDI) |
| DVI video input | 4 (min) |
| IP Cameras/sources | 2 (min) over RTSP |
| HDMI/SDI input resolution | Must support nearly any input resolution up to 3140x2160 including SD, 720p, 1080p, 1440p and 2160p. |
| Audio over HDMI | yes |
| Audio over SDI | yes |
| Audio over IP sources | yes |
| Analog audio input ports | 4 simultaneous inputs (min) available via 4 XLR and 2 RCA |
| Audio sensitivity | 12.3 V (RMS), +24 dBu |
| Live video switching | yes |
| Video Window Layout Specifications | |
| Layout types | completely user customizable via web interface (not just a fixed list of available layouts) |
| Layouts per program | 6 (min) |
| Scaling | downscaling and upscaling |
| Cropping | yes |
| Background images | yes |
| Transparent images | yes |
| Video and Audio Encoding Specifications | |
| Video codecs | H.264 |
| Encoding frame size | 640x480, 720p, 1080p, 1440p, 4K UHD, 4K DCI (min) |
| Encoding frame rate | configurable up to 60 fps at 1080p  support 4K UHD at 30 fps |
| Encoding bit rate | up to 20 Mb/s |
| Audio codecs | PCM, AAC, MP3 |
| Audio encoding bitrate | up to 320 kb/s or higher |
| Audio sampling | 22 kHz, 44 kHz, 48 kHz (min) |
| Simultaneous encodings | 6 at 1080p, 30 fps (min)  or 1 at 4K UHD, 30 fps (min) |
| Color space | 4:2:0 |
| Video Monitoring Specifications | |
| External display | 2 HDMI (min) |
| Built-in display | with touch screen functionality (must work without external display) |
| Audio monitoring | Visual and auditory (both required) with 3.5 mm jack, front-accessible |
| Video Recording Specifications | |
| Recording formats | AVI, MP4, MOV, MPEG-TS |
| Storage type | SSD |
| Storage space | 500 GB (min) |
| Local Video Output Specifications | |
| Video output ports | 2 HDMI (min), both must support 4K UHD output |
| Video output content | configurable (source or program) |
| Video output overlay | configurable (none/audio meter) |
| Video output audio | configurable (audio/none) |
| Video output delay | maximum delay 300 ms |
| Streaming Specifications | |
| Streaming to server protocols | RTMP, RTSP |
| Stream to smart TV | yes (min one of UPnP or SAP) |
| Stream to viewers | FLV, MPEG-TS, HLS (min) |
| Other Required Features | |
| Time synchronization | NTP, TIME (RFC 868), PTP v1 (IEEE-1588-2002 V1) |
| Authentication security | LDAP integration support |
| Form factor | Portable / all-in-one |
| Networking | 1000 (Gigabit) Ethernet, RJ45 |
| USB interface | 3 (min) USB 3.0 interfaces (1 front-accessible, 2 rear-accessible) |
| Serial control port | 1 9-pin for RS-232 (rear-accessible) |
| Power supply type | Integrated |