

## FEATURES

- ▷ Modular design for in field expansion up to 16 inputs and 16 outputs
- ▷ Independent input OR output expansion in increments of 8 ports with BNC SDI, SFP or mixed I/O cards
- ▷ Mixed BNC SDI and SFP cards available for added I/O flexibility
- ▷ SFP cards with 1 to 8 channels of fiber optic, HDMI, or other MSA compatible SFP modules
- ▷ Passes SDI embedded audio and ancillary data
- ▷ Additional audio level can be connected to D25 connector (see Related Products), with break away from video support
- ▷ Ethernet port for control via built in web page interface or TCP/IP ports
- ▷ Serial control via RS-232 port, RS-485 port for an additional high speed long distance capable control interface
- ▷ Support for some common 3rd party protocols for added integration flexibility
- ▷ Auxiliary port for external status and control signaling
- ▷ Real Time Operating System (RTOS) with 32 bit ARM processor
- ▷ System software updates from webpage interface
- ▷ External DC power supply
- ▷ Redundant power supply included

MultiDyne FiberNet Electro Optical Routing Switcher offers the ultimate in modular system flexibility and can be expanded in the field as needed



The MultiDyne FiberNet Routing Switcher offers the ultimate in modular system flexibility. Systems are fully factory assembled and tested to your specifications and can be expanded in the field as needed. System size is determined by modular cards which independently expand the system by 8 input or 8 output ports up to 16 inputs and 16 outputs. MultiDyne offers BNC, SFP, and mixed BNC/SFP modular I/O cards to meet your requirements. The FiberNet Routing Switcher includes everything needed for a complete system except your choice of I/O cards and SFP modules.

When SFP (Small Form-factor Pluggable) modules are used, they offer additional I/O flexibility. Systems can be configured down to the individual input or output, which can be populated as desired. Choose from MultiDyne FiberNet Routing Switcher selection of fiber optic and HDMI SFP modules.

MultiDyne FiberNet Routing Switcher is the control system and the rugged 1RU frame it resides in. The plug in controller offers a high level of connectivity and system integration ease through the included Ethernet, USB, RS-232, and RS-485 control ports, supporting

powerful yet simple to use MASCOT protocol, a built in web page interface, and some common third party protocols. Software updates can be easily performed using the web page interface. The rugged steel enclosure includes quiet forced air cooling for extended service life and reliability. Each system also includes two external DC power supplies (one extra for power supply redundancy).

The included 16x16 SDI crosspoint provides auto reclocking for standard 3G, HD, and SD rates, with bypass for non-standard rates between 20Mbps and 3Gbps. Switch on vertical sync functionality is provided through the included sync interface which accepts tri-sync, black burst, composite sync or analog video signals. Additional features include: embedded SDI audio pass-through, video mute on every output, stored routing presets (salvos), signal presence detection, reclocker bypass control, ASI support, and more!

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## FEATURES

- Modular design for in field expansion up to 16 inputs and 16 outputs
- Independent input OR output expansion in increments of 8 ports with BNC SDI, SFP or mixed I/O cards
- Mixed BNC SDI and SFP cards available for added I/O flexibility
- Populate SFP cards with 1 to 8 channels of fiber optic, HDMI, or other MSA compatible SFP modules
- A selection of SFP modules including single mode 1310nm fiber optic and HDMI modules
- Works with many other 3rd party MSA compatible SFP modules
- Re-clocks standard SDI rates 3G (2.97 Gbit/s), HD (1.484 Gbit/s), and SD (270 Mbit/s)
- Auto bypass of non-standard SDI rates from 20 Mbit/s to 3 Gbit/s
- Passes SDI embedded audio and ancillary data
- Different SDI rates can be used on different inputs interchangeably and without restriction
- Additional audio level can be connected to D25 connector (see Related Products), with break away from video support
- Inputs can be switched to multiple outputs without restriction
- Outputs can be individually muted
- Vertical interval switching using vertical sync input (Tri-level sync or NTSC/PAL black burst)
- Store and recall up to 10 preset salvos
- Includes button control panel interface
- Supports Matrix Switch Corporation Remote Panels
- Ethernet port for control via built in web page interface or TCP/IP ports
- Interactive web page interface (Interactive Demo)
- Serial control via RS-232 port
- RS-485 port for an additional high speed long distance capable control interface
- Support for some common 3rd party protocols for added integration flexibility
- Auxiliary port for external status and control signaling
- Real Time Operating System (RTOS) with 32 bit ARM processor
- System software updates from webpage interface
- External DC power supply
- Redundant power supply included
- Complies with all relevant FCC, U/L, CE, and RoHS requirements

## SPECIFICATIONS

General:
Inputs: 16
Outputs: 16
Enclosure Type: 1RU
Size: 19 x 1.75 x 6 inches
Weight: 5.0 lbs
Power: 12 VDC 5A Adapter
Power Connector: D9 Male

Panel Type: Buttons
Ethernet: 10/100 Base-T Auto MDIX
SDI Input Cards
Product: MSC-CARDRX-BNC8 (sold separately)
Connector Type: BNC
Data Rates: 19 Mbit/s through 3.0 Gbit/s
Input Return Loss: > 15dB @ HD, > 12dB @ 3G
Input Impedance: 75 Ohms +/- 1%
Input Level: 800 mV P-P +/- 20%
Cable Equalization: 400m @ SD, 140m @ HD, 120m @ 3G (1694A coax)
SDI Output Cards
Product: MSC-CARDTX-BNC8 (sold separately)
Connector Type: BNC
Data Rates: 19 Mbit/s through 3.0 Gbit/s
Re-clocking Data Rates: 2.97 Gbit/s, 1.485 Gbit/s, 270 Mbit/s
Output Return Loss: > 15dB @ HD, > 12dB @ 3G
Output Impedance: 75 Ohms +/- 1%
Output Level: 800 mV P-P +/- 5%
Output Jitter: < 0.2 UI
SFP Input Cards
Product: MSC-CARDRX-SFP8 (sold separately)
Connector Type: SFP (MSA Standard Compatible)
Data Rates: 19 Mbit/s through 3.0 Gbit/s
SFP Output Cards
Product: MSC-CARDTX-SFP8 (sold separately)
Connector Type: SFP (MSA Standard Compatible)
Data Rates: 19 Mbit/s through 3.0 Gbit/s
SDI Standards
SD Formats: 625i25 PAL and 525i29.97 NTSC
HD Formats: 720p23.98, 720p24, 720p25, 720p29.97, 720p30, 720p50, 720p59.94, 720p60, 1080p23.98, 1080PsF23.98, 1080p24, 1080PsF24, 1080p25, 1080PsF25, 1080p29.97, 1080PsF29.97, 1080p30, 1080PsF30, 1080i50, 1080i59.94, 1080i60
3G Formats: 1080p50, 1080p59.94, 1080p60
2K Formats: 2048 x 1556p23.98/24/25
Compliance: SMPTE 259M, SMPTE 292M, SMPTE 296M, SMPTE 310M, SMPTE 425M-A, SMPTE 425M-B, ITU-R BT.656 and ITU-R BT.601
Video Sampling: 4:2:2 and 4:4:4
Audio Sampling: 24 bit @ 48 KHz
Color Precision: 4:2:2 and 4:4:4 10 bit
Color Space: YUV or RGB
Metadata Support: Ancillary data as defined by SMPTE 352M
Reference Sync
Connector Type: Analog BNC with pass-through
Format: Tri-Level Sync and NTSC/PAL Black Burst