Simply Better Connections

CE990

USB True 4K DisplayPort/HDMI Optical KVM Extender (True 4K @ 10 km)

The CE990 is a USB DisplayPort/HDMI Optical KVM Extender that extends KVM signals over fiber-optic transmission up to 10 km, delivering True 4K, HDCP 2.3-compliant video quality. It features DisplayPort and HDMI connectivity via a combo connector, simplifying installation with selectable video output at both local and remote consoles. In addition to exceptional video clarity, it supports RS-232, USB 2.0 peripherals, and embedded DisplayPort/HDMI digital audio, including Dolby TrueHD, Dolby Digital Plus, and DTS-HD Master Audio, enabling versatile signal extension over a single fiber optic connection. The CE990 is ideal for critical control environments such as transportation, manufacturing, utilities, and more.

Simply Better Connections

4K TRUE

HDR

Fiber Optic Transmission

DP/HDMI Combo Connector

Dual Console with Privileged Control

2-in-1 DisplayPort/HDMI Combo Connector

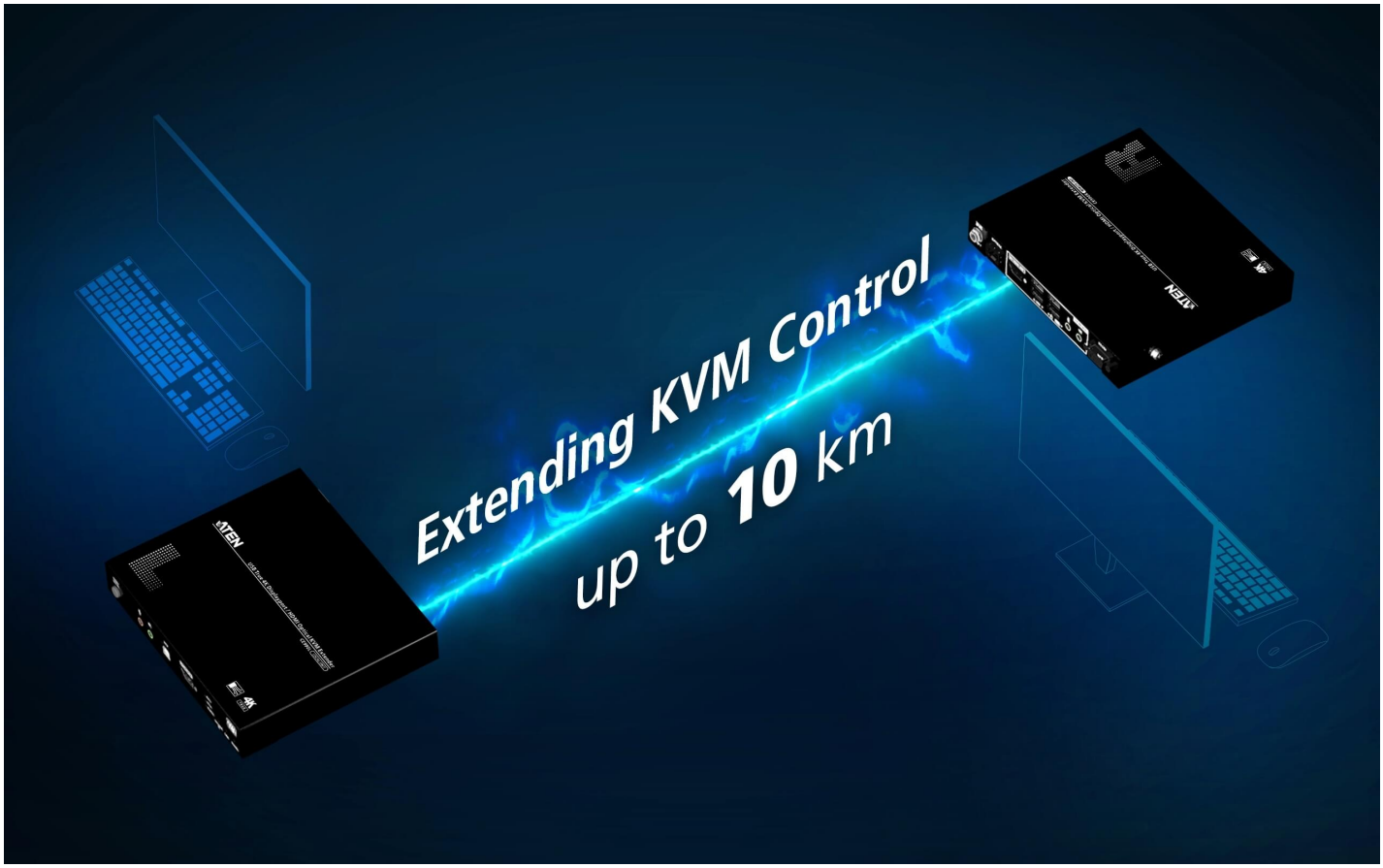
Featuring a combo connector, the CE990 supports connection to either a DisplayPort or HDMI display for both local and remote KVM installations. This versatile design supports flexible display configurations at each end, allowing mixed or matched output types between the local and remote consoles.

Pristine True 4K Clarity with HDR10

Experience unparalleled True 4K clarity (3840 x 2160 and 4096 x 2160 @60 Hz, 4:4:4) and HDR10 support, delivering optimal image accuracy, enhanced contrast, and rich colors for razor-sharp video content.

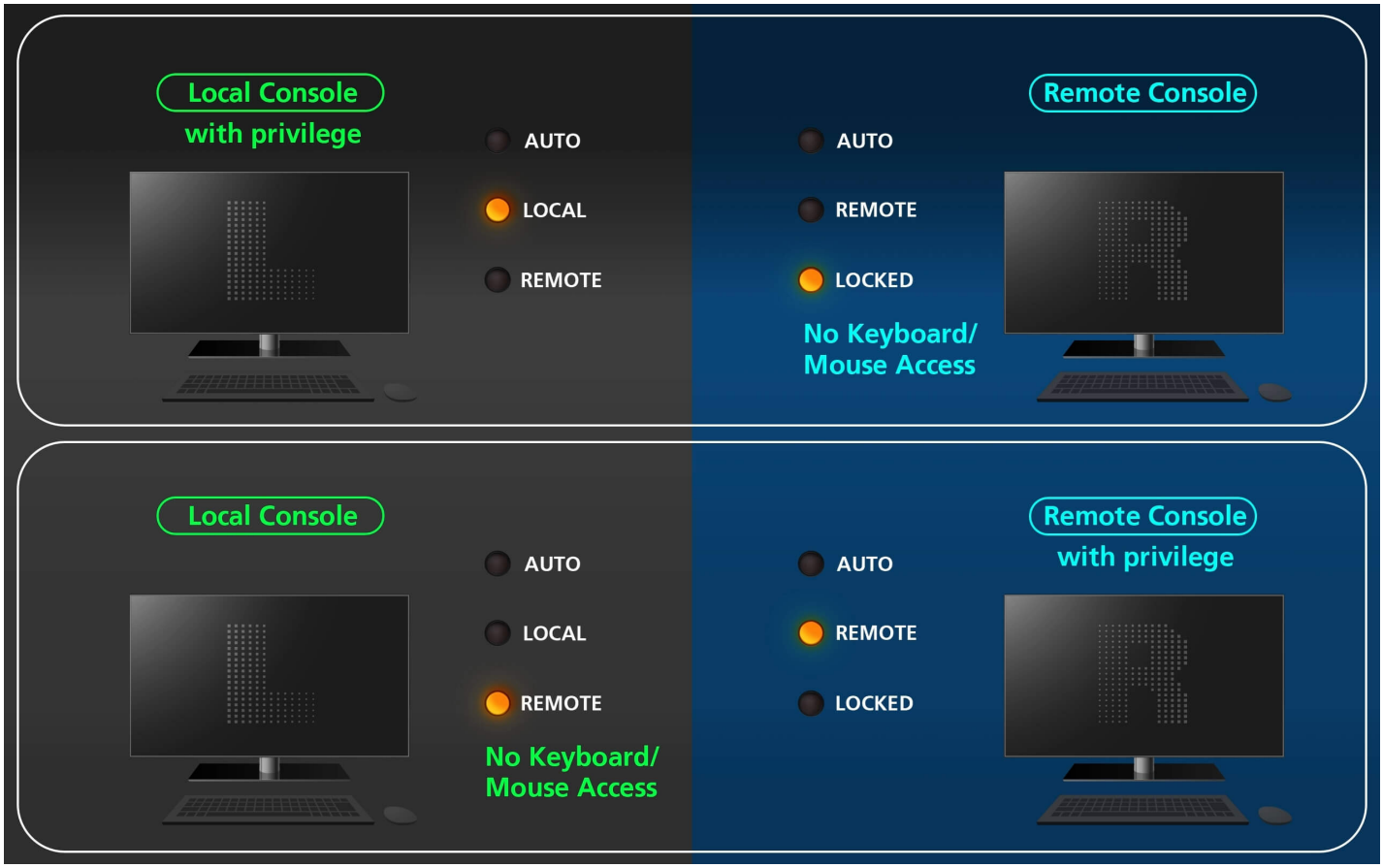
Reliable Fiber Optic KVM Extension over Long Distances

Deploying the CE990 enables long-distance KVM extension of up to 10 kilometers via a fiber optic connection, ensuring stable, interference-free transmission with inherent EMI resistance for reliable performance



Dual Console Access with Privileged Control

The CE990 enables KVM access to a computer from both local and remote consoles, facilitating efficient operational collaboration. Using the Auto/Local or Auto/Remote pushbutton, you can toggle between Auto mode (access from both consoles) and Local/Remote mode (exclusive access from either local or remote console), determining which console has privileged control over the computer.



Applications

Designed for critical control environments such as transportation, manufacturing, and utilities, the CE990 delivers stable long-distance KVM signal transmission and pristine video quality.

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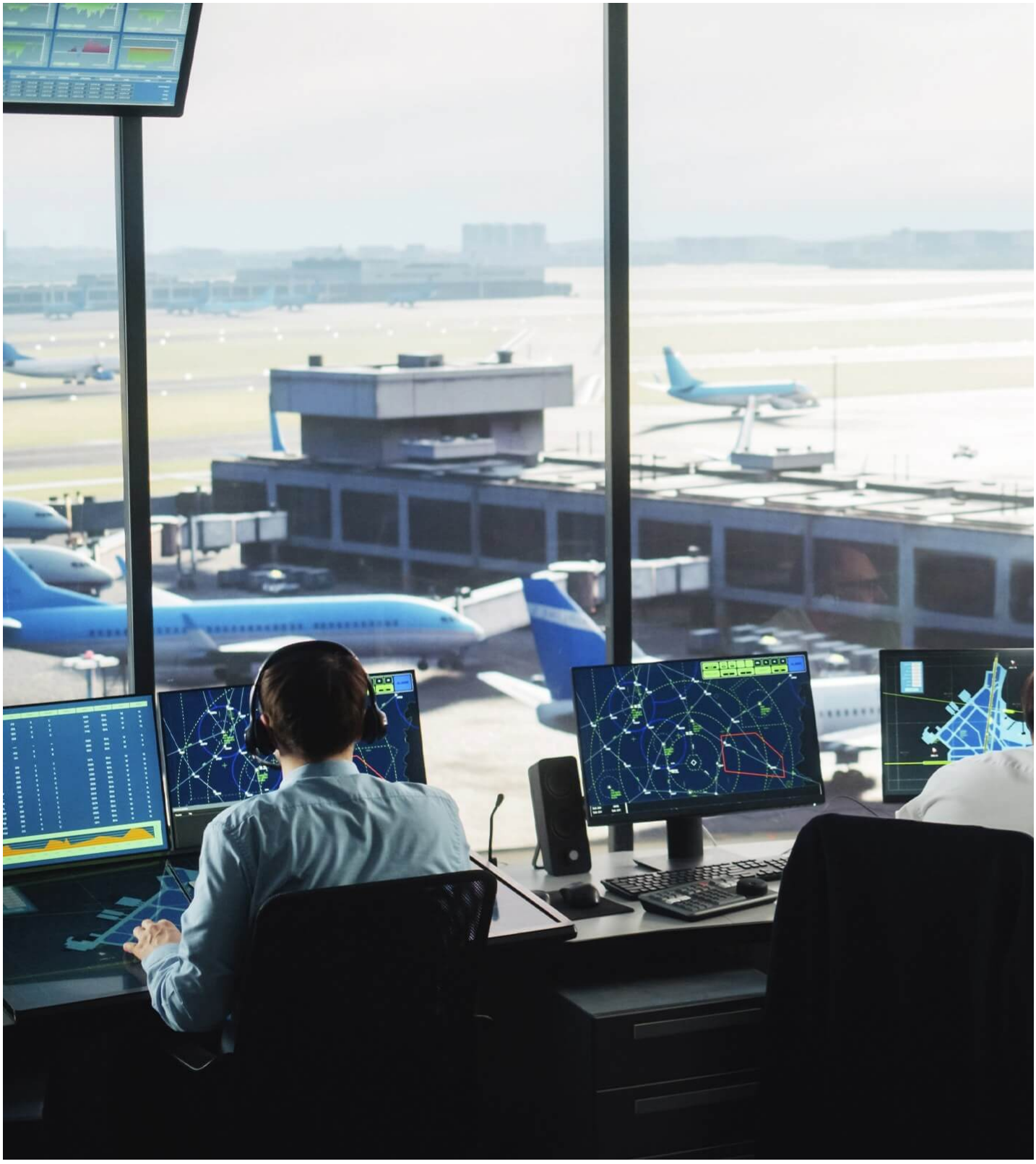

Air Traffic Control

Oil Refinery

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Automated Production Line

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If you prefer to have ATEN contact you, please complete the form and a representative will be in touch with you shortly

First Name *

Last Name *

- Country *

Company *

Email *

Phone Number *

- Customer Type *

Job Title *

Features

The ATEN CE990 USB True 4K DisplayPort/HDMI Optical KVM Extenders ensure transmission of True 4K video, KVM and control signals over a single fiber optic cable, extending up to 10 km. The CE990 supports HDR10 to deliver unparalleled True 4K video quality (3840 x 2160 @ 60 Hz, 4:4:4 / 4096 x 2160 @ 60 Hz, 4:4:4) with full color accuracy.

Thanks to a built-in DisplayPort / HDMI combo connector, the CE990 allows for either HDMI or DisplayPort connection on both local and remote consoles, with video input and output selectable for flexible installation and mixed / matched display configurations between both ends. The CE990 also extends keyboard / mouse control, RS-232, USB 2.0 data, and both stereo and embedded audio, including LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus, and DTS-HD Master Audio, over fiber optic cabling. The privilege control function enables easy access management between local and remote consoles through an Auto/Local or Auto/Remote pushbutton, allowing flexible control switching based on operational requirements.

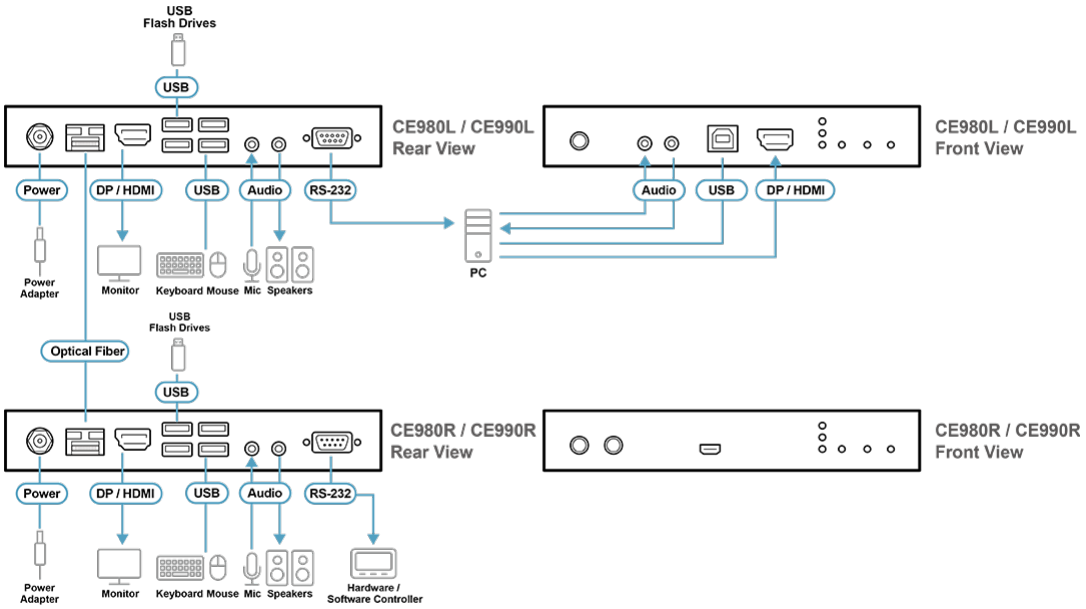
The CE990 is perfect for applications that require high-quality, long-distance KVM operation extension, such as healthcare facilities, post-production, manufacturing, and more.

- DisplayPort/HDMI combo connector supports both DisplayPort and HDMI video interfaces
- Extends DisplayPort/HDMI video, keyboard/mouse control, stereo/embedded audio, RS-232 control, and USB 2.0 signals over fiber optic cabling
- Ultra-long distance transmission up to 10km
- Supports True 4K video up to 4096 x 2160 / 3840 x 2160 @ 60 Hz (4:4:4) with HDCP 2.2/2.3 compliance
- Supports HDR10 for enhanced video quality
- Dual console operation – supports local and remote system control with configurable privilege modes (Auto/Local and Auto/Remote) for streamlined access management and operational efficiency
- USB 2.0 Hub – supports 2 ports for USB KB/MS and 2 ports for other USB peripherals
- Easily switch EDID priority between Local and Remote via hotkey
- Supports wide screen format
- Supports dual independent stereo audio – mic and speaker
- Supports lossless digital audio formats such as LPCM 7.1CH, Dolby TrueHD, Dolby Digital Plus, and DTS-HD Master Audio
- Works with SFP Module 2A-142G (10 km, single-mode) to offer 10Gbps transmission via a single fiber cable
- 2X-EA17 HDMI Lock Pro for combo connector to secure HDMI cables to selected devices and prevent signal loss caused by the connector detaching
- PC wakeup function via a single pushbutton through RS-232 channel
- Plug-and-play operation with no software or driver required
- DC Jack with screw-lock ensures stable and secure connection
- Built-in 8KV/15KV ESD protection
- Rack-mountable
- Firmware upgradeable

Specifications

Function	CE990L	CE990R
Connectors		
Console Ports	4 x USB Type A Female (White) 1 x DisplayPort/HDMI Female (Black) 1 x Mini Stereo Jack Female (Green) 1 x Mini Stereo Jack Female (Pink)	4 x USB Type A Female (White) 1 x DisplayPort/HDMI Female (Black) 1 x Mini Stereo Jack Female (Green) 1 x Mini Stereo Jack Female (Pink)
KVM Ports	1 x USB Type B Female (White) 1 x DisplayPort/HDMI Female (Black) 1 x Mini Stereo Jack Female (Green) 1 x Mini Stereo Jack Female (Pink)	N/A
RS-232	1 x DB-9 Female (Black)	1 x DB-9 Male (Black)
Power	1 x DC Jack (Black)	1 x DC Jack (Black)
Unit To Unit	1 x bi-directional SFP+ (LC)	1 x bi-directional SFP+ (LC)
Video		
Max. Resolution	Up to 4096 x 2160 @ 60Hz (4:4:4) / 3840 x 2160 @ 60Hz (4:4:4)	Up to 4096 x 2160 @ 60Hz (4:4:4) / 3840 x 2160 @ 60Hz (4:4:4)
LEDs		
Video Input	1 (Orange)	N/A
Console Status	3 (Orange)	3 (Orange)
Video Output	N/A	1 (Orange)
Link	1 (Orange)	1 (Orange)
Power	1 (Green)	1 (Green)
Switches		
Operation Mode Selection	1 x Pushbutton	1 x Pushbutton
Wakeup PC	N/A	1 x Pushbutton
Fiber Optics		
Operating Distance	10 km with Single Mode (SM) fiber (*Note)	10 km with Single Mode (SM) fiber (*Note)
Data Rate	Single fiber: 10 Gbps	Single fiber: 10 Gbps
Power Consumption	DC12V:11.89W:86BTU/h Note: ● The measurement in Watts indicates the typical power consumption of the device with no external loading. ● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.	DC12V:9.49W:81BTU/h Note: ● The measurement in Watts indicates the typical power consumption of the device with no external loading. ● The measurement in BTU/h indicates the power consumption of the device when it is fully loaded.
Environmental		
Operating Temperature	0–40°C	0–40°C
Storage Temperature	-20–60°C	-20–60°C
Humidity	0–80% RH, Non-condensing	0–80% RH, Non-condensing
Physical Properties		
Housing	Metal	Metal
Weight	0.85 kg (1.87 lb)	0.84 kg (1.85 lb)
Dimensions (L x W x H)	17.82 x 15.62 x 2.88 cm (7.02 x 6.15 x 1.13 in.)	17.82 x 15.62 x 2.88 cm (7.02 x 6.15 x 1.13 in.)
Note	1. Operating distance is approximate. A typical maximum distance may vary depending on factors such as fiber type, bandwidth, connector splicing, losses, modal or chromatic dispersion, environmental factors, and kinks. 2. It is recommended that you use Single Mode fibers that conforms to IEC 60793- 2-50 B1.1 or ITU-T G.652.B specifications. 3. The Device is class 1 laser product. It meet the safety regulations of IEC-60825, FDA 21 CFR 1040.10, and FDA 21 CFR 1040.11.	1. Operating distance is approximate. A typical maximum distance may vary depending on factors such as fiber type, bandwidth, connector splicing, losses, modal or chromatic dispersion, environmental factors, and kinks. 2. It is recommended that you use Single Mode fibers that conforms to IEC 60793- 2-50 B1.1 or ITU-T G.652.B specifications. 3. The Device is class 1 laser product. It meet the safety regulations of IEC-60825, FDA 21 CFR 1040.10, and FDA 21 CFR 1040.11.
Note	For some of rack mount products, please note that the standard physical dimensions of WxDxH are expressed using a LxWxH format.	

Diagram



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