

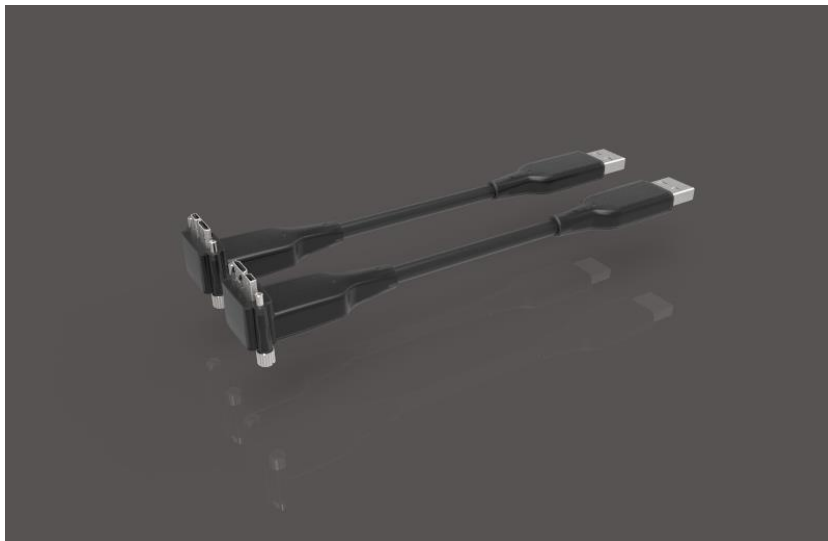


USB3.1 Gen1 Robotic Hybrid AOC

V1.0

EPIUH65U-A0B3KXXXPI

EPIUH65D-A0B3KXXXPI



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Change History

Rev	Date	Modification	Prepared by
V0.1	07, 01, 2022	Initial release	Lydia
V1.0	07,04,2022	Cable data amendment	Lydia

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1 Description

Everpro introduce new generation of USB Type A to USB Micro B 90° interface series active optical cable (AOC). EPIUH65 is plastic injection housing with locking screws in device side. On the basis of use optical fiber as the transmission medium, EPIUH65 integrate copper to achieve the purpose of supplying power to device. The hybrid cable length can be up to 20m without adding any relay device which is suitable for the scene of having no on-site power supply. The high flexible cable of this product is suitable for machine vision using. This production can meet the USB3.1 GEN1 vision standard.

2 Feature

- The maximum cable length can be up to 20m.
- The maximum transition speed can be up to 5Gbps.
- With locking screw in device side.
- Meet USB3 Vision Standard
- Injection plastic housing
- High flexibility Meet Robotic TUV class II standard
- >50 million cycle times bending test.
- Providing maximum 900mA/5V for the device.
- No driver.
- Support hot-plugging.
- Meet EMC4.0

3 Specification

Physical Specification

Host Side	USB3.1 GEN1 Standard-A Plug
Device Side	USB3.1 GEN1 Micro B Plug (with locking screw, 90 degree)
Dimension of The End	35mm/16mm/8mm
	16mm/22mm/8.5mm
Net Weight (Typical 10m)	433g
Cable Diameter	4.8±0.2mm
Cable Length	Up to 20m
Option Cable length	5m/10m/15m/20m
Bend Radius (Dynamic/Static)	50mm/20mm
Tensile Strength (Long Term/Short Term)	150N/300N
Crush Resistance (Long Term/Short Term)/100mm	200N/350N
Operating/Storage Temperature	-10~+70°C/-40~+85°C
Operating/Storage humidity	20%~80% RH/20%~80% RH

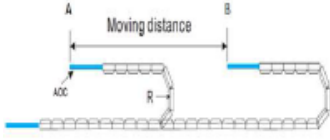
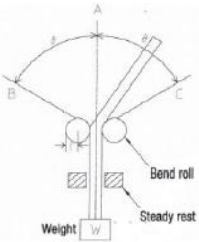
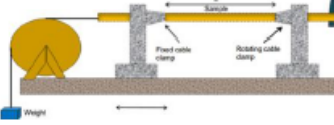
Electrical Specification

Input Power(Host Side):	
-Input Voltage	4.75~5V
-Current(max)	200mA
-Power Consumption (max)	0.94W
Output Power(Device Side):	
-Output Voltage	>4V
-Current(max)	900mA@(5m/10m/15m), 600mA@20m

General Information

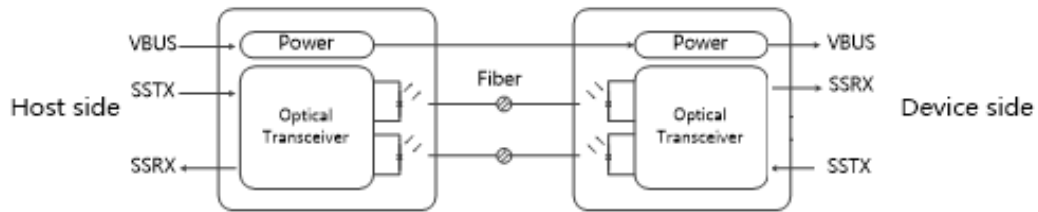
ROHS2.0	Yes
CE/FCC	Yes
Warranty	1 year

Reliability Test Information

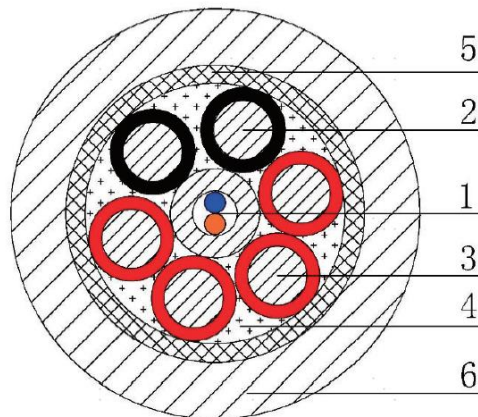
No.1	Item	Test Description	Pass/Fail Criteria
1	<p>Cable high Flexibility test</p> 	<p>Bending Stroke(mm): 1000 Bending Cycle: A→B→A Bending Velocity V(cycle/min): 88 Ambient Temperature: 25°C Bending Radius (mm): 5D Duration:>50million cycles</p>	<p>No bit error had been detected by AOC tester after High Flexibility test</p>
2	<p>Cable bending test</p> 	<p>Loading weight: 5N Test speed: 40cycles /min Bending Radius (mm): 8D Bending angle: +/- 90 degrees Duration: >5million cycles</p>	<p>Minor bending mark on strain relief after test, but no cable jacket cracking No bit error had been detected by AOC tester after bending test</p>
3	<p>Cable Twist Test</p> 	<p>Loading weight: 10N Test speed: 60cycles /min Twist angle:0° ~+180° ~0° Duration: >10million cycles</p>	<p>No electrical function Loss No physical damage or degradation of appearance. No loose part and rattling noise</p>

Technical Description

EPIUH65 built-in optical transceiver chip to complete the OE & EO conversion.



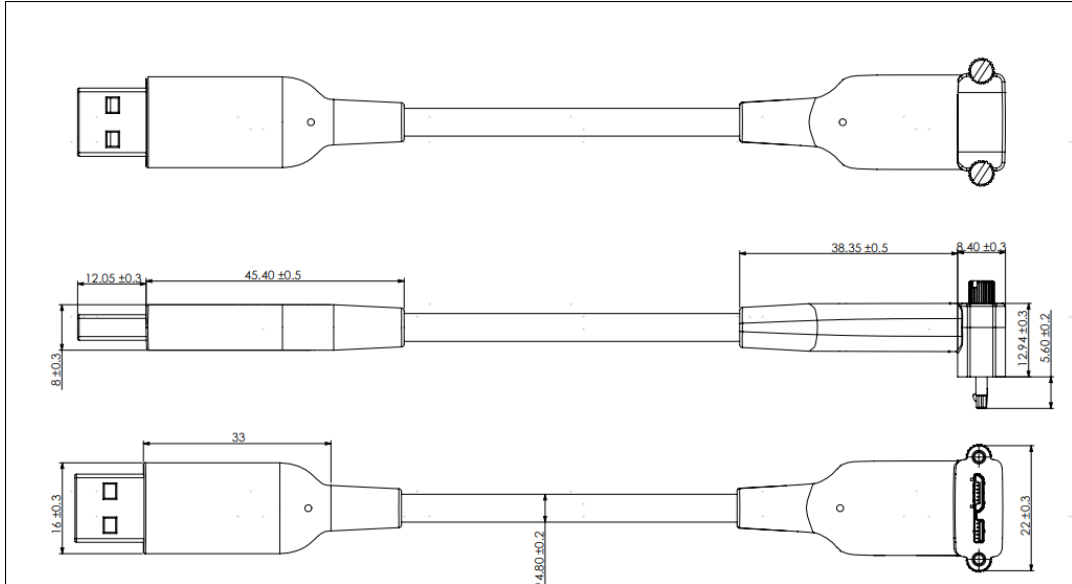
4 Fiber Specification



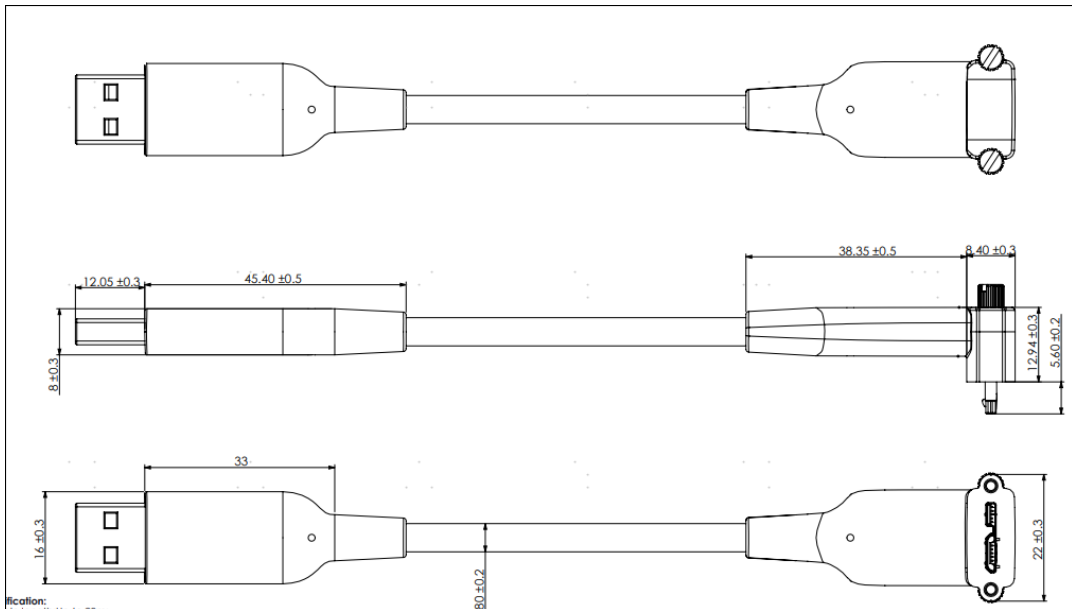
Item	Contents	Value	Supplement
1	Fiber	OM1	2 cores
2	Black FEP Jacket Copper Wires	30*0.11, 0.65mm Ref.	Twist structure
3	Red FEP Jacket Copper Wires	30*0.11,0.65mm Ref.	Twist structure
4	Kevlar	Strength Member	12*1000dtex
5	Braid	8*16*0.10mm	The coverage of braid $\geq 80\%$
6	Outer Jacket	Black TPU	OD: 4.8 \pm 0.2mm

5 Cable Dimension

UP



DOWN



6 Part Number

料号	描述
EPIUH65U-A0B3KXXXPI	USB3.1 Gen1 A Plug to MicroB Plug UP 90° with lock screw
EPIUH65D-A0B3KXXXPI	USB3.1 Gen1 A Plug to MicroB Plug DOWN 90° with lock screw

Note1: NRE is needed if adding customized logo.

Note2: The longest cable length is 20m.

Note3: Lead time will be increased if need customized length.

7 Application (Possible but not limited)

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