Fiber-Optic Video Format Converters

Opticis provides high-end fiber-optic video format converters to manipulate from old fashioned to leading-edge video formats in various video system applications. It accepts DVI, VGA, Component video, S-video and Composite video as an input and converts these signals to 1 fiber DVI. All signals can be transmitted up to 500m (1,640ft) using 50 m multi-mode fiber at WUXGA or 1080p, 60Hz. Especially, multi-format converter, OMVC-200 automatically detects the first incoming signal among various signals or decides a priority input by pre-programming as DVI, VGA, Component, Composite and S-Video in an order when all signals are connected and turned on.

Opticis converters are used for long haul video applications and special place where the optimal signal quality and electrical isolation are required and our own 1 fiber DVI receiver, DVFX-100-R is used as a pair to execute optical to electrical DVI conversion.

The line-up is composed of
1) Multi-format converter, OMVC-200
2) DVI to 1 fiber DVI converter, DVDF-200
3) VGA to 1 fiber DVI converter, VGDF-200
4) Component to 1 fiber DVI converter, CNDF-200
5) S-video / Composite video to 1 fiber DVI, SVDF-200

All contents are subject to be changed without prior notice.

Multi-Format Converter, OMVC-200

Descriptions

Opticis multi-format converter, OMVC-200 can accept various video signals such as DVI, VGA, Component video, S-video and Composite video as an input. It detects the first connected input signal and converts it to one (1) fiber DVI signal.

With powerful OPTICIS fiber-optic technology, OMVC-200 is capable of driving uncompressed WUXGA (1920x1200)@ 60Hz DVI signal up to 500 meters (1,640 feet) over one (1) SC multi-mode fiber. To recover electrical DVI signal, DVFX-100-R is used as a receiver.

For better compatibility, it features patent pending Self-EDID management for DVI and VGA inputs, reading and restoring by just connecting OMVC-200 to the display.

Key Features

- Accepts DVI, VGA, Component, S-Video and Composite inputs.
- Detects connected video signal and converts it into one (1) fiber DVI.
- Supporting various resolutions with up-scaling feature.
- Transmits signal up to 500m (1,640feet) over SC Multi-mode fiber.
- Provides mounting bracket (OPMCB) t complying with VESA 75, 100standards to be attached on various places.
- Reads and stores the targeted EDID in the OMVC-200 (Self-EDID)
- Has Locking type DC power supplier.
- Certifications: CE / FCC

Technical Specifications

Supporting Resolution	·DVI & VGA: VGA to WUXGA (1920 x 1200), 60Hz ·Component: 480i to 1080p, 60Hz ·S-video & Composite: Up-scale 480i and 576i to SXGA (1280x1024), 60Hz
Input Connectors	·DVI: 24pin DVI-I ·VGA: HD15, D-sub ·Component: 3 x RCA ·S-video: Mini-DIN ·Composite: RCA
Max. Bit rate	Up to 1.65Gbps
Output Optical power	< 1 dBm
Maximum distance	500m @ WUXGA, 60Hz with 50um fiber
Fiber	SC terminated 1 core multi-mode fiber
EDID management	Self EDID (DVI & VGA only) (Reading from display and storing it in TX)
Power supplying	Medical certified locking type 5V/3A
Power consumption	< 6W
Size (WDH)	216 x 112 x 44mm
LED Indicators	Power, Input signal status, Self EDID
Operating temp.	0 ~ 50℃

Single Format Converter

1. DVI to 1 Fiber DVI Converter, DVDF-200

Key Features

- Accepts DVI and converts it into one (1) fiber DVI   .
- Transmits signal up to 500m (1,640feet) over SC Multi-mode fiber.
- Be mountable in 19" 1RU rack (up to 4 units with OPSCR-1U).
- Provides mounting bracket (OPSCB) complying with VESA 75, 100.
- Has Loop-through DVI for on-site monitoring.
- Reads and stores the targeted EDID in the DVDF-200 (Self-EDID)
- Has Locking type DC power supplier.
- Certifications: CE / FCC, Class 1 Laser Eye Safety

Technical Specifications

Supporting resolution	VGA to WUXGA (1920 x 1200), 60Hz (No scaling just format conversion)
Input connectors	24pin DVI-I
Max. Bit rate	Up to 1.65Gbps
Optical power	< 1 dBm
Maximum distance	500m @ WUXGA, 60Hz with 50um fiber
Fiber	SC terminated 1 core multi-mode fiber
EDID management	Self EDID
Power supplying	Medical certified locking type 5V/3A
Power consumption	< 6W
Size (WDH)	104 x 112 x 28mm
LED Indicators	Power, Input signal status, Self EDID
Operating temp.	0 ~ 50℃

2. VGA to 1 fiber DVI converter, VGDF-200

Key Features

- Accepts VGA and converts it into one (1) fiber DVI.
- Transmits signal up to 500m (1,640feet) over SC Multi-mode fiber.
- Be mountable in 19" 1RU rack (up to 4 units with OPSCR-1U).
- Provides mounting bracket (OPSCB) complying with VESA 75, 100.
- Has Loop-through VGA for on-site monitoring.
- Reads and stores the targeted EDID in the VGDF-200 (Self-EDID)
- Has Locking type DC power supplier.
- Certification: CE / FCC, Class 1 Laser Eye Safety

Technical Specifications

Supporting resolution	VGA to WUXGA (1920 x 1200), 60Hz (No scaling just format conversion)
Input connectors	HD15, D-sub
Max. Bit rate	Up to 1.65Gbps
Optical power	< 1 dBm
Maximum distance	500m @ WUXGA, 60Hz with 50um fiber
Fiber	SC terminated 1 core multi-mode fiber
EDID management	Self EDID
Power supplying	Medical certified locking type 5V/3A
Power consumption	< 5W
Size (WDH)	104 x 112 x 28mm
LED Indicators	Power, Input signal status, Self EDID
Operating temp.	0 ~ 50℃

3. Component video to 1 fiber DVI converter, CNDF-200

Technical Specifications

Supporting resolution	480i to 1080p, 60Hz (No scaling just format conversion)
Input connectors	3 x RCA
Max. Bit rate	Up to 1.485Gbps
Optical power	< 1 dBm
Maximum distance	500m @ 1080p, 60Hz with 50um fiber
Fiber	SC terminated 1 core multi-mode fiber
Power supplying	Medical certified locking type 5V/3A
Power consumption	< 5W
Size (WDH)	104 x 112 x 28mm
LED Indicators	Power, Input signal status
Operating temp.	0 ~ 50℃

Key Features

- Accepts component video and converts it into one (1) fiber DVI.
- Transmits signal up to 500m (1,640feet) over SC Multi-mode fiber.
- Be mountable in 19" 1RU rack (up to 4 units with OPSCR-1U).
- Provides mounting bracket (OPSCB) complying with VESA 75, 100.
- Has Loop-through output for on-site monitoring.
- Has Locking type DC power supplier.

4. S-Video/ Composite video to 1 fiber DVI converter, SVDF-200

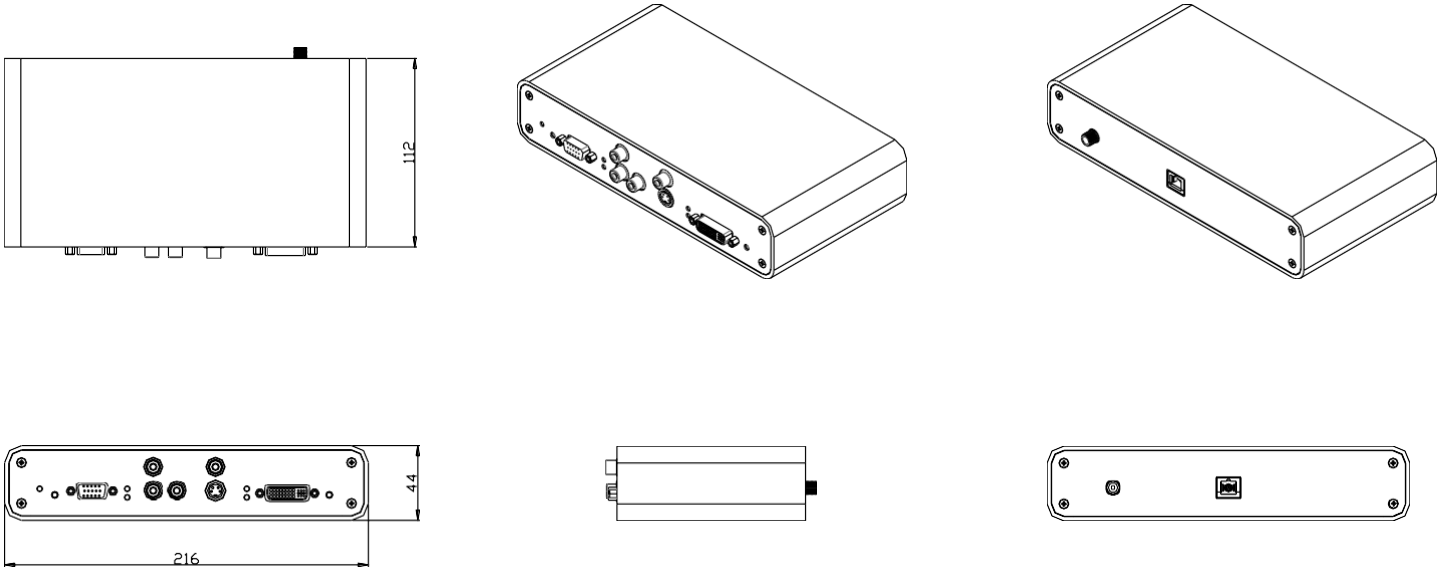### Technical Specifications

Supporting resolution	Up-scale to SXGA (1280 x 1024) at 60Hz
Input connectors	S-video: Mini-DIN Composite video: 1 x RCA
Max. Bit rate	Up to 1.08Gbps
Optical power	< 1 dBm
Maximum distance	500m @ SXGA, 60Hz with 50um fiber
Fiber	SC terminated 1 core multi-mode fiber
Power supplying	Medical certified locking type 5V/3A
Power consumption	< 5W
Size (WDH)	104 x 112 x 28mm
LED Indicators	Power, Input signal status
Operating temp.	0 ~ 50℃

Key Features

- Accepts S-video / Composite video and converts it into one (1) fiber DVI.
- Transmits signal up to 500m (1,640feet) over SC Multi-mode fiber.
- Be mountable in 19" 1RU rack (up to 4 units with OPSCR-1U).
- Provides mounting bracket (OPSCB) complying with VESA 75, 100.
- Has Loop-through output for on-site monitoring.
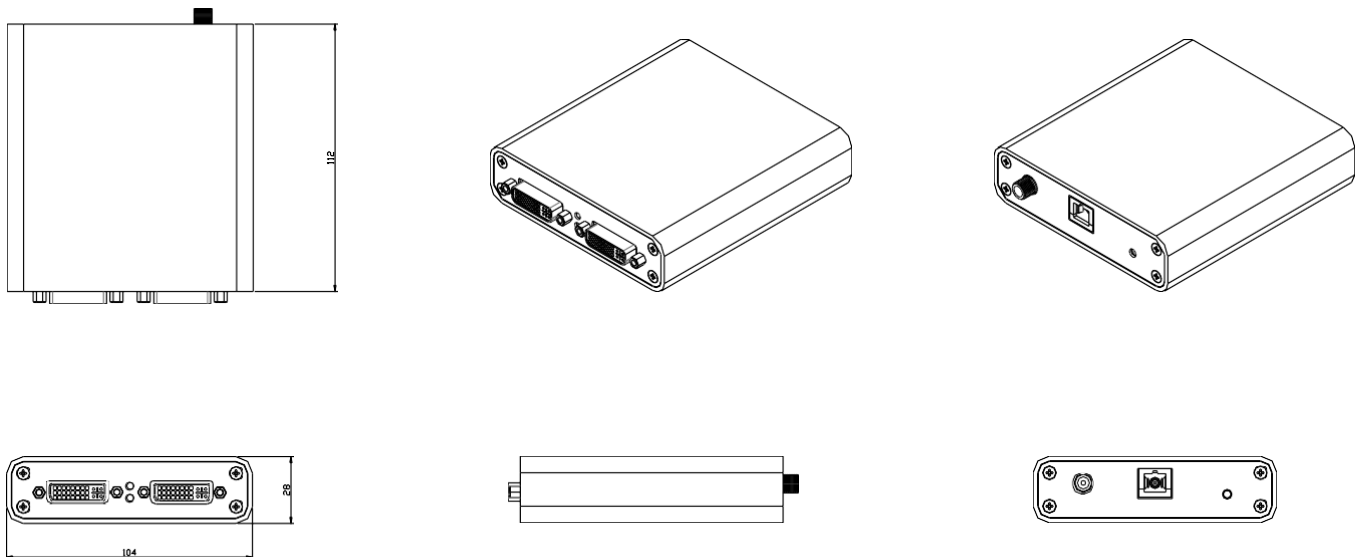- Has Locking type DC power supplier.

Drawing

Dimension [mm]

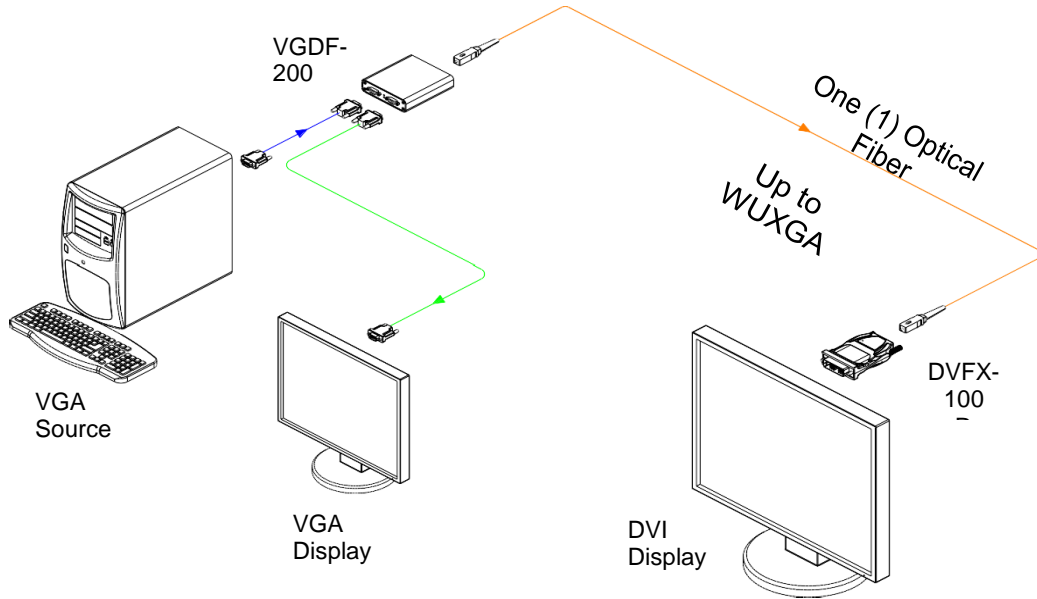**1) Multi-format converter, OMVC-200**

(WDH) = 216 x 112 x 44mm

2) Single-format converter, DVDF-200, VGDF-200, CNDF-200, SVDF-200

(WDH) = 104 x 112 x 28mm

Connection Diagram

Example with VGDF-200

VGDF-200

VGA Source

VGA Display

One (1) Optical Fiber

Up to WUXGA

DVFX-100

DVI Display

Accessories (as an option)

19" 1RU Mounting Rack; OPSCR-1U-A

- Be mounted in a 19" 1RU rack for space saving up to four (4) units for single format converters.
- Provides easy and simple installation.
- Dimension (WDH): 482 x 116.3 x 44mm

Mounting Bracket;

1. **OPSCB (single format converter)**
2. **OPMCB (multi format converter)**

- Be mounted easily at various places by supplied mounting bracket complying with both VESA 75 and VESA 100 standards.
- Be attached on various places, such as the bottom of the table, rear of the monitor, conduit, boom and more for installation convenience.