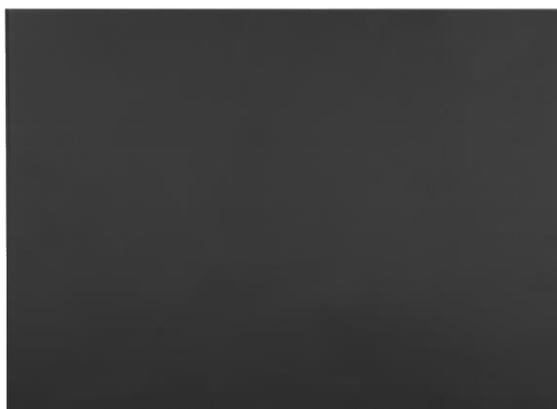**DVS**

DVS FATBOX SPARK4-A6000 PRO

Overview

The SPARK is the entry level in our range of media servers. Supporting up to four display outputs, the SPARK is a great solution for interactive and standalone custom rendered content.

The DVS FATBOX SPARK4-A6000 Pro is a fantastic mid-range performance medium form-factor system. The dedicated A6000 graphics card delivers excellent graphical performance and the intel-based processors options allow up to 8 cores and 16 threads for demanding single and multi-threaded workloads. The professional level graphics card gives great performance as well as additional features such as EDID emulation, supplying an extra level of reliability and in the Pro+ version (sync module) the server can frame lock between multiple units, or Genlock to an external source. The PCIe 4.0 NVMe M.2 slot allows for blistering fast storage options. There is also a PCIe 3.0 NVMe M.2 slot available for a secondary NVMe drive. The three 2.5" drive bays allow for higher capacity storage and RAID options. The FATBOX SPARK4-A6000 Pro is excellent for local 3D interactives and demanding digital signage applications.

Specifications

- DVS FATBOX Chassis - 247 x 211 x 366mm (WxDxH mm)
- 850 Watt PSU – 100 – 240V˜, 12 - 6A, 50 – 60Hz
- Mini ITX Motherboard (Intel Z590 Chipset)
- Intel Processor (4, 6 or 8 core)
- 16 / 32 / 64 GB DDR4 Dual Channel Memory
- nVidia A6000 Graphics Card (Up to 4 concurrent displays)

- 2 x NVMe M.2 Storage (Up to 2TB)
- 3 x 2.5" SATA Storage (Supports RAID 0, 1 & 5)
- 1 x 1 Gigabit Network Port
- 1 x 2.5 Gigabit Network Port
- Intel® 802.11ax WiFi Module + Bluetooth 5
- Operating System - Windows Enterprise IoT LTSC 2019 or Windows 10 Pro
- Optional Extras (Variants)
  - Sync Module
  - 3 x 2.5" SSD RAID (RAID 0, 1 & 5)

Variations

Model Number	SSD RAID	Sync Module
FATBOX SPARK4-A6000 Pro		
FATBOX SPARK4-A6000 Pro+		Yes
FATBOX SPARK4-RS-A6000 Pro	Yes	
FATBOX SPARK4-RS-A6000 Pro+	Yes	Yes

Graphics Card

|	
Chipset	RTX A6000
Microarchitecture	Ampere
Memory	48GB GDDR6
Memory Bus	384 Bit
Memory Bandwidth	768 GB/s
Interface	PCIe 4.0 (x16)
Microsoft DirectX Support	12 API
HDCP Ready	Yes
Maximum Concurrent Displays	4 Displays
Maximum Digital Resolution	7680x4320 @ 60Hz (8K UHD)
Outputs	4 x DisplayPort 1.4
EDID Emulation	Yes
Sync Module Supported	Yes
Supported API's	DirectX 12.0, OpenGL 4.5, Shader Model 5.1, Vulkan 1.0

Connectors

Front Panel
(Top Face)
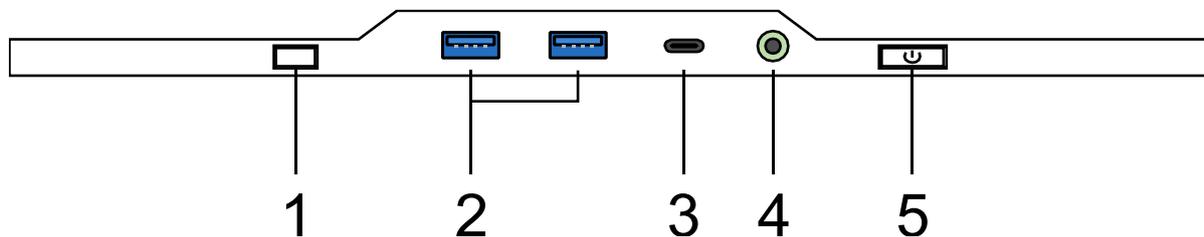
1. **Reset Button**
2. **USB 3.2 Gen1 Type A Ports**
3. **USB 2.3 Gen2 Type C Port**
4. **Headphone Audio Output**
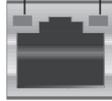5. **Power Button – With Power LED**

## Rear Panel
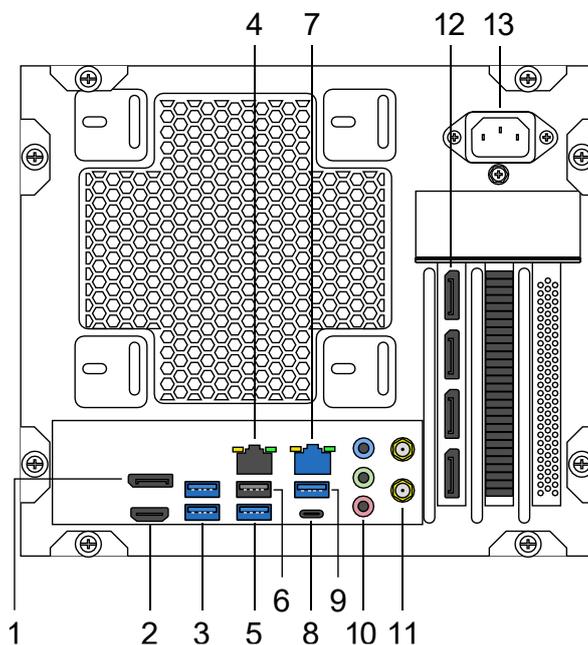
Variant with Sync Module
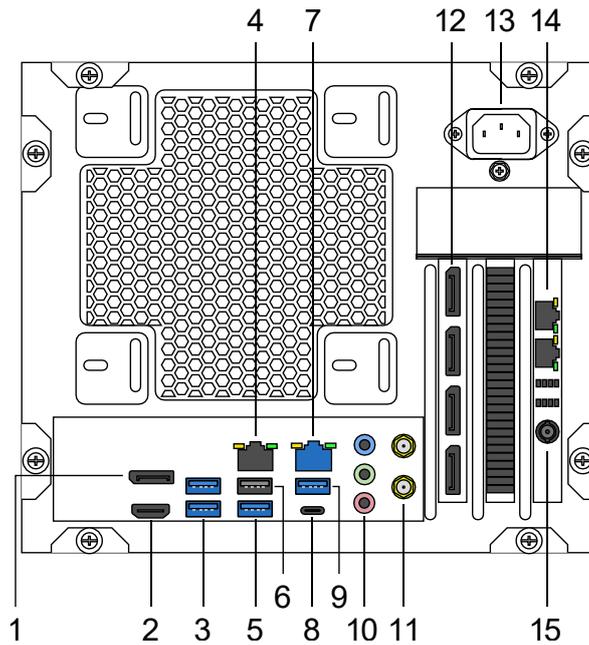
1. **Display Port (Onboard Graphics)**
2. **HDMI (Onboard Graphics)**
3. **USB 3.2 Gen2 Type A Ports**
4. **LAN RJ45 Port.** 1 Gb Network

LAN port LED Indications

Activity / Link LED		Speed LED	
Status	Description	Status	Description
Off	No link	OFF	10Mbps connection
On	Linked	ORANGE	100Mbps connection
Blinking	Data activity	GREEN	1Gbps connection

5. **USB 3.2 Gen2 Type A Port**
6. **USB 2.0 Type A Port**
7. **LAN RJ-45 Port**. 2.5 Gb Network

LAN port LED Indications
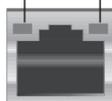
Activity / Link LED		Speed LED		
Status	Description	Status	Description	
Off	No link	OFF	10Mbps connection	
On	Linked	ORANGE	100/1000Mbps connection	
Blinking	Data activity	GREEN	2.5Gbps connection	

8. **USB 3.2 Gen2x2 Type-C Port**.
9. **USB 3.2 Gen2 Type A Port**
10. **Audio Ports.**
    a.   Line In (Light Blue)
    b.   Front Speaker (Lime)
    c.   Microphone (Pink)

In order to configure 7.1 Audio, you must utilise the headphone out on the front of the FATBOX.

Audio Ports in 7.1 Channel Configuration	
Port	Function
Light Blue (Rear panel)	Rear Speaker Out
Lime (Rear panel)	Front Speaker Out
Pink (Rear panel)	Central / Subwoofer Speaker Out
Headphones (Front panel)	Side Speaker Out

11. **Antenna Ports**
12. **Display Port 1.4 (x 4)**
13. **Power IEC.** Mains Power Input: 100 – 240V~, 12 - 6A, 50 – 60Hz (850W)
14. **Sync Module Daisey Chain (RJ45 x 2).** (Sync Module Variant)
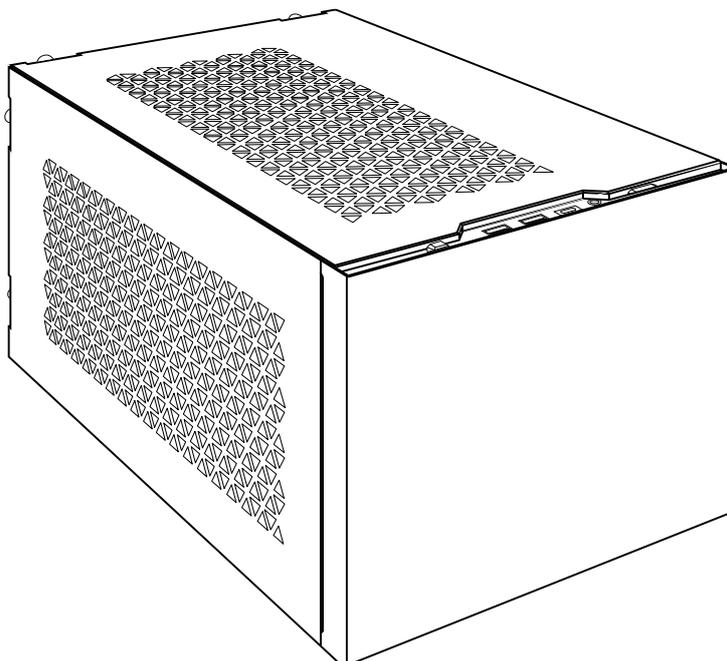15. **BNC Genlock Sync.** (Sync Module Variant)

Note* On board display connections are not available for use.

Internal Expansion

- 1 x M.2 Socket 2280 storage devices support (PCIE x4 Gen4 mode)
- 1 x M.2 Socket 2280 storage devices support (both SATA & PCIE x4 Gen3 mode)
- 3 x 2.5" Drive bays (SATA), Supports RAID 0, 1 & 5

Chassis Specification

The FATBOX Chassis additional rubber feet.

Colour	Black
Material	Aluminium Exterior, Steel Body
Case volume	19.07 litres
Case dimensions (Horizontal) - W x H x D (mm)	247 x 211 x 366

Ventilation

The FATBOX Chassis has direct ventilation for the processor and graphics card. This chassis has active ventilation at the back and passive ventilation at the right side (looking from the front of the chassis). The GPU has direct ventilation on the left and there is an active 140mm fan drawing air in from the top. This ventilation is the typical setup for systems built into this chassis, However, it is flexible in its configuration and so some custom setups could vary from this diagram.

DVS
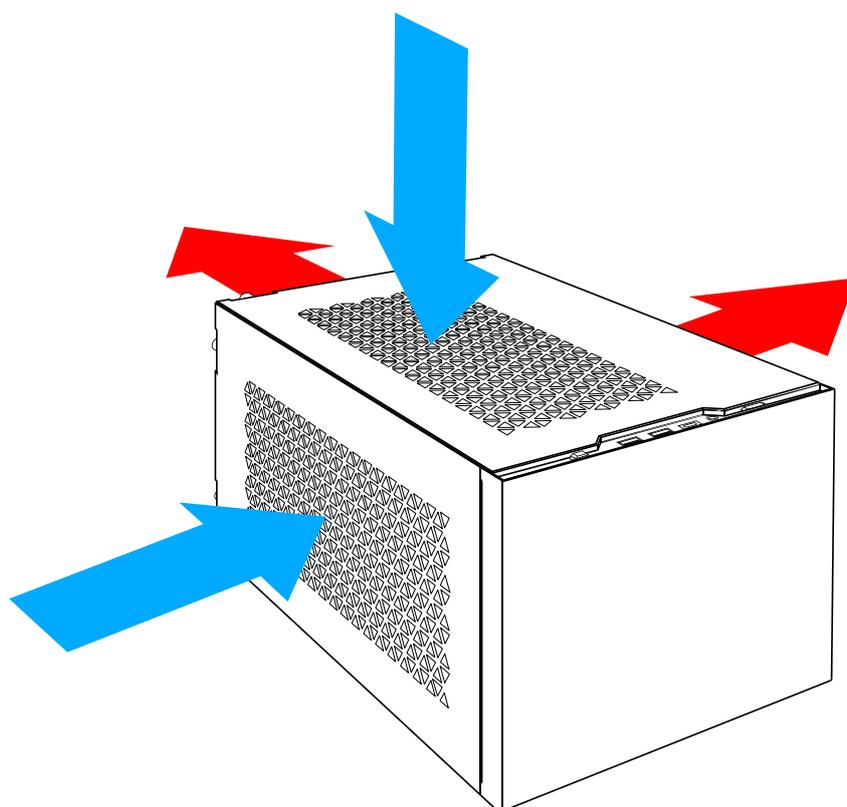
Supported Video Formats

The system comes with Windows installed as standard. Windows includes Windows Media Player by default. As of Windows Media Player 12 the following video formats are supported:

- Windows Media formats (.asf, .wma, .wmv, .wm)
- Windows Media Metafiles (.asx, .wax, .wvx, .wmx)
- Windows Media Metafiles (.wpl)
- Microsoft Digital Video Recording (.dvrms)
- Windows Media Download Package (.wmd)
- Audio Visual Interleave (.avi)
- Moving Pictures Experts Group (.mpg, .mpeg, .m1v, .mp2, .mp3, .mpa, .mpe, .m3u)
- Musical Instrument Digital Interface (.mid, .midi, .rmi)
- Audio Interchange File Format (.aif, .aifc, .aiff)
- Sun Microsystems and NeXT (.au, .snd)
- Audio for Windows (.wav)
- CD Audio Track (.cda)
- Indeo Video Technology (.ivf)
- Windows Media Player Skins (.wmz, .wms)
- QuickTime Movie file (.mov)
- MP4 Audio file (.m4a)
- MP4 Video file (.mp4, .m4v, .mp4v, .3g2, .3gp2, .3gp, .3gpp)
- Windows audio file (.aac, .adt, .adts)
- MPEG2 TS Video file (.m2ts)

Additional video formats can be supported by the installation of additional software.