NITEK®

FIBER OPTIC VIDEO TRANSMISSION PRODUCTS

Product Selection Guide

Welcome

Nitek is a Rolling Meadows, Illinois based manufacturing company with a primary focus on design, development and manufacturing of high performance, reliable CCTV video transmission systems. Nitek services customers in virtually every segment of commerce, industry and government around the globe. Our customer base has come to depend and rely upon Nitek products for all their CCTV transmission requirements.

Over twenty years ago, Nitek made a commitment to find and fill vital needs with useful, cost-effective products in the area of the video security market. The result of that commitment has been a continually developing, diverse line of products for the transmission of video signals. Whether your needs are to transmit video over fiber optic cable or unshielded twisted pair cable Nitek has an advanced product offering that will be able to fulfill your requirements.

Examples of Nitek's continued commitment and capabilities are exhibited in the unique and useful products developed by the company. They range from high noise immunity, heavy duty passive baluns currently being used in thousands of applications to a broad range of highly sophisticated coarse wavelength division multiplexed fiber devices offering dual redundancy and network system management software which is highlighted in this guide.

Nitek's commitment to "bridging the technology gap" was proven beyond a doubt in 2003 with the introduction of UTPLinks™. UTPLinks is a fully scalable system that can support analog CCTV applications today and provides a migration path for an anticipated IP based solution in the future. In 2009 Nitek introduced a comprehensive line of fiber transmission devices to accommodate technological advancements in the security market.

Nitek systems currently enable safety and security in a wide range of applications, such as government installations, casinos, schools, hospitals, sporting complexes, transportation facilities, warehouses, large retail distribution centers, shopping malls, corporate campuses and numerous other applications.

Nitek products are designed and manufactured to meet the strict demands and requirements of worldwide standards such as UL2044, IEC60950 and TIA/EIA-250C. Many of the products are backed by a comprehensive life-time warranty.

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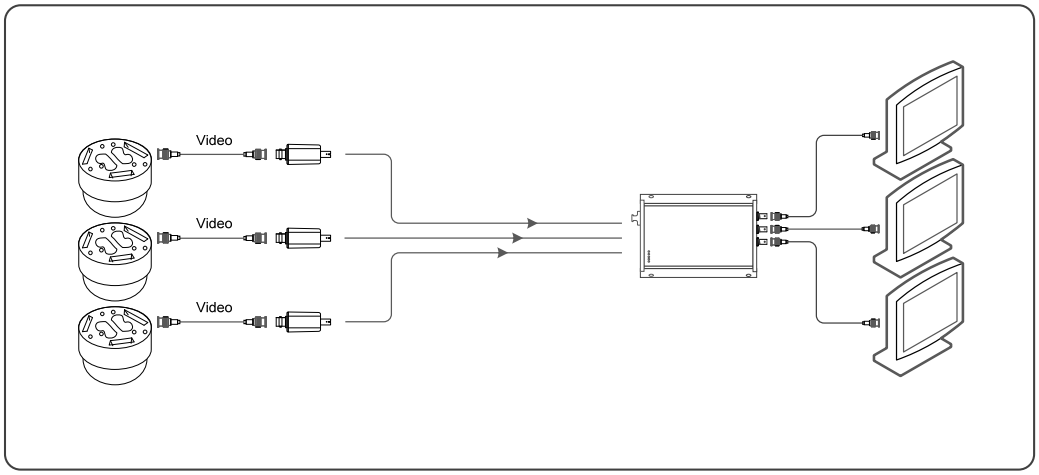
Live Technical Support Available!

Any questions about installation, product performance or system design assistance can be answered by one of our engineers or technical support staff members.

Monday—Friday—6:30 a.m. to 5:00 p.m. CST

Visit our website for more in-depth product information, company news, product specification PDF's and CAD and *Microsoft® Visio® Documents.

MULTI-MODE FIBER	VIDEO POINT-TO-POINT	DATA NOT AVAILABLE	ACX COMM NOT AVAILABLE



Product Overview

Single channel multi-mode video transmission systems are the least expensive fiber solutions available today. These solutions provide a cost-effective cabling scheme for single camera applications where distances are not extremely long and traditional copper cabling is deemed ineffective.

The 1000 Series products are designed to support video only applications using single multi-mode fiber to transmit video to a maximum distance of 13,000 feet (2.5 miles).

The incorporation of automatic gain control built into the receivers makes the 1000 Series truly a 'plug-and-play' video system, requiring no field set up or adjustments.

The inherent reliability combined with the ease of installation has propelled the 1000 Series to the forefront of the video transmission industry.

The 1000 Series receivers are equipped with an LED indicator which provides an at-a-glance video presence.

The units are available in:
Standalone Single Channel - Single Fiber, Transmitters & Receivers
Standalone 3 Channel - Multi Fiber, Transmitters & Receivers
Rack Mount 3 Channel - Multi Fiber, Transmitters & Receivers

Single and multi-channel digital units with P/T/Z control, audio, contact closures, alarm inputs and many more options are available in the 3000 Series product lines.

Multi-channel units over a single fiber using CWDM technology are available in the 5000 and 7000 Series product lines.

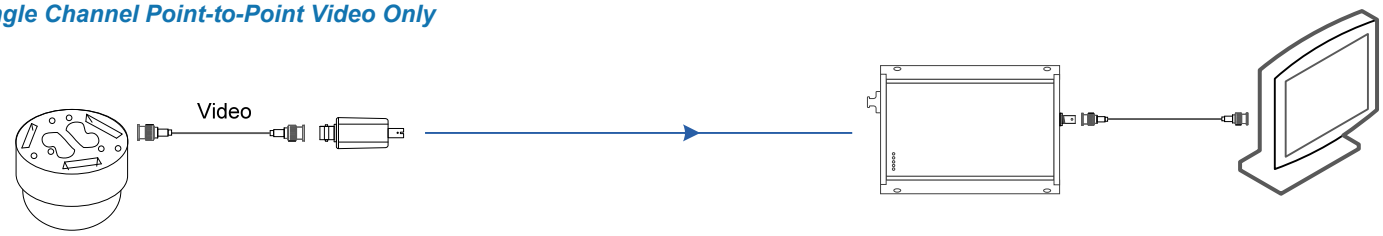
Features

- Receivers are equipped with AGC - No installation set up or ongoing maintenance required.
- Transmission over multi-mode fiber allows the use of lower cost termination techniques.
- 2.5 miles of video transmission distance at 850nm, with no repeaters required.
- Fully repeatable signal.
- Front panel video presence LED indicator provides at-a-glance diagnostics.
- Rack modules, available in both transmitters and receivers, adds flexibility to system design.
- Standalone transmitters and receivers allow for ease of installation with limited camera counts.

Applications

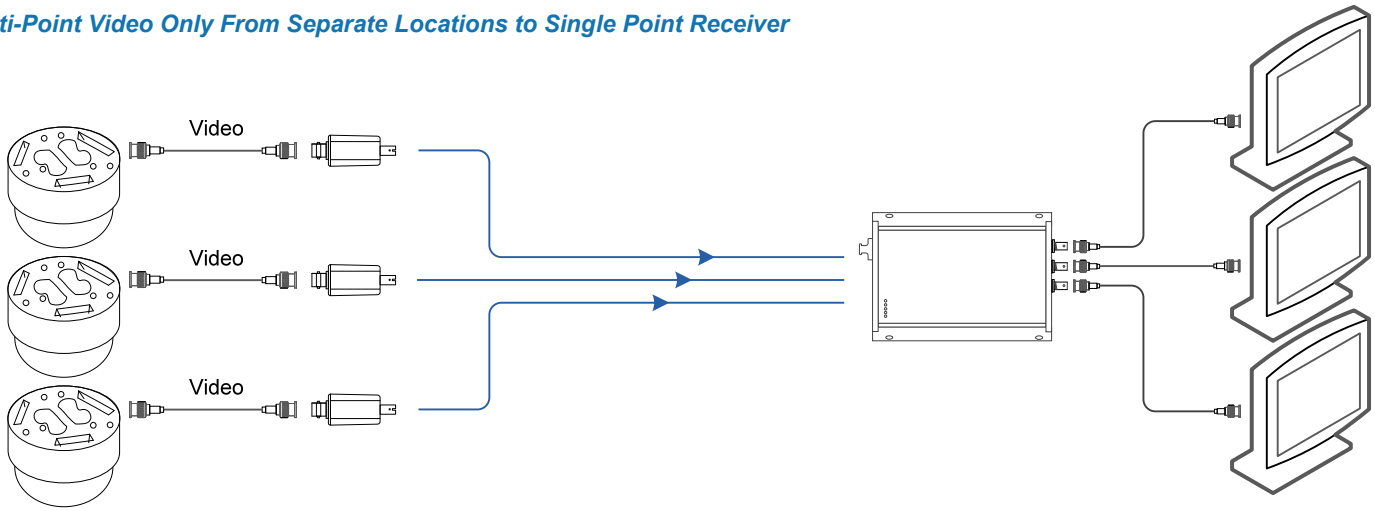
- Transportation—mass transit, rail, traffic intersections, city wide deployment.
- Gaming—security and surveillance, remote monitoring, off site back up storage.
- Industrial Sites—freight and rail yard video documentation, gate and lighting control.
- Campus—video security, intercom and public address, emergency response stations.

Single Channel Point-to-Point Video Only



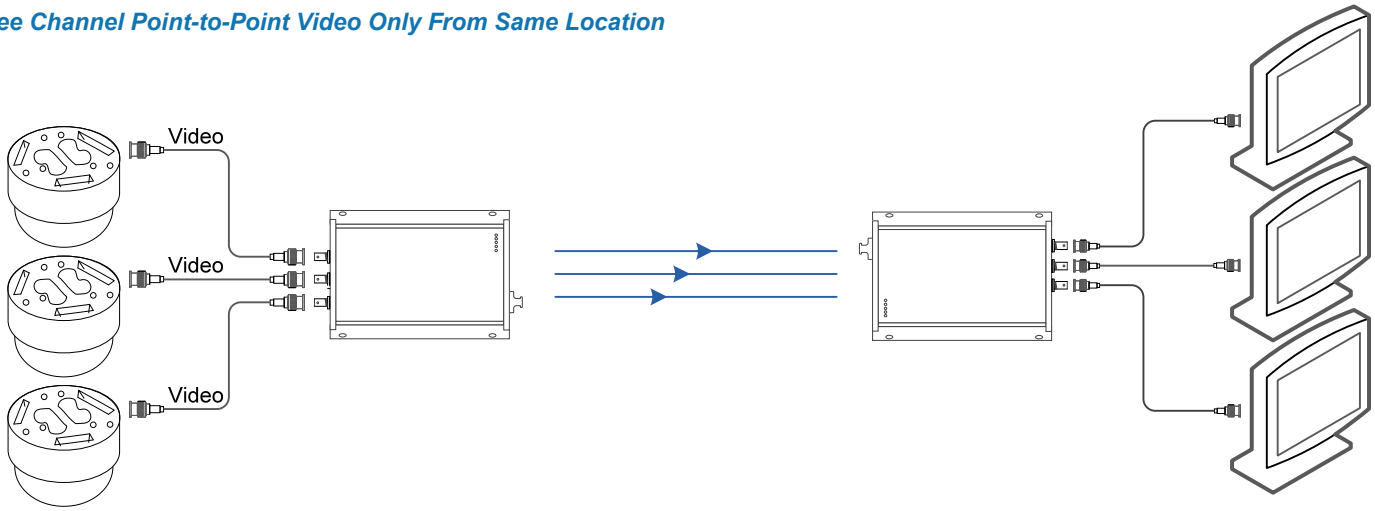
Single channel application using a single strand of multi-mode fiber. The mini transmitter allows for direct connection to the camera and fits within most housings, manufacturers' mounts and electric boxes. The 'plug-and-play' design ensures easy installation which requires no additional electrical or optical setting or adjustments in the field.

Multi-Point Video Only From Separate Locations to Single Point Receiver



Multiple cameras originating from different locations in a typical large industrial application, which would require each camera to incorporate a mini standalone transmitter that fits within the housing and transmits each video signal over an individual strand of multi-mode fiber for distances up to 2.5 miles. A three channel receiver accepts each camera's fiber.

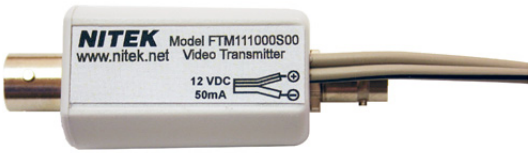
Three Channel Point-to-Point Video Only From Same Location



Multiple cameras originating from the same location in a typical installation used in traffic and mass transit applications. A group of cameras on a train platform or traffic intersection may be routed back via coax or UTP to a centralized point before being transmitted over multi-mode fiber back to a response center.

Video

Compression	None, Uncompressed
Input / Output Level	1.5Vp/p max.
Input / Output Impedance	75 Ohm Unbalanced
Frequency Response	10Hz to 10MHz min.
Differential Gain	4%
Differential Phase	4°
Signal to Noise Ratio	50dB
Video Connection	BNC
Video Standard	NTSC/PAL



Data/Audio Channels

Available in 3000, 5000 and 7000 Series

Auxiliary Communication

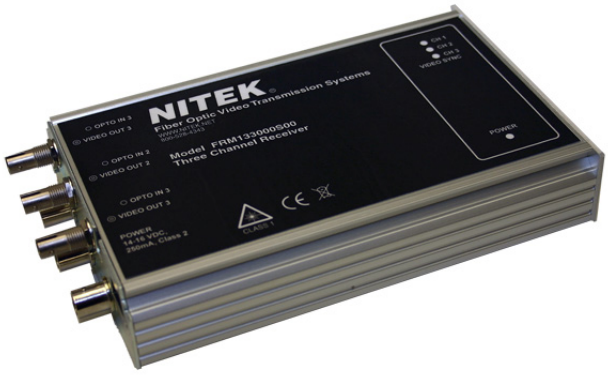
Available in 3000, 5000 and 7000 Series

Audio

Available in 3000, 5000 and 7000 Series

Ethernet

Available in 5000 and 7000 Series



Optical

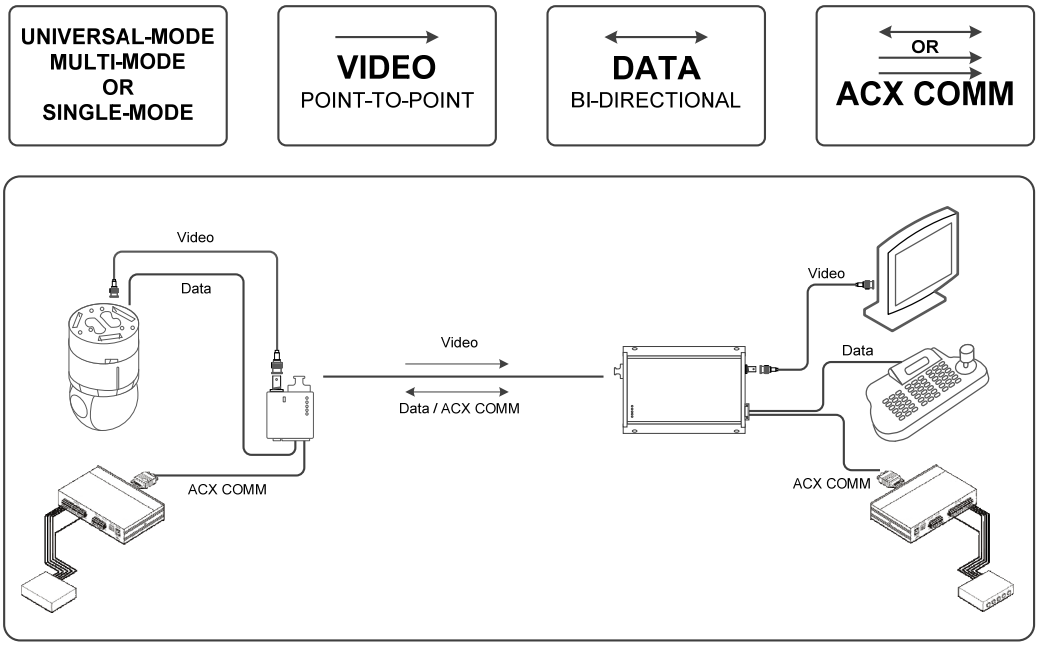
Multi-Mode Fiber	50/125 or 62.5/125
Wavelength	850nm LED
Fiber Dimensions	50/125
Optical Connector	ST
Path Loss	10dB min. 50/125
	13dB min. 62.5/125
Transmission Distance	13,000 feet (2.5 miles)

General

Operating Temperature	5° to 160° Fahrenheit
Operating Humidity	0 to 95% non-condensing
Power Requirements	
Mini Transmitter	+12VDC to +16VDC @ 50mA
3 Channel Transmitters	+12VDC to +18VDC @250mA
3 Channel Receivers	+12VDC to +18VDC @250mA
Indicators	Front Panel LED's

Rack Mount Units

Up to 10 units per subrack
Subrack power 50 watts max.



Product Overview

The 3000 Series fiber optic transmission systems are designed for low cost, single channel, point-to-point video transmission along with associated P/T/Z data and audio or auxiliary communication signals such as contact closures or alarm signals.

The 3000 Series products use Nitek's unique Universal-Mode optics allowing the same unit to be used with either single-mode or multi-mode fiber optic cabling types.

The 3000 Series products use a 10-bit digital encoding and decoding scheme to provide broadcast quality video transmission without compromise. The video is transmitted in a real time full bandwidth digital format. This ensures the highest quality regardless of distance, and by transmitting the video in an uncompressed format there is no latency or loss of video quality.

The 3000 Series is designed to be used in security applications which may not be temperature controlled, such as; roadside enclosures, outdoor unconditioned NEMA enclosures or inner building locations which may offer very little ventilation and/or extreme temperature changes.

The 3000 Series are 'plug-and-play'. The only field adjustments needed is setting the three-way P/T/Z protocol switch. There are no electrical or optical adjustments necessary. The units are completely transparent and fully compatible with NTSC, PAL or SECAM video formats.

The 3000 Series transmitters and receivers are equipped with LED indicators which provide an at-a-glance operating video and optics state.

The units are available in:
Standalone Single-Channel - Single Fiber, Transmitters & Receivers
Standalone Multi-Channel - Multi Fiber, Transmitters & Receivers
Rack Mount Multi-Channel - Multi Fiber, Transmitters & Receivers

Features

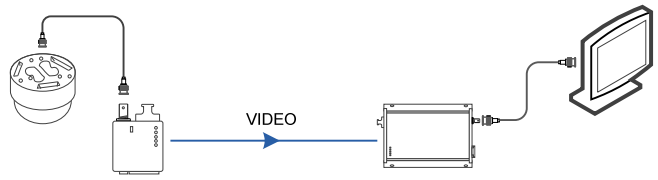
- Real time digital transmission eliminates signal degradation associated with distance.
- Universal-Mode allows the same unit to be used with multi-mode or single-mode fiber without any set up or field configuration.
- Directly supports all NTSC, PAL or SECAM video formats.
- Wide dynamic range. No adjustments are required for installation, 'plug and play'.
- Front panel LED status indicators provide at-a-glance status monitoring.
- Plug-in sub rack modules allow the ability to mix and match all Nitek series in the same rack.
- Switchable P/T/Z data interface allows interfacing with a large range of P/T/Z manufacturers' protocols all within the same unit.
- Units available in both standalone and rack mount configurations.

Applications

- Transportation—mass transit, rail, traffic intersections, city wide deployment.
- Gaming—security and surveillance, remote monitoring, off site back up storage.
- Industrial sites—freight and rail yard video documentation, gate and lighting control.
- Campus—video security, intercom and public address, emergency response stations.
- Video conferencing—video and audio.

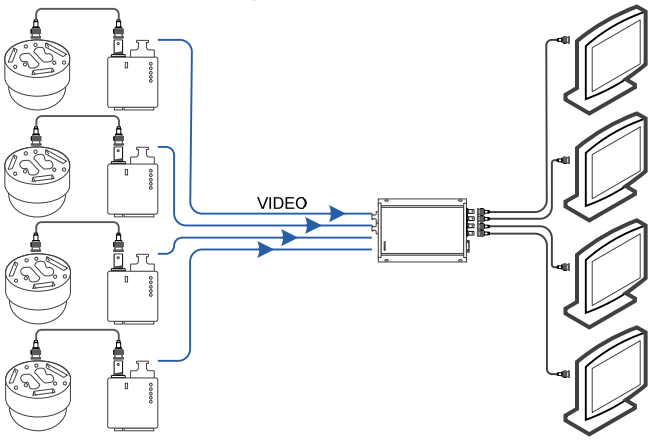
Configurations

Single Channel Video Only



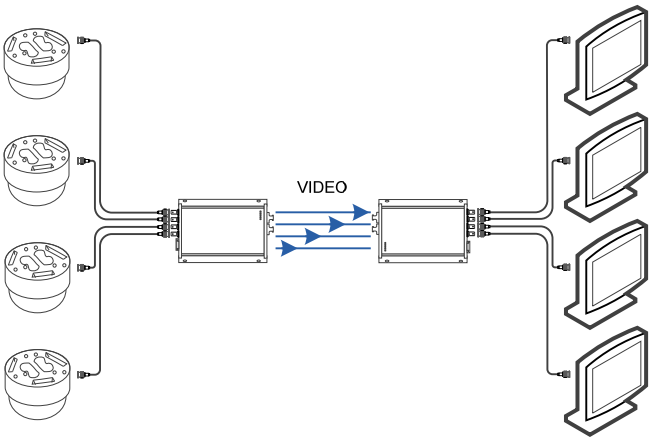
Single channel uni-directional video inserted onto a single strand of fiber. Nitek's Universal-Mode capability allows use of either a multi-mode or single-mode fiber without specifying or identifying cable type.

Four Channel Video Only



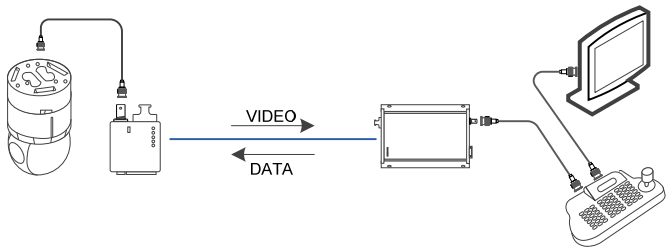
Four single channel uni-directional video signals inserted onto separate fibers, either multi-mode or single-mode, with a four channel receiver.

Four Channel Video Only



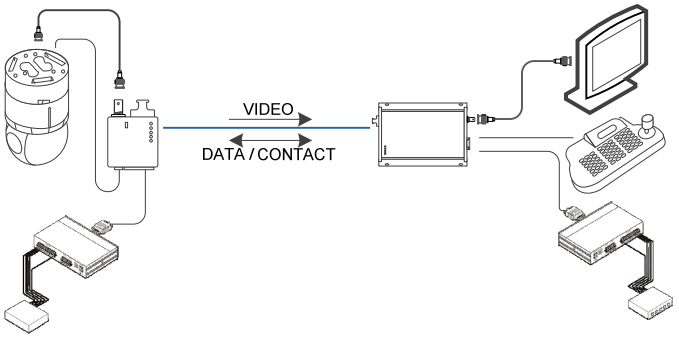
A four channel transmitter inserts uni-directional video onto a separate fiber, either multi-mode or single-mode fiber, with a four channel receiver.

Single Channel Video with "Up the Coax" Data



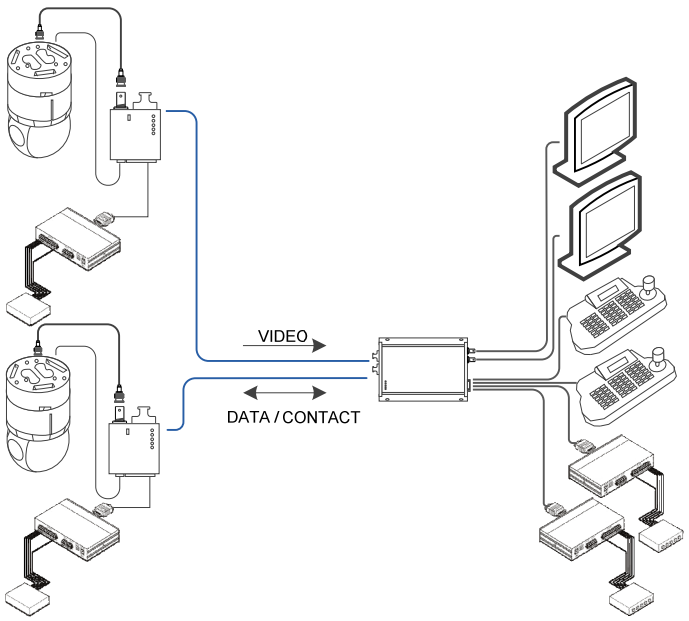
Single channel uni-directional video inserted onto a single fiber, either multi-mode or single-mode, with "up the coax" data.

Single Channel Video with Two Data Channels



Single channel uni-directional video inserted onto a single fiber, either multi-mode or single-mode fiber, with bi-directional data for P/T/Z control and bi-directional contact closures/alarm contacts.

Two Channel Video with Two Data Channels



Two channel uni-directional video with bi-directional data and bi-directional contact closures/alarm contacts inserted onto separate fibers, either multi-mode or single-mode fibers, received by a two channel receiver.

Specifications

Video

Compression	None, Uncompressed
Input / Output Level	1V P/P, Nominal
Input / Output Impedance	75 Ohm Unbalanced
Frequency Response	10Hz to 7MHz min.
Differential Gain	2%
Differential Phase	0.7°
Signal to Noise Ratio	67dB, 10 Bit Conversion
Video Connection	BNC
Video Standard	NTSC/PAL

Data Channels

Each transmitter and receiver has two data/audio channels available. Channel A being switch selectable between RS232/RS422/RS485 and channel B being configured by adding one of the auxiliary communication boards (ACX COMM).
Contact Nitek for configuration assistance.

ACX COMM Options

- RS422/RS485/RS232
- Bi-Directional Contact Closure/Alarms
- Two Uni-directional Contact Closure/Alarms

Data

Data Rate Per Channel	Up To 512kb/s

Audio

Available in 5000 and 7000 Series

Ethernet

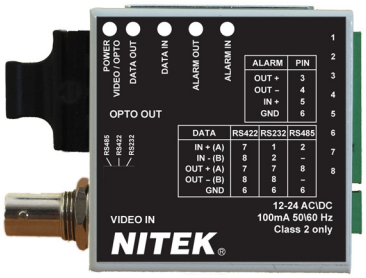
Available in 5000 and 7000 Series

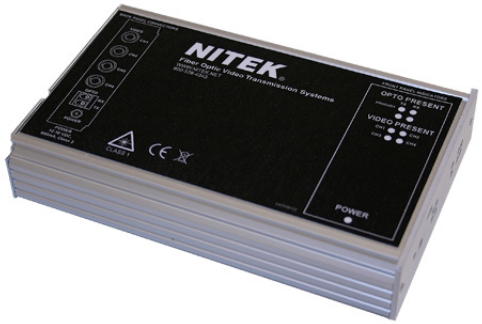
Optical

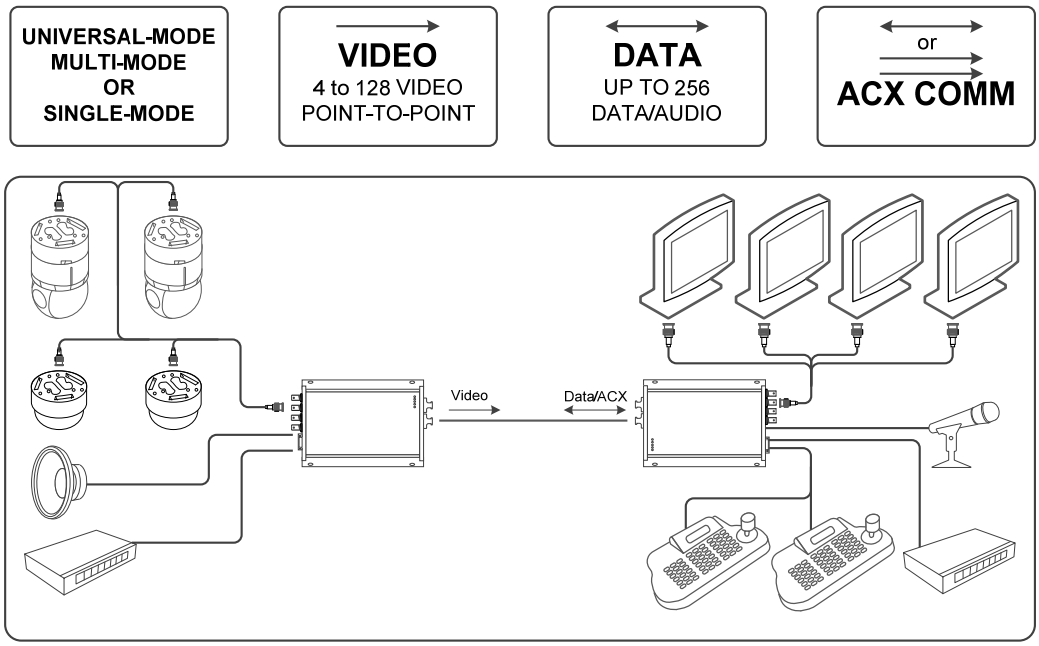
Accepts Both Multi and Single-Mode Fiber	
Multi-Mode	50/125 or 62.5/125
Single-Mode	9/125
Wavelength	1310nm
Video/Data	1310/1550nm
Path Loss	19dB min.
Transmission Distance	
Multi-Mode Dual Fiber	6,500 feet (1.2 miles)
Multi-Mode Single Fiber Option	1,640 feet (3/10 mile)
Single-Mode	>130,000 feet (24.5 miles)
Optical Connector	SC
Path Loss	20dB

General

Operating Temperature	5° to 160° Fahrenheit
Operating Humidity	0 to 95% non-condensing
Power Requirements	+12V to +18VDC @ 500mA
MTBF	>180,000 Hours
Indicators	Front Panel LED's







Product Overview

The 5000 Series fiber optic transmission systems are designed for low cost, multi-channel, point-to-point video transmission along with associated Ethernet, P/T/Z data and audio or auxiliary communication signals such as contact closures or alarm signals.

The 5000 Series products use Nitek's unique Universal-Mode optics allowing the same unit to be used with either single-mode or multi-mode fiber optic cabling types.

The systems are designed to offer broadcast quality video transmission without compromise. The video is transmitted in a real time full bandwidth digital format. This ensures the highest quality regardless of distance, and by transmitting the video in an uncompressed format, there is no latency or loss of video quality.

The 5000 Series has an option to be set up in a dual redundant configuration which helps to ensure against loss in a catastrophic fiber failure.

Using Coarse Wavelength Division Multiplexing (CWDM) up to 16 wavelength channels can be used providing a transmission capability of up to 128 video channels on a single optical fiber together with the associated data/audio and Ethernet. When configured as a fiber ring using eight strands of fiber, the system has a capacity of up to 512 video channels, 1,024 data/audio channels and 6.4Gb of Ethernet. (Contact Nitek system support for system design and configuration.)

The 5000 Series can also be delivered with a dedicated Network Management System (NMS). NMS provides alarms associated with breaks in optical fiber and video loss notification.

Expanding on the CWDM technology Nitek offers the unique Courier System™ which offers pick up and delivery features which are highlighted in the 7000 Series product line.

Features

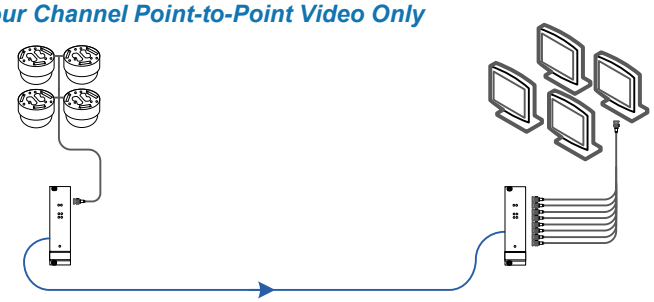
- Real time digital transmission eliminates signal degradation associated with distance.
- Universal-Mode allows the same unit to be used with multi-mode or single-mode fiber without any set up or field configuration.
- Wide dynamic range. No adjustments are required for installation, 'plug and play'.
- Configurations available in single fiber and twin fiber configurations.
- Simultaneously transmits multiple video, Ethernet, control, audio and auxiliary communications all in one set of equipment.
- Front panel LED status indicators provide at-a-glance status monitoring.
- Plug in sub rack modules allow the ability to mix and match all Nitek series in the same rack.
- Switchable P/T/Z data interface allows interfacing with a large range of P/T/Z manufacturers' protocols all within the same unit.
- Units available in both standalone and rack mount configurations.
- Dual redundant option eliminates system downtime due to fiber failure.
- SNMP compliant network management option for remote fault monitoring and reporting.

Applications

- Transportation—mass transit, rail, traffic intersections, city wide deployment.
- Gaming—security and surveillance, remote monitoring, off site back up storage.
- Industrial sites—freight and rail yard video documentation, gate and lighting control.
- Campus—video security, intercom and public address, emergency response stations.

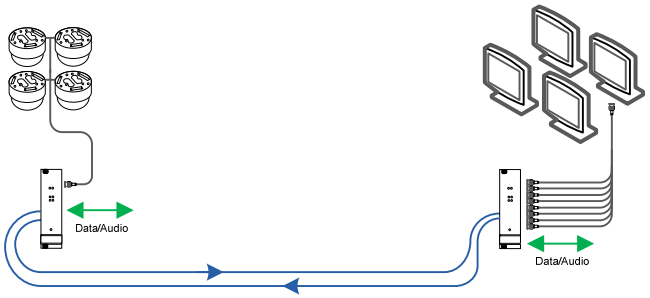
Configurations

Four Channel Point-to-Point Video Only



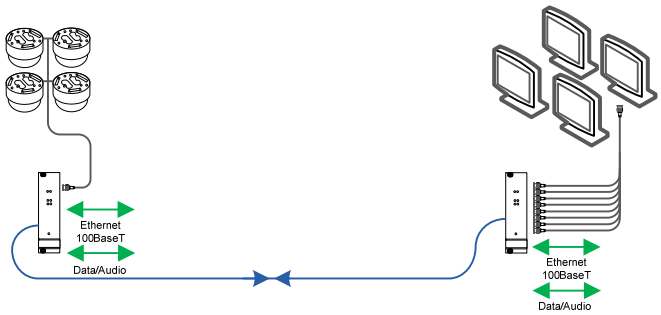
Four channels of uni-directional video transmitted over a single fiber.

Four Channel Point-to-Point Video with Data/Audio



Four channels of uni-directional video and two bi-directional data/audio channels transmitted over a twin fiber.

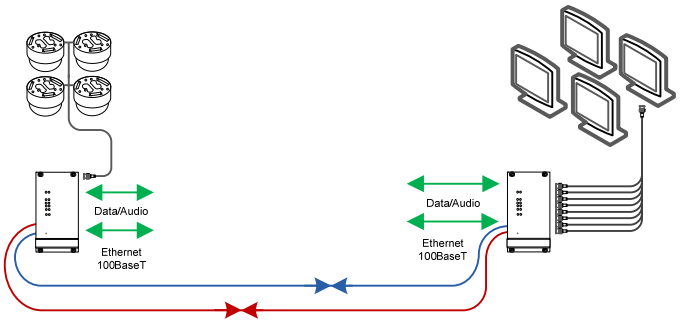
Four Channel Point-to-Point Video, Data & Ethernet One Fiber



Four channels of uni-directional video and bi-directional data/audio, with 100BaseT Ethernet transmitted over a single fiber.

Ethernet can be used for: PC network, IP cameras, VoIP phones, access control, alarm systems, remote DVR's, etc.

Eight Channel Video, Data, Ethernet, over [1] Fiber with Dual Redundant Ring and Network Management.



Eight channels of uni-directional video and up to sixteen bi-directional data/audio channels and Ethernet transmitted over a single fiber.

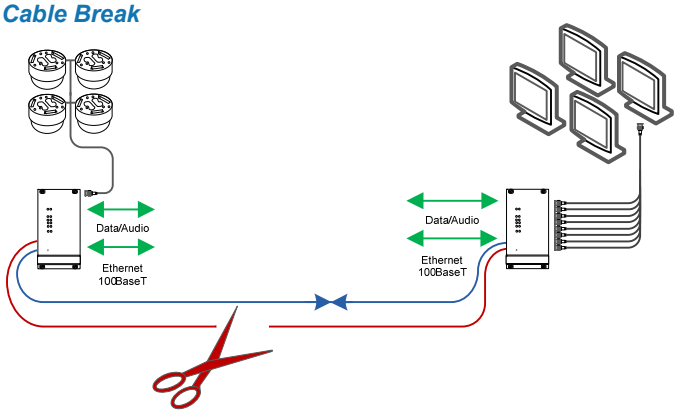
All sixteen data/audio channels are individually factory configured by simply indicating the requirements of the auxiliary communication boards.

The dual redundancy option provides a secondary path to prevent communication losses in the event of a fiber failure. The primary path is indicated in blue, the secondary redundant path in red.

A management option is available which allows for monitoring of optical video losses or cable breaks through the use of software.

The Single Fiber Option minimizes fiber usage.

Eight Channel Video with Dual Redundant Option with Cable Break



In the event of a cable break, all video, data/audio and Ethernet channels are redirected and transmitted over the secondary path. The network management port together with the Network Management Software (NMS) provides a diagnostic analysis of the system and sends notification of the cable break with details.

Video

Compression	None, Uncompressed
Input / Output Level	1V P/P, Nominal
Input / Output Impedance	75 Ohm Unbalanced
Frequency Response	10Hz to 5.57MHz min. 7.5MHz Cut off
Differential Gain	2%
Differential Phase	2°
Signal to Noise Ratio	67dB, 10 Bit Conversion
Video Connection	BNC
Video Standard	NTSC/PAL

Simple Data/Audio Channels

Each transmitter and receiver has two data/audio channels available. For simple data options both channels can be provided as individual data channels. Channel A being switch selectable between RS232/RS422/RS485 and channel B being configured by adding one of the auxiliary communication boards (ACX COMM). Contact Nitek for configuration assistance.

Expanded Data/Audio Channels

Either one or both of the channels can be expanded into eight individual channels with the use of an expansion card, providing a maximum of sixteen individual auxiliary communication ports. When expanded, each individual channel is factory configured with a separate auxiliary communication board.
Contact Nitek for configuration assistance.

Channel A

Available Channels	1
Interface Options	RS232/RS422/RS485
Connector	RJ45

Channel B

Available Channels	1
Interface Options	Configured AUX COMM
Connector	RJ45

Expanded Channel A

Available Channels	8
Interface Options	Configured AUX COMM
Connector	37 Port D-Type Connector

Expanded Channel B

Available Channels	8
Interface Options	Configured AUX COMM
Connector	37 Port D-Type Connector

ACX COMM Options

- RS422/RS485
- RS232
- Audio
- Bi-Directional Contact Closure/Alarms
- Two Uni-directional Contact Closure/Alarms
- 20mA
- TTL Data
- FTT10A

Data

Data Rate Per Channel	Up To 512kb/s w/o Ethernet Up To 256kb/s w/ Ethernet

Audio

Input Impedance	600 Ohms
Output Impedance	600 Ohms
Input Level	0dBm
Input Overload Level	+6dBm
Frequency Response	10Hz to 15kHz

Note: When using expanded channels A&B, a combined maximum of 8 audio channels are available.

Ethernet

Data Interface	10/100BaseT Auto Negotiate
Data Connector	RJ45

Optical

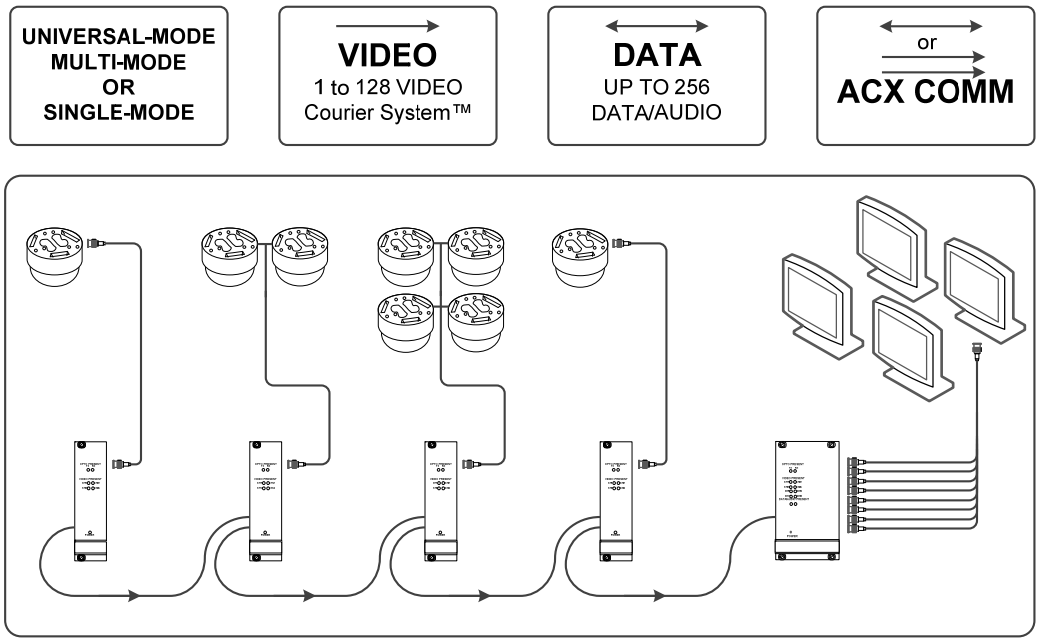
Accepts Both Multi and Single-Mode Fiber	
Multi-Mode	50/125 or 62.5/125
Single-Mode	9/125
Wavelength	1310nm
1550 Option	1550nm
Single Fiber Option	1310/1550nm
CWDM	1310-1610nm
Path Loss	17dB min.
HP Option	22dB min.
CWDM Option	22dB min.
Transmission Distance	
Multi-Mode Dual Fiber	6,500 feet (1.2 miles)
Multi-Mode Single Fiber Option	1,640 feet (3/10 mile)
Single-Mode	>130,000 feet (24.5 miles)
Optical Connector	LC

General

Operating Temperature	5° to 160° Fahrenheit
Operating Humidity	0 to 95% non-condensing
Certifications	CE Approved
Power Requirements	+12V to +18VDC @ 500mA
MTBF	>180,000 Hours
Indicators	Front Panel LED's

7000 SERIES

MULTI CHANNEL DIGITAL FIBER OPTIC CCTV TRANSMISSION SOLUTIONS



Product Overview

The 7000 Series fiber optic transmission systems are designed for low cost, unique drop and insert video transmission along with associated Ethernet, P/T/Z data and audio or auxiliary communication signals such as contact closures or alarm signals.

The 7000 Series products use Nitek's unique Universal-Mode optics allowing the same unit to be used with either single-mode or multi-mode fiber optic cabling types.

The systems are designed to offer broadcast quality video transmission without compromise. The video is transmitted in a real time full bandwidth digital format. This ensures the highest quality regardless of distance, and by transmitting the video in an uncompressed format, there is no latency or loss of video quality.

The 7000 Series can be configured to collect individual or multiple video signals along a given route or perimeter in a daisy chain and transmit them all back to one or more control rooms. This allows for significant savings on fiber optic infrastructure when compared to traditional methods of video collection.

The architecture allows for configuration in either a "spur" or a "ring". The 7000 Series has an option to be set up in a dual redundant configuration which helps to ensure against loss in a catastrophic fiber failure.

Using Coarse Wavelength Division Multiplexing (CWDM) up to 16 wavelength channels can be used providing a transmission capability of up to 128 video channels on a single optical fiber together with the associated data/audio and Ethernet. When configured as a fiber ring using eight strands of fiber the system has a capacity of up to 512 video channels, 1,024 data/audio channels and 6.4Gb of Ethernet. (Contact Nitek system support for system design and configuration.)

The 7000 Series can be delivered with a dedicated Network Management System (NMS), providing alarms associated with breaks in optical fiber and video loss notification.

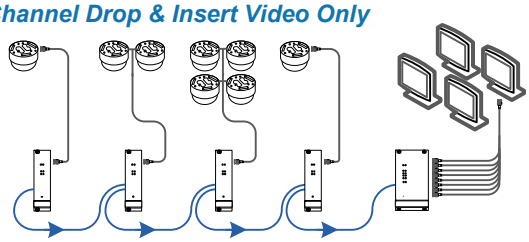
Features

- Real time digital transmission eliminates signal degradation associated with distance.
- Universal-Mode allows the same unit to be used with multi-mode or single-mode fiber without any set up or field configuration.
- Wide dynamic range. No adjustments are required for installation, 'plug and play'.
- Configurations available in single fiber and twin fiber construction.
- Simultaneously transmits multiple video, Ethernet, control, audio and auxiliary communications all in one set of equipment.
- Front panel LED status indicators provide at-a-glance status monitoring.
- Plug in sub rack modules allow the ability to mix and match multi-mode and single-mode products in the same rack.
- Switchable P/T/Z data interface allows interfacing with a large range of P/T/Z manufacturers' protocols all within the same unit.
- Units available in both standalone and rack mount configurations.
- Dual redundant option eliminates system downtime due to fiber failure.
- SNMP compliant network management option for remote fault monitoring and reporting.

Applications

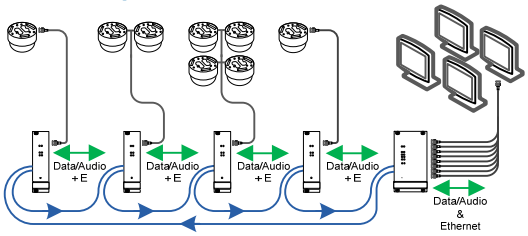
- Transportation—mass transit, rail, traffic intersections, city wide deployment.
- Gaming—security and surveillance, remote monitoring, off site back up storage.
- Industrial sites—freight and rail yard video documentation, gate and lighting control.
- Campus—video security, intercom and public address, emergency response stations.
- Video conferencing—video, audio, Ethernet transmission.

Eight Channel Drop & Insert Video Only



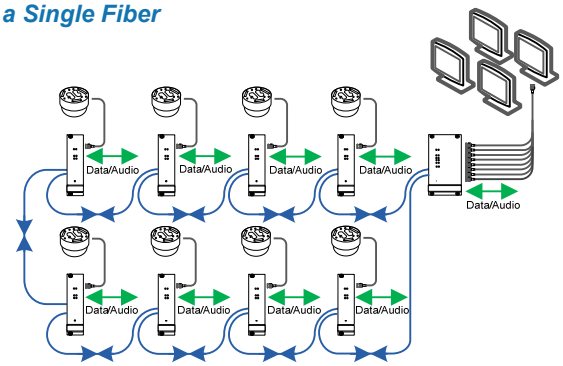
Eight uni-directional video channels inserted onto a single fiber in a "daisy chain" configuration to a single eight channel receiver.

Eight Channel Drop & Insert Video, Data/Audio & Ethernet



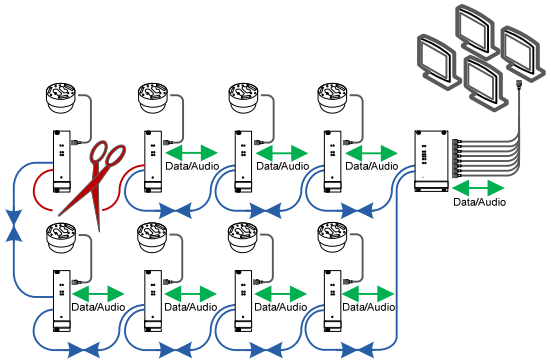
Eight uni-directional video channels inserted onto a single fiber with bi-directional data/audio and Ethernet channels, as required by location and transmitted over twin fibers.

Eight Channel Drop & Insert Video With Dual Redundant Loop, Over a Single Fiber



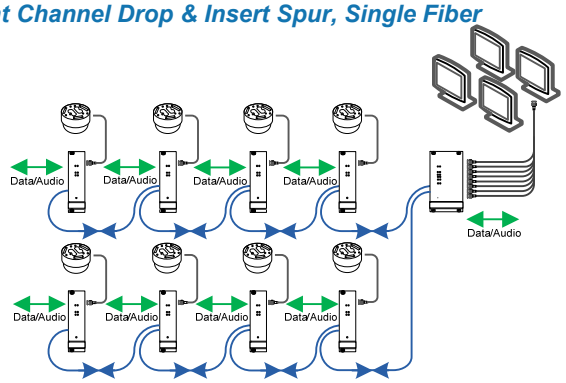
Eight uni-directional video channels inserted onto a single fiber with bi-directional data/audio and Ethernet channels, as required by location, in a dual redundant loop, minimizing fiber usage with single fiber option. A management option is available which allows for monitoring of optical and video losses or cable breaks through the use of software.

Eight Channel Dual Redundant Loop After Cable Break



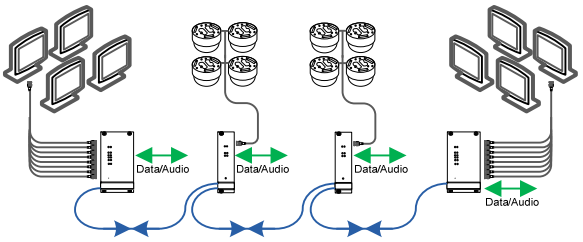
Eight uni-directional video channels inserted onto a single fiber with bi-directional data/audio and Ethernet channels, as required by location, in a dual redundant loop, reducing fiber usage with a single fiber. A management option provides diagnostic capability to detect the cable break.

Eight Channel Drop & Insert Spur, Single Fiber



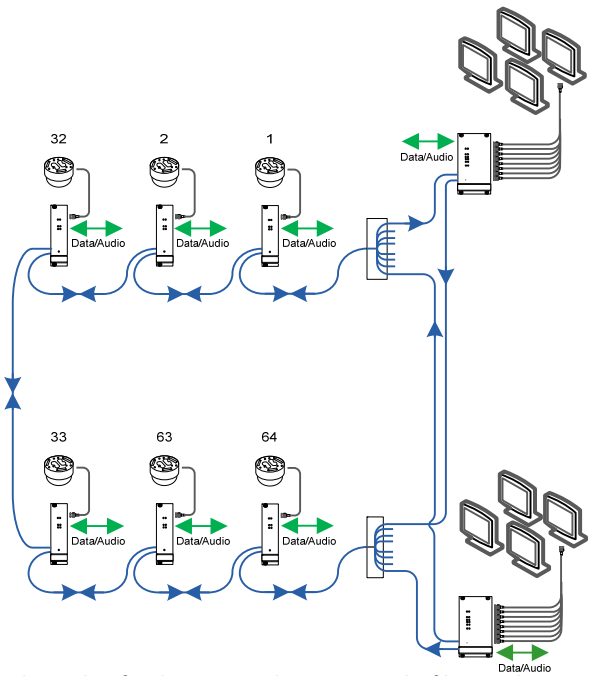
Eight video channels inserted onto a single fiber with bi-directional data/audio & Ethernet channels, in a linear spur, minimizing fiber by using the single fiber option.

Eight Channel Drop & Insert Linear Redundancy, Single Fiber



Eight uni-directional video channels inserted onto a single fiber with bi-directional data/audio & Ethernet channels. A sub-master receiver in a second control room on left. Signals will be redirected to one of the control rooms in the event of a fiber breakage.

64 Channel CWDM Dual Redundant Loop



64 channels of video inserted onto a single fiber with up to 128 bi-directional data/audio & Ethernet channels, in a dual redundant loop, minimizing fiber usage with the single fiber option. Adding the management port provides diagnostics capability to detect a fiber break.

Video

Compression	None, Uncompressed
Input / Output Level	1V P/P, Nominal
Input / Output Impedance	75 Ohm Unbalanced
Frequency Response	10Hz to 5.57MHz min. 7.5MHz Cut off
Differential Gain	2%
Differential Phase	2°
Signal to Noise Ratio	67dB, 10 Bit Conversion
Video Connection	BNC
Video Standard	NTSC/PAL

Simple Data/Audio Channels

Each transmitter and receiver has two data/audio channels available. For simple data options both channels can be provided as individual data channels. Channel A being switch selectable between RS232/RS422/RS485 and channel B being configured by adding one of the auxiliary communication boards (ACX COMM).
Contact Nitek for configuration assistance.

Expanded Data/Audio Channels

Either one or both of the channels can be expanded into eight individual channels with the use of an expansion card, providing a maximum of sixteen individual auxiliary communication ports. When expanded, each individual channel is factory configured with a separate auxiliary communication board.
Contact Nitek for configuration assistance.

Channel A

Available Channels	1
Interface Options	RS232/RS422/RS485
Connector	RJ45

Channel B

Available Channels	1
Interface Options	Configured AUX COMM
Connector	RJ45

Expanded Channel A

Available Channels	8
Interface Options	Configured AUX COMM
Connector	37 Port D-Type Connector

Expanded Channel B

Available Channels	8
Interface Options	Configured AUX COMM
Connector	37 Port D-Type Connector

ACX COMM Options

- RS422/RS485
- RS232
- Audio
- Bi-Directional Contact Closure/Alarms
- Two Uni-Directional Contact Closure/Alarms
- 20mA
- TTL Data
- FTT10A

Data

Data Rate Per Channel	Up To 512kb/s w/o Ethernet Up To 256kb/s w/ Ethernet

Audio

Input Impedance	600 Ohms
Output Impedance	600 Ohms
Input Level	0dBm
Input Overload Level	+6dBm
Frequency Response	10Hz to 15kHz

Note: When using expanded channels A&B, a combined maximum of eight audio channels are available.

Ethernet

Data Interface	10/100BaseT Auto Negotiate
Data Connector	RJ45

Optical

Accepts Both Multi and Single-Mode Fiber	
Multi-Mode	50/125 or 62.5/125
Single-Mode	9/125
Wavelength	1310nm
1550 Option	1550nm
Single Fiber Option	1310/1550nm
CWDM	1310-1610nm
Path Loss	17dB min.
HP Option	22dB min.
CWDM Option	22dB min.
Transmission Distance	
Multi-Mode Dual Fiber	6,500 feet (1.2 miles)
Multi-Mode Single Fiber Option	1,640 feet (3/10 mile)
Single-Mode	>130,000 feet (24.5 miles)
Optical Connector	LC
Path Loss	20dB

General

Operating Temperature	5° to 160° Fahrenheit
Operating Humidity	0 to 95% non-condensing
Power Requirements	+12V to +18VDC @ 600mA
MTBF	>180,000 Hours
Indicators	Front Panel LED's

FIBER OPTIC VIDEO TRANSMISSION PRODUCTS

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