DataLux®

DSRS2 Streaming and Recording System

Product Overview

Datalux DSRS2 is an advanced dual-channel processor that enables recording and live streaming of AV content with exceptional reliability. Designed for classrooms, conference environments, training centers, and enterprise applications, it provides a streamlined way to capture presentations and distribute them either in real time or as stored media. The processor supports multiple input formats including HDMI, component, composite, and optional 3G-SDI, and can display two sources together using picture-in-picture or side-by-side layouts. Alongside the local sources, it is also capable of handling RTP/RTSP network streams, making it possible to create up to four simultaneous recordings and five concurrent live streams.

With its built-in storage and options for expansion via external USB or network drives, the DSRS2 offers secure and scalable recording capacity. Integrated control and scheduling functions simplify operation, while support for widely used streaming protocols ensures compatibility across platforms and devices. Unlike many competing products, the DSRS2 does not require recurring licenses, which makes it cost-effective to deploy at scale. Combined with its automation features, robust hardware design, and comprehensive configuration options, the processor provides a flexible and future-ready solution for delivering digital content to audiences anywhere.

Features

- Dual-Channel Support: Independently record and stream from two video sources with confidence stream options.
- Dual Source Processing – Capture and process up to two high-resolution AV signals from multiple input options (HDMI, component, composite, or optional SDI) with flexible layout management (PIP, PbP, side-by-side).
- Simultaneous Record Stream – Record content while streaming live to remote audiences or overflow rooms, without requiring a separate PC.
- Adaptive Scaling & Layouts – High-quality scaling with user-selectable window arrangements for clear viewing and optimized interpretation.
- Multi-Bitrate Streaming – Stream in two different resolutions/bitrates from the same source to suit both high-quality broadcast and low-bandwidth viewing.
- Network & Virtual Inputs – Ingest IP streams (RTP/RTSP) as virtual inputs, enabling up to four concurrent recordings including IP cameras and remote feeds.
- Flexible Output Options – Local HDMI confidence monitoring plus multiple pre-configured layout presets for quick switching between views.
- Wide Streaming Support – RTMP/RTMPS compatibility with popular platforms (YouTube, Facebook Live, Twitch, Zoom, MS Teams, etc.).
- Universal File Formats – Produce MP4 video and M4A audio files that play natively on PCs, mobiles, and media players.
- Robust Storage – Internal SSD plus options for external USB and defined network storage, ensuring scalable and secure archiving.
- Secure & Managed Operation – Authentication, scheduling, auto-reconnect for RTMP streams, and SMBv2/v3 support for enterprise networks.

Technical Parameter

Specification	Details
Video Input – HDMI	3 × HDMI (HDCP compliant)
Video Input – Component	1 × Component (Y, R-Y, B-Y; interlaced/progressive)
Video Input – Composite	1 × Composite video
Video Input – SDI (Optional)	1 × 3G-SDI / HD-SDI / SDI
Input Connectors – HDMI	4 × Type-A (3 input + 1 loop-through)
Input Connectors – Component/Composite	3 × BNC female
Input Connectors – SDI	1 × BNC female (optional)
Input Signal Level – Composite / Y	1 Vp-p
Input Signal Level – RGB / R-Y / B-Y	0.7 Vp-p
Input Signal Level – 3G-SDI	0.8 Vp-p
Horizontal Frequency Range	15 kHz to 100 kHz
Vertical Frequency Range	24 Hz to 75 Hz
Resolution Support	640×480 to 1920×1200 (RB), 480i/p, 576p, 720p, 1080i, 1080p, NTSC, PAL
Input Cable Equalization	Automatic up to –30 dB loss
HDMI Return Loss	< –30 dB @ 5 MHz
SDI Return Loss	>15 dB @ 5 MHz–1.5 GHz; >10 dB up to 2.97 GHz
3G-SDI Cable Distance	60 m (RG6), 45 m (RG59)
HD-SDI Cable Distance	120 m (RG6), 90 m (RG59)
SDI Cable Distance	150 m (RG6), 120 m (RG59)
Analog Video Sampling	12-bit, 13.5 MHz (low res), 165 MHz (RGB/YUV)
Digital Video Sampling	8/10/12-bit per channel
Digital Processing	4:2:2, 8-bit
Compression Standard	H.264/AVC, 4:2:0, 8-bit
Supported Profiles	High, Main, Baseline

Supported Levels	3.0, 3.1, 3.2, 4.0, 4.1
Bit Rate Range	200 kbps – 10 Mbps
Bit Rate Control	Variable, Constrained, or Constant
Encoding Latency	~130 ms (encode only)
Encode + Decode Latency	~600 ms (network dependent)
Video Output – Streaming	3 × H.264/AVC digital over Ethernet
Video Output – HDMI	1 × HDMI (local confidence)
Video Output Connectors	1 × RJ-45 (streaming), 1 × HDMI Type-A
Output Resolution – Archive/Record	512×288, 1024×768, 1280×1024, 480p, 720p, 1080p, custom
Output Resolution – Confidence	512×288, 1024×768, 1280×1024, 480p, 720p, 1080p, custom
Maximum Output Frame Rate	30 fps
Sync Standards – Video	NTSC 3.58/4.43, PAL
Sync Standards – SDI	SMPTE 259M-C (270 Mbps), SMPTE 292M (1.485 Gbps), SMPTE 424M (2.97 Gbps)
Recording File Systems	FAT32, NTFS, EXT2, EXT3, EXT4
Supported File Types	MP4 (H.264/AAC), JPEG, JSON, XML
File Transfer Protocols	FTP, SFTP, CIFS
Network File Sharing	CIFS/SMB, NFS
Recording Resolution	Matches stream resolution (up to 1080p @ 30 fps)
Recording Frame Rate	Matches stream frame rate (up to 30 fps)
Internal Storage Capacity	500 GB (SSD)
External USB Storage	2 × USB 2.0 (front/rear, up to 1.5 A)
External Drive Support	Up to 4 TB supportable
Background Image Support	PNG, JPEG
Audio Input – Analog	2 × Stereo (balanced/unbalanced), or 2 × Mono
Audio Input – Digital HDMI	3 × Stereo from HDMI
Audio Input – HDMI Loop	1 × Stereo (loop-through)
Audio Input – SDI (Optional)	1 × Stereo de-embedded
Audio Input Gain Adjustment	–18 dB to +24 dB (1 dB steps)
Audio Input Max Level	+18 dBu
Audio Input CMRR	>72 dB (20 Hz–20 kHz)

Audio Output – Analog	1 × Stereo (balanced/unbalanced)
Audio Output – HDMI	1 × Stereo (preview)
Audio Output – Network	1 × AAC-LC over Ethernet
Audio Processing	Mixing, EQ, filtering, dynamics
Audio Sampling Rate	16-bit, 44.1/48 kHz
Audio Compression	AAC-LC, 80–320 kbps stereo
Frequency Response	20 Hz – 20 kHz (±0.5 dB)
THD + Noise	<0.01%
Signal-to-Noise Ratio	>91 dB (balanced, unweighted)
Stereo Separation	>91 dB @ 1 kHz
Control Interface – RS-232	Serial, 9600–115200 baud
Control Interface – USB	Config, keyboard, mouse
Control Interface – Ethernet	1 × RJ-45, 10/100/1000Base-T
Supported Protocols	RTMP/RTMPS, RTP, RTSP, MPEG-TS, HTTP/HTTPS, DHCP, SSL, NTP, SNMPv2, IGMPv3, QoS
Power Supply	100–240 VAC, 50–60 Hz
Power Consumption	~30 W
Thermal Dissipation	~96 BTU/hr
Cooling	Internal fans, left-to-right airflow
Operating Temperature	0 °C to +50 °C
Storage Temperature	–40 °C to +70 °C
Humidity	10–90%, non-condensing
Enclosure Type	2U rack-mountable, metal
Certifications	CE, UL, FCC RoHS, LMPC
Product Weight	~2.7 kg (6 lbs)