Opticis

Connectivity for
Video · Audio · Data

Fiber-optic Extension Link
(DVI/HDMI/DisplayPort/SDI)

Active Optical Cable

Fiber-Optic Video Format Converter

Multi-format Modular Matrix

KVM

IP Solution

HDBaseT

OPTICIS

www.opticis.com

Creative Opticis

With extensive technical expertise in fiber optic components and related applications, Opticis has ample technical capability and a robust commitment to expand our expertise across the world by providing high-speed fiber link solutions for digital video & audio extension and distribution, segmentation and matrix routing. We strive to become the leader by building the community to share thoughts, respond directly to the needs, and offer optimized solutions that will impact customer's daily life with satisfaction.

Expertise, Confidence, Ingenuity

At the heart of our achievements as being a long lasting leader in Fiber Optic industry, there is our mutual confidence with our customers. We believe that our strong customer relationship comes from our expertise from our motivated employees, confidence on the quality of the products, and our ingenuity to develop innovative technologies such as: VCSEL, CWDM, and the next generation video signal management. We thrive to maintain our forefront position is this industry by constantly devoting on the voices of our clients, developing problem-solving solutions, and delivering compact and simple connectivity for user's convenience.

With complete Vertical Integration System, self-manufacturing of the major components allows faster service response and technical support.

In 1999, Opticis initiated AV connectivity that allows higher definition for video transmission. As a pioneer of this field, we thrive to expand our expertise by constantly providing innovative optical link solution to the world.

The Quality Management System and The Environmental Management System have been certified, assessed and complied, by ISO 9001 and ISO 14001.

As a leader in the field of fiber-optic extenders, Opticis seeks to simplify connectivity through compact designing and easy Plug & Play feature.

Various interface data can be combined or multiplexed into an optical data for transparant and long delivery of data transmission.

Constantly thrive to develop a new fiber optic link product that meets the needs of a wide range of data bandwidth transfers and applications.

DISTRIBUTOR

• Europe

HY-LINE
(Germany, Austria,
Switzerland, Czech republic)

W. www.hy-line.de/computer
T. +49 89 614 503 40
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SNK-S
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W. www.snk-s.ru
www.opticis.ru
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W. www.optoplast.org
T. +39 2 97289710
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W. opticis-turkiye.com
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W. www.controldesign.no
T. +47 22 29 04 59
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W. www.direktronik.se
T. +46 08 524 00 700
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W. www.opticisusa.com
T. +1 949 701 4742
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W. www.industrialcomponent.com/opticis/
T. +1 877 446 8947
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• Asia

CAH Professional Sound Co.,Ltd.
(China, Hong Kong, Macau)

W. www.cah.com.hk
T. +852 2766 3818
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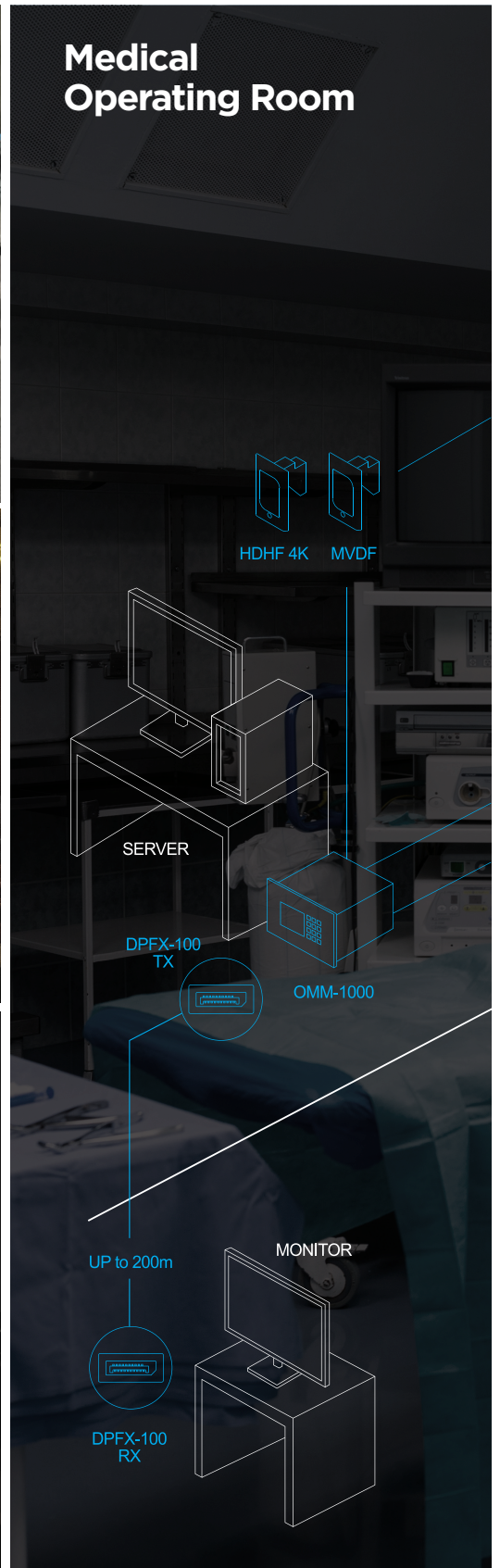**E.** benho@cah.com.hk

• Australia
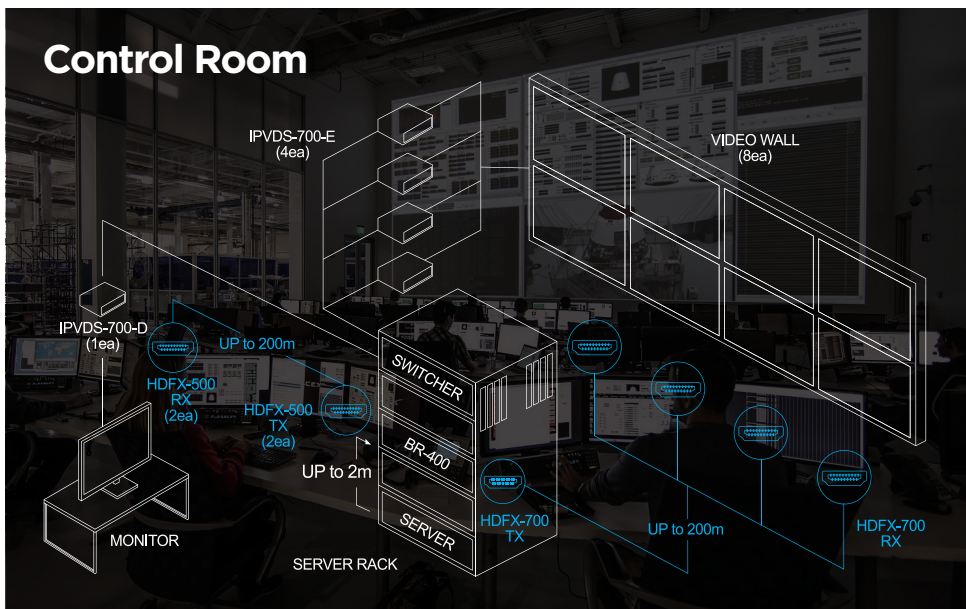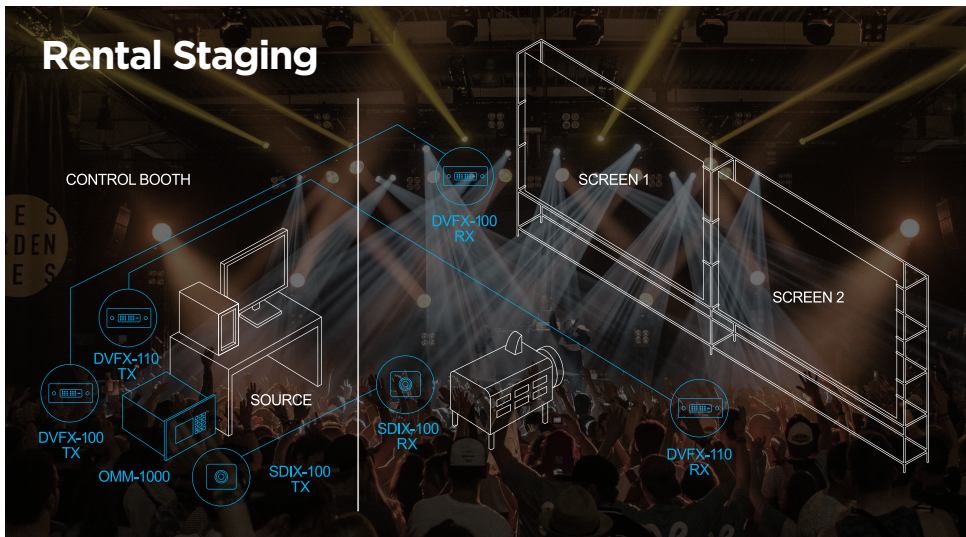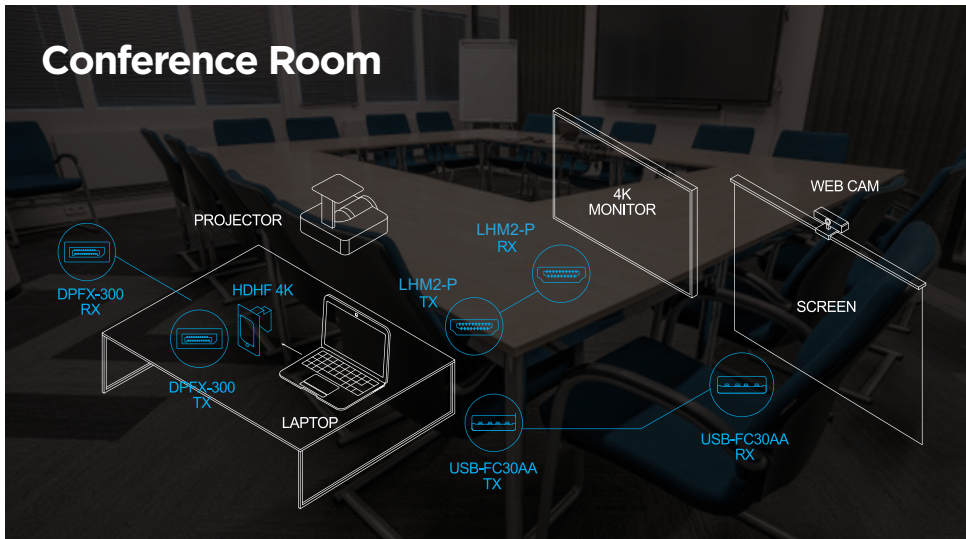
AV glue (Australia)

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T. +61 7 3376 4745
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E. trevor@avglue.com.au

✉ **"Inquiries** for other regions may be contacted to our Headquarter, located in South Korea(tosales@opticis.com)"

SOLUTION

Opticis aims to provide optimal solution for various applications through our wide range of product line up. From point to point connection to multiple connectivity, our products can offer complete solution for applications that require cautious over environment, high-speed and long extension, yet transmitting high definition signals such as 4K DCI and 8K.

Conference Room

PROJECTOR

4K MONITOR

WEB CAM

LHM2-P RX

DPFX-300 RX

HDHF 4K

LHM2-P TX

SCREEN

DPFX-300 TX

LAPTOP

USB-FC30AA RX

USB-FC30AA TX

Rental Staging

CONTROL BOOTH

SCREEN 1

DVFX-100 RX

SCREEN 2

DVFX-110 TX

SOURCE

DVFX-100 TX

SDIX-100 RX

DVFX-110 RX

OMM-1000

SDIX-100 TX

Control Room

IPVDS-700-E (4ea)

VIDEO WALL (8ea)

IPVDS-700-D (1ea)

UP to 200m

SWITCHER

HDFX-500 RX (2ea)

HDFX-500 TX (2ea)

BR-400

UP to 2m

SERVER

HDFX-700 TX

UP to 200m

HDFX-700 RX

MONITOR

SERVER RACK

Medical Operating Room

HDHF 4K   MVDF

SERVER

DPFX-100 TX

OMM-1000

UP to 200m   MONITOR

DPFX-100 RX

MEDICAL
BOOM

4K
MONITOR

HDFX-500
RX

HDFX-500
TX

UP to 200m

DPFX-700
TX

UP to 200m

DPFX-700
RX

SCREEN

PROJECTOR

01
Fiber-optic Extension Link

Fiber-optic Extension Link

Opticis fiber-optic extension solution including DVI, HDMI, DisplayPort, SDI, and USB will meet the requirement of various industries and customers making a strong move for simple, reliable, and crystal clear quality of signal transmission with powerful features to transmit longer distances and an ability to accommodate full compatibility and intelligent management of all devices within an integrated system.

4K			
4K UHD	**No Latency**	**No Compression**	**Compact Design**

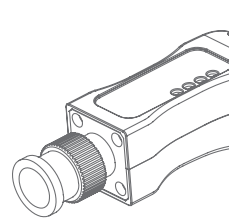|			
Extremely long-distance	**Simple connection**	**Galvanic isolation**	**Free from electrical noise**

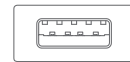## TYPE OF INTERFACE
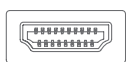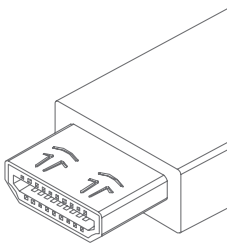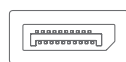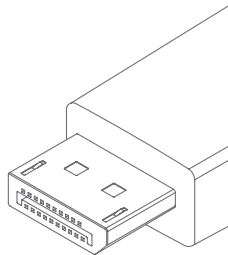
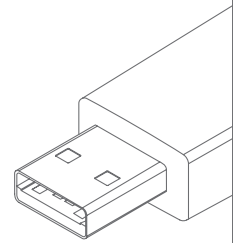| HDMI	DisplayPort	DVI	SDI	USB
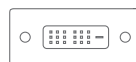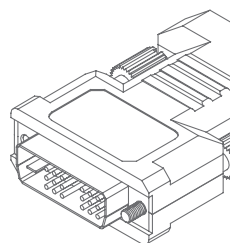
Stretch HDMI™ : Small Module

| HDMI	Type	4K @ 60Hz (4:4:4)	Distance	Fiber Type	Copper Cable Extension	ARC	Dimension (mm)	Auto Power Switching	Firmware Upgradable	HDR/CEC/ EDID/HDCP2.2	Power Rack Available	Adapter Type
HDFX-700-TR	Small Module	O	200m	1 LC MM	3m	O	39x76x20	X	O	O	O	DC
HDFX-500-TR	Small Module	O	200m	1 LC MM	0.2m (TX)	X	22x67x14	O	X	O	X	Micro USB
HDFX-350-TR	Small Module	O	200m	2 LC MM	0.2m (TX)	X	26x72x15	O	X	O	X	Micro USB
LHM2-P	AOC	O	100m	Hybrid	X	X	22x75x11	X	X	O	X	Micro USB
LHM2-N	AOC	O	100m	Hybrid	X	X	19x64x11	X	X	O	X	X

HDFX-700-TR ; One (1) Fiber Optical HDMI 2.0 Module with Extra Extension
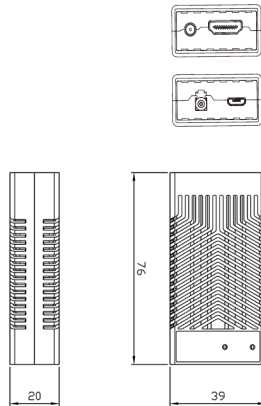
- Extends up to 4K (4096x2160) at 60Hz
  (RGB & YCbCr : 4:4:4).
- Transmits HDMI 2.0 signal up to 200m (656feet) over
  one LC multi-mode fiber(OM3).
- Extra copper extension available up to 3m
  (2m copper cables are included in the shipping group).
- Two selectable options to boost convenience:
    * Support ARC up to 200m.
    * Fully compatible with using HDFX-500 as a pair.
- Firmware upgradable via micro USB port.
- Operated by DC power supplier 5V/1A.
- Supports HDR at 10 bit or 12 bit speed respectively
  within its maximum bandwidth, 18Gbps.
- Complies with CEC, EDID and HDCP 2.2/1.4.
- Adopts up to eight (8) units using *BR-400.
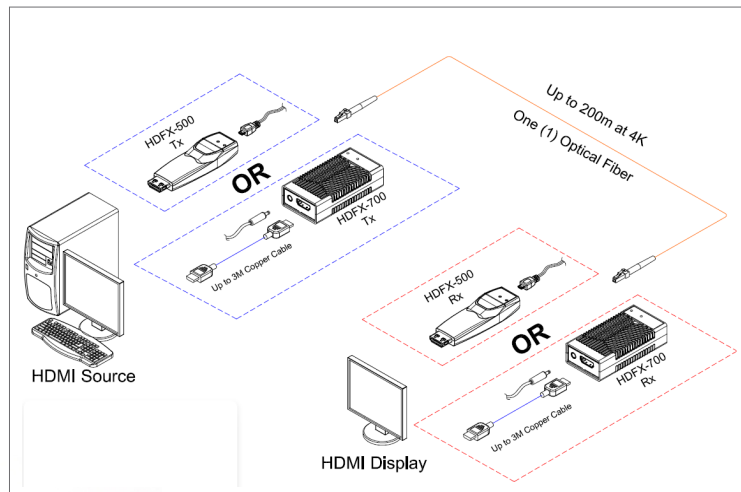
HDFX-500-TR ; One (1) fiber Optical HDMI 2.0 Extension Module
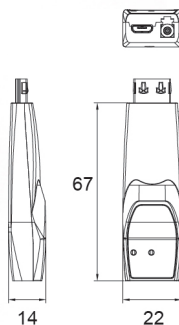
- Extends up to 4K (4096x2160) at 60Hz
  (RGB & YCbCr : 4:4:4).
- Transmits HDMI 2.0 signal up to 200m (656feet)
  over one LC multi-mode fiber(OM3).
- Supports HDR at 10 bit or 12 bit speed respectively within its
  maximum bandwidth, 18Gbps.
- Prevents accidental disconnection by using
  High-Retention HDMI connector.
- Fully compatible with using HDFX-700 as a pair.
- Operated by either 5V from HDMI source or USB power.
- Supports 3D contents transmission.
- Provides Auto Power-Switching feature.
- Complies with CEC, EDID and HDCP 2.2/1.4.

# HDFX-350-TR ; Two (2) fiber Optical HDMI 2.0 Extension Module
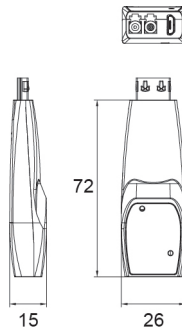
- Extends up to 4K (4096x2160) at 60Hz (RGB & YCbCr : 4:4:4).
- Transmits HDMI 2.0 signal up to 200m (656feet)
  over two (2) LC multi-mode fibers(OM3).
- Supports HDR at 10 bit or 12 bit speed respectively within its
  maximum bandwidth, 18 Gbps.
- Prevents accidental disconnection by using
  High-Retention HDMI connector.
- Operates by either 5V from HDMI source or USB power.
- Provides Auto Power-Switching feature.
- Supports 3D contents transmission.
- Complies with CEC, EDID and HDCP 2.2.

Stretch HDMI™ : Active Optical Cable

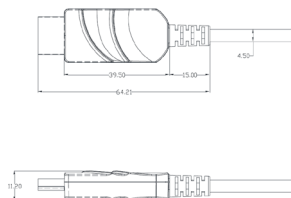## LHM2-P ; Detachable Active Optical Cable for HDMI 2.0
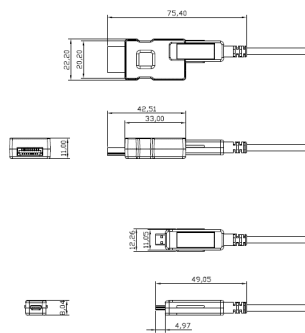
- Extends up to 4K (4096x2160) at 60Hz
  (RGB & YCbCr : 4:4:4).
- Transmits HDMI 2.0 signal up to 100m (328feet) over
  hybrid cable.
- Supports HDR at 10 bit or 12 bit speed respectively
  within its maximum bandwidth, 18Gbps.
- Available Jacket type: Plenum, LSZH, TPU
- Offers perfect flexibility during installation by separating
  HDMI connector from the cable.
- Supports 3D contents transmission.
- Complies with CEC, EDID, and HDCP 2.2.

Ordering information: LHM2-PPxx: Plenum Jacket, LHM2-PLxx:
LSZH Jacket, LHM2-PTxx: TPU Jacket
    where xx = Length in meters
    Standards lengths are 10, 15, 20, 30, 40, 50, 70 and 100m
    ("A0" for 100m)

LHM2-N ; Active Optical Cable for HDMI 2.0

- Extends up to 4K (4096x2160) at 60Hz
  (RGB & YCbCr : 4:4:4).
- Transmits HDMI 2.0 signal up to 100m (328feet)
  over hybrid cable.
- Supports HDR at 10 bit or 12 bit speed respectively
  within its maximum bandwidth, 18Gbps.
- Available Jacket type: Plenum, LSZH, TPU
- Plug and Play.
- Supports 3D contents transmission.
- Complies with CEC, EDID, and HDCP 2.2.

Ordering information : LHM2-NPxx: Plenum Jacket, LHM2-NLxx:
LSZH Jacket, LHM2-NTxx: TPU Jacket
    where xx = Length in meters
    Standards lengths are 10, 15, 20, 30, 40, 50, 70 and 100m
    ("A0" for 100m)

Stretch DisplayPort™ : Small Module

DP	Type	Standard	Resolution	Distance	Fiber Type	Copper Cable Extension	Dual-mode DP (DP++)	Dimension (mm)	Power Rack Available	Adapter Type
DPFX-1F14-TR	Small Module	DisplayPort 1.4	8K (7680x4320)	200m	1 LC MM	3m	X	39x76x20	O	DC
DPFX-700-TR	Small Module	DisplayPort 1.2	4K (4096x2160)	200m	1 LC MM	3m	X	39x76x20	O	DC
DPFX-300-TR	Small Module	DisplayPort 1.2	4K (4096x2160)	200m	1 LC MM	0.2m (TX)	O	22x67x14	O	Micro USB
DPFX-250-TR	Small Module	DisplayPort 1.2	4K (4096x2160)	200m	2 LC MM	0.2m (TX)	O	26x72x15	O	Micro USB
DPFX-100-TR	Small Module	DisplayPort 1.1	WQXGA(2560x1600)	200m	2 LC MM	0.5m	O	35x72x16	O	DC
DPOC-14N	AOC	DisplayPort 1.4	8K (7680x4320)	100m	Hybrid	X	X	20x55x12	X	X
DHFC-200D	AOC	IN : DisplayPort 1.2 OUT : HDMI 2.0	4K (4096x2160)	100m	Hybrid	X	X	TX : 20x65x12 RX : 20x53x10	X	USB
DPAX	Repeater	DisplayPort 1.2	4K (4096x2160)	N/A	N/A	3m/5m DP1.2 5m/10m DP1.1	X	20X59X10	X	Micro USB

DPFX-1F14-TR ; One (1) fiber Optical DisplayPort 1.4 Module with Extra Extension
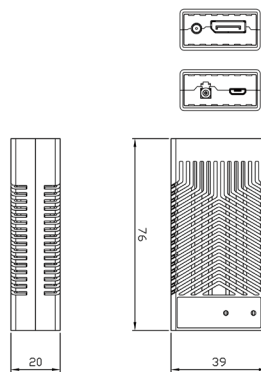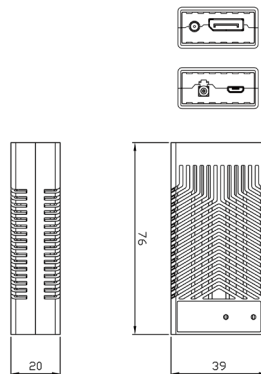

- Extends up to 8K DSC(7680x4320) at 60Hz.
- Transmits DisplayPort1.4 signal up to 200m (656feet) over one LC multi-mode fiber(OM3).
- Extra copper extension available up to 3m (2m copper cables are included in the shipping group).
- Fully interoperable with using DPFX-700-TR and DPFX-300-TR as a pair.
  * It supports up to DisplayPort1.2.
- Firmware upgradable via USB port.
- Supports MST (Multi-Stream Transport).
- Operated by DC power supplier 5V/1A.
- Adopts up to eight (8) units using *BR-400.
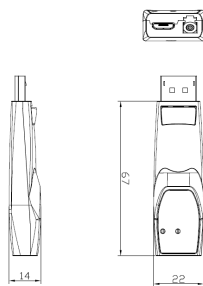
*Refer to page 18 for the details.
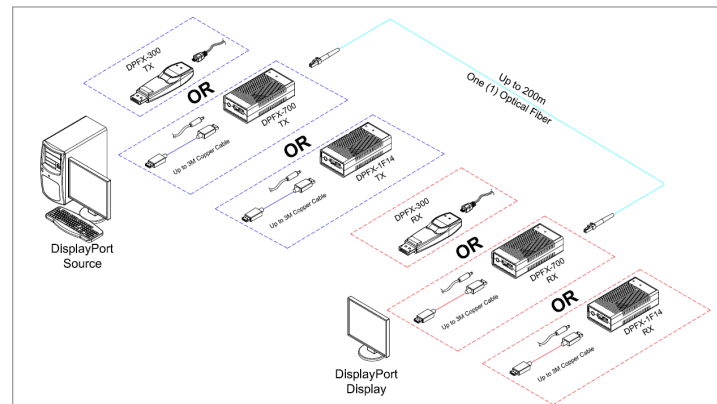
DPFX-700-TR ; One (1) fiber Optical DisplayPort 1.2 Module with Extra Extension

- Extends up to 4K (4096x2160) at 60Hz (RGB & YCbCr : 4:4:4).
- Transmits DisplayPort1.2 signal up to 200m (656feet) over one LC multi-mode fiber(OM3).
- Extra copper extension available up to 3m (2m copper cables are included in the shipping group).
- Fully interoperable with using DPFX-1F14 and DPFX-300-TR as a pair.
- Firmware upgradable via USB port.
- Supports MST (Multi-Stream Transport).
- Operated by DC power supplier 5V/1A.
- Adopts up to eight (8) units using *BR-400

*Refer to page 18 for the details.

DPFX-300-TR ; One (1) fiber Optical DisplayPort 1.2 Extension Module
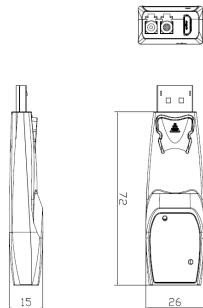
- Extends up to 4K (4096x2160) at 60Hz
  (RGB & YCbCr : 4:4:4).
- Transmits DisplayPort 1.2 signal up to 200m (656feet)
  over one LC multi-mode fiber(OM3).
- Offers total data rate 21.6Gbps (5.4Gbps per lane).
- Fully compatible with using DPFX-1F14 and
  DPFX-700 as a pair.
- Supports Dual-mode DP (DP++).
- Offers Auto-power switching.
- Supports MST (Multi-Stream Transport).
- Supports Auxiliary / I²C channel over fiber.
- Operated by USB power or DC power supplier.
- Adopts up to eight (8) units using *BR-500.

*Refer to page 18 for the details.

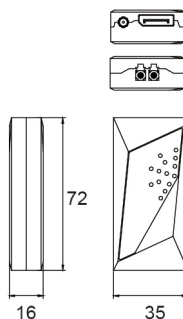# DPFX-250-TR ; Fiber-Optic DisplayPort 1.2 Extension Module

- Extends WQUXGA (3840x2400) at 60Hz.
- Transmits DisplayPort 1.2 signal up to 200m (656feet)
  over two (2) LC multi-mode fibers.
- Offers total data rate 21.6Gbps (5.4Gbps per lane).
- Supports Dual-mode DisplayPort (DP++).
- Supports Auxiliary / I²C channel over fiber.
- Supports MST (Multi-Stream Transport).
- Operated by USB power or DC power supplier.
- Offers Auto-power switching.
- Adopts up to eight (8) units using *BR-500.

*Refer to page 18 for the details.

DPFX-100-TR ; Fiber-optic DisplayPort 1.1 Extension Module

- Extends WQXGA (2560x1600) at 60Hz.
- Transmits DisplayPort 1.1 signal up to 200m (656feet
  over two (2) LC multi-mode fibers.
- Offers total data rate 10.8Gbps (2.7Gbps per lane).
- Supports Dual-mode DisplayPort (DP++).
- Supports auxiliary / I²C channel over fiber.
- Has DisplayPort receptacle and provides intermediate
  cable for flexible installation.
- Operated by USB power or DC power supplier.

# Stretch DisplayPort™ : Active Optical Cable

DPOC-14N ; DisplayPort 1.4 Active Optical Cable
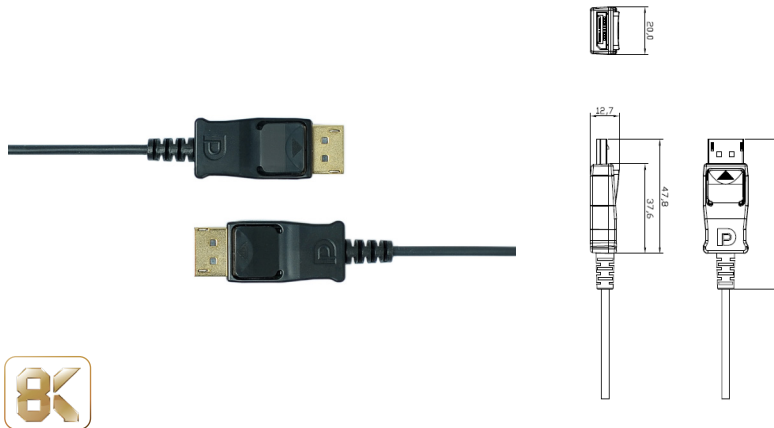
- Extends up to 8K DSC(7680x4320) at 60Hz.
- Transmits DisplayPort 1.4 signal up to 100m (328feet) over hybrid cable.
- Offers total data rate 32.4Gbps (8.1Gbps per lane).
- Available Jacket type: Plenum, LSZH, TPU
- Supports 3D contents transmission.
- Plug & Play.
- Bi-directional hardware handshake with voltage assertion for DPCP, EDID.

Ordering information : DPOC-14-NPxx: Plenum Jacket, DPOC-14NLxx: LSZH Jacket, DPOC-14NTxx: TPU Jacket
   where xx = Length in meters
   Standards lengths are 10, 15, 20, 30, 40, 50, 70 and 100m

DHFC-200D ; DisplayPort 1.2 to HDMI 2.0 Converting (Detachable) Active Optical Cable

DHFC-200D-TX

DHFC-200D-RX(HDFC-200D-RX)
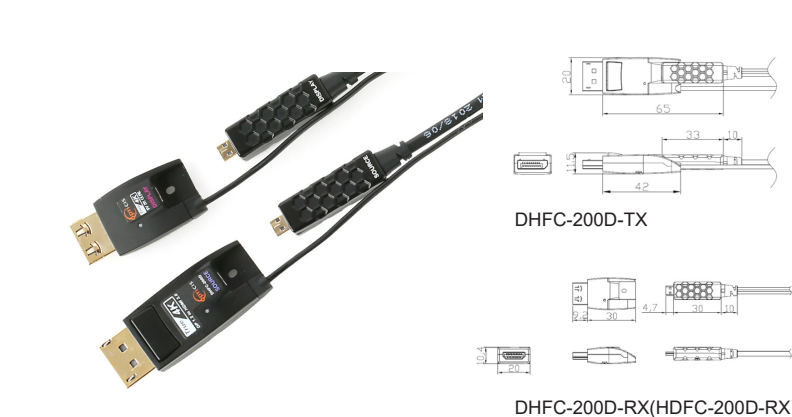
- Extends up to 4K (4096x2160) at 60Hz (RGB & YCbCr : 4:4:4).
- Converts DisplayPort 1.2 signal to HDMI 2.0 signal and transmits converted signal up to 100m (328feet) over hybrid cable.
- Offers total data rate 21.6Gbps (5.4Gbps per lane).
- Adopts plenum graded (or LSZH - Low Smoke Zero Halogen) hybrid cable.
- Offers perfect flexibility during installation by separating DisplayPort and HDMI connector from the cable.
- Prevents accidental disconnection by using High-Retention HDMI connector(Rx).
- Supports 3D contents transmission.
- Supports CEC, EDID and HDCP 2.2.
- Pulling wire capsule is included in the shipping group.

Ordering information : DHFC-200D-xx
   where xx = Length in meters
   Standards lengths are 5, 7, 10, 15, 20, 30, 40, 50, 70 and 100m

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Stretch DisplayPort™ : Repeater

DPAX ; DisplayPort 1.2 Data Recovery Repeater

- Supports Ultra High Definition(up to 4096x2160) at 60Hz.
- Transmits DisplayPort 1.2 signal up to 18m (59feet) over copper cables.
   (1) 3m (10feet) for TX side,15m (49ft) for RX side DP1.2
   (2) 5m (16feet) for TX side, 20m (65ft) for RX side DP1.1
- Offers total data rate 21.6Gbps (5.4Gbps per lane).
- Plug & Play.
- Supports MST(Multi-Stream Transport).
- Compact design allows direct connect to the Source and Display.
- Operated by USB power or DC power supplying adaptor.
- Offers data recovery function.
- Designed to be fully compatible with the optical DisplayPort extender: DPFX-250, DPFX-300, DisplayPort cable: DPFC-200D

Stretch DVI™ : Small Module

DVI	Type	Resolution	Distance	Fiber Type	Self EDID	Additional Feature	Dimension (mm)	Power Rack Available	Adapter Type
DDFX-100-TR	Small Module	WQXGA (2560x1600)	500m	2 LC MM	O	X	39x72x15	O	DC
DVFX-100-TR	Small Module	WQXGA (1920x1200)	500m	1 SC MM	O	X	39x56x15	O	DC
DVFX-110-TR	Small Module	WQXGA (1920x1200)	500m (MM) 1.5km (SM)	1 SC MM/SM	O	Audio Embedded HDCP	39x68x15	O	DC
M1-201SA-TR	Small Module	WQXGA (1920x1200)	500m	4 LC MM	O	X	39x59x15	O	DC
M1-201DA-TR	Small Module	WQXGA (1920x1200)	500m (MM) 1.5km (SM)	2 LC MM/SM	O	X	39x69x15	O	DC
M1-3R2VI-DU-TR	Box Type	WQXGA (2560x1600)	500m (MM) 2km (SM)	4 LC MM/SM	O	Direct DDC HDCP (CAT-5(6e)	216x112x31	X	DC
DVFC-100	AOC	WQXGA (1920x1200)	100m	Hybrid	X	Direct DDC	39x68x15	X	X
M1-1P0E	AOC	WQXGA (1920x1200)	100m	Hybrid	X	Direct DDC HDCP	39x53x15	X	DC (Optional)

DDFX-100-TR ; Fiber-optic Dual-link DVI Extension Module

14.5   39
72
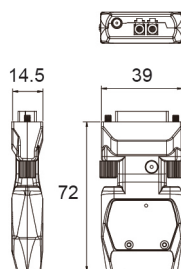
- Extends WQUXGA (3840x2400) at 33Hz or WQXGA (2560x1600) at 60Hz DVI signal up to 500m (1,640feet).
- Transmits TMDS over two (2) LC multi-mode fibers.
- Offers Self-EDID Programming feature, detecting from display and restoring EDID to an EEPROM in the transmitter without any physical DDC connection.
- Compact enough to directly plug to graphic sources and displays.

DVFX-100-TR ; One (1) fiber Optical DVI Extension Module

14.6   39
56
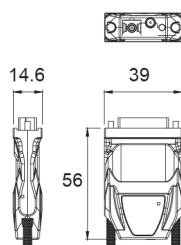
- Extends WUXGA (1920x1200) at 60Hz DVI data up to 500m (1,640feet).
- Transmits TMDS over one (1) SC multi-mode fiber.
- Offers Self-EDID Programming feature, detecting from display and restoring EDID to an EEPROM in the transmitter without any physical DDC connection.
- Compact enough to directly plug to graphic sources and displays.
  LC Connector Available: DVFX-100L-TR

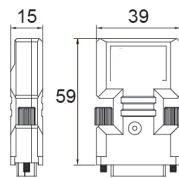## DVFX-110-TR ; One (1) fiber SM/MM Optical DVI Extension Module

14.6   39
68
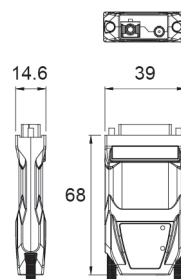
- Extends WUXGA (1920x1200) at 60Hz DVI data.
- Operates with both single and multi-mode optical fibers.
  (1) up to 1.5Km (4,920feet) over one (1) SC single-mode fiber.
  (2) up to 500m (1,640feet) over one (1) SC multi-mode fiber.
- Offers Self-EDID Programming feature, detecting from display and restoring EDID to an EEPROM in the transmitter without any physical DDC connection.
- Compact enough to directly plug to graphic sources and displays.
- Splits one (1) optical signal from the transmitter up to sixteen (16) optical signals with optical splitter, *OPS-116S.
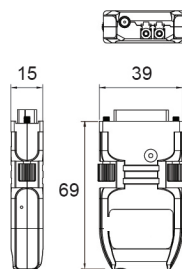
*Refer to page 19 for the details.

Stretch DVI™ : Small Module

M1-201SA-TR ; Fiber-optic DVI Extension Module

15   39
59

- Extends WUXGA (1920x1200) at 60Hz DVI data up to
  500m (1,640feet).
- Transmits TMDS over a pair of duplex LC multi-mode fibers.
- Offers Self-EDID Programming feature, detecting from
  display and restoring EDID to an EEPROM in the
  transmitter without any physical DDC connection.
- Compact enough to directly plug to graphic sources and
  display.

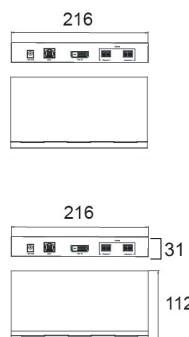## M1-201DA-TR ; SM/MM Fiber-optic DVI Extension Module

15   39
69

- Extends WUXGA (1920x1200) at 60Hz DVI data up to
  500m (1,640feet).
- Operates with both single and multi-mode optical fibers.
  (1) up to 1.5Km (4,920feet) over two (2) LC
      single-mode fibers.
  (2) up to 500m (1,640feet) over two (2) LC
      multi-mode fibers.
- Offers Self-EDID Programming feature, detecting
  from display and restoring EDID to an EEPROM in the
  transmitter without any physical DDC connection.
- Compact enough to directly plug to graphic sources
  and displays.
- Splits two (2) optical signal from the transmitter into
  eight (8) optical signals with Optical splitter,
  *OPS-208L

*Refer to page 19 for the details.

Stretch DVI™ : Stand-alone box

M1-3R2VI-DU-TR ; SM/MM Fiber-optic Dual-link DVI Extender

216
216   31
112

- Extends WUXGA (1920x1200) at 60Hz DVI data up to
  500m (1,640feet).
- Operates with both single and multi-mode optical fibers.
  (1) up to 2km (6,560feet) over four (4) LC single-mode
      fibers.
  (2) up to 500m (1,640feet) over four (4) LC multi-mode
      fibers.
- Performs DDC/HDCP interconnection over CAT5 with
  RJ45 connector.
- Offers Self-EDID Programming feature, detecting from
  display and restoring EDID to an EEPROM in the
  transmitter.
- Plug and Play.

Stretch DVI™ : Active Optical Cable

DVFC-100 ; Active Optical Cable for DVI

14.6

39

68
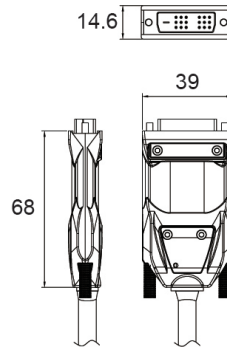
- Extends WUXGA at 60Hz or 1080p at 60Hz up to 150m (492feet).
- Operated by DVI source without external power.
- Compact design of end connector allows direct connection to the host video card and display.
- Active Optical cable for transmitting DVI signal and complies with EDID and HDCP.

Ordering information : DVFC-100-xx
    where xx = Length in meters
    Standard lengths are 10, 15, 20, 30, 40, 50, 70, 100, and 150m

## M1-1P0E ; DVI Optical Extension Cable

39

15.4

15.4

52.3
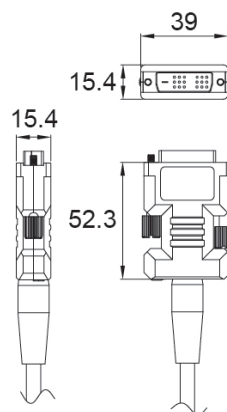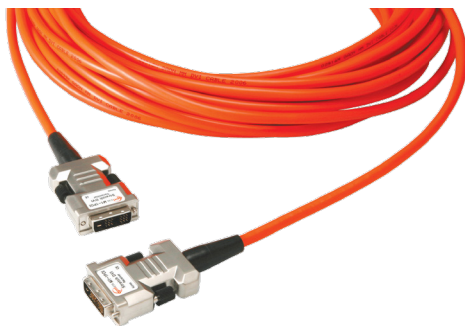
- Extends 2K resolution at 60Hz and HD 1080p up to 100m (328feet).
- Adopts plenum graded hybrid cable.
- Operates +5V DC power from video sources or +5V DC power adapter.
- Offers Auto-power switching feature to protect circuit from power conflict.
- Compact design of end connector allows direct connection to the host video card and display.
- Hybrid cable with four multi-mode fibers for TMDS transmission and copper wires for DDC/HDCP.

Ordering information : M1-1P0E-xx
    where xx = Length in meters
    Standards lengths are 10, 15, 20, 30, 40, 50, 70 and 100

Stretch USB™ : Active Optical Cable

| USB	USB Standard	Distance	Data Rate	Cable Type	Dimension (mm)	Adapter Type	Shipping Group
USB-FC30AA	3.0	100m	5Gbps	Hybrid	16x40x9	N/A	USB A to USB B cable (15cm) Locking Housing
M2-100	1.1	40m	12Mbps	All Fiber	30x77x12	DC	

USB-FC30AA ; USB 3.0 Active Optical Cable
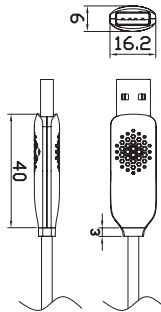
- Transmists USB 3.0 data to 100m (328feet) over hybrid cable.
- Tx/Rx insensitive design (two-way port).
- SuperSpeed USB 5Gbps data rate.
- Plug and play.
- Operated by 5V source power.
- USB 3.0 A type plug-in to A type receptacle.
- USB A to USB B cable included in the shipping group with a locking housing.

Ordering information : USB-FC30AA-xx
　　where xx = Length in meters
　　　Standards lengths are 10, 15, 20, 30, 40, 50, 70 and 100

## M2-100 ; USB 1.1 Pure All-Fiber Optical Cable
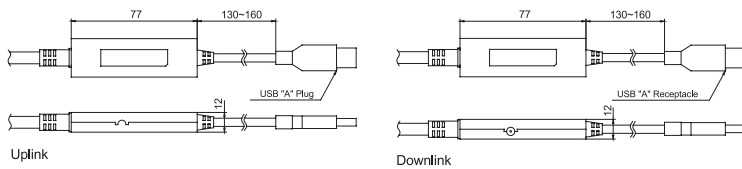
- Complies with USB1.1 High-speed (12Mbps) standard up to 40m (130feet).
- Offers perfect electrical galvanic isolation.
- Adopts four (4) strands of multi-mode fibers between two links, not to be interfered magneto electrically.
- Plug and Play.
- Uses USB controller power for the uplink and +5V DC power adapter in shipping group for the downlink.
- Supports wide-ranged OS Win7 or later, Mac and SUN Solaris (Certified).
- LC fiber detachable type is available as an option.

Ordering information : M2-1AB-xx for pure fiber where:
　　　A = 0 : A plug-in to A receptacle
　　　　= 1 : A plug-in to B plug-in
　　　　　(use an A-to-B short cable).
　　　B = 0 : for Windows/Mac.
　　　　= S : for SUN Solaris.
　　　xx = Length in meter.

Stretch SDI™ : Small Module

SDI	Type	Resolution	Distance	Fiber Type	Dimension (mm)	Adapter Type	Locking Adapter
SDIX-100-TR	Small Module	1080p	30km	1 ST SM	20x83x20	DC	O
SDISE-100-TR	Small Module	1080p	300m (MM) 2km (SM)	1 ST MM/SM	22x83x20	DC	Optional

SDIX-100-TR ; Miniature Fiber-optic 3G-SDI Module

19.5

19.1

50.3

13.3
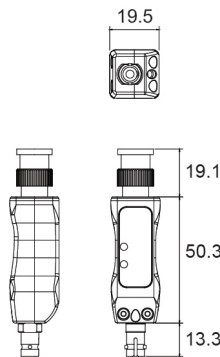
- Supports multi-rate SDI up to 3G-SDI over one (1) fiber.
- Extends up to 30Km (98,425feet) at 3Gbps.
- Applicable to both single and multi-mode fibers.
- Offers Clock and Data recovery (CDR) included model, SDIX-100C as an option.
- SDI BNC input connector and ST terminated fiber optical connector.
- Latch-locking power connector (mini-XL).
- Robust metal die-casting enclosure for harsh environment.
- Supports +5~+16V DC of power range.
- Offers 4-pin XLR male to mini-XL female connector cable, PG-100 as an option for direct +12V power supply from camera.

*Power Supply option: Locking Adapter

SDISE-100-TR ; Miniature Fiber-optic 3G-SDI Module for HDCCTV


19.5   19.5

50.3
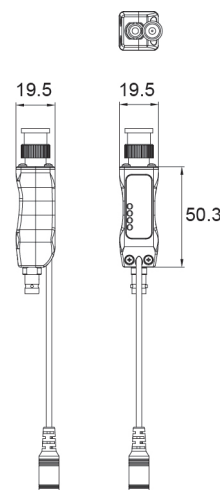
- Supports multi-rate SDI up to 3G-SDI.
- Extends up to 2km at 3Gbps over one (1) ST single-mode fiber.
- SDI BNC input connector and ST terminated fiber optical connector.
- Includes two (2) +5V DC power jacks for transmitter and receiver.
- Robust metal die-casting enclosure for harsh environment.

*Power Supply option: Locking Adapter

# Stretch Multi-media : KVM Extender

Multi-Media	Type	Resolution	Distance	Fiber Type	Loop Thru	Direct DDC/RS-232/ USB (HID)	Dimension (mm)	Adapter Type
KVMX-100-TR	Box Type	WUXGA (1920x1200)	300m (MM) 1km (SM)	4 LC MM/SM SFP	O	O	112x216x44	DC
M5-1003-TR	Box Type	WUXGA (1920x1200)	500m (MM) 2km (SM)	4 LC MM/SM OSA	X	O	130x320x44	DC

KVMX-100-TR ; Two (2) PCs Switchable Dual-head DVI Optical KVM Extender
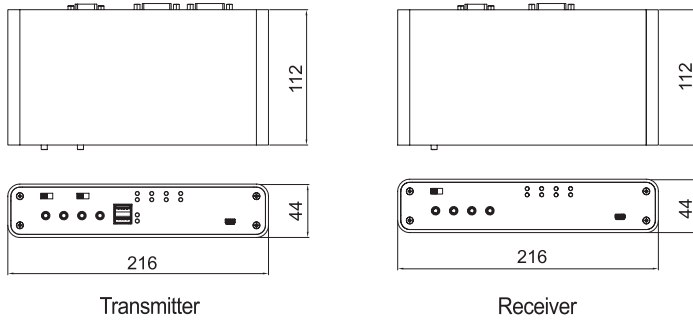
- Provides 2:1 switch by selecting one (1) PC between two (2) PCs as a host.
- Supports up to WUXGA (1920x1200) DVI signal at 60Hz.
- Transmits DVI, USB HID, RS-232 and audio signal up to 1km (3,280 feet) over two (2) duplex LC optical fibers.
- Operates with both single and multi-mode optical fibers.
  (1) up to 1km (3,280feet) over two (2) LC duplex single-mode fibers.
  (2) up to 300m (985feet) over two (2) LC duplex multi-mode fibers.
- Offers DVI, USB Loop through ports for Local two (2) displays and Keyboard / Mouse.
- Supports bi-directional stereo audio.
- Auto-mix EDID feature.
- Lossless image quality without frame dropping.
- USB HID ports for keyboard and mouse.
- RS-232 serial data communication through 9 pin D-sub female connector.
- Offers remote console switch, 19" 1RU mounting rack, and mounting bracket optionally.

Transmitter   Receiver

## M5-1003-TR ; SM/MM Fiber-optic KVM Extender
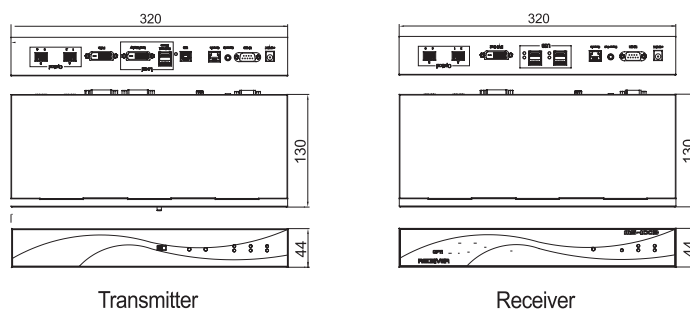
- Extends DVI, USB, Audio and RS-232 up to 2Km (6,560feet) over four (4) LC optical fibers.
- Supports up to WUXGA (1920x1200) DVI signal at 60Hz.
- Offers DVI and USB ports for local display and keyboard/mouse.
- Operates with both single and multi-mode optical fibers.
  (1) up to 2Km (6,560feet) over two (2) LC duplex single-mode fibers.
  (2) up to 500m (1,630feet) over two (2) LC duplex multi-mode fibers.
- No copper wires in links.
- Lossless image quality without frame dropping.
- Provides Self-EDID Programing feature.
- Complies with USB2.0.
- Offer 4ch USB2.0 hub in the receiver.
- RS-232 serial data communication through 9 pin D-sub female connector.
- Supports one-directional analog stereo audio.
- Offers remote console switch and indicators optionally.
- Converts control authority by front panel switch or remote console switch.
- Rack mountable : 1U half rack with metal enclosures.

Transmitter   Receiver

Stretch DisplayPort™ : Power Rack

Power Rack	4K @ 60Hz (4:4:4)	Retimer	GUI	Units Availability	Load Sharing/ Dual Power	Dimension (mm)	Adapter Type	Applicable Product
BR-500	O	O	O	8	O	77x241x22	Locking Type Phoenix Connector	DPFX-300-TX DPFX-250-TX
BR-400	O	X	X	8	O	210x482x44	Locking Type Phoenix Connector	HDFX-700-TR/DPFX-700-TR DPFX-100-TR/M1-201SA-TR M1-201DA-TR/DVFX-100-TR DVFX-110-TR/DDFX-100-TR

BR-500 ; 19" 1RU Power Supply Frame
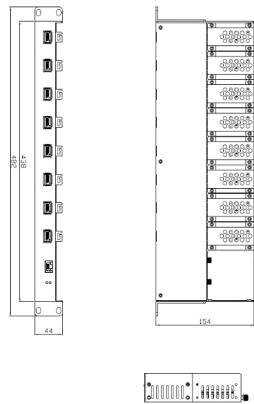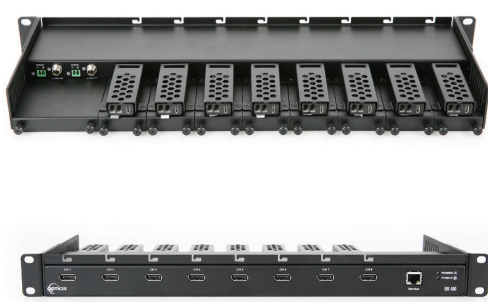
- Compact 19" 1RU Power Supply Frame.
- Adopts up to 8 units of DisplayPort modules (TX only).
- Available for primary and dual power models for
  redundancy.
- Supports Load-sharing.
- Applicable Opticis items: DPFX-250-TX, DPFX-300-TX.
- Input power: 12.0V/4.2A (locking type), 13.5V/6.5A
  (Phoenix Connector)
- Offers 3m DisplayPort Extra copper cable.

*Power supply options
 1) BR-500-IT (BI060S12F02_Lev:6): Power Supply for
     BR-500 (100-240VAC, 50-60Hz)
 2) BR-500-MD (BM060S12F02_Lev:6): Medical Certified
     Power Supply for BR-500 (100-240VAC, 50-60Hz)

Stretch DVI™ / HDMI™ / DisplayPort™ : Power Rack

BR-400 ; 19" 1RU Power Supply Frame for Optical modules
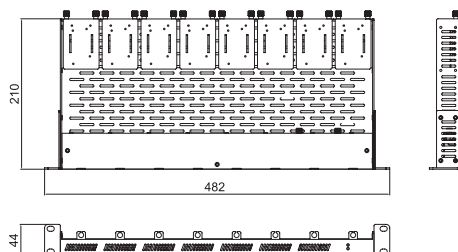
- Compact 19" 1RU Power Supply Frame.
- Adopts up to 8 units of Optics Optical modules.
- Available for primary and dual power models for
  redundancy.
- Supports Load-sharing.
- Applicable Opticis Items: DPFX-1F14, DPFX-700,
  HDFX-700, DPFX-100, DVFX-110, DVFX-100,
  DDFX-100, M1-201DA, M1-201SA.

*Power supply options
 1) BR-400-IT (BI060S12F02_Lev:6): Power Supply for
     BR-400 (100-240VAC, 50-60Hz)
 2) BR-400-MD (BM060S12F02_Lev:6): Medical Certified
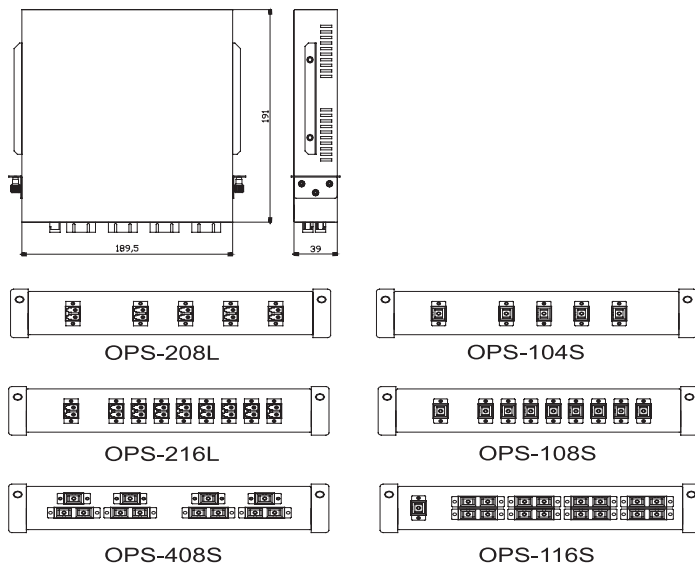   Power Supply for BR-400 (100-240VAC, 50-60Hz)

DVI Optical Splitter

OPSR-2 ; 19" 1RU frame for optical splitter, OPS-xyz

- Adopts two (2) units of optical splitters, OPS-xyz and one (1) unit can be used as stand-alone.
- Electrical power is not required.

OPS-xyz ; Rack mountable Optical Splitter

- Distributes optical signal over single-mode fiber up to sixteen(16) channels without any active device or electrical power.
- Each unit can be used as stand-alone.
- Works with Opticis DVFX-110, M1-201DA-TR, SDIX-100(C) and SDISE-100.

Ordering information: OPS-xyz
  Where x (1 digit) = The number of input fiber (1, 2)
             y (2 digit) = The number of output fiber (4, 8, 16)
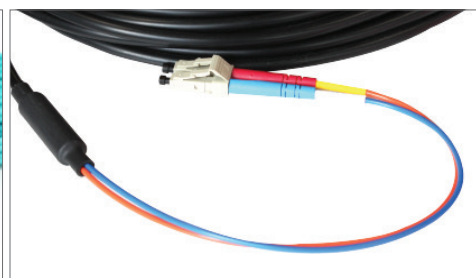   z = Connector type (S: SC connector, L: LC connector)

OPS-104S : 1x4 SC optical splitter
OPS-108S : 1x8 SC optical splitter
OPS-116S : 1x16 SC optical splitter
OPS-408S : 4x8 (4EA of 1x2) SC optical splitter
OPS-208L : 2x8 (2EA of 1x4) LC optical splitter
OPS-216L : 2x16 (2EA of 1x8) LC optical splitter

OPS-208L

OPS-104S

OPS-216L

OPS-108S

OPS-408S

OPS-116S

Fiber-optic Cable for Opticis extension connectivity
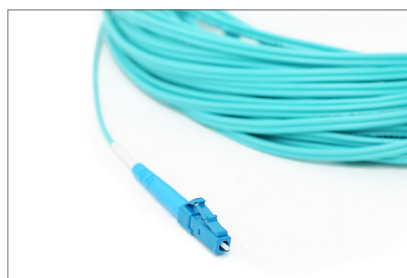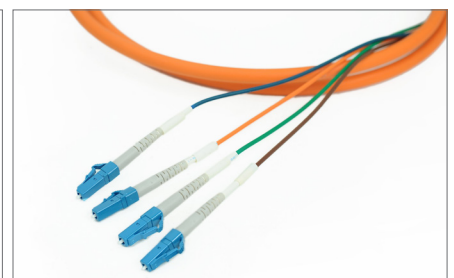
Patch Cord   Distribution Cable   Breakout Cable

Ordering information : AABC-xyzEF-Length
  where, "A" : stands front-end termination as LL for LC-LC, SS for SC-SC, TT for ST-ST,
                                             LS for LC-SC, LT for LC-ST, ST for SC-ST

       "B" : stands M for Multi-mode, S for Single-mode.
       "C" : stands numbers of core as S for Simplex (1-core), D for Duplex (2-core),
                             T for Triplex (3-core),Q for Quadplex (4-core),
                                             and O for Octuplex (8-core).
     "xyz" : stands 625 for multi-mode core size, 62.5 micrometers(μm).
   090 for single-mode core size, 9 micrometers(μm).
       "EF" : stands blank for Patch cord, BO for Breakout and DT for Distribution.
Standard lengths are = 10, 20, 30, 40, 50, 60, 70, 80, 90 and 100m.
Other lengths up to 30km can be customized .

- Offers various type of Fiber-optic cables.
- Single and Multi-mode cable ·LC / SC / ST termination.
- Simplex (1-core), Duplex (2-core), Triplex (3-core), Quadplex (4-core) and Octuplex (8-core).
- Connectors are numbered and color coded.
- PVC/LSZH (Low Smoke Zero Halogen) available.
- Available grade: OM1 / OM2 / OM3 / OM4.
- Applicable for all Opticis products.
- UL certified.

02
Converter
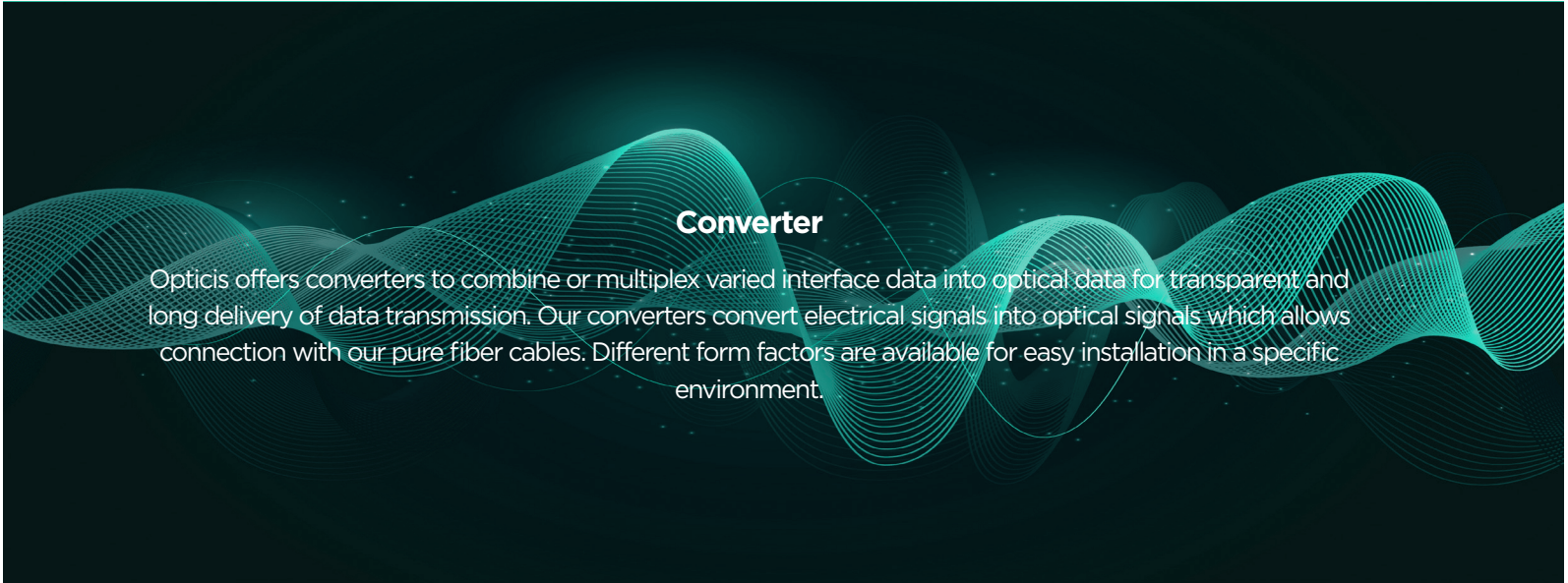
Converter

Opticis offers converters to combine or multiplex varied interface data into optical data for transparent and long delivery of data transmission. Our converters convert electrical signals into optical signals which allows connection with our pure fiber cables. Different form factors are available for easy installation in a specific environment.

Stretch HDMI™ : Wall plate type Converter

HDHF-4K ; HDMI 2.0 and DisplayPort 1.2 to HDMI 2.0 optical converter

- Supports both DisplayPort 1.2 and HDMI 2.0 signals.
- Supports up to 4K (4096x2160) at 60Hz, (RGB & YcbCr : 4:4:4).
- Transmits converted optical signal up to 200m (656feet) over LC terminated 1 core multi-mode fiber(OM3).
- Operated with DIP switch to select DisplayPort 1.2 or HDMI 2.0 get converted and transmitted.
- Equips three (3) LEDs for power and video input status.
- Operated by RS232 Power at 8~15V.
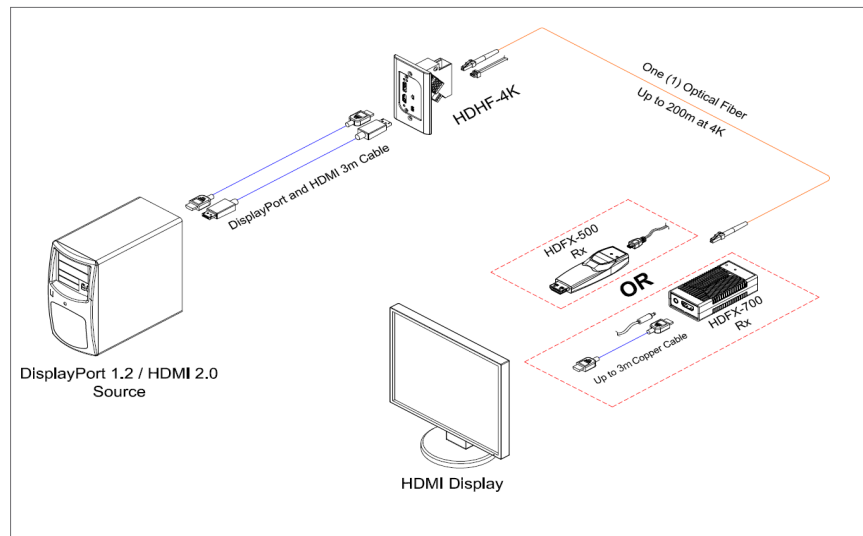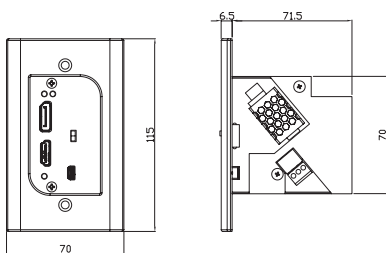
Stretch DVI™ : Wall plate type Converter

## MVDF ; 1 Gang-sized Multi-format video to Optical DVI Converter
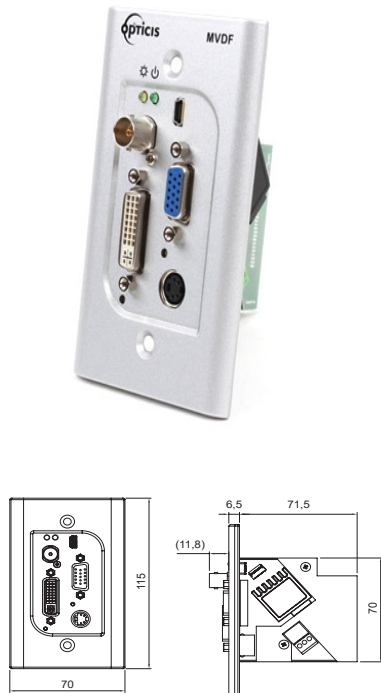
- Support up to WUXGA (1920x1200) at 60Hz for DVI and VGA input.
- Offers scaled up output of SXGA (1280x1024) at 60Hz for S-Video and Composite video input.
- Transmits optical signal up to 500m (1,640feet) over SC terminated 1 core multi-mode fiber (50um).
- Provides Self-EDID for DVI and VGA.
- Operated by DC Power at 8~15V.
- Supports auto signal detection.
- Equips two (2) LEDs for power and video input status.
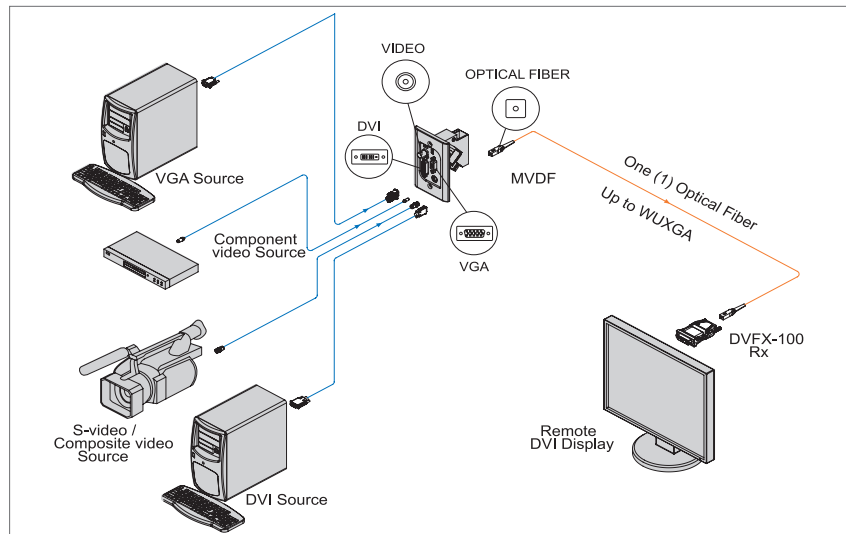
Stretch DVI™ : Multi-format Converter

OMVC-200 ; Multi-Format video to Optical DVI Converter
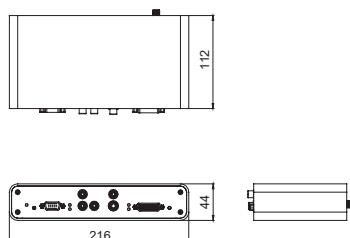
- Extends signal up to 500m (1,640feet) over SC multi-mode fiber.
- Accepts DVI, VGA, Component, S-Video, and Composite inputs.
- Detects the first connected input video signal and converts it into one (1) fiber DVI.
- Supports various resloutions with up-scaling feature.
- Reads and restores the targeted EDID in the OMVC-200 (Self-EDID).
- Has Locking type DC power supplier.
- Provides mounting bracket (model name: OPMCB) complying with VESA 75,100 standards to be attached on various places.
- Dimension (WDH) : 216 x 112 x 44mm.
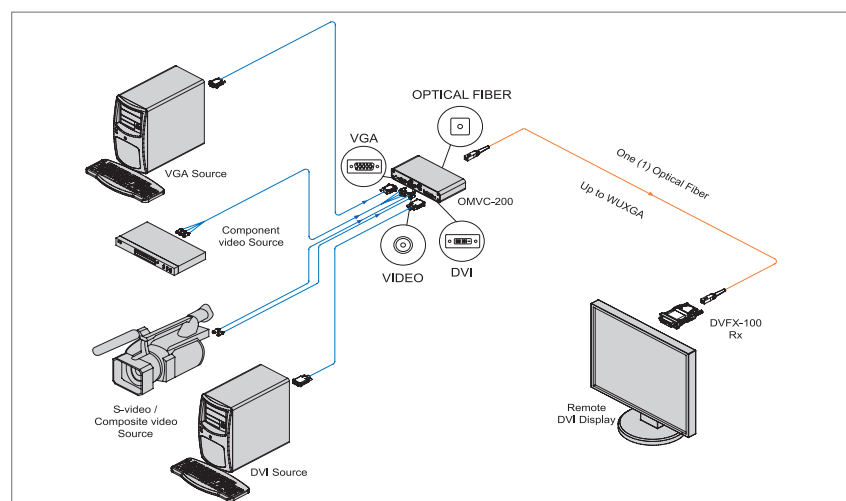
Stretch DVI™ : Single-format Converter

DVDF-200 ; DVI to one (1) fiber DVI converter

- Extends signal up to 500m (1,640 feet) over SC multi-mode fiber.
- Accepts DVI, and converts it into one (1) fiber DVI.
- Has Loop-through DVI for on-site monitoring.
- Reads and restores the targeted EDID in the DVDF-200 (Self-EDID).
- Has Locking type DC power supplier.
- Be mountable in 19" 1RU rack (up to 4 units with OPSCR-1U).
- Provides mounting bracket (model name: OPSCB) complying with VESA 75, 100 standards to be
 attached on various places.
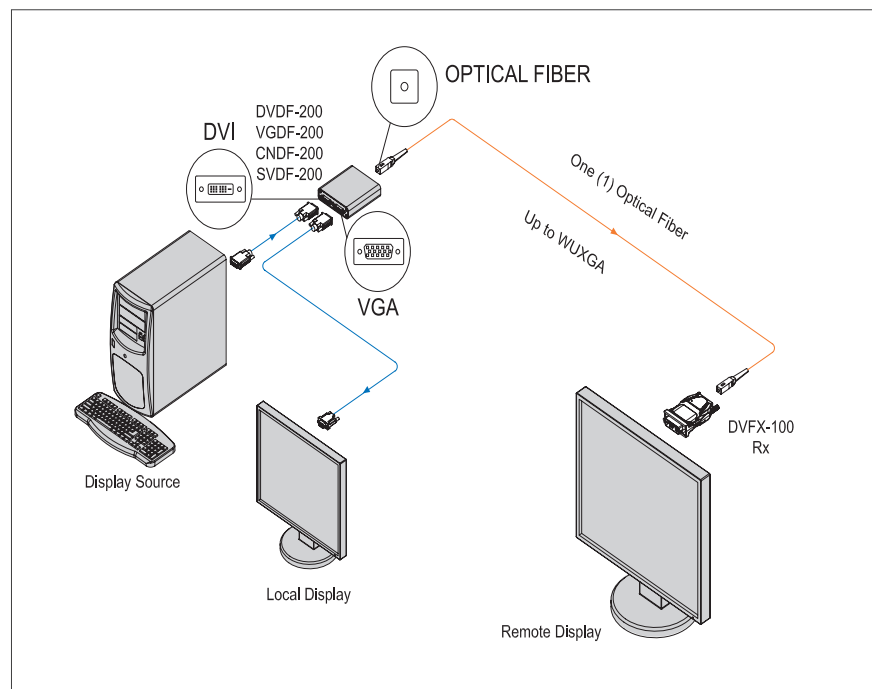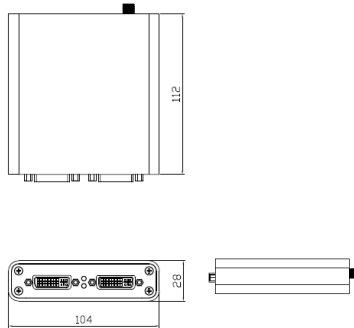
03
IP/HDBaseT

IP/HDBaseT

Opticis IP Solution supports various video sources such as IP cameras (CCTVs), PC, PCI capture cards, video/music files, web pages, subtitles, etc., which are transmitted to the DID/Video Wall via our graphic card from the PC hardware. Its controlling software program offers Layout management such as Drag and Drop, for Zoom in/out, overlay, PIP, etc. which allows easy management of the display system.

Stretch HDBaseT : Small Module

HDCX-100 ; 4K HDMI2.0+USB2.0+RS232 Extender
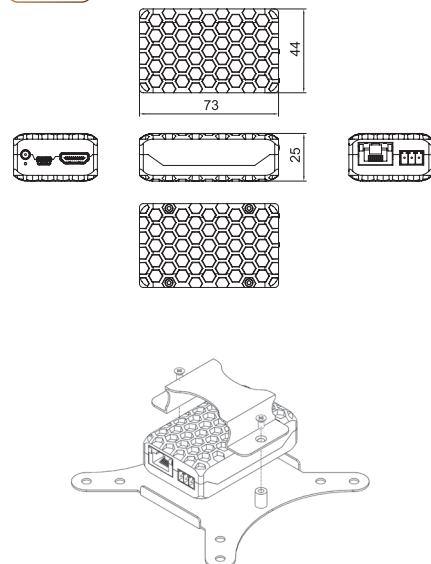
- Transmits HDMI2.0 data up to 100m (330feet) over one (1) CAT5e or CAT6 cable.
- Supports up to 4K (3840x2160) at 60Hz.
  - 12-bit Deep Color.
  - Maximum pixel clock : 300Mhz.
- HDCP1.4 / 2.2 Standard.
- CEC & 3DTV pass-through.
- USB2.0 for HID, Touch panel, Mass Storage and VCP.
- RS-232 control extension.
- Compact design and bracket allows easy installation even small space.
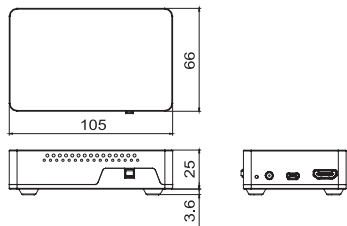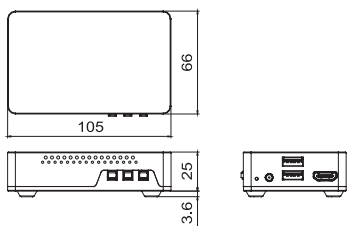- Plug & Play.
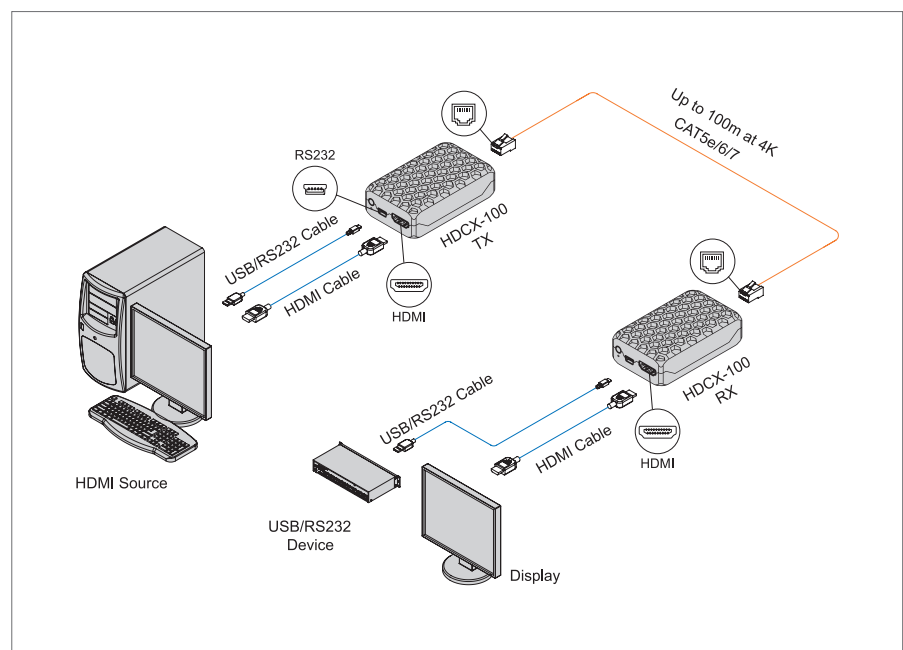
Wireless : Stand-alone

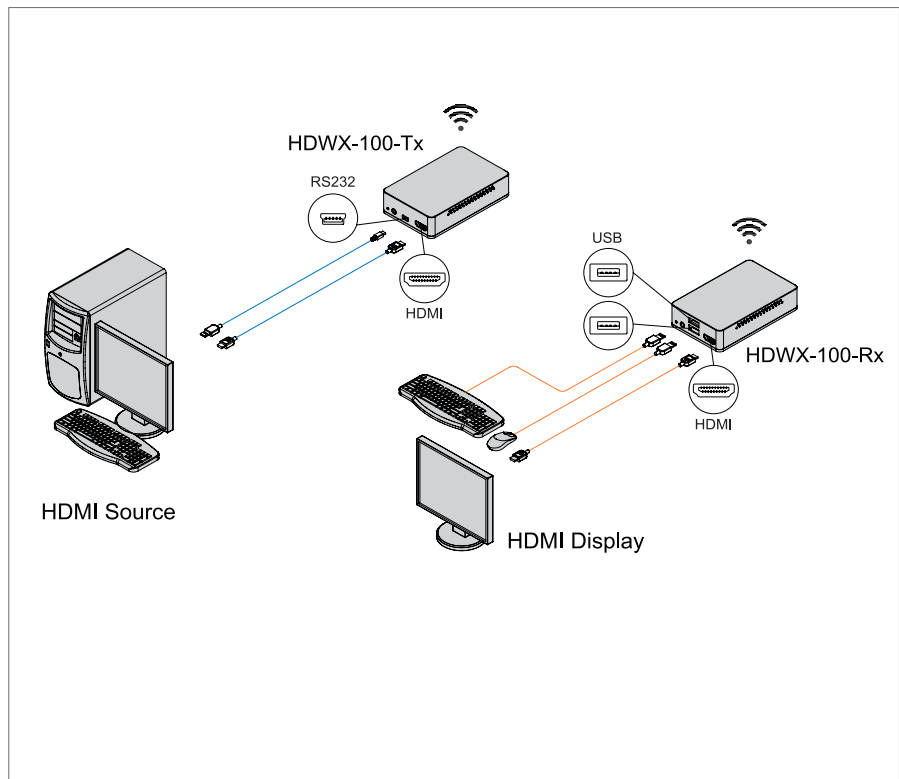**HDWX-100-TR ;** Wireless Extender for HDMI, Keyboard & Mouse

- Compact design for direct hook up.
- Wi-Fi standard : 802.11n, 5GHz, 2x2 MIMO, internal antennas (Maximum Throughput: 300Mbps).
- WPA/WPA2 and QoS.
- Supports up to 1080p, 60Hz video and 7.1ch audio.
- Has H.264 codec.
- HDMI V1.3 and HDCP2.0 compatible.
- Coverage distance (1:1 based): up to 30m.
- Multi-cast : up to 1:4 distribution at 1080p at 60Hz.
- USB backchannel : extend PC control to remote-site (RX) : HID mouse and keyboard.

66
105
25
3.6

Transmitter

66
105
25
3.6

Receiver

HDWX-100-Tx
RS232
USB
HDMI
HDWX-100-Rx
HDMI
HDMI Source
HDMI Display

IP Solution : IP Video Wall Controller

IPVDS-700-ED ; 4K HDMI IP Video Wall Controller with PoE feature

- TCP/IP base IP network: Gigabit Ethernet.
- Support up to 4K (3840x2160@30Hz 4:4:4 or 3840x2160@60Hz 4:2:0) input resolution.
  Support up to 4K (3840x2160@30Hz 4:4:4) output resolution.
- Supports Analog/HDMI audio input and output.
- Fast switching time / low video latency.
- Transmits HDMI/DVI video, audio, USB, RS-232, IR signal over IP network.
- Provides HDMI loop-thru port for local display (Up to 4K 60Hz 4:2:0).
- Provides merge, overlay and split function on multiple video wall layout of PC program.
- Supports limitless displays for video wall and multi-sources.
- Supports M:N virtual matrix.
- Supports 802.3af standard PoE (Power-over-Ethernet).
- PC application for controlling video wall and individual displays.
  * Provides drag and drop operation for host allocation.
  * Provides allocate, merge, split, overlay function on the layout management.
  * Provides preview screen before applying it to actual displays.
  * Provides limitless pre-sets for the user defined layout (save/load).
  * Pre-set scheduling function: Sequential mode (dwell time based). Weekly mode (hourly/weekly based).
  * Bezel compensation in 0.1mm.
  * Software "NVUS-MultiController" can be purchased upon request.

IPVDS-700-D

IPVDS-700-E
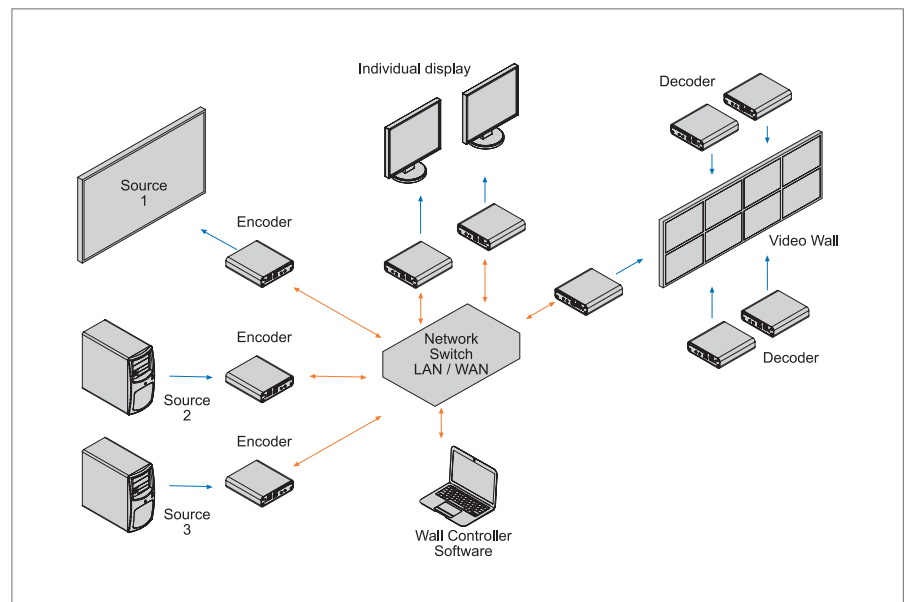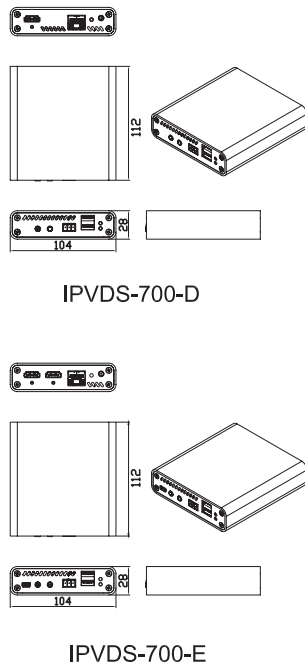
04
Matrix

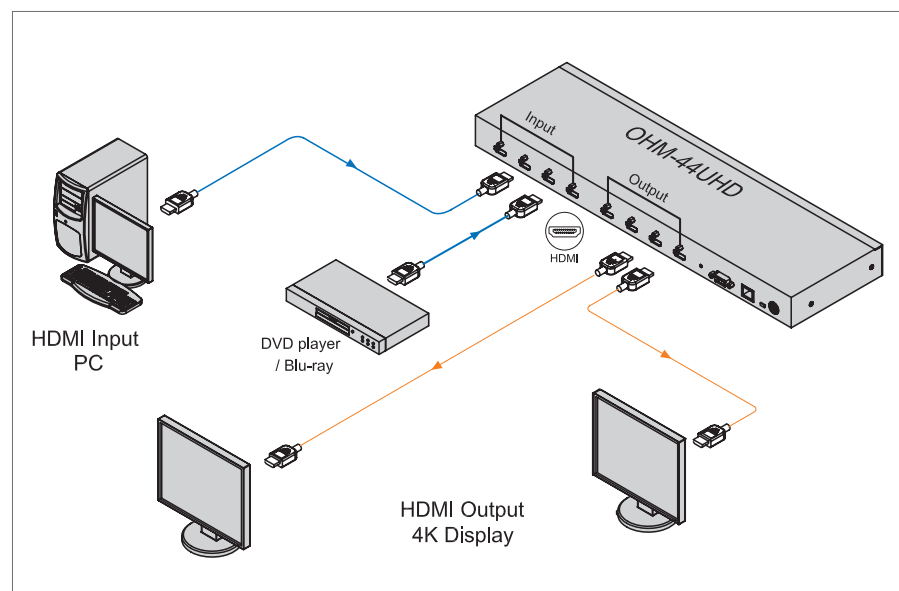### Matrix router

Opticis aims to provide high-speed technology of digital audio & video matrix routing mainly along with serial data interface and interconnection required in audio & video industry to assure the increased demand of the diversified use in graphic sources combining single to multiple networking and fulfill the ultimate performance with easy-setting features through the multiplicity of the setting methods

Matrix : 4x4 HDMI 2.0

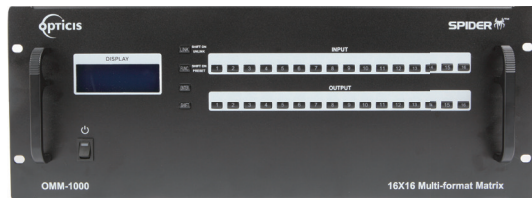### OHM-44UHD ; 4 x 4 HDMI 2.0 Matrix
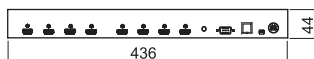
- Supports HDMI up to 4K (4096 x 2160) at 60Hz (RGB & YCBCr : 4:4:4).
- Provides user-friendly EDID management tools with 4 slots for user-created EDID and EDID bypass support.
- Supports storing and recalling of up to four routing presets.
- Provide various control methods(front-panel buttons, RS-232, telnet, WebGUI, IR remote).
- HDCP 1.4 and 2.2 compliant.
- Supports pass-through of LPCM 7.1, bit and HD bit audio formats over HDMI.
- Supports HDR at 10 bit or 12 bit speeds respectively within its maximum bandwidth, 18Gbps.
- Supports 3D content transmission.
- Dimension (WDH): 436 x 150 x 44 mm.

150

44

436

Input

OHM-44UHD

Output

HDMI

HDMI Input
PC

DVD player
/ Blu-ray

HDMI Output
4K Display

SPIDER ™ : Optical Modular Matrix 16x16

OMM-1000 ; 16 x 16 DVI / Dual-link DVI / HDMI / SDI / DP and Optical Modular Matrix
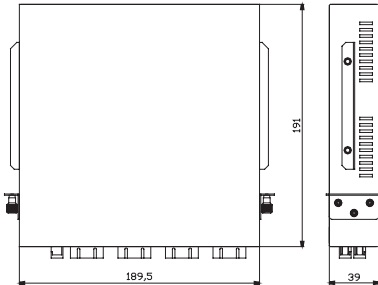

1) SDVI-4EI: 4ch electrical Single-link DVI input card
2) SDVI-4EO: 4ch electrical Single-link DVI output card
3) DDVI-2EI: 2ch electrical Dual-link DVI input card
4) DDVI-2EO: 2ch electrical Dual-link DVI output card
5) SDVI-1FI: 4ch optical DVI input card
6) SDVI-1FO: 4ch optical DVI output card
7) HDMI-4EI: 4ch electrical HDMI input card
8) HDMI-4EO: 4ch electrical HDMI output card
9) SDI-4EI: 4ch electrical SDI input card
10) SDI-4EO: 4ch electrical SDI output card
11) DP1-4EI: 4ch electrical DisplayPort input card
12) DP1-4EO: 4ch electrical DisplayPort output card
13) CDVI-4EO: 4ch electrical Seamless DVI output card
14) QDVI-O: Multi viewer slot card

- Enables to cross switch between one (1) of sixteen (16) DVI, HDMI, SDI, or DP inputs to any of sixteen (16) digital displays.
- Supports up to WUXGA (1920x1200) at 60Hz for Single link DVI, WQXGA (2560x1600) at 60Hz for Dual link DVI and DisplayPort or 1080p at 60Hz for HDMI and SDI.
- Supports configuration of input and output channels up to 16 x 16 by a card with four (4) channels.
- Dual-link DVI supports from 2x2 to 8x8 input and output channels by a card with two (2) channels.
- Supports DDC / HDCP (Except for SDI and optical cards).
- Provides various control methods (RS-232, TCP/IP, WEB, Key input).
- Provides three (3) options to set EDID for graphic source.
- Provides reference video output and monitoring output for easy installation.
- Supplies multi-viewer card, QDVI-O, viewing any four (4) inputs on a display as an option.
- Has hot swappable dual power supplies with load sharing as an option.
- Provides Preset mode to save and load the current routings.
- 4U, 19" Rack-mountable.
- Dimension (WDH): 440 x 380 x 178mm
- Weight : 10kg
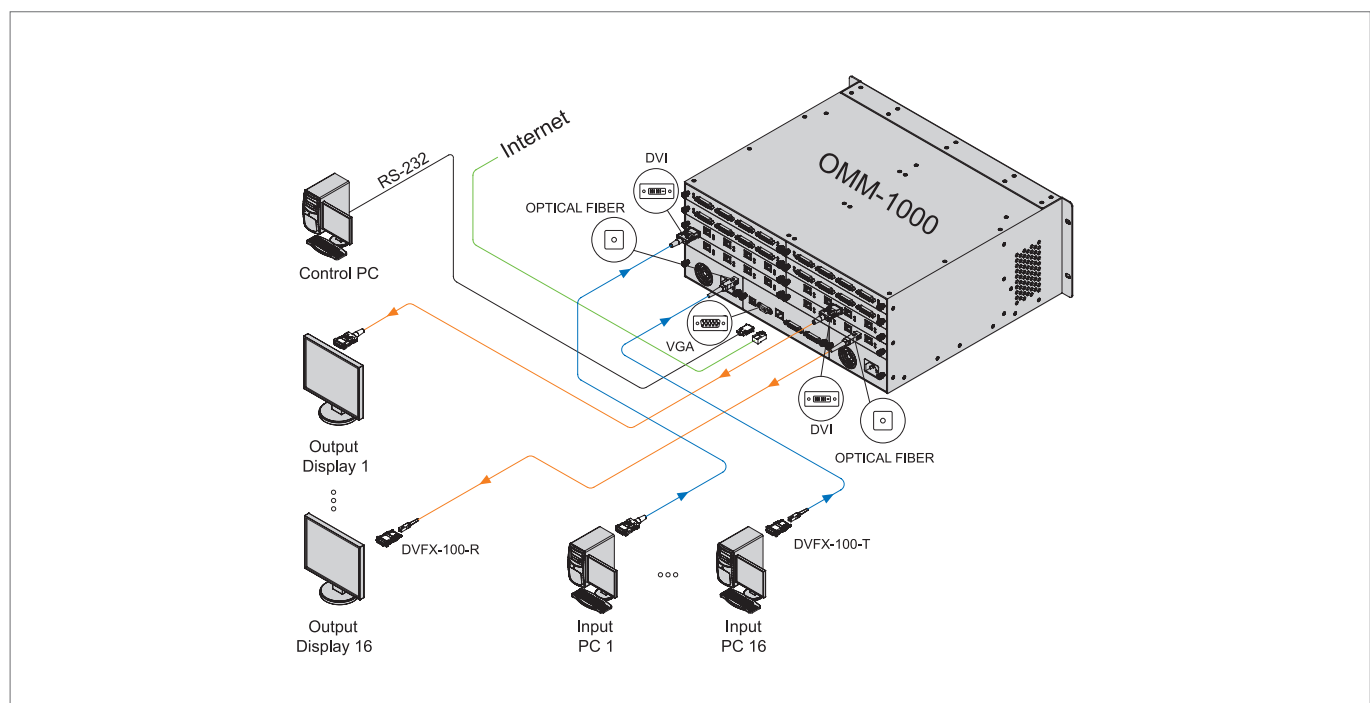
SPIDER™ : Optical Modular Matrix 32x32

OMM-2500 ; 32 X 32 DVI / Dual-link DVI / HDMI / SDI / DP and Optical Modular Matirx

1) SDVI-4EI: 4ch electrical Single-link DVI input card
2) SDVI-4EO: 4ch electrical Single-link DVI output card
3) DDVI-2EI: 2ch electrical Dual-link DVI input card
4) DDVI-2EO: 2ch electrical Dual-link DVI output card
5) SDVI-1FI: 4ch optical DVI input card
6) SDVI-1FO: 4ch optical DVI output card
7) HDMI-4EI: 4ch electrical HDMI input card
8) HDMI-4EO: 4ch electrical HDMI output card
9) SDI-4EI: 4ch electrical SDI input card
10) SDI-4EO: 4ch electrical SDI output card
11) DP1-4EI: 4ch electrical DisplayPort input card
12) DP1-4EO: 4ch electrical DisplayPort output card
13) CDVI-4EO: 4ch electrical Seamless DVI output card
14) QDVI-O: Multi viewer slot card

- Enables to cross switch between one (1) of thirty two (32) DVI, HDMI, SDI, or DP inputs to any of thirty two (32) digital displays.
- Supports up to WUXGA (1920x1200) at 60Hz for Single link DVI, WQXGA (2560x1600) at 60Hz for Dual link DVI and DisplayPort or 1080p at 60Hz for HDMI and SDI.
- Supports configuration of input and output channels up to 32 x 32 by a card with four (4) channels.
- Dual-link DVI supports from 2x2 to 16x16 input and output channels by a card with two (2) channels.
- Provides Touch LCD and a user-friendly graphic interface.
- Supports DDC / HDCP (Except for SDI and optical cards).
- Provides various control methods (RS-232, TCP/IP, WEB, Key input and LCD Touch).
- Provides four (4) options to set EDID for graphic source: Default Mode / Auto Detect Mode / Output Copy Mode / Resolution List Mode.
- Provides reference video output and monitoring output for easy installation.
- Supplies multi-viewer card, QDVI-O, viewing any four (4) inputs on a display as an option.
- Has hot swappable dual power supplies with load sharing as an option.
- Provides Preset mode to save and load the current routings.
- 7U, 19" Rack-mountable.
- Dimension (WDH): 440 x 440 x 311mm
- Weight : 15kg

Count Opticis first in your mind,
if you are looking for optical fiber products.

Opticis is the world-best solution provider for
fiber optic video and audio connectivity.
Opticis develops and manufactures core optical parts
that are applied to numerous fiber-optic products
of quality which enables a long-distance extension
without any electric noises.

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CLASS
PRODUCT
OF KOREA 1