

UHD-Channel is the first product issued from the newest BBright's B-Media software-based video processing architecture. Based on BBright's legacy of ease of operation, intuitive GUI design, cost effective Ultra HD solution, B-Media video architecture will change the perception typically associated to UHD complexity.

UHD-Channel adds workflow flexibility for interfacing with an external automation, logo insertion, various HDR video format playout and signalization, advert replacement. The video engine allows live SDR < > HDR conversions for inserted graphics and secondary output.

UHD-Channel secured solution delivers the expected reliability and availability in any conditions for 24-7 continuous Ultra HD playout or live production.

BBright's advanced software-based processing enables the daily delivery of pristine video and audio quality for the most demanding Ultra HD workflows and channels.

UHD-Channel

Scalable Live and Studio 4K / Ultra HD Media Production

XAVC - AVC Files
Uncompressed Inputs/Outputs, SDI or ST-2110

Multiple Logo Insertions
VDCP, 9-Pin, GUI, REST API Controls

FEATURES

Ultra HD Pivot File Source

- Video Codec:
 - XAVC-I (up to class 480), .mxf container
 - AVC/H.264 Intra only, .mp4 container
- Audio Codec:
 - PCM / Pass-through, 24-bit @ 48KHz
- File ingest through 10 GbE or direct playout from NAS

Live Input

- Interfaces: 3G-SDI / quad 3G-SDI, or ST-2110 [option]
- Either HD with built-in upscale or Ultra HD native

Media Engine - Video

- Ultra HD (3840 x 2160p) or full-HD (1920 x 1080p) processing
- 720p and 1080p resolutions up-scale to UHD
- Frame rates: 23.98 to 60fps (allowing Fps conversions)
- Native HDR10 (PQ - SMPTE 2084) and HLG support
- 4:2:2 chroma sampling, 10-bit color depth / WCG Rec. 2020

Media Engine - Ancillary Data and Metadata

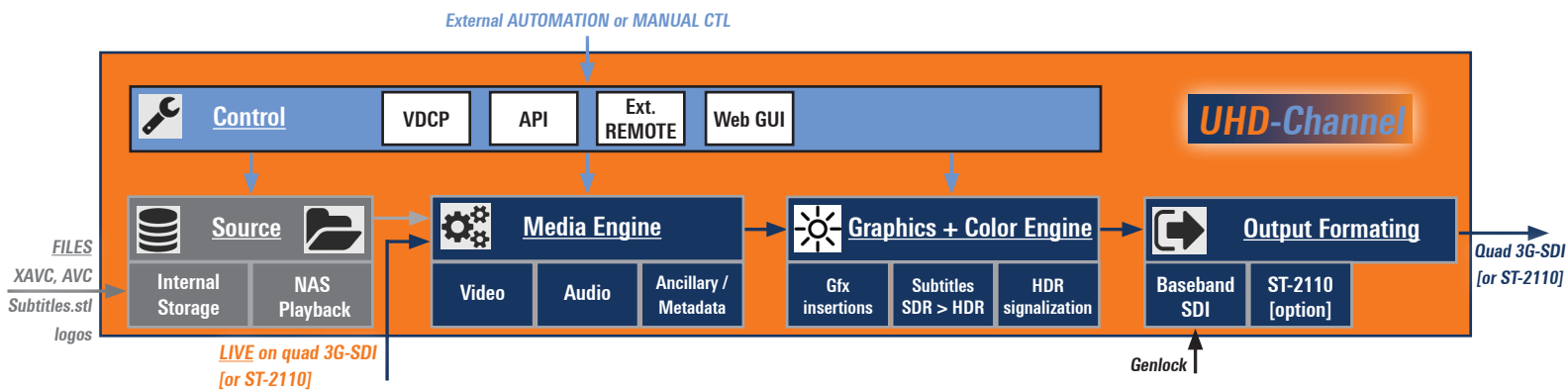
- Time Codes (server's time or file-based)
- CEA 608 / 708 Close Captions and OP47 subtitle support
- External .stl and .srt subtitle file support
- SDR subtitles real-time conversion into HDR and burn-in
- HDR signalization

Graphics and Color Engine

- Multiple still logos (.png, .tga, .tiff formats): X / Y positions with 4x Alpha layers and insertion time offsets

Output Formatting

- Baseband quad 3G-SDI outputs as standard; with optional secondary SDI outputs in Ultra HD or downscaled HD
- SMPTE-2110 baseband over IP [option]
 - ST-2110-10/20/30/40 support
 - NMOS discovery and registration
- Compressed HEVC/H.265 encoded TSolP output (On Roadmap)



UHD-Channel / Live Playout solution

INTERNAL ARCHITECTURE

Content ingest on the eight storage drives is typically performed via the 10 GbE port / FTP transfert, mounted NAS folder or, alternatively, playout can be processed directly from mounted NAS.

Playout can also be controlled by VDCP or 9-Pin compliant remote or a BBright REST API to be compatible with any external automation software vendor or live operation.

Upscaling to UHD resolution is applied in real-time to any HD (720p) or full-HD (1080p) file or live input. Frame rate conversion is automatically processed to match the defined channel output configuration.

Subtitle insertions / burn-in are supported for live operation with possible SDR to HDR tone mapping.

Up to 4 logo insertions on different Alpha layers enable creative channel branding/graphics.

CHASSIS

- 1RU chassis with 10x front loading 2.5in HDD slots
- Redundant power supplies (hot swappable), 100 - 240 VAC, 50 - 60Hz, 500W
- Separate 10 Gb Ethernet ports for content Ingest [with optional dual SFP modules] and unit / GUI Control
- USB3.0 interfaces on front-panel and rear-panel
- Front-to-rear airflow
- Dimensions, W: 437mm, D: 610mm, H: 43mm (1RU)
- Weight, 13 kg

STORAGE CAPACITY

Playout time (6 TB storage)	960Mbps	600Mbps	500Mbps	400Mbps
XAVC-I Ultra HD 10-bit, 4:2:2	14 hrs	22 hrs	27 hrs	33 hrs

Examples of playback durations associated to a given bit rate & compression Codec's.
Other combinations of bit rates and supported Codec's can exist

HARDWARE CONFIGURATION

- **HDD Content and System Drives**
 - Factory pre-installed appliance configuration:
 - Two 1 TB HDD drives for operating system, firmware and licenses, in RAID 1 [1+1]
 - Eight 1 TB HDD drives for video content, in RAID 5 [7 + 1]
 - LINUX based

UHD-Channel USE-CASES

- Externally controlled (either VDCP / 9-Pin or GUI) video production server
- UHD linear channel playout, with still logo/subtitle insertions driven by external automation
- HDR UHD playout, with live input pass-through and additional processing

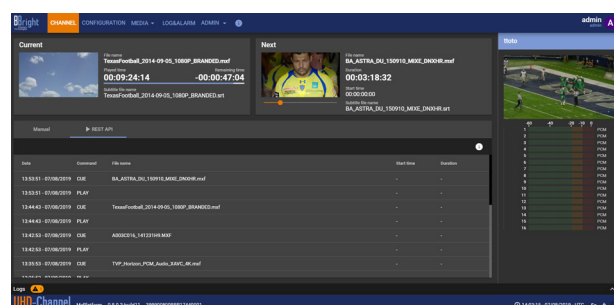
EASE of OPERATION

- Intuitive Web-based G.U.I.
 - Playout preview and N+1 file check
 - Comprehensive and easy to understand alarms and logs
 - On-the-field firmware and license updates
- As Run Log reporting
- **Genlock** (bi-level / tri-level) reference signal input

PLAYOUT CONTROL and AUTOMATION

- **VDCP** (serial RS422) as standard and BBright's **REST API**; compliant with external automation software
- *Internal playout event scheduler with embedded automation (On Roadmap)*

NEW WEB G.U.I.



ORDERING INFORMATION and AVAILABILITY

- Part number: **UHD-Channel**
- Option: **12x 3G-SDI inputs/outputs**
- Option: **ST-2110 inputs/outputs**
- Option: **VDCP - RS422 / 9-Pin control**
- Option: **Dual 10GbE ports on SFP/fiber interface**

Live playout server is available for shipment

Please contact BBright sales for ordering details and possible hardware configurations or other requested options

Aug. 2019, rev. 0.60. Product specifications are subject to changes without notice and are not contractual