FLASHLINK, THE BROADCASTER’S CHOICE

The Flashlink transport system offers solutions ranging from simple optical point-to-point links to advanced format conversion. Flashlink provides ultra low power, compact form factors and high reliability for broadcast environments, resulting in award-winning optical fiber distribution and signal processing solutions.
Since its inception, the Flashlink product line has reflected a philosophy of meeting real-world signal processing and video broadcast distribution requirements with products that are easy for broadcasters to use. More than 100,000 cards are installed and in operation in major broadcasters and smaller stations worldwide. Flashlink modules are recognized by high feature density with extensive control and monitoring capabilities and ultra-low power consumption, packed in attractively small form factors. When it comes to saving energy, Flashlink is in a class by itself, consuming only 3 to 8 watts per card.

MODULES

Flashlink modules are hot-swappable and measure only 170mm (6.69 inches) by 70mm (2.75 inches). Most of the modules include optical transmitters or receivers, and their unique hot-swappable optical connectors, together with entirely passive backplanes, allow for simple replacement of all electrically and optically active parts, leaving the fiber and coax installation cable untouched. Flashlink offers a complete range of optical converters for different fiber links, including short-haul, CWDM or DWDM, combined with standard or long-haul optical receivers.

ENCLOSURES
Flashlink’s variety of award winning enclosures make it easy to deploy Flashlink modules in a wide variety of settings, from permanent central facilities to temporary event venues. The Flashlink FR-2RU 19” frame holds up to 10 modules and dual power supplies. The portable and rugged FlashCase holds up to five modules and is ideal for live outdoor events, while the N-Box is a convenient housing for meeting desktop and standalone application requirements.

OPTICAL CONVERTERS

Flashlink is known for its world-class optical converters, as suggested by their use in mission-critical events across the globe. Flashlink 3G-capable SDI optical converters are used for in-house/campus, metropolitan and long-haul dark fiber networks all around the world. An incredible link budget of 35dB on a 3G-SDI link can be achieved with the world class Flashlink fiber converters, enabling transport of uncompressed 3G-SDI over 120Km (75 miles) without additional amplifiers. For high volume fiber transport needs, Flashlink Compact is the perfect choice. It offers 28 optical converters in a single 1RU 19” frame with ultra-low power consumption.

OPTICAL/WAVELENGTH DIVISION MULTIPLEXING

Flashlink’s passive optical modules complete the broadcaster’s toolset for establishing optical broadcast links. Flashlink optical filters for 8, 16 and 18 channel CWDM with low insertion loss and high isolation provide flexible options for bi-directional video transport. The 2RU 19” 40 channel DWDM filter, combined with the optical amplifier (EDFA), is a powerful solution for long-haul dark fiber transport. An 8-channel DWDM module with the option to cascade into a full 40-channel system gives a low initial investment cost while still providing the flexibility to grow into the future. Flashlink couplers and switches add redundancy and protection for the fiber links installations.
FORMAT CONVERSION

The Flashlink format conversion platform ensures preservation of picture quality for SD and HD video formats with its broadcast-quality scaling with 3D motion adaptive de-interlacing, compression-focused filter algorithms and full active format description (AFD) support for dynamic control. The product family also features an all-in-one module for audio de-embedding – processing – embedding, frame synchronization and optical long haul or short haul. The Nevion de-glitcher and frame synchronizer technology ensures error-free output from the embedded automatic changeover switch between optical and electrical inputs.

The range includes dedicated down converter modules with cutting edge PhaseTru algorithms that ensure high quality for 1080i to 576i/480i conversion.

DISTRIBUTION AMPLIFICATION

The Flashlink distribution amplifier range covers a variety of distributed amplifiers for SD-, HD- and 3G-SDI, featuring single 1 to 8 and dual 1 to 4 with options for passive relay bypass in mission critical applications. Also available are analog audio, digital audio (AES) and analog video distributed amplifiers.

AUDIO EMBEDDING/DE-EMBEDDING

Flashlink has a comprehensive range of audio embedders and de-embedders for SD, HD or 3G-SDI. All digital audio inputs are equipped with sample rate converters, supporting worry-free connection to all audio sources. The Nevion de-glitcher technology ensures error-free output and removes router switching errors.
ANALOG CONVERTERS

Flashlink analog converters convert to and from analog audio or analog video. Analog to digital video converters cover the formats composite and component to SD-SDI. The digital to analog video converters cover the formats of HD-SDI and SD-SDI to component, composite, RGB or S-VHS. A selection of modules also features frame synchronization, audio de-embedding, digital to analog audio conversion and down conversion to SD. Analog audio is converted from or to AES digital audio, or embedded into an SDI signal.

TIME DIVISION MULTIPLEXING

Flashlink time division multiplexers multiplex asynchronous SD and HD-SDI signals into fully compliant SMPTE HD- or 3G-SDI. By multiplexing into a fully compliant SMPTE HD or 3G-SDI, the signal can be transported through standard 3G/HD-SDI infrastructure like routers and optical converters, enabling full utilization of the HD- or 3G-SDI link. A two-module combination makes it possible to transport eight SD-SDI or ASI signals over a 3G-SDI link with onboard optics.

PROTECTION SWITCHING

Flashlink protection switching modules help customers deploy protection schemes for their input signals. With sensitivity to a rich variety of fault events, including audio silence, video freeze, EDH errors for 3G/HD/SD-SDI and ETR290 1.1 and 1.2 errors for ASI, Flashlink’s change-over switches provide robust protection for any mission critical video signals. Even in power failure events, signals can be guaranteed through passive relay switched backplanes.
SYNCHRONIZATION

Flashlink SD- and HD-SDI line and frame synchronizers feature video delay, de-glitcher technology and audio de-embedding – processing – embedding, making them compact and powerful SDI synchronizers.

DATA TRANSPORT

Flashlink data transport modules carry Ethernet 10/100/1000Base-T over fiber, featuring full wire-speed switches or low latency media converters. For RS-422 transport, Flashlink has a unique compact multiple RS-422-over-fiber module for general purpose IO.

RF OVER FIBER

A Flashlink L-Band optical converter allows the 2GHz L-Band satellite signal to be transported over long distances with extremely low loss. The module also supports transport of 2.5GHz ISM and WLAN analog RF signals over fiber. A high quality adjustable attenuator on the input of the module ensures a high signal-to-noise ratio.
MULTICON
Flashlink Element Manager (GYDA)

Multicon provides highly integrated element management capabilities for the Flashlink range. The Web-based interface gives you an overview of your entire Flashlink system, where you can drill down to each individual card, view current status information, and make configuration changes as required. There is also an alarm list and history log that gives an overview of the status of the entire Flashlink system. Multicon comes pre-integrated with Nevion’s DataMiner NMS solution, which offers a common user interface for management of a large number of Flashlink systems spread out across different locations. For smaller installations, Multicon allows you to visually monitor several Flashlink systems using Microsoft Visio drawings. Multicon also enables control of frequently used Flashlink parameters from control panels.

VIDEOIPATH
Add Drop Pass Manager

VideoIPath, Nevion’s comprehensive management and control platform, supports Flashlink optical networking transport solutions, functioning as a distributed routing control system for the optical network. VideoIPath integrates monitoring of the optical network with its control capabilities, enabling operators to efficiently control the network and quickly pin-point network problems. Running on geographically distributed redundant hardware servers, the system controls and manages the nodes and layers of the optical network from one easy-to-use console, putting network configuration, maintenance, troubleshooting and problem resolution at users’ fingertips.
Ventura
MEDIA NETWORKS

Flashlink, VikinX
BROADCAST TECHNOLOGY

VideoIPath, Dataminer
CONTROL & MANAGEMENT

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