

# CVT4K-M

## Fiber Converter

V1.0.2



Specifications

## Change History

| Document Version | Release Date | Description  |
|------------------|--------------|--|
| V1.0.2           | 2021-02-06   | <ul style="list-style-type: none"> <li>Updated the dimensions diagram.</li> <li>Updated the quantity of screws in the accessories.</li> <li>Deleted the certificate of approval in the accessories.</li> <li>Updated the certification information.</li> </ul>       |
| V1.0.1           | 2020-11-20   | <ul style="list-style-type: none"> <li>Updated the document template.</li> <li>Added the certification information.</li> <li>Optimized the feature description.</li> <li>Optimized the appearance description.</li> <li>Optimized the dimensions diagram.</li> </ul> |
| V1.0.0           | 2018-05-17   | First release  |

## Introduction

The CVT4K-M is a high-performance fiber converter developed by NovaStar. It is used for conversion between optical signals and electrical signals, allowing for long-distance signal transmission that is stable and not easily interfered with. Easy to use, the CVT4K-M makes it convenient to connect terminal devices and simplifies on-site wiring connections.

## Features

- 16x Neutrik Ethernet inputs or outputs
- 4x Multi-mode twin-core LC optical ports, two as master inputs or outputs and the others as backup
- Dual redundant power supplies, more stable and reliable
- 2 types of power connectors (3-pin power socket and PowerCON), satisfying different customer needs
- 2 types of control ports (type-B USB and Ethernet), more flexible and convenient to connect a control computer
- Various indicators on the front panel to show device status clearly

## Appearance

### Front Panel



| Indicator | Color  | Status    | Description                              |
|-----------|--------|-----------|--|
| 1–16      | Green  | Always on | The Ethernet cable connection is normal. |
|           | Yellow | Flashing  | There is data transmission.              |
|           |        | Always on | There is no data transmission.           |

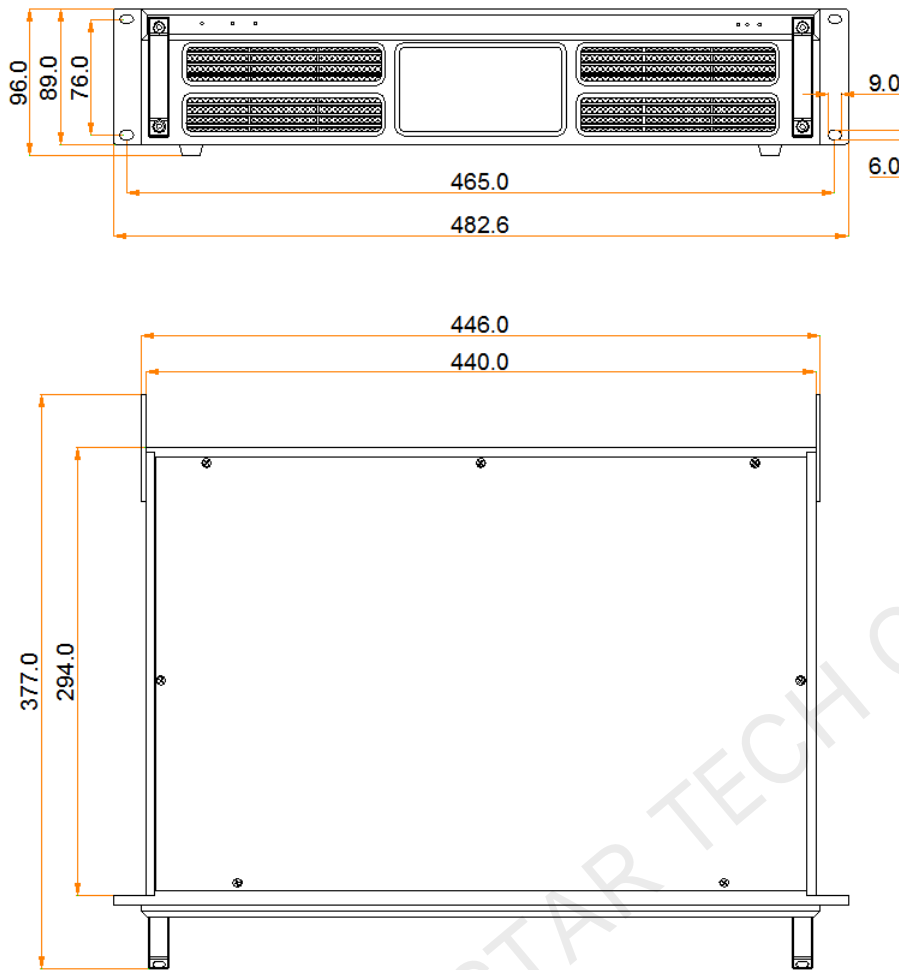
| Indicator | Color | Status    | Description                             |
|-----------|-------|-----------|---|
| OPT1–OPT4 | Green | Always on | The optical fiber connection is normal. |
| PWR       | Red   | Always on | The power supply is normal.             |
| STAT      | Green | Flashing  | The device is functioning normally.     |

## Rear Panel



| Input and Output   |   |                                    |                          |  |
|--|---|------------------------------------|--------------------------|--|
| OPT1–OPT4  | 4x optical ports for data input or output<br>OPT1 corresponds to Ethernet ports 1–8 and OPT2 corresponds to Ethernet ports 9–16.<br>OPT3 is the backup of OPT1 and OPT4 is the backup of OPT2.  |                                    |                          |  |
|  | <table border="1"> <thead> <tr> <th>Description of the optical module:</th> <th>Optical fiber selection:</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> <li>Installed at the factory, hot pluggable</li> <li>Transmission rate: 9.95 Gb/s to 11.3 Gb/s</li> <li>Wavelength: 850 nm</li> <li>Transmission distance: 300 m</li> </ul> </td> <td> <ul style="list-style-type: none"> <li>Model: OM3/OM4</li> <li>Transmission mode: Multi-mode twin-core</li> <li>Cable diameter: 50/125 <math>\mu\text{m}</math></li> <li>Connector type: LC</li> <li>Insertion loss: <math>\leq 0.2</math> dB</li> <li>Return loss: <math>\geq 45</math> dB</li> </ul> </td> </tr> </tbody> </table> | Description of the optical module: | Optical fiber selection: | <ul style="list-style-type: none"> <li>Installed at the factory, hot pluggable</li> <li>Transmission rate: 9.95 Gb/s to 11.3 Gb/s</li> <li>Wavelength: 850 nm</li> <li>Transmission distance: 300 m</li> </ul> |
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| 1–16   | 16x Neutrik Gigabit Ethernet ports for data input or output   |                                    |                          |  |
| Control  |   |                                    |                          |  |
| ETHERNET   | Ethernet port for control computer connection   |                                    |                          |  |
| USB  | Type-B USB port for control computer connection, not for cascading  |                                    |                          |  |
| Power  |   |                                    |                          |  |
| AC 100-240V~50/60Hz  | Power input connectors, including a 3-pin power socket and a PowerCON socket  |                                    |                          |  |

## Dimensions



Tolerance:  $\pm 0.3$  Unit: mm

## Specifications

|                           |                         |   |
|---------------------------|-------------------------|---|
| Electrical Specifications | Input voltage           | AC 100 V to 240 V   |
|                           | Rated power consumption | 10 W  |
| Operating Environment     | Temperature             | -20°C to +60°C  |
|                           | Humidity                | 10% RH to 90% RH, non-condensing  |
| Storage Environment       | Temperature             | -20°C to +70°C  |
| Physical Specifications   | Dimensions              | 482.6 mm × 377.0 mm × 96.0 mm   |
|                           | Net weight              | 4.6 kg  |
| Packing Information       | Carrying case           | 530.0 mm × 193.0 mm × 420.0 mm, white cardboard box   |
|                           | Accessory box           | 405.0 mm × 290.0 mm × 48.0 mm, white cardboard box<br>Accessories: 1x Power cord, 1x Ethernet cable, 1x USB cable, 12x Screws |
|                           | Packing box             | 550.0 mm × 440.0 mm × 210.0 mm, craft paper box   |

|                |   |
|----------------|---|
| Certifications | CE, RoHS, FCC, UL & cUL, EAC, CB, IC, RCM |
|----------------|---|

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## FCC Caution

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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