

UHD-24/7

Ultra HD Baseband Video Playout Server for Broadcast / IPTV Head-end

XAVC, H.264, HEVC file ingest
Quad 3G-SDI outputs up to 60fps

Unlimited UHD playout duration
Native HDR support

FEATURES

Video Output

- Ultra HD (3840 x 2160p) resolution, with 4K cropping to UHD
- Full-HD (1920x1080p) support
- Frame rates : 23.98, 24, 25, 29.97, 30, 50, 59.94, 60fps
- 4:2:2 chroma sampling, 10-bit color depth
- Four 3G-SDI baseband outputs: QFHD Level A and Level B, and 2-Sample interleaved pixel (SMPTE 425-5)
- Time code and CEA 608 into 708 Closed Caption support
- Built-in upscaler from HD file (progressive) to UHD resolution
- Native HDR10 (PQ - SMPTE 2084) support
- Manual long duration playlists
- BXF traffic file import for playout scheduler control (option)

Audio Output

- 3G-SDI embedded audio, up to 16 channels 24b/48KHz

File Ingest

- Content ingest through 10GbE port (FTP) or USB drive
- Video Codec:
 - **XAVC** Intra and Long-GOP
 - **MPEG-4 AVC / H.264** Intra and Long-GOP
 - **HEVC / H.265** Intra and Long-GOP
 - Options for other pivot formats
- Audio Codec:
 - AAC, HE-AAC (v1 or v2), AAC-LC / MPEG-1 Layer II / PCM
 - Dolby™ AC-3, E-AC-3, AC-4 audio pass-through
- Containers: **.mxf, .mp4, .ts**

UHD-24/7 is an innovative, easy to control and affordable Ultra HD video playout server for professional satellite, terrestrial, cable networks, telco operators broadcasting and IPTV head-ends.

UHD-24/7 supports commonly used 4K pivot files formats at ingest. Files are scheduled by programmed events and playback is performed 'on-the-fly' through a professional four 3G-SDI video interface.

Secured by multiple HDD drives in RAID configuration, redundant power supplies and carrier-grade hardware quality, the UHD-24/7 delivers the expected reliability in any conditions either for Ultra HD migration validation, or extended program loop, and continuous 24/7 playout operation.

BBright's advanced technology and know-how enable the UHD-24/7 video server to deliver pristine picture quality for the most demanding 4K / Ultra HD workflows including HDR and Dolby™ AC-4.

CHASSIS

- 1RU chassis with 10 front loading 2.5in HDD slots
- Carrier-grade built quality and reliability for broadcast
- Redundant power supplies (hot swappable), 100-240 VAC, 50-60Hz, 750W
- Two 10Gb Ethernet ports for content Ingest and Control
- Two USB3.0 interfaces on front-panel and four on rear-panel
- Front-to-rear airflow
- Dimensions, W: 437mm, D: 610mm, H: 43mm (1RU)

CONTROL and AUTOMATION

- Intuitive Web-based G.U.I.
 - Playlist management or manual playout event scheduler
 - Alarms and logs
 - Firmware update
- SNMPv2 & v2c
- REST API
- Playout control by BXF automation

FRONT and REAR PANEL LAYOUT



INTERNAL ARCHITECTURE

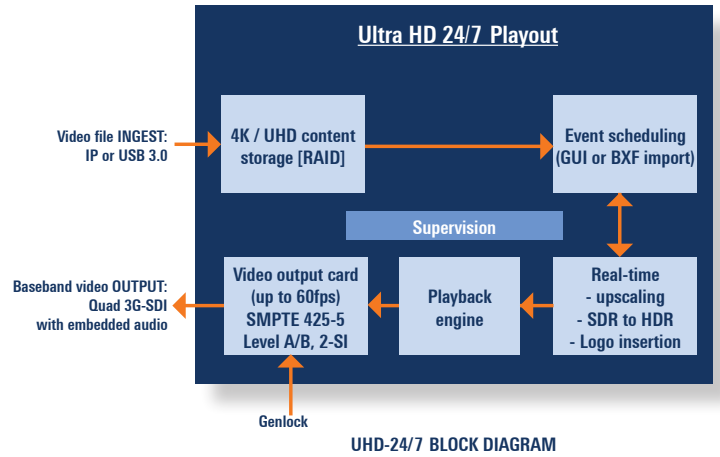
Content ingest is typically performed via an IP port/FTP transfert, or alternatively via an USB interface, on the 8x storage drives.

These video files are ingested faster than real-time, and then can be scheduled for playout in a simple playlist. Alternatively, playout can also be organised either on the web-based GUI or is under the control of an imported BXF traffic file.

Upscaling to UHD resolution can be applied in real-time to any HD (720p) or full-HD (1080p) file. The quad 10-bit, 4:2:2, 3G-SDI links output Level A / Level B or 2-Sample Interleaved modes.

Support for additional video Codec and logo insertion will be released by Q3 2016.

Dolby™ AC-3, E-AC-3 and AC-4 pass-through with embedded datastream into SDI is a standart feature. Multiple PCM tracks (up to 16 channels in 24-bit/48KHz) are also embedded into SDI.



UHD-24/7 is versatile for several different UHD use-cases:

QUALITY CHECKS	R&D LABS	SHOWS / EVENTS / DEMOS	UHD TRIALS	UHD PLOYUT
[specific uses-cases] <ul style="list-style-type: none"> Content: 4K - UHD footage quality controls Displays: UHD TV / Monitor / Projector quality controls 	[specific use-cases] <ul style="list-style-type: none"> UHD source to test other video broadcast equipment (recorder, converter, encoder, display / monitor / TV ...) 	[specific use cases] <ul style="list-style-type: none"> High bit rate (Intra-only or long-GOP) 4K - UHD file playback 	[specific use cases] <ul style="list-style-type: none"> Feed 4K - UHD workflow with a baseband source or ingest Alternative linear source for an UHD encoder 	[specific use cases] <ul style="list-style-type: none"> UHD playout with quad 3G-SDI baseband outputs and event scheduler Linear UHD channel source in head-end
→ CUSTOMER ADVANTAGES <ul style="list-style-type: none"> Flexible multiple format video file ingest Affordable 4K - UHD file player 	→ CUSTOMER ADVANTAGES <ul style="list-style-type: none"> Reliable and always available UHD quad 3G-SDI reference source Ensure accurate UHD frame playback 	→ CUSTOMER ADVANTAGES <ul style="list-style-type: none"> Absolute best and pristine video demos Flexible multiple format video file ingest 	→ CUSTOMER ADVANTAGES <ul style="list-style-type: none"> Complement 4K camera Reliable and affordable UHD quad 3G-SDI source 	→ CUSTOMER ADVANTAGES <ul style="list-style-type: none"> Comprehensive features and cost effective linear channel playout solution UHD source for unlimited 24/7 playout

STORAGE CAPACITY

Playout time (6x 1TB)	600Mbps	100Mbps	35Mbps	18Mbps
XAVC Ultra HD* 10-bit, 4:2:2	24 hrs	150 hrs (> 6 days)		
H.265 Ultra HD* 10-bit, 4:2:0			430 hrs (> 2 weeks)	850 hrs (> 1 month)

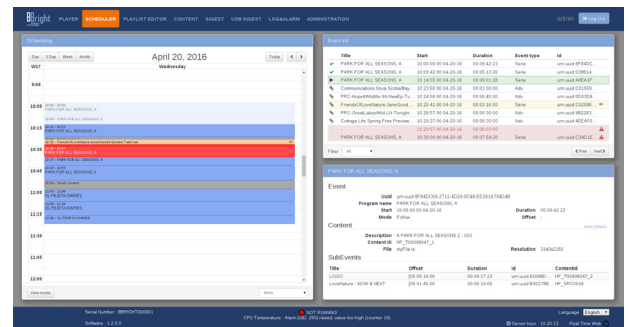
*: examples of playback durations associated to a given bit rate & compression Codec's. Other combinations of bit rates & supported Codec's can be ingested and played back

HARDWARE CONFIGURATION

HDD Content and System Drives

- Factory pre-installed appliance configuration:
 - Two 1 TB HDD drives for operating system and firmware, in [1+1] RAID 1 configuration
 - Eight 1 TB HDD drives for video content, in [n + 1] RAID 5 configuration
 - LINUX based

WEB G.U.I. SCREEN SHOT



ORDERING INFORMATION and AVAILABILITY

Part number: **UHD-24/7**

Playout server is available for shipment

Please contact sales for ordering details relative to product configurations or other requested option

May 2016, rev. 0.52. Product specifications are subject to changes without notice and are not contractual