

Nucleus delivers up to 6 × HD/WUXGA/2K of uncompressed playback at 60 fps or 1 × 4K at 60 fps in 4:4:4, with pixel-accurate synchronisation, camera-based auto-alignment option and real-time warp and blend features. With multi-timeline capabilities and external control options, the Nucleus is perfect for abstract mesh screens and fulldome projection for live events or planetaria.

Performance

- 6 × HD/WUXGA/2K uncompressed playback
- Up to 5760 × 2160 30 fps uncompressed playback in 4:4:4 / 4 × HD 60fps in 4:2:2
- Supports 1, 2, 3 or 4 × HD/WUXGA/2K projectors from one server
- High bit-depth capable
- TGA or DPX native standard file format playback
- Frame-based movie sequence and timeline workflow



Display Matching

- Flat, curved, full dome, 3D mesh screen shapes plus passive or active stereo 3D
- Real-time warp and blend
- Camera-based auto-alignment (3 × 3rd party providers)
- Pixel-accurate synchronisation including full video genlock between servers
- 3D interactive mesh mode with multiple eyepoints and meshes for object / building mapping
- Fulldome mode for live events or planetaria
- Overlap and underlap creation

Interactivity and Control

- Multiple timeline capability and reserve (emergency) timeline
- ASCII text-based external control via TCP/UDP/RS232*, plus internal macro scripting and ArtNet/DMX* command value mapping
- User creation and customisation of simple web-based interface
- Remote preview of any server's playback output

Technical Specification

- Video output: 2 × SDI outputs or 4 or 6 × DP / DVI outputs with EDID spoofing
- Audio output: 8 channels unbalanced (4 × 3.5 mm TRS mini jacks) options for 8 channels balanced outputs, CobraNet, Dante, AES
- Storage: up to 28.8 TB SSD internally, up to 100 TB externally
- Live capture options offer 3G-SDI, HD-SDI, DisplayPort or DVI or HDMI inputs (slot dependent)
- Networking: Gigabit Ethernet over 1 × RJ45 port
- Front panel health status plus control over playback
- Web control over EDID, playback plus user-created control web pages
- Backup media storage (spindle-based) option available
- Backup OS or RAID 1 OS optionally available
- Dimensions 3RU: 133 x 483 x 497 mm (H x W x D)
- Weight: 15 kg
- Power supply: 110 VAC-220 VAC, 2.2-1.1 A (typical)
- Power: 240 W
- BTU rate: 819