



Product Brief 2023

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SILVER|BACK

Cinematic Live Multicam



Multipurpose Your 12G / 4K & HD / 3G Cameras

The SilverBack V provides a robust, full bandwidth fiber optic link between any 12G, Quad-Link or Dual-Link 4K camera and your truck, control room or “video village” position. The system puts power and all of the signals needed for multi-camera 4K/UHDTV production onto a single tactical or SMPTE hybrid fiber cable, ensuring trouble-free connectivity on any studio or remote production.

The SilverBack converts the latest Digital Cinema Cameras into SMPTE Studio Cameras ideal for cinematic live multicam applications. The system is available in multiple video I/O configurations and can support Quad Link 3G-SDI or 12G-SDI based 4K signals as well as up to four 3G. Full camera control is provided by the camera manufacturer’s control panel via serial or a 10/100/GigE Ethernet path. Genlock, Intercom, Tally and GPIO are also provided.



SilverBack-APE (Control Side)



SilverBack-APE (Connector Side)

Digital Cinema Camera manufacturers are increasingly introducing cameras that require 24VDC power in order to operate. In response, MultiDyne has developed the APE Advanced Power Extension integrated accessory for the SilverBack lineup. In addition to powering these new 24VDC cameras, the APE provides comprehensive accessory power outputs for servos, monitors and just about any accessory you need to power on your camera rigs.

FEATURES

- All Signals on ONE Cable
- Optional 12G-SDI, 6G-SDI & 3G-SDI I/O
- 10+Km Operation
- 2 Channels of Intercom
- Anton-Bauer or “V-mount” Battery Option
- Integrated Tally Indicator
- 1GbE Ethernet
- Camera RCP Control
- 1 Additional Data Path (232/422)
- Optical Connector on Integrated Swivel
- Top & Bottom Dovetail Plates with 1/4-20 & 3/8-16 Taps for Mounting Accessories
- Optional Tally/GPIO Cable
- Optional Tally Light Accessory
- Rugged Lightweight, Low-profile Design
- Designed and Manufactured in the USA

APPLICATIONS

- 4K Sports & OB
- Live Music & Entertainment
- Digital Cinema
- High Frame Rate Acquisition
- Live Cinematic Multi-cam

For More Information Please Visit MultiDyne.com

VB-SERIES

Customizable Extension



FEATURES

- Up to (X) Channels of 12G/6G/3G/HD-SDI
- RS-232/422/485 Serial Data
- Tally and GPIOs
- Genlock (Bi-Level or Tri-Level)
- 1GbE Ethernet w/ 2 Port Hub
- Optional POE++
- Optional Remote Power via Hybrid Fiber
- Optional Universal Mounting Brackets

APPLICATIONS

- Remote PTZ / POV Camera Connectivity
- Robotic Camera Control
- Bulk 12G-SDI & 3G-SDI Signal Extension
- Extend multiple optically isolated 1GbE LANs over 1 fiber
- Analog and AES Audio transport



Customizable PTZ / POV Camera Extension

Purpose-built hardware plays an important role in broadcast and professional AV. These industries continue to grow and change however, and content creators simply need more flexible options to meet varied and changing requirements for their productions. Adaptable to most professional PTZ and POV cameras and able to transport a full complement of video, audio and data signals, the VB Series offers robust, versatile solutions to serve almost any broadcast and AV production application imaginable.



VB to VB or VB to openGear Cards

12G/6G/3G-SDI
12G/6G/3G-SDI
Audio
Genlock
Timecode
Tally / GPIO
1GbE Ethernet



VB-FR7-RX

Single-Mode
Fiber



12G/6G/3G-SDI
12G/6G/3G-SDI
Audio
Genlock
Timecode
Tally / GPIO
1GbE Ethernet



OG-4602

Single-Mode
Fiber



Custom Tailor a VB Solution for Your Application with Our Configurator Tool
Available Here at <https://configurator.multidyne.com/launcher>

VF-9000 Series



Versatile Data & Video Fiber Optic Transport Platform 1GbE RJ-45 & BNC or HD-BNC Coaxial I/O up to 12G-SDI

The VF-9000 is a 1RU, high density video fiber optic transport platform with 18 optical I/O (9 or 18 SFP Ports), it can be configured with up to 18 full size BNCs or 36 HD-BNCs. The system also supports up to 9 1GbE optical extensions, and provides the user with the option to handle SDI and LAN signals in one frame.

The configuration of video input vs. output is configured automatically, following the I/O of the SFP installed. If a dual TX SFP is inserted into a slot, the two BNCs at the back of the slot become inputs. If a dual RX SFP is inserted into a slot, the two BNCs at the back of the slot become outputs. There are no setups or configurations required.

If the unit is populated with CWDM SFPs, all 18 signals can be multiplexed/de-multiplexed over from one SM fiber. Next to the SFP cages are the optical multiplexer/de-multiplexer I/O's, configured with LC ports for easy patching with generic, inexpensive LC patch cables.

Each video card in the VF-9000 has 2 BNCs or 4 HD-BNCs on the back, and one or two SFP cages in the front. These cards can be ordered with two channel SFPs and two BNCs as described above, or with a single BNC input and loop output. In this case, there will be only one optical output. The reciprocal receiver card would have only one optical input with a dual BNC output.

Ideal for use in OB vans where space is limited and high density is a necessity. With dual hot swappable power supplies, there is peace of mind with power redundancy and no need for cumbersome external power supplies.

FEATURES

- High Density – Up To 9 1GbE RJ-45, 18 BNCs or Up To 36 HD-BNCs
- All I/O Are Configured Automatically Based On VFC/ SFP Selection
- SFP Modules Can Be Hot-swapped Without De-cabling Coaxial Connections
- Redundant AC Power Supplies
- Optional Single or Dual Integrated CWDM Muxes/ De-Muxes
- Condense Signals Up To 36 Signals on Two SM Fibers
- Can Be Used For Video Transport, Signal Regeneration or Wavelength Shifting.

APPLICATIONS

- Sports Broadcast
- ENG, EFP
- Military
- Live Stage Events
- Intra & Inter-Facility Connection
- Campus & Metro Transport



**Custom Tailor a VF-9000 Solution for Your Application with Our Configurator Tool
Available Here at <https://configurator.multidyne.com/launcher>**

HUT-APE

Advanced Power Extension



FEATURES

- SMPTE 304M Standard
- Operate Cameras on Plain Single Mode Fiber
- Take Advantage of Installed Fiber Backbones
- Extend Distance Without Sacrificing Performance
- Carry Less Hybrid Cable
- Choice of Optical Connectors
- Can Provide Power for Cameras Up to 3km
- Supports Camera Chains from Sony, Grass Valley, Panasonic, and more
- Works with Optional Optical Repeater/ Remapper FiberSaver
- Standard Remote Camera Shut-Off
- Rugged Design
- Designed and Manufactured in the USA

APPLICATIONS

- Remote Broadcasting
- Sports Production
- Shared Control Rooms
- Campus Facilities
- Arenas and Stadiums

Extend Camera Chains Beyond SMPTE Cable Limitations Via Standard Single Mode Fiber

The HUT-APE system frees camera chains from the limitations of hybrid copper and fiber cabling permitting cameras to be separated from their CCUs by distances of over 10km using inexpensive, conventional single mode fiber. This has many advantages over SMPTE hybrid cable including:

- Eliminating RF, EMI and grounding issues
- Faster set and strike times saves time and money
- Reduced weight makes for lighter OB trucks, B-units and cable shipments

CONNECT ANYWHERE EASILY

The plug and play system allows camera chains to connect via a facility's fiber infrastructure or on tactical fiber cable in the field using industry-standard connectors, such as STs, LCs, SCs, or OpticalCON. The HUT system works by "spoofing" (or "tricking") the camera and CCU into seeing a physical copper connection between them when connected only by single mode fiber cable.

LOCAL OR REMOTE POWER

After a long run of single mode fiber, HUT-enabled camera systems can be configured in one of two ways:

1. Power the camera with the HUT-APE with up to 3km of hybrid cable. Power is sufficient for hand-held cameras or cameras installed in sleds with long lenses and other high-power accessories.
2. Power the camera locally and use the HUT-CS.

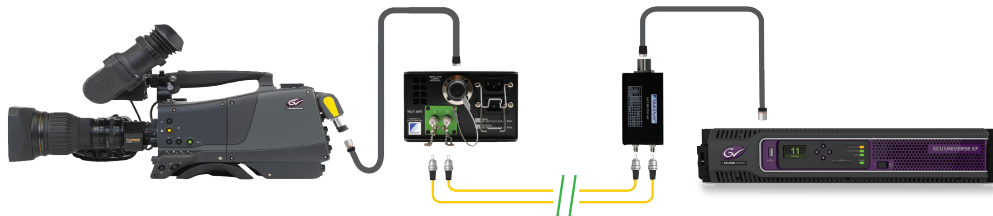
ROUTE AND MULTIPLEX CAMERAS

Once the hybrid cable is removed, a camera chain can be easily routed through optical routers or used with MultiDyne's FiberSaver systems to multiplex up to nine cameras onto just one strand of a single mode fiber.

USE LESS FIBER WITH FIBERSAVER

While passive to the camera chain optics, the HUT-APE can be used with the MultiDyne line of FiberSaver wavelength shifting muxes.

- Multiplex a camera chain onto a single fiber strand
- Boost the optical range
- Remap the camera & CCU optics to different wavelengths



HUT-APE SUPPORTS THE FOLLOWING CAMERAS:

MultiDyne	SilverBack-APE: Advanced Power Extension adapter with multiple power outputs. Can be matched with any Camcorder or Cine cameras from any manufacturer. Attaches to a battery plate, on the back of a camera, from IDX or Anton Bauer
Grass Valley	Focus or LDX cameras
Sony	HDC-1000/2000/3000/4300 series camera chains with SMPTE fiber connections
Panasonic	AK-HC3900

FiberSaver Series

3G & 12G Configurable Digital Fiber Multiplexers & Wavelength Shifters



The FiberSaver Series has been designed to help engineers and designers overcome situations where there are many signals to move over fiber, but not enough available fibers due to a lack of access or inability to run more fiber.

3G and 12G systems are available in uni and bi-directional configurations ranging from 6x0 and 18x0 to 3x3 and 9x9. Asymmetrical bi-directional configurations are also available.

Unique to the FiberSaver Series is the option to provide a Coaxial copy of an optical input or output path. This capability can be used on one or both sides of a system for the ultimate in conversion between optical and SDI sources and receive devices.

The coax input can be used to input an auto-failover /keep-alive signal as the system will automatically select the coax input when light is not detected on the input.

When the coax stage is populated on the Rx side of the system the FiberSaver will output simultaneous copies of the incoming optical signal.

Since the FiberSaver is receiving and then re-transmitting the optical signal, you get a fresh optical budget that allows transmission over even longer distances. The Rx side of the system can be an optical only passive de-mux unit or an active receiver with reamplified optical out with or without coax copies.

3G FiberSavers will also work with 1G Ethernet and MADI signals and special order 12G Systems can work 10G Ethernet and SMPTE Camera Chains that operate at 10Gbps.

Custom configurations are available providing the most comprehensive mixed signal, single system solution on the market. Contact MultiDyne to learn what is possible.

FSCu versions have both Fiber and Coaxial connections and FS versions have just Fiber. Both types can be used together to build the ideal system.



FSCu-12G-T-B-ST 6 Channel Fiber & Copper 12G Tx



FS-12G-T-B-ST 6 Channel Fiber Only 12G Tx

FEATURES

- Turns Any Digital Optical Signals Into CWDM
- Optical Only Versions & Coaxial Optical Versions Available
- Up To 18 Optical Signals or Up To 18 SDI Video On 1 fiber
- 3G & 12G Versions With Optional Support For 1 & 10 GbE
- Per-Channel Front Panel Status Display
- Regenerates/Amplifies Optical Signals
- Optional Redundant Power Supplies
- Auto-Fail Over To Coax Input
- Easy Access to Installed Fiber Infrastructures
- Extends Useful Life of Legacy Fiber Equipment
- Faster Set and Strike With Fewer Cables

MARKETS & APPLICATIONS

- Rentals
- OB Production
- Sports Broadcasting
- Remote Studios
- Corporate A/V
- Reclaiming Existing Fiber & Gear
- Use With SMPTE-HUTs to Extend Up To 9 SMPTE Camera Chains Over 1 Fiber
- Take Advantage of Stadium and Campus Fiber
- Replaces Need For Wavelength Specific Spares In CWDM Apps

**Custom Tailor a FiberSaver Solution for Your Application with Our Configurator Tool
Available Here at <https://configurator.multidyne.com/launcher>**

Campus / Venue Bi-Directional Video / Audio / Intercom / Data Extension Platform

FEATURES

- All signal I/O extended over 2x Single-Mode Fibers
- Supports 8x Camera Feeds & 8x SDI Return Channels
- Supports up to 8x Wet/Dry Partyline Intercom Channels
- 2x Independent 1GbE LAN Extensions
- 2x Independent RS-232/422/485 Data Channels
- 8x Mic-Pre Inputs with Phantom Power
- 8x Line Level Analog Audio Outputs
- Tri-Level or Bi-Level Genlock Output
- Redundant 48VDC Power Supplies
- Battery Plate for Emergency Backup
- 12G-SDI Options

APPLICATIONS

- Campus / Venue Production Signal Extension
- Truck to Control Room Links
- Control Room to Studio Links
- Metro Intra-Facility Connections



HONEY | BADGER

Stadium Signal Extension

The HoneyBadger doesn't care how big your campus is. It can handle the job with a feature set that is unavailable elsewhere in the broadcast production signal extension market. With support for 8 cameras and return feeds plus Genlock extension the system has your image acquisition requirements under control and in time. The Partyline Intercom channels and eight mic-pre inputs have your talent on-air loud and clear while the two isolated 1GbE LAN extensions let you get your IP connectivity extended over the same two Single-Mode fibers.

HoneyBadger Remote unit is a 5RU rack mountable chassis with dual, redundant 48VDC power supplies and a battery plate for short term emergency back up power. Fiber connector options include dual ST, Neutrik opticalCON DUO and LEMO 304M SMPTE standard connectors. The HoneyBadger Local side unit is a compact 4RU that provides the same industry standard connectivity as the remote side with full size BNCs for video, XLRs for Audio and easy to terminate Phoenix connectors for the Serial Data and GPIOs. The HoneyBadger is also available with 12G-SDI I/O to support 4K production.

HB-DC-DBL-3G (Local Side – 4RU)

HB-DC-DBR-3G (Remote Side – 5RU)



Supported Signals

For More Information Please Visit MultiDyne.com

OG-4600 Series



12Gbps Video, Audio, Data Fiber Transport

The OG-4600 series of modules for the openGear platform provides flexibility for all fiber transport needs. Signals are transported uncompressed and unprocessed from maximum signal integrity. Included signals are 12G SDI, audio, data, Ethernet, and reference, all compatible with the industry-standard openGear platform offering SNMP management via Dashboard software.

OG-4600 Series Multi-Platform Cross-Compatibility



LightBox Field Fiber



SilverBack Series



VB Series PTZ



VB Series Throwdown



OG-4600 Series



VF-9000 Series



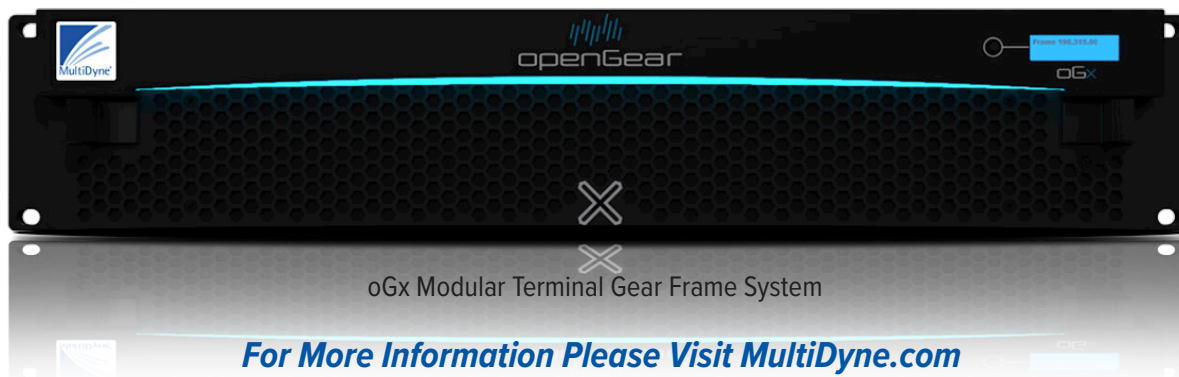
Bulldog Mini

FEATURES

- Up to 4 x 12G SDI
- 8x8 Audio Line/AES
- Genlock
- Time Code, GPIO, Data
- Ethernet

APPLICATIONS

- Studio Links
- Signal Trunking
- Signal Distribution
- Campus Interconnects
- Transmission Links
- Telco Circuits
- Outside Broadcast "B-Unit" Interconnects



For More Information Please Visit MultiDyne.com



NIAGARA SERIES

Next-Gen Advanced IP Convergent CODECs

FEATURES

- Real-time HEVC / MPEG-4 AVC UHD/4K Video Encoding / Decoding
- 1x BNC 12G-SDI input/output
- 1x SFP 12G-SDI input/output
- Video resolutions up to 2160p50/60
- IP Streaming and USB or Remote File Record
- 8-channels of Audio (4 stereo pairs)
- CEA708 Closed Caption Support
- Robust reception of Video & Audio
- OTT Protocols; RTMP, RTSP and HLS
- SRT, Zixi, and RIST Simple and Main Protocols
- Durable, Compact, cost-effective solution
- Compact 160mm x 125mm x 52mm chassis
- DC input up from 6 Volts to 24 Volts
- Low power
- User-friendly WEB-based remote configuration & control

APPLICATIONS

- Professional Broadcast Video
- Live Internet Streaming
- IPTV Streaming from CDNs

Niagara HD / UHD 4K Secure Streaming CODECs

MultiDyne's NIA9205-Series are a reliable, high-performance solution for the encoding and decoding of HD and UHD 4K video and audio signals for Internet streaming and broadcast applications.

HEVC and AVC 4:2:0 10-bit encoding and decoding, coupled with SRT, Zixi, & RIST. Video Transport and Error correction help to maintain broadcast quality transport for a wide range of interoperability over nearly any IP network, including wireless networks and the Internet.

"OTT" protocols include RTSP, HLS, RTMP and RTMPS making this encoder and decoder useful in almost any type of video streaming application.

The hybrid hardware and software architecture is what provides for such a wide range of protocol support and includes features such as multi-destination transport of the same or different protocol.

The NIA9205-SERIES provides HEVC and MPEG4-AVC video compression, up to 2160p50/60 10-bit 4:2:0, along with support for up to 8 audio mono channels to allow for cost-effective audio/video broadcast solutions.

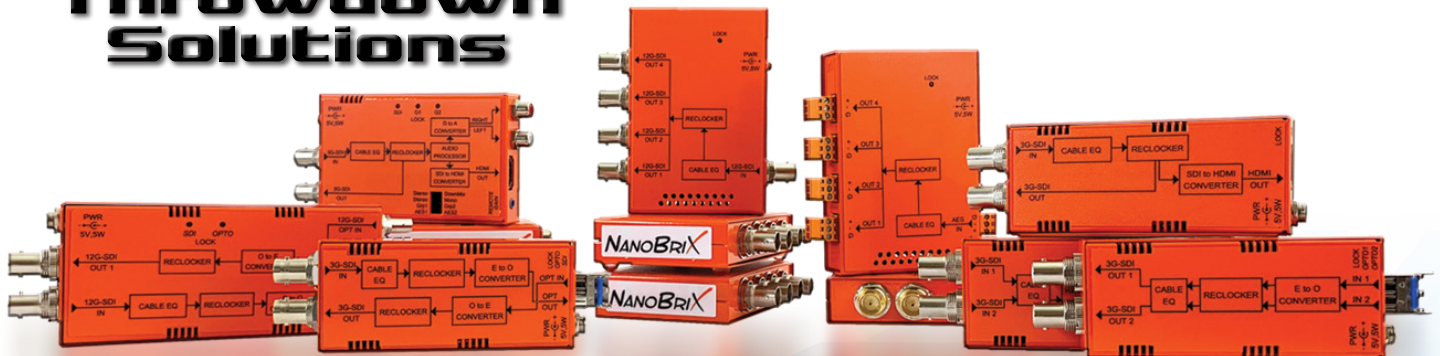


NIA9205-DEC (Front Panel)

For More Information Please Visit MultiDyne.com

NANOBRiX

Throwdown Solutions



Throwdown Fiber Transport & Converters

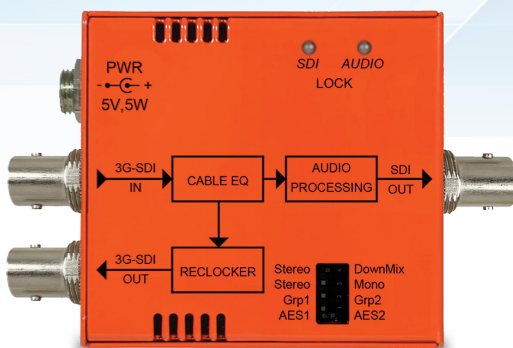
We often forget all that happens along the media signal journey. Video and audio signals are converted, equalized and re-clocked as they move on and off fiber-optic networks. These same signals are manipulated and multiplexed as they are distributed through studio, venue and campus infrastructure on their way to headends and destination points. Audio signals are embedded and de-embedded alongside video streams, and properly mixed for varied broadcast and playout services. It's almost too much to keep up with.

MultiDyne's NanoBriX Series assures that these many stages of the signal lifecycle are reliably addressed in one complete family. NanoBriX offers a comprehensive product line of miniature, rugged, quick-connecting throwdown solutions for temporary or permanent applications, including live TV productions, sporting venues, and broadcast facilities.

NBX Series Includes:

- 3G / 12G Fiber Extenders
- 12G & MADI DAs
- HDMI Converters
- Audio DAs
- Embedders & De-Embedders
- Audio Downmixers

NBX-5.1-DMX-PCM-3G 3G/HD/SD-SDI Embedded Audio Downmixer



Locking DC
Connector for AC
Adapter

SDI
Input

SDI
Output

SDI
Output

NBX-5.1-DMX-PCM-3G FRONT AND SIDE VIEWS

NBX-5.1-DMX-PCM-3G FEATURES

- Source Group Selection
- Input SDI EQ
- Reclocked SDI Loop Out
- Locking DC Power Input

APPLICATIONS

- Pre MPEG Encoder Downmixing
- Broadcast Confidence Monitoring
- Embedded Audio Channel Mapping Conformance

For More Information Please Visit MultiDyne.com

MADI

CENSUS SERIES Audio Monitors



C16A-2DANTE FEATURES

- 3G / HD / SD SDI Input With Integrated 16 Channel De-embedder
- Monitoring of up to 16 Channels of DANTE IP Audio Input
- Reclocked SDI Output
- High Power Class D Stereo Audio Amplifier
- Onboard 5.1 Surround Sound Lt/Rt Downmixer
- ITU1770-3 Loudness Level Display, With Full 16 Channel Monitoring Display
- Redundant Power Supply Option
- Headphone & Analog Audio Outputs
- Easy Audio Source and Mode Selection
- Ethernet Connection to DashBoard Control System For Monitoring, Control and Software Upgrades
- 3-year Transferable Warranty

APPLICATIONS

- Broadcast
- Mobile Production Trucks
- Master Control/CER
- Confidence Monitoring

Rack Mount Audio & Video Monitors

Working with audio is a complex endeavor. There are broadcast compliance challenges, ensuring that audio loudness thresholds are not exceeded. There are the quality control essentials that assure broadcast signal integrity. Depending on format, the number of signals to monitor and maintain range from very low to high density.

MultiDyne acquired Census Digital in 2020 to problem-solve these broadcast and production audio challenges. MultiDyne's rackmounted CENSUS Series provide reliable confidence monitoring for studios, mobile production and broadcast operations. Each addresses signal density needs for SDI, analog, AES / EBU, MADI or Dante IP audio, and simplifies how engineers visually and aurally monitor individual audio channels, adjust loudness levels and downmix channels.

A consistent front panel design and intuitive UI assures a familiar user experience across all models while extracting audio information, setting key parameters and maintaining quality control.

C64A-1 MADI FEATURES

- Monitoring of up to 64 Channels of MADI Audio
- Reclocked MADI Output
- High Power Class D Stereo Audio Amplifier
- Level Display, with Full 64 Channel Monitoring Display
- Redundant Power Supply Option
- Headphone & Analog Audio Outputs
- Easy Audio Source and Mode Selection
- Ethernet Connection to Dashboard Control System For Monitoring, Control and Software Upgrades
- 3-year Transferable Warranty

APPLICATIONS

- Broadcast
- Mobile Production Trucks
- Master Control/CER
- Confidence Monitoring



C16A-2Dante & 3G/HD/SD-SDI 16 Channel
Embedded Audio Monitoring System



C64A-1 64 Channel MADI Audio Monitor

For More Information Please Visit MultiDyne.com

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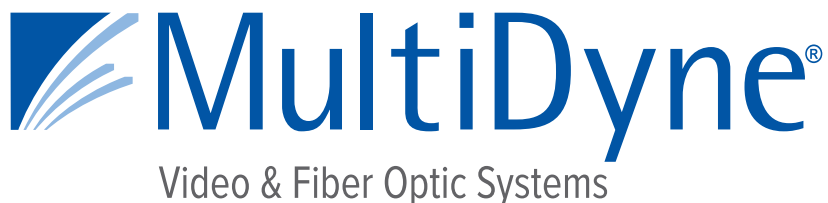
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45 Years of Award-Winning INNOVATION

MultiDyne Video & Fiber Optic Solutions has over 40 years of experience serving the broadcast and video production communities worldwide. MultiDyne leads the industry in pioneering signal conversion and fiber-optic-based transport systems for the broadcast, cable, satellite, production, digital cinema, surveillance, teleconferencing, and Pro-AV markets across all business verticals.

MultiDyne's service-oriented approach helps customers meet their needs with innovative, custom fiber solutions for systems integrators and end-users. The company's highly configurable, durable, format-flexible, and feature-rich solutions service the continually evolving needs of local studios, network facilities, mobile trucks, live event venues, and enterprise organizations. MultiDyne continues to expand on its existing product families with new ultra-compact, lightweight systems; and innovate for new growth areas, including IP-based transport and delivery networks. Ultimately, each innovation delivers tangible benefits in the form of higher operational efficiency, and lower total cost of ownership.



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