



## **Flashlink**

# FLASHCASE II MODEL LIVE

# Rugged enclosure for 2 camera positions

The Nevion Flashcase II model Live is a rugged and compact product transporting all signals connecting two camera positions over a Neutrik quad fiber connection.

The product supports 2 HD-SDI input signals, 4 return HD-SDI signals, 2 balanced AES inputs, 2 balanced AES outputs and a Rieldel intercom interface. It can also be upgraded through plug-in modules to provide 2 black&burst outputs, 2 RS422/RS485/RS232, 3 GPI in, 3GPI out and GbE.

The signals are transported uncompressed and with a fixed latency less than one HD line. The Sync module is capable of adjusting its output phase allowing to have feeds from different location line synchronous towards downstream switchers.

The audio feeds are part of a multiplex that makes any feed from any location visible at all sites.

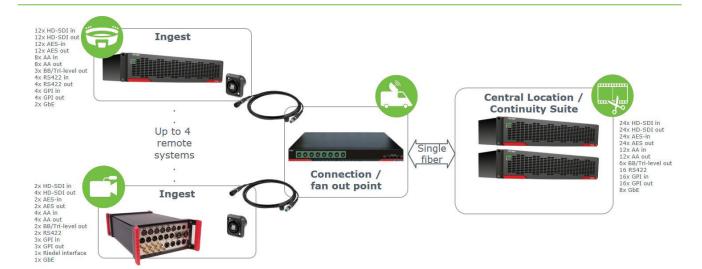
The Flashcase II model Live can also be equipped with CWDM to enable multiplexing of up to 8 Flashcase systems on to a single fiber connection. This enables remote production over dark fiber metro networks

#### **Applications**

- OB production
- Remote production
- Camera interfacing

#### **Key features**

- Covers all signals used in production
  - -2x HD-SDI in +4x HD-SDI out
  - -2x AES in +2x AES out
  - 2x Black and burst out
  - 2x serial port (RS422/RS485/RS232)
  - 3x GPI in + 3x GPI out
  - 1x GbE
  - 1x Riedel interface or 1x GbE
- · Latency: <1 HD line
- · Adjustable sync phase
- AES transport with routing
- CWDM support for single fiber adaptation
- In-band management
- · Neutrik opticalCON QUAD interface-



#### FlashCase II model live

The Flashcase II model Live comes as a basic variant with bidirectional video and audio transport. It features 2 HD-SDI inputs, 4 HD-SDI outputs, 2 AES inputs, 2 AES outputs and a Riedel intercom interface. The basic model is also pre-wired to accommodate 3 plug-in modules, an analog audio module, a sync module and a data module. These modules can be inserted from the front of the Flashcase.

## **Bidirectional video transport**

The video is transported asynchronously two 10G multiplexes, one for each direction. This ensures that each channel is transparently transported. The latency of the video feeds is fixed over the connection, meaning that between power cycles the delay does not alter. This allows the users to use the same setup in different locations and in different configurations without changing the timing of the system. The multiplex is optical, and support both low cost 13T and CWDM optical circuits.

#### Sync distribution

The sync distribution is done digitally, by transporting a SDI reference. This brings all the benefits from digital video transport to the sync distribution, such as signal restore through re-clocking. The SDI reference is multiplexed together with the other video signals. The received sync signal is then used to reference a generated black and burst or Tri-level signal. This signal can be phase adjusted sample by sample.

### **Bidirectional audio transport**

The audio is transported asynchronously on an SDTI multiplex that again is multiplexed into the video multiplex.

The asynchronous transport allows AES based intercom signals like Riedel Intercom to be transported over the link as well. The multiplex can fit up to 64 AES channels, and any AES output can reach any of the channels on the multiplex. The multiplex is presented to the control system as an audio level, allowing the user to consider the multiplex as an audio router. An analog audio module can be added as an option to provide two stereo pairs in each direction. These can also be used for 4-wire interfaces.

#### **Bidirectional data transport**

The serial data and GPI is encapsulated into IP and transported over an optical GbE link. The data transport module also features an Ethernet switch that provides two additional Ethernet ports. One is wired to the output as default, and the other can replace the Riedel interface connector. The optical GbE link supports both low cost 13T and CWDM optical circuits.

#### **Management**

The data transport module provides a in-band management link that enables the user to configure and control all the cards from a remote location through the system controller Multicon. Multicon provides a Web interface for easy configuration,. It also provides control panel interface for setting module parameters and routing levels in live operation.



# **Specifications**

#### Power

Power	12V/ 45W max
No of inputs	2x
Connector	XLR 4pin male, Sony compatible

#### Optical link port

No of ports	1x, (+1x unused)
Connector	Neutrik opticalCON QUAD

#### Video inputs

Formats supported	HD-SDI, SD-SDI, DVB-ASI
No of inputs	2x
Connector	BNC 75 Ohm
Cable equalization	Automatic >100m of Belden 1694A
Output level	800mV +/-10%

#### Video outputs

Format support	HD-SDI, SD-SDI, DVB-ASI	
No of inputs	4x	
Connector	BNC 75 Ohm	
Output level	800mV ±/-10%	

#### Sync signals

Format support	Black and burst, Trilevel
Cable equalization	Automatic >100m of Belden 1694A
Output level	800mV +/-10%

#### **AES inputs**

No of inputs	2x
Connector	XLR 3pin female
Sample rate	32-54kHz asynchronous
Bit depth	20bit, 24bit

#### **AES outputs**

No of outputs	2x	
Connector	XLR 3pin male	
Sample rate	same as input	
Bit depth	same as input	

#### **Analog audio inputs (optional)**

No of inputs	4x
Connector	XLR 3pin female
Dynamic range	Minimum 103dB(A), typical 107dB(A)
Frequency respons	se 20Hz - 20kHz +/- 0.1dB

#### **Analog audio Outputs (optional)**

No of outputs	4×
Connector	XLR 3pin male
Dynamic range	Minimum 99dB(A), typical 105dB(A)
Frequency response	2 20Hz - 20VHz +/- 0.1dB

#### Configurable serial data port (optional)

Signal format	RS232 or RS422/RS485
No of ports	2x
Connector	RJ45
Data rate	9.6kbps 14.4kpbs 19.2kbps, 28.8kbps, 38.4kbps, 57.6kbps,115.2kbps

#### **Application layer Ethernet ports(optional)**

No of ports	1x, (+1x replacing Riedel interface)
Connector	RJ45
Interface	10/100/1000Base-T

#### **Order information**

FlashCase II model Live	Rugged enclosure with 2 HD inputs and 4 HD outputs, 2 balanced AES inputs and 2 balanced AES outputs, Riedel interface and one Neutrik connector. HW upgradable with 2 stereo inputs and 2 stereo outputs, 2x BB distribution, 2xRS422, 3GPI in/3GPI out and GbE.
FCII-HW-STEREO	Hardware option for 2x stereo inputs and 2x stereo outputs
FCII-HW-SYNC	Hardware option for 2x BB/Trilevel outputs
FCII-HW-DATA	Hardware option for 2x RS422 and 4 GPI in + 4 GPI out

Neutric OpticalCON Quad cables are available from Nevion on request.



# **CONTACT INFORMATION**

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