

Premium Optic DisplayPort 1.4 Cables



Descriptions

DP 1.4 AOC is our new Audio/Video cable , HD signal transmission depending on optical fiber , not only its support length become much longer (above 100m) , but also signal quality is much more stable , no EMI completely, especially can support 8.1Gbps bandwidth per channel . Support

8K , meets DP1.4 Standard , It is a mature & competitive solution in the high speed data transmission market. Plug and play, No external power required. This optical fiber cable can be applied to computer with USB type C interface , Displays outdoor , LED signboards in streets / stadiums and Security System , that transfer audio video signal.

Key Features

1. Support 8K@60Hz , Supports HBR3, HDCP 1.4 / 2.2; very good compatibility;
2. Support DP1.4 standard, bandwidth can reach 8.1 Gbps per channel ;
3. Support length up to 100m max , length custom is available ;
4. Hybrid fiber and copper, much more slim and light ;
5. OD 4.8 mm, very flexible ;
6. Low RFI / EMI profile for sensitive applications
7. Plug and play.

Applications

1. Medical Imaging Equipment;
2. Airplane On-board Video System;
3. Car Service Center big screen show Video System;
4. TV Broadcast Station;
5. Conference room Video System;

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6. Blue-ray, 3D video, Projector, Set-up box, DVR, Game Consoles and Computer;
 7. Digital Home Theatre;
 8. LED signboards and panel information displays for Airports, Stadiums and Outdoor;
 9. Advertising, Auditorium, and Kiosk;
 10. Traffic control;
 11. Factory Automation Systems.

Specifications

1. Performance

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|-------------------------------|---|
| Standards Compliance | DisplayPort 1.4 / HBR3, HDCP 1.4 / 2.2 |
| Maximum Pixel Clock Frequency | 810 MHz |
| Maximum Video Bit Rate | Supports up to 8.1 Gbps per lane, 32.4 Gbps Total |
| Maximum Color Depth | 48bits |
| Maximum Supported Resolutions | 8K@ 60Hz |

2. Connections

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|----------------------------|---------------------------------------|
| DisplayPort Input / Output | 20-pin DisplayPort |
| Power | No external power supply is required. |

3. AUX Channel Support

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|----------------------------|---|
| AUX Channel Communications | Supports bidirectional communications for EDID, HDCP, Link Training, etc. |
| HDCP Support | HDCP 1.4 and HDCP 2.2 |

4. Optical

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|---------------------|--|
| Optical Technology | 4x Discrete Optical Channels, 10 GHz, 850 nm |
| Optical Transmitter | Tx Module:4x 850 nm Multi-mode VCSELs |
| Optical Receiver | Rx Module:4x GaAs PIN Photo Diodes |

5. Cable

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|----------------------|--|
| Fiber Cable Type | Hybrid cable 4x fiber and 8x copper wire |
| Cable Jacket | PVC, Black |
| Maximum Cable Length | 100 meters |

6. Mechanical - Cable

| | |
|--------------------------------|--------------------|
| Product Weight | Varies with length |
| Maximum Tensile Load | 300N |
| Minimum Bend Radius | 48mm |
| Cable Outside Diameter (W x H) | 4.8mm |

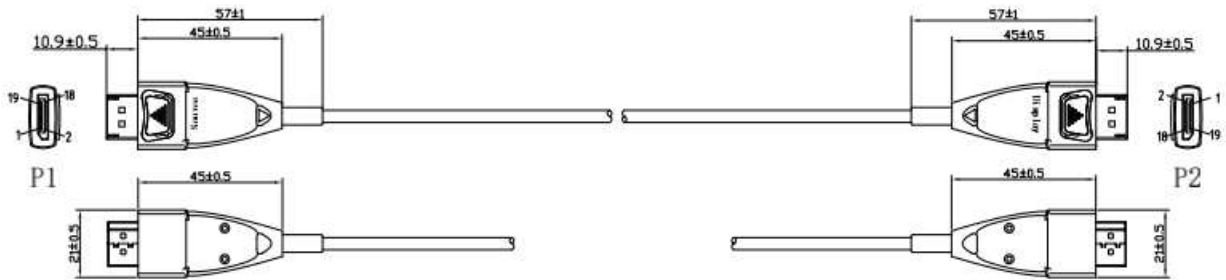
7. Environmental

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|------------------------------|----------------------------|
| Operating Temperature | 0°C to + 50°C |
| Storage Temperature | -20°C to + 85°C |
| Operating / Storage Humidity | 5% to 85% (non-condensing) |

8. Power Requirements

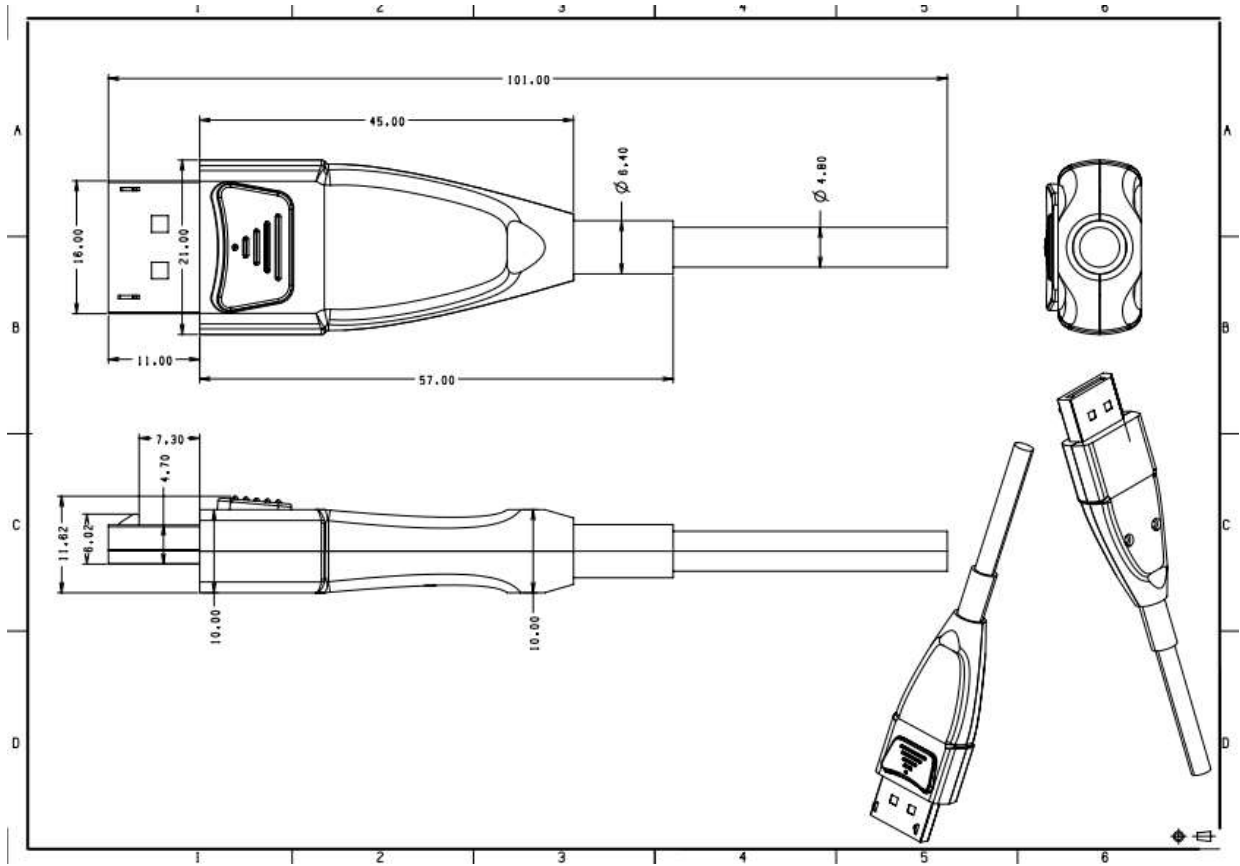
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|-------------------|--|
| Power Source | Powered from DisplayPort source device |
| Power Consumption | < 0.5 watt each end |

DP Type A Pin Assignment



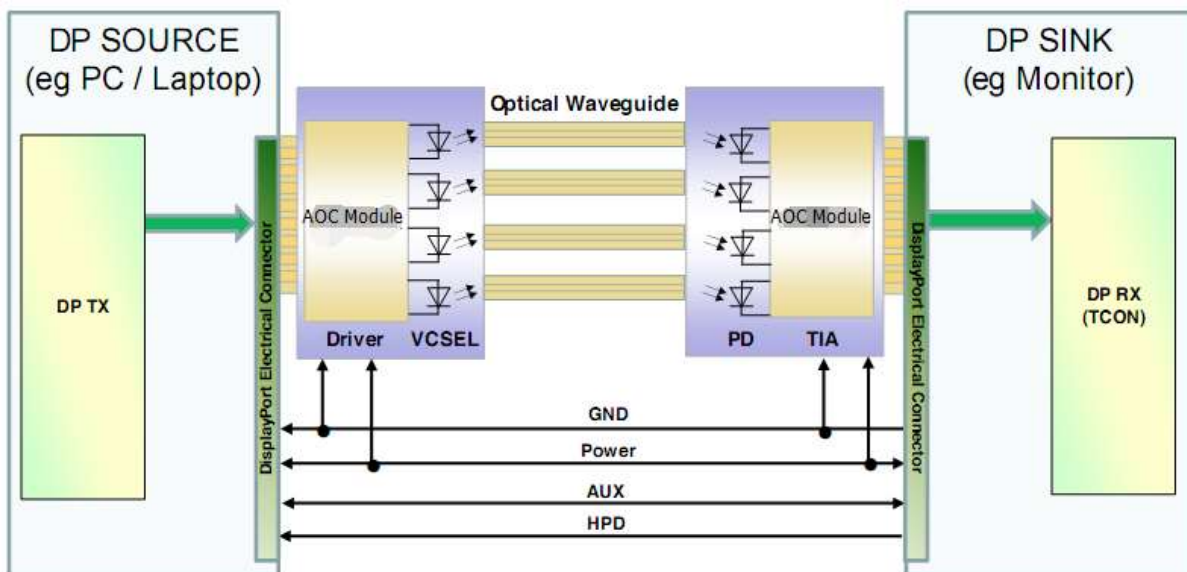
| PIN | Function | PIN | Function |
|-----|---------------|-----|-----------------|
| 1 | ML_Lane 0 (P) | 11 | GND |
| 2 | GND | 12 | ML_Lane 3 (n) |
| 3 | ML_Lane 0 (n) | 13 | GND |
| 4 | ML_Lane 1 (p) | 14 | GND |
| 5 | GND | 15 | AUX_CH (p) |
| 6 | ML_Lane 1 (n) | 16 | GND |
| 7 | ML_Lane 2 (p) | 17 | AUX_CH (n) |
| 8 | GND | 18 | Hot Plug Detect |
| 9 | ML_Lane 2 (n) | 19 | DP Power Return |
| 10 | ML_Lane 3 (p) | 20 | DP Power |

Structure



DP 1.4 AOC Drawings

Installation



MicroConnect Premium DisplayPort 1.4 Cable

