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DisplayNet® AV-over-IP with Zero Compromise, Infinite Possibilities

DisplayNet is an award-winning concept for AV distribution that leverages proven 10GbE Ethernet technology to switch, extend and distribute uncompressed AV signals in real time with resolutions up to 4K (UHD). DisplayNet delivers unprecedented levels of scalability, versatility and reliability with zero frame latency, zero compression and zero artifacts.

DisplayNet harnesses SDVoE® technology to leverage the power of 10GbE switches for AV signal distribution. Unlike traditional proprietary AV matrix switchers, 10GbE switches utilize proven open technology to move immense amounts of data in real time. The combined innovation, cost, efficiency, scalability and 24/7/365 reliability make 10GbE switches a vastly superior solution for AV signal distribution. DisplayNet renders traditional AV matrix switchers obsolete and is the ideal solution for small, medium, large and massive AV signal distribution systems.

DN-150 Series – Unprecedented Value and Exceptional Versatility

The DisplayNet DN-150 Series represents a major breakthrough in performance and value for IP-based AV signal distribution applications. The DN-150 Series utilizes cutting edge SDVoE technology in a fanless, low profile case that can be mounted unobtrusively nearly anywhere. Based on the latest SDVoE standard, the DN-150 Series delivers unconstrained scalability, fast switching, zero frame latency and zero artifact image quality, while distributing signals with resolutions of up to 4K/60p (4:4:4) with 8-bit color, or 4K/60p (4:2:2) with 10 or 12-bit color. Like other DisplayNet products, these units provide independent multi-layer routing of HDMI audio and video signals, as well as IR, RS-232, Analog Audio, and 1GbE.

The DN-150 Series relies on the highly intuitive DisplayNet Manager™ user interface that makes set up and maintenance of these units incredibly fast and easy. Advanced features in this web-based application enables nearly effortless integration with third-party controllers. Full interoperability with other SDVoE products, including the DisplayNet DN-200 Series, greatly enhances system flexibility. The DN-150 Series is available with either copper or optical fiber transport, enabling signal extension distances of up to 100 meters (328 ft.) with CAT-6A twisted pair and up to 30 KM (18.6 miles) with single-mode fiber.
Redefining the Matrix  – The DisplayNet DN-150-TX-Quad is an HDMI input module for the NETGEAR M4300-96X network switch. This product features four direct HDMI input ports with dedicated on-board SDVoE processors, enabling the module to replace four standalone DN-150-TX transmitter units, saving space, complexity, and cost. The DN-150-TX-Quad delivers the lowest cost-per-port and the highest port density among all competing 10GbE AV-over-IP solutions, and can dramatically reduce total system cost for applications with many transmitters.

- The equivalent of four individual DN-150-TX units in a compact module.
- Supports HDMI v2.0, with support for HDCP 1.4 and 2.2
- Interoperability with DN-200 Series receivers enables fast-switching, scaling, and Advanced Video Wall applications.
- Includes 4x IR outputs and 1x IR input for control of the attached source devices.
- Power requirements do not exceed those of standard M4300-96X modules, enabling the use of the standard power supply.
- Must be used in the top row of modular slots on M4300-96X
DN-200 Series: AV-over-IP Signal Distribution Using 10GbE Ethernet

The DN-200 Series leverages the latest SDVoE® technology to distribute uncompressed AV signals with resolutions up to 4K /60p over a 10GbE Ethernet network. The DN-200 Series includes support for HDMI 2.0 with up to 12-bit color, HDCP 2.2, DisplayPort 1.2, and High Speed USB 2.0. A high performance scaler in both the Transmitter (Tx) and Receiver (Rx) units enables very Fast Switching, MultiViewer, and enhanced Video Wall processing.

Each Tx unit accepts multiple source signals, including HDMI (with embedded audio and HDCP), DisplayPort, analog stereo audio, bidirectional IR, RS-232, and 1GbE Ethernet. These input signals are packetized into a single 10GbE stream that is distributed to destinations via an off-the-shelf network switch. The DN-200 Series supports both twisted pair (CAT6a or CAT7) media up to 328 ft. (100 meters), and fiber optic media using an industry standard SFP+ module supporting extension distances up to 18 miles (30 km). The 10GbE network switch provides a highly efficient and reliable means of distributing AV signals from many sources to an array of Rx units, which convert the packetized data to AV output signals at the destination in real time without introducing frame latency or any loss of image quality.

Zero Compromise, Infinite Possibilities

The DN-200 Series distributes video with resolutions up to 4K /60p with 8-bit color (4:4:4) and 4K /60p with 10-bit or 12-bit color (4:2:2 or 4:2:0) without image artifacts and without frame latency. When the video signal exceeds the bandwidth limits of 10GbE, very light compression (maximum ratio of about 1.4:1) is used. Video signals may be routed in Point-to-Point, Matrix Switching, Video Wall, and MultiViewer modes all in the same system. For optimum flexibility, each signal layer (Video, Embedded Audio, Downmixed Audio, Analog Audio, IR, RS-232, and 1GbE) can each be routed completely independently from one another. Advanced audio features are supported, including: networked audio, audio embedding, de-embedding and down-mixing.

DN-200 Series transmitter and receiver units are controlled by a DisplayNet Server® (DNS-200), which includes powerful DisplayNet Manager™ web browser-based software that enables the system to be managed using any third-party controller with simple Telnet commands.
DisplayNet Server

DisplayNet systems consist of multiple transmitter and receiver endpoints, a 10GbE network switch and a DisplayNet Server®, which provides the interface layer required to control and manage the entire system. The server is a rack-mountable PC running the DisplayNet API service, enabling clients with a network connection to the server to control the system. Using DisplayNet Server, systems can be managed using a number of control methods, which enables the technology to be seamlessly integrated into a variety of workflows. DisplayNet Server provides a central interface between the control equipment/software and the DisplayNet endpoint devices; therefore, it should be included with every DisplayNet system.

DisplayNet Manager™ Software

DisplayNet Manager is a web browser-based software application that controls and configures DisplayNet endpoint devices, Video Walls, MultiViewer Displays, and overall systems. It provides a host of powerful control features, as well as tools to facilitate the use of third-party controllers that enable DisplayNet to be easily integrated into a wide range of professional AV applications. DisplayNet Manager makes the system integration process easier, faster and more efficient.
DVI-23xxx-AOC Series
DVI Active Optical Cables

Easy to Install, Even in Plenum Spaces – DVI AOC cables provide robust features in the same rugged yet compact and lightweight form factor as the rest of the HyperLight family. The plenum-rated cables are fully HDCP 1.4 compliant and support signals with data rates up to 4.95 Gbps. These features enable them to support any Single-Link DVI resolution with cable lengths from 3 meters (9.8 ft.) up to 100 meters (328.1 ft.).

- Supports DVI 1.0 and HDCP 1.4. Supports HDMI using optional adapter cables
- Supports data rates up to 1.65 Gbps / lane or 4.95 Gbps total
- Extends any DVI Single-Link resolution up to 100 meters (328 ft.)
- Detachable DVI docking connectors can be secured with fixation screws
- Removable cable pull covers facilitate secure cable pulls
- Powered by the DVI source; no AC power adapter needed
- Supports DDC communications for EDID and HDCP
- Low RFI / EMI profile for sensitive applications

DVI-23xxx-AOC-M Series
DVI Active Optical Cables

Easy to Install, Even in Plenum Spaces – The DVI-23xxx-AOC-M Series DVI AOC cables afford the same robust features as the rest of the HyperLight family but are distinguished by non-detachable, shielded metal DVI connectors. These cables provide greater immunity to RFI / EMI, allowing the cable to be used in environments with high levels of ambient interference. These plenum-rated cables are fully HDCP 1.4 compliant and support signals with data rates up to 4.95 Gbps.

- Supports DVI 1.0 and HDCP 1.4. Supports HDMI using optional adapter cables
- Supports data rates up to 1.65 Gbps / lane or 4.95 Gbps total
- Extends any Single-Link DVI source from 3 meters (9.8 ft.) up to 100 meters (328.1 ft.).
- Powered by the DVI source; no AC power adapter needed
- DVI Connectors have easily accessible locking screws for high-density applications
- Supports DDC communications for EDID and HDCP
- Low RFI / EMI profile for sensitive applications
- Shielded Metal DVI Connectors provide immunity to RFI / EMI, allowing the cable to be used in high-interference applications
Rugged and Feature Rich — HyperLight HDMI cables provide robust features in a rugged, compact, lightweight form factor. They are fully HDCP 2.2 and 1.4 compliant and support signals with data rates of up to 18 Gbps. These features enable HyperLight HDMI cables to support resolutions of up to 4K /60p (4:4:4) 8-bit or (4:2:2) 10-bit with cable lengths from 3 meters (9.8 ft.) up to 100 meters (328.1 ft.).

HyperLight cables are plenum rated (UL CMP-OF), compact, lightweight and highly flexible. They boast a a minimum bend radius of only two millimeters. Removable HDMI docking connectors help minimize cable diameter and may be secured with locking pins. Optional connectors extend the adaptability of the HDMI series for a wide variety of applications.

With an optical transmission path that provides a very low RFI / EMI profile, these cables can be installed in sensitive applications with strict security requirements. In most cases, the cables draw power from the connected HDMI source, eliminating the need for an external power supply.

- Lightweight, compact, flexible, plenum-rated Active Optical Cables (AOC)
- Supports HDMI with 4K/60 signals and HDCP 2.2/1.4
- Supports data rates of up to 18 Gbps total
- Extends HDMI signals at resolutions of up to 4K /60p 8-bit or 10-bit up to 328 ft. (100 meters)
- Detachable HDMI docking connectors can be secured with included locking pins
- Can be powered by HDMI source, or by an external USB power supply using optional powered docking connector.
- Supports DDC communications for EDID and HDCP
- Low RFI / EMI profile for sensitive applications
DVI-26xxx-AOC Series

DisplayPort 1.4 Active Optical Cables

Shattering Limitations – The HyperLight® DVI-26xxx-AOC Series are Active Optical Cables (AOC) that support DisplayPort 1.4 signals with data rates up to 32.4 Gbps. Compact, rugged and highly flexible, these plenum-rated cables support resolutions up to 5120x2880 at 60Hz and 7680×4320 at 30 Hz. They are available in lengths from 3 meters (9.8 ft.) up to 100 meters (328.1 ft.).

- Effortless plug & play technology, supports DisplayPort versions 1.0 – 1.4, HDCP 1.4 / 2.2
- Supports data rates up to 8.1 Gbps/lane or 32.4 Gbps total
- Extend resolutions up to 8K / 30 Hz up to 50 meters (164 ft.); up to 4K / 60Hz up to 100 meters (328 ft.)
- Detachable DisplayPort docking connectors can be secured with locking pin
- Powered by the DisplayPort source; no AC power adapter needed
- Supports bidirectional communications over AUX channel for EDID, HDCP, Link Training, etc.
- Low RFI / EMI profile for sensitive applications

DVI-7520-PDU / DVI-7525-PDU

Power Distribution Units
+12 VDC or +5 VDC

Exceptional Reliability – These Power Distribution Units are designed to supply DC power for 8x or more devices in a rack environment. The DVI 7520 PDU provides +12 VDC power while the DVI-7525-PDU provides +5 VDC. Both units provide an unprecedented level of reliability and deliver up to 200 watts of total output power. These features allow system designers to optimize power management through more efficient use of rack space.

- Universal AC Input (100 – 240 VAC)
- 8x Outputs (2-pin Phoenix)
- High Reliability – more than 200,000 hours MTBF
- Overload, Over-Voltage, Over-Temp. Protection
- 1U High, Half-Rack width, Rack-Mountable
- DVI-7520-PDU compatible with DisplayNet® and HDBaseT™ products
Superior Performance – DVIGear’s High Resolution™ (HR™) DVI and HDMI cables are engineered for superior performance, durability, and value. These cables are capable of supporting high resolution DVI and HDMI signals and are triple shielded for superior noise immunity. Ultra-low skew guarantees unsurpassed digital fidelity. The HR Series is available in cable lengths of up to 10 meters (32.8 ft.).

- Supports HDTV resolutions up to 1080p with 12-bit color
- Supports PC resolutions up to 1920x1200 and 2048x1080
- Supports HDMI data rates up to 3.4 Gpbs. at lengths up to 5m
- Supports HDMI data rates up to 2.25 Gpbs. at lengths up to 10m
- Supports PC data rates up to 1.65 Gbps.
- Heavy-duty 24AWG copper wires provide minimal insertion loss

Advanced Design – DVIGear’s Dual-Link DVI cables are engineered to transport high resolution digital Dual-Link DVI signals with bit rates up to 3.30 Gbps. over very long distances while maintaining pristine signal / bit integrity. When coupled with DVIGear’s Active Cable Extenders (ACE™), it supports cable lengths of up to 60 meters (~ 200 ft.).

- Supports resolutions up to 3840x2400
- Supports cable lengths up to 60m (~ 200 ft.)
- Choose from 22AWG, 26AWG, and 28AWG cables for application-specific cable flexibility
- Triple shielded for superior noise immunity
- Ultra-low Skew guarantees unsurpassed digital fidelity
Unsurpassed Performance  — The DVI-7317 is a high performance 4K Optical Extender that transmits high resolution HDMI signals over extreme distances using a single fiber optic cable. It supports HDMI v1.4 (HDCP compliant) signals with resolutions up to 3840x2160 /30p (4:4:4) and 3840x2160 /60p (4:2:0) over cable distances of up to 1,000 ft. (~ 300 m).

Multiple Signals Over One Cable  — While the video component of the signal is one-way, the unit also simultaneously supports extension of bidirectional signals such as EDID and HDCP pass-through. The data rate from the TX to RX is 10.3 Gbps. using the 1310nm wavelength, while the reverse channel travels from RX to TX over 1550nm at 250 Mbps. The extender uses wavelength-division multiplexing (WDM) to enable both signals to travel over a single strand of optical fiber. This enables DDC communications without the need for additional cables. These features make the DVI-7317 the ideal future-proof choice for systems designers and integrators who need to support high resolution HDMI / DVI signals with or without HDCP over extreme distances.

- Supports HDMI v1.4 (HDCP compliant)
- Supports resolutions up to 3840x2160 /30p (4:4:4) and 3840x2160 /60p (4:2:0)
- Maximum extension distances:
  - HDCP Not Supported:
    - Single-Mode Fiber:  > 1.2 miles (~ 2,000 m)
    - OM4 Multi-Mode Fiber:  > 2,600 ft. (~ 800 m)
    - OM3 Multi-Mode Fiber:  > 1,800 ft. (~ 500 m)
  - HDCP Supported:
    - All Fiber Types:  1,000 ft. (~ 300 m)
- Extends signals over a single strand of LC-terminated optical fiber
- Supports EDID pass-through communications
- Optical fiber transmission is immune to environmental signal noise
- Low RFI / EMI profile for sensitive applications
- The Transmitter may be powered from most USB Ports using an optional USB adapter cable
Performance that Goes the Extra Mile – The DVI-7314 is a high performance 4K Optical Extender that transmits high resolution DVI / HDMI signals over extreme distances using a single fiber optic cable. This extender supports HDMI v1.4 (non-HDCP) signals with resolutions up to 4K (4096x2160 / 30p) over cable distances up to 1.2 miles. The transmitter unit includes an internal EDID memory that can acquire and store the EDID from any display. The DVI-7314 supports both Multi-Mode and Single-Mode fiber optic cable.

Cutting-Edge Optics – Most single-fiber optical extenders transmit signals over multiple optical wavelengths, which can suffer from chromatic dispersion over long cable runs. To avoid this issue, these extenders employ a cutting-edge, high-speed SerDes that combines the DVI / HDMI signal channels into a single uncompressed 10.3 Gbps bit stream. This enables the optical transmission of the signal over a single optical wavelength, which provides increased signal fidelity, stability and flawless image quality, regardless of cable length. These features make the DVI-7314 the ideal future-proof choices for high resolution DVI / HDMI transmission over extreme distances.

- Supports DVI and HDMI v1.4 (not HDCP compliant)
- Supports 4K (UHD) and resolutions up to 4096x2160 / 30p
- DVI-7314 supports Single-Mode fiber optic cable lengths up to (1.2 miles / 2.0 km) and Multi-Mode fiber up to (1640 ft. / 500 meters)
- Extends signals over a single strand of LC-terminated optical fiber
- Transmitter includes EDID memory to cache the EDID from any display
- Transmitter unit can be powered by DVI source in most applications
- Low RFI / EMI profile for sensitive applications
- Optical fiber transmission is immune to environmental signal noise
**DVI-7360, DVI-7360-ST**

**HDMI Fiber Optic Extender, 2x LC or ST**

**Extreme Distances** – The DVI-7360 supports optical links using either multi-mode or single-mode fiber. In applications where HDCP support is not needed, this extender supports long-haul optical links up to 2.8 miles (4.5 kilometers) using single-mode fiber optic cables. These features make the DVI-7360 a powerful solution for digital display applications that require flawless signal quality over extremely long cable runs.

- HDMI v1.4 and HDCP compliant
- Resolutions up to 4096x2160 / 30p for over 2 miles
- Uses 2x Multi-Mode or Single-Mode optical cable
- Choice of either LC or ST terminated versions
- Supports cable lengths up to ~2.8 miles (4.5 km)
- Low RFI / EMI profile and immune to environmental signal noise

**DVI-7345**

**3G-SDI Fiber Optic Extender, 1x ST**

**Long Distance Performer** – The DVI-7345 is an ultra-compact, high performance fiber optic extender that supports SDI, HD-SDI and 3G-SDI extension over a single strand of Single-Mode optical fiber at distances up to 1.2 miles (~ 2000 meters).

- Supports SD-SDI, HD-SDI, and 3G-SDI
- Ultra-compact, can be mounted on an SDI port
- Supports data rates up to 2.97Gbps.
- Uses 1x optical cable up to 1.2 miles (~ 2.0 km)
- Rugged BNC electrical connectors and ST connectors
Presentation Powerhouse – The DVI-3580a is a high-performance 4K MultiViewer, Presentation Switcher and Scaler. This unit is an ideal solution for system designers and facility managers facing uncertain requirements from presenters that need AV signal distribution for a diverse range of source devices, resolutions and signal formats. The DVI-3580a overcomes these challenges through a rich array of input connections that supports all popular AV input signal formats, a range of user-selectable output resolutions and innovative MultiViewer capabilities. These features provide the power and flexibility needed to adapt to the ever-changing demands of presentation rooms, classrooms, auditoriums, conference rooms, houses of worship, and other media-rich AV environments.

- MultiViewing of up to 4x video signals simultaneously;
  - seven user-selectable window layouts: Single, Double, Triple, Quad 1-4
- HDMI input resolutions up to 4K /30p; DisplayPort input resolutions up to 4K /60p
- User-selectable output resolutions up to 3840x2160 /30p
- Includes 7x inputs: 4x HDMI (or DVI), 2x DisplayPort, 1x RGB / YPbPr Analog (VGA)
- Seamless switching of input signals (this feature only available in Single Window Layout Mode)
- HDMI and DP inputs support HDCP encryption
- 2x mirrored outputs: 1x HDMI and 1x HDBaseT (with POH support - PSE device)
- Each video input is coupled with an external analog stereo audio input for audio embedding
- De-embedded 8-channel (7.1) analog audio output and TOSLINK optical audio output
- Controllable via LAN (built-in Web GUI or Telnet), RS-232, IR Remote Control, and Front Panel selections
- Advanced EDID Management: preset EDIDs, learn EDID, and upload / download EDID
Perfect Performance — The DVI-3730a is a high-performance device that converts an HDMI input signal to SD-SDI, HD-SDI, or 3G-SDI. This unit is HDCP compliant and supports all SD, HD, and 3G resolutions up to 1920x1080 /60p. The DVI-3730a includes 2x equalized and re-clocked SDI outputs, which supports extension of 3G-SDI up to 330 ft. (~ 100 meters). The included EDID functions offer flexibility and ease of setup.

- HDMI to SD-SDI, HD-SDI, and 3G-SDI Signal Conversion; bit rates up to 2.97 Gbps.
- 2x Equalized, Re-clocked SDI outputs
- Extends 3G-SDI up to 330 ft. (~ 100m), HD-SDI up to 650 ft. (200m), and SD-SDI up to 1000 ft. (300m)
- Supports external stereo analog audio embedding