

K Professional 4K Encoder and IPTV Streamer

- 12G-SDI & HDMI 2.0
- H.265 & H.264
- SRT & RTMP
- Dual Power Supply

UHD 12G SDI



Product Overview

The BLANKOM SHDE-4000 is a **broadcast-grade UHD Encoder** designed for 24/7 operation in professional environments. It combines high-efficiency H.265 (HEVC) encoding with versatile input options, accepting signals up to 4Kp60 via 12G-SDI or HDMI 2.0.

Built for reliability, the 1RU rackmount unit features **dual redundant power supplies**, ensuring uninterrupted transmission for broadcasters, IPTV providers, and live event streamers. With integrated support for SRT (Secure Reliable Transport), the SHDE-4000 guarantees high-quality, low-latency video delivery even over unpredictable public internet connections.

Key Features

- ✓ **True 4K UHD Encoding:** Supports input resolutions up to **4096x2160p60** and **3840x2160p60**.
- ✓ **Advanced Compression:** High-efficiency **H.265 (HEVC)** and H.264 (AVC) encoding saves up to 50% bandwidth compared to legacy standards.
- ✓ **Multi-Protocol Streaming:** Simultaneous output via **SRT**, RTMP/RTMPS, RTSP, UDP, RTP, HLS, ONVIF and FLV. Directly compatible with YouTube, Facebook Live, Vimeo, and Wowza.
- ✓ **High Reliability:** 19-inch 1RU housing with **Dual Redundant Power Supply Units (PSU)** for fail-safe operation.
- ✓ **Local Recording:** Integrated USB 3.0 interface and SAMBA server for local recording to HDD or USB sticks (NTFS/exFAT/FAT32).
- ✓ **Dual-Stream Output:** Capable of encoding a high-bitrate Main Stream (4K) and a lower-bitrate Sub Stream (1080p) simultaneously for flexible distribution.
- ✓ **OSD & Watermarking:** Supports text and logo insertion (Overlay) on both Main and Sub streams.

Applications

Live Broadcasting: Send broadcast-quality video from 12G-SDI cameras directly to studios or CDNs via SRT.

IPTV & OTT Headends: Distribute 4K content across LAN/WAN networks to Set-Top Boxes (STB) or Smart TVs.

Digital Signage & Hospitality: Reliable feed generation for hotels, stadiums, and campuses.

Remote Production: Low-latency video transmission for remote directing and monitoring.

Related Product

There is also the SHDE-400, which is a boxed version of the same unit with an external power supply.





Rear side view of SHDE-4000

Dual power supplies (PSUs) with IEC connectors, an inbuilt fuse, and a power switch.

HDMI
12G-SDI
2 pairs of stereo inputs by 3.5mm jacks.
GbE LAN

Key attributes

Parameter	Value
Video input	1x 12G-SDI (BNC), 1x HDMI 2.0
Audio input	Embedded (HDMI/SDI) + Analog Input/Output (3.5mm Jack)
Ethernet	1000 Mbps, RJ-45
Local recording	recording to USB 3.0 in NTFS/exFAT/FAT32 format, with SAMBA server mounting built-in for network connection to the recorded files
Dual stream output	high-bitrate Main Stream (4K) and a lower-bitrate Sub Stream (1080p) simultaneously
OSD & Watermarking	Text and image insertion as stream logo for Main stream & Sub stream.
Power adapter	AC input 100-240V 50/60Hz DC output 12V 2A
Management	Web GUI (English), Telnet
Operating temperature	-10 to 70 deg C
Storage temperature	-20 to 80 deg C
Relative humidity	5% to 90% non- condensing
Dimension	150*110*45 mm
Weight	500 g

Specifications are subject to change without prior notice.

Encoding

Parameter	Value
Video profile	H.264/AVC high/main/baseline, H.265/HEVC main, MJPEG/JPEG baseline
Video resolution	Up to 4096x2160 @ 60fps
Video bitrate	0.1...100 Mbps
Video fps	5-144FPS
Bitrate control	VBR/CBR/Strong CBR
Audio format	AAC/AAC+/AAC++/MP3/MP2/AC3 G711
Sample rates	44.1 kHz/48 kHz
Audio bitrate	12...640 kbps

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Streaming

Transmission mode	Protocol
Unicast	SRT / HTTP / HTTPS / HLS / FLV / RTSP / RTMP / RTMPS / ONVIF
Multicast	UDP / RTP

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Ordering information

Type	Description
SHDE-4000	1 Streamer in one 19" 1RU rack mount case
SHDE-4002	2 Streamers in one 19" 1RU rack mount case