



EverPro Technologies Company Ltd.

长芯盛 (武汉) 科技有限公司



USB3.1 GEN1 Hybrid Active Optical Cable

EPIUH21-A0A4

Rev 1.0



EverPro Technologies Company Ltd.



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1 Description

In order to compensate for ordinary USB3.1 GEN1 active fiber cable's defect that can't supply power to device, EverPro introduce new generation of USB3.1 GEN1 hybrid cable (EPIUH21-A0A4). On the basis of the use of optical fiber as the transmission medium, EPIUH21 integrate copper to achieve the purpose of supplying power to device. The hybrid cable length can be up to 50m without adding any relay device which is suitable for the scene of having no on-site power supply. This production can meet the USB3.1 GEN1 spec. Its build-in unique SuperTT technology is capable of realizing mutual conversion between USB3.1 GEN1 and USB2.0 protocols, so as to enable USB2.0 equipment to share the super speed bandwidth (5Gbps) of USB3.1 GEN1. Using with USB hub, multiple USB2.0 equipment may exclusively share the peak bandwidth of 480Mbps.

2 Feature

- The maximum cable length can be up to 50m
- The maximum transition speed can be up to 5Gbps
- A substantial increase in USB2.0 device bandwidth with Build-in SuperTT technology
- Without power
- Providing maximum 900mA/5V for the device
- With locking screw holes
- Hot-plugging
- No driver
- Anti-jamming



3 Specification

Transfer Rates

USB2.0	480 Mbps
USB3.1 GEN1	5 Gbps

Physical Specification

Host Side	USB3.1 GEN1 Standard-A Plug
	USB2.0 Micro-B Receptacle , Auxiliary power supply for device with >2W power dissipation.
Device Side	USB3.1 GEN1 Standard-A Receptacle (with locking screw holes)
Dimension of The End	Host Side: 57mm/19mm/13mm
	Device Side: 82mm/26mm/14.5mm
Net Weight (Type.)	385g
Cable Diameter	3.7mm
Cable Length	Up to 50m
Option Cable length	10m/20m/30m/50m
Bend Radius (Dynamic/Static)	80mm/40mm
Tensile Strength (Long Term/Short Term)	150N/300N
Crush Resistance (Long Term/Short Term)/100mm	500N/1000N
Operating/Storage Temperature	0~50°C/-20~70°C



Electrical Specification

Supply Voltage	4.75~5.25V
Supply Current	<400mA
Power Dissipation	<2.1W
Device Side Supply Current *	Maximum 5V 900mA(10m/20m/30m)/600mA(50m)

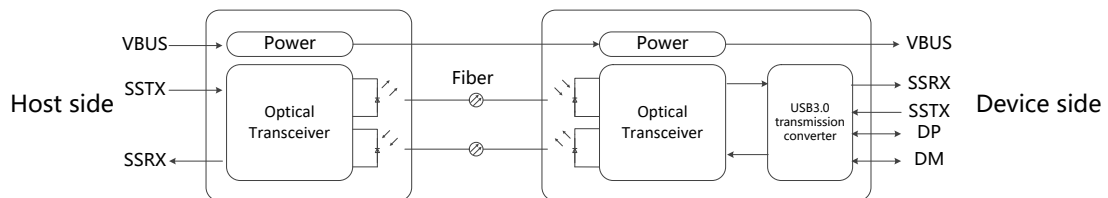
Note: * Need to connect Auxiliary power supply to host side

General Information

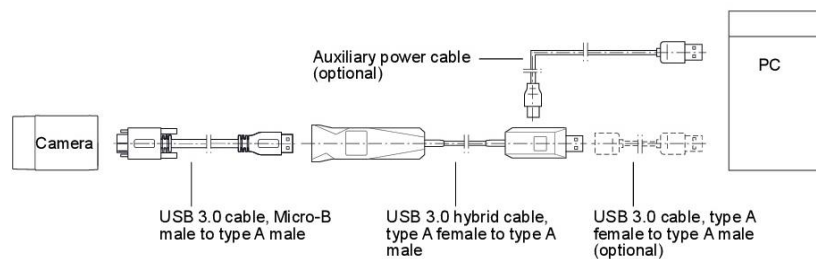
ROHS Compliance	Yes
CE Conformity	Yes
UL Conformity	UL 758
Warranty	1 year

Technical Description

EPU3HC series built-in optical transceiver chip to complete the OE & EO conversion.



4 Cable Connections Overview





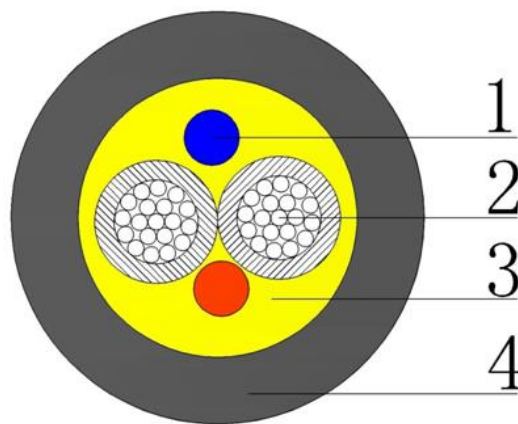
5 Part Number

Part Number	Description
EPIUH21-A0A4KxxxMAM	USB3.1 GEN1 Hybrid AOC, TypeA male to female with screw holes, Silver Metal Housing, for Machine Vision, xxx=xxx meter, for example 050=50 meter

Note1: All of standard cables have Everpro LOGO. NRE is need if adding customized logo.

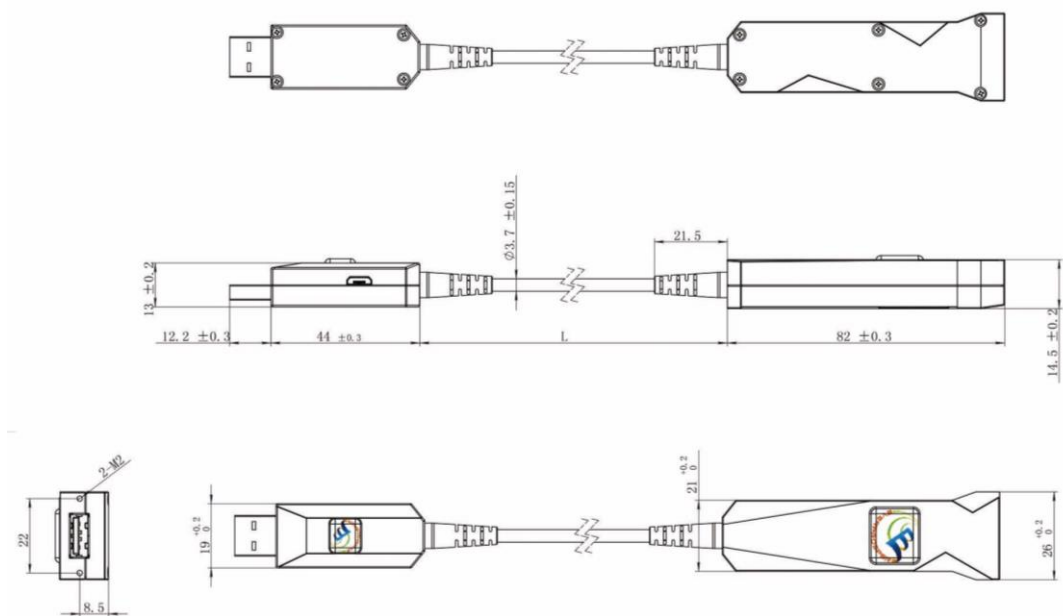
Note2: Lead time will be increased if need customized length.

6 Fiber Specification

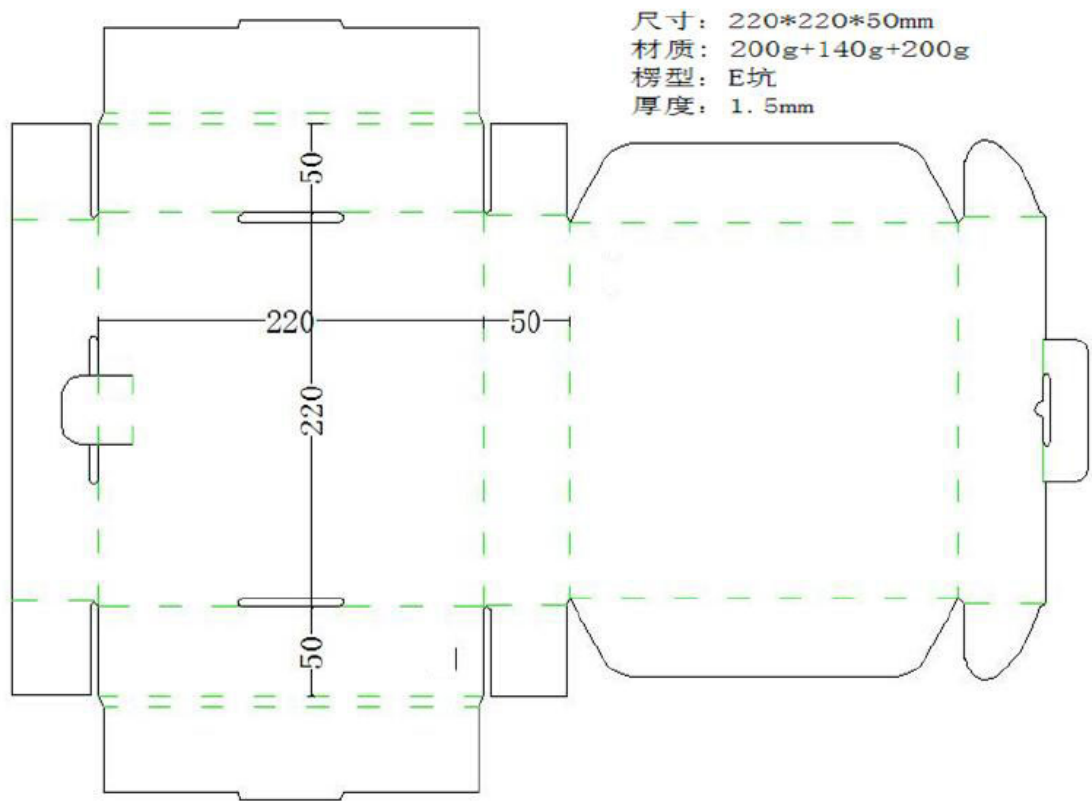


Item	Contents	Value	Supplement
1	Fiber	A1a,A1b or other types	2 cores
2	Stranded Copper Wires	21*0.15,22AWG or other types	2 cores
3	Kevlar	Strength Member	5*1610dtex
4	Outer Jacket	Black TPU	OD: 3.7±0.2mm

7 Cable Dimension



8 Package Information



9 Application

- Machine Vision Camera Extension
- Security Camera Extension
- Digital Signage and TV Wall
- Smart Digital Video Surveillance System
- Zero Client Connectivity
- Remote Storage

